

RESOURCES

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

Wide-Magnification-Range Microscope: Nikon's Eclipse E800 provides sharp images over a magnification range of 5× to 3000×. Users can capture images in film, digital, and video formats. The instrument uses the CFI60 optical system and offers observation field up to 50 mm in diameter. More than 40 objectives are available.

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Low-Pressure Plasma System: PLASMAtech's V55-GKM is designed for surface activation of plastics for adhesion of paint, ink, and foam, as well as removal of organic contamination. Features include microwave excitation (2.45 GHz) for efficient plasma discharge, electrode-free aluminum chamber, and microwave coupling. Optional rotating drum for bulk parts treatment provides variable rotation from 0–5 rpm.

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Physical Property Database: Renaissance Data Pro™ from Renaissance Software offers PC and network users access to constants and correlations of the AIChE DIPPR® physical property database. Users can perform combination searches on any part of a chemical's name, synonym, formula, structure, or CAS number to access compound information. A multiproperty search option facilitates searches for compounds with specific properties required for an application or to identify unknown compounds.

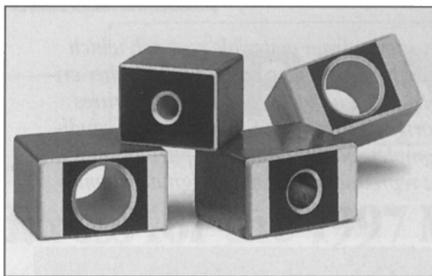
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High-Speed Camera System: Adaptive Optics Associates' Desktop KineView™ is a complete system that includes a 1,000-frames/s digital video camera with separate camera head, a Pentium™ computer, and software. The digital buffer allows instant playback and analysis. A flexible triggering system will stand by for seconds or days and can record events before the trigger occurs. Images can be stored to disk, external VHS tape, or digital tape. Options include additional memory, liquid crystal shutter, and multisystem synchronization signaling.

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Specialty Gas and Equipment Catalog: Free catalog from Spectra Gases describes and provides specifications for excimer laser gases, halogen gas pre-mixes, xenon, krypton, neon, deuterium, helium-3, and other gases. Also highlighted are laser gas safety cabinets, halogen scrubber systems, toxic gas detectors, and automatic and manual gas handling systems.

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EMI Filter Material: Parite™ from Paracon® provides up to 1,000 times more filtering than ferrite. The homogeneous crystalline material for cable and connector applications simultaneously forms both the magnetic core of a single turn inductor and the dielectric for coaxial capacitors. A line of D-subminiature backshells and custom overmold preforms using the filter system is available.

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UV Flood Lamp: Spectronic's Spectroline® UV-400 SuperFlood™ lamp offers a high level of uv irradiance for nondestructive testing. The 400-W uv bulb produces a steady-state uv-A (320–380 nm) intensity of 6500 $\mu\text{W}/\text{cm}^2$ at center, measured at 38 cm. It can irradiate an elliptical area as large as 61 × 25 cm, with minimum intensity of 2,000 $\mu\text{W}/\text{cm}^2$. The lamp is suitable for penetrant and magnetic particle inspection, parts degreasing inspection, and wash station inspection.

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Miniature K Cell: Topac Scientific's KC3 features a removable cartridge design whereby the heater, crucible, and liner can be removed from the cell body. PBN and alumina liners are available. The furnace design can achieve stable temperatures up to 1500°C. Because of its small size, up to three cells can be mounted in a cluster on a 16.24 cm. CF flange, and each cell is equipped with a shutter. Applications include deposition of monolayer and submonolayer thin films.

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Photoresist Processing System: Silicon Valley Group's 200-APS features a throughput capability of 120 wafers per hour, 30% greater than most commercially available systems. The system's footprint, however, is 10–15% smaller. An interbay transfer arm reduces bake to chill transfer time. Featured are advanced contamination control with integrated SMIF technology and automated guided vehicle compatible robotic in/out ports. The system is suitable for 0.35- μm i-line processes and 0.25- μm deep uv processes.

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Vacuum Furnace Control System: Vacuum Furnace System's CompuVac 2000 Workstation replaces digital controls, mechanical interfaces, or conventional switches and lights with a single interactive screen. Users follow the graphical presentation of the vacuum furnace system to build recipes, program furnace sequencing functions, run cycles, perform diagnostics, and track maintenance data. All display functions and data are in real time.

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High-Temperature Substrate Heater: US Incorporated's high-temperature substrate heater is an oxygen-resistant, vacuum-compatible, high-temperature noncontact heater for 10.2 cm substrates. Maximum silicon wafer temperature is 825°C, and maximum heater block temperature is 900°C. Temperature stability is within 2%, with 2.5% temperature uniformity.

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Reliability Test System: Aetrium, Inc.'s Model 1164 enables up to 64 small tests at many temperatures or one very large test for Hot Carrier and TDDDB applications. The system uses the same modules for package and wafer level tests. Calibration, module adds, or changes can be accomplished without shutting down the system or interrupting running tests. Temperature chambers maintain accuracy throughout the life of the test, within $\pm 1^\circ\text{C}$, and are built into the unit. The system is controlled by the Test Control Unit, an embedded DOS-based Pentium™ controller, that supervises tests and stores data for efficiency and stability in communications with the hardware.

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Optical Instruments Catalog: Edmund Scientific's 266-page catalog provides data on lasers, optics, positioning equipment, fiber optics, video systems, and instruments and components. Featured is information on the Tech Spec™ line of precision optics and filters. Application primers are included for laser diodes, laser beam expanders, mirrors, and integrated mounting components.

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Vacuum Catalog on CD-ROM: Pfeiffer Vacuum Technology's free CD-ROM presents a catalog of more than 3,000 products, accessories, and components. Also included is a glossary of technical terms and data to assist users in determining their requirements for vacuum products and performance. Application areas, technical data, characteristic curve, scale drawing, accessories, and options can be called up and printed.

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