Special Issue

Innovations and Challenges in New Battery Generations

Message from the Guest Editors

This Special Issue thus aims to bring together the latest breakthroughs and ongoing research in battery technology, offering a platform for academic and industry experts to share their research and ideas. Contributions that cover the full spectrum of battery technology, from modelling and materials research to the practical manufacturing techniques and implementation of new battery chemistries, are welcome. Submissions are expected to include original research articles, reviews, and case studies on topics including, but not limited to, the following:

- Development and validation of battery models;
- Integrative battery models (e.g., electrochemical, thermal, mechanical);
- Data-driven methods in battery modelling;
- Challenges in modelling new battery generations (e.g., solid-state, lithium–sulfur);
- Advanced materials for electrodes and electrolytes;
- Design and prototyping of new battery generations;
- Battery virtual prototyping and simulation-driven development;
- Advanced battery management systems, etc.

Guest Editors

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Message from the Editor-in-Chief

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.

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