

## Supplementary Materials

### An Electrode Based on the Manganese Dioxide Nanorods and Hexadecylpyridinium Bromide for the Rosmarinic Acid Voltammetric Assay

Guzel Ziyatdinova

**Table S1.** Comparison of rosmarinic acid analytical characteristics on various electrodes.

Electrode	Method	Detection limit, M	Linear dynamic range, Ref. M	Ref.
Carbon paste electrode/Carbon nanotubes dispersed in chitosan/ DNA	SWV*	$1.4 \times 10^{-8}$	$4.0 \times 10^{-8}$ – $1.5 \times 10^{-6}$	[3]
Carbon nanotube paste electrode with <i>n</i> -octyl-pyridinium hexafluorophosphate	DPV**	$1.5 \times 10^{-8}$	$0.0$ – $6.8 \times 10^{-4}$	[4]
Carbon paste electrode with $[\text{Fe}^{\text{III}}\text{Z}-\text{n}^{\text{II}}(\mu-\text{OH})(2\text{-[bis(2-pyridylmethyl)aminomethyl]-6-[}(2\text{-hydroxy-5-methylbenzyl)(2-pyridyl-methyl)aminomethyl]-4-methylphenol)\}](\text{ClO}_4)_2$	SWV	$2.3 \times 10^{-6}$	$2.98 \times 10^{-5}$ – $3.83 \times 10^{-4}$	[5]
Glassy carbon electrode/poly( <i>o</i> -phenylenediamine)/Pt nanoparticles	CA***	$5 \times 10^{-7}$	$(1\text{--}55) \times 10^{-6}$	[6]
Carbon paste electrode/MMIP**** $\text{Fe}_3\text{O}_4@\text{SiO}_2@\text{NH}_2$ nanoparticles	DPV	$8.5 \times 10^{-8}$	$1 \times 10^{-7}$ – $1 \times 10^{-4}$ and $1 \times 10^{-4}$ – $5 \times 10^{-4}$	[7]
GCE/ $\text{MnO}_2$ nanorods–hexadecylpyridinium bromide	DPV	$9.7 \times 10^{-9}$	$2.5 \times 10^{-8}$ – $1.0 \times 10^{-6}$ and $1.0 \times 10^{-6}$ – $1.0 \times 10^{-5}$	This work

\* Square-wave voltammetry. \*\* Differential pulse voltammetry. \*\*\* Chronoamperometry.

\*\*\*\* Magnetic functionalized molecularly imprinted polymer.