

## FUTURE MRS MEETINGS

### ■ Fall Meetings ■

- 1991 December 2-6  
Boston, Massachusetts
- 1992 November 30-December 4  
Boston, Massachusetts
- 1993 November 29-December 3  
Boston, Massachusetts
- 1994 November 28-December 2  
Boston, Massachusetts
- 1995 November 27-December 1  
Boston, Massachusetts

### ■ Spring Meetings ■

- 1991 April 28-May 2  
Anaheim, California
- 1992 April 27-May 1  
San Francisco, California
- 1993 April 12-16  
San Francisco, California
- 1994 April 11-15  
San Francisco, California
- 1995 April 16-20  
San Francisco, California
- 1996 April 22-26  
San Francisco, California

## Roberto to Lead MRS in 1991

As James B. Roberto slides into the 1991 president's seat of the Materials Research Society, an automatic move from his previous position as first vice president, he will lead the Society in its 18th year. These changing economic times, but times of rapid materials development, should bring many challenges and rewards. Roberto views MRS, and especially the spirit of its more than 10,000 members, to be key in meeting these challenges.

"I firmly believe that materials research and development is fundamentally important to our future and that the interdisciplinary approach and rapid response of MRS are essential to progress in our field," Roberto said.

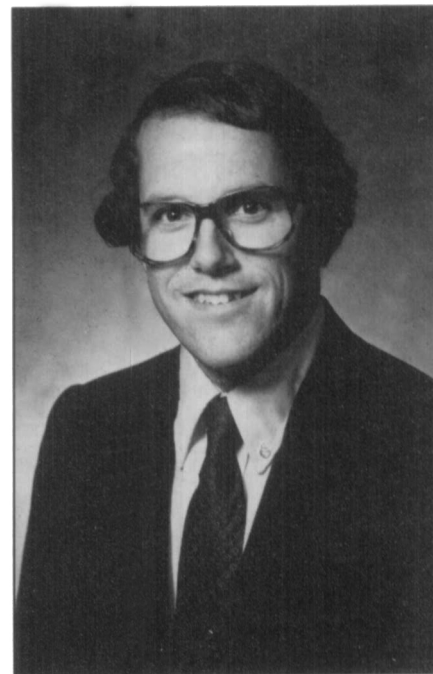
"MRS is providing leadership in the timely dissemination of research results, in cross-fertilization among the materials-related disciplines, and in helping to define the emerging unity in materials science and engineering," he continued.

After earning his PhD from Cornell University in applied physics, Roberto joined Oak Ridge National Laboratory in 1974. He became associate director of the Solid State Division at Oak Ridge National Laboratory in May 1989, and in December of last year he succeeded retired Fred W. Young, Jr. as director of the division.

As division director, Roberto will be responsible for basic research programs relating to characterizing and understanding the properties and interactions of a wide variety of materials. He will also oversee programs for developing advanced materials research facilities and new materials processing and characterization techniques needed in Department of Energy research programs.

Roberto previously served in various research and research management capacities emphasizing plasma materials interaction, ion-solid interaction, radiation damage, and x-ray scattering. At Oak Ridge, he has been manager of the plasma-materials interactions program, leader of the particle-solid interactions section in the Solid State Division, and technical assistant to the associate director for physical sciences.

Roberto was guest scientist at Kernforschungsanlage, Jülich, Germany in 1977



*"I am continually impressed by the excitement of our meetings and the dedication of our staff and volunteers. As president of MRS, I look forward to working with the membership and MRS headquarters to continue this tradition of vitality and excellence."*

and at the Max-Planck-Institut für Plasmaphysik, Garching, Germany in 1983. He has published more than 60 papers and edited three books in the general area of particle-solid interactions. He is also a member of the American Physical Society and the Bohmische Physikalische Gesellschaft.

Roberto has organized MRS symposia on Advanced Photon and Particle Techniques for the Characterization of Defects in Solids (fall 1984) and Ion Beam Processing of Advanced Electronic Materials (spring 1989) and served as a meeting chair for the 1986 MRS Fall Meeting. He has been active on the Program Committee, serving as its chair in 1988 and working to broaden membership participation in planning future symposia. **MRS**

