

Supplementary Information (SI)

Sensitive determination of tannic acid using blue luminescent graphene quantum dots as fluorophore

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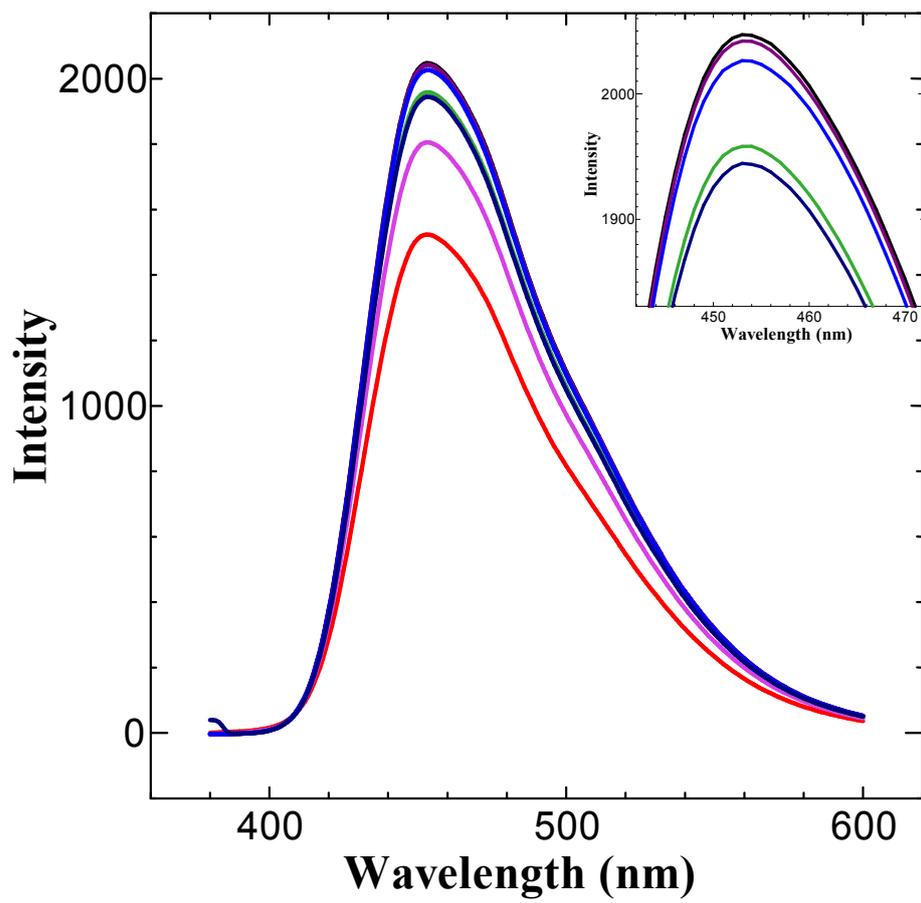


Figure S1. Emission spectra of GQDs with various excitation values and maximum emission at 365nm

