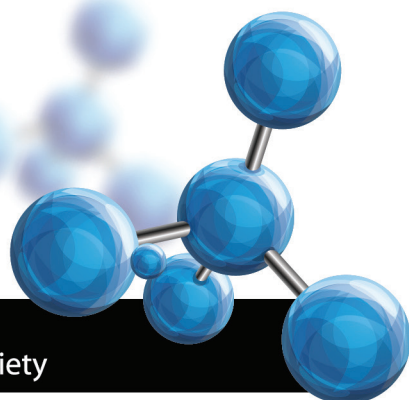




ACS
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SCALACS



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

VOLUME LXXVII/No. 5

SEPTEMBER 2022

SOUTHERN CALIFORNIA Section

Announcing 2022 ACS Fellows

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Flamingo Hotel & Casino Convention Center
Las Vegas, Nevada**

October 19-22

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“Glitter as Forensic Evidence”

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SOUTHERN CALIFORNIA SECTION



*"A person who never made a mistake
never tried anything new." – Albert Einstein*

CHAIR'S MESSAGE



ACS Local Section
Southern California

Dear SCALACS members,

Welcome back for another semester of SCALACS activities! Hope you all had a cheerful summertime.

As September is the inaugural month of ensuing Fall events and hoping that COVID-19 challenges are no more a significant hindrance to in-person activities, we are glad to get together soon for many future programs. Through our participation and mutual cooperation in making our ongoing activities very successful, we have proved again that our vision for a brighter future never fades. I am glad to inform you that a Mini Grant application by Dr. Krishna Kalluri through Analytical Chemistry Division was successful and approved by the ACS. Congratulations! As the success of our Section depends on sincere participation of our section members in various levels, we encourage you to step in as candidates to serve as members on the SCALACS Executive Committee. The election process for various positions (due to be vacant by December 2022) will start soon. It is a great opportunity to serve our scientific community and the public, thus benefit the overall development of our society through SCALACS' impact by sharing our scientific knowledge and talents through leadership and governance. Ballots for the election of Section officers will be emailed next month.

National Chemistry Week (NCW) celebration is one of our major events in the Fall (**October 16-22**). Some Executive Committee members have suggested and looked into the possibility of conducting a one-day, in-person "Nano Research Symposium" highlighting the NCW theme "Fabulous Fibers: The Chemistry of Fabrics" on Saturday, November 5, if a convenient facility is available. The Executive Committee will discuss this matter and details will be communicated through e-mail and in the October SCALACS magazine. Please check it for the program details and more upcoming Fall events. It is noteworthy that the annual NCW celebration is 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. The first National Chemistry Day was celebrated on November 6, 1987 that was extended to a week as NCW in 1989 and became an annual event in 1993.

Also, please mark your calendar for the **2022 Western Regional ACS Meeting**, which will be held in **Las Vegas, Nevada, at the Flamingo Hotel & Casino Convention Center from October 19-22**. This four-day event hosted by the ACS Southern Nevada local section (ACS-SNS) will also highlight many achievements, peak challenges, and opportunities in the ACS western region and beyond.

Wishing you all good health and a safe Fall.

With best regards,
Thomas Mathew
Chair, SCALACS
(tmathew@usc.edu)

SOUTHERN CALIFORNIA SECTION

Article by Nina Notman, special to C&EN | Aug. 4, 2022 |
A version of this story appeared in Volume 100, Issue 27

Announcing 2022 ACS Fellows



Hats off to the 45 nationwide ACS members who joined the Class of 2022 ACS Fellows!

Among them are former Tolman Award recipient and our own local section member, Peter Dervan of Caltech.

Professor Dervan's research program addresses a wide range of fundamental problems at the interface of organic chemistry and biology. Elucidating the chemical principles for the molecular recognition of DNA by small molecules and their use in biology, in particular gene modulation and DNA detection, are unifying themes.

Congratulations, Peter!

Follow this link for more information about Peter Dervan's achievement: <https://cen.acs.org/people/profiles/2022-Priestley-Medalist-Peter-B-Dervan-pioneered-treating-DNA-as-an-organic-molecule/100/i10>

Learn more about the ACS Fellows Program here: <https://www.acs.org/content/acs/en/funding/awards/acs-fellows.html>

Article by Giuliana Viglione, special to C&EN | April 8, 2022
A version of this story appeared in Volume 100, Issue 12

Barbara Belmont is nurturing the next generation of scientists



The analytical chemistry lecturer at California State University, Dominguez Hills helps students solve chemical mysteries in the classroom or in the laboratory.

