Supporting Information for

1D porous Zinc(II) Coordination Polymer as Fluorescent Chemosensors for Nitrobenzene and Fe^{3+}

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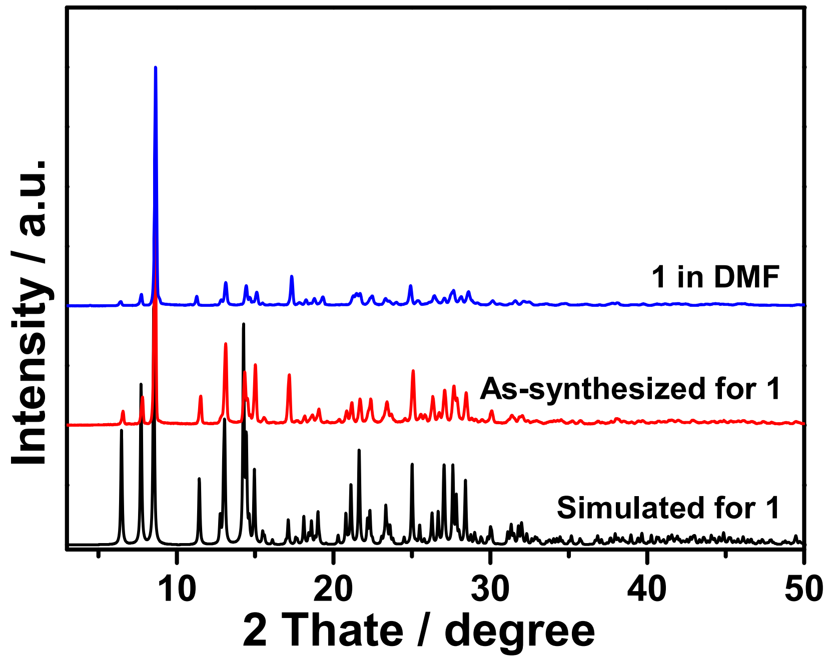

Fig. S1. PXRD patterns of **1** and **1** in DMF for 24 h.

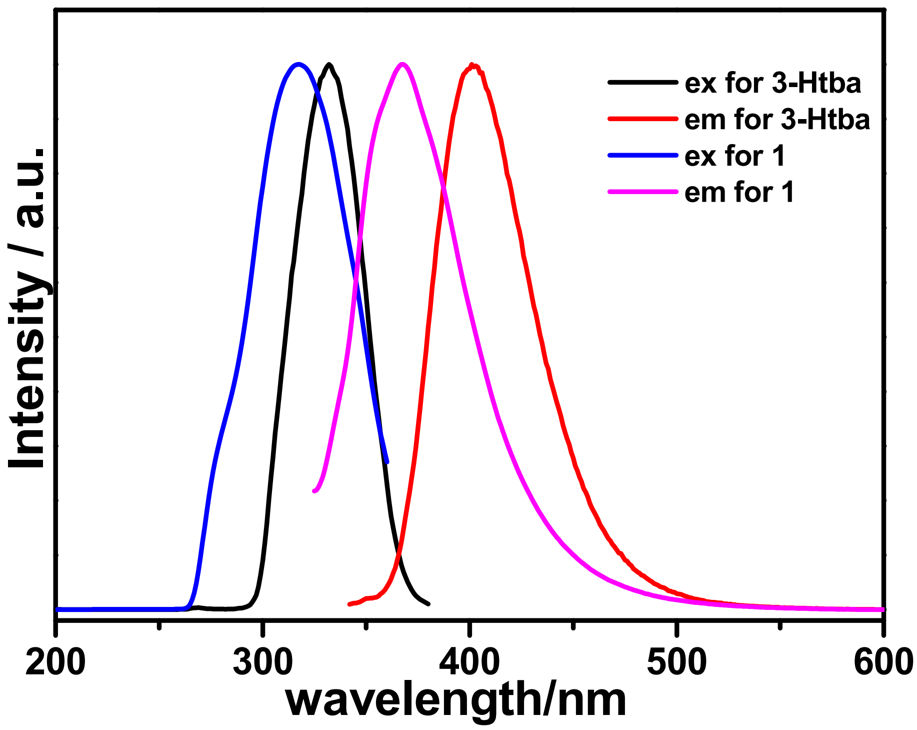

Fig. S2. The excitation and emission spectra of the ligand 3-Htba and **1** (dispersed) in DMF.

