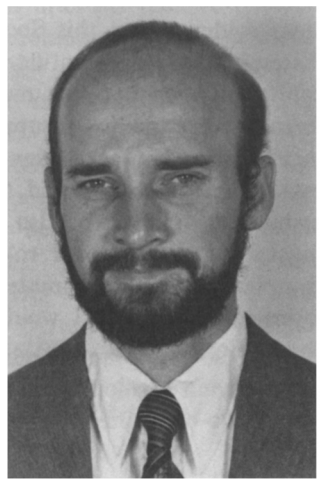
SHORT COURSES

Nine Short Courses At The Fall Meeting Of The MRS Will Cover A Broad Range Of Materials Research Techniques

The curriculum of an expanded offering of nine short courses to be offered in connection with the MRS Fall Meeting in Boston has been set. Education Committee Co-chairman David M. Zehner, Oak Ridge National Laboratory, offers this report:



DAVID ZEHNER

Purpose of Courses

"The short-course program is designed to provide an introduction to the science and technology that will be presented at the Society's Fall Meeting. The courses will benefit those working in areas related to materials science and engineering. Both one- and two-day courses will be offered, covering a broad range of materials research techniques."

The courses will be offered Friday and Saturday, Nov. 30-Dec. 1, at the conclusion of the Annual Meeting. Each will be taught be an authority in the field.

Member Suggestions

"The topics selected reflect primarily the suggestions we received from members attending MRS meetings, notably last year's Fall Meeting," Dave relates. "Immediately after that meeting, where three courses were offered, we realized that the scope would have to be substantially broadened to serve participants best. Indeed, strong interest was expressed in several areas we were not able to offer courses in this year, basically because scheduling commitments made it impossible to obtain the best faculty. We expect that such areas will be available next year, as every indication is the short courses are extremely popular and useful, and will continue to grow in number, variety, and quality."

The Short Courses

The courses to be offered, and their instructors, are:

- "Surface and Thin Film Analysis," L.C. Feldman, AT&T Bell Laboratories, and J.W. Mayer, Cornell University. Nov. 30-Dec. 1.
- "Ion Beam Modification of Non-semiconductors," J.K. Hirvonen, Zymet, Inc. Dec. 1.
- "Ion Implantation and Rapid Thermal Annealing," T.E. Seidel, AT&T Bell Laboratories. Nov. 30.
- "Liquid Phase Epitaxy Techniques," L.R. Dawson, Sandia National Laboratories. Nov. 30-Dec. 1.
- "Vapor Phase Epitaxy," H.M. Cox, Bell Communications Research. Nov. 30.
- "Molecular Beam Epitaxy," C.E.C. Wood, GEC Hirst

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HYDROTHERMAL

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The Second International Symposium is being planned to follow the same pattern by included both invited and contributed papers from scientists of diverse disciplines who have a common interest in hydrothermal reactions. These include geochemists, crystal growers, hydro-metallurgists, materials scientists, physical chemists, and others. If necessary, attendance from the host country may be limited to preserve the valuable strong international flavor of past symposia.

Symposium Organizers

The symposium is being organized by co-chairmen H.L. Barnes, Department of Geosciences, The Pennsylvania State University, and R.A. Laudise, Physical and Inorganic Chemistry Research Laboratory, AT&T Bell Laboratories. International advisers are Professor E.U. Franck, Institut für Physikalishe Chemie und Electrochemie, Universität Karlsruhe; Professor I.L. Khodakovsky, Vernadsky Institute of Geochemistry and Analytical Chemistry, Moscow; Dr. R.E. Mesmer, Chemistry Division, Oak Ridge National Laboratory; Professor K.S. Pitzer, Department of Chemistry, University of California, Berkeley; Professor Shigeyuki Somiya, Hydrothermal Synthesis Laboratory, Tokyo Institute of Technology, and Dr. H.S. Yoder Jr., Geophysical Laboratory, Carnegie Institution of Washington.

Sponsorship

In addition to the Materials Research Society, sponsorship has been arranged from the International Association on Geochemistry and Cosmochemistry, and the International Association for the Advancement of High Pressure Science and Technology. Sponsorship is expected from the International Organization of Crystal Growers, the International Association for the Properties of Steam, and the International Union on Pure and Applied Chemistry.

