Special Issue

Development Trends in Surface Engineering Modification for Improving Tribological Properties of Alloys and Composite Polymer Materials

Message from the Guest Editors

Surface engineering is one of the most promising areas of materials science. Various methods have been applied to produce modified surface coatings and functional films, including physical vapor deposition (PVD), chemical vapor deposition (CVD), ion beam-assisted deposition (IBAD), thermal–chemical treatment (TCT), thermal-sprayed coatings by high-velocity oxygen flame (HVOF) or plasma-sprayed modification, and surface cladding using electron beam or laser processing techniques.

Among these surface engineering methods, electron beam and laser processing techniques are commonly used for local surface modification of metals and alloys. Besides metal alloys for engineering applications, surface coatings can be fabricated by a substantial number of commonly applied polymers and composites, including epoxy, polyurethane, polyethylene, and nanocomposites.

This Special Issue focuses on the current development and future trends in surface engineering techniques and the impact of modified alloys and composites or polymer materials, obtained via surface engineering, on advanced engineering technologies for friction and wear control.

Guest Editors

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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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