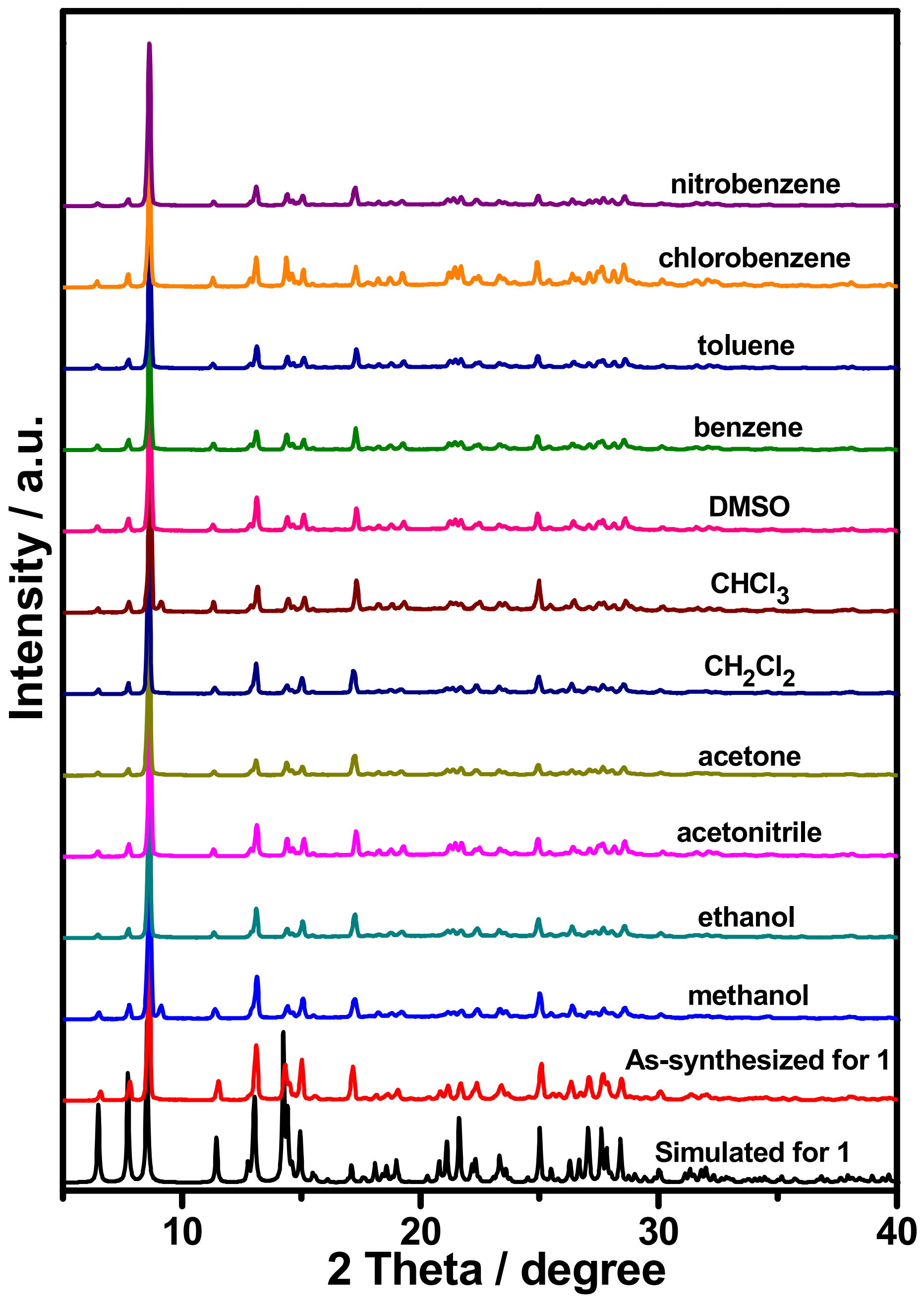

Fig. S3. PXRD patterns of **1** after being soaking in different DMF solution of analytes.

