ACS Chemistry for Life®

SCALACS

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

VOLUME LXXVIII/No. 3 APRIL 2023

2023 Chemists Celebrate Earth Week • April 16 - 22

Theme: The Curious Chemistry of Amazing Algae

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CHAIR'S MESSAGE

ACS Local Section
Southern California

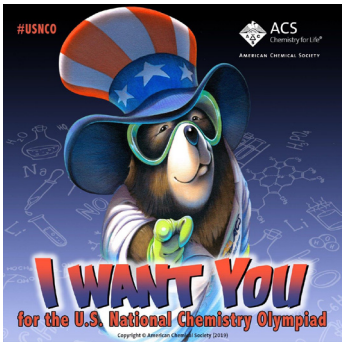
Dear SCALACS members,

I write this month's letter as I sit in a room full of young high school students taking the Local Section Exam for the **2023 U.S. National Chemistry Olympiad.** There are students here from two schools, and it brings me joy to see them working through the full 110 minutes solving complex chemistry problems. These are likely some of the future chemistry majors that professors will have in their classrooms in the coming years. Many people worry about the current generation. But honestly, they fill me with hope for what might be. The students sitting in front of me right now are courageous young people who chose to spend extra time studying for an exam that at best will give them the opportunity to take a laboratory exam in a few weeks that might allow them to be on the U.S. National Chemistry Olympiad team and at worst, has given them an opportunity to push their brains to think hard for 110 minutes to decipher what exactly it means for chemical x to react with chemical y to form chemical z at some given temperature approaching a described equilibrium that perhaps cannot be reached in the constraints of the experiment's time due to the activation energy being very large. (And no, I did not look at the exam to come up with that pretend question, for that would be against the rules of the exam!) Many young people are excited by science, by chemistry, and by thinking about how they can use their knowledge to help create a sustainable world. They truly fill me with hope.

This leads me to the upcoming **Earth Day** on **April 22, 2023**. The theme this year is "Invest in Our Planet." Young people all around the world need all of us to think about this topic. SCALACS is sponsoring several engaging Earth Day events this month that I hope you might consider attending. From the **SCALACS booths at the L.A. Zoo to engage young women in STEM on April 15** and at **San Gabriel High School on April 29** to the **online Zoom seminars we are offering through the Science Café Grant from ACS Committee on Local Section Activities (LSAC) on April 22**, SCALACS is providing members with opportunities to get involved with Earth Day events. Details are contained in this month's SCALACS edition. I hope many of you will join me this month at our events. And, I hope some of the students taking the Chemistry Olympiad test right now may one day become ACS members!

Sincerely,
Edye Udell
Chair, SCALACS
Science Teacher, Westridge School
(EUdell@westridge.org)

High School Chemistry Olympiad



This year we had 624 students representing 30 schools for the High School Chemistry Olympiad. Testings took place on March 15 and 16 and the top 12 students will be invited to take the National Exam on April 22 at Cal State Dominguez Hills.

Thank you to Gerald Delker, Barbara Belmont, and Huntington Association Management team for their assistance, as well as the schools that volunteered to host students from schools that had fewer than 10 participating. We appreciate the help of these teachers who took up the additional students in their area: Edye Udell, Paul Bender, Ryan Casey, Wonjong Kim, Benjamin Ku, Fawzia Qazi, and Charles Lee. Also, Michael Morgan for handling the schools in the southwest side or our section. We'll announce the top scorers in the next issue.

Announcing the 2022 Richard C. Tolman Award Recipient

Professor Alison Butler
Dept. of Chemistry & Biochemistry,
University of California, Santa Barbara
is the 2022
Tolman Award recipient!

Congratulations,
Professor Butler!

We will honor Professor Butler at the Richard C. Tolman Award Dinner.
Look for more information in our next issue.

Congratulations to **Professor Alison Butler** for receiving the 2022 Tolman Award in recognition of her outstanding scientific contributions in bioinorganic and bioorganic chemistry.

Prof. Butler is a Distinguished Professor in the Department of Chemistry and Biochemistry at the University of California, Santa Barbara. She works on bioinorganic chemistry and metallobiochemistry. She is a Fellow of the American Association for the Advancement of Science (1997), the American Chemical Society (2012), the American Academy of Arts and Sciences (2019), and the Royal Society of Chemistry (2019). She was elected a member of the National Academy of Sciences in 2022.

