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**Measurement of Absorption Cross-section for Single-walled Carbon Nanotubes** XIAOPING HONG, KAIHUI LIU, FENG WANG, University of California Berkeley — Optical absorption is the most fundamental optical property. Quantitative knowledge of absorption cross-section provides valuable information on the material electronic structure, and is necessary for evaluating quantum efficiency of other important optical processes, such as photoluminescence and photocurrent generation. However, absorption measurement of individual single-walled carbon nanotubes(SWCNTs) is quite challenging. Here we used an efficient interferometric method to obtain the absorption cross-section of individual chirality-defined SWCNTs. We will discuss how the absorption cross-section varies in different carbon nanotubes.

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