

Division of High Polymer Physics

November 10, 1996 Newsletter

The deadline for the submission of abstracts for the 1997 DHPP March meeting is DECEMBER 6!

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Executive Committee Elections

The following individuals have been nominated for positions on the DHPP Executive Committee.

Vice Chair:

Anna Balazs, University of Pittsburgh

John Curro, Sandia National Laboratories

Do Yoon, IBM Almaden Research Center

Member-at-Large:

Bob Bubeck, Dow Chemical Company

Pat Cotts, Dupont Central Research and Development

Secretary-Treasurer:

Peggy Cebe, Tufts University

Barry Farmer, University of Virginia

Brief statements solicited from the candidates appear on pages 4 and 5 of this newsletter. All members of the DHPP are asked to mark their ballot (enclosed with this newsletter) and return it to the Chair of the Division at the address above (and on back of the self-mailer ballot). *To be counted, ballots must be received no later than January 10, 1997.*

Dillon Medal Sponsor

The DHPP Executive Committee and the APS Council have approved an offer from Polymer (published by Elsevier Science Ltd., Oxford) to sponsor the Dillon Medal, beginning with the 1997 Medal. The sponsorship includes \$2000 for the winner of the Medal, travel assistance to attend the meeting at which the Medal is awarded, and the cost of preparing the award certificate. The initial commitment

is for five years, with an option to renew for an additional period.

1997 High Polymer Physics Prize and 1997 Dillon Medal

Frank S. Bates of the University of Minnesota will receive the 1997 High Polymer Physics Prize, sponsored by the Ford Motor Company. The citation will be:

For outstanding contributions to the physics of polymer-polymer phase behavior and the self-assembly of block copolymers.

Nitash P. Balsara of Polytechnic University will receive the 1997 Dillon Medal, sponsored by *Polymer* (published by Elsevier Science Ltd., Oxford). The citation will be:

For innovative and illuminating optical and neutron experiments to probe the state of order in multicomponent polymer systems

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

1997 March Meeting

The deadline for the submission of abstracts for the 1997 DHPP March meeting is DECEMBER 6!

The meeting will be held in Kansas City, MO from March 17-21 (Monday through Friday). The DHPP Program Chair is Ken Shull (Northwestern; phone: 847-467-1752; fax: 847-491-7820; email: k-shull@nwu.edu). There will be two focused symposia consisting of both invited and contributed talks. *Dendrimers and Hyperbranched Polymers* (Sorting Category 23m) is being organized by Nora Beck Tan (Army Research Lab; 302-892-6549; nora@arl.mil). *Entanglement Effects in Polymer Processing* (Sorting Category 23n) is being organized by Greg Beaucage (U. Cincinnati; 513-556-3063; gbeaucag@uceng.uc.edu). These symposia will be scheduled for Friday.

ALL abstracts should be sent directly to APS. An individual can appear as first author on only ONE abstract. Contributors should:

- 1) indicate whether an oral or poster presentation is preferred,
- 2) indicate the appropriate Polymers sorting category (23._), and
- 3) specify the meeting ID as DHP97.

The polymer sorting categories appear on the back page of this newsletter.

Special Note: Kansas City does not have adequate hotel space in the immediate vicinity of the meeting. Make your hotel reservations early!

Email Submissions

Instructions for electronic submission of abstracts can be found in APS Meeting News and on the APS and DHPP Home Pages. Briefly, the procedure is as follows:

For instructions, send an email message to "abs-info@aps.org" and use the word "info" in the text of the message.

To receive the template for an electronic abstract, send an email message to "abs-request@aps.org" and put the words "request MAR97" in the text of the message. The instructions and template will be sent to you via email. For help or further information, send your question to "abs-help@aps.org".

Abstracts submitted electronically will appear in the electronic version of the APS March Meeting program posted on the APS Home Page.

Paper Submissions

Contributors submitting abstracts on paper are reminded to follow the APS guidelines for preparation of abstracts, an example of which is provided on the back page of this newsletter. Please provide a telephone number and email address. Send exactly THREE copies of the abstract to:

1996 March Meeting Abstracts
APS Meetings Department
One Physics Ellipse
College park, MD 20740-3844

DHPP Short Course

The DHPP Short Course entitled *Structure and Motion in Synthetic and Biological Polymers: The Power of NMR* will be offered March 15-16, 1997 in Kansas City, MO. The short course on NMR methods, especially solid-state NMR, is designed for industrial and academic scientists and technologists active in polymers, materials and/or biophysics. A full description and outline are available on the DHPP home page. INSTRUCTORS include Julia Kornfield (Organizer, phone: 818-395-4138; fax: 818-568-8743; email: jak@cheme.caltech.edu), Klaus Schmidt-Rohr, Haskell Beckham and Peter Mirau. The cost is \$400 regular and \$200 for graduate students. (A limited number of tuition waivers may be available for students. Please contact the Organizer for details.) *Individuals planning to attend the short course are urged to contact the Organizer and to pre-register by February 15, 1997.*

Fellowship

Members of the Division are invited to submit nominations for Fellowship in the

APS. A nomination form and a list of DHPP members who are APS Fellows are available on the DHPP Home Page or from the Secretary-Treasurer. Full dossiers should be mailed to:

Executive Officer
American Physical Society
One Physics Ellipse
College Park, MD 20749-3844

The deadline is *January 15, 1997*. The DHPP Fellowship Committee will review nominees and forward its recommendations to the APS Council, which elects new Fellows annually at its November meeting. The number of new Fellows is limited to one-half percent of the current membership.

