

### **Fifth Workshop to be Held on Tungsten and Other Refractory Metals for VLSI Applications**

The fifth Workshop on Tungsten and Other Refractory Metals for VLSI Applications will be held October 4-6, 1988 in Albuquerque, New Mexico. The workshop is sponsored by Continuing Education in Engineering, University Extension, University of California, Berkeley, and Sandia National Laboratories. This series of workshops has been organized to bring together active researchers in the field of refractory metals for advanced IC applications. A one-day short course on CVD Tungsten Technology will precede the workshop.

The 1988 workshop will consist of single-session presentations of invited and contributed papers on LPCVD modeling and deposition techniques, deposition kinetics (especially silane/WF<sub>6</sub> deposition chemistry), effect of CVD gas chemistry and impurities on selectivity, film properties, film/substrate interaction, refractory metal gates and interconnects, contact plugs and via fills, refractory metal gates and interconnects, diffusion barriers/etch barriers, adhesion of blanket tungsten to oxides, etching and patterning of tungsten and refractory metals, selectivity determinants and mechanisms, deposition equipment, and reliability of devices with tungsten elements. A complete proceedings volume will be published by the Materials Research Society.

For information contact: Continuing Education in Engineering, University Extension, University of California, 2223 Fulton Street, Berkeley, CA 94720; telephone (415) 642-4151.

### **Auburn University to Host 1988 Alabama Materials Research Conference**

The 1988 Alabama Materials Research Conference, an annual event hosted by different Alabama universities each year, is scheduled for October 12-13 at Auburn University. The conference is financially supported by the State of Alabama and the U.S. National Science Foundation with the objective of stimulating materials research. Topical sessions will include both oral and poster presentations and will span composite and electronic materials, materials processing, and surfaces and defects. In

addition to a special student session and an open session, there will be a workshop on "Microstructure Modeling of Composites." Dr. L.V. Azaroff, director of the Materials Science Institute, University of Connecticut, will give the distinguished lecture on "Frontiers in Materials Research." Dr. D.R. Srolovitz, University of Michigan, will give the keynote talk on "Supercomputer Applications in Materials Research."

For information about attending or participating, contact: R.C. Wilcox, Auburn University, telephone (205) 826-4820; or R.G. Thompson, University of Alabama at Birmingham, telephone (205) 934-8450.

### **Ceramics Symposium to Focus on Characterization Techniques Used Traditionally in Non-Ceramics**

The technical program has been finalized for the symposium on Advanced Characterization Techniques for Ceramics, to be held October 23-26, 1988 in San Francisco. Organized jointly by the Materials Research Society and the Electronics Division of the American Ceramic Society, the symposium will focus on experimental characterization techniques developed for and used traditionally in non-ceramics fields but which are now beginning to find applications in ceramic materials.

The three-day symposium will explore a broad variety of approaches to characterization. Five topical sessions will span shallow subsurface techniques, bulk structure and composition, organic and green body characterization, TEM and microprobe, and optical techniques. The keynote session will feature overview tutorials by R.J. Blattner (Charles Evans & Associates) on "The Top 10,000A of Ceramics" and by M. Sarikaya (University of Washington) on "New Microscopies in Ceramics."

Invited speakers will provide advanced tutorial introductions to each session, detailing particularly useful techniques based on their personal experiences with ceramic materials. Each afternoon session will conclude with a literature exhibit of instrumentation and services spanning the characterization techniques pertinent to the symposium. Participants will be able to use the exhibit to further their understanding of techniques, sample preparation, and date analysis, as well as to learn about the availability of hardware and services.

**Special registration prices are available**

for MRS members. Complete program and registration and housing forms appear in the August and September issues of *Ceramics Bulletin*, published by the American Ceramic Society. For additional information, contact: Gordon Pike, Division 1815, Sandia National Laboratories, Albuquerque, NM 87185; telephone (505) 844-7562.

### **Oxford Conference on Microscopy of Semiconducting Materials Issues Call for Papers**

Papers are being solicited for the sixth in a series of biennial conferences on "Microscopy of Semiconducting Materials," to be held at Oxford University, United Kingdom, April 10-13, 1989. Organized under the primary auspices of the Royal Microscopical Society and cosponsored by the Materials Research Society, the conference will focus on the latest developments in the application of transmission and scanning electron microscopy to the study of the structural and electrical properties of semiconductors. Recent advances in the use of other microcharacterization techniques such as x-ray topography, atom probe microanalysis, scanning tunneling microscopy, and ion backscattering spectrometry will also be featured. The materials of interest cover the complete range of elemental and compound semiconductors. In addition, work on other solid-state electronic materials, particularly the new high T<sub>c</sub> superconductors, may be included.

The main subject areas to be covered include the characterization of as-grown semiconductors, the study of lattice defect and impurity behavior, and the investigation of the effects of semiconductor processing treatments. Special conference sessions will concentrate on recent advances in high resolution transmission electron microscopy studies, the growth of epitaxial layers and superlattices, semiconductor microanalysis, the effects of transient and conventional processing, and beam testing of finished devices.

The abstract deadline is **December 1, 1988**. For information about abstract submission and registration, contact: A.G. Cullis, Royal Signals & Radar Establishment, St. Andrews Road, Malvern, Worcs. WR14 3PS, U.K., telephone 684-892733, ext. 2509; or The Administrator, Royal Microscopical Society, 37/38 St. Clements, Oxford OX4 1AJ, U.K., telephone 865-248768. □