Prof. Butler studied at Reed College, graduating in 1977. She started in immunology, but moved into chemistry to work with transition metals. She worked with Professor Tom Dunne on an intramolecular electron transfer study: The Reduction of Pyrazinepentaaminecobalt (III) by Chromium (II). She earned her Ph.D. at University of California, San Diego in 1982 under Robert G. Linck and Teddy G. Traylor.

(Continued on page 11)

ACS Local Section
Southern California

Celebrating Earth Day
April 22

In conjunction with Earth Day on Sat., April 22, SCALACS will host two FREE virtual seminars funded by Science Café Grant from LSAC. Join us to hear and learn about the Chemistry, Materials, and Fusion Ignition Breakthrough at the National Ignition Facility and how Sustainable Electrochemical Processes may enable Global Energy Transition.

Chemistry, Materials and Fusion Ignition Breakthrough at the National Ignition Facility

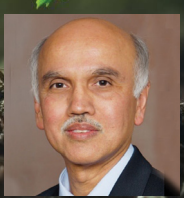
April 22 • 2:00 - 3:00 pm
Presented by
Dr. Salmaan Baxamusa
Lawrence Livermore National Laboratory

Dr. Salmaan Baxamusa is the Deputy Program Manager for Target Fabrication at Lawrence Livermore National Laboratory, helping lead a team that fabricates the complex assemblies used for laser nuclear fusion experiments at the National Ignition Facility. He is the author of more than 50 peer-reviewed publications and received his B.S. in Chemical Engineering from U.C. Berkeley and Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology.

Enabling the Global Energy Transition with Sustainable Electrochemical Processes

April 22 • 3:00 - 4:00 pm
Presented by
Prof. Sri R. Narayan
Department of Chemistry, University of Southern California

Prof. Sri Narayan pioneered the development of a novel methanol fuel cell technology that led to the commercialization of the first high-energy portable fuel cells and led the Electrochemical Technologies Group to develop and launch the first lithium-ion batteries to power the rovers for the surface of Mars. He has been a Professor of Chemistry at the University of Southern California (USC) for the last 13 years and also the Co-Scientific Director of the Loker Hydrocarbon Research Institute. At USC, Prof. Narayan and his research group have been tackling one of the biggest challenges of our time, namely, inventing inexpensive and robust systems to store electrical energy from solar and wind generation systems. Prof. Narayan has over 100 journal publications in the field of batteries and fuel cells.



These two seminars are coordinated by:
Professor G. K. Surya Prakash
Loker Hydrocarbon Research Institute and
Department of Chemistry,
University of Southern California

RSVP AT WWW.SCALACS.ORG or CALL (310) 327-1216

This is a Southern California Ssection of the American Chemical Society (SCALACS) event presented under Science Café Grant from LSAC.

You may register for these two seminars at www.scalacs.org.
See abstract on the following page.

A Virtual Seminar presented through the Science Café Grant from ACS Committee on Local Section Activities (LSAC)

Enabling the Global Energy Transition with Sustainable Electrochemical Processes

Presented by

Prof. Sri R. Narayan
Department of Chemistry,
University of Southern California

Abstract:
The challenge of reducing global greenhouse gas emissions by 50% by 2030 requires all hands on deck. Every sphere of activity that uses fossil-fuel-based processes have to transition to renewable electricity. Electrochemical reactions have the unique ability not only to store and release energy on demand, but also to make fuels and industrial materials. To this end, among other technologies, we must be pursuing flow batteries, water electrolysis for inexpensive hydrogen, electroreduction of carbon dioxide to fuels, and electrometallurgical processes for making iron, steel, and other metals. This presentation will provide an overview of the challenges and pathways to make a meaningful and sustainable energy transition.

