Special Issue

Advances in Post-Lithium-Ion Energy Storage Devices

Message from the Guest Editors

Pursuing post-lithium-ion batteries (PLIBs) is essential for advancing energy storage technologies, addressing cost and sustainability challenges, and meeting the growing demand for reliable and efficient energy storage solutions in a rapidly evolving energy landscape. Urgent and intensive research is required on the industrialization path of PLIBs, addressing challenges of new battery technologies. In this Special Issue, we are creating an exclusive platform to debate the potential of real battery competition against LIBs. The collection includes contributions discussing the latest advancements and emerging patterns in cutting-edge energy storage technologies. Contributions are encouraged to present both fundamental and applied research, addressing potential topics including, but not limited to, the following:

- Beyond lithium-ion battery chemistries (Na, K, Mg, Al, Ca-ion batteries);
- Metal-chalcogen batteries;
- Metal-air batteries;
- Aqueous Zn-ion batteries and their hybrids;
- PLIB configuration improvements;
- Modelling, simulation, and Life Cycle Assessment;
- Safety, reliability, and sustainability.

Guest Editors

Dr. Dawid Kasprzak

1. School of Engineering, Faculty of Applied Science, University of British Columbia, 1137 Alumni Ave, Kelowna, BC V1V 1V7, Canada
2. Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Berdychowo 4 St., 60-965 Poznan, Poland

Dr. Beata Kurc

Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Berdychowo 4 St., 60-965 Poznan, Poland

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

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Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

Prof. Dr. Karim Zaghib
Department of Chemical and Materials Engineering, Concordia University, Montréal, QC H3G 1M8, Canada

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