



sensors



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Advanced Micro and Nano Technologies for Gas Sensing

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Deadline for manuscript submissions:

closed (31 December 2020)

Message from the Guest Editors

The development of innovative devices for the monitoring of gaseous molecules is receiving a strong boost in recent years for many applications in both existing and new markets, including indoor and outdoor air quality monitoring, analysis and diagnosis of clinical disease with non-invasive methods, and safety in the workplace. Gas sensing is a key monitoring technology, and it is under continuous development both in industry and research. Small and low consumption sensors are necessary to enable mobile and wearable electronics applications, as well as diffused monitoring compatible with the IoT world. Sensor miniaturization using micro- and nanofabrication technologies appears as the main road to develop the next generation of gas sensors. Microfabrication is well established and already employed for a range of gas sensors, but new processes are under development to enhance performance and CMOS compatibility. Nanofabrication offers the possibility to dramatically enhance the capability of gas sensors, but its integration with microfabrication is still a challenge.

This Special Issue will cover innovative research on micro and nanotechnologies for the development of gas sensors.



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