Special Issue

Intelligent Materials and Structures

Message from the Guest Editors

Intelligent materials are able to alter their response and properties through the multiphysics coupling such as mechanical, temperature, electrical and magnetic fields. Shape memory alloys, magnetostrictive materials. piezoelectric materials, are among the most usual intelligent materials. Due to their remarkable characteristics, intelligent materials have attracted the attention of several researchers and industries in recent years, having been used as actuators and sensors in several areas such as aerospace, automotive, bioengineering, oil and gas exploration and robotics. The characterization and modeling of intelligent materials present several challenges due to their complex behavior associated with the coupling between different physical fields. Therefore, these research activities are relevant to permit the development of new applications. This Special Issue aims to address the lasted research in the field of intelligent materials. Topics addressed in this Special Issue may include but are not limited to: characterization; modeling; applications, morphing, energy harvesting, smart composites, structural health monitoring, nonlinear vibration and wearable technology.

Guest Editors

Prof. Dr. Pedro Manuel Calas Lopes Pacheco

Department of Mechanical Engineering, CEFET/RJ-Centro Federal de Educação Tecnológica Celso Suckow da Fonseca, 20271-110 Rio de Janeiro, RJ, Brazil

Prof. Dr. Marcelo Amorim Savi

Center for Nonlinear Mechanics, Department of Mechanical Engineering, Universidade Federal do Rio de Janeiro, COPPE, P.O. Box 68.503, 21941-972 Rio de Janeiro, RJ, Brazil

Deadline for manuscript submissions

closed (31 December 2022)



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/78005

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



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, 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).

