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Sustainable Machining of Modern Difficult-to-Cut Materials

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Deadline for manuscript submissions:
closed (26 February 2021)

Message from the Guest Editor

Dear Colleagues,

The effectiveness of production is an important element of a company's sustainable development, leading to the production of machine parts, taking into account economic, social, and ecological aspects. The production that takes into account all of the dimensions of sustainable development tends towards processes that minimize negative effects on the environment, saves energy and natural resources, is safe for employees and consumers, and is economically justified.

This Special Issue provides an excellent opportunity for researchers who study the effective machining of modern difficult-to-cut materials by taking into account different cooling and lubrication methods, including high-pressure cooling (HPC), minimum quantity lubrication (MQL), and dry cutting, as well as the effect of hybrid manufacturing processes like laser-assisted machining (LAM) and ultrasonic-assisted machining and grinding. In this context, the machining of materials produced by additive manufacturing should also be considered. It is our pleasure to invite you to submit original research papers or state-of-the-art reviews that are within the scope of this Special Issue.

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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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