

Microscopy 101 - Continued from Preceding Page

window. Hold pipette with one hand (hand should rest, never work mid-air) near the tip and gently squeeze the bulb. The aim is to 'hit' with little force the upper rim of the Be window - where it is supported. Less force on the window and also slightly better coverage is achieved with the methanol stream directed well away from the perpendicular.

Freehand application is possible with care and a steady hand, but most people would be happier mounting the pipette horizontally in a low "retort" stand, at the Be window's level.

A side benefit of well-tilted detectors is that cleaning is much easier: simply use a suitable vial half filled with solvent and slide the detector snout into this. Slightly swirl and cleaning is done.

Jim Darley, ProSciTech (Australia)

Preventing Curling of Thick Plastic Sections:

I have been doing plastic sectioning for 20+ years, mostly glycol methacrylate (GMA), but I started out with methyl methacrylate (MMA). One to seven micrometer plastic sections do not ribbon, unless you put a dab of rubber cement on the top and bottom of the block, but usually we pick them up one section at a time. Curling is very common, so what I do is start the sectioning but do not finish, keep the section attached to the block, then use a brush or fine forceps and unroll it, pulling at a diagonal (leaving it attached lets you pull without completely pulling the section off). When it is mostly open and flat, complete the sectioning stroke, releasing the section.

I used to slide the MMA section onto a spatula, keeping the section wet with ethanol, and then sliding it off the spatula onto a slide on a hot plate. Keep dropping alcohol onto it, and it should flatten out.

GMA is much easier to pick off the block. Do the same thing, but keep everything very dry, pick up the section with a fine forceps and drop it onto a water bath and it will flatten out. Scoop onto a slide from the water.

Patsy Ruegg, University of Colorado Health Sciences Center

EMPLOYMENT OPPORTUNITIES

 Post Doc Positions: High resolution in situ microscopy. Corrosion, advanced battery, electrochemistry, polymer, materials science, biology-SPM. Several locations: U.S., Japan, Europe. http://www.molec.com/jobs/postdoc.html

USED EQUIPMENT FOR SALE

Philips EM-400T-FEG (field emission gun) TEM complete with EDAX ECON detector, EDAX PV 9800 analyzer, STEM (PW6585) unit and air cooled water chiller. Also available: Edax detector (with Be window) and Edax 9900 analyzer. All items are in good working condition. For details call: (203)389-6065 or FAX (203)387-3574.

MILITARY RESEARCH LAB IS CLOSING - Military contractor is selling <u>at drastically reduced prices</u> its Reichart Polycut S motorized sliding microtome, refrigerated and rotary microtomes, Sorvall ultramicotome, 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.

LOW COST PORTABLE

CAMERA ADAPTABLE MICROSCOPE



MACROSCOPE 25 provides 25x magnification over an 8 mm wide field of view. This low cost instrument has fully corrected flat field optics and includes a measureing scale calibrated in both millimeters and inches. The image is positionally correct making it extremely easy to use. Typical applications include field entomology, textiles secimen set for EM, forensic document examinations, horticulture, production quality control in manufacturing.

For further information on this and other MACROSCOPE Portable microscopes contact RF Inter-Science Co. (516)698-4799, Fax: (516)698-4988, eMail: RichF516 @aol.com or visit our webside: http://members.aol.com/ RichF516

Circle Reader Inquiry #40

TopoMetrix Introduces Accurex™ II MS: First Dedicated AFM for Optical Storage Applications

TopoMetrix Corporation introduces the first atomic force microscope (AFM) designed specifically for optical storage applications. The Accurex II MS makes three dimensional, high resolution surface measurements of DVD, CD, and related stampers and discs.

The Accurex II MS can scan areas from 100 microns by 100 microns, to areas of less than 1 micron on a side, and features up to 10 microns high (or deep). Scan resolution (in all dimensions) is 0.1 nanometer.

Measurement accuracy in all three dimensions is provided by a patented TopoMetrix design that is well proven, incorporated in over 300 TopoMetrix AFM systems worldwide.

The Accurex II MS comes in two configurations:

The Inspection Configuration is designed to be operated by technicians. Instrument set-up is procedure driven, so that the technician follows instructions provided by the system computer, and selects the analyses to be run. Standard measurements, such as pit lengths and depths, are automated.

The Research Configuration provides the process development scientist with all AFM operating modes, as well as TopoMetrix SPMLab[™] software for the greatest flexibility and power in data acquisition, image display and analysis, and screen editing. The Research Configuration also includes the automated analysis capabilities of the Inspection Configuration.

For further information, contact Paul West, VP of Marketing & Sales, TopoMetrix Corporation: (408)982-9700, Fax: (408)982-9751.

Circle Reader Inquiry #41

PC-Based Image/X-ray Analyzer Exclusively for SEMs

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. Ideal for new SEMs or an upgrade for existing SEMs. With AutoSEM 1 you have an integrated SEM/image/x-ray analytical instrument with greater performance, ease of use and better results. 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 high resolution imaging, image enhancement, image archiving, and inexpensive photo quality printed images. Applications are for air, metal inclusions, water, asbestos, solid particle pollution, GSR, ceramics, and many others.

Advanced Research Instruments Corp.

2434 30th Street, Boulder, CO 80301

Tel.: (303)449-2288, Fax: (303)449-9376, eMail: aricorp@aricorp.com

Circle Reader Inquiry #42

CrossMark