1. Record Nr. UNINA9910830428203321

Titolo	2D functional nanomaterials : synthesis, characterization, and applications / / edited by Ganesh S. Kamble
Pubbl/distr/stampa	Weinheim, Germany : , : Wiley-VCH, , [2022] ©2022
ISBN	3-527-82394-8 3-527-82396-4 3-527-82395-6
Descrizione fisica	1 online resource (449 pages)
Disciplina	620.115
Soggetti	Nanostructured materials Nanostructured materials - Synthesis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Title Page -- Copyright -- Contents -- Foreword -- Preface -- Chapter 1 Graphene Chemical Derivatives Synthesis and Applications: StateoftheArt and Perspectives -- 1.1 Introduction -- 1.2 Graphene Oxide: Synthesis Methods and Chemistry Alteration -- 1.3 Graphene Oxide Reduction and Functionalization -- 1.4 Applications of CMGs -- 1.5 Concluding Remarks -- Acknowledgments -- References -- Chapter 2 2D/2D Graphene OxideLayered Double Hydroxide Nanocomposite for the Immobilization of Different Radionuclides -- 2.1 Introduction -- 2.2 Synthesis of GO/LDH Composite -- 2.2.1 Coprecipitation -- 2.2.2 Hydrothermal Preparation -- 2.2.3 SelfAssembly of LDH Nanosheets with GO Nanosheets -- 2.3 Removal of Radionuclides -- 2.3.1 U(VI) Removal -- 2.3.2 Sorption of Eu(III) with the Presence of GO on LDH -- 2.3.3 Coremediation Anionic SeO42 and Cationic Sr2+ -- 2.4 Conclusion -- References -- Chapter 3 2D Nanomaterials for Biomedical Applications -- 3.1 Introduction -- 3.1.1 Photothermal and Photodynamic Therapy -- 3.1.2 Bioimaging and Drug/Gene Delivery -- 3.1.3 Biosensors -- 3.1.4 Antibacterial Activity -- 3.1.5 Tissue Engineering and Regenerative Medicine -- 3.2 Conclusions -- References -- Chapter 4 Novel TwoDimensional

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Sommario/riassunto

2D Functional Nanomaterials Outlines the latest developments in 2D heterojunction nanomaterials with energy conversion applications In 2D Functional Nanomaterials: Synthesis, Characterization, and Applications, Dr. Ganesh S. Kamble presents an authoritative overview of the most recent progress in the rational design and synthesis of 2D nanomaterials and their applications in semiconducting catalysts, biosensors, electrolysis, batteries, and solar cells. This interdisciplinary volume is a valuable resource for materials scientists, electrical engineers, nanoscientists, and solid-state physicists looking for up-to-date information on 2D heterojunction nanomaterials. The text summarizes the scientific contributions of international experts in the fabrication and application of 2D nanomaterials while discussing the importance and impact of 2D nanomaterials on future economic growth, novel manufacturing processes, and innovative products. Provides thorough coverage of graphene chemical derivatives synthesis and applications, including state-of-the-art developments and perspectives Describes 2D/2D graphene oxide-layered double hydroxide nanocomposites for immobilization of different radionuclides Covers 2D nanomaterials for biomedical applications and novel 2D nanomaterials for next-generation photodetectors Discusses applications of 2D nanomaterials for cancer therapy and recent trends ingraphene-latex nanocomposites Perfect for materials scientists, inorganic chemists, and electronics engineers, 2D Functional Nanomaterials: Synthesis, Characterization, and Applications is also an essential resource for solid-state physicists seeking accurate information on recent progress in two-dimensional heterojunction materials with energy conversion applications.