

► EDUCATIONAL CDROMS

A new series of educational CDROMs has been developed by the Cytometry Laboratory at Purdue University. The first of the series is Vol. 1 – "Microscopy, Image Analysis and 3D Reconstruction". The disk editors are Jim Pawley (University of Wisconsin) and J. Paul Robinson (Purdue University). Some information may be found at: [www.cyto.purdue.edu/flowcyt/cdrom/imgcd.htm](http://www.cyto.purdue.edu/flowcyt/cdrom/imgcd.htm).

Sponsors who made this disk possible are: Bio-Rad, Nikon, Croma, CBI and VayTek. These vendors will have free copies of the disc in their booths at Cell Biology (12 December, San Francisco). One is encouraged to visit these vendors to receive a free CDROM. The CDROM will operate on all computer platforms.

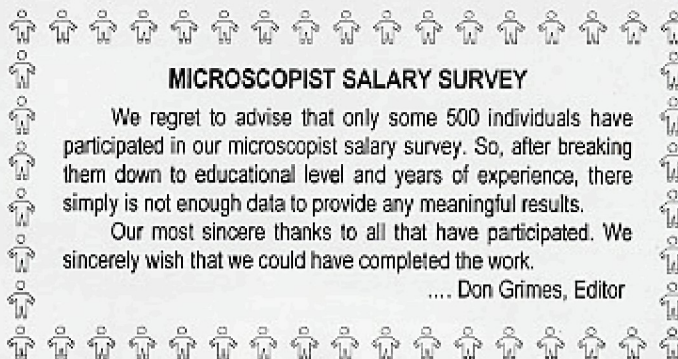
This disk is the 5th in the educational CDROM series distributed by Purdue University Cytometry Laboratories. The following may be contacted for more information than can be obtained from the above website:

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► It has been reported that scientists at Bell Laboratories (Murray Hill, NJ), part of Lucent Technologies, have developed an instrument that can detect particles to one-thousandth of a micron, a capability that could be of value for quality control in semiconductor manufacturing.

► MSA TECHNOLOGIST'S FORUM

The Technologists' Forum is a committee within MSA that has as its mission the advancement of the technical aspects of the microscopies from the local to the national level. The Technologists' Forum provides opportunities for discussion of interests, problems and professional needs of microscopy technologists. The Forum sponsors several sessions and an exhibit booth at Microscopy & Microanalysis '99 and communicates with its members through the *MSA Bulletin* and newsletters. It also sponsors the Microscopy Facility Directory and participates in the MSA Traveling Exhibit. Any MSA member is welcome to belong and contribute to its activities. For more information, please contact Forum Chair Bev Maleeff at (610)270-7987, eMail: [Beverly\\_E\\_Maleeff@sbphrd.com](mailto:Beverly_E_Maleeff@sbphrd.com), or visit our web pages through the MSA web site at [www.msa.microscopy.com](http://www.msa.microscopy.com).


**MICROSCOPIST SALARY SURVEY**  
 We regret to advise that only some 500 individuals have participated in our microscopist salary survey. So, after breaking them down to educational level and years of experience, there simply is not enough data to provide any meaningful results.  
 Our most sincere thanks to all that have participated. We sincerely wish that we could have completed the work.  
 .... Don Grimes, Editor

**Instructions for authors:**

Microscopy Today does not have a formal "Instructions to Authors". We let authors find their own style, asking only that the writing be clear, informative, and accurate. We have authors from too many disparate fields in both biological and materials sciences, each field with its own standards, that we find it better not to impose a style of our own.

Abbreviations and acronyms should be written out in full the first time they appear in a note or article. If they only appear once, then they should be written in full, and the abbreviation or acronym can be given in parentheses if it is widely used. Universally used abbreviations, such as "mL" for milliliters do not need to be written out.

