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Additive Manufacturing of Compositionally Complex and High Entropy Alloys

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Deadline for manuscript submissions:
closed (30 November 2021)

Message from the Guest Editors

Compositionally Complex alloys including high-entropy alloys are a relatively new class of metallic alloys that differ fundamentally from conventional alloys. These alloys exhibit excellent mechanical properties and the phenomena are as yet poorly understood with classical materials knowledge. In conjunction with rapid solidification processes in additive manufacturing, there are opportunities for a wide range of new applications. Therefore, research interest has increased sharply in recent years.

This special issue is intended to reflect the growing interest in these materials in connection with additive manufacturing and offers the opportunity to report on new developments and applications. Basic research-oriented contributions that deepen the understanding of microstructures evolution are considered. Studies describing thermal post-treatments to improve material properties are also encouraged.

- Compositionnally Complex Alloys
- High Entropy Alloys
- Additive Manufacturing
- heat treatment
- rapid solidification
- microstructure

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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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