### **Division of Polymer Physics Newsletter**

October 14, 2002 B. L. Farmer

#### **Call for Nominations: Executive Committee Elections**

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

For Vice Chair: M. Muthukumar, University of Massachusetts
Nitash Balsara, University of California - Berkeley

For Member-at-Large: Jack Douglas, NIST

Arun Yethiraj, Univerity of Wisconsin

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, 12) shall be considered nominated. Nominations should be sent to the Secretary-Treasurer and must be received no later than **November 15, 2002.** 

# 2003 Polymer Physics Prize and 2003 Dillon Medal

Andrew J. Lovinger (National Science Foundation and Bell Laboratories, Lucent Technologies) will receive the 2003 Polymer Physics Prize, sponsored by the Ford Motor Company. The citation will be:

For his seminal contributions to fundamental understanding of structure, morphology and properties in technologically important polymers.

Helmut H. Strey (University of Massachusetts) will receive the 2003 Dillon Medal, sponsored by Elsevier Science Ltd., publisher of *Polymer*. The citation will be:

For contributing significantly to our understanding of the physics of biopolymers and polyelectrolytes.

The winners will be honored by special symposia at the March Meeting of the Division.

MEMBERS WANTED!

Remember the first year membership in APS and DPOLY for students is **free!** Membership forms are available on-line at /memb/stapp.cfm.

# **DEADLINES**

November 15 Executive Committee Nominations November 8 Padden Award Nominations December 6 Abstracts for March Meeting

# March 2003 Program

The next March Meeting will be held in Austin, TX the week of March 3-7, 2003. The DPOLY Program Chair is Anne Mayes (Massachusetts Institute of Technology, email: amayes@MIT.EDU). Abstracts must be submitted via the web (see below). The deadline for abstracts is **December 6, 2002**. (Nominations and abstracts for the Padden Award and Symposium are due November 8, 2002.).

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 <u>session chair</u> please email Anne your contact information (name, institution, mailing address, and email) and a list of research interests by **November 8, 2002**.

The DPOLY sorting categories for the March Meeting are listed below. When submitting your abstract, please thoughtfully consider which sorting category is most appropriate.

March Meeting ID: MAR03

- 4. Polymeric and Organic Materials
- 4. Polymeric & Organic Materials 4.7 Block and Graft Copolymers
- 4.1 Semi-Crystalline Polymers 4.8 Blends and Composites
- 4.2 Liquid Crystalline Polymers 4.9 Electrically and Optically Active Materials
- 4.3 Solid Amorphous Polymers 4.10 Surfaces
- 4.4 Melts, Solutions and Gels 4.11 Thin Films
- 4.5 Rubbers and Networks 4.12 Experimental Techniques
- 4.6 Charged and Ion-Containing Pol 4.13 Theory and Simulationymers

## **Special Focus Topics**

- 4.14.1 Molecular Aspects of Polymer Mechanical Behavior (DPOLY)
- 4.14.2 Polymer-Templated Nanostructures (DPOLY/DMP)
- 4.14.3 Multiscale Modeling of Polymer Systems (DPOLY/DCOMP)
- 4.14.4 Supramolecular Assembly of Biological and Biomimetic Structures (DPOLY/DBP)
- 4.14.5 Organic Nano- and Mesostructures for Electronic & Photonic Applications (DMP/DPOLY)

# **Web Submission of Abstracts**

Abstracts for the March Meeting must now be submitted via the World Wide Web by pointing a browser to http://abstracts.aps.org/. Simply click "Prepare an Abstract," and when the next page appears, select a meeting by clicking the appropriate button to the left of the meeting (March Meeting ID: MAR03). Specify the number of authors and collaborations or teams for your abstract, and click the "Create an Abstract for Me" button. It is recommended that, prior to submitting abstracts, new users select the Test meeting and complete all steps in order to familiarize themselves with the process. Additional information can be found on the web at /meet/MAR03/abs.cfm

# Call for Nominations: Frank J. Padden Jr. Award

The Frank J. Padden, Jr. Award, consisting of a certificate and appropriate recognition, honors a graduate student for "Excellence in Polymer Physics Research." To be considered for this award the student must be a member of DPOLY, must be working toward the Ph.D. degree, and must not have completed the requirements for the Ph.D. before November 8, 2002. A nomination package consists of the following:

- 1) An acceptable abstract for a contributed talk in the DPOLY program at the March Meeting. Please submit the abstract *on-line directly to the APS, but provide a paper copy* for the award committee, as described further below.
- 2) A 1-page curriculum vitae (do NOT send papers or other attachments),
- 3) A nominating letter addressing the quality of the graduate research and academic excellence. The nominator may be the thesis adviser or another individual familiar with the student and his/her work. <u>Individuals may make only a single nomination in a given year</u>.

