



SCALACS

September 2012

A Joint Publication of the Southern California and
San Gorgonio Sections of the American Chemical Society

**Southern California Section Luncheon
Honoring our 50, 60 and 70 Year Members
With a Special Presentation by Our
Project SEED Students
At Stevens Steakhouse**

Saturday, September 22, 2012

See Page 3



2012 Fellow Ernie Simpson

**San Gorgonio
Section**

Annual Meeting

October 3, 2012

See Page 11

Mass-Vac Vacuum Inlet Traps

SOMETIMES your vacuum pump needs protection from the materials you're pumping, and sometimes your vacuum system needs protection from the vacuum pump. Mass-Vac has the BEST traps and the BEST support in the business. **TALK TO US!**

Posi-Trap

The Posi-Trap Single Stage Vacuum Inlet Trap features filter elements sealed at both the inlet AND exhaust ends, eliminating blow-by.



Visi-Trap

The Visi-Trap features a transparent sump, so you know when to change the insert to keep vapors, particles, and gunk from doing damage. A range of inserts are available to meet the needs of YOUR application.



PRODUCTS

A Division of Mass-Vac, Inc.

Mass-Vac, Inc.
247 Rangeway Road
PO Box 359
North Billerica, MA 01862

978 667 2393
sales@massvac.com



SCALACS

A Joint Publication of the
Southern California and San Geronio Sections of the
American Chemical Society

Volume LXV

September 2012

Number 5

SOUTHERN CALIFORNIA SECTION 2012 OFFICERS

Chair: Robert de Groot
Chair Elect: Brian Brady
Secretary: Spencer Ririe
Treasurer: Barbara Belmont
Councilors: Rita Boggs, Bob de Groot, Tom LeBon, Virgil Lee, Eleanor Siebert, Barbara Sitzman

SAN GORGONIO SECTION 2012 OFFICERS

Chair: Eileen Di Mauro
Chair-Elect:
Secretary: David Srulevitch
Treasurer: Dennis Pederson
Councilors: Jim Hammond, Ernie Simpson

TABLE OF CONTENTS

So. Cal. Chair's Message	2
So. Cal. Meeting Notices	3-7
This Month in Chemical History	8-9
S. G. Executive Board Message	10
S. G. Meeting Notice	11-12
Index to Advertisers	13
Chemists' Calendar	bc

SCALACS (ISSN) 0044-7595 is published monthly March through May, September and October; and Bi-monthly January/February and November/December along with a special ballot issue once a year. Published by the Southern California Section of the American Chemical Society at 14934 South Figueroa Street, Gardena CA 90248. Subscription price is \$12.00/year. Make checks payable to Southern California Section, ACS. Second Class postage paid at Gardena, CA 90247, email: office@scalacs.org.

ADVERTISERS: Advertising rates on application. Mail COPY, CONTRACTS and CHECKS to Southern California Section, ACS, 14934 South Figueroa Street, Gardena, CA 90248.

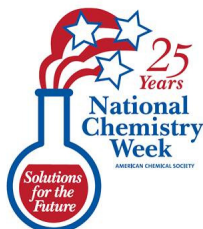
CONTRIBUTORS: Send all copy to Editor, SCALACS, 14934 South Figueroa Street, Gardena, CA 90248, email: editor@scalacs.org.

POSTMASTER: Send change of address to SCALACS, 14934 South Figueroa Street, Gardena, CA 90248.

Website address: www.scalacs.org

Southern California Section

Chair's Message



National Chemistry Week – A California Original!

Welcome back SCALACS members!

I hope you found some time for rest and relaxation over the summer.

After a recent conversation with Chair-Elect Brian Brady about our exciting programs for the fall, I also realized that 2012 marks the 25th anniversary of National Chemistry Week. NCW reaches the public with positive messages about chemistry and promotes a positive change in the public's impression of chemistry. During this special occasion I would like to share a bit of the history of NCW.

National Chemistry Day was the result of the vision of Dr. George C. Pimentel (1922–1989) who served as ACS president in 1986. Pimentel was born to French parents near Fresno and his family moved to Los Angeles during the Great Depression. As an undergraduate at UCLA his interests shifted from civil to chemical engineering and then to physical chemistry and undergraduate research with J. B. Ramsey. In 1946 he started graduate studies at UC Berkeley in infrared spectroscopy with Kenneth Pitzer. Upon earning his Ph.D. in 1949 he joined the Berkeley faculty as an instructor, became an assistant professor in 1951, and remained an active faculty member there until his death.

