#### **NEW AND/OR INTERESTING IN MICROSCOPY**

**▶** EDAX International was acquired by Panta Electronics, effective on 23 January 1998, together with nine other business from Philips Industrial Electronics Division.

Panta Electronics is a new company established by a syndicate of investors led by Advent International, one of the world's largest private equity investors. Advent International has over \$3 billion under direct management and an additional \$1.5 billion under the management of affiliated companies in 30 countries across Europe, the Americas, the Asia Pacific and Middle East regions of the world.

The company, now identified as EDAX Inc., will continue to be headquartered in Mahwah, N.J., with offices in Europe, Japan and a world wide distribution network. Mr. Alan Devonish is the President and CEO of EDAX, Inc. and states "The change has numerous benefits and positive implications for EDAX. We will continue with, and accelerate, our growth plans maintaining a technological leadership in the fields of x-ray analysis and expanding into other areas".

➤ On 16 March 1998, KLA-Tencor Corporation signed a definitive agreement to acquire AMRAY, Inc.

KLA-Tencor is a world leader in yield management and process control solutions for semiconductor manufacturing and related industries. The acquisition extends KLA-Tencor's defect classification and review capabilities, which already include the UltraPointe Confocal Laser Review Station (CRS), and the SEMSpec automated defect inspection system, and the 8100 CD SEM critical dimension metrology system

As a new KLA-Tencor division, AMRAY will continue manufacturing, service and R&D in its state-of-the-art facility in Bedford, MA. Gerald T. Cameron Jr. will continue as president of AMRAY. Mr. Cameron advises "We believe our customers will be well served by the combination of our two companies. This integration will allow us to leverage KLA-Tencor's global infrastructure for broader customer support, while simultaneously allowing us to focus our resources on more rapid new product development.

- **▶** Ed. Note: We have been advised, on an informal and unofficial basis, that **NO** changes in personnel for either of the above two companies is anticipated
- ▶ The PITTCON Editors, at PITTCON '98, evaluated the best three products at the conference and awarded first place, the Gold Award, to μTA™, a micro-thermal analysis system developed as a co-operative venture between TA Instruments Inc. (New Castle, DE) and TopoMetrix Corporation (Santa Clara, CA). The system allows scientists to map the

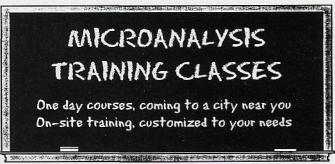
surface of a materiel with an AFM and conduct thermal analysis measurements on selected areas at the micron level.

- TopoMetrix Corporation recently announced that Michael Moore has been appointed President and Chief Executive Officer, and Chief Financial Officer, effective immediately. Mr. Moore replaces Shirley Clayton who is leaving to pursue other interests.
- RMC, manufacturer of ultramicrotomy, histology and cryo products, will hold its 5th annual course titled: Using Ultramicrotomy in Materials Science. A unique approach to problem solving for EM. The course is a hands-on short course to be held September 29 through October 2, 1998 at the company's headquarters in Tucson, AZ. Emphasis will be on the many specialized sample preparation techniques which make possible the ultramicrotomy of challenging materials. Included in the cost of the course are hotel accommodations for four nights, staff lecture, course literature, laboratory time and materials, as well as continental breakfast, lunch, and social events (a mixer and a Western BBQ)

For more information, send an email to rmc@rmc-scientific.com or contact Ann at (520)903-9366 X251, Fax: ((520)903-0132



P.S.: A surprising number of new conferences, workshops, and other "events" have been recently announced. You are invited to review these on page 7 of this issue.



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#### **INTERVIEW BEHAVIORS**

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The following was recently posted to the Histonet listserver. We regret that we do not know the author

We've all been interviewed for jobs. And, we've all spent most of those interviews thinking about what not to do. Don't bite your nails. Don't fidget. Don't interrupt. Don't belch. If we did any of the "don'ts", we knew we'd disqualify ourselves instantly.

But some job applicants go light years beyond this. We surveyed top personnel executives of 100 major American corporations and asked for stories of unusual behavior by job applicants.

