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Advances in Friction Modifiers and Liquid Confinement

Guest Editor:

Dr. Hongyu (Larry) Gao
Department of Materials Science and Engineering, Saarland University, 66123 Saarbrücken, Germany

Deadline for manuscript submissions:
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Message from the Guest Editor

Lubrication at small-scale contact is a complex matter given the prominent size effect and atomistic nature. For example, liquids under high confinement often exhibit a layering-like structure, with in-plane molecules arranged in a disordered manner. Because of their material nature, confining geometry, etc., such a confinement-induced molecular ordering can significantly extend the structural relaxation time and thereby result in a much-enhanced shear viscosity. When first-order or second-order phase transformation takes place, collective and solid-like interfacial behavior can be observed, which in turn can affect the tribological performance of the system, as well as its stability...

This Special Issue promotes the improved understanding of interfacial (tribological) behavior of liquid lubricants and additives in the boundary lubrication regime, and origins of the potential effects. Insights can be gained from investigations at different length scales and by means of experimental, modeling, and theoretical approaches.

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Editor-in-Chief

Prof. Dr. Homer Rahnejat
School of Engineering, University of Lancahire, Preston PR1 2HE, UK

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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Lubricants Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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