Special Issue

Principles and Applications of 3D Printing and Additive Manufacturing

Message from the Guest Editors

Additive manufacturing or Direct Digital Manufacturing (DDL) has revolutionized the manufacturing industry and explored new horizons with unlimited design freedom. It can produce intricate as well as topology-optimized functional parts which can have improved mechanical properties and be light-weighting. These aspects made it one of the main pillars of industry 4.0.

This Special Issue will include and is intended to report cutting-edge advances in the industrial application of additive manufacturing along with innovations in the existing techniques and materials for this technology. It is open to both original research articles able to enhance knowledge on 3D printing and review articles to take stock of state-of-the-art literature.

The following topics can get the highest attention in this Special Issue: Additive manufacturing investigation and process innovations; Novel applications of additive manufacturing; Characterization of additively; manufactured components compared with simulation results; Additive manufacturing of metamaterials; Advancement of material performance through additive manufacturing; Tessellations of unit cells; Energy absorption structures.

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Message from the Editor-in-Chief

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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