

Raman spectroscopy of nanotubes
Mildred Dresselhaus
Massachusetts Institute of Technology
MIT 13-3005 | 77 Massachusetts Ave |
Cambridge, MA 02139 | millie@mgm.mit.edu

Because of their reduced dimensionality, quantum size effects are relatively easy to observe in carbon nanotubes and graphene, which are prototype one- and two-dimensional systems. These systems provided a rich venue for the use of Raman spectroscopy over the past 40 years, as summarized in this tutorial presentation. Here we will include graphite intercalation compounds, fullerenes, nanotubes, graphene, and nanoribbons. Effects on the spectra by electrochemical doping and chemical doping, and by variation of the Fermi level through electrodes will be discussed.