Special Issue

Tribological Properties of 2D Materials and Polymer Composites

Message from the Guest Editor

Tribological science contributions are pivotal for the addressal of emerging challenges in society related to energy consumption, climate change, biomedical devices, etc. In recent years, the development of hybrid materials in polymer and material science industries has advanced in regards to their tribo-performance, and so it would be useful to explore novel avenues. The aim of the present Special Issue is to focus on strategies to regulate the tribological characteristics of interactive surfaces applicable to energy consumption, emission, sustainability and the mechanical failure of coatings. It also plans to focus on the wide variety of lubricants developed in solid and liquid states through theoretical concepts, experimental results and numerical evaluations, thoroughly discussing the engineering of the composites, mechanisms and underlying physics. The main topics of interest include, but are not limited to:

- Modulation in tribology through surface treatments;
- Solid-state lubricants;
- Polymers in tribology:
- Nanoscale and microscale tribology;
- Wear, abrasion, fretting, scratch-resistant and adhesion force:
- Tribo-corrosion:
- Biomaterials:
- Emerging coating technology

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2022)



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Message from the Editor-in-Chief

Friction, wear, and lubrication are tribological phenomena that govern the behavior of interacting surfaces in a wide range of machine components. Understanding the physical and chemical nature of these phenomena is critical to achieving long component lifetime and economical operation. Research in the field of tribology is highly interdisciplinary, and encompasses the fields of physics, chemistry, engineering, and mathematical modeling. Lubricants invites contributions on new advances in all areas of tribology for publication as peer-reviewed research articles, reviews of current research, letters, and communications. We are committed to providing timely reviews of all articles submitted. Please consider sharing your work with the scientific community through publication in Lubricants.

Editor-in-Chief

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