Special Issue

Laser-Based Fabrication of Glassy and Hybrid Micro/Nano Devices for Biomedical Applications

Message from the Guest Editors

This Special Issue aims to gather cutting-edge research on the use of photonics-based technologies for the fabrication of micro- and nano-scale devices from glassy and hybrid glass/polymeric materials, with a particular focus on biomedical applications. Laser processes such as direct laser writing, femtosecond laser micromachining, laser-assisted bonding, and surface structuring offer unprecedented precision, design flexibility, and material selectivity—key for creating complex biomedical platforms. Topics of interest include microfluidic devices for diagnostics and therapeutics, biosensing platforms, optical components for biophotonics, and implantable or wearable systems. Contributions that explore novel laser–material interactions, fabrication strategies, and device integration in biological contexts are particularly encouraged. Additionally, submissions involving other photonics-based fabrication techniques, such as 3D photonic printing or related additive manufacturing approaches, are also welcome.

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