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