

Electronic Supplementary Information (ESI)

Colour Change and Luminescence Enhancement in a Cholesterol-based Terpyridyl Platinum Metallogel via Sonication

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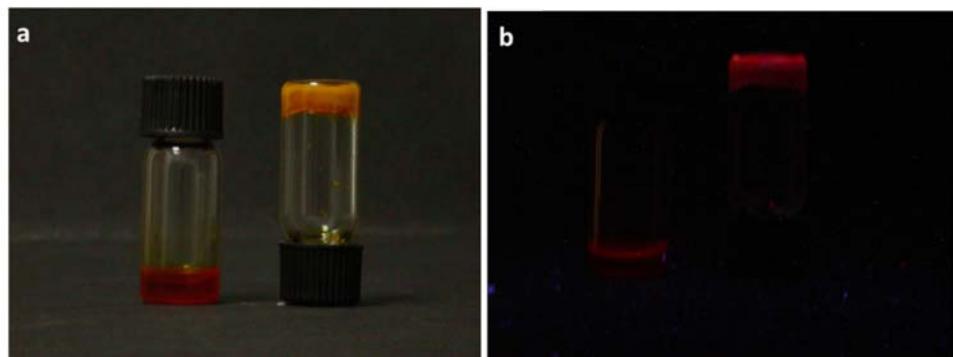


Fig. S1 Images of complex **1a** in n-propanol (40 mg/mL) after heating-cooling process (left) and sonication (right, 0.16 W cm^{-2} , 40 KHz, 40 min) in (a) bright field and (b) under an illumination of a 365 nm UV-lamp.

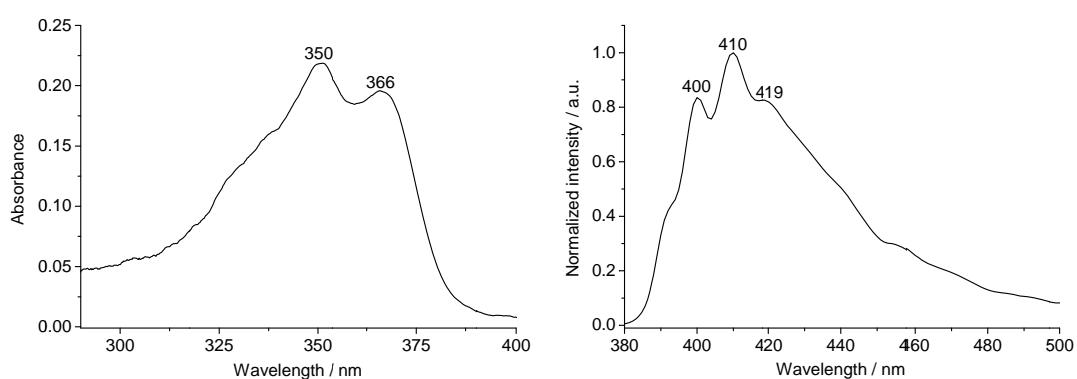


Fig. S2 The absorption and emission spectra of **L1** in n-propanol solution ($1.0 \times 10^{-4} \text{ M}$, in 1 mm cell at 25°C , $\text{Ex} = 360 \text{ nm}$).

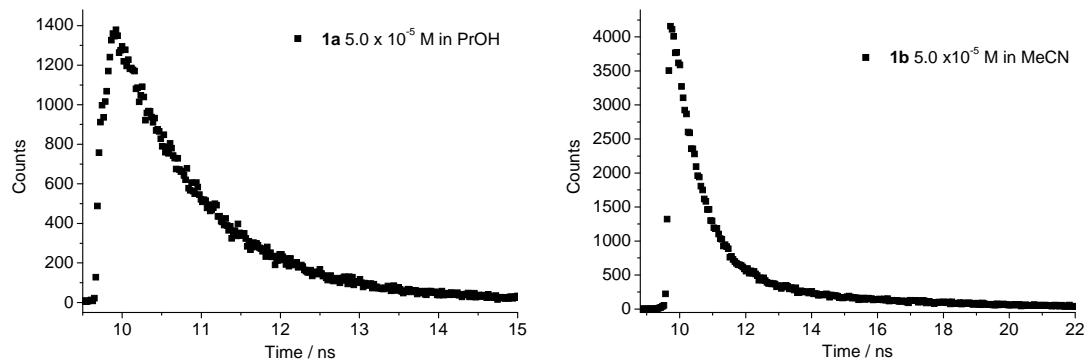


Fig. S3 Lifetime decay of **1a** (left) and **1b** (right) in 5.0×10^{-5} M excited by 375 nm laser, $\lambda_{\text{em}} = 486$ nm, 1 mm cell, 25 °C.

