

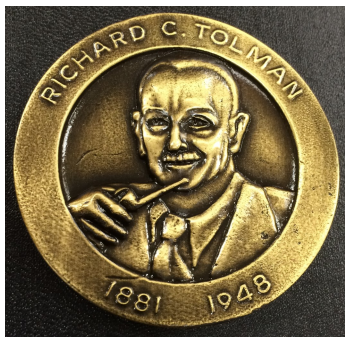


**ACS**  
Chemistry for Life™

# SCALACS

**November/December 2016**

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



## **Southern California Section Call for Nominations for the 2016 Richard C. Tolman Award**

See Page 3

\*\*\*\*\*

## **Call for Nominations for the Paul Shin Memorial High School Teacher of the Year Award**

See Page 6

## **San Geronio Section**

### **Annual Meeting**

**Wednesday, November 30, 2016  
University of California, Riverside**

See Page 12

# Mass-Vac Vacuum Inlet Traps

PROTECT your vacuum pump from particulate, water vapor, acids, and organic solvent vapors generated from freeze drying, gel drying, evaporation, aspirating, degassing, and vacuum drying.



## Visi-Trap

Features a transparent sump, so you know when to change the filter, and a wide range of filter elements designed to protect the vacuum pump from the chemicals used in the laboratory.



## Posi-Trap

Features positive sealing, completely eliminating blow-by, all stainless steel construction to resist corrosion, and a wide range of filter elements designed to protect the vacuum pump from the corrosive chemicals used in the laboratory.



**PRODUCTS**

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

*A Division of Mass-Vac, Inc.*

978 667 2393  
sales@massvac.com  
www.massvac.com





**ACS**  
Chemistry for Life™

**SCALACS**

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

Volume LXXI

November/December 2016

Number 7

**SOUTHERN CALIFORNIA  
SECTION 2016 OFFICERS**

**Chair:** Michael Morgan

**Chair Elect:** Armando Rivera

**Secretary/Treasurer:** Barbara  
Belmont

**Councilors:** Rita Boggs, Brian  
Brady, Robert de Groot, Virgil Lee,  
Eleanor Siebert, Barbara Sitzman

**SAN GORGONIO SECTION  
2016 OFFICERS**

**Chair:** Dennis Pederson

**Chair-Elect:**

**Secretary:** David Srulevitch

**Treasurer:** Larry Mink

**Councilors:** Eileen DiMauro, Ernie  
Simpson

**TABLE OF CONTENTS**

So. Cal. Chair's Message	2
So. Cal. Meetings & Notices	3-6
IP Law	7
This Month in Chemical History	8-9
S. G. Chair's Message	10
S. G. Meeting Notices	11-12
U. S. Postal Service 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/year. Make checks payable to Southern California Section, ACS. Second Class postage paid at Gardena, CA 90247, email: [office@scalacs.org](mailto: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](mailto:editor@scalacs.org).

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

**Website address: [www.scalacs.org](http://www.scalacs.org)**



### Chair's Message

This will be my last column as Chair of your section. I am very particular that I refer to it as **your** section. It does not belong to any one member, it belongs to all of us, it does not serve any one member, it serves all of us, and most importantly, it is not run by any one member but by all of us. This section is what you make of it. With that in mind I hope to point out how I have tried to make

SCALACS more useful to our members.

This year we had a strong push to expand into the realm of Social Media. Our future lies in the hands of those younger than me! We must reach out to that demographic and involve them much more than they are currently involved. Alexander Alschuler who chairs our Younger Chemists Committee has been working very hard to draw more of our younger members. Heather Mott has been reaching out to them as our social media contact, and I have tried to focus my energies on our very youngest, our future members. We have had several excellent college based lectures this year with outstanding speakers and have expanded our reach to where we hold these talks. I see lots of success with them and hope to help keep putting more of these together for the future.

As always one of the events closest to my heart is the Chemistry Olympiad and the annual awards banquet that celebrates it. We had an amazing awards banquet this year with Harry Gray from Cal Tech, representatives from Alpha Chi Sigma, and the American Association of Chemistry Teachers. My hope was to reach out to anyone in the room no matter what their age and level of involvement and show them that ACS is what they make of it. If we are going to keep our section (and ACS in general) successful we must focus on our youngest members and get them involved.

