Mini Review

Screen Printed Electrodes in Biosensors and Bioassays. A Review

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Screen-printed electrodes and screen-printed electrochemical sensors (devices containing more electrodes on the same printed platform) are a promising tool in for the construction of portable analytical devices. Various biosensors and bioassays are connected with the screen-printed electrodes respective electrochemical sensors outcoming from the electrodes. The glucose biosensors containing glucose oxidase, devices also called personal glucometers, are the most commercially relevant biosensors based on screen printed electrodes. Nevertheless, the research on this issue is resuming and new devices having practical impact can be expected in the future. This review summarizes basic data about biosensors and similar bioanalytical devices, provides overview of actual literature and disses practical relevance of the methods. Recent papers are cited in this review article.

Keywords: 3D printing; amperometry; assay; bioassay; biosensor; carbon; electrode; gold; print; voltammetry

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