

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 24 No. 3

## April Dinner Meeting: Potential Environmental and Health Risks of Genetically Modified Crops

### Abstract

Recent polls have found that nearly half of all Americans have never even heard of genetically modified (GM) crops. Yet Americans are consuming GM foods every day. In fact, farmers have rapidly adopted GM crop varieties: US acreage devoted to GM crops rose from about 8 million acres in 1996 to about 76 million acres in 2000. I will discuss the types of GM crops currently being grown on a commercial scale, what types of GM crops we might see in the near future, the potential threats to human health



and the environment, and how the US government is working to assess those risks. I will not argue that GM crops do in fact represent some terrible risk, but rather that it is not irrational to consider whether they might

entail risks. Given this, we should test for risks in a rigorous and informative way. It is important to raise awareness about food safety and the environmental safety of food production, not to create panic or hysteria, but rather to be sure that our government is being vigilant on our behalves.

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### Reminder March Dinner Meeting

At our monthly dinner meeting on the 21st, Dr. David Rakestraw will be presenting "Microscale Chemical Analysis: Can We Make a Laboratory on a Chip?", sensors for Chemical and Biological Agents. We are holding the meeting at the Biltmore Hotel & Suites in Santa Clara (408-988-8411); social hour at 6:00 pm, dinner at 7:00 pm, and the presentation at 8:00 pm. For up-to-date information and reservations, please visit our website [www.scvacs.org](http://www.scvacs.org) or contact Shirley Radding (Telephone: 408-246-2564, Fax: 408-296-8625) by **March 18th**.

### Chair's Message

When I first saw models illustrating the shapes of molecules and the various standard hybridizations of carbon, I got a vague feeling that I had seen it all before, in early childhood. I recalled having a stuffed toy that looked like a tetrahedral carbon with four  $sp^3$  hybrid orbitals coming off it. Whatever the toy's exact shape, I was surprised to remember it and even more surprised how relevant it had been. I certainly felt comfortable with the three dimensional aspects of hybrid orbitals and I think that the toy had helped.

What I like about this memory is that playing with a simple toy helped prepare me for concepts that I wouldn't encounter for 15 years. I doubt my parents knew of the toy's

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## April Dinner Meeting

**Date:** April 18, 2002

**Time:** 6:00-6:30 pm Reception  
6:30-8:00 pm Dinner  
8:00-9:00 pm Presentation

### Location of reception and dinner:

Santa Clara University  
Arts and Sciences Building Foyer

### Location of presentation:

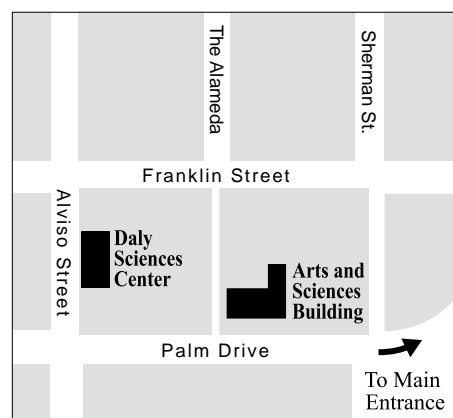
Santa Clara University  
Daly Science Center

**Speaker:** Dr. Michelle Marvier  
Santa Clara University

**Cost:** \$25.00 for an Italian buffet dinner featuring: mediterranean antipasto board, Italian bitter green salad, pesto grilled chicken breast, lasagna florentine (vegetarian), amaretto cheesecake, assorted soft beverages, and garlic bread.

**Reservations:** Shirley Radding  
408-246-2564  
408-296-8625 Fax  
[www.scvacs.org](http://www.scvacs.org)

Reservations should be made by April 15th; stating your name, company affiliation, number of people in the party and the meal preference.



### Biography

Dr. Michelle Marvier received her undergraduate degree in Biology from Santa Clara University and her Ph.D. in ecology at UC Santa Cruz. Her post-doctoral fellowship was at University of Washington. Currently, Dr. Marvier is an Assistant Professor of Biology at Santa Clara University. Her research interests include risk assessment of GM crops and population biology of threatened species.



## A Message from the Chair-Elect 2002 Western Regional Outstanding High School Chemistry Teacher Award

I am pleased to announce that Mr. Gareth Wong, an exemplary high school chemistry teacher at Homestead High School in Cupertino, has received the 2002 ACS Western Region Outstanding High School Chemistry Teaching Award. He will now compete nationally for the 2003 James Bryant Conant Award in High School Chemistry Teaching. Since there is no 2002 Western Regional Meeting, the ACS-SCV Section will present his award to him at a special luncheon at the University Club at San Jose State University on Saturday, October 19, 2002. Prior to this award luncheon, there will be a special symposium, "Celebrating Excellence in Teaching High School

Chemistry" for high school chemistry teachers.

Note: If you know of an outstanding high school chemistry teacher and would like assistance nominating him/her for the Western Region Outstanding High School Chemistry Teacher Award, please contact me.

