Abstract Submitted for the MAR06 Meeting of The American Physical Society

Controlling the diameter of carbon nanotubes T.D. YUZVINSKY, W. MICKELSON, S. ALONI, G.E. BEGTRUP, A. ZETTL, University of California at Berkeley — We report a method to control the diameter of an individual carbon nanotube. Electronic transport measurements performed in situ reveal a striking dependence of conductance on nanotube geometry. As the diameter of the nanotube is reduced to near zero, we observe negative differential resistance.

Thomas Yuzvinsky University of California at Berkeley

Date submitted: 02 Dec 2005 Electronic form version 1.4