



Fatigue Testing and Analysis of Metallic Materials

Guest Editor:

**Prof. Dr. Carlos Antonio Reis
Pereira Baptista**

Department of Materials
Engineering, Lorena School of
Engineering at the University of
Sao Paulo (EEL-USP), Lorena/SP
12602-810, Brazil

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Message from the Guest Editor

Dear Colleagues,

Fatigue is a complex phenomenon and the resistance to crack initiation and propagation can be substantially affected by differences in composition, processing, heat treatment, surface condition and operating environment. The continuous improvements in testing techniques and accuracy of life prediction methods are effective tools to promote weight reduction and increased safety of metallic structures and components. This Special Issue focuses on recent progress in the experimental characterization of fatigue behavior of metals and alloys, as well as on improved life prediction methods. The assessment of advanced alloys with optimized fatigue resistance, surface treatments aimed at enhanced fatigue life, fatigue resistance of additive manufactured materials, and fatigue failure analyses will also be considered in this Special Issue.





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Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

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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Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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