

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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Speaking Out: A Comment on ACS Involvement with ISEF

In May 2001 at the Intel International Science and Engineering Fair (ISEF) in San Jose, I was a one-day Grand award judge. The Grand awards totaled over \$700,000 for all categories.

The standard judging forms were explained in the early morning. We viewed the science projects in the morning without the students present and later, I interviewed twelve students for 15 minutes each. (An interesting statistic is "about 70% of the students I interviewed were first-born or an only child, and 60% were left-handed.") The judging evaluation forms were turned in by 5 pm to be scored.

After dinner, the Chemistry judges met to finalize the ranking of the top

students. Intel provided cash awards for the winning scholars. With our work done, the judges moved to the San Jose Museum of Art for the welcomed wine and munchies reception.

At my own time and expense this year, I did what many other scientists have been doing for years: I was a special award judge at the national level ISEF in Lexington, KY for ACS. This level of ISEF had over 1100 student exhibitors. The Chair of the Louisville local section, Dr. Joan Semunic (another chemical patent attorney) chaired the ACS judging group. She was unable to get any ACS members from her local section to volunteer "from academia, industry nor government. Finally, at the last minute, she was able to "volunteer"

two ACS members from her company to assist her.

Our judging and the ranking of the 10 finalists were completed by 5 pm. Now came the surprise for me. National ACS, as it has done for many years, provided the following prizes for the best chemistry projects in the world: 1st-\$500, 2nd-\$300, 3rd-\$200, 4th-\$100 and the 5th to 10th Honorable Mentions - zero dollars. Each [Chemistry] winner also received an ACS t-shirt and a subscription to CHEM MATTERS.

I was embarrassed for ACS and was resolved to do something about it. Other US and foreign professional organizations can, and do, pony up thousands of dollars for scholarship awards for this "cream of the crop" science fair. It's a tough budget year for ACS, as it is for everyone else, but to this member's mind the largest scientific society is missing a huge opportunity to cultivate potential future chemists. The message is that the ACS is cheap.

A recent Comment by Dr. Ann Nalley in Chemical and Engineering News (May 20, 2002, p. 50) does a fine job of discussing ACS and K-12 education. I think we should add to the list of suggestions she makes by getting more K-12 students interested in chemistry with Carver Kidventions (see our earlier February newsletters on the Internet at www.scvacs.org for more information) nationwide; create an ACS program for Chemistry Science Fairs; and before inventing anything new, provide an increase the award prizes for ISEF and other existing science showcases.

The presidential electronic poll showed that the membership of ACS

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Dr. Roy Okuda of SJSU and Dr. Howard Peters, Palo Alto Chemical Patent Attorney confer during a break at ISEF Lexington, KY.

is foursquare behind the need for better public perception of chemistry. If you generalize that to greater need for science literacy, ACS is in a unique position to help address that need. To my mind, it is time for me (and you) to put my (our) time and money where mouth(s) is (are) concerning science and education. Science literate students and citizens are treasures. Don't forget. It is in our self-interest to do so. These same students will be voting about and paying our Social Security benefits in the very near future

Comments welcomed, contact H. Peters, peters4pa@aol.com.



Chair's Message

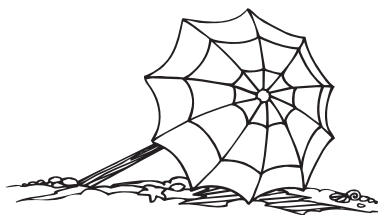
We have no dinner meetings in July or August. The next Executive Committee Meeting will be Thursday, August 8, 2002, 8:00 p.m at Shirley Radding's residence (2994 Cottonwood Court, Santa Clara). If you are interested in attending, contact me for directions. Have a great summer!

Jon Touster
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Editor's Corner

Summer is here and people take time for vacation - including myself. After my vacation, I was pressed for time in the lab and was not able to make reasonable contact with any technical divisions before press time. No technical division column this month - definitely look in next month's issue! Happy summer!



