



Charging Safety and Intelligence of Lithium-Ion Batteries

Guest Editors:

Dr. Yong Tian

College of Physics and
Optoelectronic Engineering,
Shenzhen University, Shenzhen
518060, China

Dr. Chenyang Xia

School of Electrical and Power
Engineering, China University of
Mining and Technology, Xuzhou
221008, China

Dr. Yanling Li

School of Electrical Engineering,
Southwest Jiaotong University,
West Section, High-Tech Zone
Chengdu, Sichuan 611756, China

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Message from the Guest Editors

Dear Colleagues,

Lithium-ion batteries have seen widespread application in numerous important industrial sectors. Nevertheless, safe and intelligent charging of lithium-ion batteries remains challenging, and there is much room for improvement in this regard. Performance degradation occurs throughout the lifespan of a lithium-ion battery, or/and under low-charge status and sub-ambient temperatures. As a result, an optimal charging strategy for a new battery is no longer suitable. The commonly used wired charging mode struggles to meet intelligent charging for autonomous driving cars.

For this Special Issue, we seeking new contributions on the following topics (among others):

- Aging mechanisms of LIBs through in situ and ex situ detection;
- Full-cycle charging safety assessment and strategies for LIBs;
- State estimation methods for LIBs;
- Rapid self-heating methods for LIBs at low temperatures;
- Modeling and control of stationary/dynamic wireless charging systems;
- Innovative applications of wireless charging technologies;
- Foreign object detection technologies for wireless charging systems;
- Assessments on overheating risk of wireless charging.





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Editor-in-Chief

Prof. Dr. Andreas Jossen

Institute for Electrical Energy
Storage Technology (EES),
Technical University München
(TUM), Arcisstrasse 21, 80333
Munich, Germany

Message from the Editor-in-Chief

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Batteries Editorial Office
MDPI, St. Alban-Anlage 66
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