

Fig. S1 Cyclic voltammograms of a bare GCE (a), a SA-700/GCE (b), a SA-800/GCE (c), a SA-900/GCE (d) and a SA-1000/GCE (e) at different scan rates in 1 M KCl containing 5 mM $\text{K}_3\text{Fe}(\text{CN})_6$. (f) Relationship between reduction peak current density and square root of scan rates.

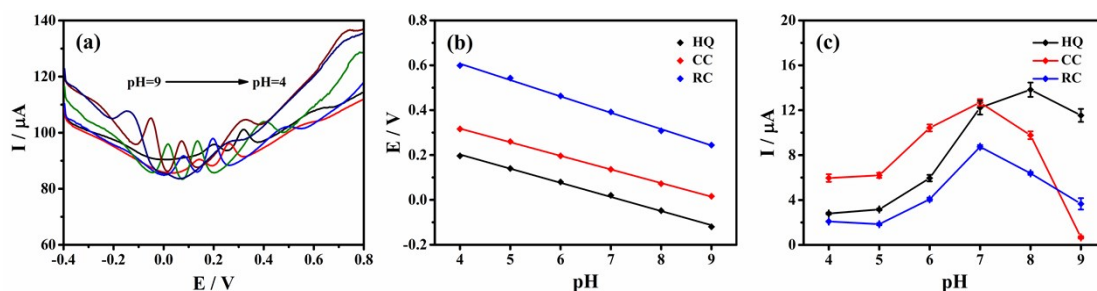


Fig. S2 (a) Square wave voltammograms of SA-900/GCE in the presence of 0.5 μM HQ, 0.5 μM CC and 5 μM RC at different pH values. (b) Plots of oxidation peak potential versus pH for the three analytes. (c) Effect of pH on the oxidation peak currents. The standard deviations of three measurements are represented by error bars.

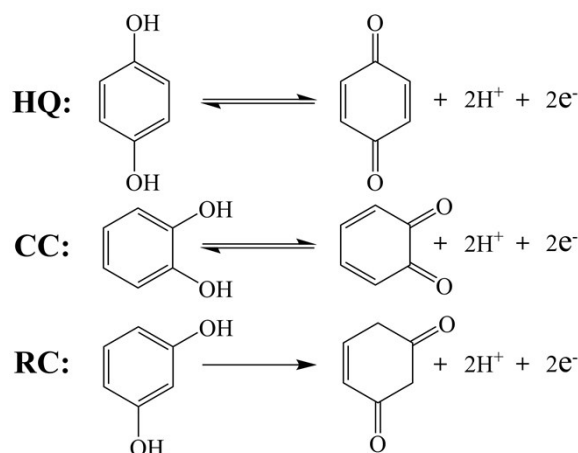


Fig. S3 Electrochemical reactions of HQ, CC and RC at SA-900/GCE.

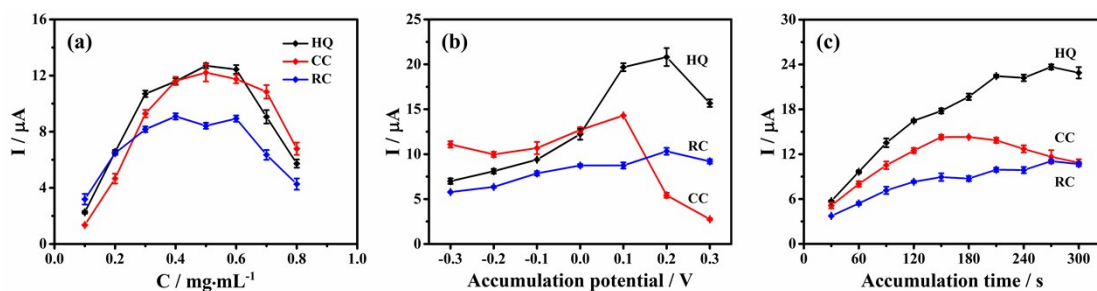


Fig. S4 Effect of SA-900 concentration (a), accumulation potential (b) and accumulation time (c) on the oxidation peak currents of $0.5 \mu\text{M}$ HQ, $0.5 \mu\text{M}$ CC and $5 \mu\text{M}$ RC on SA-900/GCE. The standard deviations of three measurements are represented as error bars.

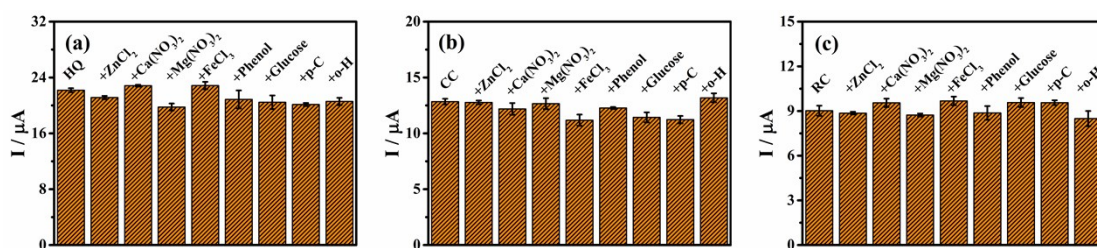


Fig. S5 Oxidation peak currents for (a) $0.5 \mu\text{M}$ HQ, (b) $0.5 \mu\text{M}$ CC and (c) $5 \mu\text{M}$ RC in the presence of other ions or organic compounds. p-C: p-chlorophenol, o-H: o-Hydroxyaniline.

Table S1 Parameters for SA-T characterized with N₂ adsorption-desorption method.

Samples	$S_{\text{BET}} / \text{m}^2\cdot\text{g}^{-1}$	$V_{\text{total}} / \text{cm}^3\cdot\text{g}^{-1}$	D_p / nm
SA-700	712.7	0.460	2.6
SA-800	860.6	0.642	3.0
SA-900	1572.4	1.198	3.0
SA-1000	1342.5	1.670	5.0

S_{BET} : specific surface area is calculated by Brunauer-Emmett-Teller (BET) method, V_{total} : total pore volume, D_p : Average pore diameter.