

Electronic Supplementary Information

Molecularly Imprinted Polymer-Capped Nitrogen-Doped Graphene Quantum Dots as a Novel Chemiluminescence Sensor for Selective and Sensitive Determination of Doxorubicin

Mohammad Amjadi* and Roghayeh Jalili

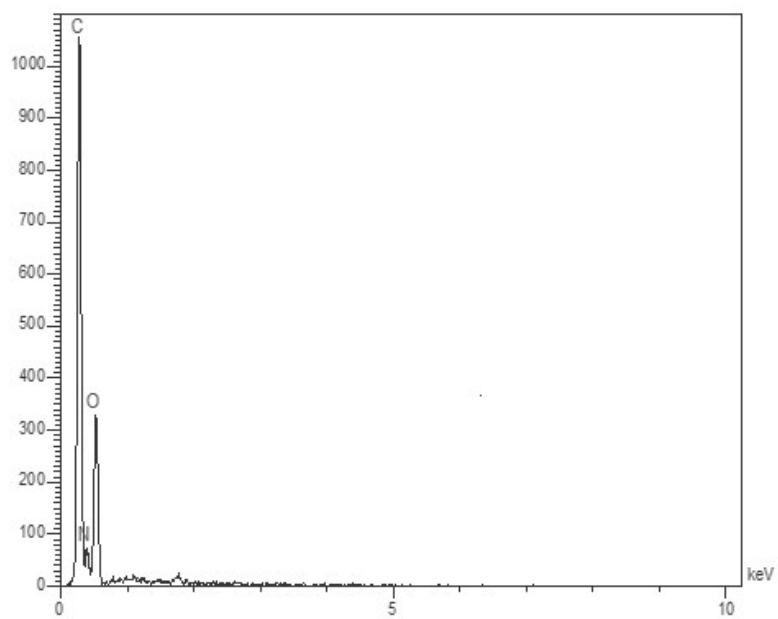


Fig.S1. EDX spectrum of NGQDs.

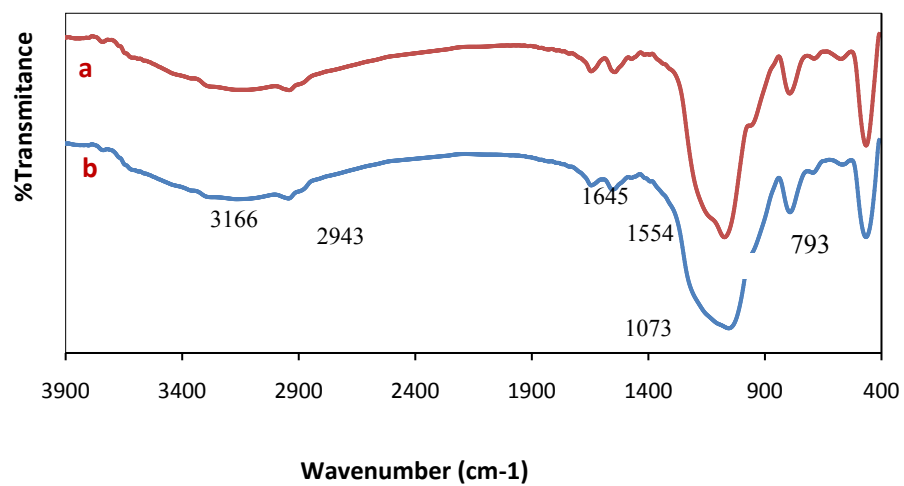


Fig.S2. FT-IR spectra of MIP@NGQDs(a) and MIP@NGQDs(b)

