Special Issue

Hydration Lubrication in Biomedical Applications

Message from the Guest Editor

The lubrication efficiency of articular cartilage is exceptionally high. Currently, no artificial lubrication system can surpass the efficiency of articular cartilage. In recent years, hydration lubrication has been considered the core mechanism of articular cartilage lubrication. However, all conclusions are based on indirect inferences from experiments. More studies using molecular dynamic simulations and experiments are needed to obtain insights into the lubrication process and mechanisms of articular lubrication at the atomic scale. This Special Issue is dedicated to advancing innovative research in molecular dynamics simulations,experiments and multiscale simulation methods in articular cartilage lubrication.

Guest Editor

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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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