

“On-off-on” fluorescent probes based on nitrogen-doped carbon dots
for hypochlorite and bisulfite detection in living cells

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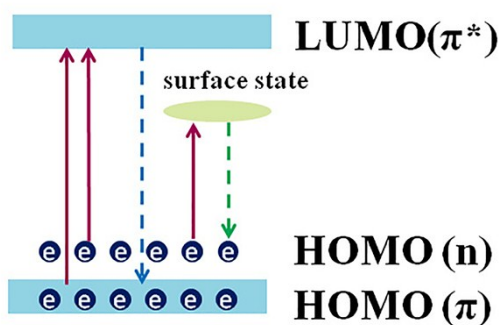


Figure.S1 Illustration of the tunable PL emission from surface state of N-CDs.

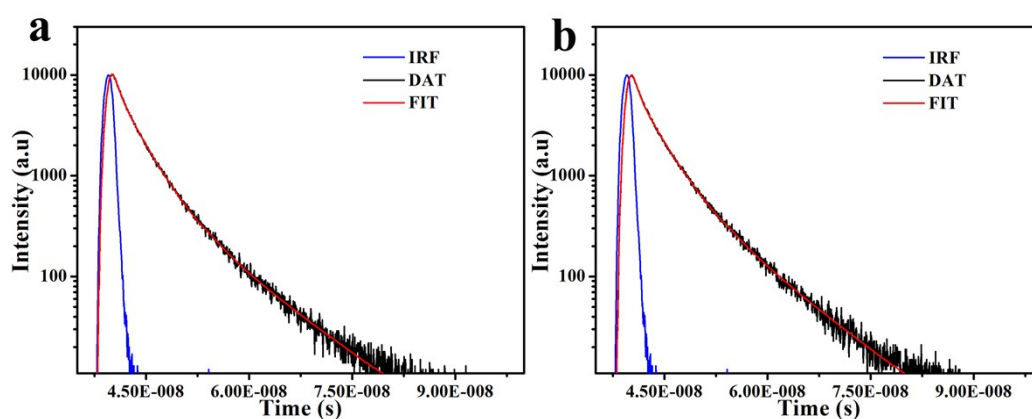


Figure.S2 (a) Fluorescence lifetime of N-CDs, (b) Fluorescence lifetime of N-CDs with ClO^- .

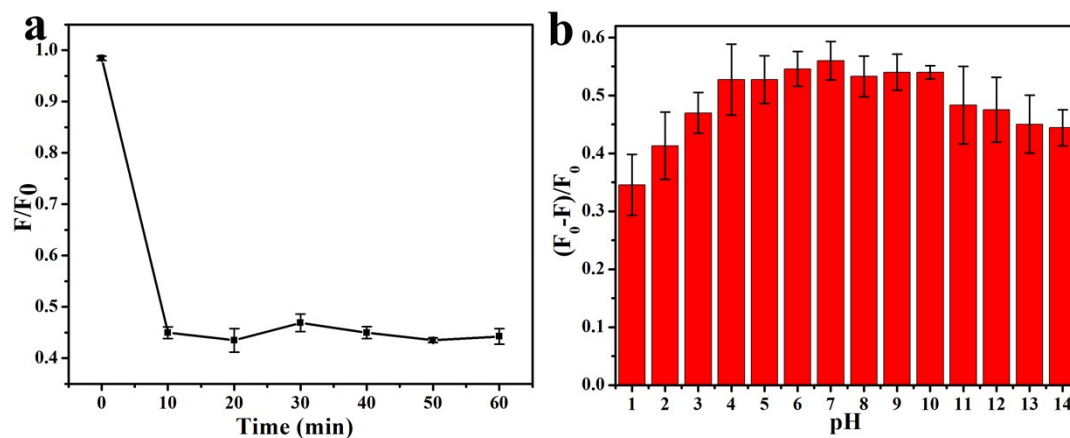


Figure.S3 (a) Response time of the N-CDs with ClO^- , (b) pH-dependent of the N-CDs with ClO^- .