I am very grateful to all the individuals that have helped me this year. There are too many to mention by name but you will find a list of our section volunteers in this issue. Most importantly I must emphasize to everyone how important Nancy Paradiso is to this section. Before I decided to run for Chair I asked Nancy to commit to staying with ACS throughout my time in office and she agreed; I hope she stays with the section for a long time to come. She truly keeps this section running and I truly appreciate her for it.

Thank you for all of your support.

- Best,  
Michael Morgan

# Southern California Section

## Call for Nominations 2016 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 2016 award. There is no official nominating form for this award; nominations are accepted from any member of this section or of neighboring 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.

Please submit nomination packages electronically to the Chair of the Tolman Committee at [office@scalacs.org](mailto:office@scalacs.org). Rather than submitting copies of publications, a list of representative publications would suffice. **The deadline for receipt of nominations is December 15, 2016.** Inquiries should be directed to the Chairperson at (310) 327-1216 or via e-mail at [office@scalacs.org](mailto:office@scalacs.org). A list of winners appended here demonstrates the caliber of awardee sought by the committee.

1960 William G. Young	1979 Harry B. Gray	1998 Kendall N. Houk
1961 Anton B. Burg	1980 Herbert D. Kaesz	1999 Peter Dervan
1962 Ernest H. Swift	1981 Paul D. Boyer	2000 William A. Goddard III
1963 W. Conway Pierce	1982 Donald T. Sawyer	2001 Peter M. Rentzepis
1964 A.J. Haagen-Schmidt	1983 James N. Pitts	2002 Robert H. Grubbs
1965 Thomas Doumani	1984 Donald C. Cram	2003 Arie Warshel
1966 Arthur W. Adamson	1985 Arnold O. Beckman	2004 Christopher Reed
1967 Ulric B. Bray	1986 M. Frederick Hawthorne	2005 Fred Wudl
1968 Francis E. Blacet	1987 Clifford A. Bunton	2006 G. K. Surya Prakash
1969 Robert Vold	1988 John D. Baldeschwieler	2007 Barbara Finlayson-Pitts
1970 Robert L. Pecsok	1989 Mustafa A. El-Sayed	2008 Joan S. Valentine
1971 Roland C. Hansford	1990 Linus Pauling	2009 Richard B. Kaner
1972 James Bonner	1991 George A. Olah	2010 Dennis Dougherty
1973 Howard Reiss	1992 Peter C. Ford	2011 Karl O. Christie
1974 John D. Roberts	1993 Charles L. Wilkins	2012 John E. Bercaw
1975 Corwin Hansch	1994 Jacqueline K. Barton	2013 Mark E. Thompson
1976 F. Sherwood Rowland	1995 Christopher S. Foote	2014 William J. Evans
1977 Sidney W. Benson	1996 Larry R. Dalton	2015 Michael E. Jung
1978 Thomas C. Bruice	1997 Ahmed H. Zewail	

# Southern California Section

## Thanks to all 2016 Volunteers

The many programs and services that your Section provides are accomplished by the volunteers of the various committees. We would like to acknowledge and thank all of you who volunteered your time and talents during this year.

