Special Issue

Lithium-Ion Batteries Aging Mechanisms, 2nd Edition

Message from the Guest Editor

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...

Guest Editor

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Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

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