

Katz Leads MRS Board of Directors in 2004



Howard E. Katz



David J. Eaglesham



Alan J. Hurd



Merrilea J. Mayo

On January 1, **Howard E. Katz** (Lucent Technologies) assumed the presidency of the Materials Research Society (MRS) for 2004, after serving as vice president/president-elect in 2003. He succeeded **Merrilea J. Mayo** from the National Academies, who now serves MRS as immediate past president. **Alan J. Hurd** (Los Alamos National Laboratory) continues as secretary.

In last fall's annual election of officers and directors, **David J. Eaglesham** (Lawrence Livermore National Laboratory) was elected vice president/president-elect.

During the 2003 MRS Fall Meeting in December, Katz announced the appointments of chairs of the governing committees: **Cynthia A. Volkert** (Forschungszentrum Karlsruhe) was appointed as chair of the Operational Oversight Committee; **Bruce M. Clemens** (Stanford University), Planning Committee; and **Jerry Floro** (Sandia National Laboratories), External Relations/Volunteer Involvement Committee.

The newly elected members to the MRS Board of Directors are **Kristi Anseth**, University of Colorado; **Robert Averbach**, University of Illinois at Urbana-Champaign; **Marie-Isabelle Baraton**, University of Limoges; **Eugene A. Fitzgerald**, Massachusetts Institute of Technology; and **Albert Polman**, FOM Institute for Atomic and Molecular Physics (AMOLF). They will serve three-year terms beginning January 1 and join continuing directors **Clemens**, **Floro**, and **Volkert**; **Zhenan Bao**, Bell Laboratories, Lucent Technologies; **Tomás Díaz de la Rubia**, Lawrence Livermore National Laboratory; **Ulrich M. Goesele**, Max Planck Institute; **Mihal E. Gross**, Office of Naval Research; **Yuri Suzuki**, University of California, Berkeley; and **Jerry Tersoff**, IBM T.J. Watson Research Center.

Howard E. Katz *President*

Howard E. Katz is a distinguished member of technical staff at Lucent Technologies. He received his PhD degree in chemistry from the University of California, Los Angeles.

His scientific interests include electrical phenomena in polymers and solids, synthesis and fabrication, information storage, and sensing. His work on organic semiconductors was recognized with an R&D 100 Award for a demonstration plastic electrophoretic display, and the team he co-founded received the American Chemical Society Award for Team Innovation. Katz was recently named fellow of the American Association for the Advancement of Science (AAAS). He is a member of the Defense Sciences Research Council, holds 29 U.S. patents, and is the author or co-author of more than 140 publications.

Within MRS, Katz has been a director and served on the Operational Oversight Committee, the Workshop Subcommittee, and the Audit Committee. He was a symposium organizer at the 1992 MRS Fall Meeting and co-chair of the 1998 MRS Fall Meeting, where he introduced the now ongoing topics of combinatorial materials science, materials science of microelectromechanical systems, and polymer pharmaceuticals.

David J. Eaglesham *Vice President/President-Elect*

David J. Eaglesham is chief technologist of the Chemistry and Materials Science Directorate at Lawrence Livermore National Laboratory, where he develops and coordinates nanoscience and materials technology applications for national security. He applies electronics and photonics technology to chemical,

biological, and radiochemical sensors and detectors. Before joining the laboratory, Eaglesham worked for Agere Systems, and before that, he was vice president of Electronic Devices Research at Bell Laboratories.

Within MRS, Eaglesham co-chaired the 1997 MRS Spring Meeting, where he helped implement the Meeting Chairs' Poster Prize. He served on the MRS Council from 1998 to 2001, chaired the Audit Committee, and served on the editorial board of *MRS Bulletin*. Eaglesham received the MRS Outstanding Young Investigator Award in 1994. He earned his BSc degree in chemical physics and his PhD degree in physics at the University of Bristol, England, and served on the faculty at the University of Liverpool.

Alan J. Hurd *Secretary*

Alan J. Hurd is director of the Manuel Lujan Jr. Neutron Scattering Center of LANSCE at Los Alamos National Laboratory and is an adjunct professor of physics at the University of New Mexico. He was previously a research manager at Sandia National Laboratories in Albuquerque. His research interests center on complex fluids. He received his PhD degree in physics in 1981 from the University of Colorado. Hurd has served on advisory groups for Los Alamos National Laboratory, the National Research Council, the National Renewable Energy Laboratory, and various universities. He has received three materials science research awards from the Department of Energy's Office of Basic Energy Sciences.

