## Special Issue

# Advances of Battery Technologies: Trends Forecasting, Measurements, Data Analysis, Diagnostics, Modelling and Control

## Message from the Guest Editor

This Special Issue aims to present and disseminate the most recent advances related to the trends of material forecasting, theory, design, modelling, application and control, as well as the condition monitoring of all types of battery energy storage. Topics of interest for publication include, but are not limited to:

- All aspects of battery energy storage, i.e., Li-ion batteries, redox flow batteries, VRLA batteries, hybrid energy storage based on batteries and a review of technical and economic issues regarding batteries;
- Battery technologies for electric aircraft, electric vehicles, heavy duty machinery, photovoltaic and wind energy conversion systems, unmanned propulsion systems, electric scooters and bicycles, automation and robotics systems, and medicine;
- Batteries for safety-critical applications and emergency power systems;
- Novel materials and their applications in batteries;
- Hybrid systems based on batteries;
- Online and offline battery condition monitoring techniques and methods;
- Optimal design methodologies of batteries;
- Advanced modelling approaches of batteries.

#### **Guest Editor**

Dr. Adrian Chmielewski

Institute of Vehicles, Warsaw University of Technology, Narbutta 84 Str., 02-524 Warsaw, Poland

### Deadline for manuscript submissions

closed (30 June 2025)



# **Energies**

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



mdpi.com/si/179151

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

mdpi.com/journal/ energies





# **Energies**

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



## **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)

