ASTM Begins Work On New Standard

ASTM International Committee E28 on Mechanical Testing has begun work on a proposed new standard to describe the test procedure for determining the superplastic forming properties of a material. The committee is actively seeking participation from interested parties in the development of the document. More information can be found by entering WK7114 in the site search box on the home page of ASTM's Web site (ww.astm.org).

The origins of the proposed standard stem from a need at Boeing Company to specify that the newly developed fine grain titanium (Ti-6AI-4V) that the company purchases meets certain superplastic forming properties at particular temperatures and strain rate conditions. Peter Comley, associate technical fellow, Boeing, feels that there is a universal need for the standard, and that other companies will use it when buying fine grain titanium and other SPF materials.

For more information, contact Comley at The Boeing Company (253-931-9024; peter.n.comley@boeing.com).

ASTM Honors Snodgrass With LaQue Memorial Award

In recognition of his contributions to ASTM International Committee G01 on Corrosion of Metals, John (Jack) S. Snodgrass has been honored with the Francis L. LaQue Memorial Award. Snodgrass is retired from his senior staff corrosion engineer position at Alcoa Technical Center in Pennsylvania.

An ASTM member since 1984 and a former member of its board of directors, Snodgrass is an active member of G01 and its subcommittees. He has been vice chair and chair of the committee and has received the Award of Merit from G01 for his outstanding contributions to, and leadership in, corrosion testing related to the development of numerous new standards, the revision of others, and for participation in laboratory testing programs.

He holds a BME degree in mechanical engineering from the University of Florida, an MS in ocean engineering from the University of Miami, and an ME degree

Test Your Plating I.Q. #405 By Dr. James H. Lindsay, AESF Fellow

Emerging Technologies-MEMS

- 1. What does MEMS stand for?
- 2. MEMS has the promise of enabling manufacture of an entire "system-on-a-chip." What technologies come together to do this?
- 3. What is the connection of MEMS to metal finishing?
- 4. The classic example of MEMS is an electrically-driven motor smaller than the diameter of a human hair. What are some current MEMS applications?
- 5. Like static electronic circuitry, the mainstay material in MEMS remains silicon. Why?

Answers on page 64

in metallurgical engineering from the University of Florida.

New Powder Coating Handbook Available

A revised and expanded third edition of *Powder Coating—The Complete Finisher's Handbook* is now available. Published by the Powder Coating Institute (PCI), the book covers all aspects of setting up and running a powder coating operation.

Many chapters in the third edition have been completely rewritten and updated. It presents the latest information in powder materials, pretreatment, booth design, application equipment, powder application methods, conveyors, dry-off methods, curing, and troubleshooting.

The book is available for \$95, plus \$10 shipping, in the U.S. For information, contact PCI (703-684-1770, or go to the Publications & Materials section of the Web Site: www.powdercoating.org).

ASM and NACE Cooperate In Educational Programs

ASM Materials Education Foundation and the NACE Foundation have agreed to expand the degree of cooperation between the two educational organizations in promoting increased interest in applied science and education careers and science literacy among the general pubic.

Building upon initial success in 2004, the NACE Foundation board has voted to provide expanded financial and curriculum support to as many as 10 local ASM Materials Camps worldwide. These camps are conducted by local ASM chapter volunteers in partnership with major university hosts and other academic partners. The camps target both high school students and science teachers in residential and nonresidential formats. Most Materials Camps include more than 40 hours of laboratory/ classroom instruction. The NACE support will enable a special emphasis on corrosion engineering

For more information, contact Amber Pappas at NACE Foundation (281-228-6205; amber.pappas@nace.org) or Charles Hayes at ASM (440-338-5151, ext. 5506; charles.hayes@asminternational.org).

FSCT Conference Series Targets Competitive Advantage

The Federation of Societies for Coatings Technology (FSCT) will introduce its first 2005 Advancements in Coatings Series (ACSeries) with a three-day conference on "Research Methods in the 21st Century: A Toolkit for Competitive Advantage." The event will be held at the New Orleans Marriott, New Orleans, LA, May 18–20, 2005.

The program will explore emerging technologies and techniques that provide the user with competitive advantages in developing new coating products.

The conference is designed for scientists, formulators and engineers form academic, government, and industrial laboratories who are involved in any aspect of coating development. Others who can benefit from the program include suppliers and developers of resins, pigments, additives and other ingredients, as well as those developing new coating products and those developing product specifications and using coatings.

For information, visit the FSCT Web site at www.coatingstech.org, or call 610-940-0777.

Company News

□ Columbia Chemical Corporation, Brunswick, OH, has been granted a U.S. patent for a new alkaline cyanide-free zinc electroplating bath and brightener additive. The additive incorporates new technology into Columbia's proprietary family of products.



Plant located at 500 Industrial Rd. South, Bristow, OK Trionetics Ion Exchange System • Buffing Lines • Key Bitter • Auto Hoist Plating Line • Overhead Paint Line • Auto Strike & Front Hanger • Levers • Plating Lines • Hand Barrel Plating Line • Waste Water Treatment Facility • Semi-Auto Assembly Lines & More! Inspection by Appointment Only. Call Bert Jones: 818-884-3737, ext. 355

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Answers to I.Q. Quiz #405

- 1. Micro-Electro-Mechanical Systems.
- 2. Silicon-based microelectronics with micromachining technology.
- 3. Simply put, it begins with the electronics plating technology that has been an important segment of the industry: lithography, etching and deposition. Added in are nanotechnologies, including the deposition of nanocomposites.
- 4. Accelerometer sensors to trigger automotive air bags; micronozzles in inkjet printers; sensors for monitoring environmental, medical, security needs, etc.; photonic (mirror), mechanical or microfluidic switches. And so on
- 5. The strength-to-weight ratio of silicon is higher than many other engineering materials which allows the fabrication of very small mechanical devices.

The aqueous bath contains zinc ions for producing bright electrodeposits of zinc. The brightening agent is comprised of a polymeric quaternary amine and a reducing sugar, as well as a compound that forms a reducing sugar upon hydrolysis.

□ Kraft Chemical Company, Melrose Park (Chicago), IL, recently achieved certification for ABI and BS ENISO 9001: 2000. President of the company is Betsy Kraft-Liberman, a long-time member of the AESF Chicago Branch.



Riegl USA's new headquarters.

□ Riegl USA recently expanded its corporate offices in Orlando, FL. The new office is located at 7035 Grand National Drive, Suite 100, Orlando, FL 32819. Riegl makes pulsed laser 3D scanners. They are

used to determine distance by measuring the time-of-flight of a light pulse to and from a surface.

□ Eckart, a maker of special effect pigments, has appointed S.P. Morell & Company as its new sales agent, representing the company for the regions in Pennsylvania, New Jersey and New York. The products made by Eckart are used in the coatings, plastics and graphic arts industries.

□ Benchmark Products, Inc., Indianapolis, IN, has acquired all of the production related assets, formulas and chemical inventory of Prosclean, Inc., also of Indianapolis. Prosclean is a manufacturer of specialty pretreatment chemistries. Benchmark is a full service provider of specialty chemicals to the metal finishing industry.

□ Drew Nosti, CEF, has changed the name of his company from NTEC USA to Anodize USA to distinguish it from a company with a similar name. Nosti serves as president of Anodize USA, which is located in South Carolina.



METALAST International, Minden, NV, recently launched T-rEX, a touring research and educational exhibit that will be used for training in metal finishing and manufacturing. The company was also recently licensed by the U.S. Department of Defense/U.S. Navy to market a proprietary replacement for hexavalent chromates.