

Abstract Submitted  
for the MAR11 Meeting of  
The American Physical Society

**Ordered carbon nanotube growth on graphene and few-layer graphene** D. PATRICK HUNLEY, STEPHEN JOHNSON, JOSEPH STIEHA, ABHISHEK SUNDARARAJAN, AARON MEACHAM, DOUGLAS STRACHAN, University of Kentucky — Carbon nanotubes are grown on graphene and few-layer graphene films through chemical vapor deposition. The nanotube growth is found to depend on the thickness of the few-layer graphene films. The thinnest films show significant alignment of the nanotubes with the crystallographic axes of the graphene. This alignment is compared to the orientation of the crystallographic etch tracks, permitting the orientation of the nanotubes to be determined. Related nanotube/graphene structures will also be presented and discussed. Supported in part by NSF Award No. DMR-0805136, the Kentucky NSF EPSCoR program, the University of Kentucky Center for Advanced Materials, and the University of Kentucky Center for Nanoscale Science and Engineering.

Stephen Johnson  
University of Kentucky

Date submitted: 19 Nov 2010

Electronic form version 1.4