

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 24 No. 5

## JUNE DINNER MEETING Annual Family Picnic, Awards Ceremony, and Beer Tasting

The Santa Clara Valley Section will hold its annual Family Picnic, Awards Ceremony, and Beer Tasting on Saturday, June 29, 2002 at the Keck Chemistry Building on the Stanford campus. We will taste a variety of beers from ales to stouts, recommended by Dave Nehrkorn, our local section brew expert (see biography and abstract). He will answer your questions and guide you

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through your beer tasting experience.

The tasting will begin at 4:30 PM in the foyer of the Keck building. A family style picnic, catered by Sally and Howard Peters, will begin at 5:30 PM on the patio of the nearby Mudd Building. Recognition of the ACS 50-year members, Chem Olympiad Finalists, and the Awards for the Santa Clara Valley Section will follow dinner.

The price of the dinner and tasting will be \$15.00. Children ages 4 to 12 are only \$5.00. Dinner is free for children under the age of four. The deadline for reservations is Monday, June 24, 2002. Payment is required in advance, as we are not allowed to accept money on campus. Registration on our web site is not available for this informal, relaxed event. There is a large grassy area next to the Mudd Building where children can play. Bring blankets for eating picnic style. If you require more proper seating,

## Reminder May Dinner Meeting

This month's dinner meeting will be held on **May 23** starting at 6:30 PM. Bob Roudon and Phil Crews will be guiding our tastebuds with a variety of wines to taste and a discussion. The dinner meeting will be held at the Sundeck Restaurant in Menlo Park off of Sand Hill Road. To make your reservations, please contact Shirley Radding by phone 408-246-2564, by fax 408-296-8625, or fill out the registration form on the section web site [www.scvacs.org](http://www.scvacs.org) by **May 19th!** Hope to see you there!

please indicate this on your reservation form and we will arrange for some tables and chairs. Also, we need a crew of volunteers to help set up and clean up for this event. If you can help, please note this on the registration form.

### RESERVATION FORM

Annual Wine Tasting, Family Picnic and Awards Ceremony

Stanford University – Saturday, June 29, 2002    Deadline for Reservation – Monday, June 24, 2002

Name(s): \_\_\_\_\_ Telephone No.: ( \_\_\_\_\_ ) \_\_\_\_\_

No. of Reservations at \$15.00 ..... \_\_\_\_\_

No. of Children (age of 4-12) at \$5.00 ..... \_\_\_\_\_

**Total Amount Enclosed** .....\$ \_\_\_\_\_

Make check payable to: Santa Clara Valley Section – ACS

Mail check and reservation form to: Ms. Shirley Radding, 2994 Cottonwood Court, Santa Clara, CA 95051

Please check if you can volunteer:     I can help set-up     I can help clean-up

## June Dinner Meeting

# Beer Tasting and Science of Brewing

### **Biography and Abstract**

Our speaker and tasting leader is David Nehr Korn, PhD., who is in charge of the yeast fermentation project for BIO-MASS SYSTEMS, an East Bay company. Dr. Nehr Korn has been a beer brewer for many years and is

### **SCV-ACS Nominations 2002 Petition Candidates**

Petition candidates can be nominated by the membership.

Offices are: Chair-Elect, Secretary, Treasurer, Councilor, and Alternate Councilor

The requirements are:

- member (grade) of SCV Section
- Agreement to run for the office
- Agreement to attend Executive Committee meetings
- Signatures of 15 members (member grade) of the SCV Section
- Petitions along with a brief biography and statement must be received by August 1, 2002.

Mail nominations to:

Dr. Karl Marhenke  
1710 Wilshire Drive  
Aptos, CA 95003-2836

an authority on the subject. He offers the following information on beers of the world:

“It is important to mention that all beer can be divided into two types, ales and lagers. These are distinguished by the varieties of yeast that are used to ferment them. Ales are fermented at room temperature, and are top fermenting beers. Lagers are fermented around 40F, and are bottom

fermenting beers; after fermentation has been completed, the lagers are aged for a month at near freezing. This process is known as lagering; hence the name. Around the middle of the 1800s, brewers discovered that they could get a more consistent product this way, hence most of the world's brewers started producing lagers.”

