Special Issue

Advanced Lab-on-Chip and Micro-systems for Manipulation and Bio-Detection

Message from the Guest Editors

To achieve the precise manipulation and detection of micro- and nanotargets, LOC micro-systems provide promising options due to their applications in mechanical, medical, biological, and environmental fields. In all these areas, the adoption of microfluidic devices transforms the efficiency of the reactive process or assay and analytical throughput. For biological and chemical applications, there is great interest in micro/nano-structured channel systems and micro/nano-patterned surfaces. So-called microfluidic devices offer great prospects for carrying out biochemical reactions, successive separation and analysis of the reaction products on one chip. We seek to showcase research papers, communications, and review articles that focus on novel methodological developments by using advanced microfluidic systems for sampling and detection, with particular interest being paid to techniques for the manipulation, separation, characterization, and identification of micro-targets. Based on their ability to perform complex experimental workflows in a rapid, efficient, and robust fashion, the platforms are favorable for defined biological and chemical applications.

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Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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