

Supplementary material to Electrochemical determination of paracetamol and chlorpheniramine using gold nanoparticles/reduced graphene oxide modified glassy carbon electrode

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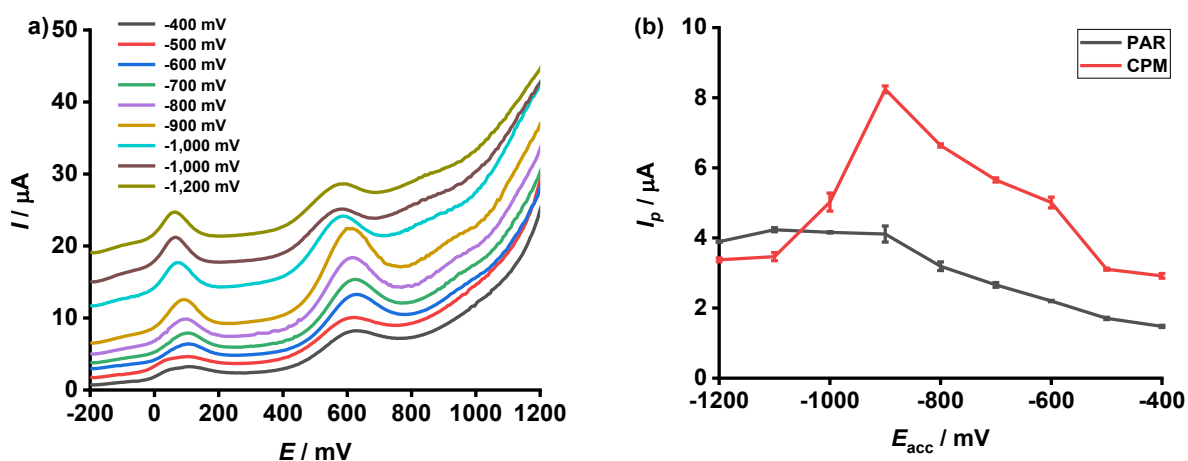


Figure S1. a) SqW-ASV curves of AuNPs-rGO-GCE and b) I_p variation (standard deviations marked) of PAR and CPM at different accumulation potentials ($t_{acc} = 60$ s, $f = 20$ Hz, $\Delta E = 25$ mV, $U_{Step} = 6$ mV, $v = 25$ mV s⁻¹, $C_{PAR} = 28$ μM, $C_{CPM} = 54$ μM, BR buffer 0.05 M, pH 7)

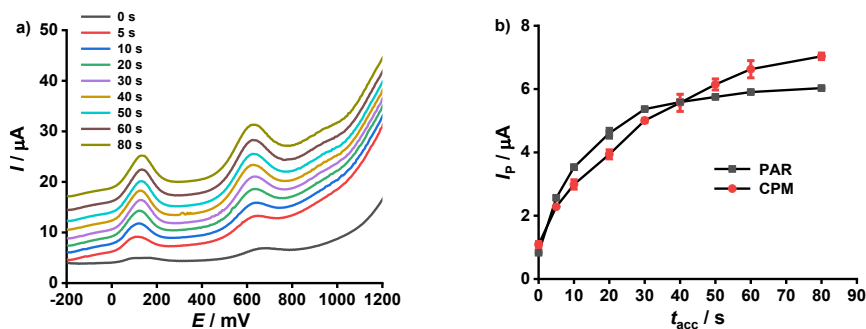


Figure S2. a) SQW-ASV curves of AuNPs-rGO-GC and b) I_p variation (standard deviations marked) of PAR and CPM with different accumulation times ($E_{\text{acc}} = -900 \text{ mV}$, $f = 20 \text{ Hz}$, $\Delta E = 25 \text{ mV}$, $U_{\text{Step}} = 6 \text{ mV}$, $\nu = 25 \text{ mV s}^{-1}$, $C_{\text{PAR}} = 28 \mu\text{M}$, $C_{\text{CPM}} = 54 \mu\text{M}$, BR buffer 0.05 M, pH 7)

