

2011 Spring Meeting

2011 Spring NATIONAL ACS MEETING

Anaheim, CA (March 27-31, 2011)

Program Meeting Chair Primary Contact: [Greg Tew](#)

Program Meeting Chairs: [Kristi Kiick](#), [Jeffrey Linhardt](#), [Greg Tew](#)

Call for papers opens in August 23, 2010

Deadline is October 18, 2010

THE POLY/PMSE PLENARY LECTURE AND RECEPTION IS SCHEDULED FOR WEDNESDAY EVENING

March 30th at 5:30pm, in Pacific Ballroom B (Hilton Anaheim)

Plenary Speaker: Anthony Sinskey

The following will be recognized during the POLY/PMSE Awards Reception.

Carl S. Marvel Creative Polymer Chemistry Award: Marc Hillmyer

POLY Fellows: Rigoberto Advincula, Patrick Cassidy, Warren Ford, Axel Mueller, Judy Riffle, and Thomas Smith

Special Service Award: Ann Salamone and Neta Byerly

Distinguished Service Award: Dana Garcia, Kate Beers, and John Pochan

POLY Past Chair: Barry Farmer

Graduate Student Travel Awards: Elizabeth G. Kelly and Januka Budhathoki

Excellence in Graduate Polymer Science Research Symposia

Undergraduate Research Award Symposia

ACS Award in Polymer Chemistry: Klaus Mullen

ACS Award for Affordable Green Chemistry: Richard Wool

Theme: Chemistry for Natural Resources

Program

ACS Award in Polymer Chemistry in Honor of Klaus Mullen

ACS Award for Affordable Green Chemistry in Honor of Richard Wool

Aerogels, Foams, and Nanoporous Materials (Mary Ann Meador, David A. Schiraldi, Kevin Cavicchi)

Biobased Monomers, Polymers, and Materials (Patrick Smith, Rich Gross)

Bioinspired self-assembly of macromolecules (Rajeswari Kasi, Jin Montclare; co-sponsored with PMSE)

Carl S. Marvel Creative Polymer Chemistry Award in Honor of Marc Hillmyer

Excellence in graduate polymer research (H. N. Cheng, Christopher J. Ellison, Timothy E. Long, Christine Landry-Coltrain)

7th Excellence in Polymer Graduate Research Symposium

Anaheim, CA - March 28, 2011



As part of our initiative on graduate student membership and graduate education, the ACS Polymer Chemistry Division (POLY) started a special symposium, entitled "Excellence in Polymer Graduate Research" at the National ACS Meeting in Philadelphia in Fall 2004. Since then, we have organized this symposium every year in the Spring ACS meetings. The seventh symposium was held at the National ACS Meeting in Anaheim on March 27-28, 2011. The purposes of this symposium were to provide recognition to outstanding graduate students in polymer science and engineering, to foster networking and exposure, and to help develop the careers of future leaders in our field. We publicized this symposium via the POLY list server, POLY web page, and direct email messages to academic departments that are active in polymer research. We requested that each department nominate one outstanding graduate student to speak on his or her original research in this special symposium. Each student was required to fill out an application form and have a nominating letter from the research advisor and a letter from the department head.

We had 26 students this year, and they were truly excellent in the quality of the research done and in their enthusiastic presentations. The detailed symposium program is attached below. This year we started the activities with a networking social on Sunday evening, with snacks and drinks. We were joined by the students from the Undergraduate Research Symposium. A large number of POLY officers and representatives from POLY Industrial Advisory Board were also present, and there were very good interactions among all the people. Professor Robert B. Moore, Chair of POLY, spoke briefly to the students, congratulating them on their selection and wishing them continued success.

As part of the recognition, each student received a certificate plus a cash award. It is important to note that Dr. Nancy Jackson, the ACS President, made this a Presidential Event, and personally attended the symposium during the

intermission in the afternoon. She spoke to the students and took a group picture with them, together with Professor Moore (POLY Chair). We realize that Dr. Jackson had a very busy schedule at the meeting, and we truly appreciated her support of the symposium and her efforts to come to the symposium.

