PURDUE
UNIVERSITY
Discovery Park
Bindley Bioscience Center | Birck Nanotechnology Center

You are cordially invited to attend:

Atomic Force Microscopy (AFM) Metrology Workshop

Thursday, February 15, 2007
8:30 a.m. – 4:00 p.m.
Birck Nanotechnology Center (Room 2001)

No fee to attend. Seating is limited.
Please register online at: www.veeco.com/afmworkshop
For more information, call (765) 496-1464.

Attend this free informative workshop to learn more about Atomic Force Microscopy and its ability to provide new insights to researchers around the world

8:30 — 8:45 a.m. **Continental Breakfast and Welcome**
Dr. Chris Getz, Midwest Account Manage, Veeco Instruments, Eden Prairie, MN

8:45 — 9:30 a.m. **How Atomic Force Microscopy Is Advancing Life Science Research**
Dr. Nelle Slack, Sr. Nano-Bio Scientist, Veeco Instruments, Santa Barbara, CA

This session will present numerous applications to show the unique information that AFM can provide biologists, from imaging single molecules and tissue to visualization of real time events, such as molecular pulling, ligand/receptor interactions, membrane reorganization and cell signaling events. Included in this presentation will be the principles of AFM, focusing on primary imaging techniques used for biological samples as well as sample preparation, probe selection, and tips on data acquisition.

9:30 — 10:15 a.m. **Nanoscope V and Other New SPM Developments at Veeco**
John Thornton, Sr. Scientist; Veeco Instruments, Chadds Ford, PA

The progression of AFM development over the last few years has resulted in current instruments with a wider range of capabilities than their predecessors. The recent release of the NanoScope V controller has broadened the applications of AFM and produced a new platform for future developments. New features include capturing data at rates up to 50MHz, spring constant calibration up to 2MHz, Point and Shoot capability, high resolution data capture up to 5120 x 5120 pixels images, 3 independent lock-ins, and 8 independent data channels. Other recent instrument developments, such as the Nanoman and PicoForce platforms, will also be discussed.

10:45 — 11:30 a.m. **Biological Atomic Force Microscopy Capabilities at Purdue University**
Helen McNally, Ph.D.Assistant Professor, Department of Electrical and Computer Engineering Technology

The capabilities and operation of the Biological Atomic Force Microscopy Laboratory will be described. An overview of ongoing projects will be provided, including research projects from the Colleges of Veterinary Medicine, Engineering and Agriculture.

11:30 — 1:00 p.m. **Lunch Provided by Veeco Instruments**

1:00 – 4:00 p.m. **BioScope II and MultiMode V AFM Instrument Demonstrations**
Elizabeth Ayres, AFM Research Technician, Bindley Bioscience Center
Nelle Slack, John Thornton, Veeco Instruments

Spend some time in the afternoon observing these two instruments available for demonstrations in the Bindley Bioscience Center. Technicians will be available to answer questions and show you the latest applications for tools that can further your research expertise.

BioScope II (combines optical and AFM)	Bindley Bioscience Center Room 122
MultiMode V PicoForce AFM (for single molecule interaction studies)	Bindley Bioscience Center Room 134

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