Special Issue

Progress in Metal Additive Manufacturing and Metallurgy (Second Volume)

Message from the Guest Editor

This Special Issue intends to address the latest progress in various facets of metal AM that constitutes the entire value chain. Topics include but are not limited to the following:

- Directed energy deposition processes (DED);
- Powder bed fusion processes (PBF, EBM, SLM, and more);
- Hybrid–AM techniques;
- Process parameter–microstructure/defects–mechanical property relationships;
- Advanced characterization of AM utilizing SEM, TEM, synchrotron radiation diffraction, neutron scattering, and more;
- Post-build/in situ treatments (HIP, HT, machining, shot peening, hybrid manufacturing, and more) and their influence on material properties and quality;
- In-line monitoring techniques for process-build evaluation and control;
- AM process modeling, including areas such as temperature history, phase transformation, precipitation kinetics, microstructure, defects, cracks, and residual stress/distortion;
- Development of alloys customized for AM;
- Digitalization of AM.

Guest Editor

Prof. Dr. Robert Pederson

Department of Engineering Science, Division of Mechanical Engineering, University West, Nohabgatan 18A, Building 73, SE-46153 Trollhattan, Sweden

Deadline for manuscript submissions

closed (20 June 2022)

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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