Special Issue

New Insights into the Development of High-Specific-Energy Battery Materials

Message from the Guest Editor

The rapid development of large-scale energy storage, consumer electronics, and electric vehicles has put forward high requirements for the energy density of electrochemical energy storage devices, which makes high-specific-energy batteries a current research hotspot. In large-scale energy storage, the output of renewable energy with high energy density is of great significance to support the development of smart grids. The transportation sector, especially the electric vehicle industry, relies heavily on high-specific-energy batteries to extend driving range, reduce charging times, and improve overall vehicle efficiency. Meanwhile, in consumer electronics, the demand for batteries with a long cycle life and small size is driving the continuous development of battery technology. This Special Issue aims to serve as a platform to collect cutting-edge research from around the world and promote the innovative development of high-specific-energy batteries. By promoting academic exchange and cooperation, we hope to accelerate technological breakthroughs in high-specific-energy batteries and promote the translation of research results into practical applications in various industries.

Guest Editor

Dr. Jingyi Luan
School of Metallurgy, Northeastern University, Shenyang 110167, China

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

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

Prof. Dr. Alessandra Toncelli
Department of Physics, University of Pisa, 56126 Pisa, PI, Italy

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