



Division of Nuclear Chemistry and Technology
American Chemical Society

NUCL Webpage – <http://www.nucl-acs.org>

NEWSLETTER

April 2017

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FROM THE CHAIR

Lætitia Delmau

The beautiful days of spring are finally here and the weather in San Francisco was fantastic! This year's Spring National Meeting in San Francisco appeared to be a real success for our Division. The NUCL technical sessions were very well-attended primarily due to the quality of the sessions, but also because of finally being located in the Moscone Convention Center, thanks to Amy Hixon's efforts. All symposia were well-attended, with the Seaborg Award symposium honoring David Clark and the Bruce Bursten symposium achieving the milestone of more than 100 participants in attendance for several sessions. Many thanks to the organizers, speakers, and attendees for your participation. The Nuclear Summer School and Nuclear Fission symposia kicked off the week and were also very well attended. Rounding out the program were symposia on Advanced Actinide Materials: Nanostructure, Complexity & Extreme Environments, Young Investigators in Nuclear Science, and General Topic in Nuclear and Radiochemistry.

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Members-at-Large, Executive Committee

SUZANNE LAPI, 2015-2017

SUE CLARK, 2016-2018

Planning and organization for the Fall National Meeting in Washington, DC are essentially complete. Abstracts were due a week ago, but if you missed the deadline and still would like to present, send me an e-mail and we'll see what can be done. This window of opportunity is extremely short, though. In Washington, DC, we will have symposia on the Chemistry past curium, material science in nuclear waste disposal, nuclear forensics, and general topics in radiochemistry. I hope to see you there!

I also encourage you to contact Amy Hixon if you would like to organize a symposium in New Orleans in 2018. As for the Fall 2018 meeting, we are now looking for a volunteer to replace Jeff Terry. As he steps down from this responsibility, I want to thank him for having taken care of our Fall programming for several years. Having a point-of-contact for the organization of our programming makes things so much easier and I want to recognize our Program Chairs for the work they do. Additionally, I would like to say thank you to John Auxier II for volunteering to be the Fall Program Chair. It was brought to our attention that, other than the General Topics symposium, there is currently nothing for the Fall 2019 meeting; please contact John if you are interested in organizing a symposium.

At the Executive and Business meetings in San Francisco, options were discussed regarding the funding of the Glenn T. Seaborg Award in Nuclear Science. A way to cut some of our current costs would be to hold the Social Hour outside the Convention Center. Some nearby restaurants usually offer catering options that would be less costly. The savings would help alleviate the recurring costs from the Seaborg Award. We are also looking for a volunteer to arrange the Social Hour in Washington, DC. It doesn't necessarily mean signing up for arranging the event in years to come. One suggestion is to have people volunteering when the national meeting

happens to be in their city making checking out restaurants easier than over the internet. We gladly welcome your thoughts and ideas on this and other subjects of interest to the Division.

And since we are on the subject of requests for volunteers: you probably know that the health of the Division is primarily assessed by the number of members. This translates directly in the amount of money the ACS gives back to the Division and the number of councilors we are allowed to have. Starting in DC this fall, the Division will have a table/poster at the Sci Mix poster session and we need members, preferably young(er), to man the poster and talk to potential new members.

As always, feel free to contact me regarding any Division matters. We want you to be involved!

COUNCILORS REPORT

Graham Peaslee and Silvia Jurisson

The ACS is governance structure is largely comprised of elected councilors that represent either Technical Divisions (20%) or Local Sections (80%). The Nuclear Division is large enough now to have two ACS councilors who represent our interests at the Council Meeting held at every national meeting as well as on several sub-committees that discuss matters that impact the Division. Together with Nuclear Division members that represent local sections the Councilors funnel information from the ACS governance to the Nuclear Division members and they also can convey concerns from the membership to the ACS leadership.

This spring at the ACS National Meeting in San Francisco, we learned that there were 18,850 registered attendees, with almost 7000 students. San Francisco is one of the most popular venues for ACS meetings and this was no exception. The total membership of the

ACS is a little over 156,000 currently and many of the leadership efforts center about recruiting new members, retaining existing members, and improving the value proposition of the ACS for current members. To that end the Meetings and Expositions Committee (of which Silvia is a member) has suggested trying to shorten the National meetings to 4 days (no Thursday programming) and to reduce the number of satellite sessions held in hotels (where the costs are not negotiated by the ACS) instead of in the convention center itself. While this cannot be tested immediately because of existing contracts, it will be tried at a 2021 National meeting to judge member response. Similarly, in the Divisional Activities Committee (of which Graham is a member) a proposal to redistribute ACS fees to the Divisions based on International meeting involvement and Local section meeting involvement – neither of which is currently rewarded by the ACS – was discussed. It was shelved for one more year until a precise formula for counting these activities could be proposed, and when devised, this may actually improve the Nuclear Division's allotment of funding as we have several international meetings in which our members regularly participate. Also proposals for new Divisions (Materials Chemistry and Space Chemistry) were discussed and no action was taken until further information could be provided.

