# **Special Issue**

# Metal-Ceramic and Metal-Metal Interactions and Joining

## Message from the Guest Editors

This Special Issue aims to stimulate researchers worldwide to share their systematic studies, addressing both basic (wettability, interfacial tension, and phase equilibria determination) and application (e.g., joining by brazing) aspects. Particular consideration will be made to studies aimed at elucidating the role that dissolution. chemical reactions, and additions of active metal elements to the molten matrix have in wetting processes and on solid-liquid adhesion in relation to the desired final properties. Potential topics include, but are not limited to, the following: -Surfaces and interfaces at high temperatures; -Wetting at high temperatures; -Grain boundaries at high temperatures; -Liquid-metal penetration; -Thermodynamic studies; -Microstructural analyses; -Soldering, brazing, and joining processes; -Liquid and solid-state reactivity; -Liquid/solid interfaces in metallurgical processes (e.g., casting).

## **Guest Editors**

Dr. Donatella Giuranno

Institute of Condensed Matter Chemistry and Technologies for Energy (ICMATE), National Research Council of Italy (CNR), Via De Marini 6, 16149 Genoa, Italy

Prof. Dr. Fabrizio Valenza

National Research Council of Italy-Institute of Condensed Matter Chemistry and Technologies for Energy

### Deadline for manuscript submissions

closed (31 December 2021)



## Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/46325

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).

