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# Impact on nanotechnology on design of advanced screen-printed electrodes for different analytical applications

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## Highlights

- Application of carbon and metallic nanomaterials, and also nanocomposites
- Covered chemicals sensors, enzymatic biosensors, immuno-, apta- and genosensors
- Easy achievable miniaturization in electroanalysis and functional improvements

## Abstract

The development of screen printed sensors and biosensors is a significant area of contemporary electroanalysis because of their wide potential possibilities of practical applications. A particular progress in their development in the recent decade was brought by the application of carbon and metallic nanomaterials, as well as oxide and composite ones. This concerns both chemical sensors, and also enzymatic biosensors, immunosensors, aptasensors and genosensors. This review article, based on 140 selected original works, presents the progress gained in recent years in design of sensors used with voltammetric, potentiometric and impedimetric detections, with brief mentioning also resistance-based gas sensors

Keywords: Screen-printed electrodes, nanoparticles, electrochemical detection, amperometry, voltammetry, potentiometry, impedimetry

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