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Supporting information for

Solvent directed Selective and sensitive Fluorescent detection of target ions using a coumarin-pyridine probe†

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Figures

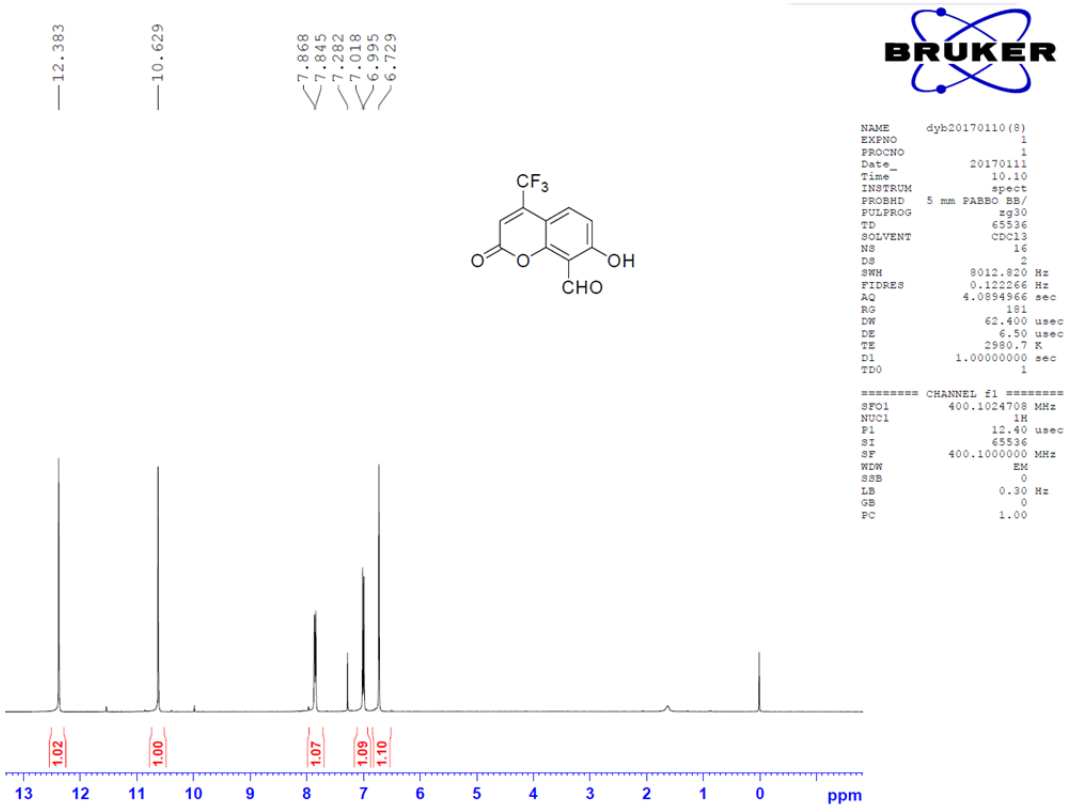

Fig. S1 ^{1}H NMR of **P2** in $CDCl_3$.