Literature materials relating to Prof. Sri Narayan's presentation:
Efficient and Selective Electrochemically Driven Enzyme-Catalyzed Reduction of Carbon Dioxide to Formate using Formate Dehydrogenase and an Artificial Cofactor
by Buddhinie S. Jayathilake, Supriyo Bhattacharya, Nagarajan Vaidehi, and S. R. Narayan
https://pubs.acs.org/doi/abs/10.1021/acs.accounts.8b00551

Efficient Solar-Driven Electrocatalytic CO_2 Reduction In A Redox-Medium-Assisted System
by Yuhang Wang, Junlang Liu, Yifei Wang, Yonggang Wang & Gengfeng Zheng
Nature Communications Article, 2018. https://www.nature.com/articles/s41467-018-07380-x

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Materials relating to Dr. Baxamusa's presentation:
YouTube videos on Fusion Ignition Breakthrough at the Lawrence Livermore National Laboratory:
https://youtu.be/wHehTnWLvOM
https://youtu.be/j2WOp4hIcYk

Commentary articles relating to the significance of Fusion Ignition:
Department of Energy: DOE National Laboratory Makes History by Achieving Fusion Ignition, December 13, 2022.
https://www.energy.gov/articles/doe-national-laboratory-makes-history-achieving-fusion-ignition

Clean Power: Fusion Energy Scientist Speaks To CleanTechnica About Fusion Potential by Jake Richardson, September 21, 2022.
https://cleantechnica.com/2022/09/21/fusion-energy-scientist-speaks-to-cleantechnica-about-fusion-potential/

Engaging Girls In STEM

An in-person event organized by Los Angeles County Office Of Education

on **April 15, 2023**
from **10:00 AM to 2:00 PM**
at the **Los Angeles Zoo**
333 Zoo Drive, Los Angeles

SCALACS is proud to be an exhibitor at this event. Be sure to mark your calendar and come visit our Booth.

For more information about the event, visit www.engaginggirlsinstem.com

Los Angeles County Math Field Day 2023

SPONSORED BY

Los Angeles County Office of Education

April 29, 2023 • 10:30 AM – 12:00 Noon
at San Gabriel High School
801 S. Ramona St, San Gabriel

Come and visit our SCALACS Booth at this LACOE STEM Festival!

LACOE Math Field Day is an enrichment activity to promote mathematical reasoning, teamwork and a balanced mathematics curriculum for all students in upper elementary and middle school.
For more info: https://www.lacoe.edu/Academic-Events/Math-Field-Day

City of STEM Science Festival & Los Angeles Maker Faire

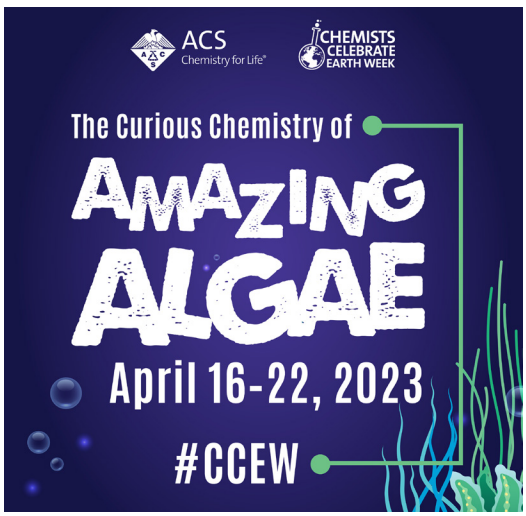
Saturday, April 1, 2023 from 9 am-5 pm at the LA State Historic Park

Save the date! City of STEM, LA's biggest celebration of science, technology, engineering and math, and the Los Angeles Maker Faire, the region's largest gathering of creative thinkers and doers, will both be taking place at the same time and at the same place on April 1, 2023. The Los Angeles Public Library and the Columbia Memorial Space Center have joined forces for the first time to bring these two major events together for one full day extravaganza of exploration, invention, creativity and fun! The combined LA Maker Faire and City of STEM events will take place on Saturday, April 1, 2023 from 9 am-5 pm at the LA State Historic Park in Downtown, near the Chinatown Metro stop.

LA Maker Faire and City of STEM combined create the greatest free outdoor festival of science and creativity of the year! Bringing these two huge events together on one day and in one place will give the public the opportunity to interact with over 200 booths highlighting organizations and innovators – including scientists, engineers, artists, major museums, NASA, and tech companies – who will showcase hands-on activities and unique experiences for the adults, teens, and kids in Los Angeles and beyond. SCALACS will be hosting a table. Contact **Veronica Jaramillo (vijaramillo@pasadena.edu)** if you are interested in volunteering at the SCALACS table.

