

Special Issue

Sensor-Based Lab-on-Chip Systems for Medical Diagnostics and Agri-Food Safety

Message from the Guest Editor

Lab-on-a-chip, a micro-total analysis system, intensifies the entire sample preparation, biochemical reaction, and detection analysis process to form a micro-analysis system. The technology achieves miniaturization, automation, integration, and portability. Lab-on-a-chip has been widely used in medical diagnostics, agriculture, and food safety research due to its advantages of high sensitivity, fast diagnosis, and low cost. For example, it has been used for cell analysis, nucleic acid analysis, protein analysis, drug analysis and screening, disease diagnosis, etc. In practical applications, LOC systems require suitable sensors, such as electrochemical, RF, and optical sensors. This Special Issue aims to explore the latest innovations, research, and developments in lab-on-a-chip for medical diagnostics and agri-food safety. It aims to present the latest advances, current challenges, and future trends related to successful lab-on-a-chip applications.

Guest Editor

Dr. Francesca Costantini

Department of Environmental Biology, Sapienza University of Rome,
00185 Rome, Italy

Deadline for manuscript submissions

closed (31 May 2025)



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 9.4
Indexed in PubMed



mdpi.com/si/190939

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

[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)





Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 9.4
Indexed in PubMed



[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)



About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 Bari, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)