

DPOLY ELECTIONS 2010

Biographies of Candidates

CHAIR-ELECT

(Vote for one)

WESLEY BURGHARDT

Institution: Northwestern University

RESUME: I am educated as a chemical engineer, with BS and MS degrees from the University of Illinois, and a Ph.D. from Stanford (under the supervision of Gerry Fuller). Following completion of my Ph.D. in 1990, I joined the ChE faculty at Northwestern University. I have recently stepped down from a 4-year term as department chair. I was fortunate to spend a sabbatical at the University of Minnesota during the 1999-2000 academic year. My research interests are in the structural dynamics and rheology of polymers, particularly in the development and application of in situ experimental methods that directly probe molecular- and nano-scale structural changes induced by flow. My academic honors include the APS Dillon Medal (2000), Fellowship in the APS (2004), and the Society of Rheology Publication Award (2003).

STATEMENT: While many polymer physicists' first exposure to DPOLY is attending the March Meeting as graduate students, my first APS meeting didn't happen until 1992, after I had begun my own career at Northwestern. It was an eye-opening experience: the depth and breadth of polymer physics research on display, the relevance of the technical program to my research, and the level of energy and engagement of the participants quickly made me a big fan. I have made sure that the DPOLY program at the March Meeting is a fixture in the professional development of my own graduate students over the years; my group has not missed a meeting since. My primary goal for the DPOLY executive committee would be to sustain this strong tradition, and seek every opportunity to bring in new members and new perspectives from neighboring scientific disciplines, and through exchange with other related APS Divisions. I have been pleased to previously serve DPOLY as Program Chair for the 1999 March Meeting, and Short Course organizer in 2004. With this background, I believe I have sufficient working knowledge of DPOLY and the APS to serve effectively as chair-elect.

JANE LIPSON

Institution: Dartmouth College

RESUME: I hold the Albert W. Smith Professor of Chemistry Chair at Dartmouth College, where I have served as a faculty member since 1987. My academic training was undertaken at the University of Toronto, followed by a NATO Fellowship with Walter Stockmayer at Dartmouth. In addition to following in Stockmayer's footsteps as the Smith Chair, other honours include being an APS Fellow, the Arthur K. Doolittle Award (from the ACS), and the Camille and Henry Dreyfus Teacher-Scholar Award. My research interests have long included the statistical thermodynamics of polymeric melts, solutions and blends, and more recently expanded into the realm of thin film polymer glasses. I have always found the interface between experiment and theory most appealing, and current external collaborators include experimentalists and theorists, from both the U.S. and abroad. I have extensive academic committee experience, most recently as part of the Presidential Search Committee for Dartmouth College. Within professional organizations I have served on the APS DPOLY Nominating and Fellowship Committees, as well as on the Canvassing Committee for the ACS Award in Applied Polymer Science. In addition, I have served on the Editorial Advisory Board for Macromolecules and the Journal of Chemical Physics, and am currently an Associate Editor for Macromolecules, as noted below.

STATEMENT: I would be extremely honoured to become the Chair of DPOLY and am very enthusiastic about the potential opportunity to serve. Two recent activities have given me a broad perspective on the Polymer Physics community. As Chair of the Polymer Physics Gordon Conference in 2008 I found building the conference programme to be a highly enjoyable, but also highly constrained problem. I see similar constraints in ensuring a healthy DPOLY community. One needs a balance between experiment and theory, between academia, industry, and national (US and international) labs. The richness contributed by long-time members is essential, but the only way to avoid stagnation is by attracting younger scientists. DPOLY needs all of these intellectual resources in order to thrive, and an important part of the role of Chair is to keep this larger view in mind. As an Associate Editor for Macromolecules I am keenly aware of the breadth of research in the polymer physics community. As DPOLY Chair I would work hard to ensure that this range and wealth of expertise is reflected in an annual meeting which is exciting and inviting to all contributors, new and old. I would also endeavour to create opportunities for the advances achieved by DPOLY members to be made visible to the larger scientific community and to the general public.

