Special Issue

Materials and Components for Electrochemical Storage Devices

Message from the Guest Editor

In recent years, electrochemical storage technologies have played a crucial role, both for e-mobility and grid applications, improving electricity service quality and security, due to growing renewable energy sources and their integration into the electricity grid. This research is currently addressing materials and their processing in order to improve performance at the battery cell and battery system design levels. Innovative and low-cost materials and components are required for optimizing more mature technologies, such as lead–acid and lithium-ion batteries and for enhancing the most promising post-lithium batteries, such as sodium-ion, redox flow, metal–air, etc. Research has to address the synthesis and development of cost-effective materials that are able to improve power density, cyclability, round-trip efficiency, etc. The aim is to move towards more efficient and eco-friendly systems. Technical papers dealing with recent results and advances in the field of electrochemical storage devices, featured papers, and review articles providing an analysis of the state-of-the-art and future perspectives of these technologies are warmly invited.

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.

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