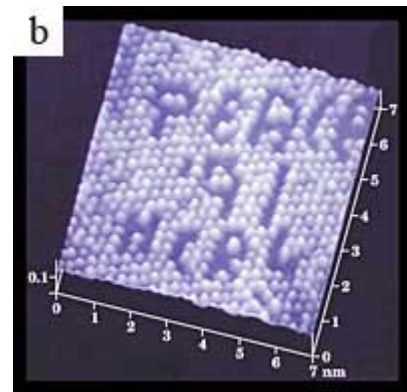
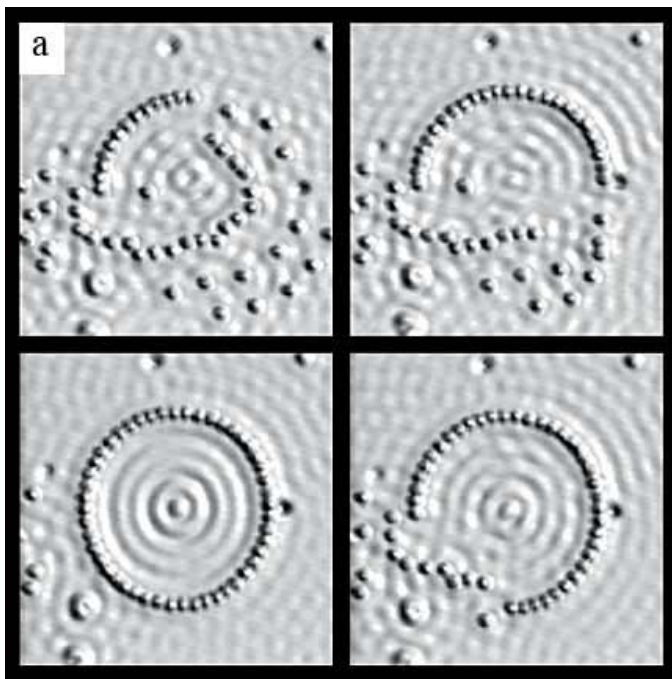


Physics Seminar

Wednesday 2/21/2007, 4:30pm
Willet Science Center 101

John Lee
Department of Physics
Mercer University

A Brief Survey of Scanning Tunneling Microscopy and Spectroscopy



Images courtesy of
D. Eigler, S. Hosaka, and S. Morita.

Invented in early 1980's by Binnig and Rohrer, scanning tunneling microscopy/spectroscopy (STM/STS) has become a very powerful tool in studying surface structures and electronic properties of materials at the atomic scale. Scientists now are able to manipulate single atoms and arrange them as desired (see figures). This ability of experimentally studying atomic scale physics opens a wide spectrum of research in subjects at nano-meter scale, and has inspired vast innovative developments in scanning probe microscopy (SPM). Brief history and basic operational principle of STM/STS will be presented, as well as some research results from STM/STS studies of superconductors.

Please join us for light refreshments at 4:15pm outside WSC 109.