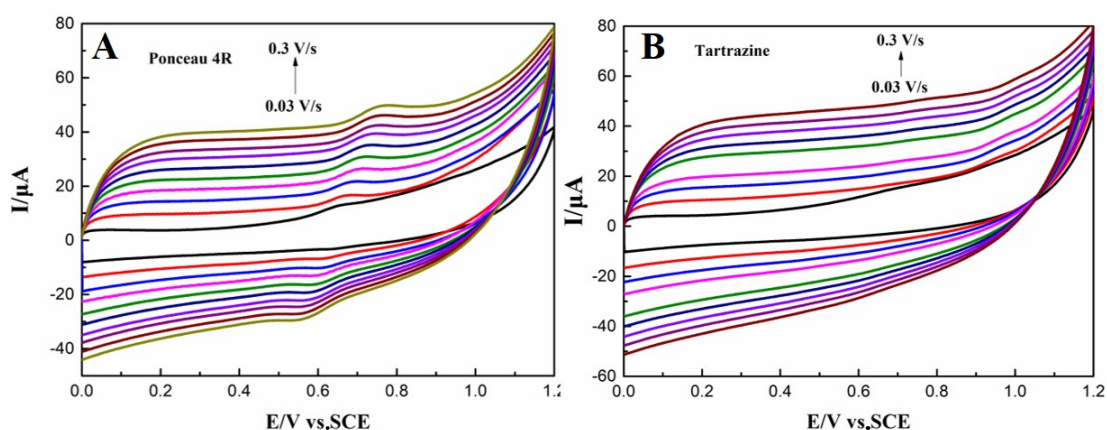
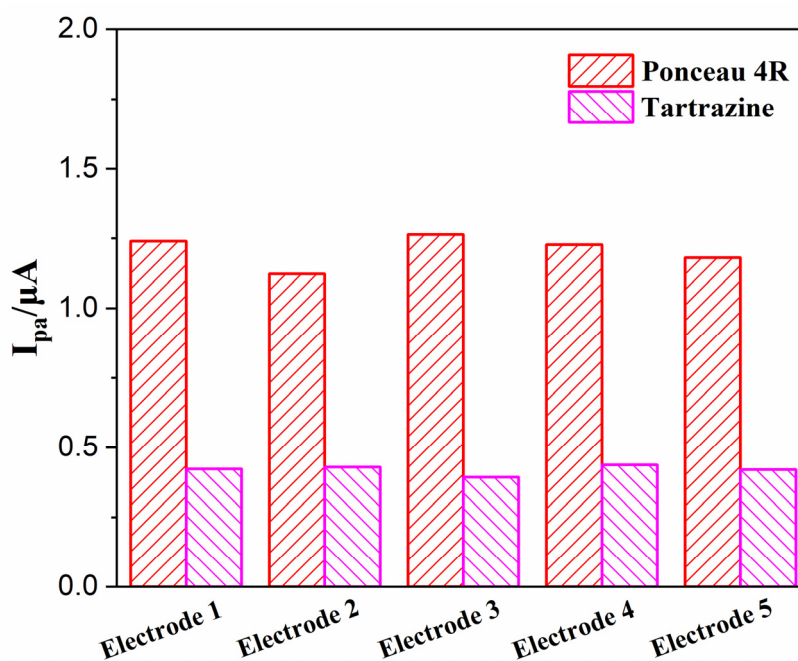


**Table S1.** Anodic peak currents of ponceau 4R and tartrazine in the presence of various interfering substances.

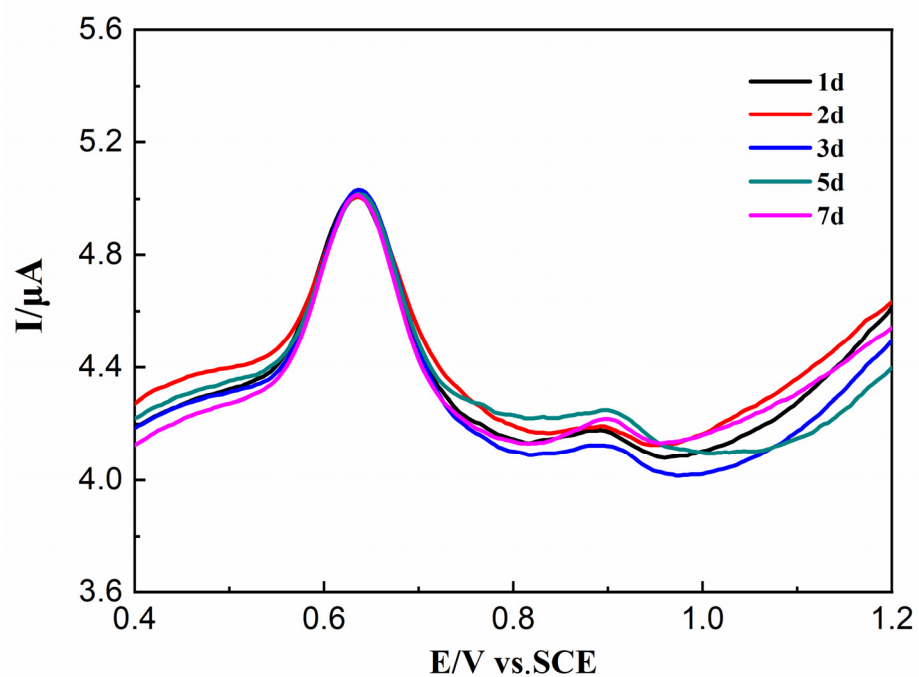
Interfering Substances	$I_{pa}(PR)/\mu A$	$I_{pa}(TZ)/\mu A$
None	1.344	0.5538
$Na^+$	1.325	0.5545
$K^+$	1.333	0.5540
$Mg^{2+}$	1.354	0.5532
$Ca^{2+}$	1.352	0.5543
Amaranth	1.346	0.5534
Allura Red	1.338	0.5532
Sunset yellow	1.349	0.5546



**Figure S1.** Cyclic voltammograms of ponceau 4R (A) and tartrazine (B) on  $TiO_2/ErGO/GCE$  recorded at various scan rates. Supporting electrolyte: 0.1 M PBS (pH = 7.0); deposition parameters:  $-0.1V$ , 120 s.



**Figure S2.** Anodic AdSDPV peak currents of  $10 \mu M$  ponceau 4R and tartrazine recorded on five  $TiO_2/ErGO/GCEs$ . Supporting electrolyte: 0.1 M PBS (pH = 7.0); deposition parameters:  $-0.1V$ , 120 s.



**Figure S3.** AdSDPVs responses of 1.0  $\mu\text{M}$  ponceau 4R and tartrazine in dependence on storage time. Supporting electrolyte: 0.1 M PBS (pH = 7.0); deposition parameters: -0.1V, 120 s.