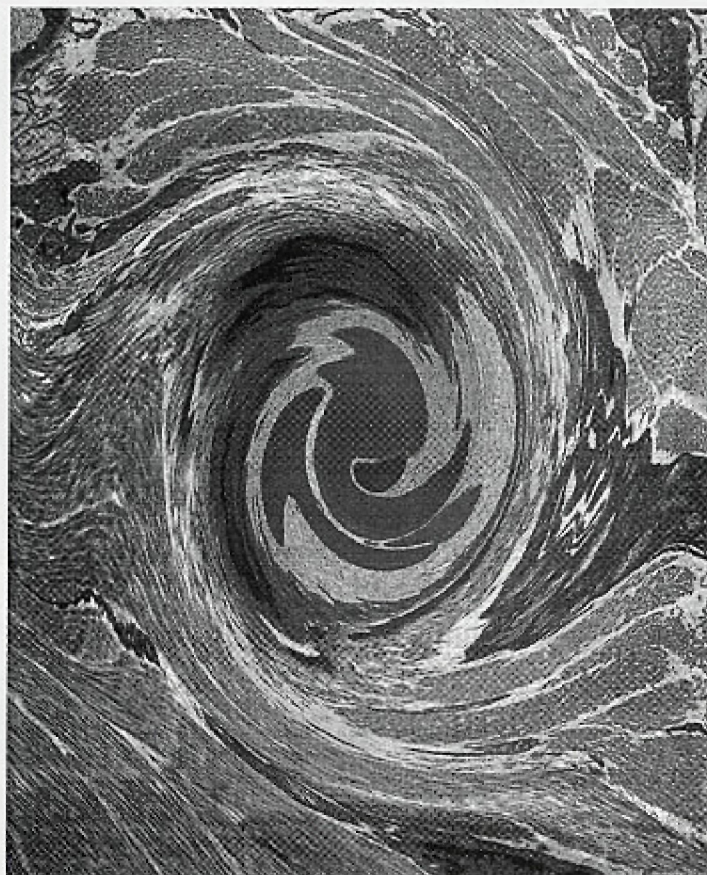
"Microscopy 101" tips and hints are less than 1000 words (shorter is usually better). These notes can be "Here is how you do X", or for a stain or other protocol - a sentence or two on the value of the procedure, the recipe "X mL this, Y grams that, mix for N minutes, filter" (or whatever), and then "this is what you should get". More explanation if needed is fine, but please keep it short.

Illustrations are welcome, including color, but because of costs we ask that color be used when black and white would not show the needed information. *Microscopy Today* does not charge authors for the cost of color illustrations.

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For additional information regarding our policy, you may contact: Don Grimes, Editor, at [MicroToday@aol.com](mailto:MicroToday@aol.com) or Phil Oshel, Technical Editor, at [posbel@terra.com.net](mailto:posbel@terra.com.net).



**Cross Section of a Capillary**

*We all know that electrons follow helical paths through electromagnetic lenses. . .*

## On Toaster Manufacturing...

### If IBM made toasters...

They would want one big toaster where people bring bread to be submitted for overnight toasting. IBM would claim a worldwide market for five, maybe six toasters.

### If Microsoft made toasters...

Every time you bought a loaf of bread, you would have to buy a toaster. You wouldn't have to take the toaster, but you'd still have to pay for it anyway. Toaster '95 would weigh 15,000 pounds (hence requiring a reinforced steel countertop), draw enough electricity to power a small city, take up 95% of the space in your kitchen, would claim to be the first toaster that lets you control how light or dark you want your toast to be, and would secretly interrogate your other appliances to find out who made them. Everyone would hate Microsoft toasters, but nonetheless would buy them since most of the good bread only works with their toasters.

### If Apple made toasters...

They would do everything the Microsoft toasters do, but five years earlier.

### If Xerox made toasters...

You could toast one-sided or double-sided. Successive slices would get lighter and lighter. The toaster would jam your bread for you.

### If Radio Shack made toasters...

The staff would sell you a toaster, but not know anything about it. Or you could buy all the parts to build your own.

### If Oracle made toasters...

They'd claim their toaster was compatible with all brands and styles of bread, but when you got it home you'd discover the Bagel Engine was still in development, the Croissant Extension was three years away, and that indeed the whole appliance was just blowing smoke.

### If Sun made toasters...

The toast would burn often, but you could get a really good cuppa Java.

### If Hewlett-Packard made toasters...

They would market the Reverse Polish Toaster, which takes in toast and gives you regular bread.

### If the Rand Corporation made toasters...

It would be a large, perfectly smooth and seamless black cube. Every morning there would be a piece of toast on top of it. Their service department would have an unlisted phone number, and the blueprints for the box would be highly classified government documents. The X-Files would have an episode on it.

### If Sony made toasters...

The ToastMan, which would be barely larger than the single piece of bread it is meant to toast, can be conveniently attached to your belt.

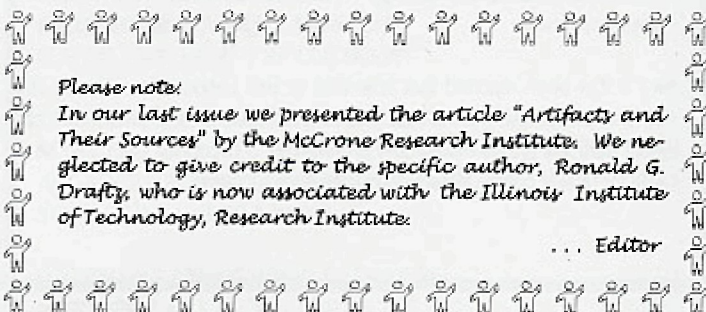
### If Fisher Price made toasters...

