

Special Issue

Advanced Battery Materials for Energy Storage

Message from the Guest Editor

The rapid development of renewable energy sources has accelerated the growth of smart grid systems, which necessitate high-energy, low-cost batteries such as lithium-ion, sodium-ion, and potassium-ion. Nowadays, significant progress has been made in terms of using nanostructure materials as electrodes for batteries. It is vital to thoroughly understand the storage mechanism of nanostructure materials in order to both facilitate the commercialization of nanostructure materials as electrode materials and observe the relation to the electrochemical performance. Topics of interest for publication include but are not limited to:

- Carbon nanomaterials (graphite, graphene, CNT) as anode in lithium-ion batteries (LIBs).
- Recent advanced cathode materials for LIBs.
- Recent advanced anode materials for LIBs.
- 2D materials as electrode in LIBs and supercapacitors.
- Modelling and simulation, including first-principles study of electrode materials in energy storage device.
- Application-related development of electrode materials in advanced batteries and supercapacitors.

Guest Editor

Prof. Dr. Mohd Asyadi Azam

1. Faculty of Industrial and Manufacturing Technology and Engineering, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, Durian Tunggal, Melaka 76100, Malaysia

2. Center for Promotion of Educational Innovation, Shibaura Institute of Technology, 3 Chome-7-5 Toyosu, Koto City, Tokyo 135-8548, Japan

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

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

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