



# AMERICAN PHYSICAL SOCIETY

## DIVISION OF POLYMER PHYSICS

**NEWSLETTER**  
**FEBRUARY 1, 2012**

### **A PROPOSAL FOR THE EXPANSION OF DPOLY**

**Statement:** The DPOLY Executive Committee recommends that DPOLY be expanded to include topics in Soft Condensed Matter Physics. An expanded division would be named the Division of Polymer and Soft Matter Physics (DPOSM).

**Process:**

- (i) Presentation and discussion of the proposed expansion at the 2012 DPOLY Business Meeting.
- (ii) A non-binding vote of DPOLY members in early April on a proposal to APS Council that would (a) change our name to the Division of Polymer and Soft Matter Physics, and (b) expand our Sorting Categories to reflect this change. Approval by at least two-thirds of votes cast needed to send to Council (see Timeline for more details).
- (iii) If proposal approved by Council, a second (final) vote to follow.

**Motivation:**

There are natural overlaps in interest between these two communities. Indeed, our main APS Sorting Category title is Polymers and Soft Matter Physics (DPOLY). Subjects such as Colloids, Gels, Glassy Materials, Jamming, and Self-Assembly, but without an overt polymer focus, have in the past been scheduled through other divisions – largely the Division of Condensed Matter Physics. The result has been missed opportunities for broader discussion, and a sense from this part of the soft matter community, and from many current members of DPOLY, that more effective sessions would be created through an enlarged DPOLY.

In addition, as the APS membership grows it is important that DPOLY grows with it, particularly in areas that are attracting new colleagues. DPOLY is one of the smallest divisions; this represents an opportunity for modest growth (possibly 20- 25%) in a way that will give us both additional intellectual breadth and depth.

In the last few years focus sessions have been created to reflect the demand from the polymer-soft matter overlap. In this year's meeting about ten such focus sessions (1.1.11 – 1.1.21) were created, and attracted about 340 abstracts out of a DPOLY total of about 1120. While undertaking this experiment has proved useful, participants from the soft matter community are interested in having permanent sorting categories that both reflect their interests, and that will be structured to ensure coordination and synergy with traditional DPOLY topic areas. This can only be done through an expanded DPOLY.

Such a change would not affect the division continuing to cosponsor sessions with other divisions, for example with DBIO or with DMP.

**What would change:**

Our name (presumably to the Division of Polymer and Soft Matter Physics) and our acronym (DPOSM). Our regular Sorting Categories would be expanded to include broader soft matter interests, e.g. colloids, jamming, glassy materials, etc.  
Our membership would increase; we expect a change of roughly  $20\% \pm 5\%$ .  
A broader array of subjects would be available as possible Short Course topics.

**What would not change:**

Our current regular Sorting Categories would continue, except for the usual additions and deletions that occur at intervals, at the discretion of the Program Chair and Executive Committee.  
Our present Awards and Prizes (Polymer Physics, John H. Dillon Medal, Frank J. Padden Jr. Award, UKPPG/DPOLY Lecture Exchange) would continue to reflect achievement in the polymer physics community, with their current descriptions and eligibility requirements.  
The expanded division would have a number of slots for Fellowship nominations proportional to its size, as is presently the case.  
The number of rooms at the March meeting allotted for the expanded Sorting Categories would be commensurate with the number of invited and submitted abstracts, as is presently the case.

**Timeline:**

- \* An Executive-Committee-approved document to be sent to the membership in mid-February;
- \* Jane Lipson (DPOLY Chair) to invite to DCMP Chair to the DPOLY Business Meeting;
- \* Discussion at Business Meeting (\*\*no vote\*\*);
- \* Non-binding vote in early April; support of at least two thirds of votes cast to be required in order to send on to APS Council;
- \* If approved at level of two-thirds votes cast or above then proposal goes to APS Council for their meeting on November 1,2, 2012;
- \* If APS Council approves then second membership vote, binding, as soon as possible.

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**DPOLY EXECUTIVE COMMITTEE ELECTION RESULTS**

Nitash Balsara (University of California, Berkeley) was elected as the Vice-Chair of the Division.  
Richard Vaia (Air Force Research Laboratory) was elected as Member-at-Large to the DPOLY Executive Committee.

**DPOLY PROGRAM BOOKLET**

Andrey Dobrynin and the Program Committee have done an exceptional job in assembling the DPOLY program and the Program Booklet. The DPOLY Program Booklet for the 2012 March Meeting will be available on February 3 as a pdf file on the DPOLY Home page.

The hard copy version of the Program Booklet should reach your mailbox in the next couple of weeks.

**SUNDAY RECEPTION IN BOSTON**

The DPOLY Sunday Reception will take place on Sunday, Feb. 26, 2012 at 5:30. It will be held at:  
**Paddy O's, 33 Union St. Boston Phone: (617) 367-2114**

This DPOLY reception is the Divisions official opportunity to recognize Matthew Tirrell (recipient of the 2012 Polymer Physics Prize) and Rachel Segalman (recipient of the 2012 Dillon Medal).

## **DPOLY BUSINESS MEETING**

The annual DPOLY Business Meeting will be held at 5:45 PM, Tuesday, February 28, 2012 in Room 160 ABC in the Boston Convention Center. This VERY important meeting will provide an opportunity to discuss the proposed changes to DPOLY described in this newsletter. The new APS Fellows who are members of DPOLY will be recognized and the winner of the 2012 Padden Award will be announced at this meeting.

## **MARCH MEETING PROGRAM**

On Tuesday, February 28, 2012, the traditional DPOLY Award sessions will be held.

At 8:00 a.m., the 2012 Polymer Physics Prize session will be held, featuring a presentation by the Prize winner, Matt Tirrell, entitled *Polyelectrolyte complexes: New routes to useful soft materials*. The session will be in Room 160 ABC of the Boston Convention Center.

