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Nota di contenuto	NANOSCALEMULTIFUNCTIONALMATERIALS; CONTENTS; CONTRIBUTORS; PREFACE; SECTION I OVERVIEW; 1 Key Attributes of Nanoscale Materials and Special Functionalities Emerging From Them; 2 Societal Impact and Future Trends in Nanomaterials; SECTION II PROCESSING AND ANALYSIS; 3 Fabrication Techniques for Growing Carbon Nanotubes; 4 Nanoparticles and Polymer Nanocomposites; 5 Laser-Assisted Fabrication Techniques; 6 Experimental

Characterization of Nanomaterials; 7 Modeling and Simulation of Nanoscale Materials; SECTION III APPLICATIONS; 8 Nanomaterials for Alternative Energy
9 Enhancement of Through-Thickness Thermal Conductivity in Adhesively Bonded Joints Using Aligned Carbon Nanotubes10 Use of Metal Nanoparticles in Environmental Cleanup; 11 Use of Carbon Nanotubes in Water Treatment; 12 Peptide Nanotubes in Biomedical and Environmental Applications; INDEX

Sommario/riassunto

A multidisciplinary approach that explores the diverse properties, functions, and applications of nanomaterials. Drawing together the many scientific and engineering disciplines underlying the development of nanomaterials, Nanoscale Multifunctional Materials provides a multidisciplinary review of the diverse properties, functions, and applications of nanomaterials. The book examines both nanoparticles, which have larger-scale equivalents, and uniquely assembled nanomaterials, which do not have larger-scale equivalents. Readers will gain a tremendous appreciation of the versatility of n
