Electronic Supporting Material

A sensitive electrochemical sensor based on

ZIF-8-acetyleneblack-chitosan nanocomposites for rutin detection

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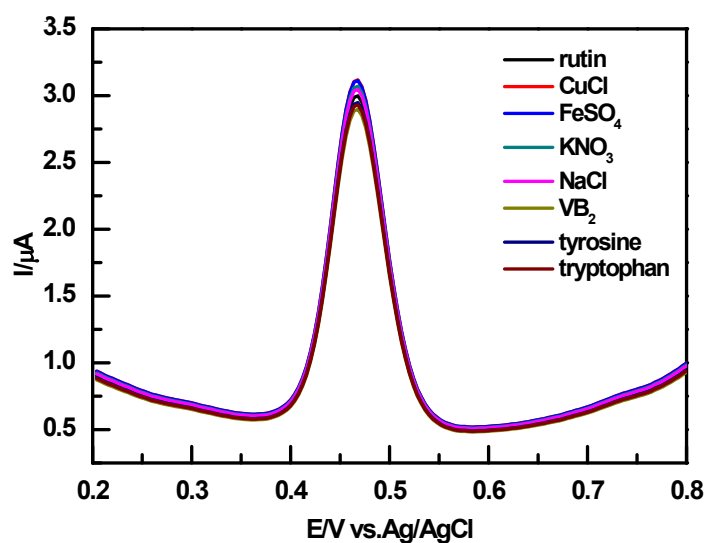
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Fig. S1. The selectivity of ZIF-8-AB-CS/GCE sensor towards 5 μM rutin in 0.1 M PBS (pH 3) containing 500 μM electroactive substance respectively, scan rate 100 mV s^{-1}.
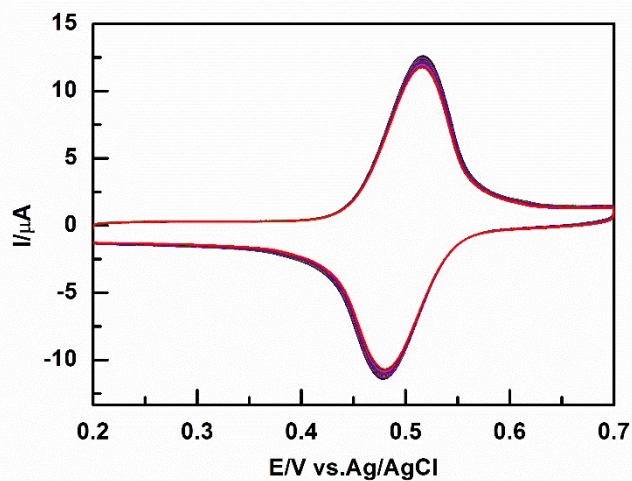

Fig. S2. CVs of ZIF-8-AB-CS/GCE in 0.1 M PBS containing 50 μM rutin (pH 3) scan for 15 circles successively. Scan rate: 100 mV s-1

Table S1. Effects of some electroactive substance on rutin detection at ZIF-8-AB-CS/GCE sensor in 0.1 M PBS (pH 3), scan rate 100 mV s^{-1}.

. Co-exiting species	Concentration/uM	Relative Error%
Cu$^+$	500	4.24
Fe^{2+}	500	3.81
K$^+$	500	2.40
Na$^+$	500	1.69
Cl$^-$	500	3.11
SO$_4^{2-}$	500	4.24
NO$_3^-$	500	3.81
VB$_2$	500	-3.39
Tyro	500	-1.69
Tryp	500	-2.26

Table S2. Determination results of rutin tablets.

Samples No.	Content (mg/tablet)	Added (μM)	Found (μM)	Recovery%	RSD% (n=3)
		7.5	7.2	96.0	3.5
1	20	15.1	14.8	98.0	3.0
		30.1	31.5	104.6	2.2
		7.5	7.7	102.6	3.0
2	20	15.1	15.0	99.3	2.5
		30.1	29.0	96.3	2.0
		7.5	7.8	104.0	2.0
3	20	15.1	14.8	98.6	1.8
		30.1	29.5	98.0	1.5