

Luminescent MOFs for selective sensing of Ag⁺ and other ions(Fe(III) and Cr(VI))in aqueous solution

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Supporting Information

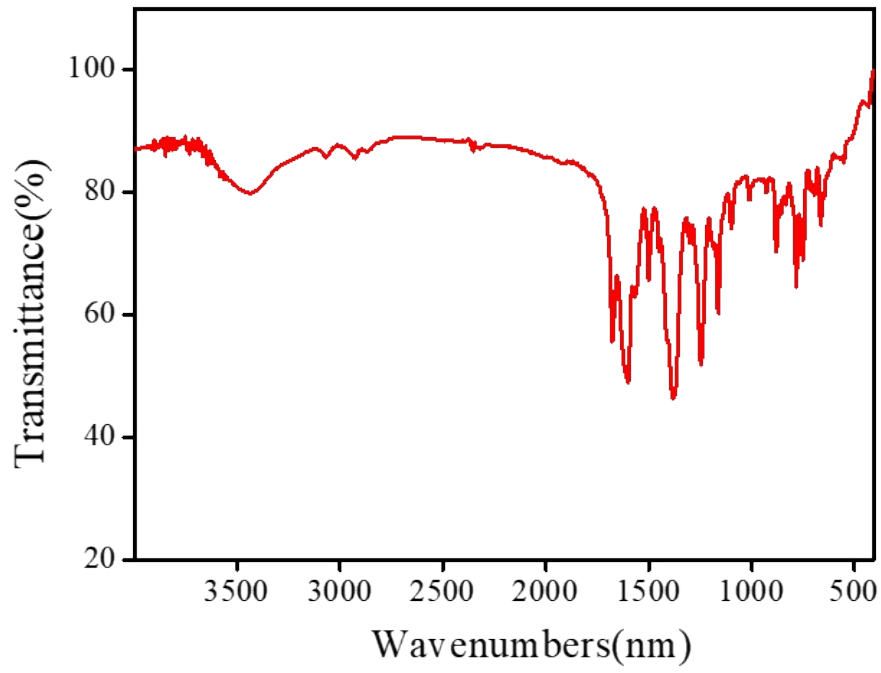


Fig. S1. The IR spectra of **LMOF-1**.

