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| Altri autori (Persone) | Sadiq MohamedMohamed Jaffer |
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Nanoparticles and Their Applications: A Review -- Chapter9. Nanotechnology in Cancer Chemoprevention: In Vivo and In Vitro Studies and Advancement in Biological Sciences -- Chapter10. Nanotechnology: A Next-Gen Tool for Sustainable Aquaculture -- Part2. Nanotechnology for Energy Conversion and Storage -- Chapter11. Nanotechnology in Renewable Energy Conversion and Storage Process -- Chapter12. Application of Nanotechnology in Bioenergy Production from Algae and Cyanobacteria -- Chapter13. Graphene Based Nanomaterials for Supercapacitor Applications: A Critical Review -- Chapter14. Nanocomposite Materials for Dye-Sensitized Solar Cells -- Chapter15. Thermophysical Characteristics of Nanofluids: A Review -- Part3. Environmental Impacts of Nanotechnology -- Chapter16. Nanomaterials in Aquatic Environments: Impact and Risk Assessment -- Chapter17. Nanoparticles in Aquatic Environment: An Overview with Special Reference to their Ecotoxicity -- Chapter18. Eco-friendly Sustainable Nanocomposite Food Packaging Materials: Recent Advancements, Challenges and Way Forward -- Chapter19. Nanotechnology at Workplace:Risks, Ethics, Precautions and Regulatory Considerations -- Chapter20. Nanotechnology: Ethical Impacts, Health Issues, and Safety Issues.

Sommario/riassunto

This two-volume set provides a comprehensive overview of modern nanoscience, and encompasses advanced techniques of nanocomposite materials that make their way from the laboratory to the field for the revival of energy and environmental systems in a sustainable manner. It includes the design and the sophisticated fabrication of nanomaterials along with their potential energy and environmental applications, while looking at how nanoscience and nanotechnology can be used to promote environmentally friendly processes and strategies. The books' purpose is to promote eco-friendly methods and techniques by covering many elements of both the synthesis and uses of nanoparticles and nanofluids for energy and environmental engineering. They provide an up-to-date synthesis of nanocomposite materials for modern nanotechnology applications in the fields of environment protection, heterogeneous catalysis, wastewater treatment, fuel cells, electrochemical energy conversion, and storage applications.The set is designed for environmental scientists, nanotechnologists, chemists, engineers, and individuals seeking current research on nanotechnology and its applications in environmental engineering. Graduate students working in these fields will also find it a valuable resource. Volume 2 focuses on toxicological assessment, negative impacts of nanomaterials, green synthesis, energy conversion, and storage applications.