Chemists Celebrate Earth Week

April 16-22, 2023



Celebrate CCEW the week of April 16-22, 2023 with the theme, "The Curious Chemistry of Amazing Algae." Algae are emerging as one of the most promising long-term, sustainable sources of food, feed, and other co-products. What makes them so attractive are the large number and wide variety of benefits associated with how and where they grow.

Nearly all these benefits stem from the fact that algae have evolved over billions of years to produce and store energy and they do this more efficiently than any other known natural or engineered process. Amazingly, more than half of the oxygen in our atmosphere comes from algae!

Continue reading about our **2023 CCEW Illustrated Poem Contest** on the following page.

2023 CCEW Illustrated Poem Contest
"The Curious Chemistry of Amazing Algae"

The Southern California Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in kindergarten through 12th grade.

Contest Deadline: Monday, April 24th
Prizes: To be announced
Mail Your Entry to: SCALACS Administrative Office
2700 E Foothill Blvd, Suite 209, Pasadena CA 91107
Or Email to: office@scalacs.org or call (310) 327-1216 for information

Please include **Name, School, Address, Email**, and **Phone Number** with your entry. Read **Contest Rules** below. Winners of the Southern California Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the CCEW theme, **"The Curious Chemistry of Amazing Algae."** Your poem must be **no more** than 40 words and in the following styles to be considered:

HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME - BLANK VERSE

Possible topics related to the theme include:

- Seaweed
- Micro- or macro- algae
- Photosynthesis
- Bioluminescent algae
- Algae as food & habitat for animals
- Consumer products from algae
- Oxygen from algae
- Biofuels from algae

Entries will be judged based upon:

- Artistic Merit - use of color, quality of drawing, design, and layout
- Poem Message - fun, motivational, inspiring about yearly theme
- Originality Creativity - unique, clever and/or creative design
- Neatness - free of spelling and grammatical errors

Contest rules:

- All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.
- Entries are judged based upon relevance to and incorporation of the CCEW theme, word choice and imagery, colorful artwork, adherence to poem style, originality and creativity, and overall presentation.
- All entries must be original works without aid from others. Poems may be submitted by hand on an unlined sheet of paper not larger than 11" by 14" or scanned and sent via email. Illustrations may be created using crayons, watercolors, other types of paint, colored pencils, or markers. The illustration may also be electronically created by using a digital painting and drawing app on a computer, tablet, or mobile device.
- The text of the poem should be easy-to-read and may be typed before the hand-drawn or digital illustration is added, or the poem may be written on lined paper, which is cut out and pasted onto the unlined paper with the illustration.
- No clipart or unoriginal images can be used.
- Only one entry per student will be accepted; all entries must include an entry form.
- If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- Acceptance of prizes constitutes consent to use winners' first name and last initial, along with the name of the ACS Local Section, on the ACS web pages and in the magazine, Chemical & Engineering News

The ACS 27th Annual Green Chemistry & Engineering Conference June 12-15, 2023 Long Beach, CA & Hybrid

Theme: "Closing the Loop: Chemistry for a Sustainable Future"

The ACS Green Chemistry Institute's Green Chemistry & Engineering Conference is the premier conference for scientists, students, and leaders seeking innovative and more sustainable ways to do chemistry and chemical engineering. The 27th Annual Green Chemistry & Engineering Conference will be a hybrid meeting held in-person in Long Beach, CA and streamed online for virtual participants.

This is a great opportunity for our Southern California Section members to attend this event in person for the best networking experience and to take part in the conference workshops and activities. If you can't travel, virtual access will allow you to participate in the robust technical program.

While a wide variety of green chemistry and engineering topics are covered in the technical program each year, the thematic focus on the stages of the chemical life cycle is intended to challenge the green chemistry and engineering communities to move toward a systems thinking approach that will help create a more sustainable future. Check out this year's program here: https://www.gcande.org/program/

Early Bird Registration is now open at: **https://www.gcande.org/register/**

There are many categories of registration that include free admissions. Scholarships to attend the virtual GC&E Conference are also available. Find out more at: **https://www.gcande.org/register/**

BY

KEITH ORSO
Irell & Manella LLP
KOrso@irell.com

Before proceeding with a further discussion of fair use in copyright law, this month's column will tackle a reader's recent request to further address a landmark Supreme Court case from 1991 titled Feist Publications, Inc. v. Rural Telephone Service Co.

