Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Ratiometric Fluorescence Determining the Anthrax Biomarker 2,6-Dipicolinic Acid by Eu^{3+}/Tb^{3+}-doped Nickel Coordination Polymer

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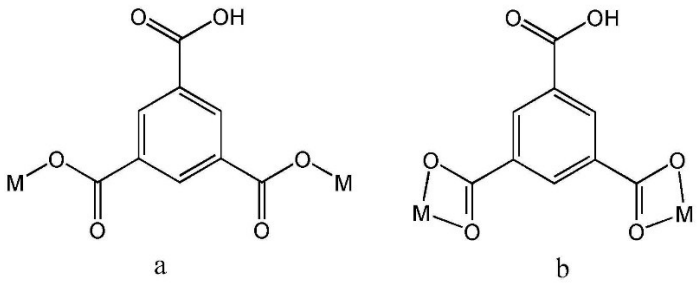

Scheme S1. The coordination fashions of $HBTC^{2-}$ ligands in Ni-BTC.

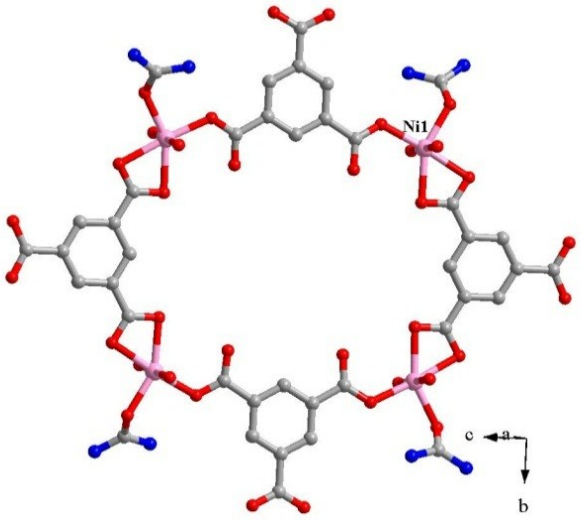

Fig. S1. The structure motif of discrete Ni-BTC with 32-membered ring.

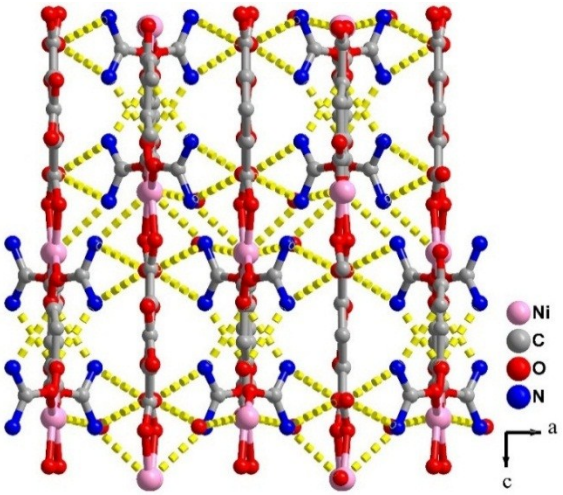

Fig. S2. The 3D supramolecular framework of Ni-BTC constructed by H-bondings.

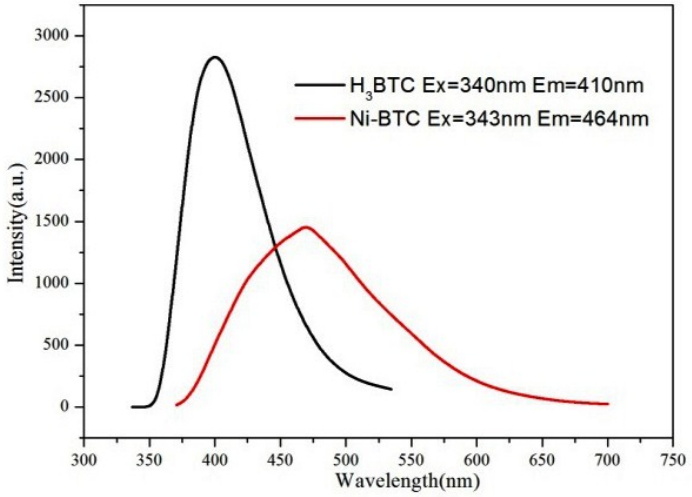

Fig. S3. The solid-state emission spectra of free H_3BTC ligand with λ_{ex} = 340 nm and Ni-BTC with λ_{ex} = 343 nm.

