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## Deadlines

Annual call for DMP	June
Focused Session topics	1
David Adler Lectureship	July
Award nominations	1
James C. McGroddy Prize	July
nominations	1
March Meeting abstracts	Nov.
	13
APS Fellowship	Feb.
nominations	15,
	1999

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## Message from the Chair... THINK ATLANTA

Next year the APS will mark its 100th anniversary with the largest gathering of physicists ever assembled. We expect over 7000 participants including 40 Nobel Laureates. The March and April meetings will be combined, so along with the history and hoopla we will be able to listen to the latest on everything from astrophysics to nanotubes, and from polymers to quarks.

One consequence is that abstracts for talks at the March meeting will be due on November 13th, about three weeks earlier than usual.

Please - mark your calendars and remind everyone of this accelerated schedule.

In addition to the usual focus sessions (more about those below) DMP will sponsor several invited sessions with a historical look at Materials Physics. If you have suggestions for topics or speakers for these, please send them to Jim Davenport.

## CENTENNIAL VOLUNTEERS NEEDED

With all of this activity the Executive Committee would welcome volunteers to help organize the centennial sessions and to participate with DCMP in preparing poster-type displays on the last century (and the next) in Materials and Condensed Matter Physics. Again, please send suggestions to Jim Davenport, or to our Centennial Coordinator, Chair Elect, Frances Hellman.

## CALL FOR PROPOSALS FOR 1999 FOCUSED SESSION

[\[www.aps.org/units/dmp\]](http://www.aps.org/units/dmp)

Also contribute to its "Images of Materials" sections by sending electronic images for posting with a short description and credit citation to Sam Bader ([Bader@ANL.gov](mailto:Bader@ANL.gov)). Use the posted images as a guideline for content and format. Our goal is to assemble a visual representation of the topics of interest to DMP.

### **Recruit New DMP Members**

Undoubtedly you are aware of the benefits and impact of the American Physical Society on fostering and disseminating scientific information. The Division of Materials Physics is one of the fastest growing units of the APS. Please encourage your colleagues to affiliate with the DMP (and to join APS, if they are not already members). The DMP is involved in a number of vital activities and encourages your support and participation. DMP organizes a broad range of ever-changing focused sessions at the March Meetings, it sponsors an annual materials physics award - the Adler Lectureship, and was pivotal in the reinstatement of the New Materials Prize, it sponsors candidates to become Fellow of the American Physical Society, it holds open elections for officers, publishes this newsletter and supports a home page on the internet. These activities engage members in the process of molding our direction and identifying emerging trends and opportunities that will shape the future landscape of the materials physics discipline. Our officers work to bring the message to Washington that materials funding should be a high priority in the Federal budget. We work with other APS units and with related organizations, such as the Federation of Materials

## TOPICS

Focused sessions have become one of the hallmarks of DMP and an area where we make a unique contribution to the March meeting. We rely totally on the organizers, who plan the program, suggest invited speakers and help sort contributed abstracts. Please send your suggestions for Focused Sessions to Jim Davenport by June 1.

## NOMINATIONS FOR THE 1999 ADLER AWARD AND APS FELLOWSHIP

DMP administers the APS David Adler Lectureship Award, given annually to an outstanding contributor to the field of materials physics who is noted for his or her research, review articles, and lecturing. Recent recipients of this award include Joe Greene (1998), John Joannopoulos (1997), Brian Maple (1996), and Marc Kastner (1995). Adler Award nominations should be sent to Jim Davenport no later than **July 1, 1998**.

DMP can also recommend 8-10 individuals each year for designation as Fellows of the APS. Nomination forms and instructions are available on the APS homepage. Fellowship nomination packages are due at APS no later than February 15, 1999.

Finally, as Chair, I want to thank Jim Roberto for his active leadership of the DMP over the last year. In particular, his emphasis on outreach to Congress and the Agencies and his service on the Committee on Condensed-Matter and Materials Physics of the National Research Council has helped greatly to remind the public of the critical importance of science and technology in the next century.

- Jim Davenport

## DMP ELECTION RESULTS

Pat Mooney was elected Vice Chair of the DMP

Societies. We are diverse and interdisciplinary by nature and encourage cross-pollination of cultures within the materials community. Instructions on how to become a member of DMP (or any other APS unit) appear on our homepage, or simply call (301) 209-3280 with your APS membership number (from the mailing label of a recent publication sent to you) and a credit card for the \$6/year dues. Or fax (301) 209-0867 or mail the information to APS at:

**Accounting Department  
The American Physical  
Society  
One Physics Ellipse  
College Park, MD 20740-3844**

and Dan Pierce was elected member at large of the DMP Executive Committee. We wish them good luck and thank all the candidates for their participation. With the passing of the 1997 March Meeting we bid farewell to Past Chair Slade Cargill and thank him for sustained outstanding service on the DMP Executive Committee. The new roster of DMP Executive Committee members appears at the end of this newsletter. The line of succession of officers is as follows. Each year we elect a Vice Chair. The new Vice Chair, Pat Mooney, becomes Chair Elect next year (immediately after the 1999 March Meeting), and Chair in the third year of her service to the Division.

