Special Issue

Tribochemistry and Interfaces

Message from the Guest Editor

In a tribological contact, interfaces have the specificity to be under motion, making studies very complicated. Under certain conditions, chemical reactions could occur within these interfaces and generate a new compound called a tribofilm due to a tribochemical process. This tribofilm, with a thickness of only few nanometers in some cases, is able to control both wear and friction in the contact. The understanding of tribochemical phenomena is an actual key scientific challenge that this Special Issue proposes to address. This Special Issue aims to publish the latest developments in the field of tribochemistry. Research articles dedicated to any kind of tribochemical phenomena under dry or fluid lubrication and involving different types of lubricant additives, coatings, gas, etc., will be of great interest to this Special Issue. Tailoring surfaces to optimize tribochemical reactivity is also considered an interesting aspect. Advanced in-situ tribometry studies, recent developments of tribofilm characterization techniques, and modeling studies are also highly welcome.

Guest Editor

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About the Journal

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.

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