

Supporting Information

Sensitized luminescence in dinuclear lanthanide(III) complexes of bridging 8-hydroxyquinoline derivatives with different electronic properties

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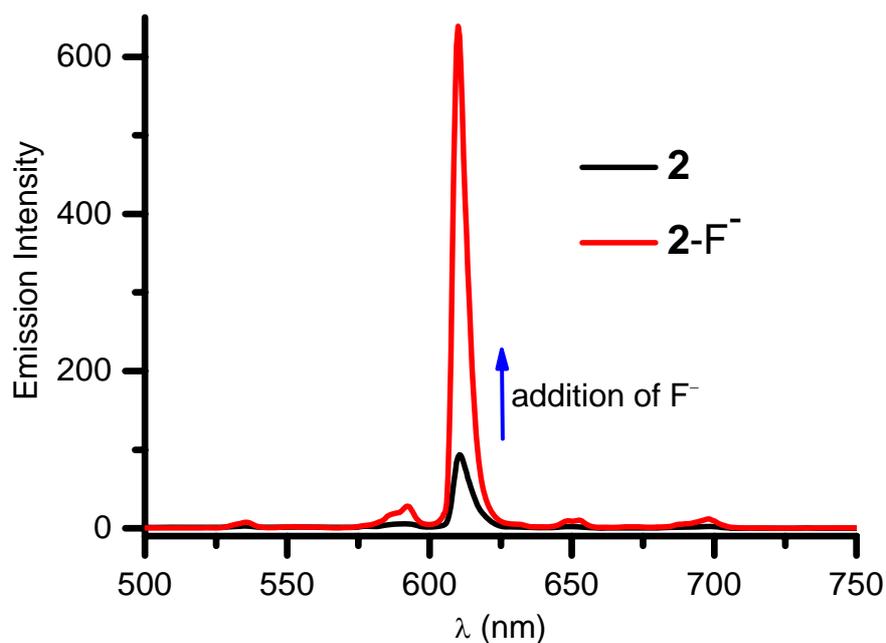


Figure S1. Fluoride-induced lanthanide(III) emission enhancement of **2** in dichloromethane solutions before (black) and after (red) addition of 2 equiv $[\text{Bu}_4\text{N}]\text{F}$ at ambient temperature.

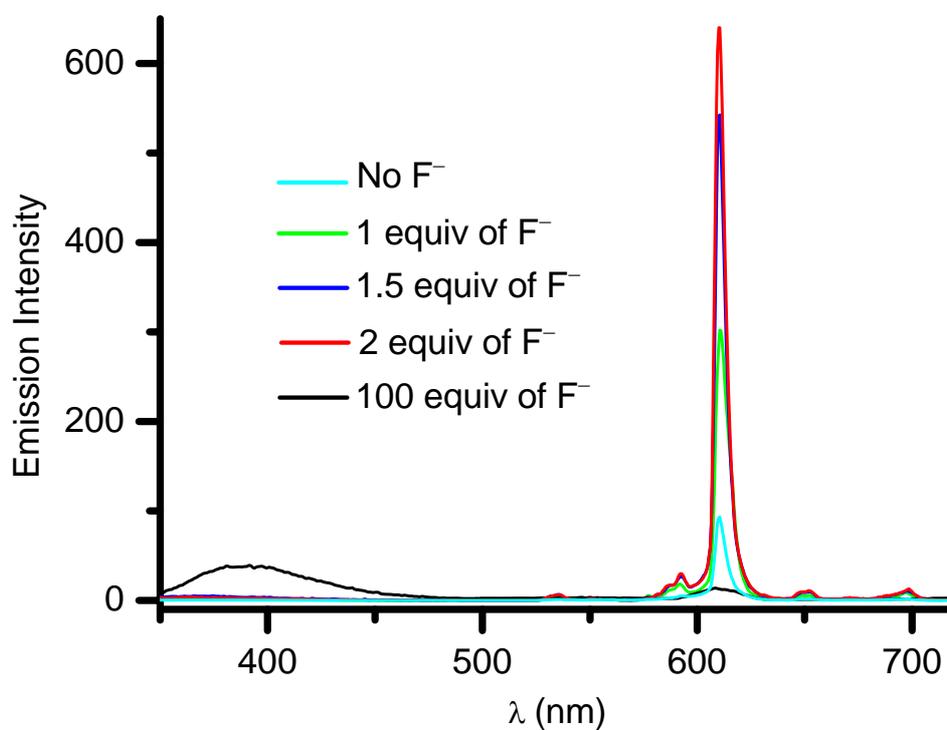


Figure S2. Emission spectra of **2** in dichloromethane before (cyan) and after addition of 1 (green), 1.5 (blue), 2 (red) and 100 (black) equivalent of $[\text{Bu}_4\text{N}]\text{F}$ at ambient temperature.

