



Division of Nuclear Chemistry and Technology
American Chemical Society

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

Chair, 2014
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

Chair-Elect, 2014
Program Chair, 2015
DAVID E. HOBART
5715 Hwy 85 North #1430
Crestview, FL 32536
Phone: (505) 227-4728
dhobart15@gmail.com

Vice-Chair, 2014
Program Chair, 2016
PAUL BENNY
Washington State University
Department of Chemistry
Pullman, WA 99164
Phone: (509) 335-3858
bennyp@wsu.edu

Secretary, 2014-2016
LUTHER McDONALD
110 S Central Campus Dr
Salt Lake City, UT 84112
Phone: (509) 595-1101
luther.mcdonald@utah.edu

Treasurer, 2014-2016
ALICE MURRAY
Savannah River National Laboratory
Aiken, SC 29808
Phone: (803) 725-0440
alice.murray@srnl.doe.gov

Councilors
GRAHAM F. PEASLEE, 2012-2014
peaslee@hope.edu

SILVIA JURISSON, 2014-2016
jurissons@missouri.edu

Alternate Councilor
DAWN A. SHAUGHNESSY, 2012-2014

Members-at-Large, Executive Committee
SUZANNE LAPI, 2012-2014
RICHARD ROBERTS, 2013-2015

NEWSLETTER

January 2014

Newsletter Editor: Lætitia Delmau
Email: delmaulh@ornl.gov

Topics

- > FROM THE CHAIR
- > ELECTION RESULTS
- > 2014 SPRING MEETING
- > UPCOMING PROGRAMMING
- > PACIFICHEM 2015
- > TREASURER'S REPORT
- > SUMMER SCHOOL
- > COUNCILORS' REPORT
- > AWARD NOMINATIONS COMMITTEE OF NUCL
- > KAVLI NOMINATIONS
- > CORYELL AWARD
- > OBITUARIES

FROM THE CHAIR – *Paul Mantica*

I am looking forward to serving the NUCL division as Chair in 2014. Although my term officially started January 1, I have already been actively engaged in divisional activities – mostly related to divisional symposium programming for Dallas (March 16-20, 2014) and San Francisco (August 10-14, 2014).

Professor Walter D. Loveland was named the 2014 Glenn T. Seaborg Award for Nuclear Chemistry, and a symposium in his honor will be held during the 247th ACS National Meeting in Dallas, TX. Walter has made important contributions to the understanding of nuclear reactions and their role in the production of isotopes as the far reaches of the nuclear chart, including those of the superheavy elements. He also has had impact on nuclear chemistry education, both through his work on the “The Living Textbook of Nuclear Chemistry” and as co-author of the “Modern Nuclear Chemistry” text.

Walter served as NUCL division chair in 2002, and as an Alternate Councilor from 1988-1990. Please join us in Dallas as we recognize Walter for his outstanding achievements in nuclear chemistry.

Programming for the 248th ACS National Meeting in San Francisco, CA is completed, and abstracts for the 6 symposia (see listing below) will be due March 10, 2014.

Jenifer Braley serves as the Program Chair for the NUCL division, and she continues to do an excellent job of interfacing with the ACS national office to assure that the (many) meeting material deadlines are met.

At the ACS National Meeting in Indianapolis, the Executive Committee recommended the formation of an ad-hoc Website Committee with the charge of revamping the division website with the passing of our former Secretary and Webmaster Frank Kinard. Chris Klug was named the new NUCL Webmaster, and he will serve on the Website Committee along with myself and Lætitia Delmau, the NUCL Newsletter Editor. Divisional members will be informed by email when the new website is established.

I will also be looking for volunteers to help with other important divisional activities, including Membership (retention and recruiting) and Award Nominations (awards and fellows). Steve Yates has agreed to serve as Chair of the ad-hoc Award Nomination committee, and his request for nominations can be found in this newsletter.

ELECTION RESULTS – *Graham Peaslee*

As the appointed teller for the fall 2013 NUCL elections, it is my duty to report the results of the election conducted by electronic balloting over the past three weeks. Over

200 members of the NUCL Division cast votes and a clear majority was obtained for each election. Please join me in congratulating the following winning candidates:

Vice-Chair 2014: Paul Benny
Counselor: Silvia Jurisson
Treasurer: Alice Murray
Secretary: Luther McDonald

Thanks to all the candidates who volunteered to run!

