



an Open Access Journal by MDPI

Advanced Materials for Lithium Ion Batteries

Guest Editor:

Prof. Dr. Jeffrey W. Fergus

Materials Research and
Education Center, 275 Wilmore
Laboratory, Auburn University,
Auburn, AL 36849, USA

Deadline for manuscript
submissions:

closed (30 November 2012)

Message from the Guest Editor

Dear Colleagues,

Improvements in the performance of lithium ion batteries are needed to meet the energy storage requirements for electrical vehicles, portable electronics and other applications. These performance improvements depend on the development of new and advanced materials. Needed improvements include electrode materials with increased capacity, extended voltage range and long lifetime (e.g., cyclability) as well as electrolyte materials with high conductivity and stability. The performance of battery materials depends critically on their microstructures, which requires the development of materials processing techniques to obtain the desired microstructures and morphologies. This special issue will focus on materials and processes for obtaining lithium ion battery anodes, cathodes and electrolytes that meet the increasing performance demands in mobile energy storage.

Prof. Dr. Jeffrey W. Fergus
Guest Editor



mdpi.com/si/1783

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)