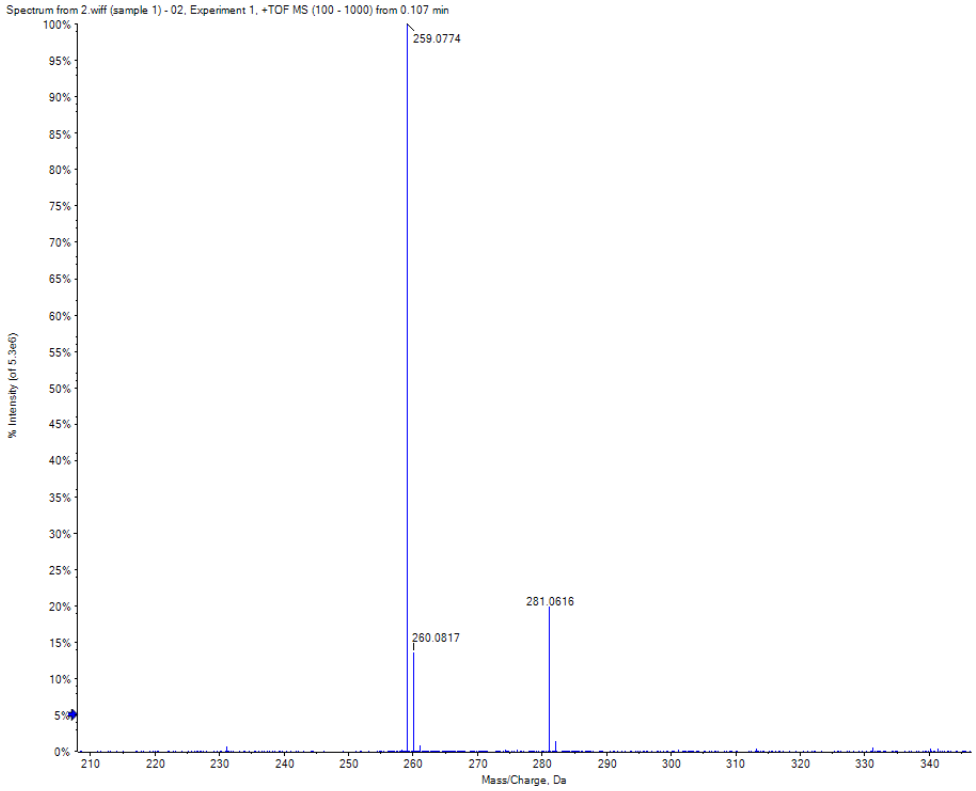

Fig. S2 HRMS of **P2**.

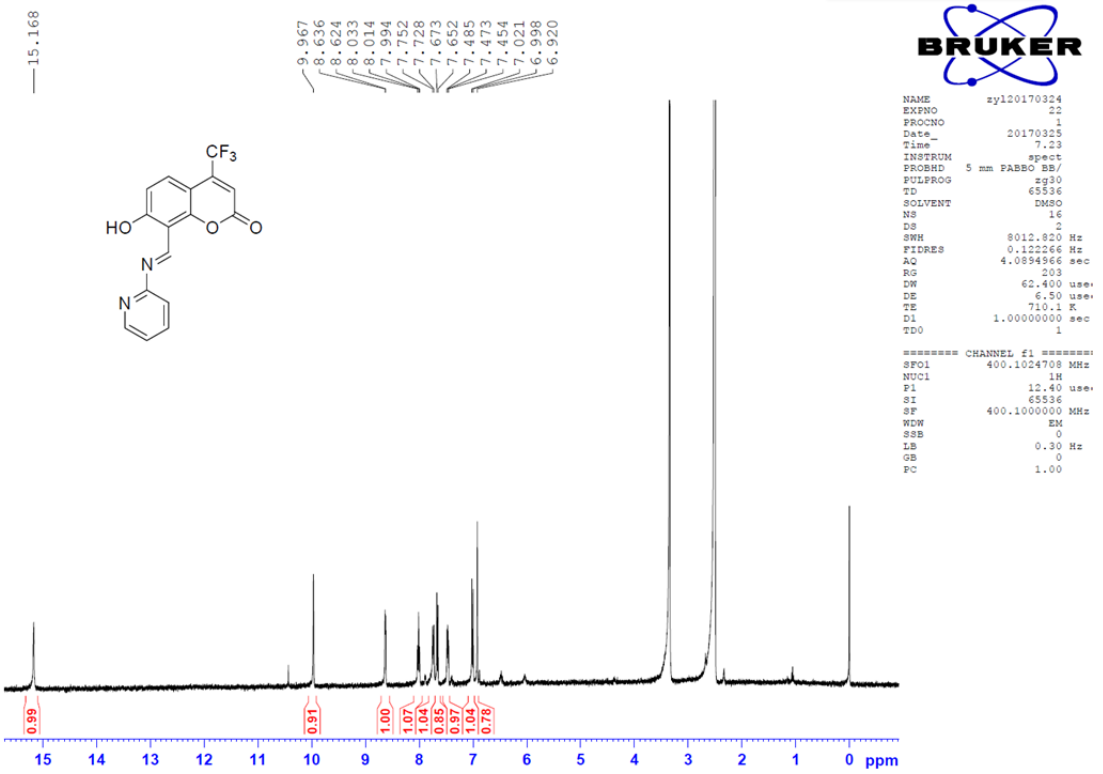

Fig. S3 H NMR of **L1** in DMSO-d6.