The symposium, to be held in the Conference Center of The Pennsylvania State University, follows a Gordon Conference on Inorganic Geochemistry of Mineral Deposits scheduled for Aug. 5-9 in New England.

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BOSTON IN BRIEF

An Overview Of What's On Tap For The Society's Best-Ever Meeting For Materials Science Professionals

The largest, most comprehensive, and most exciting gathering of materials professionals is the 1984 Annual Meeting of the Materials Research Society. In a thumbnail, the program appears below.

The program will include 17 technical symposia, nine short courses, a Plenary Session, and the award of the most prestigious honor in materials science, the Arthur Von Hippel Award. The meeting also will feature a new equipment exhibition and a job placement center.

The meeting will be held Nov. 26-30 at the Boston, Massachusetts, Marriott Hotel/Copley Place. The short courses will be offered Nov. 30-Dec. 1.

SYMPOSIA

Chairing the meeting are Paul Peercy, Sandia National Laboratories, Walter Brown, AT&T Bell Laboratories, and Jagdish Narayan, Oak Ridge National Laboratory. They report that the following symposia will be offered:

- "Energy Beam-Solid Interactions and Transient Thermal Processing,"
- "Laser Chemical Processing of Semiconductor Devices,"
- "Impurity Diffusion and Gettering in Semiconductors,"
- "Layered Structures, Epitaxy, and Interfaces,"
- "Catalysis by Solids: Bulk Properties, Surface Properties, and Defects,"
- "Plasma Synthesis and Etching of Electronic Materials,"
- "High Temperature Ordered Intermetallic Alloys,"
- "Hydrogen in Metals: Physics, Metallurgy, and Engineering Approaches,"
- "Intercalated Graphite,"
- "Electronic Packaging Materials Science,"
- "Advanced Photon and Particle Techniques for Characterization of Defects and Defect-related Reactions in Solids,"
- "The Potential for Very High Strength Cement-based Materials,"
- "Coal Combustion and Conversion Wastes: Characterization, Utilization, and Disposal,"
- "Scientific Basis for Nuclear Waste Management,"
- "Alloy Phase Diagrams,"
- "Fractal Aspects of Materials: Metal and Catalyst Surfaces, Powders, and Aggregates," and
- "Frontiers of Materials Science."

PLENARY SESSION

Dean E. Eastman, co-chairman of the Major Materials Facilities Committee of the National Academy of Sciences, will report the Committee's recommendations, which will influence the future growth of key materials laboratories supported by the United States.

SHORT COURSES

Nine one- or two-day short courses have been scheduled. They are:

- Surface and Thin Film Analysis
- Ion Implantation Into Metals
- Ion Implantation Into Semiconductors
- Liquid-phase Epitaxy Techniques
- Molecular Beam Epitaxy
- Chemical Vapor Deposition
- Vacuum Technology
- Pumping Hazardous Gases
- Modern Analytical Techniques in Corrosion Research

EQUIPMENT SHOW

The interest of the materials community in an equipment exhibit uniquely relevant to its disparate needs has at last been met by the MRS's new Equipment Show. Among the organizations expected to participate are Air Products and Chemicals, Digital Equipment, EG&G ORTEC, Harshaw/Filtrol, Helionetics, Hitachi Scientific Instruments, JEOL/USA, Modern Instrumentation Laboratory, Perkin-Elmer/Physical Electronics, and Philips Electronic Instruments.

VON HIPPEL AWARD

A highlight of the MRS Annual Meeting is the presentation to an outstanding materials scientist of the Society's Arthur Von Hippel Award. The Award is named for the Emeritus Professor of the Massachusetts Institute of Technology whose laboratory pioneered the collaborative, interdisciplinary research that subsequently has taken the identity of "materials science."

JOB PLACEMENT SERVICE

This year for the first time, a meeting room at the conference hotel will be dedicated to this activity.

SHORT COURSES

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Research Centre. Nov. 30-Dec. 1.

- "Vacuum Technology," M.H. Hablanian, Varian Vacuum Division. Nov. 30-Dec. 1.
- "Pumping Hazardous Gases," D.B. Fraser, AT&T Bell Laboratories. Nov. 30.
- "Modern Analytical Methods in Corrosion Research," L.W. Hobbs, Massachusetts Institute of Technology; F. Pettit, University of Pittsburgh; J. Lumsden, Rockwell International Science Center, and D. Mitchell, National Research Council of Canada. Nov. 30-Dec. 1.