National Chemistry Week

National Chemistry Week is coming up very soon! We hope you can join the rest of your local section at these scheduled events:

October 24: A special screening of "Clouds of Fire: The Origin of Stars" at the Minolta Planetarium at De Anza College from 6:00 to 9:00 p.m. Hors d’oeuvres and light refreshments will be provided. Cost: $8.00 for adults, $6.00 for children under 12 and seniors.

October 25: A Seminar Series presented by NASA scientists at the USGS at 345 Middlefield Road in Menlo Park from 1:00 to 4:30 p.m. Light refreshments will be served. Cost: Free.

To register or for more information on either of these events, please visit our website www.scvacs.org or email the NCW coordinator Asfia Qureshi (asfiaq@yahoo.com).

September Dinner Meeting Reminder

On Thursday September 25th, Dr. Kenneth Carter of IBM will be talking about the chemistry at nanopatterned interfaces. Join Dr. Carter and the rest of your section at the Blue Pheasant Restaurant in Cupertino. For dinner, you can select from an excellent menu of broiled salmon, London broil, or pasta primavera. The usual dinner meeting schedule will be followed: 6:00 p.m. Social Hour, 7:00 p.m. Dinner, and 8:00 p.m. Talk.

Please make your reservations by September 22 on the section website (www.scvacs.org) or with Shirley Radding (408-246-2564, 408-296-8625 fax). If you are unable to honor your reservation without cancelling prior to the event, you will be invoiced following the dinner meeting.

Chair’s Message

As I write this month's message, the beginning of the fall semester is just a few weeks away. Now it is time to gear up for the ACS-SCV Fall 2003 activities!

But first, I am pleased to welcome Mark Kent to the Executive Committee. I appointed Mark to serve as Alternate Councilor, replacing Jonathan Touster who moved out of the Section. I also appointed Sally Peters to serve as Past Chair. The Executive Committee ratified unanimously both appointments at our August meeting.

As announced in last month’s newsletter, Asfia Qureshi has planned several activities for National Chemistry Week, which will be held from October 19 to 25. Please plan to join us on Friday, October 24, at the Minolta Planetarium at De Anza College for a special screening of “Clouds of Fire: The Origin of Stars.” Then, on Saturday, October 25, we will be hosting a NASA Scientists Seminar Series, “Earth’s Atmosphere and Beyond” in tribute to the innovators and pioneers of aviation and the atmosphere at the US Geological Survey in Menlo Park. I thank Asfia for her commitment in organizing an excellent National Chemistry Week program for our section, especially since she has just relocated to San Diego for a new career adventure.

Also, as part of our National Chemistry Week celebration, Bonnie Charpentier is organizing volunteers to create interesting exhibits that display the chemistry that enables flight for the Hiller Aviation Museum in San Carlos. Please contact Bonnie at charpentier@yahoo.com, if you are interested. For further information of all our NCW activities, please see the NCW section in this newsletter.

I received an e-mail from Stanley Pine, our ACS Director for District VI. He reports that the new by-law provision for distributing funds to local section and divisions was voted unanimously in favor (approximately 20,000 for and 3,000 against). I would like to think that the majority of our Section voted against this by-law. I assure you that your Executive Committee will be carefully monitoring the distribution and use of these funds once the new by-law goes into effect in 2004.

continued on next page
As part of our National Chemistry Week celebration “Earth’s Atmosphere and Beyond”, we have the opportunity to do a cooperative project with the Hiller Aviation Museum in San Carlos. The idea is to develop information and displays concerning the chemistry that enables flight. This may be done by adding information to the existing exhibits or by developing some additional exhibits. Possibilities include the chemistry of fuels and materials utilized over the years for development of airplanes and rockets.

We need volunteers to brainstorm, do research for relevant information, and to create exhibits. We have an enthusiastic contact at Hiller Aviation Museum and now need ACS members with expertise in these areas, and/or with a willingness to help out. This opportunity promises to be a lot of fun – if you are willing to help (any amount of time or level of commitment is fine), please contact Bonnie Charpentier at charpentierbon@yahoo.com.

The Chemistry of Flight
A Volunteer Opportunity
Laura Iraci, Ph.D.