Hurd's term as MRS secretary expires at the end of this year. He has also served MRS as treasurer, councilor, chair of the Membership Committee, chair of four task forces, and co-chair of the 1994 MRS

Spring Meeting. He was the founding chair of the Public Outreach Subcommittee and was the founding chair of the Materials MicroWorld Oversight Committee. For his efforts in securing funding from the National Science Foundation for the Materials MicroWorld traveling science exhibit, now known as Strange Matter, Hurd was honored with the 1999 MRS Woody Award.

Merrilea J. Mayo
Immediate Past President

Merrilea J. Mayo is the director of the Government–University–Industry Research Roundtable (GUIRR), sponsored by the National Academies. She moved to the Academies from The Pennsylvania State University, where she was an associate professor in the Materials Science and Engineering Department, focusing on

nanocrystalline ceramics. She received her PhD degree in materials science and engineering from Stanford University in 1988.

Mayo has received fellowships from the Japan Society for the Promotion of Science (1993) and the Exxon Foundation (1982–1984), as well as the NSF Presidential Young Investigator Award (1991–1996). She served on the NRC’s Advisory Panel on the National Institute of Standards and Technology (NIST) and on the NRC’s Advisory Committee on Army After Next (AAN) Logistics. She helped organize the Alliance for Science and Technology Research in America (ASTRA). Mayo has more than 70 publications.

At MRS, Mayo has served on the External Affairs and Public Affairs Committees since 1994 and previously served on the Graduate Student Award Subcommittee, the Program Planning

Committee, and the Long-Range Planning Committee; she has also been treasurer, a councilor, a meeting chair, and a symposium organizer. She was part of the MRS Headquarters Building Task Force and is involved in developing the Society’s materials-related interactive displays, now known as Strange Matter, supported by a grant from the National Science Foundation. Mayo was selected the Materials Research Society/Optical Society of America Congressional Science and Engineering Fellow for 1998–1999 and served her fellowship working on research and development issues in the office of Sen. Joseph Lieberman. She served on the MRS Board of Directors as vice president/president-elect in 2002 and president in 2003, and she will now serve on the board as immediate past president in 2004. MRS

Baker, Hsu, Stadler, and Vaia to Chair 2004 MRS Fall Meeting



Shefford P. Baker



Julia W.P. Hsu



Bethanie J.H. Stadler



Richard A. Vaia

The 2004 Materials Research Society Fall Meeting in Boston on November 29–December 3 will be chaired by **Shefford P. Baker** of Cornell University, **Julia W.P. Hsu** of Sandia National Laboratories, **Bethanie J. Hills Stadler** of the University of Minnesota, and **Richard A. Vaia** of the U.S. Air Force Research Laboratory. For updated information on the meeting, access Web site www.mrs.org/meetings/.

Shefford P. Baker has been on the faculty in the Department of Materials and Engineering at Cornell University since 1998. He received his PhD degree in materials science and engineering at Stanford University in 1993. From 1993 to 1998 he was a staff scientist at the Max-Planck-Institut für Metallforschung in Stuttgart, Germany. Baker’s work in recent years has been focused on the special mechanical properties of materials

having characteristic features on the nanometer-length scale and on techniques to measure those properties. His current work includes investigations of deformation mechanisms in thin films, adhesion of thin films to substrates, and nanocontact measurements of complex materials. Baker is the recipient of the *Scripta Metallurgica and Materialia* Outstanding Paper Award (1990) and a National Science Foundation CAREER award (1999). He is also active in teaching and outreach, and is the recipient of several teaching awards at Cornell. In addition to MRS, Baker is a member of the American Society of Mechanical Engineers; The Metals, Minerals, and Materials Society; ASM International; and the Society for Experimental Mechanics. He has organized five symposia for MRS Meetings, and served as guest

co-editor for the January 2002 issue of the *MRS Bulletin* on “Mechanical Properties in Small Dimensions.”

Julia W.P. Hsu is a principal member of technical staff at Sandia National Laboratories. Previously, she was a member of technical staff at Bell Laboratories, Lucent Technologies from 1999 to 2003 and a professor of physics at the University of Virginia from 1993 to 1999. She received her BSE degree in chemical engineering from Princeton University in 1985 and her MS and PhD degrees in physics from Stanford University in 1987 and 1991, respectively. Hsu focuses her research on nanoscale materials physics. Most recently, she has worked on electrical contacts between molecules and electrodes and on dislocation electrical activity and surface properties of wide-bandgap nitride semiconductors. She has also worked on direct

characterization of guided light in photonic structures, defect studies in heteroepitaxial films, and fabrication of nanostructures by novel techniques. Among Hsu's honors and awards are the Hertz Foundation Fellowship (1985), the American Physical Society Apker Award (1986), the National Science Foundation Young Investigator Award (1993), and the Sloan Foundation Research Fellowship (1994). She was elected fellow of the American Physical Society in 2002. Hsu is a member of the Materials Research Society, the American Vacuum Society, and the American Physical Society. She is a member of The Minerals, Metals, and Materials Society's Electronic Materials Committee and has been an organizer of the Electronic Materials Conference since 1997. Hsu has co-authored more than 100 papers and holds three patents. She contributed a review article to *MRS Bulletin* and organized a symposium for the 1998 Spring Meeting. She was recently featured in *Physics in Your Future*, published by the American Physical Society.

