

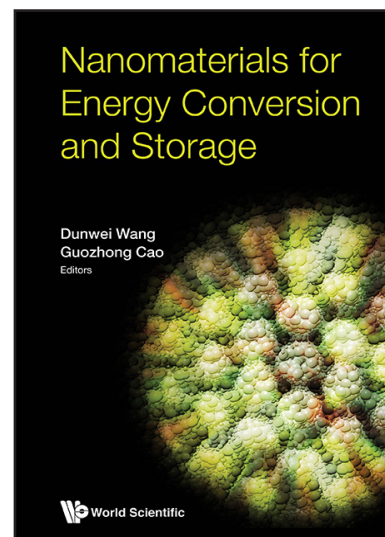
NANOMATERIALS FOR ENERGY CONVERSION AND STORAGE

Edited by **Dunwei Wang** (*Boston College, USA*) & **Guozhong Cao** (*University of Washington, USA*)

Description:

The use of nanomaterials in energy conversion and storage represents an opportunity to improve the performance, density and ease of transportation in renewable resources. This book looks at the most recent research on the topic, with particular focus on artificial photosynthesis and lithium-ion batteries as the most promising technologies to date. Research on the broad subject of energy conversion and storage calls for expertise from a wide range of backgrounds, from the most fundamental perspectives of the key catalytic processes at the molecular level to device scale engineering and optimization. Although the nature of the processes dictates that electrochemistry is a primary characterization tool, due attention is given to advanced techniques such as synchrotron studies *in operando*. These studies look at the gap between the performance of current technology and what is needed for the future, for example how to improve on the lithium-ion battery and to go beyond its capabilities.

Suitable for students and practitioners in the chemical, electrochemical, and environmental sciences, *Nanomaterials for Energy Conversion and Storage* provides the information needed to find scalable, economically viable and safe solutions for sustainable energy.



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Readership: Students, researchers and practitioners in the chemical, electrochemical, and environmental sciences

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