



Division of Nuclear Chemistry and Technology  
*American Chemical Society*

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

**NEWSLETTER**  
**October 2019**

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**FROM THE CHAIR**

*Jen Shafer*

Greetings NUCL Colleagues! I hope your respective falls are treating you better with cooler weather and, for national lab colleagues, a gratitude that the government fiscal year has closed. This will be my final contribution as Chair for the newsletter. I would like to thank everybody who gave me the chance to serve and helped me over the course of the year. From programming to governance to organization of social hours, your contributions have been deeply appreciated.

I would like to provide a hearty congratulations to our 2020 Glenn T. Seaborg Award recipient Sue Clark from Pacific Northwest National Laboratory & Washington State University. Sue's recognition is richly appropriate and a testament to her internationally recognized efforts in multiple areas of radioanalytical chemistry. Nominations for the 2021 Glenn T. Seaborg award are due November 1st, and I would encourage you to nominate your deserving colleagues. Information about how to nominate someone are found [here](#).

Program Chair, 2019

**JEN SHAFER**

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Alternate Councilor

**PAUL BENNY**, 2018-2020

Members-at-Large, Executive Committee

**SUE CLARK**, 2019-2021

**JUSTIN WALENSKY**, 2018-2020

This year's Fall National Meeting in San Diego was populated with in multiple technical areas and we appreciate the contributions of our organizers, speakers, and attendees. The social hour was organized off-site by Gian Surbella from Pacific Northwest National Laboratory and he found an excellent spot at Half Door Brewing company in San Diego. Justin Walensky has already organized a social hour at Magianno's for the Spring National meeting in Philadelphia.

Talking about Philadelphia, abstracts are due on **October 14**. Please do not delay entering your abstract as this deadline is now a **hard deadline**. We learned about this during organizing this past national meeting and it significantly limited participation. Additionally, many of the abstracts we thought we were able to sneak in did not actually get into the final program. Therefore, **PLEASE**, get your abstracts in by the 14<sup>th</sup>.

In Philadelphia, we have a stacked schedule. This includes sessions on Macromolecular Actinide Chemistry, Radiotherapeutics, Young Investigators, The Future of the Periodic Table, General Topics, Computational Methods, and Sue's Seaborg Award Symposium. In addition to the technical programming at the Spring National meeting, we will also be executing a strategic planning session prior to the meeting on Friday, March 20<sup>th</sup> and Saturday, March 21<sup>st</sup>. We are looking for participants to help with planning. Please reach out to Tori Forbes or myself if you are interested. Tori was successful in securing the necessary funds from ACS to execute this strategic plan with minimal cost to the division – thank you, Tori, for your efforts in this! Information about our previous strategic plan can be found [here](#). We hope to see you in Philadelphia!

We are still in search of some assistance with our Fall programming in San Francisco. San Francisco is a generally well attended and would be a lovely host city for your

symposium. Please let John Auxier or Tori Forbes know if you would like to organize a session.

I'll close by wishing our incoming chair, Tori Forbes, the best for her year as Chair and well wishes to everyone as we close out 2019.

## COUNCILOR'S REPORT

*Silvia Jurisson, Graham Peaslee, and Jenifer Shafer*

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 Fall at the ACS National Meeting in San Diego, we learned that there were 12,409 registered attendees, with about 3100 students. The total membership of the ACS is a little over 151,000 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.

The ACS Meeting App was again used exclusively at the San Diego meeting with no hard copies available. The members will not need to upload a new app for each meeting, but will be able to open the current meeting within this app. If you had any difficulties that you would like to have relayed to the ACS Staff, let us know. Improvements are being made regularly.

