Special Issue

Microstructure and Mechanical Properties of Laser Additive Manufactured Metals II

Message from the Guest Editor

Laser additive manufacturing technologies such as laser powder bed fusion and directed energy deposition are new disruptive technologies for the production of complex-shaped and lightweight metallic components. This is due to the revolution in design approach that additive manufacturing technologies allows. Notwithstanding this, there are still several limitations in suitable metallic alloys. The actual challenges are focused on the development of new compositions and the study of alloys or metal matrix composites for additive manufacturing technologies. Defining innovative compositions, the right window for the main process parameters of additive manufacturing technologies, and the thermal treatment conditions can contribute to the obtainment of additively manufactured metals with interesting mechanical performance. This Special Issue aims to present the latest research works related to the study of metal matrix composites processed through laser additive manufacturing technologies, focusing the attention on microstructural and mechanical characteristics of the materials.

Guest Editor

Prof. Dr. Mariangela Lombardi

1. Integrated Additive Manufacturing Center (IAM)—Politecnico di Torino, Corso Castelfidardo, 51, 10129 Torino, Italy
2. Department of Applied Science and Technology (DISAT), Politecnico di Torino, Corso Duca Degli Abruzzi, 24, 10129 Torino, Italy

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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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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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