Special Issue

Nanobiosensors Based on Energy Transfer

Message from the Guest Editors

In the last few decades, sensing strategies based on energy transfer mechanisms, such as Förster resonance energy transfer (FRET), bioluminescence resonance energy transfer (BRET), and chemiluminescence resonance energy transfer (CRET), and also charge transfer mechanisms have enabled the highly sensitive detection of various biomolecules. Their exploitation in numerous biosensing and bioimaging applications has provided new insights into complex biological processes and significantly improved the detection limits of crucial biomarkers. In addition to conventional fluorophores, such as fluorescent dyes or proteins, new fluorescent materials, such as semiconductor nanocrystals, upconversion nanoparticles, fluorescent polymers and other nanoparticles, have greatly fostered advances in the design of biosensors. For this Special Issue, we seek manuscripts that use energy transfer mechanisms to design novel nanosensors for biosensing and bioimaging applications. Both reviews and original research articles will be published.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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