**Supplementary Data**

# Aggregation-induced emission active vitamin $B_6$ cofactor derivative: applications in pH sensing and detection of latent fingerprints

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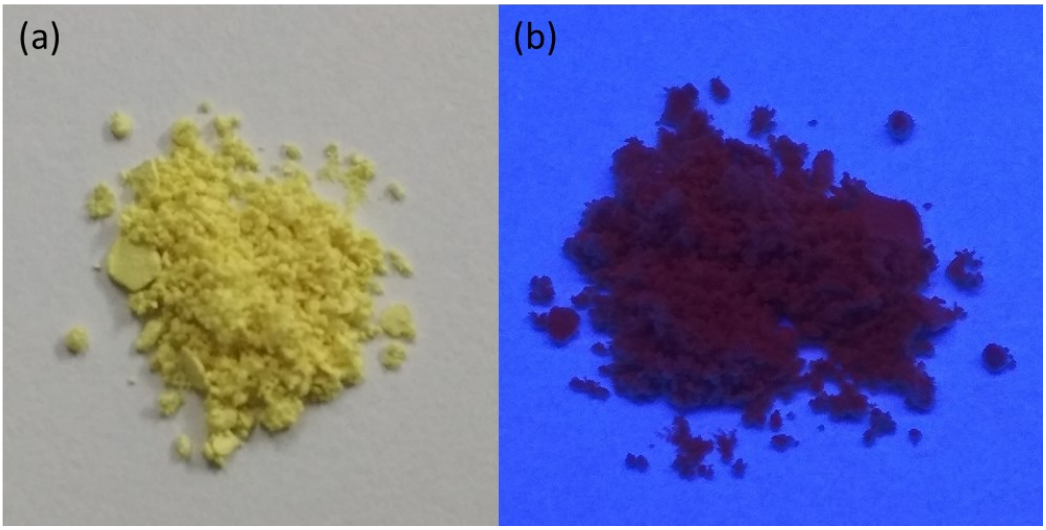


