

Special Issue

Plasmonic Hybrid Nanostructures for Photocatalysis and Enhanced Luminescence

Message from the Guest Editors

Plasmon hybrid nanostructures can confine light beyond the diffraction limit and regulate the interaction between light and matter. Plasmonic noble metal nanoparticles, a new class of photocatalysts with the unique ability to harvest light energy across the entire visible spectrum and effectively convert energy, have been explored as a promising pathway to mitigating the energy crisis. In addition, by considerably enhancing near-field electromagnetic emissions, plasmonic nanostructures can effectively enhance the luminescence of emitters, which is of great significance for the development of single-photon sources and nanophotonic devices. We are pleased to invite authors to contribute original research articles and reviews to this Special Issue, which aims to present studies on “Plasmon-Assisted Catalysis and Luminescence Enhancement” demonstrating theoretical and experimental results and advancements regarding plasmonic hybrid nanostructures for photocatalysis and enhancing the luminescence of molecules and nanomaterials, rather than traditional catalytic methods.

Guest Editors

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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.

Editor-in-Chief

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