Electronic Supplementary Material (ESI) for Chemical Communications

"ON-OFF" switching of europium complex luminescence coupled with ligand redox process

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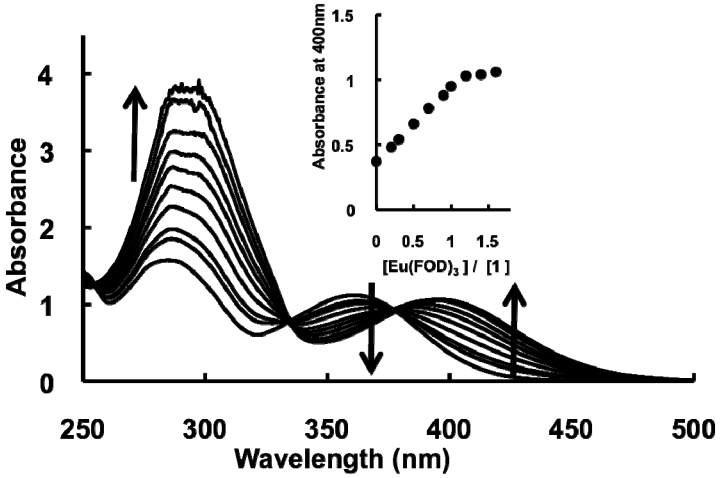

Fig. S1 UV spectral changes and titration curve for complexation between **1** and $Eu(FOD)_3$ in CH_3CN. [**1**]=5.0 $\times 10^{-5}$ M.

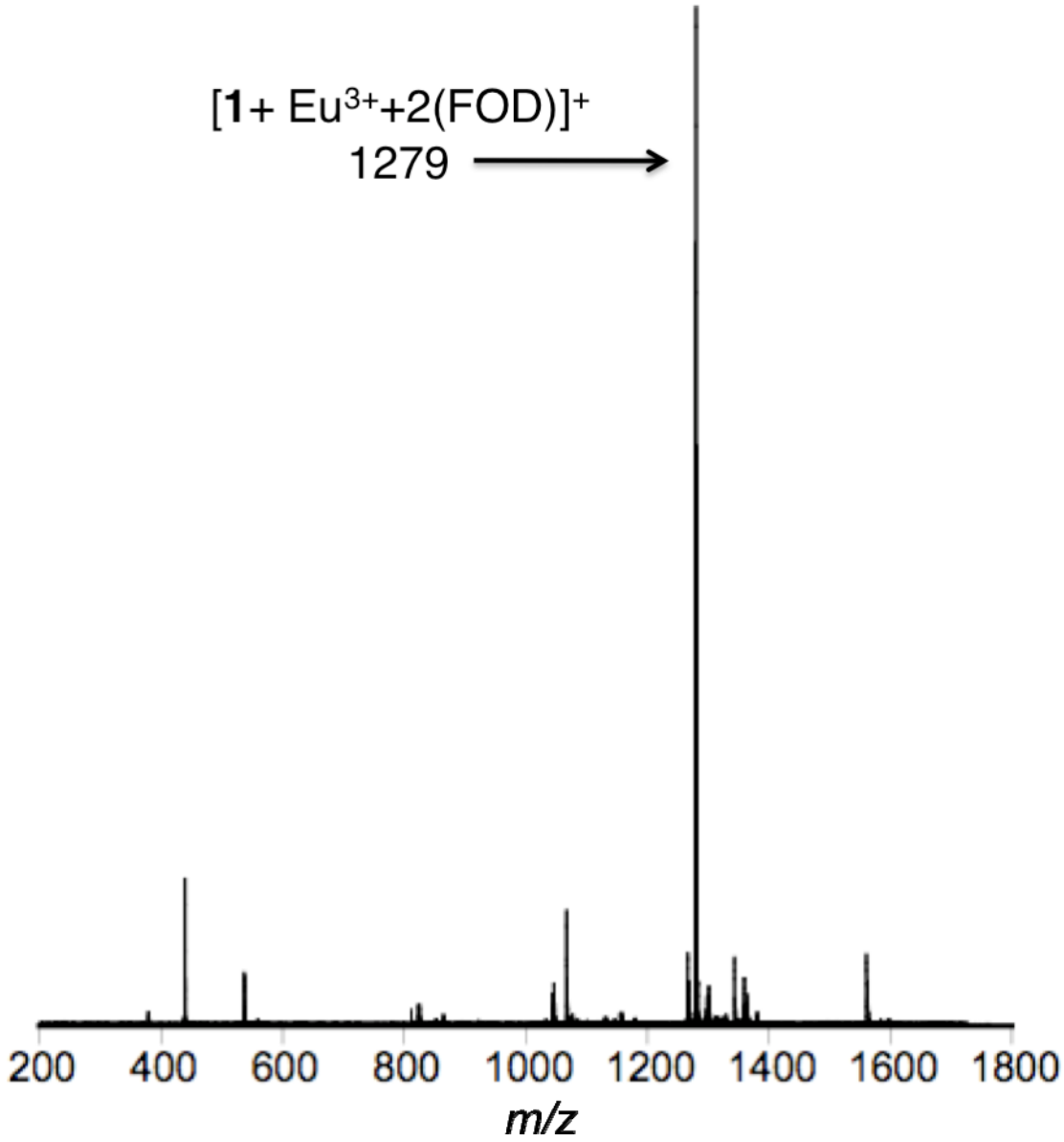

Fig. S2 ESI-MS spectrum of **1**•Eu(FOD)$_3$ in acetonitrile.