From the Meetings & Expositions (M&E) committee meeting (Silvia Jurisson is a

member; chair of Technical Programming subcommittee of M&E): There was discussion about the extension of the abstract deadline for the Fall meeting in San Francisco until after the Spring meeting in Philadelphia (22-26 March 2020). This is now set to proceed. In order to do this, the ACS staff will let Division Program Chairs know their room assignments (all technical sessions will be in the Moscone Convention Center) on 19 October 2019. The number of rooms assigned will be based on historical data from the various divisions for the Fall meeting over the past 3 years. Abstract submission will close on 04/06/2020, which is ~10 days after the Philadelphia Spring meeting (about 4 months before the Fall meeting opens). There will be no even programming with this meeting. The Fall meeting in Atlanta will not have any Thursday programming. On Monday and Tuesday, the oral sessions will run from 8-12 noon and 2-6 pm; the 12-2 pm timeslot will be for posters, lunch and exhibits without any concurrent programming. This is an effort to enhance poster session attendance and expo attendance. Metrics will be assessed to determine if this format is successful. A test of this schedule will be run on Tuesday at the Spring 2021 meeting in San Antonio. This is the first year that the 5-year rolling average for the national meetings is in the positive (not a loss). This means only that registration will only increase by the cpi (no added amount) to \$505 for 2020 meetings.

From the Divisional Activities Committee (DAC) meeting (Graham Peaslee is a member): DAC approved our IPG application for a **Nuclear Division Strategic Planning Retreat**, and because the Leadership Advisory Board is in year 3 of a 3-year project to incentivize Divisions to undergo a LAB-accredited Strategic Planning Meeting, we received additional funding to total \$12,500 for the process. Congratulations to all that made this happen. The retreat will be scheduled before the Philadelphia ACS meeting next Spring (Friday March 20 & Saturday March 21). Convergent Research

Communities (CRC) are likely to be coming. DAC is seeking proposals for pilot funding. (2 or more Divisions that have members interested in a single science that isn't perfectly represented by one division...such as Space, Material Science).

At the main Council meeting, electronic balloting selected the following members for committees:

Council Policy Committee (CPC): Anne M. Gaffney, Lydia E. Hines, Will E. Lynch and Sally B. Peters (2020-2022); Dee Ann Casteel (2020)

Committee on Nominations and Elections (N&E): Michelle V. Buchannan, Charles E. Cannon, Alan A. Hazari, Amber S. Hinkle and Thomas H. Lane (2020-2022)

Committee on Committees (ConC): Lisa M. Balbes, D. Richard Cobb, Emilio X. Esposito, Jason E. Ritchie, and Stephanie J. Watson (2020-2022)

The Council voted to approve the recommendation that the Pittsburgh Local Section be transferred from District II to District III so that the member population in District III is in compliance with the bylaws.

Ballots for the 2019 fall national election will be distributed on 30 September and voting will be open until 25 October. The candidates for President-Elect are H. N. Cheng and Carol A. Duane.

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.

## NATIONAL MEETING PROGRAMMING

### SPRING 2020 – Philadelphia, PA

March 22 – 26, 2020

*Theme: Macromolecular Chemistry: The Second Century*

The 259th ACS National Meeting & Exposition will be held March 22-26, 2020 in Philadelphia, Pennsylvania. Symposia are listed below; abstracts will be accepted until October 14<sup>th</sup>, 2019. Please contact Amy E. Hixon ([ahixon@nd.edu](mailto:ahixon@nd.edu)) for more information.

- **Macromolecular Actinide Chemistry**  
*Organizers: Peter C. Burns ([pburns@nd.edu](mailto:pburns@nd.edu)) and Ginger E. Sigmon ([gsigmon@nd.edu](mailto:gsigmon@nd.edu))*
- **Radiotherapeutics: From Isotope Production to Targeted Delivery**  
*Organizers: Rebecca Abergel ([abergel@berkeley.edu](mailto:abergel@berkeley.edu)), Ethan Balkin ([Ethan.Balkin@science.doe.gov](mailto:Ethan.Balkin@science.doe.gov)), and Stosh Kozimor ([stosh@lanl.gov](mailto:stosh@lanl.gov))*
- **Young Investigators in Nuclear and Radiochemistry**  
*Organizers: Deborah Penchoff ([dpenchof@utk.edu](mailto:dpenchof@utk.edu)) and Justin Powers-Luhn ([jpowersl@vols.utk.edu](mailto:jpowersl@vols.utk.edu))*
- **The Future of the Periodic Table**  
*Organizers: Charles M. Folden, III ([Folden@comp.tamu.edu](mailto:Folden@comp.tamu.edu)), Jenifer Shafer ([JShafer@mines.edu](mailto:JShafer@mines.edu)), and Thomas Albrecht-Schmitt ([TAlbrechtSchmitt@gmail.com](mailto:TAlbrechtSchmitt@gmail.com))*
- **General Topics in Nuclear Chemistry and Technology**  
*Organizer: Tori M. Forbes ([tori-forbes@uiowa.edu](mailto:tori-forbes@uiowa.edu))*
- **Computational Methods for Lanthanides and Actinides**

