Special Issue

Optofluidic Microlasers

Message from the Guest Editors

Optofluidic technology has quickly grown in the past two decades leading to the realization of several micro-fabricated devices developed to provide new tools for high-sensitivity optical sensing to be exploited in applications related to biomedicine, security, and environment control. A key element of many of these devices is the optofluidic microlaser. A lot of work is currently being developed by researchers to improve the performances of these devices such as low pump threshold, narrow emission band, single-mode operation, and tunability. Moreover, besides optical cavities realized within microfluidic channels, other solutions have been proposed, such as lasing in a droplet, lasing in a cell, lasing with beads, ring lasing, etc. This Special Issue will collect the most recent results on this subject and topics related to it including fabrication technologies, integration of complex optofluidic circuits, and the demonstration of new applications. Keywords

- Optofluidics
- lab-on-a-chip
- microfluidics
- microlasers
- micro-optical cavity
- micro-optics
- microfabrication
- fs-micromachine
- photonics devices
- optical sensing
- biosensing

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