



Fatigue and Fracture Mechanics: Applications and Trends

Guest Editors:

Prof. Dr. José António Correia

Prof. Dr. Filippo Berto

Prof. Dr. Pavlo Maruschak

Prof. Dr. Guian Qian

Dr. Abílio M. P. De Jesus

Deadline for manuscript
submissions:

closed (31 August 2022)

Message from the Guest Editors

Dear Colleagues,

This Special Issue (SI) covers a wide range of modern achievements in the study of the behavior of solids with cracks—from studies of cyclic durability and the nucleation and growth of a fatigue crack to solving a number of complex problems of fracture mechanics. In this SI, limiting and prelimiting equilibrium states of materials and structures under single, multiple, thermal, and dynamic loading in elastic, viscoelastic, and elastoplastic bodies with cracks will be considered. We also invite you to submit articles on new criteria for crack resistance of materials for structural integrity.

We also invite papers devoted to the deformation and energy criteria of fatigue fracture of metals estimation by FEM and experimental verification. Particular attention will be paid to the development of methods for accelerated determination of endurance limits based on deformation and energy criteria. The problem of predicting the development of cracks and probabilistic fatigue modeling will also be discussed.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

Contact Us

Applied Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](https://twitter.com/Applsci)