



Luminescent Applications of Rare-Earth-Doped Nanoparticles

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Message from the Guest Editor

As one of the most important features in human life, light brings us brightness and hope. More than 80% of the information that humans receive from the outside world depends on vision, in which light is an indispensable element. Nowadays, light is important in many applications such as in displays, lighting, detection, plant growth, biological imaging, and solar cells, as well as in some novel fields, such as laser display, fingerprint identification, and near-infrared (NIR) persistent luminescence multifunctional diagnosis and treatment. Among them, Rare earth ions have been widely used in the above luminescent areas due to the abundant energy level transitions and unique luminous properties.

The present Special Issue of *Nanomaterials* is aimed at attracting the current state-of-the-art in the use of materials for luminescence application, a field that has blossomed since the 1860s, with seminal discoveries on persistent luminescent ZnS:Cu by Sidot. In the present Special Issue, we will present new ideas for future luminescent applications and new technologies of rare-earth-doped nanomaterials.





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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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