

Self-Assembly and Photo-Responsive Behavior of Bis-terpyridyl Eu³⁺-Complex

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6.1 Ref Ion Gate Position ToF2_mix
Confidence
Data: DC-20180307-989.860001.H24[c] 7 Mar 2018 21:38 Cal: tof 25 Oct 2017 14:46
Shimadzu Biotech Axima Confidence 2.9.3.20110624: Mode Reflectron, Power: 80, Blanked, P.Ext. @ 989 (bin 72)
%Int. 2.4 mV[sum= 227 mV] Profiles 1-96 Unsmoothed

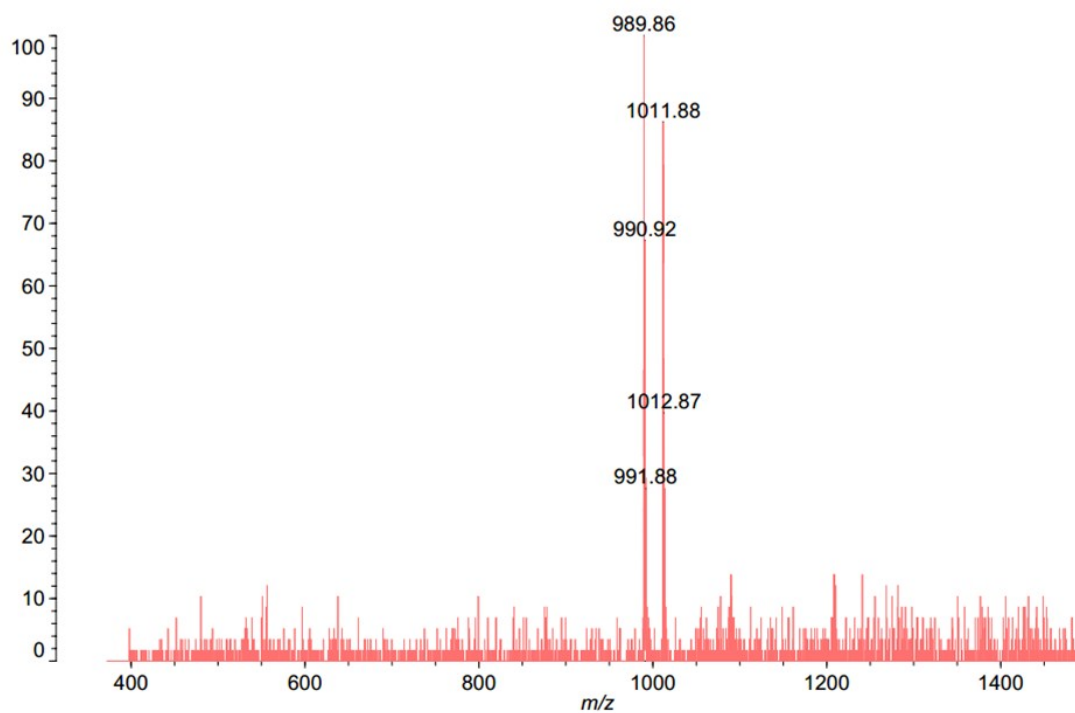


Figure S1. MALDI-TOF-MS spectrum of compound L1.

