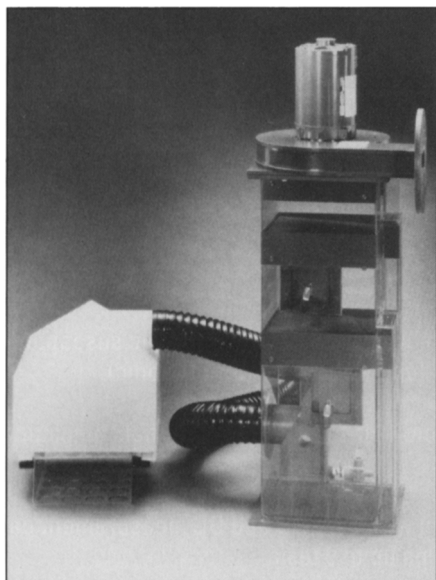


## RESOURCES

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

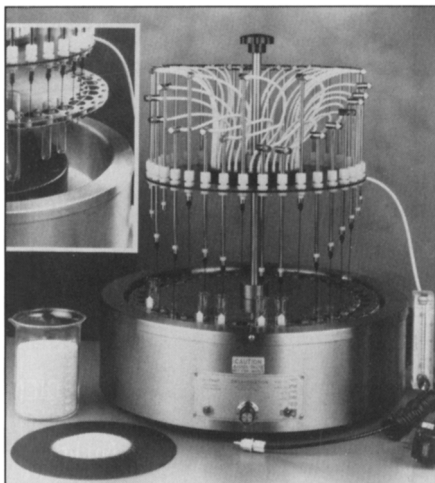


▲ **Acid Digestion Scrubbers:** Heat Systems' MYSTAIRE® scrubbers capture acid vapors and mists at the source, and may be used with hot plate, block, and microwave acid digestion procedures involving most acid gases, as well as other fumes, vapors, and odors. MYSTAIRE® scrubbers feature a two-stage WATERWEB® mesh packing system and are available in system capacities of 25, 100, 250, and 500 cfm. They may also be cart-mounted for portability.  
Circle No. 82 on Reader Service Card.

▲ **Preassembled Polymer Bottom Springs:** J.G. Finneran's Pring™ polymer bottom springs may be used with limited volume inserts. The Pring acts as a shock absorber to minimize the risk of needle breakage and is designed to center the insert for convenient sample handling. Preassembled to glass and polypropylene inserts, the Pring eliminates assembly time and offers an alternative to metal springs in vials. Bottom Prings are available for limited volume insert sizes that include 4 x 25 mm, 5 x 30 mm, 5 x 36 mm, 6 x 38 mm, 6 x 29 mm, and 6 x 25 mm.  
Circle No. 80 on Reader Service Card.

▲ **Optical Properties Computation Software:** OPTIMATR™ interactive software, developed by the Johns Hopkins University Applied Physics Laboratory and ARSoftware, uses physical principals to compute and display index of refraction, absorption coefficient, and scattering coefficient for each material as a function of wavenumber, or wavelength,

and temperature. The software runs on any IBM-compatible PC with DOS 3.2 or higher, and results are displayed in both graphic and tabular forms and can be saved as an ASCII file. Reference and bibliographic sections of the documentation provide information on the computational models used. The database contains 86 materials listed in 105 entries, and each entry is keyed to a source reference in the user manual's bibliography.  
Circle No. 87 on Reader Service Card.



▲ **High-Speed Analytical Evaporator:** Organomation Associates' N-EVAP® features a dry-bath design that promotes uniform heating throughout and heats up to 150°C. The stainless steel device, which includes a dedicated bead bath and internal ring shape, uses multiple heaters to provide even temperatures throughout the dry media and is equipped with a rotating table for access to all samples. Available in 12-, 24-, and 36-position versions, the N-EVAP® is suited for evaporating water-sensitive samples and high-boiling-point solvents, such as xylene and toluene. A thermometer and gas flowmeter are included to set the consumption rate, and beads are available in 0.010-in.-diameter glass or aluminum.  
Circle No. 88 on Reader Service Card.

▲ **Hand-held Colorimeter:** Microscience's battery-operated NR3000 from Nippon Denshoku provides standard color measurements with observation conditions based on CIE. CIE standard illuminants, C light source, and D65 light source are selectable. Measurements are obtained in less than one second, and up to 400 measurements may be stored in memory. A cartridge printer provides

users with a print copy, but an RS-232 interface is included for downloading to a computer or external printer. Applications include color control on paint, plastics, powders, pastes, and pharmaceuticals. The portable device is also suitable for use on large objects, such as walls, and for field applications.  
Circle No. 78 on Reader Service Card.

▲ **Cement and Concrete Catalog:** Free 1993 catalog from the Portland Cement Association offers more than 400 technical, educational, and promotional titles, including publications, videos, software, and slide sets. The catalog references products and educational services for cement and concrete users, specifiers, and suppliers. Titles and educational programs cover materials and technology aspects and construction applications.  
Circle No. 84 on Reader Service Card.

▲ **Benchtop Mass Spectrometer:** Balzers' MS-Cube has a mass range of 1-200 amu and can analyze a maximum of 64 compounds simultaneously from up to 12 separate gas streams, with a detection limit for noninterfering components of <1 ppm. The device operates under Windows™ 3.1, while Balzers' QUADSTAR® 421 software controls digital and analog inputs and outputs. A complete vacuum system, capillary connections, sampling valve manifold, and gas inlet heater box are integrated in the self-contained unit. Applications include thermal desorption, fermentation and vacuum processes, and quality control in the ceramic, chemical, heat-treating, laser, and semiconductor industries.  
Circle No. 79 on Reader Service Card.

▲ **Portable Gas Flowmeter:** J&W Scientific's ADM2000 measures gas flow rates to within ±3% and handles flow rates from 0.1 to 1,000 mL/min. The bubble-free device's patented acoustic displacement technology eliminates the introduction of water vapor. Auto-compensating circuitry provides correction to standard temperature and pressure, allowing mass flow measurements to be made without calibration for a particular gas under specific temperature and pressure conditions. The device is equipped with RS-232 output and user-selectable features such as mass flow, volumetric flow, and continuous operation mode.  
Circle No. 83 on Reader Service Card. □