

Special Issue

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

Message from the Guest Editors

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.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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