

Abstract Submitted  
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**Optimized Growth of Patterned Vertically-aligned Carbon Nanotube Forests** BRENDAN TURNER, DAVID HUTCHISON, Brigham Young University, MATTHEW CARTER, Brigham Young University - Idaho, RICHARD VANFLEET, ROBERT DAVIS, Brigham Young University — Vertically-aligned carbon nanotube (VACNT) forests can provide inexpensive templates for a variety of high aspect ratio structures. We report Chemical Vapor Deposition (CVD) growth of VACNT structures from thin patterned Fe films. We will present the effect of Fe film thickness, growth temperature, gas concentrations, and other parameters on VACNT growth rate, tube size, density, and dimensional control of patterned vertical structures. Analysis was done by Scanning Electron Microscopy (SEM) and Atomic Force Microscopy (AFM).

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