

MRS TURNS 20 AT THE FALL MEETING IN BOSTON

A thick program testifies to the full and varied schedule of symposia planned for the annual fall meeting of the Materials Research Society, to be held from Monday, 29 November, to Friday, 3 December, in Boston. The sessions will be split between the Boston Marriott Hotel and the Westin Hotel at Copley Place. The number planning to attend the meeting may equal last year's record attendance, which approached 4000.

As usual those attending the meeting will have more than enough to do, with the short courses, tutorials, technical symposia and special sessions. Among these is the plenary session at 6 pm on Monday, featuring a talk by Secretary of Energy Hazel O'Leary. Also on Monday, from 10 am to noon, MRS has scheduled a society-wide colloquium on "Information: Its Nature, Sources and Effective Use." The session will include a panel discussion following talks by Eugene Garfield of the Institute for Scientific Information, which publishes *Current Contents*, and John Rodgers of the Canadian National Research Council, Ottawa.

A half-day workshop on Tuesday morning will review programs that were part of the NSF's initiative in undergraduate materials science education. And a session on Thursday evening featuring T. Ohmi of Tohoku University in Japan and Thomas Seidel of Sematech will explore materials issues in semiconduc-

tor technology from Japanese and American viewpoints.

At the awards ceremony, which starts at 6 pm on Wednesday, five individuals will be honored. A reception will follow the awards program. Frederick Seitz, president emeritus of Rockefeller University, will receive the Von Hippel Award, given annually to honor an individual who has made outstanding contributions to interdisciplinary research on materials. Seitz is being cited for "his seminal role in establishing the modern fields of solid-state physics and materials science through his many basic books and research papers, and for his leadership as a teacher and administrator in encouraging the growth of these disciplines." Seitz will give a lecture highlighting his work.

At the same session Donald R. Huffman, Regents Professor of Physics at the University of Arizona, and Wolfgang Krätschmer of the Max Planck Institute for Nuclear Physics in Heidelberg, Germany, will be presented with the MRS Medal for "the discovery of a way to produce macroscopic quantities of fullerenes and for elucidating many of their physical and chemical properties." Both Huffman and Krätschmer will give invited talks on Monday. Also at the ceremonial session, Morris Cohen, Institute Professor Emeritus in materials science and engineering at MIT, will receive the David Turnbull Lec-



Frederick Seitz

tureship for "his contributions to the development of physical metallurgy, especially in the mechanism and kinetics of martensitic transformation, and for his leadership in establishing the broader discipline of materials science and engineering." Cohen will present his lecture at the MRS meeting next spring. The winner of the Graduate Student Award will also be announced during the ceremony.

In observance of its 20th anniversary, MRS has created a special display at the Boston Marriott that highlights materials developments over the past two decades. In ad-

dition, many of the 27 technical symposia will open with an historical overview. The 11 new topics for technical symposia this year include silicides, germanides and their interfaces; developing materials processes for factories; diagnostic techniques for semiconductor materials processing; defects in advanced semiconductors—physics and application; new materials for advanced solid-state lasers; biomolecular materials by design; biomaterials for drug and cell delivery; determining nanoscale physical properties of materials by microscopy and spectroscopy; gas-phase and surface chemis-

try in electronic materials processing; metal-organic chemical vapor deposition of electronic ceramics; and an R. W. Balluffi Fest on atomic-scale imperfections in materials.

Symposium X, entitled "Frontiers of Materials Research" and consisting of reviews for nonspecialists, will be held at noontime. The topics include the changing world of carbon materials, thin-film lithium microbatteries, molecular electronics, rotary engines in biology, polymers for pharmaceutical applications and photonic materials for communications and information processing.

Members of the MRS Grass Roots

Committee will put on experimental demonstrations for high school students at noontime on Tuesday.

The American Institute of Physics will run an exhibit of analytical and processing equipment. The show runs from noon to 7 pm on Tuesday, 9:30 am to 5 pm on Wednesday and 9:30 am to 2 pm on Thursday. On Tuesday the show stays open from 5 to 7 pm for a reception.

The job placement center, also operated by AIP, will be located in the Brandeis Room on the third floor of the Boston Marriott. It will be open from 8 am to 5 pm Tuesday through Thursday. ■