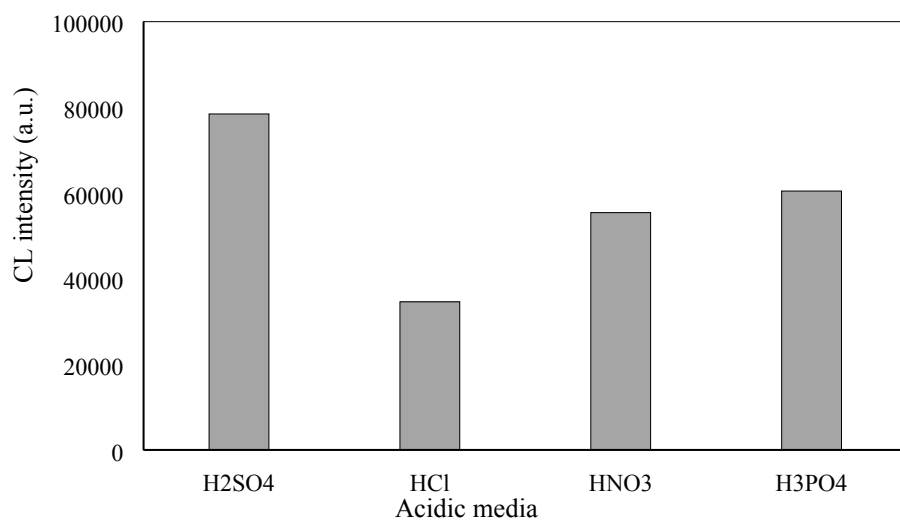


Fig. S3. Optimization of acidic media, reaction conditions: (0.5 Mmol/L of H₂SO₄, HCl, HNO₃, H₃PO₄). MIP@NGQDs, 12.5 mg L⁻¹, KMnO₄, 0.5 mM.

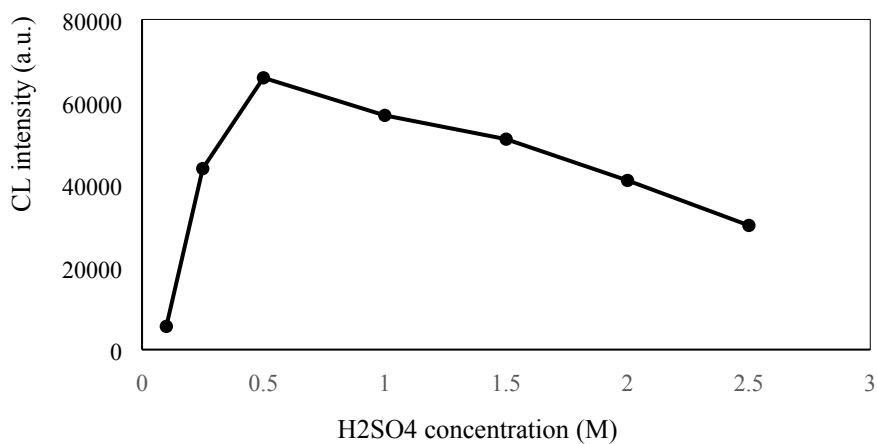


Fig.S4. Optimization of H₂SO₄ concentration. .Conditions: MIP@NGQDs, 12.5 mg L⁻¹, KMnO₄, 0.5 mM.

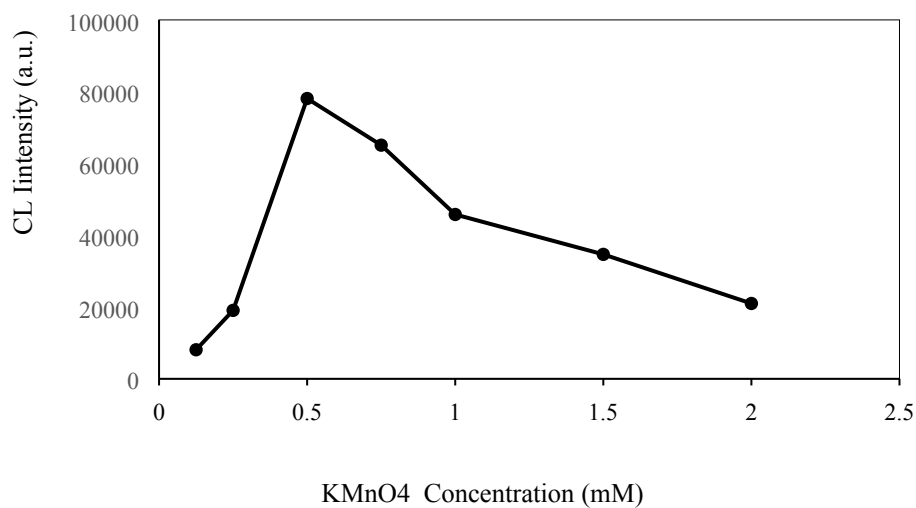


Fig.S5. Optimization of KMnO₄ concentration. Conditions: MIP@NGQDs, 12.5 mg L⁻¹, H₂SO₄, 0.5 M.

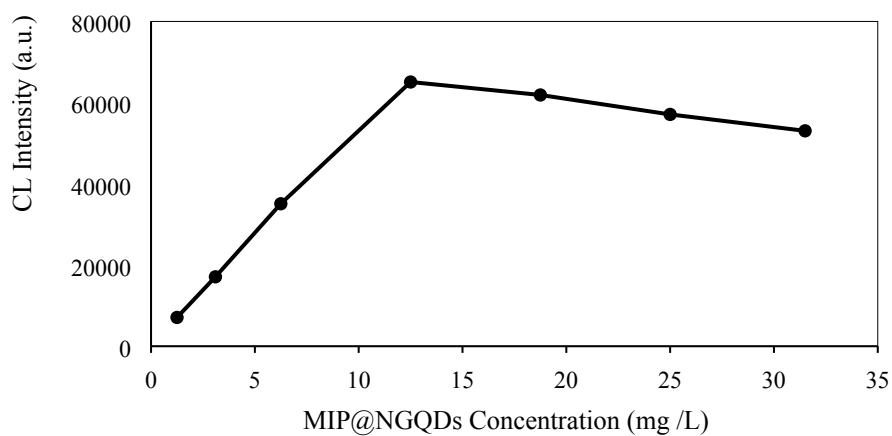


Fig.S6. Optimization of MIP@NGQDs concentration..Conditions: KMnO₄, 0.5 mM, H₂SO₄, 0.5 M.

