# Special Issue

# 10th Anniversary of *Batteries*: Second-Life Applications and Recycling of Li-Ion Batteries

**Message from the Guest Editor**

As electric vehicle (EV) adoption continues to rise globally, the question of how to manage retired Li-ion batteries becomes increasingly pressing. While these batteries may no longer meet the rigorous demands of automotive use, they often retain a significant portion of their capacity and functionality. This has sparked growing interest in second-life applications for retired EV batteries, including stationary energy storage, grid stabilization, and other innovative uses. Moreover, recycling Li-ion batteries is crucial for recovering valuable materials and reducing the demand for critical raw materials such as lithium, cobalt, and nickel—resources that are finite and linked to significant environmental impacts during extraction. Together, second-life applications and recycling form an essential part of the circular economy for Li-ion batteries, fostering resource conservation, minimizing waste, and reducing environmental harm.

This Special Issue aims to explore the latest advances and future trends in the second-life applications and recycling of Li-ion batteries, emphasizing their pivotal role in enhancing the sustainability of energy storage systems.

**Guest Editor**

Dr. Prodip K. Das

School of Engineering, University of Edinburgh, Edinburgh EH9 3FB, UK

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*Batteries*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
batteries@mdpi.com

mdpi.com/journal/batteries

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Prof. Dr. Karim Zaghib
Department of Chemical and Materials Engineering, Concordia University, Montréal, QC H3G 1M8, Canada

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