

Special Issue

Metals and Alloys for Energy Conversion and Storage Applications

Message from the Guest Editor

As intermittent sources of energy become an increasing part of the world's energy portfolio, we face an increased need for efficient, stable, and cost-effective solutions for conversion and storage of that energy. No single battery, fuel cell, or other technological solution will be the best choice for all possible applications. Thus, a variety of approaches are needed in order to meet the demands of the energy future. Both single metals and alloys are useful in advanced energy storage and conversion applications. They can provide scaffolds on which other materials are formed or can be the active material itself. Both structure and composition can play an important role in determining the resulting materials properties. For this Special Issue of *Metals*, we invite both original research manuscripts and review papers, bringing together work focusing on the wide-ranging applications that metals and alloys have in this important technological field. Submissions focusing on new materials, fabrication techniques, characterization, testing, or a combination of methods, as well as those that involve theoretical or modeling approaches, are encouraged.

Guest Editor

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Deadline for manuscript submissions

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About the Journal

Message from the Editorial Board

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.

Editors-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).