# 1991

# Spring Meeting

April 29 - May 4  
Anaheim Marriott Hotel  
Anaheim, California



**New Materials  
Development**

**New Characterization  
Methods**

**New Process  
Technology**

## Technical Program

- A: Amorphous Silicon Technology - 1991
- B: Silicon Molecular Beam Epitaxy
- C: Heteroepitaxy of Dissimilar Materials
- D: Atomic Layer Growth and Processing
- E: Low Energy Ion Beam and Plasma Modification of Materials
- F: Rapid Thermal and Integrated Processing
- G: Materials Reliability Issues in Microelectronics
- H: Mechanical Behavior of Materials and Structures in Microelectronics
- I: Contamination Control in Microelectronics
- J: Materials Science of High Temperature Polymers for Microelectronics
- K: Polymeric Alloys
- L: Polymer Lifetimes
- M: Polymeric Materials for Integrated Optics and Information Storage
- N: Materials for Optical Information Processing
- O: Molecular Tribology
- P: Interfaces in High Temperature Superconducting Systems
- Q: Structure/Property Relationships for Metal/Metal Interfaces
- R: Phase Transformation Kinetics in Thin Films
- S: Magnetic Thin Films, Multilayers and Surfaces
- T: Magnetic Materials: Microstructure and Properties
- U: Synthesis/Characterization and Novel Applications of Molecular Sieve Materials
- V: Modern Perspectives on Thermoelectrics and Related Materials
- W: Environmentally Conscious Materials Processing
- X: Frontiers of Materials Research

## Equipment Exhibit

A major exhibit of the latest analytical and processing equipment which closely parallels the nature of the technical symposia will be located in the Anaheim Convention Center convenient to the technical session rooms. For show booth information, contact: Bob Finnegan, MRS Show Manager, American Institute of Physics, 335 East 45th Street, New York, NY 10017; Telephone (212) 661-9404; FAX (212) 661-2036.

## Job Placement Bulletin Board

A Job Placement Bulletin Board for MRS meeting and short course attendees will be open Tuesday through Thursday during the meeting. Contact Jane Stokes at MRS Headquarters to request application forms and/or information: (412) 367-3003; FAX (412) 367-4373.

## Short Course Program

Courses on advanced materials characterization, preparation, and processing/diagnostic techniques have been designed for scientists, engineers, managers, and technical staff who wish to update their knowledge and skills in the research, development and processing of materials. These up-to-date courses are at the forefront of science and technology and complement Spring Meeting symposia. Class sizes are limited. Early pre-registration is encouraged.

## Special Discount

Facilities registering three or more persons at the same time in one MRS short course receive a 20% discount for the third and all additional persons.

## Proceedings

Many of the MRS symposia will be publishing proceedings or extended abstracts. For a complete list of MRS publications and prices, contact Materials Research Society, Publications Department, 9800 McKnight Road, Pittsburgh, PA 15237; Telephone (412) 367-3012; FAX (412) 367-4373.

## Preregistration

Preregister by telephone, (412) 367-3003, or FAX (412) 367-4373, with your VISA, Mastercard or Diners Club card. Ask for Meeting Registration and your preregistration will be completed for you. Telephone preregistrations are accepted between 8:00 a.m. and 5:00 p.m. Eastern time, Monday through Friday. Confirmations will be mailed within 10 working days.

To request detailed 1991 Spring Program or Short Course information, contact:

Materials Research Society  
9800 McKnight Road  
Pittsburgh, PA 15237  
Telephone (412) 367-3003  
FAX (412) 367-4373

The 1991 MRS Spring Meeting will serve as a key forum for discussion of interdisciplinary leading-edge materials research from around the world. Various meeting formats - oral, poster, roundtable, forum and workshop sessions - are offered to maximize participation.



Telephone (412) 367-3003  
FAX (412) 367-4373

PREREGISTRATION  
TUITION

**ADVANCED MATERIALS**

**M-04: Optoelectronic Materials, Processes, and Devices**  
Instructor: Mool C. Gupta  
Friday and Saturday, May 3-4 .....\$510

**M-07: Polymers for Electronic and Photonic Applications**  
Instructors: C. P. Wong and C. Grant Willson  
Sunday and Monday, April 28-29 .....\$510

**M-08: Nature of Solid Lubricants and Their Applications**  
Instructor: Harold E. Sliney  
Monday, April 29 .....\$345

**M-11: Magnetic Thin Films: Physics and Applications**  
Instructors: Ernesto E. Marinero and Virgil S. Speriosu  
Saturday and Sunday, April 27-28 .....\$510

**CHARACTERIZATION OF MATERIALS**

**C-03: Surface and Thin Film Analysis**  
Instructors: Leonard C. Feldman and James W. Mayer  
Friday and Saturday, May 3-4 .....\$580

