



AMERICAN PHYSICAL SOCIETY

DIVISION OF POLYMER PHYSICS

NEWSLETTER October 3, 2008

NEW DPOLY WEBSITE

The new and improved DPOLY website is now on-line! Please check it out at:
<http://www.aps.org/units/dpoly/>

UPCOMING DEADLINES

Nominations from the membership for positions on the DPOLY Executive Committee are due Friday, October 31, 2008 (see below).

Abstracts for the 2009 APS March Meeting are due by 5:00 p.m. EST on Friday, November 21, 2008.

Nominations for the 2009 Padden Award are due by 5:00 p.m. EST on Friday, November 21, 2008.

Nominations for the UKPPG/DPOLY Polymer Lecture Exchange are due by December 31, 2008 (see below).

For International Members: APS encourages March meeting participants to *apply for a visa as early as possible*. You should apply no later than November 30, 2008. It takes 7 to 10 days to generate the Meeting Invitation Letter. More information is available at:

<http://apsweb.aps.org/meetings/march/accommodations/visa/index.cfm>

2009 POLYMER PHYSICS PRIZE AND 2009 DILLON MEDAL RECIPIENTS

The 2009 Polymer Physics Prize will be awarded to **Steve Granick** (University of Illinois at Urbana-Champaign): *“For path-breaking and elegant experiments that elucidate the structure and dynamics of polymers and liquids confined by surfaces.”*

The 2009 Dillon Medal will be awarded to **Venkat Ganesan** (University of Texas): *“For exceptional contributions to innovative computer simulation approaches and analysis of equilibrium and dynamic properties of multicomponent polymeric materials and nanocomposites”*

The Polymer Physics Prize is sponsored by General Electric Central Research and the Dillon Medal is sponsored by Elsevier, publisher of *Polymer*.

CALL FOR NOMINATIONS: DPOLY EXECUTIVE COMMITTEE ELECTIONS

The DPOLY Nominating Committee has proposed the following slate of candidates for positions on the DPOLY Executive Committee:

For Vice Chair:

Ron Larson (University of Michigan)
Igal Szleifer (Northwestern University)

For Member-at-Large:

Andrey Dobrynin (University of Connecticut.)
Darrin Pochan (University of Delaware)

For Secretary-Treasurer:

Mark Dadmun (University of Tennessee and Oak Ridge National Lab)
Barry Farmer (Air Force Research Lab)

In addition, the DPOLY Executive Committee has nominated the following candidates for DPOLY Division Councilor:

David Morse (University of Minnesota)
Scott Milner (Pennsylvania State University)

Members of the Division are hereby invited to submit nominations for these positions. As provided by the Bylaws, any candidate named by not less than 1% of Division members (currently, 14) shall be considered nominated. Nominations should be sent to the Secretary-Treasurer (email and fax info at the end of this newsletter) and must be received **no later than October 31, 2008.**

CALL FOR NOMINATIONS: Frank J. Padden Jr. Award, 2009

DPOLY encourages you to nominate a deserving graduate student for the Frank J. Padden, Jr. Award, which honors "Excellence in Polymer Physics Research." The number of quality applications is a good barometer of the future health of our Division, so please take a moment from your hectic schedule and nominate a deserving student. The Padden Award is sponsored by the College of Polymer Science and Polymer Engineering, University of Akron.

Application Criteria:

- (1) membership in DPOLY,
- (2) PhD candidate, and
- (3) has not completed requirements for a Ph.D. before November 21, 2008.

Nomination Packet:

- (1) Abstract
 - contributed talk in the DPOLY program at the March Meeting (submitted on-line).
 - electronic copy to the DPOLY Education Committee (see below),
- (2) A 1-page curriculum vitae (list but do not attach publications), and
- (3) A nominating letter addressing the quality of the graduate research and academic excellence.

Send nominations by email to Glenn Fredrickson at ghf@mrl.ucsb.edu using the subject line "Padden_name of student". Paper nominations will not be accepted. The deadline for receipt of all materials is 5pm EST on November 21, 2008.

CALL FOR NOMINATIONS: UKPPG/DPOLY POLYMER LECTURE EXCHANGE

In order to strengthen ties between the Division of Polymer Physics (DPOLY) of the American Physical Society (APS) and the Polymer Physics Group (PPG) of the Institute of Physics, a UKPPG/DPOLY Polymer Lecture Exchange has been established. Every two years, each group will pick a person who will present an invited lecture at the meeting of the other group. A speaker from the UK will present the first lecture at the March 2009 APS meeting.

Nominations are now being solicited for the DPOLY member who will lecture at the PPG meeting in Bristol from September 14-16, 2009. **The nomination deadline is December 31, 2008.** In order to be eligible, you must be a DPOLY member and must have received your Ph.D. within 5 years of the nomination deadline.

The nomination package consists of a nomination letter, two supporting letters, and a CV. In addition, the package may include copies of three publications. The nominating letter should include a statement that the candidate is available to present a lecture at the next PPG meeting. All of these materials must be submitted electronically as a single pdf file to Mark Ediger (ediger@chem.wisc.edu) by December 31, 2008. The DPOLY Executive Committee will select the Lecturer. DPOLY will provide up to \$2500 in travel expenses for the selected Lecturer to attend the UK PPG meeting.

2009 DPOLY SHORT COURSE

The 2009 DPOLY Short Course entitled "Physics of Polymer Nanocomposites" will be offered just ahead of the March Meeting in Pittsburgh, PA on March 14 and 15, 2009. The organizers are Rich Vaia and Ramanan Krishnamoorti.

