



## Advanced Electrode Materials for Lithium, Potassium, and Sodium Storage

Guest Editors:

**Dr. Aiqin Mao**

School of Materials Science and Engineering, Anhui University of Technology, Maanshan 243032, China

**Dr. Lianbo Ma**

School of Materials Science and Engineering, Anhui University of Technology, Maanshan 243032, China

Deadline for manuscript submissions:

**closed (20 November 2023)**

### Message from the Guest Editors

Revolutionary changes in energy storage technology have put forward higher requirements on next-generation advanced electrode materials for lithium/potassium/sodium storage. Up to date, many advanced electrode materials have been developed and studied as potential electrode materials. In addition, their designable architecture, tunable porous structure, and easy functionalization expand their application in numerous fields, particularly in energy storage and energy conversion.

This Special Issue will cover promising and novel research trends in the synthesis and characterization of advanced electrode materials and the exploration of their applications in lithium/potassium/sodium storage. The topics of interest include but are not limited to the following:

- Synthesis and characterizations of MOFs and COFs, high-entropy materials, and other advanced electrode materials (anode or cathode).
- Kinetic-enhanced lithium/potassium/sodium storage materials.
- In-depth working mechanisms of electrode materials.
- Relationships between micro- and mesoporous structures and electrochemical performance.
- Theoretical calculations for the advancement of electrode materials.





an Open Access Journal by MDPI

## Editor-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

## Message from the Editor-in-Chief

*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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*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)