Special Issue

Recent Progress in Rare-Earth Functional Nanomaterials

Message from the Guest Editors

Rare-earth elements are valuable strategic resources known for their unique physical and chemical properties. Nanostructured rare-earth materials, with their exceptional size, structure, and properties, exhibit remarkable functionalities that surpass conventional materials. In addition, these nanomaterials possess distinct optical, electrical, thermal, and magnetic properties that create novel characteristics. We welcome contributions devoted to nanostructured rare-earth materials. Research areas may include (but are not limited to) the following:

- Design and preparation of rare earth-based, electromagnetic wave-absorbing nanomaterials;
- High-performance rare earth-based magnetic materials;
- Rare earth-based hydrogen storage materials and their applications;
- Precision processing of rare earth precursors and polishing materials;
- Rare-earth luminescent materials and photoelectric devices;
- New testing and characterization methods in rareearth nanomaterials;
- Review articles on the progress of rare earth-based, electromagnetic wave-absorbing nanomaterials.

Guest Editors

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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 nanometerscale 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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