

Special Issue

Explosive Welding and Impact Mechanics of Metal and Alloys

Message from the Guest Editors

For the realization of multi-material components, the use of explosive welding is one of the leading candidates for the reliability of bonding strengths at the interface. The technique has a long history; developed and industrialized after WWII, the bonding mechanism is still discussed today due to some uncertain issues at extremely high rates of deformation. Based on the recent progress in high-speed imaging and numerical simulation techniques, the deformation process is being clarified in more detail. Additionally, it is now possible for microstructures to be characterized by advanced equipment which has recently been developed. This Special Issue is proposed to summarize such achievements on explosive welding and other high-rate material processing technologies. The guest editors are welcoming submissions to discuss the microstructure and/or the impact mechanics of various materials at high strain rates.

Guest Editors

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Prof. Dr. Zoran Ren

Deadline for manuscript submissions

closed (28 February 2023)



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About the Journal

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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