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Carbon nanomaterials as electrode surface modifiers in development of amperometric monoamino oxidase biosensors

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Abstract

© 2016, Pleiades Publishing, Ltd. Modification of a printed graphite electrode surface by carbon nanomaterials (carbon nanotubes and graphene oxide) was used to improve the analytical capabilities of amperometric monoamine oxidase biosensors in the determination of medicinal substances with antidepressant activity (moclobemide and amitriptyline). It was found that the range of determined concentrations of pharmaceutical agents varied from 1×10^{-4} to 1×10^{-8} mol/L. The developed monoamine oxidase biosensors were used for determination of medicinal agents in their dosage forms.

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Keywords

antidepressants, biosensors, carbon nanotubes, graphene oxide, monoamino oxidase