Special Issue

Advancement of Laser Technology from Materials Processing to Nano/Micro Fabrications

Message from the Guest Editors

This Special Issue aims to explore the transformative role of lasers in shaping materials across various applications, including precision manufacturing, healthcare, communication, and defense, among others. It will investigate laser-based material processing techniques such as cutting, welding, ablation, and surface modifications, highlighting their effectiveness in fabricating mechanical components. Laser additive manufacturing (LAM) techniques, including selective laser melting and stereolithography, will be analyzed for their ability to produce high-performance components and address challenges in this evolving field. Additionally, the scope extends to the utilization of lasers in synthesizing and modifying nanomaterials and composites, enhancing their properties. Furthermore, the application of lasers in renewable energy, device development, recycling processes, environmental monitoring, space exploration, and defense will be explored comprehensively.

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Editor-in-Chief

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