



energies



an Open Access Journal by MDPI

EV Battery Thermal Management

Guest Editor:

Prof. Dr. Ahmad Pesaran

Transportation and Hydrogen
Systems Center, National
Renewable Energy Laboratory,
Golden, Colorado, USA

Deadline for manuscript
submissions:

closed (10 June 2019)

Message from the Guest Editor

The market share of battery electric vehicles (EVs) is growing around the world, particularly in China where the growth rate is fastest, because of their potential for much lower local greenhouse gas emissions and a reduction of imported petroleum. The cost of lithium ion batteries for the EVs is coming down while their energy density is enhancing leading to increased EV range. This Special Issue focuses on the thermal management of EV batteries, which is essential for delivering a long life and good performance of the batteries. EV battery performance may be improved at higher temperatures, but their cycle and calendar life are degraded with higher temperatures due to an increased rate of side reactions. At colder temperatures, the energy and power density decrease, which affects EV acceleration capability and range. The scope of this Special Issue encompasses all types of thermal management systems, measurements needed for designing improvement in thermal management systems, modeling tools for faster design of thermal management systems, and, finally, examples of battery thermal management in select EVs in the market.



mdpi.com/si/21314

Special Issue



energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

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.

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)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)