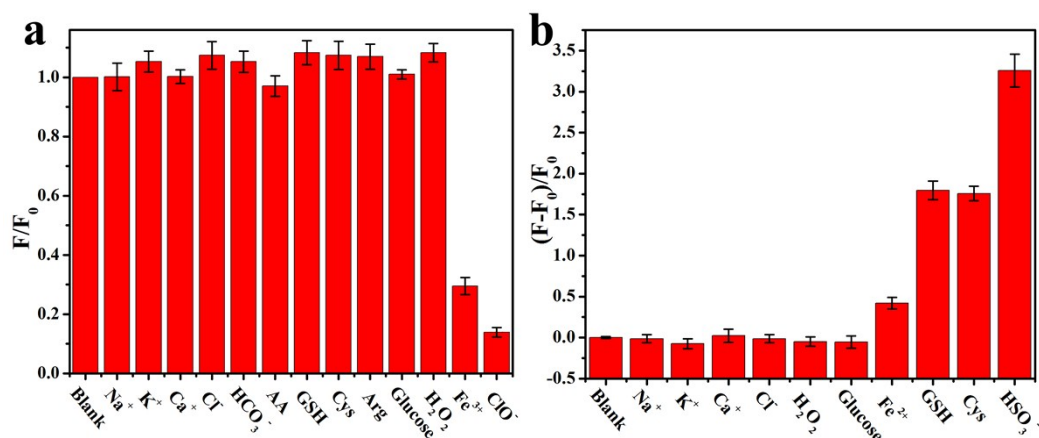


Figure .S4 (a) Selective PL response of N-CDs aqueous solution towards ClO^- . (b) Selectivity of N-CDs / ClO^- to HSO_3^- .

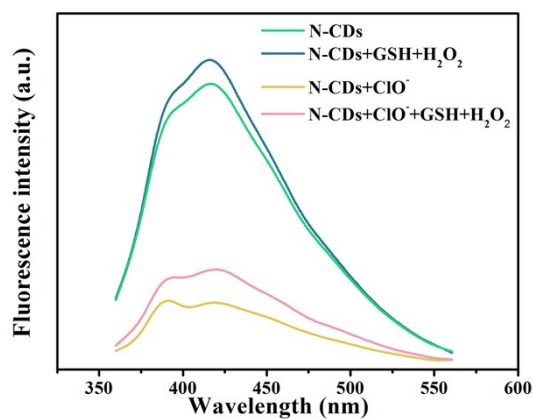


Figure .S5 Fluorescence spectra of N-CDs (green), N-CDs+GSH+ H_2O_2 (blue), N-CDs+ ClO^- (brown) and N-CDs+ ClO^- + H_2O_2 +GSH (pink)

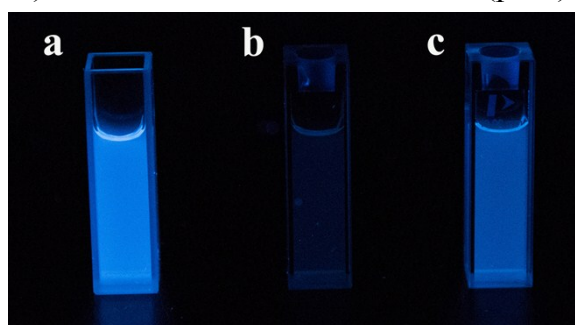


Figure S6 (a) The photo of N-CDs fluorescence, (b) N-CDs fluorescence quenched by ClO^- , (c) N-CDs fluorescence recovered by HSO_3^- .

