Supporting Information

Ammonia-Responsive Luminescence of Ln^{3+}-β-diketonate Complex Encapsulated within Zeolite Y

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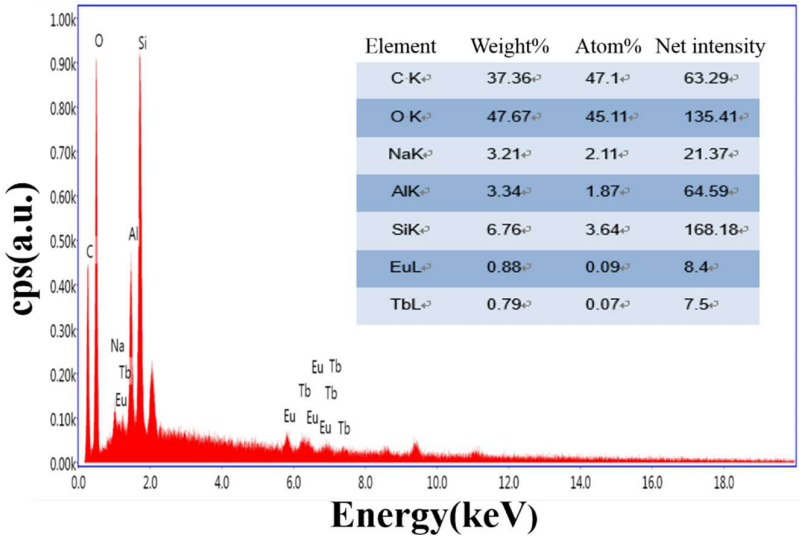

Figure S1. The EDX spectrum of $Eu_{0.5}Tb_{0.5}(HPBA_n)$@ZY.

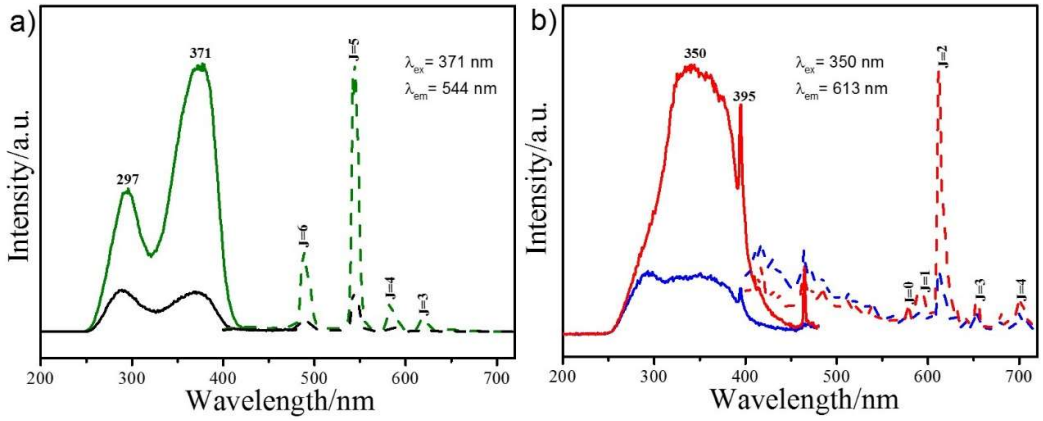

Figure S2. Excitation (green solid line) and emission spectra (green dot line) of $Tb(HPBA_n)$@ZY before treatment with NH_3 vapor; excitation (black solid line) and emission spectra (black dot line) of $Tb(HPBA_n)$@ZY after treatment with NH_3 vapor (a). Excitation (blue solid line) and emission spectra (blue dot line) of $Eu(HPBA_n)$@ZY before treatment with NH_3 vapor; excitation (red solid line) and emission spectra (red dot line) of

Eu(HPBA$_n$)@ZY after treatment with NH_3 vapor (b).

