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Battery Management and Ultrafast Charging Systems for Electric Vehicles

Guest Editor:

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Deadline for manuscript submissions: closed (30 June 2021)

Message from the Guest Editor

This SI is open for submissions on the following topics:

- Design criteria and management of ultrafast charging systems
- Scalable charging infrastructure for the ramp-up of expected electric mobility needs, adequately managing the impact on grid
- Integration of energy storage systems into the current charging infrastructure
- Battery management and prediction lifetimes at system level
- Assessment of aggregate daily power demand curve based on daily/hourly distribution for long-range travel
- Attractive and convenient charging infrastructure access with connected vehicle systems, avoiding waiting times. User preferences like the use of renewable energy and the avoidance of the frequent handling of heavy cables have to be considered. Automated conductive or wireless solutions are expected with highly reliable and interoperable devices. Optionally, a further extension of the developed stationary wireless charging technology towards urban and peri-urban "electric road" applications, with the aim of creating an installed base of wireless-ready vehicles, to provide the critical mass needed for the deployment of electrified roads at a later stage









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Editor-in-Chief

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Message from the Editor-in-Chief

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