Research Resources

A summary of new products and services for materials research. . .

X-Ray Microanalyzer: New instrument allows simultaneous measurement of x-ray fluorescence, x-ray absorption, and electron density from micron-sized material samples. Primary advantages of the device are: x-rays with an effective beam diameter as small as 15 microns; detection of very low concentrations of elements (detection limit is 40 picograms of gold); nondestructive imaging of layers or structures beneath the sample surface; and examination of biological and nonconductive materials without the need for a conductive film or vacuum atmosphere. Glenn W. Kuswa, Technology Transfer and Management Department 4030, Sandia National Laboratories, Albuquerque, NM 87185-5800; telephone (505) 846-4945.

Surface Force Analyzers: Automated Wet-Tek surface force analyzers provide absolute surface wettability and contact angle measurements of fibers, paints, adhesives, and other materials. Reliable measurements are expressed directly in dynes/cm^2 (surface tension) or degrees (contact angle), eliminating the need for subjective visual interpretation. Cahn Instruments, Inc., 16207 S. Carmenita Road, Cerritos, CA 90701; telephone (800) 423-6641.

Electron Microscopy Equipment: Comprehensive 200-page catalog, "Preparation Technology for Electron Microscopy," is a complete desk reference for electron microscopy laboratory equipment, accessories, tools, and supplies. Divided into 15 categories, it features over 2,000 items, from starter kits and optical instruments to SEM and TEM accessories, and ion etching units. Balzers, 8 Sagamore Park Rd., Hudson, NH 03051; telephone (603) 889-6888.

Center for Aerosol Processes: Established at the University of Cincinnati, the Center will collaborate with industries and government research agencies in the manufacture of optical fibers, ceramic powders, advanced ceramics, and thin films for microelectronics. The Center's goal is to develop innovative processes for manufacturing high technology materials and to place their fabrication on a firm design basis. Center for Aerosol Processes, University of Cincinnati, OH 45221; telephone (513) 475-5658.

LC Fluorescence Detector: Featuring a highly efficient optical system, the compact LC/9524H detector can be used for compounds with natural fluorescence and for compounds derivatized with tagging reagents. The unique split-beam 90° optical system and a high-purity fused silica sample cell creates an efficient optical path. The improved optics and electronics compensate for source intensity variations. Ease of use makes the LC/9524H especially suitable for routine fluorescence detection. IBM Instruments, Orchard Park, P.O. Box 3332, Danbury, CT 06813; telephone (800) 243-7054.

Gold Alloys for GaAs Ohmic Contacts: Special series of gold alloy sputtering targets and evaporation charges is designed to improve performance of GaAs devices. The series includes the best compositions of Au-Ge, Au-Sn, and Au-Sb alloys to minimize contact resistance to GaAs. These alloys and evaporation charges are available to fit all systems. Materials Research Corporation, Orangeburg, NY 10962; telephone (914) 359-4200.

Portable Image X-Ray Intensifiers: PIXI units with phenomenal gain and spatial resolution provide rapid alignment of x-ray optics and can be used for real time x-ray imaging. Digital interfaces for computer image processing are also available. Brimrose Corporation, 7720 Belair Rd., Baltimore, MD 21236; telephone (301) 668-5800.

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