VICE-CHAIR

(Vote for one)

ROBERT BRIBER

Institution: University of Maryland

RESUME: I have a B.S. in Materials Science and Engineering from Cornell University (1979), an M.S. and Ph.D. in Polymer Science and Engineering from the University of Massachusetts (1984) where I worked with Ned Thomas. I then spent 7 years in the Polymers Division of the National Institute of Standards and Technology, the first 2 years as a National Research Council Postdoctoral Fellow and then as a permanent member of the technical staff. In 1992 I went to the University of Maryland, Department of Materials Science and Engineering where I am now a Professor and Chair of the Department. I am a fellow of the APS and received the Department of Commerce Bronze Medal. I am a past editor of the Journal of Polymer Science - Polymer Physics Edition and my research interests are in the areas of polymer chain conformation, thermodynamics, thin films, gels and the use of electron microscopy and neutron scattering for the characterization of polymers.

STATEMENT: The APS March meeting sessions organized by DPOLY are the preeminent forum for the presentation of polymer physics research. As a member of DPOLY since 1981, I have been to almost every March meeting in the past 28 years. As vice-chair for the Division, I would work to keep DPOLY a vibrant and exciting place for current and future polymer scientists. This would include working with the executive committee to grow the membership, keep the March meeting sessions relevant through joint sessions with other divisions and a focus on new and expanding research areas. My leadership experience includes President (2002-2005) and Vice President (1999-2002) of the Neutron Scattering Society of America (NSSA). During the period I was involved with the NSSA, the society incorporated as a non-profit and started the biennial American Conference on Neutron Scattering. I have also served on DPOLY executive committee from 1999-2002 as member-at-large.

JOHN TORKELSON

Institution: Northwestern University

RESUME: Present Position: Walter P. Murphy Professor of Chemical and Biological Engineering and of Materials Science and Engineering; Director, Materials Research Center; Northwestern University. Education: BS (Chem Eng), University of Wisconsin (1978); PhD (Chem Eng), University of Minnesota (1983). Employment History: Assistant, Associate, and Full Professor at Northwestern University since 1983; Associate Dean for Graduate Studies and Research, McCormick School of Engineering, Northwestern University (1997-2002). Principal Research Interests: Glass formers and their nanoscale, heterogeneous relaxation processes; Environmentally benign polymer processing and manufacture, especially solid-state shear pulverization and controlled radical polymerization; Ultrathin films, coatings, and membranes; Nanocomposites; Diffusion and diffusion-limited processes in polymers; Polymerization reaction engineering, especially concerning free radical polymerization (conventional and controlled), sensor development, and gradient copolymer production; Phase behavior, compatibilization and coarsening of blends; Associative polymers; Optical characterization & sensors via fluorescence, nonlinear optics, photochromism, & single-molecule microscopy. Other Professional Activities: Second Vice-Chair, First Vice-Chair, and Chair Materials Engineering and Science Division AIChE (1999-2002); Fellowship Committee of DPOLY of APS for several years. Recent Honors: Polymer Physics Prize from the Journal of Polymer Science Part B Polymer Physics (2004); Charles M.A. Stine Award from the MESD Division of AIChE (2004), Best Paper Award from the Division of Polymer Analysis of the Society of Plastics Engineers (2004); Caterpillar Distinguished Lecturer, Department of Chemical and Biochemical Eng., University of Iowa (2002); Fellow, American Physical Society (1999).

STATEMENT: The main role of the DPOLY is to provide an annual forum at the March meeting where polymer physicists, including those from academia, national labs, and industry, and those at all stages of their careers from graduate students to senior, veteran researchers, are able to present their research and/or to learn of the latest leading-edge studies of others. This includes not only research at the core of polymer physics but also at the interface with other fields of physics. The division has done a very good job of addressing these needs by developing a schedule of presentations that includes not only the posters and 12-minute talks but also focused sessions of invited presentations, some with significant industrial participation, that allow people to gain much greater background into fields with which they had little familiarity. As well, the division leadership can play significant roles in promoting the interests of polymer physicists among the other divisions and members of the APS as well in forming alliances for symposia and other causes with complementary groups associated with the American Chemical Society, the American Institute of Chemical Engineers, the Materials Research Society, etc. If elected, I would look forward to the opportunity to serve the membership in maintaining and enhancing the quality of the March meeting, and in increasing our interactions and contacts with other divisions of the APS as well as with other national scientific organizations.

