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Advanced Nanomaterials for Photocatalysis and Photo(electro)catalysis

Guest Editors:

Prof. Dr. Zebin Yu

School of Resources,
Environment and Materials,
Guangxi University, Nanning
530004, China

Dr. Yanping Hou

School of Resources,
Environment and Materials,
Guangxi University, Nanning
530004, China

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Message from the Guest Editors

The purpose of the present Special Issue is to elucidate the state-of-the-art of this growing research field from a fundamental and application perspective. Concretely, this Special Issue seeks to publish cutting-edge scientific advances in photo(electro)catalysis, with several key issues on the development of novel catalysts and synthetic methods, exploring physicochemical properties, structure-activity relationship, stability, and durability, as well as mechanism of catalytic reactions on the nano-photocatalysts/photo(electro)catalysts based on experimental studies and theoretical simulation.

The format of welcomed articles includes original research articles, communications, and reviews. Apart from papers on fundamental research, reports on industrial applications of photo(electro)catalysis processes in various fields are also welcomed. Potential topics include, but are not limited to, the following:

- Photo(electro)catalytic degradation of pollutants;
- Photo(electro)catalytic water splitting;
- Photo(electro)catalytic reduction of carbon dioxide;
- Photo(electro)catalysis for hydrogen peroxide generation.



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Special Issue



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Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science,
University of Birmingham,
Birmingham B15 2TT, UK

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.

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Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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