Special Issue

Research Progress in Manufacturing and Machining of Metallic Materials

Message from the Guest Editor

In recent years, advanced manufacturing techniques, particularly additive manufacturing, have reshaped traditional practices, enabling the fabrication of intricate geometries while significantly reducing material waste. Hybrid approaches that integrate additive and subtractive methods are emerging as powerful solutions to enhance production flexibility, accuracy, and material efficiency. Sustainability remains a central focus in modern manufacturing, with research dedicated to energy-efficient practices, waste reduction, and the recycling of metallic materials.

On the whole, then, this Special Issue aims to present a comprehensive view of the recent progress and emerging trends that are defining the future of metallic material manufacturing. We hope that it serves as an essential resource for researchers, engineers, and industry professionals dedicated to advancing the field and shaping the next generation of manufacturing and machining processes.

- metallic materials
- conventional machining
- alternative machining
- hybrid manufacturing
- machinability
- machining efficiency
- surface finish
- mechanical property

Guest Editor

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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
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