Special Issue

Laser-Assisted Processing of Alloys and Metal Surface Layers

Message from the Guest Editor

Despite the fact that laser surface treatment of materials has been known for many years and is increasingly being used in industry, scientific research is still being carried out on the interaction of the laser beam with metals and their alloys.

Laser Surface Texturing (LST) is one of the most efficient surface modification approaches for improving the tribological properties of engineering materials. The LST process can be performed by means of direct laser ablation, laser interference, and laser shock processing.

One of the most commonly used laser treatments is laser ablation. The laser ablation process is used to produce thin films in the Pulsed Laser Deposition (PLD) method. This technique allows the deposition of thin films on various substrates (metals, ceramics, polymers). Moreover, the laser ablation process carried out in various gas or liquid environments has a positive effect on the corrosion resistance of ablated metals.

This Special Issue will concern innovative processes of laser surface treatment of metals and alloys.

Guest Editor

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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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