Dr. Laura Iraci is a research scientist in the Earth Science Division at NASA Ames Research Center, where she performs studies of atmospheric chemistry. Her primary interest is the interaction of natural and anthropogenic gases with aerosol and cloud particles. Following her Ph.D. in Analytical and Atmospheric Chemistry from the University of Colorado – Boulder, where she studied the formation of the polar stratospheric clouds which lead to ozone depletion, she was a postdoctoral fellow at the National Center for Atmospheric Research from 1997-1998, where she explored how biogenic compounds may interact with aerosols in the lowest portion of the atmosphere, the troposphere.

— ABSTRACT —

Atmospheric Particles: Tiny Chemical Reactors

Chemical interactions between gases and particles occur throughout the Earth's atmosphere and can lead to the formation of acid rain and destruction of stratospheric ozone. This talk will describe these particles and their sources, highlighting the effect of their chemistry on our daily lives.

Azadeh Tabazadeh, Ph.D.

Azadeh Tabazadeh has won numerous awards and honors in the area of global change research, including the American Meteorological Society Henry G. Houghton Award in 2003, the American Geophysical Union James B. Macalwane Medal in 2001, a NASA Exceptional Scientific Achievement Medal in 2001, and a White House Early Career Presidential Award in 1999. Tabazadeh received a Ph.D. in physical chemistry from the University of California, Los Angeles in 1994 and she is a fellow of the American Geophysical Union and the American Meteorological Society. She is currently a senior physical scientist in the division of Earth Science at NASA Ames research center.

— ABSTRACT —

Geochemistry and Mineralogy of Atacama Desert Soils of Northern Chile: A Possible Mars Soil Analog

The Atacama Desert of northern Chile is one of the driest deserts in the world, with a hyper-arid climate that has persisted for roughly 15 million years. While Mars is vastly more dry and cold, the Atacama environment may be one of the best terrestrial Mars analogs easily accessible to researchers. Soils in the driest parts of the Atacama record the effects of long-term hyperaridity (few mm of rain every 5 to 20 years), retaining atmospherically derived elements (e.g., sulfate, nitrate, chloride) in quantities rarely seen on Earth. This presentation will demonstrate what physical, chemical, and mineralogical properties in Atacama soils may be present in Mars soils.

Brad Sutter, Ph.D.

Brad Sutter received his B.S. in Soil and Water Science from University of California, Davis (1992), followed by a M.S. (1995) and Ph.D. (2000) in Soil Science from Texas A&M. His Master's work assisted NASA's Advanced Life Support program to better understand the interactions of the plant nutrient phosphorus with lunar stimulants as an analog for future enclosed lunar crop growth facilities. His doctoral work examined the structural and chemical properties of a synthetic metal substituted phosphate fertilizer (hydroxyapatite) that would be used in crop growth mediums at future lunar or Mars bases. Currently, Dr. Sutter is a post-doctoral researcher at NASA Ames Research Center where he is examining the chemistry and mineralogy of Atacama Desert (Chile) soils as potential analogs to Mars soils.

— ABSTRACT —

The effect of crystallization process in clouds on atmospheric chemistry and climate

The growth of human population and their use of land, food and energy resources affect the Earth's atmosphere, biosphere and oceans in a complex manner. Many important questions in atmospheric sciences now deal with issues regarding the impact of human activities on our immediate and future environment, ranging in scope from local- (e.g., air pollution) to global- (e.g., global warming) scale problems. Because the Earth's atmospheric mass is negligible compared to that found in the oceans and the biosphere, the atmosphere can respond quickly to natural and/or manmade perturbations. For example, seasonal "ozone hole" formation in the Antarctic is a result of manmade CFC emissions in just the last 40 years. Also, the observed rise in global temperatures, known as global warming, is linked to a rapid increase in carbon dioxide and other greenhouse gas and aerosol concentrations over the last century. During my talk I will discuss how clouds crystallize in the Earth's atmosphere and how our activities are changing the basic process of crystallization in clouds. Also, the effect of crystallization process on global change issues such as ozone recovery and global warming will be discussed.

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SEPTEMBER 2003 NEWSLETTER TOPICS:

National Chemistry Week
September Dinner Meeting Reminder
Chair's Message
Radding Award Reception and Dinner
The Chemistry of Flight – A Volunteer Opportunity
National Chemistry Week – More Seminar Scientists:
  Laura Iraci, Ph.D.
  Brad Sutter, Ph.D.
  Azadeh Tabazadeh, Ph.D.
Biographies for the Operating Year 2004
Ballot for 2004

CHEMPLOYMENT ABSTRACTS

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http://www.scvacs.org

To receive emails when newsletters are published on our web site, send an email to SCVACS-newsletters-subscribe@yahoogroups.com.

