Electronic Supporting Information

Development of a Novel Fluorescence Ratiometric Glucose Sensor based on Carbon Dots and Potencial Fluorophor m-Dihydroxybenzene

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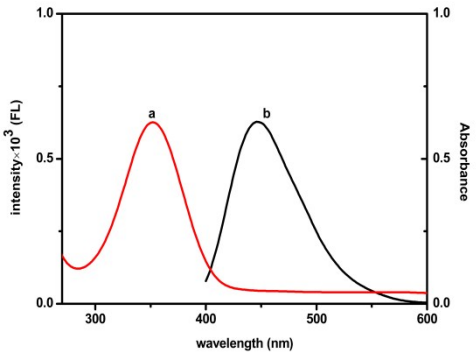

Fig. S1 The UV spectrum (a) and fluorescence spectrum (b) of carbon dots.

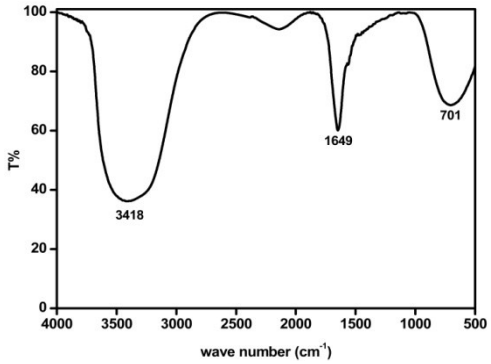

Fig. S2 Infrared spectrum of carbon dots.

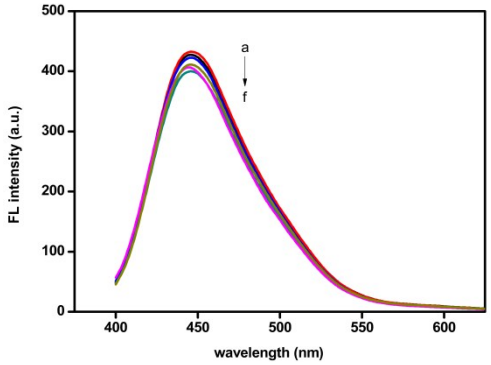

Fig. S3 The fluorescence spectra of 0.01 mg/ml CDs solution at different time (a→h: 0, 1, 2, 3, 6, 9 months).

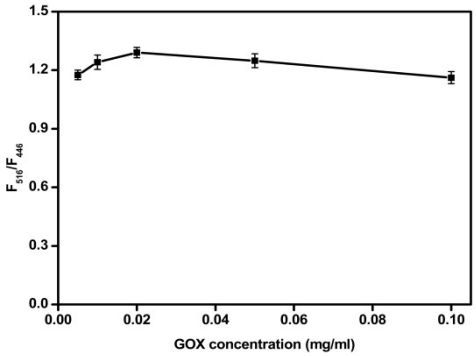

Fig. S4 The optimization of GOX concentration, and the final concentration of GOX are 0.005, 0.01, 0.02, 0.05, 0.1mg/ml, respectively, (C_{CDs} = 0.01mol/L, $C_{glucose}$ = 200 μM, C_{mDHB} = 500μM) .

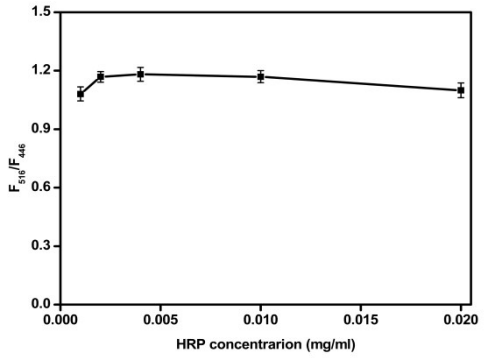

Fig. S5 The optimization of HRP concentration, and the final concentration of HRP are 0.001, 0.002, 0.004, 0.01, 0.02 mg/ml, respectively, (C_{CDs} = 0.01mol/L, $C_{glucose}$ = 200 μM, C_{mDHB} = 500μM).

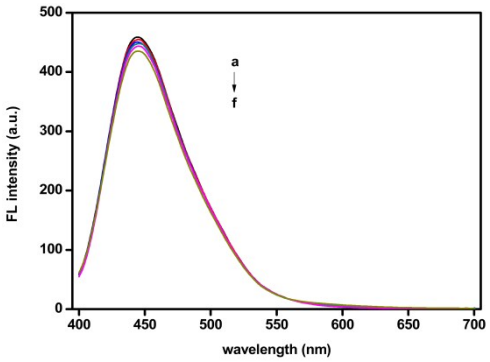

Fig. S6 Fluorescence spectra of CDs with different concentrations of mDHB, and the final concentrations of mDHB were 50μM, 100μM, 250μM, 500μM, 1000μM, respectively (C_{CDs} = 0.01 mg/ml).