

Special Issue

Effect of Ultrasound on the Structure and Properties of Metallic Materials

Message from the Guest Editor

Processing via ultrasonic waves has found numerous applications in the metallurgy and treatment of materials. Ultrasonic irradiation of metal melts, surface treatment, strengthening, disintegration, cutting, machining, cleaning, ultrasound assisted metal forming processes have become industrially used technologies. Ultrasonic metal welding, one of the widest applications of high intensity ultrasound, has recently given rise to a new branch of additive technology, ultrasonic consolidation. New directions of applications of moderate and high intensity ultrasound for the modification of the properties and processing of metals are emerging. This Special Issue aims to collect papers containing the results of original studies, either by experimental or simulation methods, or reviews, on all aspects of the effect of ultrasound on the structure and properties of metallic materials.

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

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