Special Issue

Microstructure and Physical Properties of Additive Manufactured Alloys

Message from the Guest Editor

Many metallic products are being developed using the variety of AM methods available today. Among these methods, there is PBF with heat source of either laser (L-PBF) or electron beam melting (PB-EBM), direct energy deposition (DED), binder jetting (BJ), wire + arc AM (WAAM), plates bonding using ultrasounds (USAM), and more. The products manufactured using these methods consist mainly of metallic alloys and composites. There are myriad processing parameters which affect the microstructure and physical properties of the printed material. In this Special Issue, we focus on the relation between the microstructure and physical properties of metallic alloys and composites at a wide temperature range. The physical properties include, on one hand, mechanical properties like strength, elongation, and fatigue life and, on the other hand, thermal properties such as thermal conductivity and thermal diffusivity, thermal expansion, as well as electrical conductivity and more. It is my pleasure to invite you to submit a manuscript to this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Deadline for manuscript submissions

closed (20 April 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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