The first National Chemistry Day was celebrated on November 6th 1987, it became NCW in 1989, and NCW became an annual event in 1993. In a 1986 message to the ACS Board Pimentel said:

“National Chemistry Day is a bold and exciting undertaking for us. Its success will be measured, in the short term, by the number of people reached by our efforts. Over the long term, we will measure our success by the continued use of chemistry to solve societal problems and to improve the quality of life for us all.”

As a local section I think we have embodied the NCW motto: **Solutions for the Future**. Being chair of SCALACS is very rewarding because I have colleagues who, in addition to advancing chemistry, are empowering others to join the effort.

(Continued on Page 6)

Southern California Section

September Luncheon Meeting

**Honoring our 50, 60 and 70 Year Members
With a Special Presentation by
Our Project SEED Students**

on

Saturday, September 22, 2012

at

Stevens Steakhouse

5332 Stevens Place

Los Angeles, CA 90040

11:30 a.m. Check-in and Students' Poster Session

12:30 p.m. Luncheon

Presentation of Certificates immediately following luncheon

We are celebrating our 50, 60 and 70 year members and having our Project SEED students present a poster of the research they completed this summer. Project SEED takes high school students and puts them in a laboratory environment to provide them an opportunity to engage in an authentic research experience. We hope our veteran members will enjoy hearing about their research.

Our 50 year members are:

Robert A. Beaudet

Myra V. Drickman

William C. Kenney

Ernest Kopka

Howard Peters

Michael J. Ram

Paul Sanford

Seymour Siegel

Fred Sonnenberg

Philip L. Strong

Howard S. Taylor

William D. Timberlake

Herbert Wollgiehn

(Continued on Page 4)

Southern California Section

50/60/70 Year Member Luncheon (Continued from Page 3)

Our 60 year members are:

Donald C. Frokjer	Francis Petracek
Isabelle J. Getz	Roscoe R. Schaffert
David H. Kaelble	John Vosbigian
Joseph Kuc	Martin J. Weisman
J. David Margerum	

Our 70 year members are:

Bernard J. Cagan	Harry D. Moshenrose
Norman J. Juster	Eugene Roberts
Darwin L. Mayfield	

The students who took part in our Project SEED Program this summer are Jacqueline Ledezma, Zachary Perez, Genecee Renteria and Arianna Salinas. There will be a poster session of their research prior to lunch.

Reservations: There is a choice of King Salmon or Prime Rib Sandwich for luncheon. The cost of the luncheon is \$24 per person including tax, tip, and wine with luncheon; cash or check at the door. Please call Nancy Paradiso in the Section Office at 310 327-1216 or email office@scalacs.org by Monday, September 17, 2012 for reservations.

Directions: To access Google maps from their website, go to http://www.stevenssteakhouse.com/home/driving_directions. From the 5 Fwy. Northbound, exit Atlantic South. Make a right turn off exit. Stay in the middle lane and go under the bridge. Stay in the left lane and Stevens will be on your right. From the 5 Fwy. Southbound, exit Atlantic-Eastern Avenue. The restaurant is straight ahead off the exit. From the 710 Long Beach Fwy. North, exit Atlantic North. Continue north on Atlantic. Pass Washington Blvd., go 3 lights. The next street is Stevens Place. Turn right to Stevens. There is free parking in the rear of the building.

Southern California Section

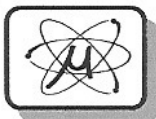
Save the Date!

Saturday, October 6, 2012
SCALACS High School Chemistry Teacher Meeting
Occidental College
Bioscience Room 113
9:00 a.m. to 3:00 p.m. (lunch included)

2012 theme of National Chemistry Week is
Nanoscale Science and Engineering

For many years the Occidental Chemistry Teachers Meeting was the premier place in Los Angeles for teachers to learn from teachers. Please consider coming and sharing your favorite lesson, demo, or trick with us. Already confirmed speakers include Larry Walker (Calabasas) , Ken Mukai (El Camino), Richard Erdman (Venice), Larry Quimby (Bravo), Lanny Larsen (Bravo), Michael Morgan (Bravo) and more! Barbara Sitzman (Granada Hills) will be presenting on the new ACS Guideline for High School Chemistry. Anyone interested in presenting please contact the program chair, Michael Morgan at mmorgan@lausd.net. Registration will open shortly at www.scalacs.org. Because it is a weekend, there is free parking on campus.

