



Thin Film-Electrode Based on Nanomaterials

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Message from the Guest Editor

With the increasing intensification of energy and environmental issues, green renewable energies have become research foci. Electrochemical energy storage technology is not restricted by geographical and topographical environments and can directly store and release electrical energy, thus attracting widespread attention in emerging markets and scientific research fields. Thin-film electrodes based on nanomaterials and their structures play key roles in supporting a multitude of coupled physicochemical processes that include electronic, ionic, and diffusive transport in electrode and electrolyte phases, electrochemical reactions, and material phase changes, as well as mechanical and thermal stresses, thus determining the storage energy density and power density, conversion efficiency, performance lifetime, and system cost and safety. The purpose of this Special Issue of *Nanomaterials* is to promote outstanding research concerning all aspects in the realm of thin-film electrodes based on nanomaterials for electrochemical energy storage technologies, focusing on state-of-the-art progress, developments, and new trends.

We look forward to receiving your contributions.





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Editor-in-Chief

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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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