

## Supporting Information

### Multiple Switchable Circularly Polarized Luminescence from Nucleotide/Terbium (III) Complexes

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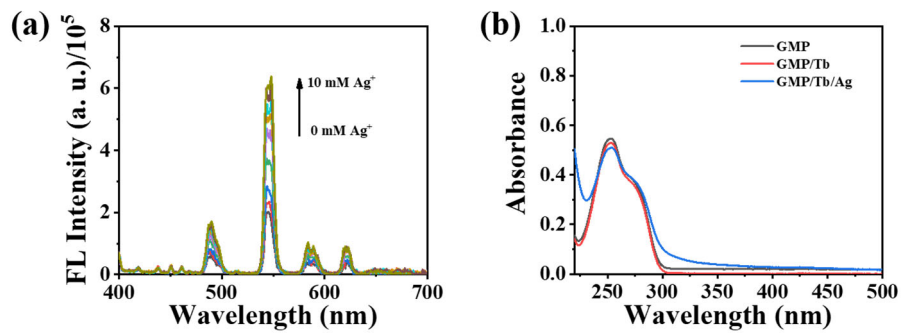


Fig. S1 (a) Fluorescence spectra of GMP/Tb CPNs with different concentrations of  $\text{Ag}^+$  (the solution was diluted 50 times,  $\lambda_{\text{ex}} = 236$  nm). (b) UV-vis spectra of GMP solution, GMP/Tb and GMP/Tb/Ag CPNs (the solution was diluted 400 times).

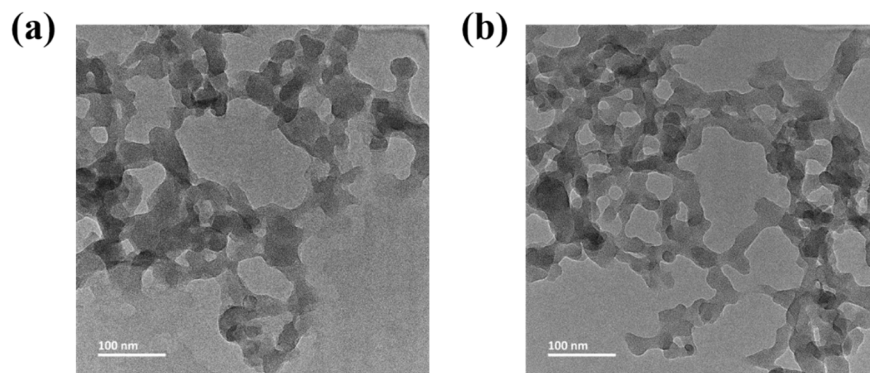


Fig. S2 TEM images of (a) GMP/Tb CPNs and (b) GMP/Tb/Ag CPNs.

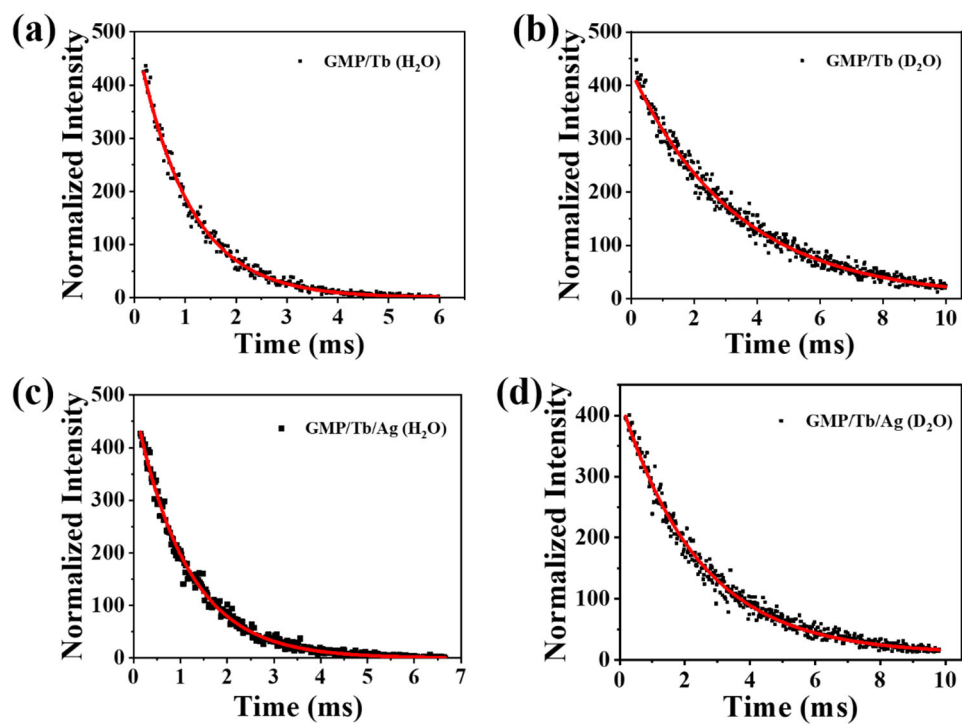


Fig. S3 Luminescence decay curves of (a) GMP/Tb in  $H_2O$  dispersion, (b) GMP/Tb in  $D_2O$  dispersion, (c) GMP/Tb/Ag in  $H_2O$  dispersion and (d) GMP/Tb/Ag in  $D_2O$  dispersion. The decay curves were fitted with double exponential curves (in red).

