Special Issue

Applications of Pulsed Laser in Synthesis, Nanostructured Materials, and Spectroscopic Measurements for Optoelectronics and Environmental Fields

Message from the Guest Editor

In recent years, laser fabrication technology has been widely used in both industry and academia, including laser ablation, laser cleaning, additive, subtractive, and modification manufacturing. By decreasing a laser's pulse duration, ablating a small but precise amount of material has become possible without significant thermal damage to the workpiece; this process allows us to fabricate ultra-fine structures at nano- and microscales using laser ablation. These laser-induced surface structures have received a great deal of research attention due to their unique capabilities of functionalizing material surfaces.

- Laser fabrication of novel micro/nanostructured surfaces;
- Fundamental theoretical and technical aspects of the laser fabrication of micro/nanomaterials;
- Etching (plasma and wet bath)-assisted laser fabrication technology;
- Laser-induced micro/nanostructures;
- Laser ablation/cleaning/cutting;
- Laser spectroscopic analysis using laser-induced breakdown spectroscopy or time-resolved spectroscopy;
- Imaging via ultra-fast laser pulse transmission/scanning electron microscope;
- Multi-layer preparation based on pulsed laser deposition

Guest Editor

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