

Special Issue

Design, Synthesis and Characterization of Metal Batteries—State-of-the-Art

Message from the Guest Editor

With the strong momentum of electrochemical energy storage devices towards the efficient use of energy in mobile and stationary applications, metal batteries play a critical role in the era of electrification and are predicted to grow with the further penetration of renewable energy into the energy market.

The main prerequisite for the future success of metal batteries is further improvements of existing and the development of novel design philosophies. In addition, the synthesis and characterization of novel electrodes and electrolytes are key factors for the rapid development of metal batteries. Therefore, a state-of-the-art summary of the design, synthesis and characterization of metal batteries is very important.

The papers presented in this Special Issue should provide an account of the scientific and technological state-of-the-art of metal batteries. Research areas may include (but are not limited to) the following: the design, synthesis and characterization of electrodes and electrolytes for lithium ion batteries, sodium ion batteries, potassium ion batteries and aluminum batteries.

Guest Editor

Dr. Zhaomeng Liu

Institute for Energy Electrochemistry and Urban Mines Metallurgy,
School of Metallurgy, Northeastern University, Shenyang, China

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

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About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editor-in-Chief

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering,
State Key Laboratory for Advanced Metals and Materials, University of
Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083,
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