Special Issue

Studies on Fatigue Behavior of Engineering Material and Structures

Message from the Guest Editors

Structural fatigue is a failure mode of particular concern in the engineering field. Fatigue behavior is affected by many factors, such as material, structure, environment, load, and so on. With the continuous application of new materials in engineering and the improvement of requirements for structural safety and reliability, fatigue theory, simulation/testing methods, and their application in engineering structure design are currently under development. The goal of this Special Issue is to give an exhaustive overview of new trends in the particular field by inviting researchers and engineers to contribute articles, including reviews and original research. Theoretical, experimental, and computational studies on but not limited to the following topics are encouraged:

- Fatigue behavior of engineering materials;
- Effect of microstructure and defects on fatigue behavior;
- Fatigue failure mechanism;
- New theories of fatigue models;
- Crack initiation, growth, and final fracture;
- Fatigue testing of engineering structures;
- Fatigue resistance related to design and manufacturing;
- Modeling of fatigue and fracture process;
- Fatigue design and guidelines of engineering structures.

Guest Editors

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Deadline for manuscript submissions

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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

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