

Editor's Note #1: A "?" following your name on the address of this issue indicates that we do not know if you wish to receive this newsletter. If you are in this category, and wish to receive the no cost newsletter, you must complete the enclosed postage paid questionnaire to receive future issues.

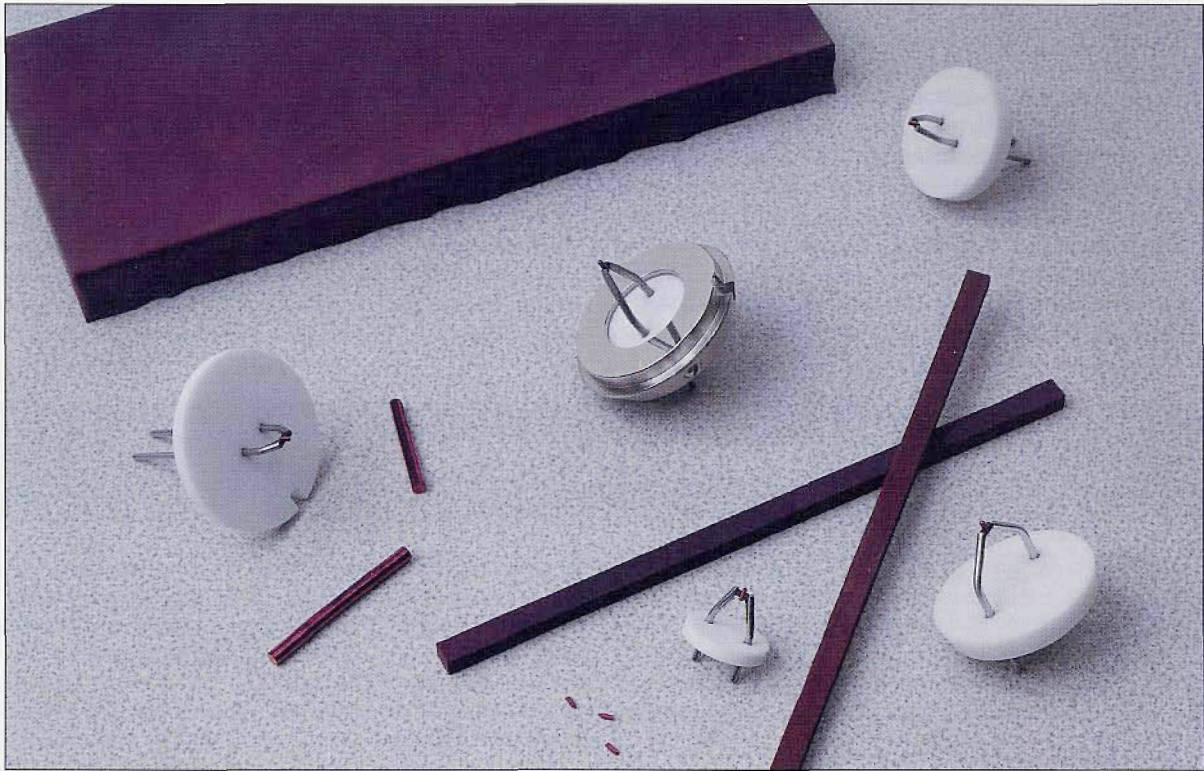
Editor's Note #2: In the "New And/Or Interesting in Microscopy" section of the newsletter (not included in this issue), we attempt to publish news of interest to microscopists - including, but not limited to, advances in technology, awards and accomplishments, governmental and other programs, significant events, and the like. We would greatly appreciate your assistance in making this a worth-while feature.

Editor's Note #3: In this issue you will find the first "Tricks Of The Trade" article. We invite your contributions. They may be of any length and may cover any aspect of any microscopy technique. With each accepted "Trick" as an entry, we will have a drawing at next year's MSA Conference and award a one ounce gold coin (a \$400 plus value) to the winner.

Editor's Note #4: With the following "New Product News" as a new feature, we are attempting to provide manufacturers and suppliers with a medium in which they can announce new products, or product improvements, to the industry in a timely and inexpensive fashion.

