



*metals*



an Open Access Journal by MDPI

## Structural Analysis, Phase Composition and Properties of Alloys and Steels Manufactured by 3D Printing

Guest Editor:

**Dr. Nataliya V. Kazantseva**

Institute of Metal Physics,  
Ekaterinburg, Russia

Deadline for manuscript  
submissions:

**closed (31 October 2021)**

### Message from the Guest Editor

As Guest Editor, it is my great pleasure to invite you to submit your paper to the Special Issue "Structural Analysis, Phase Composition and Properties of Alloys and Steels Manufactured by 3D Printing" in a Highly Cited "Metals - Open Access Journal", IF: 2.244 (2020). The main aim of this Special Issue is to cover recent progress in decisions of the problems related to the additive manufacturing of steel products. This Issue will collect research concerning different methods of 3D metal printing by powder laser, electron beam, and metal wire, including the following:

- Problems of laser or electron beam 3D printing from the steel powder and metal steel wire, post-printing treatments;
- Structure evolution of 3D printed steels after heat treatments and mechanical tests, martensitic and precipitation hardening in 3D steels;
- Physical properties of 3D printed steels;
- Design of 3D steel products.



[mdpi.com/si/75707](https://mdpi.com/si/75707)

# Special Issue



an Open Access Journal by MDPI

## Editors-in-Chief

### **Prof. Dr. Hugo F. Lopez**

Department of Materials Science  
and Engineering, College of  
Engineering & Applied Science,  
University of Wisconsin-  
Milwaukee, 3200 N. Cramer  
Street, Milwaukee, WI 53211, USA

### **Prof. Dr. Yong Zhang**

Beijing Advanced Innovation  
Center of Materials Genome  
Engineering, State Key  
Laboratory for Advanced Metals  
and Materials, University of  
Science and Technology Beijing,  
30 Xueyuan Road, Beijing 100083,  
China

## 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.

## Author Benefits

**Open Access:** free for readers, with **article processing charges (APC)** paid by authors or their institutions.

**High Visibility:** indexed within **Scopus**, **SCIE (Web of Science)**, **Inspec**, **CAPLUS / SciFinder**, and **other databases**.

**Journal Rank:** JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q1 (*Metals and Alloys*)

## Contact Us

Metals Editorial Office  
MDPI, St. Alban-Anlage 26  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/metals](http://mdpi.com/journal/metals)  
[metals@mdpi.com](mailto:metals@mdpi.com)  
[X@Metals\\_MDPI](https://twitter.com/X@Metals_MDPI)