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Mechanics of Engineered Nanomaterials for Energy and Environmental Applications

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Message from the Guest Editors

Dear Colleagues,

In this Special Issue, we call upon the attention of related research communities to highlight their cutting-edge initiatives to address key materials and mechanics problems presented in engineered nanomaterials for energy and environmental applications, and equally important to propose potential new applications with the latest understanding of the nanomechanics and recent developments in nanomaterial engineering.

Below are a few suggested topic areas, but additional topics related to the mechanics of engineered nanomaterials for energy and environmental applications are all welcome.

- Nanomechanics involved in hydrogen production, storage, and transport, e.g., understanding the hydrogen embrittlement mechanisms and solid-state hydrogen storage mechanisms.
- Nanomechanics in advanced battery technologies.
- Engineered nanomaterials that can be used in small modular reactors (SMRs) for lower cost and higher mechanical reliability.
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Special Issue



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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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