

## RESOURCES

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

**High-Sensitivity FTIR:** The FTIR Prestige from Shimadzu Scientific Instruments features an optimized high-energy-throughput optical system that results in a signal-to-noise ratio of 40,000:1. The system measures in the near-IR, mid-IR, and far-IR ranges with a simple exchange of the light source, beam splitter, and detector. The instrument also can be customized into an application-specific analysis system using various sampling accessories. Contact: webmaster@shimadzu.com; www.ssi.shimadzu.com.

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**Electrical Conductivity Measurement Device:** The Sigmascope<sup>®</sup> SMP10 from Fischer Technology measures electrical conductivity and offers measurement frequencies of 60 kHz, 120 kHz, 240 kHz, and 480 kHz without changing the ES40 measurement probe. The software stores 100 application memories for calibrations and 20,000 measurements in up to 4000 measurement data blocks. The device makes up to 16 measurements per second, with a measurement range of 0.5-6.5 MS/m or 1-112% IACS and measurement accuracy at room temperature of +0.5%. Contact: info@fischer-technology.com; www.fischer-technology.com.

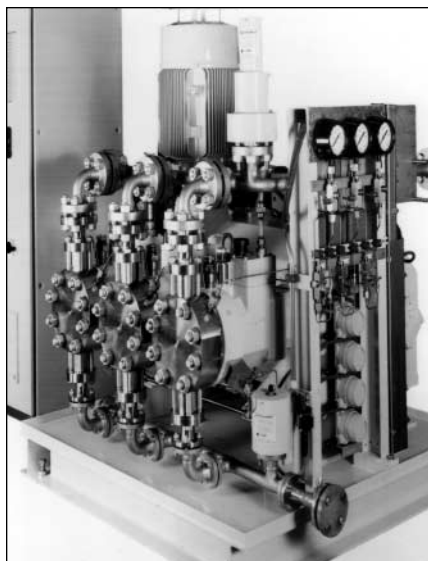
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**DC Ion Sources:** Oxford Applied Research offers a range of UHV-compatible dc ion sources. The DC30 (3 cm) and DC150 (15 cm) achieve high beam current densities and beam uniformity profiles. Beam energy can be varied from 0.2-1.5 keV. Immersed filament neutralization is offered as an option. The ion sources are designed for use with argon gas but have limited use with reactive gases such as oxygen. Contact: sales@oaresearch.co.uk; www.oaresearch.com.

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**Trace Element Analysis Software:** Philips' Pro-Trace software employs an analytical technique that uses specially prepared blank specimen and optional calibration standards with the calibrating power of more than 200 international standard reference materials. The software is designed to run on the MagiX, MagiX PRO, and MagiX FAST XRF systems from Philips Analytical. MagiX spectrometers with this software can analyze trace elements down to sub-ppm levels. Contact: analytical.info@philips.com; www.philips.com.

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**Diaphragm Metering Pumps for CO<sub>2</sub> Applications:** LEWAtripleX<sup>™</sup>

Monoblock metering pumps from American LEWA handle liquid CO<sub>2</sub> at up to 10,000 psi. The pumps feature a leak-free sealless diaphragm with positive displacement and low pump-head volume. The pumps can be equipped with cooling jackets and special materials to meet user requirements. Contact: sales@amlewa.com; www.amlewa.com.

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**X-Ray Diffractometer for Industrial Processes:** Philips Analytical offers two high-speed x-ray diffractometers optimized for industrial applications: The CubiX Pro and the CubiX FAST.

The CubiX FAST uses Philips' X'Celerator to yield large gains in speed—up to 100× faster than conventional detection technology. For both models, a typical load/unload cycle takes <10 s. Contact: analytical.info@philips.com; www.philips.com.

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**Ultraviolet NDT Lamp:** Spectronics' Spectroline<sup>®</sup> Maxima<sup>™</sup> 3500 high-intensity UV-A lamp features a micro discharge light (MDL) bulb that contains <3% of the amount of hazardous mercury found in standard high-intensity discharge bulbs. The lamp produces a steady-state UV-A intensity that is 10× greater than conventional inspection lamps, while remaining cool to the touch. The lamp also can be used in direct sunlight for outdoor inspection. Contact: amckeown@spectroline.com; www.spectroline.com.

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**Hardide Coating Technology:** Hardide low-temperature hard coatings coat "out of sight" surfaces and complex shapes uniformly. The coatings offer hardnesses of up to 3500 HV, outperforming spray coatings, hard chromium, nitriding, and cementation by a ratio of 3:1. They offer a dry friction coefficient of 0.1-0.2; chemical and corrosion resistance to water, salt, and acids; a wear factor 40-100× lower than that of case-hardened steel; porosity of <0.04%; and coating thicknesses ranging from 5 μm to 30 μm. Contact: info@hardide.com; www.hardide.com.

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**Illuminance Meter:** The DigiLux 9500 from Labsphere measures illuminance according to DIN 5032 and CIE No. 69 specifications. Up to 4500 measured values can be stored and then downloaded to Excel-compatible programs for further statistical analysis. Contact: labsphere@labsphere.com; www.labsphere.com.

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**Switch Modules to Replace Thyratrons/PFNs and Crowbars:** PowerMod<sup>™</sup> solid-state switches from Diversified Technologies are drop-in replacements for thyratrons/PFNs and crowbars.

Available in 3-kV modules that can be connected in series up to 200 kV, the switches feature variable pulse widths from <1 μs to dc and can drive 5000 A peak. The switches can be used as hard switches or to drive pulse transformers and are immune to arcing and emissions. Contact: info@divtcs.com; www.divtcs.com.

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## Showcase Your New Products

To appear in MRS Bulletin Resources, submit new product announcements to:

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For further information on these products, access [www.mrs.org/publications/bulletin/resources](http://www.mrs.org/publications/bulletin/resources)