

Special Issue

Carbon Composites for High-Performance Lithium-Sulfur Batteries

Message from the Guest Editor

Lithium-sulfur (Li-S) battery is one of the most promising candidates for the next generation of energy storage equipment with a high energy density and low cost. However, the development and application of this battery have been hindered by the shuttle of lithium polysulfides. Recently, we focus on some effective strategies in boosting the electrochemical performance of lithium-sulfur batteries through the multiscale hierarchical design of carbon composites. Carbon composites used in Li-S batteries not only act as conductive additives, but also as shuttling preventers, spatial confiners, and anode protectors, etc. Because of their unique structural and chemical properties, carbon composites have attracted this broader interest, which make them promising functional materials for new-generation Li-S batteries. This Special Issue aims to collect different reports on carbon composites used in the development of Li-S batteries. We believe that this collection will help to create a stimulating issue on carbon composites for Li-S battery applications.

Guest Editor

Dr. Manfang Chen

Associate Professor, The College of Chemistry, Xiangtan University, Xiangtan 411105, China

Deadline for manuscript submissions

closed (20 November 2022)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/122016

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



About the Journal

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.

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

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)