Supplementary Information

Novel fluorescence sensor for the selective recognition of tetracycline based on molecularly imprinted polymer-capped N-doped carbon dots

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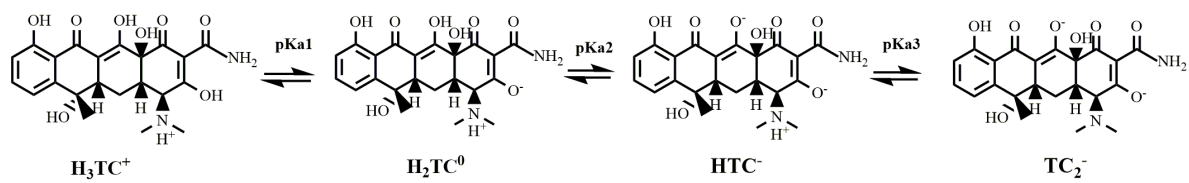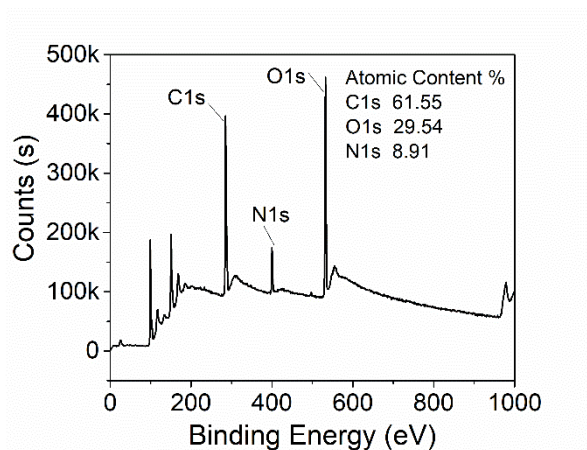
Fig. S1 pH-dependent speciation of TC

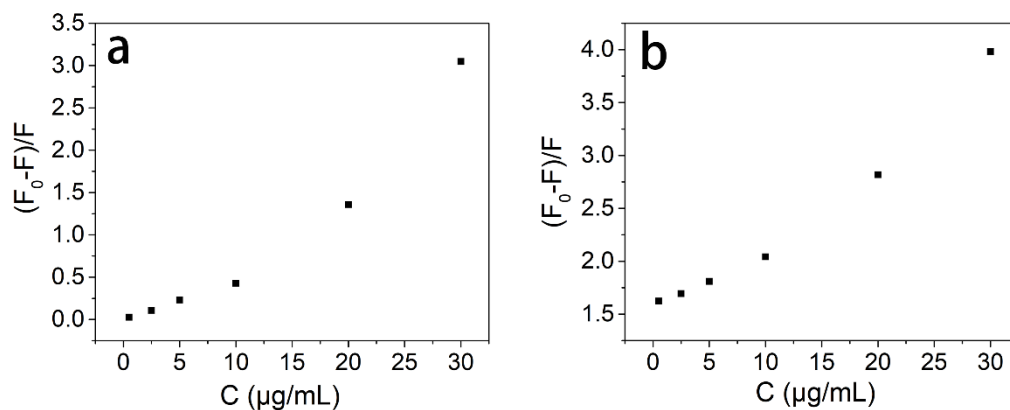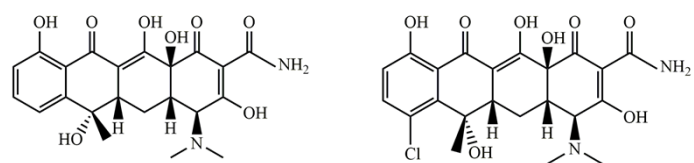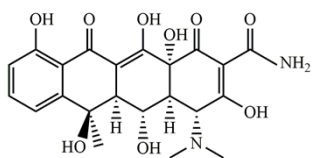**Fig. S2** The full-scan XPS spectra in N-CDs

Fig. S3 The relationship between $(F_0-F)/F$ of CDs-MIPs (**a**), CDs-NIPs (**b**) and concentrations of TC (0.5, 2.5, 5, 10, 20, 30 μg mL^{-1}). F and F_0 indicate the fluorescence intensity signals with and without TC, respectively. The emission intensity signals at 455 nm (λex=360 nm) with the voltage of 600 V has been experimented.

Fig. S4 Chemical structures of TC, CTC and OTC.

Table S1 The strength of the peaks of XPS for CDs-MIPs.

Name	Peak BE	Height CPS	FWHM eV	Area (P) CPS.eV	Atomic %
C1s	285.87	25599.94	3.24	89824.42	23.33
N1s	399.21	940.02	1.41	5004.1	0.84
O1s	532.46	272135.46	1.6	498343.93	53.55
Si2p	102.97	44576.26	1.74	86146.71	22.28

Table S2 The strength of the peaks of XPS for CDs-MIPs+TC.

Name	Peak BE	Height CPS	FWHM eV	Area (P) CPS.eV	Atomic %
C1s	285.85	28170.56	2.11	94191.18	24.33
N1s	399.99	978.64	0.34	4992.91	0.83
O1s	532.37	262606.78	1.66	501585.08	53.59
Si2p	102.9	40691.48	1.8	82593.53	21.25