



batteries



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Recycling and Reuse of End-of-Life Lithium-Ion Batteries: Challenges and Strategies

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Message from the Guest Editors

The Special Issue presents contributions addressing, but not limited to, these major topics, defining protocols and strategies, highlighting challenges, and identifying possible routes for the management of the various aspects involved in the recycling and reuse of lithium-ion batteries.

- Protocols for pre-treatments, cell discharge, and cell disassembly at laboratory and industrial scale;
- Protocols for the robust and fast analysis of the state of health and charge of the battery;
- Processes and materials for the degradation of battery components;
- Processes and materials for the recovery of critical/strategical raw materials through the isolation of target elements via separation, precipitation, and filtration;
- Upcycling and recycling of different components of waste lithium-ion batteries;
- Regeneration and healing of degraded battery components for their direct recycling;
- Assessment of the environmental and economical sustainability of all the above-mentioned aspects;
- New perspectives on the development of new-generation lithium-ion battery materials and design to enable easy recycling.



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Special Issue



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Message from the Editor-in-Chief

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