*Organizers: Deborah Penchoff ([dpenchof@utk.edu](mailto:dpenchof@utk.edu)) and Charles Peterson ([Charles.peterson@unt.edu](mailto:Charles.peterson@unt.edu))*

- **Seaborg Award Symposium in honor of Sue B. Clark**

*Organizers: Janet Bryant ([janetsbliss@hotmail.com](mailto:janetsbliss@hotmail.com)), Amares Chatt ([A.Chatt@dal.ca](mailto:A.Chatt@dal.ca)), Aurora Clark ([auclark@wsu.edu](mailto:auclark@wsu.edu)), Nathalie Wall ([nathalie.wall@ufl.edu](mailto:nathalie.wall@ufl.edu))*

### FALL 2020 – San Francisco, CA August 16-20, 2020

*Theme: Chemistry from Bench to Market*

The 260<sup>th</sup> ACS National Meeting & Exposition will be held August 16-20, 2020 in San Francisco, California. If you would like to organize a symposium for the meeting, please contact John D. Auxier, II ([jdauxier@lanl.gov](mailto:jdauxier@lanl.gov)). The Call for Papers will be submitted in November 2019 and the abstracts will be due March 2020. Currently planned symposia are:

- **Nuclear Forensics**  
*Organizers: John Auxier II ([jdauxier@lanl.gov](mailto:jdauxier@lanl.gov)) and Jennifer Erchinger ([jerchinger@lanl.gov](mailto:jerchinger@lanl.gov))*
- **General Topics in Nuclear Chemistry and Technology**  
*Organizer: Tori M. Forbes ([tori-forbes@uiowa.edu](mailto:tori-forbes@uiowa.edu))*

### SPRING 2021 – San Antonio, TX March 21-25, 2021

*Theme: Bonding Through Chemistry*

The 261<sup>st</sup> ACS National Meeting & Exposition will be held March 21-25, 2021 in San Antonio, Texas. If you would like to organize a symposium for this meeting, please contact Amy E. Hixon ([ahixon@nd.edu](mailto:ahixon@nd.edu)). The Call for Papers will be submitted in July 2020 and abstracts will be due October 2020.

## NUCL DIVISION MEMBER HIGHLIGHT

*Alison Tamasi, editor*



*Dustin Demoin (right) with his husband, Alex Dopp.*

### **Dr. Dustin Demoin Radiochemistry Manager Eckert & Ziegler IPL**

Dr. Dustin Demoin got an earlier start than most in the world of nuclear and radiochemistry, having been introduced to the subject by a particularly dedicated high school chemistry teacher, Teri Haye, who challenged students with questions like "Which nuclide would be the best choice for use in a bone scan?". Despite few options to further this interest during his undergraduate studies, Dustin managed to discover and attend the Nuclear Chemistry Summer School at Brookhaven National Laboratory. Although his graduate and postdoctoral research were focused on radiomedicine and working with mCi of activity, his current role in industry is more analytically focused and he routinely processes 3 orders of magnitude more activity than he did as a student. The shift in his professional focus also afforded him much greater work-life balance, freeing him up to read cheesy romance novels, watch movies/tv on Netflix, run, and lounge by the pool. Dr. Demoin also enjoys remaining plugged-in to the research community through reviewing and editing papers.

## NUCL DIVISION ELECTIONS

Election of officers for the NUCL Division of the ACS will occur later this year. Below are the candidates for open positions on the Executive Committee.

