

ADVANCED FUNCTIONAL MATERIALS

CARBON NANOTUBES

The effects of nanoscale conformal coatings of amorphous silicon carbide on the mechanical properties of carbon nanotube pillars are investigated. Several interesting mechanical failure modes such as bamboo and brittle-like composite rupture are observed as coating thickness increases. On page 5737, G. Q. Zhang and co-workers report on their remarkable increase in strength, making the fast growing coated CNT arrays useful as structural material for high-aspect-ratio 3D micro-architectures.

