



Laser Surface Treatment of Alloys and Metals

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Message from the Guest Editors

Dear Colleagues,

The laser has some unique properties for the surface treatment of different materials. Laser surface treatment is now used in nearly every industry, including automotive, aerospace and shipbuilding industries. They allow for the shaping and modifying of physical and mechanical properties in selected micro-areas. Thermal energy can be placed precisely on the surface, only where it is needed. Such treatment is very difficult, or even impossible, to achieve with other techniques. Advanced surface engineering techniques such as laser surface treatment play a key role in modern materials science. Accordingly, we launch this new Special Issue of *Coatings* to collect original research articles and review papers.

Particular topics of interest include, but are not limited to:

- Influence of laser treatment on tribological and mechanical properties;
- Structure and properties of layers after laser surface treatment;
- Laser surface treatment;
- Laser texturing;
- Laser functionalization of the surface;
- Laser staining of the surface;
- Laser cladding;
- Laser heating;
- Laser alloying.





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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