

Physics Colloquium
Monday February 13th, 2006
4:15 PM 428 Pupin Hall
Professor Israel Bar-Joseph of
The Weizmann Institute,

"Electrical conductance of a single conjugated molecule"

Conjugated organic molecules, in which the orbitals are delocalized throughout throughout the molecular backbone, are often considered good candidates for molecular conductors. Forming electrical contact to these nanometer size objects poses, however, a difficult challenge. A novel approach that addresses this challenge is the dimer approach. It is based on synthesizing a dimer structure, consisting of two metallic nanoparticles connected by the molecule, and electrostatically trapping it between two electrodes. We implemented this method to conduct transport measurement of short



Host: Prof. Pinczuk