Special Issue

Near Infrared (NIR) Biosensors and Imaging Techniques

Message from the Guest Editors

Biosensors based on visible fluorophores have revolutionized all aspects of cell biology. However, how chemical and biological processes are spatiotemporally regulated in intact 3-dimensional tissues in vivo is still poorly understood. To address this shortcoming, there is growing interest in the development of longer wavelength biosensors in the near-infrared (NIR) region of the spectrum (700–1700 nm). This is motivated by the penetration ability of NIR light into tissue and the significantly lower light scattering and autofluorescence throughout the NIR spectral range. Additionally, NIR biosensors enable multiplexed measurements with previously developed visible probes, as well as compatibility with optogenetic tools. In this Special Issue of Biosensors, we seek cutting-edge research on the development of NIR biosensors of all types, including fluorescent proteins, organic and small molecule fluorophores, and inorganic nanoparticles that span the entire NIR-I and NIR-II spectral ranges, as well as the development of novel NIR imaging systems and techniques. Both original article and review submissions are welcome.

Guest Editors

Dr. Masato Maesako

Alzheimer Research Unit, MassGeneral Institute for Neurodegenerative Disease, Massachusetts General Hospital, Harvard Medical School, 114, 16th street, Charlestown, MA 02129, USA

Dr. Steven Hou

Alzheimer Research Unit, Mass General Institute for Neurodegenerative Disease, Massachusetts General Hospital, Harvard Medical School, 114, 16th street, Charlestown, MA 02129, USA

Deadline for manuscript submissions

closed (31 May 2022)

Biosensors

an Open Access Journal by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed

mdpi.com/si/70754

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, 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