

Special Issue

Advances in Battery Energy Storage Systems

Message from the Guest Editors

This Special Issue focuses on technologies of battery energy storage, such as rechargeable batteries and flow batteries for stationary and vehicular applications. The topics of interest related to BES systems include, but are not limited to:

- BES modeling, state estimation and parameters identification
- BES management systems (BMS, EMS)
- BES diagnostics
- BES online testing (e.g., electrochemical impedance spectroscopy, incremental capacity)
- BES interface power electronics,
- BES charging
- Experimental investigation offline on BES devices with particular reference to Redox Flow Batteries (RFBs) and Li-ion batteries.
- Multi-physic multi-dimensional models of singles components and stack of RFBs and Li-ion batteries.
- Design of BES systems for microgrids
- Technical and economic assessments of BES systems
- Electric vehicles with electrical propulsion powered by batteries
- Waterborne vehicles with electrical propulsion powered by batteries.

Guest Editors

Prof. Dr. Walter Zamboni

Dipartimento di Ingegneria dell'Informazione ed Elettrica e Matematica Applicata (DIEM), Università degli Studi di Salerno, 84084 Fisciano, SA, Italy

Dr. Andrea Trovò

Department of Industrial Engineering, University of Padova, 35122 Padova, PD, Italy

Deadline for manuscript submissions

closed (10 April 2025)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/167661

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



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



About the Journal

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

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), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)