## **Special Issue**

# Photoacoustic-Based Sensing Systems: Advances, Applications, and Innovative Measurement Strategies

### Message from the Guest Editors

Photoacoustic sensing has emerged as a powerful technique for imaging and sensing, with applications ranging from medical diagnostics, to environmental monitoring, to industrial quality control, to name only a few. Recent advancements in light sources, such as quantum cascade lasers and tunable microstructure light sources, coupled with breakthroughs in microphones (MEMS), have significantly elevated the capabilities of photoacoustic sensing, promoting novel opportunities and applications. These improvements, particularly in microsystems, offer new avenues for miniaturization and enhanced measurement strategies. Additionally, the integration of innovative photoacoustic cell structures further enhances the performance of these sensing solutions. This Special Issue aims to explore the synergy between systems and microsystems, novel light sources, innovative sensors, photoacoustic cell design, advanced microphones, and innovative measurement strategies in the realm of photoacoustic sensing.

#### **Guest Editors**

Prof. Dr. Klaus Stefan Drese

Institute of Sensor and Actuator Technology, Department of Applied Science, Coburg University, 96450 Coburg, Germany

Dr. Enza Panzardi

Department of Information Engineering and Mathematics, Università degli Studi di Siena, 53100 Siena, Italy

#### Deadline for manuscript submissions

closed (31 October 2024)



## **Micromachines**

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 5.2 Indexed in PubMed



mdpi.com/si/193197

Micromachines
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

mdpi.com/journal/ micromachines





an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 5.2 Indexed in PubMed



## **About the Journal**

### Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

#### Editor-in-Chief

Prof. Dr. Ai-Qun Liu

- 1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
- 2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

#### **Author Benefits**

#### **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

#### Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Mechanical Engineering)

### **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.2 days after submission; acceptance to publication is undertaken in 1.8 days (median values for papers published in this journal in the second half of 2024).