**Chair:** Michael Morgan

**Chair Elect:**

Armando Rivera

**Secretary/Treasurer:**  
Barbara Belmont

**Meeting Speakers:**

William Evans, UC Irvine

Harry Gray, Caltech

Michael Jung, UCLA

Ron Weiner, Molecular  
Imaging Center speaker

**Educational Affairs—**

**High School Teacher  
of the Year**

Michael Morgan, Chair

Alexander Alschuler

Richard Erdman

Larry Walker

**Elected Members of  
Executive**

**Committee:**

Alexander Alschuler

Gary Arevalo

Deborah Bennett

April Jewell

Krishna Kallury

Derek Marin

Thomas Mathew

Heather Mott

Bruce Weiller

Ron Weiner

**Expanding  
Your Horizons**

Eleanor Siebert,

Coordinator

Sylvine Deprère

Danica Manalo

Desarey Morales

Illeana Dullas

Elizabeth Shokoya

Melissa Martinez

Vanessa Quintero

Jocelyne Ordellana

Mahak Virley

**Chemistry Bowl  
Veronica Jaramillo,  
Chair**

PCC Chem. Club

Alexander Alschuler

Rosario Amado

Eunice Choi

Richard Erdman

Kerin Huber

Gayane Godjoian

Seah Kim

Michael Morgan

Jennifer Portillo

Anthony Varelas

**Councilors:**

Rita Boggs

Brian Brady

Bob de Groot

Virgil Lee

Eleanor Siebert

Barbara Sitzman

**Teacher's Meeting**

Michael Morgan, Chair

Deborah Bennett

Chris Craney

Paul Groves

Caroline Morgan

Ken Mukai

Evan Thompson

Edye Udell

Larry Walker

**High School Olympiad**

Gerald Delker, Chair

Henry Abrash

Barbara Belmont

Deborah Bennett

Paul Groves

Michael Morgan

Dean Papadakis

Eleanor Siebert

Barbara Sitzman

**Alternate Councilors:**

Henry Abrash

Deborah Bennett

Veronica Jaramillo

Joe Khoury

Tom LeBon

Sofia Pappatheodorou

*(Continued on Page 5)*

## Southern California Section

### Thank You List (Continued from Page 4)

#### **Community Activities: NCW, CCED & others**

Robert de Groot, Chair  
Henry Abrash  
Michael Afzali  
Alexander Alschuler  
Barbara Belmont  
Brian Brady  
Chris Craney  
Gerald Delker  
Keith Frogue  
Rida Harmeen  
Andrea G. Hsu  
Veronica Jaramillo  
Juanita Juarez (CSC)  
Ben MacDonald  
Derek Marin  
Michael Morgan  
Sofia Pappatheodorou  
Alexandr Pikelný  
Armando Rivera-Figueroa  
Eleanor Siebert  
Barbara Sitzman  
Winston Vuong  
Ron Weiner

#### **Organizations Supporting Section Community Activities:**

- Student Chapter at El Camino College  
- ACS Student Chapter at Pasadena City College  
- WISH Organization at Mount St. Mary's University

#### **Organizations (Continued)**

- Science Society—Cal.  
State Dominguez Hills  
- Priory of Biology & Chemistry at ELAC  
-ACS Office of Public Affairs  
- ACS Office of Volunteer Support  
- California Science Center  
- East Los Angeles College Chemistry  
- L. A. Trade Tech Chemistry Department  
- Pasadena City College  
- Occidental College, Department of Chemistry  
- Molecular Imaging Center  
- Smog City Brewery

#### **Nominations & Elections**

Brian Brady, Chair  
Gary Arevalo

#### **Project SEED**

Frank Gomez, Chair

#### **Publication Committee**

Harold Goldwhite  
Dennis Pederson, SG  
Keith Orso  
Eleanor Siebert

#### **Social Media**

Heather Mott, Chair

#### **Tolman Award**

Dr. Chris Vanderwal, Chair. Confidential committee, but you know who you are!

#### **Undergraduate Research Conference**

Henry Abrash, Chair  
Chris Brazier, CSULB

#### **Webmaster**

Barbara Belmont

#### **Women Chemists Committee**

Veronica Jaramillo, Chair

#### **Younger Chemists**

Alexander Alschuler, Chair

It takes a lot of people's time and efforts to make our programs work. We as a Section, and the community at large, sincerely appreciate the dedication of these people and invite you to participate if you haven't already! This Section would be nothing without your volunteer efforts.

We tried to get everyone on the list, if we missed you, please accept our thanks for a job well done!

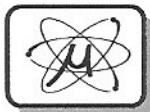
## Southern California Section

### Call for Nominations Paul Shin Memorial 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. 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; however, the nomination would need to be based on different criteria than the first award.

**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 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 should be submitted via email to [office@scalacs.org](mailto:office@scalacs.org).** Note that signed documents that have been scanned are acceptable.

The deadline for nominations is **November 15th, 2016**. Please feel free to contact Michael Morgan of the Educational Affairs Committee at [mmorgan@lausd.net](mailto:mmorgan@lausd.net) if you have any questions.



