

## **Thermal Conductivity of Partially-Defected Individual Carbon Nanotubes**

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Thermal conductivity of partially defected multi-walled carbon nanotubes (MWNT) is individually measured and the contribution of the outer few layers on its thermal transport is unveiled. Since the discovery of carbon nanotubes (CNT), much effort has been devoted for the realization of nanodevices using their excellent physical properties. Especially, among the excellent physical properties of CNTs, a high thermal conductivity has received significant attention. However, the contribution of each layer of MWNT on its heat conduction is still unknown. Here, we measured both pristine and partially-damaged MWNTs by using high-sensitive nano-hot-film sensor developed by MEMS technique and the mechanism of heat conduction through the multi-wall of a carbon nanotube is explored.