

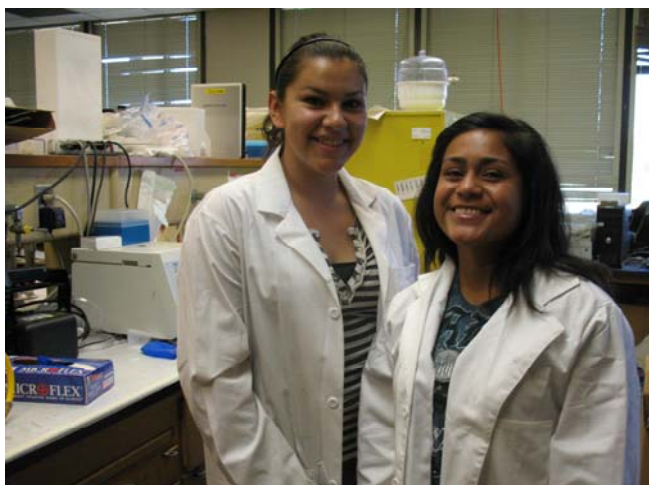


SCALACS

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September 2010

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



**Southern California Section Luncheon
Honoring our 50 and 60 Year Members
With a Special Presentation by Our
Project SEED Students
September 11, 2010**

See Page 3



**San Geronio Section
No Section Meeting for
September
Call for Volunteers for Elected
Positions!**

See Page 16

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SCALACS

A Joint Publication of the
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Sections of the American Chemical Society

Volume LXIII September 2010 Number 5

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TABLE OF CONTENTS

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

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Southern California Section

Chair's Message



Welcome back from what I hope was a relaxing and enjoyable summer! Perhaps you even got out to “Bahstun” for the National ACS meeting last month. I was there as a Co-Organizer for the High School Chemistry Teacher day for the Anaheim National ACS meeting next spring. With Judie Flint-Baunwirt, I am sure we'll have an excellent program for that part of the meeting and we even have a surprise or two planned. Got any ideas and/or want to help? Just check out the planning website, <http://www.hschem.org/ACS/HSDaySp2011.htm> and contact us!

You know, I've been lucky in that doing things that I love to do seems to attract more opportunities to do even more! For example, at work I have had the wonderful opportunity to work with the CSUN Upward Bound (high school) and Summer Academic Program for Elementary School Students (SAPESS) programs. Off-campus I had a lot of fun providing a career talk and demo to middle school kids via Avery-Dennison and the Pasadena Education Foundation. Interestingly, Egypt's Minister of Higher Education declared 2011 to be the Year of US-Egypt Science and I have been asked by the Egyptian Cultural and Educational Bureau to provide a lecture to Egyptian high school students - a great honor! Section members, Paul Weiss, Jeff Zink, Fuyu Tamanoi and Ric Kaner - all from UCLA's CNSI (California NanoSystems Institute) - along with our Joe Khoury who will also participate. Busy? Yes! But having fun doing things that are worthwhile!

Speaking of opportunities, please take this chance to attend the 50/60 Year ACS Member Luncheon (Saturday, September 11th) with a special presentation by our Project SEED students.

I highly recommend taking the opportunity of helping out in your capacity as a chemist, whether you are a student or working in academia, government or industry whenever and wherever you can - it'll be fun and you'll never know what other opportunities may unfold for you!

- Paul Shin, Chair
alchemy@csun.edu

Southern California Section

September Luncheon Meeting

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

on

Saturday, September 11, 2010

at

Mount St. Mary's College, Doheny Mansion

10 Chester Place

Los Angeles, CA 90007

11:30 a.m. Check-in

12:00 noon Student's Poster Session

1:00 p.m. Luncheon

We are celebrating our 50 and 60 year members and having our Project SEED students give them a presentation of the research they completed this summer. Project SEED takes kids 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:

Rafael Akyuz	Charles Martin Knobler
Ralph L. Amey	Charles Lurie
F. Bruce Anderson	Subbarao Makineni
Peter C. Fletcher	Francis S. Markland, Jr.
Arvan L. Fluharty	Carl J. Schack
Armand J. Fulco	Leonard Spolter
Harold Goldwhite	Irwin H. Suffet
Stanley Eugene Gordon	Harry Lyle Watkins