### Micron Analytical Services

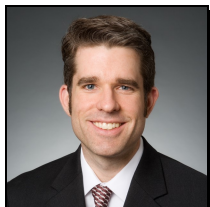
COMPLETE MATERIALS CHARACTERIZATION

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](mailto:micronanalytical@compuserve.com)

Voice 302-998-1184, Fax 302-998-1836  
Web Page: [www.micronanalytical.com](http://www.micronanalytical.com)



## **Insights Into IP Law**

**Keith Orso\***, Irell & Manella LLP  
KOrso@irell.com

The United States recently transitioned from a first-to-invent patent system to a first-to-file patent system. The previous installment of this column addressed differences between the two systems, and some of the arguments made for and against the systems. This installment explores one significant change in U.S. patent law that was ushered in by the transition: a change to the definition of “prior art.”

Some background is necessary to understand this change, and why it accompanied the transition. Future editions of this column will explore the various bases for patent invalidity challenges in more detail, but for now, it suffices to use, as an example, the intuitive rule that a patent should not issue if it claims subject matter that is not actually new. Patents, after all, are supposed to be novel. The term “prior art” essentially describes the information against which the subject matter of a patent claim is compared in order to determine whether that subject matter is, for example, novel.

Prior art includes journal articles, books, papers, patents and other materials that have been made accessible to the public. The patent laws set forth various different categories of prior art. Materials dated after a patent application is filed are not “prior” and do not constitute prior art, but not all materials dated before a patent application is filed qualify as prior art either.

Before the transition to the first-to-file regime, some categories of prior art were defined relative to the date that the claimed subject matter was invented. For example, patents and printed publications constituted prior art against a claimed invention if they were publicly accessible “before the invention thereof by the applicant for a patent.” So if Fred invented a new chemical compound on March 17th and filed a corresponding patent application on May 1st, then a journal article published on February 14th (before the invention date) qualified as prior art under the old regime, but a paper published on April 1st (after the invention date), would not qualify as prior art.

Under the old regime, the date of invention was presumed to be the filing date of the patent application, but the patent applicant/owner could rebut that presumption by submitting evidence establishing an earlier date of invention. Doing so would remove as “prior art” any materials dated after the invention, so long as those materials were not dated more than one year before the filing date of the patent. Tune in next time for more on prior art and how it is defined in the new first-to-file regime.

\* The author earned engineering and chemical engineering undergraduate and graduate degrees, and is a patent attorney and partner at the law firm of Irell & Manella LLP. This column does not constitute legal advice and does not necessarily reflect the views of the firm or its clients.



## **This Month in Chemical History**

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

The holidays are coming or perhaps there's a birthday – even your own – on the horizon. I have a gift suggestion for anyone interested in the history of chemistry: a new book. And buying it won't break the bank. (Disclaimer: I have no financial involvement with either author or publisher. In fact in a tangential way this book could be considered a competitor of one of my own works.) The book is called simply "The Chemistry Book" by Derek B. Lowe, published by Sterling in 2016. The title is misleading; it could better be called "The History of Chemistry Book in 250 one page summaries arranged in chronological order from 500,000 BCE to 2030(!)". The subtitle is "From gunpowder to graphene; 250 milestones in the history of chemistry". One of the book's most attractive features is that each one page article is accompanied by a full page illustration, mostly in color, relevant to the milestone described.

I will just pick out a few of my favorite milestones for comment. My own leaning is towards the earlier history of chemistry, so this is a slanted selection. 3300 BCE is Bronze, with an illustration of an ancient Chinese bronze bell. The production of bronze in the Bronze Age probably began with an accidental discovery that the addition of certain "stones" in the smelting of naturally occurring copper minerals like malachite produced a harder and more useful metal than copper itself. Isotopic analysis of bronze objects from around 2000 BCE suggests that tin ores from Cornwall in the west of England were being traded that early to places around the Eastern Mediterranean. That trade continued for over 3900 years.

1200 BCE is devoted to Purification, and the author suggests that the earliest recorded "chemist", immortalized in a Babylonian tablet, is the perfume maker Tapputi. She extracted pleasant smelling raw materials like balsam and myrrh with water, filtered the suspension, and distilled the solution to concentrate the vapors as perfumes. But unnamed workers probably anticipated her work by over 1000 years. Egyptian tomb bas-reliefs show women extracting perfume from lilies.

