

## Special Issue

# Prequalifying Emergency Welding (Temper Bead Welding)

### Message from the Guest Editors

Prequalifying emergency welding (temper bead welding) is a commonly used concept in industry, which aims to deposit the weld bead at the specified position on the weld bead surface to affect the heat-affected zone formed by the previous weld bead and the metallurgical properties of the weld metal. The technology could be applied to emergency repair welding of ships, surface modification of workpieces, variation of interface structure with heat input during dissimilar material bonding, simulation analysis of joint structure change, and temperature field and stress field during multi-layer and multi-channel welding. In the past 30 years, we have accumulated a lot of experience in research on the efficiency of the welding process of ship steel, the interface of microstructure control of the dissimilar metal connection, and the analysis of the welding thermal process. In this Special Issue, we invite articles on various aspects of emergency welding prequalification. Articles on interface metallurgy, welding methods, welding numerical simulation, and dissimilar metal connection processes are particularly welcome.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 July 2022)



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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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### Editors-in-Chief

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