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Microstructure and Mechanical Properties of Laser Additive Manufactured Metals

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Message from the Guest Editor

Nowadays, only a limited number of commercial alloy systems can be processed through Laser Additive Manufacturing technologies, such as Laser Powder Bed Fusion or Directed Energy Deposition. At the same time, developing new alloy compositions is now becoming a key challenge to address in the additive manufacturing field.

Finding the right window for the main process parameters and the conditions of the thermal treatments is a core procedure for reaching interesting mechanical performances for additive manufactured metals.

This Special Issue aims to present the latest research related to the study of metals processed through laser additive manufacturing technologies, from process parameter definition to thermal treatment optimization focusing the attention on microstructural and mechanical characteristics of the processed materials. Reviews focused on innovations on metals for laser additive manufacturing are also welcome.

Keywords

- laser powder bed fusion
- directed energy deposition
- new alloys for additive manufacturing
- microstructures
- mechanical behavior



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Message from the Editor-in-Chief

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