Benzofuran-β-alaninamide based “turn-on” fluorescent chemosensor for selective recognition of Fe$^{3+}$ ions

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Supplementary Information

Fig. S1 $^1$H NMR (CDCl$_3$, 300MHz) of compound 2
**Fig. S2** $^{13}$C NMR (CDCl$_3$, 75MHz) spectrum of 2
Fig. S3 $^1$H NMR (CDCl$_3$, 300MHz) of compound 3
Fig. S4 $^{13}$C NMR (CDCl$_3$+DMSO-D$_6$, 75MHz) spectrum of 3
Fig. S5 $^1$H NMR (CDCl$_3$, 300MHz) of BAA
Fig. S6 $^{13}$C NMR (CDCl$_3$, 75MHz) spectrum of BAA
Fig. S7 ESI-Mass spectrum of BAA
Fig. S8 IR spectrum of BAA
Fig. S9 IR spectrum of BAA-Fe$^{3+}$ complex
Fig. S10 UV-vis spectra of **BAA** (25 μM) with 10 equiv. of various trivalent metal ions in DMSO/H₂O solution (9:1, v/v).
Fig. S11 Fluorescence spectra of BAA (25 μM) with 10 equiv. of various trivalent metal ions in DMSO/H₂O solution (9:1, v/v).
Fig. S12 Linearity plot derived from sensitivity experiment in UV-vis spectroscopy.
Fig. S13 B-H plot analysis of Fe$^{3+}$ with BAA from UV-vis Spectroscopy.
Fig. S14 Linearity plot derived from sensitivity experiment in Fluorescence spectroscopy.
Fig. S15 B-H plot analysis of Fe$^{3+}$ with BAA from Fluorescence Spectroscopy.
**Fig. S16** Absorbance spectroscopy of Chemosensor with Fe$^{3+}$ ions in various solvent fractions.
Fig. S17 Fluorescence spectroscopy of chemosensor with Fe$^{3+}$ ions in various solvent fractions.