Special Issue

High Performance of Nanomaterials in Metal-Ion Batteries

Message from the Guest Editors

As demand for sustainable and efficient energy storage grows, metal-ion battery technologies are emerging as one of the most promising systems for electrochemical energy conversion and storage, with only one kind of ion shuttling between the negative and the positive electrode during discharge and charge. Research areas may include (but are not limited to) the following:

- The development of high-performance electrode materials;
- Innovative routes to synthesize electrode materials;
- Proposing a new mechanism to understand electrochemical behavior;
- The structural design and compositional optimization of electrode materials;
- The scalable preparation of electrode materials toward practical applications;
- Exploring other optimization strategies that are based on the entire battery level.

We look forward to receiving your contributions.

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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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