This symposium was organized by ACS Polymer Division (POLY), and cosponsored by Presidential Event (PRES), Young Chemists Committee (YCC), Division of Professional Relations (PROF), Society Committee on Education (SOCED), and POLY. The symposium had the generous support of National Science Foundation Division of Materials Research (DMR), ACS Polymer Division (POLY), and Industrial Advisory Board of the Polymer Division (IAB). The organizers thank all the sponsors and supporters, without whom this symposium would not have been possible.

Symposium Organizing Committee:

H. N. Cheng (USDA) Christopher J. Ellison (Univ. of Texas at Austin) Christine Landry-Coltrain (Eastman Kodak Company) Timothy E. Long (Virginia Tech)

Symposium Program

Excellence in Polymer Graduate Research, March 28, 2011

Sponsored by POLY, cosponsored by PRES, SOCED, YCC, PROF Organized by POLY (H. N. Cheng, Chris Ellison, Tim Long, Christine Landry-Coltrain, co-organizers) Financial Support: ACS Polymer Division, POLY Industrial Advisory Board, NSF Division of Materials Research

Reception - 3/27/11 Sunday Afternoon (5:00 - 6:30 pm) 5:00 - 6:30

PM Networking Reception - Welcome to Students

Oral Session - 3/28/11 Morning (Chair: H.N. Cheng, Christine Landry-Coltrain)

8:10 AM	Introductory Remarks	
8:15 AM	Encapsulation of Au Nanoparticles and Organic Dyes into polymeric nanocapsules via miniemulsion ATRP	Li, Wenwen

8:40 AM	Development of poly(vinyl ester) block copolymer materials	Lipscomb, Corinne
9:05 AM	New method for the controlled synthesis of tailor-made polymer thin films by photocleavage	Dach, Benjamin
9:30 AM	Block copolymers derived from the Acyclic Diene Metathesis (ADMET) polymerization of a modified vegetable oil	Mauldin, Timothy
9:55 AM	Intermission	
10:25 AM	Controlling diblock copolymer self-assembly in dip-coating thin films of PS-P4VP with hydrogen-bonding small molecules	Roland, Sébastien
10:50 AM	Polymersomes with ionic liquid interiors dispersed in water	Bai, Zhifeng
11:15 AM	Polymer assisted mechanical reconfiguration of stereoisomers and activation of catalysts	Wiggins, Kelly

Oral Session - 3/28/11 Afternoon (Chair: Chris Ellison, Christine Landry)

1:10 PM	Introductory Remarks	
1:15 PM	Recognition of Poster Presenters	
1:25 PM	Bio-functionalized and bio-mimetic conjugated polymers for the device-tissue interface	Povlich, Laura
1:50 PM	Spatial and Temporal Control of the azide-alkyne cycloaddition	Adzima, Brian
2:15 PM	Novel sulfonated segmented block copolyesters as thermoplastic elastomers in biomedical applications	Musan Zhang
2:40 PM	Tough polylactide graft copolymers from tandem ring-opening polymerizations	Theryo, Grayce
3:05 PM	Remarks by Dr. Nancy Jackson (ACS President) and Photo Session	
3:35 PM	Photopolymerized PEG-based Membranes for CO ₂ Separation	Kwisnek, Luke
4:00 PM	Sulfonated Perfluorocyclobutyl (S-PFCB) Aryl Ether Polymers for Proton Exchange Membranes	Park, Jiyong
4:25 PM	Experimental observation of the Twinkling Fractal Theory of the glass transition	Stanzione, Joseph

4:50-5:30	Informal Networking at Poster Session - Hilton California Boardroom D
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Poster Sessions - Monday, 3/28/11