### **NUCL Vice Chair 2020 (Chair Elect 2021, Chair and Program Chair 2022, Immediate Past Chair 2023)**

Nathalie Wall – *University of Florida*

Richard Wilson – *Argonne National Lab*

### **Councilor (2020 – 2022)**

Silvia Jurisson – *University of Missouri*

John Auxier II – *Los Alamos National Lab*

### **Treasurer (2020 – 2022)**

Brian Powell – *Clemson University*

### **Secretary (2020 – 2022)**

Amy Hixon – *University of Notre Dame*

Kiel Holliday – *Lawrence Livermore Nat. Lab*

## **Candidate Biographies and Statements**

**Nathalie A. Wall**, *University of Florida*, (Nathalie.Wall@ufl.edu), has been a Professor at the University of Florida Department of Materials Science & Engineering since June 2019. She received a "Maîtrise" (B.S. equivalent) in Physical Sciences in 1989 and a "Diplôme d'Etudes Approfondies" (M.S. equivalent) in Radiochemistry in 1990, both from the University of Paris (France). She received a Doctorate in Radiochemistry in 1993, from the University of Paris, while employed by the Department for Radioactive Waste Repository at the Commissariat à l'Energie Atomique (CEA), where she studied actinide interactions with minerals. N. Wall studied actinide chemistry applied to the Waste Isolation Pilot Plant (the world first deep underground disposal for transuranic wastes) during her post-doctoral position at Florida State University. She continued her work on WIPP chemistry as a staff scientist at Sandia National Laboratories and then

became a faculty member in the Chemistry Department of Washington State University. (2006-2019) Prof. Wall's research interests focus on the environmental behavior of radionuclides and chemistry associated with the nuclear fuel cycle. Her current research interests include aspects of the technetium chemistry, the chemistry of fission product in spent nuclear fuel, metal solution chemistry in mixed solvent, and nuclear waste form corrosion in presence of relevant repository sediments. Prof. Wall has been awarded research grants from various agencies, including U.S. DOE/EM, NE, NNSA, and U.S. DoD/DTRA. She publishes her work in a variety of journals, including *Inorganic Chemistry*, *Nature Communications*, *Dalton Transactions*, *Chemical Geology*, *Journal of Non-Crystalline Solids*, *Journal of Electroanalytical Chemistry*, *The Journal of Nuclear Materials*, and *Radiochimica Acta*. N. Wall is a member of the PLOS ONE Editorial Board and Member of the Distinguished Reviewer Boards for the *Journal of Radioanalytical and Nuclear Chemistry*. She is a member of the Geochemical Society and the American Association for the Advancement of Science. Wall has been a member of ACS and the NUCL-DNCT Division since 2001; she was the ACS Washington-Idaho Border Section (WIBS) Chair in 2016. She has organized multiple ACS symposia, was member of the ACS Glenn T. Seaborg Award Canvassing Committee, (2013-2016) and was member of the 2014 and 2017 of the ACS/DNCT-NUCL Division Strategic Planning activities.

**Richard E. Wilson**, *Argonne National Laboratory* (rewilson@anl.gov), received a B.S. in Chemistry from the State University of New York at Binghamton in 2000 before starting graduate school at the University of California, Berkeley with Prof. Heino Nitsche. His doctoral work focused on the environmental chemistry of the actinides, particularly plutonium and its interactions with iron oxide minerals. While at Berkeley

he collaborated with the nuclear chemistry group at the 88" cyclotron at LBNL, participating in atom-at-a-time chemistry experiments investigating the chemistry of Rf, Hf, and Zr. After graduating in 2005, he took a postdoctoral fellowship in the Heavy Elements and Separation Sciences Group at Argonne National Laboratory with Dr. Lynda Soderholm. In 2007 he was hired as an assistant chemist in the Heavy Elements and Separation Sciences Group at ANL where his research program focused on the synthetic and physical inorganic chemistry of the actinide elements. In 2012 he was awarded a Department of Energy Early Career Research Award to investigate the chemistry of protactinium, and continues to pursue his research interests into the periodic properties and trends within the actinide elements. In 2019 he became the group leader of the Heavy Elements Chemistry Group at ANL. He has been active in organizing symposia at ACS and other international meetings, including the Seaborg Award Symposium for Heino Nitsche, symposia at the Asia-Pacific Symposium on Radiochemistry, and has been a member of the program committee for the Plutonium Futures meetings. Most recently he is serving as the program chair for the Rare Earth Research Conference 2020. He is a graduate of the 1999 ACS Summer School in Nuclear and Radiochemistry and continues to support the Summer School as a guest lecturer. He is the founding chairperson of ANL's mid-career working group and continues to be a strong advocate for the advancement of early career and mid-career scientists and engineers. As a member of the Division's Executive Committee he is committed to expanding the appeal of the division to early career researchers, students, and faculty to promote the expansion of nuclear science. Equally important is broadening programing and cooperative activities with the other technical divisions in order to demonstrate the breadth and impact of nuclear science and technology and its importance to the ACS.