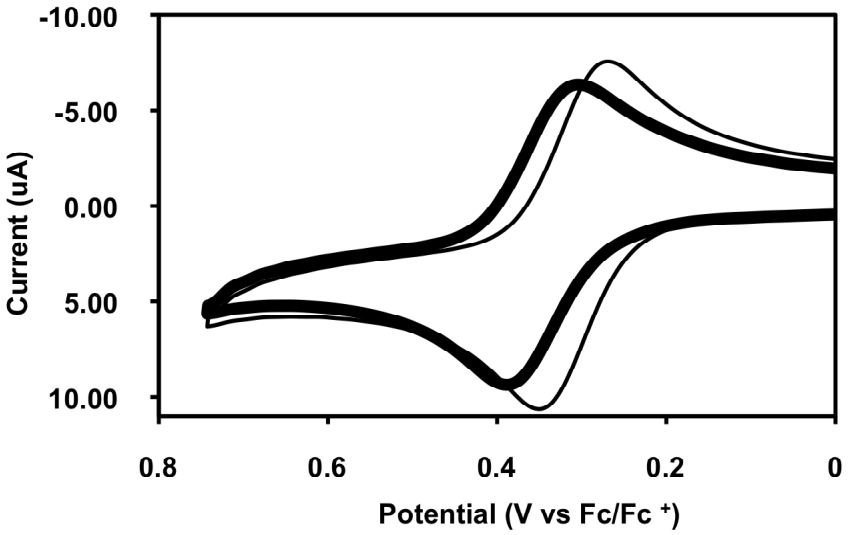

Fig. S3 Cyclic voltammograms of **1** (plain) and **1**•Eu(FOD)$_3$ (bold) in *n*-butyronitrile at room temperature. [**1**]=[**1**•Eu(FOD)$_3$] = 1.0 x 10^{-4} M.

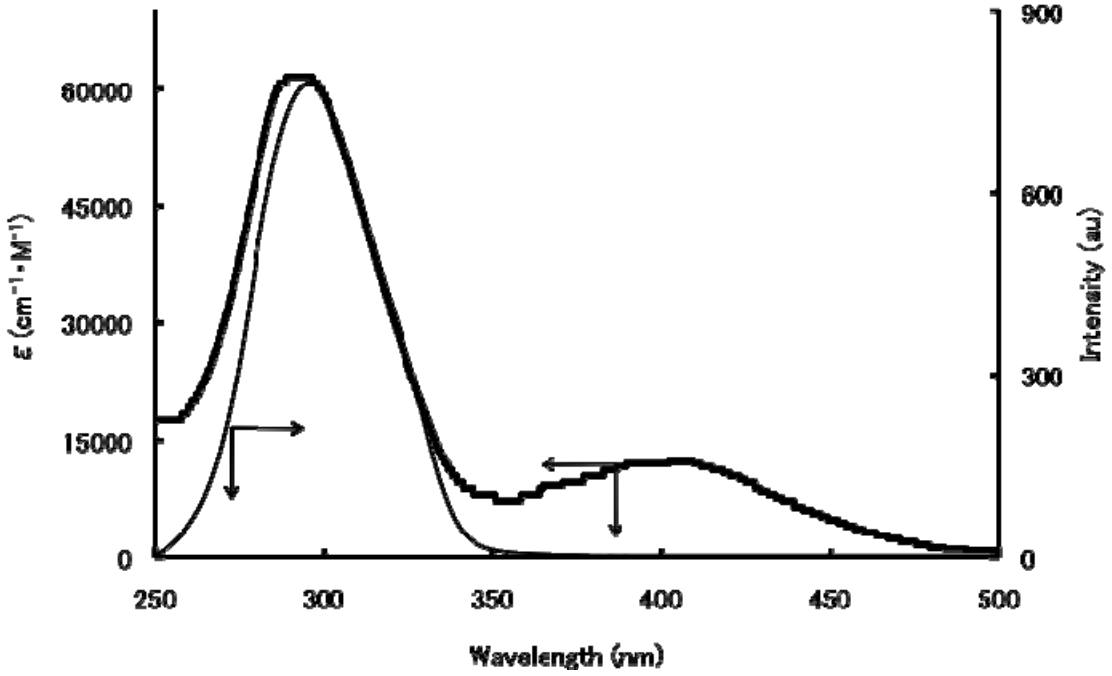

Fig. S4 Excitation (λ_{em}=615nm) (plain) and absorption (bold) spectra of **1**•Eu(FOD)$_3$ in acetonitrile at room temperature. [**1**•Eu(FOD)$_3$] = 5 x 10^{-6} M.

