

2009 Fall meeting

2009 Fall NATIONAL ACS MEETING

Washington, DC (August 16-20, 2009)

Program Meeting Chair: Kristi Kiick, Jeffrey Linhardt, Greg Tew

Deadline for Abstracts and Polymer Preprints: March 18, 2009*

***for general papers and some symposia (some symposium organizers may set an earlier deadline).**

Pictures from Washington

AkzoNobel Award for Outstanding Graduate Research in Polymers Warren T. Ford, Department of Chemistry, Oklahoma State University, 107 Physical Science, Stillwater, OK 74078

Biocatalysis in Polymer Science H. N. Cheng, Hercules Incorporated Research Center, 500 Hercules Road, Wilmington, DE 19808-1599; Richard A Gross, NSF-I/UCRC Center for Biocatalysis and Bioprocessing of Macromolecules, Polytechnic University, Six Metrotech Center, Brooklyn, NY 11201

Biocatalysis in Polymer Science

**238th ACS National Meeting & Exposition
Washington, D.C., August 16-20, 2009**

Dear colleagues

I am delighted to inform you that H.N. Cheng and I are organizing the 5th ACS Symposium entitled "Biocatalysis in Polymer Science" to be held as part of the Fall 2009 ACS conference in Washington D.C. (August 16-20th). Please help us spread the word!

The conference will run for 3-days during the ACS conference with 6 full sessions (over 30 oral presentations). There will also be what is always a well attended poster session which, last year, had greater than 25 contributions.

If you are interested in presenting an oral and/or poster at the upcoming meeting in Washington D.C. please let me know so I can reserve a space for you on the program. A tentative title would be appreciated.

The symposium will be inclusive of these topics that interweave concepts of polymers, materials and biocatalysis:

Biobased materials

- Example: chemical methods to polymerize or modify agroproducts such as lipids and carbohydrates
- Whole cell, plant and cell-free biotransformations

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- Novel bioprocesses and products
- Biocatalytic and chemo-enzymatic routes to monomer, prepolymers, macromers and polymers.
- Enzyme-catalyzed surface modifications
- Fiber bioprocessing (e.g. biopolishing)
- Enzyme-polymer bioconjugates
- Biocatalyst engineering (enzyme-engineering, metabolic pathway engineering) to prepare monomers and polymers
- Enzyme immobilization
- Interactions between enzymes and surfaces that influence catalytic properties.

Additional details will follow as we move closer to the event.

Sincerely,
Rich

Richard A. Gross
Professor and Herman F. Mark Chair
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Biological and Synthetic Gels: A Unique and Highly Responsive State of Matter
Ferenc Horkay, Laboratory of Integrative and Medical Biophysics, National Institutes of Health, NICHD, 13 South Drive, Bethesda, MD 20892; Michael S. Silverstein, Department of Materials Engineering, Technion - Israel Institute of Technology, Haifa 32000 Israel

Biological and Synthetic Gels: A Unique and Highly Responsive State of Matter

**238th ACS National Meeting & Exposition
Washington, D.C., August 16-20, 2009**

Abstract and Preprint Submission Deadline: March 18, 2009

The purpose of this symposium is to provide an interdisciplinary forum for polymer chemists, physicists, engineers, materials scientists and biologists to exchange ideas and assess the latest developments in the rapidly expanding field of polymer gels and networks. Sessions will focus on all areas from theoretical and fundamental aspects to recent advances in synthesis, characterization and analysis of gels and complex assemblies, including nanotechnology, surface science, rheology, tissue engineering, and modeling. In particular, the conference will explore experimental tools and theoretical models to describe biological phenomena with physical concepts that allow predictive, model-driven research.

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Organizers:

Ferenc Horkay
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Michael S. Silverstein
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Federally Funded Polymer Research Joseph M. Pickel, Center for Nanophase Materials Science, Oak Ridge National Laboratory, 1 Bethel Valley Road, Oak Ridge, TN 37831-6494; Kathryn L. Beers, Polymers Division, National Institute of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899

Federally Funded Polymer Research

238th ACS National Meeting & Exposition Washington, D.C., August 16-20, 2009

Co-organizers: Kate Beers (Polymers Division, NIST; 301-975-2113; beers@nist.gov) Joe Pickel (Center for Nanophase Materials Sciences, ORNL; pickeljm@ornl.gov; 865-576-0329)

Description: The federal government supports polymer research through its various departments and agencies by means of substantial investments in the form of intramural and extramural sponsored research, as well as the operation of large User Facilities, including nanotechnology research centers and neutron and x-ray beam facilities with focus areas and instrumentation specific to polymer research. As the priorities of the federal investment shift to new areas of research, the community needs to understand the many mechanisms through which polymer research is supported as well as the missions and approaches of the various Federal programs which build infrastructure, fund academia, and employ researchers. The scale and scope of these efforts are rarely presented to the scientific community, although for those who have exposure it can provide important context for their research and advantage in their pursuit of support.