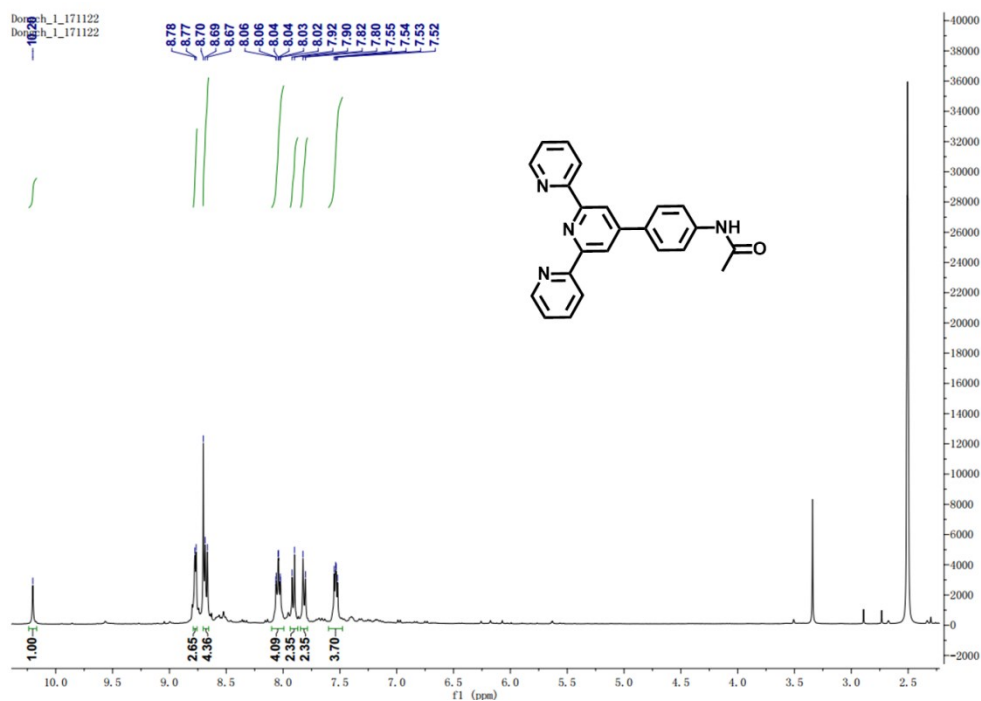
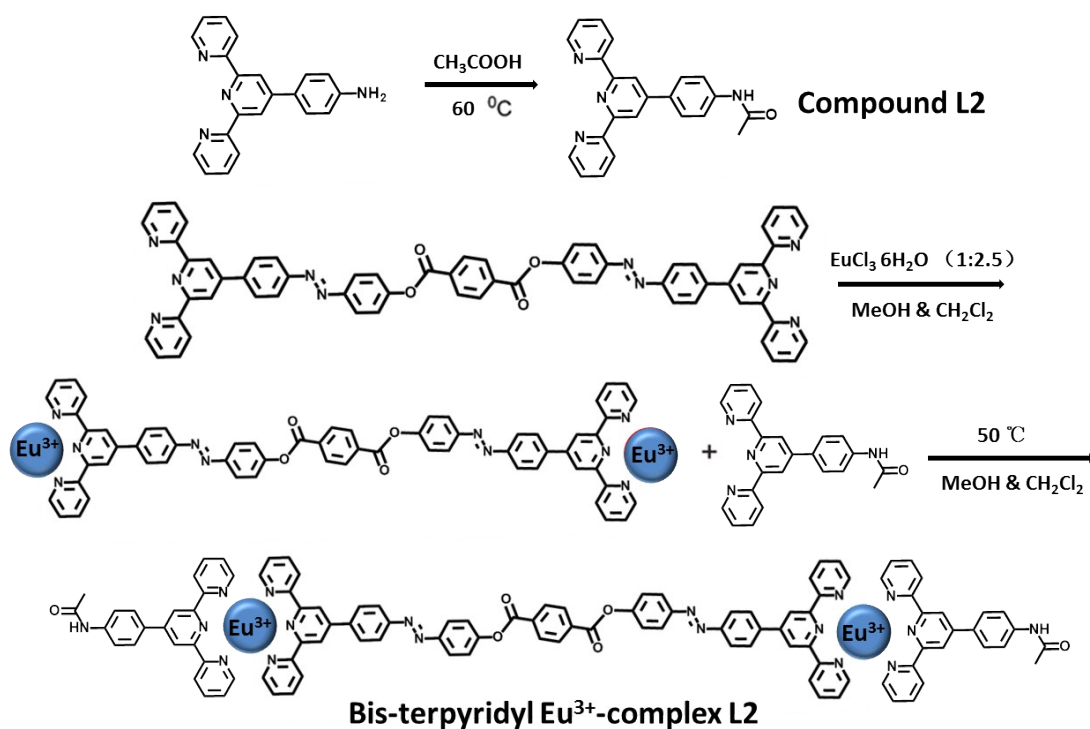


Figure S2. ¹H-NMR (400 MHz) spectrum of compound L2.