The low lights:

- 1. "... stretched out on the floor to fill out the job application".
- 2. "She wore a Walkman and said she could listen to me and the music at the same time".
- 3. "A balding candidate abruptly excused himself. Returned to office a few minutes later, wearing a hairpiece".
- 4. "... asked to see interviewer's resume to see if the personnel executive was qualified to judge the candidate".
- 5. "... announced she hadn't had lunch and proceeded to eat a hamburger and French fries in the interviewer's office wiping the ketchup on her sleeve".
- 6. "Stated that, if he were hired, he would demonstrate his loyalty by having the corporate logo tattooed on his forearm".
- 7. "Interrupted to phone his therapist for advice on answering specific interview questions".
- 8. "When I asked him about his hobbies, he stood up and started tap dancing around my office".
- 9. "At the end of the interview, while I stood there dumbstruck, went through my purse, took out a brush, brushed his hair, and left".
- 10. "... pulled out a Polaroid camera and snapped a flash picture of me. Said he collected photos of everyone who interviewed him".
- 11. "Said he wasn't interested because the position paid too much".
- 12. "While I was on a long distance phone call, the applicant took out a copy of Penthouse, and looked through the photos only, stopping longest at the centerfold".
- 13. "During the interview, an alarm clock went off from the candidate's brief case. He took it out, shut it off, apologized and said he had to leave for another interview".
- 14. A telephone call came in for the job applicant. It was from his wife. His side of the conversation went like this: "Which company? When do I start? What's the salary?" I said, "I assume you're not interested in conducting the interview any further". He promptly responded, "I am as long as you'll pay me more". I didn't hire him, but later found out there was no other job offer. It was a scam to get a higher offer."
- 15. "His attaché (case) opened when he picked it up, and the contents spilled, revealing ladies' undergarments and assorted makeup and perfume".
- 16. "Candidate said he really didn't want to get a job, but the unemployment office needed proof that he was looking for one".
- 17. "... asked who the lovely babe was, pointing to the picture on my desk. When I said it was my wife, he asked if she was home now and wanted my phone number. I called security".
- 18. "Pointing to a black case he carried into my office, he said that if he was not hired, the bomb would go off. Disbelieving, I began to state why he would never be hired and that I was going to call the police. He then reached down to the case, flipped a switch, and ran. No one was injured, but I did get a new desk.

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#### COMING EVENTS

- ✓ April 19/23 '98: 20th International Conference on Cement Microscopy (ICMA) Guadalajara, Mexico. www.cemmicor.org
- ✓ April 19/24 '98: 7th Biennial Frontiers of Electron Microscopy in Materials Science (FEMMS98) Irsee, Germany: http://femms98.llnl.gov, email: weking@llnl.gov
- ✓ May 6 '98: Beckman Institute for Advanced Science and Technology Workskhop on Quantitative Approaches to the Estimation of Changes in Organs, Tissue, and Cells. (MSA) Univ. of Illinois at Urbana-Champaign. Julie Weaver: (217)244-4906, Fax: (217)244-8371, jweaver@uiuc.edu
- ✓ May 9/12 '98: **SCANNING '98: (FAMS)** Baltimore, MD. Mary K. Sullivan:(201)818-0086, Fax: (201)818-0086, email: fams@holonet.net www: http://www.scanning-fams.org

Marine Biological Laboratory Courses: Woods Hole, MA
May 7/15 '98: Analytical & Quantitative Light Microscopy
May 19/26 '98: Microinjection Techniques in Cell Biology
Oct 7/15 '98: Optical Microscopy & Imaging in the Biomed Sciences
Carol Hamel: (508)289-7401, admissions@mbl.edu

✓ Practical Aspects Series of Short Courses at Univ of Maryland

May 18/22 '98 Scanning Electron Microscopy - Session I

May 19/22 '98 Image Analysis

May 25/29 '98 Scanning Electron Microscopy - Session II

May 26/29 '98 X-ray Microanalysis

Tim Maugel: (301)405-6898, eMail: maugel@zool.umd.edu

- ✓ May 19/21 '98: Ultramicrotomy of Materials Workshop & Seminar Leica, Diatome US & EM Sciences) University of Colorado, Voice mail: (800)248-0665 X5010, Diatome: (215)646-1478, www.leica.com eMail: Mike\_Broykin@leicana.com
- ✓ May 21/23 & 25/27 '98: **Quantitative Image Analysis Workshops.** (North Carolina State University) Raleigh, NC. Alice Warren: (919)515-4195, Fax: (919)515-7614, email: alice\_warren@ncsu.edu
- ✓ June 7/10 '98: SCANDEM '98 (Helsinki Univ. of Technology), Espoo, Finland. http://scandem.hut.fi, eMail: scandem-98@hut.fi
- ✓ LEHIGH MICROSCOPY SHORT COURSES 1998

June 8/12 '98: SEM and X-ray Microanalysis

June 7 '98: Introduction to SEM and EDS for the new SEM Operator

June 15/19 '98: Advanced Scanning Electron Microscopy with Digital Image Processing.

