

## RESEARCH RESOURCES

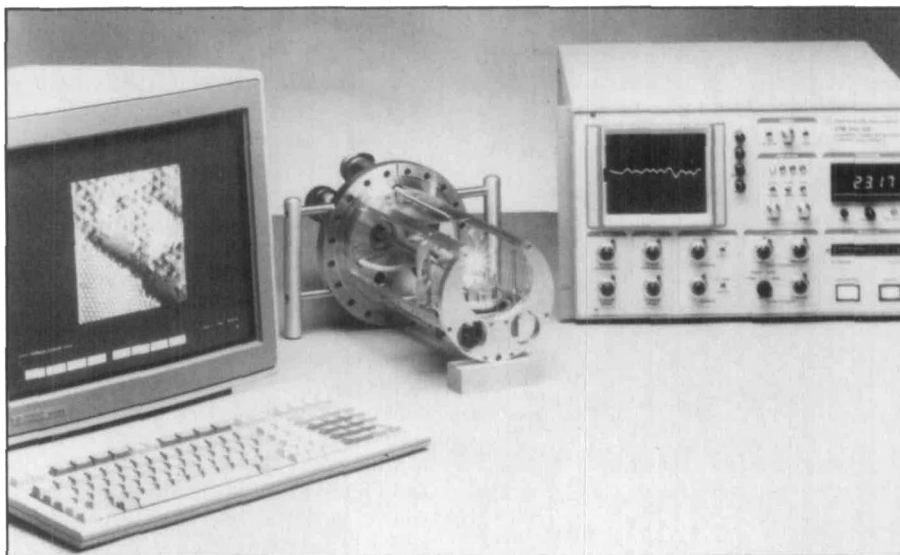
*A summary of new products and services for materials research...*

**X-Ray Lithography for ICs:** X-ray step-and-repeat lithography system for integrated circuit chips is an R&D tool with production capabilities. It can provide semiconductor manufacturers an opportunity to develop x-ray processes and delve into x-ray production techniques. Specified to perform at a minimum feature size of a half-micron, the system can process wafers from four to eight inches in diameter. It has cassette-to-cassette wafer handling, a small footprint in a clean room, and modular construction. Perkin-Elmer, 761 Main Avenue, Norwalk, CT 06859-0280; (203) 762-1000.

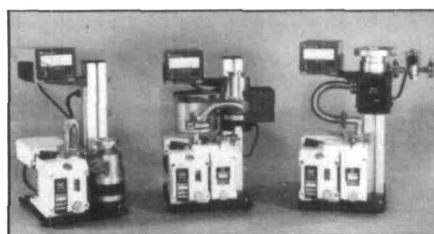
**Assisted Catalyst Design:** Study analyzes assisted catalyst design and predicts trends and advances over the next few years. The study focuses on six main areas: organometallic chemistry, surface science, materials science (especially for molecular sieve design), theory and simulation, chemical kinetics, and reaction engineering. The study also uses examples to illustrate how catalyst design can be assisted in each of these areas. Price: \$8,000. Catalytica Studies Division, 430 Ferguson Drive, Building 3, Mountain View, CA 94043; (415) 960-3000.

**Technical Information from U.S. Government and Worldwide R&D Programs:** Updated 32-page catalog (PR-827/KLC) describes specialized technical information products and services available from the National Technical Information Service, an agency of the U.S. Department of Commerce. NTIS collects and disseminates the results of U.S. government-sponsored R&D activities as reported by 350 federal agencies and by worldwide sources, including Japan and Western Europe. All scientific and technical fields and also business, health, and social sciences are covered. Information is available in print (including 26 subject-specific bulletins) and microform. The NTIS database is available online through several commercial vendors. NTIS, 5285 Port Royal Road, Springfield, VA 22161; (703) 487-4650.

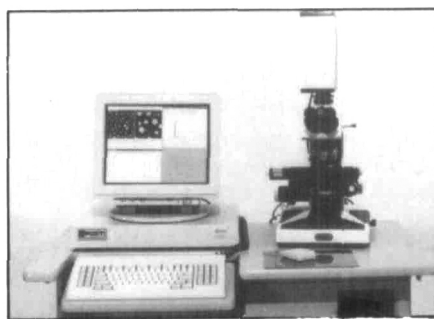
**Stable Isotopes for Research:** Brochure describes the advantages of using stable isotopes for a wide range of research—biomedical, chemistry, chemical engineering, laser, physics, superconductivity—including research involving mass spectrometry and nuclear magnetic resonance. Also described are the specific isotopes and compounds available and their forms. The company can provide custom synthesis in specific forms. Icon Services Inc., 19 Bow Lane, Summit, NJ 07901; (201) 273-0449.



**STM for UHV Research**



**Turbomolecular Pumping System for Hydrocarbon-Free UHV Use**



**Imaging Processing and Analysis**

**STM for UHV Research:** Ultrahigh-vacuum-compatible scanning tunneling microscope is guaranteed to produce high resolution, atomic-level topographical images of complex elements like Si (111) 7 x 7, GaAs, and InP. Features include: microscope stage designed to be mounted to 8-inch vacuum ports; automated control electronics to produce precise, repeatable tunneling results; HP workstation; menu-driven software for full-function data ac-

quisition and image enhancement; and flexible UHV chambers. Options available. Park Scientific Instruments, 476 Ellis Street, Mountain View, CA 94043; (415) 965-2976.

**Turbomolecular Pumping System for Hydrocarbon-Free UHV Use:** Compact, reliable TOSS 50 turbomolecular pumping system with flexible configuration is especially designed for hydrocarbon-free ultrahigh vacuum laboratory and instrumentation applications. System is lightweight, highly mobile and features modular design. Valves, fittings, tubing, and filters can quickly be added, and the pump height can be altered to any position along its vertical mounting. Ultimate vacuum capacity is  $8 \times 10^{-9}$  mbar. The system can be removed from the stand to another location while still using the pumping system. Leybold Vacuum Products Inc., 5700 Mellon Road, Export, PA 15632; (412) 327-5700.

**Imaging Processing and Analysis:** System for image processing and analysis, critical dimension (line width) measurement, and electron diffraction analysis runs under Unix® on the Sun® 3/60 FC workstation for use with both light microscopes and electron column instruments. Ultrahigh resolution screen allows the display of four images simultaneously, at full resolution and each with 256 levels of contrast. IMAGIST has a system resolution of 1,152 by 900 pixels and a monitor pitch of 0.26 mm, offering a full million pixels of data. This is 2.5 to 4 times more screen data than competing systems offer. Princeton Gamma-Tech, 1200 State Road, Princeton, NJ 08540; (609) 924-7310. □