# **Special Issue**

# Optical Thermometry: Concepts, Methods, and Applications

## Message from the Guest Editors

Temperature is one of the fundamental thermodynamic quantities of many particle systems and plays a key role in the behavior of matter. Its measurement is ubiquitous in scientific research and industrial applications. Hence, developing novel sensors for temperature monitoring has long been an active and dynamic field of research. Optical thermometry allows optical read outs of local temperature and is able to circumvent many of the challenges and limitations encountered in other traditional thermometry techniques, which are mostly based on contact electrical resistance probes. Optical thermometry possesses the advantages of noncontactness and corrosion resistance, high accuracy and fast response, and multiplex and highresolution imaging capacity. This Special Issue addresses the state-of-the-art research on optical thermometry, with emphasis on technical concepts, instrumentation, implementation, calibration algorithm, and novel applications. Topics of interest include but are not limited to both development and application aspects, thermometry or temperature sensing based on fluorescence or photoluminescence, fiber-optics, and photonic bandgap

### **Guest Editors**

Dr. Liwang Liu

Laboratory for soft matter and biophysics, Department of physics and astronomy, KU Leuven, 3001-Heverlee, Belgium

Prof. Dr. Ping Lu

School of Optical and Electronic Information, Huazhong University of Science and Technology, Wuhan 430074, China

Dr. Yovan de Coene

Chemistry, KU Leuven, Leuven, Belgium

### Deadline for manuscript submissions

closed (31 May 2023)



## **Sensors**

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/108026

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



## **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)

