



Division of Nuclear Chemistry and Technology
American Chemical Society

NUCL WWW Home Page – <http://www.cofc.edu/~nuclear>

Chair, 2013

Program Chair 2013

ROBERT S. RUNDBERG

Los Alamos National Laboratory

P.O. Box 1663, MS-J514

Los Alamos, NM 87545

Phone: (505) 667-4785

rundberg@lanl.gov

Chair-Elect, 2013

Program Chair, 2014

PAUL F. MANTICA

Michigan State University

National Superconducting Cyclotron Lab

640 S. Shaw Lane

East Lansing, MI 48824

Phone: (517) 908-7456

mantica@msu.edu

Vice-Chair, 2013

Program Chair, 2015

DAVID E. HOBART

5715 Hwy 85 North #1430

Crestview, FL 32536

Phone: (505) 227-4728

dhobart15@gmail.com

Secretary, 2011-2013

Vacant

Treasurer, 2011-2013

ALICE MURRAY

Savannah River National Laboratory

Aiken, SC 29808

Phone: (803) 725-0440

alice.murray@srnl.doe.gov

Councilors

STEVEN W. YATES, 2011-2013

yates@uky.edu

GRAHAM F. PEASLEE, 2012-2014

peaslee@hope.edu

Alternate Councilor

DAWN A. SHAUGHNESSY, 2012-2014

Members-at-Large, Executive Committee

SUZANNE LAPI, 2012-2014

RICHARD ROBERTS, 2013-2015

NEWSLETTER

October 2013

Newsletter Editor: Lætitia Delmau

Email : delmaulh@ornl.gov

Topics

- > FROM THE CHAIR
- > UPCOMING PROGRAMMING
- > SUMMER SCHOOL
- > COUNCILORS' REPORT
- > CORYELL AWARD
- > CALL FOR PAPERS

FROM THE CHAIR – *Bob Rundberg*

Dear Nuclear Division Friends,

The Indianapolis meeting was enjoyable, though smaller than the New Orleans meeting. I suspect that this is related to issues with many of our national lab scientists receiving travel approvals, courtesy the GSA fallout, and Indianapolis being a more difficult “sell” than New Orleans. Nonetheless, I am happy to report that sessions were well attended and Indianapolis was quite a comfortable host town. The meeting was compact, restaurants were abundant and the weather was agreeable. Thank you to the organizers that prepared symposia for the conference – you are appreciated!

On a final note related to Indianapolis, we are pleased to make a newsletter announcement regarding our 2014 Seaborg Award recipient – Professor Walter Loveland! Walter is a professor at Oregon State University and has provided innumerable insights in the field of nuclear chemistry and has, most importantly for young people trying learn about the field, co-authored the book “Modern Nuclear Chemistry” with Professors Seaborg and Morrissey. Many will probably agree Professor Loveland is long past due for such accolades.

I am elated that we have a national platform with the American Chemical Society to honor his efforts in the field. Professor Loveland has also assisted with the organization of numerous symposia in our division and his commitment to service should also be acknowledged.

As a natural segue, Past Chair Ken Nash will update us with progress regarding the continued funding of the Seaborg Award in this newsletter. Ken will fill us in on another area where we request participation from our division members: NUCL division elections! Please also see notes from Chair-Elect, Paul Mantica, and Program Chair, Jenifer Braley, regarding plans for the Spring 2014 ACS meeting in Dallas. Abstract submission for Dallas closes October 21!

UPCOMING PROGRAMMING- *Paul Mantica, Jenifer Braley*

As Bob mentioned, we do need your abstracts for Dallas. The submission deadline is **Monday, October 21, 2013** at 11:00 pm CDT. The theme, *Chemistry of Power and Advanced Materials*, is naturally relevant to some of our divisional activities and we're looking forward to overlapping with the thematic programming that ACS selected. We'll be sure to keep you posted with programming and hotel information as the deadline approaches.

A note regarding the Young Investigator (YI) Symposium: several members observed that the YI Symposium may better serve students in the spring. The argument being that the submission deadline is in the fall, following a summer full of research, and more students may be looking for jobs during the spring semester. To this end, we have shifted the 2015 YI symposium to the spring Denver meeting instead of the fall Boston meeting. I

have loosely penciled myself (Jen) into the meeting as an organizer considering the proximity of Denver to my home base in Golden. I am more than happy to collaborate with other faculty members on such a symposium. If you're interested in working together, or taking over organization, I would be happy for the additional help.