Bethanie J. Hills Stadler is an assistant professor in the Electrical and Computer Engineering Department at the University of Minnesota. Stadler received her BS

degree from Case Western Reserve University (1990) and her PhD degree from the Massachusetts Institute of Technology (1994), both in materials science. Prior to joining the University of Minnesota, she was a National Research Council (NRC) postdoctoral fellow working in the Optoelectronics Division of the Air Force Rome Laboratory. Currently, her group's mission is the integration of magnetic and optical materials with standard platforms to allow the development of practical devices and systems. This includes integration of magnets, magneto-optical garnet waveguides, photonic crystals with photonic platforms for isolator applications. In magnetics, Stadler is working on perpendicular recording media and also on magnetic nanowires for magnetoelectronics and sensor applications. In addition to her NRC fellowship, her honors and awards include various teaching awards and the National Science Foundation CAREER award in 2001. Stadler has co-organized three MRS symposia in the areas of photonics and magnetics. She is currently on the MRS Materials Microworld Oversight Committee, which developed an interactive science exhibit that is to travel across North America over the next several years.

She is also past chair of the MRS Academic Affairs Committee.

Richard A. Vaia is a principal materials scientist at the U.S. Air Force Research Laboratory (AFRL), where his research group focuses on nanomaterials and photonic technologies. Coinciding with his work at AFRL, Vaia was an adjunct assistant professor of chemistry at the Air Force Institute of Technology from 1996 to 1999. He received his PhD degree in materials science and engineering at Cornell University in 1995. His honors and awards include the Air Force Outstanding Scientist Award (2002) and the National Defense Science and Engineering Fellowship (1991–1994). He serves on the editorial board of *Chemistry of Materials*, and is a member of the American Physics Society, the American Chemical Society, the Materials Research Society, and the International Center for Diffraction Data. He has organized or co-organized 12 symposia at national and international meetings. Vaia is the author or co-author of more than 75 articles; he contributed a review article to *MRS Bulletin*, and he holds four patents. 

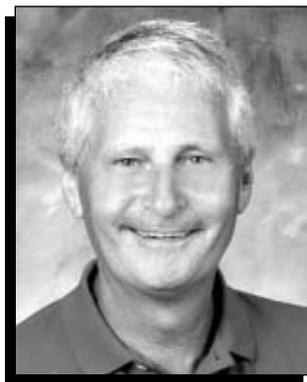
MRS Bulletin Volume Organizers Guide Technical Theme Topics for 2005



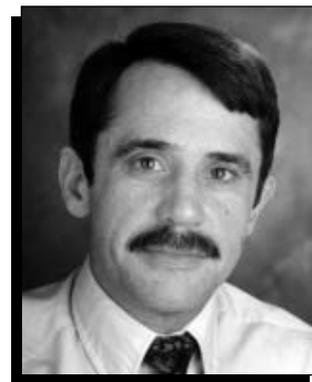
Sue A. Carter



Mark E. Davis



Anthony G. Evans



Thomas P. Russell

The *MRS Bulletin* 2005 volume organizers, who will guide the development of theme topics for the 2005 volume year, are Sue A. Carter of the University of California, Santa Cruz; Mark E. Davis of the California Institute of Technology; Anthony G. Evans of the University of California, Santa Barbara; and Thomas P. Russell of the University of Massachusetts. Instructions on submitting proposals for *MRS Bulletin* theme topics can be obtained on the Web via URL www.mrs.org/publications/bulletin/

[propose_theme.html/](http://www.mrs.org/publications/bulletin/propose_theme.html/).

