

## Special Issue

# Functional Nanostructured Electro/Photocatalysts for Energy Conversion and Environmental Treatment

### Message from the Guest Editor

Increasingly serious environmental concerns have stimulated significant efforts to develop green and efficient energy conversion and waste treatment technologies, among which electrocatalysis has been considered as a clean and renewable one. The development of high-efficiency and durable electrocatalysts to promote electrochemical reactions is highly desirable. With this Special Issue of *Nanomaterials* titled “Functional Nanostructured Electro/Photocatalysts for Energy Conversion and Environmental Treatment”, we encourage authors to share their developments in the design, characterization, and application of nanostructured electro/photocatalysts for various electro/photocatalytic reactions, including but not limited to biomass upgrading and the reactions of hydrogen evolution, oxygen evolution, CO<sub>2</sub> reduction, N<sub>2</sub> reduction/oxidation, NO<sub>3</sub><sup>-</sup>/NO<sub>2</sub><sup>-</sup>/NO reduction, chlorine evolution, and O<sub>2</sub> reduction, mainly focusing on the production of renewable energy and valuable chemicals and wastewater treatment.

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### Guest Editor

Dr. Yi Huang

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### Deadline for manuscript submissions

closed (25 March 2025)



## Nanomaterials

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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.

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### Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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