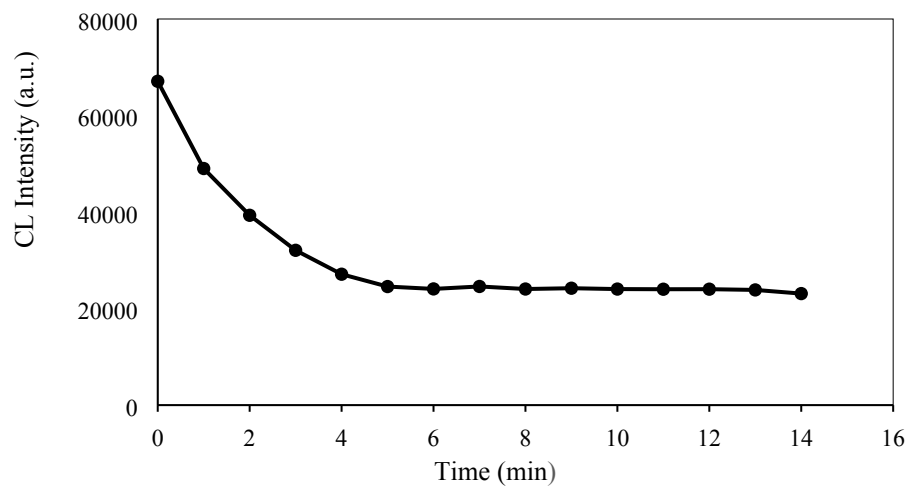


Fig. S7. Kinetic uptake of DOX molecules on to MIP@NGQDs. The concentration of DOX was $100 \mu\text{g L}^{-1}$. Conditions: DOX, $100 \mu\text{g L}^{-1}$, MIP@NGQDs, 12.5 mg L^{-1} , H_2SO_4 , 0.5 M , KMnO_4 , 0.5 mM .

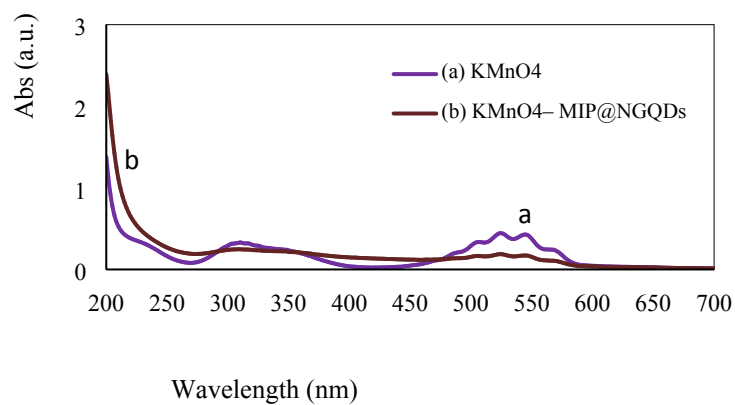


Fig.S8. UV-vis absorption spectra of the KMnO_4 - MIP@NGQDs CL system measured (a) before and (b) after the CL reaction (recorded 30 sec after mixing). Conditions: MIP@NGQDs, 25 mg L^{-1} , H_2SO_4 , 1M, KMnO_4 , 1 mM.

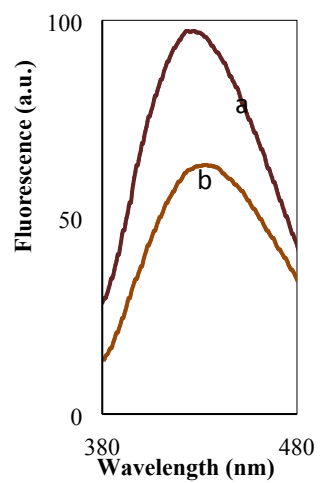


Fig.S9. Fluorescence emission spectra of MIP@NGQDs before (a) and after addition of 0.5 mg L⁻¹ of DOX (b). Conditions: $\lambda_{ex} = 360$ nm, MIP@NGQDs 12.5 mg L⁻¹.