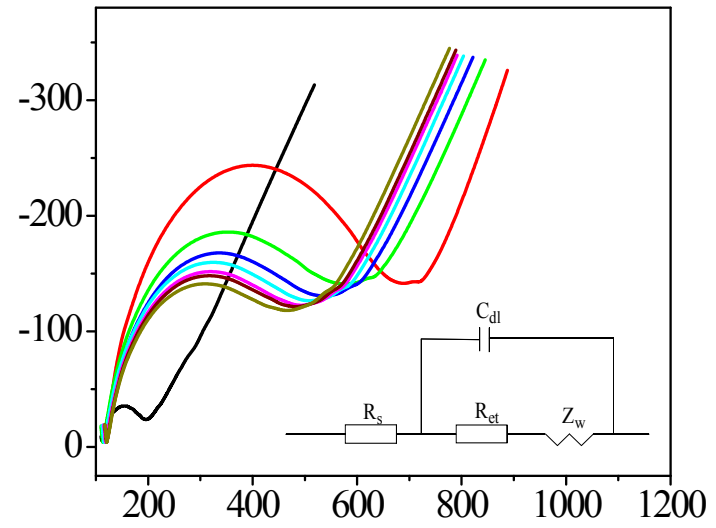


Fig. S1 EIS of (a) bare GCE, (b) PDAox/GCE and (c) PDAox-PTCA/GCE in the presence of 5.0 mM K₃[Fe(CN)₆]/K₄[Fe(CN)₆] (1:1) mixture in PBS (pH 3.0); (curve d - h) EIS of PDAox-PTCA/GCE in the presence of 5.0 mM K₃[Fe(CN)₆]/K₄[Fe(CN)₆] (1:1) mixture in PBS (pH 3.0) with the successive addition of 2.0 mM AA, 200 μM DA, 200 μM UA, 200 μM XN and 200 μM HXN.

Fig. S2 (A) DPV curves recorded in 0.10 M, pH 3.0, PBS containing 750 μM AA, 40 μM DA, 65 μM UA, 30 μM XN and 110 μM HXN at PDAox-PTCA/GCE with (a) 2, (b) 4, (c) 6, (d) 8 and (e) 10 circles electropolymerization of DA on GCE with the same the electrochemical oxidation time of 250 s. (B) DPV curves in 0.10 M, pH 3.0 PBS containing 900 μM AA, 45 μM DA, 65 μM UA, 25 μM XN and 100 μM HXN at the PDAox-PTCA/GCE with the electrochemical oxidation time of (a) 0, (b) 50, (c) 150, (d) 250 s and (e) 300 s.

Table S1 EIS of bare GCE, PDAox/GCE and PDAox-PTCA/GCE (A) in the presence of 5.0 mM K₃[Fe(CN)₆]/K₄[Fe(CN)₆] (1:1) mixture in PBS (pH 3.0); (B-D) EIS of PDAox-PTCA/GCE in the presence of 5.0 mM K₃[Fe(CN)₆]/K₄[Fe(CN)₆] (1:1) mixture in PBS (pH 3.0) with the successive addition of 2.0 mM AA, 200 μM DA, 200 μM UA, 200 μM XN and 200 μM HXN.



