

# Conjugated Ligand Modulated Sandwich Structures and Luminescence Properties of Lanthanide Metal-Organic Frameworks

Tian-Fu Liu<sup>a</sup>, Wenjuan Zhang<sup>b</sup>, Wen-Hua Sun<sup>b,\*</sup>, Rong Cao<sup>a,\*</sup>

<sup>a</sup> State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fujian, Fuzhou, 350002, P. R. China

<sup>b</sup> Key Laboratory of Engineering Plastics and Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, P. R. China

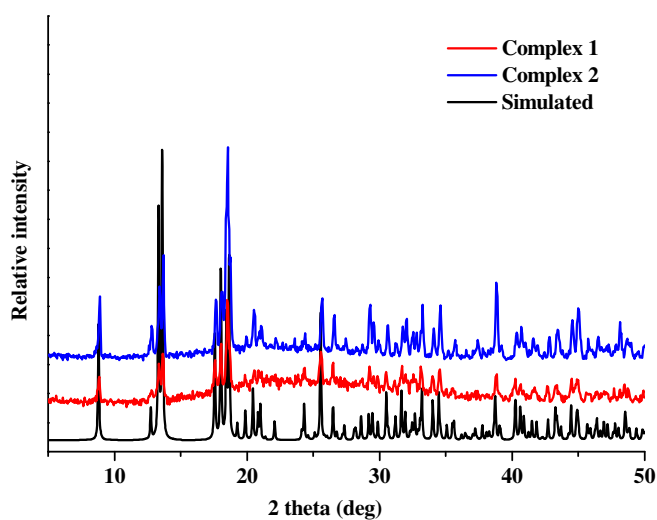


Figure S1. Powder X-ray diffraction patterns of complexes **1** and **2**.

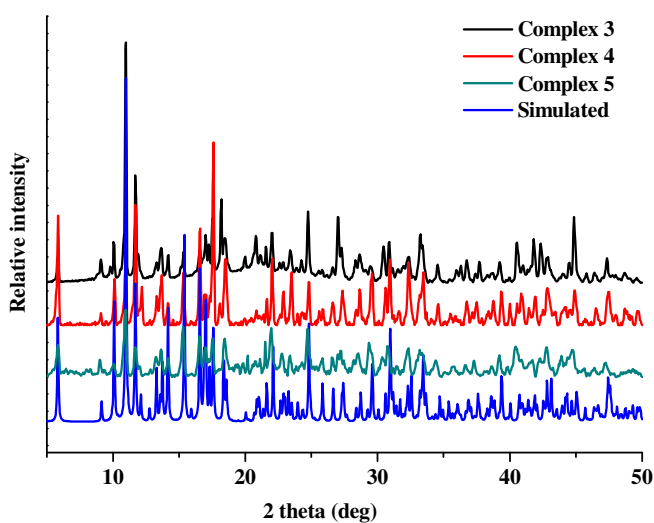


Figure S2. Powder X-ray diffraction patterns of complexes **3** - **5**.

