

Special Issue

Fatigue Properties of Surface Modified Metallic Materials (2nd Edition)

Message from the Guest Editors

In general, the fatigue damage of mechanical parts occurs at surface defects, which can increase stress in the material. Therefore, one of the commonly used approaches is to modify the surface state and, consequently, the mechanical properties of the parts. This Special Issue aims to collect papers dealing with the fatigue of materials treated/elaborated by processes such as mechanical surface treatments, coating, and machining. Based on the aforementioned techniques, areas of interest include, but are not limited to:

- Low cycle and high cycle fatigue properties of surface-modified materials;
- Effects of technological parameters of the surface treatment processes on fatigue properties of materials;
- Effects of metallurgical parameters induced by surface treatments;
- Changes in cyclic behavior of surface modified materials and their effects on fatigue strength;
- Effects of mechanical external loads on the fatigue properties of materials;
- Fatigue life prediction based on experiments and modeling;
- Design of surface modification in terms of improving fatigue properties.

Guest Editors

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Deadline for manuscript submissions

closed (30 September 2024)



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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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