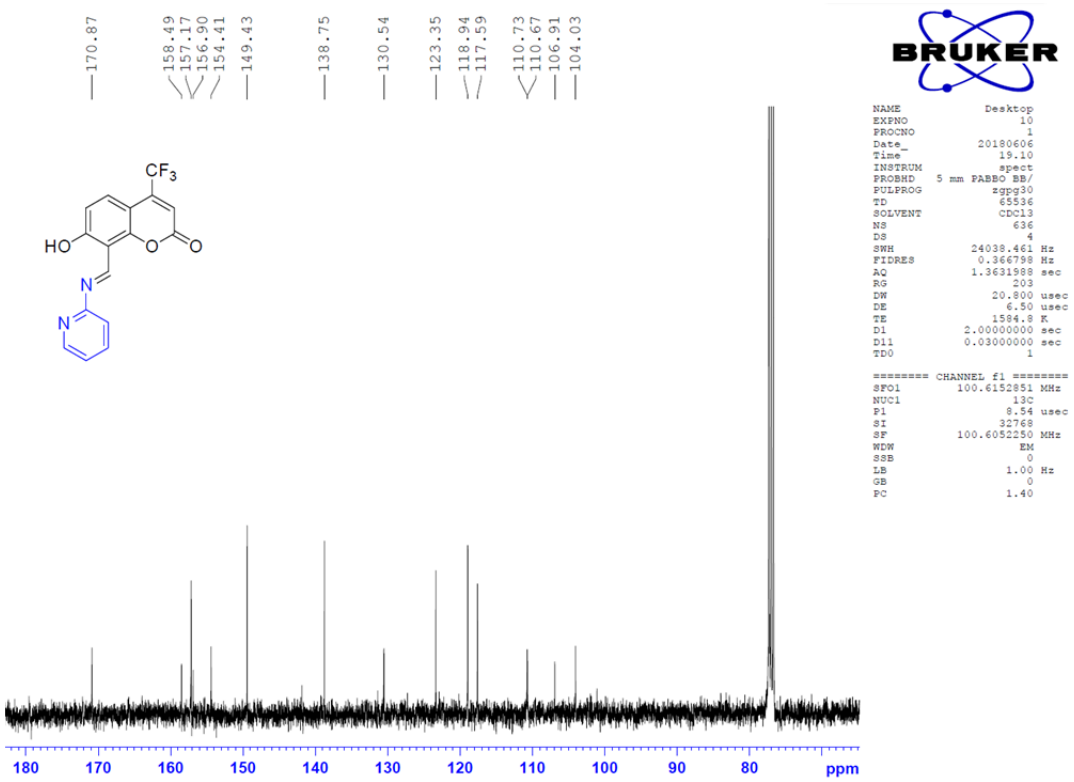

Fig. S4 ^{13}C NMR of **L1** in $CDCl_3$.

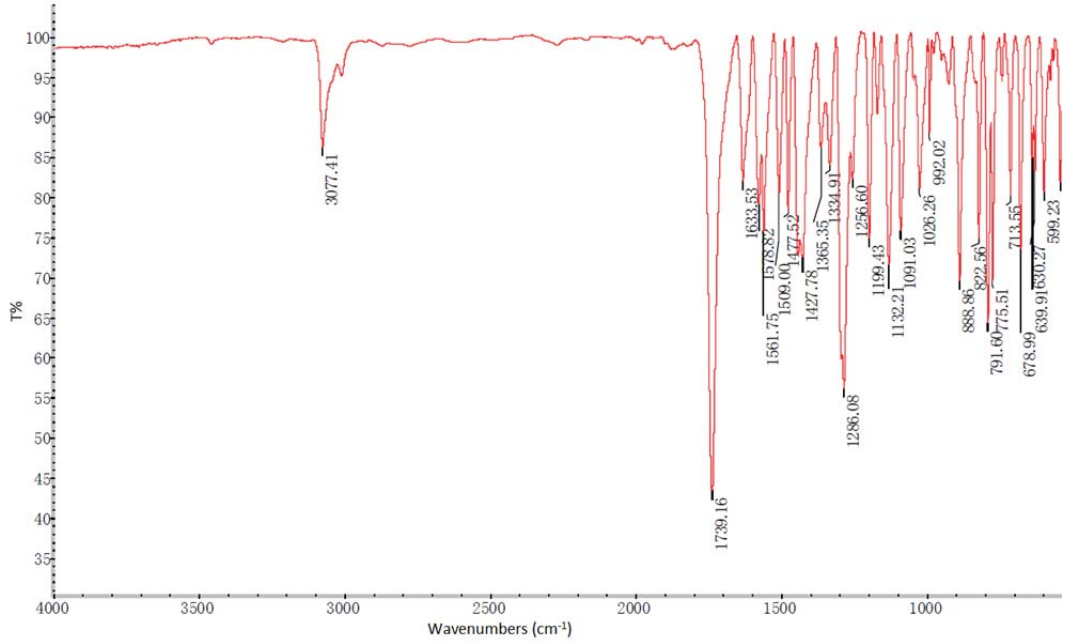

Fig. S5 IR of **L1**.