MRS Sessions with Invited Speakers

Monday, 29 November

morning

Point defects. *Cohen, Simmons, Hehenkamp, Tan, Granato, Schober, Averbach*
 Ion beam processing. *Poate, Matsuda, Lynn*
 Beam-induced damage and recovery: Silicon. *Coffa*
 Atomistics. *Legally*
 Interface properties—fundamental understanding. *Tung, Wang, Wolf, Madar*
 Crystallization kinetics of viscous liquids: An overview. *Turnbull*
 Structure of glasses I. *Navrotsky, Sales*
 Silicide microstructures and deformation. *Umakoshi, Mitchell, Embury*
 Fullerenes and related materials: Formation and separation. *Cox, Smalley, Kaldor*
 Superconductivity: Bulk applications. *Daley, Schwall*
 Low-cost high-performance packages. *Lockwood, Wrisley, Brauer*
 Modulation spectroscopy and reflectivity. *Woodall, Swart*
 Defects in quantum wells and superlattices. *Dow, Monemar, Bryant*
 Epitaxy I. *Wang, Pfeiffer*
 MOCVD of nonoxide electronic ceramics. *Williams, Kaloyeros, Hoffman, MacInnes, Gordon*
 Complex fluids: Surfactant phases. *Strey, Porte, Roux*
 Electrical, optical and magnetic properties of organic solid state materials. *Garito, Stegeman, Whitesides, Friend, MacDiarmid, Marder*
 Infrared nonlinear optical materials and devices. *Byer, Schunemann*
 Bulk nonlinear optical crystals. *Keszler*
 Synthesis of nanostructures I. *Wrighton, Nielsen, Arnold, Hilvert*
 Tissue scaffolding and regeneration. *Mikos, Yannas*
 Overview—compendium of the characteristics of high-level nuclear waste glass. *Van Konynenburg, Barkatt, Cunnane, Sproull, Ebert, Bates, Feng, Bourcier, Wronkiewicz*
 Silicon and carbon systems I. *Smith, Coltrin, Jasinski, Gates*

afternoon

Diffusion. *Venables, Blakely, Martin, Wuensch*
 Beam-induced damage and recovery: Semiconductors. *Robinson, Williams*
 Interface and surface structure. *Williams*
 Silicon oxidation. *Doremus, Hattori, Lucovsky*
 Heterostructures I. *Rühle*
 Applications, contacts and devices. *Murarka, Clevenger, Pellegrini, Watanabe, Winner*
 Structural relaxation of glasses. *Spaepen, Stebbins*
 Silicide synthesis and processing. *Stoloff, Herman, Abbaschian*
 Fullerenes and related materials: Physical and structural properties. *Huffman*
 Superconductivity: Bulk I. *Bulaevskii, Larbalestier*
 Deposition and durability. *Korhonen*
 Ellipsometry. *Woolam, Irene*
 Defects and impurities in InP, SiGe/Si and related materials. *Oda, Bhat-tacharya, Hall*

Epitaxy II. *Bour*

Copper indium diselenide for photovoltaics. *Kanatidis, Basol, Noufi*
 Lamellar phases. *Israelachvili, Richetti*
 Patterns, instabilities and noise. *Weitz, Hohenberg, Lathrop*
 Conducting polymers I. *Epstein, Shacklette, Cava*
 Melt growth of laser crystals. *Kokta, Morris*
 High-power laser materials. *Krupke, Khattak*
 Synthesis of nanostructures I: Silks and other fibers. *Whitesides, Viney, Case*
 Genetic engineering of biomaterials, targeted drug delivery and biodegradable controlled-release systems. *Tirrell*
 Local spectroscopy and imaging. *Sarikaya, Stern, Kirz, Feenstra, Smith, Sidles, Paesler*
 Overview—state-of-the-art overviews of high-level waste glass characteristics. *McGrail, Clark, Barkatt, Wicks, Plodinec, Mazer, Grambow*
 Silicon and carbon systems II. *Memmert*
 Frontiers of materials research I. *Lannin, Bates*
 Ferroelectric materials. *Ainger, Erbil*

Tuesday, 30 November

morning

Grain boundaries. *Owen, Hirth, Merkle, Majid, Cahn, King, Seidman*
 Modification of the optical properties of materials by ion implantation. *Polman, Priolo, Haglund*
 Materials synthesis: Buried insulators and ion mixed layers I. *Hosack*
 Kinetic roughening. *Chason*
 Electrical properties: Metal-semiconductor contacts. *Ludeke, Reeves*
 Heterostructures II. *Ramesh*
 Fabrication and properties of iron silicides. *von Känel*
 Crystal nucleation. *Greer*
 Silicide mechanical behavior and problems. *Sadananda, Gibala, Suresh*
 Superconductivity and electronic structure I. *Haddon, Saito, Fink*
 Superconductivity: Fundamental mechanisms. *Scalapino, Goldman*
 Packaging materials and processes: Environmentally sound materials. *Shaw*
 Packaging materials and processes: New materials. *Harris*
 Doping and defects in III-V semiconductor materials for device applications. *Stillman, Tsang*
 Quantum wires and dots. *Jackson*
 Interfaces and composites. *Zeng*
 Membranes: Micelles. *Lubensky, Blankschtein*
 Granular dynamics. *Jaeger, Thompson, Levine*
 Molecular engineering I. *Wegner, Marks, Stupp, Forrest, Garnier, Yu*
 Nonlinear waveguide materials. *Bierlein*
 Up-conversion and visible laser materials. *Tropper, McFarlane*
 Synthesis of nanostructures II. *Seeman, Stoddart, Kim, McGrath, Engelman, Tirrell*
 Receptor-mediated cell adhesion, cell-biomaterial interactions and cell encapsulation. *Cooper, Bizios*
 Determining dynamic properties at nanoscale. *Howe, Israelachvili, Parkinson*