Special Issue

Fatigue Crack Propagation: Analysis of Safe Life Extension

Message from the Guest Editor

Most components age upon utilization; therefore, there is a need to understand more fully the physics of aging by testing representative components and modeling that behavior to be utilized in life extension analysis. The Special Issue will explore data generated on the components exposed to service conditions for one safe life or retired from service. The representative residual static and fatigue crack propagation behavior of high-performance materials used in aerospace, power, chemical plants, and other industries will be key in assessing life extension. Risk assessment tools will be investigated to extend these components through additional one-safe life as economic benefits would be more significant than replacing the components and/or plants. The papers presented in this Special Issue give an account of the state-of-the-art technology development. Your contribution to this issue will be highly valued and appreciated and will define the future methods to be developed and used globally on this research. To find more information, please click this link.

Guest Editor

Prof. Dr. Tarun Goswami

Department of Biomedical, Industrial and Human Factors Engineering, Orthopaedic Surgery, Sports Medicine and Rehabilitation, Wright State University, 3640 Colonel Glenn Hwy, Dayton, OH 45435, USA

Deadline for manuscript submissions

closed (31 October 2022)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/111236

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

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 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).

MDPI