

RESOURCES

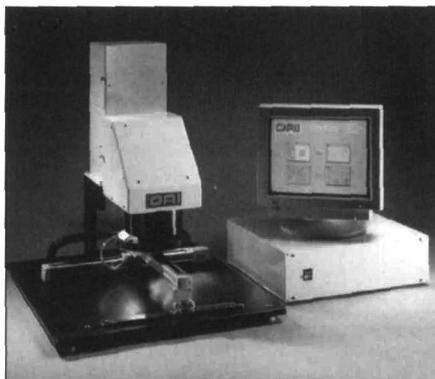
A summary of new products and services
for materials research...

High-Temperature Automatic Refractometer: Topac's DUR, from Schmidt & Haensch, is a microprocessor-controlled high-temperature refractometer covering the full Abbe range of refractive index—1.33000 to 1.70000. Refractive index measurements can be made at temperatures up to 80°C, with a precision of 0.00002 index. Operation is fully automatic, and the analysis can be displayed or downloaded to a PC or printer.
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Virtual Instrument Drivers: Free virtual instrument drivers from International Light allow users to control the functionality of IL1700 and IL1400 research radiometers from within the LabVIEW® (4.0 or higher) application program to create custom applications. With the drivers, users control the ability to graph the signal or integrated readings, adjust the zero level, and log time stamped data in a tab delimited spreadsheet file. For those who do not own LabVIEW, a fully compiled run-time version bundled with a limited version of the program is available to run on Windows 95/NT.
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Vacuum Equipment Catalog: Free 12-page catalog from MV Products describes vacuum inlet traps and oil exhaust mist eliminators. Featured are the MULTI-TRAP® high-capacity high-conductance vacuum inlet trap offered in five standard models with varying filtration capacities; VISI®TRAP single filter element trap with a transparent sump; and POSI-TRAP® to ensure positive flow. The catalog includes specifications and drawings for each product.
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FTIR Sample Stage: Lab Connections' Multitrack FTIR Sample Stage for the LC-Transform 500 series of chromatography and spectroscopy interface systems scans up to 10 chromatography runs per plate. Included are a control module, a beam condenser/reader with XY motion, and Windows® 95 software. The LC-Transform deposits the samples onto a germanium plate, and after transfer to the reader, they are automatically positioned in the spectrometer's beam and scanned in succession. Then the sample stage collects a series of spectra for each sample, and files them into separate folders on disk.
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Stepper Lithography Simulation Tool: The SIM-3300 from Optical Associates is designed for 248 nm DUV photoresist testing but can be adapted for NUV also. The system includes a light source, precision stage, feedback circuitry, intensity controller, and menu-based software. Users set the lithographic conditions and measure the photoresist response. The tool is suitable for wafer fabrication and use in research facilities needing to develop a DUV process.
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Instrumentation Catalog: Leybold Inficon's 270-page catalog features *in situ* analyzers and sensors for semiconductor, thin film, and other manufacturing processes; helium and halogen leak detectors for vacuum and AC/refrigeration applications; vacuum gauges for total pressure measurement; and vacuum components. New products include Transpector® 2 Gas Analysis System, LES1200 Thin Film Metrology Sensor System, Sky™ Ceramic Capacitance Diaphragm Gauge, MODUL200 Helium Leak Detector, and Composer™ Gas Concentration Controller.
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Static-Eliminating Ionizers: NRD's Staticmaster® ionizers remove static by neutralizing static charges, as well as eliminating dust accumulation and fly-away powders. Models 1U400 and 2U500 remove static in balance chambers and can be used on the balance floor or wall in close proximity to the balance pan. The BF2-1000 provides 360° ionization to eliminate static as membrane filter samples and weighing vessels are passed through the opening in the ionizer and into the balance chamber.
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Imaging Spectrometers: The TRIAX series of spectrographs from Instruments SA are available in focal lengths of 190, 320, and 550 mm. They feature an on-axis triple grating turret that allows flexibility in the choice of gratings for optimum resolution and spectral ranges. The large flat image field (30 mm wide × 12 mm high) accommodates large area detectors.
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Scanning Acoustic Microscope: Micro Photonics' ICAM microscope features a high-speed drive that can achieve a reciprocating speed of 12 lines per second on a scan area of 25 × 25 mm. The instrument can inspect packages at high speeds without excessive vibration while generating real-time images. A scan of 1 in. square with 250 × 250-pixel resolution takes 20 s to perform. A 25-MHz transducer produces a tight focal spot, permitting imaging of features such as packages with 1 mil bond wires and wire sweep evaluation in packages with high-density heat sinks.
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IR Temperature Measurement Devices: Mikron Instruments offers three types of IR temperature measuring instruments. The TH5104, which combines the versatility of a high-performance imager with the portability of a battery-powered field instrument, can store up to 150 images on a PCMCIA card for later analysis. The M90BT features through-the-lens sighting and variable focusing, with a temperature range of -50 to 1000°C. The Series M100 laser-aiming IR thermometers are hand-held battery-operated instruments that use a laser beam to pinpoint the target from a distance; temperature readings can be stored internally for later review.
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Semiconductor Measurement Software: MSI Electronics offers Windows®-based software for use with programmable C-V meters to measure semiconductor properties. When used with the HP Model 4280A, C-V plots and doping profiles of GaAs, InP, GaN, and wafers of other compounds as well as silicon are readily made to mercury or deposited metal Schottky contacts. Measurement data and the displayed graphics can be stored by date and lot or run number for later recall. Up to three plots can be displayed on one screen.
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