



## Nanomaterials and Nanotechnology for Fuel Cells

Guest Editor:

### **Prof. Dr. Jinlong Zou**

Key Laboratory of Functional Inorganic Material Chemistry, Ministry of Education of the People's Republic of China, School of Chemistry and Materials Science, Heilongjiang University, Harbin 150080, China

Deadline for manuscript submissions:

**closed (20 September 2024)**

### **Message from the Guest Editor**

Dear Colleagues,

Fuel cells have been considered one of the most promising efficient power generation technologies for a sustainable future. Fuel cells come in different types depending on the electrolytes and the fuels used, and the performance of fuel cells, among others, strongly depends on the types of electrocatalysts and membranes used in the systems. The rational design and fabrication of chemically engineered nanomaterials, including new carbon-based nanocatalysts, new noble/non-noble metal catalysts, ion-exchange membrane materials, electrocatalyst carrier materials, and aqueous electrolyte/ionic liquids are the focus of current fuel cell research.

This Special Issue of Nanomaterials will cover the latest advances in nanomaterials and nanotechnology for fuel cells, not only in terms of syntheses and characterizations of novel materials, but also in terms of reports on functional and intelligent technologies for use in working devices. The main objective is to discover and engineer (bio-)energy storage and conversion processes in fuel cells with high conversion efficiency and power density.

Prof. Dr. Jinlong Zou  
Guest Editor





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)