

Optical Spectroscopy of Individual Carbon Nanotubes
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Electronic structure and optical transitions in carbon nanotube depend sensitively on its exact chirality, the study of which often requires optical spectroscopy at single nanotube level. In this talk, I will discuss our studies in combining single-tube spectroscopy with electron diffraction on the same nanotubes to determine the structural dependent optical property of carbon nanotubes. I will also discuss our recent progress in absorption spectroscopy of individual nanotubes, which enables us to determine quantitatively the nanotube absorption cross-section and the effect of electrical gating.