

In this Issue ...

- [March Meeting Special Events](#)
- [Award Winners](#)
- [New APS Fellows](#)
- [DMP Election Results](#)
- [Student Lunch With the Experts](#)
- [Encourage Students to Join the DMP at the March Meeting](#)
- [Federation of Materials Societies Information](#)

March Meeting Special Events

Monday, March 13, 2006:

Session A5: Advanced Materials for Energy Applications
8:00 AM - 11:00 AM, Baltimore Convention Center - 309

Tuesday, March 14, 2006:

Session G5: Advanced Materials for Solar Energy Utilization
8:00 AM - 11:00 AM, Baltimore Convention Center - 309

Tuesday, March 14, 2006

Session K4: DMP/CSWP Prize Symposium
2:30 PM - 4:54 PM, Baltimore Convention Center - 308

Tuesday, March 14, 2006

DCMP/DMP/DCOMP New Fellows and Awards Reception
5:30pm-7pm, Baltimore Waterfront Marriott, Grand Salon VI

Tuesday, March 14, 2006

DMP Business Meeting
7:00 pm-8:00pm, Baltimore Waterfront Marriott, Dover B

Wednesday, March 15, 2006:

Session T50: Perspectives on our Energy Future
Speaker: Patricia Dehmer, Office of Basic Energy Sciences, DOE
7:30 PM - 8:06 PM, Marriot Waterfront - Hotel Grand Salon V

Our Award Winners Are...

2006 DAVID ADLER LECTURESHIP AWARD:

James R. Chelikowsky, The University of Texas – Austin

Jim Chelikowsky holds the W.A. "Tex" Moncrief Jr. Chair in Computational Materials within the Institute for Computational Engineering and Sciences at the University of Texas at Austin where he is a professor in the Departments of Physics, Chemical Engineering, and Chemistry and Biochemistry.

Citation: "For his creative and outstanding research in computational materials physics and for his effectiveness in communicating research results through lectures and publications."

2006 JAMES C. MCGRODDY PRIZE FOR NEW MATERIALS:
Hongjie Dai, Stanford University, and Alex Zettl, U. of California- Berkeley

See http://www.aps.org/praw/mcgroddy/06winner_dai.cfm and http://physics.berkeley.edu/index.php?option=com_dept_management&act=people&Itemid=299&limitstart=0&task=view&id=238 for biographical information on the 2006 James C. McGroddy Prize winners.

Citation: "For developing novel synthesis pathways for preparing carbon and boron nitride nanotubes and for pioneering applications of these for sensing, electronics and nanomechanics."

New APS Fellows Sponsored by DMP

David G. Cahill, University of Illinois

For original and influential contributions to the physics of heat conduction in materials and the evolution of surface morphology during crystal growth and etching.

James N. Eckstein, University of Illinois

For development of layer-by-layer growth of oxide films for fundamental studies and for planar tunneling junctions made from oxide superconductors and oxide magnets.

Jochen Mannhart, Universität Augsburg

For pioneering contributions to the materials physics of grain boundaries in high-Tc superconductors and using grain orientation, field effect, and doping to control the transport physics in these materials.

Michael P. Marder, University of Texas at Austin

For his remarkable combination of numerical simulations, theory, and experiments, which have provided major new insights into the behavior of fast cracks.

Pablo Ordejón, Institut de Ciència de Materials de Barcelona - CSIC

For contributions to first-principles electronic structure methods and the development, dissemination and application of efficient tools for atomistic simulations in complex materials.

Harry Brian Radousky, Lawrence Livermore National Laboratory

For his outstanding contributions and scientific leadership in experimental condensed matter and materials physics, with particular emphasis on innovative discoveries related to optical materials, superconductivity and high-pressure research.

William R. Salaneck, Linköping University

For the development of ultraviolet photoelectron spectroscopy to study the electronic structure of conjugated polymers and condensed molecular solids, especially in connection with hybrid interfaces in modern polymer-based electronics.

John Louis Sarrao, Los Alamos National Laboratory

For important contributions to the understanding of magnetism and unconventional superconductivity in strongly correlated f-electron systems, especially through the discovery and synthesis of new materials.

Theo Siegrist, Bell Laboratories, Lucent Technology

For elucidation of crystal structure and structure-property relationships of High-Tc superconductor materials and related systems.

Jean-Marc Triscone, DPMC, University of Geneva

For his pioneering contributions in artificially layered superconducting thin film superlattices, ferroelectric field effect, and nanoscale ferroelectric writing.

