Instron, Norwood, Mass., announces a **free brochure** regarding *Pipe & Tube Testing Solutions*. The 3-page, applications-focused brochure was developed as a resource for manufacturers affected by the recent growth in oil drilling and gas extraction in the energy market. In addition to the increased demand for oil country tubular goods (OCTG), global product standards pertaining to pipe and tube testing—including ANSI/API Spec 5L, ISO 3183:2012, ISO 6892-1:2009, ASTM A370, and ASTM E8M—are evolving to facilitate global standardization, which creates a challenge for pipe and tube manufacturers. The brochure includes information regarding testing of curved-shape specimens, preventing crushed pipes and tubes, impact testing of high-strength materials, and suitable strain measurement. instron.com.

Freeman Technology, UK, announces a **free guide** titled *An Introduction to Powders*. Written in a straightforward style, the new booklet explains how and why powders behave the way they do, and how this impacts powder processing and characterization. It provides a valuable foundation for those with little prior knowledge of powders and is a useful resource for anyone looking to expand their understanding of the factors relevant to product development and processing performance. The new booklet focuses on how the three components of a powder—particles, surrounding air, and moisture—interact to define powder behavior, and provides answers to the most frequently encountered powder processing issues throughout industry. www.freemantech.co.uk/index.php?id=415.

MagneGas Corp., Tampa, Fla., launched a second-generation **cutting fuel**, MagneGas 2. Independent tests on track-based cutting systems show that, in comparison to acetylene, MagneGas 2 has 38% faster cutting speeds on 2 in. carbon steel, and roughly a 34% reduction in oxygen consumption. The fuel is a rich mix of gases resulting in a lower flow rate and a flame that behaves like acetylene, MagneGas 2 has 38% faster cutting speeds on 2 in. carbon steel, and roughly a 34% reduction in oxygen consumption. The fuel is a rich mix of gases resulting in a lower flow rate and a flame that behaves like acetylene.

Well suited for electromagnetic interference and radio frequency interference shielding applications, an **aqueous-based, sodium silicate system** with graphite filler was introduced by Master Bond, Hackensack, N.J. MB600G was tested with aluminum as the reference material based on test method IEEE 299, 2006. Unlike other shielding systems, the coating shows little variation throughout the 1-18 GHz range. At 1 GHz, it is 40 dBs, and at 18 GHz it is 45 dBs with the highest reading of 50 at 1.2 GHz and the lowest at 27 dBs at 1.8 GHz. The combination of shielding effectiveness and temperature resistance is impressive with a service temperature range extending from 0°F to 700°F. It is also highly effective as a moisture barrier. masterbond.com.

Micromeritics Instrument Corp., Norcross, Ga., introduces Auto-Pore V Series **mercury porosimeters** that can determine a broader pore size distribution more quickly and accurately than other methods. In addition to offering speed, accuracy, and a wide measurement range, mercury porosimetry permits calculation of numerous sample properties such as pore size distributions, total pore volume, total pore surface area, median pore diameter and sample densities (bulk and skeletal). These instruments also include enhanced safety features and offer new data reduction and reporting choices that provide more information about pore geometry and fluid transport characteristics. Porosimeters are available in two models: AutoPore V 9620 has a pore size range of 500 to 0.003 micrometers with two high-pressure (60,000 psia maximum pressure) and four low-pressure analysis ports. AutoPore V 9605 contains two high-pressure (33,000 psia maximum pressure) plus four low-pressure analysis ports measuring pore sizes from 500 down to 0.005 micrometers. micromeritics.com.
erating temperature of -65° to 250°F, and is temperature compensated from 60° to 160°F. tecsis.us.

Park Systems, Korea, announces Park NX-Wafer, a revolutionary atomic force microscopy (AFM) design for bare wafer manufacturing that fully automates the defect review process and increases production throughput by 1000%. The microscope produces sub-Angstrom roughness measurements for the flattest substrates and wafers with tip-to-tip variation of less than 2%. The device also features a long range sliding stage that combines with NX-Wafer to become an atomic force profiler (AFP). The new low noise AFP provides very flat profiling to 50 nm with profiling speed as fast as 1 mm/sec for both local and global uniformity measurements including dishing, erosion, and edge-over-erosion (EOE) after chemical mechanical polishing (CMP). parkafm.com.

SiVance LLC, Spartanburg, S.C., a subsidiary of Milliken & Co., released SiVance C1008 Curative, a new silicone curative that significantly improves the durable flexibility of epoxy polysiloxane protective topcoats in marine and infrastructure applications, without sacrificing weatherability. This development solves a major challenge common to epoxy polysiloxanes—brittleness and cracking that can develop over time as the coating cures. The product is fully miscible with hydrogenated bisphenol-A epoxy resins. Compatibility of C1008 Curative in other epoxy resins is possible with the use of solvents (methyl ethyl ketone (MEK), xylenes, etc.) or reactive diluents. millikenchemical.com/sivance.

ZEISS, Germany, introduces its latest photomask qualification system, the AIMS 1x-193i. The new system supports the further extension of 193-nm lithography and meets the challenging requirements of advanced lithography techniques such as multi-patterning and source mask optimization. It also enables users to qualify the optical performance of a mask under scanner equivalent illumination conditions. The AIMS 1x-193i works with 193-nm illumination and benefits from a completely redesigned optical system. Another highlight is a significantly improved CD repeatability enabling more accurate defect qualification that stays ahead of the requirements of the ITRS roadmap as the industry move to smaller feature sizes. zeiss.com/sms.

The NanoSteel Co., Providence, R.I., announces a portfolio of ferrous powders designed to extend steel’s capabilities in near-net shape wear parts for highly abrasive environments. These new alloys feature hardness in excess of 1400 HV, wear resistances well below 10 mm³ volume loss (ASTM G-65), and spherical morphology that results in excellent packing factors and flowability important for producing high-density parts under tight dimensional control. This family of new powders enables production of extreme hardness wear parts through a wide variety of consolidation processes, including additive manufacturing, without the need for subsequent heat treatment. nanosteelco.com.