

## Strain-Measurement System

Iotech has released the WBK16, a fully software-programmable, portable, PC-based strain-measurement system. The



WBK16 system, which incorporates an Iotech WaveBook/512 as the digitizer engine, offers 8 strain measurement channels and 8 general-purpose analog input channels expandable to a mix of 72 strain gauge and analog input channels, as well as 8 digital I/O channels. With 12-bit resolution and acquisition speeds up to 1 MHz (single channel), the system is designed for applications that require high-speed signal capture, such as engine strain testing, auto chassis and component strain testing, aerospace structural testing, mechanical integrity testing, and destructive testing.

**Iotech**  
25971 Cannon Road  
Cleveland, OH 44146  
Circle No. 180 on Reader Service Card

## Diode-Pumped Rod Laser

Cutting Edge Optronics has announced the Stiletto, a sealed, compact, 35-W diode-pumped YAG rod laser. The Stiletto features a laser head (1.75 in. in diameter and about 20 in. long) housed in a sealed cylindrical tube the same size as a typical HeNe laser, that allows users to mount the laser with a wide variety of available HeNe mounts. The Stiletto also has an externally adjustable mode control that can be used by the operator to switch the laser from a 35-W multi-mode laser to any one of three higher beam qualities, the highest being a single mode

output. The system includes a rack-mountable electronics unit and a recirculating water chiller that cools the laser head.

**Cutting Edge Optronics, Inc.**  
20 Point West  
St. Charles, MO 63301  
Circle No. 181 on Reader Service Card

## Digital Imaging Camera

Hadland Photonics has introduced a new simultaneous framing and streak-recording capability for its digital imaging camera, the Imacon 468. The multichannel beamsplitter design of the camera permits simultaneous framing and streak recording of the same event, to give detailed information on the processes involved in a complex, expensive, or dangerous transient event. The Imacon 468 can now provide high spatial and temporal accuracy by recording the same event using different techniques through a single optical axis that eliminates error resulting from parallax. The system is referenced to a



100-MHz quartz-crystal clock, and all functions are controlled through a fiber-optically-linked PC with dedicated software that allows rapid and simple data analysis.

**Hadland Photonics Ltd.**  
Harrow Yard, Akeman Street, Tring  
Hertfordshire HP23 6AA, U.K.  
Circle No. 182 on Reader Service Card

## Ultrathin Foils

Goodfellow offers a line of ultrathin foils, Microfoils, for use in highly specialized scientific applications. Microfoils range in thickness from 0.1  $\mu\text{m}$  to 0.001  $\mu\text{m}$  and are mounted on a permanent polyester support.



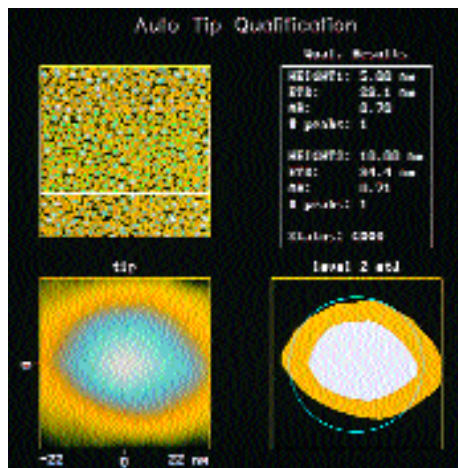
If users require a removable support, they can specify Microleaf, which is metal of the same thinness as Microfoil, mounted on a specially treated support that allows for separation. Goodfellow specializes in supplying small quantities (a few grams to a few kilograms) of metals and materials for research and prototype development, and the company is often able to supply larger quantities manufactured to specific requirements.

**Goodfellow Corp.**  
800 Lancaster Avenue  
Berwyn, PA 19312-1780  
Circle No. 183 on Reader Service Card

## Reflectometer

The Iron-Line, introduced by On-Line Technologies, is a compact, robust, fast, and cost-effective FTIR spectroscopic reflectometer for rapid, in situ, and real-time measurement of thin-film sample properties. Iron-Line delivers information on evolving sample properties, such as doping concentration, film thickness, composition, and molecular-bond density. The system is designed to be mounted on a process chamber (CVD, MBE, plasma) equipped with normal or oblique ports and provides polarized or nonpolarized measuring modes. Outstanding vibration suppression, thermal stability, and a high signal-to-noise ratio make it possible to achieve process control with monolayer-thickness resolution.

