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Experiments and Theoretical Simulations on Mechanical Properties of High Performance Surfaces and Structures

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Message from the Guest Editors

Dear Colleagues,

This special issue focuses on the mechanical and tribological properties of high performance surfaces and structures. High performance surfaces and structures are manufactured, not limited to the following machining or manufacturing methods, by additive manufacturing, polishing, grinding, cutting consisting of turning, drilling, milling, boring, etc., laser, electron beam, ion beam on silicon, diamond, sapphire, quartz, glass, and other hard-brittle or soft-brittle materials, or on nickel, titanium, magnesium, aluminum alloys. They are also prepared by composites including graphene, hexagonal boron nitride, carbon nanotube, fullerene, or other advanced two-dimensional materials. The special issue aims to report the mechanical and tribological properties of experiments and simulations, such as molecular dynamics, first principle theories, Monte Carlo simulations, finite element simulations,under extreme conditions containing high and low temperatures, pressures, energies and frequencies, on the surfaces and structures of brittle materials and alloys used for aerospace, weapons, marine engineering, semiconductor, optoelectronics and microelectronics industries.

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Message from the Editor-in-Chief

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