

Alternative methods of monitoring emerging contaminants in water: A review

Supplementary Information

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Analytes	Application	Detection techniques	Probe	Limit of detection	Ref
Ibuprofen		Square wave voltammetry	Screen printed graphite electrodes	6.3 nM	1
		Differential pulse voltammetry	Gold NPs on a glassy carbon electrode (GCE) surface	0.5 pM	2
		Differential pulse voltammetry	Polymer-wrapped AgNP-decorated acid-functionalized with GO (AgNPs@Af-GO-MIP)	8.7×10^{-9} mol L ⁻¹	3
		Differential pulse voltammetry	Silver-functionalized carbon nanofiber composite electrodes	38 nM	4
		Potentiometric	cyclodextrins	3.34×10^{-6} M	5
		Differential pulse voltammetry	Copper tellurate (Cu ₃ TeO ₆) glassy carbon electrode	0.017 μM	6
		Differential pulse voltammetry	Silver-modified zeolite-multi-walled carbon nanotubes-epoxy composites electrodes	0.082 μM	7
		Differential pulse voltammetry	Polyaniline nanofiber modified glassy carbon electrode	48 nM	8
Isoniazid	Antibiotics	Differential pulse voltammetry	Graphene oxide-based nonsense	0.03 μM	9
Naproxen	Anti-inflammatory drug	Amperometric and Potentiometric sensors	nano-spinel zinc ferrite films (ZnFe ₂ O ₄)	0.129 μA μM ⁻¹ and 13 μM	10
		Differential pulse voltammetry	Gold digital versatile disc chip modified with graphene oxide decorated with Ag nanoparticles/β-cyclodextrin	0.023 μM and 0.08 μM	11
		Differential pulse voltammetry	MWCNT and microsomal P4501A2 (msCYP1A2) on a graphite screen-printed electrode (SPE)	16 μM	12
		Differential pulse voltammetry	Boron-Doped Diamond Electrode	30 nM	13
		Differential pulse voltammetry	MWCNT-graphene hybrid	1.25×10^{-7} mol L ⁻¹	14
		Differential pulse voltammetric	Platinum electrode	0.1 mM ¹	15
		Differential pulse voltammetry	MWCNT- on a glassy carbon electrode (GCE) surface	0.6 μM	16
Aspirin	Antiplatelet drug	Differential pulse voltammetry	Polymer-wrapped (P4VP) MWCNT	4.42 nM	17
		Differential pulse voltammetry	Chitosan capped with AuNPs on a screen-printed carbon electrode (SPCE)	0.166 pM	18
		Differential pulse voltammetry	Boron-Doped Diamond Electrode	7.2 μM	19
		Differential	Polyaniline/rGO	6.1 μM	20

Diclofenac	Anti-inflammatory drug	pulse voltammetry			
		Square-wave adsorptive stripping voltammetric	Immobilized copper ions on MWCNTS-Chitosan thin film	21 nM	21
		Differential-pulse voltammetry	Multiwalled Carbon Nanotubes-Modified GCE	0.2 to 6.0 μ M and 13.2 nM	22
Celecoxib	Anti-inflammatory drug	Differential pulse voltammetry	Silver-choline chloride modified graphene oxide	2.51×10^{-9} M	23
		Differential pulse voltammetry	Boron-doped diamond and edge plane graphite electrodes	1.03×10^{-9} M	24
Paroxetine	Antidepressant drug	Differential pulse voltammetry	Boron-doped diamond and edge plane graphite electrodes	0.9 nM	25
Clozantel	Antidepressant drug	Differential pulse voltammetry	Boron-Doped Diamond Electrode	7.0 nM	26
Fluoxetine	Antidepressant	Differential pulse voltammetry	Graphite- Molecularly imprinted polymer- carbon paste electrode	3.0 nM	27
		Differential pulse voltammetry	carbon nanoparticles (CNPs) thin-film modified glassy carbon electrode	0.4 μ M	28

Table S1: Some of the pharmaceutical compounds detected using electrochemical methods.

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