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Photo/Electrocatalysis Applications: Green Processes and Sustainable Nanomaterials

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Message from the Guest Editors

Photo/electrocatalysis plays an important role in a diverse range of applications, including emerging technologies related to clean energy, sustainability, and the petrochemical industry, such as water splitting, CO₂ reduction, nitrogen fixation, pollutant treatments, energy conversion, and organic synthesis. The rational design and preparation of photo/electrocatalytic materials with tailored structures and functions and the fundamental understanding of both the materials' work mechanism and the interfaces between solid/solid and solid/liquid systems are crucial for the development of novel photo/electrocatalytic materials, devices, and systems.

Therefore, this Special Issue provides an international platform for scholars to present and discuss their latest research and prospective experiments on nanostructured photo/electrocatalytic materials. This issue will address the latest advances in the design and construction of novel photo/electrocatalysts, our fundamental understanding of photo/electrocatalytic mechanisms, and their theoretical modeling and simulation.



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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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