# **Special Issue**

# Intelligent Biophotonic Sensing: AI-Enhanced OTFT-Based Technologies and Applications

# Message from the Guest Editors

This Special Issue aims to highlight the latest advancements in biophotonic sensing, particularly those enabled by organic thin-film transistors (OTFTs) and artificial intelligence (Al). By combining the unique properties of OTFTs with the power of Al, we can develop innovative sensing solutions for a wide range of applications, from healthcare to environmental monitoring.We invite high-quality original research papers on the following topics:

- OTFT-Based Biophotonic Sensors:
  - Design and optimization of OTFT materials and device structures;
  - Applications of OTFTs in biomolecular detection;
  - Integration of OTFTs with optical sensors.
- AI in Biophotonic Sensing:
  - Machine learning and deep learning models;
  - Data analysis and pattern recognition;
  - Design and implementation of intelligent sensing systems.
- Applications of Intelligent Biophotonic Sensing:
  - Early disease diagnosis;
  - Biomarker detection;
  - Drug delivery monitoring;
  - Tissue engineering;
  - Environmental monitoring: water quality, food safety, and pollutant detection.

# **Guest Editors**

#### Dr. Shanshan Cheng

Tianjin Key Laboratory of Molecular Optoelectronic Sciences, Department of Chemistry, School of Science, Tianjin University, Tianjin 300072, China

#### Dr. Chenfang Sun

Tianjin Key Laboratory of Drug Targeting and Bioimaging, Life and Health Intelligent Research Institute, Tianjin University of Technology, Tianjin 300384, China

# Deadline for manuscript submissions

#### .....



# Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/198414

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

mdpi.com/journal/

sensors





# Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



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

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 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)