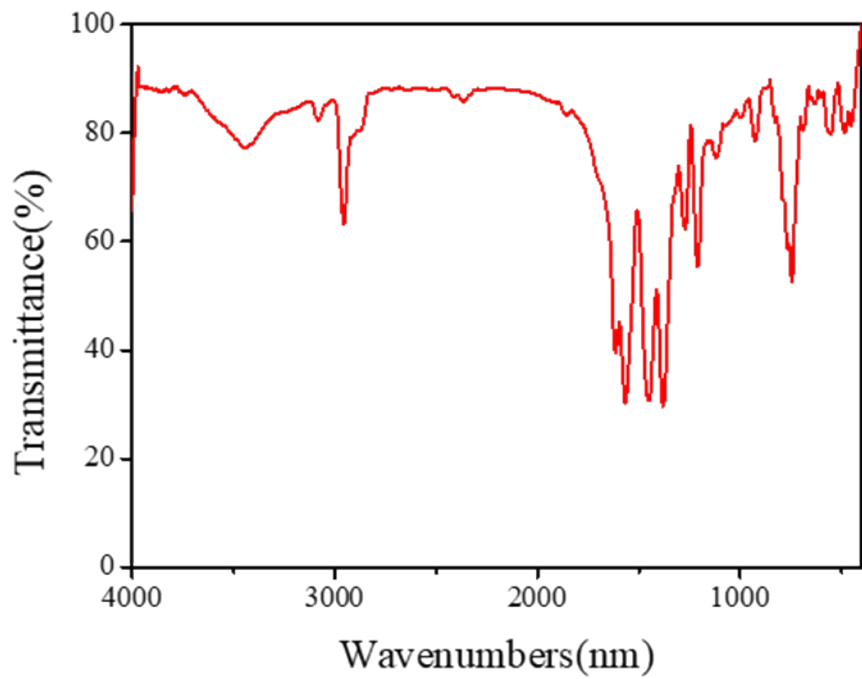


Fig.S2. The IR spectra of **LMOF-2**

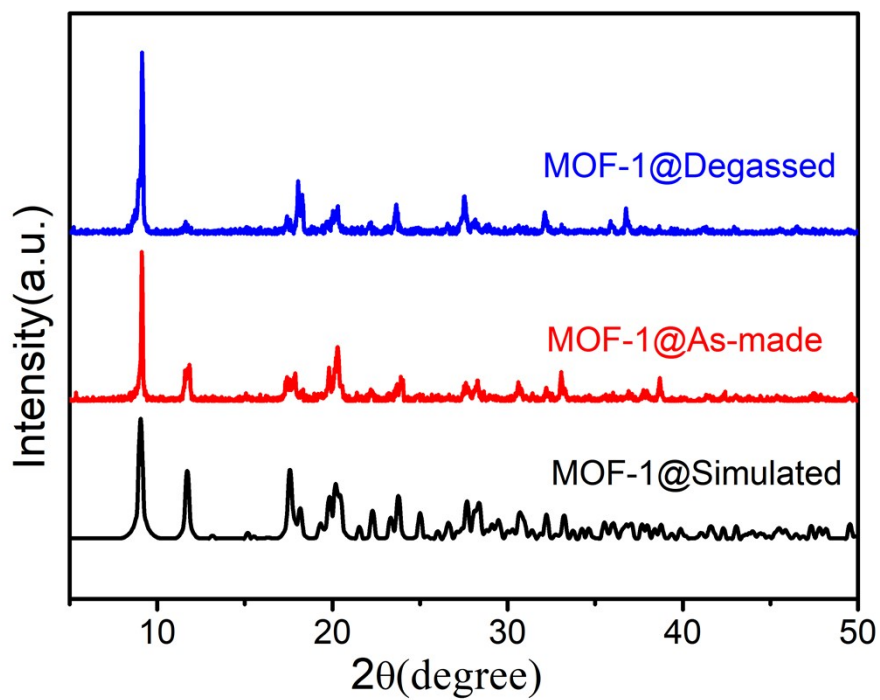


Fig. S3. PXR D patterns of LMOF-1

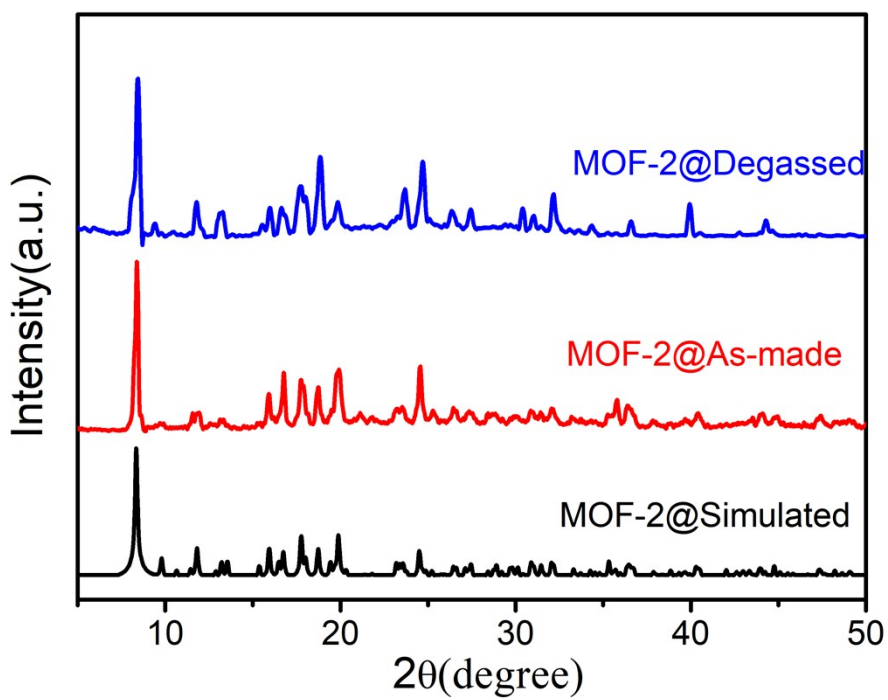


Fig. S4. PXR D patterns of LMOF-2

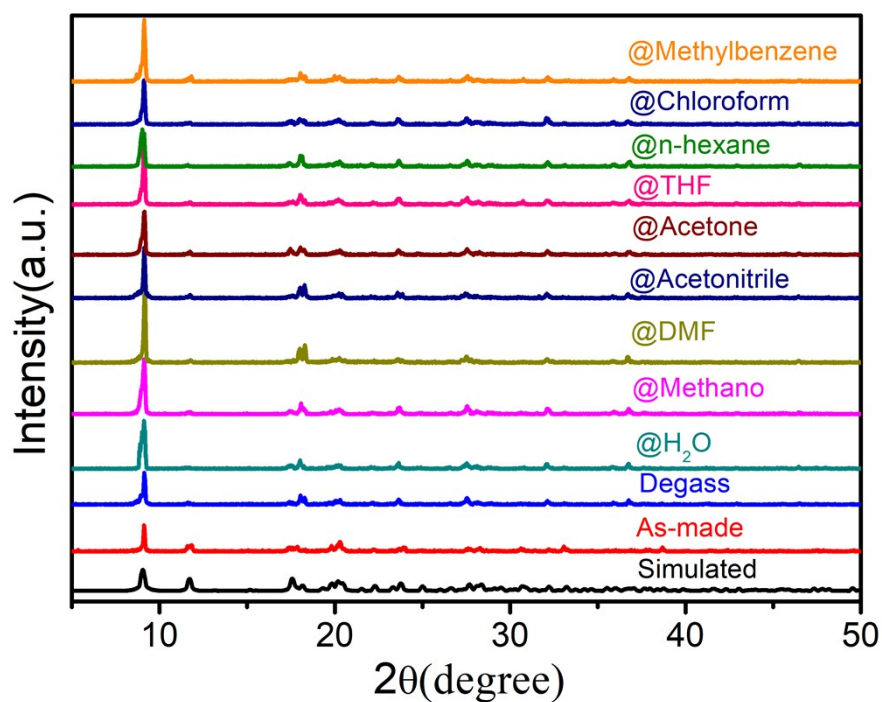


