Special Issue

Advanced (Lithium-, Sodium-) Battery Materials and Devices Designed for Energy Conversion

Message from the Guest Editor

In recent years, the research of solid-state batteries has become a hot spot, including the development of new solid-state electrolyte materials, the improvement of chemical and electrochemical stability, and the design of electrode and electrolyte structure. Electrode materials with high specific capacity, stable structure and stable interface between electrode materials and the electrolytes are the key factors to build batteries with high performance. Sodium is abundant in the Earth's crust; therefore, sodium ion battery is considered to be one of the most promising candidates for the next generation of electrochemical power sources, and more and more research is focused on the basic issues of sodium ion batteries.

- lithium/sodium ion batteries
- solid-state batteries
- interface engineering
- lithium/sodium sulfur batteries
- lithium/sodium oxygen batteries
- sodium-based batteries
- cathode
- anode
- electrolyte
- catalyst

Guest Editor

Prof. Dr. Xiangwei Wu
Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 200050, China

Deadline for manuscript submissions

closed (20 March 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/87976

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

About the Journal

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.

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

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)

MDPI