Special Issue

Additive Manufacturing of Metals and Alloys

Message from the Guest Editor

Additive manufacturing techniques of metals and alloys are now widely studied and used, allowing for the production of highly complex mechanical parts. Additive manufacturing is playing an increasingly central role in industrial production (certain fields such as automotive, biomedical, aerospace, and electronics) thanks to the possibility of customizing the shape and mechanical properties of the component. However, AM processes are affected by high variability in the mechanical properties obtained, which are strictly related to the process parameters and the printing technologies. The microstructure is equally influenced by the manufacturing process, which leads to inhomogeneous and anisotropic characteristics. This Special Issue aims to collect original studies on the mechanical characterization of AM metals and alloys, presenting experimental results of mechanical and physical properties in relation to process parameters and microstructural defects. Articles that compare the mechanical properties of AM metals and alloys obtained with different parameters and printing technologies are highly appreciated.

Guest Editor

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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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