Special Issue

Research on Additive Manufacturing of Novel Alloy Materials

Message from the Guest Editors

Additive Manufacturing (AM) builds the part layer by layer from a material supplied as a fine powder and could be an alternative to milling a workpiece from the solid block. AM uses computer aided design (CAD) software or 3D object scanners to direct hardware to deposit material layer by layer.

The fundamental benefit of additive manufacturing is the combination of productivity with low volume, high complexity and frequently changing parts.

To meet today's high demands on the accuracy and efficiency of production, it is necessary to develop precise physical models to predict the properties of new alloy materials depending on their chemical composition, and to use computer methods to design and optimize the process.

This Special Issue aims to present the latest advances in additive manufacturing and trends in new material development. We encourage to publish research on optimization of the process for modern manufacturing engineering, in particular modeling and computer simulation of material behavior during sintering powders and removing machining allowances after AM products.

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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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