



*materials*



an Open Access Journal by MDPI

## Metal-Organic Frameworks towards Energy Conversion and Storage

Guest Editor:

### **Prof. Dr. Seong Huh**

Inorganic Nanomaterials Lab,  
Department of Chemistry,  
Hankuk University of Foreign  
Studies, Seoul, Korea

Deadline for manuscript  
submissions:

**closed (31 July 2021)**

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

One of the most important issues for material scientists is the development of cost-effective and competitive energy conversion and storage systems, resulting in the increasing use of portable electronic devices and electric vehicles. Porous materials can play a pivotal role in providing functional void spaces for these energy related applications. Among others, metal-organic frameworks (MOFs) can be utilized for the generation of conductive media, storage of hydrogen and methane, electrochemical catalytic systems, and catalyst supports for energy relevant devices. Controlled pyrolysis of MOFs can also provide functional oxide-based or carbonaceous porous materials suitable as electrodes for various types of rechargeable batteries and supercapacitors. In this regard, this Special Issue covers all aspects of energy related applications of MOFs and MOF-derived porous materials.



[mdpi.com/si/29423](https://mdpi.com/si/29423)

**Special** Issue



an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

### Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

## Message from the Editorial Board

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## 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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

## Contact Us

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)