Scheme S1. Synthetic route of **compound L2** and **bis-terpyridyl Eu^{2+} -complex L2**.

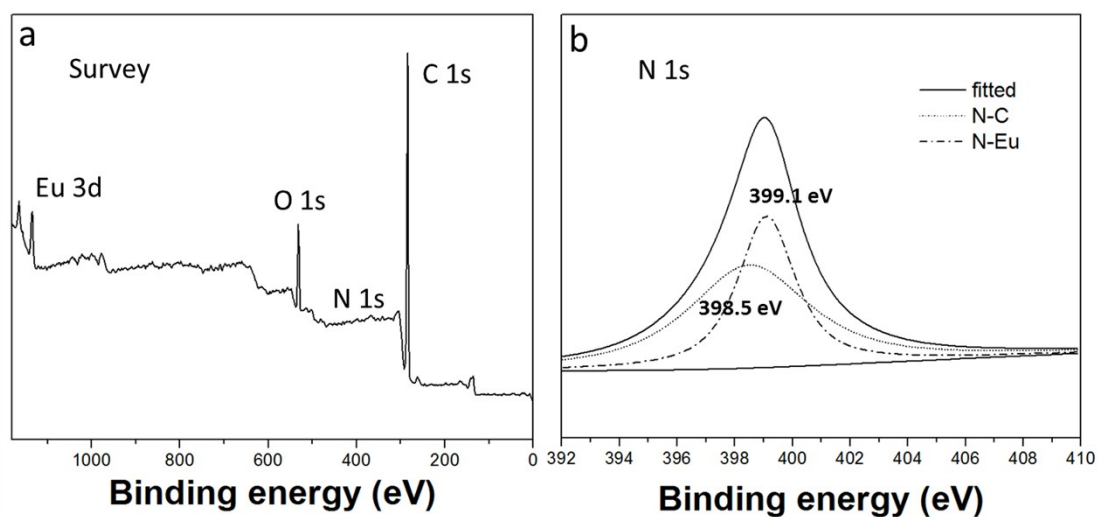
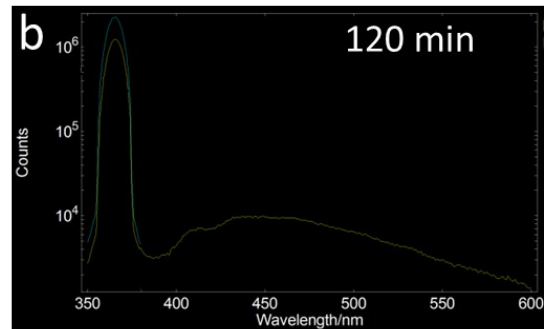
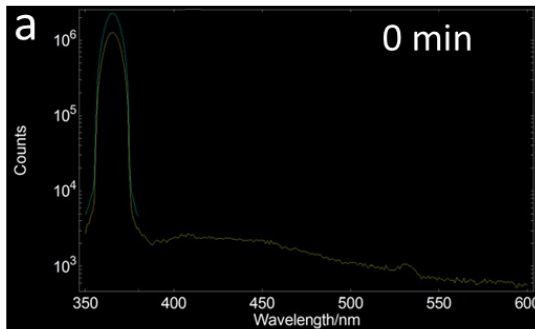


Figure S3. XPS analysis of **bis-terpyridyl Eu^{3+} -complex L1**. (a) Energy survey of spectrum. (b) High-resolution spectrum in the N1s.