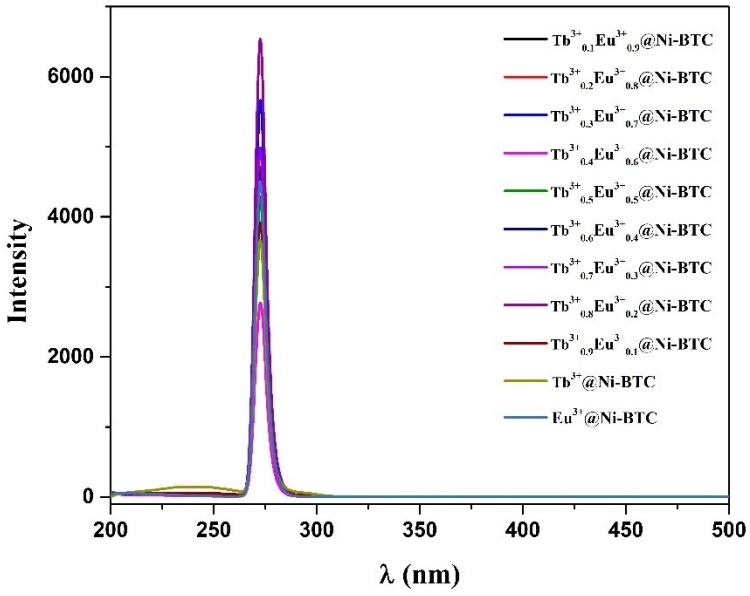

Fig. S4. The excitation spectra of Tb^{3+}/Eu^{3+}@Ni-BTC composites with comparison of that of Tb^{3+}@Ni-BTC and Eu^{3+}@Ni-BTC.

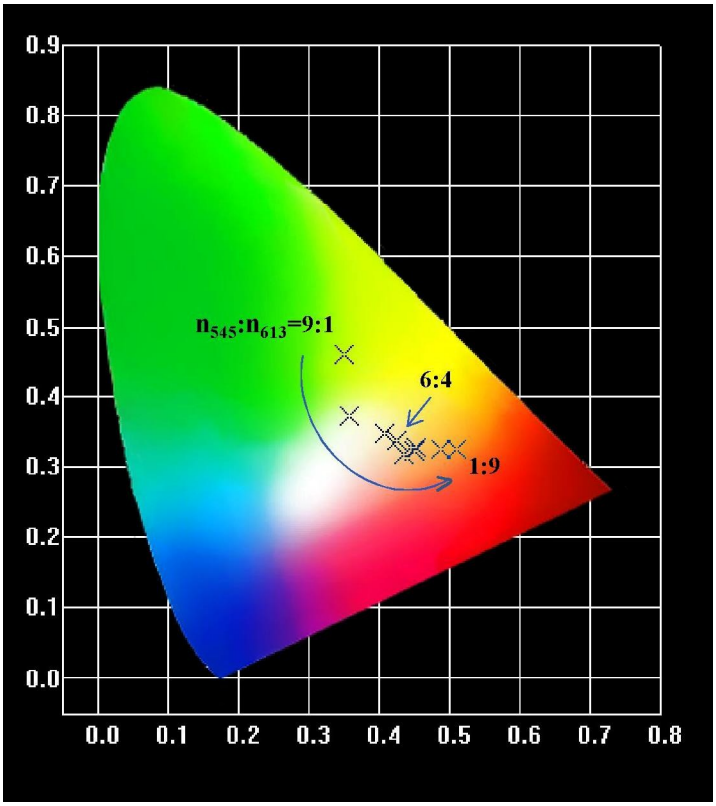

Fig. S5. The CIE 1931 chromaticity diagram together with the calculated color coordinate of Tb^{3+}/Eu^{3+}@Ni-BTC composites.