Our 60 year members are:

Daniel E. Atkinson	Mary Louise Rothschild
Jack Blecher	Warren G. Schlinger
John W. Burns	Bernard Schneier
Eugene N. Garcia	Robert A. Stein
Herman Graff	Harold G. Weiss
Rudolph A. Marcus	Charles Allen West
Robert L. Poynter	James Bok Wong

(Continued on Page 4)

Southern California Section

September Luncheon Meeting (Continued from Page 3)

The students who took part in our Project SEED Program this summer are Felipe Vega, Maria Sanchez, Lynette Duran, Jorge Perez, Melia Asucan and Nikki Sibal. There will be a poster session of their research prior to lunch.

The Doheny home is a Gothic Renaissance style Victorian mansion and was designed by architects Theodore Augustus Eisen and Sumner P. Hunt in 1899. The mansion boasts a marble-pillared Great Hall, the Pompeian Room with imported Siena marble and a Tiffany iridescent glass dome. The home contains furniture copied by permission of the Italian government from Pompeian furniture in a Rome museum and many of the original furnishings in its other opulent rooms. Chester Place was an exclusive gated community of Victorian mansions in the early 1900's and home to oil baron Edward L. and Carrie Estelle Doheny for almost 60 years. Our luncheon will take place in the Pompeian Room.

Reservations: We have an Italian Buffet featuring Vegetable Lasagna and Chicken Picatta, served with Caesar Salad, garlic bread and cheesecake for dessert. The cost of the dinner is \$25 per person or \$15 for students, cash or check at the door. Please call Nancy Paradiso in the Section Office at 310 327-1216 or email office@scalacs.org by Tuesday, September 7, 2010 for reservations. *Note: Please honor your reservation. If you make a reservation and do not attend, you will be liable for the cost of the dinner.*

Directions: From the Santa Monica Freeway (10), exit at Hoover and travel south about 3/4 mile. Turn left on Adams Blvd. and travel 3 blocks. Turn left on St. James Place and then right on St. James Park. From the Harbor (110) Freeway, exit at Adams Blvd. Travel 1/2 mile west on Adams. Turn right onto St. James Place and right on St. James Park. Ask at the kiosk for directions to the Doheny Mansion and about parking.



Southern California Section

Congratulations to our ACS Fellows!

There are those special people, rare elements all, who are the epitome of our science and dedication to ACS. This year five SCALACS members were named as part of the ACS Fellows Program. We would like to congratulate:

David A. Tirrell, California Institute of Technology
Ahmed H. Zewail, California Institute of Technology
Paul S. Weiss, University of California, Los Angeles

and our esteemed Executive Committee colleagues:

Rita R. Boggs, American Research & Testing, Inc.
Stanley H. Pine, California State University, Los Angeles,
Emeritus

Congratulations to all on a fine achievement.

- Paul Shin, Chair,
On behalf of the Executive Committee

In Memoriam Constance Butler Sobel

Constance Butler Sobel passed away on July 27th after a valiant struggle with esophageal cancer. Connie was born on January 20, 1932 and graduated from Iowa State University with a BS in chemistry. She worked in analytical chemistry as a spectroscopist at the Ames Laboratory at ISU where she was one of the pioneers in the development of the inductively-coupled plasma as an emission source for trace element analysis. After leaving the Ames Laboratory, she continued to work as a spectroscopist for Cabot Corp. in Massachusetts and for Applied Research Laboratories and Perkin-Elmer Corporation in California. She also worked as a real estate agent in Pasadena.

Connie was very active in the American Association of University Women. She was heavily involved with promoting science and math to middle schools girls. She served as Pasadena branch representative for the AAUW Educational Foundation which benefits women pursuing advanced education, research and projects within the community. Additional professional and community involvement included membership in the Society for Applied Spectroscopy, the American Chemical Society, Sigma Xi, honorary, Beta Sigma Phi and serving as a docent at the Gamble House. Connie will be sorely missed by her husband Hal of Pasadena and her son Eric Butler of Des Moines, IA, as well as her many friends and colleagues.

