Special Issue

Fatigue and Fracture Mechanics: Applications and Trends II

Message from the Guest Editors

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. 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.

- fatigue
- fracture mechanics
- fatigue crack growth
- structural integrity
- computer-aided fracture mechanics
- computer-aided structural integrity
- failure mechanisms
- cyclic plasticity
- applications and design codes
- probabilistic fatigue modeling

Guest Editors

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Deadline for manuscript submissions

closed (20 April 2023)

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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.

Editor-in-Chief

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