Special Issue

Current Advances in Fuel Cell and Batteries

Message from the Guest Editor

Due to environmental and geopolitical considerations, there has been a revived effort to reduce reliance on fossil fuels for both electricity generation and transportation. The integration of renewable sources in the energy system is necessary to achieve the targets on greenhouse gas emissions set by the regulation. For this purpose, energy storage systems and energy vectors, such as batteries and hydrogen, became key technologies in this context. At the same time, in order to enable a reduction in emissions within the transport sector, the use of batteries and fuel cells represents the main solution to power zero-emissions vehicles. The main topics of interest include, but are not limited to:

- Laboratory implementation, tests, and validation methodologies of batteries and fuel cells;
- Diagnosis and prognosis of batteries and fuel cells;
- Battery and fuel cell degradation (state-of-health assessment, aging);
- Modeling of fuel cells and batteries;
- Analysis of fuel cell and battery performance using CFD simulation;
- Safety issues related to the use of fuel cells and batteries;
- Battery and fuel cell thermal management studies;

Guest Editor

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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.

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