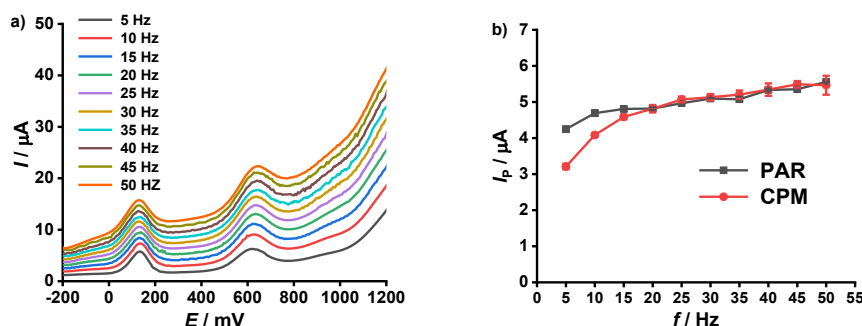


Figure S3. a) SQW-ASV curves of AuNPs-rGO-GCE and b) I_p variation (standard deviations marked) of PAR and CPM with wave frequencies from 5 to 50 Hz corresponding to sweep rate from 30 to 300 mV s^{-1} ($E_{\text{acc}} = -900 \text{ mV}$, $t_{\text{acc}} = 30 \text{ s}$, $\Delta E = 25 \text{ mV}$, $U_{\text{Step}} = 6 \text{ mV}$, $\nu = 25 \text{ mV s}^{-1}$, $C_{\text{PAR}} = 28 \mu\text{M}$, $C_{\text{CPM}} = 54 \mu\text{M}$, BR buffer 0.05 M, pH 7)

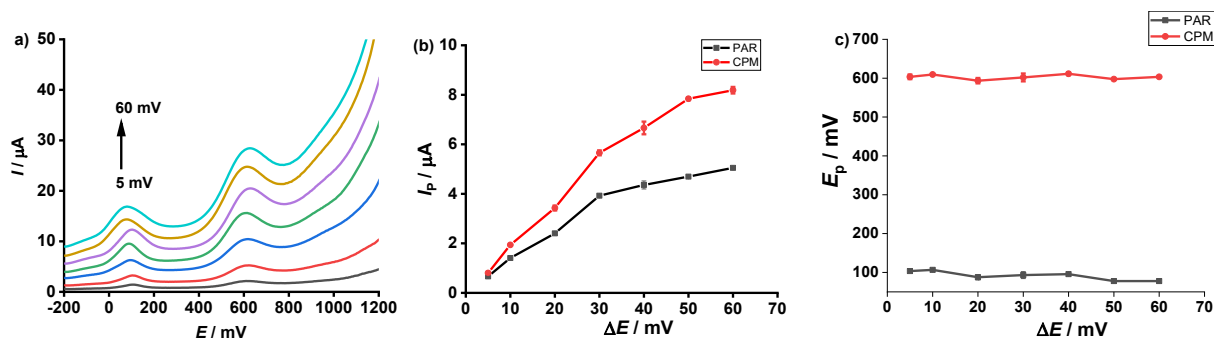


Figure S4. a) SQW-ASV curves of AuNPs-rGO-GCE and b) I_p and c) E_p variations (standard deviations marked) of PAR and CPM with different pulse amplitudes. ($E_{\text{acc}} = -900 \text{ mV}$, $t_{\text{acc}} = 30 \text{ s}$, $f = 20 \text{ Hz}$, $U_{\text{Step}} = 6 \text{ mV}$, $\nu = 120 \text{ mV s}^{-1}$, $C_{\text{PAR}} = 28 \mu\text{M}$, $C_{\text{CPM}} = 54 \mu\text{M}$, BR buffer 0.05 M, pH 7)

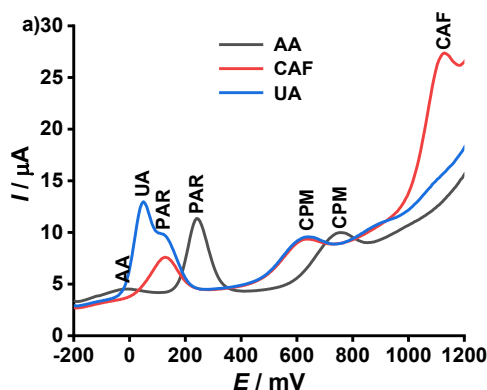


Figure S5. SQW-ASV curves of AuNPs-rGO in 0.05 M BR buffer, pH 7, containing PAR, CPM and uric acid (UA), caffeine (CAF) and ascorbic acid (AA). ($E_{\text{acc}} = -900 \text{ mV}$, $t_{\text{acc}} = 30 \text{ s}$, $\Delta E = 30 \text{ mV}$, $U_{\text{Step}} = 6 \text{ mV}$, $\nu = 120 \text{ mV s}^{-1}$, $C_{\text{PAR}} = C_{\text{CPM}} = 28 \mu\text{M}$, $C_{\text{UA}} = C_{\text{AA}} = C_{\text{CAF}} = 112 \mu\text{M}$)

