

Special Issue

Luminescent Nanomaterials: Functional Design, Advantages, and Applications

Message from the Guest Editors

With relatively large surface areas and tunable composition and morphology, luminescent nanomaterials possess unexpected optical properties compared with their bulk counterparts. Their unique and advantageous optical properties have advanced a broad range of applications, including fluorescent microscopy, super-resolution nanoscopy imaging, single-particle tracking, nanoscale thermometry, multimodal bioimaging, photodynamic therapy, optogenetics, security labelling, et al. This SI will present comprehensive research outlining progress on the functional design, controlled synthesis, and novel applications of luminescence nanomaterials. We invite authors to contribute original research articles and review articles covering the current progress on the recent advances and applications of luminescent nanomaterials. Potential topics include, but are not limited to:

- Synthesis, advantages and applications of the colloidal quantum dots.
- Novel design and applications of upconversion nanoparticles.
- Synthesis and potential of carbon dots.
- Advances and applications of luminescent polymer dots.
- Functional design and applications of luminescent hybrid nanomaterials.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

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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