**Fig. S1.** Receptor **L** on solid state under day-light (a) and UV-light irradiated at 365 nm (b).

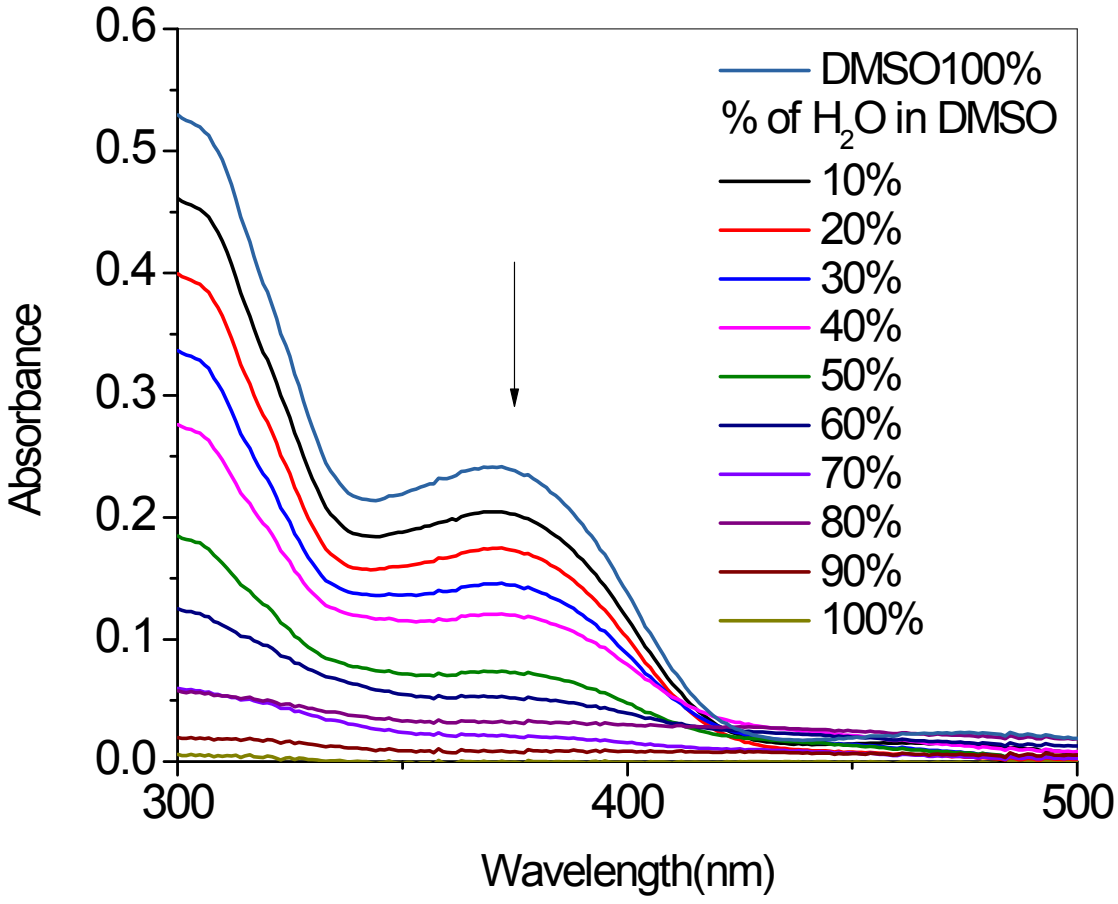


**Fig. S2.** UV-Vis absorption spectra of **L** ($2.5\times10^{-5}$ M) in DMSO/$H_2O$ mixed solvents with varying water fraction ($f_w$) from 0% to 99%.