We are organizing a series of tutorials on the Federal R&D Landscape in Polymer Science and Polymer Research at National User Facilities. We plan to complement the tutorials with separate oral and poster sessions presenting a cross-section of the research that benefits from federal funding including that conducted at User Facilities, National Labs, and university based programs. Ideally these poster sessions will highlight graduate students and young faculty who are building their careers via access to these important national resources. If you fall into this category, we hope you will consider contributing to the Symposium.

Agency tutorials include: Air Force Office of Scientific Research, Army Research Office, Department of Energy, National Aeronautics and Space Administration, National Institutes of Health, National Institute of Standards and Technology, National Science Foundation, and Food and Drug Administration

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User Facility tutorials include: several DOE Nanoscience Research Centers, NIST Center for Neutron Research, and many others Submission Deadline: **March 18, 2009** (go to <http://oasys.acs.org/acs/238nm/oasys.htm> and click on POLY to submit)

Travel support for students, postdocs and assistant professors may be available; please contact the co-organizers for more information.

Fluorine-Containing Polymers (Special submission possible until March 31, 2009)
Click link Dennis W. Smith Jr., Department of Chemistry, Center for Optical Materials Science and Engineering Technologies (COMSET), Clemson University, Clemson, SC 29634-0973

Fluorine Containing Polymers

NOTE: Extended deadline and special procedures.

Abstract/ Preprint submission Deadline: 31 March, 2009

AFTER 18 MARCH, PREPRINT AND ABSTRACT SUBMISSION MUST BE SENT VIA EMAIL AS PDF FILE TO: Dr. Scott Iacono, US Air Force, scott.iacono@patrick.af.mil

238th ACS National Meeting August 16-20, 2009 - Washington, DC
<http://www.acs.org/meetings>

Abstract/ Preprint Deadline: 18 March, 2009
OASYS Abstract submission open 19 Jan, 2009
<http://www.oasys.acs.org>

Symposium Organizers

Prof. Dennis Smith, Clemson University, dwsmith@clemson.edu
Dr. Scott Iacono, US Air Force, scott.iacono@patrick.af.mil
Dr. Jack Jin, Tetramer Technologies, LLC, jack.jin@tetramertechologies.com
Dr. Bruno Ameduri, ENSC / CNRS, Montpellier, France, ameduri@cit.enscm.fr
Prof. Joseph Thrasher, University of Alabama, fluorine@bama.ua.edu

Invitation. Fluorine containing polymer science and technology is nearly 70 years old and fluoropolymer markets maintain a growth rate above the US GDP. In addition to perfluoropolymers, partially fluorinated polymers will continue to impact a wide range of technologies as better control of their unique optical, electronic, processing, extreme environment stability, and surface properties are achieved. This symposium offers a companion forum to the biannual Fluoropolymer workshop series sponsored by the ACS Division of Polymer Chemistry. Scientists, engineers, and technologists interested in the latest developments and advances in this diverse field are invited to contribute oral and poster presentations.

Topics include but not limited to:

Fundamental and advanced technology tutorials
Polymer and copolymer syntheses and mechanisms
Structure / property relationships
Coatings and surfaces Biology and biomedical applications
Membranes and energy conversion applications
Photonic and electronic applications

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Industrial elastomers and plastics
Semi-fluorinated polymers for emerging applications

Abstracts and POLY preprints must be submitted online through ACS OASys at: <http://www.oasys.acs.org>. Approved templates for preprints may be downloaded at <http://uweb.txstate.edu/science/polymerpreprints/>

We also extend a special invitation to the participants of the:
19th International Symposium on Fluorine Chemistry
August 23-28, 2009 - Jackson Hole, Wyoming <http://www.chm.colostate.edu/shs/19isfc>

General Papers Dana Garcia, Arkema Inc, 900 First Avenue, King of Prussia, PA 19406

General Papers Symposia and General Papers: Nanoscience, Synthesis, Characterization and Applications

238th ACS National Meeting & Exposition
Washington, D.C., August 16-20, 2009

Abstract and Preprint Deadline: March 18, 2009

Less than 21 days until the deadline for submission to the ACS National Meeting in Washington. Please consider submitting a paper for the Division of Polymer Chemistry General Papers Symposia and General Papers: Nanoscience, Synthesis, Characterization and Applications (cosponsored by Div of Petroleum Chemistry) All topics in polymer science are welcomed.

