

## Special Issue

# Hydrogen Storage Alloys: State of the Art

### Message from the Guest Editors

The global impact of climate change has driven the pursuit of clean energy sources to enable an affordable and equitable energy transition. Hydrogen is a promising candidate; however, a major challenge remains: developing safe, practical, and cost-effective methods for storing hydrogen gas. Solid-state storage is considered a highly viable solution, and many materials are under investigation to meet international energy agency standards. Among them, metallic alloys have shown significant potential for hydrogen storage. Nonetheless, issues related to thermodynamics, kinetics, capacity, activation, and reversibility of the absorption/desorption process remain and demand further research. As a result, global interest and scientific efforts in this field have surged in recent decades.

This Special Issue focuses on recent advances in hydrogen storage alloys. Topics of interest include, but are not limited to, simulation, synthesis, fabrication, structure, properties, performance, and technological applications. Both original research and review articles are welcome.

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### Guest Editors

Prof. Dr. Félix Echeverría

Centro de Investigación, Innovación y Desarrollo de Materiales CIDEMAT, Facultad de Ingeniería, Universidad de Antioquia UdeA, Calle 70 No. 52-21, Medellín 050010, Colombia

Prof. Dr. Esteban Correa Bedoya

Grupo de Investigación Materiales con Impacto–MAT&MPAC, Facultad de Ingenierías, Universidad de Medellín, Carrera 87 No 30-65, Medellín 050026, Colombia

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### Deadline for manuscript submissions

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## Metals

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

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### 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,  
China

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