NEW PRODUCT NEWS

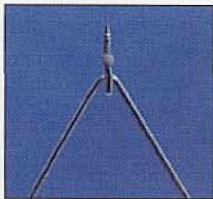
- Peak Instruments has announced lbeX, the newest addition to their spectrometer family. This application-tailored unit offers economic high performance wavelength capability for selected elements, and is full supported by Windows and Unix software. Peak has also announced the availability of the Observer, a Scanning Probe Microscope for SEMS, as a result of a strategic partnership with Topometrix. Inc. Tel.: (609)737-8133, Fax: (609)737-1724. Circle Reader Inquiry #16.
- PGT has been awarded an R&D 100 award for their PRISM™ digital pulse processor. This innovation in X-ray microanalysis enables the analyst to run more samples in less time with better precision and improved sensitivity to light elements.
The output of the EDS preamplifier is digitized directly, and all processing performed on the digital pulse stream. Setting can be changed continuously, and the time used to pulse shaping can even be adapted to the input signal "on the fly."
PGT is applying this technology to large area detectors to improve throughput even more - and are using it on germanium detectors to achieve the ultimate resolution resolution vs. count rate. Tel.: (609)924-7310, Fax: (609)924-1729. Circle Reader Inquiry #17.
- Codonics, Inc. announces the introduction of the Codonics NP-1600 Photographic Network Printer, a new 300 DPI state-of-the-art color and monochrome network printer. The NP-1600 is a high quality paper and transparency output solution designed to work with any TCP/IP or EtherTalk based network. Utilizing dye-diffusion technology and digital image processing with 16.7 million simultaneously printable colors, the Codonics NP-1600 is capable of producing continuous tone prints ideal for multiple microscopy applications. Tel.: (800)444-1198/(216)243-1198, Fax: (216)243-1334. Circle Reader Inquiry #18.
- Polysciences, Inc. now offers high purity Tris (≥99.9%) and Tris Hydrochloride bioreagents manufactured in their GMP facility. Tris is widely used in buffers because of its buffering range and compatibility with many enzymes. The products have been tested for DNase, RNase, and protease activity and are available in small research quantities as well as in bulk. Polysciences can meet requirements for custom synthesis and packaging of these ultra pure bioreagents. Tel.: (215)343-6484, Fax: (215)343-0214. Circle Reader Inquiry #19.
- TopoMetrix announces its new on-line remote instrument operating system (RIOS) that allows scanning probe microscope (SPM) users to communicate on-line with TopoMetrix' applications and customer service staff worldwide. Tel.: (408)982-9700, Fax: (408)982-9751. Circle Reader Inquiry #20.
- FEI Company's Components Group announces a new 2-lens electron column that offers both small spot size for high-resolution imaging (less than 20 nanometers) and high beam currents for surface analysis techniques where signal-to-noise ratios and fast acquisition times are critical. The column operates at beam voltages of 0.5 kV to 25.0 kV with beam currents from less than 50 picoamps to more than 200 nanoamps. It is designed for incorporation in scanning and transmission electron microscopy (SEM and TEM), Auger electron spectroscopy (AES), electron spectroscopy for chemical analysis (ESCA), micro-RHEED, and low-energy electron diffraction (LEED) systems. Tel.: (503)640-7500, Fax: (6-03)640-7509. Circle Reader Inquiry #21.
- The MCS system from Carl Zeiss employs a new fiber optically coupled thickness measurement technique to provide repeatable, accurate measurements of optically transparent coatings and films from 0.5 to 150 microns. White light is reflected off the front and back surfaces of the layer. The interference effects are measured and analyzed with proprietary software and firmware on an IBM PC or compatible computer. The system is fast, repeatable and easy to use, with results that are superior to current methods using micrometers, profilometers or beta backscatter techniques. Tel.: (800)233-2343, Fax: (914)681-7432. Circle Reader Inquiry #22.
- Spectra-Tech, Inc. introduces a sample handling accessory that prepares microsamples for light and FT-IR microscopy: the Diamond Cleaving Knives. These versatile sample prep tools incorporate a specialized knife with a diamond cutting edge. They are useful tools for scraping and shaving off thin sections of samples. There are two diamond edge configurations. One is a straight edge, with the cutting edge on the center line of the holder. This knife is recommended for scraping a hard polymer by using a plowing motion. The other configuration is a 60° angled edge with a reinforced beveled tip. It is recommended for fiber cuts and slicing. Tel.: (203)357-7055. Circle Reader Inquiry #23.
- Leica Inc. announces the **Stereoscan 420C**, a cryogenic specimen preparation system integrated with the LEICA S420 scanning electron microscope. This innovative new system allows the preparation and transfer of frozen hydrated specimens to the SEM for viewing and analysis, including "liquid" specimens such as emulsions and suspensions. Cryopreparation also solves the problem of collapse and distortion of biological specimens which are prepared by conventional methods. Additionally, the Stereoscan 420c prevents loss of diffusible elements, making x-ray analysis more accurate. The specimens may be pre-frozen on a proprietary device or in sub-cooled liquid nitrogen using the optional Slushing Chamber and then may be transferred under protected conditions using the Transfer Device. Tel.: (800)248-0123, Fax: (708)405-0147. Circle Reader Inquiry #24.



