

New High Resolution TEM Systems

Princeton Instruments, Inc., the world leader in scientific cooled CCD camera manufacturing, introduces a family of digital imaging systems for Transmission Electron Microscopy. These systems integrate a YAG scintillator, which offers the highest resolution, uniformity, durability, and DQE, with the lowest noise cooled CCD cameras. By combining these two technologies, Princeton Instruments offers systems with performance never seen before.

The most economical system combines the YAG scintillator with our cooled CCD camera based on Kodak 1317 x 1035 pixel (KAF-1400) CCD device. The highest resolution system combines the YAG scintillator with our cooled CCD camera based on the Kodak 2K x 2K (KAF-4200) CCD device. Many other CCD devices are

supported for special applications; contact the factory for details.

These systems can be operated using PC, Macintosh, Sun, or Silicon Graphics computers. In addition to Princeton Instruments' own software, data analysis can also be accomplished using software such as Image Pro Plus, AnalySIS, Photoshop, IPLab, or NIH image, to name a few.

Princeton Instruments: (609)587-9797, fax:(609)587-1970 email:sales@prinst.com, www.prinst.com



Circle Reader Inquiry #40

LOW FORCE NANOINDENTING/ SCRATCHING/HARDNESS MODULE

A new module for nanoindenting, scratching and hardness testing is now available for NanoScope® Dimension™ Series scanning probe microscopes (SPMs) for investigating the mechanical properties of thin films, such as diamond-like carbon. Using proprietary sharpened diamonds mounted on cantilevers, indentations or scratches with widths as low as 20-30 nanometers can be generated and then immediately imaged with the same tip. Unlike dedicated indenters, this *in situ* imaging eliminates the problem of relocating the new nano-scale features in order to observe the results. In addition, patented TappingMode™ imaging allows use of the stiff cantilevers required for indenting while still allowing non-destructive imaging. Reproducible indentations and scratches can be produced with applied forces ranging over two orders of magnitude (each cantilever is individually calibrated; typical range is 1 to 100 μ N). An application note on this topic is available on request from Digital Instruments at (800)873-9450 or (805)899-3380. **Circle Reader Inquiry #43**

DIAMOND KNIVES

Edgecraft Corporation has announced the availability of Wet & Dry Cryo, Histo, & Material Science Type 2 diamond knife versions of their EdgeCraft® Diamond Knife II™ used for the preparation of sections for both electron & light microscopy. These products are in addition to their Standard Ultrathin EdgeCraft® Diamond Knife II™ introduced several months ago. In addition EdgeCraft has introduced a **NEW World Wide Web site** which can be accessed at <http://www.edgecraft.com> EdgeCraft Corporation: (800)343-3255, (610)268-0500, eMail: info@edgecraft.com or diamondpa@aol.com **Circle Reader Inquiry #42**

IMAGE/X-RAY ANALYZER EXCLUSIVELY FOR SEM'S

AutoSEM 1 is a PC based image analyzer and x-ray analyzer for an SEM capable of particle/feature size, shape and x-ray analysis for thousands of features, live/interactively or automatically without operator attendance. It provides complete image/x-ray analysis reports including statistics in standard spread sheet format, digital color coded x-ray maps based on composition rather than single element; digital

☎ Hardly used, 4 year old **NORAN Confocal Microscope**, including inverted Nikon microscope, 2nd fluorescent, reflected light, and transmitted channels, computer, Sony video monitor, color video printer and air table. The price is negotiable. Dr. Arthur Lee: eMail: lee@cvlab.harvard.edu

☎ **MILITARY RESEARCH LAB IS CLOSING** — Military contractor is selling at drastically reduced prices its Reichart Polycut S motorized sliding microtome, refrigerated and rotary microtomes, Sorvall ultramicrotome, Gatan Model 600 dual ion mill. Fisher embedding center, stereo microscopes, Perkin Elmer microdensitometer and LECO sulfur analyzer. For specification sheets, call: (202)544-0836.

☎ **AMRAY 1600 TURBO SEM** with turbo molecular pump, 40 A., 300,000 mag., 30 kV, in excellent working condition. Service contract until 10/96. \$16,900 Call (707)277-7909 ask for Michael.

☎ **HITACH H-600 TEM** with 800,000 mag., 100 kV, excellent condition. Asking \$9,500. Call (707)277-7909 ask for Michael.

☎ Hardly used **Nikon Labophot 2**, brightfield optics including Plan Aplanachromat 100x oil, 1.40. Price \$5225.00. Dr. R. Skui: Fax: (510)232-6811.

AUTOMATIC PROCESSING OF TEM FILM

Energy Beam Sciences is pleased to announce the further development of its AP20005 Autoprocessor for transmission electron microscopy film. This new instrument is manufactured from darkroom-quality stainless steel, and will form the centerpiece of any TEM darkroom, requiring no special sinks or plumbing and saving countless hours of darkroom time. It provides for the unattended processing of up to 56 films at a time in about an hour.

The films are held in a convenient rack, which is automatically moved through a timed sequence of immersion in developer tank, water rinse, fixer tank, second water rinse, photoflo tank and drying area. The system includes automatic nitrogen burst agitation in the developer and fixer tanks. Using this instrument, the microscopist needs to handle the individual negatives only once, to load them in the racks. Racks are available for all sizes of TEM films (e.g. 3-1/4" x 4", 6.5 cm x 9 cm).

The electronic controls have been completely revised to incorporate a Programmable Logic Controller (PLC) which allows custom programming of the system to meet specific customer needs. The user interface has been changed to a digital read-out type with membrane keypad that provides expanded functionality and is immune to contact with processor chemicals. **Circle Reader Inquiry #44**

high resolution imaging, image enhancement, image archiving, and inexpensive photo quality printed images. You can have an integrated SEM/image/x-ray analytical instrument with greater performance, ease of use, and better results. AutoSEM 1 can be used on new SEM's or is an ideal retrofit (upgrade) for your existing SEM.

Advanced Research Instruments Corp., (303)449-2288, Fax: (303)449-9376. eMail: aricorp@aricorp.com **Circle Reader Inquiry #45**