Fig. S5. The PXR D of LMOF-1 soaked in the different solvents

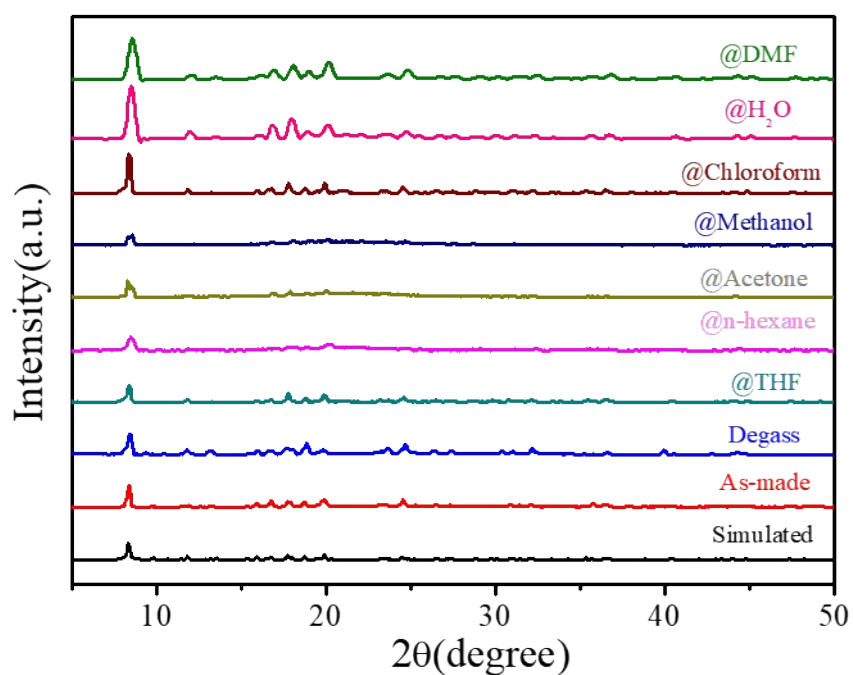


Fig. S6. The PXR D of LMOF-2 soaked in the different solvents

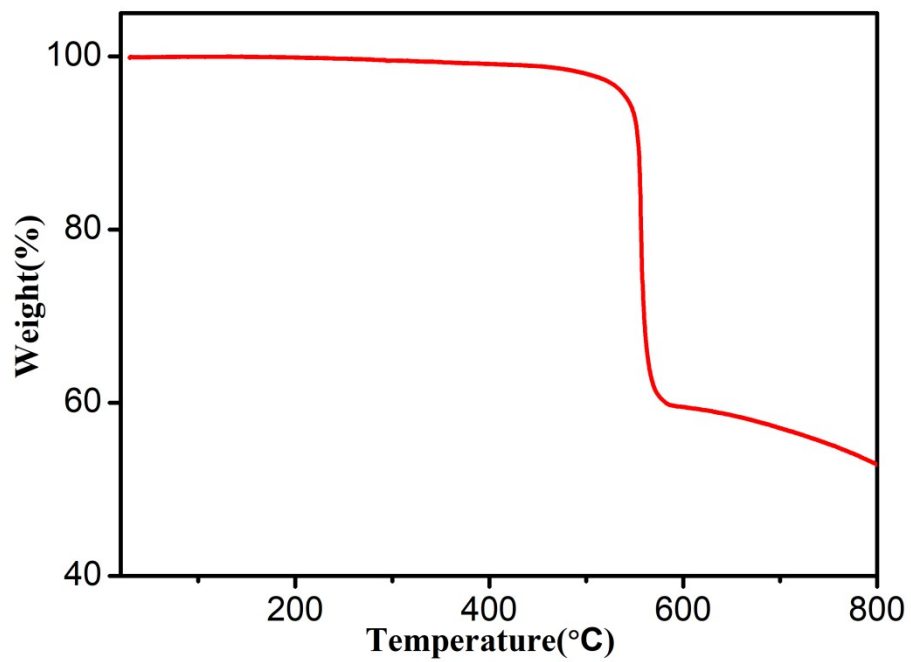


Fig.S7 .TG curves of LMOF-1

