Special Issue

High Energy Rechargeable Batteries: Li-Ion and Beyond

Message from the Guest Editors

The development of high energy rechargeable batteries is becoming increasingly important to enable the efficient use of clean and renewable energy sources. In the past several years, conventional Li-ion batteries (LIBs) have been the main energy storage systems for portable electronic devices. However, the current growing demands for cutting-edge electric vehicles (EVs) and other emerging applications necessitate further developments of Li-ion batteries and other battery technologies. Numerous electrode chemistries and designs have been explored in recent years to increase the energy density for LIBs, such as Ni-rich cathodes and Si-based anodes. Nevertheless, there is still plenty of room for investigation on the path to commercialize these battery technologies with high energy, cost-effective, safe and long-lasting properties. This Special Issue is open to original research articles, letters, as well as critical reviews aiming to highlight the recent progress in high energy batteries. It covers all aspects of materials synthesis, design, development, characterization, testing and applications.

Guest Editors

Dr. Zhenglong Xu

Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hong Kong, China

Dr. Mohammad A. Garakani

Nano One Materials Corp., Burnaby, BC V3N 4V1, Canada

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

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Editor-in-Chief

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

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