Special Issue

Recent Advances in Residual Stress Research in Metallic Materials

Message from the Guest Editor

During the manufacture of metallic components, residual stress is inevitably generated, which has a major influence on the structural integrity and service performance of products. Whether using traditional welding/assembly/forming processes or recently developed additive manufacturing processes, residual stress has always been a key factor that affects the reliability of mechanical structures. The objective of this Special Issue is to review recent contributions to the technical and scientific advancements and challenges in residual stress analysis methods. Topics of interest include, but are not limited to, experimental, theoretical and simulation analyses of residual stress. Authors are invited to publish the results of their research on all of these topics, which involve advancements that will broaden the field of stress analysis. Papers could concern the microstructures and/or atypical geometries characterized in the development of specific and adaptive methodologies for residual stress analysis in metallic materials.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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