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Advances in Optical Sensors for Biomedical Applications

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

As mainstream research has moved from the physical sciences to the biomedical sciences, many optics and spectroscopy techniques have been embraced. Combined with optical fibers and micro-optical elements, microscopy and spectroscopy techniques have been successfully implemented in endoscopes. Frequency domain techniques, widely used in optical communication, have been adapted to optical coherence tomography. Mathematical modeling has helped extracting meaningful information from turbid human tissues. Multimodal approaches have been used to measure both morphological and chemical information from complex biological systems. Currently, the development of optical probes such as quantum dots or plasmonic nanoparticles, to enhance sensitivity, is a hot area.

This Special Issue is focused on the advances in optical sensors for biomedical applications. You are kindly invited to submit your original articles or reviews of optical systems and probe development.

Keywords:

- biomedical spectroscopy
- microscopy
- endoscopy
- optical diagnosis and therapeutics monitoring
- molecular probe



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Special Issue



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Message from the Editor-in-Chief

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