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Electrical Transport in Carbon Nanotubes with Chirality Changes B. CHANDRA, Y. WU, H. HAN, M. HUANG, L. HUANG, S. O'BRIEN, T.F. HEINZ, J. HONE, Columbia University — We present electrical transport measurements of individual single-wall carbon nanotubes in which the chiral indices (n,m) are not fixed along the nanotube length. The nanotube structures are first probed by Rayleigh scattering spectroscopy, after which the tube is transferred to a substrate by a mechanical transfer process. Electrical leads are then fabricated by e-beam lithography. The transport behavior is measured in various sections of the tube to probe the behavior of the molecular junctions.

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