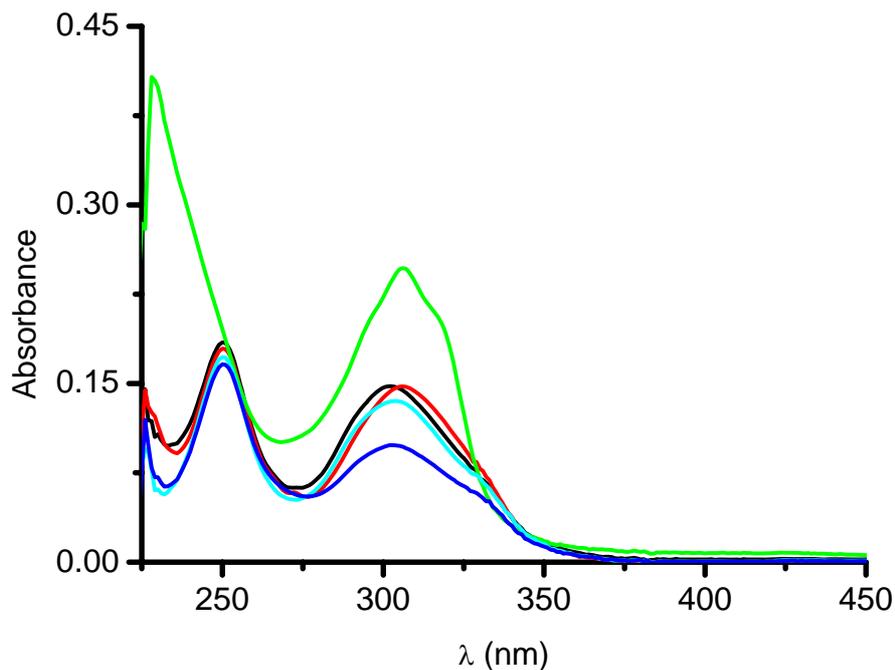


Figure S3. UV-vis absorption spectra of **2** in dichloromethane before (blue) and after addition of 1 (red), 1.5 (black), 2 (cyan) and 100 (green) equivalent of $[\text{Bu}_4\text{N}]\text{F}$ at ambient temperature.

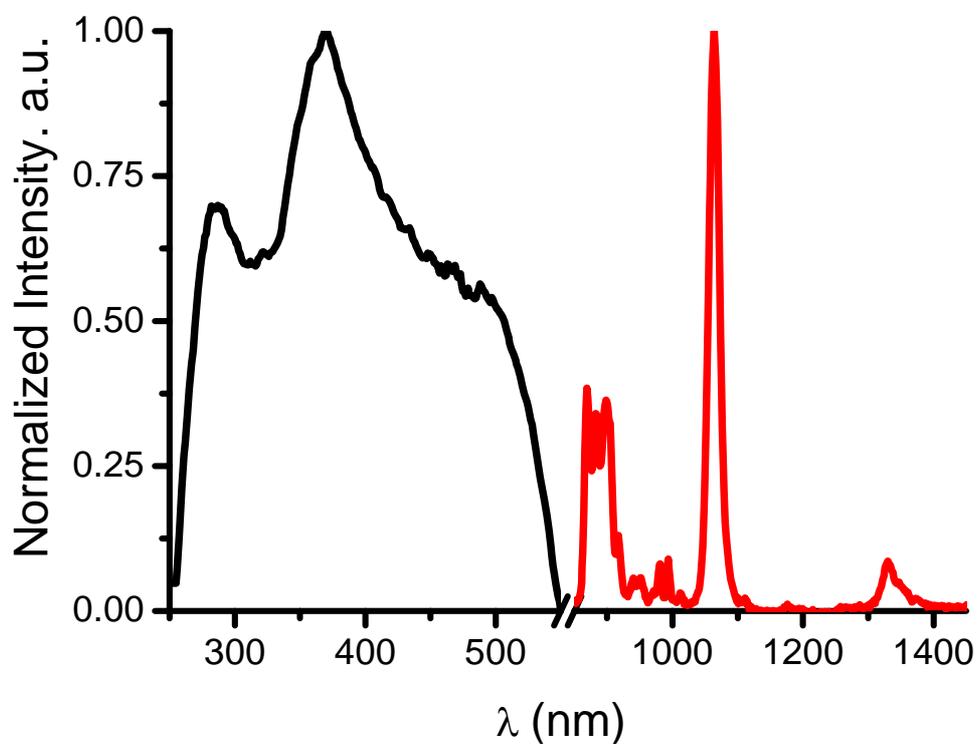


Figure S4. Excitation (black) and emission (red) spectra of **4** in solid state at ambient temperature.