**Sponsored by SCALACS, Occidental College and
TOPS Program**



Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

SEM/EDXA , EPA/WDXA, XRD, XRF, ESCA, AUGER, FTIR, DSC/TGA

3815 Lancaster Pike Wilmington DE. 19805
E-Mail micronanalytical@compuserve.com

Voice 302-998-1184, Fax 302-998-1836
Web Page: www.micronanalytical.com

Southern California Section

Outreach Activities

October 21-27, 2012 (Varying Times) National Chemistry Week Activities at the California Science Center, 700 Exposition Park Drive, Los Angeles, CA 90037, website: www.californiasciencecenter.org. Join volunteers at the California Science Center for NCW activities throughout the week. The theme for NCW2012 is "Nanotechnology: The Smallest BIG Idea in Science!" For more information visit: www.acs.org/ncw. If you would like to volunteer or have questions, please contact Henry Abrash at: abrash8@aol.com.



Chair's Message (Continued from Page 2)

For example, our Project SEED team led by Frank Gomez and Joe Khoury assembled a fine group of high school students who spent most of the summer doing research at Cal State Los Angeles. I invite you to join us when they present their work on September 22nd. Education Committee chair Michael Morgan is planning a High School Chemistry Teachers Meeting at Occidental College on Saturday, October 6th. This event will feature presenters who are among the finest secondary chemistry educators in Southern California.

Our future is bright and it is time to elect the next group of SCALACS leaders. Our Nominations and Elections chair Barbara Belmont has recruited and assembled an outstanding list of nominees for our local section election. Be on the lookout for your ballot in the mail. Your vote in local section elections is a very important part of your commitment as an ACS member.

Read on or visit us online at www.scalacs.org, and find out ways to get involved with the section.

Happy NCW25! Celebrate NCW 2012 (October 21–27): "Nanotechnology: The Smallest BIG Idea in Science!"

- Bob de Groot
rdegroot@oxy.edu

Southern California Section

Do You Need Scientific Information to Advance Your Work?

By Michael P. Filosa, CCAS Member 2011-13

Since 1907 Chemical Abstracts Service (CAS) <http://www.cas.org/> has been abstracting and indexing the chemical literature. Coverage includes journals and patents worldwide. The CAS Registry file currently contains over 68 million compounds. Through its software products, such as SciFinder, chemical professionals in both industry and academia can easily and quickly search CAS databases for structures and references critical to their work.

Chemical Abstracts is the largest operating division within the American Chemical Society (ACS). It plays an important role both in fulfilling one of the Society's key objectives – the dissemination of chemical information – as well as providing a financial surplus to fund society programs. CAS employs more than 600 chemists in Ohio and others around the globe to support its mission.

The Committee on Chemical Abstracts Service (CCAS) meets twice annually with CAS management and communicates regularly via email. The mission of CCAS is to act as a conduit between CAS management and ACS members. Recently, questions have been answered related to the indexing of book chapters, pricing, privacy, availability to small chemical enterprises and access for SciFinder users who become unemployed.

CCAS wants your questions and feedback about CAS and its products and services!

You can directly contact any CCAS member with your queries. You can also directly post them on our new Facebook page: <http://www.facebook.com/#!/ACSCCommitteeChemicalAbstractsService> or on our ACS Network page: <https://communities.acs.org/groups/chemical-abstracts-service-committee>. A listing of CCAS members is available on the CCAS ACS Network page. Alternatively, contact me at filosam@verizon.net. Your questions and suggestions will be presented to and discussed with CAS management and answered in a timely manner.



This Month in Chemical History

Harold Goldwhite, California State University,
Los Angeles
hgoldwh@calstatela.edu

Liebig, Woehler, Bunsen, Kolbe, Hofmann – the litany of great German contributors to the early development of organic chemistry in the nineteenth century is so familiar, at least to those with an appreciation for chemical history, that it may lead us to ignore important contributors to that history – from Russia. A very enjoyable new book, apparently the first in a series of brief volumes on the history of chemistry, has just appeared. “Early Russian Organic Chemists and Their Legacy” is written by David E. Lewis of the University of Wisconsin Eau-Claire who has been active in the Division of the History of Chemistry of the ACS and has published several articles on this topic in the Bulletin for the History of Chemistry. So let me recite the litany of great Russian contributors to the early development of organic chemistry in the nineteenth century: Zinin, Butlerov, Menshutkin, Borodin, Beilstein, Markovnikov, Zaitsev, Reformatskii. Most of these are names anyone who has taken a full course in organic chemistry will recognize. Of course it would take a book to cover the contributions of these distinguished chemists – and David Lewis has written that book. But in this and some subsequent columns I will single out a few of these chemists and examine their accomplishments.

