



an Open Access Journal by MDPI

# **Advanced Materials for Alkali Metals Ion Batteries**

Guest Editor:

#### Dr. Hehe Wei

School of Chemistry and Molecular Engineering, East China University of Science and Technology, Shanghai 200234, China

Deadline for manuscript submissions: closed (5 October 2023)

## Message from the Guest Editor

Alkali metal ion batteries represent a serious and growing concern in the field of energy conversion and storage. Although enormous efforts have been devoted to them and outstanding progress has been achieved to date, a general strategy for achieving active, stable, and safe alkali metal ion batteries, which require advanced materials and clear structure–property linkage, is still missing. This Special Issue aims to share selected contributions on advances in the synthesis, characterizations, and applications of nanomaterials with regard to alkali metal ion batteries. Potential topics include but are not limited to:

- Li-ion batteries;
- Na-ion batteries;
- K-ion batteries;
- Nanomaterial design on batteries;
- Nanocoatings and nanocomposites;
- Mechanisms of action;
- Adverse effects of nanomaterials;
- Future perspectives for alkali metals ion batteries;
- Role of alkali metals ion batteries in energy storages.









an Open Access Journal by MDPI

# **Editor-in-Chief**

#### Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
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 iournal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. 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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

# **Contact Us**

*Materials* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials\_Mdpi