



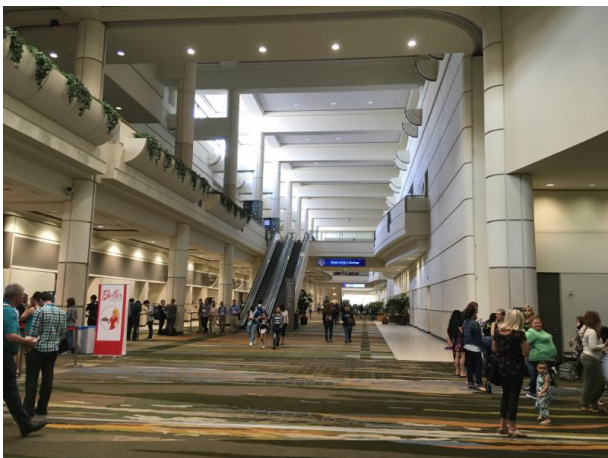
ACS
Chemistry for Life®

April 2019 OCACS Elements

The Orange County Local Section wants to hear from you. If you would like more information about our section or how you or your company can contribute to our Section's efforts, please visit our [website](#) or contact us at OCACSChair@gmail.com.

Visit our Website

Chair's Message

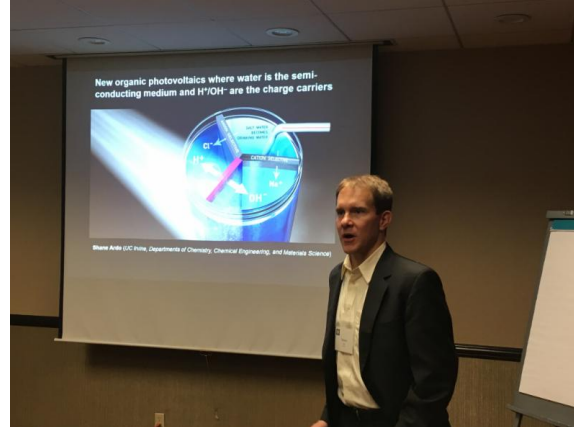


March was a busy month for chemists! There was the ACS Spring National Meeting in Orlando, FL. The National Meeting was held at the Orange County Convention Center, which is in another OC >2,200 miles away! From the OCACS Executive Board, our councilors, including Robert Cohen, Sanda Sun, and Rabin Lai, as well as myself were there to represent on ACS National Committees

(<https://ocacs.sites.acs.org/nationaloffice.htm>). Also, our councilors attended the ACS Council Meeting on April 3, as well as the Western Region meeting, to represent our local section during the National Meeting in Orlando. The next national meeting will be held in San Diego, CA in August.

Within OCACS, we had a dinner meeting and an environmental group meeting in March, and fortunately, I was able to attend both. As announced in our previous newsletter, Drs. Shane Ardo and Adeyemi Adeleye, both from UC Irvine, were the speakers of those meetings, respectively. I've found that both

presentations were quite fascinating! Dr. Ardo's presentation was about the development of photoacid dye molecules bound with polymers to create photo-responsive materials that can be used in ionic solar cell and desalination, as well as chemical catalysis. Dr. Adeleye's presentation was about the potential of nano-zero valent iron for environmental remediation, and discussed practical implications such as cost and toxicity, as well as goals of this nanotechnology.



In April, we are going to have two exciting events relating to college students. On April 24, our 50th annual College Awards Dinner will be held at Concordia University (1530 Concordia West, Irvine, CA 92612) to recognize college students in our section whose passion for chemistry lead to their influential contributions. Together with our High School Award Dinner program, our section was nationally recognized and won a ChemLuminary

Awards for Outstanding Continuing Public Relations Program of a Local Section in 2018 (https://www.acs.org/content/acs/en/funding-and-awards/awards/community/what_are_the_chemluminary_awards/2018-chemluminary-award-winners.html). On April 23 and 25, our Environmental Committee hosts the Earth Week Concrete Workshop at California State University, Fullerton (CSUF). This workshop has been planned and organized by undergraduate students in the Chemistry & Biochemistry Department of CSUF. I encourage you to join these events and meet with those college students who are passionate about chemistry and the environment. Please see below and check our website (<https://ocacs.sites.acs.org/>) for more information about these upcoming events.

I hope to see you soon at one of these events!