At the main Council meeting, two candidates were selected for the next election of the president-elect of the ACS (Bonnie A. Charpentier and Willie E. May). New procedures for removal of elected councilors were narrowly defeated because of the ambiguity of what might constitute unprofessional activity. A recommendation from the Meeting and Expositions Committee based on a survey of 5000 members of the inorganic division was then announced encouraging the ACS to protest the new "bathroom law" being proposed by the state of

Texas, by withdrawing the upcoming San Antonio national meeting (in Spring 2021) and holding in a state that had laws that reflect the inclusivity that the ACS represents. This received broad support from the floor. Then considerable discussion was held about whether the governance organization of the ACS was currently "optimal". 57% of the councilors felt it wasn't, 16% felt it was, and 27% needed more information, but a large percentage (84%) were willing to provide more input on ways in which it could be improved for the next century of the ACS. If you have any additional suggestions for the ACS in this regard, or concerns about anything ACS-related, please don't hesitate to contact your councilors who will do their best to let your voice be heard.

TREASURERS REPORT

Brian A. Powell

Alice Murray and I meet in January to transfer over the division financial paperwork and discuss the treasurer's duties. I sincerely appreciate Alice taking the time to talk me through the process.

The NUCL division currently has \$88,385.52 in the checking account and \$76,971.43 in the savings account. Note the checking account is somewhat inflated because there is \$22,800 deposited which was used to support symposia at the Spring 2017 National Meeting in San Francisco.

Income thus far in 2017 has included payments to support activities at the 2017 Spring ACS meeting as well as semi-annual dues. These funds include:

- \$9,800 from LANL to support the symposia "Frontiers in Heavy Element Electronic Structure: A Tribute to Bruce Bursten" and "Glenn Seaborg Award for Nuclear Chemistry: Symposium in Honor of David L. Clark" (\$4,900 to each symposium).
- \$8,193 in semi-annual dues from the ACS.

Note that in addition to the funds from LANL for the 2017 national meeting symposium, some funds were received at the end of 2016 including:

- \$8000 from ANL to support the symposia “Frontiers in Heavy Element Electronic Structure: A Tribute to Bruce Bursten” and “Glenn Seaborg Award for Nuclear Chemistry: Symposium in Honor of David L. Clark” (\$4,000 to each symposium).

- \$5,000 from Genentech to support the Nuclear Chemistry Summer School symposium.

NUCL MEMBER HIGHLIGHT

Alison Tamasi, editor



Dr. Robert Metzger

President,

Radiation Safety Engineering Inc.

Dr. Metzger formed his own company in March of 1979, shortly after graduating from Arizona State University with his PhD in engineering. Since then he has developed a company with a fine-tuned expertise in physics and radiochemistry to support industry, including performing the analysis of radionuclides in challenging matrices such as Arizona drinking water, which is both hard and mineralized. One of Bob’s current projects involves developing an analysis method for long-lived contaminants in cyclotron-produced radiopharmaceuticals. In particular, he is working with colleagues at Oak Ridge National Laboratory and Los Alamos National Laboratory to find the best way to exclude

these spectra on detectors designed for homeland security so that they do not produce nuisance alarms. When he isn’t pursuing his passion for work at the interface of physics and radiochemistry, Bob spends nearly every weekend competitively shooting rifles. He also enjoys hiking through the carpets of wildflowers in the Superstition Wilderness and catch-and-release salmon fishing in Alaska.

NATIONAL MEETING PROGRAMMING

FALL 2017 – Washington, DC

August 20-24, 2017 (*Jeff Terry*)

Theme: Chemistry’s Impact on the Global Economy

Abstract submission for the spring 2017 National Meeting has passed. Please contact Jeff Terry (terryj@iit.edu) for more information. The following symposia are sponsored by the NUCL division:

- **Materials Science in Nuclear Waste Disposal**

Organizers:

Thomas E. Albrecht-Schmitt,

David E. Hobart,

and Ines Triay

- **Chemistry Past Curium Symposium**

Organizers:

Thomas E. Albrecht-Schmitt,

Christoph Düllmann,

and David E. Hobart

- **Nuclear Forensics**

Organizers: John Auxier,

Kristi Pellegrini,

and Jordan Corby

- **General Topics in Radiochemistry**

Organizer: Lætitia Delmau

SPRING 2018 – New Orleans, LA
March 18-22, 2018 (*Amy Hixon*)
Theme: The Food, Energy, Water Nexus

The 255th ACS National Meeting & Exposition will be held March 18 - 22, 2018 in New Orleans, Louisiana. Please contact Amy Hixon (ahixon@nd.edu). We anticipate that the call for papers will be due in August 2017. Currently planned symposiums are:

- **Radioisotope Production**
Organizers: Suzanne Lapi and Dennis Phillips
- **Radiopharmaceutical Chemistry** (FLUO primary sponsor, NUCL co-sponsor)
Organizers: Neil Vasdev, Alan Packard, and Suzanne Lapi.
- **Actinide Complexes and Nanoclusters**
Organizers: Karah Knope and Tori Forbes
- **A Tribute to Alan Davidson**
Organizers: Alan Packard, Jim Kronauge and Kit Cummins
- **Isotope Harvesting at FRIB**
Organizers: Todd Bredeweg, Gregory Severin
- **Young Investigators Symposium**
Organizers TBA
- **Seaborg Award Symposium**

FALL 2018 – Boston, MA
August 19-23, 2018 (*John Auxier II*)
Theme: Nanotechnology

We are looking for symposium ideas and symposium chairs for this meeting. Please contact John Auxier II if you are interested. (jauxier@utk.edu).