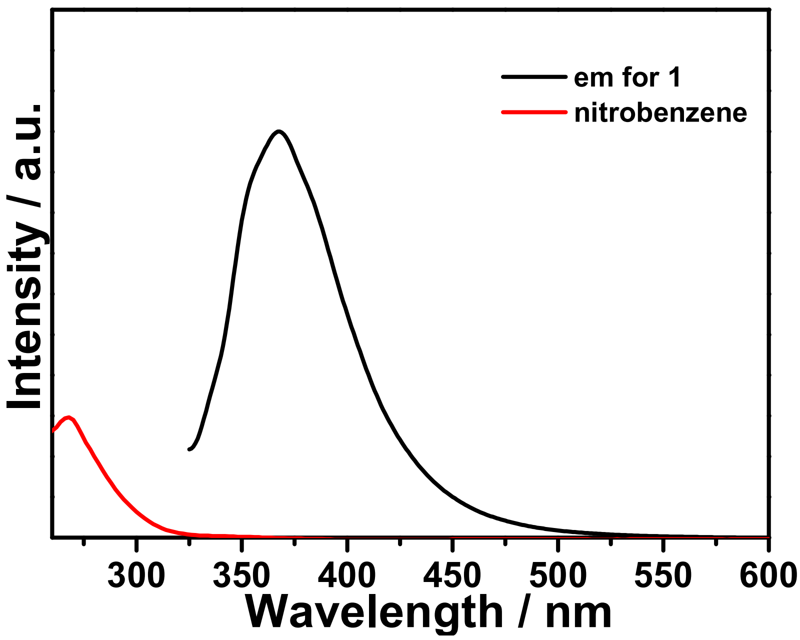

Fig. S4. The emission spectra of **1** (dispersed in DMF) and UV-vis absorption spectra of nitrobenzene in DMF.

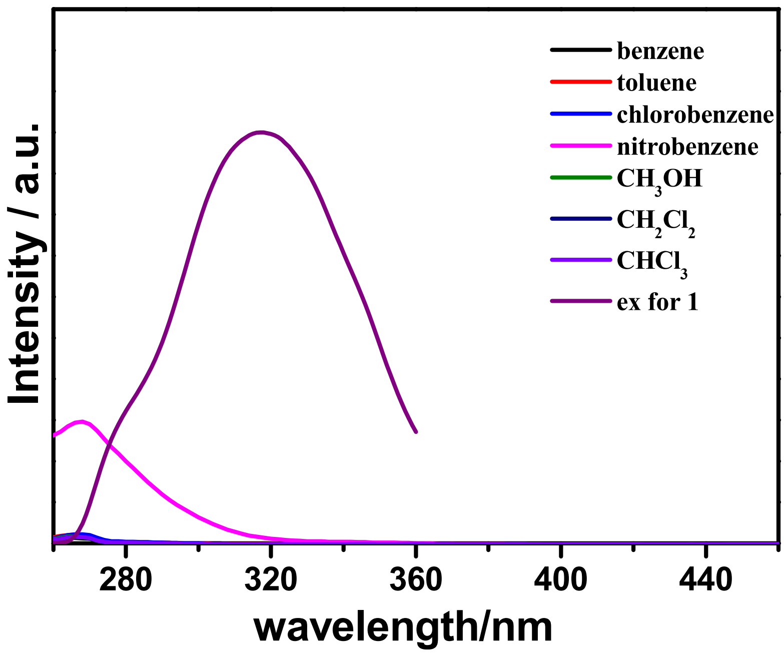

Fig. S5. The excitation spectra of **1** (dispersed in DMF) and UV-vis absorption spectra of some selected solvents in DMF (2.5× 10^{-5} M).

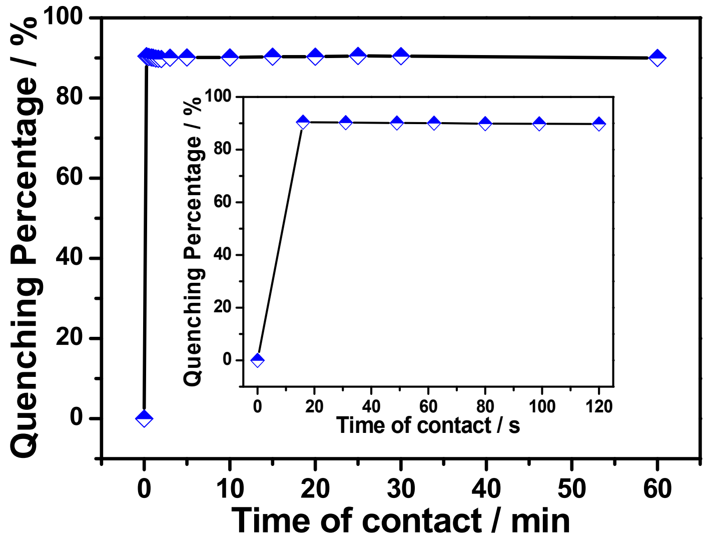

Fig. S6. Time-dependent luminescence quenching by Fe^{3+} of **1**. Inset: [Time] ≤ 2 min.

