

Special Issue

Micro and Nano Devices for Cell Analysis

Message from the Guest Editor

In recent years, miniaturized systems called a lab-on-a-chip or micro-total analysis system (μ -TAS) have received focus as new systems for chemical and biochemical analyses. These devices are expected to perform DNA, protein, and cell analysis for drug screening and development of novel therapies. Especially micro and nanodevice technologies are expected to perform accurate and high-throughput analysis for the functions and characteristics of cells at single-cell or single-molecule levels. The history of cell chip devices began with cell and microorganism immobilization and patterning technology. Recently, cell separation, cell manipulation, cell culture, cell lysis, and gene amplification from cells (e.g., PCR) have been performed on various types of devices. Accordingly, this Special Issue seeks to showcase research papers that focus on novel devices or methodological developments of cell-based assay or cell-related (cell-derived materials) analyses. Contributions related to the technologies, materials, and processes of various assays (e.g., observation, manipulation, detection, and analysis) for cells (especially single cells), and, eventually, applications are welcome.

Guest Editor

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