

Special Issue

Cathode Materials for Rechargeable Batteries

Message from the Guest Editor

With the expansion of the electric vehicle (EV) market, industries are demanding higher-energy-density and lower-cost lithium-ion batteries (LIBs). Since the cathode is the largest component in LIBs in terms of weight and cost, it is believed that the main bottleneck in attaining high energy densities lies in cathode chemistry. In particular, nickel-based layered oxides, the cathode material of choice for current EV batteries, suffer from the price volatility associated with cobalt and nickel. In this regard, tremendous research efforts are ongoing to improve the electrochemical performance of cathodes while reducing their dependency on geopolitically sensitive chemical elements. In this Special Issue of *Batteries*, we are inviting articles focused on the development of cathode materials for rechargeable batteries. Topics of interest include, but are not limited to, discovery of new cathode materials, chemical/structural optimization of cathode materials, degradation mechanism analysis, and development of next-generation cathodes. Original research articles and reviews involving synthesis, characterization, fabrication, and applications are welcome.

Guest Editor

Dr. Byunghoon Kim

Research Institute of Advanced Materials, Seoul National University,
Seoul 151-742, Korea

Deadline for manuscript submissions

closed (30 September 2022)



Batteries

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 6.6



mdpi.com/si/115398

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

[mdpi.com/journal/
batteries](https://mdpi.com/journal/batteries)





Batteries

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 6.6



[mdpi.com/journal/
batteries](https://mdpi.com/journal/batteries)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Karim Zaghib

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

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)