

Abstract Submitted  
for the TS4CF08 Meeting of  
The American Physical Society

**Fabrication and Analysis of Vertically Aligned and Patterned Silicon-Carbon Core Shell Nanotubes** JUN SONG, RICHARD VANFLEET, ROBERT DAVIS, Physics and Astronomy Department, Brigham Young University — Silicon-carbon core shell nanotubes(SiCNTs) are synthesized on a vertically aligned and patterned carbon nanotube template. Vertical-aligned carbon nanotube(CNT) forests are grown from a patterned catalyst seed layer by standard thermal chemical vapor deposition (CVD) methods. Thin silicon films are deposited on the CNTs by low pressure chemical vapor deposition(LPCVD). Some features of these SiCNTs are controllable, such as the diameter, length, crystallization, and pattern, by varying details in the fabrication.

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Date submitted: 19 Sep 2008

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