A single paper copy of each of these three items should also be sent directly to the chair of the Education Committee: Rick Register, Chemical Engineering, Princeton University, Princeton, NJ 08544-5263. All materials must be received by November 8, 2002.

To be considered for the Padden Award, abstracts must be submitted on-line at <a href="http://abstracts.aps.org/">http://abstracts.aps.org/</a> by November 8, 2002 (four weeks ahead of the general abstract deadline). Please submit the abstract to Sorting Category 4 and in the template space for Special Instructions, enter "Padden Award Symposium". The abstract will be forwarded to the Program Chair for inclusion in the March Meeting DPOLY program, either in the Padden Award Symposium if the nominee is selected as a finalist, or in the appropriate technical category otherwise.

The Education Committee will select 5 finalists based on quality of the research, abstract, c.v., and the nominating letter. The finalists will be invited to a dinner (sponsored by the University of Akron) with members of the DPOLY Education Committee. The Padden Award session will be held during the March Meeting. Each of the 5 finalists will give a 12-minute (including time for questions) oral presentation. The session will be attended by the Education Committee, who will serve as judges, and by any other interested members of DPOLY or APS. The winner will be selected based on quality of the research, the presentation, and response to questions. The winner will be announced at the annual DPOLY Business Meeting. A list of past Padden Award winners can be found on the DPOLY home page, at <a href="http://www.people.virginia.edu/?blf2v/prizewin.cfm">http://www.people.virginia.edu/?blf2v/prizewin.cfm</a>.

DPOLY Short Course: Polymer Chemistry for Physicists  $\square$  Austin, TX

Saturday March 1 8:00 am - 5:00 pm; Sunday March 2 8:00 am - 5:00 pm

Registration fees: \$400 (\$200 for students)

You must pre-register for this course. There will be no on-site registration.

### Course description

The preparation of macromolecules with controlled molecular weights, narrow molecular weight distributions, specific comonomer sequences, prescribed end groups, and precise architectures is critically important to polymer physics. Major preparative routes to model polymeric materials will be covered, and the range of materials accessible by a variety of polymerization techniques will be addressed. The goal of this course is to take the mystery out of polymer chemistry.

### Who should attend

The material in the course will be useful to academic and industrial scientists with an interest in polymer science and engineering. Students, postdocs, and faculty interested in contemporary methods of polymer synthesis relevant to macromolecular physics will benefit by attending. The instructors will assume that attendees have a B.S. training in the physical sciences or engineering.

# Topics to be covered

Living anionic polymerization, controlled free radical polymerization (e.g., Atom Transfer Radical Polymerization, nitroxide mediated, and Radical Addition Fragmentation chain Transfer polymerization), surface initiated polymerization, polymer modification (e.g., hydrogenation, oxidation, and halogenation), metal-catalyzed polymerizations (e.g., Ring-Opening Metathesis Polymerization, and metallocene polymerizations), protein synthesis (via recombinant DNA techniques), specifically functionalized polymers (e.g., endgroup control and isotopic labeling). These methods will be connected to current issues in Polymer Physics.

### Confirmed Speakers

Kristoffer Almdal (Risx National Laboratory), Frank Bates (University of Minnesota), Bill Brittain (University of Akron), Vince Conticello (Emory University), Bryan Coughlin (University of Massachusetts, Amherst), Barney Grubbs (Dartmouth University), Steve Hahn (Dow Chemical Company), Jimmy Mays (University of Tennessee)

### **Organizers**

Marc A. Hillmyer Frank S. Bates

Department of Chemistry Department of Chemical Engineering & Materials Science University of Minnesota University of Minnesota

Minneapolis, MN 55455 Minneapolis, MN 55455

Phone: 612-929-9725 Phone: 612-624-0839

Email: hillmyer@chem.umn.edu Email: bates@cems.umn.edu

## Special Issue: Journal of Polymer Science, Polymer Physics Edition

The Journal of Polymer Science: Part B: Polymer Physics will publish its twelfth annual DPOLY Special Issue this year, showcasing papers presented in the DPOLY program at the 2003 March Meeting. The 2003 Special Issue will be an "electronic collection": papers will appear in the printed version of the journal in an average of eight weeks after acceptance (five weeks to on-line publication), but are also collected together and highlighted in the on-line version of the journal. This electronic Special Issue of the journal is accessible to everyone, regardless of whether they have a personal or institutional subscription to the journal. The link to this electronic collection is the top item on the journal's web page, guaranteeing prominence for the articles which it contains. Contributors will also enjoy the usual benefits of publishing in the Journal of Polymer Science: Part B: Polymer Physics: no page charges; 50 free high-quality, glossy reprints; and rapid publication. The deadline for manuscript submission for the 2003 Special Issue will be May 1, 2003.