materials

an Open Access Journal by MDPI

IMPACT FACTOR 3.2

Indexed in: PubMed

CITESCORE 6.4

Synthesis and Application of Key Materials for Advanced Rechargeable Batteries

Guest Editors:

Prof. Dr. Yang Zheng
The State Key Laboratory of Refractories and Metallurgy, School of Materials and Metallurgy, Wuhan University of Science and Technology, Wuhan 430081, China

Dr. Zhao Ding
College of Materials Science and Engineering, Chongqing University, Chongqing 400044, China

Deadline for manuscript submissions:
closed (30 June 2023)

Message from the Guest Editors

Renewable and green energy sources, such as solar, wind, and wave, represent the most promising and effective way of addressing the critical challenges of energy shortage and environmental pollution stemming from insufficient fossil fuel supplies and increasing consumption. Visible drawbacks which result from the intermittency, instability, and uneven distribution strictly limited the wide-scale implementation of renewable energies and the exploration of advanced energy storage technologies which can efficiently store and utilize these energies at low costs. Energy storage technologies represented by lithium-ion batteries have dominated the power markets of portable electronic devices and electric vehicles. Limitations of conventional lithium-ion batteries make it difficult to meet the growing demands for high energy density, power density, safety, and low cost. Therefore, this Special Issue welcomes contributions from all researchers working on the design, preparation, characterization, mechanism, and application of key materials for advanced rechargeable batteries.

materials

IMPACT FACTOR 3.2 | Indexed in: PubMed | CITESCORE 6.4

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