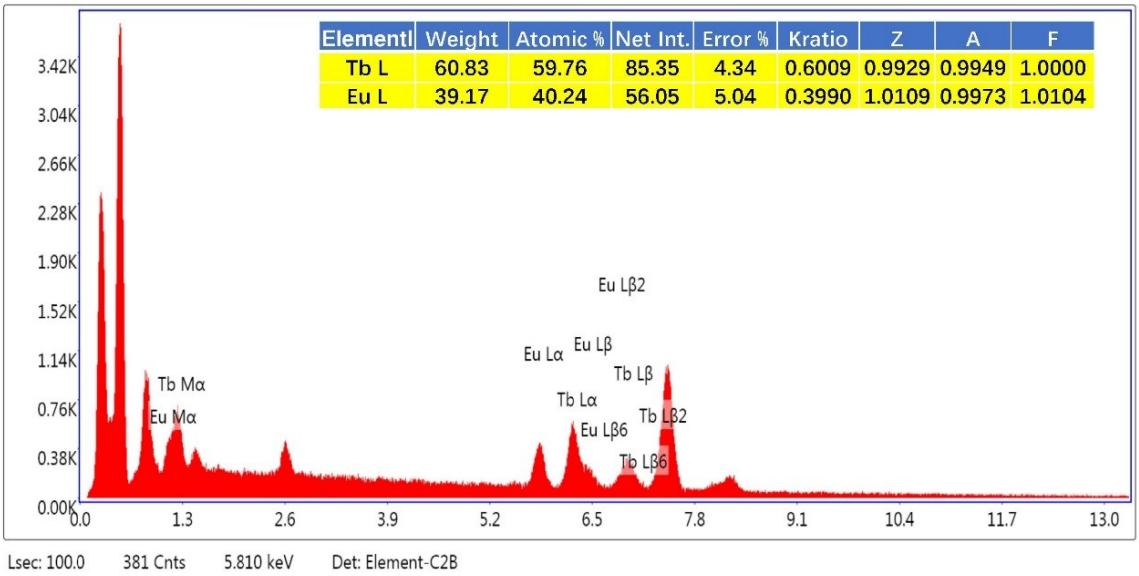

Fig. S6. EDS of Tb^{3+} and Eu^{3+}in $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC.

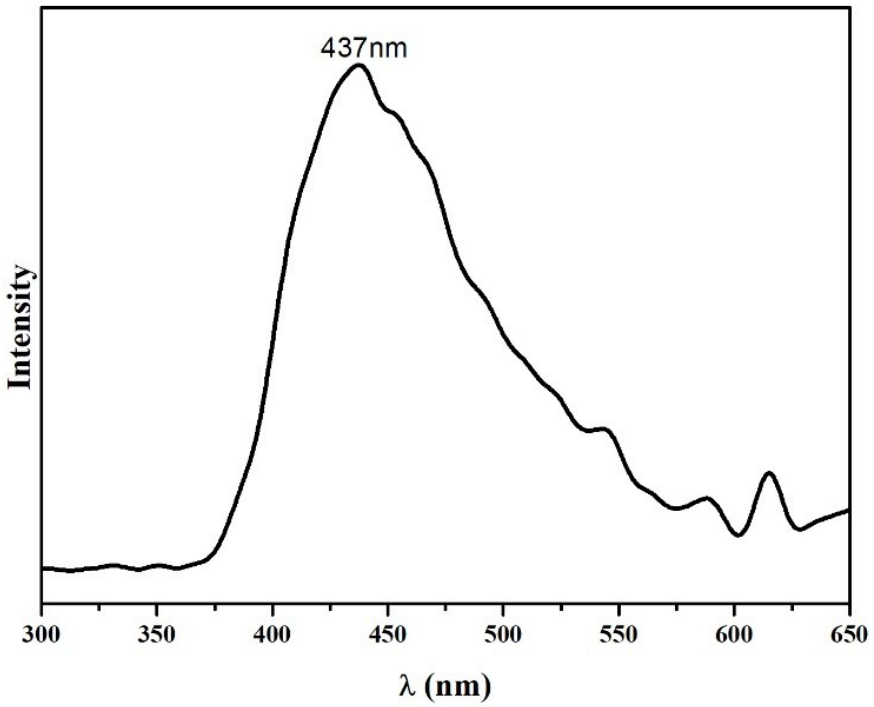

Fig. S7. The low-temperature phosphorescence spectrum of Gd-BTC under 270 nm excitation at 77 K.