2014 SPRING MEETING - *Paul Mantica, Jenifer Braley*

The Program Theme for the Spring meeting in Dallas is *Chemistry and Materials for Energy*. There were over 100 abstracts submitted to the 5 symposia scheduled by the NUCL division:

- Glenn T. Seaborg Award for Nuclear Chemistry: Symposium in Honor of Walter Loveland
- Radiation Hardened Materials for Accelerators, Reactors, and Spacecraft
- Symposium in Honor of Norman Edelstein: A Distinguished and Diverse Scientific Career in Actinide Chemistry
- Global Status of Nuclear Energy
- Nuclear Batteries and Radioisotope Micropower Sources

All NUCL symposia, as well as the NUCL Business Meeting and Social Hour, will be held in the Hyatt Regency Dallas Hotel.

In addition, NUCL is co-sponsoring a symposium with PHYS:

- Thermodynamics, Reactivity, and Spectroscopy of the Heavy Elements

The on-line registration and housing links for the Spring meeting in Dallas are available to meeting participants from the website:

<http://www.acs.org/content/acs/en/meetings/spring-2014.html>

The early registration deadline is February 6, 2014.

UPCOMING PROGRAMMING - *Paul Mantica, Jenifer Braley*

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 2015 programming suggestions.

Fall 2014 – San Francisco, CA – Chemistry and Global Stewardship

Abstracts are due **Monday, March 10, 2014 by 11:00 pm CST.**

- Comprehensive Test Ban Treaty Verification (Organizer: Sean Liddick, MSU, liddick@nscl.msu.edu; Howard Hall, U Tennessee - Knoxville, hhall6@utk.edu; Steven Biegalski, U Texas - Austin, biegalski@mail.utexas.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, labernstein@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; Mark Zavarin, LLNL, zavarin1@llnl.gov)
- Young Investigators in Nuclear and Radiochemistry (Organizers: Cody Folden,

TAMU, folden@comp.tamu.edu; Jeff Terry, IIT, terryj@iit.edu)

- A Lifetime of Contributions to Science, Summer Schools and our NUCL Division Family: Symposium in Honor of Frank Kinard (Organizer: Paul Mantica, MSU, mantica@msu.edu)

In addition, NUCL is co-sponsoring a symposium with FLUO as the primary Division through which abstracts have to be submitted:

Radiopharmaceutical Chemistry (Organizer: Alan Packard, Harvard, alan.packard@childrens.harvard.edu)

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

- Seaborg Award Symposium (Organizer: TBD)
- Analytical Chemistry in Nuclear Technology (Organizers: Dave Hobart and Charles Coleman)
- Radioisotope Production (Organizers: Dennis Phillips, Suzy Lapi, and Silvia Jurisson)

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

- Young Investigators in Nuclear and Radiochemistry (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)

PACIFICHEM 2015 – Paul Mantica

The 2015 International Chemical Congress of Pacific Basin Societies, known as Pacificchem
NUCL Newsletter, January '14, page - 3

2015, will take place in Honolulu, Hawaii, USA, December 15-20, 2015. Pacificchem 2015 has accepted 259 symposia during Round One, which occurred from January 1 – April 1, 2013. NUCL related symposia selected during Round One include:

- Experimental and Theoretical Actinide Chemistry: From Fundamental Systems to Practical Applications [#42, Inorganic] (Organizers: John Gibson, Georg Schreckenbach, Tsuyoshi Yaita, Jun Li, and Ping Yang)
- The Expanding Periodic Table: New Discoveries and Chemistry of the Heaviest Elements [#234, Inorganic] (Organizers: Heino Nitsche, Yuichiro Nagame, Zhi Qin, Peter Schwerdtfeger, Christoph Duellmann, Andreas Tuerler)
- Nuclear Probes in Nanoscale Characterization [#254, Inorganic] (Organizers: Masashi Takahashi, Anita Hill, Virender Sharma, Junhu Wang, Kiyoshi Nomura, Yasuhiro Yamada)
- Science with Beams of Radioactive Isotopes [#340, Physical, Theoretical & Computational] (Organizers: Sherry Yennello, Krzysztof Starosta, Yulinag Zhao, Hiromitso Haba)
- Computational Modeling of d- and f-Block Chemistry: Challenges and Opportunities [#130, Physical, Theoretical & Computational] (Organizers: Angela Wilson, Peter Schwerdtfeger, Kwang S. Kim, Zhenyang Lin, Tom Cundari)
- Chemistry of Molecular Imaging [#215, Bench to Beside: Chemistry of Health Care] (Organizers: Henry VanBrocklin, Gilles Tamagnan, Yasuhisa Fujibayashi, Len Luyt, Andrew Katsifis, Yearn Choe)

Pacificchem 2015 will open for Round Two proposal submissions from December 1, 2013 – March 1, 2014 with the goal of finalizing the technical program by June 2014 with approximately 300 symposia. Before submitting a new proposal during Round

Two, all authors should carefully review the accepted Round One symposia in the Preliminary Program. Pacificchem 2015 is specifically looking for cutting-edge chemistry not already detailed in the Preliminary Program in order to avoid multiple symposia covering the same subject matter.

