



metals



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Advanced Welding Technology in Metals II

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Message from the Guest Editors

Welding and joining technologies are fundamental in advanced engineering alloys to expand their applications. At present, we often observe significant developments in the areas of welding and joining, with more complex and sophisticated variants available. Another key area of interest is related to welding metallurgy: The microstructural changes induced by welding and joining techniques can drastically modify the joints' mechanical behavior. For that reason, it is necessary to correlate process parameters, microstructure, and mechanical response in welded joints. Finally, simulation and modelling of the thermomechanical behavior during welding and the predictions of existing phases due to the weld thermal cycle are critical to optimize welding parameters.

For this Special Issue, we invite our colleagues to submit papers in the areas of welding and joining. The topics of interest include but are not limited to similar and dissimilar joining, fusion and solid-state processes, modeling and simulation, process development, and advanced characterization. Review papers and short communications are also of interest to this Special Issue.



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Special Issue



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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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