Special Issue

Fatigue and Fracture of Additive Manufacturing Materials and Components

Message from the Guest Editor

Additive manufacturing (AM), recognized for its numerous advantages over subtractive manufacturing, is increasingly regarded as a transformative technology across various industrial sectors and applications. The fatigue and fracture behavior of AM materials is significantly influenced by factors such as defects, residual stresses, heterogeneous microstructures, and surface roughness. This Special Issue seeks to compile the latest advancements aimed at improving the mechanical performance of AM materials and components regarding fatigue and fracture failures. Contributions that focus on the optimization of the manufacturing and/or post-processing process from a materials point of view, as well as those that present methods that enable the characterization and prediction of this type of failure from a mechanical design point of view, are welcome.

Guest Editor

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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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