## JAMES C. MCGRODDY PRIZE FOR NEW MATERIALS

This is a newly reinstated APS prize for 1999 that was previously administered as the International Prize for New Materials from 1975-1994. Its purpose is to recognize and encourage outstanding achievement in the science and application of new materials. This shall include the discovery of new classes of materials, the observation of novel phenomena in known materials leading to both fundamentally new applications and scientific insights, and shall also include theoretical and experimental work contributing significantly to the understanding of such phenomena. The prize consists of \$5,000 plus a certificate citing the contribution of the recipient and an allowance for travel to the meeting of the Society at which the award is presented. The prize is endowed by a contribution from IBM. The prize is open to scientists of all nationalities irrespective of where their work has been carried out. Nominations are active for 3 years. The deadline for submission of nominations for the 1999 Prize is: JULY 1, 1998.

Nominations should be sent to the Chair of the 1999 Selection Committee:

G. Slade Cargill  
Dept of Mater Sci & Engr  
Lehigh Univ  
5 East Packer Ave  
Bethlehem, PA 18015-3195  
Phone (610) 758-4207  
Fax (610) 758-4244  
Email [gsc3@lehigh.edu](mailto:gsc3@lehigh.edu)

Visit the APS or DMP homepage for more information and a listing of previous winners.

# THE PHYSICS OF MATERIALS: How Science Improves Our Lives

The report entitled "The Physics of Materials - How Science Improves Our Lives" was published by the National Academy Press, Washington DC in 1997. It is intended for a broad audience, and represents an early output of an ongoing study under the aegis of the National Research Council. The report was prepared by the Committee on Condensed-Matter and Materials Physics, whose membership includes a number of DMP members. The report highlights some of the fundamental science at the forefront of research in the field and demonstrates, through illustrative examples, the field's impact on our everyday lives. For more information contact DMP Past Chair Jim Roberto. The web posting of the report can be accessed from the DMP homepage.

## New APS Fellows who were sponsored by DMP

<b>Bevk, Joze</b> <b>Bell Labs, Lucent</b> <b>Technologies</b>	For his pioneering studies of the ultrafine filamentary composites; of the seminal research of the Si-Ge monolayer superlattices and Si/SiO <sub>2</sub> interfaces; and for the discovery of boron confinement and trapping mechanisms in Si-based heterostructures.
<b>Estreicher, Stefan K.</b> <b>Texas Tech. Univ.</b>	For his seminal contributions to our theoretical understanding of interstitial defects in semiconductors and their roles in such phenomena as diffusion, passivation, activation, and defect clustering.
<b>Hellman, Frances</b> <b>Univ. of Calif., San</b> <b>Diego</b>	For her studies on the interplay between magnetism and the surface phenomena inherent to vapor deposition growth.
<b>Kisker, David William</b> <b>IBM Research Division</b>	For contributions to the CVD growth of compound semiconductor thin films and direct real time x-ray scattering studies of the growth mechanism.
<b>Kuech, Thomas Francis</b> <b>University of Wisconsin</b>	For his seminal contributions to the fundamental understanding of vapor-phase growth of III-V compound semiconductors and his discovery of long-range order in compound semiconductors.
<b>Shenoy, Gopal K.</b> <b>Argonne National</b> <b>Laboratory</b>	For his contributions to the study of magnetic superconductors and his pioneering role and leadership in the development of the Advanced Photon Source.
<b>Van de Walle, Chris G.</b> <b>Xerox PARC</b>	For innovative contributions to the theoretical understanding of interfaces, defects, and impurities in semiconductors through the application of first-principles calculations.
<b>Victoria, Randall Harry</b> <b>Kodak Research</b> <b>Laboratories</b>	For quantitatively accurate predictions of magnetic hysteresis, innovative calculations of the magnetic and electronic structure for heterogeneous systems, and the extension of these results to the development of practical materials.

**Wang, Wen I.**  
**Columbia University**

For outstanding contributions in high mobility materials, Schottky barriers, heterostructure physics, and long-range order in semiconductor alloys.

**Zangwill, Andrew**  
**Mark**  
**Georgia Institute of**  
**Technology**

For diverse theoretical contributions to surface and thin-film physics, most particularly, the kinetics of morphological evolutions during epitaxial growth.

## Editorial Board Announcements from APS Publications

Physical Review B and Physical Review Letters announce the appointment or reappointment of the following as members of their Editorial Boards:

- **Physical Review B:** Hidetoshi Fukuyama (University of Tokyo) Patricia M. Mooney (IBM T. J. Watson Research Center) J. B. Pendry (Imperial College) Jose A. Riera (Universidad Nacional de Rosario, Argentina; currently at Universite Paul Sabatier, France) B. Sriram Shastry (Indian Institute of Science)
- **Physical Review Letters:** Alexander Fetter (Stanford University)

## 1998-99 Executive Committee

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