



Friction and Wear on the Atomic Scale

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Message from the Guest Editors

During the last several decades, tribology research has entered into the atomic scale owing to the rapid development of microscopy and computer simulation techniques. Research regarding atomic-scale friction, wear, and lubrication may greatly benefit the further advancement of nanotechnologies, including but not limited by nano-electromechanical systems (NEMSs), nanolithography, and nanomanufacturing. Distinct to the conventional macroscale tribological phenomenon, a variety of novel and interesting friction/wear phenomena have appeared at the nanoscale and atomic scale. [...]. These facts place the research of atomic-scale friction/wear at the frontier of tribology research, attracting the attention of those working within the field broadly.

There are some many sub-topics in this research field, including the following: friction and wear fundamentals, structural superlubricity, tribochemical wear, tribochemistry, tribofilms, triboemission, atomic-scale contact, triboluminescence, interfacial adhesion, and nanoparticle additives. This Special Issue welcome contributions from all scientists working in atomic-scale friction/wear and related areas.

