Special Issue

Additive Manufacturing of Magnetic Material

Message from the Guest Editors

Additive manufacturing (AM) is a very promising process for producing near-net shape and very complex components. So far, it has mainly been applied for structural materials. However, it is also of great interest for functional, e.g., magnetic, materials. The latter receive growing focus in different areas, such as electrical machines and vehicles, electronics, computers, telecommunication, wind turbines, etc. In this Special Issue, we deal with different AM processes of magnetic materials taken from soft magnetic materials (metallic compounds, oxides, and composites), magnetic high-entropy alloys, magnetic shape-memory alloys, and multiferroic materials as well as hard magnetic materials (e.g., ferrites, alnico, rare earth-based magnets, Cr-Co alloys, etc.). In addition, related topics, i.e., post-treatment, sensor integration, component/material testing, material analysis, and process modelling and simulation are very welcome for this Special Issue. To find more information, please click this link.

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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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