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Thermomechanical Processing, Microstructure Evolution and Mechanical Properties of Alloys

Guest Editors:

Dr. Dongbin Wei
School of Mechanical and Mechatronic Engineering, University of Technology Sydney, Ultimo, NSW 2007, Australia

Prof. Dr. Liqing Chen
State Key Laboratory of Rolling and Automation, Northeastern University, Shenyang 110819, China

Prof. Dr. Zhengyi Jiang
School of Mechanical, Materials, Mechatronic and Biomedical Engineering, University of Wollongong, Wollongong, NSW 2522, Australia

Message from the Guest Editors

Dear Colleagues,

Thermomechanical processing (TMP) is a physical metallurgical process that combines the mechanical or plastic deformation process with thermal processes. It has been widely applied to optimize the microstructure of alloys through grain refining, phase transformation, etc., to improve their mechanical properties. This Special Issue will focus on the recent development of thermomechanical processing. It will cover alloy design, phase transformation, participate control, and prediction of microstructure evolution and mechanical properties of the alloys in TMP. Applications of artificial intelligence and big data analysis in TMP for optimizing TMP will be included in this issue.

Deadline for manuscript submissions:
closed (31 May 2022)

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Special Issue

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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.

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Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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