Special Issue

Machinability and Tribological Performance of Advanced Alloys

Message from the Guest Editor

Machining constitutes one of the most significant categories of manufacturing processes, dedicated in final component production, including also special, precision parts and difficult-to-machine materials. The challenging aspects of this topic arise from the continuously evolving quality and productivity requirements in modern industry, together also with the innovative aspects of new and smart materials in combination with the energy and environmental regulations imposed in industry. The tribological performance of alloys plays an important role in the production or service environment, which is closely related to their manufacturing characteristics. The study of tribological behavior more diligently addresses the surface engineering aspects of modern and conventional alloys (bulk or coating form). Indicative topics included in this thematic issue, are the following:

- Machinability
- Ecofriendly alloys
- Antimicrobial alloys
- Novel and conventional machining processes
- Optimization of machining parameters
- Tribological behavior of alloys
- Tribological behavior of coatings
- Manufacturing of machinable alloys
- High wear resistance alloys and coatings
- Nanostructured coatings

Guest Editor

Dr. George A. Pantazopoulos
ELKEME Hellenic Research Centre for Metals S.A, Oinofyta Viotias, Greece

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

mdpi.com/journal/metals

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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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