Supporting information

"On–off–on" fluorescent sensor based on Ti_3C_2 quantum dots and CoOOH nanosheets for the detection of ascorbic acid

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Fig. S1. Graphs of XPS for Ti_3C_2 QDs.

Fig. S2. Research on the stability of Ti_3C_2 QDs, including temperature, time and pH.

Fig. S3. Research on the effect of Co^{2+} on the fluorescence of Ti_3C_2 QDs.

Table S1. Comparison of quantum yields in different reports.

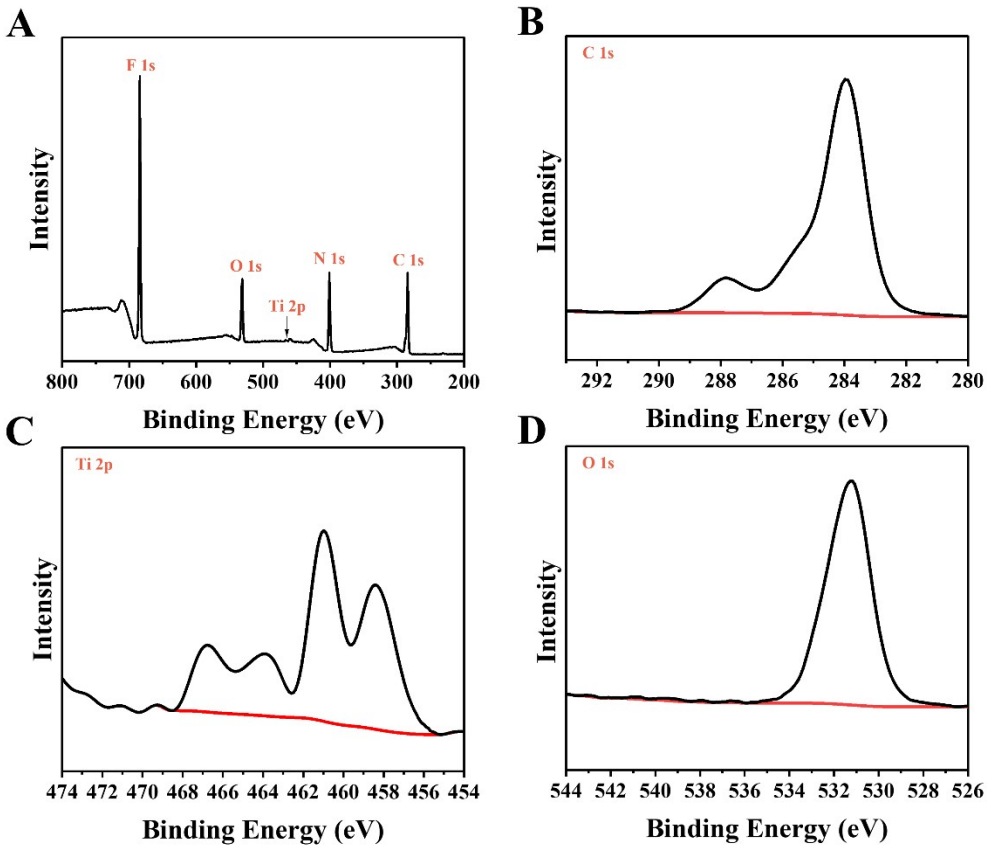

Fig. S1. Graphs of XPS for Ti_3C_2 QDs. (A) fully scanned spectra (B) C 1s spectrum of Ti_3C_2 QDs. (C) Ti 2p (D) O 1s spectrum of Ti_3C_2 QDs.

