Special Issue

Nanotechnology for Energy Generation and Storage

Message from the Guest Editors

The challenges of global warming and fossil energy consumption are driving the rapid development of advanced energy technologies. Collecting distributed and renewable energy and preserving it in proper storage cells can efficiently contribute to a green and sustainable planet, although this concept remains in its infancy far from a level of large-scale production. To further break through the bottleneck of energy generation and storage, efforts must be devoted to analyzing device performance at an atomic/molecular scale in order to gain insight into the deep mechanisms of these devices. This Special Issue on "Nanotechnology for Energy Generation and Storage", will present a broad range of topics covering various fields of energy harvesting, storage, and utilization based on nanomaterials and nanostructures. In addition to individual energy conversion and storage devices, studies detailing new principles of integrated systems to elevate energy utilization efficiency and convenience are also encouraged. Original research articles as well as review papers based on experimental, theoretical, or simulation works are all welcome.

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Deadline for manuscript submissions

closed (30 April 2023)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/136144

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mdpi.com/journal/nanomaterials

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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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