June 15/19 '98: Quantitative X-ray Microanalysis of Bulk Specimens and Particles June 15/18 '98: Analytical Electron Microscopy: Analysis of TEM Specimens

June 16/19 '98: Atomic Force Microscopy and Other Scanned Probe Microscopies
For information, contact Sharon Coe at phone: (610)758-5133, Fax:

For information, contact Sharon Coe at phone: (610)758-5133, Fax: (610)758-4244, eMail: slc6@lehigh.edu

- ✓ June 17/28 '98: 3D Microscopy of Living Cells (Univ. of British Columbia) Vancouver, BC, Canada. Prof. James Pawley: (608)265-5315, email: JBPAW-LEY@FACSTAFF.WISC.EDU
- ✓ June 22/26 '98: 14th Annual Short Course on Melecular Microspectroscopy (Miami Univ) Oxford, OH (513)529-2874, Fax: (513)529-7284
- ✓ June 22/28 '98: OIM Academy OIM Theory and Practice (TexSEM Lab) Provo, UT (801)495-2758, Fax: (801)495-2758
- ✓ June 30 July 2 '98: **3D Image Processing** (Univ. of British Columbia) Vancouver, BC, Canada. Prof. James Pawley: (608)265-5315, email: JBPAW-LEY@FACSTAFF.WISC.EDU
- ✓ July 7/9 '98: MICRO 98 (Royal Microscopical Society) London, UK, +44 (0) 1865 248768, Fax: +44 (0) 1865 791237, info@rms.org.uk
- ✓ July 12/16 '98: Microscopy & Microanalysis '98. (Microscopy Society of America) Atlanta, Ga. http://www.msa.microscopy.com
- ✓ July 24/26 '98: 5th Joint Meeting of The Histochemical Society and The Japan Society for Histochemistry and Cytochemistry, San Diego, CA, http://www.hcs.microscopy.com

- ✓ July 26/29 '98: **31st Annual International Metallographic Society Convention** (ASM) Ottawa, Canada. http://www.asm-intl.org
- ✓ July 27/31 '98: **3rd Annual Fundamentals and Applications of Light Microscopy** Waltham, MA Mary McCann, (617)484-7865, Fax: 617)484-2490, mccanns@tiac.net
- ✓ August 17/21 '98: Summer School on Computing in Electron Microscopy (Lawrence Berkeley National Lab) Berkeley, CA. (510)486-6036, Fax: (510)486-5888 eMail: JLCavlina@lbl.gov
- ✓ Aug 31 Sept 4 '98: ICEM XIV/International Congress on Electron Microscopy. Cancun, Mexico. (525)553-4507, Fax: (525)553-4500, email: icem@icem.inin.mx WWW: http://icem.inin.mx
- ✓ Sept 28 Oct 2 '98 (Tentative): 5th Annual Materials Science Course (RMC) Tucson, AZ Ann at (520)903-9366, Fax: (520)903-0132
- ✓ Sept 28/Oct 2 '98: OIM Academy Advanced OIM Theory and Application (TEXSEM Labs) Provo, UT. (801)495-2758, Fax: (801)495-2758
- ✓ Sept 29/Oct 2 '98: 5th Annual Materials Sciences Course (RMC) Tucson, AZ. Ann: (520)903-9366 X251, Fax: (520)903-0132, eMail: rmc@rmc-scientific.com
- ✓ Oct 5/9 '98: 6th International Conference and Workshop on Molecular Morphology. Salzburg, Austria Prof. Gerhard W. Hacker: 43 662 4482 4730, Fax: 43 662 4482 882, eMail: g.hacker@ikasbg.gv.at
- ✓ Oct '98: International Courses of Light Microscopy, Photomicroscopy and Laser Scanning Confocal Microscopy. Gargaano, Italy http://imiucca.csi.unimi.it/endomi/micro.html
- ✓ Nov 15/20 '98: 1998 Eastern Analytical Symposium. Somerset, NJ, (302)738-6218, easinfo@aol.com

# The Just-For-The Fun Contest Is a GO!

With the approval of the conference management of Microscopy and Microanalysis '98 (July 12-16, 1998 - Atlanta, GA), the Just-For-The-Fun Contest will be held.

Entries will be composite images, made up from two or more other images - one of which must be microscopical in nature. Contestants my enter a maximum of two entries.

They will be displayed in our booth and attendees will be invited to judge on the basis of creativity and how interesting.

Prizes will all be American Eagle gold coins - 1 oz. for first place, 1/2 oz. for second place, 1/4 oz. for third place. All contestants will receive their choice of 2 microscopy prints by David Scharf. Winning entries will be featured on the cover of Microscopy Today.

