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Supporting Information

Highly Stable Copper Nano Cluster on Nitrogen-Doped Graphene Quantum Dots for the Simultaneous Electrochemical Sensing of Dopamine, Serotonin, and Nicotine; a Possible Addiction Scrutinizing Strategy

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Content list

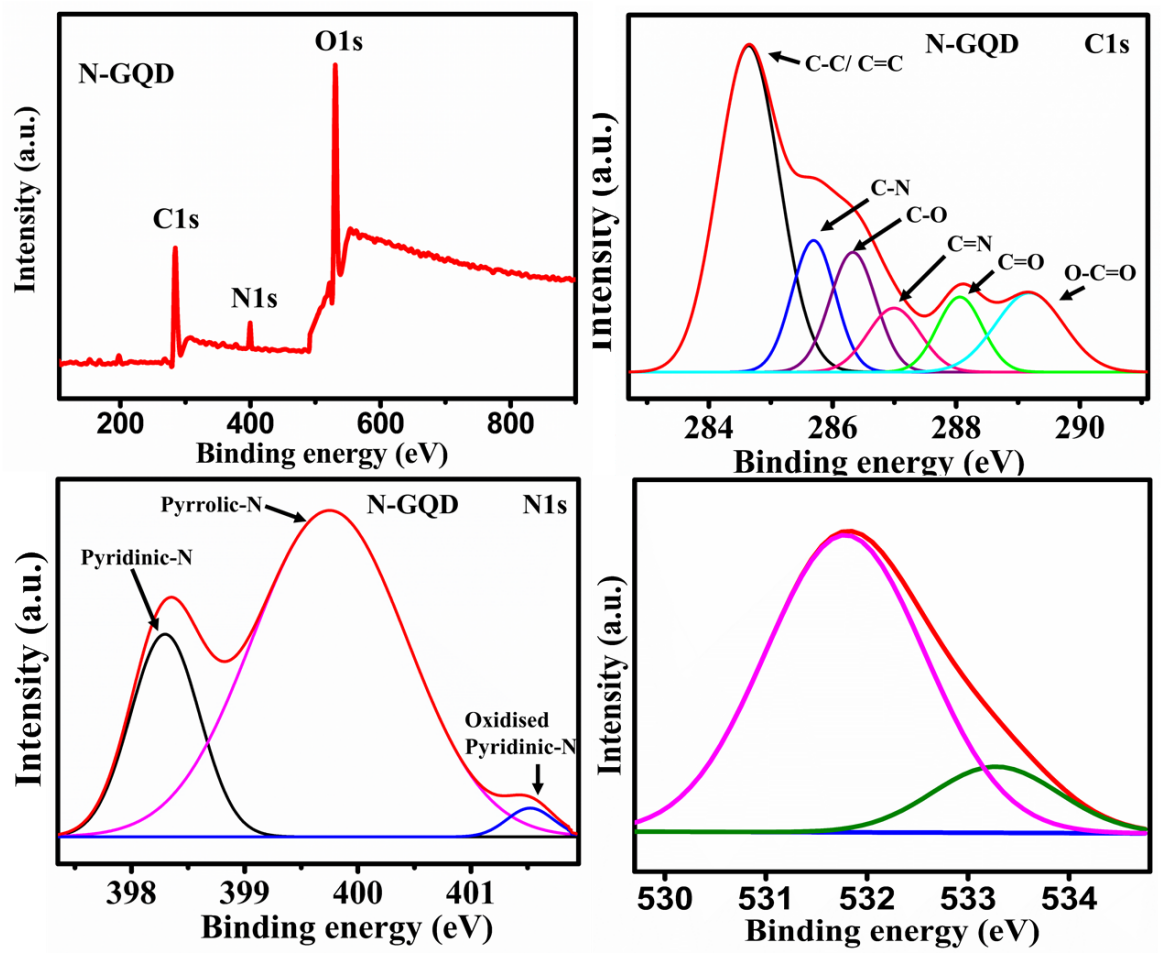

Figure S1. (A) The XPS (Survey) spectra of N-GQD; (B, C and D) the high resolution XPS spectra of the C 1s, N 1s and O1s of N-GQD

