Special Issue

Optical Biosensors: Technology, Development and Applications

Message from the Guest Editors

This Special Issue is devoted to present the current evolution of optical biosensors for the sensitive and specific detection of biomolecules (analytes) taking into account technological and development aspects, such as novel photonic transducers (either based on optical fibers or integrated circuits), signal processing techniques, mathematical and numerical analysis of sensitivity and specificity limits and other sensing characteristics, and innovative fabrication and measurement techniques. Novel classical and quantum principles, advanced materials and metamaterials will also be considered. Finally, it is strongly desirable that the optical biosensors presented and discussed in this Special Issue should exhibit features compatible with the Point-of-Care or Lab-on-a-Chip concepts and visions, and suitable to be used for a number of applications such as medical diagnosis, food safety, environmental control, homeland security, drug discovery, and many others.

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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.

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