If you have interest in programming further out, ample room exists for the 2015 Fall (Boston) meetings. The Denver Meeting is nearly full, but we try to not to turn down highly motivated organizers☺. The theme for the Denver meeting, "Chemical Resources: Extraction, Refining and Conservation", could fit very well with some divisional interests. Thank you to all current and future organizers for their programming contributions. Please contact either Dave Hobart (dhobart15@gmail.com) or Jenifer Braley (jbraley@mines.edu) with your programming suggestions.

Spring 2014 – Dallas, TX – *Chemistry of Power and Advanced Materials*

– Seaborg Award Symposium in Honor of Walter Loveland (Organizers: Dave Morrissey, MSU, morrissey@nscl.msu.edu, and Darrah Thomas, OSU, t.darrah.thomas@oregonstate.edu)

– Global Status of Nuclear Energy (Organizers: Ken Nash, WSU, knash@wsu.edu, and Jeff Terry, IIT, terryj@iit.edu)

– A Symposium in Honor of Norm Edelstein: A Distinguished and Diverse Career in Actinide Science (Organizers: Al Sattelberger, ANL, asattelberger@anl.gov; David Shuh, LBNL, dkshuh@lbl.gov; Lynda Soderholm, ANL, soderholm@anl.gov; David Clark, LANL, dlclark@lanl.gov)

– Radiation Hardened Materials for Accelerators, Reactors and Spacecraft – (Organizer: Ram Devanathan, PNNL, ram.devanathan@pnnl.gov)

- Nuclear Batteries and Radioisotope Micropower Sources (Organizer: David Meier, PNNL, david.meier@pnnl.gov)
- Thermodynamics, Reactivity, and Spectroscopy of the Heavy Elements (co-sponsored with PHYS) –(Organizers: Angela Wilson, UNT, akwilson@unt.edu, Paul Bagus, UNT, bagus@unt.edu, Laura Gagliardi, UMinn Minnesota, gagliard@umn.edu, and Hicham Idriss, SABIC, KSA, idriss@abic.com)

Fall 2014 – San Francisco, CA – Chemistry for a Sustainable World

- Comprehensive Test Ban Treaty Verification (Organizer: Sean Liddick, MSU, liddick@nscl.msu.edu)
- High-Level Waste Storage (Organizer: Nathalie Wall, WSU, nawall@wsu.edu)
- Nuclear Fusion, from NIF to the Stars (Organizers: Mark Stoyer, LLNL, stoyer1@llnl.gov; Lee Bernstein, LLNL, laberstein@llnl.gov)
- Environmental Radiochemistry Symposium (Organizers: Don Reed, LANL, dreed@lanl.gov; Ralf Sudowe, UNLV, ralf.sudowe@unlv.edu; Brian Powell, Clemson, bpowell@clemson.edu)
- Young Investigators (Organizers: Cody Folden, TAMU, folden@comp.tamu.edu; Jeff Terry, IIT, terryj@iit.edu)
- Radiopharmaceutical Chemistry (co-sponsored with FLUO and MEDI) – Alan Packard (Harvard, alan.packard@childrens.harvard.edu)
- A Symposium in Memory of Frank Kinard: A Lifetime of Contributions to Science, Summer Schools and our NUCL Division Family (Organizers: TBD)

Spring 2015 – Denver, CO – March 22-26, 2015 - Chemistry of Natural Resources

- Seaborg Award Symposium (Organizer: TBD)
- Analytical Chemistry in Nuclear Technology - Dave Hobart and Charles Coleman

- Radioisotope Production –Dennis Phillips, Suzy Lapi, Silvia Jurisson

Fall 2015 – Boston, MA – August 16-20, 2015 - Innovation from Discovery to Application

- Young Investigators (Organizer: TBD)

If you are interested in organizing a symposium for 2015, please contact Dave Hobart, 2015 NUCL Chair (dhobart15@gmail.com), or Jenifer Braley, NUCL Program Chair (jbraley@mines.edu).

Several other concepts in development

Radiochemistry Infrastructure – cooperative with the Health Physics Society

Archaeometry (contact Dave Robertson)

SUMMER SCHOOL – Dave Robertson

The 2014 Nuclear and Radiochemistry Summer Schools will be held June 16 through July 25. The announcement and application form for the 2014 program are at:

<http://chemistry.missouri.edu/nucsummer/index.shtml>

The deadline for receiving all application materials is February 1. Please encourage students to apply.

We will recognize the outstanding students from the 2013 program, John Strikwerda (BNL) and Marie Kirkegaard (SJSU), at the NUCL Business Meeting in Dallas.

