

RESOURCES

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

High-Purity Metals Catalog: Alfa Aesar's High-Purity Metals 300-page mini-catalog features over 3,000 high-purity metals and alloys with purity up to 99.9999%. Products are offered in a variety of forms, including wires, foils, shots, targets, powders, and thermocouple wires. The catalog also includes reference data such as metals physical properties, mesh size conversion tables, periodic tables, and table of atomic weights. Contact: info@alfa.com; www.alfa.com.
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Bayard-Alpert Vacuum Gauge: Pfeiffer Vacuum offers the Compact FullRange™ BA hot cathode gauge with integrated electronics and Pirani gauge for vacuum measurement from 5×10^{-10} mbar to atmosphere. Repeatability is +5%, with +15% accuracy. The gauge is available with 25 ISO-KF, 40 ISO-KF, and 40 CF flanges. A pressure signal from the integrated Pirani gauge controls the on/off status of the hot cathode. Automatic high vacuum adjustment of the Pirani with the hot cathode eliminates the need for Pirani adjustment due to contamination or aging. Contact: contact@pfeiffer-vacuum.com; www.pfeiffer-vacuum.com.
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Spray Etch Processor: The Evergreen Model 202 from Solid State Equipment can process 50–100 wafers per hour in 13 ft² and employs dual robotics for uninterrupted operation. Designed for wafers up to 200 mm in diameter, the system accomplishes dry in/dry out single-wafer etch processing with precision and uniformity. Digital control ensures precision in chemical flow rate, pressure, temperature, nozzle height, motion profile, and dispense time. The process chamber is completely sealed, and venturi vacuum pumps handle fluids without moving parts, for low particle count and high reliability. Contact: info@ssecusa.com.
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Fiber Optic Light Source: Welch Allyn's Solarc™ fiber optic illuminators combine 5500 K white light with fine focus capabilities in a metal halide arc lamp. The light source offers up to five times the lumen output per watt when compared to halogen and three times the lumen output per watt when compared to xenon lamps. The 21-W lamp provides 750 h of sunlight-caliber illumination, and light output over this period is guaranteed to more than 75% of this original brightness over the life of the lamp. Contact: lighting@mail.welchallyn.com; www.hi-lux.com.
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Coating Thickness Measuring Device: The Fischerscope® multi-measurement system (MMS) from Fischer Technology combines different coating thickness test methods in one unit. Interactive, menu-driven screens guide users through calibration and measurement procedures, data evaluation and storage, and results documentation. Operational steps remain the same, regardless of what test method is used. The MMS documents, manages, and evaluates data according to customer and quality system requirements; defines control charts and evaluates measurement data using modern SPC/SQC methods; and organizes collected measurement data. Contact: fischer-technology@worldnet.att.net; www.fischer-technology.com.
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Portable Q/m Analyzer: The TREK Model 210HS Charge-to-Mass Ratio (Q/m) Test System uses a "draw-off" toner transfer method to yield repeatable and accurate toner charge measurements. The system determines Q/m characteristics of both single and dual component electrophotographic toners and other charged particles. Interchangeable mesh filters accommodate various sizes of charged particles. The specimen separation and transfer technique avoids creation of measurement errors due to undesired additional charging of the toner caused by the rapid air movement associated with "blow-off" type measurements systems. Contact: ljfinch@trekinc.com; www.trekinc.com.
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Diffuse Reflectance Coatings and Materials: Labsphere's free 74-page catalog provides information on diffuse reflectance coatings and Spectralon® materials for component coating and fabrication. Applications include integrating spheres, optical components, lamp housings, flat panel displays, and backlight illuminators. The catalog also covers Spectralon diffuse reflectance standards and targets. Contact: labsphere@labsphere.com; www.labsphere.com.
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Torsion Testing System: MTS Systems' low-torque, high-rotation Torsion-Master™ testing system is designed for testing small material specimens. With a torque capacity of ± 20 Nm using standard 20 Nm or 0.2 Nm torque cells, the system performs ASTM A938 tests on fine wire and ASTM 1622 or ISO 6475 tests on medical devices. The system comes with the test instrument, collet grips, digital control system, and is automated with TestWorks® 4 material testing software. With TestWorks, users can analyze, review, graph, plot, and archive material testing data quickly and easily. Contact: info@mts.com; www.mts.com.
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Diode Pumped Solid-State Nd:YAG Laser: The Gator 2000 from Lambda Physik drills holes smaller than 100 μ m for micromachining of metal, ceramic, and diamond. It delivers a 10 kHz repetition rate, 10 W average output power (6 W at 532 nm and 4 W at 355 nm), high peak power (15 ns pulse), and superior beam profile. The laser has a small footprint of 3309 \times 112 mm². Contact: marcom@lambdaphysik.com; www.lambdaphysik.com.
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Fundamental Parameters Software: The FP-Multi software module from Philips Analytical enables direct determination of the chemical composition and thickness of layered materials from measurements carried out on any Philips x-ray spectrometer running the SuperQ platform. This provides a non-destructive means of analyzing coatings, surface layers, and multilayered structures. Excellent results are achieved with instruments calibrated using conventional bulk XRF standards or reference samples whose composition and layer structures differ from those of the unknowns. Users can determine multiple element concentrations per layer. Contact: www.analytical.philips.com.
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Portable Spectrum Analyzer: Agilent Technologies add cdmaOne and GSM measurement personalities as options for the Agilent ESA-E series portable spectrum analyzers. For maintaining cellular networks, the one-button, standards-compliant measurements for cdmaOne and GSM enable quick and accurate service. The flexible platform allows users to enhance the spectrum analyzer's performance as requirements change. Contact: tmo_help@agilent.com; www.agilent.com.
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