Special Issue

Emerging Materials and Systems for Electrochemical Energy Storage Application

Message from the Guest Editors

Rechargeable metal-ion-based energy storage cells (lithium, sodium, potassium, magnesium, calcium, aluminum, zinc, manganese-ion batteries, their dual-ion batteries and capacitors) have been attracting enormous attention from the research community because these ion cells may be able to meet various challenges faced by human society in multiple applications. In these emerging ion-based systems, their performances may be worsened by a variety of undesired complications, including insufficient initial content of ions in a cell, poor initial coulombic efficiencies of electrode materials, loss of ions during long-term cycling, and the lack of practical possibility to optimize potential ranges in negative and positive electrodes. The intent of this Special Issue is to encourage the community to deepen physical and chemical understanding at both materials and systems levels for a broad range of metal-ion-based energy storage cells and provide an up-to-date overview of this emerging field.

It is our pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editors

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Prof. Dr. Feng Liang

Deadline for manuscript submissions

closed (20 October 2022)

Materials

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Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/76338

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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.

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