At the mid-day session (11:15 a.m.) on Tuesday, the Padden Award competition will feature seven talks by outstanding graduate students who have been selected as Finalists for the Award. The session will be in Room 159 of the Boston Convention Center.

At 2:30 p.m., Rachel Segalman will give the 2012 Dillon Medal Prize Lecture entitled *Self-assembly of rod-coil block polymers*. The session will be in Room 160 ABC of the Boston Convention Center.

## **DPOLY MEMBERSHIP TABLE – HELP WANTED!**

DPOLY will once again have a membership table outside the DPOLY rooms at the March Meeting in Boston. If you are willing to help the Division at the membership table, please email Darrin Pochan [pochan@udel.edu] with the day you prefer and the time slot (8-11, 11-2, 2-5) you will be available. You may also sign up at the table in Boston.

## **BESAC Mesoscale Materials and Chemistry Town Hall Meeting**

*Wed Feb 29, 5:45 PM, Boston Convention Center 253C*

Bill Brinkman, Director of the DOE Office of Science, has charged the Basic Energy Sciences Advisory Committee (BESAC) with assessing the opportunities and directions for Mesoscale Materials and Chemistry, where the quantum and the classical regimes meet. The resulting report will outline the most promising research opportunities in mesoscale science, spanning synthesis, characterization and simulation of mesoscale materials, phenomena and functionality. Mesoscale science embraces energy, time and length scales where bulk behavior emerges from atomic or nano constituents through interaction of electronic, photonic, chemical and structural degrees of freedom.

Please contribute your ideas on promising meso research directions at a Meso Town Hall to be held at the Boston APS meeting. The Town Hall will be hosted by Marc Kastner and Bill Barletta (MIT) on behalf of the BESAC Meso Subcommittee. Input is requested on research opportunities in two areas: (i) *new mesoscale phenomena and functionality* and (ii) *facilities, instruments and tools* needed to synthesize, characterize and describe mesoscale materials, phenomena and functionality. Your input will help shape the content for the BESAC report on Mesoscale Materials and Chemistry to be published in Fall 2012.

You may contribute to the Mesoscale Science report at the Town Hall or through written input at the MesoScience website. The preferred format for your input is the Priority Research Direction Quad Chart, which can be found and uploaded at the MesoScience website. If you upload a Priority Research Direction Quad Chart prior to the Town Hall, it can be projected at the Town Hall.

*Please RSVP through the MesoScience website, <http://www.meso2012.com>, if you plan to attend.*

## UPCOMING MEETINGS OF INTEREST TO DPOLY MEMBERS

### *Synchrotron Radiation and Polymer Science V, March 30-April 2, 2012*

In March of 2012, the Synchrotron Radiation and Polymer Science V conference will be organized in a joint effort by the SLAC National Accelerator Laboratory and Lawrence Berkeley National Laboratory. The conference will take place in the Sir Francis Drake Hotel <<http://www.sirfrancisdrake.com/>> , in the heart of San Francisco. The program will consist of invited and contributed lectures divided in sessions on the use of synchrotrons in Ordering Phenomena, Spectroscopy, Microscopy, and Energy research in polymer science. Poster and presentation contributions are welcome. Visits to both SSRL/LCLS as well as the ALS will be organized. For more information, visit the webpage: [www.srps5.org](http://www.srps5.org).

### *Gordon Research Seminar in Polymer Physics; July 21-22, 2012*

A new Gordon Research Seminar in Polymer Physics, exclusively for graduate students and postdocs, will precede the Polymer Physics GRC in July 2012. This short meeting will feature a career panel, a keynote address by Professor Tony Ryan, and student talks. Partial financial support will be available for student speakers, selected from abstracts submitted by \*March 21, 2012\*. More information is available at: [http://www.grc.org/programs.aspx?year=2012&program=grs\\_polym](http://www.grc.org/programs.aspx?year=2012&program=grs_polym).

### *2012 Polymer Physics Gordon Research Conference, July 22—27, 2012*

This GRC will be held at Mount Holyoke College in Mount Holyoke, MA. Twenty-two invited speakers are confirmed, to speak in a wide-ranging set of focus sessions:

Nanostructured materials by design (Thomas Epps, Delaware / Marc Hillmyer, Minnesota / Hiroshi Jinnai, Kyoto Univ. / Randall Kamien, Penn);  
Physics of biomolecules (Carlos Bustamante, Berkeley / John Marko, Northwestern);  
Robust gels and responsive networks (Jian Ping Gong, Hokkaido / Fred Mackintosh, Amsterdam);  
Local probes of glassy behavior (Chris Stafford, NIST / John Torkelson, Northwestern);  
Physics of semicrystalline polymers (Pat Brant, ExxonMobil / Greg Rutledge, MIT / Anthony Ryan, Sheffield);  
Polymeric surfactants (Maria Santore, UMass / Lynn Walker, Carnegie-Mellon);  
Rheology and nonlinear flow behavior (Suzanne Fielding, Durham / Alexei Likhtman, Reading / Shi-Qing Wang, Akron);  
Polymers for energy, electronics, and biology (Michel Armand, CNRS Picardie / George Malliaras, CMP George Charpak / Alberto Salleo, Stanford / Grant Willson, Texas).

Applications for this meeting must be submitted by **June 24, 2012**. Please apply early, as some meetings become oversubscribed before this deadline. More information is available at: <http://www.grc.org/programs.aspx?year=2012&program=polymphys>

See the Resources section on the DPOLY web site for information and links to other meetings of interest to the DPOLY community: <http://www.aps.org/units/dpoly/resources/index.cfm>

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