Special Issue

Thermomechanical Processing, Microstructure Evolution and Mechanical Properties of Alloys

Message from the Guest Editors

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.

Guest Editors

Dr. Dongbin Wei

Prof. Dr. Liqing Chen

Prof. Dr. Zhengyi Jiang

Deadline for manuscript submissions

closed (31 May 2022)



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About the Journal

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.

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

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