



Feature Papers in Welding & Joining

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Message from the Guest Editor

Dear Colleagues,

Welding is a technique dating from the pre-historic times, but the modern science and technology of welding and joining have seen a phenomenal growth in recent decades. The recent development of new lasers such as blue lasers and ultrafast lasers has made it possible to carry out laser welding of copper and glass. In the past decade, artificial intelligence and digital twins have been increasingly used for drastic improvements in welding automation and quality.

The aim of this Special Issue is to publish high-impact papers featuring the latest technological development in welding and joining. Papers offering perspectives are also welcome. The authors must be well-recognized leading researchers in the subject areas of their papers. Topics of interest include but are not limited to:

- Applications of artificial intelligence to welding;
- Big data analytics of welding research trend;
- Brazing and soldering;
- Cold spray;
- Digital twins;
- Dissimilar metal joining;
- Friction stir welding;
- Laser welding or cladding;
- Micro- and nano-joining;
- Numerical modelling and simulation;
- Wire arc additive manufacturing





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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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