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Special Issue Reprint

Advances in Nanostructured Electrode Materials

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With the growing energy demand and the urgent need to face global climate change and environmental pollution issues, the development of nanostructured electrode materials has become a key research hotpot for advanced energy technologies. The unique and outstanding features of these materials, arising from the ability to suitably tailor their structural and functional properties, are pivotal to optimizing performance, durability, efficiency, environmental sustainability and scalability for commercial applications.

This Reprint presents a curated collection of research articles highlighting recent progress in the synthesis, fabrication, functionalization and technological applications of nanostructured electrode materials. Topics include advanced fabrication methods, green synthesis approaches, in-depth studies on the properties and performance of electrode materials and their electrochemical applications in electrocatalysis, energy conversion, energy storage and thermoelectric materials. The advances and insights presented here contribute to the progress in the field of nanostructured electrode materials and provide a valuable reference for researchers, scientists, and engineers, providing cutting-edge solutions to meet the growing demand for efficient and sustainable energy technologies.

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