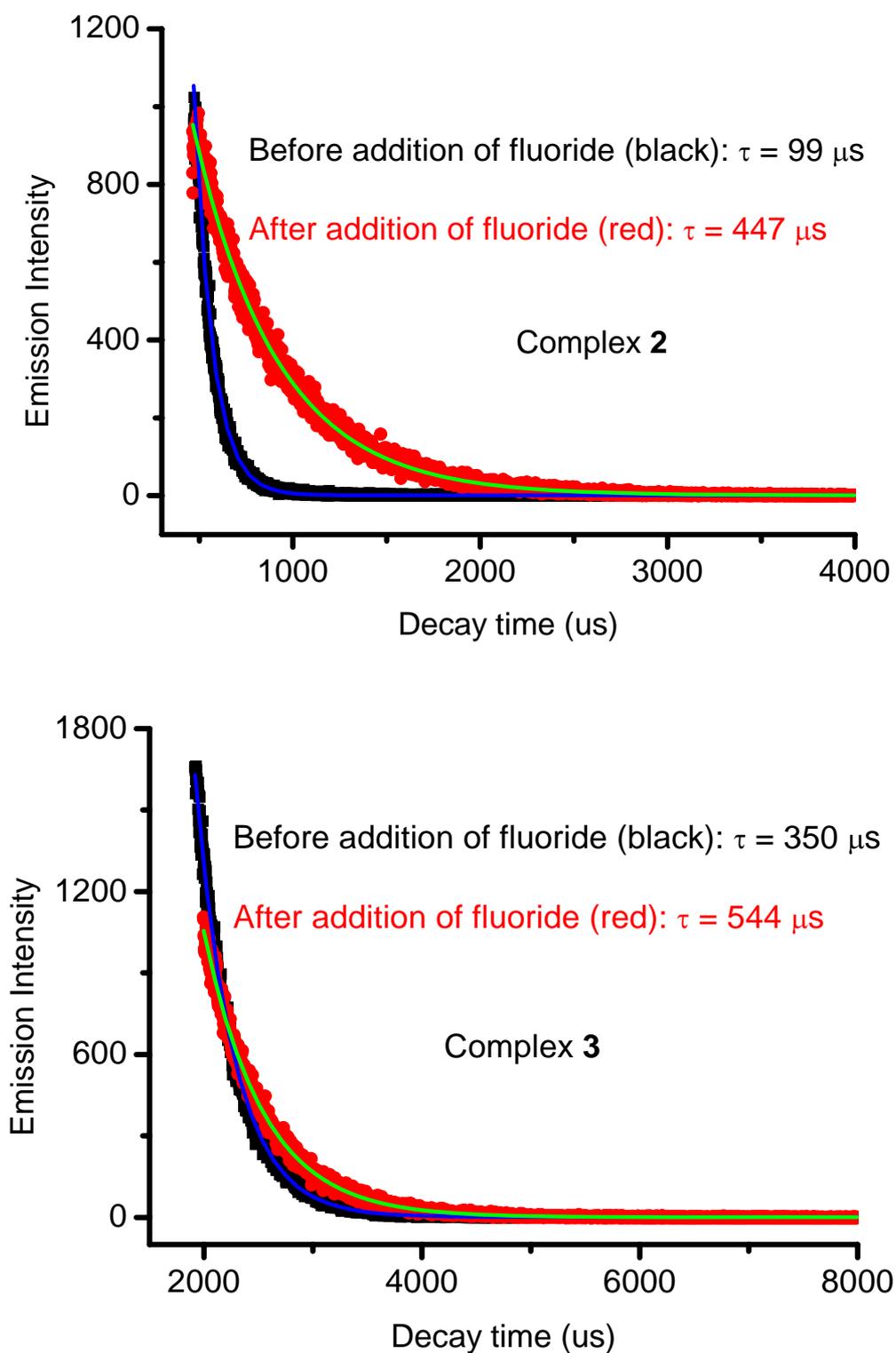


Figure S5. Comparison of the changes of lifetime decay curves of **2** (top) and **3** (bottom) in dichloromethane before (black) and after (red) addition of $[\text{Bu}_4\text{N}]\text{F}$ (molar ratio of fluoride to **2** and **3** are 2 : 1, respectively).