Nikolai Nikolaevich Zinin (1812 – 1880) was born in the area now known as Azerbaijan. His degrees in physics and mathematics were from Kazan University where he studied with the great mathematician Lobachevskii. [Any of my readers recall the Tom Lehrer song about this famed figure?] He was appointed to an academic post in Kazan but the faculty council decided that there was need for new approaches to chemistry teaching at Kazan and picked Zinin as an adjunct in chemistry despite his lack of formal training in the area. There was a movement at that time for the “Russification” of Russian Universities as a counterbalance to the many German faculty teaching in them. Zinin’s instructions were to attend lectures of well-known European chemists, take notes, and return to teach from his notes. But Zinin had other ideas.

From 1838-1841 he attended Wurtz’s lectures in France, met many eminent chemists in western Europe, and spent his final year working in Liebig’s laboratory in Giessen. This experience convinced him to
(Continued on Page 9)

This Month in Chemical History

(Continued from Page 8)

institute a similar laboratory program in Russia. Upon returning he passed the examinations for the Dr. Chem. degree at St. Petersburg, wrote his dissertation on the work he had done with Liebig, and was awarded the degree. He was then appointed to the Chair in Chemical Technology at Kazan; however most of his teaching was on chemistry, particularly organic chemistry. In 1848 he moved to the Chair of Chemistry at the Medical-Surgery Academy in St. Petersburg; in 1855 he worked there for a time with Alfred Nobel. In Liebig's laboratory Zinin worked on the chemistry of benzaldehyde – a key compound in Liebig and Woehler's work on the oil of bitter almonds which led them to the concept of organic radicles (NOT a typo; this is the original spelling which connects with the idea of fundamental roots; the replacement of radicles by radicals is not, in my opinion, an improvement!). Zinin discovered the benzoin condensation – the catalysis by cyanide ion of the condensation of two molecules of benzaldehyde to give benzoin. Nitric acid oxidation of benzoin yielded benzil. After his return to Kazan Zinin continued work on benzene derivatives. Reduction of nitrobenzene by hydrogen sulfide gave a compound Zinin termed benzidam; Fritzsche pointed out that benzidam was identical to a compound that he had earlier obtained from the degradation of indigo and had named aniline. Zinin's new method for producing aniline led him to a rapid development of a new area of organic chemistry. Within a few years he had made azoxybenzene, and azobenzene, and had accidentally discovered the benzidine rearrangement of hydrazobenzene.

This work took place while Hofmann was exploring coal tar chemistry and the dyestuffs that could be prepared from aniline derivatives, work inspired by Perkin's preparation of the synthetic dye mauveine in 1856. Zinin's new routes to aniline, its analogs, and its derivatives gave a boost to this newly emerging area, one that was to be of great economic importance to the chemical industry of the mid-nineteenth century.

Zinin was an important figure in Russian chemistry – a role model. He was a Full Academician of the Russian Academy of Sciences and helped found the Russian Physical-Chemical Society, of which he was President for its first ten years.

San Gorgonio Section

Some highlights:



Congratulations to San Gorgonio Section member **Dr. Ernest Simpson, who was selected as an ACS Fellow for 2012!**

The ACS Fellows Program was created by the ACS Board of Directors in December 2008 “to recognize members of ACS for outstanding achievements in and contributions to Science, the Profession, and the Society.”

Dr. Simpson has been an ACS member for over 40 years and was a professor at Cal Poly Pomona for more than 30 years before retiring. Dr. Simpson did research on phenolic compounds in grapes and wine and merged passions for chemistry and wine by developing a presentation called “The Chemistry of Wine”. He has participated actively in the ACS Tour Speaker’s service and is included in the ACS Speaker’s Directory. He has presented his “Chemistry of Wine” talks to hundreds of audiences – technical and nontechnical alike, in 46 states. I have attended twice and was mesmerized both times! The talk is targeted to a general audience. These presentations are extremely well attended, usually standing room only. The magic of these events is that nonchemists have the opportunity to see the application of chemistry to a popular topic at a level they can understand presenting a positive image of chemistry and chemists.

