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Luminescent Colloidal Nanocrystals

Guest Editor:

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Message from the Guest Editor

Last decade luminescent colloidal nanocrystals attracted enormous attention because of both excellent optical properties and solution processability. A large number of approaches to synthesis, post-synthetic processing, and functionalization have been developed for semiconductor quantum dots and, later, perovskite nanocrystals. The tunability of the physical and chemical properties of luminescent colloidal nanocrystals opens vast possibilities to utilize them in a number of applications, including optoelectronics, biology, medicine, computing, etc. For most applications, high quantum yield and stability will be the key properties, but often the concentration and mobility of charge carriers, photoluminescence decay time, spectral line purity, or biocompatibility play an important role.

The present special issue aims to publish state-of-the-art manuscripts concerning synthesis, post-synthetic treatment, optical and electronic properties of the luminescent colloidal nanocrystals and their complexes with different nanostructures.









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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, metalorganic 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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