The different types of beers for the tasting and discussion will be chosen from the following: Ales, Lagers, Pilsners, Stouts, Porters, and Steam Beers.

## Illustrating Nature

### **Exhibition of Student Works from the Science Illustration Program, UCSC**

**May 4 - June 9, 2002**

Santa Cruz boasts many remarkable attributes, not the least of which is UCSC's Science Illustration graduate program. Nestled in the redwoods, many of the nation's most accomplished science illustrators make their beginnings. After graduating, these students will go on to illustrate for such prestigious institutions as National Geographic, Smithsonian, Scientific American, and the American Museum of Natural History. Each spring, our community has a unique opportunity to view their astounding work when the Santa Cruz Museum of Natural History hosts Illustrating

Nature, an exhibit of exquisite botanical and zoological illustrations. The talented artists from UCSC's program depict everything from mammals to microbes in astounding detail. More than 60 elegant works in watercolor, acrylic, pen and ink, colored pencil, graphite, and scratchboard will be on view this year. You'll also have an opportunity to meet the artists and learn some of their trade secrets at a “how-to” demonstration on May 18, from 10 AM to 12 PM at the Museum of Natural History.

Illustrating Nature will be on view May 4 through June 9 at the Santa Cruz Museum of Natural History, 1305 East Cliff Drive, Santa Cruz. Museum hours are Tuesday through Sunday, 10 AM to 5 PM. For more information please call 831-420-6115.

The Santa Clara Valley Section co-sponsors Illustrating Nature along with the Santa Cruz City Museum of Natural History, the Santa Cruz Museum Association, the Science Communication Program, and Community Printers. UCSC is one of the few universities in the United States where a specialized program in scientific illustration is offered.

**Special Invitation for SCV-ACS members:** An opening reception for the exhibition will take place on Friday, May 3, from 7 to 9 PM at the Museum. All and any SCV-ACS members are welcomed to attend this special event.

## Chair's Message

This month's dinner meeting should be an enjoyable as well as an educational experience. We'll have a wine tasting and a lecture on wine making led by expert winemakers Bob Roudon and Phil Crews. For details, see the highlighted dinner meeting reminder on the front page. In June, we'll hold our annual picnic and awards ceremony at Stanford University. The dinner meetings will then go on hiatus for the rest of the summer. They will start again in September when Stanford's Professor Hongjie Dao will talk on carbon nanotubes (details will appear in future newsletters).

As we look forward to next fall, it is worth noting that National Chemistry Week will begin a week early this year. Instead of being the first full week in November, it will be the last full week in October (October 20-26). The theme this year will be “Chemistry Keeps Us Clean.” Our section along with local sections around the country will hold educational events and activities for school children and the general public. We'll focus on the chemistry and action of detergents, soaps, and other chemical aspects of cleanliness. Our National Chemistry Week coordinator this year is Asfia Qureshi (asfiaq@yahoo.com). If you have suggestions or are interested in volunteering, please contact Asfia. More information about National Chemistry Week is available at:

<http://chemistry.org/portal/Chemistry?PID=acsdisplay.html&DOC=ncw%5Cindex.html>

Jon Touster

# More Patent Truths

1. All U.S. patents are issued on Tuesday - holidays included.
2. U.S. patents are effective at noon on the Tuesday they are issued and are enforceable until midnight of the day they expire. That extra 12-hour period for Karl Ziegler's patent on polymer formation from olefins was worth an additional \$150,000 in royalties. Of course, it had to be litigated and the lawyers got most of it. I love a story with a happy ending.
3. The U.S. is the only country to have a "grace period" of one year after disclosure to file a valid patent application as part of their patent law. The rest of the world observes an "absolute novelty" policy: any enabling disclosure, sale, brochure, etc. destroys novelty and all possible patent rights - as soon as it occurs.
4. The Stanley Cohen- Herbert Boyer gene splicing patent shared between Stanford and UC San Francisco (U.S. patent #4,237,224) is one of the world's most profitable patents from a government sponsorship and an university laboratory. When it expired in December 1997, the royalty income totaled over \$300 million. The first U.S. patent application was filed in the 12th month of the "grace period" with days before all potential U.S. patent rights would have been lost forever. There are no foreign equivalent patents because the technology had been published. The Stanford Alumni Magazine December 1997 had a related cover story titled "The Day the World Stood Still".
5. The U.S. patents filed now are enforceable for 20 years from the date of filing of the first application or from 17 years from date of issue - which ever is longer. This change occurred in 1995.
6. The U.S. is the only country to still have a first-to-invent patent system. That is why accurate laboratory notebook records and diligence are very important. The rest of the

