Special Issue

Advances in the Fatigue and Fracture Behaviour of Metallic Materials

Message from the Guest Editors

The accumulating damage and growth of cracks under the influence of cyclic loads is a common phenomenon occurring in metals, alloys, welded elements, and others. Most damage to machine components occurs during fatigue work. Research in this area and the results and simulations obtained are necessary to direct the proper development and obtain new and advanced materials that meet the requirements of designers in accordance with existing standards. This Special Issue would provide new data and tools necessary to predict service life based on the stress (strain and energy) state and, ultimately, the growth of fatigue cracks in a material, resulting in the application of advanced experimental, numerical, and computational methods. Therefore, researchers are asked to submit papers with original research and solutions regarding novelties in this field and exciting applications. This Special Issue aims to showcase the latest research achievements linked to the fatigue and fracture of metallic materials.

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.

Editors-in-Chief

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