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Lanthanide-Doped Luminescent Nanomaterials: Design, Synthesis, Optical Properties and Applications

Guest Editor:

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Deadline for manuscript submissions:
closed (20 February 2025)

Message from the Guest Editor

Dear Colleagues,

Impurity doping is a promising method to modify material properties. Lanthanide ions have been extensively explored as active dopants in nanomaterials to modulate their morphologies, sizes and electronic configurations. Moreover, doping with lanthanide ions can impart rich optical properties, making doped nanomaterials attractive for many applications. Owing to their unique properties, lanthanide-doped luminescent nanoparticles have found applications in bioimaging, sensing, photothermal therapy, photodetector, solid-state lighting and anti-counterfeiting.

This Special Issue aims to provide an overview of the recent developments in lanthanide-doped luminescent nanomaterials, including, but not limited to, the following:

- Synthesis and morphology control of lanthanide-doped nanomaterials;
- Optical properties of lanthanide-doped nanomaterials;
- Application of lanthanide-doped nanomaterials.

Dr. Sai Xu
Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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