For complete information about the Call for Round Two Symposium Proposals and the Preliminary Program please visit:

<http://www.pacificchem.org>

TREASURER'S REPORT – *Alice Murray*

The NUCL Division closed 2013 with \$57,910 in its checking account and \$76,895 in its savings account. The 2013 Income was \$59,026 and the 2013 Expenses were \$56,936. The major expenses were: \$15,921 for the Seaborg Award Symposium Honoring Richard Haire and \$10,000 sent to the ACS Office of Development for the Glenn T. Seaborg Award. The NUCL Division received \$30,624 from the ACS for its allotments, dues, and councilor travel. The NUCL Division received \$20,000 in donations for several symposia at the two ACS 2013 National Meetings as well as to support symposia at ACS Regional Meetings and for the ACS Glenn T. Seaborg Award.

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 on Monday, March 11 starting at 5:00 pm CST.

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.

AWARD NOMINATIONS COMMITTEE OF NUCL – *Steve Yates*

An important function of the newly formed Awards Nominations Committee of the Division is to encourage and facilitate nominations for national ACS awards, including the Glenn T. Seaborg Award for Nuclear Chemistry

(<http://www.acs.org/content/acs/en/funding-and-awards/awards/national/bytopic/glenn-t-seaborg-award-for-nuclear-chemistry.html>) and ACS Fellows

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

Nominations for both of these awards can be initiated by individuals; however, the Division can nominate up to four individuals as ACS Fellows annually. Nominations for the 2014 class of Fellows are scheduled to open February 1 and close April 1. Suggestions and questions should be addressed to Steve Yates (yates@uky.edu; 859-257-4005).

KAVLI NOMINATIONS – *Paul Mantica*

The Kavli Foundation has agreed to sponsor The Kavli Foundation Emerging Leader in Chemistry Lecture during 2013 – 2015, with two lectures per year at each ACS national meeting. The Kavli Foundation Emerging Leader in Chemistry Lecture is awarded to an outstanding chemical scientist who is less than 10 years past receipt of his/her PhD and is under 40 years of age. The candidate is a distinguished younger scientist who is highly regarded by his or her peers for significant contributions to an area of chemistry or related multidisciplinary area of chemistry.

All nominations must be submitted by the Division Secretary or acting Division Secretary to the email box:

KavliEmergingLecturer@acs.org
using the Emerging Leader Nomination Form.

Nominations must be received by **Monday, February 3, 2014**, which gives MPPG sufficient time to evaluate them and to announce the awardee at the Spring ACS National Meeting in Dallas.

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 new website.

OBITUARIES

William D. Ehmann, 1931-2013

William ("Bill") Donald Ehmann was born on February 7, 1931 in Madison, Wisconsin, and died on December 17, 2013 in Lexington, Kentucky. Bill received B.S. (1952) and M.S. (1954) degrees in Chemistry from the University of Wisconsin, and married Nancy Gallagher on July 16, 1955 in Milwaukee, Wisconsin. In 1957, he received a Ph.D. in Radiochemistry from (now) Carnegie Mellon University in Pittsburgh, working with Prof. Truman P. Kohman. After two years as a postdoctoral fellow with John R. Huizenga at Argonne National Laboratory, where Bill began using neutron activation analysis, he accepted a faculty position at the University of Kentucky (UK) in Lexington, Kentucky and quickly rose through the ranks to become a Professor of Chemistry.

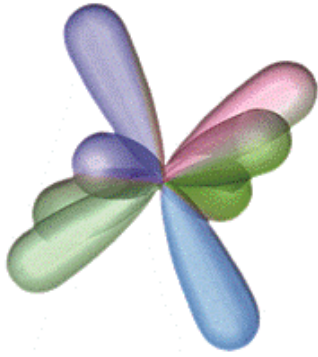
Named a Fulbright Research Scholar in 1964, Bill traveled to Australia for a year where he completed ground-breaking research on meteorites. In the 1970s, he was chosen by NASA to be included in the first group of scientists to analyze moon samples from the Apollo missions. In later years, Bill's research focused on the relationship between trace elements and Alzheimer's disease. He presented his research at more than a

