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Electromechanical Response of Single-wall Carbon Nanotubes to Torsional Strain in a Self-Contained Device A. R. HALL, M. R. FALVO, R. SUPERFINE, S. WASHBURN, University of North Carolina at Chapel Hill — The response of single-wall carbon nanotube transport properties to applied shear strain has been measured. The strain is applied in a self-contained nanoelectromechanical device. We find that the measured resistance of an individual nanotube can increase or decrease depending on initial band structure, and that this change is approximately proportional to the applied strain.

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