



Division of Nuclear Chemistry and Technology  
*American Chemical Society*

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

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## NEWSLETTER

### January 2007

*Newsletter Editor: Lætitia Delmau*  
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## Topics

- > FROM THE CHAIR
- > ACS SPRING MEETING
- > ACS FALL MEETING-BOSTON
- > ACS NATIONAL MEETINGS 2008
- > SUMMER SCHOOL
- > ANNOUNCEMENT: ISEC 2008

### FROM THE CHAIR – Heino Nitsche

Thank you for giving me the opportunity to serve as your Division Chair in 2007. Please let me assure you that I will do my very best to bring to the Division the continued success that it deserves. I look forward to working with all of you.

Dave Robertson, thank you for your excellent service as chair during the past year. I also would like to thank Dave and the Executive Committee for teaching and helping me with the transition from Chair-Elect to Chair during the last two years.

I am asking for your input, help, and active participation to achieve the following goals for the Division:

1) **Development of a vision and long-range strategic plan for the Division.**

I would like to begin a long-range planning process that will address some very important questions for the health and future of our division. For example: Where do we see DNCT in 2015? How can we increase our membership? How can we get more members involved in shaping the division as a source of knowledge for the public and the press when they look for answers to any “nuclear-related” issues?

How can we increase our voice to the public? Should we consider a long-range planning committee for the Division?

**2) Involvement of young members in the decisions process of the Division.**

How can we increase the participation of our younger members who are at the beginning of their careers? They are the future of the field, and they need to have input into the decision-making process. Should we establish a DNCT young nuclear chemists' panel/committee that would have representation on the Executive Committee?

I am looking for solutions how to accomplish this, and I would like to hear your ideas.

**3) Increased program participation in ACS Regional Meetings.**

It appears that our Division is generally under represented or not represented at all at Regional meetings. I would like to find a way to change this, and I am asking for your opinion to why there is so little DNCT representation at these meetings and for your suggestions on how to turn this around.

I look forward to receiving your opinions and suggestions on these topics and on any other subjects and issues that you would like to see addressed during this year (hnitsche@cchem.berkeley.edu). The Division of Nuclear Chemistry and Technology is your division and needs your active participation and involvement.

**ACS SPRING MEETING**

Chicago, IL, March 25 - 29, 2007

Our symposia organizers have worked very hard and put together a very interesting program with nine symposia that we sponsor and two that we co-sponsor:

**1) Nuclear Energy: International Efforts Towards a Sustainable Future.**

Organizers: Dr. Kimberly W. Thomas, Los Alamos National Laboratory (LANL), [kwthomas@lanl.gov](mailto:kwthomas@lanl.gov), and Dr. Sara Scott, LANL, [sscott@lanl.gov](mailto:sscott@lanl.gov)

**2) Modern Nuclear Reactors - Improvements of Existing Technology and Generation IV Developments.**

Organizers: Prof. Jasmina Vujic, University of California, Berkeley, Department of Nuclear Engineering, [vujic@newton.berkeley.edu](mailto:vujic@newton.berkeley.edu), Prof. Thomas J. Downar, Purdue University, Nuclear Engineering, [thomas.j.downar.1@purdue.edu](mailto:thomas.j.downar.1@purdue.edu), and Prof. Brian D. Wirth, University of California, Berkeley, Department of Nuclear Engineering, [bdwirth@nuc.berkeley.edu](mailto:bdwirth@nuc.berkeley.edu)

**3) Spent Nuclear Fuel Reprocessing - Future, Present, and Past National and International Experiences.**

Organizers: Dr. Monica C. Regalbuto, Argonne National Laboratory (ANL), [regalbuto@cmt.anl.gov](mailto:regalbuto@cmt.anl.gov), Dr. Bruce A Moyer, Oak Ridge National Laboratory (ORNL) [moyerba@ornl.gov](mailto:moyerba@ornl.gov), and Dr. Michael Bronikowski, Savannah River National Laboratory, [michael.bronikowski@srnl.doe.gov](mailto:michael.bronikowski@srnl.doe.gov)

