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Microstructure and Properties of Alloys Manufactured by Selective Laser Melting

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Message from the Guest Editor

Dear Colleagues,

Selective laser melting is one of the most important methods in the metal additive manufacturing field. Currently, many alloys, such as titanium alloy, aluminum alloy, steel and magnesium alloy, can be prepared via selective laser melting technology. In addition, researchers are also very concerned about the microstructure and properties of these alloys prepared via selective laser melting, as they are related to the application prospects of these manufactured alloys.

Thus, publications about the manufacture, microstructure characterization and property analysis of these alloys (e.g., titanium alloy, aluminum alloy, steel and magnesium alloy) manufactured by selective laser melting are encouraged to be submitted for publishing in this Special Issue. Furthermore, the structure design, microstructure configuration and strengthening mechanism analysis of the alloys manufactured by selective laser melting will also be fully considered. It is expected that this Special Issue will offer some guidance on the manufacture, investigation and application of the alloys fabricated using selective laser melting.

Dr. Shili Shu
Guest Editor

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Message from the Editorial Board

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.

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