



Division of Nuclear Chemistry and Technology  
*American Chemical Society*

NUCL WWW Home Page – <http://www.nucl-aes.org>

**NEWSLETTER**  
**January 2016**

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**FROM THE CHAIR** – *Paul Benny*

As the New Year begins, I am looking forward to serving the NUCL division as Chair in 2016. I greatly appreciate my predecessors (Mantica and Hobart) that have provided excellent examples of leadership of the NUCL division. I am excited to be a part of such an exciting team and working with the exceptional people instrumental in directing the NUCL division's success. This year we have a number of stimulating symposia scheduled for the upcoming spring San Diego meeting and fall Philadelphia meeting. In particular, I would like to highlight the young investigators symposium (spring meeting). I encourage you to attend and to recommend to your students to attend. It is an exciting forum for young scientists to present their results, network, and interact with other NUCL members.

My goal is to continue to lead the NUCL division in a position of prominence within ACS and help our members to achieve their goals at the national and sectional level. If you have any suggestions or comments, please contact me so we work together to improve our division. See you in San Diego.

Chair, 2016

Program Chair, 2016

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**DAWN A. SHAUGHNESSY**, 2015-2017

Members-at-Large, Executive Committee

**SUZANNE LAPI**, 2015-2017

**SUE CLARK**, 2016-2018

## FROM THE PAST CHAIR – *Dave Hobart*

Another year is slipping away and during this Holiday Season it is time to reflect on the achievements of the Division and to reminisce on the NUCL Division 50<sup>th</sup> Anniversary celebration. Important aspects of the 50<sup>th</sup> Anniversary celebration are the numerous successful symposia at the two national ACS meetings in Denver and Boston hosted and co-hosted by NUCL. Additional features of the 50<sup>th</sup> Anniversary celebration are the Anniversary lapel pins that were distributed in Boston (and will be available at the San Diego meeting) and the recently distributed Special Issue of the NUCL Newsletter. Please join me in congratulating the Newsletter Editor, Andrew Klose and all of the authors who contributed to this historic publication. Another reason to celebrate is the news that the DOE has agreed to fund the Nuclear Chemistry Summer School for 2016! It has been a very busy year for me and I wish to acknowledge the gracious assistance provided by the Past Chair, the Executive Committee and the broader membership who supported me in this responsibility. I know that you will support the 2016 Chair, Paul Benny as well. I look forward to serving as Past Chair!

Plans are well underway for the upcoming Spring National meeting in San Diego with the theme “Computers in Chemistry.” Abstracts were submitted to six NUCL symposia in San Diego, registration is now open and housing options are available. When you are registering for the meeting please note that now there is a button you can select that is titled “Nuclear”. Thanks to all members who encouraged the ACS to add this button. San Diego symposia include: “Symposium in Honor of Richard Martin - Tackling the Challenging Electronic Structure of Actinides”; “Young Investigators in Nuclear & Radiochemistry”; “Heavy Element Inorganic Chemistry – Tribute to Al Sattelberger”; “General Topics in Nuclear and

Radiochemistry”; and two awards symposia. An important note is that the Seaborg Award Symposium traditionally held at the Spring National meeting will be postponed to the Fall Philadelphia meeting. If you have any questions about the San Diego meeting, please contact Amy Hixon (ahixon@nd.edu)

The 2016 Fall National ACS meeting will be in Philadelphia, PA with the theme, “Chemistry of the People, by the People and for the People.” Please contact Paul Benny, 2016 NUCL Chair ([bennyp@wsu.edu](mailto:bennyp@wsu.edu)) or Jeff Terry ([terryj@iit.edu](mailto:terryj@iit.edu)) if you are interested in organizing a symposium for this meeting.

### Additional Meeting Announcements

**Plutonium Futures - The Science** will be held in Baden-Baden, Germany September 18-22, 2016. This conference is a series of conferences to provide an international forum for the presentation and discussion of current research on the physical and chemical properties and environmental interactions of plutonium and closely-related actinide elements. The conference is co-sponsored by the European Commission (EU), the Commissariat à l'Energie Atomique et aux Energies (CEA), France and the Atomic Weapons Establishment (AWE), United Kingdom. Visit the conference webpage for more information:

<http://www.pufutures2016.eu/>

### Membership

Division membership declined slightly from a high in May of 1,002 members to 974 in November. The student membership drive this summer was quite successful, but we must continue to encourage friends and colleagues who have not yet become members to do so. The membership needs to be near 1,000 so that we can retain two councilors to represent the Division to the ACS.

## 2016 ACS National Awards

In September the 2016 ACS National Award winners were announced. Congratulations are again extended to: The Seaborg Award winner, E. Philip Horwitz; The Garvan-Olin Medal recipient, Annie Kersting; and The Nobel Laureate Signature Awardees for Graduate Education in Chemistry, Thomas Albrecht-Schmitt (preceptor) and Mathew Polinski (student). These are important and prestigious awards and all NUCL Division members should consider nominating their colleagues or themselves for ACS National and NUCL Division awards.

