



## Infrared Spectroscopy for Biological Systems under Physical, Chemical and Biological Processes

Guest Editor:

**Prof. Dr. Emanuele Calabrò**

1. Ministry of Instruction,  
University and Research (MIUR),  
Technical Technological Institute  
of Messina, 98123 Messina, Italy  
2. CISFA (Interuniversity  
Consortium of Applied Physical  
Sciences), Viale Ferdinando  
Stagno D'Alcontres 31, 98166  
Messina, Italy

Deadline for manuscript  
submissions:

**closed (10 June 2022)**

### Message from the Guest Editor

Dear Colleagues,

Spectroscopic techniques are powerful tools for experimental investigation in the infrared (IR) region of organic systems of biophysical interest, such as biopolymers, proteins, cells, organs, and tissues during several processes, as these techniques can highlight, for instance, effects due to changes in temperature, pressure, oxidation, acidification, or exposure to microwaves, UV radiation, etc.

Furthermore, different spectroscopic techniques can couple with different system properties, to explore different spatial scales, to probe different system relaxation times, to highlight specific systems contributions thanks to chemical labeling, to follow the system kinetics, often guaranteeing great accuracy in measurements.

In many cases, the joint employment of different spectroscopic techniques can furnish a deep understanding of complex physical-chemical mechanisms interesting organic systems. For these reasons, spectroscopic techniques are widely employed in biomedicine to detect changes in molecular compositions and structures in organic tissues, for the diagnosis and the monitoring of various diseases.

For more information, please visit: [mdpi.com/si/54351](https://mdpi.com/si/54351)





*sensors*



an Open Access Journal by MDPI

## 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

## 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.

## 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 (*Chemistry, Analytical*) / CiteScore - Q1 (Instrumentation)

## Contact Us

---

*Sensors* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sensors](http://mdpi.com/journal/sensors)  
[sensors@mdpi.com](mailto:sensors@mdpi.com)  
[X@Sensors\\_MDPI](#)