

# Special Issue

## Failure Mechanisms in Alloys

### Message from the Guest Editor

In the frame of this Special Issue (“Failure Mechanisms in Alloys”), a valuable insight is aimed to be offered, covering critical subject areas in the field of metals and metallic component degradation processes. Indicative topics included in this thematic area, are the following:

- Microstructural-induced degradation and embrittlement
- Analysis and mechanics of fracture
- Damage evolution at nano- and microstructural level
- Environmentally-induced degradation processes, corrosion, wear and combined mechanisms
- Progressive mechanical failures, creep and fatigue
- Texture and morphology of fracture
- Modeling and simulation of degradation processes
- Failures in new and modern manufacturing processes, e.g., in additive manufacturing and severe plastic deformation
- Novel and modern analysis techniques for failure investigation
- Failure prevention strategies pertaining to microstructure or surface modification

Dr. George Pantazopoulos

---

### Guest Editor

Dr. George A. Pantazopoulos

ELKEME Hellenic Research Centre for Metals S.A, Oinofyta Viotias, Greece

---

### Deadline for manuscript submissions

closed (31 August 2019)



## Metals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/si/14754](https://mdpi.com/si/14754)

*Metals*  
Editorial Office  
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 2.5  
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, 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 18.7 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 2025).