1. Record Nr. UNINA9910887818603321

Titolo	2D Boron Nanosheets : Synthesis and Applications / / edited by Raju Khan, Mohd. Abubakar Sadique, Shalu Yadav, Andrei Rotaru
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819770144 9819770149
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (212 pages)
Collana	Engineering Materials, , 1868-1212
Disciplina	620.115
Soggetti	Condensed matter Nanoscience Nanotechnology Biomaterials Two-dimensional Materials Nanophysics Nanoengineering Biomedical Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Structural units of bulk Boron crystals and 2D Boron nanostructures -- 2. Advantages of 2D Boron nanosheets over other 2D nanomaterials -- 3. Borophene: A new analog of graphene -- 4. Synthesis Strategies of 2D Boron nanostructures: Computational or theoretical route and experimental approaches -- 5. Properties of boron nanocrystals, Borophene, and its polymorphs.
Sommario/riassunto	This book presents a detailed study of different approaches to synthesis for 2D Borophene, its peculiar properties, and its use in different applications such as energy storage, catalysis, hydrogen evolution reactions, supercapacitors, optoelectronics, sensors, diagnostics, bioimaging, drug delivery, cancer therapy, and various other practical applications. This book integrates and sets the evolving knowledge and approaches to utilizing Borophene as an alternative 2D nanomaterial for commercialization in real-life applications. The book

covers emerging innovative topics of relevance to scientists, academicians, and innovators in the field of energy storage, sensing, optoelectronics, nanoelectronics, and biomedical applications for further research and development.