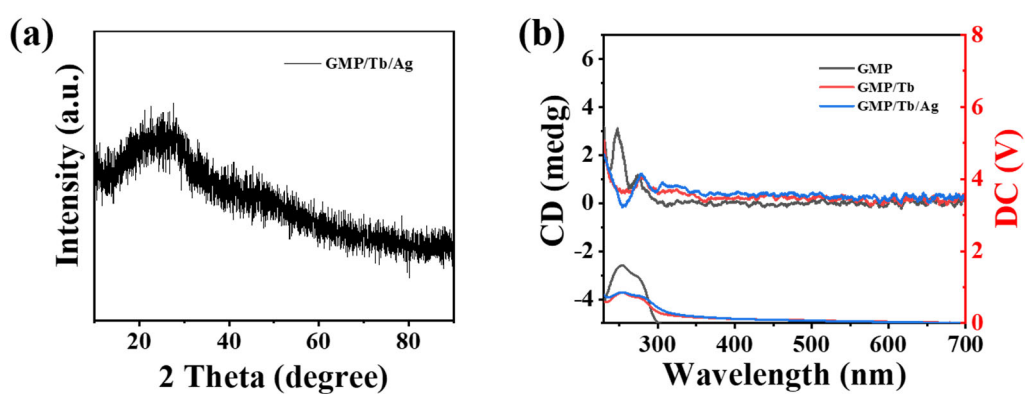


Fig. S4 (a) XRD of GMP/Tb/Ag CPNs. (b) CD spectra of GMP, GMP/Tb and GMP/Tb/Ag CPNs.

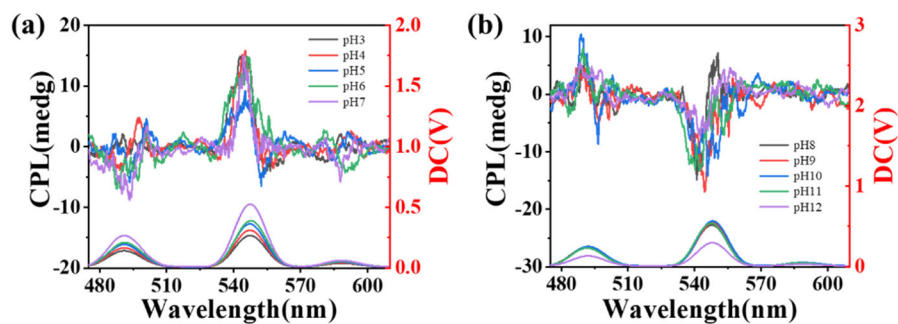


Fig. S5 (a) CPL of GMP/Tb/Ag CPNs in acidic and neutral conditions (pH 3-7). (b) CPL of GMP/Tb/Ag CPNs in alkaline conditions (pH 8-12) ( $\lambda_{\text{ex}} = 236 \text{ nm}$ ).

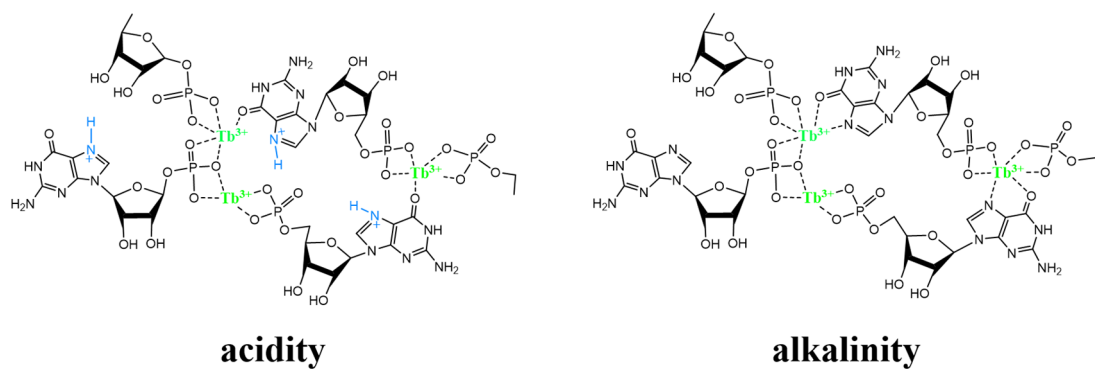


Fig. S6. Schematic diagram of the presumed coordination at acidity and alkalinity.

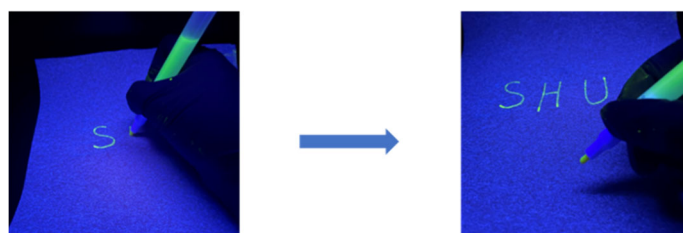


Fig. S7 Wrote the abbreviation of Shanghai University with a pen under 254 nm UV light.