Special Issue

Hydrogen Storage Alloys

Message from the Guest Editor

Hydrogen storage alloy is very important for applications in both solid-state hydrogen storage and nickel-metal hydride batteries. It also makes up the essential components in energy conversion (alkaline fuel cells), chemical processing (reducing agents, strong bases, strong reductants, and catalysts), physical separation processing (desiccants, isotope separation, gas separation, and hydrogen purification), nuclear engineering (neutron moderators, reflectors, and shields), and thermal applications (heat pumps). Recently, nickel-metal hydride batteries, with a new family of superlattice A2B7 metal hydride alloys, were applied successfully in railways, ferries, telecommunication emergency power sources, and new hybrid-electric vehicles with conventional rare-earth-based AB5, in China. For this Special Issue in *Metals*, we welcome reviews and articles in the areas of principle, theoretical calculation, material preparation and characterization, and applications of hydrogen storage alloys.

Guest Editor

Dr. Kwo Young

1. Department of Chemical Engineering and Material Sciences, Wayne State University, Detroit, MI 48202, USA
2. BASF Battery Materials-Ovonic, 2983 Waterview Drive, Rochester Hills, MI 48309, USA

Deadline for manuscript submissions

closed (30 June 2018)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/9918

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

mdpi.com/journal/metals

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/metals

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

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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, China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

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).

MDPI