Special Issue

Thermal Management of Energy-Saving and New Energy Vehicles: Technology and Application

Message from the Guest Editors

The large-scale application of energy-saving and new energy vehicles (electric vehicles, hybrid vehicles, plug-in hybrid vehicles, etc) has become vital in the transportation field. However, these new modes of vehicles still have some technical flaws, such as safety risks and range anxiety. During freezing winters and hot summers, these problems are greatly aggravated by the energy versus temperature characteristics of batteries and the turning on of air conditioning (AC). Therefore, an efficient thermal management system (TMS) is greatly needed for advanced energy-saving and new energy vehicles to maintain adequate operating range, protect components from aging and ensure passenger comfort. Innovations in thermal management technology are thus critical from a physical point of view. The novel architectures of TMS, new cooling/heating structures of battery systems, and the key technologies of air-conditioning and thermal system control are vitally important for the future development of energy-saving and new energy vehicles.

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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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