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Abstract

Screen-Printed Electrodes as a Platform for Smart and Low-Cost Point of Care Devices †

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Screen-printing is one of the most promising approaches towards simple, rapid and inexpensive production of biosensors and it is particularly suited to the mass production of low-cost disposable biosensors. One of the most prominent commercialized applications of screen-printed electrodes is the glucose biosensor used for diabetes, which represents a billion dollar per year global market. This shows the potential of commercialization of screen-printed sensors (or biosensors) point of care devices for applications with a significant global market.

CSEM is a research and technology organization specialised in the transfer of technologies and know-how from fundamental research to industry; and point of care devices based on screen-printed sensors technology is one of the fields where CSEM is involved in terms of technology-based activities that address the next generation of trends. Our fields of activity comprise, among others, wearable technologies for wellness and medical applications and development of point of care testing for diagnostics. Recent projects were focused on the development of point of care systems for the detection of biomarkers in non-invasive body fluids. Systems for tuberculosis detection by urine analysis or diagnosis of kidney diseases by saliva analysis were realized.

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