

Special Issue

Tribology of 2D Nanomaterials

Message from the Guest Editors

Friction and wear between machine pairs always cause excessive energy loss and even mechanical failures. To overcome these problems, researchers have focused on enhancing the performance of lubricants, particularly with regard to the reduction in energy dissipation and improved durability. Typically, additives are needed for lubricants to improve the rheological, lubrication, anti-wear, and anti-oxidation behaviors. Recently, many materials were added to lubricants as additives to enhance lubrication and wear protection performances. Among them, graphene-family materials have attracted a lot of attention owing to their easy-shear property between lattice layers and extremely high strength. The investigation of graphene-based lubrication additives is valuable for the development of novel lubrication systems. This Special Issue aims to present recent discoveries in graphene-based lubricant additives in research and industry. Topics dealing with friction, wear, surface modification, structural regulation, lubrication mechanisms of graphene-based lubricant additives, and the synergetic effect between graphene-based materials and other nanomaterials are welcome.

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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*.

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