



Control, Modelling, and Management of Batteries

Guest Editors:

Dr. Xiaopeng Tang

Science Unit, Lingnan University,
Tuen Mun, Hong Kong SAR
999077, China

Dr. Xin Lai

School of Mechanical
Engineering, University of
Shanghai for Science and
Technology, Shanghai 200093,
China

Deadline for manuscript
submissions:

31 December 2024

Message from the Guest Editors

Lithium-ion batteries are generally regarded as key components of a sustainable society. However, they can only make a positive environmental impact if they have a long enough service life. Battery manufacturing is an energy-demanding process, and they can still be charged using electricity generated from fossil fuels. To achieve a safe yet effective utilization of these batteries, it is necessary to develop advanced techniques to control and manage these batteries.

This Special Issue will highlight recent studies that are related to the control, modeling, and management of batteries. Topics of interest include but are not limited to the following:

1. Battery modeling, including models that describe the battery's electrochemical behavior, dynamic behavior, etc.
2. Estimation of the internal status of the battery and battery packs, including the state of charge, state of health, state of power, state of energy, remaining useful life, internal temperature, etc.
3. Second-life use of retired batteries, including battery screening, battery reuse, battery recycling, etc.
4. Techniques that can prolong the lifespan of batteries.....





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Karim Zaghib

Department of Chemical and
Materials Engineering, Concordia
University, Montréal, QC H3G
1M8, Canada

Message from the Editor-in-Chief

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.

Author Benefits

Open Access:— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [Inspec](#), [Ei Compendex](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (Electrochemistry) / CiteScore - Q2 (Electrical and Electronic Engineering)

Contact Us

Batteries Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/batteries
batteries@mdpi.com
[X@batteriesmdpi](https://twitter.com/batteriesmdpi)