Oral and poster time slots available.

Every submission to POLY requires a preprint, submitted on the proper template, which may be downloaded at <http://uweb.txstate.edu/science/polymerpreprints/instructions>.

Organizer:

Dana Garcia, Arkema Inc, 900 First Avenue, King of Prussia, PA 19406, dana.garcia@arkemagroup.com, Phone: 610-878-6731 (Fax 610-878-6196);

Donna J. Nelson, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019, djnelson@ou.edu, Phone: 405-325-2288 (Fax 405-325-6111)

General Papers: Nanoscience - Synthesis, Characterization, and Applications Dana Garcia, Arkema Inc, 900 First Avenue, King of Prussia, PA 19406; Donna J. Nelson, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019

Global Entrepreneurship Dennis W. Smith Jr., Department of Chemistry, Center for Optical Materials Science and Engineering Technologies (COMSET), Clemson

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University, Clemson, SC 29634-0973; Kathleen O. Havelka, Strategic Planning Manager, Lubrizol Corporation, 29400 Lakeland Blvd., Wickliffe, OH 44092

Herman Mark Award

Sponsored by Division of Polymer Chemistry

Herman Mark Scholar Awards Sponsored by Division of Polymer Chemistry

Metal Containing and Metallo-Supramolecular Polymers and Materials Ulrich S. Schubert, Laboratory of Macromolecular Chemistry and Nanoscience, Eindhoven University of Technology and Dutch Polymer Institute (DPI), P.O. Box 513, Eindhoven 5600 MB Netherlands

Health and Safety Concerns of Polymeric Nanomaterials

Debbie M. Decker, Office of Environmental Health and Safety, University of California, Davis, 1 Shields Ave, Davis, CA 95616; Joseph M. Pickel, Center for Nanophase Materials Science, Oak Ridge National Laboratory, 1 Bethel Valley Road, Oak Ridge, TN 37831-6494

Nanoscience in Polymer Chemistry

Donna J. Nelson, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019

Polymer Science of Everyday Things Ann Beal Salamone, Rochal Industries, 740 NW 6th St., Boca Raton, FL 33486; David Bott, The High House, EotR Solutions, High Street, Inkberrow, Worcestershire WR7 4DT United Kingdom; Kenneth J. Wynne, Department of Chemical Engineering, Virginia Commonwealth, Room, 444, 601 West Main Street, P.O. Box 843028, Richmond, VA 23284-4269; Robert S. Moore, Eastman Kodak Co. (Retired), 25 Cranston Rd., Pittsford, NY 14534

[Polymers in Membrane Technology](#) Kirt A. Page, Polymers Division, National Institute of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899; Benny D. Freeman, Department of Chemical Engineering, The University of Texas at Austin, Center for Energy and Environmental Resources, 10100 Burnet Road, Building 133, Austin, TX 78758

Polymers in Membrane Technology

Special Sessions Honoring Professor Donald Paul

Co-organizers:

Kirt A. Page (NIST, Polymers Division); Benny Freeman (UT Austin)
238th ACS National Meeting & Exposition
Poly Division, August 16-20 2009 (Washington, D.C.)

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Scope: Polymeric materials have been and continue to be a crucial component in the development of membranes for gas separation, desalination, water purification, and fuel cell applications. Regardless of the particular application, one cannot overstate the importance of chain microstructure, chain dynamics, and nanoscale morphology on the transport properties and overall performance characteristics of these materials. As further advancements are made in membrane chemistry, control of membrane nanostructure and membrane characterization, there is a necessity for organized forums that foster cross-fertilization of knowledge and ideas between experts in polymer chemistry, chemical engineering, polymer physics, and membrane characterization.

In addition, one day of this symposium will be set aside to honor the achievements of Dr. Donald Paul of the University of Texas at Austin for his many significant contributions to the field of polymer blends and composites for use in membrane applications.

