

MRS Fills A Niche

Ken Jackson, 1978 MRS President

The discussions which led to the founding of the Materials Research Society began sometime around 1970. The driving spirit was Rustum Roy of Pennsylvania State University. He assembled a Founding Committee of about a dozen people or so, and we met intermittently over the next few years, drafted a constitution, and argued about a name for the society. The two proposed names were Materials Research Society and Materials Science Society. The objectives of the Society as stated in the initial constitution were to:

- Foster interactions between various areas of materials science,
- Sponsor interdisciplinary meetings, and
- Disseminate information relevant to materials science.

The first conference organized by the Society was on "Applications of Phase Transitions in Material Science," and was held May 23-25, 1973 in University Park, Pennsylvania. The proceedings of that conference were edited by L.E. Cross and published by Pergamon Press under the title "Phase Transitions 1973." The Society's second conference was held March 24-25, 1975 at Princeton University. It was organized by Bill Bottoms, then a professor at Princeton, and Jack Wernick of Bell Labs. The topic of the conference was "Defect-Property Relationships in Solids." The proceedings were published in *The Journal of Electronic Materials*, Volume 4, No. 5, 1975. These were both single-symposium conferences, each with about 100 to 150 attendees.

In 1975, Harry Gatos became president of the organization, I became vice-president, with responsibility for organizing the next meeting, and Bill Bottoms became secretary. Aram Tarpinian, who was at Watertown Arsenal, became executive secretary, in order to provide a permanent address for the Society. Bill Bottoms and I felt strongly that there should be an annual meeting of the Materials Research Society and that it should be a multisymposium meeting. The council of the Society did not share our enthusiasm, but supported the venture. Bill and I began to plan the meeting, but Bill left Princeton University for a demanding new position at Varian in California, and became too busy to participate. I believed, however, that there

was still enough support available in the Society and in the materials science community to organize a multisymposium meeting.

Bill and I had strongly promoted an annual meeting because materials scientists had no societal home of their own. In the large industrial laboratories, and elsewhere, major materials problems

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were being attacked by scientists and technologists with a variety of backgrounds. Solutions to these problems depended on crossing boundaries between the conventional disciplines. These scientists and technologists attended meetings of the American Physical Society, the American Chemical Society, The Metallurgical Society, the American Ceramic Society, the Electrochemical Society, IEEE, and so on. Their work was often regarded as uninteresting to purists in the conventional disciplines and they often failed to achieve recognition for it. At that time, there were also many unrelated topical meetings on materials science, which were not specifically identified as such, taking place at various times and in various places.

So we recognized the need for a forum where materials scientists could come together to interact with a broader range of scientists and technologists than they could at the meetings based on the traditional disciplines, to address topics which fall into the gaps between the traditional disciplines, to provide a coherence

to the field of materials science, to provide a home for materials scientists, and to provide proper recognition for the multidisciplinary nature of their contributions. The basis of such a meeting would be to bring together several of the individual symposia that were taking place in diverse parts of the country at different times, with the advantage that people attending one symposium could also sample others if they chose. There would also be an efficiency in organization.

Three criteria for the selection of symposia were defined:

- The topic should be one for which a symposium was needed, that is, a current "hot" topic where there were many active researchers who needed to come together, but where there was no forum for them to do so. The program should be organized by leading researchers who were champions of the topic, so that all the active researchers in the area would feel they simply had to attend.
- The topic should be an interdisciplinary materials subject—one in which people from different scientific disciplines needed to come together because of a common interest, and one that would bring together researchers from different backgrounds who were working on the same phenomena. The idea was not to assemble topics having an apparent common theme, but to find topics that would attract researchers who would otherwise share no common interests.
- There should be no symposium whose primary purpose was education: Each symposium should be a forum for the interchange of information among active researchers. Others could attend to educate themselves if they choose.

The meeting took place at the Hyatt Regency Hotel in Cambridge, Massachusetts, November 14-17, 1976. There were six symposia: Non-Crystalline Solids, Catalysis and Catalytic Materials, Computer Use in Materials Science, Defects, Electrical Contacts, and Molecular Beam Epitaxy. The logistics of the first conferences were ably managed by Aram Tarpinian, who made all the arrangements with the hotels, as well as the local arrangements, providing people for the registration desk. There were about 325 attendees, and the meeting was a big success.

