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Advances of Battery Technologies: Trends Forecasting, Measurements, Data Analysis, Diagnostics, Modelling and Control

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Message from the Guest Editor

This Special Issue aims to present and disseminate the most recent advances related to the trends of material forecasting, theory, design, modelling, application and control, as well as the condition monitoring of all types of battery energy storage.

Topics of interest for publication include, but are not limited to:

Deadline for manuscript
submissions:

30 June 2025

- All aspects of battery energy storage, i.e., Li-ion batteries, redox flow batteries, VRLA batteries, hybrid energy storage based on batteries and a review of technical and economic issues regarding batteries;
- Battery technologies for electric aircraft, electric vehicles, heavy duty machinery, photovoltaic and wind energy conversion systems, unmanned propulsion systems, electric scooters and bicycles, automation and robotics systems, and medicine;
- Batteries for safety-critical applications and emergency power systems;
- Novel materials and their applications in batteries;
- Hybrid systems based on batteries;
- Online and offline battery condition monitoring techniques and methods;
- Optimal design methodologies of batteries;
- Advanced modelling approaches of batteries.



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Special Issue



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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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