To this end, we are organizing a symposium entitled "Polymers in Membrane Technology" at the 238th ACS National Meeting & Exposition being held August 16-20, 2009 in Washington, D.C. The goals of this symposium are to:

1. Capture the breadth of work being done in the area of polymer membranes specifically for use in gas separations, water purification, and fuel cell membranes and to demonstrate the scientific and measurement challenges common to each of these areas.
2. Emphasize the need and identify opportunities for interdisciplinary collaborations.

Program: This symposium will consist of 8 focused sessions of oral presentations over 4 days. The eight focused sessions will include the following topics:

1. Composite materials for membrane applications
2. Polymers for gas separation/purification and water purification
3. Polymers for fuel cell applications
4. Characterization of membrane transport properties
5. Control and characterization of membrane nanostructure

Talks are targeted to be 20 minutes for contributed talks and 30 minutes for invited talks, consistent with ACS symposia structure. Breaks will be scheduled at regular intervals to foster lively discussions between participants and speakers. It is our aim to structure the sessions such that we achieve a healthy balance between both young and established scientists to encourage audience to remain throughout the sessions and provide a productive environment for questions and discussion.

Abstract submission January 19th, 2009 through March 18th, 2009.

Kirt A. Page, Ph.D.
National Institute of Standards and Technology
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Silicones and Silicone-Modified Materials 5 Click for [pdf w/ more info](#). Stephen J. Clarson, Department of Chemical and Materials Engineering, University of Cincinnati, 601B Engineering Research Center, College of Engineering, Cincinnati, OH 45221-

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0012; Michael J. Owen, Michigan Molecular Institute, 1910 west Saint Andrews Road, Midland, MI 48640; Steve D. Smith, Miami Valley Labs, Procter & Gamble Company, P.O. Box 398707, Cincinnati, OH 45239-8707; Mark E. Van Dyke, The Wake Forest Institute for Regenerative Medicine, Wake Forest University School of Medicine, Medical Center Boulevard, Winston Salem, NC 27157-7290; Michael A. Brook, Department of Chemistry, McMaster University, 1280 Main St. W, Hamilton, ON L8S 4M1 Canada; Joseph M. Mabry, AFRL/RZSM, Air Force Research Laboratory, 10 East Saturn Boulevard, Edwards AFB, CA 93524

Silicones and Silicone-Modified Materials V
a Symposium at the
American Chemical Society National Meeting
Washington, D. C., August 16-20, 2009

The world-wide sales of polysiloxanes or silicones at the beginning of this new millennium is approximately \$10 billion per year. Commercial products range from those entirely composed of silicone to products where the silicone is a low level but key component. This symposium will cover the recent academic and technological developments behind silicones and silicone-modified materials and the sessions will be of wide interest to both the academic and industrial communities. The papers from our four highly successful symposia in this important area are published in the books 'Silicones and Silicone-Modified Materials', (Eds. S. J. Clarson, J. J. Fitzgerald, M. J. Owen and S. D. Smith), ACS Symposium Series Vol. 729, ISBN 0-8412-3613-5, 'Synthesis and Properties of Silicones and Silicone-Modified Materials', (Eds. S. J. Clarson, J. J. Fitzgerald, M. J. Owen, S. D. Smith and M. E. Van Dyke), ACS Symposium Series Vol. 838, 2003, ISBN 0-8412-3804-9 and 'The Science and Technology of Silicones and Silicone-Modified Materials', (Eds. S. J. Clarson, J. J. Fitzgerald, M. J. Owen, S. D. Smith and M. E. Van Dyke), ACS Symposium Series Vol. 964, 2007, ISBN 978-0-8412-3943-2.

Topics to be covered will include:

- Organosilicon chemistry
- Silicone-containing copolymers
- Silicone-modified organic systems
- Silicone-modified inorganic systems
- Silsequioxanes
- Science and technology of:
 - Elastomers, fluids and resins
 - Pressure sensitive adhesives
 - Water-borne systems
 - Biomedical products
 - Electronics encapsulents
 - Liquid crystals
 - Surface and interfacial agents
 - Personal care products
 - Processing aids

Please submit an ACS Abstract and ACS Polymer Preprint for an oral or poster presentation using the ACS web site by March 18, 2009. We will look forward to seeing you in Washington, DC!

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Pictures from Washington

