

Special Issue

Fatigue and Fracture Behavior of Joining Methods for Lightweight and High Strength Materials

Message from the Guest Editor

The recent push for lightweight and high-strength materials has put renewed interest on joining technologies. Traditional welding and joining methods face significant barriers in joining new materials with advanced physical and mechanical properties. As such, this Special Issue will focus on advancements in the field of fatigue and fracture behavior of joining methods. This special issue will provide a platform intended to present the state-of-the-art regarding development of modeling techniques and novel experimental quantification of failure behavior of advanced welding and joining methods. Modeling and experimental studies on the fatigue and fracture of the following are welcome, though the topics are not limited to what follows:

- Friction stir welding and processing
- Fusion welding
- Riveting
- Fasteners
- Hybrid joining
- Brazing
- Mixed-metal joining
- Metal-composite joining
- Additive manufacturing repair

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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