Special Issue

CMOS-Integrated Optoelectronics for Sensing Applications

Message from the Guest Editor

Heterogeneous integration of advanced optical materials such as compound semiconductors (CSs) and 2D transition metal dichalcogenides (TMDs) on well-established CMOS manufacturing platforms is driving sensors into the next generation with a considerably wider spectrum coverage, low costs and high throughputs, beyond the capability of conventional silicon detectors. The key to enabling such an exciting technology relies on the development of high-crystalline-quality alloys and the invention of novel optoelectronic devices. Fundamental challenges associated with these development endeavors need to be clarified and addressed accordingly. This Special Issue aims at collecting pronounced advances in high-performance CMOS-based photodetectors and other types of optoelectronic devices for sensing applications, based on heterogeneous integration, including materials study, device architecture innovation, and circuits/system design and validation.For more information, please visit: mdpi.com/si/T5A33

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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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