**Silvia S. Jurisson**, *University of Missouri* ([jurissons@missouri.edu](mailto:jurissons@missouri.edu)), earned her B.S. in Chemistry from the University of Delaware in 1978 and her Ph.D. in inorganic and radiopharmaceutical chemistry at the University of Cincinnati with Professor Ed Deutsch in 1982. She had postdoctoral training at the University of New South Wales (1983-1984) with Professor W. Greg Jackson, the Australian National University (1984) with Professor Alan M. Sargeson, and the University of Missouri (1984-1986) with Professor David E. Troutner. She spent 5 years in the pharmaceutical industry at Squibb/Bristol-Myers-Squibb before beginning her academic career at the University of Missouri in 1991 and where she is now a Chancellor's Professor of Chemistry and Radiology, and Senior Research Scientist at the University of Missouri Research Reactor. She has been involved in inorganic and radiochemistry with applications to radiopharmaceutical chemistry, radioenvironmental chemistry, and biological systems. She serves on the editorial boards of *Nuclear Medicine and Biology* and the *Journal of Nuclear and Radioanalytical Chemistry*, and is an Associate Editor of *Radiochimica Acta*. She is the Chair of the Campus Radiation Safety Committee, and serves on the Reactor Advisory Committee at the University of Missouri. She is a member of the Advisory Committee of TRIUMF (ACOT) and the Nuclear Science Advisory Committee (NSAC). She was awarded the Glenn T. Seaborg Award for Nuclear Chemistry from the American Chemical Society in 2012, the College of Arts & Science Purple Chalk Teaching Award in 2013, and was elected as a Fellow of the American Association for the Advancement of Science in 2014, a Fellow of the American Chemical Society in 2016, the Gold Chalk Award from the Graduate School in 2017, and the John H. Hubbell (Elsevier) and TERACHEM Awards in 2018. She currently serves as a Councilor for the Nuclear Division of the American Chemical Society

(ACS), where she is a member of the Meetings and Exposition Committee (M&E) and serves as chair of the Technical Programming Subcommittee. She is also a member of the Task Force on Future Meetings Reimagined. Her current research involves target development, radionuclide production, separations, chelate synthesis, coordination chemistry, and radiotracer chemistry.

**Dr. John Auxier II**, *Los Alamos National Lab* ([jdauxier@lanl.gov](mailto:jdauxier@lanl.gov)), is currently a team leader in Actinide Analytical Chemistry (AAC) at Los Alamos National Laboratory (LANL). Prior to joining LANL, he earned a PhD in Inorganic and Nuclear Chemistry from the University of Tennessee, Knoxville (UTK) in 2013 where he specialized in developing novel materials for neutron detection with an emphasis on the detection of special nuclear material. He was subsequently offered a joint post-doctoral research between the UTK Nuclear Engineering Department and Oak Ridge National Laboratory (ORNL) where he specialized in the advancement of gas-phase separations of rare earth elements and actinides and in the development of surrogate nuclear melt glass for nuclear forensics applications. In 2015, Auxier successfully converted to Research Assistant Professor in the UTK Nuclear Engineering department, maintained a joint appointment at ORNL and was awarded a guest scientist positions at both LANL and the Y12 National Security Complex, where his research aims spread across nuclear forensics, separations chemistry, with an emphasis on applied research. This research had many areas that supported the US Army's FA52 proponent, USMA AIADs, and as well as that of other branches of the US Military. He has also been involved with numerous efforts within ACS including being the Fall Programming Chair for the last 2-3 years, and has been an active member for the last 11 years.

**Brian Powell**, *Clemson University* ([bpowell@clemson.edu](mailto:bpowell@clemson.edu)), received his Ph.D in

Environmental Engineering and Science from Clemson University in 2004. He held postdoctoral positions in the Actinide Chemistry Group at Lawrence Berkeley National Laboratory and the Glenn T. Seaborg Institute at Lawrence Livermore National Laboratory before returning to Clemson University in 2008. Brian is the Fjeld Professor of Nuclear Environmental Engineering and Science and oversees research focused on understanding and prediction of the physical, chemical, and biological processes which govern the mobility of heavy metals and radionuclides in natural and engineered systems. Brian has been active ACS member within the nuclear, geochemistry, and environmental chemistry divisions and organized multiple symposia in each division. He has also served as treasurer of the NUCL Division since 2017.

