Special Issue

Residual Stress Analysis of Welded Structure

Message from the Guest Editor

As the usage of large-scale, high-strength metallic structures increases significantly in various civil engineering constructions and other areas, higher standards and assessments are required to ensure their structural integrity and performance. This is critical when welding heavy-section or very thick steel plate and pipes. Furthermore, the through-thickness variations of residual stresses are important in large, thick welds due to the completely different distributions of residual stresses inside the welded structure from accumulated heat input. I invite you to send scientifically valuable articles for a Special Issue of Metals entitled "Residual Stress Analysis of Welded Structure". Its scope is very wide and covers all issues of welding including residual measurement, welding processes, the effect of welding residual stress on fracture safety, and numerical analyses. In addition, research on welding residual stress, which is considered in the evaluation of fracture toughness and the safety of welded structures, is also welcome. Given the quality of Metals, we are confident that this journal is the ideal place to present your research to the world.

Guest Editor

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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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