



Advance in Photoactive Nanomaterials

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Message from the Guest Editor

Photoactive nanomaterials exhibit a myriad of customized properties, such as photon converting ability, specific surface area, physicochemical stability, chemical reactivity, and others, making them appealing for a wide range of practical applications. Photoactive nanomaterials can convert photon to photon (photoluminescence), heat (photothermal effect), and separated charged carriers (photovoltaic effect), which is very important for the manipulation and utilization of light.

This Special Issue aims to focus on recent progress and advances in emerging photoluminescent, photothermal, photovoltaic, and photocatalytic nanomaterials and their applications in optoelectronics and energy conversion. Optical design for enhancing light emission, photothermal effects, and photocatalytic materials will be covered. Further, the investigation of carrier dynamics of photoactive nanomaterials by ultrafast spectroscopy will be an important subject for this Special Issue.





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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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