TSF13-2013-020024

Abstract for an Invited Paper for the TSF13 Meeting of the American Physical Society

Nanotechnology for Fun and Profit RAY BAUGHMAN, University of Texas at Dallas

New scientific and technological advances of our NanoTech Institute will be described: (a) artificial tensile and torsional muscles with giant strokes and giant force generation capabilities that can be woven into intelligent textiles and used for humanoid robots and exoskeletons; (b) carbon-nanotube-based textiles for energy harvesting, energy storage, and energy conversion, and (b) solid-state fabrication methods for weavable multifunctional carbon nanotube yarns that can contain over 90 wt% guest.