**On-Line Technologies, Inc.**  
87 Church Street  
East Hartford, CT 06108  
Circle No. 184 on Reader Service Card



## Tip-Evaluation Option

Digital Instruments offers the industry's first tip-evaluation system for scanning probe/atomic force microscopy (SPM/AFM). This software option determines whether the tip is still usable or needs to be replaced, and it is available for all NanoScope, Dimension, and MultiMode SPM/AFMs. The package includes proprietary tip-evaluation software as well as a roughness standard, which is scanned as part of the evaluation. On the basis of the analysis, the software presents a worst-case tip sharpness in numerical and graphical form and displays an image of the tip itself.

**Digital Instruments**  
112 Robin Hill Road  
Santa Barbara, CA 93117  
Circle No. 185 on Reader Service Card

## Microthermal Analysis

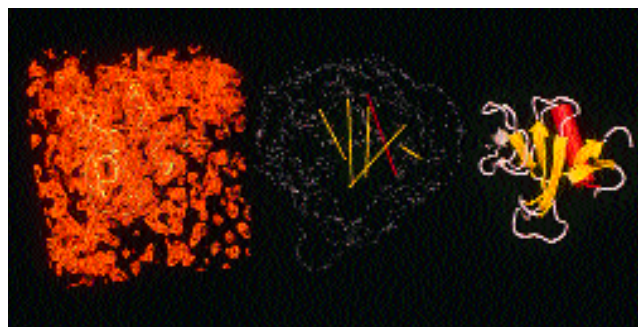
TA Instruments introduces microthermal analysis, said to be an innovation in the field of material characterization that combines the capabilities of thermal analysis with atomic force microscopy (AFM). In microthermal analysis, the AFM head is fitted with an ultraminiature temperature probe that not only provides the heat source but also measures response, providing information similar to traditional thermal analysis on a microscopic scale. This new technology has applications in the study of polymers, pharmaceuticals, and foods and can be used to characterize materials and surfaces by visualizing the spatial distribution of phases, components, and contaminants.

**TA Instruments**  
Thermal Analysis & Rheology  
109 Lukens Drive  
New Castle, DE 19720  
Circle No. 186 on Reader Service Card

## Fluoroscopic Imager

Varian Imaging Products has released the VIP-9-QR/1, the first real-time, digital X-ray fluoroscopic imager for industrial and scientific applications. The new system is also applicable to medical developmental use. The receptor can replace traditional X-ray film, eliminating the cost of processing, storage, recycling, and retrieval. In fluoroscopic mode, the imager is suited for machine vision tasks, including on-line inspection and vision-guided assembly. In X-ray crystallography, the VIP's wide dynamic range, large size, and high sensitivity are said to combine the coverage of phosphor-plate imaging with the convenience of CCDs in a compact, rugged, computer-ready package.

**Varian Imaging Products**  
3075 Hansen Way, M/S K-500  
Palo Alto, CA 94303  
Circle No. 187 on Reader Service Card



## New Software

### Electron-Density Map

Molecular Simulations announces Quanta 97, which provides crystallographers with a new tool to ease the interpretation of X-ray data from macromolecules. X-Powerfit is an entirely new application for automated electron density map fitting and is said to dramatically accelerate the fitting process. X-Powerfit automatically identifies secondary structural elements and places vectors along the elements

**Molecular Simulations, Inc.**  
9685 Scranton Road  
San Diego, CA 92121-3752  
Circle No. 188 on Reader Service Card

## New Literature

### SPM Products

TopoMetrix has issued a new brochure describing its wide range of scanning probe microscope products, in all commercial operating modes, for both industrial and research applications, with systems available for analyzing samples of any size.

**TopoMetrix Corp.**  
5403 Betsy Ross Drive  
Santa Clara, CA 95054-1162  
Circle No. 189 on Reader Service Card

### Machine Automation

Aerotech's Machine Automation Division has introduced its new, updated, motion-control product guide. The guide is a full-color, 16-page brochure that highlights Aerotech's complete lines of PC-based motion controllers, application software, linear

ear motors, brushless rotary motors, drives, and indexers. In order to better suit customer needs, Aerotech has grouped its product offerings into three divisions: the Drive Components Division, the Machine Automation Division, and the Positioning Systems Division. Each division's technical application

specialists and engineers assist customers in selecting the right equipment for their application. For a free copy of the product guide, contact the company.

**Aerotech, Inc.**  
101 Zeta Drive  
Pittsburgh, PA 15238-2897  
Circle No. 190 on Reader Service Card

This section is based on information supplied by the manufacturers, and in some cases by independent sources. *The Industrial Physicist* assumes no responsibility for its accuracy. To facilitate inquiries, a Reader Service Card is attached between pages 50 and 51.