# **Special Issue**

# Fatigue Damage and Fracture Mechanics of Materials

# Message from the Guest Editor

When looking at recent materials studies, failure mechanisms on various types of metal or non-metals have been extensively analyzed for determining the root cause of the failure. Nowadays, the combination of materials analysis, simulation and data analysis can exhibit exciting findings toward the advancement in the scope of fatigue damage and fracture mechanics of materials. The aim of this SI is to understand the fundamental and application issues of materials failure (damage) under fatigue and fracture conditions. It is aimed to make a collection of articles of contributions covering new trends, latest advancements, and case studies in the field of fatigue damage and fracture mechanics of materials. Thus, the element of structural integrity and durability assessment of materials, as well as structural health monitoring of materials and structures will be involved in this Special Issue. It welcomes contributions on theoretical work, numerical analysis, simulation works, experimental approaches, data analysis by means of stochastics or probabilistic analysis, and any related issues to the damage mechanics

### **Guest Editor**

Prof. Dr. Shahrum Abdullah

Dept. of Mechanical and Manufacturing Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, Bangi 43600, Malaysia

## Deadline for manuscript submissions

closed (15 December 2024)



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/138809

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





# About the Journal

# Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

#### Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

# **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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### **Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)