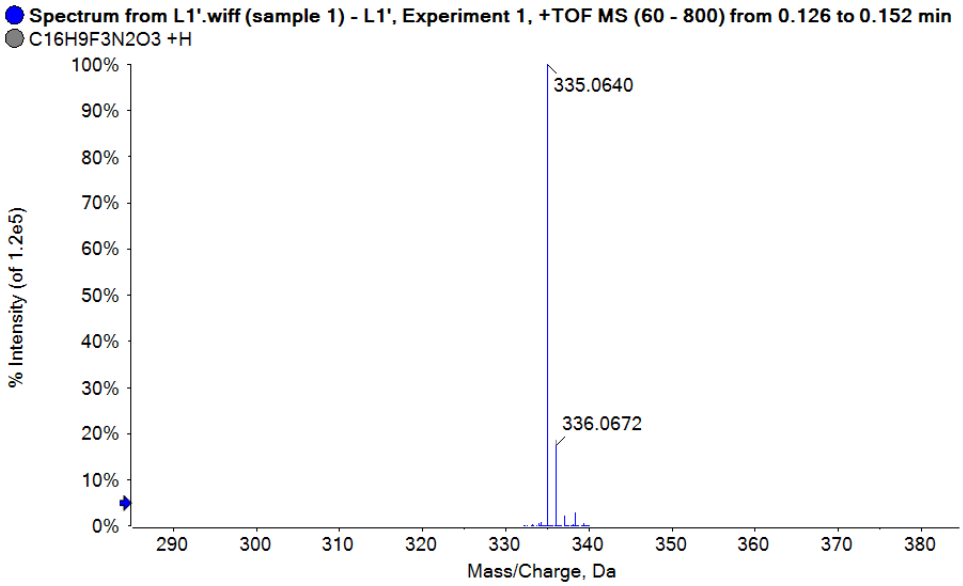

Fig. S6 HRMS of **L1**.

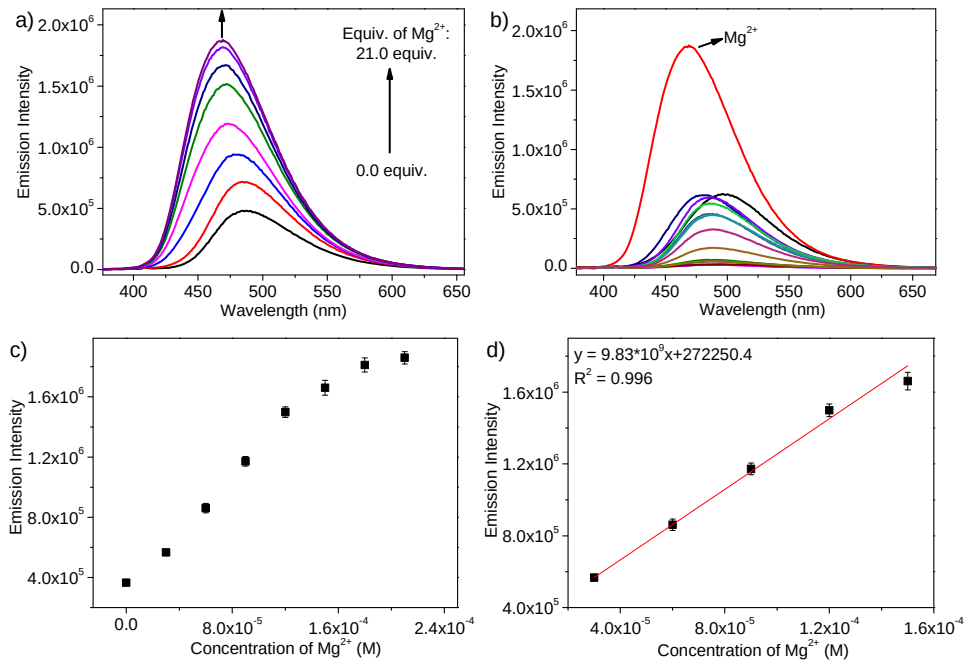

Fig. S7 a) Fluorescence spectral response of **L1** (10 μM) upon gradual addition of 0-210 μM of Mg^{2+} in acetonitrile/HEPES (4/1, v/v, pH 7.3) mixed solution; b) Selective fluorescence "turn on" response of **L1** (10 μM) towards Mg^{2+} in acetonitrile/HEPES (4/1, v/v, pH 7.3) mixed solution (210 μM for all tested metal ions); c) Calibration curve of **L1** (10 μM) with increasing amount of Mg^{2+} (parallel test 3 times); d) Linear response range.

