Special Issue

Functional Nano/Single-Atom Catalysts for Next-Generation Zinc Batteries (Zn–Air and Zn-Ion Batteries): Theoretical and Experimental Studies

Message from the Guest Editor

This Special Issue, "Functional Nano/Single-Atom Catalysts for Next-Generation Zinc Batteries (Zn–Air and Zn-Ion Batteries): Theoretical and Experimental Studies," aims to bridge theoretical knowledge with new experimental ideas in zinc-based energy technologies. We welcome original research, reviews, and opinions that explore, but are not limited to, the following topics:

- The rational design and synthesis of nano- and single-atom catalysts.
- The in situ and operando characterization of catalytic processes.
- The computational modeling of zinc-ion storage and oxygen electrocatalysis.
- Interface engineering, dendrite suppression, and electrolyte optimization.
- The scalable fabrication and practical integration of zinc-based energy systems.

Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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