Quantum Yield Results
for 'Multi Scans'

Excitation Range: 350.00 to 380.00 nm
Luminescence Range: 380.00 to 600.00 nm

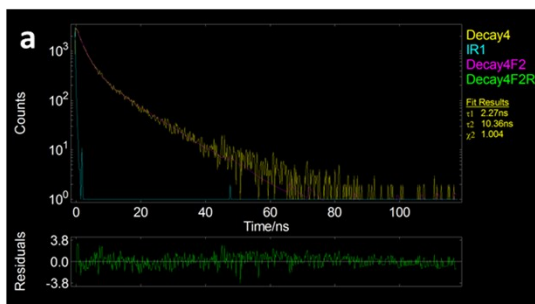
QY = 2.90%

Quantum Yield Results
for 'Multi Scans'

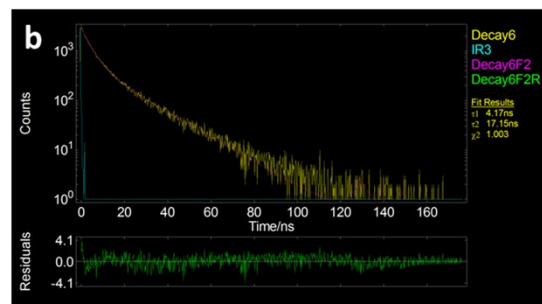
Excitation Range: 350.00 to 380.00 nm
Luminescence Range: 380.00 to 600.00 nm

QY = 10.57%

Figure S4. Fluorescence quantum yield of the solution before (a) and after (b) UV exposure of 120 minutes.



Fitting Result = $2.2663 \times 55.73\% + 10.3565 \times 44.27\% = 5.84783154 \text{ ns}$



Fitting Result = $4.1706 \times 56.14\% + 17.1539 \times 43.86\% = 9.86507538 \text{ ns}$

Figure S5. Short fluorescent life of the solution before (a) and after (b) UV exposure of 120 minutes.

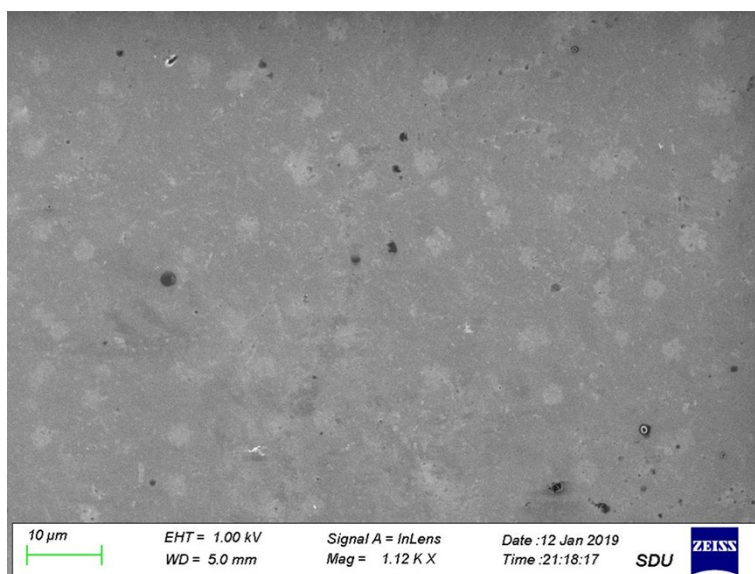


Figure S6. SEM images of **bis-terpyridyl Eu²⁺-complex L2** with no specific aggregates.

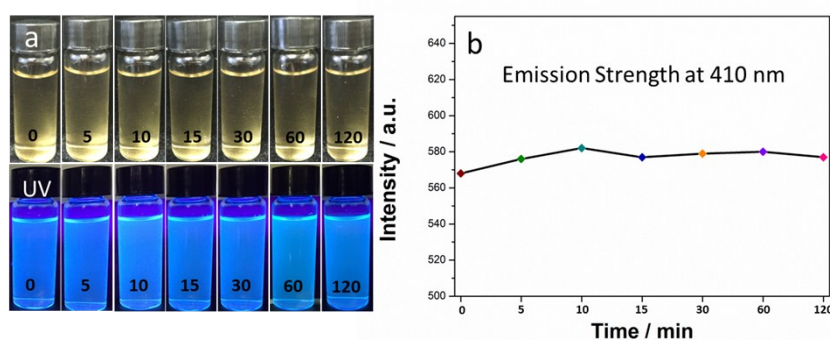


Figure S7. Fluorescence photographs and emission strength at 410 nm of the **bis-terpyridyl Eu²⁺-complex L2** solutions (0.2 mg/ml) after UV exposure of 0, 5, 15, 30, 60, 120 min.