Special Issue

Tool Wear and Surface Roughness in Machining of Metallic Materials

Message from the Guest Editors

Tool wear is a major, well-known issue in metal cutting since process parameters are selected to provide the optimal productivity or economy. The way an object interacts with its surroundings is largely determined by its surface roughness, which is a part of its surface texture. To gauge a mechanical part's prospective performance, roughness is a useful metric to examine. So, in machining, the surface roughness of a machined part plays a vital role and depends on various factors. Thus, the study of surface roughness at both macroscopic and microscopic levels is important, particularly in machining. Moreover, characteristics such as fatigue strength, wear rate, corrosion resistance, residual stress inclusion, dimensional deviations, white layer, dark layer formation, microhardness of the machined surface, morphological aspects of the machined surface, etc., can all be affected by the surface quality. This Special Issue aims to encourage the scientists and researchers to present their results in papers related to both experimental and theoretical studies.

Guest Editors

Dr. Sudhansu Ranjan Das

Department of Production Engineering, Veer Surendra Sai University of Technology, Burla 768018, India

Dr. Anshuman Das

Department of Mechanical Engineering, DIT University, Dehradun, India

Deadline for manuscript submissions

closed (30 September 2023)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/154632

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

mdpi.com/journal/metals

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/metals

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI