Special Issue

Advances in Selective Laser Melting

Message from the Guest Editors

Additive manufacturing (AM) technologies have the great potential to provide an innovation in how metal products are designed and manufactured. The AM process has recently provided novel approaches to control topological structures and microstructure of metal products, which are incorporated in many different varieties of industrial materials applied for automobiles, aircrafts and medical implants. One of the most commonly-used AM processes is a selective laser melting (SLM) combined with powder bed system. The SLM process uses laser beams to melt and fuse powder metals and/or alloys, which may include selective laser sintering (SLS), direct metal laser sintering (DMLS) and selective heat sintering (SHS). This Special Issue covers a wide scope, comprising new (modified) processing routes, product materials, theoretical computations and applications associated with the SLM process including the powder technologies. In addition, recent advances in electron beam melting (EBM) technologies are welcome as well.

Guest Editors

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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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