**C-07: Amorphous Silicon Technology**  
Instructors: Robert A. Street and Michael G. Hack  
Monday, April 29 .....\$345

**C-09: Fractals: Concepts and Applications in Materials Science and Engineering**  
Instructors: James E. Martin and Alan J. Hurd  
Tuesday and Wednesday, April 30-May 1 .....\$535

**C-12: IC Failure Mechanisms and Analytical Techniques**  
Instructor: Giorgio Riga  
Thursday and Friday, May 2-3 .....\$510

**C-14: Fundamentals and Applications of Scanning Tunneling Microscopy**  
Instructor: Robert J. Hamers  
Friday, May 3 .....\$345

**C-22: Thin Film Epitaxy, Interdiffusion, Phase Transformation**  
Instructors: Leonard C. Feldman, James W. Mayer, and King-Ning Tu  
Thursday and Friday, May 2-3 .....\$535

**C-24: Characterization of Diamond Films**  
Instructors: Jeffrey T. Glass and Robert J. Nemanich  
Friday, May 3 .....\$345

**C-25: Characterization of the Electrical Properties of Electronic Materials**  
Instructor: Laurence Sadwick  
Wednesday, May 1 .....\$345

**PREPARATION AND FABRICATION OF MATERIALS**

**F-01: Film and Coating Deposition Techniques**  
Instructor: Donald M. Mattox  
Sunday and Monday, April 28-29 .....\$535

**MRS Short Course Program**

**SIX NEW COURSE TOPICS**

Selected Short Courses covering the latest developments in materials science and technology will be offered in conjunction with the 1991 Spring Meeting of the Materials Research Society. These up-to-date courses are at the forefront of science and technology and complement Spring Meeting symposium topics. SPECIALTY, REVIEW, AND SURVEY courses are designed to meet needs of professional scientists, engineers, technical staff, and managers who want to know the latest techniques in characterization and fabrication of materials. CLASS SIZES ARE LIMITED: Early telephone preregistrations are encouraged.

**F-02: Plasma Etching for Microelectronic Fabrication**  
Instructor: G. Kenneth Herb  
Tuesday, April 30 .....\$345

**F-04: Microelectronic Packaging: Materials, Processing, and Reliability**  
Instructor: Shankara K. Prasad  
Thursday, Friday and Saturday, May 2-4 .....\$775

**P-10: Metallorganic Chemical Vapor Deposition**  
Instructor: Robert M. Biefeld  
Thursday, May 2 .....\$345

**P-11: Rapid Thermal Processing - III-V Materials Systems and Processing Technology**  
Instructors: Dennis M. Maher and Avishay Katz  
Friday, May 3 .....\$345

**P-14: Film Formation, Adhesion, Surface Preparation, and Characterization of Thin Film Structures**  
Instructor: Donald M. Mattox  
Wednesday and Thursday, May 1-2 .....\$535

**P-19: Compound Semiconductor Epitaxy and Processing**  
Instructors: Ami Appelbaum and L. Ralph Dawson  
Sunday, Monday and Tuesday, April 28-30 .....\$750

**TECHNIQUES**

**T-08: Environmental, Safety, and Health Aspects of Semiconductor Manufacturing**  
Instructors: Jeanne M. Yturri, G. Kenneth Herb, and Michael T. Mocella  
Monday, April 29 .....\$345

**T-09: Low Temperature Testing of Superconductors and Semiconductors**  
Instructor: Robert E. Schwall  
Monday, April 29 .....\$345

**SPECIAL DISCOUNTS**

There are special discounted tuition fees for specific course combinations:  
F-01 and P-14: \$895 total fee  
T-08 and F-02: \$510 total fee

Facilities registering three or more persons at the same time in one MRS Short Course receive a 20% discount for the third and all additional persons.

**MRS ON-SITE SHORT COURSE PROGRAM**  
Available at your facility

One of the best ways to keep your staff up to date on the latest developments is through an ongoing program of continuing education. Many of the courses described in this flyer, as well as others not being presented at the 1991 Spring Meeting, are now available on a contract basis for presentation at your facility or technical meeting.

For further details about courses available at your facility, nearby site, or your technical meeting, write or call:  
Vivienne Harwood Mattox, MRS Short Course Manager  
440 Live Oak Loop, Albuquerque, NM 87122  
Telephone: (505) 294-9532, FAX: (505) 298-7942

**REGISTRATION INFORMATION:** Call (412) 367-3003 and ask for the Short Course Office to request information about student scholarships and special meeting registration discounts.

900336