

## NORM 2018 NORTHWEST REGIONAL MEETING JUNE 24-27

The Richland Section of the American Chemical Society is pleased to host NORM 2018, the 73rd Northwest Regional Meeting from June 24 – June 27, 2018 in Richland, Washington in the new Discovery Hall at the Pacific Northwest National Laboratory. We invite you to participate in NORM 2018.

This conference will be bubbling with enthusiasm, excitement, sessions, workshops, tours, congeniality, and we hope, your participation. Prominent speakers are coming from throughout our region, including universities, industry, and national laboratories. Notables from PNNL, Washington State University, University of Washington, Whitman College, Eastern Oregon University, Gonzaga, Walla Walla Community College, and other institutions will be presenting groundbreaking research at this meeting. Whether you're in academia, industry, a national lab, a nontraditional chemistry job, retired, or in transition, NORM 2018 has something that will be of interest to you.

### FREE REGISTRATION

*for Retired/Emeritus/Unemployed  
or 50+ year ACS members*

You can find more details at the meeting website, [norm2018.org](http://norm2018.org).

### NORM18 TECHNICAL PROGRAM

The theme of NORM2018 is 'Energy, Environment and Education.' The energy-related symposia cover the application of chemistry and chemical engineering in a wide variety of areas including subsurface technologies for enhanced recovery of oil and gas, geothermal energy, biofuel and bioproduct production, sustainable generation of fuels and chemicals from diverse sources, chemical conversions in natural and industrial processes, and nuclear energy technologies from fuel to waste forms.

If environmental issues are up your alley, you will be drawn to the Environmental and Green Chemistry and Geochemistry tracks. The focus will be on mineral dissolution and growth, incorporation of toxic metals, geomicrobiological mineral transformations, charge and mass transfer across mineral/fluid interfaces in environmentally relevant materials,

and the fate and transport of nutrients and contaminants in the environment.

In keeping with the theme, the Chemistry Education and Outreach track is significant for the breadth of topics covered. It will feature a special symposium to honor the legacy of Jane and Glenn Crosby in Chemical Education and their dedicated service to the ACS. There will be stories and reminiscences from a cross section of those whose lives Jane and Glenn Crosby touched in a myriad of ways.

This track will also celebrate 50 years of Project SEED. Other symposia will highlight best-practices in undergraduate chemical research, instructional strategies that promote student learning and transformative partnerships for academics.

The High School Teachers Program track will include oral presentations centered on pre-college science education. The Undergraduate Program track will feature posters from undergraduate students and their advisors. Including the General Poster session, more than 90 posters will be presented at NORM 2018.

One of the highlights of the meeting is the free tutorial offered by the developers of NWChem to attendees in the field of computational chemistry. NWChem is a premier

*continued on page 2*



# INSIDE THIS ISSUE

## ANNUAL MEMBER PICNIC JULY 13

La Grande Celebrates Earth Day  
EOU Attends New Orleans National Mtg  
Mystery Powder Challenge

software package that provides its users with computational chemistry tools that can handle biomolecules, nanostructures, and solid-state compounds. If this tutorial piques your interest, please bring a laptop to gain hands-on experience with running this popular chemistry code. A noteworthy feature of the Analytical, Organic, Inorganic and Physical Chemistry symposia is the integration of theory, experiment and computation to develop predictive understanding of chemical pathways and processes.

Of course, safety is paramount in the scientific process. The Chemical Safety track will highlight the essential role of safety in chemistry, from problem selection, experimental design, scale up and ultimate application. This track will explore the various ways safety needs to be considered within the chemical enterprise

If you are the business type, the Innovation track will take you on an enthralling journey along the value chain from idea generation to commercialization. You will also get to learn from the success stories of invited panelists who have had a positive impact on the region's outstanding wine industry.

**NORM18 WORKSHOPS**

NORM 2018 will feature several workshops catering to your career development needs. The 'Career Pathways' workshop will help budding and career chemists navigate their careers along four main pathways, namely Industry, Higher Education, Government, and Working for Yourself. This workshop will help you discover the right career choice for you and guide you through the application process that is unique to each pathway. If you are looking for your first job, making a career transition, creating a new resume or honing your interviewing skills, the 'Personal Career Consulting' workshop has a team of volunteer ACS experts to assist you with almost any career questions you might have, including salary negotiation techniques.