SPRING 2019 – Orlando, FL
March 31 – April 4, 2019 (*Amy Hixon*)
Theme: Chemistry for New Frontiers

- **Crosscutting Research in Environmental Radiochemistry and Nuclear Forensics**
Organizers: Luther McDonald, Amy Hixon
- **Young Investigators Symposium**
Organizers: Alison Tamasi
- **Seaborg Award Symposium**

FALL 2019 – San Diego, CA
August 25 - 29, 2019 (*John Auxier II*)
Theme: Chemistry of Water

- **Celebration of the centennial of Rutherford's first nuclear reaction**
Looking for Session Chairs

AWARDS NOMINATIONS COMMITTEE OF NUCL
Steve Yates

The Awards Nominations Committee of the Division was formed to encourage and facilitate nominations for national ACS awards. Please nominate a colleague for one of the awards given below or another ACS award

(<http://www.acs.org/content/acs/en/funding-and-awards/awards/national.html>).

ACS Fellows

(<http://www.acs.org/content/acs/en/funding-and-awards/fellows.html>) -- Nominations can be initiated by individuals; however, the Division can nominate up to four individuals as ACS Fellows annually. Nominations for the 2018 class of Fellows are scheduled to open early 2018.

W. Frank Kinard Distinguished Service Award

This award, established in 2014, recognizes NUCL members for outstanding service to the Division and the field of nuclear science -- Nomination procedures are given on the NUCL website (http://www.nucl.acs.org/?page_id=611) and the next deadline is July 1, 2017.

Suggestions and questions should be addressed to Steve Yates (yates@uky.edu; 859-257-4005).

Charles D. Coryell Award

Please note that the award deadline for the Coryell Award for undergraduate research is September 1st. Any undergraduate who has been actively doing research in the nuclear chemistry field in the previous year is eligible for consideration of this award. To nominate a student for this award (which includes a certificate and a \$1000 check), please submit a sample of the student's work (in the form of a written report or a publication), together with a nomination letter from the research mentor that describes the extent and the nature of the student's involvement in the research. All the application materials should be emailed to Graham Peaslee (gpeaslee@nd.edu) before September 1.

NUCLEAR AND RADIOCHEMISTRY SUMMER SCHOOL UPDATE

Dave Robertson

I am pleased to report that the Department of Energy has renewed the grant for the Nuclear Chemistry Summer Schools for 2017 through 2019. Funding for the program is provided by the Heavy Element Chemistry program in the Chemical Sciences, Geosciences, & Biosciences Division and by the Isotope Program in the Office of Nuclear Physics. This year's program will be held June 10 through July 27 at Brookhaven National Laboratory and San Jose State University. Annalise Van Wyngarden (a former participant in the Summer School) will serve as Site Director at SJSU and Trish Baisden will be the primary instructor at SJSU. Louis Pena will again serve as Site Director at BNL. The deadline for receiving all application materials was February 1. We received over 130 complete applications. My sincere thanks the selection committee for their work on reviewing such a large number of applications from so many outstanding students. This year's selection committee consisted of Alice Mignerey from the University of Maryland, Brian Powell from Clemson University, Alfred Sattelberger from Argonne National Laboratory, and Dallas Reilly from Pacific Northwest National Laboratory. The students that will be participating in this year's program are:

Brookhaven National Laboratory:

Tristan Adamson	Schreiner U.
Nicholas Bigham	Shippensburg U.
Colin Clayton	Northwestern U.
Joseph Edgecomb	Saint Martin's U.
Ashley Hastings	U. of Mary Hardin
Kathryn Hicks	U. of Chicago
Pauline Huang	Stony Brook U.
Bethany Kersten	U. of Idaho
Silviane Man-Wilrich	Mills College
Abel Ricano	UC Berkeley
Bailey Warren	Salem College
Michael Zott	Georgia Tech

San Jose State University:

Veronica Bradley	Earlham College
Emily Chou	SUNY at Buffalo
Patrick Dome	Centre College
Bryan Harvey	Moravian College
Alejandro Hernandez	Florida Int. U.
Brandon Hilliard	Carleton College
Kathryn Humphries	Truman State U.
Kirsten Martin	Georgia Tech
Alexander O'Brien	U. of Arkansas
Aliya Whitehill	George Fox U.
Ryan Zitter	Park U.
Abigail Thompson	Portland State U.

The outstanding students from the 2016 program, Emily Kaufman, Augustana University, (BNL) and Andrew Fletcher, Hamilton College, (SJSU), were recognized at the NUCL Business Meeting in San Francisco.



Nuclear and Radiochemistry Summer School outstanding students Andrew Fletcher (left) and Emily Kaufman (right).