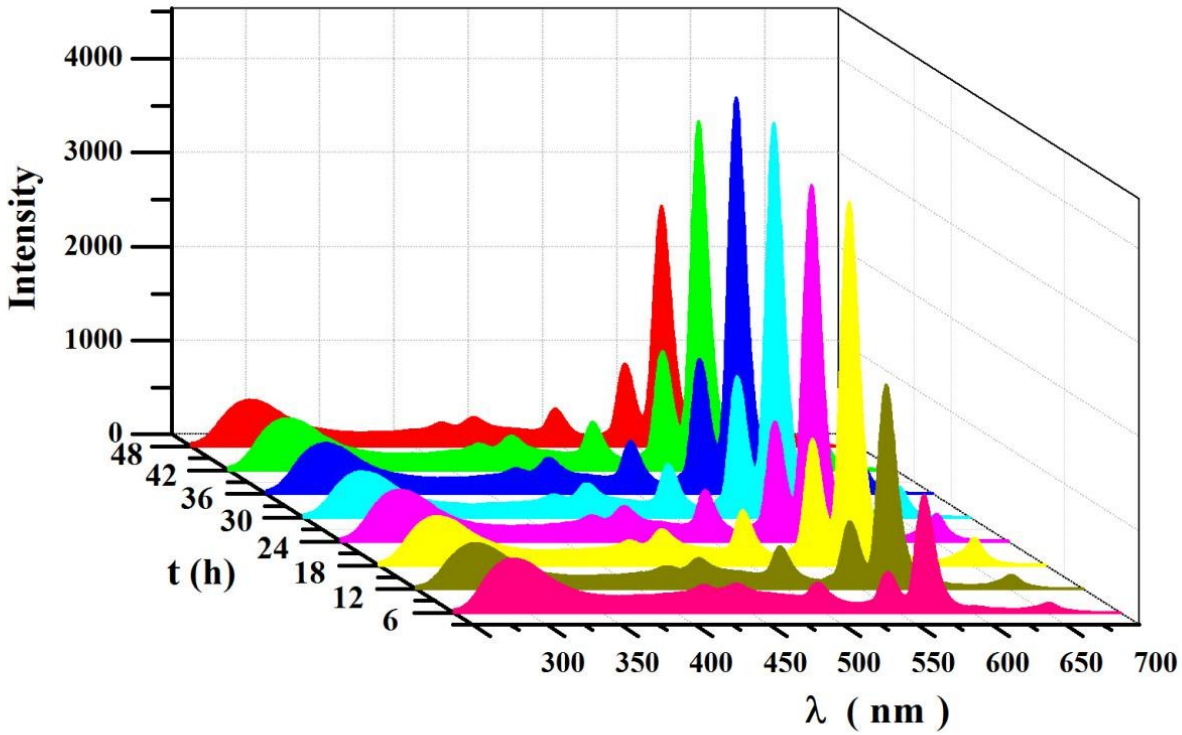

Fig. S8. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) with soaking time of 6-42 h recorded at ambient temperature.

