Topical Collection

Microsystems for Cell Cultures

Message from the Collection Editors

Microsystems are being increasingly utilized in biotechnological, biomedical, and pharmaceutical research and development as a replacement for in vitro cell cultures and animal experiments. Platforms such as organ-on-chip (OoC) can be designed to recapitulate biochemical and biophysical conditions and replicate the natural microenvironment of living cells and tissues. In addition to OoC platforms, microbioreactors have become versatile bioprocess engineering tools used for microbial and mammalian cell cultivation. Such cell culture technologies are often equipped with miniaturized sensors that provide feedback, allow process monitoring and control, and ensure the necessary cell culture conditions are maintained. This Special Issue aims to assemble a collection of novel microsystems for cell cultivation. Advances in the areas of system design, sensor integration, as well as target applications are welcome.

Collection Editors

Prof. Dr. Iordania Constantinou
Institute of Microtechnology, Technische Universität Braunschweig, 38124 Braunschweig, Germany
Dr. Thomas E. Winkler
Institute of Microtechnology & Center of Pharmaceutical Engineering, Technische Universität Braunschweig, 38106 Braunschweig, Germany

Biosensors

an Open Access Journal by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed

mdpi.com/si/77087

Biosensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biosensors@mdpi.com

mdpi.com/journal/biosensors

Biosensors

an Open Access Journal by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed

mdpi.com/journal/biosensors

About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Giovanna Marrazza
Department of Chemistry "Ugo Schiff", University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Embase, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q1 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 21.8 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).

MDPI