Special Issue

High Performance Machining of Difficult-to-Process Metals

Message from the Guest Editors

Mechanical machining or cutting, as a subtractive manufacturing operation, is one of the most widely used manufacturing processes. High-performance machining has attracted more and more attention in recent years as it can evaluate the machining process comprehensively. With the rapid development of advanced engineering materials, such as high-strength alloys and ceramic matrix composites, these have caused new challenges in the field of machining due to their difficult-to-process attributes. The scope of this Special Issue embraces original research and review articles in the field of high-performance machining of difficult-to-process materials. Manuscripts will be welcomed that aim to understand the machinability of different materials, modelling and simulation of material removal behavior, exploring the machined surface integrity and functionality, advancing the machining process and cutting tools, and mapping the relationships of “material property-machining process-surface quality and performance”.

Guest Editors

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Deadline for manuscript submissions

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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

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