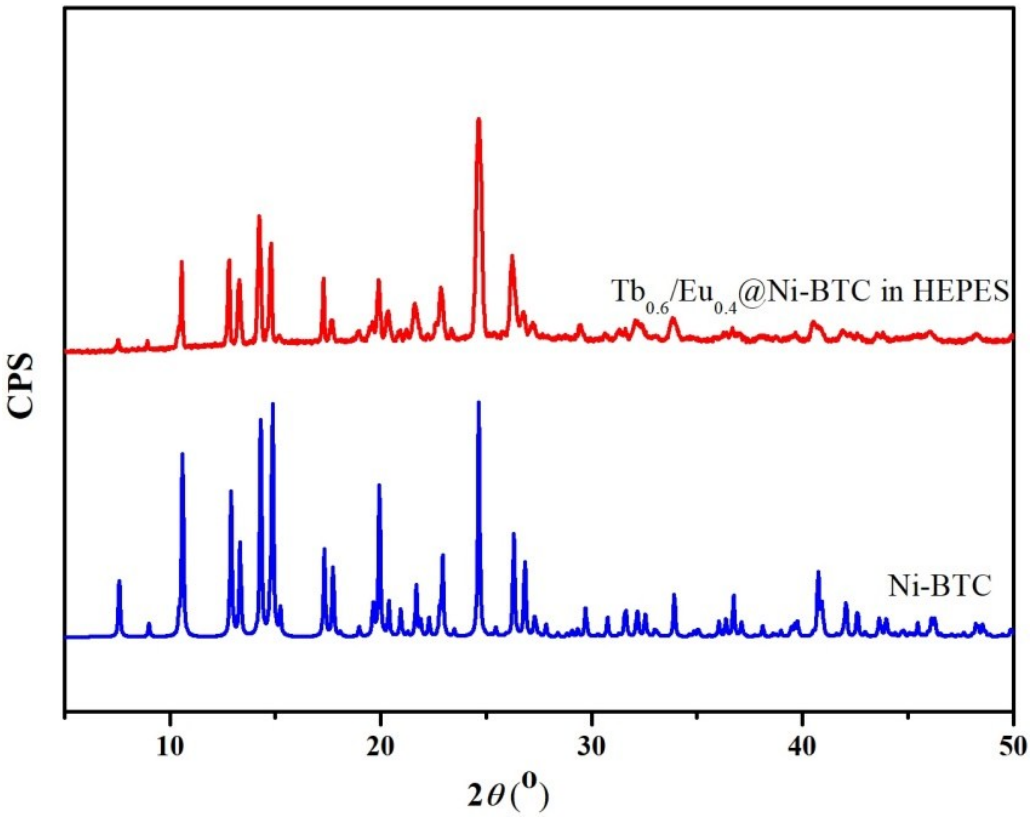

Fig. S9 The PXRD patterns of Ni-BTC and $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC dispersed in HEPES buffer solution.

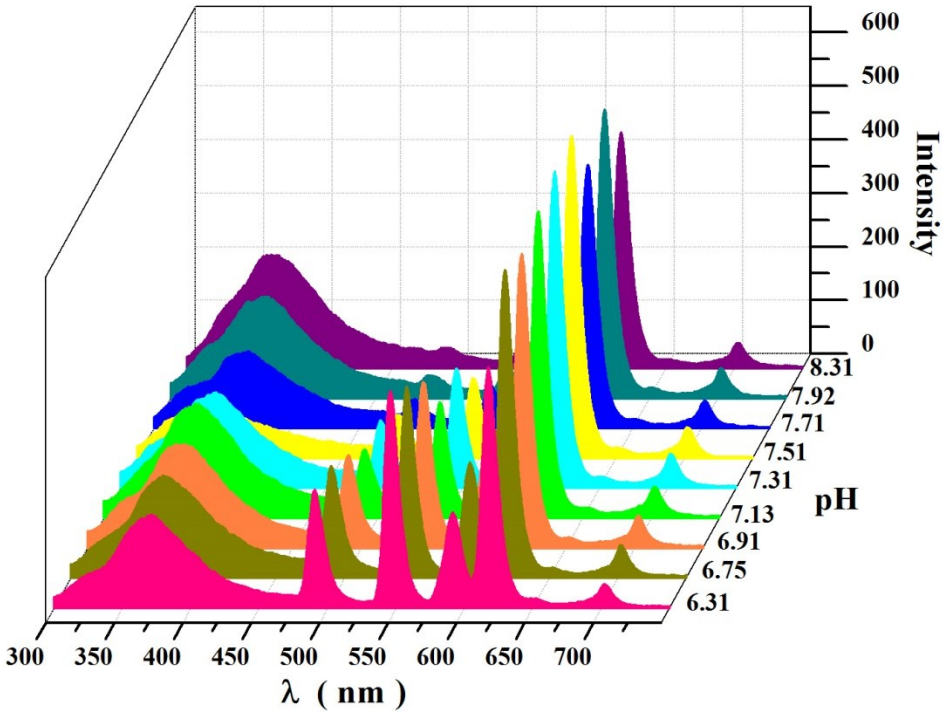

Fig. S10. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) without DPA added depending on pH recorded at ambient temperature.

