

SCALACS

Website address: www.scalacs.org October 2010

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



Southern California
Section Meeting
Celebrating National Chemistry
Week Theme—Behind the
Scenes with Chemistry!
with
Science in the Cinema Returns
to Los Angeles!
Mount St. Mary's Doheny
Campus
October 29, 2010
See Page 3

San Gorgonio Section
Honoring our 50 and 60 Year Members
And Celebrating Mole Day!
Mount San Antonio College
October 23, 2010

See Page 11

A good vacuum system

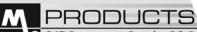
needs a great vacuum trap:

Posi-Trap positive flow vacuum inlet traps!

- No "blow-by"... ever!
- Filter elements matched to your application.
- **Easy** cleaning and changing.



When you want the best, you want MV Products.



A Division of Mass-Vac, Inc.

247 Rangeway Road PO Box 359 North Billerica, MA 01862 978 667 2393 Fax 978 671 0014 sales@massvac.com www.massvac.com



SCALACS

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

Volume LXIII October 2010 Number 6

SOUTHERN CALIFORNIA SECTION 2010 OFFICERS

Chair: Paul Shin

Chair Elect: Joe Khoury
Secretary: Violet Mislang
Treasurer: Barbara Belmont
Councilors: Rita Boggs, Bob de
Groot, Herb Kaesz, Tom LeBon,
Stanley Pine, Eleanor Siebert

SAN GORGONIO SECTION 2010 OFFICERS

Chair: Jodye Selco

Chair-Elect: Eileen DiMauro Secretary: David Sruvlivch Treasurer Dennis Pederson Councilors: Jim Hammond, Ernie

Simpson

TABLE OF CONTENTS

So. Cal. Chair's Message	2
So. Cal. Meeting & Notices	3-8
This Month in Chemical History	8-9
S. G. Chair's Message	10
S. G. Notice	11-12
Postal Statement of Ownership	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/Yr. Make checks payable to Southern California Section, ACS. Second Class postage paid at Gardena, CA 90247., e-mail: 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, e-mail: editor@scalacs.org.

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



Chair's Message

I was seldom able to see an opportunity until it had ceased to be one. ~Mark Twain

The recent September Luncheon Meeting where the Project SEED participants received their recognition certificates and the 50/60 Year ACS Members received theirs, was a golden opportunity (pun intended) for the younger high school students

to hear about the opportunities the more experienced folks were able to take advantage of in their extensive and distinguished careers! As our Chair-Elect, Joe Khoury, mentioned there, this event was planned to promote precisely this kind of interaction between the two groups. Now anyone and everyone can benefit from such sage advice as was delivered by the likes of the distinguished attendees. James Wong, in particular, provided a lovely story of how he was afforded an opportunity that he couldn't resist. The gist of his story was that after establishing himself as a chemist, he took advantage of an odd opportunity to become an economist and became so internationally renowned that many didn't even know he was originally a chemist by training! Some of the greatest opportunities in life may take us places we had not even dreamed of before, but we'd never know unless we explore them when presented. So, my suggestion to you is to always keep your eyes open for all opportunities and to not be afraid to consider them when presented or you may regret it later on.

One opportunity that presented itself to me that I am going to take full advantage of is going to the inaugural USA Science and Engineering Festival (www.usasciencefestival.org)! I'll be attending the finale Expo on October 23 & 24 on The Mall in Washington, D.C. where over 500 science and engineering related organizations will be available to help get the public excited about science. If you can join me there, that would be great! If you can't, check out the many satellite events that will occur that same weekend. Unfortunately, none are happening in the LA area this year, but with a little help, perhaps we can get one started for the future! I will be serving at the ACS "Ask A Chemist" booth there and as a COPUS (Coalition on the Public Understanding of Science copusproject.org) representative.

Fret not if you'd like to take the opportunity to help others in person! You will have many opportunities—check out a great list on our Calendar for the rest of the year and volunteer where you can! Finding those oft fleeting opportunities aren't always obvious. Perhaps making them by volunteering to speak on your career at you child's school or helping out your local (boy or girl) scout troop can be a potential opportunity to make science and engineering fun and exciting for everyone! The most important part of a successful event is to simply have fun—your enthusiasm will be infectious and your opportunities not squandered! Best of luck!

