Supplementary Materials

Sensitive, selective and reliable detection of Fe^{3+} in lake water *via* carbon dots-based fluorescence assay

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Keywords: Fe^{3+}; fluorescence sensing; carbon dots; lake water; limit of detection

Table S1. A summary of the representative reports in which C-dots based fluorescence assays were applied for Fe^{3+} detection

	Carbon precursor[a)]	LOD (μmol/L)	Linear range (μmol/L)	Natural water sample testing	Ref[b)].
1	Folic acid and NAAMDS	30	100-1000	-	[24]
2	CA and DHP	20	20-200	-	[25]
3	Alginic acid and EDA	10.98	0−50	Yes	[26]
4	Cranberry beans	9.55	30-600	Yes	[27]
5	L-Glutamic acid	4.67	0-50	-	[28]
6	A-lipoic acid	4	25-500	-	[29]
7	CA and EDA	2.37	1600-6000	-	[30]
8	M-aminobenzoic acid	0.05	0-1.6	Yes	[31]
9	L-lactic acid and EDA	1.89	0-200	-	[32]
10	DL-malic acid, EDA and EA	0.8	6-200	-	[33]
11	Snake gourd peels	0.398	10-100	-	[34]
12	Orange peel	0.25	0.5-1000	-	[35]
13	Dopamine	2.86	5-200	Yes	[36]
14	Trisodium citrate and chicken blood	0.23	0-100	Yes	[37]
15	CA and EDA	1.68	0-250,250-1200	Yes	**This work**

[a)]NAAMDS:N-(β-aminoethyl)-γ-aminopropyl methyl dimethoxy silane; CA: citric acid; DHP: diammonium hydrogen phosphate; EDA: ethylenediamine; EA: ethane-sulfonic acid;

[b)] The number of the references in the table is in consistent with the main text.

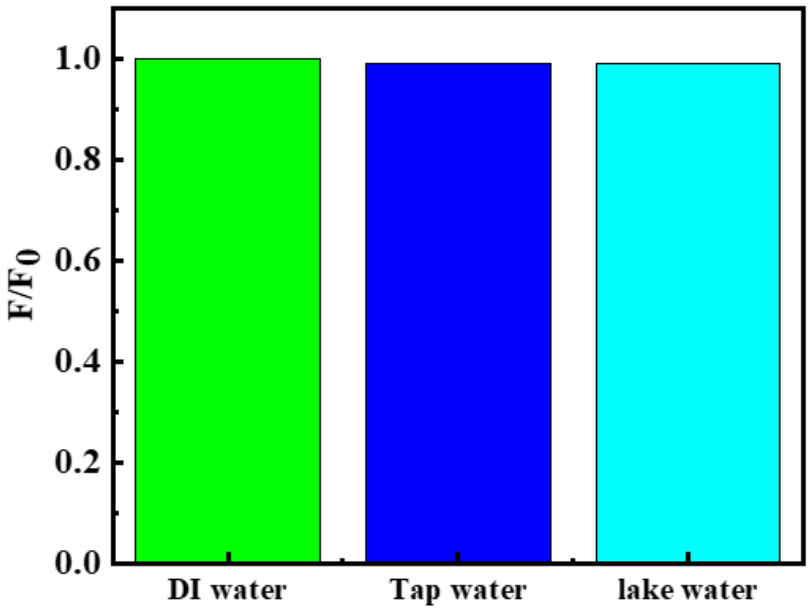

Figure S1 The normalized fluorescence intensities of C-dots dispersions in DI water (green column), tap water (blue column) and lake water (turquoise column), respectively.