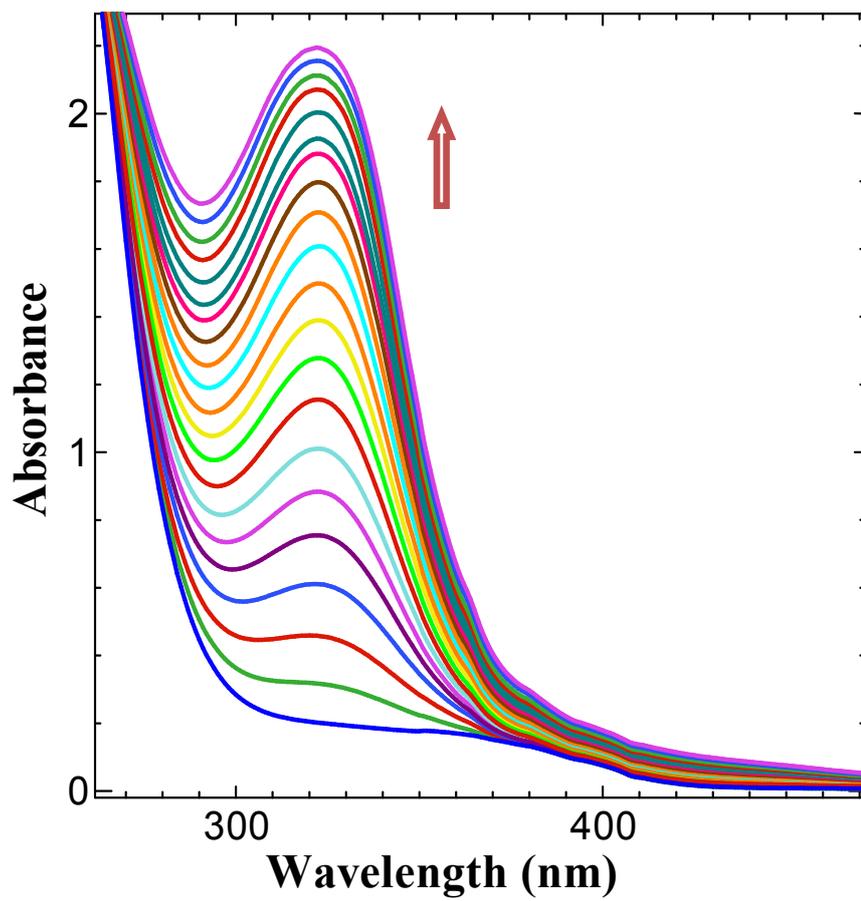


Figure S2. UV-vis spectra of GQDs (0.4mg/ml) with various concentration of TA: (a) 0, (b)1, (c) 2, (d) 3, (e) 4, (f) 5, (g) 6, (h) 7, (i) 8, (j) 9, (k) 10, (l) 11, (m) 12, (n) 13, (o) 14, (p) 15, (q) 16 (r)16, (s)17, (t)18, (u)19, (v)20 μ M

