Special Issue

Tribological Properties and Failure Prediction in Mechanical Elements

Message from the Guest Editors

Tribology knowledge plays an important role in enabling researchers and engineers to predict the performance of mechanical elements. Each year, a considerable amount of GDP of each country is directly or indirectly spent on tribology-related issues. For example, the energy waste due to frictional loss and material waste due to wear are both related to tribology. Any research that can be used to predict failure in mechanical elements is highly valuable, since it can then be further modified to improve the useful life of mechanical elements, and therefore lead to energy saving. These researches are mainly based on models that take geometry, materials' properties, and operating conditions as input and predict the useful life as output. The intention of this Special Issue is to share advances in the abovementioned fields that can also be used by the industry for the invention of new failure prediction methods.

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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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