

Seminar on

# Modern Optics and Spectroscopy

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*Rayleigh scattering from single  
carbon nanotubes*

November 9, 2004  
12:00 – 1:00 p.m.

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## Abstract

The research group at Columbia University investigated carrier dynamics in SWNTs in micellar solution. They found that nonradiative Auger recombination is an important mechanism of fluorescence quenching in SWNTs. At low pH, nanotube surface endoperoxides protonate and introduce holes that quench the luminescence. In order to characterize electronic structure of SWNTs at the single-tube level, we developed a method to detect white-light Rayleigh scattering from individual tubes.

Grier Room, MIT Bldg 34-401  
Refreshments will be served