Barbara Belmont, Southern California Section's Secretary/Treasurer, was profiled in C&EN, April 8, 2022.

"Barbara Belmont is always trying to be the role model she never had. 'I never saw any queer folk in a lab anywhere,' she says about when she started out in science. That's one reason that she's been such a long-term presence in LGBTQ+ activism – to be a role model for younger people 'so they don't have to navigate it by themselves.'"

Read full article here: <https://cen.acs.org/analytical-chemistry/Barbara-Belmont-is-devoted-to-nurturing-the-next-generation-of-scientists/100/i12>

Western Regional Meeting American Chemical Society

October 19 – 22, 2022

Flamingo Hotel &
Casino Convention Center
Las Vegas, NV



For additional information,
visit www.wrm2022.com

Empower The Chemist For A Better Tomorrow

BY

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Before the summer break, this column explored how copyright protection extends to original works of authorship that are fixed in a tangible medium, how copyright protects expression – not ideas, and how copyright protection is not available for works by the United States government, including the products of scientific research.

So how does someone obtain a copyright? Copyright attaches automatically – falling like lightning from the sky, as some have colorfully described it – when an original work of authorship is fixed in a tangible medium.

The copyright initially belongs to the author who, by default, is the person who created the work. If two or more people author a single work together, such as a journal article, with the intent of merging their contributions into inseparable and interdependent parts of a unitary whole, then the two authors are considered joint authors and each holds a full, undivided interest in the entire “joint work.”

On the other hand, if multiple authors contribute separate and independent works to a compilation or collective work, e.g., chapters for a book, each author’s individual contribution is separately and distinctly protected. Plus, the collective work itself may have its own

authors (e.g., the editors) and be entitled to its own copyright protection based on the selection, coordination, and arrangement of the independent works.

There is an important exception to the general rule that the author is the individual who created the work. In the case of “works made for hire,” the author is not considered the person (or people) who actually created the work, but rather the entity that hired the person (or people). Whether a work qualifies as “work made for hire” is determined by the facts surrounding the creation of the work. If a work is created by an employee within the scope of his or her employment, the work is generally considered a work made for hire and the author will be the employer, not the employee.

Otherwise, a work can be a “work made for hire” when the person who created the work and the person who hired him or her enter into an express written agreement that the work is to be considered a “work made for hire” and the work is specially ordered or commissioned for one of nine types of uses, including use as a compilation, a contribution to a collective work, a supplementary work, or an instructional text, for example.

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

BY

HAROLD GOLDWHITE
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When I was in graduate school, one of the leading topics of discussion was physical organic chemistry, an area that seems to have receded in importance somewhat at present. My interest in that subject was reinforced in my post-doctoral stay at Cornell by the visit of Sol Winstein from UCLA to give a Baker lecture course on physical organic chemistry. Winstein's tragically early death meant that the textbook that usually summarizes and expands a Baker lecture series did not appear. This reminiscence was prompted as I scanned my bookshelves for candidates for my "Great Books in Chemistry: The 20th Century" series. I came across a book I must have purchased years ago but had completely overlooked: "Physical Aspects of Organic Chemistry" Second Edition, by William A. Waters of the University of Durham, with an introduction by Professor Martin Lowry and published by Van Nostrand in the United States in 1937. The first edition was in 1935 – an early text on the subject. While this book doesn't quite qualify in my mind as "Great," it is certainly interesting enough to warrant a column. My copy of this book was released from the library of Juniata College, a private liberal arts college in Huntingdon, Pennsylvania. Founded in 1876 as a co-educational school, it was the first college started by members of the Church of the Brethren as a center for vocational learning for those who could not afford formal education.

It is clear in glancing over the Preface and Introduction that the original plan for this text was Lowry's, but it was Waters who completed it. Lowry acknowledges the help of Dr. C. P. Snow in preparing the more physical chapters at the beginning of the book. Some of you may be familiar with C. P. Snow as the author of many mid-20th Century best-selling novels. I recommend two of them, in particular, to my readers. "The Search" poses some challenging questions about originality, plagiarism, and falsification in the conduct of scientific research.

"The Masters" is an enthralling examination of academic politics in the context of an Oxbridge college.