- Paul Shin, Chair alchemy@csun.edu

Page 2 SCALACS

October Meeting -- National Chemistry Week 2010 Celebration - Behind the Scenes with Chemistry!

Science in the Cinema Returns to Los Angeles With the film "The Prestige"

on

Friday, October 29, 2010 At 6:30 p.m.

at

Mount St. Mary's College, Doheny Campus Rose Hills Auditorium - Ahmanson Weingart Hall (Bldg. #4)

10 Chester Place Los Angeles, CA 90007

The Prestige is a 2006 mystery thriller film directed by Christopher Nolan, with a screenplay adapted from Christopher Priest's 1995 novel of the same name. This is a story of two magicians whose intense rivalry leads them on a life-long battle for supremacy while they battle each other for trade secrets. Their friendly competition evolves into a bitter rivalry making them fierce enemies-for-life and consequently jeopardizing the lives of everyone around them. Set against the backdrop of turn-of-the-century London, the film features Hugh Jackman as Robert Angier, Christian Bale as Alfred Borden, and David Bowie as Nikola Tesla. The MPAA film rating for this film is PG-13.

This Halloween-themed event will have a special reception area featuring the science of Halloween. Learn how light sticks glow, how pop rocks pop, the tricks of make-up artists, and many other tricks and treats.

This event is co-hosted by the Women in Science and Health (WISH) club at Mount St Mary's College and the ACS Southern California Local Section. For information contact Bob de Groot at: rdegroot@oxy.edu.

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 Auditorium and about parking.

For detailed directions and maps please visit: http://www.msmc.la.edu/about-msmc/our-campuses/driving-instructions.asp

Southern California Chemists Honored as ACS Fellows

Rita Boggs (American Research and Testing), Stanley Pine (California State University Los Angeles), David Tirrell (California Institute of Technology), Paul Weiss (University of California Los Angeles), and Ahmed Zewail (California Institute of Technology) have been elected as Fellows of the American Chemical Society. They were honored at a special event during the national meeting in Boston on August 23, 2010.

The ACS Fellows Program was created by the Board of Directors in December 2008 "to recognize members of the American Chemical Society for outstanding achievements in and contributions to Science, the Profession, and the Society". The honor of a Fellow designation is bestowed on ACS members who have achieved excellence in two defined areas - scientific/professional accomplishments and service to the ACS.



Rita Boggs and Stanley Pine, 2010 Fellows

Page 4 SCALACS

Call for Nominations 2010 Richard C. Tolman Medal

The Tolman Medal is awarded each year by the Southern California Section of the American Chemical Society in recognition of outstanding contributions to chemistry. These contributions may include achievements in fundamental studies; achievements in chemical technology; significant contributions to chemical education; or outstanding leadership in science on a national level. The nominee need not be a Southern California resident; however, most of the award-related accomplishments must have been made in this area.

The Southern California Section of the American Chemical Society and the Tolman Award Committee are now seeking nominations for the 2010 award. There is no official nominating form for this award; nominations are accepted from any member of this Section or of cooperating Sections. The nomination package should include:

- an up-to-date curriculum vitae or resume of the candidate
- letters of support from colleagues in the profession describing the candidate's major achievements
- if the candidate is being considered for outstanding teaching, letters of support from former students should be included.

It is preferred that nomination packages be electronically transmitted to the Chair of the Tolman Committee at **office@scalacs.org**. We are also deleting the requirement for copies of publications. Rather, a list of representative publications would suffice. *The deadline for receipt of nominations is December 15, 2010.* Inquiries should be directed to the Chairperson at (310) 327-1216 or via e-mail at office@scalacs.org. A list of winners appended here demonstrates the caliber of awardee sought by the committee.

