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标题: Complex optical index of single wall carbon nanotube films from the near-infrared to the terahertz spectral range
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摘要: We retrieve the complex optical index of single-walled carbon nanotube (CNT) films in the 0.6-800 mu m spectral range. Results are obtained from a complete set of optical measurements, reflection and transmission, of free-standing CNT films using time domain spectroscopy in the terahertz (THz) and Fourier transform infrared (IR) spectroscopy in the visible-IR. Based on a Drude-Lorentz model, our results reveal a global metallic behavior of the films in the IR, and confirm their high optical index in the THz range. (C) 2012 Optical Society of America
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