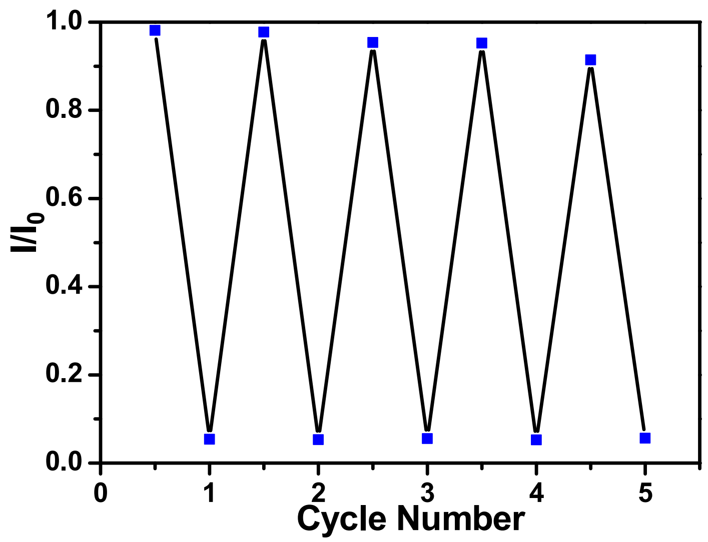

Fig. S7. Recyclability tests of **1** in the presence of Fe^{3+}.

