

-Supplementary Information-

Electrochemical behavior and simultaneous determination of catechol, resorcinol, and hydroquinone using thermally-reduced carbon nano-fragment modified glassy carbon electrode

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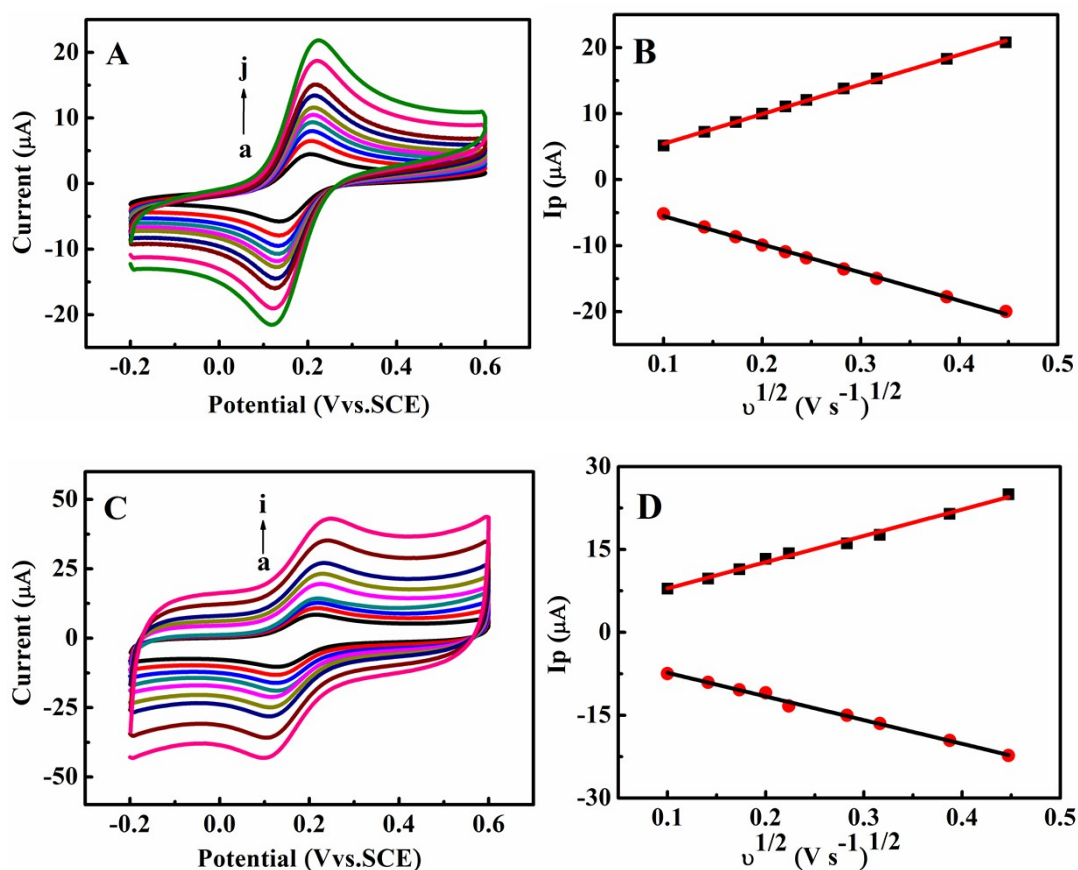


Figure S1. CV curves of the GCE in $1.0 \times 10^{-3} \text{ mol L}^{-1} \text{ K}_3\text{Fe(CN)}_6$ containing $0.1 \text{ mol L}^{-1} \text{ KCl}$ at different scan rates. Curves a to j are obtained at 10, 20, 30, 40, 50, 60, 80, 100, 150, and 200 mV s^{-1} , respectively. **(B)** The plots for the dependence of the peak current on scan rate of the GCE. **(C)** CV curves of the CNF/GCE in $1.0 \times 10^{-3} \text{ mol L}^{-1} \text{ K}_3\text{Fe(CN)}_6$ containing $0.1 \text{ mol L}^{-1} \text{ KCl}$ at different scan rates. Curves a to i are obtained at 10, 20, 30, 40, 50, 80, 100, 150, and 200 mV s^{-1} , respectively. **(D)** The plots for the dependence of the peak current on scan rate of the CNF/GCE.

Table S1. Comparison on the determination of three dihydroxybenzene isomers using different modified electrode.

Electrode	Linear (μM)			LOD (μM)			pH	Ref.
	CC	RC	HQ	CC	RC	HQ		
AgNPs/Pdop/Gr	0.5-240	-	-	0.1	-	-	ABS (pH 6.5)	[29]
PANi/Fe ₂ O ₃ /rGO	-	-	0.1-550	-	-	0.06	PBS (pH 2.5)	[30]
ZnS/NiS@ZnS/L-Cys/AuNPs	0.5-400		0.1-300	0.071		0.024	PBS (pH 7.5)	[17]
CMWNTs	5-80	-	10-120	1	-	2.3	PBS (pH 7.0)	[31]
CS/MWCNTs/PDA/Au NPs	0.1-10		0.1-10	0.047		0.035	PBS (pH 6.0)	[24]
GR/MWCNTs/BMIM ₆	0.2-660	-	0.5-2900	0.06	-	0.1	PBS (pH 7.0)	[22]
GR/TiO ₂	0.5-100	-	0.5-100	0.087	-	0.082	PBS (pH 7.0)	[27]
CNTs array	1-100	6-100	1-100	0.2	0.6	0.3	ABS (pH 5.4)	[32]
CdS/r-GO	0.5-1350	1-500	0.2-2300	0.09	0.23	0.054	PBS (pH 7.0)	[33]
CNF	2-200	-	6-200	0.1	-	0.25	ABS (pH 5.9)	[34]
CNF	1-250	1-200	5-300	0.5	0.8	0.4	ABS (pH 6.0)	This work