Feist was a publishing company that specialized in wide-area telephone directories. Rural was a certified public utility that provided telephone services in northwest Kansas and was required by the state to issue an annual telephone directory listing its subscribers. The directories published by both Feist and Rural included "white pages" that listed telephone numbers in alphabetical order by subscriber, and "yellow pages" that listed business numbers alphabetically by category along with classified advertisements by many of those businesses. Feist and Rural competed vigorously for the revenue-generating yellow-page advertising.

Because Feist was not a telephone company, it lacked independent access to the telephone numbers of public-utility subscribers. So Feist approached telephone companies like Rural with offers to pay for the right to republish the utility's white pages. Ten utilities agreed. Rural refused. A court later determined that Rural wanted to leverage its monopoly in telephone service into a monopoly in yellow-page advertising.

Faced with undesirable alternatives such as scrapping publication of its area-wide directory in northwest Kansas, publishing an area-wide directory with the significant area corresponding to Rural's subscribers missing, or sending people door-to-door to survey subscribers for their telephone information, Feist decided to go ahead and use Rural's white page listings without Rural's consent. Feist employees verified the data in Rural's white-pages listing and worked to add information, such as street addresses, which Rural's listing did not include. Feist was not always successful adding information. More than 1,000 of the listings in the directory that Feist ultimately published ended up identical to listings in Rural's directory, including four fictitious listings that Rural had inserted into its directory as a means to detect if companies like Feist were copying. Rural sued Feist for copyright infringement. Feist defended itself on the ground that the information it copied from Rural's white pages was beyond the scope of copyright protection. The next edition of this column will explain which side prevailed in the lawsuit and why.

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
California State University, Los Angeles
hgoldwh@calstatela.edu

In this column I continue with the third installment of my review of the chemistry of 90 years ago as seen through the "Annual Reports of the Progress of Chemistry" published in London by The Chemical Society. The report for 1933 is Volume XXX, the series having started in 1903.

The chemistry of phosphorus occupied a good deal of my own earlier chemical researches, and so it is interesting to see the advances made in 1933, twenty years before I started on my doctoral work. Hypophosphoric acid was an enigma; H_2PO_3 or $H_4P_2O_6$? Work by the Arbusovs on the solution molecular weights of hypophospate esters corrects earlier claims and supports the double formula for these compounds. The monomer is an odd electron molecule and should therefore be paramagnetic while the dimer might be diamagnetic. All the salts of hypophosphoric acid were found to be diamagnetic reinforcing the double formula for the acid.

Turning to a similar situation in sulfur chemistry the alkaline oxidation of potassium hydroxylamine disulphonate, $HON(SO_3K)_2$ gives a dark red solution that, on evaporation produces yellow crystals of empirical formula $ON(SO_3K)_2$. These crystals give a dark red solution in water. The yellow solid turns out to be diamagnetic while the solution is strongly paramagnetic, implying that the solid is a dimer $[ON(SO_3K)_2]_2$ that is in equilibrium with the odd electron monomer in solution.

Work in the previous year claiming the preparation of chlorides and bromides of krypton has now been shown to be inaccurate; the materials contained no krypton. Several other attempts to obtain compounds of the noble gases have been failures. However, Pauling has predicted the eventual isolation of KrF_6 and XeF_6 with the possibility of an unstable XeF_8.

A good deal of further research on coordination compounds of alkali metal ions was published in 1932. Sidgwick and his colleagues earlier demonstrated that alkali metal ions formed complexes with ligands such as orthonitrophenol salicylaldehyde with both sodium and lithium ions being 4-coordinated. Beta-alanine forms complexes with lithium ions and orthohydroxybenzaldehyde with sodium ions. Coordination chemistry of alkali metal ions was well established long before the era of cryptands.

