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Challenges and Opportunities in Nanomaterials for Energy Storage -- Future Perspectives and Emerging Trends in Nanomaterials for Energy Storage.

Sommario/riassunto

This contributed volume provides a comprehensive overview of nanomaterials tailored for energy storage applications, covering fundamental concepts such as computational design and modeling, synthesis techniques, characterization methods, and advanced strategies for enhancing energy storage performance. Through case studies, it demonstrates the practical applications of nanomaterials in specific energy storage devices, highlighting their significance. The book also explores advanced electrode types and fabrication techniques, addresses challenges and opportunities in the field, and offers insights into future perspectives and emerging trends. It serves as an essential resource for researchers, scientists, engineers, and students interested in materials science, nanotechnology, and energy storage, providing a thorough understanding of the latest advancements and potential developments in the field.