While at Cal Poly, Dr. Simpson became involved in the Co-operative Education Program. Under his 20+ year leadership, the program included the participation of over 2000 students and 125 industrial employers. He designed and developed an “Industrial Chemistry” option for students majoring in chemistry who are planning careers in chemical industry, which was approved by Cal Poly in 1988. The option is interdisciplinary and includes the course CHM 340 – “The Chemist in Industry” which Dr. Simpson developed himself. He also was instrumental in establishing a Hewlett Packard/Agilent training facility on the CPP campus. He was recognized by the CPP College of Science as the “Outstanding Academic Advisor” in 1996. The program was also selected “Outstanding University Co-op Program” that year.

Dr. Simpson continues to be active in ACS at both the local and national level. He is currently a member of the San Gorgonio Board, serving as Section councilor. He was vitally involved with the latest revision of the bylaws. So, come congratulate Dr. Simpson at the October 3 meeting!! I hope to see you there.

National Chemistry Week is October 21-27, 2012. One celebration will occur at the west end of the section, at Mt. San Antonio College.

- Eileen DiMauro, San Gorgonio Section

San Gorgonio Section

San Gorgonio Section Annual Meeting

Wednesday, October 3, 2012
7:00 p.m.

University of California, Riverside
Chemical Sciences Bldg, Room 231
900 University Avenue
Riverside, CA 92521

Come celebrate the start of our new year. At the meeting we will vote to approve our updated bylaws, honor our 50 year and 60 year members, welcome new Section members, and recognize **Dr. Ernest Simpson**, recently elected as an ACS Fellow. An overview of Section activities for the upcoming year will also be presented and we will brainstorm the needs, suggestions, comments, and other items to improve the Section. Dr. Cynthia Larive will also tell us what's new at UCR. Food (sandwiches, fruit, cheeses, water, and sodas) will be provided. There will also be a drawing for a variety of door prizes.

Meeting Agenda:

Welcome

Approval of the revised Section bylaws.

The revised bylaws can be reviewed on the Section website <http://sangorgonio.sites.acs.org/>. If you would like a paper copy of the bylaws to review, contact Eileen DiMauro (email: edimauro@mtsac.edu, phone: (909) 594-5611x4533) and leave your name and mailing address.

Recognition of 50 year and 60 year ACS members

Recognition of new Section members

Recognition of Dr. Ernest Simpson – ACS Fellow

Overview of upcoming Section activities – National Chemistry Week,
High School Chemistry Olympiad

Brainstorming: How to improve the San Gorgonio Section

What's New at UCR – Dr. Cynthia Larive, Professor and Chair,
Department of Chemistry

Door prize drawings

Adjournment

(Continued on Page 12)

San Geronio Section

October Dinner Meeting (Continued from Page 11)

Reservations: Please RSVP to edimauro@mtsac.edu or dpedersn@csusb.edu **no later than** Monday, October 1.

Parking: The UCR Chemistry Department will pick up the parking cost for participants at this meeting; THANK YOU. Carpools are encouraged. Get to the campus and go to the main information kiosk at the main entrance on West Campus Drive. Tell the parking person that you are a participant in the ACS meeting in the Chemical Sciences Bldg and obtain a parking permit and directions to the meeting site and a campus map.

Directions: UCR is located off the 215/60 freeways in Riverside at the University Avenue exit. Consult the campus website for a detailed area map, showing various ways of getting to the campus. <http://campusmap.ucr.edu/imap/index.html>.



Five Decades of Vacuum Innovation

Vacuum Pumps

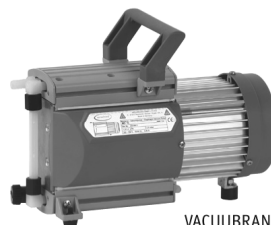
Fast Delivery

**Quiet, oil-free diaphragm pumps
and compact rotary vane
(oil-sealed)**

**Call today!
Most pumps ship
next day!**



VACUUBRAND
RZ2.5



VACUUBRAND
MD1C

VACUUBRAND, INC.

Tel 860-767-5341

Cust. Service 888-882-6730

www.vacuubrand.com

info@vacuubrand.net

**SOUTHERN CALIFORNIA SECTION
AMERICAN CHEMICAL SOCIETY**

14934 S. FIGUEROA STREET
GARDENA, CA 90248

***IMPORTANT
Do Not Delay!***

Contains Dated Meeting Announcement

PERIODICAL

Bi-Section Chemists' Calendar

September

22 SC 50/60/70 Year Member Luncheon—see page 3

October

3 SG Annual Meeting—see page 11

6 SC H. S. Chemistry Teacher Meeting—see page 5

21-27 SC National Chemistry Week Activity—see page 6

21-27 SG National Chemistry Week Activity—see page 10