

SCALACS

September 2021

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

Southern California Section

Senior Chemists Saturday Breakfast from 8 to 10 am at 3 locations: Torrance on September 11 Tarzana on September 25 Duarte on October 9 See Page 3

National Chemistry Week

"Fast or Slow . . . Chemistry Makes It Go!
October 17–23, 2021

More details in October Issue.

San Gorgonio Section

San Gorgonio Section October Luncheon Meeting
Saturday, October 9, 2021
Recognition of 50-, 60- and 70-year ACS Members
and

College and University Chemistry Clubs

See Page 8

Serving SoCal for 50 Years!



Spectrum has your lab covered

- · Chemicals
- Laboratory Equipment & Supplies
- · Glassware & Plasticware
- Personal Protective Equipment



800.772.8786 SpectrumChemical.com





SCALACS

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

Volume LXXVI

September 2021

Number 5

SOUTHERN CALIFORNIA SECTION 2021 OFFICERS

Chair/Chair Elect:

Thomas Mathew

Secretary/Treasurer:

Barbara Belmont

Councilors:

Brian Brady, Robert de Groot, Veronica Jaramillo, Alex Oxyzolou, Eleanor Siebert, Barbara Sitzman

SAN GORGONIO SECTION 2021 OFFICERS

Chair:

Ralph Riggin

Chair-Elect:

Jenifer Nalbandian

Secretary:

David Srulevitch

Treasurer:

Dennis Pederson

Councilors:

Eileen DiMauro, Emily Viggers

TABLE OF CONTENTS

So. Cal. Chair's Message	2
So. Cal. Information	3
This Month in Chemical History	4-5
Index to Advertisers	5
Insights Into IP Law	6
S. G. Chair's Message	7
San Gorgonio Information	8-9
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 2700 East Foothill Blvd #209, Pasadena, CA 91107. Subscription price is \$12.00/year. Make checks payable to Southern California Section, ACS. Periodical mail 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, 2700 East Foothill Blvd #209, Pasadena, CA 91107.

CONTRIBUTORS: Send all copy to Editor, SCALACS, 2700 East Foothill Blvd #209, Pasadena, CA 91107, email: editor@scalacs.org.

POSTMASTER: Send change of address to SCALACS, 2700 East Foothill Blvd #209, Pasadena, CA 91107.

Website address: www.scalacs.org

Southern California Section



Chair's Message

Dear SCALACS members,

Welcome back! Hope you have enjoyed the summer despite the unforeseen challenges of the time. I am sure our optimism and resilience as chemists let us to promote our vision for the future and achieve our goals.

Traditionally, September is the inaugural month of our fall events. We are still conducting our events on zoom platform; but anticipate that we will have inperson events in the near future with needed precautionary measures. I am glad to inform you that two of our grant applications (**Technology Grant and a Mini Grant**) were successful and approved by the ACS. Congratulations to **Ms. Barbara Belmont (SCALACS Secretary/Treasurer)**, and our Senior Chemists Team led by **Dr. Krishna Kalluri** and **Dr. Gerald Delker** for their efforts behind the application process.

Participation of our members in our Section's manifold activities is always greatly appreciated. We are now looking for candidates who wish to serve as members on the **SCALACS Executive Committee** (member-at-large and councilors). Indeed, it's an excellent opportunity to serve the scientific community to which we belong as well as the public by sharing scientific knowledge and talents through leadership and governance that benefit our future developments. Ballots for the election of Section officers will be emailed next month.

Among the upcoming events in the Fall, National Chemistry Week (NCW) celebration marks one of our major events. The NCW celebration became an annual event in 1993. The first National Chemistry Day was celebrated on November 6, 1987, which was extended to a week as NCW in 1989. It was the result of the vision of late Dr. George C. Pimentel (1922–1989) from University of California, Berkeley, who served as ACS president in 1986. We will celebrate the **National Chemistry Week this year during the week of October 17–23, 2021** and the theme is "Fast or Slow . . . Chemistry Makes It Go!" For the program details, please check the October issue of the SCALACS magazine.

I wish you all good health and a safe Fall.

With Best Regards,
Thomas Mathew
Chair, SCALACS (tmathew@usc.edu)

Page 2 SCALACS

Southern California Section

SENIOR CHEMISTS COMMITTEE

Our Southern California Section (SCALACS) received a mini grant for 2021 to enable the participation of our local Senior Chemists in (1) training high school and college students in our region, (2) exchanging ideas to enable execution of this training, and (3) highlighting the goals of SCALACS as well as ACS and how historically Senior Chemists contributed to these ideals during their careers.