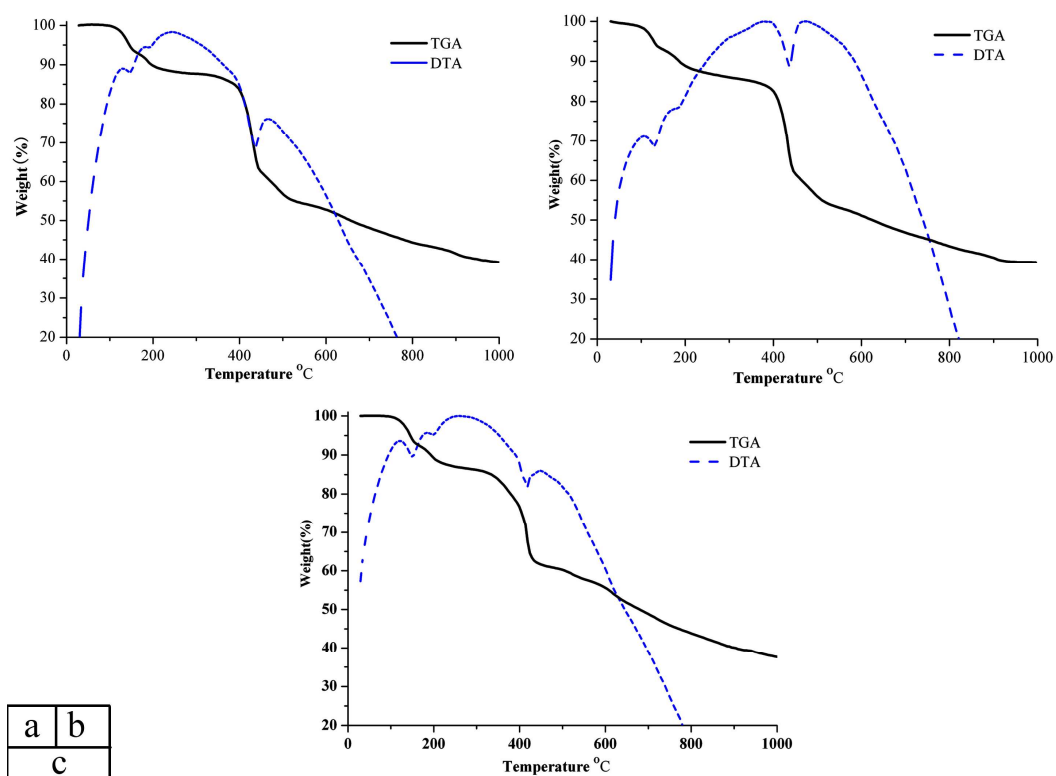


Figure S3. TGA curves for complexes **3** - **5**

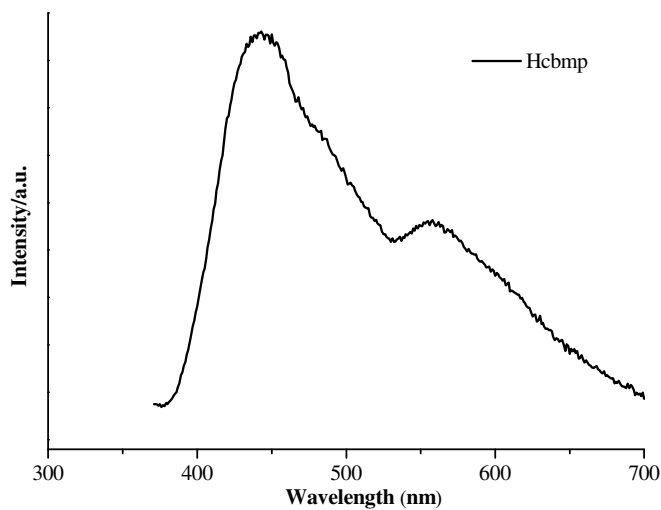
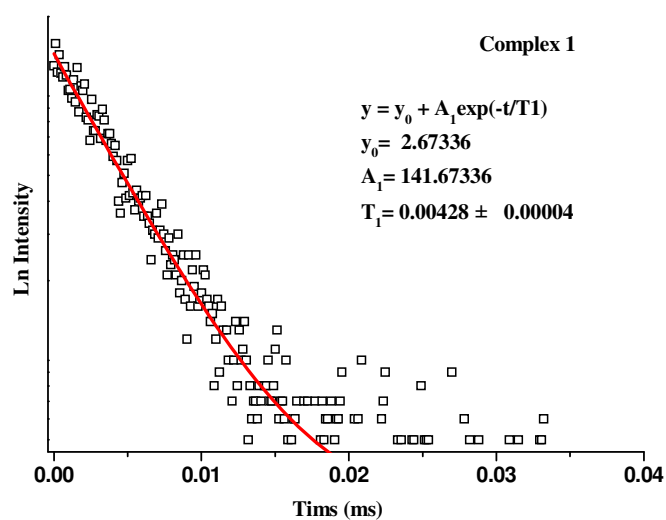
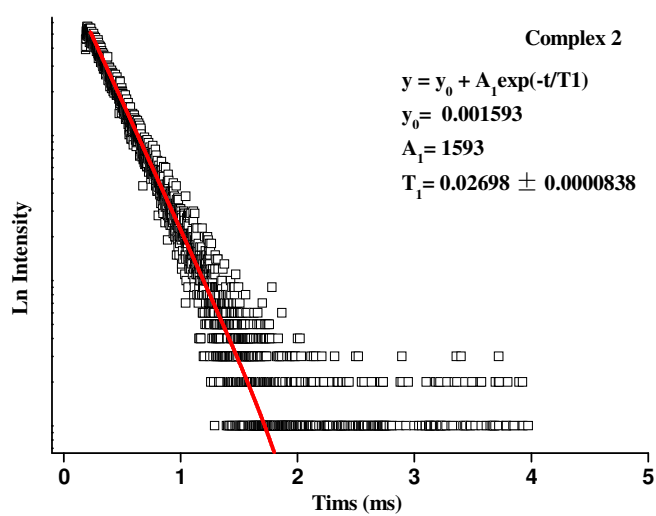


Figure S4. Luminescence spectrum of Hcbmp 77 K.