The opening paragraphs of the Waters and Lowry text have an immediate appeal to this historian of chemistry. Under the heading of "Berzelius's Dualistic Theory of Chemical Affinity," a theory based on electrical attraction that gave us the terms electronegative and electropositive, the book leads us through the historical events that led to Berzelius's ideas – still a foundation of theories about interactions of atoms and molecules. This historically designed approach leads logically to Dumas, van't Hoff and le Bel, Kossel and G.N. Lewis, and Alfred Werner – the revival of dualism as the authors put it.

After this historical and physical introduction, the book goes on to unsaturation and free radicals. This latter subject starts with Gomberg and the triphenylmethyl radical, the first isolated organic free radical. This type of radical was characterized, among other measurements, by its paramagnetism. Nitrogen-centered free radicals are produced by the partial dissociation of tetra-aryl hydrazines and oxygen-centered free radicals similarly from peroxides.

Molecular rearrangements occupy a long chapter that includes many examples and suggestions about mechanisms. A discussion of Walden inversion draws no conclusions about mechanism, while the pinacone-pinacolone and Beckman rearrangements fare no better. But recall – this is over 80 years ago. We have come a long way since.

Physical organic chemistry reached maturity from the 1940s on with the publication of a number of seminal texts that do deserve designation as "Great Books of Chemistry: The 20th Century." Some of them may be subjects of future columns.

SAN GORGONIO SECTION



CHAIR'S MESSAGE



Hello!

As summer winds down and school starts again, the San Gorgonio Section will also be gearing up for several events this Fall. We took a break this summer after a successful Spring packed with events that included our Women Chemists Committee event, Chemists Celebrate Earth Week outreach event, and the various Chemistry Olympiad exams and Olympiad recognition banquet. A special thanks to Joyce Pham, Asa Toombs, Kuanliang Sean Shao, Pradip Bag, and the stockroom staff at CSUSB for their help with the Chemistry Olympiad this year!

This Fall, our Community College & University Engagement Committee, headed up by Dr. Jessy Lemieux, is planning an event for community college students in the area. On **September 24 at 10 a.m. at Norco College, we will host a talk by Dr. Robert Blackledge on "Glitter as Forensic Evidence,"** in order to show students an exciting career path for chemists. Representatives from local universities will answer questions about transferring and present some fun Forensic Chemistry demos. If you are a community college professor, we would love for you to invite/bring your students to this event. Though this is an event for community college students, all are welcome to this general interest event! More info will be available on our Instagram page soon.

Our Senior Chemists Committee, headed by Dr. Ralph Riggins, is planning a **luncheon to recognize the 50-, 60-, and 70-year ACS Members in our Section.** The event is tentatively planned for this November. More information will be coming soon, but plan to attend to hear some fascinating stories about the long lives and amazing careers of chemists in our area.

National Chemistry Week (October 16-22) is just around the corner! The theme of this year's event is "Fabulous Fibers: The Chemistry of Fabrics." Are you a local professor or K-12 teacher planning to celebrate National Chemistry Week on your campus this year? The San Gorgonio Section would love to partner with you by providing some fun giveaway items for your students. Email me for more information.

We would love to partner with you as we make worthwhile and engaging activities, events, and programs for the San Gorgonio Section. If you are interested in helping out with one or more of our committees, please fill out the form at <https://forms.gle/swTa7XWpLYAb7GD96> where you are able to include information about your preferred availability. Thank you to everyone who has already volunteered and helped on a committee so far this year. We can only do what we do with your help! Feel free to email me if you have any questions or suggestions for the Section. Have a great month!

Dr. Jenifer N. Nalbandian
Chair of the San Gorgonio Local Section
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**SOUTHERN CALIFORNIA SECTION
AMERICAN CHEMICAL SOCIETY**

**2700 East Foothill Blvd #209
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**IMPORTANT
Do Not Delay!**

Contains Dated Meeting Announcement

PERIODICALS

October 16-22, 2022

National Chemistry Week

Theme: Fabulous Fibers: The Chemistry of Fabrics

Bi-Section Chemists' Calendar

SEPTEMBER

- 24** San Gorgonio Talk "Glitter as Forensic Evidence" by Dr. Robert Blackledge
— see page 5

OCTOBER

- 16-22** National Chemistry Week
— see page 1 & 5
- 19-22** ACS 2022 Western Regional Meeting
— see page 2

NOVEMBER

- 5** SCALACS "Nano Research Symposium" (TBD)
— see page 1
- San Gorgonio's 50-, 60- & 70-year ACS Members Luncheon (TBD)
— see page 5

For more information or to find events, please see our websites:
www.scalacs.org • www.sgacs.org