To address items (2) and (3), we are planning a series of Saturday breakfasts from 8 to 10 am in 3 regions:

Torrance on September 11
Tarzana on September 25 and
Duarte on October 9

A Zoom program will be offered (date and time to be determined). These gatherings will hopefully help us find Senior Chemists (age 65+, working or retired) who would be willing to assist. The grant also provides for Uber, Lyft, Rideshare, or other transportation for those needing assistance.

If interested, please RSVP to **Gerald Delker** (Delker@earthlink.net, (626) 622-7776). Breakfast reservations are needed by the Monday preceding the gathering. If you would like to hold a breakfast meeting in your region, please contact us so we can try to make arrangements.

SEM - EDS - FTIR - XRD - ESCA - AUGER - DSC - TGA - Metallography

FDA & DEA Registered



GMP/GLP Compliant

Members of ACS, ASM, MSA/MAS, SAS and TMS

Experts in Chemistry, Morphology and Structure

www.micronanalytical.com

302- 998-1184

micronanalytical@compuserve.com



This Month in Chemical History Harold Goldwhite

California State University, Los Angeles hgoldwh@calstatela.edu

My previous column was on the great contributions that Joseph Priestley made to pneumatick chemistry, many of which were recorded in his great book on "Experiments and Observations on Different Kinds of Air" (3 volumes, 1774 – 1777). In this column I will discuss the revolutionary work on chemistry published by Antoine Laurent Lavoisier (1743 – 1794) in 1789 titled "Elementary Treatise on Chemistry". This book was translated into English in 1790 by the Scottish chemist Robert Kerr and retitled "Elements of Chemistry." In 1965, Dover Books published an inexpensive facsimile copy of Kerr's version that was in print for many years.

The subtitle of "Elements of Chemistry" is "in a new systematic order, containing all the modern discoveries." The introduction to the Dover reprint is by Douglas McKie, a major historian of science and author of a superb one-volume biography of Lavoisier. This 30 page introduction gives a summary of Lavoisier's career and of the events that led up to Lavoisier's revolution in chemistry. That revolution was the proposal that the phlogiston theory of combustion must be replaced by the oxygen theory. Oxygen, discovered independently by Priestley and Scheele and named "dephlogisticated air" by the former, was renamed oxygen (meaning "acid-former") by Lavoisier and was presented by Lavoisier as the key to combustion and respiration.

Throughout "Elements," Lavoisier sticks rigorously to quantitative methods, and includes mass balances and, by implication, the law of conservation of mass in his calculations. The new systematic order promised in the subtitle begins with a first part "On the Formation and Decomposition of Aeriform Fluids – of the Combustion of Simple Bodies, and the Formation of Acids." This section ends with Lavoisier's "Table of Simple Substances," i.e. elements in modern nomenclature, an innovation. While this Table starts off with Light and Caloric (heat), it follows with oxygen, azote (nitrogen) and hydrogen, and then describes the non-metals (Oxydable and Acidifiable simple Substances not Metallic) including Sulphur, Phosphorus, Charcoal (carbon), and three still unknown radicals: muriatic (chlorine), fluoric (fluorine), and boracic (boron). Throughout the text Lavoisier uses the revolutionary new nomenclature of chemistry that he, with his colleagues Berthollet, Fourcroy, and De Morveau, had developed and published a few years earlier.

Part II of the text is "On the Combinations of Acids with Salifiable Bases, and of the Formation of Neutral Salts" and includes not only Lavoisier's own work but also most of the work in this area reported by others. (*Continued on Page 5*)

Page 4 SCALACS

This Month in Chemical History

(Continued from Page 4)

Part III is a "Description of the Instruments and Operations of Chemistry," a comprehensive introduction that includes gas handling and weighing, thermometry, calorimetry, distillation, fermentation (!), and the operation of furnaces. At the back of the text is a series of Plates, many based upon sketches made by Madame Lavoisier who was a skilled artist and Lavoisier's note-taker, secretary, and companion in much of his laboratory work.