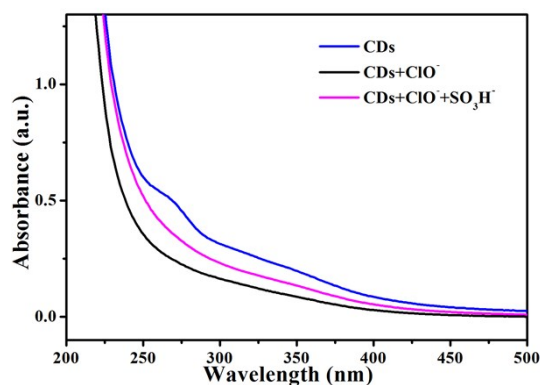


Figure.S7 UV-vis absorption of N-CDs (blue), N-CDs with ClO⁻ (black) and N-CDs with ClO⁻ and HSO₃⁻ (pink).

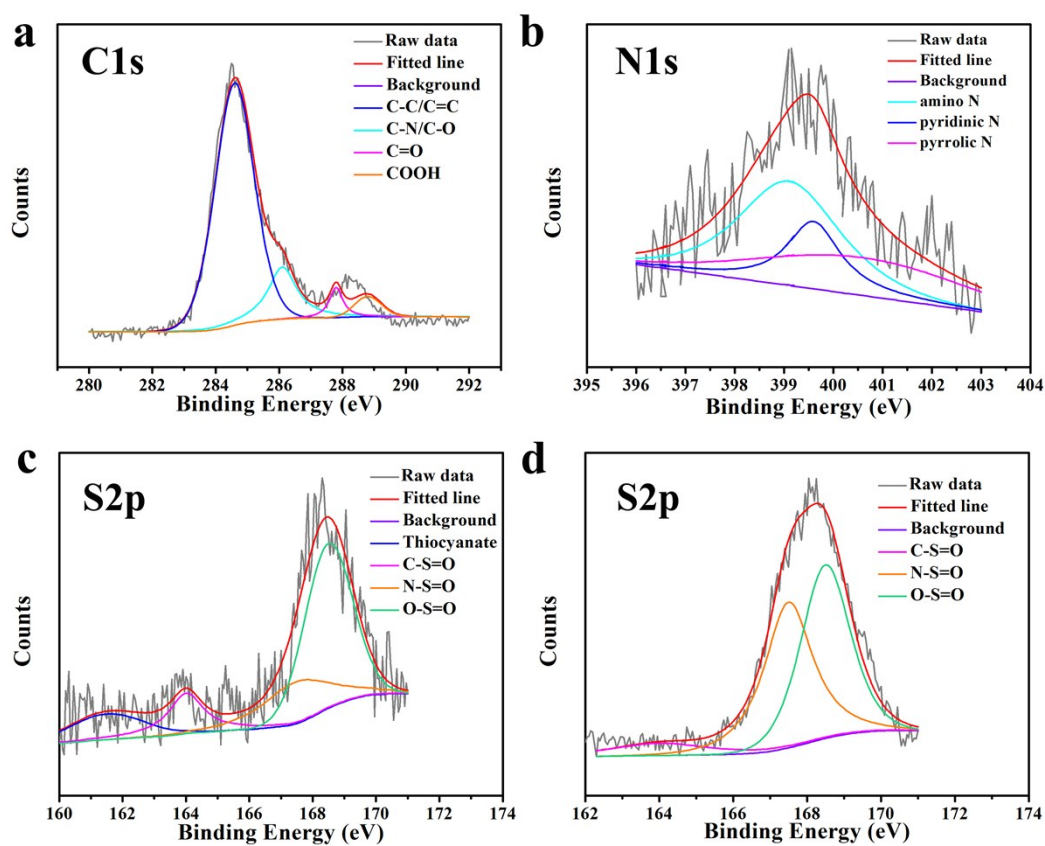


Figure.S8 (a) High-resolution XPS C1s, (b) N1s and (c) S2p of N-CDs with ClO⁻ S2p, (d) S2p of N-CDs/ClO⁻ with HSO₃⁻.