Ca. 450 BCE brings us to the golden age of Greek philosophical and scientific thought, and to the long-lasting concept of the four elements: earth, air, fire, and water. These were the bases of a theory of matter sketched by Empedocles, adopted and embroidered by Plato and  
*(Continued on Page 9)*

## This Month in Chemical History

(Continued from Page 8)

Aristotle, and added to by Arabic alchemists in the 8<sup>th</sup>. century and later. The theory was so engrained into scientific thinking, despite the atomistic ideas of Democritus that were suggested at around the same time, that in 1662 Robert Boyle, of gas law fame (and so much more!) devoted much time and energy to the writing of "The Skeptical Chemist" (spelling modernized) attacking the ancient four elements concept.

Ca. 60 CE brings us Natural Products. Not that humankind had not been using natural products for millennia before that. But in the year cited the Greek physician Dioscorides, wrote the first comprehensive book on the use of natural products in medicine: "De Materia Medica". As a doctor to the Roman army Dioscorides traveled widely around the Mediterranean collecting plants and the local folklore that assigned them curative powers. In a sense he can be described as the father of natural product and medicinal chemistry.

Chemical warfare in Europe probably began around 670 with Greek Fire. Described by Theophanes in "Chronographia" (ca. 814) he attributes the invention to an unnamed architect from Heliopolis. An illustration from a 12<sup>th</sup>. century Sicilian manuscript shows a ship with a tube at its bow shooting out fire at an enemy ship. The composition of Greek Fire is an object of speculation. At the time of its introduction it was a closely held state secret. It probably contained crude petroleum products and perhaps pine resin. Petroleum seepages around the Black Sea have been known for millennia. The distinguished historian of chemistry, J.R. Partington wrote a book on Greek Fire and related subjects.

"The Chemistry Book" is informative, engaging, well-written, and attractive. It might make a good Christmas or holiday present for your chemically inclined friends!

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.  
CEO

Barbara Belmont, M.S.  
President

800.538.1655 [www.americanresearch.com](http://www.americanresearch.com)

**\* NMR Service 500 MHz**

**\*MASS \*Elemental Analysis**  
**Fast Turnaround / Accurate Results**

**NuMega Resonance Labs.**

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

### Chair's Message



As the year draws to a close it is time to both look back and ahead. The year 2016 has been a good one for the San Gorgonio Section with several successful events being held. Over 70 persons attended the February Wine/Beer Seminar, a record number of high schools and high school students participated in the Chemistry Olympiad, and the year was capped off with a record number of honorees and attendees at the annual 50 and 60-year member recognition luncheon. I wish to express my appreciation to Eileen Dimauro, David Srulevitch, and Ernie Simpson for all their help this year. I wish to add extra thanks to Ernie for his very successful efforts in promoting the Section's activities. An additional note of appreciation goes to Dr. Stacie Eldridge at Riverside Community College and the College's administration for providing the site for the second round of the Chemistry Olympiad.

Now, on to the looking ahead part. We plan to build on this year by continuing the increase in Chemistry Olympiad participation, by providing meetings with topics of interest to both chemists and a more general audience, and by enhancing the level of communication with Section members. Your feedback and input is invaluable in all of this and I encourage you to respond to the Section Survey you will be receiving and to contact me directly ([dpedersn@csusb.edu](mailto:dpedersn@csusb.edu) or 909 886-2196) with your ideas. As I said in my last message there are very many ways for you to become involved in Section activities, ranging from attending events, assisting with the Chemistry Olympiad, serving as a liaison for Section members at a university, college, government laboratory, or industrial site, helping to plan an activity, or by serving as a member of the Section's Board. Nearly any one of these would mean a time commitment of **only a few hours** during the year.

The final event of the year will be our Annual Meeting. Once again this will be held at the site of the Section's founding, the University of California, Riverside. We will be taking any  
(Continued on Page 13)

## **San Gorgonio Section**

### **San Gorgonio Section Annual Meeting**

**Wednesday, November 30, 2016  
7:00 p.m.**

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

Come help celebrate this year and help plan the new year! Misael Tovar-Diaz, one of our two Project SEED participants this year will describe his project and we will discuss the future of this successful program. Bioanalytical Chemistry, the separation, detection; identification, and quantification of biological samples, is becoming more important as we seek to understand fundamental life processes. Several UCR faculty are active in this area and two of them will give a brief overview of their current research. The upcoming election for 2017 officers will be discussed and nominations solicited. Food (sandwiches, fruit, cheeses, water, and soda) will be provided. There will also be drawings for a variety of door prizes.