The Appendices include many conversion tables of measurements of length, mass, and temperature from French into common English units – including the degrees of Reaumeur's Thermometer into its corresponding degrees of Fahrenheit's Scale. These tables remind me of the important work that Lavoisier did as a member of the Commission set up after the French Revolution to produce uniform systems of measurement in France – the beginning of the metric system. Despite this work and all the important advances in science contributed by Lavoisier, he was condemned during the Terror of offences against the people by being a member of a tax-collecting syndicate and was guillotined at the age of 51.

SCALACS' NEW ADMINISTRATOR

The SCALACS Board of Directors is pleased to announce the retention of Huntington Association Management. This team of administrative professionals brings us a robust level of management services our members deserve. The firm handles business and communication tasks for industry and charitable nonprofits. Our SCALACS office is now at their address and our phone number has been ported there. Your new contact will be Yvette Fearon. Our administration is in great hands.

INDEX TO ADVERTISERS

Spectrum Chemical	IFC
Micron	3

Our Advertisers support our Section activities.
Please let them know that you saw their ad in SCALACS!



Insights Into IP Law Keith Orso

Irell & Manella LLP KOrso@irell.com

Before the summer break, this column explored the general rule that gives an inventor or joint inventors one year to file a patent application after publicizing an invention, after which the publication of their own work can generally be used against them. So if Amy, Bob, and Christie publish an article in the Journal of the American Chemical Society and then file a patent application eight months later, for example, they can prevent the JACS article from being used to reject the claims of their patent application or invalidate the claims of a patent that issued from the application.

What if instead of writing an article describing their invention, Amy, Bob, and Christie incidentally disclosed their invention in a first United States patent application that was filed before the second application and that later published or issued as a patent?

Embracing a fiction that but for processing and review delays at the Patent Office, an application would ideally publish or issue immediately upon filing, the general rule is that such a prior patent application counts as prior art as of the date it was filed—but only if the "inventive entities" (essentially the lists of inventors) on the two patent applications are different. If the inventive entities are the same, then the application generally does not become prior art until it publishes or issues as a patent, subject to the one-year rule described in the previous edition of this column.

In the hypothetical described earlier, the inventive entity on the first application (the group of Amy, Bob, and Christie) is the same as the inventive entity on the second application, so the application generally is not prior art before it publishes or issues as a patent.

Now, what if Dave, in addition to Amy, Bob, and Christie, was listed as an inventor on the first application such that the inventive entities of the first and second applications are different? In that case, as discussed, the default rule would be that the first application qualifies as prior art as of the date it was filed. But an exception applies if the relevant subject matter in the first application was obtained directly or indirectly from the inventor or a joint inventor, as with disclosures made less than one year before the filing date of an application, as previously explained. Here, the inventive entity on the first application (Amy, Bob, Christie, and Dave) almost certainly obtained the invention from the subset of inventors who filed the later patent application (Amy, Bob, and Christie), in which case the exception would apply.

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.

Page 6 SCALACS

San Gorgonio Section

Chair's Message



As we start a new academic year we are optimistic that the Section can return to holding at least some events in-person. The first such event, described in detail elsewhere in this newsletter, is our annual Recognition Luncheon for the 50-, 60-, and 70-year members in the San Gorgonio Section. This event will be held **Saturday, October 9** at **Eddie's Italian Eatery** in **Claremont.** At this event we will also honor our College and University Chemistry Clubs and we encourage any college students and young chemists to attend and learn more about

the senior ACS members' stories in an informal mentoring environment.

Congratulations to the following anniversary members:

50-Year MembersMs. Vickie L. Clawson
Dr. Enoch Clifford Hermann
Mr. Thomas Howard Lubin

60-Year MembersDr. Fred Paul Abramson
Dr. Robert P. Pinnell
Dr. Gary Wentworth

70-Year MembersDr. Charles F. Allen
Dr. Harland H. Schmidt

We are very grateful for the contributions these members have made to ACS, the local Section and to the chemistry profession over their extensive careers.

We also honor the members who passed during the last year, particularly Dr. Ernie Simpson, a long-term San Gorgonio Section leader and educator at Cal Poly Pomona, as well as Mr. Thomas Lubin who taught chemistry and coached basketball at Cypress College for many years. Mr. Lubin resided in Norco and operated a unique fertilizer business based on his knowledge of chemistry. Highlights of these gentlemen's accomplishments will be included in the program at the **October 9 Recognition Luncheon.**

Additional Section events currently being planned are celebrations of **National Chemistry Week in October** and the Annual Section Meeting in November. Once details are finalized these events will be posted to the Section website and included in the October newsletter.

