

1. Record Nr.	UNINA9911031632203321
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Titolo	Low-Dimensional Multifunctional Hybrid Nanostructured Materials : Energy and Environmental Applications // edited by Rakesh Kumar Sonker, Kedar Singh, Rajendra Sonkawade
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	981-9679-52-4
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (400 pages)
Collana	Engineering Materials, , 1868-1212
Altri autori (Persone)	SinghKedar SonkawadeRajendra
Disciplina	530.41 620.19
Soggetti	Condensed matter Materials Catalysis Force and energy Composite materials Hydrogen as fuel Nanotechnology Two-dimensional Materials Materials for Energy and Catalysis Composites Hydrogen Energy Nanoengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Low-Dimensional and Multifunctional Hybrid Materials for Energy Storage: An Introduction -- Characterization Technique for Energy Storage Nanomaterials -- Low dimensional Nanomaterials for Hydrogen Storage -- Li-Ion Batteries for Energy Storage -- Recent Investigation of Na and K-Ion Batteries.
Sommario/riassunto	This book presents hybrid energy storage nanostructured materials and their diverse applications. With an emphasis on interdisciplinary study, this book highlights the importance of these low dimensional

nanostructured materials in addressing critical challenges in these fields. The book begins by introducing the significance of low dimensional hybrid nanostructured materials and their impact on interdisciplinary devices, modelling, simulation, manufacturing, and real-life applications. These include energy storage as heat, phase transitions and reversible chemical reactions, organic fuels and hydrogen, mechanical, electrostatic, and magnetic systems. It explains smart concepts of various relevant energy storage technologies in a logical manner, assessing underlying numerical material to evaluate energy, power, volume, weight, and cost of new and existing energy storage systems. The book focuses on cutting-edge advances such as supercapacitor/hydrogen storage, emerging electrochemical materials, natural batteries, sodium/potassium cells applications, and hybrid system strategies. This book provides researchers and professionals with a comprehensive overview of the concepts, principles, and practice of energy storage devices and materials.