**4) Proliferation Issues Related to Advanced Nuclear Fuel Cycles**

Organizers: Dr. Christine L. Hartmann-Siantar, Lawrence Livermore National Laboratory (LLNL), L-179, PO Box 808, 7000 East Avenue, Livermore, CA 94550, [hartmannsiantar1@llnl.gov](mailto:hartmannsiantar1@llnl.gov) and Prof. Allison McFarlane, Dept. of Environmental Science and Policy, George Mason University, MS 5F2, 4400 University Drive, Fairfax, VA 22030, [amacfarl@gmu.edu](mailto:amacfarl@gmu.edu)

**5) Nuclear Waste Forms – Current Solutions and Future Challenges.**

Organizers: Prof. Sue B. Clark, Washington State University, Pullman, [s\\_clark@mail.wsu.edu](mailto:s_clark@mail.wsu.edu), Prof. Rodney C. Ewing, University of Michigan, Ann Arbor,

rodewing@umich.edu, and Dr. William J. Weber, Pacific Northwest National Laboratory (PNNL), bill.weber@pnl.gov

#### **6) Understanding Radionuclide Transport in the Environment – Remediation, Nuclear Waste Disposal, and Long-term Stewardship.**

Organizer: Dr. Daniel Kaplan, Savannah River National Laboratory (SRNL), daniel.kaplan@srnl.doe.gov, and Mavrik Zavarin, Lawrence Livermore National Laboratory (LLNL), zavarin1@llnl.gov, Cosponsored by Geochemistry Division.

#### **7) Actinide and Fission Product Isotope Needs for Energy and National Security Programs**

Organizer: Dr. Charles W. Alexander, Oak Ridge National Laboratory (ORNL), alexandercw@ornl.gov and Dr. Christopher McGrath, Idaho National Laboratory, PO Box 1625 MS-7113, Idaho Falls, ID 83415-7113, christopher.mcgrath@inl.gov

#### **8) Fast Automated Radiochemistry Separations In Fundamental and Applied Nuclear Chemistry.**

Organizers: Dr. Dawn Shaughnessy, Lawrence Livermore National Laboratory (LLNL), shaughnessy2@llnl.gov, and Prof. Ralf Sudowe, University of Nevada, Las Vegas, Ralf.Sudowe@unlv.edu

#### **9) Glenn T. Seaborg Award for Nuclear Chemistry Symposium, honoring Dr. Norbert Trautmann, Johannes Gutenberg University, Mainz, Germany.**

Organizers: Prof. Jens-Volker Kratz, Johannes Gutenberg University Mainz, Institut of Nuclear Chemistry, Germany, jvkratz@uni-mainz.de and Prof. Heino Nitsche, University of California, Berkeley, Department of Chemistry and Lawrence Berkeley National Laboratory (LBL), Nuclear Science Division, hnitsche@lbl.gov

#### **10) Calixarenes: State of The Art and Perspectives.**

Organizers: Dr. Lætitia Delmau, Oak Ridge National Laboratory, delmaulh@ornl.gov, and Dr. Dean Peterman, Idaho National Laboratory, dean.peterman@inl.gov, Sponsored by I&EC Division, Separation Science and Technology subdivision; cosponsored by Division of Nuclear Chemistry & Technology.

#### **11) Chemical Evolution I: Chemical Change Across Space and Time**

Organizer: Lori Zaikowski, Department of Chemistry, Dowling College, Idle Hour Boulevard, Oakdale, NY 11769; Jon M. Friedrich, Department of Earth and Planetary Sciences, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024.

Sponsored by Division of Chemical Education, cosponsored by Division of Geochemistry, and Division of Nuclear Chemistry & Technology.

The preliminary program (without location assignment) can be viewed on our DNCT Web site (<http://www.cofc.edu/~nuclear/>). All sessions will be held at the Hyatt Regency McCormick Place and at McCormick Place.