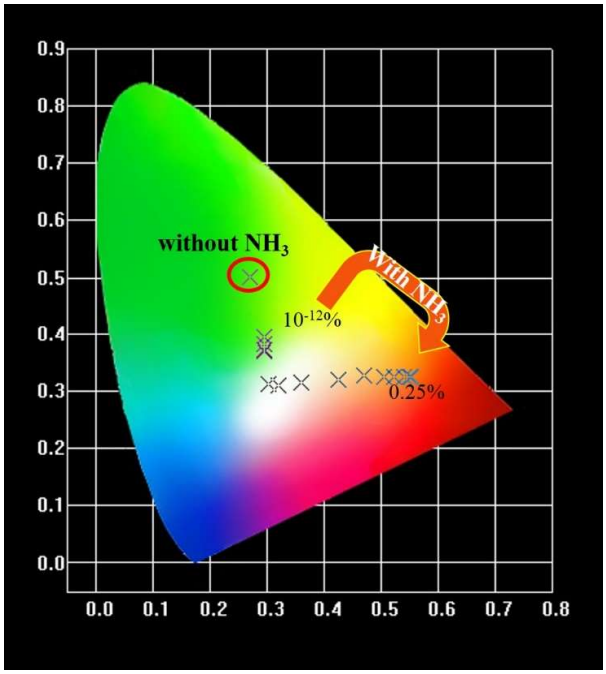

Figure S3. The corresponding CIE 1931 coordinates of $Eu_{0.5}Tb_{0.5}$(HPBA$_n$)@ZY after treatment with different concentration of aqueous ammonia.

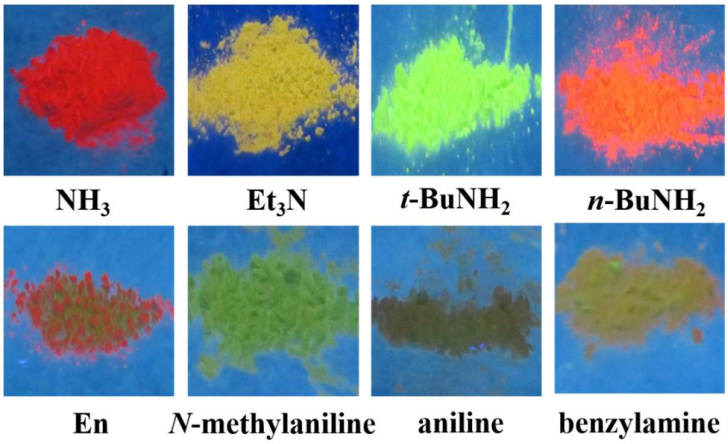

Figure S4. Digital photographs of $Eu_{0.5}Tb_{0.5}$(HPBA$_n$)@ZY upon contact with amines for 10 min under near UV irradiation at 365 nm.

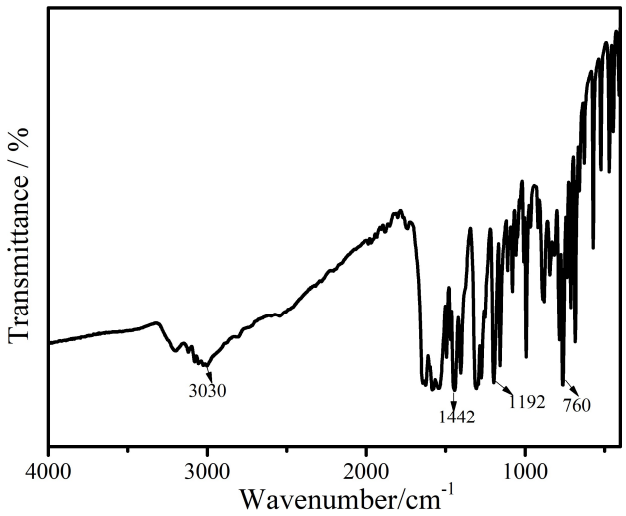

Figure S5. FTIR spectrum of HPBA.