Electronic Supplementary Material (ESI) for RSC Advances.

A highly sensitive and selective on-off fluorescent sensor based on complex of Polyschiff-Fe^{2+} for Cr(VI) detection in the aqueous medium

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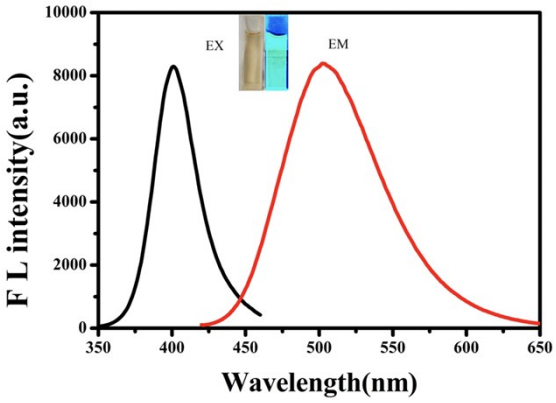

Fig. S1. The Excitation and emission spectra of PS-Fe^{2+}

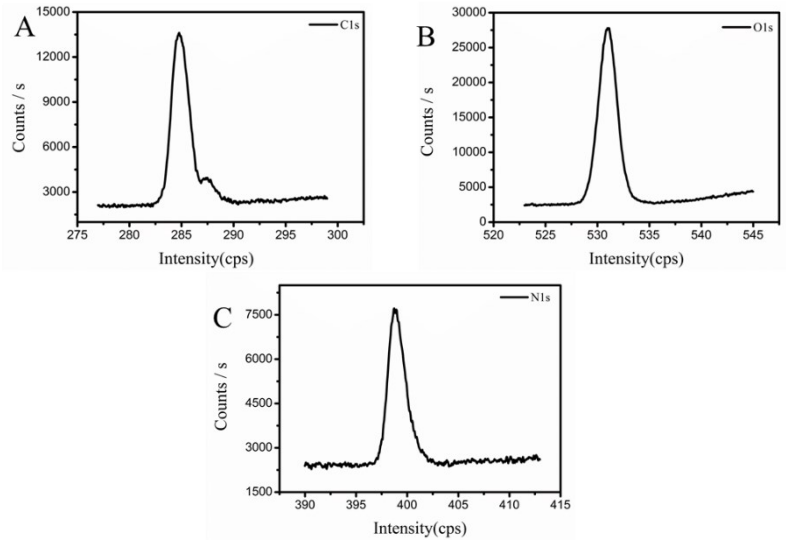

Fig. S2. High-resolution XPS survey scan of (A) C 1s, (B) O 1s, (C) N 1s, spectra of PS-Fe^{2+}

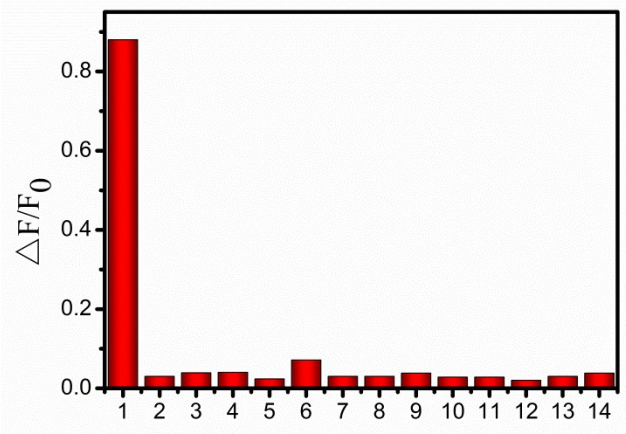

Fig. S3. Selectivity of determination method of PS-Fe^{2+}

$Cr_2O_7^{2-}$, Cu^{2+}, Mn^{2+}, Pb^{2+}, Ag^{+}, Hg^{+}, Ba^{2+}, Cd^{2+}, Cr^{3+}, SO_4^{2-}, NO_2^{-}, SCN^{-}, PO_4^{3-} and $C_2O_4^{2-}$.

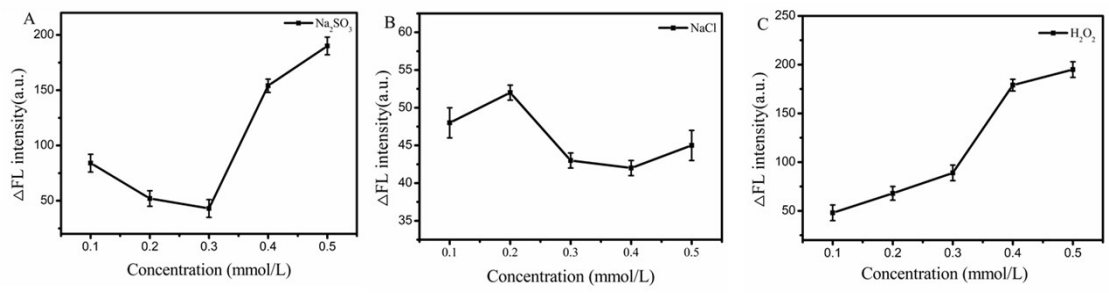

Fig. S4. Fluorescence intensity stability of the **PS-Fe^2 of NaCl, Na_2SO_3 and H_2O_2**

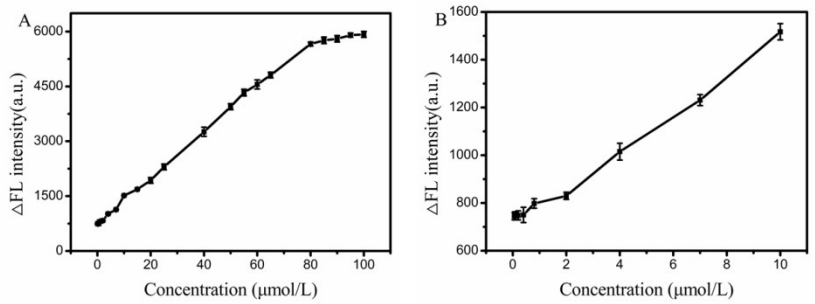

Fig. S5. Correlation analysis of Cr(Ⅵ) using **PS-Fe^{2+}**. (A) Fluorescence quenching of **PS-Fe^{2+}** containing system upon different concentrations of $Cr_2O_7^{2-}$ (0.01--100 μM) addition; (B) Fluorescence quenching of **PS-Fe^{2+}** containing system upon different concentrations of $Cr_2O_7^{2-}$ (0.01--10 μM) addition.