

RESOURCES

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

Simultaneous Thermogravimetric and Differential Thermal Analysis:

The DTG-60 from Shimadzu Scientific Instruments facilitates simultaneous TG/DTA measurements. Featuring an integrated balance assembly, the unit provides high sensitivity and stability over a wide dynamic mass range. With the sample and reference position located at the ends of the balance beam, a stable base line at high temperatures is achieved. A built-in cooling fan and low-mass furnace allow for fast cooling cycles automatically. Contact: webmaster@shimadzu.com; www.shimadzu.com.

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180-W KrF Industrial Excimer Laser:

Lambda Physik offers a 180-W KrF industrial excimer laser. The Stable Energy Excimer Laser (STEEL) series is designed for high-throughput and high-duty-cycle industrial production, with pulse energy stability. The STEEL 600K delivers 180-W stabilized output energy of 600 mJ at 300 Hz. With a pulse duration of 20 ns, an output power of 30 MW can be achieved. Other STEEL models include 200-W and 300-W XeCl excimer lasers. Contact: marcom@lambdaphysik.com; www.lambdaphysik.com.

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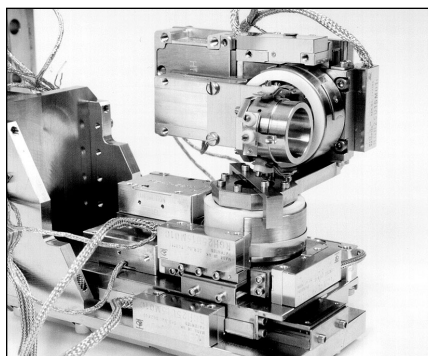
RF Atom Sources: Oxford Applied Research offers a range of RF atom sources for zero-damage oxide and nitride film growth over large areas. The design encompasses beam-shaping of the atomic flux to permit high uniformity on substrate platens with diameters of up to 12 in. The sources have been used in applications such as GaInNAs, GaN, ZnO, ultrathin Al₂O₃, and deposition of high-κ dielectric oxide layers. Contact: sales@oaresearch.co.uk; www.oaresearch.co.uk.

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Molecular-Analysis Capability for Light Microscopes:

The Illuminat/IR™ from SensiR Technologies transforms a light microscope into an integral IR microprobe by adding molecular-analysis capability. The device retains all functions and performance of the original microscope (e.g., polarized light, fluorescence, and image analysis). Users can analyze the chemical structure of a sample without moving or changing the sample. Contact: mrobinson@sensir.com; www.sensir.com.

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In-Vacuum Submicron Positioning Stage and Controllers:

Thermionics Vacuum Products' MicroPositioning Stage and controllers provide vibration-free submicron motion for applications such as SEM, TEM, and PEEM. The piezoelectric in-vacuum motors and encoders are designed for 0.2-μm incremental motion, 0.1-μm resolution, and 250 mm/s velocity. The MicroPositioning Stage is UHV-compatible and can be configured for up to six axes of motion. Contact: sales@thermionics.com; www.thermionics.com.

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Spectral Reflectometer: McPherson's spectral reflectometer measures absorbance, transmittance, and reflectance of diverse optical samples. Units are available for the vacuum and extreme UV, as well as for the UV-vis-IR range. Samples of up to 350 mm in diameter can be accepted and may be measured from 5° to 180° with corresponding detector angles from 10° to 180°. Spectral analysis is >±0.1% precision, with wavelength resolution variable from 0.01 nm to 8 nm. Features include a collimated sample probe beam and high-gain photomultiplier detectors for an optimum signal-to-noise ratio. Contact: VUVaSPR@mcphersoninc.com; www.mcphersoninc.com.

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Hybrid Spectrometer: Philips Analytical and OBLF GmbH have produced TEAMworks, a total-element analyzing module that analyzes metal and oxidic samples through most the periodic table, with detection limits within the ppm range. The system is based on the MagiX spectrometer series from Philips Analytical, with a standard OBLF spark-based optical emission spectrometer and an industrial manipulating robot, all mounted in a safety enclosure. Contact: analytical.info@philips.com; www.news.philips.com.

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Evaporative Light-Scattering Detector for Capillary/Micro HPLC:

The PL-ELS 1000μ from Polymer Laboratories optimizes performance in microbore and capillary HPLC applications and provides base-line stability for HPLC separations requiring gradient elution. The detector operates with eluent flow rates of 1–500 μl/min and can detect all non-volatile solutes. There is no dependence on a UV chromophore, and the detector is designed for minimal band-broadening. Contact: PLInfo@polymerlabs.com; www.polymerlabs.com.

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Plasma Etcher for Micro-Optics and Semiconductor Applications:

SENTECH Instruments' PTSA ICP plasma etcher SI 500 is a ready-to-use ICP etcher complete with load-lock and a computerized control system. The etcher is controlled by advanced hardware and software with client-server architecture. Contact: info@sentech.de; www.sentech.de.

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Quadrupole Mass Spectrometer:

The Thermo ONIX ProLab from Thermo Cahn, distributed by Thermo Haake, is a triple-filter quadrupole mass analyzer with a 0–300-amu range. A contamination-resistant, high-pressure enclosed ion source; dual filament assembly; and dual detector assembly ensure long life and versatility. Features include a turbo-molecular pump with an integral drag pump, backed by a two-stage rotary pump externally mounted to the frame. Contact: information@thermohaake.com; www.thermohaake.com.

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Showcase Your New Products

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submit new product announcements to:*

Mary E. Kaufold, MRS Bulletin
Materials Research Society, 506
Keystone Drive, Warrendale, PA 15086
Tel: 724-779-8312; Fax: 724-779-4397;
kaufold@mrs.org



For further information on these products, access www.mrs.org/publications/bulletin/resources