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## **Supporting information**

## $CoFe_2O_4$ supported g- $C_3N_4$ nanocomposite for sensitive electrochemical detection of dopamine

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## Instrumental Characterizations.

The surface morphology and the elemental composition of the synthesized samples were studied utilizing electron microscope (JSM-6510 LV series), energy dispersive X-ray spectroscopy (JOEL serive advanced Technology). Phase configuration was identified using Bruker (XRD, Rigaku D/maxB, DMX-2200). X-ray photoelectron spectroscopy ESCA/Auger Laboratory (National Taiwan University, Taiwan) was applied to quantitatively analyse the chemical composition of the materials while the electrochemical properties were explored using electrochemical impedance spectroscopy (EIS) through Autolab.



Fig. S1. Bare diagram for rotation speed versus response time.



Fig. S2. The CVs of DA with the co-presence of AA and UA.

Samples	Added (nM)	Found (nM)	Recovery	RSD (%)
			(%)	
Urine	5	4.955	99.10	1.47
	10	9.921	99.21	1.59
Blood serum	0.15	0.148	98.66	2.14
	0.3	0.295	98.33	1.84

S-Table 1. Real sample analysis