Symposia 1-6 are our contributions to the recently introduced ACS "Presidential Thematic Programming" with the overarching theme "Chemistry for a Sustainable Energy Future." for the Chicago meeting. We have programmed six symposia covering basic and applied science for a closed nuclear fuel cycle. Part of our goal with this program is to inform and convince non-nuclear scientists as well as the general public of the fact that nuclear energy is currently the only available peak-power-producing and carbon-dioxide-free alternative to oil to reduce global warming. I am working on our representation in a press conference during the Chicago meeting.

A window of opportunity has opened to promote Nuclear Chemistry and Technology and we all need to contribute to promote the

cause. We have a very exciting program. Please remember that the program starts on Sunday morning, and your attendance at the early sessions would be greatly appreciated. I am inviting all of you to attend the Chicago meeting to show our "colors." See you in Chicago.

## ACS FALL MEETING - BOSTON

Boston, MA, August 19-23, 2007

Boston, MA, August 19-23, 2007

Please note that this meeting is earlier than past fall meetings, shifting all the deadlines by about three weeks. Abstract submission on **OASYS is open** from **January 22 (!)** to April 2, 2007. We are still looking for volunteers to organize additional symposia at the Boston meeting, *even after the opening of OASYS*. So far we have the following symposia scheduled:"

**Meeting the Diverse Needs of the 21st Century Nuclear Science Workforce: A Symposium by Graduate Student Scientists in Nuclear and Radiochemistry** (title tentative)  
Organizers: TBD

**Nuclear Structure and Reactions in the Era of Radioactive Beams**  
Dr. Larry Phair (LBNL), [LWPhair@lbl.gov](mailto:LWPhair@lbl.gov), and Prof. Romualdo T. de Souza (Indiana U.) [desouza@indiana.edu](mailto:desouza@indiana.edu)

**Nuclear Imaging** (working title)  
Organizers: Prof. Silvia S. Jurisson, University of Missouri-Columbia, [JurissonS@missouri.edu](mailto:JurissonS@missouri.edu), Prof. Henry F. van Brocklin, Lawrence Berkeley National Laboratory, [HFVanBrocklin@lbl.gov](mailto:HFVanBrocklin@lbl.gov)

**Characterization of Advanced Actinide Storage and Sequestration Systems.**

Organizers: Dr. Jeff Terry, [terryj@iit.edu](mailto:terryj@iit.edu) and Dr. Mark Antonio, Argonne National Laboratory, [mantonio@anl.gov](mailto:mantonio@anl.gov)

## Analytical Chemistry in Nuclear Technology

Organizers: Dr. Charles J. Coleman, Savannah River National Laboratory, Washington Savannah River Company, Building 773-A, Aiken, SC 29808, Phone: 803-725-1160, Fax: 803-725-4704, [charles02.coleman@srs.gov](mailto:charles02.coleman@srs.gov). Dr. David T. Hobbs, Savannah River National Laboratory, Washington Savannah River Company, 773-A, B-117, Aiken, SC 29808, Phone: 803-725-2838, Fax: 803-725-4704, [david.hobbs@srs.gov](mailto:david.hobbs@srs.gov). Dr. David E. Hobart, Chemistry Division, Los Alamos National Laboratory, Mail Stop G740, Los Alamos, NM 87545, Phone: 505-667-0205, Fax: 505-665-4737, [dhobart@lanl.gov](mailto:dhobart@lanl.gov)

There is the opportunity to add additional symposia. Volunteers, please contact me!

Heino Nitsche, Chair 2007

## ACS NATIONAL MEETINGS 2008

New Orleans, LA, April 6-10, 2008

Philadelphia, PA, August 17-21, 2008

Please send your suggestion for symposia to Roy Lacey (Vice-Chair 2007, [roy.lacey@sunysb.edu](mailto:roy.lacey@sunysb.edu)) or Heino Nitsche ([hnitsche@cchem.berkeley.edu](mailto:hnitsche@cchem.berkeley.edu)).

## SUMMER SCHOOL

*From Paul Mantica:*

### 1. 2006 Outstanding Students

Sarah DeKat of the University of North Florida (BNL) and Pawan Rastogi of Columbia University (SJSU) were named the Outstanding Students from the 2006 Nuclear and Radiochemistry Summer School Program. Both Sarah and Pawan will attend the 233rd National Meeting of the ACS in Chicago in March 2007. They will be recognized for their accomplishments at the DNCT Business Meeting on Monday Evening, March 26th. Congratulations Sarah and Pawan!

