



materials



an Open Access Journal by MDPI

Energy Storage Materials and Devices: Design, Properties and Mechanisms

Guest Editors:

Dr. Cheng Chi

Key Laboratory of Power Station
Energy Transfer Conversion and
System of Ministry of Education,
School of Energy Power and
Mechanical Engineering, North
China Electric Power University,
Beijing 102206, China

Dr. Ruihan Zhang

Department of Mechanical
Engineering, The Hong Kong
Polytechnic University, Hung
Hom, Kowloon, Hong Kong SAR,
China

Deadline for manuscript
submissions:

closed (20 December 2024)

Message from the Guest Editors

Efficient, scalable, and reliable energy storage is key to the global energy transition toward renewable energy storage systems. This Special Issue aims to publish research and present important new discoveries related to synthesis, manufacturing, structure, performance, property, and technology applications, as well as strategies and policies for sustainable energy storage materials and their installations in sustainable energy and development. This Special Issue aims to cover all aspects of advances in energy storage materials and devices. Submissions are welcome to focus on, but are not limited to, the following topics:

- Li/Na storage materials and beyond Li/Na-ion batteries;
- Nanomaterials, polymer, inorganic–organic, composite electrode materials;
- Advanced electrolyte, solid state, high voltage, high temperature, and low temperature;
- Flexible or stretchable, transparent electrodes and devices;
- Devices such as Li/Na-ion batteries and beyond, supercapacitors, and fuel cells;
- Two-dimensional materials such as graphene, Mxene, and beyond;
- Nano-micro on-chip energy storage devices;



mdpi.com/si/188005

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

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)