Copper forms tetrahedral complexes when it is 4-coordinate and octahedral complexes when 6-cordinate. $[Cu(en)_2(H_2O)_2]Cl_2$ has been resolved by the classical method of separation of tartrate salts thus supporting an octahedral configuration. Reviewing copper coordination chemistry Sidgwick has pointed out the relative scarcity of 6-coordination, 4 being the norm. The novel ligand ethylenethiourea (etu) stabilizes many otherwise unstable compounds such as copper(I) nitrate, unknown as a simple salt but isolable as $[Cu(etu)_4]NO_3$. The coordination compound of silver chloride, $Ag(etu)_3Cl$, is unaffected by light.

Silver is normally found as Ag(I) in its simple compounds. Coordination stabilizes unusual oxidation states. For example $[Ag(py)_4](NO_3)_2$ is obtained by anodic oxidation of silver nitrate in the presence of pyridine (py). The electrolytic method also produced complexes of Ag(II)

(Continued on page 11)

(Continued from page 10)

with 2,2'-dipyridyl. The paramagnetism of these complexes shows that they do indeed contain Ag(II).

Thallium, which exhibits oxidation states of 1 and 3, apparently forms no monoalkyl derivatives but now triethyl thallium has been made from diethylthallium chloride, readily prepared from thallium trichloride and ethyl Grignard reagent, and ethyllithium. Triethylthallium is very reactive and with sodium hydroxide produces Et_2TlONa. Dialkyl thallium hydroxides form stable chelated compounds with many bivalent ligands including diketones, ethylacetoacetate, and salicaldehyde.

Thallium(I) alkoxides such as EtTlOEt form ionic solutions in water but are soluble in benzene. Molar mass determinations in benzene solution indicate formation of polymers of approximate composition $(EtTlOEt)_4$ but of unknown structure.

X-ray structural determinations of salts of dithionic acid and of metabisulphites have clarified some longstanding questions. The dithionate ion has the structure $[O_3SSO_3]^{2-}$ and the metabisulfite ion is $[O_3SSO_2]^{2-}$. The chemistry of relatively simple compounds of the main group non-metals seems to me to have been a somewhat neglected subject in undergraduate courses and textbooks. Have recent chemistry graduates any idea of the existence of dithionates or hypophosphates? I have my doubts.

AUTHOR'S NOTE: I have recently published "Great Chemistry Book: A Personal View," available in paperback from Amazon. It is the second volume in my series "Chemical Sketches." The first volume, "A Chemical Chrestomathy: Chemists" is still available from the same source.

(Continued from page 2)

Prof. Butler worked as a postdoctoral fellow at University of California, Los Angeles with Joan S. Valentine and at California Institute of Technology with Harry B. Gray. She was appointed to the faculty at University of California, Santa Barbara in 1986. Here she was awarded an American Cancer Society Junior Faculty Research Award. She was awarded the 34th University of California, Santa Barbara Harold J. Plous Award.

She looks to discover new siderophores, small molecules that bind iron in microorganisms. She uses genomics and bioinformatics to predict new siderophore structures. She explores how siderophores adhere to mica and looks at how they can promote surface colonisation. She identified that siderophores become sticky when wet, which may help to develop underwater adhesives. Her current research considers the uptake of microbial iron, vanadium haloperoxidases in microbial quorum sensing and cryptic halogenation, bio-inspired wet adhesion using catechol compounds, and the oxidative disassembly of lignin. Her research into the bioinorganic chemistry of iron is funded by the National Institutes of Health and the National Science Foundation. She studies how transition metal ions are used by marine organisms.

In 2012, she became the President of the Society for Biological Inorganic Chemistry and served until 2014. She was made a Fellow of the American Chemical Society in July 2012. She delivered the 2016 Douglas Eveleigh Endowed Lecture at the Waksman Institute of Microbiology. In 2018, she was awarded the American Chemical Society Alfred Bader Award for her work on siderophores. In 2019, she was elected to the American Academy of Arts and Sciences, received the American Chemical Society's Arthur C. Cope Scholar Award for excellence in organic chemistry, and received the Royal Society of Chemistry's Inorganic Mechanisms Award. Prof. Butler also received the 2019-2020 Faculty Research Lecturer Award, the highest honor that University of California, Santa Barbara faculty can bestow on their members.

