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Nanomaterials and Nanofabrication for Electrochemical Energy Storage

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Message from the Guest Editors

Dear Colleagues,

Electrochemical energy storage technologies play key roles for storing electricity harvested from renewable energy resources of an intermittent nature, such as solar and wind, and for utilizing electricity for a range of applications, such as electric vehicles and flights, wearable electronics, and medical implants. Several electrochemical systems, such as rechargeable batteries and supercapacitors, have shown great potentials for these emerging applications. In these systems, nanostructured materials have been widely used for improving the electrochemical performance, and studying the electrochemical reaction mechanisms due to their unique chemical and physical properties. This Special Issue welcomes submission of original research papers or comprehensive reviews, that demonstrate or summarize significant advances in the synthesis and application of novel energy nanomaterials in various electrochemical energy storage systems, including but not limited to, Li-ion, Na-ion, Li-S, all-solid-state, flow batteries, supercapacitors, hybrid supercapacitors, and that disclose insight into the synthesis-structure-performance relation in these new nanostructured materials.



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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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