



***Optical Tweezers and Their Applications
For Cellular Biophysics Research***

Presented by

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at

7:00 pm, Thursday, April 20, 2004

Lehigh University

Bethlehem, PA

Sinclair Lab Auditorium, Room 106

(For directions see Lehigh website at: <http://www3.lehigh.edu/>)

Abstract

Optical tweezers is a technique based on the physics that dielectric materials, such as silica beads, latex particles or protein aggregates, are attracted to and thus trapped at the focal point of a tightly focused laser beam in an aqueous medium. It has been shown that viscoelasticity can be determined from the movements of the trapped object in an oscillating optical tweezers. Applying the oscillating tweezers to intracellular cellular structures, we were able to determine the frequency dependent mechanical properties of the interior of cultured bovine endothelial cells. This talk reports the application of a novel optical tweezers-based methodology by which scientists can explore cellular functions and study cytoskeleton dynamics of living cells at the subcellular level with minimal invasion.

For more info on seminars or the OSA Chapter contact

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