If you are learning electrochemistry or incorporating it into your analytical, inorganic, or even environmental chemistry curriculum, the 'EChem in a Box' workshop will go over fundamental concepts of electrochemistry. There will be a short hands-on lab using the WaveNow potentiostat with screen-printed electrodes. The last part of the workshop will be a discussion about how to incorporate EChem in a Box into your curriculum and address any questions you have with electrochemistry. Please remember to bring a MS Windows laptop computer with a USB port.

A timely workshop on 'Advocating for Science: How to communicate with your elected officials' will be held on Sunday. Experts will role play various scenarios to help attendees practice their approach to communicate clearly about issues facing chemistry and catalyze support from policymakers.

**EXPOSITION**

A poster session with a networking social event on Sunday will help kick off the exposition, which will run through Tuesday. The expo will offer a great opportunity to learn about the latest products on the market. Applications for exhibitors are available on the meeting's website.

**UNDERGRADUATE PROGRAM**

Special activities are available at NORM 2018 especially organized for undergraduate students. On Sunday night June 24, join the Eastern Oregon University Student Chapter for a special "liquid nitrogen" ice cream social followed by the poster session.

On Monday June 25th, grab a student boxed lunch at 11:30 am and mingle in the EMSL Lobby and adjoining veranda (no food or beverages in the lecture hall). Then join the Eminent Scientist Lecture by Dr. Mas Subramanian, the Oregon State University Milton Harris Endowed Chair and Professor of Materials Chemistry. His talk is entitled: "YInMn Blues: An amazing Chemistry Discovery that Startled the Science and Art World."

On Monday evening, undergraduate students are also welcomed to join the hike up Badger Mountain, hosted by the Younger Chemists Committee (YCC) and the Women Chemists Committee (WCC). The hike will be guided by members of the YCC, WCC and other volunteers. At the top of Badger Mountain, local experts will give a brief talk on the interesting geology of the area.

**AWARDS**

Several awards will be presented at the meeting, including the E. Ann Nalley Northwest Regional Award for Volunteer Service to ACS. The awards banquet will take place on Tuesday.

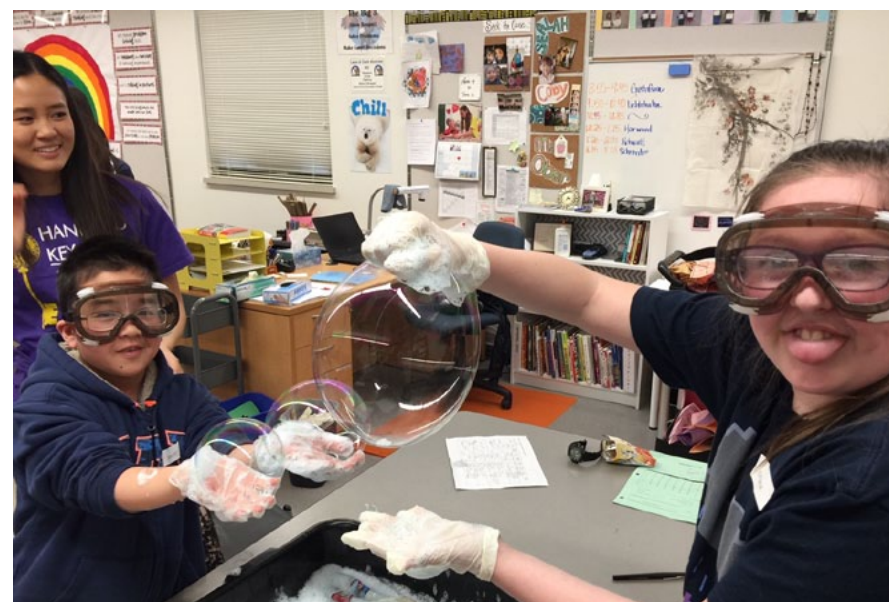
**REGISTRATION**

Early-bird registration for the meeting ends on May 21, but you can register at the on-site rate through the end of the meeting.

