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Advanced Nanomaterials in Energy Applications for Oxygen Reduction, Water Oxidation and Batteries

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Message from the Guest Editors

Dear Colleagues,

During the past several decades, plenty of nanomaterials have been intensively explored, including metal/oxide/nitride/sulfide nanoparticles, nanowires, nanosheets, and various 2D materials (e.g., graphene, MXene, 2D transition metal dichalcogenides). These materials have very high specific areas with abundant active sites for chemical/electrochemical reaction and catalysis, which endow them with great potential for broad applications.

This Special Issue of *Nanomaterials* focuses on the application of nanomaterials in energy conversion and storage, including oxygen reduction, water oxidation, and various rechargeable batteries; which are crucial for the gradual replacement of fossil fuels with clean energies towards a zero-emission society. In this Special Issue, we invite contributions from researchers and experts on the state-of-the-art advances in this field.

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Dr. Xingke Cai
Guest Editors



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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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