Special Issue

Materials for Sustainable Beam-Based Additive Manufacturing

Message from the Guest Editors

Beam-based technologies represent a large group of additive manufacturing processes whereby a heat source such as a laser or an electron beam is used to consolidate materials, in powder or wire form, to generate 3D objects. Research efforts towards the design of new metallic alloys for AM and on the optimization of post-processing treatments are continuously growing. The aim of this Special Issue is to highlight recent innovations introduced in the fields of materials for beam-based AM, covering both the understanding of process-related effects on material properties and the development of novel alloys with improved properties and processability.

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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

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