Special Issue

Fatigue Behavior, Crack Growth and Fatigue Life Assessment of Metallic Materials

Message from the Guest Editor

Dear colleagues, In many fields of engineering, fatigue is often a limiting factor for component lifetime. Against this backdrop, an in-depth understanding of the fatigue behavior of metallic materials, considering the highly complex interactions of alloy composition, manufacturing processes, microstructure, as well as manufacturing-induced defects, and surface morphology are essential for a reliable and efficient component design as well as for the improvement of existing and the development of novel engineering materials. For this Special Issue, we welcome experimentally based and theoretical articles addressing the topics briefly outlined above. With contributions presenting fundamental aspects as well as results from application-oriented research, we plan to foster communication between materials science and engineering with the overall aim to improve the understanding of fatigue processes in metals as well as an appropriate application of this knowledge.

Guest Editor

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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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