

Special Issue

Thermal Hydrodynamic Lubrication

Message from the Guest Editors

Thermal hydrodynamic lubrication research is essential in the situations where heat transfer in the environment has a significant impact on the lubrication characteristics or the frictional heat generated has a significant impact on lubrication, friction, and wear. Thermal hydrodynamic lubrication is a comprehensive and complex issue that involves the flow and heat transfer characteristics in the channel, thermal properties of lubricants, surface properties, and interface coupling. It has important reference value for low friction and wear design. In different industrial application cases such as transportation, precision instruments, heavy machinery, robotics, and medicine, thermal hydrodynamic lubrication has its own characteristics, and it is worthy of further research and application. Advancements in computational methods and material science are continuously enhancing the understanding and effectiveness of thermal hydrodynamic lubrication, paving the way for innovative solutions in various engineering and industrial applications.

Guest Editors

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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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