Patent Truths

1. Abraham Lincoln is our only U.S. president to receive a U.S. patent (# 6,469 on March 22, 1849). It pended for only about three months and drew on his experiences on a riverboat. The patent was for a device to lift and float flatboats on the Mississippi River that had landed on a sand bar. History indicates that he did not earn a penny or a five-dollar bill from his invention.
2. Some more obscure information about aluminum is that prior to Halls' invention in 1886, aluminum metal was more precious than gold or platinum. European royalty reserved their prized aluminum ware for very special guests. The top of the Washington Monument in Washington, DC is a four-foot pyramid of cast aluminum - the largest and most expensive block ever produced about 1880.
3. Arthur Vining Davis is not a familiar name to most people. On Thanksgiving Day in 1888, he and Charles Martin Hall poured the first commercial aluminum near Pittsburgh, PA using Hall's patented process (patent # 400,665). Davis was involved with ALCOA and other Pittsburgh companies for years. Shortly before he died at 95 in 1962, someone asked if he was the third wealthiest individual in America. He replied "the fifth" and walked away quickly. The Davis Foundation has sponsored many educational programs over the years, particularly on PBS. The Foundation was a main sponsor of Ken Burn's Civil War series about 5 years ago.
4. An urban legend around Pittsburgh, PA is when the infant aluminum industry was looking for venture funding they approached the local Mellon Bank. Judge Mellon sent son Andrew down to talk with these wild-eyed inventors. After several days Andrew Mellon reported back to his father that he had made an assessment. He said,

"They are asking for \$40,000 in funds and they should not get it. They really need \$400,000 to do it right." That is reportedly what ALCOA got, the Mellon family got another winner and the rest is history.
5. Alfred L. Hunt was an early engineer, investor and officer at ALCOA. His home (estate) in suburban Pittsburgh was an entire city block. Recently, it was sold for \$4,000,000 (in Pittsburgh dollars - that is a lot of money) to become the official residence of the President of Carnegie-Mellon University.
6. When Charles Martin Hall, the inventor of the aluminum reduction process, died of leukemia as a bachelor at 50 in 1914, about one-third of his \$30,000,000 fortune was left to his Alma Mater Oberlin College in Ohio. There is a statute of Hall on the campus - in aluminum, of course. The chemistry program at Oberlin flourished and, since then, four ACS presidents have been Oberlin undergraduates.
7. Oberlin College and a number of other Northern religious colleges in existence in the 1850's read the newly passed Fugitive Slave law and decided this was an unjust law. Students and faculty became part of the Underground Railroad to escort run-a-way slaves to Canada. Students at Oberlin once invaded the city jail to free a captured slave and sent him on his way. Wheaton College in Illinois has some fugitive slaves who died along the way still buried on the campus. Butler University in Indianapolis was founded in 1855 by an abolitionist. Geneva College (then in Northwood, Ohio, now in Beaver Falls, PA since 1880) was one of the "stations" on this Railroad.

Do you have any patent truths to share? Contact Howard Peters at peters4pa@aol.com

Chemistry Courses at SJSU

Want to pursue a Master's degree? Enhance your professional development? San Jose State University Chemistry Department welcomes working students into its Master's program. Take courses through Open University (show up in class the first day), Special Session, or enroll as a student in the graduate program. For further information call 924-5000 or visit our web site at www.chemistry.sjsu.edu

Fall 2002 (starts Aug. 26th)

Chem 218 **Organometallics** *Dr. Dan Straus*

M,W 600-715 pm

Duncan Hall 415

Chem 270 **Protein Folding & Stability** *Dr. Daryl Eggers*

T,R 600-715 pm

Duncan Hall 415

Spring 2003 (starts Jan. 22nd) classes include:

Chem 250 (Advanced Analytical Topics) and **Chem 262** (Kinetics).

THE FIRST ANNUAL STANFORD SUMMER BIOTECH CONFERENCE

July 25, 2002 Stanford University

Carl F. Braun Auditorium, Seeley Mudd Chemistry

Program Committee Professors James Swartz, Robert Waymouth

Stanford University Department of Chemistry and Chemical Engineering

INVITED SPEAKERS

Dr. Roy Whitfield, Incyte

Professor Eric Kool

Stanford University, Department of Chemistry

Dr. Pim Stemmer, Maxygen

Professor Chaitan Khosla, Stanford University

Department of Chemistry and Chemical Engineering

Professor James Swartz, Stanford University

Department of Chemical Engineering

Dr. Nils Lonberg, Medarex

Dr. Mike Arbige, Genencor

Dr. Mike Powell, Soffinova

POSTER SESSION

Outside Registrants, Students, Postdoctoral Fellows, and Faculty in Chemistry and Chemical Engineering

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FUTURE MEETINGS

- | | |
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| Jul 6-15 | International Chemistry Olympiad
Groningen, the Netherlands |
| Aug 8 | Executive Committee Meeting |
| Aug 18-22 | ACS 224th National Meeting
Boston, MA |
| Sep 26 | SVC Dinner Meeting
<i>Dr. Hongjie Dao</i>
Stanford University |
| Sep 22-25 | Combinatorial Chemistry
Leesburg, VA |
| Oct 19 | Outstanding Western Regional High School Award
San Jose State University |
| Nov 12-13 | 5th Symposium on Groundwater Contaminants
Groundwater Resources Association of California
Fresno, CA |

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



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