**SOCIAL EVENTS**

Among the social highlights of NORM 2018 will be the ACS Board of Directors Ice Cream Social and poster session with networking social event on Sunday. Monday's events include the undergraduate breakfast, sunset hike up Badger Mountain hosted by the Younger Chemists Committee, a tour of the Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory, and the Eminent Scientist Lecture by Dr. Mas Subramanian, the Oregon State University Milton Harris Endowed Chair and Professor of Materials Chemistry. Tuesday offers a packed social program including the Senior Chemists breakfast, networking luncheon sponsored by the Women Chemists Committee and open to all attendees, Wine Science networking social and the Regional Awards banquet. Wednesday begins with the ACS Northwest Region board open meeting and breakfast and includes two events that cannot be missed: a tour of the B Reactor National Historic Landmark—the world's first full-scale plutonium production reactor created as part of the top secret Manhattan Project during World War II and a tour of the Laser Interferometer Gravitational-Wave Observatory (LIGO) where the universe's gravitational waves were observed for the very first time. This groundbreaking work at LIGO was recognized by the 2017 Nobel Prize in Physics. You can also sign up to join other attendees at local restaurants to network with one another and experience all that the Tri-cities has to offer.

**MYSTERY POWDER CHALLENGE AT LEWIS & CLARK ELEMENTARY**



The most vital component of the scientific method are the powers of observation. When you are presented with multiple unknown items, objects or chemicals, how do you know what it is. Is it safe? Is it dangerous? Does it taste like bubble gum? How would you find out what each is?

Over 20 Lewis and Clark Elementary School Science Club members (4th and 5th graders) spent the past month learning the scientific method and the power of observation of physical and chemical reactions with Cheryl Antonio and David Heldebrant, along with Richland and Hanford High School Chemistry Club volunteers. This marks the 5th year in a row that the Richland Section supported and sponsored the Lewis and Clark Science Club, fostering STEM education across the region.

Four action-packed Friday afternoons spanning February and March of 2018, students were presented with an assortment of different white powders such as table salt, Epsom salt, baking soda, chalk, alum, sugar and cream of tartar. Students first learned the power of observations such as density, appearance and whether they underwent physical reactions such as dissolving in water or melting over a flame. Students then subjected the powers to chemical reactions, testing the powders with iodine, vinegar (does it fizz?), and whether it the powders char or burn during heating. The students learned how to record observations of their standards in a mini lab notebook. From their observations of each control, there were then asked to identify each individual powder using their records as an answer sheet. All of the students correctly identified the single powders, some correctly identified mixtures of two powders, with four students correctly identifying complex mixtures of three powders! As with tradition, the students are treated to the always fun and messy "elephant toothpaste" experiment made with yeast, hydrogen peroxide and dish detergent.

Our local section is proud to continue its support for the Lewis and Clark Elementary Science Club and its director, Cheryl Antonio. Science club is a school year-round program spanning different science subjects from engineering, chemistry, biology. Cheryl is grateful for the volunteer support and the \$50 contribution used to pay for supplies in support of the mystery powder challenge.

## ACS RICHLAND & THE SECOND ANNUAL CELEBRATION OF SCIENCE



The Second Annual Celebration of Science, hosted by Three River Science, was held on Saturday, April 21st, 2018 at the John Dam Plaza in Richland from 11am – 3pm. This family-friendly, festival style event celebrates the contributions of STEM based industries and professional organizations in the Mid-Columbia area. The Richland Section participated in this event by hosting a booth which featured this year's theme for Chemists Celebrate Earth Week (CCEW), "Dive into Marine Chemistry." During the day, we interacted with over 200 visitors to celebrate chemistry and share its contribution to the community. We displayed an ocean-in-a-bottle science demo to teach fundamental properties

of solution density and encourage awareness of oil spills in the marine environment. We also passed out various paraphernalia, including activity books, cellphone microscopes, and information and notifications for this year's upcoming Northwest Regional Meeting. Our volunteers also had the opportunity to share their professional experience with middle and high school students interested in pursuing careers in STEM fields. We would like to give a special thank you to the following volunteers: Mariefel Olarte, Ardelia Clarke, Sonia Alcantar, Arnold Eng, and Tenisha Meadows. Thank you for your part in making this a special day!

