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High-Power and Efficient Wireless Charging for Electrified Transportation

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Message from the Guest Editors

Dear Colleagues,

Wireless power transfer is being increasingly considered as a practical solution for charging electric vehicles. Particularly, systems based on inductive coupling with resonant compensation have already proven their feasibility and have reached commercial maturity at moderate power levels. Inductive charging systems have advantages in terms of user-friendliness and their ability to operate in harsh climates. Moreover, this can be further emphasized by opportunity charging and dynamic charging. They are considered a perfect match for future self-driving vehicles and other electrified transportation.

This Special Issue aims to address the subjects of efficiency, safety, and perspectives of high-power wireless charging systems for electric vehicles. All the following studies are welcome: theoretical and experimental studies on IPT systems; studies concerning the modeling of wireless charging systems as a whole, or limited to the coils and the circuits; studies focusing on the topologies of AC–DC and DC–AC conversion systems. Furthermore, studies concerning magnetic field emissions, dosimetry, and shielding techniques will be considered.

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Message from the Editor-in-Chief

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