

Special Issue

Fatigue Behavior, Crack Growth and Fatigue Life Assessment of Metallic Materials

Message from the Guest Editor

Dear colleagues, In many fields of engineering, fatigue is often a limiting factor for component lifetime. Against this backdrop, an in-depth understanding of the fatigue behavior of metallic materials, considering the highly complex interactions of alloy composition, manufacturing processes, microstructure, as well as manufacturing-induced defects, and surface morphology are essential for a reliable and efficient component design as well as for the improvement of existing and the development of novel engineering materials. For this Special Issue, we welcome experimentally based and theoretical articles addressing the topics briefly outlined above. With contributions presenting fundamental aspects as well as results from application-oriented research, we plan to foster communication between materials science and engineering with the overall aim to improve the understanding of fatigue processes in metals as well as an appropriate application of this knowledge.

Guest Editor

Prof. Dr. Tilmann Beck

Institute of Materials Science and Engineering, TU Kaiserslautern,
67763 Kaiserslautern, Germany

Deadline for manuscript submissions

closed (31 March 2023)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/100444

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, 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).