Dr. Keisuke Ikehata
Chair, Orange County Section
American Chemical Society

Orange County Section College Awards Dinner Wednesday, April 24, 2019

Concordia University, Irvine
1530 Concordia West, Irvine, CA 92612
The Rho Programming Center (RPC) in Chi Rho Suites
(The First Floor)

Registration & Social: 6:00 PM

Dinner: 6:15 PM

Presentation: 7:15 PM

Award Program: 8:00 PM

Speaker:

Dr. Elizabeth N. Bess
Assistant Professor of Chemistry
University of California, Irvine



Presentation:

**Gut Reactions: Using Chemistry to Uncover
Functions of the Human Microbiome**

Abstract:

Within the human gastrointestinal (GI) tract there reside trillions of bacterial cells (microbiota) that harbor thousands of distinct genes (microbiome). This biosphere has evolved in the context of a diverse array of diet- and host-derived small molecules to which it is chronically exposed. Consequently, gut bacteria have developed numerous enzymes to respond to this chemical deluge; however, little is known about the chemical motifs metabolized and the impacts of those metabolites on health. The Bess Lab discovers chemical reactions encoded in the microbiome and uses this repertoire to understand the link between the gut microbiome and health, devising new ways to predict and prevent disease.

Biography:

Dr. Elizabeth Bess joined the Department of Chemistry at the University of California, Irvine in Summer 2018. Her lab is fusing chemistry and microbiology to interrogate the chemical mechanisms by which the human gut microbiome impacts human health and disease. Dr. Bess was born in Salt Lake City, Utah. She received her B.S. degree from the University of Utah in Biological Chemistry in 2009. During this time, she performed research on pain perception in the Emergency Department at the University of Utah School of Medicine, worked as an autopsy assistant at the Utah Office of the Medical Examiner, and taught violin lessons to budding musicians. In 2015, Elizabeth earned her Ph.D. in Organic Chemistry. Under the mentorship of Professor Matthew Sigman at the University of Utah, she developed mathematics-based tools to quantitatively describe and predict the outcomes of catalytic reactions. As an HHMI postdoctoral fellow of the Life Sciences Research Foundation, Dr. Bess worked in the microbiology lab of Professor Peter Turnbaugh at the University of California, San Francisco (2015-2018). Here, she investigated how gut bacteria beneficially metabolize components of plant-based diets to prevent breast cancer. During her postdoctoral stint, Dr. Bess enjoyed leading yoga classes for UCSF scientists.

Reservations:

Please visit <http://ocacs.sites.acs.org/collegeawardsprogram.htm> and make your reservations and payment online **no later than April 16, 2019 (Tuesday) 12pm noon**. All reservations and payments are final once they are submitted and we cannot accommodate any changes in reservations or refund your payment. Also, we cannot accept any payment at the registration on the day of event. For more information, please contact Dr. Allison Gotoh at ocacs.reservation@gmail.com.



**OCACS Environmental Committee,
Featuring California State University,
Fullerton (CSUF) Chemistry and
Biochemistry Club (CBC), Presents**

**Two-Day Permeable Concrete
Workshop!**

Tuesday, April 23rd, 2019, 12:00 pm - 2:00 pm

&

Thursday, April 25th, 2019, 12:00 pm - 1:00 pm



The Orange County Local Section of the American Chemical Society (OCACS) is celebrating the upcoming Earth Week by organizing a permeable concrete workshop at California State University, Fullerton (CSUF). You can learn the chemistry of sustainable concrete production + the benefits of permeable concrete pavement, such as flood control and groundwater recharge. Please join our event on April 23 & 25, 2019!

Event Schedule

Day 1

- 12:00 PM - Introduction & Refreshments
- 12:15 PM-12:45 PM - Speaker: Ava Moussavi, Riverside County Flood Control & Water Conservation District (RCFC&WCD), Topic: Sustainable Concrete, Chemistry of Concrete, Stormwater Drainage, Pervious Concrete
- 1:00 PM-2:00 PM - Concrete experiment in Humanity Quad: Make and decorate your own sample size pervious concrete you get to take home!



Location:

CSUF Education Building Room 167

Day 2

- 12:00 PM-12:30 PM - Water drainage demonstration: Showing how different types of concrete react to stormwater

- 12:30 PM-1:00 PM - Hand out everyone's handmade concrete pieces to take home!

Location:

CSUF Humanities Quad

Registration

Click below if you want to

[Attend!](#)

or

[Volunteer!](#)



Special Thanks to

- [Riverside County Flood Control & Water Conservation District \(RCFC&WCD\)](#)
- [ACS Committee on Environmental Improvement \(CEI\) Local Section Sustainability Programming Grants](#)



For more information about this event, contact our project lead Monica Gutfinger at monicagutfinger@gmail.com.



Education Committee Update

The first round exam of the Chemistry Olympiad was administered on March 2, and the top 12 students (plus one automatic qualifier from last year) will return on April 27 for the second (much more grueling) round.