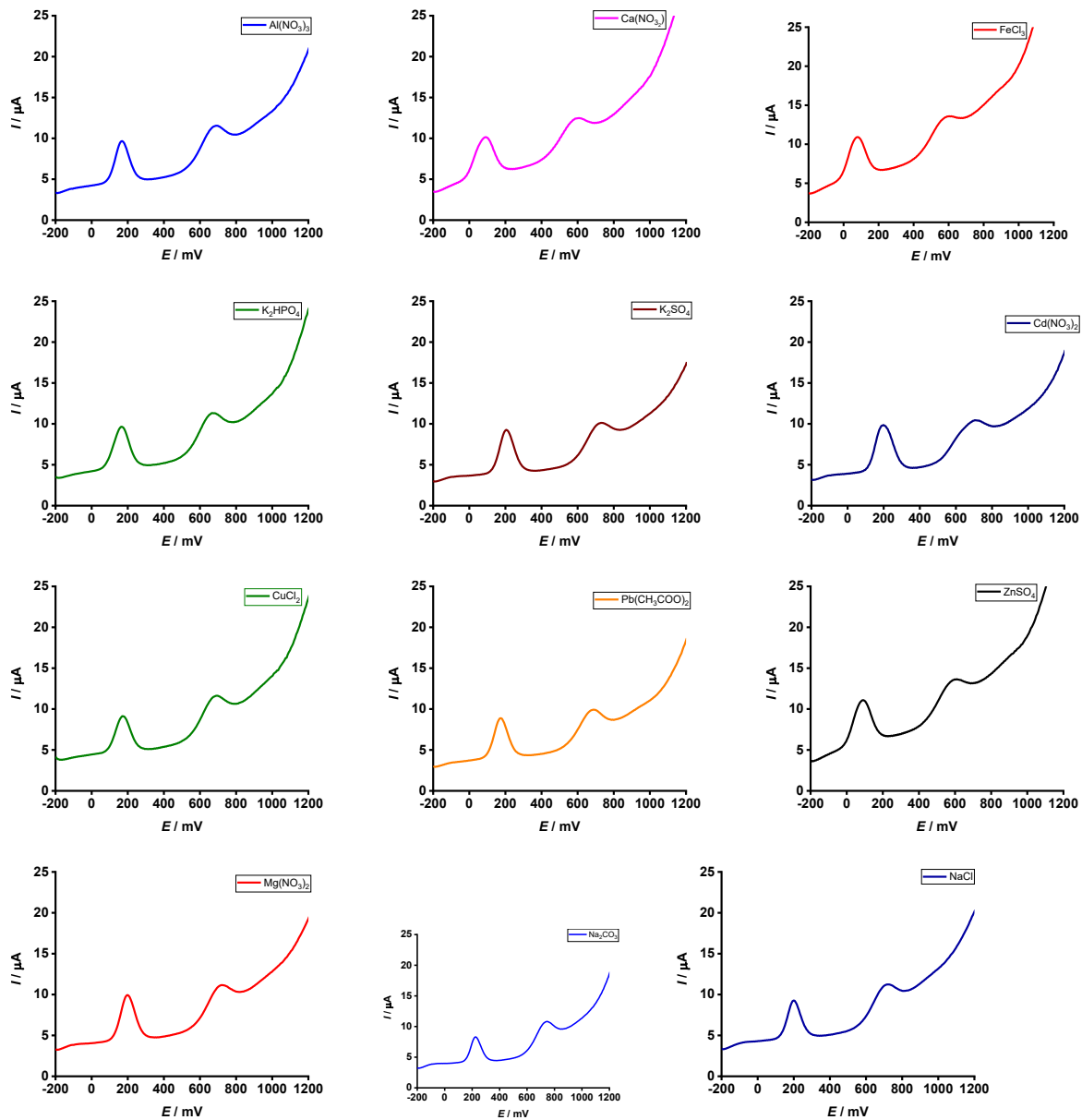


Figure S6. SQW-ASV curves of of AuNPs-rGO-GCE in which solution containing PAR, CPM, and various inorganic compounds, each at a concentration of $1120 \mu\text{M}$. ($E_{\text{acc}} = -900 \text{ mV}$, $t_{\text{acc}} = 30 \text{ s}$, $\Delta E = 30 \text{ mV}$, $U_{\text{Step}} = 6 \text{ mV}$, $\nu = 120 \text{ mV s}^{-1}$, $C_{\text{PAR}} = C_{\text{CPM}} = 28 \mu\text{M}$ BR buffer 0.05 M , $\text{pH } 7$).