

## Special Issue

# Surface Modification Technology in Metals

### Message from the Guest Editor

Modification of the surface as an “umbrella” term defines all of those technological process variants that provide the surface of a component with new properties. Spraying technologies allow for only the formation of coatings with a desired chemical composition and thickness, however, they are characterized by numerous imperfections associated with the process of depositing the powder on the previously prepared surface of the substrate material. Electron beam remelting, laser beam remelting, arc remelting, and friction stir processing can be recognized as surface modification processes. The surface modification process can be applied in an absolutely local form, precisely to those regions where it is needed. In this Special Issue, we seek to provide a wide set of articles on various aspects of surface modification. It is hoped that this open access Issue will provide a place for anyone to familiarize themselves with the current state-of-the art for these processes. Articles on the technological process analysis, defect elimination, and performance of the final surface are welcome.

### Guest Editor

Dr. Marek Węglowski

Head of Testing of Materials Weldability and Welded Construction  
Department, Łukasiewicz Research Network - Institute of Welding, Bl.  
Czesława Str. 16-18, Gliwice 44-100, Poland

### Deadline for manuscript submissions

closed (31 October 2021)



## Metals

an Open Access Journal  
by MDPI

Impact Factor 2.6  
CiteScore 4.9



[mdpi.com/si/38267](https://mdpi.com/si/38267)

### *Metals*

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

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





# Metals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 4.9



[mdpi.com/journal/  
metals](https://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 17.8 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2024).