



Advances in Additive Manufacturing of Metals

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Message from the Guest Editors

Additive manufacturing (AM) of metals, or rather, the layer-to-layer build-up of parts, offers new opportunities for manufacturing components with tailored properties and highly complex geometries that other traditional processes cannot match. Therefore, the interest in additively manufactured parts grows exponentially, and the technology has lately become an attractive option for advanced production. However, fundamental challenges in the field of material qualification, process monitoring and control and simulation in additive manufacturing of metallic structures still limit widespread industrial adaption.

This Special Issue of *Metals* aims at gathering publications investigating advances in metal additive manufacturing including:

- New materials for additive manufacturing;
- Functionally graded structures;
- Multimaterial parts;
- Innovative process strategies;
- Process monitoring and control;
- Ground-breaking am systems;
- Fundamental investigations on the structure–process–property relation;
- Advanced material simulation.

The submission of papers on experimental work or a combination of simulation and experimental validation is welcome.





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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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