

Special Issue

Laser Shock Processing and Related Phenomena

Message from the Guest Editors

Laser Shock Processing (LSP) has been developed as an effective technology for improving the surface and mechanical properties of metallic alloys. The level of maturity of Laser Shock Processing has been increasing during the last few years, and several thematic international conferences have been organized (the 7th ICLPRP will be held in Singapore, June 17–22, 2018), where different developments on a number of key aspects have been discussed, i.e.:

- Fundamental Laser Interaction Phenomena
- Material Behavior at High Deformation Rates/Under Intense Shock Waves
- Laser Sources and Experimental Processes Implementation
- Induced Microstructural/Surface/Stress Effects
- Mechanical and Surface Properties Experimental Characterization and Testing
- Numerical Process Simulation
- Development and Validation of Applications
- Comparison of LSP to Competing Technologies
- Novel Related Processes

which have been treated by renowned specialists, providing a firm basis for the further development of the technology in its path to industrial penetration.

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Yong Zhang

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