

Special Issue

Advanced Laser Welding Technology of Alloys

Message from the Guest Editor

This Special Issue on "Advanced Laser Welding Technology of Alloys" aims to explore the latest advancements and innovations in the field of laser welding for various alloy materials. Laser welding has become a crucial technique in modern manufacturing due to its precision, efficiency, and ability to handle complex geometries. It offers numerous advantages. However, when dealing with different alloys, challenges arise in terms of material properties, joint integrity, and process optimization. This collection of papers will cover a wide range of topics including the development of novel laser welding processes tailored for specific alloys, the investigation of the microstructural evolution and mechanical properties of welded joints, and the application of advanced characterization techniques to understand the underlying mechanisms. By bringing together cutting-edge research from both academia and industry, this Special Issue seeks to provide valuable insights and solutions for improving the laser welding of alloys, ultimately contributing to the advancement of high-quality manufacturing in various sectors such as automotive, aerospace, and electronics.

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

Prof. Dr. Yong Zhang

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