

Abstract Submitted  
for the MAR06 Meeting of  
The American Physical Society

**The Effect of Atomic Hydrogen on the Growth of Single-Walled Carbon Nanotubes** ROBERT HAUGE, Department of Chemistry and Carbon Nanotechnology Laboratory, Rice University, YA-QIONG XU, Department of Electrical and Computer Engineering and Carbon Nanotechnology Laboratory, Rice University, KUNAL SHAH, Department of Chemistry and Carbon Nanotechnology Laboratory, Rice University, MYUNG KIM, Department of Physics and Carbon Nanotechnology Laboratory, Rice University, RICHARD SMALLEY<sup>1</sup>, Department of Chemistry and Carbon Nanotechnology Laboratory, Rice University — The role of atomic hydrogen generated in situ with a hot filament has been studied with respect its effects on single-walled carbon nanotube (SWNT) etching and growth. SWNT growth has been studied for both random new surface growth and organized new vertical growth of SWNTs. Its effects on continued growth of SWNT seeds will also be reported. Comparisons will be made to previous studies of SWNT growth in the presence of atomic hydrogen.

<sup>1</sup>( passed away, Oct. 28th, 2005)

Robert Hauge  
CNL, Rice University

Date submitted: 28 Nov 2005

Electronic form version 1.4