**Amy E. Hixon**, *University of Notre Dame* ([ahixon@nd.edu](mailto:ahixon@nd.edu)), received her B.S. degree in Chemistry from Radford University in 2006 and M.S. and Ph.D. degrees in Environmental Engineering & Earth Science from Clemson University in 2008 and 2013, respectively. While a doctoral candidate at Clemson University, she also held a position at the U.S. Nuclear Regulatory Commission in the Office of Federal and State Materials and Environmental Management Programs, where she supported the work of the Performance Assessment and Environmental Review branches. She joined the faculty of the Department of Civil & Environmental Engineering & Earth Sciences at the University of Notre Dame in 2013, where she teaches courses in environmental aquatic chemistry, actinide chemistry, and nuclear forensic analysis. Her research interests include environmental radiochemistry, the chemical and physical analysis of nuclear materials, and the synthesis and characterization of novel plutonium compounds. She has been awarded a Nuclear Forensics Junior Faculty Award from the Department of Homeland Security, an Early

Career Award from the Department of Energy, and a CAREER Award from the National Science Foundation. She has been an active member of NUCL division, serving as a Program Chair for the NUCL division since 2016, and currently serves on an ACS National Award Selection Committee.

**Kiel Holiday**, *Lawrence Livermore National Lab* ([holliday7@llnl.gov](mailto:holliday7@llnl.gov)), is Group Leader and Associate Program Leader of the Chemistry of Nuclear Materials Group in the Materials Science Division. He received his Ph.D. in Radiochemistry from University of Nevada, Las Vegas in 2009. He completed a two-year post-doc with the Institut für Nukleare Entsorgung (INE) in Karlsruhe, Germany before joining the Lawrence Livermore National Laboratory in 2011. Kiel has experience in solid state synthesis and characterization of actinide materials by various X-ray and electron techniques. He is also an expert in time resolved laser fluorescence spectroscopy of europium and curium. Kiel currently performs research in the chemical processing of nuclear materials for stockpile stewardship, nuclear forensics, and innovations in manufacturing.

## ACS INNOVATION HUB

Attention entrepreneurially-minded NUCL members: the new ACS Innovation Hub LinkedIn group, where those interested in entrepreneurship in the chemical industry can make important connections, get advice, and learn about the latest trends driving chemical industry innovation, is up and running.

The group has already gained more than 700 members since its launch three months ago, and they are sharing valuable content and fostering collaborative conversation every day. With your help, the group will continue to grow and be a valuable incubator for entrepreneurship and innovation in the chemical space. Please take a look and share: <https://www.linkedin.com/groups/12269166/>

The managers of this initiative invite your feedback to continue to improve the group and make it the most valuable to ACS members. Please contact Rebekah Paul, MBA, Program Manager, Industry Member Programs of the ACS for additional information ([r\\_paul@acs.org](mailto:r_paul@acs.org)).

## MESSAGE FROM NUCLEAR AND RADIOCHEMISTRY SUMMER SCHOOLS

*Lynn Francesconi*

We are currently working on the Nuclear and Radiochemistry Summer School (NCSS) website that will be hosted on the NUCL division website. This website will be fully up and running around Thanksgiving, 2019 at which time we will be able to accept applications. So please talk up the NCSS to your undergraduate students and encourage them to view the present NUCL division website for information and to apply to the summer school program when the website is fully up and running.

The NCSS are intensive six week summer programs for undergraduates. Funding is provided by the U.S. Department of Energy, and the summer schools are administered through the NUCL division of the ACS. Fellowships include stipends, all tuition and fees, transportation to and from the summer school location, housing, books, and laboratory supplies. Transferable college credit will be awarded through the ACS accredited chemistry programs at San Jose State University (seven units) or the State University of New York at Stony Brook (six units). Candidates should be undergraduates with an interest in nuclear science who are presently in their sophomore or junior year of study at a US college or university. They should have completed at least two years of chemistry, one year of physics and one year of calculus. Applicants must be US citizens.