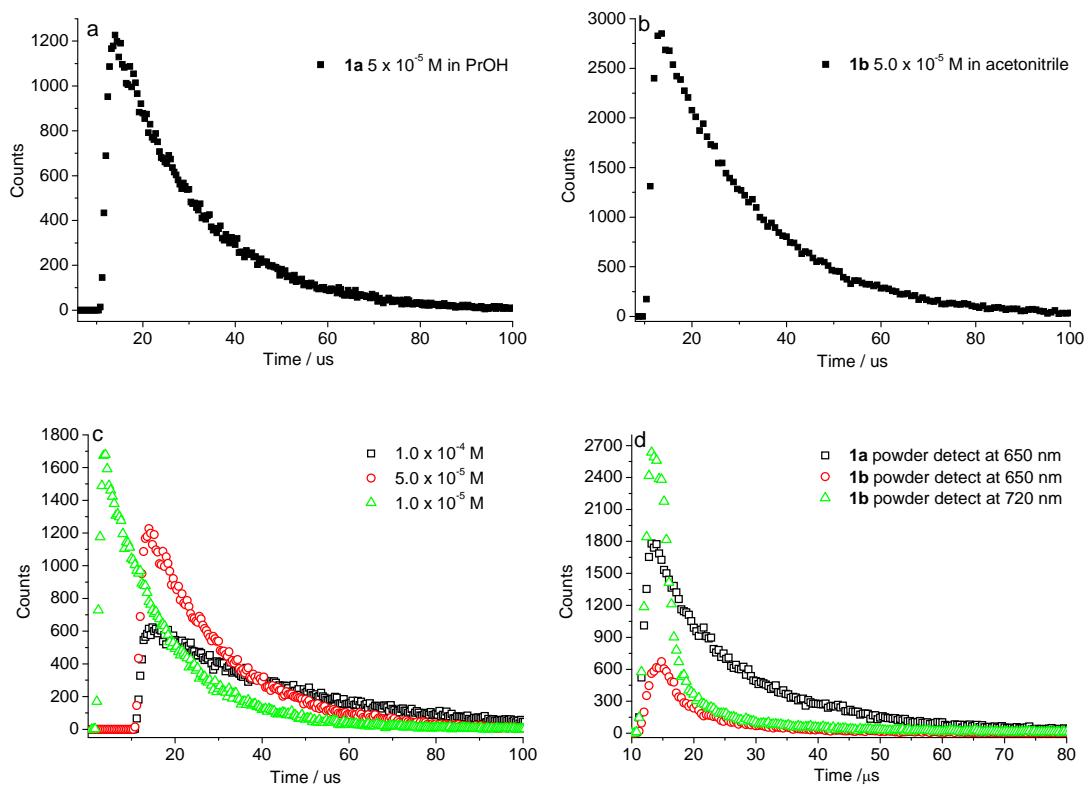


Fig. S4 Lifetime decay of (a) **1a** in n-propanol and (b) **1b** in acetonitrile under argon protection in 5.0×10^{-5} M solution, Ex = 420 nm, Em = 626 nm. (c) Lifetime decay of **1a** at different concentration of n-propanol under Argon protection, 1 mm cell, 25 °C, Ex = 420 nm, Em = 626 nm. (d) Lifetime decay of **1a** (black) and **1b** powder (red and green), Ex = 420 nm, Em = 626 nm, 720 nm.

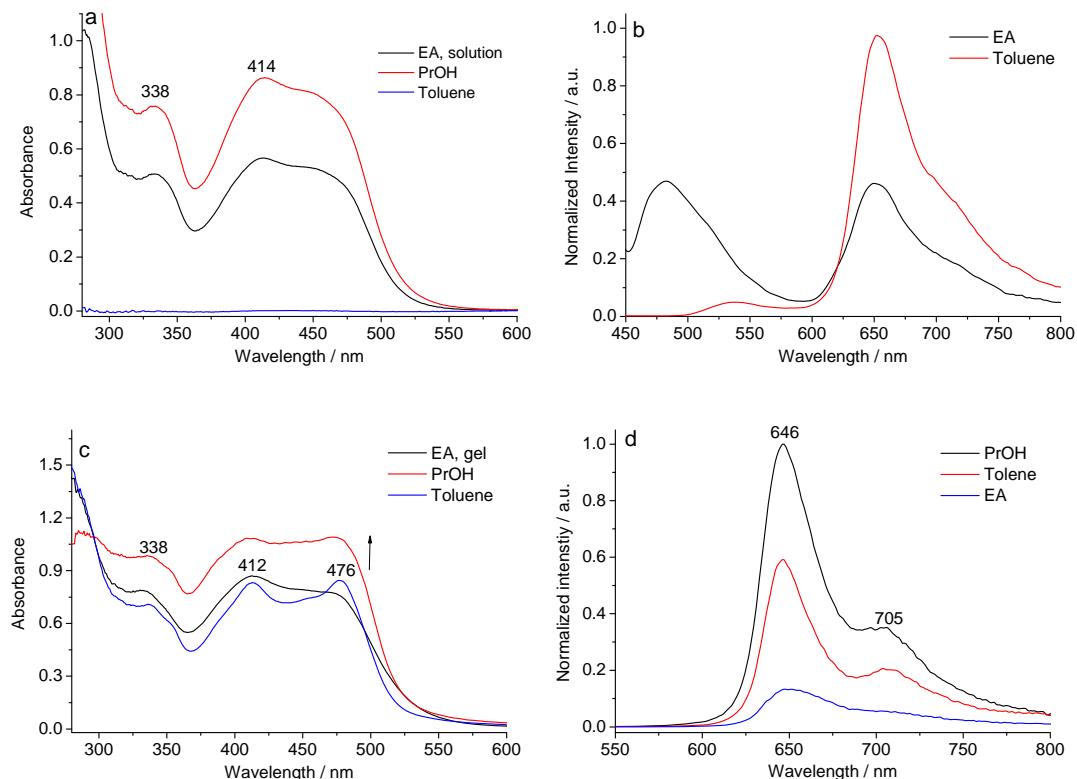


Fig. S5 The absorption (a, c) and emission (b, d) spectra of **1a** of 40 mg/mL (2.8×10^{-3} M) in sol (a, b) and sonicated gel state (c, d) in different solvent (0.1 mm cell, 25 °C, Ex = 420 nm).



Fig. S6 Enlarged SEM image of **1a** in gel state of PrOH formed by sonication (0.16 W cm⁻², 40 KHz, 40 °C, 30 min)