

ANTIOXIDANTS INTERFERENCE ON NEUROTOXIC COMPOUNDS DETECTION USING BIOSENSORS

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The high toxicity of organophosphorus and carbamates neurotoxics and their large use in modern agriculture practices has increased socio-economic concerns. Amperometric biosensors technologies that involve the enzyme immobilization on the electrode surface and the measurement of the current generated in redox process within the system, performed at a constant potential, was used in order to detect organophosphorus and carbamates pesticides. Strong interferences caused by antioxidants substances from certain samples, such as grape, apple and pineapple juices, were observed. In these cases, a previous solid phase extraction (SPE) procedure was employed in order to minimize matrix effects.