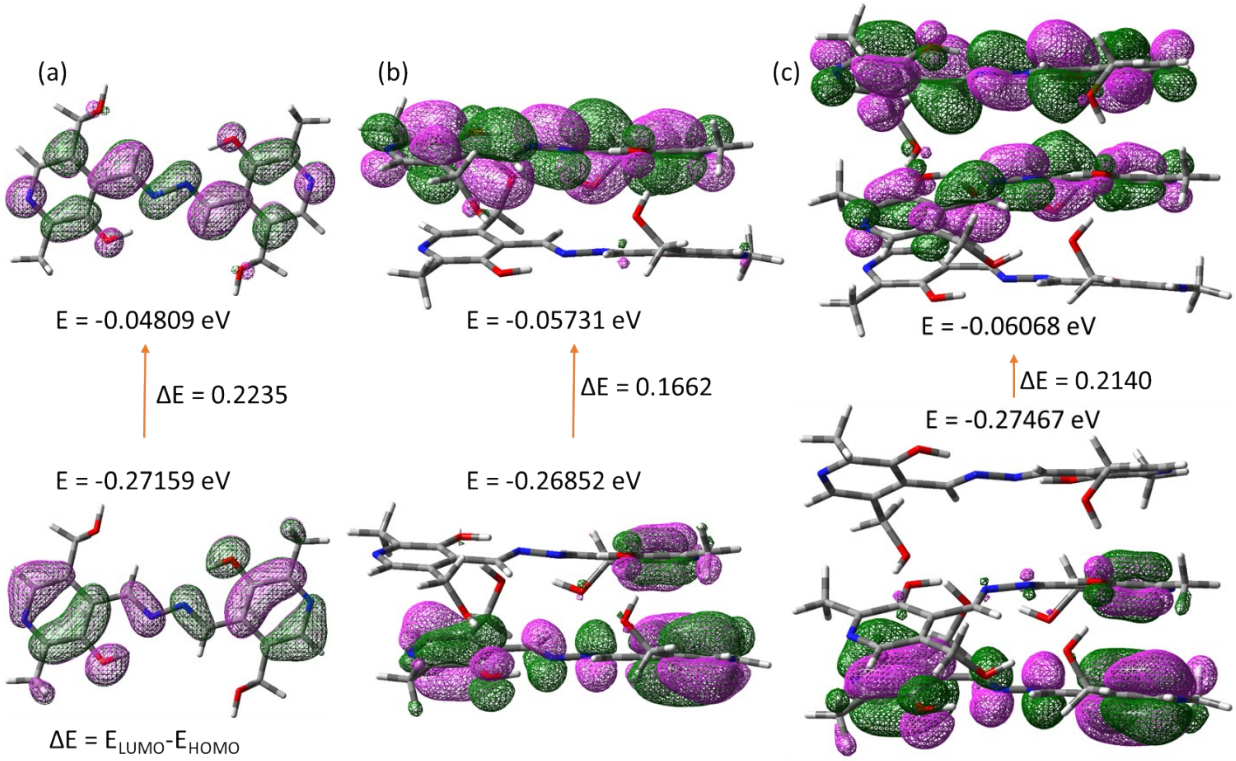


**Fig. S3.** DFT computed HOMO's and LUMO's diagraphs of the compound **L** (a) and its dimer (b) and trimer (c) structures.