Entries should, of course, be "hard copy" - with photographic or printer output, and be either in color or black/white. Any (reasonable) size is acceptable but around 8.5" x 11" is preferred.

Entries are welcome from all microscopists, certain to include those overseas and all manufacturers and suppliers. You do not have to present at the conference to win.

A 3" x 5" card should accompany each entree, with a description of the image and your name, company, address, etc.

Entrees may be mailed to Microscopy Today prior to the conference or delivered to our booth at the start of the conference.

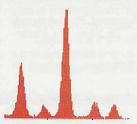
At the point that you decide that you will enter, kindly advise - by telephone (608/836-1970), by fax (608/836-1969), or by eMail (MicroToday@aol.com). In this way we can be sure that you receive any further information on the contest.

# EDS Upgrades

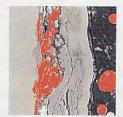
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## **Low-Cost Hot Stage For Crystal Studies**

Ely Silk, Cryolume Scientific Company

I required a hot stage to do some work with liquid crystals. Hot stages on the market are very expensive. I decided to try using electro-conductive glass. This is the NESA glass used by automotive manufacturers in electrically operated defrosting windows. A local glazier ordered some of the glass for me in 8 x 8 inch squares. I had the squares cut and edge polished into 2 x 2 inch pieces by a filter manufacturer. One sheet of 8 x 8 inch glass cost me about \$15.00. Cut down, I got nine 2 x 2 inch pieces suitable for my experiments at an additional cost of \$3.00 per cut piece.

A piece of 2 x 2 inch electro-conductive glass is prepared with two thin copper strips epoxied to the outer margins. One needs a conductive epoxy, and I used a silver epoxy (40-3900 resin and catalyst) obtained from Epoxies, Etc. of Greenville, RI.

In the center of the conductive glass surface, place a small drop of a high boiling point, non-reactive liquid such as glycerol (bp 290 degrees C). Next, lay a thin microscope cover glass (#0 is ideal) about 22 x 30 mm in size on top of the drop of liquid. Place a few crystals of the material being studied on the cover slip either in solid form or dissolved in a suitable solvent. If a solvent is used, allow it to partially evaporate, and lay another cover glass about 18 x 18 mm (thickness dependent on objective correction), centering the smaller cover glass in the larger. (See Figure 2.)

Place the heating device on the microscope stage and connect the leads to a DC power supply (variable 20 volts @ 1 amp is fine), and set up the polarizers (if these are being used) in the crossed position. While examining the crystals, slowly raise the applied voltage and look for melting. Fine adjustment of the applied power will increase, decrease, stop, or reverse the melting rate. Examining anisotropic crystals forming or melting while viewed under polarized light is an unforgettable experience.

A few materials to start with include thymol, camphor, menthol, stearic acid, and myristic acid. Studies of crystal habits, changes of polarization, etc., may now be easily and inexpensively performed. Bear in mind that the device is unsealed. If materials such as naphthalene, anthracene, biphenyl, and other hazardous compounds are to be studied, some provision must be made to produce a sealed heating cell.

If you need to measure the temperature of the plate, use a digital thermometer with a fine metal probe tip and immerse the tip in a drop of glycerol (or similar high boiling point liquid) placed on the glass surface in the region of interest. Alternatively, the temperature can be measured using pure organic solid reagents with known melting points. Also, liquid crystal sheets and thermometers are available which can be placed in contact with the glass to map the temperatures.

The benefits of this simple-to-construct hot stage include: (1) low-cost, very rapid response, low thermal lagging (due in part to the liquid interface between the tin oxide and lower cover glass), and (2) transparency which allows transmitted light viewing. The thinner the glass, the better as far as being able to set up critical (Koehler) illumination, but under low power, even the thicker glass will perform well. With this setup, I easily achieved 95 degrees C on the surface (16 volts @ 600 ma). If your temperature requirements are under 100 degrees C, this low-cost device may do the job.

The glass substrate (typically 1/8" thick float glass) is a fairly good heat insulator, but it has been pointed out that the microscope stage is a great heat sink. For your high temperature work, or for prolonged incubation, consider placing a thin gasket of teflon, mica, or reflective mylar with a central hole beneath the glass cell. The emphasis is on THIN since anything that further elevates the specimens will further reduce the criticality of illumination by the substage condenser as well.

Materials with melting points up to 95 degrees C may be readily examined with the setup. Definitely construct a number of hot stage plates and see how high a temperature you can reach safely. Be aware that