

Barbour, Drzaic, Higashi, and Vogel to Chair 2006 MRS Spring Meeting



J. Charles Barbour



Paul S. Drzaic



Gregg S. Higashi



Viola Vogel

Chairs for the 2006 Materials Research Society (MRS) Spring Meeting are J. Charles Barbour (Sandia National Laboratories), Paul S. Drzaic (Alien Technology Corp.), Gregg S. Higashi (Applied Materials), and Viola Vogel (Swiss Federal Institute of Technology). The meeting will be held in San Francisco, Calif., April 17–21, 2006.

J. Charles Barbour is group manager and deputy director for Defense Programs, Nanosciences, in the Physical, Chemical, and Biomolecular Sciences Center at Sandia National Laboratories. He joined Sandia in 1987 after spending one year as a visiting scientist in The Netherlands, where he was hosted jointly by the FOM Institute for Atomic and Molecular Physics (Amsterdam) and Philips Research Laboratories (Eindhoven). While at Sandia, Barbour has led research in corrosion science, mechanical properties of nanostructured materials, plasma synthesis of materials, ion-beam modification of materials, and ion-beam analysis. He has over 150 technical publications and two patents. Currently, Barbour is a nanomechanics thrust leader in the new Department of Energy, Office of Science Center for Integrated Nanotechnologies (CINT). He serves on the International Committees for the Ion Beam Modification of Materials Conference and the Radiation Effects in Insulators Conference. Barbour received a BS degree in engineering physics from the Colorado School of Mines (1980) and a PhD degree in materials science from Cornell University (1986). Barbour has been active in the Materials Research Society since 1982.

Paul S. Drzaic is vice president for Advanced Development at Alien Technology Corporation, a start-up company developing radio frequency identification tags employing manufacturing technology incorporating self-assembly. He has also served as director of technology for E Ink Corp, and principal scientist for Raychem

Corp. Drzaic has been active in both the materials science research and the international display research communities. He is a recipient of the 2002 Team Innovation award from the American Chemical Society, as well as *R&D Magazine's* 2001 "Best of the Best" Editor's Choice and R&D 100 awards. He is author of the 1995 book *Liquid Crystal Dispersions*, over 30 technical publications, and 39 issued U.S. patents. Drzaic served as a 2004 Volume Organizer for *MRS Bulletin* and currently serves on the Editorial Board. He organized the inaugural symposium for flexible displays and electronics at the 2002 MRS Spring Meeting. Drzaic is a Fellow of the Society for Information Display (SID), serves on the SID Board of Directors, and has organized several major conferences for that organization. Drzaic received a PhD degree in chemistry from Stanford University, where his thesis involved electron-detachment spectroscopy of gas phase ions and where he was an NSF predoctoral Fellow. He also holds a BS degree in chemistry, *summa cum laude*, from the University of Notre Dame.

Gregg S. Higashi is the chief technology officer and co-director of the Applications Development Center for the Front End Products Business Group of Applied Materials, Inc. He joined Applied Materials in July 2002 after a 20-year career with Bells Labs. During Higashi's tenure with Bell Telephone Laboratories, AT&T Bell Laboratories, Lucent Bell Laboratories, and Agere Systems Labs, he worked in the Bells Labs Core Research, the Bell Labs VLSI Process Development, the AT&T Microelectronics Manufacturing, and the Agere Labs VLSI Process Development organizations. He has co-authored over 90 technical publications and is well known in the semiconductor community for his contributions to wafer cleaning technology and to gate dielectric and aluminum chemical vapor deposition research. His process

development experience spans 0.9 μm to 0.09 μm technologies in the areas of furnace, implant, RTA/RTP, wet cleans, dry strip, and metrology. Prior to joining Bell Labs, Higashi received his BS and PhD degrees in physics from the Massachusetts Institute of Technology.

Viola Vogel is a professor in the Department of Materials, heading the Laboratory for Biologically Oriented Materials at the ETH Zürich. After completing her graduate research at the Max-Planck Institute for Biophysical Chemistry, she received her PhD degree in physics at Frankfurt University (1987), followed by two years as a postdoctoral fellow in the Department of Physics at the University of California–Berkeley. She then joined the Department of Bioengineering at the University of Washington in Seattle (1991) as an assistant professor with an adjunct appointment in physics, and was promoted to the ranks of associate and full professor (1997 and 2002, respectively). She was the Founding Director of the Center of Nanotechnology at the University of Washington (1997–2003) prior to her recent move to Switzerland. Vogel's interdisciplinary research program centers in bionanotechnology where she deciphers engineering principles of biological nanosystems for the development of new materials and technologies. Vogel organized and chaired many international meetings including the German-American Frontiers of Science Meetings (1998–2001) and the National Nanotech Initiative Workshop on "Nanobiotechnology" (2003), co-organized by the National Science Foundation and the National Institutes of Health. She is a Fellow of the American Institute for Medical and Biological Engineering (AIMBE).

For updated information on the 2006 MRS Spring Meeting, access Web site www.mrs.org/meetings/.

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MRS Selects Outstanding Symposium Papers

In recognizing proceedings as an important and integral part of Materials Research Society meetings, the chairs of the 2004 MRS Fall Meeting implemented an awards program for the best symposium manuscripts. The chairs—Shefford P. Baker (Cornell University), Julia Hsu (Sandia National Laboratories), Bethanie J.H. Stadler (University of Minnesota), and Richard Vaia (Air Force Research Laboratory)—requested that symposium organizers select the award recipients

based solely on the written manuscripts and not on the oral or poster presentations.

