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Nanomaterials for Environmental Photocatalysis

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Message from the Guest Editor

The energy used in our daily life and in industry largely comes from fossil fuel sources; these are non-renewable and this reliance leads to heavy environmental pollution. It is urgent to develop renewable energy sources as alternatives with low or no environmental impact on our society. Apart from the development of cost-effective energy conversion and storage processes, technologies such as the removal of VOCs, water treatment, and others are also required in order to achieve a carbon-neutral society for a sustainable future. In general, the key to this future scenario is to develop highly efficient nano-catalysts, especially for use in applications related to the environment.

Research areas may include (but are not limited to) the following:

- Functional materials, novel synthesis, nanomaterials;
- Photocatalysis;
- Water treatment;
- VOCs;
- Fuel cells;
- Electrochemical synthesis of value-added chemicals;
- Water/seawater splitting;
- Electrochemical CO₂ reduction reaction;
- Ex situ/in situ/operando techniques for the energy conversion and storage processes.



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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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