

Title

APPLICATION OF SURFACE PLASMON RESONANCE (SPR) TECHNIQUE IN QUANTITATIVE AND QUALITATIVE ANALYSES

Abstract

SPR is a suitable method for disease diagnosis within the scope of biomedical applications, in particular for the detection of biomarkers of interest in neurodegenerative diseases. In this context, the construction of an SPRi biosensor to detect Erythropoietin (EPO) in blood plasma samples of patients affected by Alzheimer disease (AD) is shown. Starting from the functionalization of the sensor chip, results in terms of detection limit, precision and selectivity achieved by the biosensors are reported, and effectiveness of tests on patient samples is displayed. This method of EPO detection reveals its possible role as a biomarker for the diagnosis of AD, via a high specificity and diagnostic rapidity provided by the SPRi apparatus.

Career notes

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