Southern California Section

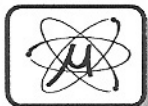
Outreach Activities

Sunday, October 3, 2010 (12 - 4 pm) Girl Scouts of Greater Los Angeles Family Science Festival at the California Institute of Technology. The theme this 2010 is "Imagination Meets Innovation: What will you do today?" If you would like to volunteer or have questions please contact Robert de Groot at: rdegroot@oxy.edu.

Week of October 17-23, 2010 (Varying Times) National Chemistry Week Activities at the California Science Center, 700 Exposition Park Drive, Los Angeles, CA 90037, website: <http://www.californiasciencecenter.org>. Join volunteers at the California Science Center for NCW activities throughout the week. The theme for NCW 2010 is "Behind the Scenes with Chemistry!" 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.

Monday, October 18, 2010 (7 pm) - Science in the Cinema at Mt. St. Mary's College (Chalon Campus) co-hosted by the Women in Science and Health (WISH) club and the ACS Southern California Local Section. The evening's feature is "The Prestige." This magical and mysterious film portrays the rivalry between two magicians with an interesting twist. WISH will be conducting a magical movie night discussing the wonders of the film and how it portrays the science in film. For more information contact Tameka Watson at: tamewats@mymsmc.la.edu

Wednesday, October 20, 2010 (12 - 2 pm) Science is Fun Day at Mount St. Mary's College (Chalon Campus). Join the ladies of WISH as they demonstrate fun ways to conduct science with a day of demonstration at the sunny Mount St. Mary's College Chalon campus. We have activities such as disappearing water and making sour gummy bears. For more information Tameka Watson at: tamewats@mymsmc.la.edu.



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Southern California Section

Join the ACS Member Network, and the Southern California GROUP

The ACS Member Network has recently been upgraded to a more robust and functional service. Featuring the best networking capabilities of LinkedIn and communications capabilities of Facebook, the ACS Member Network is an excellent way to expand your professional network, toot your horn, find other chemists having interests in common, collaborate, and stay informed about local and national ACS activities.

What's new in the ACS Member Network?

- Better personal photo upload and rendering
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- Option to select frequency of receiving email updates for activities in your discussions, forums, and groups
- List of all new public content and forums on the landing page after log-in
- Option to create a personal view of the network, including layout, RSS feeds, discussions, forums, groups, and blogs
- Tabbed navigation for "New", "Your Stuff", "History", and "Browse", with drop down menus to create, go to your stuff, look at your history, and explore, respectively.
- Create a personal blog
- And much much more!

Point your web browser to www.acs.org/network and sign up or sign in to see the improvements for yourself. To join the Southern California local section GROUP, type SCALACS into the search box that is in line with your network tool navigation tool bar. Scroll down the results page to PLACES, and click on "Southern California local section". Select "Join this Group", which is in the "Actions" area of the page.

See you there!

Barbara Belmont, SCALACS Webmaster and Tech Geek

Southern California Section

Call for Nominations OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER OF THE YEAR AWARD

If you know of a local high school chemistry teacher who is making a difference, please make the effort to show how important his/her work is to you and the students. Self-nominations from those who feel they fit the requirements are accepted as well! It's teachers like the recipients of this award who make learning chemistry rewarding! Plus, there is a financial component of \$500! The \$500 will be an unrestricted award directly to the teacher plus possible supplies from our generous vendors that will go to the chemistry program at the school of this teacher. The winner of the Section Award will also be entered at the National ACS level for the James Conant Bryant Award and the Western Regional High School Teacher of the Year Award. Having won a previous award does not necessarily exclude a nominee.

Nomination Package should include: Biographical sketch of nominee with date of birth, list of any publications, statement (no more than 1,000 words) of nominee's achievements as a high school level chemistry teacher including quality of teaching, effective methods, nominee's ability to challenge and inspire students, extracurricular work (science fairs, clubs, etc.). Seconding letters are not essential, but up to five may be included. **Nominating documents may be submitted via email to office@scalacs.org.** Note that signed documents that have been scanned are acceptable. Nominating documents may also be submitted via snail-mail. Send 3 copies of the package to:

Outstanding Chemistry Teacher Committee
Southern California ACS
14934 S. Figueroa St.
Gardena, CA 90248

The deadline for nominations is **November 15th, 2010**. Please feel free to contact Dr. Paul Shin of the Educational Affairs Committee at alchemy@csun.edu if you have any questions.