Questions, comments, or concerns regarding the summer school program should be directed to:

Prof. J. David Robertson
National Director, ACS Nuclear and

Radiochemistry Summer Schools
University of Missouri
Columbia, MO 65211-7600
Phone 573-882-2240
robertsonjo@missouri.edu

COUNCILORS' REPORT - *Steve Yates and Graham Peaslee*

Portions of the following edited summary were provided by the Office of the Secretary and General Counsel on key actions and discussions of the ACS Council and Board of Directors at the 2013 Fall National Meeting in Indianapolis.

ACTIONS OF THE ACS COUNCIL

Election Results

- The Committee on Nominations and Elections presented candidates for membership on the **Committee on Committees** beginning in 2014. By electronic ballot, the Council elected Janet L. Bryant, Dee Ann Casteel, Amber S. Hinkle, Wayne E. Jones, Jr., and V. Michael Mautino for the 2014-2016 term.
- The Committee on Nominations and Elections presented to the Council candidates for membership on the **Council Policy Committee**, and Harmon B. Abrahamson, Judith H. Cohen, Alan M. Ehrlich, and Angela K. Wilson were elected for the 2014-2016 term.
- The Council Policy Committee presented candidates for membership on the **Committee on Nominations and Elections** to the Council, which elected Lisa M. Balbes, Jeannette E. Brown, Martha L. Casey, D. Richard Cobb, and Lissa Dulany for the 2014-2016 term.

Candidates for the fall 2013 ACS national election

Candidates for President-Elect, 2014

Dr. G. Bryan Balazs, Associate Program Leader, Lawrence Livermore National Lab, Livermore, CA

Dr. Charles E. Kolb, Jr., President and CEO, Aerodyne Research Inc., Billerica, MA

Dr. Diane Grob Schmidt, Section Head R&D, The Procter & Gamble Company, Cincinnati, OH

Candidates for Directors-at-Large, 2014-2016 (two will be elected)

Dr. Susan B. Butts, Independent Consultant, Susan Butts Consulting, Midland, MI

Dr. Thom H. Dunning, Jr., Director, National Center for Supercomputing Applications and Professor, Distinguished Chair for Research, University of Illinois at Urbana-Champaign, Urbana, IL

Dr. Dorothy J. Phillips, Retired, Waters Corporation, Milford, MA

Dr. Kathleen M. Schulz, President, Business Results, Inc., Albuquerque, NM

Candidates for District II Director, 2014-2016

Dr. George M. Bodner, Arthur Kelly Distinguished Professor of Chemistry Education and Engineering, Purdue University, West Lafayette, IN

Dr. Alan A. Hazari, Director of Chemistry Labs and Lecturer, University of Tennessee, Knoxville, TN

Candidates for District IV Director, 2014-2016

Dr. Rigoberto Hernandez, Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA

Dr. Larry K. Krannich, Professor Emeritus of Chemistry, University of Alabama, Birmingham, AL

Highlights of Committee Reports

- **Society Committee on Education (SOCED)**

SOCED recognized the achievement that is present in the Next Generation Science Standards, including their basis in research on teaching and learning, their formulation as performance standards, and their basis in the NRC framework and its dimensions of Science and Engineering Practices, Disciplinary Core Ideas, and Cross Cutting Concepts. SOCED supported the Standards as a document that is broadly applicable as a basis for K-12 science instruction and called upon the Society to develop innovative programming to support the implementation of the Standards.

- **Standing Committee on Economic and Professional Affairs (CEPA)**

The Committee on Economic and Professional Affairs reported that employment is up and unemployment is down for ACS chemists. The complete review of the Comprehensive Salary Survey will appear in the September 23 issue of *C&EN*.

- **Project SEED**

The Committee on Project SEED needs mentors in Alaska, Arkansas, Connecticut, Hawaii, Maine, Nebraska, Nevada, New Mexico, North Dakota, Rhode Island, South Dakota, Utah, Washington, and Wyoming. Contact Cecilia Hernandez (c_hernandez@acs.org) for more information.

Realignment of Electoral Districts

ACS Bylaws require that the six electoral districts – from which six directors are elected to the ACS Board of Directors – be balanced in their total member populations. The Council voted to approve a proposal by the Committee on Nominations and Elections to realign these districts. Visit the N&E

website to look at the actual proposal and its impact.

Meeting Registration Report

As of the morning of September 11, 2013, the ACS fall national meeting had attracted 10,840 registrants, including 6,630 regular attendees and 2,584 students.

