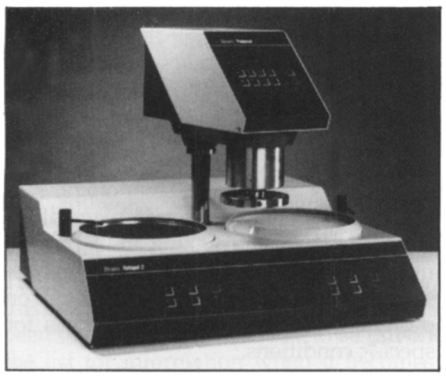
A summary of new products and services for materials research . . .



Benchtop Materialographic Sample Preparation: Unlike other benchtop sample preparation systems, Struers' Rotopol-Pedemat™ eliminates "dummy" specimens, reducing wasted consumables and time. The unit offers the flexibility to prepare diverse materials and easily accommodates fluctuations in sample volume. Its unique interrupt-inspect-restart capability allows a sample to be removed, inspected, and returned for further processing while remaining in plane so that individual specimens can be prepared to a desired finish. The system can accommodate mounted or unmounted samples in metric or English measure. Multiple specimens can be prepared in a standard holder or individually under pressure-pad feet.
Circle No. 53 on Reader Service Card.

Superconductivity Journal: Quarterly *Superconductivity Review* published by Gordon and Breach covers important aspects of the field of superconductivity, ranging from fundamental to applied topics and including both theory and experiment. Each individual issue presents comprehensive views recognizing the interdisciplinary nature of research in the field, as well as a survey of the current literature.
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Video Measurement: Free four-page color brochure from Nikon details the capabilities of the easy-to-use, high-performance VM-1 video measuring system. The VM-1 allows operators to automatically locate, align, and measure parts. Fully automated, it gives reproducible measurements for either aligned or randomly oriented parts. The system uses a Nikon MM-22 measuring microscope with a highly accurate programmable stage, machine vision hardware, and VM-1 software for measuring and analyzing parts.
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Solder Data Sheets: Indium Corporation's free series of seven product data sheets will help engineers and designers select the appropriate solder for their surface mount applications. The data sheets include product descriptions and application notes for no-clean solder paste, water-soluble pastes, and paste for fine-pitch printing.
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X-Ray Analysis of Thin Films: Free application notes from Siemens about using x-ray diffraction to study thin films are a resource for anyone working in this field. A four-page note describes how the company's D 5000 x-ray diffractometer was used to evaluate the degree of structural order and epitaxial quality of high T_c superconducting thin film cuprates on single-crystal substrates. A six-page note explains how to obtain 3-D characterization of epitaxial thin films using the D 5000 and P3 software. Five other one-page notes explain how to determine lattice mismatch and composition of a single ternary epitaxial layer, two quaternary epitaxial layers, a single thin SiGe epitaxial layer, highly strained multi quantum wells, and carry-over of As from the GaAs layer into the InP layer.
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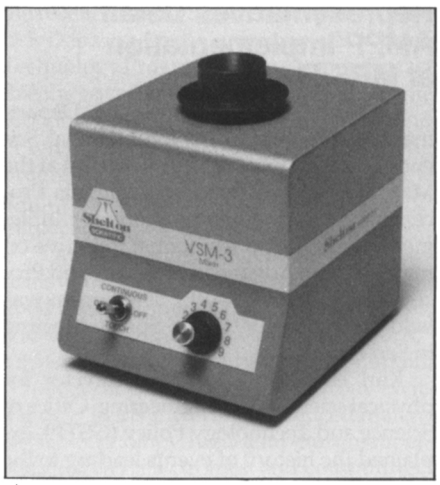

Variable Speed Vortex Mixer: Shelton Scientific's VSM-3 provides true vortex-action mixing of liquids in laboratory vessels of varying shapes and sizes. Designed for one-hand operation, its settings offer both continuous operation and touch start and stop, while a variable speed control allows for low to high settings of vortex action. The unit is equipped with a cap for single test tubes, as well as a 3-in. platform head for beakers, flasks, and multiple test tubes.
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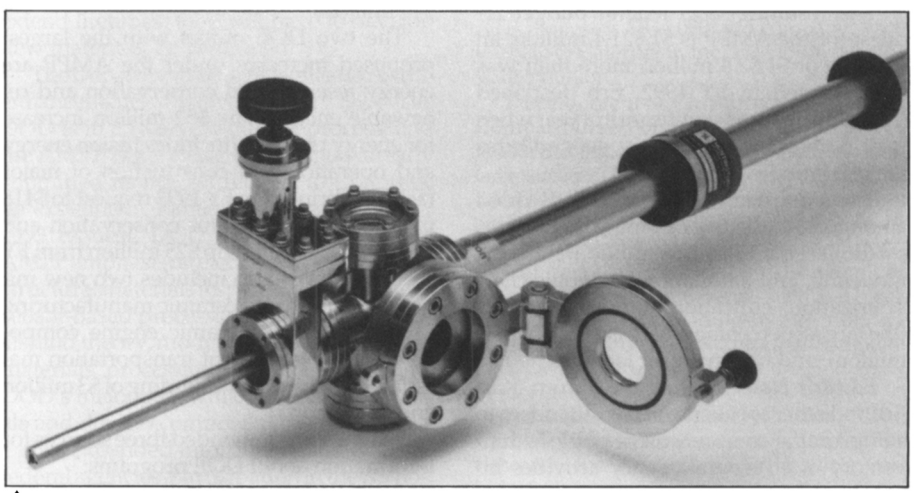

Vacuum Load Locks: Huntington Laboratories' load lock assemblies for vacuum systems will accommodate up to 7.75-in. diameter samples. A range of system sizes and configurations is available, and each contains a six-way cross, viewport, access door, manual gate valve, and magnetic coupled rotary/linear transfer rod allowing 25 lb axial force. Magnetic transfer devices with axial forces from 2 to 200 lb are also offered. Options include a six-way cube in place of the six-way cross and a pneumatic valve in place of the manual gate valve. Type 304 stainless steel load locks will quickly transfer samples from atmosphere to ultra-high vacuum. The modular systems can be mounted on any plane and are bakeable to 200°C.
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