

## Special Issue

# Optical Chemical Sensors and Spectroscopy for Chemical Trace Element Detection

### Message from the Guest Editors

Optical spectroscopy techniques have been used for centuries to determine the chemical composition of materials and extract useful information by sensing properties and converting them into an optical signature. In 1960, Maiman's invention of lasers (i.e., light amplification by stimulated emission of radiation) has revolutionarily enabled spectroscopy techniques as powerful analytical tools for qualitative and quantitative chemical analysis, which could provide wavelength tunability with high resolution and selectivity, as well as different timescales of excitation. This Special Issue aims to gather scientific contributions focused on the current state-of-the-art of laser spectroscopy sensing and analytical techniques for chemical trace element (including gas, liquid, and solid, etc.) analysis and the related applications in environment, industry, agriculture, biology and medicine, food, public and national security, etc.

### Guest Editors

Prof. Dr. Jingsong Li

Key Laboratory of Opto-Electronic Information Acquisition and Manipulation of Ministry of Education, Anhui University, Hefei 230601, China

Dr. Hao Deng

Key Laboratory of Environmental Optics and Technology, Anhui Institute of Optics and Fine Mechanics, Chinese Academy of Science, Hefei 230031, China

### Deadline for manuscript submissions

closed (20 November 2023)



## Chemosensors

an Open Access Journal  
by MDPI

Impact Factor 3.7  
CiteScore 7.3



[mdpi.com/si/147559](https://mdpi.com/si/147559)

*Chemosensors*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[chemosensors@mdpi.com](mailto:chemosensors@mdpi.com)

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





# Chemosensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.7  
CiteScore 7.3



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



## About the Journal

### Message from the Editorial Board

*Chemosensors* continues to grow as a forum for all manners of sensing that encompass chemistry. *Chemosensors* is published in open access format – all articles and content are released on the internet immediately following acceptance, thus allowing unlimited access to the content as soon as it is published. We would be happy to have you join our growing list of authors.

---

### Editors-in-Chief

Prof. Dr. Jin-Ming Lin

Beijing Key Laboratory of Microanalytical Methods and Instrumentation,  
Department of Chemistry, Tsinghua University, Beijing 100084, China

Prof. Dr. Nicole Jaffrezic-Renault

Institute of UTINAM, University of Franche-Comté, UMR-CNRS 6213, 16  
Gray Road, 25030 Besançon, France

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPus /  
SciFinder, Inspec, Engineering Village and other  
databases.

#### Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore -  
Q1 (Physical and Theoretical Chemistry)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is  
provided to authors approximately 20.5 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).