

The nanomaterials based gas sensors

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A new generation of sensitive, reversible and stable gas sensors are currently being developed employing nano-structured materials. These are targeting numerous gases and vapours using different transducing platforms, including conductometric, optical, Bulk Wave (BW) and Surface Acoustic Wave (SAW) devices. Many different gas sensors have been successfully designed, fabricated and comprehensively studied for gas sensing applications. The review is focused on the application of BW and non-layered and layered SAW transducers combined with nano-structured semiconducting metal oxides (SMO), conducting polymers (CP), SMO/CO composites and carbon nanotubes gas sensitive layers.