



Electrochemistry of Lead-Acid Batteries

Guest Editor:

Dr. Adrian Calborean

National Institute for Research
and Development of Isotopic and
Molecular Technologies, 67-103
Donat, 400293 Cluj-Napoca,
Romania

Deadline for manuscript
submissions:

closed (31 January 2025)

Message from the Guest Editor

Dear Colleagues,

Lead-acid batteries have been widely used as secondary sources of energy for many years. Their reliability is due to several characteristics such as high specific energy, high-rate fast-charge, low-cost manufacturing and recycling, life cycle durability, and high discharge rates. In spite of their long history, the performances of lead-acid batteries are being continuously improved by employing various changes. The optimization of the electrodes' design is mainly conceived towards obtaining the optimal current distribution in the electrodes.

Within all these innovative developments, the LAB industry is still hardly challenged about its future, and there is a strong demand for innovations capable to deal with novel alternative storage technologies. As such, this Special Issue addresses the progress in battery and energy storage development using distinguished fabrication features of electrode grids, electrolyte additives, or oxide paste additives embodiment. New state-of-the-art materials and technological procedures are pursued in order to further improve parameters such as energy density, capacity, cycle life, high-rate discharge performance.





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 - Q1 (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)