SANTA CLARA VALLEY SECTION

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Secretary: Karl Marhenke 831-479-6263 karlmar@armory.com
Treasurer: Hong Gao 650-564-5197 hong.gao@alza.com
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2003-05: Asfia Qureshi 408-732-1705 asfiaq@yahoo.com

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Editor: Laura Jarvis 650-404-2950 editor@scvacs.org

ChemPloyment Abstracts
Director: Shirley B. Radding 408-246-2564 sradding@att.net

FUTURE MEETINGS

Sep 25  SCV Dinner Meeting
  Dr. Ken Carter, IBM
  Cupertino, CA

Oct 15-18  Western Regional Meeting
  Long Beach, CA

Oct 24  Clouds of Fire: Origin of the Stars
  National Chemistry Week
  Cupertino, CA

Oct 25  Honoring Innovators & Pioneers
  in Aviation and the Atmosphere
  National Chemistry Week
  Menlo Park, CA

Nov 20  SCV Dinner Meeting
  Dr. Karl Marhenke
  Santa Clara, CA

Nov 9-12  Proteomics & Genomics
  ACS ProSpectives
  Leesburg, VA

Jan 2004  Dr. Joseph Lambert
  Mosher Awardee

For the latest information, please visit SCV/ACS web site: www.scvacs.org
BIOGRAPHIES FOR THE OPERATING YEAR 2004

CHAIR-ELECT
John Riley

John Riley received a B.S. from Providence College in 1951, a M.S. from Yale University in 1951 and a Ph.D. in 1954 from Yale University. He has held positions with Linde Div., Union Carbide, 1954-1960; Oak Ridge National Lab, 1960-1968; and Lockheed Missiles & Space, 1966-1993. Dr. Riley was president and founder of John F. Riley, Inc. He was business manager for St. Thomas Aquinas Parish in Palo Alto from which he retired in 2001.

Statement: I have been one of your Councilors for 17 years; I know the job of representing Santa Clara Valley members. I have been honored to serve as Chair of the Section twice, in 1980 and 1995. I have been active at the national level with the Council, currently serving on Constitution and Bylaws Committee, and I am a candidate for the elected committee on Nominations and Elections. Now retired, I am able to devote more time to local, regional, and national activities. For Santa Clara Valley Section, I am chair of Public Relations and help with our monthly Newsletter by generating the file of mailing labels. I am a regular participant in the Executive Committee meetings and the Section meetings.

SECRETARY
Karl Marhenke

Karl Marhenke attended Berkeley public schools and attended the University of California at Berkeley from 1953 to 1957, where he received a B.S. in Chemistry. He joined the Student Affiliates of the ACS in 1955. Karl worked at Lawrence Berkeley Laboratory from 1957 to 1958 and joining the ACS in 1958. He attended University of Minnesota in Minneapolis from 1958 to 1965 and received a Ph.D., with an analytical chemistry major and a physical chemistry minor. His major advisor was Professor E.B. Sandell. He became a full-time instructor of chemistry at Cabrillo College in Aptos, CA from 1965 to 1986 and the Division Chairman of Biology, Environment, Chemistry and Health Occupations Division 1986-1994. Dr. Marhenke returned to teaching as a full-time professor in June 1995 and currently is a chemistry instructor at Cabrillo College 1994 to 1995. He retired from his full-time position in June 1995 and currently is a part time instructor of chemistry at the college. He has been the secretary of Santa Clara Valley from 1989 to present.

Statement: The principal jobs of the Santa Clara Valley Section Secretary are to attend Executive Committee Meetings and take minutes; to attend dinner meetings, collect money and provide name badges; to assemble, prepare and submit the Section's annual report, to maintain assigned parts of the Section web page, and to produce a printed directory of section members for the Executive Committee. My Executive Committee attendance record is good; I distribute minutes to members via e-mail and paper, and I post a summary on the web page as soon as I have the Chair's approval to do so each month. This year's directory was printed within 10 days once the disk containing the raw data was received from ACS National. I have enjoyed this work since I became Secretary in 1989. I again ask for your vote for Secretary for 2004.

TREASURER
Hong Gao

Hong Gao received her B.S. from Fudan University in 1982 and a Ph.D. from Kent State University in 1992. Her professional positions have been with Masters Builders, Inc. (1992-1997) as an analytical scientist and with ALZA Corporation (1997-present) as a research scientist. She has been a member of the ACS since 1989.

