

NANO HOUR

Wednesday, February 22, 2006

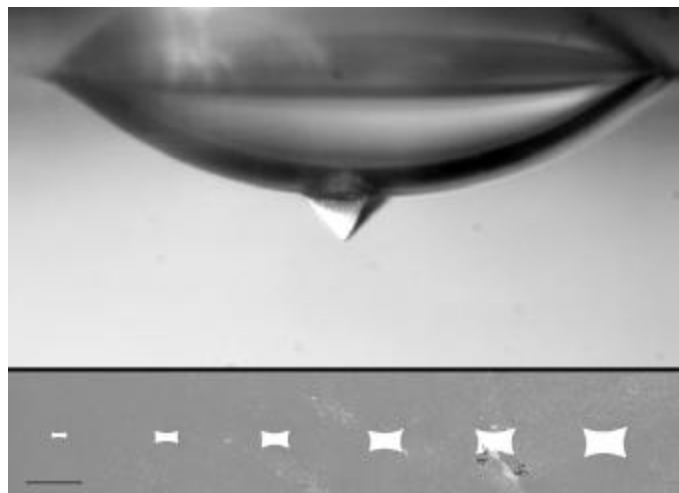
3:00 PM

Beckman Institute - Room 3269

Nanopatterning with Dip Pen arrays and pneumatic PDMS devices

Dr. Tim Dellinger

Electrical and Computer Engineering



Two methods for patterning gold surfaces with self-assembled monolayers of thiols are demonstrated: Dip Pen Nanolithography (DPN) with a 250 pen array, and a novel pneumatically actuated elastomeric device. The pneumatic PDMS devices have a few interesting aspects: they can be microfluidically inked from the backside, and they can be controllably deformed when in contact with a surface, thereby giving control over the size of the print. The pros and cons of various gold etchants used to visualize the printed patterns will be discussed: etching revealed and then solved a vapor phase transport issue.

Coffee and cookies will be served.