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An amperometric monoamine oxidase biosensor for determining some antidepressants

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Abstract

An amperometric biosensor based on a platinum screen-printed electrode and immobilized monoamine oxidase is developed to determine antidepressants of different classes. Petylyl, pyrazidol, and flu-oxetine can be determined with determination limits of 8×10^{-9} , 8×10^{-7} , and 8×10^{-10} M, respectively. A procedure is proposed for determining fluoxetine in tablets. It is shown that petylyl can be selectively determined by an immunochemical technique using the developed biosensor and immobilized antibodies in the concentration range from 1×10^{-4} to 1×10^{-8} M. © 2007 MAIK Nauka.

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