If you or your students have any questions or please contact Lynn Francesconi at [lfrances@hunter.cuny.edu](mailto:lfrances@hunter.cuny.edu).

## AWARDS NOMINATIONS COMMITTEE OF NUCL

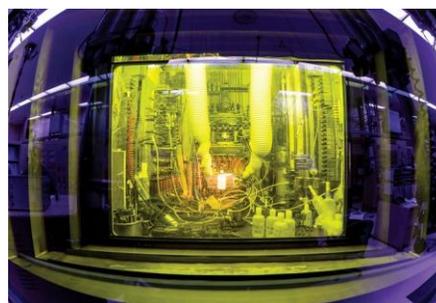
*Thomas Albrecht-Schmitt*

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

*Glenn T. Seaborg Award for Nuclear Chemistry*

(<https://www.acs.org/content/acs/en/funding-and-awards/awards/national/bytopic/glenn-t-seaborg-award-for-nuclear-chemistry.html>) -- Nominations are initiated by individuals and the procedures are given on the ACS website. The next deadline is November 1, 2019. Suggestions and questions should be addressed to Thomas Albrecht-Schmitt ([talbrechtschmitt@fsu.edu](mailto:talbrechtschmitt@fsu.edu)).

## NUCL IN C&EN



*Photo credit: Oak Ridge National Lab*

The work of NUCL Division member Lætitia H. Delmau, a radiochemist at ORNL, was included in a recent edition of C&E News. The article highlights the development of a new  $^{252}\text{Cf}$  extraction technique using tetraoctyl-diglycolamide, a neutral ligand, that could reduce cost and waste of  $^{252}\text{Cf}$  extraction by eliminating the need for a cationic exchange separation. The full article can be found [here](#).



## **Post-doctoral Research Associate** **Shafer Radiochemistry Research Group**

**Job Description:** Post-doctoral researcher sought for full-time position at the Colorado School of Mines, in collaboration with our research sponsor. The project would focus on molten salt and materials chemistry of uranium, zirconium and lithium. Electrochemistry, materials science, molten salt and/or glovebox experience preferred. Ph.D. Required. Our group has a demonstrated history of exciting research in areas of nuclear security, materials management and fundamental f-element science. Publications can be found here: <https://www.shafer-radiochemistry.com/publications/> and more information on the group can be found here: <https://www.shafer-radiochemistry.com/>

Responsibilities include: designing experiments and process flow; examination of solution effects in plating chemistry using electrochemical and spectroscopic methods electroplating; material characterization through SEM and other forms of microscopy, preparing biweekly progress update presentations and quarterly updates to research sponsor; collaborating effectively with sponsor partners through sample exchange, co-development of processes, and materials characterization; providing mentorship to a graduate student and undergraduate student on the project; maintaining excellent lab safety and a diverse, accepting work environment; and assisting our Assistant Research Professor with research group management (total of 10 graduate students, 1 undergraduate student, 1 technician).

**How to Apply:** Applications should email Professor Shafer ([ishafer@mines.edu](mailto:ishafer@mines.edu)) with a CV, references and cover letter describing relevant skills and availability date (required). Desired start date is November 15, 2019, but flexibility exists regarding this. References will not be contacted until later in the selection process and you will be informed before that contact is made.

**Total Rewards:** Starting salary will be determined by the qualifications of the selected applicant balanced with project budget availability and available market information. Mines provides an attractive benefits package including fully paid health and dental insurance. Part of Mines' mission is to create a family-friendly environment supported through our dependent tuition benefits, parental leave benefits, and dependent care assistance plan, as well as in special events, camps, and programming. For more information visit: [family.mines.edu](http://family.mines.edu)

**About us:** The Colorado School of Mines is located in picturesque Golden, in the foothills of the Rockies, 15 miles west of Denver and 20 miles south of Boulder. The Shafer Research Group focuses on both the fundamental and applied aspects of actinide science and related technologies. Dr. Shafer's group is a high-quality, well-funded research program (\$750,000 in annual research awards) with support from DTRA, DOE-NNSA, DOE-SC, DHS, and NSF. The research group is highly interdisciplinary and matriculates' students with both Applied Chemistry and Nuclear Engineering graduate degrees.

**Application close date:** Open until filled