Special Issue

Surface Engineering via Advanced Manufacturing for Tribological Performance

Message from the Guest Editors

Innovative surface engineering strategies based on advanced manufacturing techniques are currently being developed through continuous research activities to overcome surface degradation due to wear. Examples of these techniques include laser-based surface engineering, electron beam surface processing, wire arc processing, plasma-based processing, friction stir processing, friction surfacing, cold-spray-based processing, and various additive manufacturing processes. These advanced manufacturing methods are paving the way for the development of a range of strategic solutions, including wear-resistant coatings, the synthesis of surface composites, engineered textured surfaces for lubricant storage and on-demand delivery, the modification of surface layer microstructures through thermal/thermomechanical treatments, surface-finishing operations for reduced friction, *in-situ* or *ex-situ* surface polishing, and the fabrication of multi-material, multi-layered structures via additive manufacturing. The Special Issue aims to collect state-of-the-art innovation in surface engineering strategies based on advanced manufacturing for enhanced tribological performance.

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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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