

MRS Contribution to the Materials Science and Engineering Study

The Materials Science and Engineering Study commissioned by the National Research Council is now firmly under way in its quest to develop and present a unified view of recent progress and new directions in this diverse field. The last time an effort of this magnitude was made for materials was early in the last decade. The result was the COSMAT Report which was released in 1974. The announced scope of the present Study is widespread, as can be seen from the description of its component panels on the following pages of this issue of the BULLETIN. (See "MRS Responds to MSE Study Invitation.") The Study will obtain information concerning many aspects of materials science and engineering from academia, government agencies, national laboratories, and a variety of major industries. In addition, the co-chairs of the Study, Praveen Chaudhari of IBM and Merton Flemings of MIT, have decided to solicit input from materials-related technical societies whose membership includes practitioners of education, research, development, and engineering in materials fields.

The Materials Research Society is responding to the invitation of Chaudhari and Flemings by sponsoring two distinct, but related, projects. The first project will



Gordon E. Pike

be the publication of a book titled **Communications on the MSE Study**. This book is intended to be a conduit of information from our constituency directly to the Study members. Its purpose is to bring issues of concern to the attention of the Study in a form unfiltered by institutional political considerations. The timeliness of this book for maximum impact on the Study has dictated a deadline date for contributed papers of September 8, 1986. This date will also permit copies of the book to be available to MRS Fall Meeting attendees.

Our second sponsored project will be a "Forum on the MSE Study" to be held at our Fall Meeting in Boston this coming December. Papers for oral presentation at this Forum will be selected from those submitted for the book. The Forum will also permit each Study panel to report on its preliminary findings. Bill Appleton, Director of the Solid State Sciences Division at Oak Ridge National Laboratory and a former MRS vice-president, will chair this Forum. Praveen Chaudhari has kindly agreed to serve as the Study Representative. With this Forum we intend to highlight some of the issues raised, and hope to elicit stimulating and insightful comments from our meeting attendees on topics of importance to the Study.

Both the Communications book and the Forum have been designed to permit maximum participation of the MRS membership in the Materials Science and Engineering Study. The Forum will also provide an opportunity to learn about preliminary findings. Instructions for participating in these two MRS projects, plus a description of the Study itself, are given in the following pages. I encourage MRS members, and nonmembers, to take advantage of these unique opportunities.

Short Courses in Materials Sciences

October 1-3, 1986

Hodgin Hall, University of New Mexico
Albuquerque, New Mexico

The Materials Research Society and the Chemical and Nuclear Engineering Department of the University of New Mexico are cosponsoring two intensive three-day short courses.

Characterization of Powders and Porous Materials

This course is intended for the scientist and engineer involved in materials production, research, or development of powders and/or porous materials. Emphasis will be on analyzing information from current characterization techniques and on reviewing the most recent developments in characterization technology. Application of characterization techniques to ceramics, powder metallurgy, catalysis, and thin films will be discussed and demonstrated using the facilities of the University of New Mexico Powders and Granular Materials Laboratory.

Instructors: Douglas M. Smith, Joan E. Shields, Abhaya K. Datya, Moshen Shaninpoor.

Plasma Modeling, Pattern Transfer, and Nonintrusive Plasma Diagnostics for IC Fabrication

This course is intended for the scientist and engineer involved in the research and development of plasma processing techniques for microelectronic applications. The course will serve both as a tutorial on the state of the art in plasma diagnostic tools and as a practical guide to the use of these novel tools in plasma process characterization. It would be beneficial for the participant to have a basic familiarity with the energy transfer and kinetic processes occurring in glow discharges and with the technology of pattern transfer. Emphasis will be on acquainting professionals with the rapid developments occurring in the characterization of the reactive plasma environment.

Instructors: Harold M. Anderson, Ron W. Light, Alan C. Stanton, Steve Brueck.

For detailed short course brochure, contact:

Materials Research Society, 9800 McKnight Road, Suite 327, Pittsburgh, PA 15237, (412) 367-3003

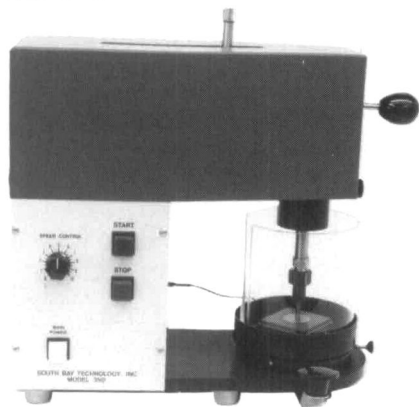
MATERIALS PREPARATION

FOR TEM SAMPLES AND FOR CRYSTALS

... AND OTHER DELICATE MATERIALS

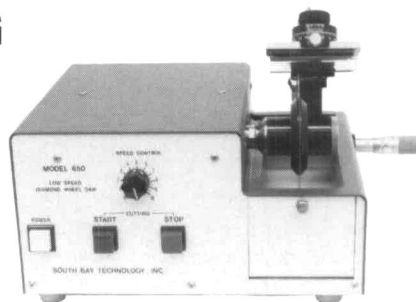
CUTTING DISCS

with
MODEL 350
Abrasive Slurry
Drill

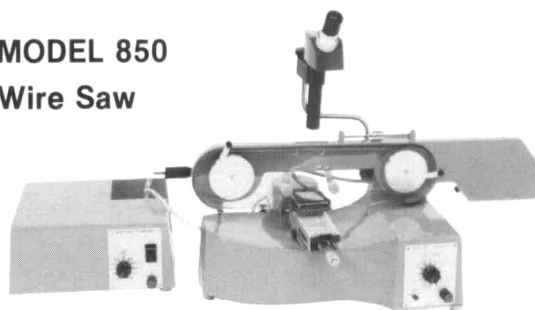


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Diamond
Wheel Saw

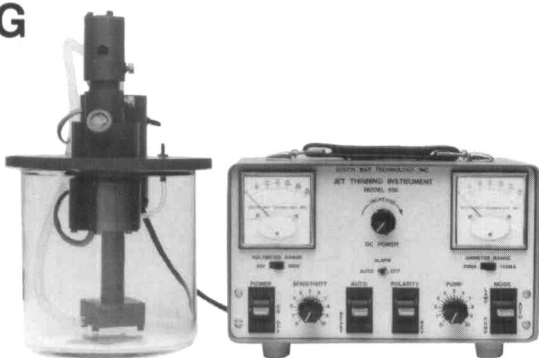


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Wire Saw

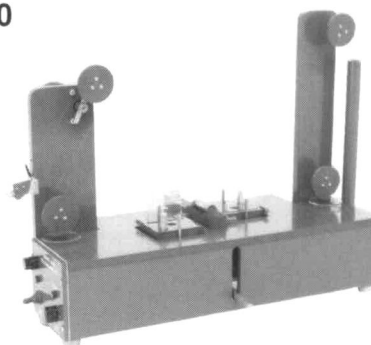


THINNING

with
MODEL 550C
Jet Thinning
Instrument



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Acid Saw



DIMPLING

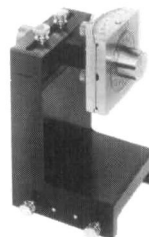
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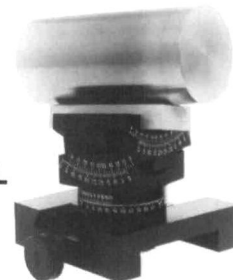
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