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This Month in Chemical History

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

In this column I continue my discussion of the 1910 volume of "Annual Reports on the Progress of Chemistry" issued by the Chemical Society of London.

Continuing with organic chemistry reported by Cecil H. Desch and Arthur Lapworth, by far the longest section of the reports, important advances in the chemistry of chlorophyll and haematin, the non-protein containing fragment of oxyhemoglobin. Haematin contains ferric iron and also four substituted pyrrole nuclei. Chlorophyll contains magnesium and otherwise seems to resemble haematin closely. It is a tricarboxylic acid. The metal in both compounds is not present as a salt, but seems to be present in a complex form linked to the pyrrole nuclei.

A number of polypeptides have been prepared by E. Fischer and his colleagues including glycylaspartylglycine. Many new dipeptides of serine similar to some found in natural proteins have also been synthesized.

Advances in analytical chemistry are reported by Arthur Robert Ling. Novel equipment includes techniques for isolating a few milligrams of precipitates; simple and efficient fractionating columns including vacuum distillation; and improved Kipp's and Soxhlet apparatus. (A personal note; at high school my chemistry laboratory in the late 1940s contained a Kipp's apparatus for the generation of hydrogen sulfide for use in the qualitative analysis of metal ions by groups.)

Novel physical analytical methods included spectrometric estimation of potassium in the presence of sodium; conductivity methods applied to precipitation reactions; and new intense flame sources for polarimetry. A useful addition to forensic methods improves the Marsh-Berzelius estimation of small quantities of arsenic.

Phelps shows that the accuracy of the Royal Mint in assaying gold bullion is remarkable; the error for the mean of 20 assays does not exceed 0.001 percent. Electrochemical methods for determining metals have been improved by the use of rotating electrodes and applied to alloys including those of copper, antimony, tin, and lead. Other metals studied by this technique include silver, cadmium and bismuth. I note with interest that the use of organic electrolytes in estimating cadmium has been developed by the Misses M.E. Holmes and M.V. Dover.

(Continued on Page 10)

This Month in Chemical History

(Continued from Page 9)

"The comparatively recent introduction of cocoanut oil and of palm kernel oil as materials for the manufacture of margarine renders it important that the methods of detecting and estimating these in presence of other fats should be made as precise as possible". A number of such methods are reported including solubilities of silver or magnesium salts of the fatty acids; fractional distillations; and viscometry which can detect the presence of amounts of margarine greater than 10% in mixtures with butter. Perhaps unscrupulous dairies or grocers were adulterating butter with the less expensive margarine!

The reporter for physiological chemistry was W.D. Halliburton M.D.,F.R.S. He mourns the loss of two great pioneers of the field: Pfluger of Bonn; and Sidney Ringer of Ringer's solution fame. He regrets also the shortage of younger workers in the field: "... physiology does not pay... the stipends considered sufficient by Universities and similar institutions ... are so parsimonious ...". There is much new work on metabolism including those of nuclein and purines. The physiology of respiration has seen major advances including the establishment of the "mechanical" view that oxygen enters and carbon dioxide leaves the blood according to the laws of diffusion. The vexing topic of the chemistry of cancer (yes, even as early as 1910) does not indicate the likelihood of rapid early advances: "...the bacteriologists and parasitologists have had a long and fruitless innings ... chemistry will play a part in the ultimate solution of the cancer mystery".

Radioactivity has as its reporter no less than Frederick Soddy, associate of Rutherford and a Nobel Laureate to be. A standard for radioactivity was needed and Madame Curie is preparing a standard tube containing a known mass (about 20 mg) of radium chloride, to be kept in Paris, and to serve as the international standard. The new unit for radiation, called the curie, is the quantity of "emanation" in equilibrium with one gram of radium. The methods used for determining the number of particles emitted by radioactive sources include the electrometer; scintillations; and exposure of photographic plates. The Geiger counter is yet to come.