- world is on a first-to-file basis: the first (and true) inventor is the one who first files the patent application. I predict that the U.S. will have a first-to-file within 10 years.
7. If the first-to-file system had been in place in the U.S. in 1883, the aluminum industry would now be a French industry. In April 1886, Frechman Paul Heroult first filed for the electrolysis process to remove aluminum metal from bauxite. In July of the same year, Charles Martin Hall filed his U.S. patent application for the same technology in the U.S. Under the existing law, Heroult could only use his filing date in the France (which was earlier than Hall's) but had no prior laboratory data. In the U.S., Hall was declared the first inventor because he could use his laboratory notebooks to establish that he practiced his invention in February 1886. Heroult received rights in the rest of the world and Hall received the U.S. rights in U.S. patent #400,665. Hall's company soon moved to the U.S. high technology center in 1889 (Pittsburgh, Pennsylvania) where ALCOA was formed shortly thereafter. Hall was the first chemist to be inducted into the National Inventors Hall of Fame in 1976.
  8. Thomas Midgley, Jr. was trained as a mechanical engineer and not a

chemist. Charles Kettering asked him to solve the knocking problem with gasoline in the '20s. On February 23, 1926, the U.S. patent #1,573,846 for tetraethyl lead gasoline additive was issued and the Ethyl Corporation was formed.

Lead was later removed from gasoline in the 1970's because it poisoned the metals in catalytic converters. And you thought it was removed because of the health hazard.

9. Refrigeration in the 1920's was hazardous. Kettering wanted a new and safe refrigerant; Thomas Midgley obliged. In 1929, Midgley attended an ACS meeting with the new FREON (U.S. patent #1,886,339; issued December 31, 1928) in a container and a candle. On stage, he breathed in a lung full of FREON and exhaled the FREON to extinguish the burning candle. Thus, he proved that the dichlorodifluoromethane was non-toxic and non-flammable. Could you see this being done now?? This discovery ushered in the commercial refrigeration industry of the 1930's. Now these same FREONS have been banned because of their interaction problems with the earth's ozone layer.

Do you have any patent truths to share? Contact Howard Peters at [peters4pa@aol.com](mailto:peters4pa@aol.com)

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## Editor's Corner

Have you ever wondered how many technical divisions are there in the ACS? Can you believe that there are 35?! When you think about it, it makes sense since chemistry is all around us. Have you ever been curious about what each division does or thinks of? Starting next month, I will begin a column to introduce you to most, hopefully all, of the individual divisions through interviewing the division chairs. Since I joined the ACS, I have been interested in understanding the different aspects of chemistry/the ACS and now we can learn about them together.

In addition to what the ACS and its technical divisions offer, there are other local opportunities to continually learn about chemistry and science in general. For example, the Palo Alto Chapter of the Association of Women in Science holds monthly meetings that are free and open to the general public, not only women. Check out their web site at [www.pa-awis.org](http://www.pa-awis.org) for more information.



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#### MAY 2002 NEWSLETTER TOPICS:

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and Beer Tasting

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#### CHEMPLOYMENT ABSTRACTS



<http://www.scvacs.org>

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## FUTURE MEETINGS

<b>May 23</b>	Wine Tasting Sundeck Restaurant Menlo Park, CA
<b>Jun 8-12</b>	28th National Medicinal Chemistry Symposium
<b>Jun 10-14</b>	37th National Organic Symposium San Diego, CA
<b>Jun 29</b>	Annual Family Picnic and Awards Ceremony Stanford Chemistry Department
<b>Aug 18-22</b>	ACS National Meeting Boston, MA
<b>Sep 21</b>	SVC Dinner Meeting <i>Dr. Hongjie Dao</i> Stanford University

For the latest information, please visit  
SCV/ACS web site: [www.scvacs.org](http://www.scvacs.org)



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