LaB₆ Cathodes

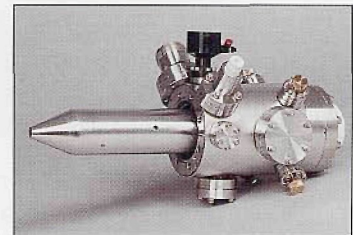
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COMING EVENTS

- ✓ Oct. 24/28 '94: **41st American Vacuum Society National Symposium.** Denver, CO. Angela Mulligan: (212)248-0200.
- ✓ Oct. 31/Nov. 2 '94: **Scanning Probe Microscopy Applications to Semiconductor Materials and Devices.** Industrial Associates Program, Arizona State Univ., Tempe, AZ. Lyseth Mitchell, Tel.: (602)965-7155, Fax: (602)965-1979.
- ✓ Nov. 15/17 '94: **Ultramicrotomy for General Planar and Transverse Sectioning.**
Nov. 15/18 '94: **Ultramicrotomy for Thin Section Preparation.**
NanoTEM, Scottsdale, AZ. Dr. F. Shaapur, Tel.: (602)759-2808.
- ✓ Nov. 29/Dec. 1 '94: **94 Material Research Society (MRS) Fall Meeting.** Boston, MA. Mary Kaufold, Tel.: (412)367-3036, Fax: (412)367-4373.
- ✓ Feb. 2/3 '95: **FTIR Microscopy Training Class (Spectra-Tech).** Shelton, CT. Debbie Esposito, Tel.: (800)243-9186, In CT: 926-8998.
- ✓ March 5/10 '95: **PITTCON '95.** New Orleans, LA. (412)825-3220, Fax: (412)825-3224.
- ✓ March 20/24 & 27/31 '95: **Practical Aspects of Scanning Electron Microscopy.** Univ. of MD Short Course. College Park, MD. Tim Mangel, Tel.: (301)405-6898, Fax: (301)314-9358.
- ✓ March 28/31 '95: **SCANNING '95.** Monterey, CA. Mary K. Sullivan: (201)818-1010, Fax: (201)818-0086.
- ✓ April 4/7 '95: **Ultramicrotomy in Materials Science.** RMC. Tucson, AZ. Bob Chiovetti. Tel.: (602)889-7900, Fax: (602)741-2200.
- ✓ April 4/7 '95: **Expoanalitica + Biociencia** Madrid, Spain. Tel.: +343 423 31 01, Fax: +343 423 63 48.
- ✓ April 24/29 '95: **22nd International Conference on Metallurgical Coatings and Thin Films (AVS).** San Diego, CA. Mary Gray: (301)870-8756, Fax: (301)645-1426.
- ✓ May 6/11 '95: **Food Structure Annual Meeting (Scanning Microscopy International).** Houston, TX. Dr. Om Johari: (708)529-6677, Fax: (708)980-6698.
- ✓ June 7/9 '95: **Confocal Microscopy and Quantitative Image Analysis (Geo. Washington Univ. 21st Annual Program).** Washington, DC. Fred G. Lightfoot: (202)994-2881, Fax: (202)994-8885.
- ✓ June 12/22 '95: **Lehigh Microscopy Courses - SEM, X-ray Analysis, AEM, AFM.** Bethlehem, PA. Prof. David B. Williams, Tel.: 610)758-5133, Fax: (610)758-4244.
- ✓ June 26/30 '95: **Computer Simulation and Processing of HRTEM Images.** NCEM, Lawrence Berkeley Lab., Berkeley, CA. Michael A. O'Keefe, eMail: MAOK@LBL.GOV.
- ✓ August 6/11 '95: **Microbeam Analysis Society (MAS) National Meeting.** Breckenridge, CO. Gregory Meeker, Tel.: (303)236-1081, Fax: (303)236-1414.
- ✓ August 13/17 '95: **Microscopy Society of America/Histochemical Society Annual Meeting.** Kansas City, MO. (800)538-3672, Fax: (508)548-9053.
- ✓ Oct. 12/14 '95: **GLEMA '95.** Toledo, OH. Carol A. Heckman, Tel.: (419)372-2432



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