Dinner Speaker Suggestions Requested: Your ACS-SCV Program Committee met on Tuesday, January 22, 2002 to begin planning our monthly dinner speakers and events through mid-2003. Now is the time to send your suggestions for dinner speakers to me at my e-mail address, "scharbrg@pacbell.net".

Maureen Scharberg

### Chair's Message, continued from front page

geometric significance when they got it, it was just a fun toy. Years later, I wondered if I could recreate this kind of experience for my nephew. He was 2 years old, and I looked for a toy with hidden educational content. In the late 1960's, my folks had bought many toys, possibly even my 'stuffed carbon atom', from an outfit called Creative Playthings. When I started looking for a toy for my nephew, that company was out of business. However, there were plenty of educational toy stores, like the ones affiliated with PBS stations. But I had a hard time finding what I wanted. Many of the educational toys required adult supervision, others came with multiple-page instruction manuals- not good for passive learning through play. I decided to take a more direct approach. I bought my nephew a periodic table place mat.

He has used it for several years. I'm not sure it will make him want to be a chemist, but I hope when and if he takes chemistry he will feel comfortable with the periodic table. More recently, before my wife and I had our first child, I went out and bought a number of 'make your baby a genius' books. The basic theme was that one could conduct educational exercises with a baby during 'free moments' - on the changing table, in the car, in the crib after a nap, etc. It didn't take me long to realize that such a regime would pack a day full of structured educational play, exhausting all participants. When would the baby have time to suck her toes, to contemplate her hands? By the time my daughter was born, I had given up my grand plans of making her a genius.

But a friend of my wife brought

things full circle. She sent us a rattle for the baby, a tetrahedral rattle. She has no scientific background and I doubt that she understood the toy's secret educational value. I kind of like that, and my daughter certainly likes the rattle.

I'd like to remind you that we have an exciting dinner meeting this month, with David Rakestraw discussing chemistry on a chip (see the front page for details). Also, if you are interested, you are welcome to attend the monthly executive committee meetings where we hear committee reports, discuss section activities, and plan events. Check out the most recent ExComm minutes on our web site ([www.scvacs.org](http://www.scvacs.org)) to see what goes on, and to learn when and where the next meeting will be held.

Jon

# Call for Nominations

## The Harry and Carol Mosher Award

The award was established in 1980 by the Santa Clara Valley Section of the ACS to (1) recognize and encourage outstanding work in chemistry; (2) advance chemistry as a profession; and (3) recognize service to the American Chemical Society. The award is named for the late Professor Dr. Harry S. Mosher of Stanford University, Palo Alto, California and Dr. Carol W. Mosher of SRI International, Menlo Park, California, husband and wife, charter members and long-time supporters of this section.

The first scientists to receive this award were Doctors Harry and Carol Mosher in recognition of the inspiration of their example. The committee noted that the Moshers,

including a brother, Dr. William A. Mosher, also a chemist and former Chairman of the Department of Chemistry at the University of Delaware, are outstanding examples of the qualities to be recognized and honored by this award.

Any scientist residing in the United States who is a member of the ACS is eligible to be nominated for the Mosher Award. Five copies of the nomination, including printed materials (reprints) should be furnished for distribution to the award Selection Committee. The award is presented on the third week of January of the following year. It consists of a commemorative plaque, a \$2,000 honorarium, and traveling and lodging expenses for

two for the day the award is presented. The nomination and its accompanying material must be sent to Award committee by May 31.

### *Chair*

### *the Mosher Award Committee*

Santa Clara Valley Section  
American Chemical Society  
P.O. Box 395  
Palo Alto, California 94302



# *Happy St. Patrick's Day*



## OTTENBERG SERVICE AWARD 2002 CALL FOR NOMINATIONS

It is time to nominate candidates for the Abraham Ottenberg Service Award of the Santa Clara Valley Section.

This Award was established in 1973 by the Santa Clara Valley Section to recognize members who have rendered outstanding service to the Section. It is named after Abraham Ottenberg, a former member who devoted much of himself to service to the Section. The award consists of an engraved plaque and an honorarium for two hundred dollars. The award recipient is selected from candidates nominated by members of the Section. Nominees must be members or affiliates of the Santa Clara Valley Section.

Previous recipients are: Shirley B. Radding (1974), Oliver F. Senn (1975), Floyd M. Hobbs (1976), Frank R. Mayo (1977), Harry S. Mosher (1978), Lois J. Durham (1979), Richard W. Gaver (1980), Alan C. Ling (1982), Ludwig A. Mayer (1983), John F. Riley (1983), Howard M. Peters (1984), June G. Jones (1986), Robert L. Montoya (1986), Malcolm Dole (1987), Donald E. Green (1991), Hubert E. Dubb (1992), Karl Marhenke (1993), Stephen N. Senzer (1994), Carol W. Mosher (1995), Bonnie Charpentier (1998), Linda Brunauer (1999), Herbert B. Silber (2000), and Sally Peters (2001).

The nominating letter should include a brief biography of the candidate and a description or evaluation of the service(s) to be recognized by the award. Seconding nominations are not required but will be accepted.

