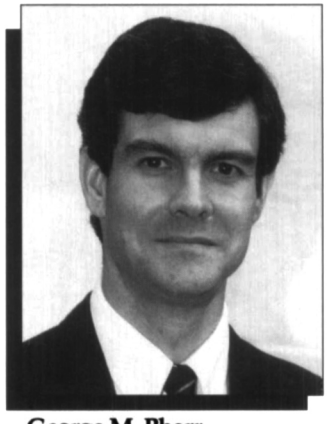
MRS Bulletin Volume Organizers Guide Technical Theme Topics for 2000

David C. Martin



George M. Pharr

Albert Polman

The *MRS Bulletin* Volume Organizers for 2000 are David C. Martin (University of Michigan), George M. Pharr (University of Tennessee), and Albert Polman (FOM institute). This year, *MRS Bulletin* will cover a range of topical themes of current interest in materials research. With an increasing interest in the use of materials in medicine, the first issue focuses on reconstructive biomaterials. The ability to rationally design molecular and molecular complexes and assemblies will be demonstrated in the topic of supramolecular materials. New inorganic materials chemistries will be discussed in issues focused on solid electrolytes, transparent conductors, and an issue devoted to "soft processing" using precursor routes. Processing will also be addressed in an issue on thermal spray coatings, as well as the use of focused MeV ion beams for analysis and microfabrication. Simulations and theory are finding increased utility for materials development and evaluation, which will be discussed in the context of fracture and failure. Finally, there is still interest in well-established materials which retain high commercial impact. Hence, one issue of this volume's *Bulletin* will focus on defects and diffusion in silicon processing. For a list of topics and guest editors for 2000, access the *MRS Bulletin* website at /www.mrs.org/.

David C. Martin is an associate professor in the Materials Science and Engineering Department at the University of Michigan, where he received his BS (1983) and MS (1985) degrees. He received his PhD degree in 1989 from the University of Massachusetts—Amherst.

In 1992, he was named a National Science Foundation National Young Investigator. From 1997 to 1998 he was a Humboldt Fellow at the Max-Planck Institute for Polymer Research in Mainz, Germany. Martin's research focuses on high resolution studies of the micromechanisms of deformation and failure in polymer solids, molecular engineering of high-strength polymer fibers, crystal structure and its evolution in polymers, grain boundaries and dislocations in polymer solids, the structure and properties of polymers near surfaces, and the morphology of synthetic poly(peptides) produced by genetic engineering techniques. Along with serving as a volume organizer for *MRS Bulletin*, Martin served as co-guest editor for the September 1995 issue of *MRS Bulletin* on the topic of defects in polymers.

George M. Pharr is a professor in the Materials Science and Engineering Department at the University of Tennessee and a collaborating scientist at the Metals and Ceramics Division of the Oak Ridge National Laboratory. His research focuses on mechanical behavior of materials, nanoindentation, and thin film mechanical properties. After receiving his PhD degree in materials science and engineering from Stanford University in 1979, he pursued one year of postdoctoral studies in the Engineering Department of the University of Cambridge, England, and then joined the faculty of the Department of Mechanical Engineering and Materials Science at Rice University where he served until moving to his current position at the University of Tennessee in 1998. During a sabbatical leave in 1987–1988, he worked as a visiting scientist with the Ceramic Sciences Group at the IBM Thomas J. Watson Research Center in Yorktown Heights, NY. In 1985, he received ASM International's Bradley Stoughton Award for Young Teachers of Metallurgy and was elected a Fellow of ASM International in 1995.

Pharr is an associate editor of the *Journal of the American Ceramic Society*. Along with serving MRS as a volume organizer for *MRS Bulletin*, Pharr co-authored an article in the July 1992 issue of *MRS Bulletin* on the mechanical behavior of thin films, co-organized a symposium on Thin Films Stresses and Mechanical Properties at the 1990 MRS Spring Meeting, and co-chaired the 1995 MRS Spring Meeting in San Francisco.

Albert Polman is a scientific group leader and head of the Optoelectronic Materials Department at the FOM-Institute for Atomic and Molecular Physics (AMOLF) in Amsterdam, The Netherlands. He received his PhD degree from the University of Utrecht on a thesis on laser- ion- and electron-beam-induced phase transformations in silicon in 1989. From 1989 to 1991 he was a research staff member at AT&T Bell Laboratories (Murray Hill, NJ), where he studied the synthesis and properties of rare-earth implanted silica glasses.

In 1991 he started a group at the FOM-Institute, devoted to the synthesis, characterization, and application of novel optoelectronic materials. The group's research topics include rare-earth-doped optical waveguide materials, photonic bandgap materials, colloidal photonic materials, semiconductor nanocrystals, rare-earth-doped semiconductors, as well as the fundamentals of ion-solid interactions. In 1996, Polman was appointed as a part-time professor at the Debye Institute of Utrecht University. In 1999 he was appointed as head of the Optoelectronic Materials Department at AMOLF.

Polman serves on the editorial board of *Materials Science and Engineering Reports*, and is an Advisory Editor of *Physica B*. Along with serving MRS as a volume organizer for *MRS Bulletin*, he co-authored an article in the April 1998 issue of *MRS Bulletin* on the topic of silicon-based optoelectronics, and he has served as co-organizer of three symposia at MRS meetings in Boston and San Francisco (1994, 1996, 1997). MRS

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