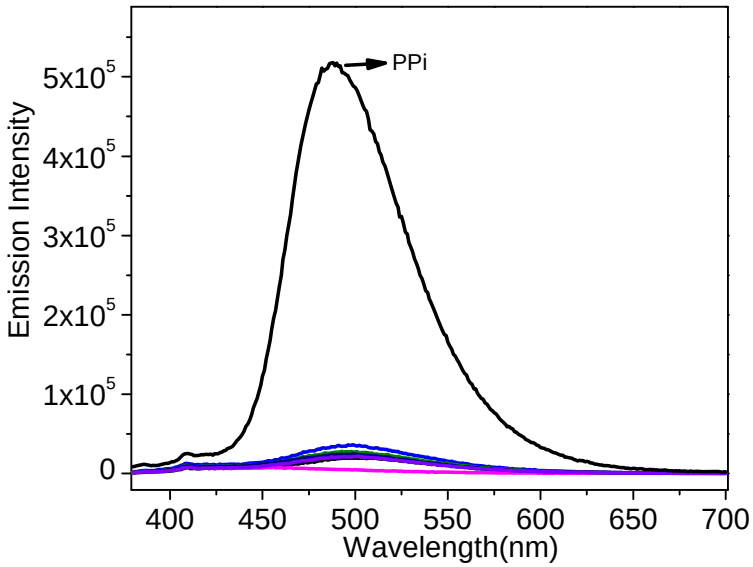

Fig. S8 Selective fluorescence "turn on" response of **L1-Fe**$^{3+}$ (10 μM) towards PPi (90 μM for each anions).

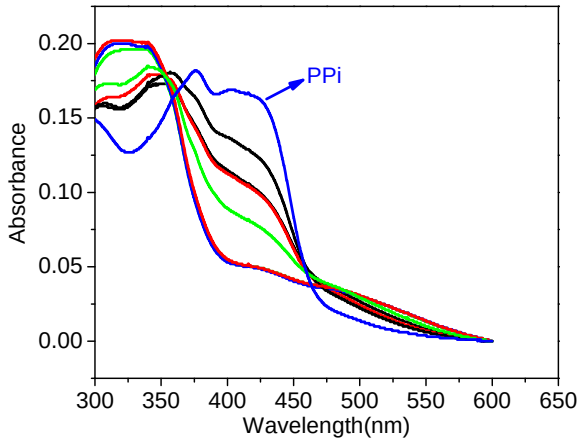

Fig. S9 Anion sensing selectivity of **L1-Fe**$^{3+}$ ensemble. It can be seen that only the addition of PPi fully recovered the original absorption peaks of **L1**.

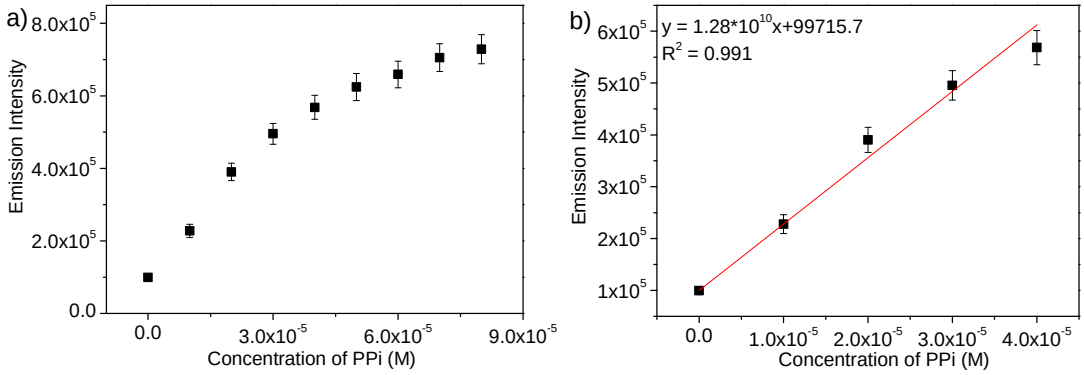

Fig. S10 a) Calibration curve of **L1-Fe^{3+}** (10 μM) with increasing amount of PPi in DMF-HEPES (4/1, v/v, 10 mM, pH 7.2) buffer solution (parallel test 3 times). b) Linear response range.