

Special Issue

Aluminium Alloys for Additive Manufacturing: Alloy Development, Structures, Properties and Applications

Message from the Guest Editors

Additive manufacturing offers the unique capability of improving the sustainability of metallic components production by reducing the need for tooling, machining and assembling. The application of aluminium alloys for additive manufacturing has further pushed the high-strength and lightweight limits of this field through innovative structure design and integrated fabrication. However, significant challenges in the areas of alloy processability, mechanical property and available alloys are still associated with this process, which needs to be addressed with further research efforts. This Special Issue focus on the structures and properties of additively manufactured aluminum alloys. Research efforts in the field of novel alloy development, process optimization, structure, property and applications are all welcome.

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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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