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| Altri autori (Persone) | MohantyKaustubha<br>SaranS<br>Kumara SwamyB. E<br>SharmaS. C |
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| Soggetti | Materials<br>Carbon<br>Chemistry<br>Environmental protection<br>Civil engineering<br>Environmental chemistry<br>Environmental engineering<br>Biotechnology<br>Bioremediation<br>Carbon Materials<br>Soil and Water Protection<br>Environmental Chemistry<br>Environmental Engineering/Biotechnology |
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| Nota di contenuto | Insights into graphene-based materials as an adsorbent for wastewater treatment -- Graphene and its composite for water and wastewater treatment -- Graphene-based Materials in Effective Remediation of Wastewater -- Graphene-based nanocomposite solutions for different |

environmental problems -- Application of graphene, graphene oxide and reduced graphene oxide based composites for removal of chlorophenols from aqueous media -- Graphene oxide and its derivatives as additives in polymeric membranes for water treatment applications -- Harnessing of 2D carbon-based heterostructures as a photocatalyst towards wastewater treatment -- Impact of Graphene Oxide Synthesis Method on Eosin-Y Decolourization Activity of Graphene oxide-TiO2 Nanocomposite under UV and LED Light -- Graphene oxide nanocomposites for the removal of antibiotics, pharmaceuticals and other chemical waste from water and wastewater -- Graphene and its Derivatives based Membranes for Application Towards Desalination -- Graphene nanoparticles and their derivatives for oil spill treatment.

Sommario/riassunto

This book describes the essential characteristics of graphene, graphene oxide, reduced graphene oxide, and its nanocomposite and their applications in water and wastewater treatment and other environmental issues. The book introduces each topic in detail, discusses the basic principles, and analyzes and summarizes recent developments in the field. Various topics covered in this book include role of graphene as a potential material in photocatalytic organic pollutant degradation, water splitting applications, capacitive de-ionization techniques, air purification, gas adsorption, and decontamination of pathogenic microorganisms. Given the contents, the book is useful for students, researchers, and professionals working in the area environmental science and materials, especially graphene oxide, graphene, and graphene nanocomposite. .