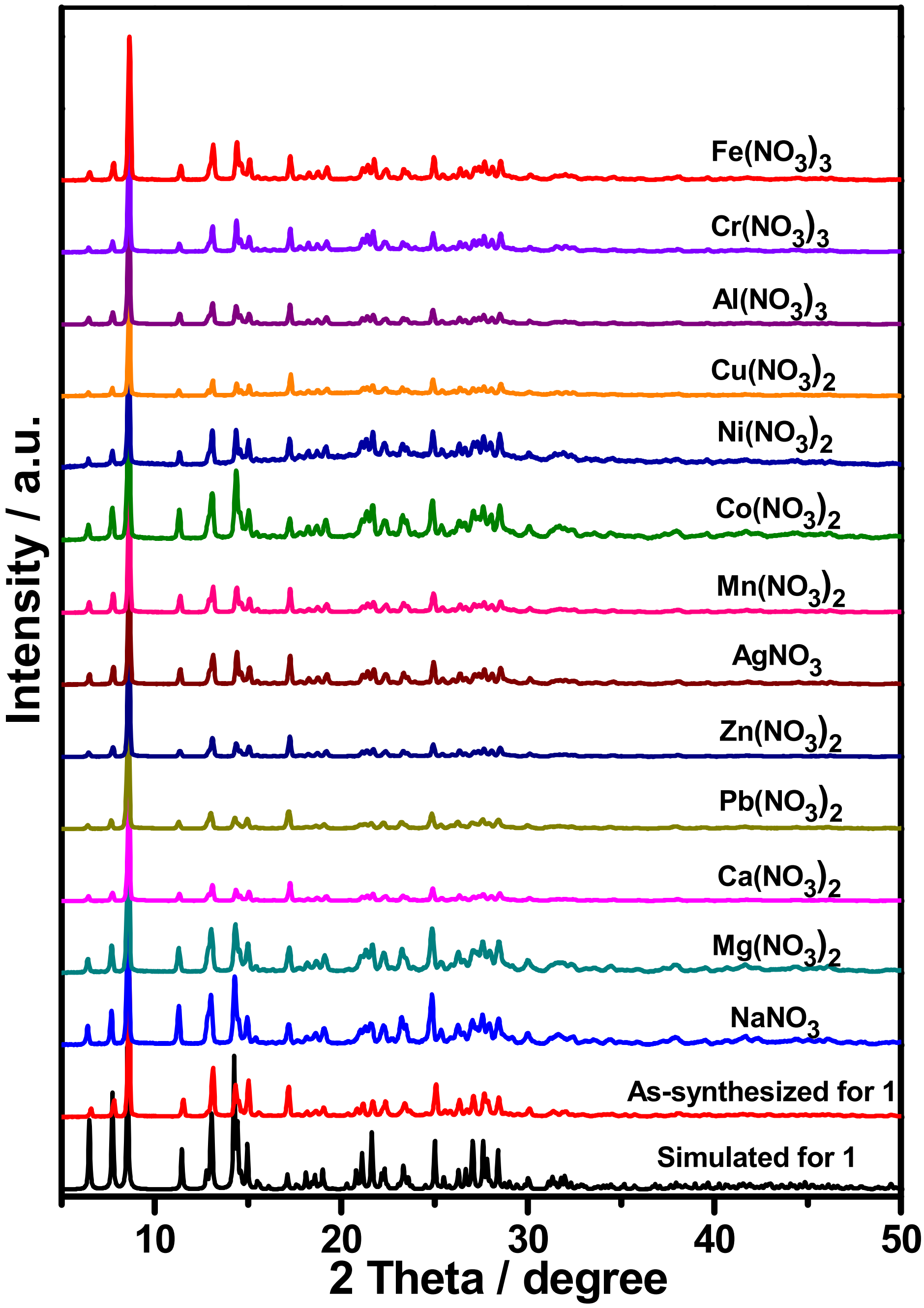

Fig. S8. PXRD patterns of **1** after being soaking in different DMF solution of metal ions.

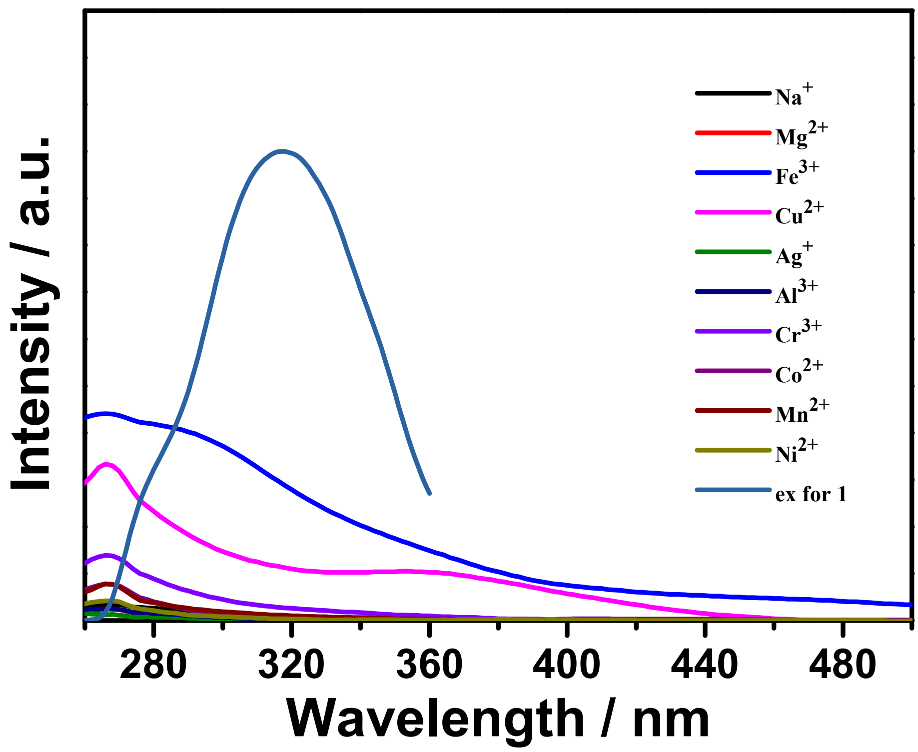

Fig. S9. The excitation spectra of **1** (dispersed in DMF) and UV-vis absorption spectra of DMF solution of $M(NO_3)_n$ (M = Na^+, Mg^{2+}, Al^{3+}, Cr^{3+}, Mn^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, Cu^{2+}, Ag^+).