Zhong Lin Wang, Georgia Institute of Technology

For his discovery of nanobelts, pioneering the field of controlled synthesis of oxide nanostructures, and developing innovative techniques for measuring the physical properties of individual nanowires/nanobelts/nanotubes using in-situ TEM.

Renata Maria Wentzcovitch, University of Minnesota

For computational tools for, and valuable predictions of, structure and properties of earth minerals and exotic oxides, especially at high pressure and temperature.

Joe Wong, Lawrence Livermore National Laboratory

For innovative and significant contributions to experimental materials physics, particularly for contributions to XAFS and XANES, and for the first measurements of phonon dispersion in plutonium.

DMP Election Results

The DMP thanks all who participated in the election. The new officers and members-at-large of the DMP Executive Committee assume office following the March Meeting.

Vice Chair: Ivan Schuller, U. of California - San Diego

Member at Large – Frances M. Ross, IBM T. J. Watson Research Center

Member at Large – John M. Tranquada, Brookhaven National Laboratory

The current roster of the DMP Executive Committee is posted at <http://www.aps.org/units/dmp/dmpcommittee.cfm>.

Student Lunch With the Experts

“The Students Lunch with the Experts” will again be featured at the APS March Meeting on Wednesday, March 15 from 1:00 pm - 2:30 pm in the Baltimore Convention Center Ballroom III.

This year the DMP will sponsor two tables at this event featuring Jacqueline Krim of North Carolina State University, whose topic is: “Nanotribology: Applications and Implications of Friction at the Atomic Scale” and Lynn Boatner of the Oak Ridge National Laboratory, whose topic is: “Smart Nanocomposite Materials and How to Make Them.”

The “sign-up” for students wishing to participate will take place beginning at 1:00 pm on Monday, March 13 at the APS registration desk, and will be on a first-come, first-served basis. This event consists of a complimentary box lunch for the students who participate in an informal discussion with an expert on a topic of interest. All of the topics and “experts” for the 23 available tables, including tables sponsored by other APS units, will be listed on the APS March Meeting web page. Attendance is limited to eight students per topic/expert. Please encourage your students to take part in this interesting event.

Encourage Students to Join the DMP at the March Meeting

Current plans call for a special booth at the APS meeting where anyone can join the APS or APS units – including the Division of Materials Physics. **First and foremost, please encourage your students to take advantage of this booth to affiliate with the APS and especially with the DMP.**

Remember that the APS offers a FREE one-year Trial Student Membership to the APS:

For undergraduate and graduate students in the United States, Canada, or Mexico, the APS offers a free year to introduce students to the American and international community of physics. In order to qualify, a student must be enrolled as a full-time student in the United States, Canada or Mexico and be a first-time applicant to The American Physical Society. After the one free year, the students may retain membership at a special low rate and continue to receive all the student privileges while they remain students.

The One-Year Trial Membership for undergraduate and graduate students includes a free online subscription to Physical Review Letters, Review of Modern Physics or one section of Physical Review. Three free units (like the Division of Materials Physics!), in addition to complimentary forums and sections, can be added to the Trial Student Membership. For more information students can visit:

<http://www.aps.org/memb/students.cfm>

As we build our DMP membership base, we increase the visibility of the materials physics presence as a vibrant part of APS, and we also strengthen the impact of our numerous outreach efforts, such as those to Washington and to other materials-related societies. Instructions on how to become a regular (i.e. non-student!) member of DMP (or of 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 \$7/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

Federation of Materials Societies Information

DMP supports APS membership in the Federation of Materials Societies (<http://www.materialsocieties.org/>)

At the semiannual FMS meeting there were several presentations, some available online, that may interest many DMP members.

Kei Koizumi of AAAS discussed R&D in the 2006 Federal Budget. His slides can be found at <http://www.aaas.org/spp/rd/present.htm>

From a feature in the Dec. 2005 issue of *Physics Today* (or otherwise) you may know of the excellent **National Academies report *Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future*** (2005) written by a committee chaired by Norman R. Augustine. You can download a pdf of the Executive Summary or of the entire report from the National Academies Press at <http://darwin.nap.edu/books/0309100399/html/176.html>

Another umbrella organization is ASTRA, The Alliance for Science & Technology Research in America, whose site (<http://www.aboutastra.org/>) offers several prepared slide presentations. Under their Hot Issues tab is an archive of their Briefs, published at least quarterly.