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Laser Shock Processing on Metal

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Message from the Guest Editor

Dear Colleagues,

Since its invention in the late 1960's, and the pioneering work on metal strengthening in USA during the late 1970's, Laser Shock Processing has become a reliable surface treatment for improving the mechanical or corrosion resistance of metallic materials. This Special Issue on LSP aims to provide a rather exhaustive and up-to-date state of the art on LSP. Based upon recent work, the Special Issue covers the following fields: the physics of the process and shock loading conditions, the surface modifications induced by LSP, the modeling of LSP, the fatigue and corrosion properties of peened surfaces, the industrial applications of LSP, and novel applications for laser-induced shock waves.

Prof. Dr. Patrice Peyre

Guest Editor



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Special Issue



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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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