## EOU CHEM CLUB ATTENDS NEW ORLEANS NATIONAL MEETING

The Eastern Oregon University chemistry club trip to the ACS National Meeting in New Orleans was a great success! Twenty-two students and four faculty attended the meeting, presenting seven research posters and one highlighting the activities of the club during the 2016-17 academic year. Club members participated in the Chem Demo exchange featuring Earth Day activities related to density, the Undergraduate Award Ceremony where they received an Outstanding Award and career and graduate school fairs. They also enjoyed an authentic Cajun dinner compliments of the faculty. Students worked hard to fundraise for the trip, which was partially funded by EOU and other donations. The club would like to extend a special thank you to the Richland Section for a very generous donation of \$2,500 which helped considerably to alleviate travel costs. Pictures from New Orleans are available at:

<https://drive.google.com/drive/folders/1ytpzFihTYxQ1ROrmDc88Fg2YBERFooQj>



*EOU Chemistry Club at New Orleans National Meeting.*

## LA GRANDE CELEBRATES EARTH DAY



*Central Elementary students performing Earth Day hands-on activities.*

Earth Day celebrations in La Grande started on Saturday, April 14 when the EOU Chemistry Club hosted a group of sixty students in the SMILE program. The Club performed a magic show that was received with great enthusiasm by the children.

On Thursday, April 19 the first of three third-grade classes from Central Elementary School performed hands-on activities connected to Earth Day. Activities included understanding the role that seashells play in decreasing the acidity of oceans, surface tension of water and how it is affected by surfactants, and density and how salt affects buoyancy of objects. The same activities were repeated with other third grade classes on May 3 and again on May 17. A total of 80 children were involved in these Earth Day oriented outreaches. Pictures of the event can be seen at [https://drive.google.com/drive/folders/1a3EkkGs\\_BEkkDxCmrgJmkTLoV9aGHj9f?usp=sharing](https://drive.google.com/drive/folders/1a3EkkGs_BEkkDxCmrgJmkTLoV9aGHj9f?usp=sharing)

On Saturday, April 21 the Club held a table of activities at Arts for All. Children got to make beautiful designs using shaving cream and food color and learned how to spread and mix food color in milk by using surfactants to disrupt surface tension. Pictures can be seen at

Finally on Tuesday, April 24 the Club performed another magic show in the Gilbert Center to a large crowd of high school students from schools around the region. Though the Club ran out of hydrogen and could not explode balloons, they still got much participation from the audience lighting up on fire soap bubbles full of methane gas.

In all these events children received a copy of the "Chemistry Celebrate Earth Week" booklets along with environmental nanomoles and other giveaways provided by the Richland Section.



## UPCOMING EVENTS

**JUNE 24-27 NORM 2018** [www.NORM2018.org](http://www.NORM2018.org)  
PNNL Discovery Hall, Richland, WA

**JULY 13 - ACS/AICHE PICNIC**  
Time and place TBD

**NOVEMBER 16 - ANNUAL SECTION SOCIAL & AWARDS CEREMONY**  
6PM, RICHLAND COMMUNITY CENTER

**LEARN MORE ONLINE**  
<http://acs.labworks.org>

## UPDATE YOUR CONTACT INFO

It is time to update your contact information (e-mail, phone, and address) at the national ACS website. [Login with your member ID](http://www.acs.org/content/acs/en/help/change-your-contact-information.html) and update your profile at <http://www.acs.org/content/acs/en/help/change-your-contact-information.html> or call the ACS membership office at **1-800-ACS-5558**.

For those members wishing to serve ACS on a national committee, please submit your preferences online at <https://www.yellowbook.acs.org>. Contact Janet Bryant, ACS ConC Member for additional information.