Nominations should be sent to:

### *Chairman, Ottenberg Award Committee*

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

Nominations must be received by **May 24, 2002** to be considered for the 2002 award.

## Grand Opening The W.M. Keck Facility for Chemical Research

San Jose State University  
Friday, April 5, 2002

### **Grand Opening Program**

**Time:** 1:30pm

**Location:** Washington Square Hall

### **Keynote Address**

***Professor Richard Zare***

Stanford University

### **Ribbon Cutting, Reception and Facility Tour**

**Time:** 3:00pm

**Location:** Duncan Hall basement level

This lecture is free and open to the public. The seminar room is wheelchair accessible - any other special accommodations should be requested by March 30, 2002 at the contact number below.

A campus map and directions may be found on the SJSU website at [www.sjsu.edu](http://www.sjsu.edu). Parking is available in the 7th Street Garage (\$2 fee). If you need more information, contact Roy Okuda at 408-924-2525 or by email: [okuda@sjsu.edu](mailto:okuda@sjsu.edu).



**SANTA CLARA VALLEY SECTION  
AMERICAN CHEMICAL SOCIETY  
P.O. Box 395, Palo Alto, CA 94302**

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### MARCH 2002 NEWSLETTER TOPICS:

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### CHEMPLOYMENT ABSTRACTS



<http://www.scvacs.org>

To subscribe to the newsletter group: To receive emails when newsletters are published on the web site, send an email to [scvacs-newsletter-subscribe@yahoogroups.com](mailto:scvacs-newsletter-subscribe@yahoogroups.com).

## SANTA CLARA VALLEY SECTION

### 2002 Section Officers

Chair: <b>Jon Touster</b>	650-723-4340	<a href="mailto:touster@leland.stanford.edu">touster@leland.stanford.edu</a>
Chair-Elect: <b>Maureen Scharberg</b>	408-924-4966	<a href="mailto:scharbg@pacbell.net">scharbg@pacbell.net</a>
Secretary: <b>Karl Marhenke</b>	831-479-6263	<a href="mailto:karlmar@armory.com">karlmar@armory.com</a>
Treasurer: <b>Hong Gao</b>	650-564-5197	<a href="mailto:hong.gao@alza.com">hong.gao@alza.com</a>
Past-Chair: <b>Sally Peters</b>	650-812-4994	<a href="mailto:speters@parc.xerox.com">speters@parc.xerox.com</a>

### Councilors

2000-02: <b>Maureen Scharberg</b>	408-924-4966	<a href="mailto:scharbg@pacbell.net">scharbg@pacbell.net</a>
2000-02: <b>John F. Riley</b>	650-328-4036	<a href="mailto:jfriley@atdial.net">jfriley@atdial.net</a>
2000-02: <b>Ean Warren</b>	650-329-4554	<a href="mailto:ewarren@scvacs.org">ewarren@scvacs.org</a>
2001-03: <b>Linda Brunauer</b>	408-554-6947	<a href="mailto:lbrunauer@scu.edu">lbrunauer@scu.edu</a>
2001-03: <b>Sally Peters</b>	650-812-4994	<a href="mailto:speters@parc.xerox.com">speters@parc.xerox.com</a>
2002-04: <b>Bonnie Charpentier</b>	650-948-3931	<a href="mailto:charpentierbon@yahoo.com">charpentierbon@yahoo.com</a>
2002-04: <b>Herb Silber</b>	408-924-4954	<a href="mailto:hbsilber@sjsuvm1.sjsu.edu">hbsilber@sjsuvm1.sjsu.edu</a>

### Alternate Councilors

2000-02: <b>Roy Okuda</b>	408-924-2525	<a href="mailto:okuda@sjsu.edu">okuda@sjsu.edu</a>
2000-02: <b>Donna Drogos</b>	408-265-2600	<a href="mailto:ddrogos@geosyntec.com">ddrogos@geosyntec.com</a>
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2001-03: <b>Carol Mosher</b>	650-322-3120	<a href="mailto:cmosher2@aol.com">cmosher2@aol.com</a>
2002-04: <b>Peter Rusch</b>	650-941-8120	<a href="mailto:pfrusch@aol.com">pfrusch@aol.com</a>
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### Chememployment Abstracts

Director: **Shirley B. Radding** 408-246-2564 [sradding@att.net](mailto:sradding@att.net)

### FUTURE MEETINGS

<b>Mar</b> (TBD)	Chemistry Olympiad
<b>Mar 7</b>	Executive Committee Meeting
<b>Mar 17-22</b>	Pittcon 2002 New Orleans, LA
<b>Mar 21</b>	SCV Dinner Meeting <i>Dr. David Rakestraw</i>
<b>Apr 7-12</b>	National Meeting Orlando, FL
<b>Apr 25</b>	SCV Dinner Meeting <i>Dr. Michelle Marvier</i>
<b>May 23</b>	SCV Dinner Meeting <i>Bob Roudon and Phil Crews</i>

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



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