Special Issue

Electrode Materials: Fabrication, Properties, and Applications

Message from the Guest Editor

The success of the energy transition will depend on our capacity to produce, transport, consume, and store energy reliably on a large scale and at a low cost. Electrode materials play an important role in the development of renewable energies. Rechargable batteries are the most appropriate and promising systems. Nowadays, Li-ion batteries (LIBs) dominate the global market for energy storage devices and are used in a variety of applications from portable electronic devices to electrical grid storage and electric vehicles. However, its specific capacity and energy density seem to reach their limits and will be insufficient for the long-term needs of our society. New insertion or conversion materials for electrodes need to be synthesized, in order to provide high energy or high power, sufficient autonomy and low ageing.

The present Special Issue is focused on electrode materials preparation and characterization for rechargeable batteries (including lithium-ion, metal-ion and all-solid-state batteries) but can be extended to supercapacitor electrodes.

We kindly invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2021)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/50624

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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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