



Synthesis and Applications of Nanomaterials for Photocatalysis and Electrocatalysis

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Message from the Guest Editors

Dear Colleagues,

Heterogeneous catalysis, exploiting photo- and electro-chemical reactions, has expanded rapidly in the last few decades, having undergone various developments, especially from the energetic and the environmental points of view. Photocatalysis plays a pivotal role in applications, such as water splitting and air/water remediation. Electrocatalysis can be found in a large array of research fields, including the development of electroanalytical sensors, waste water treatment and energy conversion devices (e.g., batteries, fuel and solar cells, etc.). Therefore, the fine control of the synthetic procedures, together with extensive physico-chemical characterizations of the tailored-made catalytic nanomaterials, are of fundamental importance to reach desired results.

The present Special Issue of Nanomaterials will include recent enhancements in the oxide/metal nanoparticles for photocatalytic and electrocatalytic applications, especially in the fields of pollutants abatement and energy conversion.

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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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