

Special Issue

Fatigue and Fracture of Mg Alloys

Message from the Guest Editors

Magnesium and its alloys have been long known for their low density and high specific strength, resulting in them being ideal candidates for the lightweighting of structures, vehicles, and aircraft. Over the past few decades, considerable efforts have been invested into understanding how to effectively process Mg and predict its behavior. More recently, wrought processing methods have been developed, resulting in a favorable combination of strength and ductility, which can offer superior performance to other more conventional metals such as steel and aluminum. Understanding the complex nature of magnesium's deformation mechanisms and their influence on fatigue and fracture will facilitate its successful adoption into the mainstream high-volume production of structural components. In this Special Issue, articles with a specific focus on the fatigue and fracture of Mg alloys are desired, with content traversing the metallurgy, production/processing technologies, materials characterization, material modelling, deformation mechanisms, damage mechanisms, life prediction, corrosion protection, and performance in the finished products of Mg alloys.

Guest Editors

Prof. Dr. Hamid Jahed

Department of Mechanical and Mechatronics Engineering, University of Waterloo, Waterloo, ON, Canada

Dr. Andrew Gryguć

Department of Mechanical and Mechatronics Engineering, University of Waterloo, Waterloo, ON, Canada

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Yong Zhang

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

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