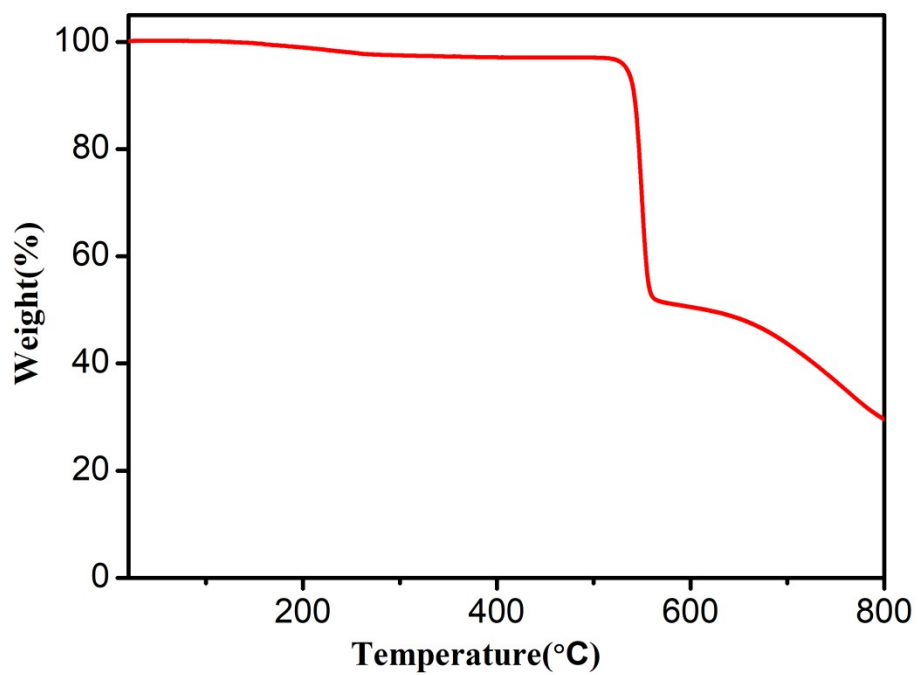


Fig.S8. TG curves of LMOF-2

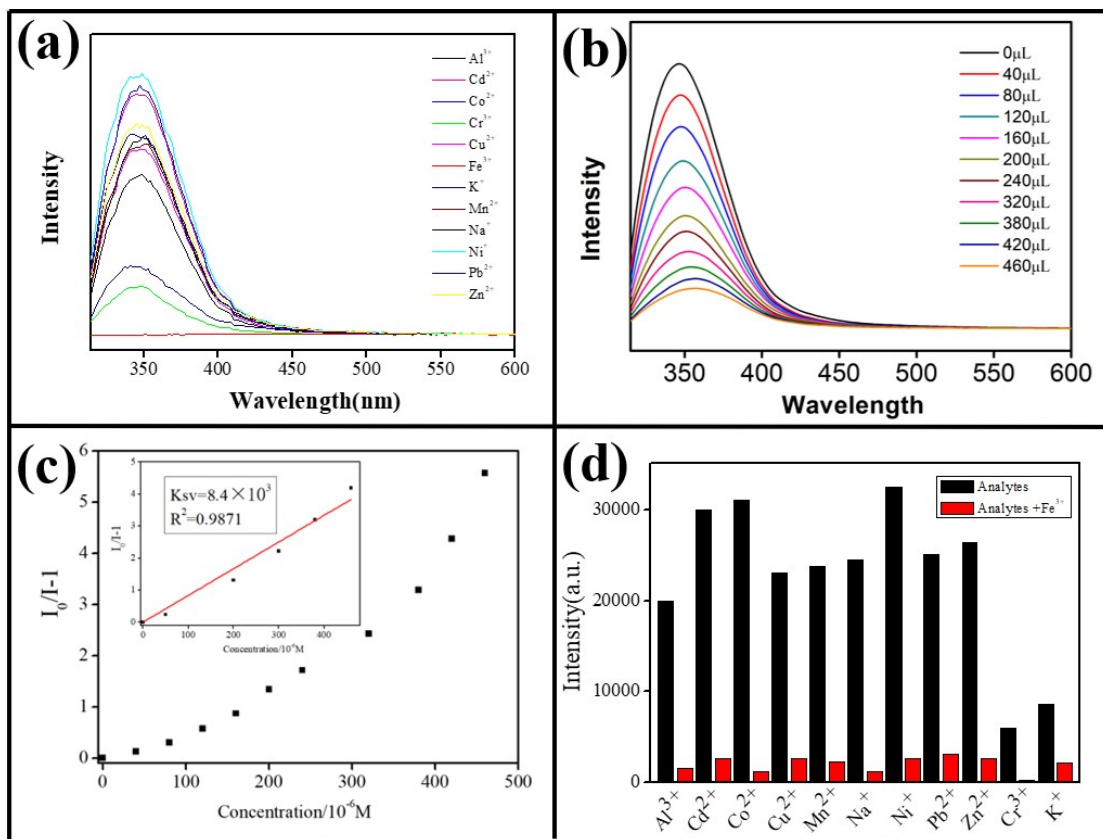


Fig.S9. (a) The luminescence spectra of **LMOF-2** suspension upon adding different metal cation ions. (b) The fluorescence intensity trend chart of **LMOF-2** after adding Fe³⁺ solution. (c) The SV curves of **LMOF-2** after adding Fe³⁺ solution. (d) Anti-interference experiment of selective recognition of Fe³⁺

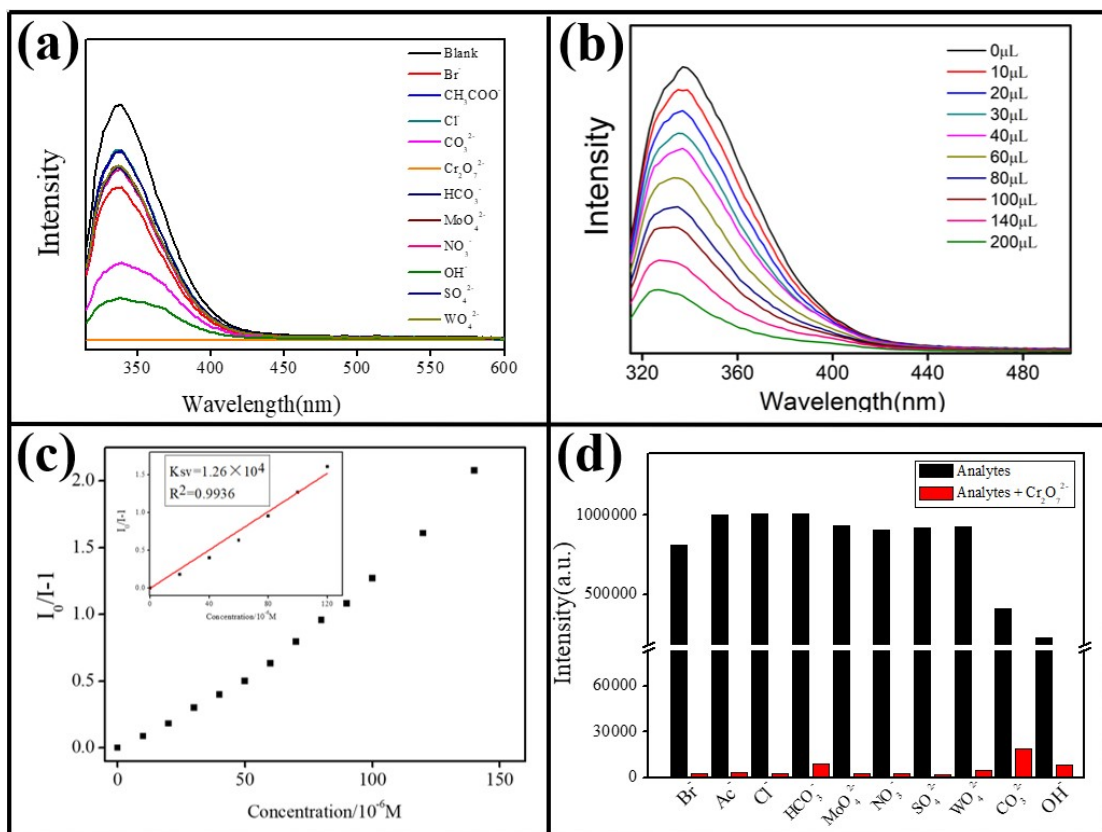


Fig.S10. (a) The luminescence spectra of **LMOF-2** suspension upon adding different anion. (b) The fluorescence intensity trend chart of **LMOF-2** after adding Cr₂O₇²⁻ solution. (c) The SV curves of **LMOF-2** after adding Cr₂O₇²⁻ solution. (d) Anti-interference experiment of selective recognition of Cr₂O₇²⁻

