

Special Issue

Surface Treatment by Laser-Assisted Techniques II

Message from the Guest Editors

Surface treatment using laser-assisted techniques has evolved from the macroscale to the nanoscale. The scope of laser surface modifications broadens to cover more specific purposes, where the spatial and material selectivity of the laser radiation becomes a means to achieve the desired functions, frequently combined with other chemical modification processes. Research on laser-assisted surface modification has been essentially directed towards micro- and nanostructuring for wetting control, as well as biomaterial and hard tissue functionalization. Moreover, the multi-pulse texturization of optical surfaces, nanoparticle/nanocomposite laser-induced films, laser polishing, laser-assisted machining, and laser peening have also been common pursued objectives. Meanwhile, the increasing amplitude of the different characteristics of laser radiation has made possible new achievements in well-established applications of surface modification. As a prospective, surface hydrophobic and hydrophilic modification to induce anti-bacterial behavior and the laser sterilization of non-biological surfaces are research topics whose activity is expected to increase in the near future.

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Deadline for manuscript submissions

closed (31 December 2022)



Coatings

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.4



mdpi.com/si/54947

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About the Journal

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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