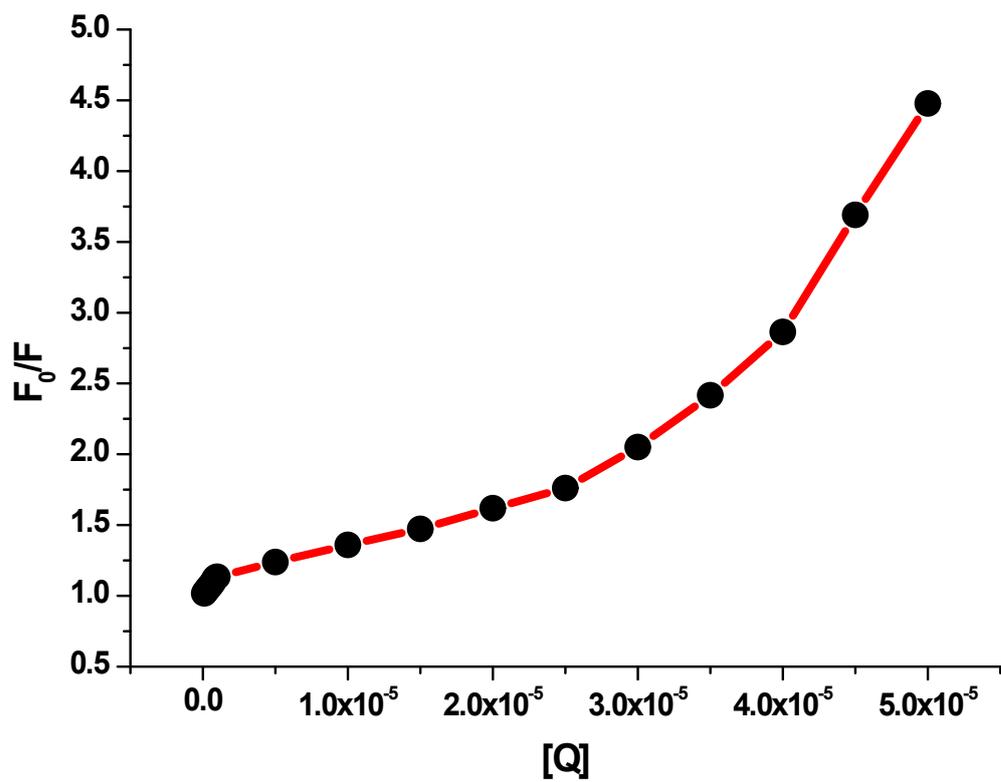


Figure S3. Stern-Volmer plot for fluorescence quenching of GQDs in the presence of TA.

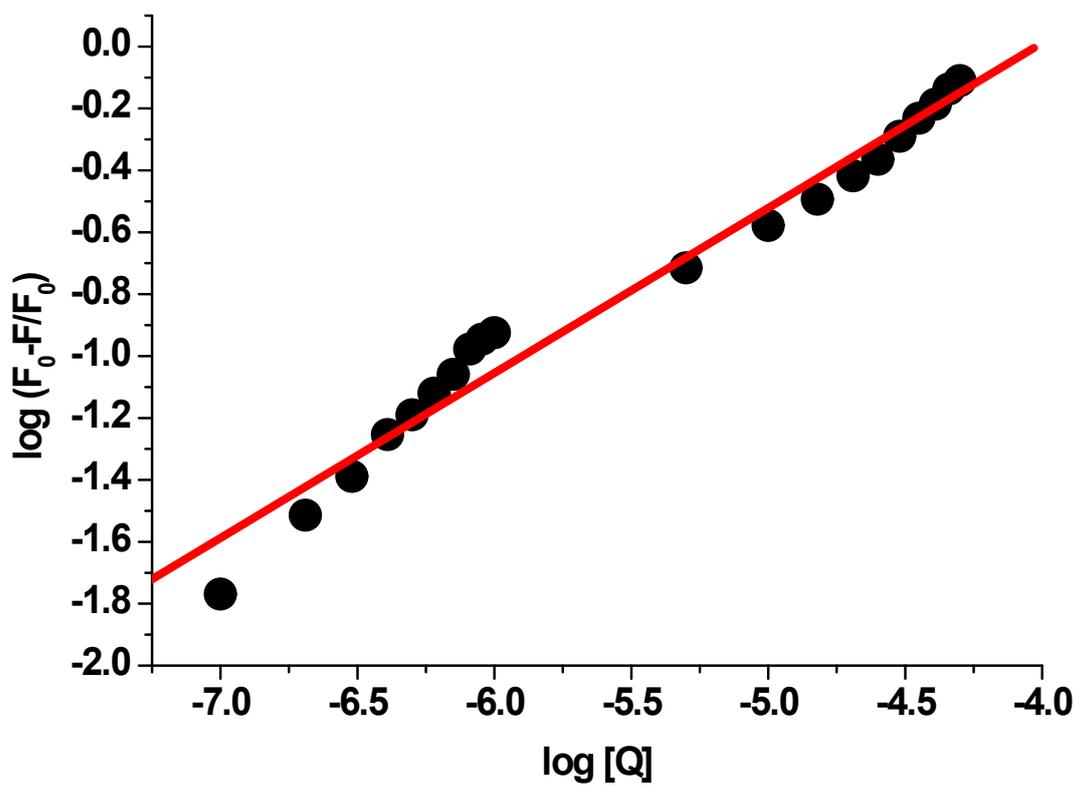


Figure S4. Binding constant plot for fluorescence quenching of GQDs in the presence of TA.

Table S1.

Determination of TA in beer samples

Beer added ($\mu\text{L}/2\text{ ml}$)	Equivalent TA concentration (μM)	TA found ($\mu\text{g}/\text{ml}$)	TA found in HPLC method ($\mu\text{g}/\text{ml}$)
10	2.8	9.49	9.12
20	4.1	9.54	9.31