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## EV Battery Thermal Management

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### 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.



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# Special Issue



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## Message from the Editor-in-Chief

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