Sue A. Carter is an associate professor of physics at the University of California, Santa Cruz. Over the last decade, her research has focused on the electronic, magnetic, thermal, and optical properties of metal oxide, superconducting, and organic materials. She received her BA degree in physics, chemistry, and mathematics from Kalamazoo College and her PhD degree (1993) in physical chemistry from the University of Chicago. She was a postdoctoral researcher at AT&T Bell

Laboratories and a research fellow at IBM Almaden Research Center in San Jose. Carter's research at UCSC focuses on the properties of semiconducting polymers and the applications of these materials to emerging technologies, including flat-panel displays, solar cells, and electronic and optical switching. She also has a research program in biophysics that includes studies of charge transport in living neural networks, mechanisms for amyloid fibril formation and protein aggregation, and understanding changes

in the optical properties of biosensors. She has published more than 50 articles and has served as a key speaker, chair, and organizer at several conferences on organic-based electronics. Among Carter's honors and awards are a Packard Fellowship for Science and Engineering and an NSF Young Investigator Fellowship. Carter holds several patents in polymer electronics and serves as an active consultant to the polymer electronics manufacturing industry.

Mark E. Davis is the Warren and Katharine Schlinger Professor of Chemical Engineering and Executive Officer of Chemical Engineering at the California Institute of Technology and a member of the National Academy of Engineering. He has over 300 scientific publications, has written two textbooks, and holds more than 30 patents. Davis is a founding editor of *CaTTech* and has been an associate editor of *Chemistry of Materials* and the *AIChE Journal*. Among his honors and awards are the Colburn and Professional Progress Awards from the American Institute of Chemical Engineers (AIChE) and the Ipatieff and Langmuir Prizes from the American Chemical Society. Davis was the first engineer to receive the NSF Alan T. Waterman Award. His research efforts involve materials synthesis in two general areas, namely, zeolites and other solids that can be used for molecular recognition and catalysis, and polymers for the delivery of macromolecular therapeutics such as nucleic acids. He is the co-founder of Insert Therapeutics Inc., a company based in Pasadena, Calif., focused on the use of cyclodextrin-containing polymers for drug delivery applications (www.insertt.com).

Anthony G. Evans is professor of materials science and of mechanical engineering as well as director of the Center

for Multifunctional Materials and Structures at the University of California, Santa Barbara. In 2002, he returned to UCSB as a faculty member after founding the Materials Department in 1985 and serving as its chair for six years. From 1998 to 2002, he served as Gordon Wu Professor of Mechanical and Aerospace Engineering and Director of the Princeton Materials Institute at Princeton University. During 1994–1998, he was Gordon McKay Professor of Materials Engineering at Harvard University. Evans' research interests include the thermomechanical behavior of high-performance load-bearing materials and multifunctional systems, including composites, ceramics, ultralight metals, films, and coatings. Evans is a member of the National Academy of Engineering and a fellow of the Royal Society of London and of the American Academy of Arts and Sciences. Among his honors and awards are the 2001 David Turnbull Lectureship of the Materials Research Society, the 2003 Nadai Medal of ASME, and the 1994 Griffith Medal of the Institute of Materials. Evans earned his PhD degree (1967) in metallurgy at Imperial College, London. He worked as a research project leader at AERE Harwell and at the U.S. National Bureau of Standards before joining the Rockwell International Science Center as a group leader. Four years later, he joined the University of California at Berkeley as a professor in the Department of Materials Science and Mineral Engineering. Evans has been vice president of the American Ceramic Society (1984–1988) and for four years served as chair of the Defense Sciences Research Council. He is author of more than 470 publications.

Thomas P. Russell, a professor in the Polymer Science and Engineering De-

partment at the University of Massachusetts, is director of the Materials Research Science and Engineering Center on Polymers and of the Keck Nanostructures Laboratory at UMass. His research focuses on the surface and interfacial properties of polymers, phase transitions in polymers, directed self-assembly processes, and the use of polymers as scaffolds and templates for the generation of nanoscopic structures. Russell received his PhD degree (1979) in polymer science and engineering from the University of Massachusetts, Amherst. During the following two years, he was a research fellow at the University of Mainz, Germany. In 1981, he became a research staff member at the IBM Research Laboratories in San Jose, then joined the faculty at the University of Massachusetts in 1996. Russell is an associate editor of *Macromolecules*. He has served as chair or a member of numerous committees and advisory boards for government, professional societies, and publications, nationally and internationally, including the Solid State Science Committee of the National Research Council and the Basic Energy Science Advisory Committee of the Department of Energy. He is currently a member of the Advisory Committee of the Intense Pulsed Neutron Source at the Argonne National Laboratory and the Scientific Advisory Committee of Polynano, a seven-nation European Common Market consortium investigating nanoscopic materials, among other boards. Russell is a fellow of the American Association for the Advancement of Science and of the American Physical Society. He received the A.K. Doolittle Award (1984) from the American Chemical Society, the Cooperative Research Award (2002), and the Dutch Polymer Award (2004). MRS



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GENERAL

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