



Advances in Electrification and Thermal Management of Propulsion Systems

Guest Editors:

Dr. Zhe Liu

General Motors Company,
Detroit, MI, USA

Dr. Chiranth Srinivasan

Simerics, Inc., Novi, MI, USA

Deadline for manuscript
submissions:

closed (30 April 2024)

Message from the Guest Editors

Dear Colleagues,

The pursuit of energy conservation has led to the rapid development of hybrid and electric vehicles. In recent years, considerable research efforts have been implemented in the design and optimization of the electric propulsion system, and the market has witnessed a significant expansion in the sales of electric vehicles.

Presently, thermal management remains a serious challenge that affects the compactness, efficiency, and lifetime of an electric propulsion system, including battery heat dissipation, insulation material development, and power electronics and electric motor cooling. Hence, efforts must be spent on efficiently controlling the internal temperature while miniaturizing the propulsion system.

This Special Issue focuses on the advances in the electrification and thermal management of propulsion systems and seeks contributions on how to achieve a compact and thermally efficient electric propulsion design. The topics of this Special Issue include, but are not limited to, the following:

- Battery pack cooling and miniaturization;
- Power electronics and motor cooling;
- Thermal design optimization;
- Measurement technique development.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Joeri Van Mierlo

MOBI—Electromobility Research
Centre, Department of Electrical
Engineering and Energy
Technology, Faculty of
Engineering Sciences, Vrije
Universiteit Brussel, 1050 Brussel,
Belgium

Message from the Editor-in-Chief

The *World Electric Vehicle Journal* is the official journal of World Electric Vehicle Association (WEVA) and its members the European Association for Electromobility (AVERE), the Electric Drive Transportation Association (EDTA), and the Electric Vehicle Association of Asia Pacific (EVAAP). Since its foundation in 2007, the journal aims to provide a publishing platform for the academic and industrial world to share the latest developments and knowledge about electric vehicles. If you are developing Electric, Plug-in Hybrid, Hybrid Electric, or Fuel Cell Vehicles, we cordially invite you to consider us as the place for you to publish your latest results and innovations.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [ESCI \(Web of Science\)](#), [Ei Compendex](#), and [other databases](#).

Journal Rank: CiteScore - Q2 (*Automotive Engineering*)

Contact Us

World Electric Vehicle Journal
Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/wevj
wevj@mdpi.com