L

Fig. S1

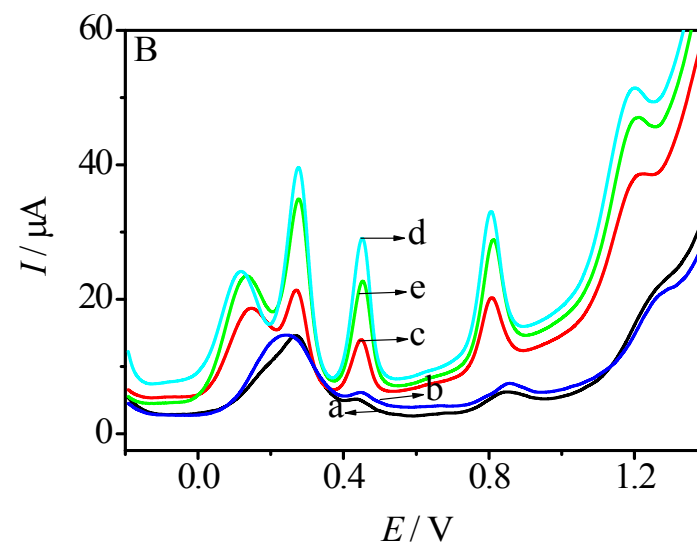
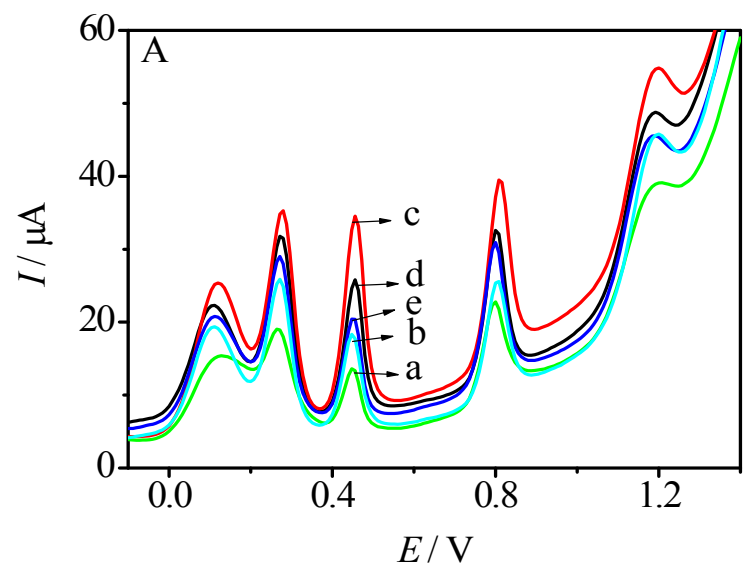


Fig. S2

Table S1 Values of the equivalent circuit elements from fitted impedance results for bare GCE, PDAox/GCE and PDAox-PTCA/GCE

Table S1

electrode [⊖]	R_s (Ω cm ²) [⊖]	Z_{wv} (Ω^{-1} cm ⁻² s ^{0.5}) [⊖]	R_{et} (Ω cm ²) [⊖]	C_{dl} (F cm ⁻²) [⊖]	condition [⊖]	⊖
Bare GCE [⊖]	113.0 [⊖]	2.43*10 ⁻³ [⊖]	74.6 [⊖]	2.99*10 ⁻⁶ [⊖]	A [⊖]	⊖
<u>PDAox</u> /GCE [⊖]	120.8 [⊖]	2.42*10 ⁻³ [⊖]	474.6 [⊖]	1.35*10 ⁻⁵ [⊖]	A [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	117.1 [⊖]	2.18*10 ⁻³ [⊖]	370.2 [⊖]	1.66*10 ⁻⁵ [⊖]	A [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	121.2 [⊖]	2.17*10 ⁻³ [⊖]	336.0 [⊖]	1.61*10 ⁻⁵ [⊖]	B [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	119.3 [⊖]	2.17*10 ⁻³ [⊖]	319.2 [⊖]	1.60*10 ⁻⁵ [⊖]	C [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	122.6 [⊖]	2.17*10 ⁻³ [⊖]	303.3 [⊖]	1.60*10 ⁻⁵ [⊖]	D [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	124.3 [⊖]	2.15*10 ⁻³ [⊖]	295.6 [⊖]	1.62*10 ⁻⁵ [⊖]	E [⊖]	⊖
<u>PDAox</u> -PTCA/GCE [⊖]	124.6 [⊖]	2.14*10 ⁻³ [⊖]	280.9 [⊖]	1.62*10 ⁻⁵ [⊖]	F [⊖]	⊖