Fig. S10. The crystal photographs of compound **1** and **1** after being soaking in DMF solution of $Fe(NO_3)_3$.

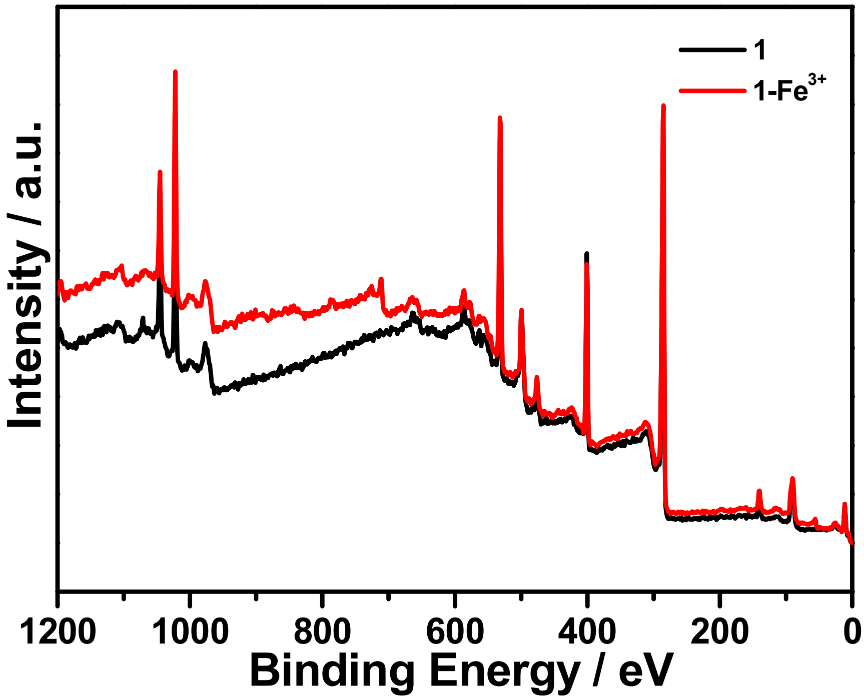

Fig. S11. The XPS full-scan spectra of **1** (black) and **1** after being soaking in DMF solution of Fe $(NO_3)_3$ (red).

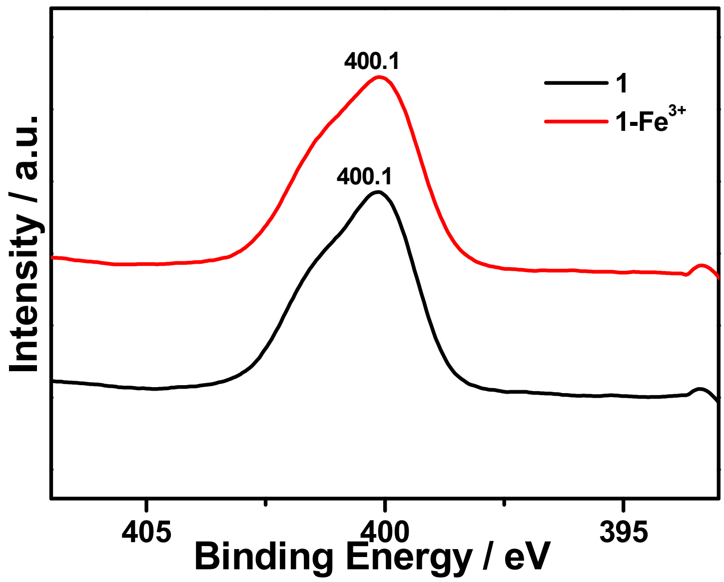

Fig. S12. N1s XPS spectra of **1** (black) and **1** after being soaking in DMF solution of Fe $(NO_3)_3$ (red).

