

Special Issue

Soft Magnetic Alloys and Composites

Message from the Guest Editor

Interest in soft magnetic alloys and composites is due to their many applications, as well as the possibility of obtaining materials with the desired magnetic properties by controlling the processing conditions and the microstructure. Soft magnetic alloys and composites will play an important role to improve the energy efficiency of energy conversion devices. Among the magnetic properties to be optimized, it is worth highlighting the magnetization of saturation, coercivity, remanence, magneto-impedance, saturation polarization, magneto-crystalline anisotropy, and losses, in addition to other properties, such as resistance to corrosion and resistivity. There are multiple aspects that need to be analyzed, such as the nanomagnetism, the influence of heat/stress/field treatments, and the addition of minor elements. Regarding composites, there are soft-hard composites for the optimization of permanent magnets, or those obtained by means of innovative additive manufacturing techniques. Their applications are also diverse, franging from materials for a sustainable and electrified world, to sensors and actuators, catalysis, and magnetocaloric effects.

Guest Editor

Prof. Dr. Joan-Josep Suñol

Department of Physics, Campus Montilivi s/n, University of Girona,
17003 Girona, Spain

Deadline for manuscript submissions

closed (30 April 2022)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/73754

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

[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)





Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)



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,
China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei
Compendex, CAPus / 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).