



Advances in Colloidal Lubricants and Interfacial Tribology

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Deadline for manuscript
submissions:

closed (1 May 2024)

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to present original research articles and reviews on colloidal lubricants and interfacial tribology. Colloidal lubricants including liquid dispersions, gels, and greases have found extensive tribological applications in recent decades. By generating a complicated interfacial “tribofilm” capable of providing either physical or tribochemical lubrication, they can effectively reduce the friction and abrasion between two contacting surfaces to a satisfactory level. Although a number of significant research advances concerning the tribological and interfacial properties of colloidal lubricants have been achieved, the design and preparation of high-performance and eco-friendly base oils and additives, the homogenous dispersion of diversified additives in base oils, the formation and composition of interfacial tribofilms, the tribochemical mechanism of colloidal lubricants, and in-time or in-space lubrication control remain challenging in this field.

