Special Issue

Fatigue and Fracture Behavior of Traditional and Advanced Metallic Materials in Low-Cycle Regimes

Message from the Guest Editors

This Special Issue aims at collecting a series of articles devoted to the study of the fatigue strength and fracture behavior of structural metallic materials. The interest encompasses traditional structural alloys, innovative metallic materials as well as advanced manufacturing processes able to improve the fatigue strength and fracture behavior. The focus is laid on metallic materials performing in the low-cycle-fatigue regime, as in those engineering applications characterized by high loading levels and elasto-plastic strains, including constant amplitude, variable amplitude, and spectrum loading. The Special Issue is open to research and review papers. Emphasis will be given to experimental results, numerical approaches, and analytical design concepts. Researchers are encouraged to submit papers focusing on specific aspects of the low-cycle fatigue and fracture behavior of metallic materials or describing applications and engineering case studies in the field of structural integrity.

Guest Editors

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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.

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