MEMBER-AT-LARGE

(Vote for two)

ALI DHINOJWALA

Institution: University of Akron

RESUME: I am currently the Department Chair and H. A. Morton Professor of Polymer Science at the University of Akron. My undergraduate education is from the Indian Institute of Technology, Bombay, India, in Chemical Engineering. I came to Northwestern University in 1989 to pursue a Ph. D. in Chemical Engineering under the supervision of Professor John Torkelson. Thereafter, I spent two years as a postdoctoral student with Professor Steve Granick at the University of Illinois in Urbana-Champaign. After a one-year employment period with GE Plastics in Mt. Vernon, Indiana, I joined The University of Akron in 1997 as an assistant professor. My research interests are in the areas of adhesion, friction and wetting. In the last ten years, we have developed unique surface specific spectroscopic techniques to study the interfacial problems in adhesion and friction. I am also interested in bio-adhesion and have been working with geckos and spiders to understand how these species use sub-micron size hairs for locomotion and to capture preys. This has led us to the development of unique adhesives based on aligned carbon nanotubes. More details of my research can be found at the following website: <http://www2.uakron.edu/cpspe/dhinojwala/index.htm>). Also, I am a recipient of NSF Career Award, NSF Creativity Award (2009), and the Outstanding Researcher Award from The University of Akron in 2009.

STATEMENT: The field of polymer science has greatly benefited from theoretical and experimental developments in other physical sciences. We need the influx of ideas from other disciplines to continue our progress in the field of polymer science. As a DPOLY program chair for 2010, we continued our effort to organize joint invited-symposiums and focus-sessions with other divisions to increase the cross-fertilization of ideas between different disciplines. If I am given the opportunity to serve DPOLY again, as a Member-at-Large, I will continue my efforts to increase our collaborations with other divisions and increase the participation and membership from scientists working on soft matter, biological physics and energy. Currently, there are many choices of attending meetings and it is important that we continue to strive to make our division more vibrant and tuned to current developments. Therefore, I will place an emphasis on involving younger and newer generation professors and scientists to get more involved in organizing and helping us with activities of our division and APS. This is critical for the survival and growth of our division.

PAUL NEALEY

Institution: University of Wisconsin

RESUME: Paul F. Nealey is currently the Shoemaker Professor of Chemical and Biological Engineering at the University of Wisconsin (UW), and is the Founding Director of the National Science Foundation-funded UW Nanoscale Science and Engineering Center in Templated Synthesis and Assembly at the Nanoscale. He graduated with his PhD in Chemical Engineering from the Massachusetts Institute of Technology in 1994, and from 1994 to 1995 he performed postdoctoral research in the Department of Chemistry at Harvard University. From 1995 until present, he has served on the faculty of the Department of Chemical and Biological Engineering at the University of Wisconsin. Paul F. Nealey's research interests include nanofabrication techniques based on advanced lithography and directed self-assembly, dimension dependent material properties of nanoscopic macromolecular structures, development of imaging materials for sub 50 nm lithography, and the effects of biomimetic nanostructured surfaces on cell behavior. He is a fellow of the American Physical Society, and has received the National Science Foundation Career Award, the Camille Dreyfus Teacher-Scholar Award, the University of Wisconsin Romnes Fellowship, and the Arthur K. Doolittle Award from the American Chemical Society.

STATEMENT: The APS Division of Polymer Physics brings together researchers and educators from a wide range of backgrounds and fields of expertise. The Division has provided a preeminent forum for interactions between those disciplines and has played a valuable role in the rise in prominence of polymeric materials and their applications. The need for interdisciplinary approaches in fundamental and technological polymer research will undoubtedly increase in the years to come as scientists and engineers continue to address problems of ever increasing complexity. The APS Division of Polymer Physics must strive to be as inclusive as possible so as to increase its capacity to welcome scientists and engineers from diverse backgrounds, and its ability to identify and develop emerging and unexplored areas of research.