

NEW TRENDS IN ELECTROANALYSIS USING BIOSENSORS

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Biosensors based on electrochemical detection are of great interest in the recent years due to their low cost and high selectivity.

They are applied in clinical chemistry and biochemistry, however, they also show great promise in environmental monitoring, agro-industries and biotechnologies.

Mainly they are using enzyme electrodes, but also DNA-modified electrodes are very much promising tools.

Enzyme electrodes are obtained by combination of an electrode surface, generally platinum, gold, silica, graphite or glassy carbon, with an enzyme, most frequently an oxidase or dehydrogenase, which is either immobilized covalently on the electrode surface, or cross-linked within a polymer or redox polymer network, or encapsulated within a silica matrix, simply mixed with carbon paste, or physically retained by means of a dialysis membrane.

Applications and prospectives are going to be given