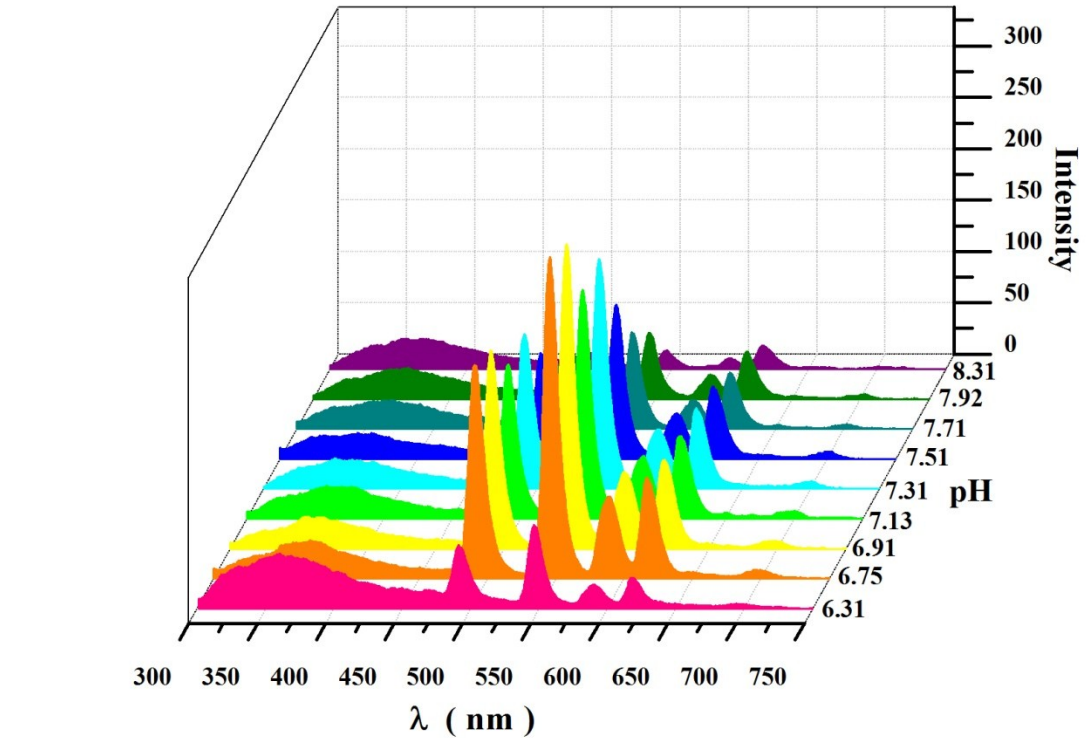

Fig. S11. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) with DPA added depending on pH values recorded at ambient temperature.

