

NEW AND/OR INTERESTING IN MICROSCOPY

- ✓ Only from EDAX - does the microanalyst have a choice of EDX system computer platforms. The launch earlier this year of the DX-4 and the NX-2 workstations marked the first time in history that an energy dispersive X-ray manufacturer could successfully market and support such diversity. The DX-4 is a 486 Windows™ based system and the NX-2 is OpenLook/Sparc 2 based. For more information, call Edax International. Tel.: (201)529-4880; Fax: (201)529-3156.
- ✓ From Philips Electronic Instruments, a fully integrated SEM/X-Ray microanalysis system - with the company's XL Series SEM and an EDAX International's DX-4i EDX analyzer. Both systems operate within a Microsoft Windows environment and share a common (GUI) interface. The common software environment allows the generation of future higher-level automation packages such as multifield analysis, combined image analysis and elemental analysis. Philips Electronic Instruments: (201)529-3800.
- ✓ A new, beautifully illustrated book, *Images of Materials*, describes the new generation of electronic imaging technologies, explaining their distinctive operating principles and offering dramatic examples, in unprecedented detail, of the microscopic world. Edited by David B. Williams, Lehigh University; Alan R. Pelton, Raychem Metals; and Ronald Gronsky, Lawrence Berkeley Laboratories, the book covers scanning electron, ion, tunneling, acoustic, and transmission electron microscopy. The large format book, with 432 pages and 410 illustrations, is sufficiently detailed to make the work a useful resource for scientists, students, researchers, and engineers. Oxford University Press. Tel: (212)679-7300.
- ✓ A comprehensive range of new desktop Carbon & Sputter Coating Units for SEM/TEM specimen preparation was recently introduced by Cressington Industries. USA sales to be handled by Terry Donovan of DRB Technologies: (412)774-8590.
- ✓ Has your thin window EDX detector stopped seeing C and O because of oil contamination? Try SEM-CLEAN from XEI Scientific, 3124 Wessex Way, Redwood City, CA. Call Ron Vane at (415)369-0133.
- ✓ Upgrade your solid state EDS detector for EDS analysis:
 - Light element capability
 - Interface to new microscope
 - Install a durable X-ray window
 - Straight forward repairs
 - Custom design
 For further information, contact John Giles, Giles Design Enterprises: (609)683:9266, Fax: (609)683-9560.
- ✓ From Carl Zeiss, Inc. a new line of MICROM electronic microtomes:
 - The HM 340E is the first rotary microtome with a removable touch-pad operating panel. Other unique features include a large removable integrated section waste tray, automatic approach system of specimen from any position, pre-selected coaxial fine/trim feed, and a removable storage unit with cooled surface.
 - The HM 440E is the first sliding microtome with motorized vertical specimen movement specimen retraction in the sledges return mode, automatic section thickness feed, one button for up/down, fine feed and trimming, pre-selected coaxial fine/trim feed and integrated section waste tray. Carl Zeiss, Inc.: Tel.: (800)233-2343, Fax: (914)681-7446.

MICROSCOPISTS & SPECTROSCOPISTS

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Our attention was caught by a recent article in this newsletter (Issue #7, September, 1992) entitled "Modern Microscopy on the Light Side. The FTIR Microscope" by Mr. Skip Palenik. Mr. Palenik makes some cogent points but we feel there is a bit more to the story. We are spectroscopists by training and experience and "...have done some reading and/or taken a short course...", but we have not "...set ourselves up as microscopists...", at least so far. We have, however, for the past nine years attempted to educate microscopists, spectroscopists, chemists and even non-scientists regarding the benefits of combining optical microscopy and molecular spectroscopy. We are convinced the whole is greater than the sum of the parts.

The very rapid acceptance of infrared microspectroscopy by the analytical chemistry community reflects its power to solve diverse problems. One of the long time characteristics of infrared spectroscopy has been that its users vary greatly in their needs and thus in the sophistication in their systems. In connection with this, it must be realized that the fundamental laws of physics prevent the coupling of a microscope and an infrared spectrometer, in such a way as to optimize the performance of both, at a cost which can be borne by all users. As a result, some infrared microscopes have been optimized for viewing capabilities while compromising spectroscopic capabilities and vice versa. Such compromises are not unusual in the field of infrared spectroscopy and the advantages gained by them constitute part of the reason for such widespread use of infrared in chemical analysis.

We quite agree with Mr. Palenik that the infrared spectroscopist should consult the optical microscopist before purchasing an infrared microscope, but we also feel strongly that the optical microscopist should consult the infrared spectroscopist under reversed conditions. We also

agree that sample preparation is indeed very important if good results are to be obtained. This is nicely shown by Mr. Palenik's Figure 2. Although the spectrum indicates Nylon, there is normally more information of interest than just the ID of Nylon in the infrared spectrum. This additional information could not be obtained from the spectrum shown. In conclusion, we offer a plea to both types of scientists to work together. There is much to be learned from each, and working together can only benefit the field. ■



F.Y.I.

Readers, who have expressed their interest in continuing to receive this newsletter by completing our questionnaire, may note in some cases that our "Plus-4" zipcode extension is not as they supplied.

We do, of course, enter the total zipcode that they supplied in our database. Prior to each mailing, however, we run our database through a U.S. Postal Service verified system. This system on CD-ROM is updated each quarter and contains 3.8 giga-addresses that the P.O. considers valid. The system corrects and standardizes all addresses, adds both 5-digit basic and 4-digit extension zipcodes that IT considers accurate and creates the new 11-digit delivery point barcodes. It also produces a certificate that verifies to the Post Office that at least 85% of our addresses are "correct" and so allows special automated postal discounts. Over time we expect that the P.O. and all organizations will agree as to what are correct street address. In the meantime, to enjoy maximum discounts, we must accept the P.O.'s zipcodes.

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