## 2015 ACS Fellows

The 2015 class represented 25 National Committees, 31 Divisions, and 48 Local Sections of the ACS. The NUCL Division nominated four well-qualified candidates of which one was selected. Again, congratulations to Alice Mignerey for ACS Fellow recognition.

## Nuclear Science Advisory Committee (NSAC) Updates

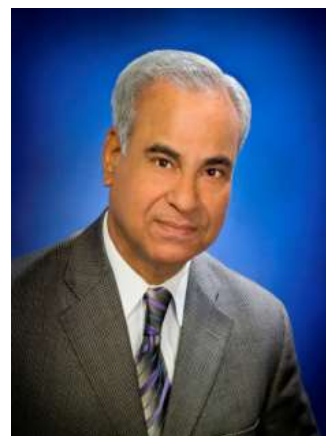
Suzanne Lapi and I (Dave H.) attended the NSAC meeting on October 15 and 16 in Washington, D.C. The "2015 Long Range Plan: Isotopes for the Nation's Future" was completed and published with a July 2015 designation. Several NUCL members participated on this subcommittee, including Suzanne Lapi, Dave Robertson, Mark Stoyer, and Scott Wilbur. The Subcommittee Chair is Larry Cardman ([cardman@jlab.org](mailto:cardman@jlab.org)). Reports on Molybdenum-99 and Neutrinoless Double Beta Decay were approved and were distributed. The NSAC committee also reviewed the Long Range Plan for Nuclear Science (LRP). Paul Mantica represented the NUCL division on the LRP writing group, and had responsibility for leading the chapter on Broader Impacts. The LRP Writing Group

submitted the final LRP draft in September 2015. The NSAC voted to accept the report at the October Washington, D.C. meeting, and it was distributed shortly thereafter with a release date of October 2015. The reports are provided on the American Physical Society's Division of Nuclear Physics website: [www.aps.org/units/dnp/](http://www.aps.org/units/dnp/).

## NUCL Division Elections

Elections were held in November for Vice Chair 2016 (Chair Elect 2017, Chair and Program Chair 2018, Immediate Past Chair 2019) and Member at Large 2016-2018. The election results were close and congratulations are extended to Lynn Francesconi (Vice Chair) and Sue Clark (Member-at-Large).

## NUCL MEMBER HIGHLIGHT – *Alison Tamasi (editor)*



*Dr. Suresh Srivastava  
Brookhaven National Laboratory, Emeritus*

As the pioneer of the chemistry, concept, and applications of "Theragnostics" (the use in Nuclear Medicine procedures of unique radionuclides that emit both imaging photons and therapeutic electrons), Dr. Srivastava's list of accomplishments and accolades is truly immense. After receiving his PhD in inorganic coordination chemistry from the University of Allahabad he worked in many places including Paris, Louisiana, Georgia, and New York before joining the technetium group at

Brookhaven National Laboratory (BNL) in 1975, where he dedicated most of his career. There he helped to develop the chemistry behind the medical Tc "kits" that are in wide use today, including the use of stannous chloride as a reducing agent. Tc-99m remains the most widely used radionuclide for medical imaging. During this work, and then later in the mid-eighties, Sn-117m was being used as a tracer to determine tin's presence and its fate *in vivo* prior to its excretion. While examining this isotope of tin, it became apparent that it would also be an ideal theragnostic agent, and Sn-117m has taken the spotlight of Dr. Srivastava's more recent work - in fact, he is currently involved with a number of collaborators dedicated to aspects of this work. Though he retired in 2015, Dr. Srivastava has kept busy with a prestigious emeritus appointment at BNL, serving on the editorial board of several journals, and being president of the new Society of Nuclear Medicine and Molecular Imaging "Therapy Center for Excellence" as well as the President of the World Association of Radiopharmaceutical and Molecular Therapy (WARMTH) for 2016 and 2017. In what spare time he does have, he enjoys reading, and traveling, especially to visit his children in California and in Connecticut, as well as spend time on his wife Maria's farm in Costa Rica, where she has about 14,000 palm trees planted.

## TREASURER'S REPORT

The NUCL Division closed 2015 with \$64,003 in its checking account and \$76,943 in its savings account (the December interest had not been posted at the time of this article). The 2015 Income was \$54,989 and the 2015 Expenses were \$73,219. The major expenses were: \$23,420 to support the two national ACS meetings, \$17,868 to support the 50<sup>th</sup> Anniversary and Heavy Element Symposia, \$11,559 to support the Seaborg Award Symposium Honoring Heino Nitsche, and

\$10,000 sent to the ACS Office of Development for the Glenn T. Seaborg Award. The NUCL Division received \$34,862 from the ACS for its allotments, dues, and councilor travel. The NUCL Division received \$20,000 in donations for symposia at the 2015 Spring National Meeting.

