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Nota di contenuto	Polymorphism and Structure of Carbons -- Synthesis Methods and Growth Mechanisms -- Structural Analysis by Elastic Scattering Techniques -- Electronic Structure -- Spectroscopies on Carbon Nanotubes -- Transport Properties -- Mechanical Properties of Individual Nanotubes and Composites -- Surface Properties, Porosity, Chemical and Electrochemical Applications.
Sommario/riassunto	This volume presents the foundations of carbon nanotube science including the most recent developments and the prospects for technological applications. Each chapter begins with a tutorial introduction to the relevant interdisciplinary topics from physics, chemistry or materials science. These summaries of the essential background knowledge are followed by detailed presentations of specific issues. The latter include: polymorphism of carbon and the microstructure of its phases; synthesis methods and growth mechanisms; structural analysis by electron microscopy; spectroscopic methods; electronic structure; transport; mechanical and surface properties of nanotubes and composites. All readers, be they students or experienced researchers, will come to appreciate how progress in nanotube science is intimately linked to advances in experimental and computational tools.