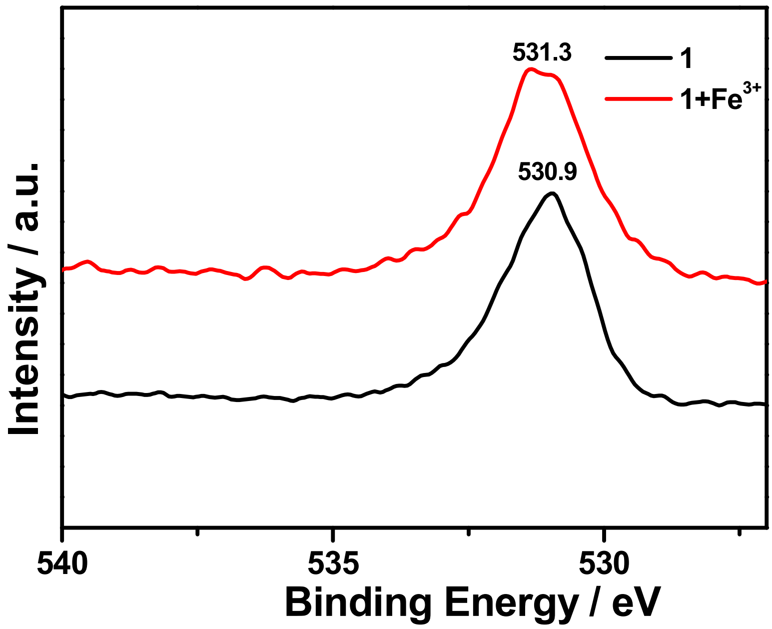

Fig. S13. O1s XPS spectra of **1** (black) and **1** after soaking in DMF solution of Fe $(NO_3)_3$ (red).

Table S1 The comparison among various 1D coordination polymers (CPs) used for detecting NB

1D CPs	**Media (aqueous /organic)**	**Quenching constant K_{sv}**	**Ref.**
$[Cd(bipy)][HL]_n$	MeOH	9.3×10^{-3} ppm^{-1}	[1]
[Zn2(1,4-bdc)(1,4-Hbdc)$_2$(NI-bpy-34)$_2$]	toluene	3.63×10^3 M^{-1}	[2]
$\{[Cd_2L^1{}_2(BDC)(H_2O)_6]\cdot2Br^-\cdot2EtOH\cdot3H_2O\}_n$	ethanol	3.837×10^4 M^{-1}	[3]
USTC-5	DMF	7.7×10^2 M^{-1}	[4]
$[Cd(tdc)(pdin)]_n$	ethanol	7.4×10^5 M^{-1}	[5]
$[Zn(H_2L^{2-})(H_2O)]_n$	DMF	3.26×10^3 M^{-1}	[6]
$\{[Co(L1)(HL3)_2(H_2O)_2]_n\}$	H_2O	4.50×10^4 M^{-1}	[7]
$\{[Zn(Htpim)_2(H_2O)_2](IPA\text{-}OH)\}_n$	DMF	5.21×10^6 M^{-1}	[8]
$\{[Cd(Htpim)_2(H_2O)_2](IPA\text{-}OH)\}_n$	DMF	1.48×10^6 M^{-1}	[8]
$[Cu(H_2PMA)(Htpim)_2(H_2O)]_n$	DMF	3.30×10^7 M^{-1}	[8]
$[Ag(3\text{-}dpyb)(H_3odpa)]\cdot H_2O$	EtOH	1.683×10^4 M^{-1}	[9]
$[Zn(3\text{-}tba)_2]\cdot DMA$	DMF	3.59×10^3 M^{-1}	[This work]

Table S2 The comparison among various 1D coordination polymers (CPs) used for detecting Fe^{3+}

