

Special Issue

Effects of Ultrasound on Microstructure and Mechanical Properties of Metal Composite Materials

Message from the Guest Editor

Metal composite materials (MCMs) have become evident as a significant class of materials for structural and functional applications, such as in the automobile, aerospace, and military industries. Microstructural control has been paid increasing attention in the fabrication or modification of MCMs. Ultrasound has been widely used in organic synthesis, material and organometallic chemistry, and industrial manufacturing processes, for the intensification of chemical/physical processing applications which can be promoted significantly in ultrasonic fields. Searching for new approaches in MCM fabrication by using ultrasound to improve conventional methods and develop new means of melting, casting, solidification, welding, and deforming processes (other methods are also included) are issues of critical importance for the development of MCMs.

In this Special Issue, we aim to publish a wide scope of articles covering the usage of ultrasound in the fabrication of MCMs, focusing on the effects of ultrasound on the microstructure and mechanical properties of MCMs. In the meantime, papers regarding the simulation of ultrasound in the preparation of MCMs are also welcome.

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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