Special Issue

Laser Micro/Nano-Fabrication Technology in Material Processing

Message from the Guest Editor

Laser micro/nano-fabrication techniques are crucial for advancing fields like materials science, electronics, and biotechnology due to their ability to create intricate structures with high precision. These methods, including Laser Direct Writing (LDW), Two-Photon Polymerization (TPP), and Laser Ablation, have gained significant traction in recent years, enabling the development of advanced devices such as sensors and biomedical implants. However, challenges remain. Material limitations restrict the range of processes, while thermal effects can compromise structural integrity. Additionally, scaling these techniques for industrial applications poses logistical hurdles, and integrating laser-fabricated components within existing manufacturing workflows remains complex. Further research is essential to address these issues, optimize processes, and unlock the full potential of laser micro/nano-fabrication techniques across various industries.

Guest Editor

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