We award a plaque (and bragging rights) to the top 6 schools, with the scores being computed as the sum of their 4 students' individual scores. This year the top 6 are (from first to last place):

- Troy High School
- Valencia High School
- Sage Hill High School
- University High School
- Beckman High School
- Los Alamitos High School

Also on April 27, first year chem students from Orange County will take our section's first year chemistry exam at CSUF. We expect around 350 high school students to swarm the science building at Fullerton on that day! Help is always appreciated for this huge exam. Time commitment is about 8 am – noon-ish. Or

you can come to help with all the alphabetizing, sorting, paperwork from 11 till 12 or 1. Contact Sanda Sun at ssun@ivc.edu.

The top scorer from each school will be honored with their names engraved on each school's perpetual plaque, to be presented at the awards dinner in May.

The last committee meeting of this academic year will be during the third week in June, and our opening meeting in Sept/Oct will be decided upon then. If you are interested in joining the committee (meetings in Sept/Oct, Nov, Jan, March, June), please contact Carol Grimes at cgrimes@gwc.cccd.edu. You are invited to come and see what we do – no commitment is necessary!



OCACS Supports the 68th Annual California Science & Engineering Fair, April 29-30, 2019

Our Executive Committee members support science & engineering fairs in Orange County and Southern California as the Judging Advisory Committees. We believe in the importance of multidisciplinary project work showcased at those fairs because they give a true flavor of science as performed in the workplace.



The 68th annual California Science & Engineering Fair will be held on April 29-30, 2019 at the California Science Center in Exposition Park, just south of downtown Los Angeles. It is the official state science fair of the academic year for students throughout the State of California in grades 6 - 12. Organized since 1952, the California Science & Engineering Fair is affiliated with the Intel International Science and Engineering Fair (ISEF).

This year the Fair expects about 900 participants from 400 schools throughout the State who will present about 800 projects in competition for awards totaling \$60,000.

More information at <http://csef.usc.edu>.

Younger Chemists Committee (YCC)

The YCC of OCACS has been organizing and executing



chemistry events at the Children's Hospital of Orange County clinic since July 2018. We bring supplies to the hospital to set up science experiments for patients and their families to boost their interest in science, especially chemistry. It is important for us to do experiments that can easily be re-created at home, so the children can further explore their curiosity. Some experiments include "Lava Lamps," "Elephant Toothpaste," and "Non-Newtonian Slime," among many others. If you are interested in joining the next YCC's event, please contact the committee chair Amanda Bjornstad (amandabjornstad@gmail.com).

6 C Carbon 12.0107	2 4	1 H Hydrogen 1.00794	1	99 Es Einsteinium (252)	2 8 18 32 29 8 2
12 Mg Magnesium 24.3050	2 8 18 18 7	53 I Iodine 126.90447	2 8 18 18 7	16 S Sulfur 32.066	2 8 6
22 Ti Titanium 47.867	2 8 10 2	88 Ra Radium (226)	2 8 18 32 18 8 2	39 Y Yttrium 88.90585	2 8 18 9 2

Get Involved & Support OCACS

If you want to network with over 1300 chemists in Orange County, host a technical tour, speak at one of our dinner meetings or science cafes, explore leadership opportunities, or advertise with our Section, please visit our [website](#) or E-mail us at OCACSLocalSection@gmail.com and OCACSChair@gmail.com.

We would love to hear from you!

OCACS 2019 Executive Committee

Chair	Dr. Keisuke Ikehata	keisuke.ikehata@yahoo.com
Chair-Elect	Dr. Richard Deming	rdeming@fullerton.edu
Past Chair	Dr. Sandra Thompson	OCACSWCC@gmail.com
Treasurer	Mr. Robert Cohen	cohenr@sbcglobal.net
Secretary	Dr. Beverly Matsuda	BevMatsuda@iusd.org
Councilor	Dr. Rabin Lai	rabin@academysavant.com
Councilor	Mr. Robert Cohen	cohenr@sbcglobal.net
Councilor	Dr. Sanda Sun	sanda.sun@gmail.com
Alt. Councilor	Dr. Keisuke Ikehata	keisuke.ikehata@yahoo.com
Alt. Councilor	Dr. Carol Grimes	cgrimes@gwc.cccd.edu
Alt. Councilor	Dr. Sandra Thompson	OCACSWCC@gmail.com
Education Committee	Dr. Carol Grimes	cgrimes@gwc.cccd.edu
Environmental Committee	Dr. Ganesh Rajagopalan	rganesh@kennedyjenks.com
Program Committee	Mr. Robert Cohen	cohenr@sbcglobal.net
Younger Chemists Committee	Ms. Amanda Bjornstad	amandabjornstad@gmail.com
Women Chemists Committee	Dr. Sandra Thompson	OCACSWCC@gmail.com
Government Affairs Committee	Dr. Mark Hanning-Lee	markhl@prodigy.net
Kids & Chemistry	Dr. Sanda Sun	sanda.sun@gmail.com
Awards Committee	Dr. Sanda Sun	sanda.sun@gmail.com
Webmaster	Dr. Rabin Lai	rabin@academysavant.com