П						
	1960	William G. Young	1977	Sidney W. Benson	1994	Jacqueline K. Barton
	1961	Anton B. Burg	1978	Thomas C. Bruice	1995	Christopher S. Foote
	1962	Ernest H. Swift	1979	Harry B. Gray	1996	Larry R. Dalton
	1963	W. Conway Pierce	1980	Herbert D. Kaesz	1997	Ahmed H. Zewail
	1964	A.J. Haagen-Schmidt	1981	Paul D. Boyer	1998	Kendall N. Houk
	1965	Thomas Doumani	1982	Donald T. Sawyer	1999	Peter Dervan
	1966	Arthur W. Adamson	1983	James N. Pitts	2000	William A. Goddard III
	1967	Ulrich B. Bray	1984	Donald C. Cram	2001	Peter M. Rentzepis
	1968	Francis E. Blacet	1985	Arnold O. Beckman	2002	Robert H. Grubbs
	1969	Robert Vold	1986	M. Frederick Hawthorne	2003	Arieh Warshel
	1970	Robert L. Pecsok	1987	Clifford A. Bunton	2004	Christopher Reed
	1971	Roland C. Hansford	1988	John D. Baldeschwieler	2005	Fred Wudl
	1972	James Bonner	1989	Mustafa A. El-Sayed	2006	G. K. Surya Prakash
	1973	Howard Reiss	1990	Linus Pauling	2007	Barbara Finlayson-Pitts
	1974	John D. Roberts	1991	George A. Olah	2008	Joan S. Valentine
l	1975	Corwin Hansch	1992	Peter C. Ford	2009	Richard B. Kaner
l	1976	F. Sherwood Rowland	1993	Charles L. WIlkins		

Second 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. 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. Seconding letters are not required, 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.

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.

Membership Dues

Please remember to pay your Southern California local section dues when you renew your ACS membership. It's only \$12. While that's really not very much at all to an individual, it adds up to significant and usable money for a section of our size. This money funds our outreach activities, our awards and recognition programs and allows us to offer a robust program for our members.

Councilor Talking Points—Boston Meeting

The Councilor talking Points for the National ACS Meeting in Boston in August are available at our website, www.scalacs.org/?page_id=44.

American Research and Testing Inc.

Problem Solving Experts

Chemical consulting and investigation for failure analysis, quality issues, competitive analysis, and litigation support

Rita R. Boggs, Ph.D.

Page 6

Barbara Belmont, M.S. President

800.538.1655 www.americanresearch.com

Elemental Analysis

S LABORATORIES, INC.
Quality Analytical Services Since 1936

CHNOS Ash ICP AA ICP/MS TOC TOX BTU Problem Solving Phone: (303) 278-4455 FAX: (303 278-7012 chemistry@huffmanlabs.com www.huffmanlabs.com Mastercard, Visa, AmEx

SCALACS



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 Mount 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. This showing is for MSMC students only, but volunteers are needed to help out.

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.



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



This Month in Chemical History

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

The subject of this column and the next is the British (Scottish) chemist Alfred Walter Stewart. Not a household name, I agree, but there are some remarkable features in the career of this chemist, as I hope to demonstrate. Stewart became an author of interest to me through my enthusiasm for detective stories, particularly those in which scientific methods aid the solution of the mystery. I am particularly interested in early examples (pre-1960, say) of this genre of mystery fiction, and have given a number of talks on the subject. But in my reading before early 2010 I had not noted the work of J.J. Connington, the pen name of Stewart in his other career.

Quite accidentally I recently re-read a book by Connington that had been resident on my own bookshelves for decades. I purchased this copy of "The Four Defences" doubtless from a thrift shop (it is marked at 25 cents) and it is a first American edition published by Little, Brown and Company in 1940. To my surprise and delight it had a good deal of scientific analysis of evidence, but more of that later. In a search for more information about J.J. Connington I soon came across an excellent article by George B. Kauffman of California State University, Fresno, published in the Journal of Chemical Education in January 1983. I have drawn heavily on this article for these columns.

First, Stewart the chemist. Born in Glasgow in 1880, youngest son of the Professor of Divinity and Dean of Faculties at Glasgow University. He attended Glasgow University himself earning his B.Sc. in 1902 and his D.Sc. in 1907. He was an excellent student winning many scholarships. He studied in Germany for a year at Marburg under Zincke, and at University College, London where Ramsay was working. His academic career progressed steadily. He joined Queen's University at Belfast as a Lecturer (roughly equivalent to Assistant Professor) from 1909 – 1914; moved back (Continued on Page 9)

Page 8 SCALACS

This Month in Chemical History

(Continued from Page 8)

to Glasgow as Lecturer in physical chemistry and radioactivity from 1914 – 1919; and then back to Belfast as Professor of Chemistry from 1919 – 1944 when he retired because of ill health. He died of a heart attack in July 1947.

