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Supporting Information

Magnetic Site Dilution Approach to Achieve Bifunctional Fluorescence Thermometer and Single-Ion Magnet

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Figure S1. The variable temperature fluorescence test systems.

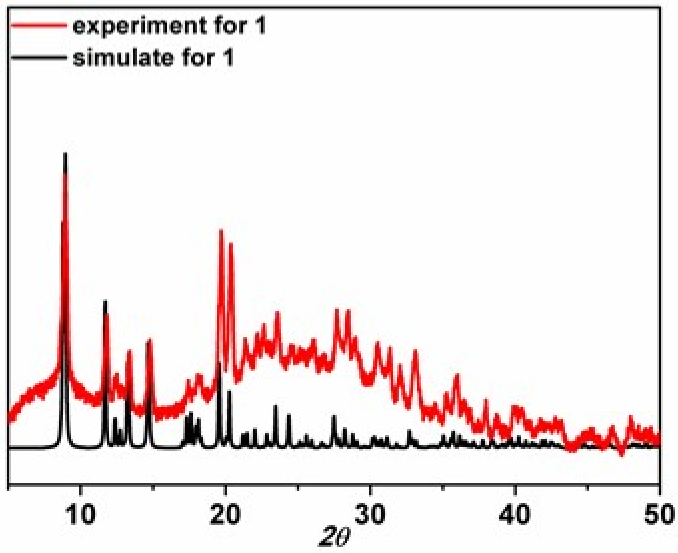

Figure S2. Powder X-ray diffraction pattern of complex**1**.

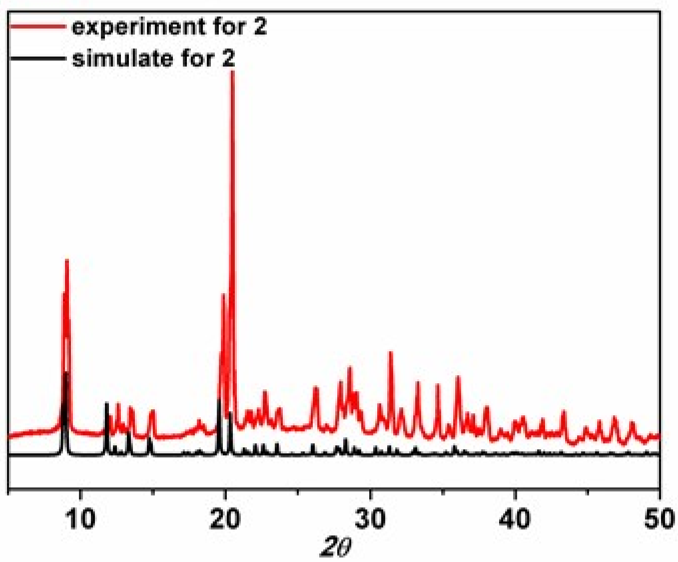

Figure S3. Powder X-ray diffraction pattern of complex**2**.

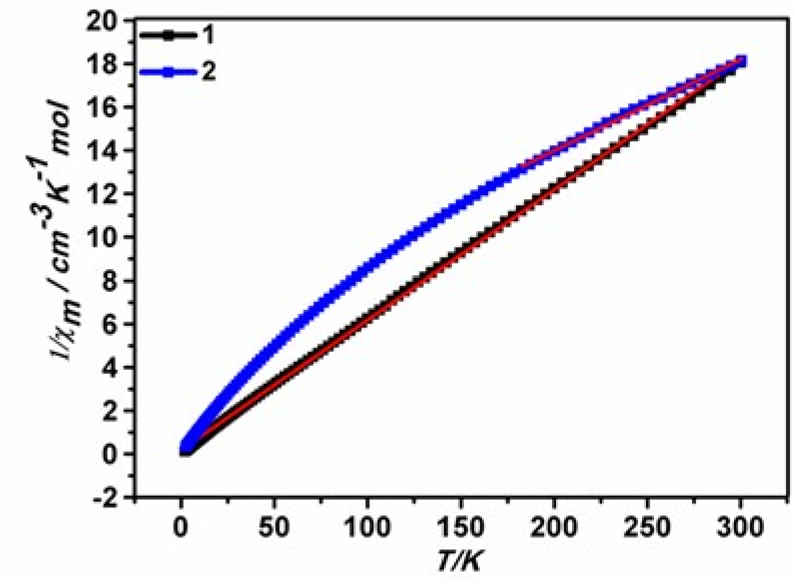

Figure S4. The Curie plot of **1** (-■-) and **2**(-■-).

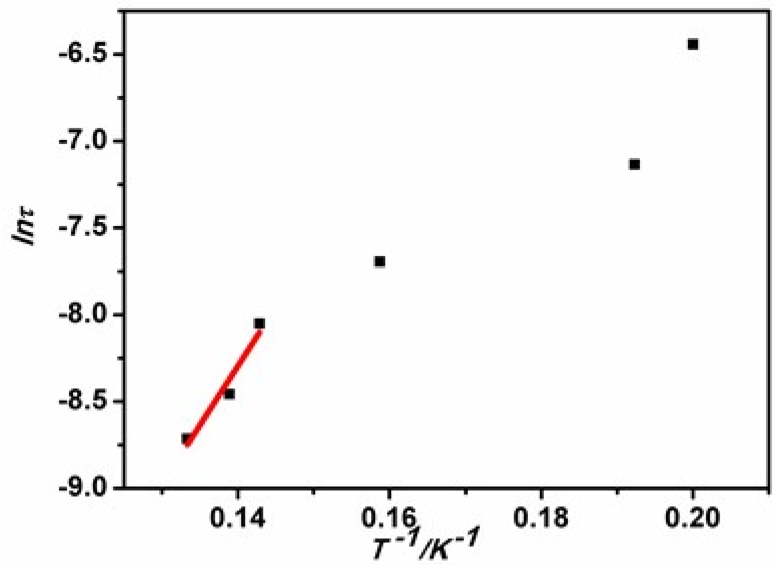

Figure S5. Magnetization relaxation time Lnτ vs T^{-1} for complex **1** (solid line represents the best fit to the Arrhenius law).