Helium is now unambiguously determined to be a product of many radioactive decays (alpha particles); transmutation is no longer a forbidden word! There is essentially no variation in the rate of radioactive change with temperature. In a commentary on the heroic work of the Curies it has been established that in 10 tons of Joachimsthal pitchblende only 0.26g of radium is present. And, in a final comment presaging the use of the term isotope, coined by Soddy: "Chemical homogeneity is no longer a guarantee that any supposed element is not a mixture of several of different atomic weights, or that any atomic weight is not merely a mean number."

San Gorgonio Section



Chair's Message

The San Gorgonio Section needs volunteers!

We have four open elected positions for next year; if you are willing to serve, please volunteer today. Details can be found on the page announcing the Section's meeting.

We are in the process of rewriting the Section's bylaws. While most of the changes are small cosmetic issues, there are three changes that will affect the section going into the future. First is the move to include all student members as "regular" section members. The Executive Board of the Section welcome this move; we see it as an opportunity to include new members. **If you are interested in organizing this group of young chemists, please contact me!**

Another significant change to the bylaws will be the inclusion of Subsections. The Section is huge geographically! Although we try to move the section meetings around the geographical area of the section, it is difficult to gauge the number of members interested enough to participate. **If you are interested in helping organize a "local" group of chemists, please contact me!**

Lastly, national ACS rules about elections have changed. The section will no longer be required to use US mail for all ballots. The Executive Board is currently having a new website developed that we hope will facilitate electronic voting as well as electronic delivery of the newsletter. **If you are interested in receiving your newsletter electronically, please contact me!**

Please let us know how the section can help you reach your professional goals. We are here to serve you.

I hope to see you at one of the Section meetings soon.

- Jodye Selco, Chair, San Gorgonio Section
jiselco@csupomona.edu

San Gorgonio Section

There will be **NO** section meeting in September. Please mark your calendars for **October 23, 2010 – Mole Day** – for the Section's next meeting!

The San Gorgonio Section needs you! Volunteers are needed to fill the following offices:

Treasurer – Treasurers are elected every two years. Treasurers are responsible for developing the Section's budget, serving on the Executive Board of the Section, providing the Executive board with financial information at each meeting, and paying the Section's bills.

Councilor – Councilors are elected every three years. Councilors are responsible for attending the Spring and Fall national ACS meetings (Council Meetings) and serving on the Executive Board of the Section.

Alternate Councilor – Alternate Councilors are elected every three years. They are responsible for attending national meetings when the Councilor cannot, and succeeding the Councilor should they be unable to fulfill the position's responsibilities.

Chair Elect – The person elected to serve as the Chair Elect serves a three year term: first year is as Chair Elect, second year is as Chair, and the third year is as Immediate Past Chair. The Chair Elect is a member of the Executive Board of the Section and helps set the agenda for section meetings for the year.

Committee Members: The San Gorgonio Section needs volunteers to assist with a variety of tasks. Whether you are interested in educational issues, Project SEED, helping develop or maintain a new website, or want to network with other chemists like you (e.g. younger chemists, women chemists, analytical chemists, etc.) please help the Section better serve its members.

If you are willing to serve in any capacity, please contact Jodye Selco at jiselco@csupomona.edu or 909-869-4552

INDEX TO ADVERTISERS

American Research & Testing	8
Exova	13
Huffman Laboratories	8
Mass-Vac, Inc.	ifc
Micron, Inc.	6
NuMega Resonance Labs	13
Scientific Bindery	13

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Contains Dated Meeting
Announcement

PERIODICAL

Tri-Section Chemists' Calendar

September

- 11 SC 50/60 Year Luncheon at Mount St. Mary's—see page 3
23-24 ACS Publications comes to SoCal for ACS on Campus: USC, go
to <http://pubs.acs.org/r/acsoc> for more information

October

- 3 Girl Scouts Family Science Festival at Caltech—see page 6
18 Science in the Cinema at Mount St. Mary's College—see page 6
20 Science Fun Day at Mount St. Mary's College—see page 6
17-23 National Chemistry Week activities at California Science
Center—see page 6
23 SG Mole Day Section Meeting—see page 12

November

- 11-14 Sigma Xi Annual Meeting & International Research Conference,
Raleigh, NC. Student Abstracts deadline 10/15/10. For more
information, go to meeting@sigmaxi.org
15 Outstanding High School Chemistry Teacher of the Year
nomination deadline—see page 8