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Nota di contenuto	Nanotechnology and Dimensions -- Nanomaterials, Properties and Applications -- Fundamentals of Nanostructures -- Physics and Chemistry of Nanostructures -- Quantum effects, CNTs, Fullerenes and Dendritic structures -- Semiconductors, Organic and Hybrid Nanostructures -- Properties of Nanostructured Materials -- Synthesis of Nanostructured Materials -- Functionalization of Nanostructures -- Characterization and Technical Analysis of Nanostructured Materials -- (N.A.) -- Nanostructured Materials for Optical and Electronic Applications -- Nanostructured Materials for Bioapplications -- Nanostructured Materials for Photonic Applications -- Nanostructured Materials for Environmental Remediation -- Miscellaneous Applications of Nanostructures -- Nanostructured Materials Life time and Toxicity Analysis -- Nanomaterials Research and Development.
Sommario/riassunto	This book discusses the early stages of the development of nanostructures, including synthesis techniques, growth mechanisms, the physics and chemistry of nanostructured materials, various innovative characterization techniques, the need for functionalization

and different functionalization methods as well as the various properties of nanostructured materials. It focuses on the applications of nanostructured materials, such as mechanical applications, nanoelectronics and microelectronic devices, nano-optics, nanophotonics and nano-optoelectronics, as well as piezoelectric, agriculture, biomedical and, environmental remediation applications, and anti-microbial and antibacterial properties. Further, it includes a chapter on nanomaterial research developments, highlighting work on the life-cycle analysis of nanostructured materials and toxicity aspects.

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