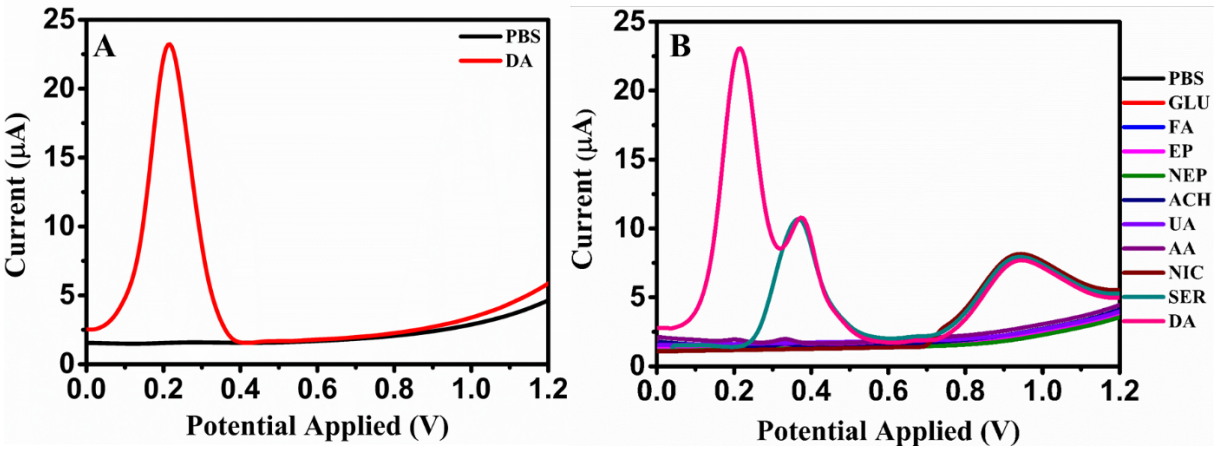

Figure S2. (A) The preliminary sensing studies of CuNC@N-GQD/GCE towards 1 mM DA **(B)** The preliminary sensing studies of CuNC@N-GQD/GCE towards 1 mM each of glucose (GLU), Folic acid (FA), epinephrine (EP), nor-epinephrine (EP) acetylcholine (ACH), uric acid (UA), ascorbic acid (AA), NIC, SER and DA

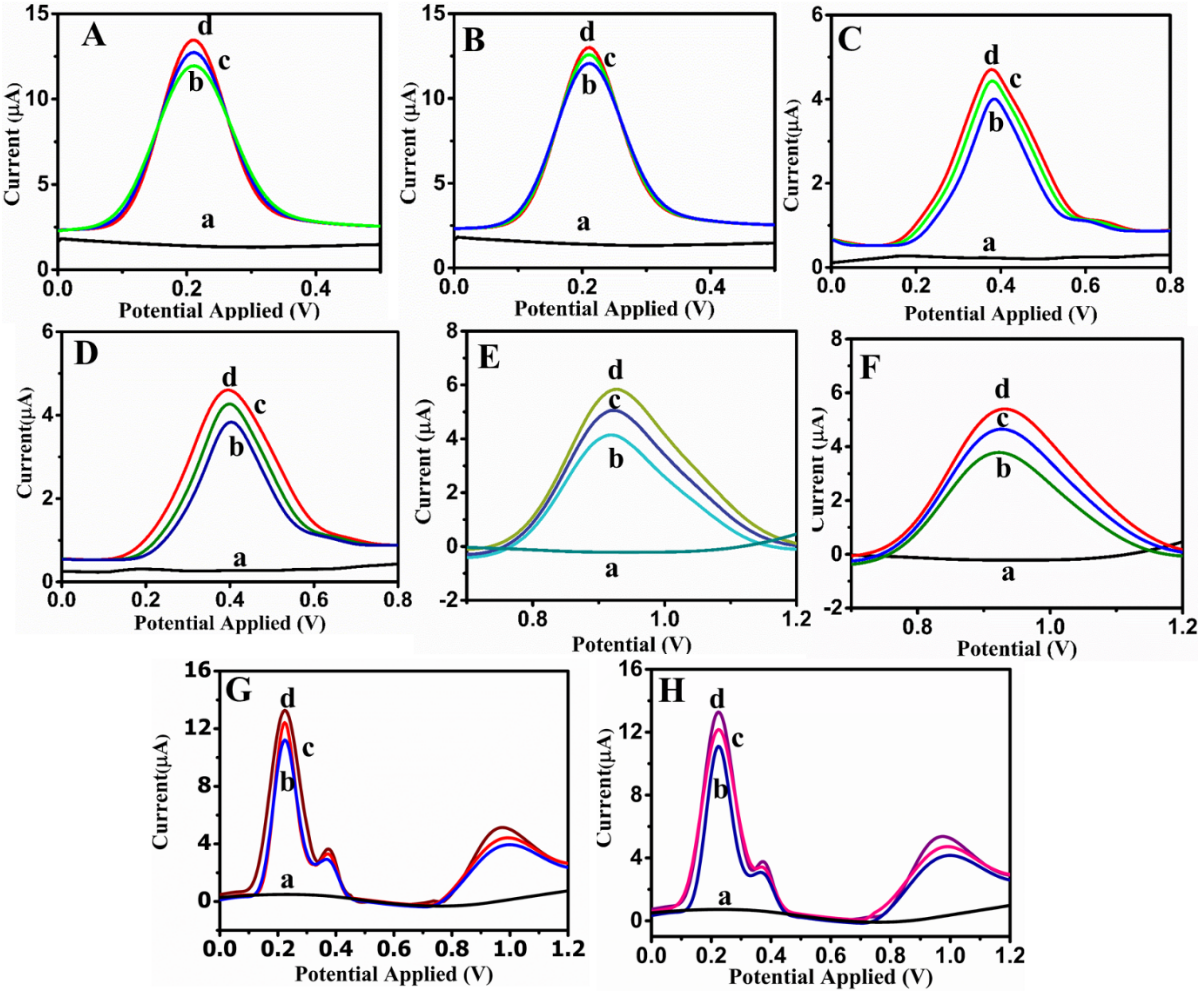

Figure S3. The DPV responses of (a) 0.1 M PBS, (b) 0.5 μM, (c) 1 μM and (d) 2 μM each of DA, SER and NIC (A, C and E) in blood, and (B, D and F) in urine respectively; The DPV responses of (a) 0.1 M PBS, (b) 0.5 μM, (c) 1 μM and (d) 2 μM of DA, SER and NIC simultaneously in (G) blood and (H) urine respectively

Preparation of electrolyte (0.1 M PBS)

The 0.1 M PBS buffer solution with pH 7 was prepared by mixing of standard stock solutions of 0.1 M sodium dihydrogen phosphate monohydrate (M=137.99 g/mol, 3.45g in 250 mL) and 0.1 M disodium hydrogen phosphate dehydrate (M=178.00 g/mol, 4.45 g in 250 mL) in suitable amounts.