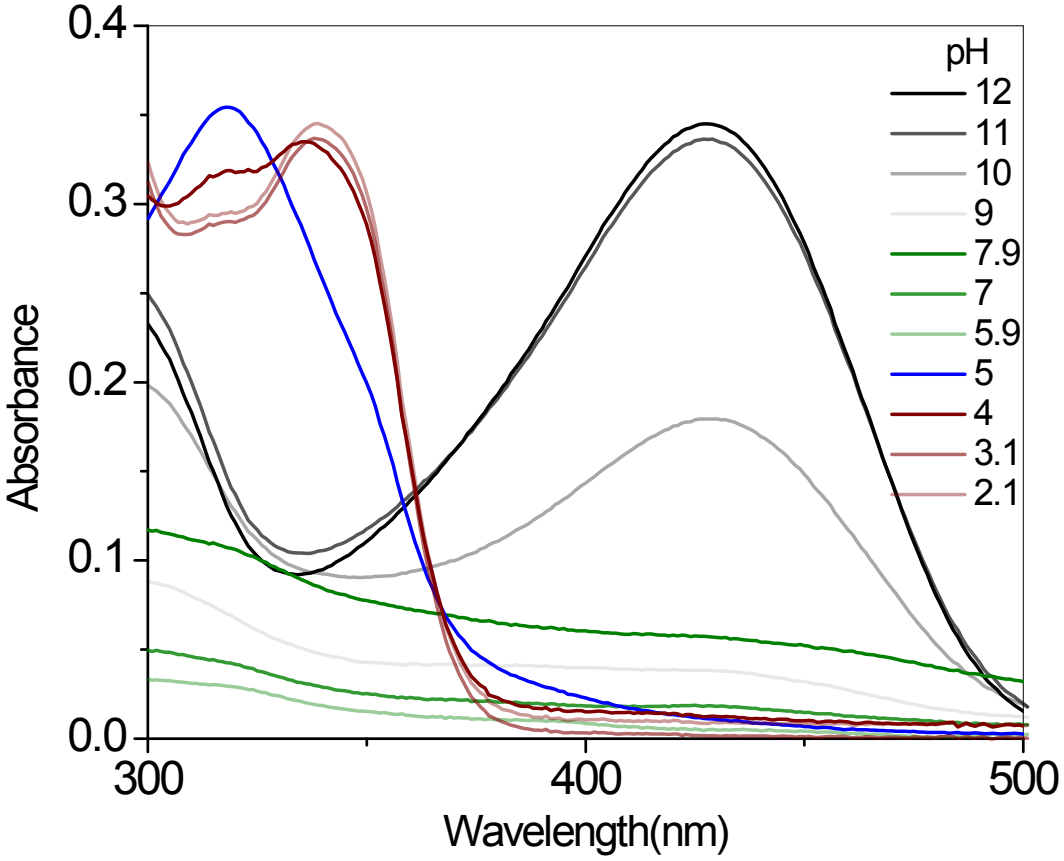


**Fig. S4.** Absorbance spectra of aggregated **L** ($2.5\times10^{-5}$M) in DMSO/$H_2O$ at different pH.

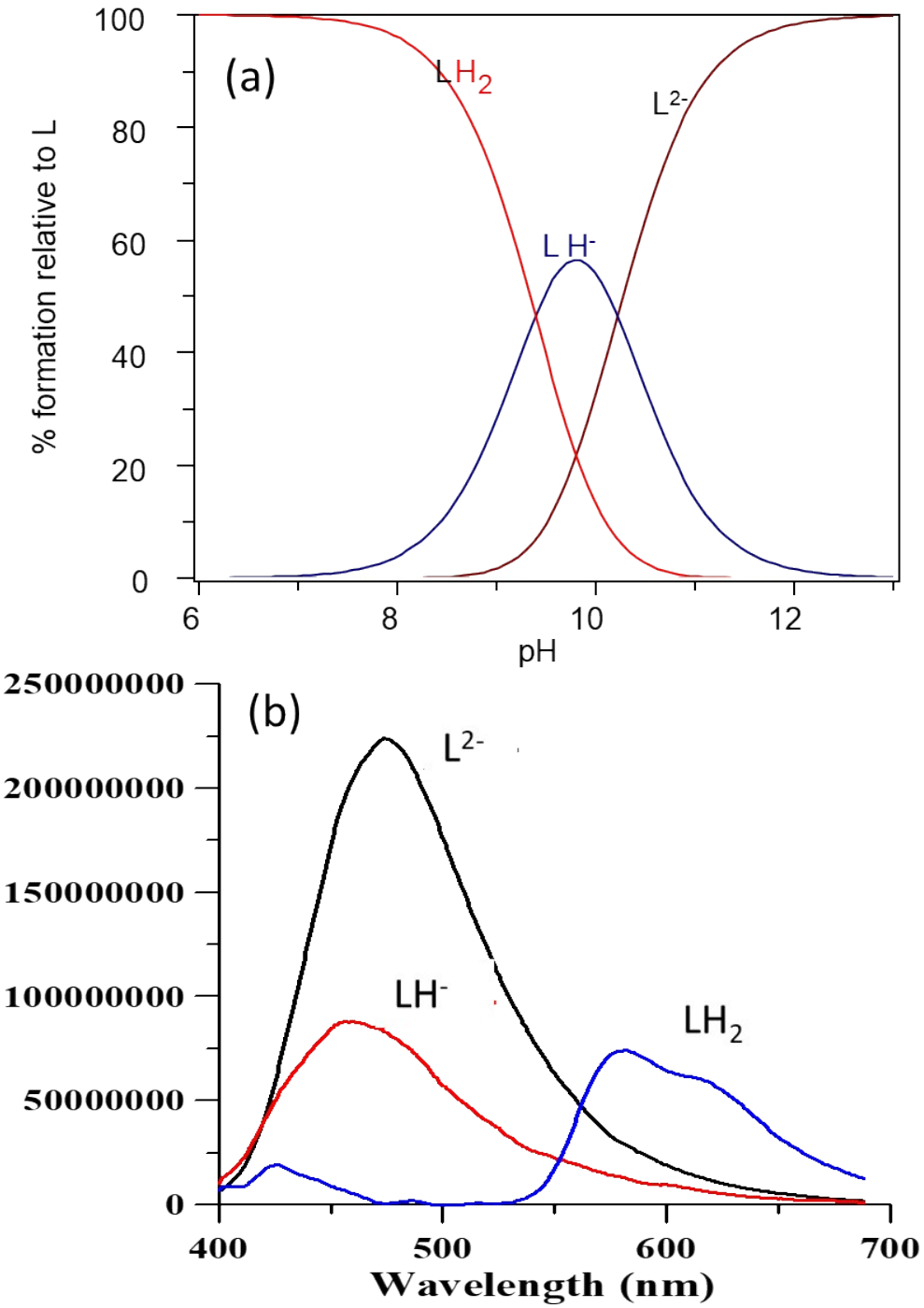


**Fig. S5.** (a) The % of formation of different protonated and deprotonated forms of **L** at different pH and their (b) predicted fluorescence spectra.

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