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Fabrication of silicon nanowires on suspended carbon nanotubes JUN SONG, ROBERT DAVIS, RICHARD VANFLEET, Brigham Young University — Thin silicon films (15nm) were deposited on single walled and multiwalled carbon nanotubes by low pressure chemical vapor deposition. Transmission electron microscopy (TEM) and scanning transmission electron microscopy (STEM) were used to study coated nanotubes both after deposition and following a 600 C annealing step. On the multiwalled tubes the silicon deposition resulted in conformal films, however on the single walled nanotubes, isolated the silicon particles were formed. There was no evidence of silicon carbide formation at the interface of silicon and the carbon.

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