



## Advances in Hyperspectral and Multispectral Optical Spectroscopy and Imaging of Tissue

Guest Editors:

**Dr. Vladislav Toronov**

**Prof. Dr. Mamadou Diop**

**Prof. Dr. Angelo Sassaroli**

**Prof. Dr. Ilias Tachtsidis**

Deadline for manuscript  
submissions:

**closed (10 August 2021)**

### Message from the Guest Editors

Dear Colleagues,

Optical imaging and characterization of tissue has become a huge applied field due to the advantages of optical analysis methods, which include non-invasiveness, high sensitivity, and high spectral specificity. This research field continues to grow and spread in many directions due to new light sources and detectors, such as the supercontinuum and tunable lasers, portable highly sensitive spectrometers, multiwavelength photoacoustic imagers, due to novel methods of data analysis, such as machine-learning, and due to novel applications, such as the imaging of embryogenesis or monitoring of cerebral oxygen metabolism.

The purpose of this Special Issue is to provide an overview of recent advances in methods of tissue imaging and characterization which benefit from using large numbers of optical wavelengths. Potential topics include but are not limited to novel methods and instrument designs, in vivo imaging and monitoring of human and animal organs and embryos, biomedical optical guidance, detection and characterization of diseases and molecular imaging.

Prof. Vladislav Toronov

Prof. Mamadou Diop

Prof. Angelo Sassaroli

Prof. Ilias Tachtsidis

*Guest Editors*



[mdpi.com/si/34812](https://mdpi.com/si/34812)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**

Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)