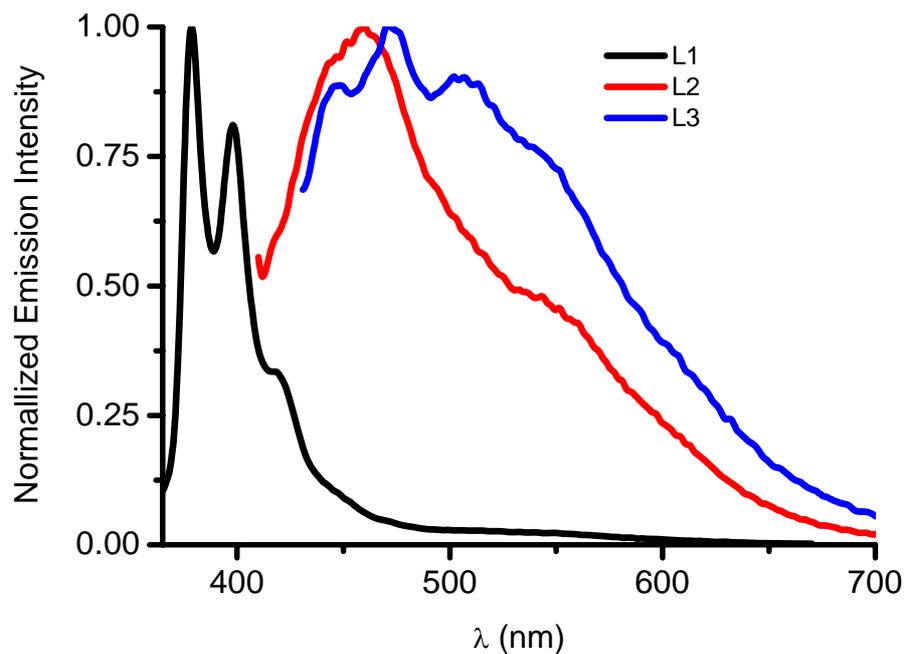


Figure S6. Emission band due to the $\pi \rightarrow \pi^*$ excited state of HMq(L1), HPhMq (L2), and HMe₂C₆H₄Mq (L3) in dichloromethane at ambient temperature.

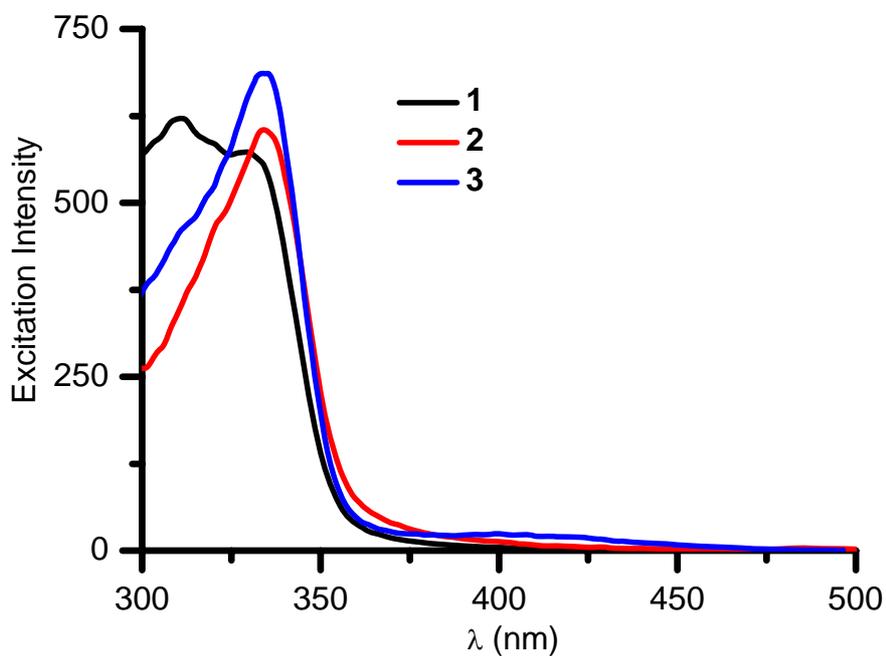


Figure S7. Excitation ($\lambda_{em} = 610$ nm) spectra of **1** (black), **2** (red), and **3** (blue) in dichloromethane solution at 298K.