Statement: Currently, I am a research scientist at ALZA, Palo Alto. I am very interested in continuing as the Treasurer of SCVS-ACS. I have been a member of ACS for nearly 12 years and Treasurer of SCV-ACS for 2 years. Over the years, I received valuable support and assistance from ACS in my academic study, scientific research, and career development. I firmly believe a strong and active ACS will greatly benefit the study of chemistry, as well as the community of chemists. During the years that I have been associated with ACS, I have enjoyed numerous opportunities to be involved in ACS activities. The position of Treasurer gives me the opportunity to work more closely with the ACS and to continue to direct the growth of the ACS. I am looking forward to having the opportunity to serve the society. Thank you for your support.

COUNCILORS
Linda Brunauer

Linda Brunauer received a B.S. in Chemistry with an emphasis in Biochemistry from San Jose State University and a Ph.D. in Biochemistry from the University of California, Los Angeles. Following graduate school, she was a NIH Postdoctoral Fellow in the Department of Chemistry at Stanford University. In 1988, she joined the faculty of the Santa Clara University Department of Chemistry where she is currently an Associate Professor. In 1996, she was named Faculty Advisor of the Year at Santa Clara University for her work with the SCU Chemistry Club. In 1999, she received the Ottenberg Award for outstanding service to the Section and an Excellence in Teaching Award for her work in Santa Clara University’s summer program. She is active in the Santa Clara Valley ACS Section and has served as a member of the Executive Committee as Student Affairs Chairperson (1989-present) and Councilor (1998-present).

Statement: It has been an honor to serve the Section as a member of the Executive Committee. During the past 15 years, I have endeavored to increase the level of communication between the local section and the various Student Affiliates of the ACS (SAACS) groups (SJSU, Santa Clara University, Stanford, and UCSC). During this time, I assisted with the formation of a new SAACS chapter at Stanford University and helped to establish an Annual Northern California Undergraduate Student Research Conference. As a councilor, I have served the section by participating at ACS National meetings and have served on the Women Chemists Committee. Although I plan to continue as Student Affairs Chairperson, I ask for your vote for Councilor.

Sally Peters

Sally Peters received her B.S. in Chemistry from Geneva College, Beaver Falls, PA and her Masters of Library Science (MLS) from San Jose State University. She has been a Technical Information Specialist at Xerox Palo Alto Research Center from 1983 to present. For the past five years, she has represented the Section as Councilor at the National ACS meetings, served on the ACS Committee on Meetings and Expositions (1995-1999), and serves on the Local Section Hospitality Committee. Sally is a member of the ACS Division of Chemical Information, Computers in Chemistry, and the Division of Chemistry and the Law.

Statement: I have been a member of the ACS for more than 20 years and have been
active in our section for more than 10 of those years. The ACS is the largest professional society in the world and the most important aspect of its size is that it has activities for chemists interested in education, research, computers, information, management, and a wide variety of other areas. Our local section mirrors those facts. The backbone of the national Society is the local section. The Santa Clara Valley has a healthy and active local section, and I will continue to work to keep it that way. I have been a councilor for 9 years, and if re-elected, I will continue to serve at the local and national level. Currently, as a councilor, I am a member of the national LSAC, the Local Section Activities Committee.

Peter F. Ruscb

Peter received his B.S. in 1965 from Southern Methodist University and his M.S. in 1966. He received the Ph.D. in 1971 from the University of Texas at Austin. Peter is currently a consultant and, from 1975 to 1995, he held various positions with DIAlOG Information and Technical Services, Inc., which included the Vice Presidents of the Scientific and Information Division, and Chemical and Patent Division. From 1973 to 1975, he was with the Chemical Abstracts Service as an Information Scientist. In 1972, he was a Postdoctoral Research Fellow at the University of Texas at Austin and in 1971, he was a Postdoctoral Research Fellow with the Centre Nationale de la Recherche Scientifique, Laboratoire de la Chimie Physique, Lille, France. In 1990, Peter served on the National ACS Committee on Meetings and Expositions. Also, he served the Division of Chemical Information as Secretary and Membership Chair from 1980 to 1983, as Chair-Elect in 1984, Chair in 1985, Councilor from 1989 to 1991, and Alternate Councilor from 1992 to 1994. For the Santa Clara Valley Local Section, he has served as Alternate Councilor in 1996; Councilor from 1997 to 2001; and currently, is the Chair of the Shirley B. Radding Award Committee.

