Special Issue

Surface Modification Technology in Metals

Message from the Guest Editor

Modification of the surface as an “umbrella” term defines all of those technological process variants that provide the surface of a component with new properties. Spraying technologies allow for only the formation of coatings with a desired chemical composition and thickness, however, they are characterized by numerous imperfections associated with the process of depositing the powder on the previously prepared surface of the substrate material. Electron beam remelting, laser beam remelting, arc remelting, and friction stir processing can be recognized as surface modification processes. The surface modification process can be applied in an absolutely local form, precisely to those regions where it is needed. In this Special Issue, we seek to provide a wide set of articles on various aspects of surface modification. It is hoped that this open access Issue will provide a place for anyone to familiarize themselves with the current state-of-the art for these processes. Articles on the technological process analysis, defect elimination, and performance of the final surface are welcome.

Guest Editor

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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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