**Meeting Agenda:** Door prize drawings throughout the evening!

Welcome

Misael Tovar-Diaz, Project SEED participant  
Bioanalytical Chemistry at UCR

Overview of planned 2017 Section activities

High School National Chemistry Olympiad

Science Café: Chemistry and Harry Potter

Project SEED

National Chemistry Week

Brainstorming: What are possible future directions and activities for the Section?

Upcoming election of officers for 2017

Adjournment

**(Continued on Page 12)**

# San Gorgonio Section

## Annual Meeting (Continued from Page 11)

**Reservations:** Please RSVP to [edimauro@mtsac.edu](mailto:edimauro@mtsac.edu) or [dped-ersn@csusb.edu](mailto:dped-ersn@csusb.edu), **no later than** Friday, November 25. There is no cost, but we need to know how much food to buy! We must also submit names of anyone who will need a parking pass for the meeting.

**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, the Parking Lot where you are to park, 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>.

### U. S. Postal Service Statement of Ownership, Management & Circulation Filing Date: October 1, 2016

Publication Title: SCALACS, Pub. No. 482-760  
Issued 7 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: *B. Belmont*  
Circulation Data:

	<u>Avg. Copies Each Issue</u>	<u>No. Copies Single Issue</u>
Total Copies:	1500	1500
Outside County	655	675
Paid In-County	724	723
Subscrip. Sales Through Dealers	0	0
Other Classes	0	0
Total Paid Circulation	1379	1398
Free Copies Mailed	15	15
Free Copies Not Mailed	10	10
Total Free Distribution	25	25
Total Distribution	1404	1423
Copies Not Distributed	96	77
Total	1500	1500
Percent Paid Circulation	98	98
Paid Electronic Copies	2079	2094
Total Paid Print + Electronic	3458	3492
Total Print Distribution + Electronic	3483	3517
Percent Paid (Print & Electronic)	99	99

## INDEX TO ADVERTISERS

American Research & Testing	_9
Mass-Vac, Inc.	_____ifc
Micron Inc.	_____6
NuMega Resonance Labs	_____9
Scientific Bindery	_____13

Please support our advertisers.  
Tell them you saw their ad in  
SCALACS.  
They make our programming  
possible.  
Thanks!

## Protect Your Expensive Lab Work With the Best Research and Development Record Books

Our most popular books are always in  
stock ready to ship  
**\$16.50 each, FOB Chicago. Quantity  
discounts.**

## See our website for various styles available.

All books are 8.5 X 11 with hard  
extension brown cloth covers and include  
an Instruction Sheet and Table of  
Contents. All pages open flat.  
Personalizing is available.

Custom books are also available,  
designed for your specific needs.

## Scientific Bindery Productions

Skybind@att.net

847-329-0510

**[www.scientificbindery88yrs.com](http://www.scientificbindery88yrs.com)**

Making Scientific Notebooks for  
Teaching and Research since 1912

## Chair's Message (Continued from Page 10)

additional nominations for Section officers, hearing a presentation  
by one of this year's Project SEED participants, learning more  
about plans for next year, and learning about some of the exciting  
research going on at UCR. Complete details regarding this event  
are to be found on page 11 in this issue of SCALACS.

I close with sending best wishes to you and yours for all of the  
upcoming holidays and the new year. Let's all work to make 2017  
an even better year for the San Gorgonio Section.

- Dennis Pederson  
Chair

**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**

For more information on these events, please check our website at  
[www.scalacs.org](http://www.scalacs.org)

**November**

- 15 Deadline for SC High School Teacher of the Year Award—see page 6
- 30 SG Annual Meeting at UC Riverside—see page 11

**December**

- 15 Deadline for the 2016 Tolman Award nominations—see page 3

**We wish you a very Happy Holiday Season!**