We look forward to honoring Prof. Butler at the Richard C. Tolman Award Dinner. More information will be published in our next issue.

CHAIR'S MESSAGE

Hello!

March was a busy month for the San Gorgonio Section! We administered the ACS Chemistry Olympiad Local Section Exam for high school chemistry students in the area this month. Ten local high schools were represented during this exam. The top-scoring students from the Local Section Exam will receive San Gorgonio Section scholarships of up to $1200 that can be used when they enter college. The top 10 students will move on to compete in the National Chemistry Olympiad Exam in April, representing our Section. I am excited to share those results with you in my next Chair's Message, so stay tuned! Thank you to Dennis Pederson Ph.D. and Eileen DiMauro for their tireless efforts to coordinate these Olympiad Exams! Thank you to the members of the Chemistry Olympiad Committee for your help with mailing out test materials, proctoring exams, grading exams, and more.

Our Community College & University Engagement Committee, chaired by Eileen DiMauro, hosted its first event on March 11. The event was geared toward local Community College students and featured a social hour, complete with raffles, demos, and networking opportunities. The demos were hosted by students from Cal Baptist University, UC Riverside, Cal Poly Pomona, and Cal State San Bernardino. The social hour allowed the community college students to connect with students at 4-year universities that they are considering for their college transfer applications. After the social hour, Dr. Mahmood Nikbakhtzadeh (Dr. Nik), Coordinator for the Environmental Health Science Program at Cal State San Bernardino,

shared with the students about a career as an Environmental Health Specialist. Dr. Nik also spoke about Toxicology and how toxins, such as nicotine and alcohol, affect the body. The seminar was well-received by the students, several of whom are now considering majoring in Environmental Health in the future! This event was also well-attended, with close to 90 people in attendance. Thank you to the members of the Community College & University Engagement Committee, the university students who hosted demo tables, and the faculty and staff at Norco College for making this event a great success! A special thank you to Dr. Nik for inspiring students in the area to continue in their pursuit of a 4-year STEM degree!

Join us on **April 22** for our **Chemists Celebrate Earth Week** community event at **California Baptist University**! Learn about this year's theme, The Curious Chemistry of Amazing Algae, with an exciting lecture from **Elizabeth Hann**, Botany and Plant Sciences Ph.D. candidate from UC Riverside. Following the talk, attendees will have lunch in the award-winning Alumni Dining Commons at CBU. The event, including parking and lunch, is totally free of charge. If you are a local professor, consider inviting your students to this event where they can hear about electrochemistry applications from a local Ph.D. student. Go to https://www.sangorgonioacs.com/events for more information. We hope to see you there as we celebrate Earth Week in the San Gorgonio Section!

The San Gorgonio Section is now on LinkedIn! Connect with us on LinkedIn (https://www.linkedin.com/company/american-chemical-society-san-gorgonio-section/), follow us on Instagram (@SanGorgonioACS), and bookmark our webpage (https://www.sangorgonioacs.com/) to stay up-to-date on the latest with the Section.

If you would like to volunteer for one of our committees, please fill out the form at https://forms.gle/26CZmwuWP1qjMWbc6. If you would like to become a financial partner of the Section, you can email me at jnalbandian@calbaptist.edu. We use donations from our members for funding student scholarships, Project SEED research for high school students, outreach events, and more!

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
jnalbandian@calbaptist.edu

SOUTHERN CALIFORNIA SECTION
AMERICAN CHEMICAL SOCIETY
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IMPORTANT
Do Not Delay!

Contains Dated Meeting Announcement

PERIODICALS

Bi-Section ACS Calendar

APRIL

1 City of STEM Science Festival & LA Maker Faire — see page 6
15 LACOE Engaging Girls in STEM at L.A. Zoo — see page 5
16-22 Chemists Celebrate Earth Week — see page 6
22 Chemistry Olympiad National Exam at Cal State Dominguez Hills — see page 2
22 Virtual Seminars presented through the Science Café Grant — see page 3
22 Lecture by Elizabeth Hann at California Baptist University — see page 13
24 2023 CCEW Illustrated Poem Contest Deadline — see page 7
29 LACOE Math Field Day — see page 5

JUNE

12-15 ACS 27th Annual Green Chemistry & Engineering Conference, CA — see page 8

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