Special Issue

Modeling and Mechanism Analysis of Welding Process for Metals

Message from the Guest Editor

Recently, welding processes have made rapid progress in various industrial areas. New welding methods, techniques, and many auxiliary tools and instruments are presented. Their modeling and mechanism analysis involve a large number of schemes. By modeling using proper mathematical tools, detailed mechanism analyses can be conducted, which are effective tools to facilitate new welding techniques. We welcome any new techniques and methods regarding the welding process, such as welding processes between dissimilar metals or metals and new compound materials. In addition, any auxiliary tools, such as ultrasonic assistance, external magnetic assistance, or a combination of two or more welding techniques, are strongly welcome. We believe that this new Special Issue will be an effective platform to present new progress in the field of welding.

Guest Editor

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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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