### 2. Renewal proposal

The 5-year funding cycle for the Nuclear and Radiochemistry Summer Schools was up for renewal this year. A pre-application was submitted to the U.S. Department of Energy in April, with the full proposal submitted at the beginning of August. The proposal received very favorable reviews, and the renewal paperwork is currently being processed by DoE. The main funding for the Summer School program will come from the Office of Science, Chemical Sciences, Geosciences, and Biosciences in the Office of Basic Energy Sciences (BES). Additional funding will come from the Office of Nuclear Physics (NP) and the Environmental Remediation Science Division in the Office of Biological and Environmental Research (BER).

San Jose State University and Brookhaven National Lab will continue as the host sites for the Summer School Program. Rich Ferrieri serves as Site Director at BNL. Herb Silber is Site Director at SJSU, where Frank Kinard fills the role as main lecturer.

### 3. Recruiting for 2007 program

A reminder that the application deadline for the 2007 Nuclear and Radiochemistry

Summer School program is February 1, 2007. The six week Summer School program is an INTENSIVE undergraduate introduction to nuclear science and applied technologies. The programs will be hosted at Brookhaven National Lab and San Jose State University from June 18, 2007 through July 27, 2007.

Application materials are available on-line at the Summer School website:

<http://www.cofc.edu/~nuclear/nukess.html>

A recruiting poster can be downloaded in .pdf format for printing at:

<http://www.msu.edu/~mantica/NuclearSummerSchoolFlyer2007.pdf>

The Summer Schools are limited to 12 students at each site. Announcement of awards will be made in mid March 2007. Fellowships include a stipend, all tuition and fees, transportation to and from the Summer School locations, housing, books, and laboratory supplies. Transferable college credit will be awarded through the ACS accredited chemistry programs at San Jose State University (7 units) or the State University of New York at Stony Brook (6 units).

Candidates should be undergraduates who will be entering their junior or senior year in the Fall of 2006. They should have completed at least two years of chemistry, one year of physics, and one year of calculus. Preference will be given to entering seniors. Applicants must be U.S. citizens. Please encourage your undergraduate students to apply to this very rewarding preparatory program. Additional information on the Nuclear and Radiochemistry Summer Schools can be obtained by contacting:

Paul Mantica

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Radiochemistry Summer Schools

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Phone 517-333-6456

FAX 517-353-5967

email [mantica@msu.edu](mailto:mantica@msu.edu)

## **ISEC 2008**

### **International Solvent Extraction Conference ISEC 2008**

The International Solvent Extraction Conference (ISEC) is the premier meeting of solvent extraction experts, bringing together scientists and engineers from around the globe every three years. The ISEC meetings began in 1962 and have been held worldwide in the USA, UK, Israel, Netherlands, France, Canada, Belgium, Germany, Russia, Japan, Australia, Spain, South Africa, and, most recently, in China in 2005. The North America meetings were held in Gatlinburg, Tennessee, USA in 1963; Toronto, Canada in 1977; and Denver, Colorado, USA in 1983. The ISEC 2008 will be held in Tucson, Arizona, USA, from 15-19 September 2008 and promises to continue the high standard set by these triennial meetings. Eight major topics that will be covered which will have multiple sessions are: Fundamentals; Novel Reagents, Materials, and Techniques; Nuclear Fuel Reprocessing; Hydrometallurgy and Metals Extraction; Analytical Applications; Biotechnology, Pharmaceuticals, Life-Science Products, and Organic Products; Process Chemistry and Engineering; and Petrochemical Applications. Conference tours to mining, and nuclear, pharmaceutical and other industrial sites are planned. Interested participants can access the conference web site for further details at [www.isec2008.org](http://www.isec2008.org) or send an email to [isec2008@ecs.syr.edu](mailto:isec2008@ecs.syr.edu). Abstracts will be due by June 2007; information about abstract submission is also available on the website