Special Issue

Novel Electrode Materials for Solid-State Batteries

Message from the Guest Editor

Solid-state batteries are one of the most promising next-generation energy storage technologies. They offer enhanced safety and high energy density, characteristics that make them highly suitable for applications in electric vehicles, portable electronics, aerospace, and grid-level energy storage. However, their development has been hindered by several challenges, including interfacial instability, limited ion conductivity, and mechanical degradation during cycling. Novel electrode materials play a pivotal role in addressing these challenges and enabling the practical deployment of solid-state batteries. This Special Issue provides a platform for researchers to present recent advances in the design, synthesis, and application of novel electrode materials for solid-state batteries. We welcome contributions in the form of communications, full research articles, and comprehensive reviews that focus on innovative electrode materials, interfacial engineering strategies, and fundamental insights into charge storage mechanisms in solid-state battery 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.

Editor-in-Chief

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