1D CPs	**Media (aqueous/organic)**	**Quenching constant K_{sv}**	**Ref.**
$[Eu(HL)(DMF)(H_2O)_2]\cdot 3H_2O$	H_2O	1.519×10^3 M^{-1}	[10]
$[Tb(HL)(DMF)(H_2O)_2]\cdot 3H_2O$	H_2O	4.479×10^3 M^{-1}	[10]
$[Cu(tpp)\cdot H_2O]_{2n}$	H_2O	4.6×10^4 M^{-1}	[11]
$\{[Cd_2(bptc)(2,2'\text{-bipy})_2(H_2O)_2]\}_n$	H_2O	8.61×10^3 M^{-1}	[12]
$[CdL_2]n$	DMF	4.107×10^3 M^{-1}	[13]
$[ZnL_2]n$	DMF	3.946×10^3 M^{-1}	[13]
$\{[Ag(4\text{-bpmd})]ClO_4\cdot DMF\}n$	DMF	3.04×10^5 M^{-1}	[14]
$[Zn(H_2bptc)(2,2'\text{-bipy})(H_2O)]\cdot 3H_2O$	H_2O	2.581×10^4 M^{-1}	[15]
$[Tb(HL)(C_2H_5OH)_2]$	H_2O	1.979×10^3 M^{-1}	[16]
$[Zn(L)(H_2O)_2]_n$	H_2O	4.142×10^3 M^{-1}	[17]
$[Eu_2(MPIP)_2(1,3\text{-bdc})_2(CH_3COO)_2]n$	H_2O	1.52×10^3 M^{-1}	[18]
NCST-2	H_2O	3.790×10^3 M^{-1}	[19]
$[CdL(H_2O)(DMF)_2]\cdot DMF$	H_2O	8.022×10^3 M^{-1}	[20]
$\{[Cd_2L^1{}_2(BDC)(H_2O)_6]\cdot 2Br^-\cdot 2EtOH\cdot 3H_2O\}n$	EtOH	3.69×10^4 M^{-1}	[3]
$[Eu(dppc)(H_2O)_4]_n\cdot 2nH_2O$	H_2O	1.629×10^4 M^{-1}	[21]
$[Tb(dppc)(H_2O)_4]_n\cdot 2nH_2O$	H_2O	1.626×10^4 M^{-1}	[21]
$\{[Zn(Htpim)_2(H_2O)_2](IPA\text{-}OH)\}n$	DMF	1.29×10^5 M^{-1}	[8]
$\{[Cd(Htpim)_2(H_2O)_2](IPA\text{-}OH)\}n$	DMF	1.59×10^5 M^{-1}	[8]
$[Cu(H_2PMA)(Htpim)_2(H_2O)]n$	DMF	4.91×10^6 M^{-1}	[8]
UNSL-1	H_2O	0.077×10^3 M^{-1}	[22]
$[Zn(FDC)_2(H_2O)_2]n$	H_2O	4.7×10^4 M^{-1}	[23]
$[Cd(FDC)_2(bpy)(H_2O)]n$	H_2O	2.9×10^4 M^{-1}	[23]
$[Ag(3\text{-dpyb})(H_3odpa)]\cdot H_2O$	H_2O	1.186×10^5 M^{-1}	[9]
USTC-5	H_2O	9.85×10^3 M^{-1}	[4]
$[Zn_3(L^{2-})_2(H_2O)_4Cl_2]n$	H_2O	1.63×10^4 M^{-1}	[24]
$[Ni(5\text{-NIP})(L)(H_2O)]n$	H_2O	1.651×10^3 M^{-1}	[25]
$[Cd_3(5\text{-}NH_2\text{-mdc})_3(Bipy)_3\cdot H_2O]n$	H_2O	1.52×10^4 M^{-1}	[26]
$\{[Zn(L1)(PA)]\cdot H_2O\}n$	H_2O/MeCN(1:1)	2.2469×10^4 M^{-1}	[27]
$[Zn(\mu_3\text{-}L)(H_2O)_2]$	H_2O	8.88×10^3 M^{-1}	[28]
$\{[HgCl_2(L^3)]\cdot H_2O\}n$	H_2O	2.48×10^4 M^{-1}	[29]
$\{[HgBr_2(L^3)]\cdot H_2O\}n$	H_2O	1.2×10^4 M^{-1}	[29]
$[Cu_4I_4(HL)_2]n$	H_2O	5.52×10^3 M^{-1}	[30]
$[PbCu_2I_4(HL)_2]n$	H_2O	2.17×10^3 M^{-1}	[30]
$[Zn(tpba)(bqdbc)_{0.5}]n$	H_2O	1.56×10^4 M^{-1}	[31]
$[Zn(DTP)SO_4(H_2O)_3]n$	H_2O	3.41×10^4 M^{-1}	[32]
$[Zn(HBTC)(azpd)_{0.5}(H_2O)]\cdot H_2O)$	MeOH	1.29×10^4 M^{-1}	[33]
$[Cd(HBTC)(azpd)(H_2O)]\cdot(DMF)\cdot(H_2O)_2$	MeOH	1.75×10^4 M^{-1}	[33]
$[Zn_{0.5}(TBTA)_{0.5}(L)]n$	H_2O	8.578×10^3 M^{-1}	[34]
$[Zn(3\text{-tba})_2]\cdot DMA$	DMF	1.52×10^4 M^{-1}	[This work]

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