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Descrizione fisica	1 online resource (VII, 434 p. 232 illus., 151 illus. in color.)
Collana	Materials Horizons : From Nature to Nanomaterials
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Lingua di pubblicazione	Inglese
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Nota di contenuto	Chapter 1: 2-D Nanostructures of Advanced Hybridized WO <sub>3</sub> Nanocomposites for High Performance of Supercapacitor Application -- Chapter 2: Biomaterials: An Introduction to Materials for Biomedical Applications -- Chapter 3: Effect of surface roughness on titanium medical implants -- Chapter 4: Magnetic Nanomaterials and their Biomedical Applications -- Chapter 5: Iron oxide/reduced graphene oxide composites for the sensing of toxic chemicals -- Chapter 6: Reduced Graphene Oxide for Advanced Energy Applications -- Chapter 7: Nanowires (NWs)/Graphene nanocomposites for photovoltaic applications -- Chapter 8: Physics of Ion Beam Synthesis of Nanomaterials -- Chapter 9: Spectroscopic Characterization of Gallium Nitride Nanowires -- Chapter 10: Investigation of PANI/Graphene for gas sensor applications -- Chapter 11: Investigation of Metal Oxide/Reduced Graphene Oxide Nanocomposites for Gas Sensor applications -- Chapter 12: Mechanical and Tribological Properties of Metal incorporated DLC thin film -- Chapter 13: Low temperature sintering of lithium based ferrites -- Chapter 14: Optimization Of The Precipitated Magnetite, Stoichiometry And Composites For Enhanced Stabilization -- Chapter 15: New Insights on MXenes: Synthesis and their uses in Energy Storage and environmental applications -- Chapter 16: ZIFs Recent Development And Its Role In Photocatalysis -- Chapter 17: Influence of Fuel Injection Pressure for Diesel-Waste Cooking Oil Co-Fuel in a Research Engine -- Chapter 18: Characteristics of Jatropha

and Moringa Oleifera biodiesel-diesel blends on a CI engine.

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**Sommario/riassunto**

The book provides an introduction to nanostructured materials and guides the reader through their different engineering applications. It gives an overview of nanostructured materials applied in the fields of physics, chemistry, biology, medicine, and materials science. Materials for different applications in engineering such as those used in optoelectronics, energy, tribology, bio-applications, catalysis, reinforcement and many more have been described in this book. The book will be of interest to researchers and students who want to learn about applications of nanostructured materials in engineering.

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