Special Issue

Advanced Protective Composite Coatings and Films: Tribological Mechanisms and Applications

Message from the Guest Editor

Wear is one of the three principal failure modes (wear, corrosion, fatigue) of engineering components, causing substantial national economic losses in engineering applications. Therefore, technologies such as coatings, surface strengthening, and high-energy beam remanufacturing are crucial for overcoming wear-related issues in modern industries. Functional protective coating technology offers low input and high yield, and is highly environmentally friendly, making it it an indispensable component bridging new surface remanufacturing technologies and industry, thereby generating enormous economic and social benefits. The tribological characteristics of functional coatings are not inherent properties; rather, they depend on the entire tribological system and are influenced by numerous factors, including preparation methods, substrates, interlayers design, working environments (temperature, humidity, loads, oxygen, irradiation, vacuum, etc.).

Guest Editor

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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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