

Special Issue

Residual Stress and Fatigue of Metals (Second Edition)

Message from the Guest Editors

Nowadays, metals represent one of the fundamental pillars of social progress, as well as the material basis of national economic development. During the fabrication of these metal components, residual stresses are inevitably generated, which have a great influence on the structural integrity and service performance of the products. Whether involving traditional welding/joining/forming technology or newly developed additive manufacturing technology, residual stress has always been a key factor affecting the reliability of mechanical structures. Fatigue is the main failure mode of mechanical components and structures. Many observations of structural failure have shown that the location of fatigue failure is closely related to the distribution and magnitude of residual stress. Therefore, the investigation of residual stress, fatigue and the relationship between them is of great significance to ensure the long life and safe operation of metal structures. The goal of the present Special Issue is to examine the recent contributions in the field of residual stress and fatigue of metals.

Guest Editors

Dr. Yun Luo
Dr. Pengcheng Zhao
Dr. Huai Wang

Deadline for manuscript submissions

closed (30 April 2024)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/179280

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).