Special Issue

Advances in 4D Printing: Material, Processes, Applications

Message from the Guest Editors

A few years ago, additive manufacturing (AM) processes were primarily seen as efficient tools for rapid prototyping. Today, owing to the remarkable advancements made in both materials and AM machines, these processes are extensively utilized for industrially producing functional parts with complex geometries. While AM has made significant progress, it is not yet fully mature, and the increasing array of available materials is currently expanding its applicability, as seen in the case of 4D printing. In 4D printing, structures created through 3D printing can undergo geometric deformations over time, controlled by external stimuli such as changes in temperature, electrical fields, etc. This capability finds applications in various fields, including biomedicine, textiles ,among others, can be fabricated. This Special Issue aims to highlight the latest advances in the 4D printing of polymers and composites. The articles featured will focus into the development of innovative materials, the fabrication of complex structures, and the diverse applications of 4D-printed objects.

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Deadline for manuscript submissions

closed (20 September 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/192203

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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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