## UPCOMING PROGRAMMING

### SPRING 2016 – SAN DIEGO, CA March 13-17, 2016 (*Amy Hixon*)

We will be hosting six NUCL division symposia at the Spring ACS meeting and we are fortunate to have our sessions located in the San Diego Conference Center. These and other symposia of interest are listed below:

**Nobel Laureate Signature Award for Graduate Education in Chemistry: Symposium in honor of Matthew J. Polinski & Thomas E. Albrecht-Schmitt**  
*Organizer: Thomas Albrecht-Schmitt (talbrechtschmitt@gmail.com)*  
*Cosponsored by INOR*

**Tackling the Challenging Electronic Structure of Actinides: Symposium in honor of Richard Martin**  
*Organizers: Aurora Clark (auclark@wsu.edu) and Enrique Batista (erb@lanl.gov)*

**Francis P. Garvan – John M. Olin Medal: Symposium in honor of Annie Kersting**  
*Organizers: Mavrik Zavarin (zavarin1@llnl.gov) and James Begg (begg2@llnl.gov)*  
*Cosponsored by ENVG*

**Adsorption of Metals by Geomedia**  
*Organized by GEOC, Cosponsored by ENVR, MPPG, and NUCL*

## **Frontiers in Heavy Element Inorganic Chemistry**

*Organized by INOR, cosponsored by NUCL  
Compliment to Heavy Element Inorganic Chemistry: A Tribute to Al Sattleberger*

## **Young Investigators in Nuclear & Radiochemistry**

*Organizers: Amy Hixon (ahixon@nd.edu) and Lindsay Shuller-Nickles (lshulle@clemson.edu)  
Cosponsored by YCC*

## **Separations for the Nuclear Fuel Cycle in the 21<sup>st</sup> Century Revisited**

*Organized by I&EC, cosponsored by NUCL*

## **Heavy Element Inorganic Chemistry: A Tribute to Al Sattleberger**

*Organizers: David Clark (dlclark@lanl.gov), David Shuh (dkshuh@lbl.gov), and Lynne Soderholm (ls@anl.gov)  
Cosponsored by INOR  
Compliment to Frontiers in Heavy Element Inorganic Chemistry*

## **General Topics in Nuclear & Radiochemistry**

*Organizer: David Hobart (dhobart15@gmail.com)*

## **FALL 2016 – PHILADELPHIA, PA**

**August 21 – 25, 2016** (*Jeff Terry*)

The abstract submission deadline for the Philadelphia ACS Meeting will be March 21, 2016. The symposia are listed below. Please contact Jeff Terry ([terryj@iit.edu](mailto:terryj@iit.edu)) for more information.

- **Seaborg Award Symposium – In Honor of E. Philip Horwitz**  
*Organizers: Mark Jensen, Mark Dietz*
- **Nuclear Modeling and Simulation**  
*Organizers: Todd Bredeweg, Susan Lapi*

- **Nuclear Forensics**  
*Organizers: John Auxier, Andy Giminaro, Todd Bredeweg*
- **Physicochemical Characterization of Nuclear Fuels**  
*Organizer: Jeff Terry*
- **Surface Chemistry of Actinides and Fission Products**  
*Organizer: Daniel Velazquez*

## **SPING 2017 – SAN FRANCISCO, CA**

**April 2 – 6, 2017** (*Amy Hixon*)

We anticipate the call for symposia papers to be in July 2016. Tentative symposia are listed below. Please contact Amy Hixon ([ahixon@nd.edu](mailto:ahixon@nd.edu)) if you are interested in chairing a symposium.

- **Nuclear and Radiochemistry Summer School: Past, Present, and Future**  
*Organizers: Dale Ensor and David Robertson*
- **Archaeometry in Nuclear Chemistry**  
*Organizer: Rachel Popelka-Filcoff*
- **Nuclear Fission**  
*Organizers: Todd Bredeweg and Bob Rundberg*
- **Young Investigators in Nuclear and Radiochemistry**
- **Seaborg Award Symposium**

## **AWARD 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 2016 class of Fellows are scheduled to **open February 1, 2016** and **close April 1, 2016**.

**W. Frank Kinard Distinguished Service 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](http://www.nucl.acs.org/?page_id=611)) and the next deadline is **July 1, 2016**.

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

Call for Papers:

# Nuclear and Radiochemistry Summer School: Past, Present, and Future

254<sup>nd</sup> National Meeting of the  
American Chemical Society  
San Francisco, CA April 2 – 6, 2017

Sponsored by the Division of Nuclear Chemistry and Technology (NUCL)  
of the American Chemical Society

Abstracts are invited from graduates of the nuclear science summer school. Talks should focus on how your experience at the summer school provided focus for your career in nuclear and radiochemistry. The purpose of the symposium is to highlight the importance of the summer school in recruiting current and future generations of scientists. Speakers are encouraged to present past and current research.

Organized by:

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Abstracts will be due in the fall of 2016. You should submit your abstract using Online Abstract Submittal Form System (OASys) at <http://abstracts.acs.org/>. Feel free to contact the organizers to indicate your interest or to answer any questions.