



Welding and Processing in Alloy Manufacturing (2nd Edition)

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Message from the Guest Editors

Welding, also known as materials joining engineering, is an important material processing technology which is widely used in petrochemical, electric power, aerospace, marine engineering, nuclear power engineering, microelectronics technology, national defense and the military, among other fields.

The metal AM process has many similarities to the conventional welding process; that is, the feedstock forms a high-temperature molten pool under the action of a high-energy density heat source. The molten metal in both processes undergoes non-equilibrium solidification, and a complex solid state phase transformation occurs with the help of in situ cyclic reheating.

This Special Issue aims to enrich the global exchange of alloy welding and additive manufacturing activities. Potential topics include (but are not limited to) alloy welds, microstructure and mechanical properties of HAZ, weldability of alloys, welding metallurgy principles, welding cracking, constitution of weld metals, development and behavior of filler metals, metallurgy of additive manufactured components and process of welding or additive manufacturing.





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Message from the Editor-in-Chief

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