Special Issue **Journal of Polymer Science, Polymer Physics Edition**

A special issue of Journal of Polymer Science, Polymer Physics Edition will publish papers presented at the March Meeting of the Division. There are no page charges for the journal, and authors receive a copy of the issue as well as 50 reprints free of charge. All manuscripts will be peer reviewed. Those accepted for publication within a limited time after the March meeting will appear together in the December issue of the Journal. *Manuscripts submitted for the 1997 special issue are due by April 1, 1997* and should be sent to:

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Up-Coming Deadlines

Abstracts for March Meeting - Dec. 6, 1996
Nominations for Fellowship - Jan. 15, 1997
Short Course Registration - Feb. 15, 1997
Papers for the Special Issue - April 1, 1997

Candidate Statements

The Executive Committee asked each candidate to provide a brief statement providing biographical information and/or indicating any specific items they would like to bring to the attention of the members of the division. Their

statements are presented below. The candidates are listed alphabetically.

For Vice Chair

Anna Balazs: I received an A.B. degree in physics from Bryn Mawr College and a Ph.D. in materials science from the Massachusetts Institute of Technology. I then did postdoctoral work in the Polymer Science and Engineering Department at the University of Massachusetts in Amherst, MA. Since 1987, I have been at the University of Pittsburgh and am currently the Bicentennial Engineering Alumni Faculty Fellow and Associate Professor in the Chemical and Petroleum Engineering Department. I am a Fellow of the American Physical Society and am on the editorial boards of *Macromolecules*, *Langmuir*, *Accounts of Chemical Research* and *Macromolecular Theory and Simulation*. For the DHPP, I have served on the Education Committee, the APS News Committee and am currently on the Fellowship Committee. I have organized polymer sessions for the ACS and was the organizer for the 1994 ACS Polymers at Surfaces and Interfaces Workshop. I believe it is important to increase the participation of scientists from industry and government labs within the DHPP. One means of achieving this goal is to organize more symposia focused on research in these laboratories. The last DHPP session on industrial research was a huge success and I would promote more of these sessions.

John Curro: I have been a member of the High Polymer Physics Division for 25 years. During that time there have been revolutionary scientific advances made in our field. The DHPP has served the technical community well by providing a forum for the presentation of the latest scientific developments in macromolecular science. The DHPP should continue to perform this function, however, because of political and economic realities threatening science in today's world, I believe the division could do more to serve the needs of the polymer physics community. The DHPP could serve as a vehicle for communicating the value of scientific achievements in polymers to a larger technical and non-technical audience. We could also assist our younger colleagues through mentoring, career counseling, and providing an environment for bringing potential employers and candidates together. I believe that polymer physics will be an exciting field of research in the future and the Division of High Polymer Physics will continue to be the primary conduit for new ideas. BIOGRAPHICAL information: John Curro is a research scientist at Sandia National laboratories. He received a B. ChE. degree from the University of Detroit and a Ph. D. degree from the California Institute of Technology. He then did postdoctoral research at the University of Maryland before joining Sandia National Laboratories in 1970. John does research in polymer theory and computer simulation. He has also been a technical manager of a polymer R&D group at Sandia. Since 1992 he has been an Adjunct Professor at the University of New Mexico where he teaches classes on polymer science. John is a fellow of the American Physical Society and a member of the American Chemical Society.

Do Yoon: If elected, my primary goal would be to broaden the technical agenda of DHPP and to increase substantially the participation of "industrial" polymer scientists in DHPP memberships and activities. Specifically, I would actively promote the discussion of real-world polymer problems from polymer physics perspectives in our DHPP meetings, in addition to continuing the excellent tradition of emphasizing fundamental studies on model systems.

BIOGRAPHICAL information: I have been a member of DHPP since 1972 and was elected an APS Fellow in 1985. I received my Ph.D. in polymer science & engineering from UMass-Amherst in 1973. I was a postdoc at Stanford University from 1973-1975. From 1975 to the present I have been a member of the Research Staff in the IBM Research Division, Almaden Research Center. I served as manager of the polymer physics group from 1978-1995.

