



Self-Organization during Friction: Do We Know Enough about It?

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Message from the Guest Editor

Dear Colleagues,

In the current era of nano-science and nano-technology, the latest developments in the field of tribology have provided several major contributions to thermo-dynamics, self-organization, and self-organized criticality of nonequilibrium systems. Studies of these fields are paving the way for future engineering advancements capable of dramatically improving wear performance under extreme conditions. The major focus of this issue is the development of future thin film nano-materials for various tribological applications, such as machining tools, bearing and other heavily loaded tribo-systems.

The common direction in all of these fields concerns the study of surface/interface phenomena and dissipative structures that form on the surface. These structures can significantly improve the service life of tribo-systems. A combined knowledge of tribology, nonequilibrium thermo-dynamics and modern material science is vital for developing efficient strategies of dealing with ongoing challenges faced by tribology and material science.





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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*.

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