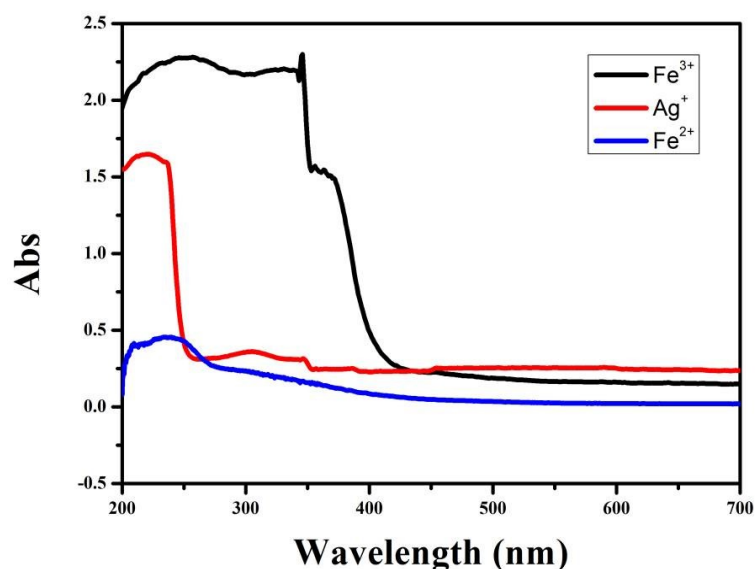


Fig.S11. UV absorption of Fe³⁺, Fe²⁺ and Ag⁺

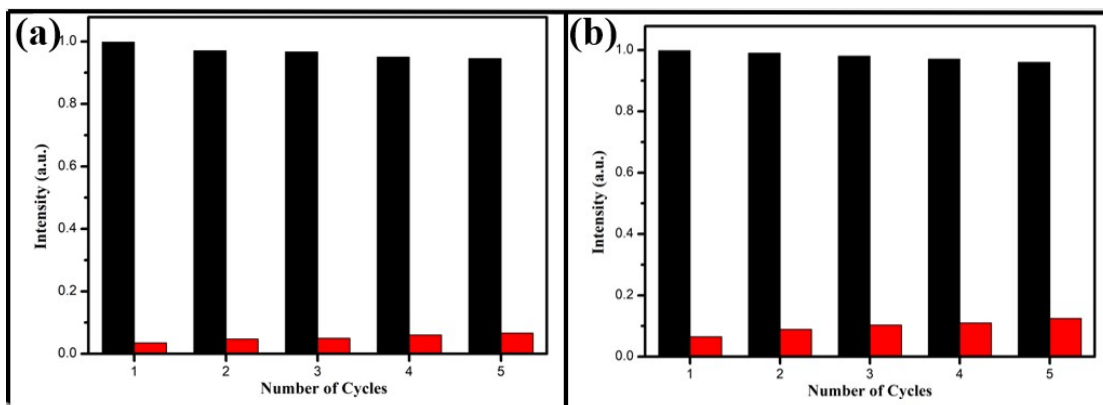


Fig.S12. (a) Reproducibility of the detection effect of **LMOF-2** dispersed in water in the presence of 460μL Fe³⁺; (b) Reproducibility of the detection effect of **LMOF-2** dispersed in water in the presence of 200μL Cr₂O₇²⁻. (The black histogram represents the initial luminescence intensity, and the red histogram represents the intensity after adding 460μL Fe³⁺, and 200μL Cr₂O₇²⁻ aqueous solution, respectively).