

Special Issue

Laser Technology in Tribology

Message from the Guest Editors

This Special Issue aims to promote advances in the field of laser technology in tribology with the ultimate goal to enhance friction and wear performance under dry and lubricated conditions. Regarding laser processing techniques, research contributions making use of laser systems with different pulse durations ranging from continuous wave (cw) to pulsed and ultrashort pulsed laser systems are welcome. From a tribological point of view, the processing of different material systems (polymers, metals, and ceramics) as well as various contact conditions (conformal and nonconformal contact) and lubrication conditions (dry friction, boundary, mixed, elastohydrodynamic, and full-film lubrication) can be considered as a subject of this Special Issue. Processing strategies ending up in deterministic multiscale and hierarchical surface textures with the overall goal of decreasing or increasing friction and wear, manipulating lubricant migration and spreading in lubricated systems, and inducing different wettability states will also find their place in this Special Issue. Special emphasis is laid on the underlying friction and wear mechanisms induced by the designed surface textures.

Guest Editors

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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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