Special Issue

Friction and Wear on the Atomic Scale

Message from the Guest Editors

During the last several decades, tribology research has entered into the atomic scale owing to the rapid development of microscopy and computer simulation techniques. Research regarding atomic-scale friction, wear, and lubrication may greatly benefit the further advancement of nanotechnologies, including but not limited by nano-electromechanical systems (NEMSs), nanolithography, and nanomanufacturing. Distinct to the conventional macroscale tribological phenomenon, a variety of novel and interesting friction/wear phenomena have appeared at the nanoscale and atomic scale. [...]. These facts place the research of atomic-scale friction/wear at the frontier of tribology research, attracting the attention of those working within the field broadly. There are some many sub-topics in this research field, including the following: friction and wear fundamentals, structural superlubricity, tribochemical wear, tribochemistry, tribofilms, triboemission, atomic-scale contact, triboluminescence, interfacial adhesion, and nanoparticle additives. This Special Issue welcome contributions from all scientists working in atomic-scale friction/wear and related areas.

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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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