



## Nanomaterials for Photocatalytic Degradation of Pollutant and Hydrogen Evolution

Guest Editor:

### Dr. Jing Feng

Key Laboratory of Superlight  
Materials & Surface Technology  
of Ministry of Education, Harbin  
Engineering University, Harbin  
150001, China

Deadline for manuscript  
submissions:

**closed (20 January 2025)**

### Message from the Guest Editor

Photocatalytic degradation and hydrogen production has been developed over decades and is considered a green and advanced technology in the environmental and energy fields. Now, efficient visible light absorption and the rapid separation of photogenerated electron–hole are the main factors to improve their photocatalytic efficiency. Therefore, the generation, transfer, and reaction of the photogenerated carries has become the core content of photocatalytic research. In general, photogenerated electrons and holes can be modulated by controlling composition, morphology, surface defects, surface coordination environment, and composite catalysts.

This Special Issue of *Nanomaterials* aims to delve deeper into the mechanisms and processes of photocatalytic degradation and hydrogen production. This field has developed rapidly in the past 20 years and has attracted the attention of a large number of researchers. The relation between the surface properties of photocatalysts and their catalytic performance is of particular interest.





an Open Access Journal by MDPI

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

**Journal Rank:** JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

## Contact Us

---

*Nanomaterials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](https://twitter.com/nano_mdpi)