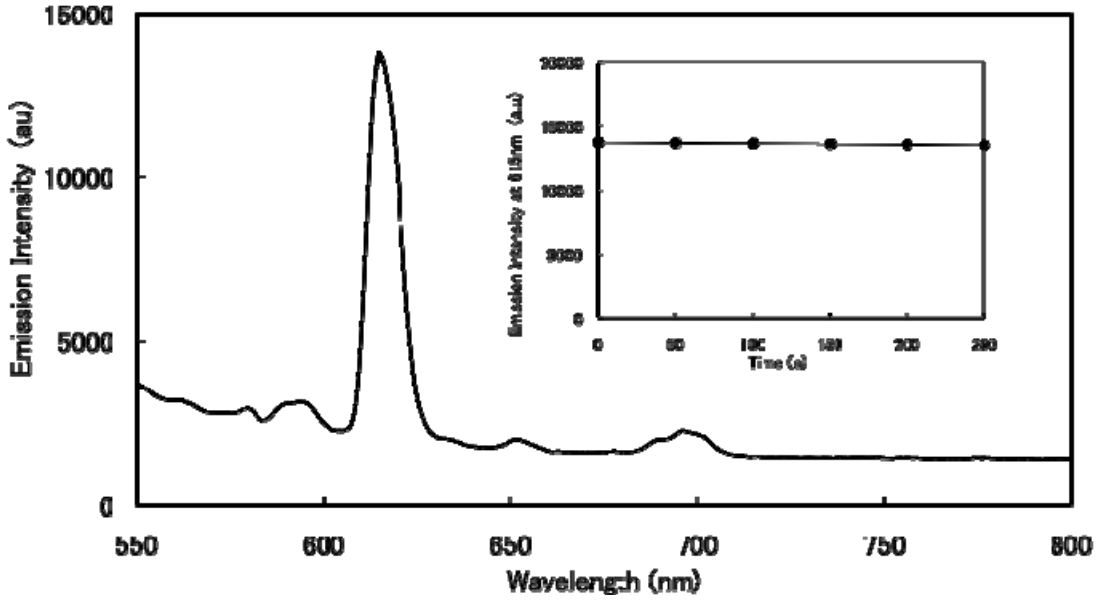

Fig. S5 Emission spectral change of **2**•Eu(FOD)$_3$ in deaerated acetonitrile containing NBu_4PF_6 (0.1 M) upon oxidation at 1.0 V vs. Fc/Fc^+. Excitation at 290 nm. Inset: Emission intensity change at 615nm of the **2**•Eu(FOD) solution.

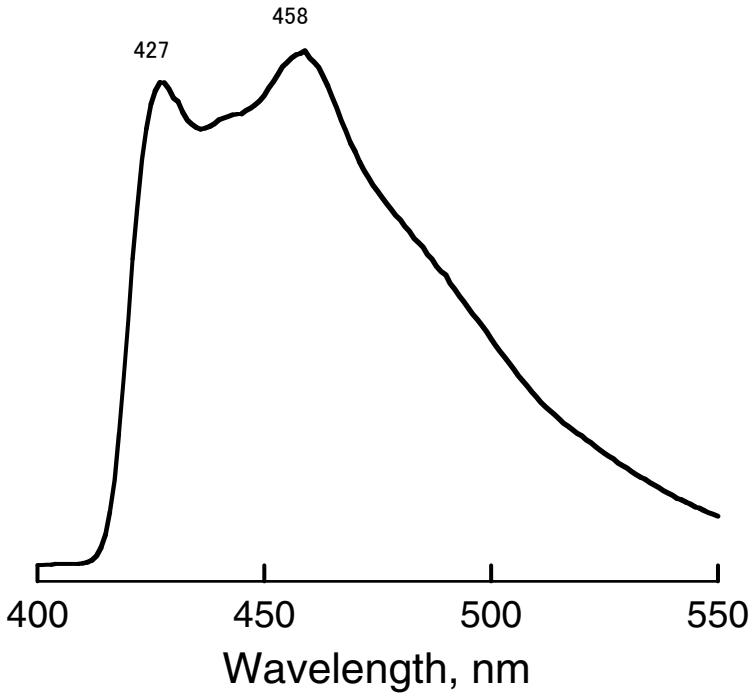

Fig. S6. Emission spectrum of 4, 4'-dimethoxytriphenylamine in deaerated EPA/ethyl iodide (3:1 v/v) glass at 77 K. EPA =5:5:2 diethyl ether / isopentane / ethanol. Excitation wavelength = 370 nm.