

Abstract Submitted
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Transport characteristics of a single multiwall carbon nanotube by bending in SEM and STM SUENNE KIM, Materials Science & Engineering, University of Texas at Austin, JEEHOON KIM, MORGANN BERG, ALEX DE LOZANNE, Department of Physics, University of Texas at Austin — Multiwall carbon nanotubes(MWCNTs) were grown on a W wire by chemical vapor deposition(CVD). Two homebuilt xyz-walkers were employed to manipulate individual CNTs in our scanning electron microscope (SEM). To improve the electrical and mechanical contact to a second electrode, we welded the CNT by delivering gas to the welding point while focusing the SEM beam on the same spot. The bending dependent I-V characteristics were observed in situ in the SEM at room temperature. We will measure the transport properties by bending the same MWCNT (already measured in SEM) inside our ultrahigh vacuum low temperature scanning tunneling microscope (UHV-LTSTM). We will also compare the bending properties of MWCNTs at different temperatures.

Suenne Kim
Materials Science & Engineering, University of Texas at Austin

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