hundred conferences around the world and published over 200 papers in refereed journals. With Diane Vance, Bill wrote the well-received textbook, *Radiochemistry and Nuclear Methods of Analysis*, which arose from the lecture notes for his beloved radiochemistry course. A more comprehensive review of Bill's contributions as a radioanalytical chemist and radiochemistry educator is given in the introduction to the issue of the *Journal of Radioanalytical and Nuclear Chemistry* (Vol. 219, No. 2 (1997) 153) published in his honor. During his thirty-five years at the University of Kentucky, Bill received numerous honors. The UK College of Arts and Sciences elected him as the Distinguished Professor in 1968 and inducted him into its Hall of Fame in 2010. In 1987, he received the William B. Sturgill Award for his contributions to graduate education at UK. Bill also believed in service to the University and his four-year term (1972- 1976) as Chair of the UK Department of Chemistry was followed by an appointment as Associate Dean for Research in the Graduate School. He received the Kentucky Academy of Science Distinguished Scientist Award in 1982 and the American Chemical Society's Award for Nuclear Chemistry (now the Seaborg Award) in 1996. In the same year, the American Nuclear Society created the W.D. Ehmann Award in his name, for which he was the first recipient.

Beyond his remarkable career as a scientist, which is recounted in his personal narrative, "From a rock to a hard place: Journeys of a radiochemist through inner and other space" (*Journal of Radioanalytical and Nuclear Chemistry*, 219 (1997), 157), Bill loved the outdoors and was an avid hiker, fisherman, and rock-hound. He and Nancy traveled the world, visiting dozens of countries. The family's fondest memories are of the annual fishing and camping trips to the remote lake country of northern Wisconsin, where his ancestors first settled from Germany. Bill is

survived by his wife Nancy, sons Bill (wife Susan), John, and Jim (wife Muthoni), daughter Kathleen (husband Steve) and grandchildren George and Alex.

Bill enjoyed working with young scientists, and in accord with his wishes, a fund has been established in his memory for graduate student travel to professional meetings. Donations should be directed to the Chemistry Student Education Travel Fund, University of Kentucky, Department of Chemistry, 125 Chemistry- Physics Building, Lexington KY 40506-0055, Attn: Jennifer Bradshaw.

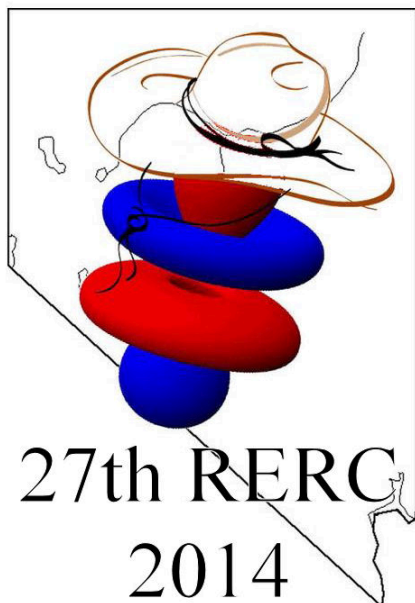


Plutonium Futures—The Science Conference 2014 will be held at the Renaissance Hotel in Las Vegas, Nevada September 7-12, 2014. It will be the eighth conference in the series, which was initiated by Los Alamos National Laboratory in 1997. Previous conferences have been held in Santa Fe, New Mexico, in 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.



27th RARE EARTH RESEARCH CONFERENCE

June 22-26, 2014
The Village at Squaw Valley
Squaw Valley, CA
Reno – Tahoe Region
USA

www.unr.edu/lerc

Executive Committee:

Conference Chair:

A. de Bettencourt-Dias (U Nevada, Reno) – abd@unr.edu

Program Chairs:

K. Gschneidner, Jr. (Ames Lab)

V. Pecharsky (Ames Lab)

Past-Conference Chair:

J. Sarrao (Los Alamos National Lab)

International Advisory Committee:

P. Arnold (UK)

J. Brennan (USA)

J.-C.G. Bünzli (Switzerland)

W.J. Evans (USA)

J. Kiplinger (USA)

M. Mazzanti (France)

G. Meyer (Germany)

A.-V. Mudring (Germany)

D. Parker (UK)

J. Sarrao (USA)

S. Shinoda (Japan)

F.A. Sigoli (Brazil)

Program Committee:

V. Pecharsky

A.-V. Mudring

K. Gschneidner, Jr.

A. Sadow

Y. Mudryk

J.-C.G. Bünzli

Y. Grin

G.-Y. Adachi

C.H. Yan

W.J. Evans

The Village at Squaw Valley



Lake Tahoe