This course will provide background on the critical issues, ranging from synthesis, fabrication, processing, and characterization to the key physics questions that underlie the establishment of scientifically grounded structure-property relationships. Additionally, the course will ensure that the attendee has an appreciation of parallel fields of investigations with high relevance to polymer nanocomposites. Elucidating the numerous competing factors and phenomena that manifest in the equilibrium and dynamic character of nanoparticle-polymer systems are paramount to enabling prediction of physical phenomena and thus the ability to advance these materials to technologically relevant applications.

The tentative list of topics, speakers, and affiliations is:

What is a Polymer Nanocomposite – J. Dias (Exxon)

Fabrication Approaches

Inorganic Nanoparticle Synthesis and Properties Overview – A. Barron (Rice U)

NCP Fabrication Overview – T. Seery (U. Connecticut)

Manipulation of Interfacial (Corona) Region via Polymer Chemistry – TBD

Quantification Challenge (from particle to interface to collective assembly)

Interface Science & dynamics at and near the interface - J. Torkelson (Northwestern)

Morphology & Topology Quantification – R. Vaia (AFRL)

Constitutive Relationships and Physical Properties

Mechanical, Electrical & Thermal Properties – K. Winey (U Pennsylvania)

Phase Behavior & Dynamics of Polymer-NP Blends

Equilibrium Behavior & Impact on Mesoscopic Order & Interfaces – V. Ginzburg (Dow)

Rheology - R. Krishnamoorti (U Houston)

Registration Fee:

Undergraduate/Graduate/Post-doctoral students *	\$100
DPOLY member beyond post-doc	\$150
Not DPOLY member	\$250

*Students who are DPOLY members are eligible for reimbursement of registration fee and travel costs up to \$100. Reimbursement forms will be distributed at the short course.

2009 DPOLY MARCH MEETING

The next DPOLY March Meeting will be held March 16-20, 2009 in Pittsburgh, PA. Sam Gido (University of Massachusetts; email gido@mail.pse.umass.edu) is the Program Chair.

Session chairs are sought for the contributed sessions. No experience is necessary and APS will send you guidelines. If you are interested in serving as a session chair, please email Sam your contact information (name, institution, mailing address, and email). Also, volunteers are needed to help at the Sorter's meeting to be held Friday and Saturday, December 5-6, 2008 at APS headquarters in College Park, Maryland.

The sorting topics for the 2009 meeting, including special focus topics, are listed below:

04. Polymeric and Organic Materials

- 04.1 Semi-Crystalline Polymers
- 04.2 Liquid Crystalline Polymers
- 04.3 Solid Amorphous Polymers
- 04.4 Melts & Solutions
- 04.5 Elastomers & Gels
- 04.6 Charged & Ion-Containing Polymers
- 04.7 Block & Graft Copolymers
- 04.8 Polymer Blends
- 04.9 Polymer/Inorganic Composites
- 04.10 Electrically & Optically Active Polymers
- 04.11 Surfaces & Adsorption
- 04.12 Thin Films & Adhesion
- 04.13 Theory & Simulation

Special Focus Topics:

- 04.14.1 The Physics of Biocompatibility (DPOLY/DBP) [same as 10.15.20]
- 04.14.2 Spatially Confined Polymer Materials (DPOLY)
- 04.14.3 Polymers and Energy: Photovoltaics, Fuel cells, Batteries (DPOLY/FIAP)
- 04.14.4 Polymers and/in Ionic Liquids (DPOLY)
- 04.14.5 Long Range Order in Polymer Structures & Morphologies (DPOLY)
- 04.14.6 Surface Instabilities (DPOLY)
- 04.14.7 Grazing Incidence Scattering (DPOLY)
- 04.14.8 New Imaging and Visualization Techniques (DPOLY)
- 04.14.9 Hierarchically Ordered Systems (DPOLY)
- 04.14.10 The Physics of Green Polymers & Green Polymer Processing (DPOLY)
- 04.14.11 Biological-Synthetic Hybrid Materials (DPOLY/DBP) [same as 10.15.19]
- 04.14.12 Mechanical Force Spectroscopy of Single Chains and Biopolymers (DPOLY)
- 04.14.13 The Physics of Polymer Nanocomposites; Polymer Nanoparticle Interactions (DPOLY)
- 04.14.14 Templated Assembly of Polymers (DPOLY)
- 04.14.15 Organic Electronics, Photonics & Magnetics (DMP/DPOLY) [same as 16.12.6]

MEETINGS OF INTEREST

Macromolecular Materials Gordon Research Conference January 11-15 2009, Ventura CA

Chair: Dr. Darrin J. Pochan (Pochan@udel.edu)

Co- Chair Dr. Todd S. Emrick (tsemrick@mail.pse.umass.edu)

Register at www.GRC.org

The Macromolecular Materials Gordon Research Conference (formerly known as the Polymers West GRC) will be held in Ventura, CA from January 11-15, 2009. Macromolecular Materials is known for being an interdisciplinary meeting, and the 2009 version will combine aspects of polymer chemistry, physics and engineering from academia, industry and national labs. The program and speakers are posted on-line at: <http://www.grc.org/programs.aspx?year=2009&program=polymersw>

Macromolecular Materials will also be hosting a Graduate Research Seminar (GRS) on Saturday and Sunday, January 10th and 11th, prior to the main GRC meeting. The GRS is a new conference sponsored by the Gordon Research Conferences and is intended to provide a GRC meeting experience solely for graduate students and post-doctoral fellows. The topics of the 2-day GRS will also be interdisciplinary in nature. Graduate students or post-docs interested in attending the GRS should apply to the GRS and GRC at www.grc.org

See the Resources section on the new DPOLY web site for more complete list of meetings of interest to the DPOLY community: <http://www.aps.org/units/dpoly/resources/index.cfm>

This newsletter was prepared by:

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