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Lithium-Ion Batteries Aging Mechanisms, 2nd Edition

Guest Editor:

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Deadline for manuscript submissions: closed (12 January 2023)

Message from the Guest Editor

Dear Colleagues,

Lithium batteries (including lithium-ion, lithium-sulfur and lithium-air cells) are considered enabling technology for important industrial sectors including electrified vehicles, consumer electronics and stationary energy storage. The calendar and cycle life are key performances to guarantee the penetration in the market of energy storage systems (ESS) based on lithium batteries. The understanding of chemical and physical mechanisms of battery degradation is the first step to develop more reliable and durable systems. Moreover, the monitoring of the battery during its life through different types of sensors to determine the state of health (SOH) and the use of self-healing materials is becoming a more and more popular solution to improve the reliability and durability of Li-ion batteries.

In this Special Issue, we are looking for contributions helping to:

- Understand aging mechanisms through in situ and ex situ postmortem chemical analysis of cell components;
- Simulate the degradation of materials through multiscale modeling;
- Develop new in situ and online sensing principles and approaches to monitor the degradation phenomena...









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Message from the Editor-in-Chief

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