9:30-11:00	Metabolic fluoroprobes: Metabolite carriers for examining xenobiotic degradation	Daniele, Michael Angelo-Antho
9:30-11:00	Engineered extracellular matrices for soft tissue regeneration	Jha, Amit
9:30-11:00	Sorption and diffusion of water vapor in polylactide: Experiments and model predictions	Davis, Eric
9:30-11:00	Development of calcium-binding silk scaffolds with the sequence [(Glu) ₈ (Ala-Gly-Ser-Gly-Ala-Gly) ₄] ₄ , and their characterization	Nagano, Aya
9:30-11:00	Studies of Self-assembly of Metallo-supramolecular Polymers in Solution	Li, Zheng
9:30-11:00	100 K Perturbation of the Glass Transition Temperature in Nanostructured Heterogeneous Polymers	Kim, Soyoung
2:30-5:30	β to α crystalline phase transition of syndiotactic polystyrene (sPS) induced by mechanical strain	Ouchi, Tetsu
2:30-5:30	RAFT copolymerization of thermo-responsive poly(DEGMA-b-OEGA) with tunable LCST	Chen, Ning
2:30-5:30	Expanding the range of polyolefins through living coordinative chain transfer polymerization	Wei, Jia
2:30-5:30	Synthesis and electronic properties of semiconducting polymers containing benzodithiophene	Sista, Prakash
2:30-5:30	High-Concentration Dispersions of Single-Walled Carbon Nanotubes with Poly(pyridinium salt)s	Jo, Tae Soo
2:30-5:30	Modeling the interfacial phenomena of polymer-carbon nanotube interactions via molecular dynamics simulations	Tallury, Syamal

General Topics in the Design, Synthesis, and Characterization of Polymers(Dana Garcia)

Nanoscience in polymer chemistry (Donna Nelson)

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New Synthetic Developments in Polyolefin and Metathesis-Based Polymers (Ken Wagener, Michael Buchmeiser, Bob Waymouth, Phil Hustad)

CALL FOR PAPERS

New Synthetic Developments in Polyolefins and Metathesis-Based Polymers

241th ACS National Meeting

Anaheim, CA

March 27-31, 2011

Co-organizers: Kenneth Wagener (Univ. of Fla), Michael Buchmeiser (Stuttgart), Phil Hustad (Dow) and Robert Waymouth (Stanford) 241st ACS National Meeting & Exposition Poly Division, March 27-31 2011 (Anaheim, CA)

Goals and Scope: The objective of this symposium is to bring together leading researchers from academia and industry to discuss recent challenges and opportunities in synthetic methods for olefin polymers, encompassing both metathesis and insertion polymerization. Recent advances in the development of new catalysts, new insights into mechanisms of olefin transformations, and new polymerization processes will be highlighted. The symposium will encompass six 1/2 day sessions and include a mix of invited and contributed papers.

Program: The symposium will encompass six 1/2 day sessions and include a mix of invited and contributed papers.

The following scientists have agreed to speak as invited speakers: Michael Buchmeiser (Stuttgart), Peter Chen (ETH-Zürich), Brian Edgecombe (Materia),

Robert Grubbs (Caltech), Laura Kiessling (Wisconsin), Richard Schrock (MIT),

Christain Slugovc (Graz), Marcus Weck (NYU), Kenneth Wagener (Florida); Geoff Coates (Cornell), Ted Carnahan (Dow), Jerzy Klosin (Dow), Richard Jordan (Chicago), Markus Klapper (MPI/Polymers, Mainz), Clark Landis (Wisconsin), Stephen Miller (Florida), Yoshinobu Nozue (Sumitomo), Lawrence

Sita (Maryland), Robert Waymouth (Stanford).

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. We solicit in particular young scientists to foster lively discussions between participants and speakers.

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Those interested in being considered for this symposium should submit a contribution on the central ACS website (PACS) no later than October 18, 2010.

[Polymers for Energy Storage and Delivery](#) (Kirt Page, Christopher Soles, Jim Runt;, co-sponsored with PMSE)

2011 Spring NATIONAL ACS MEETING

Polymers for Energy Storage and Delivery

Co-organizers: Kirt A. Page and Christopher Soles (NIST, Polymers Division)

Jim Runt (Penn State University)

241st ACS National Meeting & Exposition

Poly Division, March 27-31 2011 (Anaheim, CA)

Scope: Polymeric materials have been and continue to be a focus of research in the development of materials for energy storage and delivery applications (batteries, fuel cells, capacitors, etc.). For these applications, the importance of chain microstructure, chain dynamics, and nanoscale morphology on the overall performance characteristics of these materials cannot be overstated. In addition, the characteristics of these materials in confined geometries and at interfaces has a significant impact on performance. As further advancements are made in polymer chemistry, control of nanostructure and characterization, there is a necessity for organized forums that foster cross-fertilization of knowledge and ideas between experts in polymer chemistry, chemical engineering, and polymer physics.

