

Department of Biomedical Engineering

Friday Seminar Series



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Fabrication and Characterization of Biological and Chemical Architectures

Dip-Pen Nanolithography (DPN) is a scanning probe nanopatterning technique in which an atomic force microscope (AFM) tip is used to deliver molecules to a surface via a solvent meniscus, which naturally forms in the ambient atmosphere. This direct-write technique offers high resolution patterning capabilities for a number of molecular and biomolecular “inks” on a variety of substrate types such as metals, semiconductors, and even tissues. The ability to achieve precise alignment registration of multiple patterns is an additional advantage earned by using an AFM tip to write, as well as read nanoscopic features on a surface. These attributes of DPN make it a valuable tool for studying fundamental issues in colloid and combinatorial chemistry, surface science, and biomedical nanotechnology. In this talk, the fabrication and evaluation of several chemical and biological systems will be presented, where the characterization and manipulation will be primarily based on surface science tools.

Date: April 14, 2006
Time: 1:00 PM - 2:00 PM
Location: Clark Hall, 110
Host: Jennifer H. Elisseeff, PhD
Broadcast to Traylor