







an Open Access Journal by MDPI

Innovative Technologies and Materials for the Production of Mechanical, Thermal and Corrosion Wear-Resistant Surface Layers and Coatings

Guest Editors:

Dr. Artur Czupryński

Department of Welding Engineering, Faculty of Mechanical Engineering, Silesian University of Technology, Konarskiego 18A Str., 44-100 Gliwice, Poland

Dr. Claudio Mele

Department of Engineering for Innovation, University of Salento, Via Monteroni, 73100 Lecce, Italy

Deadline for manuscript submissions:

closed (20 December 2022)

Message from the Guest Editors

Dear Colleagues,

Surface deterioration is a very real problem in many industries. During the wear process, the surface layer of material is degraded and damaged by mechanical, high temperature, or chemical reaction between the worn element and other elements or aggressive environments. Surfacing. coating. cladding. thermal galvanization processes with specialized welding filler materials are used to replace worn metal with metal that can provide more satisfactory wear resistance than the original. It is wise to consider a combination of factors that create the wear problem to make a decision regarding selection of surfacing, plating, spraying, or galvanizing alloy. Wear prediction proves to be difficult due not only to the dependence on material and design properties but also on difficulties in the quantification and control of tribological systems during the lifetime.

The purpose of this Special Issue is to present the latest developments in the field of research on innovative technologies and materials to produce surface layers and coatings resistant to mechanical wear, thermal wear, and corrosion.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, OC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials. materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases

Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us