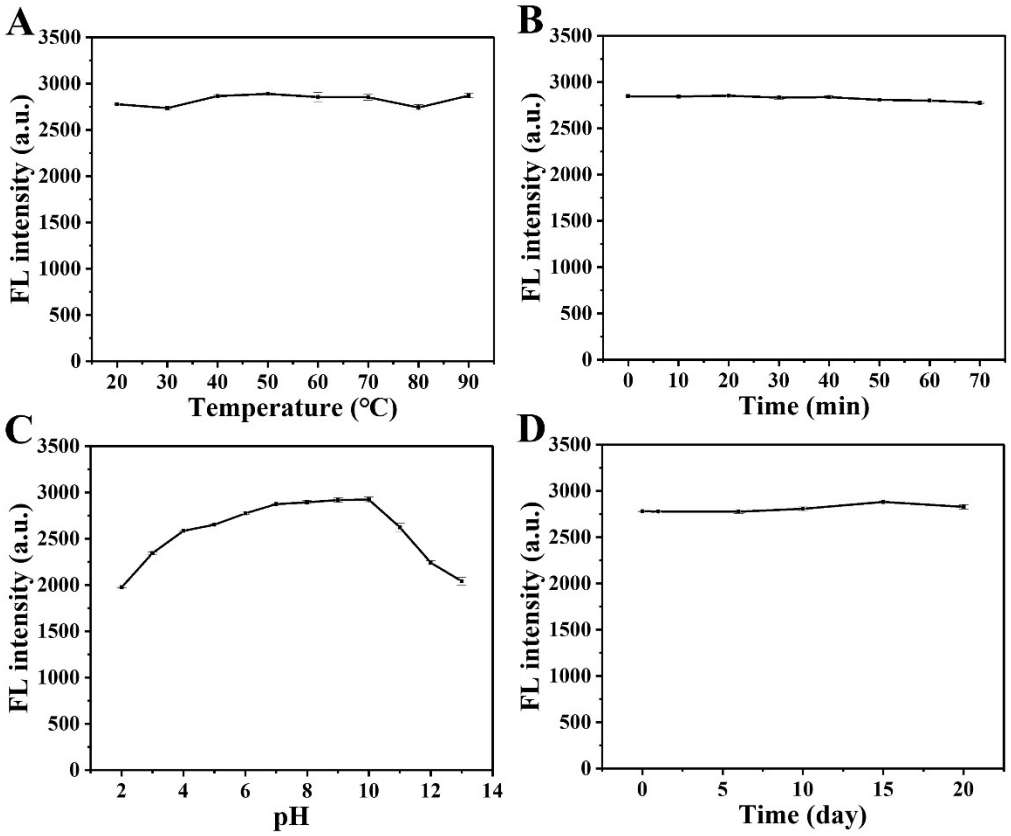

Fig. S2. The FL intensity of Ti_3C_2 QDs changes with (A) temperature, (B) time (under 365 nm ultraviolet light), (C) pH and (D) time (stored in a refrigerator at 4 ℃).

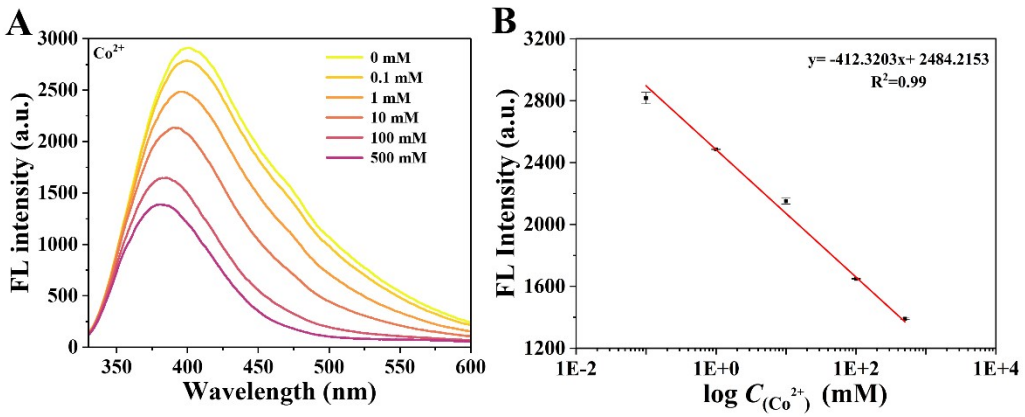

Fig. S3. (A)The effect of different concentrations of Co^{2+} on the fluorescence of Ti_3C_2 QDs. (B) Linear relationships between the fluorescence of Ti_3C_2 QDs and the concentration of Co^{2+}.

Table S1 Comparison of quantum yields in different reports.

Materials	Quantum yields (%)	References
Ti_3C_2 QDs	18.7	[1]
Ti_3C_2 QDs	10	[2]
Ti_3C_2 QDs	9.36	[3]
Ti_3C_2 QDs	7.13	[4]
Ti_3C_2 QDs	8.5	This work

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