Special Issue

Challenges of Current and Next-Generation Electrochemical Energy Storage Materials

Message from the Guest Editor

Electrochemical energy storage materials have enabled large-scale applications of lithium-ion batteries in electric vehicles and grid energy storge, promoting the future fulfillment of net-zero emission targets set by different countries. There are several critical challenges associated with electrochemical energy storage systems include energy density, cost, degradation, energy storage safety, the supply chain of raw materials, and the environment impact on the manufacturing and recycling of energy storage materials and systems. New and/or carefully engineered materials may provide essential or revolutionary solutions to address these challenges. This Special Issue focuses on novel and emerging next-generation electrochemical energy storage materials, which can help to to address current scientific challenges and act as feasible practical applications in next-generation energy storage devices. This Special issue will publish high-quality and peer-reviewed research and review articles.

Guest Editor

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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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