Special Issue

Metal Additive Manufacturing: Design, Performance, and Applications

Message from the Guest Editors

Additive manufacturing (AM), due to its high potential for forming complex shapes in an almost unrestricted manner, allows the production of individualized products and fully functional parts for a wide range of engineering materials. Research in AM of metals, there is still a need for a robust understanding of processes, challenges, application-specific needs, and considerations associated with these technologies.

Hence, this Special Issue aims to provide an opportunity for researchers to submit high-quality comprehensive reviews, original research papers and technical case studies in the field of metal additive manufacturing. Topics include but are not limited to:
Metal AM process, such as Powder bed fusion, Electron beam, and other customized and novel processes;
Microstructure characterization/defects–mechanical property relationships;
Post-build/in situ treatments and their influence on material properties and final quality;
Development of alloys/materials customized for AM and multi-material metal AM; etc.

Guest Editors

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Deadline for manuscript submissions

closed (20 February 2025)

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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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