"Baby's First Toaster" would have a hand-crank that you turn to toast the bread that pops up like a Jack-In-The-Box

### If the Franklin Mint made toasters...

When the toaster finally made it to market, it would be designed to toast a whole loaf at a time. By software revision 8.46 we would have the capabilities to toast slices.

A contribution from Tina Carvalho, University of Hawaii. Author Unknown.



Please note:

In our last issue we presented the article "Artifacts and Their Sources" by the McCrone Research Institute. We neglected to give credit to the specific author, Ronald G. Draftz, who is now associated with the Illinois Institute of Technology, Research Institute.

... Editor

## Take the following microanalysis quiz

- What is the thickness of my film?
- Does the beam penetrate that particle?
- What is the best kV to use for this sample?
- How wide is the beam in my E-SEM?
- How much does an incorrect analysis cost?
- How can I improve the quality of my analysis?

Maybe it's time to take a look at the software that can answer these questions

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<sup>††</sup> U.S. Patents 5,465,012; 5,469,058

## COMING EVENTS

### McCrone Research Institute (Selected) Microscopy Courses, Chicago, IL

Nov 30/Dec 4 '98: Scanning Electron Microscopy  
 March 1/5 '99: Conoscopic Methods  
 April 12/16 '99: An Introduction to TEM - Techniques and Applications  
 April 12/16 '99: Advanced FTIR Microscopy  
 June 21/25 '99: Electronic Image Acquisition, Processing & Analysis  
 Nancy Daerr: (312)842-7100, Fax: (312)842-1078, ndaerr@mcric.org

✓ March 7/12 '99: **PITTCON '99**. Orlando, FL (412)825-3220, Fax: (412)825-3224, email: expo@piticon.org

✓ March 22/25 '99: **11th International Conference on Microscopy of Semiconducting Materials**. (RMS & MRS) University of Oxford. <http://www.icp.org/Confs>

✓ April 11/14 '99: **SCANNING '99**: (FAMS, Inc.) Chicago, IL, Mary K. Sullivan: (201)818-1010, Fax: (201)818-0086, fams@holonet.net

✓ April 11/15 '99: **FOCUS ON MICROSCOPY 1999 - 12th International Conference on 3D Image Processing in Microscopy & 11th International Conference on Confocal Microscopy** (European Molecular Biology Laboratory). Heidelberg, Germany <http://www.embl-heidelberg.de/Conferences/FocusOnMicroscopy>

✓ **LEHIGH MICROSCOPY SCHOOL**, Bethlehem, PA

June 14/18 '99: SEM and X-ray Microanalysis  
 June 13 '99: Introduction to SEM and EDS  
 June 21/25 '99: Advanced Scanning Electron Microscopy  
 June 21/25 '99: Quantitative X-ray Microanalysis  
 June 21/24 '99: Analytical Electron Microscopy  
 June 22/25 '99: Atomic Force Microscopy  
 June 21/24 '99: Microdiffraction  
 Info: Ms Sharon Coe: (610)758-5133, email: slc6@lehigh.edu

✓ June 16/27 '99: **3D Microscopy of Living Cells & June 29/July 1 '99: 3D Image Processing Workshop** (Univ of British Columbia) Vancouver, BC, Canada. Prof. James Pawley: (608)263-3147, jbpawley@facstaff.wisc.edu

✓ June 21/25 '99: **15th Annual Short Course on Molecular Microspectroscopy** (Miami University) Oxford, OH (513)529-2874, fax: (513)529-7284, email: <http://www.muohio.edu/~sommeraj>

## X-ray and Microscopy Specialist School of Materials Engineering Purdue University

Applications are sought for a vacancy at the professional level in the Microstructural and X-ray Facilities of the School of Materials Engineering. These Facilities provide service to a spectrum of users throughout campus. Descriptions are available on the School's web site at [www.ecn.purdue.edu](http://www.ecn.purdue.edu). Responsibilities include operational management of the X-ray Facility for powder, texture, and single crystal techniques as well as helping in the Microstructural Analysis Facility. The screening of candidates will begin in October 1998, and will continue until the position is filled.

Interested candidates should send a letter of interest and a resume along with names, addresses and telephone numbers of three references to: Gerald L. Liedl, Purdue University, 1289 MSEE Building, West Lafayette, IN, 47907-1289, or by Fax to (765)494-1204, or by e-mail to [liedl@purdue.edu](mailto:liedl@purdue.edu).

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