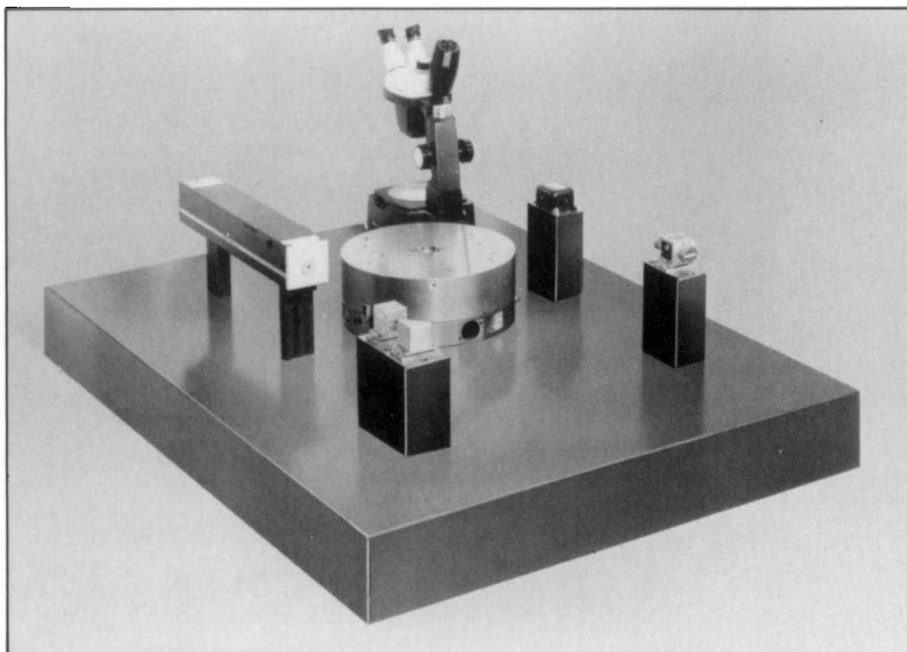


RESEARCH RESOURCES

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



Composite Optical Tables and Supports



Noncontact Superconductor Screening System

Noncontact Superconductor Screening System: Model 750SCK kit, designed for researchers seeking a cost-effective means of rapid superconductor sample screening, contains the components necessary to adapt a wide range of existing cryogenic systems for rapid screening. The kit can easily be adapted to closed refrigerator systems, liquid cryogen dewar systems, or continuous flow cryogenic systems from most third-party manufacturers. Kit consists of a temperature controller, eddy current electronics option card, oscillator circuit, excitation/sensing coil assembly, operating software, interconnecting cables, and complete instructions. Lake Shore Cryotronics, Inc., 64 E. Walnut Street, Westerville, OH 43081; (614) 891-2243.

Composite Optical Tables and Supports: Precision optical, ultraflat tables and supports, made from Anonite™ polymer composite, offer a nonreflective surface in a wide range of sizes and can be cast to precise flatness tolerances. The surface can also be made with the same magnetic permeability as 410 stainless steel. Tables can be supplied with stainless steel threaded inserts at a 1-in. grid across the entire surface or at requested locations. The threaded inserts are mounted in the mold, and the composite is poured around them making them an integral part of the finished table. Other components, such as wire and cable channels, and cooling channels, can also be molded in, reducing the need for additional machining. Because the composite material acts as an insulator, any components that generate heat (such as motors, lasers, and power supplies) and are mounted on or near the table will not affect the optical components, resulting in complete, accurate component alignment. Anorad Corp., 110 Oser Ave., Hauppauge, NY 11788; (516)231-1995.

Magnet Power Supplies for Superconducting Magnets and Electromagnets: New series of Magnet Power Supplies (MPS) features four-quadrant bidirectional power flow while maintaining a low-noise, high-stability, current-regulated output. Output current reversal is smooth and continuous through zero; no current reversal switch is required. Energy stored in magnet is returned to the ac line instead of being dissipated in an energy absorber.

Active power factor correction minimizes line harmonics and lowers the ac input current required to support the high output power levels. Model 612 MPS, for use with superconducting magnets, offers a ± 125 A, ± 30 V dc output with an apparent power output rating of 1 KVA continuous. Model 637 MPS, for use with electromagnets, has a ± 75 A, ± 32 V output rated up to 2.3 KVA continuous. Both units offer 0.001% current stability into an inductive load and 0.01% voltage stability into a resistive load. Output current PARD (ripple and noise) is less than $10 \mu\text{A}$ into a 1 Henry load, while output voltage PARD is less than 5 mV peak to peak. Overvoltage protection is standard on both units. Lake Shore Cryotronics, 64 East Walnut St., Westerville, Ohio 43081; (614)891-2243.

Indium and Related Products: Catalog details the company's high purity indium and related products for semiconductor applications. Includes practical information about new products based on indium, its enhanced fabrication capabilities, increased capacity and available purity levels, including 7N (99.99999), 6N5WCI (with controlled impurities), 6N5, and 6N. Available products include epitaxial sources, bulk ingots, shot, doped indium pellets, indium trichloride, and other inorganic chemicals. Indium Corporation of America, P.O. Box 269, Utica, NY 13503; (315)797-1630.

Energy Dispersive X-Ray Analyzer: Engineered to be cost effective in a variety of SEM/TEM applications, analyzer combines state-of-the-art hardware, software, and accessories to achieve accurate results. A portable console prompts step-by-step, single-key operation through the entire analytical procedure. A two-line LED display enables the operator to establish conditions of data collection and analysis without referring to the video screen, permitting quicker set-up time and reducing the possibility of operator error. A split screen enables an operator to examine selected segments of the spectral display channel-by-channel; a Dynastatic Display affords direct comparison of a stored spectrum with an accumulating one; and a high-resolution video monitor provides resolutions of 512×400 pixels and up to 16 colors or 256 grey levels. Detectors vary from standard solid state Si(Li) units to the ECON series light element units featuring ultrathin window and innovative windowless designs. A broad range of applications software is available. EDAX International, 85 McKee Drive, Mahwah, NJ 07430; (201)529-4880. □