The goals of this symposium are to:

1. Capture the breadth of work being done in the area of polymer applications for energy storage and delivery.
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
2. Polymers for battery and capacitor applications
3. Polymers for fuel cell applications
4. Characterization of transport properties
5. Control and characterization of membrane nanostructure
6. Structure and transport in thin films and at interfaces

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.

Submission opens August 23, 2010 and DEADLINE October 18, 2010

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Polymers for Molecular and Biomolecular Recognition (Gobet Advincula, Heather Maynard, and Ken Shea)

CALL FOR PAPERS

POLYMERS FOR MOLECULAR AND BIOMOLECULAR RECOGNITION

241th ACS National Meeting

Anaheim, CA

March 27-31, 2011

Abstract and Preprint Deadline: October 18, 2010

Themes include:

Molecularly Imprinted polymers

Chemical Sensing

Self-Assembly and Supramolecular Systems

Bio-sensing

Biomimetic polymers

Polymers in Medicine and Implants

Polymers in Therapeutics or Drug Delivery

Tissue Engineering

ORGANIZERS:

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University of California, Irvine

For more information:

[https://mysm.uh.edu/groups/advincularesearchgroup/wiki/a23b8/Polymers for molecular recognition.html](https://mysm.uh.edu/groups/advincularesearchgroup/wiki/a23b8/Polymers%20for%20molecular%20recognition.html)

We intend to have a gathering of researchers from the polymer community, biomedical industry, pharmaceutical companies, and sensor community who are interested in the state-of-the-art in molecular, macromolecular, and supramolecular recognition. This includes covalent and non-covalent assemblies, new synthesis strategies, artificial receptors, transduction effects, and bio-conjugation. Recent advances in these fields will be highlighted. The symposium will encompass six half-day sessions. We intend to have both invited and contributed oral papers and posters. We particularly solicit contributions from young and new

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investigators in this field. Abstracts and preprint submissions instructions can be found at:

<http://abstracts.acs.org>

Preprint guidelines:

<http://uweb.txstate.edu/science/polymerpreprints/>

Submission on the central ACS website (PACS) should be no later than October 18, 2010

https://mynsm.uh.edu/groups/advincularesearchgroup/wiki/a23b8/Polymers_for_molecular_recognition.html

Robert W. Lenz Memorial Symposia (Chris Ober; co-sponsored with PMSE)

Undergraduate research in polymer science (Sarah Morgan, Sergei Nazarenko)

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March 27-31, 2011

Anaheim, CA

Undergraduate Research in Polymer Science

Sponsored by

**Division of Polymer Chemistry
AMERICAN CHEMICAL SOCIETY**

CALL FOR PAPERS!

We announce the 6th annual symposium to recognize outstanding undergraduate students in polymer science and engineering. We ask each department (e.g., chemistry, chemical engineering, or polymer/material science) to send their best undergraduate students to speak or display a poster on his or her original research in this special symposium. Limited travel awards will be available for top preprints submitted. **\$500 Best Oral Presentation and Best Poster Presentation Awards sponsored by the POLY Industrial Advisory Board** will be awarded at the meeting.

Objective

This meeting is intended to provide recognition to outstanding undergraduate students in polymer science and engineering, to foster networking and exposure, to introduce opportunities in graduate research and to help develop the careers of future leaders in both academia and industry.

Awards

The top three preprints submitted will receive travel awards. Additionally, the top poster and oral presentation will receive monetary awards. If further funds become available, more travel awards will be distributed.

Documents Needed

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Student should enter the abstract and the preprint of his or her presentation at the ACS abstract submission site <http://abstracts.acs.org> , under "Undergraduate Research in Polymer Science" in the POLY division by **October 18, 2010**. Students may request poster or oral presentation. **PREPRINT** is required.

Symposium Chairpersons

Sarah E. Morgan, Ph.D.	Sergei Nazarenko, Ph.D.
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Thank you in advance for your interest and participation. If there are any questions regarding this symposium please address them to the chairpersons.