For Member-at-Large

Robert A. Bubeck: Bob has been employed as a materials scientist at the Dow Chemical Company for the last 20 years. Among his professional pursuits, Bob is presently the Corporate Coordinator of Dow's synchrotron-based research program. He co-organized (with Gregory McKenna) the "Industrial Research in Polymer Physics" Challenges and Opportunities" symposium held during the 1995 March meeting. Bob has been a member of the DHPP for 25 years and is a Fellow of the Society. **STATEMENT:** A critical issue for the DHPP is the attraction of more industrial polymer scientists and students majoring in the physical sciences to membership and active participation in the division. Part of a solution to the problem may be a modification of the March meeting program to contain more symposia composed of talks of extended length in a fashion consistent with the APS presentation cycle. The symposia topics should be announced with sufficient advance timing so as to encourage the greatest possible participation. Every attempt should be made to choose current topics for these symposia with strong cross over interest between academia and industry. At the same time, the DHPP should continue to offer meeting programs with the technological "edge" that historically the division has always fostered. The implementation of a revised program scheme to expand the membership, attendance, and scope of the DHPP will probably require a sustained effort over the course of 5 or more years. Election or no as Member-at-Large, I look forward to working with my colleagues in a sustained effort to help enlarge and enrich the DHPP.

Pat Cotts: I have been a member of DHPP for more than a decade. During that time I have participated in DHPP by contributing talks, serving as session chair, and editing the Special Issue of Journal Polymer Science, Polymer Physics Edition with papers from the March meeting. After receiving my PhD in chemistry from Carnegie-Mellon University, I spent 15 years at the IBM Almaden Research Center in San Jose, and I have recently joined DuPont CR&D in Wilmington. My perspective from experience in two different industries is not often found among DHPP members, and I feel I can bring a different viewpoint to

the Executive Committee, at a time when industrial relevance is a primary focus of the physics community. I believe the DHPP can be a bridge for scientists and students trained in physics to become more interdisciplinary and interact with the chemistry, engineering and materials science communities. Joint symposia and focused sessions are ways to attract new DHPP members and broaden the areas of research represented in our meetings.

For Secretary-Treasurer

Peggy Cebe: Peggy Cebe is an Associate Professor of Physics at Tufts University. She received her B. S. Ed. degree from Edinboro State College of Pennsylvania, majoring in physics and mathematics. She received her Ph. D. in experimental physics from Cornell University in 1984, for thesis research in the field of semicrystalline polymers. From 1984 to 1988, Dr. Cebe worked at the National Aeronautics and Space Administration (NASA) Caltech Jet Propulsion Laboratory in Pasadena, CA. Her work at NASA involved the study of microstructure and phase transitions in high temperature polymers, especially poly(etheretherketone), PEEK. In 1988 she joined the faculty of the Massachusetts Institute of Technology where she was Assistant and Associate Professor. Professor Cebe joined the faculty of Tufts University in July, 1995, in the Department of Physics and Astronomy. Her research interests include structure/property relationships in high performance polymers, with specific emphasis on use of Synchrotron X-ray scattering, dielectric relaxation, and optical techniques to investigate the properties of polymers. Dr. Cebe has been a member of the Division of High Polymer Physics since 1981. She is on the membership committee in DHPP, and serves on the American Physical Society Committee on the Status of Women in Physics (CSWP) where she is the liaison to the APS Centenary Committee. She is a member of the American Crystallographic Society, the Division of Biological Physics, and the American Chemical Society Polymer Chemistry and Polymer Materials Science and Engineering Divisions. STATEMENT: I am pleased and honored to be nominated to be a candidate for the position of Secretary-Treasurer. I will work to enhance the financial strength of DHPP so the division will continue to provide services to our members. If I am elected to this position I will faithfully carry out the duties of the office.

Barry Farmer: It has been my privilege to serve the DHPP as its Secretary-Treasurer since 1992. I would be very pleased to have the opportunity to continue to serve the Division in this position. These past four years have been a time of considerable change in the way the DHPP (and indeed, the whole APS) relates to its members. The advent of home pages, electronic mailing lists, electronic submission of abstracts, the Padden Award, and (now) sponsorship of the Dillon Medal by Polymer and Elsevier have made this a very exciting time to be involved in the administration of the Division and to work with the other members of the Executive Committee. I anticipate that there are comparably exciting new things yet on the horizon for the DHPP, and I hope to be able to continue to participate in their incorporation into the Division's activities. My goal

is to make the DHPP as responsive as possible in serving the needs of our members. BIOGRAPHICAL information: I received my B.S. degree in Chemistry from Case Institute of Technology in 1969, and my M.S. and Ph.D. degrees in Macromolecular Science from Case Western Reserve University in 1972 and 1974, respectively. From 1973-1976, I was an NRC Postdoctoral Research Associate and research chemist in the Polymers Division at the National Bureau of Standards. In 1976, I joined the faculty of the Department of Materials Science and Engineering at Washington State University. In 1987, I moved to the University of Virginia, where I am currently a Professor in the Department of Materials Science and Engineering. I am a Fellow of the American Physical Society, North American Associate Editor for Polymer Communications, and Chair of the SPE International Research Award Subcommittee. I am also a member of the ACS (POLY and PMSE), ACA, SPE and MRS. My principal research interests are the structure and properties of crystalline and liquid crystalline polymers and related materials, studied primarily using X-ray diffraction and molecular modeling.

[DHPP home page](#)