

Special Issue

Machining and Surface Properties of Steel Parts

Message from the Guest Editor

Thanks to the development of the automotive and aerospace industries at the turn of the 20th and 21st centuries, it was shown that topography—more broadly, the geometry of surfaces (SGP)—has extremely high importance for the utility of manufactured elements. Surface geometry measurements and tests can serve different purposes, but it was experimentally proven that these parameters influence the friction and wear of interacting surfaces; deformation and contact strength; stresses and their concentration; corrosive reactions; tightness of connections; deposition quality, adhesion, and durability of coatings; and aero- and hydrodynamic properties. In mentioning surface or the geometric structure of the surface, we must remember its functional properties (its functionality), which is closely related to its topography (stereometry), depending on the method of processing. Nowadays, the technological shifts in surface metrology allow the surface features generated by modern manufacturing processes (including hard part machining) to be characterized with a higher accuracy using a number of the areal field parameters (S-parameters and V-parameters sets).

Guest Editor

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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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