

MRS Themes for the "Age of Materials"



James B. Roberto

The remainder of this decade will see an increasing awareness of materials as the common basis for technological progress.

By all accounts, 1990 was a banner year for the Materials Research Society. MRS welcomed its 10,000th member, set new records for the number of papers at the spring and fall meetings, significantly increased the size and scope of *Journal of Materials Research* and the *MRS Bulletin*, successfully launched an Office of Public Affairs in Washington, DC, and provided leadership in the formation of the International Union of Materials Research Societies. This impressive performance is a credit to the enthusiasm and hard work of hundreds of volunteers and to the dedication and professionalism of our headquarters organization. Congratulations to all!

1990 also saw new records in the numbers of MRS Sections and University Chapters, new initiatives in education and technical programming, and continued growth in virtually every indicator of Society activity. More than ever, MRS personifies the excitement and vitality of materials research.

The remainder of this decade will see an increasing awareness of materials as the common basis for technological progress. We are entering the "age of materials," and MRS has an opportunity and responsibility to help chart the course. We will contribute collectively and individually in many ways. I would like to expand on two important themes for the 1990s which are especially suited to the MRS approach to materials research.

Unity in Materials Science

MRS was established on the premise that interdisciplinarity is the key to rapid progress and vitality in the practice of materials research. Our meetings and symposia stress an interdisciplinary approach, JMR and the *BULLETIN* project an interdisciplinary message. The recent National Research Council Report, *Materials Science and Engineering in the 1990s: Maintaining Competitiveness in the Age of Materials*, noted the significance of the "emerging unifying themes in materials science and engineering." This unity is prevalent in the interdisciplinary character of our meetings and publications. We are physicists, chemists, materials scientists, and engineers sharing our varied perspectives and exchanging ideas on the important problems in materi-

als science and engineering. The MRS interdisciplinary approach is helping to define the emerging unity of our field.

Unity in materials science also implies identity and cooperation. On a global scale, MRS is helping to establish identity and cooperation in materials research through its participation in the creation of the International Union of Materials Research Societies. Nationally, MRS is working with eight sister societies to sponsor the first Washington Materials Forum in February 1991. This forum will provide access to the Washington community for materials scientists *as a community*.

Technical Programming and Education at Disciplinary Interfaces

New developments in materials research often occur at the interfaces of traditional disciplines. Thus, superconductivity, superlattices, and plasma processing all draw in varying degrees on aspects of physics, chemistry, and materials engineering. Scientists and engineers continually have to probe disciplinary boundaries in order to make progress in materials research and development. MRS plays a crucial role here, providing a forum for technical exchange and professional education at these interfaces. This is the strength of our technical meetings: each meeting is developed from scratch to provide the strongest interdisciplinary program covering the breadth of materials research. The education of materials professionals beyond their individual disciplines drives, and is driven by, progress in materials research. MRS is an avid facilitator of this process.

There are many more important issues for materials research in the 1990s: establishing R&D priorities, the integration of big and small science, consortia and technology transfer, and the development of academic curricula, to name a few. MRS volunteers are making a difference in all these areas. We are fortunate to be involved in materials science and engineering at a time of seemingly limitless intellectual challenge and technological impact. I encourage each of you to stay involved.

Jim Roberto