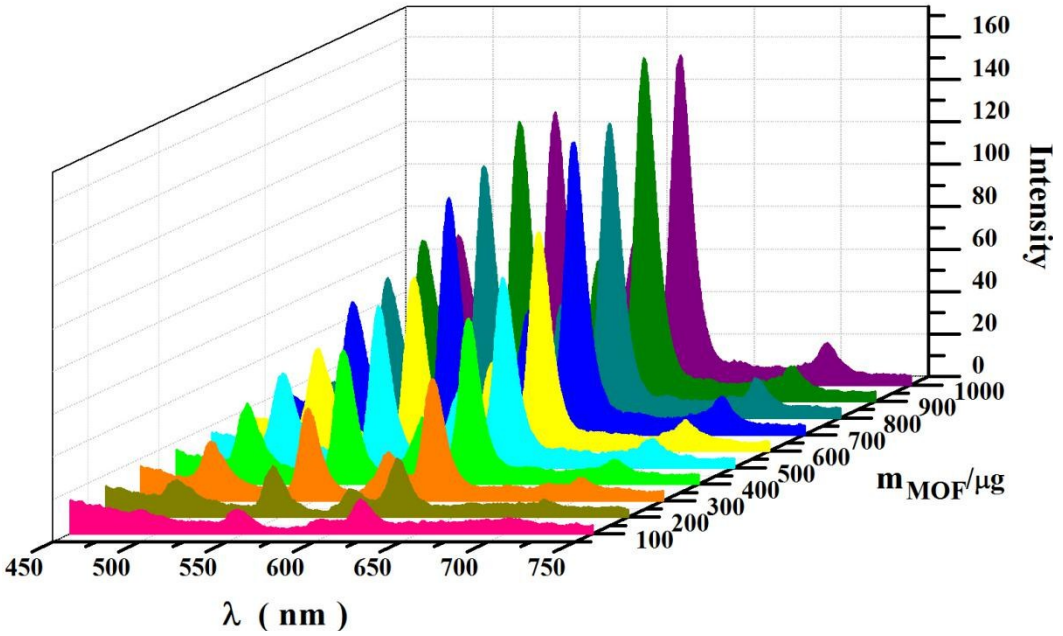

Fig. S12. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) without DPA dropped depending on the dosage of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC recorded at ambient temperature.

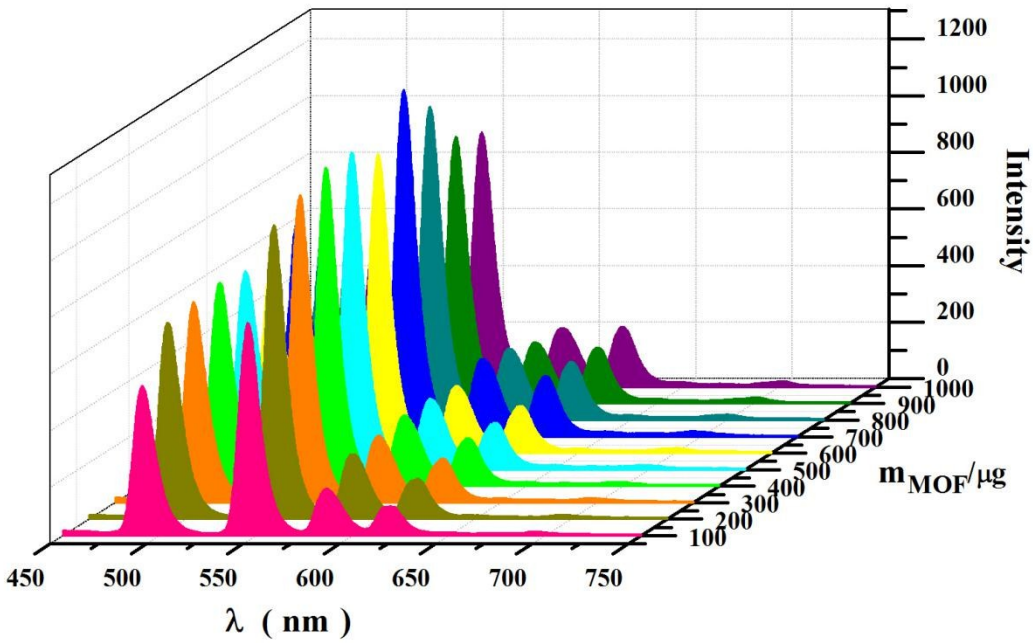

Fig. S13. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) dropped with DPA depending on the dosage of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC recorded at ambient temperature.