Rustum Roy became president in 1976, and I stayed on for another year as vice-president to organize the meeting for 1977. However, in the aftermath of the success of the 1976 meeting, we all relaxed until around March, when we

Views on MRS and materials research from former MRS presidents.

realized that we needed to plan for another meeting in November. At that point it was a little late to start, so the 1977 meeting, which was held November 14-16, 1977 at the Boston Sheraton Hotel, had only three symposia: Catalysis and Catalytic Materials, Materials Characterization using Electron Microscopy, and Metallic Glasses. The attendance of about 225 was less than that of the previous year.

Before that meeting took place, however, we had started to organize the meeting for the fall of 1978. I became president, and my associate Rudie Voorhoeve took over as vice-president and Program Committee chair. The meeting was held November 28-December 1 at the Boston Sheraton Hotel, with nine symposia, and over 700 attendees. After that meeting, it was clear that an annual meeting of the Materials Research Society was here to stay. Two symposia that contributed greatly to the success of the meeting were "Radioactive Waste Management," organized by G.J. McCarthy and Rustum Roy, and "Laser-Solid Interactions," organized by Harry Leamy and John Poate. The proceedings of both of these symposia were published.

It must be clear that none of this would have been possible without significant effort on the part of many people. The structure then put in place to organize the meetings was the precursor of the present structure. Aram Tarpinian handled the hotel arrangements and provided meeting space and registration personnel. The program committee, chaired by the vice-president, selected the symposium chairs, who each then controlled their respective symposia. The chairs invited speakers, organized sessions, and incorporated contributed papers, as appropriate. They were responsible for providing the information to be assembled into the final program and for col-

lecting abstracts to be assembled into the abstract book. Deadlines were set by the program committee, which also prepared the final program and abstract book. Although many of the operational duties have been moved to headquarters, the process today remains essentially the same.

As you can imagine, operations in those early days were fairly informal. I remember laying out one program booklet on the floor of my office with the help of my secretary, then assembling it and carrying it off to the printer. Initially, our expenses were small. The only income was the registration fees, which were used to cover the expenses of printing and mailing the programs and abstract books. The total annual budget for the organization was small but rapidly increasing, and we operated without any financial reserve.

To illustrate the informality of the organization at that point: One day Rudie Voorhoeve and I were having lunch together at Bell Labs specifically to discuss the upcoming 1977 meeting. We considered the possibility of having an award to honor the people in the materials area whose major contributions had never been properly recognized. Rudie suggested that Professor von Hippel of the Massachusetts Institute of Technology, a pioneer in dielectric materials, was such a person. So we decided right there, over lunch, that we should institute a Von Hippel Award and that the first recipient should be Professor von Hippel. We contacted him, he agreed, and the Von Hippel Award was born. In the following year, 1978, we presented the award to Dr. W.O. Baker, who at that time was president of Bell Telephone Laboratories. Dr. Baker, as a member of the President's Science Advisory Council, had been largely responsible for the establishment of the Materials Research

Laboratories, which have contributed in a very important way to the development of materials science in academe. After those first two awards, a Von Hippel Award Committee was established and selecting a Von Hippel awardee became a much more complicated process. The first two recipients, however, established a very high standard for the award.

In its early days, when the Society was not very well known, people were sometimes unwilling to organize symposia—now, people clamor for that privilege. Meeting attendance increased in three years to over 700 registrants. We had entered the realm where many hotels could not accommodate us, and had to begin reserving hotel space far in advance for future meetings. The meetings are now limited by available space in the hotels and the number of symposia that the organizers are willing to tolerate.

The development of the Materials Research Society has exceeded the wildest expectations of the Founding Committee. The presidency of the Society is now a very demanding and prestigious position. In the late 1970s, when MRS was a free-wheeling organization, no one cared who had the job. But it seems to me, in retrospect, that it was more fun then. The time and energy required of the MRS president have increased for each of the presidents who followed me. It is remarkable that the right people were there at the right time to lead the Society, and that so many people were willing to work to shape the organization in the direction it needed to go. The Society as it is today is the result of an enormous effort by a great number of very talented people who have unstintingly devoted their time and energies.

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COMING IN SEPTEMBER-

In its September issue, the *MRS Bulletin* will dedicate a special section to the MRS 20th Anniversary. The section will feature articles covering the creation, early years, and dramatic growth of the Materials Research Society...
plus photos highlighting special moments in MRS history.