Divisions

After much debate, a proposed name change for the Division of Colloid and Surface Chemistry to the Division of Colloids, Surfaces, and Nanomaterials was defeated by the Council in a close vote.

Special Discussion Item

A special discussion item was put on the Council agenda for this meeting. ACS President Marinda Wu presented and moderated a discussion on “What can we – as the Society and as individual citizens – do to help create jobs or demand for chemists?” Following the presentation, numerous Councilors engaged in a discussion of this focused topic on possibilities to encourage jobs creation and offered several suggestions.

ACTIONS OF THE BOARD OF DIRECTORS

- On the recommendation of the Committee on Budget and Finance (B&F), the Board voted to approve an advance member registration fee of \$380 for national meetings held in 2014.
- The Board also voted to authorize funding for a new initiative, the National Association of Chemistry Teachers (NACT). This association, which is roughly analogous to the AAPT, will be an

ACS program to provide middle- and high-school chemistry teachers a professional home. Through NACT, they will have access to specialized resources and the broader ACS community.

- A decision has been made to turn the videos captured of oral presentations at ACS national meetings, known as Presentations on Demand (POD), into a member benefit. This means that all the talks taped at national meetings (typically 300 to 500 per meeting) will be available free-of-charge online for the subsequent 12 months to all ACS members.
- The Board confirmed the recommendation of the ACS Executive Director/CEO of the new President of Chemical Abstracts Service (CAS). He is Manuel (Manny) Guzman, most recently Executive Vice President of Learning and Research Solutions of Cengage Learning. Mr. Guzman succeeds Robert J. Massie, who is retiring in March 2014 after leading CAS with great distinction and success for 21 years. Mr. Guzman will begin September 30. Mr. Massie will assist in the transition when he returns from medical leave.

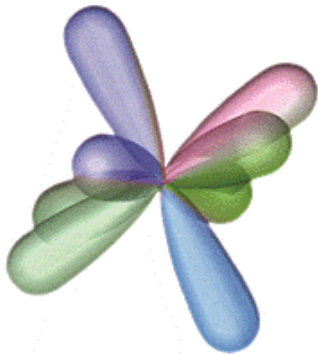
The Board voted to hold the December 2015 Board of Directors meeting in Honolulu, Hawaii, in conjunction with the 2015 International Chemical Congress of Pacific Basin Societies (Pacifichem). The ACS is the host society for the 2015 Pacifichem meeting.

CORYELL AWARD - *Graham Peaslee*

The 2013 Coryell Award for undergraduate research is Rebecca Springs, a senior from the University of Nevada - Las Vegas.

Her project entitled "Effect of Anions on Am, Cm, Pu Sorption on DGA Resin" with her mentor Dr. Ralf Sudowe was judged to be an original and significant contribution to the field. She will receive a certificate and a check for \$1000.

If you have any undergraduates working in your lab during the 2013-2014, please remember to consider nominating them for next year's Coryell Award. Information and deadline dates (typically early May) will be posted on the Division's website.



Plutonium Futures—The Science Conference 2014 will be held at the Renaissance Hotel in Las Vegas, Nevada September 7-12, 2014. It will be the eighth conference in the series, which was initiated by Los Alamos National Laboratory in 1997. Previous conferences have been held in Santa Fe, New Mexico, in 1997 and 2000; Albuquerque, New Mexico, in 2003; Asilomar, California, in 2006; Dijon, France, in 2008; Keystone, Colorado, in 2010; and Cambridge, United Kingdom, in 2012. The 2014 conference is co-sponsored by Lawrence Livermore and Los Alamos National Laboratories and the American Nuclear Society (ANS).

The Plutonium Futures conferences provide an international forum for the discussion of current research on the physical, chemical, and mechanical properties of plutonium and other actinides. By bringing people of diverse disciplines together, the conference aims to enhance the dialogue among scientists and engineers on the fundamental properties of plutonium and their technological consequences. The conference will include discussions of condensed matter physics, materials science, metallurgy, surface science, corrosion, colloids, actinide chemistry, detection and speciation analysis, environmental science, fuel-cycle issues, and advanced nuclear fuels. A tutorial session will be held on the opening Sunday afternoon.

Kerri Blobaum and Scott McCall are the general and program chairs, respectively. Information on registration, call for papers, and lodging will be available through the ANS webpage. Questions or requests to be added to the conference mailing list should be sent to Kerri Blobaum (blobaum1@llnl.gov) or Scott McCall (mccall10@llnl.gov).

Prepared by LLNL under Contract DE-AC52-07NA27344.