Special Issue

Development of Metallic Material Laser Additive Manufacturing

Message from the Guest Editor

Laser-based additive manufacturing (AM) processes for metallic materials generally have a complex non-equilibrium physical and chemical metallurgical properties, which are related to the materials and processes. A deep understanding of the relationship between materials, processes, microstructures, and properties is the key to developing advanced additive manufacturing technology for metallic materials. This Special Issue of *Metals*, titled Development of Metallic Material Laser Additive Manufacturing, will focus on the new developments in the various aspects of metallic material additive manufacturing (AM). Specifically, we aim to understand the process–microstructure–property correlation of all major AM processes for metallic materials. We strongly encourage the submission of articles that may include the following: (a) design and process of gradient structure or variable component for AM metallic materials; (b) multi-scale characterization and simulations for AM metallic materials; (c) microstructure–property correlation of AM metallic materials via in situ experimental methods; (d) AM metallic materials for special environmental applications, etc.

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

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