Special Issue

Sensitivity of Material Failure to Surface Roughness

Message from the Guest Editors

The investigation of the influence of surface roughness on material failure is important for the selection of the materials and the development of surface strengthening techniques in the industry. Evidently, surface morphology can determine the contact status and area between the medium or coupling element and the material surface. This is therefore interesting to comprehend the sensitivity of material failure to surface roughness. The goal of this Special Issue is to establish the relationship between material failure (for instance, wear, fatigue, and corrosion) and the surface roughness of the material (such as metals and alloys). The latest recent research achievements concerning the present topic based on experiments or simulations are invited for submission. Literature review articles are also welcome.

Guest Editors

Prof. Dr. Zhongyu Piao

College of Mechanical Engineering, Zhejiang University of Technology, Hangzhou, China

Prof. Dr. Mingxue Shen

College of Materials Science and Engineering, East China Jiaotong University, Nanchang, China

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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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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.

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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