## Harper, Hurd, and Mark Will Chair 1994 MRS Spring Meeting April 4–8, 1994, San Francisco, California







Alan J. Hurd



James E. Mark

James M.E. Harper, Alan J. Hurd, and James E. Mark will serve as meeting chairs for the MRS 1994 Spring Meeting in San Francisco. According to Harper, "This meeting will continue to fulfill the recognized role of MRS meetings as true interdisciplinary events at which engineers and scientists advance the state of understanding in their own fields, while gaining perspective and exposure to related topics. Symposia are planned in fields which have a strong history at the Spring Meeting, such as microelectronic materials, reliability, semiconductors, ceramics, and intermetallic composites. Other current research areas represented include high-temperature superconductors, polycrystalline thin films, and novel forms of carbon such as fullerenes. In addition, there will be tutorial talks on traditional areas of materials science, in Symposium X. Several important new meeting topics relevant to display materials and related applications are flat panels, electroluminescent and liquid crystal polymers, scintillators, and phosphor materials.

"This year, MRS is putting a strong emphasis on two areas of growing importance to the broad range of MRS members: manufacturing aspects and environmental aspects of materials science. The interplay between materials and manufacturing issues is being addressed in many of the individual symposia, such as Advanced Metallization for Devices and Circuits, Flat Panel Display Materials, and Rapid Thermal and Integrated Processing. Environmental aspects are being introduced in two new symposia covering Materials and Manufacturing Processes/Fuels and Power Generation, and CO<sub>2</sub> Chemistry/New Materials for Engine Exhaust Gas Conversion. The many interconnections that exist between topics in the Spring 1994 Meeting are evident in the Call for Papers, in which more than ten joint sessions between symposia are either listed or under discussion. "To underscore the theme that materials science plays a role in nearly all of our activities, a new symposium on Materials in Musical Instruments will be introduced this year. We look forward to a fascinating description of the relationship between materials and music, as presented by experts in the field."

James M.E. Harper is manager of Thin Film Metallurgy and Interconnections at the IBM T.J. Watson Research Center, where he researches deposition processes and reactions between metal and compound thin films. His research emphasis in thin-film deposition and etching ranges from the application of quantitative low-energy ion beam techniques to the modification of thin-film structure and composition. In the area of thin-film reactions, he has examined phase formation sequences in intermetallic compounds and has developed methods to modify phase transformations in metals and silicides.

Harper received his BA degree in physics from Harvard University and a PhD degree in applied physics from Stanford University. The author or co-author of four book chapters and more than 100 technical papers, he holds 13 patents in the fields of low-temperature physics and materials processing. He has taught physics at the U.S. Coast Guard Academy and currently teaches short courses in thin-film science and technology.

Harper is active in the American Vacuum Society, where he has held posts as director, Executive Committee member, Program Committee member, short course instructor, and member of the Editorial Board of the *Journal of Vacuum Science and Technology*. In the Materials Research Society he has served as a member of the MRS Task Force on Manufacturing and as a co-chair of symposia on Low Energy Ion Beam and Plasma Modification of Materials (1991), Advanced Metallization in Microelectronics (1992), and Phase Transformations in Thin Films (1993).

Alan J. Hurd is manager of the Ceramics Processing Science Department at Sandia National Laboratories. Prior to joining Sandia in 1984, he taught physics at Brandeis University, and also was an adjunct professor at the University of New Mexico. Hurd holds several degrees in physics, having received his BS degree from the Colorado School of Mines and his PhD degree from the University of Colorado. His research interests include complex fluids, sol-gel ceramics, and scattering techniques. Among his honors is an award for Significant Implications in Ceramics and Metallurgy from the Department of Energy's Office of Basic Energy Science.

Hurd has been active in MRS since 1985 as a technical contributor, symposium organizer, and short course instructor. He serves on the MRS Bulletin Subcommittee and the Membership Committee and, until recently, was vice president of the New Mexico Section.

Since 1987, James E. Mark has been distinguished research professor at the

University of Cincinnati. He is the first scientist to be named to this post. Mark joined the university in 1977 as a professor of chemistry and served as chairman of the Physical Chemistry Division and later as director of the Polymer Research Center

A graduate of Wilkes College with a BS degree in chemistry, Mark received his PhD degree in physical chemistry from the University of Pennsylvania. After serving as a postdoctoral fellow at Stanford University under Paul J. Flory, Mark was assistant professor of chemistry at the Polytechnic Institute of Brooklyn, and later became a full professor at the University of Michigan. He has also done research and consulting work for industry and has served as a visiting professor at several institutions.

Mark's research interests center around the physical chemistry of polymers, including configuration-dependent properties, conformational energies of chain molecules, the elasticity of polymer networks, tin-containing polymers, and polymer-coated electrodes. An extensive lecturer in polymer chemistry, he has published more than 350 research papers and co-authored or co-edited seven books. Mark is the editor of the journal *Computational Polymer Science* and a fellow of the New York Academy of Sciences, the American Physical Society, and the American Association for the Advancement of Science.

## MRS Seeks Graduate Student Award Applications for 1993 Fall Meeting

At its Fall and Spring Meetings, the Materials Research Society honors outstanding graduate students whose academic achievements and current materials research display a high order of excellence and distinction. The MRS Graduate Student Awards are presented to students of exceptional ability, who show promise for future substantial achievement in materials research.

Eligibility: To qualify for an MRS Graduate Student Award given during the 1993 MRS Fall Meeting, the applicant must be a registered graduate student whose thesis research closely relates to one of the symposium topics addressed in this meeting. The applicant must be the author or co-author of a symposium paper, but need not be the person who presents the paper. MRS membership is not a requirement, but to receive the award, the student must attend this meeting. Students who receive their degrees more than four months prior to the meeting are not eligible.

**Procedure:** Winners will be selected in two steps. First, a group of finalists will be identified on the basis of information provided in the award application. All finalists will be notified by October 13, 1993. Second, all finalists must give ten-minute talks based on their symposium papers at a special student presentation session at the 1993 Fall Meeting in Boston. The names of the Graduate Student Award winners will be announced at an Awards Ceremony.

Registration fees for the 1993 Fall Meeting will be paid by MRS for all finalists, entitling them also to membership in MRS for 1994.

**Awards:** Each winner will receive a \$250 cash prize and a plaque.

**Deadline:** All application materials (INCLUDING A COPY OF YOUR ABSTRACT) must be received by MRS headquarters by **August 27**, **1993**.

For information and application forms, contact: Anne Wagner (GSA-B), Materials Research Society 9800 McKnight Road, Pittsburgh, PA 15237 Phone (412) 367-3003; fax (412) 367-4373.

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