Special Issue

Frictional and Wear Behaviors of Sliding Interfaces across Scales

Message from the Guest Editors

Tribology is the science of wear, friction, and lubrication, and encompasses how interacting surfaces behave in relative motion in natural and artificial systems. At nanoscale, the research focuses on atomistic interface interactions, single asperity dissipative processes, wear initiation, and evolution, etc. At mesoscale, friction and wear behaviors are mainly dominated by surface roughness effects, micro-slip, subsurface cracking, nucleation processes, instabilities, etc. At macroscale, engineering tribology concerns lubrication surface coatings and wear resistant materials for minimum wear, and sacrificial materials and surface finishing process (such as grinding and polishing) for maximum wear based on the specific engineering applications. Except for the above, there are some special frictional phenomena in natural systems, such as earthquakes, avalanches, glaciers, and land slides. The key topic of the Special Issue is friction and wear across all length scales. The focus is on the physical, mechanical and chemical properties and the fundamental governing laws underlying these processes, as well as their applications on relevant engineering problems.

Guest Editors

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Deadline for manuscript submissions

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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.*

Editor-in-Chief

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