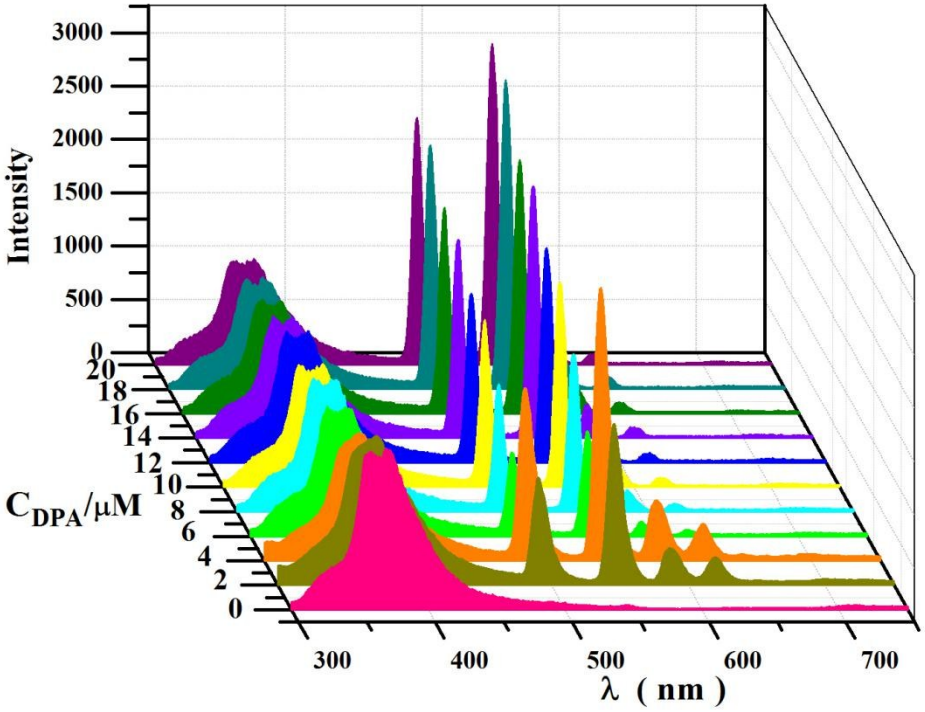

Fig. S14. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) depending on C_{DPA} of 0-20 μmol/L recorded at ambient temperature.

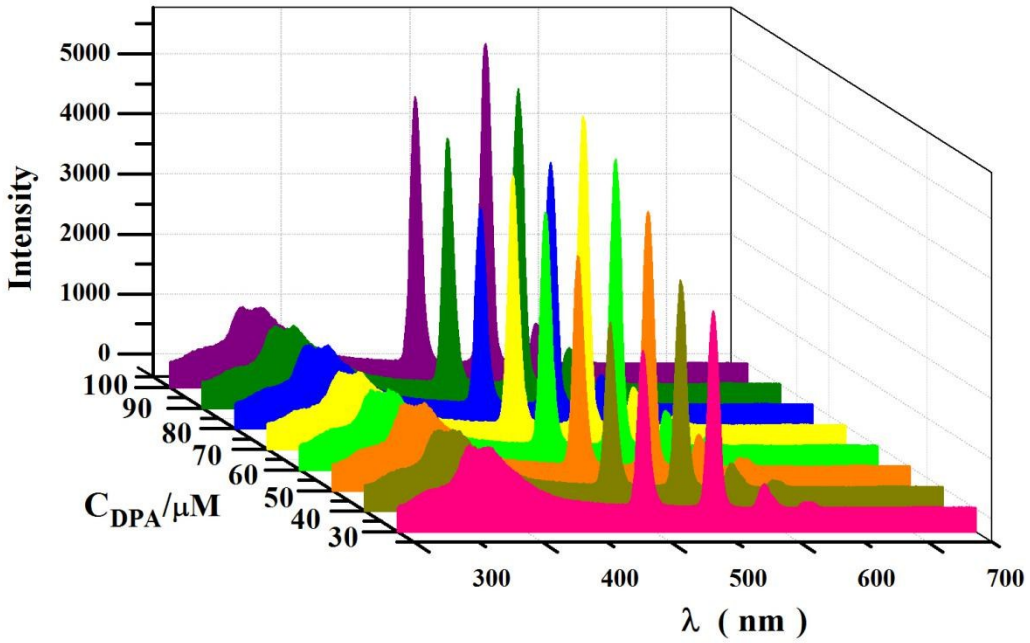

Fig. S15. The solid-state emission spectra of $Tb^{3+}_{0.6}/Eu^{3+}_{0.4}$@Ni-BTC ($\lambda_{ex}$ = 270 nm) depending on C_{DPA} of 30-100 μmol/L recorded at ambient temperature.