Special Issue

Laser Micro/Nano-Fabrication: Innovations and Applications

Message from the Guest Editors

Laser micro/nano-fabrication plays a crucial role in biomedicine, microelectronics, aerospace and other fields. Due to their extremely high processing precision and flexibility, lasers enable the manufacture of arbitrarily well-designed structures or patterns at the micro-nano scale, which is not feasible with conventional processing techniques. These micro/nano structures, with their distinctive characteristics, are widely applied in domains such as superhydrophobicity, micro-robots, directed transport, lubrication, and more. In recent years, the development of advanced laser sources, e.g., femtosecond lasers and attosecond lasers, has provided opportunities for the development of laser-based micro/nano fabrication. In this Special Issue, we aim to highlight recent advances in laser micro/nano-fabrication in order to expand the boundaries of basic research and industrial applications, including laser source, fabrication strategy, process control, physical mechanisms, micro/nano feature characterization and real-world applications. We welcome original research articles, comprehensive reviews, and case studies from researchers, academicians, and industry experts.

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