His initial research was on reactions of aliphatic ketones with hydroxylamine and hydrogensulfite. He became interested in spectroscopy of organic compounds while at University College, London which led to a continuing interest in stereochemistry. His first book, which was on that subject, was published in 1907. His next book was the very successful "Recent Advances in Organic Chemistry", first published in 1908 with six subsequent revised editions. In a similar vein was "Recent Advances in Physical and Inorganic Chemistry" which first appeared in 1909 and also merited the publication of six subsequent editions. Two other scientific books aimed at a wider audience followed: "Chemistry and its Borderland" in 1914 and "Some Physico-Chemical Themes" in 1922.

Stewart was a "classical" chemist of the pre-quantum mechanics era. He published some early speculations (post- J.J.Thomson) on atomic structure, but mostly stayed close to experimental chemistry including some early work on ketene, and luminescence spectroscopy where he used a Tesla coil to excite molecules – not always appreciating that some of his observed spectra were those of molecular fragments produced by the discharge. He was a much admired teacher of both undergraduate and graduate students and, a man after my own heart, he drew on the history of chemistry to illustrate his lectures.

In my next column I turn to the novelist, writer of mystery and science fiction stories, and alter ego of Stewart, namely J. J. Connington.

San Gorgonio Section



Chair's Message

We just received a grant from national ACS to hold a series of quarterly professional development meetings for academic "technicians" – all of you who prepare laboratory experiments and/or are responsible for laboratory spaces. All high schools, community colleges, and universities in the section

will receive invitations soon. Department chairs or heads along with district Risk Management personnel are encouraged to attend as well. If you know of someone that might be interested, please help us spread the word! These workshops will be free for the first 100 registrants; others will pay a nominal fee.

The four meetings this year will focus upon the broad topics of 1) Health and Safety, 2) Regulations and Risk Management, 3) Laboratory Management and Laboratory Personnel Management, and 4) Strategies for Choosing Appropriate Laboratory Experiments (and chemicals!). One objective will be to assist campuses in updating their Chemical Hygiene Plans so that they are as useful as possible. If there are topics you would like to see included, please contact me!

The first meeting in this series will be held at Chaffey College on Friday, December 3. If your institution is interested in hosting one of these meetings, please let us know. We do not know how many people will attend, but so far, interest has been high. We will have more information after the first registration deadline in mid-November.

The section owes its thanks to Joyce Oakdale at Chaffey College for suggesting this idea and helping to write the grant proposal that was submitted to national ACS for funding!

If you would like more information about this, or the October meeting on Mole Day at Mount San Antonio College, please contact me!

 - Jodye Selco, Chair, San Gorgonio Section jiselco@csupomona.edu (909) 869-4552

Page 10 SCALACS

San Gorgonio Section

October Meeting

Honoring our 50 and 60 Year Members And Celebrating Mole Day!

Saturday, October 23, 2010 10:00 a.m. to 2:00 p.m.

Mount San Antonio College Natural Science Complex, Building 60, 61 & 7 Park in Lot D

1100 Grand Avenue Walnut, CA 91789

Celebrate National Chemistry Week with the section on Mole Day! Join us for hands-on demonstrations for all ages in the morning. Afternoon events include a chemistry quiz show (college students) and recognitions of our 50 and 60 plus year members.

Attention 50 and 60+ year members – please join us so we can honor and recognize your service longevity!

50 year members:

60 year members:

Sam Haywood Ted McKinney James Sims John Watson I. Yen

Donald Hessel Albert Leo Robert Miller

Cost: Events are free. Lunch will be available for purchase: \$5 to \$8. **Directions:** Mount San Antonio College campus is on Grand Ave. between the 10 and 60 freeways: **From 10 Freeway:** Take the 57 South and exit at Temple Ave. Turn right on Temple Ave. Turn right on Mt. SAC Way. Park in Lot D – be sure to purchase a parking permit at the dispenser. From 60 Freeway: Take the 57 North and exit at Temple Ave. Turn left on Temple Ave. Turn right on Mt. SAC Way. Park in Lot D – be sure to purchase a parking permit at the dispenser.

San Gorgonio Section

CALLING ALL ACADEMIC LABORATORY PREPARATION PEOPLE!

