





Special Issue Reprint

Enhanced Mechanical Properties of Metals by Surface Treatments

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Combined with the rapid development of new fields in science and technology, there is also a requirement for the necessary materials to have excellent mechanical properties, wear resistance, high-temperature features, corrosion resistance, etc., particularly in the fields of aerospace, marine science, and automobiles. Such materials can suffer from severe wear, corrosion, or high-temperature oxidation on their surface, resulting in their initial failure and even more severe losses. Therefore, the surface characteristics of these materials should be improved. We launched a Special Issue, titled "Enhanced Mechanical Properties by Surface Treatment", which intends to serve as a unique multidisciplinary forum covering a variety of materials, advanced manufacturing technology, advanced characterization methods. performance measurements, and numerical simulation. Now, the Special Issue has been closed, and 21 papers have been published. This Special Issue includes (but is not limited to) the following topics: materials, such as metal alloys, ceramic materials, polymers, and composites; performance properties, such as mechanical properties, wear resistance, resistance, high-temperature oxidation, magnetic performance, biocompatibility; and preparation methods, such as laser sintering, laser melting, PVD, CVD, and PEO.





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