Abstract Submitted for the MAR05 Meeting of The American Physical Society

Singlewall Carbon Nanotubes as Torsional Springs in a Nanoelectromechanical Device A. R. HALL, S. J. PAPADAKIS, M. R. FALVO, R. SUPERFINE, S. WASHBURN, University of North Carolina at Chapel Hill — Nanoelecromechnical devices have been fabricated that utilize an individual singlewall carbon nanotube as a torsional spring for a fully suspended, lithographed metal platform. The torsional properties of the structure were measured through repeated deflection with a scanning probe tip. We discuss results of such measurements as well as progress towards high Q oscillator behavior and integrated device arrays.

> Adam Hall University of North Carolina at Chapel Hill

Date submitted: 01 Dec 2004

Electronic form version 1.4