Nominations for best papers were made based on both technical content and manuscript quality. No more than 5% from the accepted manuscripts in each proceedings volume could be nominated (Ribbon Award). The best manuscript from among the nominations in each proceedings volume was selected by the organizers to receive the Trophy

Award for Best Symposium Proceedings Paper Award. The contact authors received a \$100 award in addition to an invitation from the *Journal of Materials Research* to submit an article based on their papers.

Following is a partial list of award recipients; other award recipients were announced in the June 2005 issue of *MRS Bulletin* (p. 483.). Papers can be accessed at www.mrs.org/publications/epubs/proceedings/fall2004.

GaN, AlN, InN, and Their Alloys (Symposium E) (Proceedings Volume 831)

Trophy Award (Best Paper):

E5.5 Efficient Luminescence from {11.2} InGaN/GaN Quantum Wells
M. Funato, K. Nishizuka, and Y. Kawakami of Kyoto University; and Y. Narukawa and T. Mukai of Nichia.

Ribbon Award (Best Paper Nomination):

E1.4 Growth, Characterization, and Application of High Al-Content AlGaIn and High Power III-Nitride Ultraviolet Emitters
Z. Ren, S.-R. Jeon, M. Gherasimova, G. Cui, and J. Han of Yale University; H. Peng, Y.K. Song, and A.V. Nurmikko of Brown University; L. Zhou, W. Goetz, and M. Krames of Lumileds Lighting; and H.-K. Cho of Dong-A University;

E7.1 Resonantly Enhanced Second Harmonic Generation in a One-Dimensional GaN-Based Photonic Crystal Slab
J. Torres, M. Le Vassor d'Yerville, D. Cassagne, R. Legros, J.-P. Lascaray, E. Centeno, J.-P. Albert, and D. Coquillat of CNRS-Universite Montpellier; and

E7.3 Ultrafast All-Optical Switches Based on Intersubband Transitions in GaN/AlN Multiple Quantum Wells for Tb/s Operation
J.M. Dawlaty, F. Rana, and W. J. Schaff of Cornell University.

Electron Microscopy of Molecular and Atom-Scale Mechanical Behavior, Chemistry, and Structure (Symposium P) (Proceedings Volume 839)

Trophy Award (Best Paper):

P1.4 Materials Analysis by Aberration-Corrected STEM
O.L. Krivanek, N.J. Bacon, G.C. Corbin, N. Dellby, A. McManama-Smith, M.F. Murfitt, and Z.S. Szilagyi of Nion Co., and P.D. Nellist of Trinity College Dublin.

Integrative and Interdisciplinary Aspects of Intermetallics (Symposium S) (Proceedings Volume 842)

Trophy Award (Best Paper):

S6.3 Formation and Morphology of Kurnakov Type D022 Compound in Disordered fcc gamma-(Ni, Fe) Matrix Alloys
A. Suzuki of the University of Michigan and M. Takeyama of Tokyo Institute of Technology.

Ribbon Award (Best Paper Nomination):

S1.2 Microstructures and Mechanical Properties of NiAl-Mo Composites
H. Bei and E.P. George of the University of Tennessee and Oak Ridge National Laboratory;

S2.8 A Bond-Order Potential Incorporating Analytic Screening Functions for the Molybdenum Silicides
M.J. Cawkwell and V. Vitek of the University of Pennsylvania, M. Mrovec of Fraunhofer Institut für Werkstoffmechanik, D. Nguyen-Manh of Culham Science Centre, and D.G. Pettifor of the University of Oxford;

S5.44 Micro Fracture Toughness Testing of TiAl Based Alloys With a Fully Lamellar Structure
K. Takashima, T.P. Halford, D. Rudinal, Y. Higo, and M. Takeyama of Tokyo Institute of Technology;

S6.2 Solidification Processing and Fracture Behavior of RuAl-Based Alloys
T. Reynolds and D. Johnson of Purdue University; and

S7.4 Effects of Long-Period Superstructures on Plastic Properties in Al-Rich TiAl Single Crystals
T. Nakano, K. Hayashi, and Y. Umakoshi of Osaka University, and Y.-L. Chiu and P. Veyssi ere of CNRS-ONERA.

Multicomponent Polymer Systems—Phase Behavior, Dynamics, and Applications (Symposium BB) (Proceedings Volume 856E)

Trophy Award (Best Paper):

BB6.4 Influence of Electrostatic Interactions on Chain Dynamics and Morphological Development in Perfluorosulfonate Ionomer Membranes
K.A. Page and R.B. Moore of the University of Southern Mississippi.

Ribbon Award (Best Paper Nomination):

BB1.3 Rich Dynamics in Diblock Copolymers
G. Fytas of the University of Crete and F.O.R.T.H. and the Max Planck Institute for Polymer Research; and

BB11.3 Morphology Development Associated With Polymer Blends
T. Hashida, Y. Hua, and S.L. Hsu of the University of Massachusetts, and C.W. Paul of National Starch & Chemical.

Modeling of Morphological Evolution at Surfaces and Interfaces (Symposium JJ) (Proceedings Volume 859E)

Trophy Award (Best Paper):

JJ4.5 Nucleation and Polycrystalline Growth in Phase Field Theory
L. Gr n sny, T. Pusztai, T. B rzs nyi, G. T th, and G. Tegze of the Research Institute for Solid State Physics and Optics, and J.A. Warren and J.F. Douglas of the National Institute of Standards and Technology.

Ribbon Award (Best Paper Nomination):

JJ3.14 Phase-Field Model for Epitaxial Growth of Islands and Nanostripes
Y.-M. Yu and B.-G. Liu of the Chinese Academy of Sciences.

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