Special Issue

CMOS Sensors for Biomedical Monitoring and Diagnostics

Message from the Guest Editor

Advances in semiconductor technology have enabled the integration of more than ten billion transistors on a chip, following Moore's Law, whereby the number of elements on a fixed silicon die doubles every 18 months. This makes it possible to fabricate structures at a 3 nm scale, which can detect and manipulate a single molecule. Current semiconductor technology is well-matched to the complexity of biological systems and their parallel nature. Furthermore, semiconductor technology has offered cheap and small—yet still advanced—systems. The CMOS (complementary metal oxide semiconductor) is the main part of current integrated circuits and has developed mainly in the field of information and communication. It is now finding novel applications in the field of healthcare and environmental monitoring, as well as new sensing technology, which has discovered new phenomena. This technology has been rapidly developed in association with new biological technology. The goal of this Special Issue is to confirm its present status and discuss future prospects.

Guest Editor

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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.

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