The San Gorgonio Section just received a grant from national ACS to hold professional development meetings for those who prepare laboratories at the high school, community college, and universities – and their supervisors. We are thinking about four major topics: Health and Safety, Laboratory Management and Human Resources Management in the Laboratory, Regulations and Risk Management, and Strategies for Choosing Appropriate Laboratory Experiments. The first meeting will be held at Chaffey College on Friday, December 3. Please save the date! Look for your invitation via e-mail. These events will be free for the first 100 registrants.

If you have any topics you would like to see address, or are interested in attending, please contact Jodye Selco at jiselco@csupomona.edu.

U. S. Postal Service Statement of Ownership, Management & Circulation Filing Date: October 1, 2010

Publication Title: SCALACS, Pub. No. 482-760

Issued 8 times per year, Annual Subscription Price: \$12.00 Contact Person: Nancy Paradiso, Telephone: 310 327-1216 Mailing Address: 14934 S. Figueroa Street, Gardena, CA 90248

Owner & Publisher: Southern California Section, American Chemical Society

Editor: Barbara Belmont Signature:

Circulation Data:

	Avg. Copies Each Issue	No. Copies Single Issue
Total Copies:	3,971	2,200
Outside County	1,825	696
Paid In-County	1,668	1,290
Subscrip. Sales Through Dealers	0	0
Other Classes	0	0
Total Paid Circulation	3,493	1,986
Free Copies Mailed	15	15
Free Copies Not Mailed	10	10
Total Free Distribution	25	25
Total Distribution	3,518	2,011
Copies Not Distributed	453	189
Total	3,971	2,200
Percent Paid Circulation	99	99

Page 12 SCALACS

INDEX TO ADVERTISERS

American Research & Testing_	6
Exova	_13
Huffman Laboratories	6
Mass-Vac, Inc	_ if
Micron, Inc	_7
NuMega Resonance Labs	_13
Scientific Bindery	_13

PROTECT Your Expensive Lab Work With **Research and Development**

Record Books STOCK RECORD BOOKS

B50D - Fifty pages and fifty duplicates. 1/4 inch sqs. on right pages. B100P - 100 1/4 inch sqs. on right pages. 100-10 sqs. on left pages. B200P - 208 1/4 inch sqs. on right and B200PH - 208 horizontally lined right and

left pages.

Books have instruction and TOC's. Page size 11X8-1/2. Hard extension brown cloth covers. Pages open flat.

\$15.00 EACH, FOB Chicago CUSTOM MADE BOOKS TO ORDER

SCIENTIFIC BINDERY PRODUCTIONS 8111 N. Saint Louis Ave., #1-A, Skokie,

IL 60076

Phone: 847-329-0510, Fax: 847-329-0608 scientificbindery88yrs.com



Analytical Chemistry CRO. First Commercial Lab with ICPMS. Full cGMP 500 MHz NMR.

Full service lab with GCMS/MS, LCMS/MS, GC, LC, IC, FTIR, NMR, ICPMS, ICP, XRF, UV/Vis, CHN, and full wet chemistry capabilities.

So. Cal. Lab! 562-948-2225 www.wcas.com info400@exova.com 9240 Santa Fe Springs Road Santa Fe Springs, CA 90670

* NMR Service 500 MHz

*Mass *Elemental Analysis Fast Turnaround / Accurate Results

NuMega Resonance Labs.

(858) 793-6057 Fax (858) 793-2607

Please Support Our Advertisers! They Support Our Publication!

Tell them you saw their ad in SCALACS!

October 2010 Page 13

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 October 3 Girl Scouts Family Science Festival at Caltech—see page 7 18 Science in the Cinema at Mount St. Mary's Chalon Campus see page 7 20 Science Fun Day at Mount St. Mary's College—see page 7 17-23 National Chemistry Week activities at California Science Center—see page 7 23 SG Mole Day Section Meeting—see page 11 NCW Science in the Cinema event at Mount St. Mary's Doheny 29 Campus—see page 3 November 15 Outstanding High School Chemistry Teacher of the Year nomination deadline—see page 6 **December** 3 SG Professional Development Meeting at Chaffey College—see page 12 Tolman Award Nomination Deadline—see page 5 15