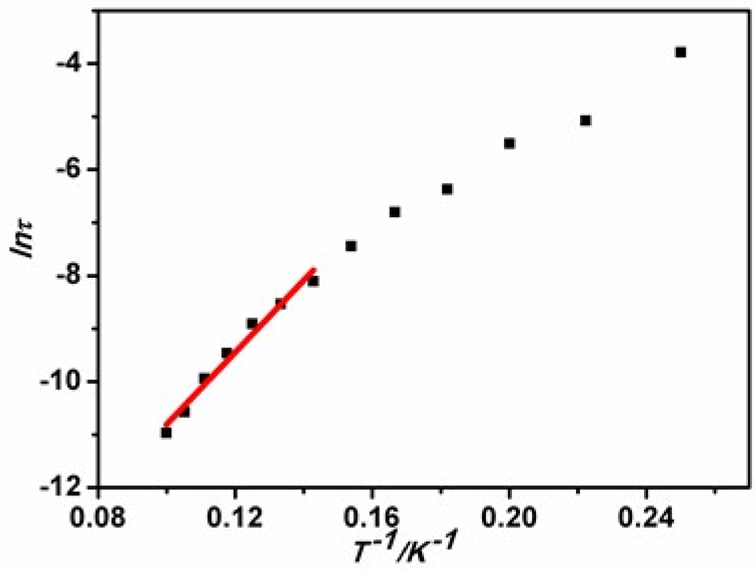

Figure S6. Magnetization relaxation time lnτ vs T^{-1} for complex **2** (solid line represents the best fit to the Arrhenius law).

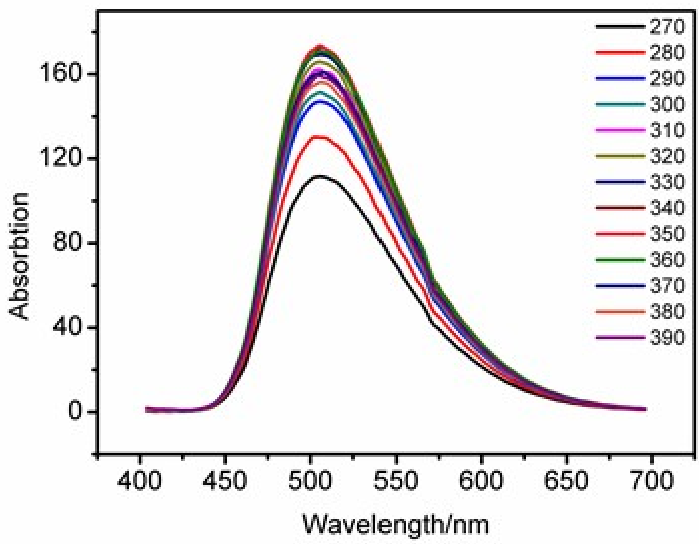

Figure S6. Room-temperature emission spectra of complex **2** excited at 270-390nm.

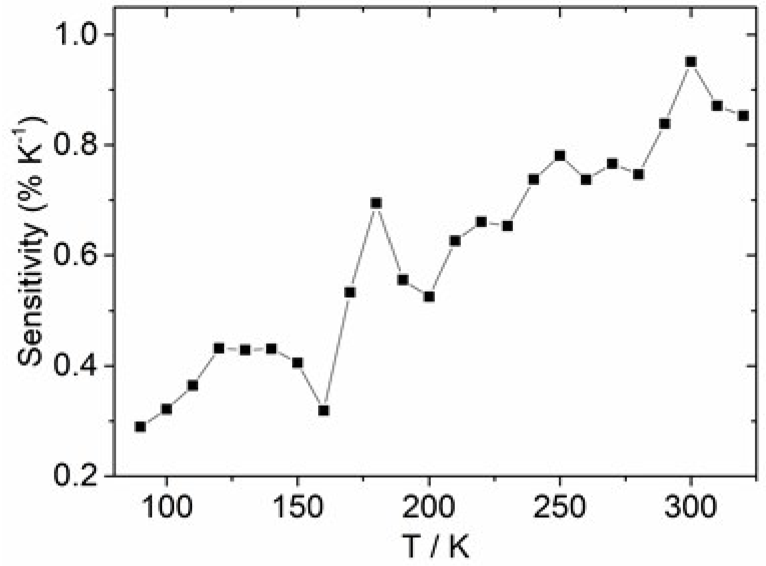

Figure S8. The relative thermal sensitivity of the luminescent thermometers of **2**.

The relative thermal sensitivity of the luminescent thermometers of **2** was calculated by the S = $\left|\frac{\partial I / \partial T}{I}\right|$.