Statement: My goal is to work diligently for which our Section is known.

ALTERNATE COUNCILOR

Carol W. Mosher

Carol received her BS in chemistry from Colorado State University and her M.S. in Textile Chemistry, and Ph.D. in Organic Chemistry from Pennsylvania State University. At SRI International (1947-1982), her research involved synthesis of organic compounds including detergents, plasticizers, anti-tumor agents. At American Institute for Research (1983-1986), she designed and edited specialistd chemistry testing material. Recently, she tutored students at Foothill College in math, chemistry and English. The offices she has held for the Santa Clara Valley ACS Section include secretary, alternate councilor, councilor, chair-elect, and chair. Currently, she is an Alternate Councilor for the SCVS and a volunteer working with the National Employment Clearing House at the National ACS meetings. Dr. Mosher has been a member of the ACS since 1946.

George Lechner

George received his BA in Chemistry and Biological Sciences at San Jose State University in 1963. His work life has had him analyzing rocket motor fuels and space ordnance chemicals, helping employees conduct their work safely and in environmentally sound ways while in the semiconductor manufacturing and also in the copiers and printers industries. His former employers include United Technologies Chemical Systems, McCormick Ralph Associates, and Fairchild Semiconductor. Currently, he is employed by Xerox Corporation. At McCormick Ralph, he was Chief Chemist in the Process and Quality Control Laboratory for over ten years. He was involved in developing analytical procedures for specialty ordnance and electroplating chemicals and then monitoring quality in the manufacturing processes. He became a subject matter expert in hazardous materials and hazardous waste, which led him into the field of environmental engineering and safety at Fairchild and Xerox, where he now oversees environmental health and safety for the company’s Service Technicians and manager-account Associates in the western United States. He is well versed in safety and environmental training programs, hazardous waste operations and regulations, injury and illness prevention processes and industrial hygiene. He is a Certified Industrial Hygienist (CIH) in comprehensive practice. George has been a member of the American Chemical Society since his student days at San Jose State University and currently serves as an Alternate Councilor on the Section’s Executive Committee. He is also Chair-Elect of our local section.

Statement: I believe the ACS Santa Clara Valley Section is a vibrant and exciting organization whose members contribute substantially to local industries and academia. Our members are deeply involved in the development of the chemical and biological sciences, as well as, educating the public with knowledge about the good and not-so-good chemicals that affect our lives. Our Section is very active locally and is effective at the national level. Our Society and our Section face many challenges in the upcoming years – we can and will make a difference. I have served as an Alternate Councilor for over three years and, if elected to a new term, will continue to support our existing programs and will help develop new policies that will enhance the effectiveness of our Society.

Ernest Gargas

Ernest Gargas received his B.S. in Chemistry from Seton Hall University. He worked at General Motors Delco-Remy Battery Division as a spectroscopist and Analytical Chemist running the Quality Control lab for the Freedom Battery project. Afterwards, he worked for Exxon Research in the area of synthetic fuels research doing surface and Fischer-Tropsch Heterogenous catalysis. Ernest worked at Lockheed Missiles and Space Company for 15 years. His last assignment was building a secure T1 communications line and designing a $60,000 video conferencing center. He then worked for Rivio, Inc., doing software quality control and managing two computer centers. While there he built over 40 turnkey computers and development documentation to duplicate the turnkey computers. He also was the acting Director/Manager for the entire Quality Assurance department. Ernest’s recent assignment was the Software Quality Assurance Manager for Genesis Microchip, Inc. He developed the total Software Quality Assurance Process, finalized test plans, test cases, and developed the test matrices still in place today.

Statement: As an Alternate Councilor, I will work serving the needs of the local section. My many skills and diverse background are what I also bring to the Committee and will use them to benefit our local Section.
SANTA CLARA VALLEY SECTION AMERICAN CHEMICAL SOCIETY

Ballot for 2004

Chair-Elect
☐ John Riley
☐ ________

Secretary
☐ Karl Marhenke
☐ ________

Treasurer
☐ Hong Gao
☐ ________

Councilors
(Vote for 5)
☐ Linda Brunauer
☐ Sally Peters
☐ Peter Rusch
☐ ________

Alternate Councilors
(Vote for 3)
☐ George Lechner
☐ Carol Mosher
☐ Ernest Gargas
☐ ________

Ballot must be received by October 22, 2003 to be counted.
Your membership number should be in the return address.