The Section is always in need of additional members to serve in leadership roles or other volunteer support roles to facilitate our activities. Anyone who is interested in serving in such roles should contact me (email provided below) or Chair-Elect Jenifer Nalbandian (Professor at California Baptist University) to discuss opportunities. We look forward to a productive finish to 2021 and an even more productive 2022.

As a reminder you can access the local Section information on the websites shown below—a link to the National ACS website is provided therein:

- ACS San Gorgonio Local Section website: http://www.sgacs.org
- ACS San Gorgonio Local Section Instagram: https://www.instagram.com/sangorgonioacs/

As always I welcome any questions, suggestions, or comments from members of the Section or other interested parties. My email is: rm.riggin@yahoo.com. Feel free to contact me at any time.

Ralph Riggin, Chair

San Gorgonio Section

San Gorgonio Section October Luncheon Meeting Saturday, October 9, 2021

Recognition of 50-, 60- and 70-year ACS Members
and
College and University Chemistry Clubs

Eddie's Italian Eatery

1065 W. Foothill Blvd. Claremont, CA 91711

Check-in and Social: 11:00 – 11:30 AM

Luncheon: 11:30 am – 12:30 pm

Program: 12:30 – 2:00 pm

This gathering showcases American Chemical Society members with longest and shortest tenures in the ACS. The San Gorgonio Section (SGS) currently has approximately sixty chemists with fifty or more years of service. This event is held to honor those members who have reached exactly the 50-, 60-, and 70-year milestones. Please join us in celebrating these remarkable accomplishments and hearing some of their ACS stories.

50-Year Members

Ms. Vickie L. Clawson Dr. Enoch Clifford Hermann

60-Year Members

Dr. Fred Paul Abramson Dr. Robert P. Pinnell Dr. Gary Wentworth

70-Year Members

Dr. Charles F. Allen Dr. Harland H. Schmidt

In-Memoriam

Mr. Thomas Howard Lubin (50-year member)
Dr. J. Ernest (Ernie) Simpson (53-year member)

Page 8 SCALACS

San Gorgonio Section

At the other end of the spectrum, many newer members of ACS have taken advantage of undergraduate and graduate student programs, sometimes through Student ACS Clubs. We have invited representatives from the Section's college and university Chemistry Clubs to share their activities. Please help us welcome our newer members.

In addition to sharing ACS stories of the senior members and updates regarding activities of the student chemistry clubs, this event will provide an informal opportunity for mentoring discussions between senior chemists and younger chemists and students. We hope that many students from community colleges, four-year colleges and universities will take this opportunity to attend this important annual event and become better acquainted with ACS and the San Gorgonio Local Section.

Lunch: Served family style. Salad, platters of Chicken Parmigiana, Spaghetti Marinara (with or without meat sauce), a variety of pizzas, and homemade bread will be served. Dessert, coffee, iced tea, soda and water are included. Wine and beer are available for purchase.

Cost and Reservations: The cost (meal, tax and tip) is \$15 for ACS members, \$20 for non-members, \$10 for seniors and retirees, \$5 for students, and free for ACS members receiving their 50-, 60- and 70-year certificates.

Please register for the event by **October 5** using the form on the San Gorgonio Section website: **http://www.sgacs.org**

If you are unable to access the website you can also register by contacting **Ralph Riggin, Section Chair** at **rm.riggin@yahoo.com** or via phone at **317-407-3029**.

Directions: Eddie's Italian Eatery is located at the NE quadrant of the intersection of Foothill Boulevard and Towne Avenue in Claremont, easily accessed from the I-10 and 210 Freeways. Parking is free in the adjacent Stater Brothers parking lot. See www.eddieseatery.com for more information or call 909-398-1985.

SOUTHERN CALIFORNIA SECTION AMERICAN CHEMICAL SOCIETY

2700 East Foothill Blvd #209 Pasadena, CA 91107

IMPORTANT Do Not Delay!

Contains Dated Meeting Announcement

PERIODICALS

Bi-Section Chemists' Calendar

SEPTEMBER

- 11 Senior Chemists Saturday Breakfast at Torrance
 - —see page 3
- 25 Senior Chemists Saturday Breakfast at Tarzana
- —see page 3

OCTOBER

- 9 Senior Chemists Saturday Breakfast at Duarte
- —see page 3
- 9 San Gorgonio Section October Luncheon Meeting
 - —see page 8

17–23 National Chemistry Week