**Figure S5.** Room temperature emission decay curve of **1** monitored at 642 nm and excited at 403 nm



**Figure S6.** Room temperature emission decay curve of **2** monitored at 616 nm and excited at 395 nm

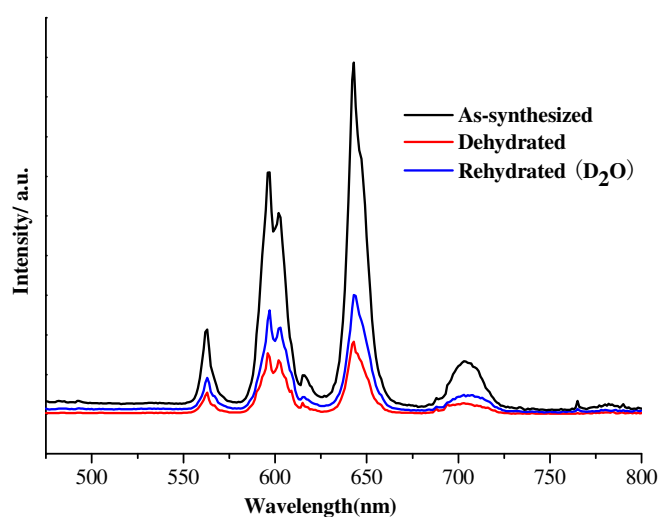


Figure S7. The emission spectrum of the as-synthesized, dehydrated and rehydrated phases of **3**

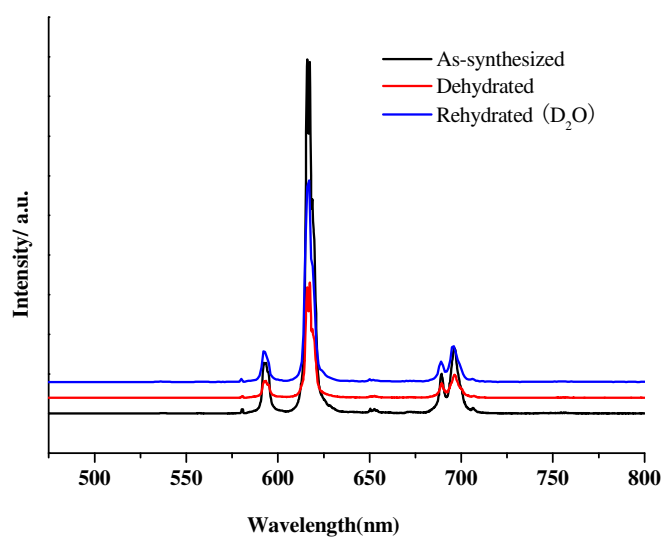
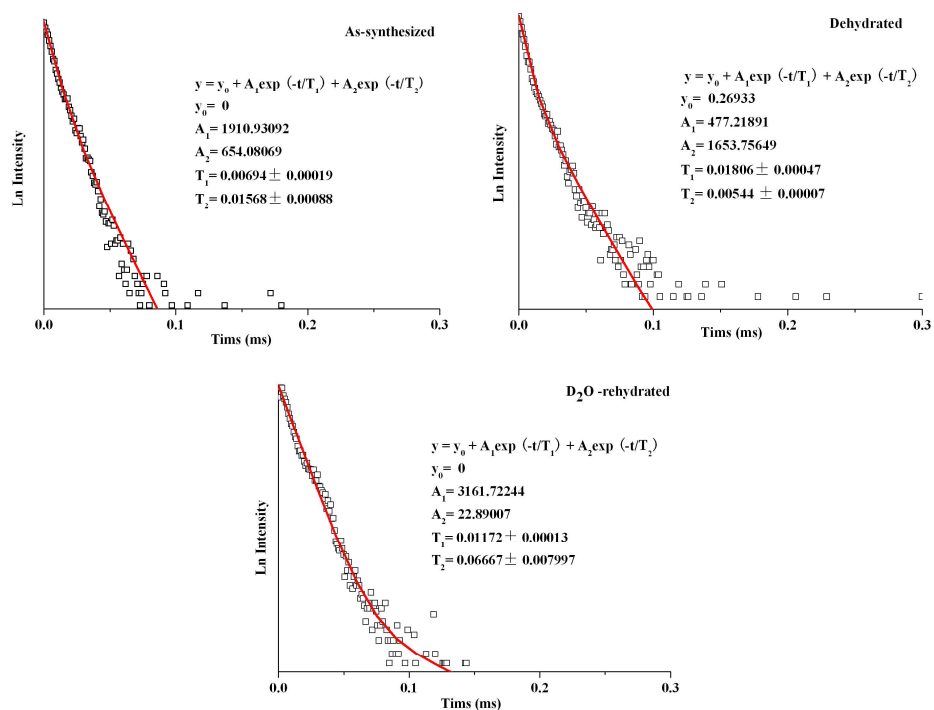
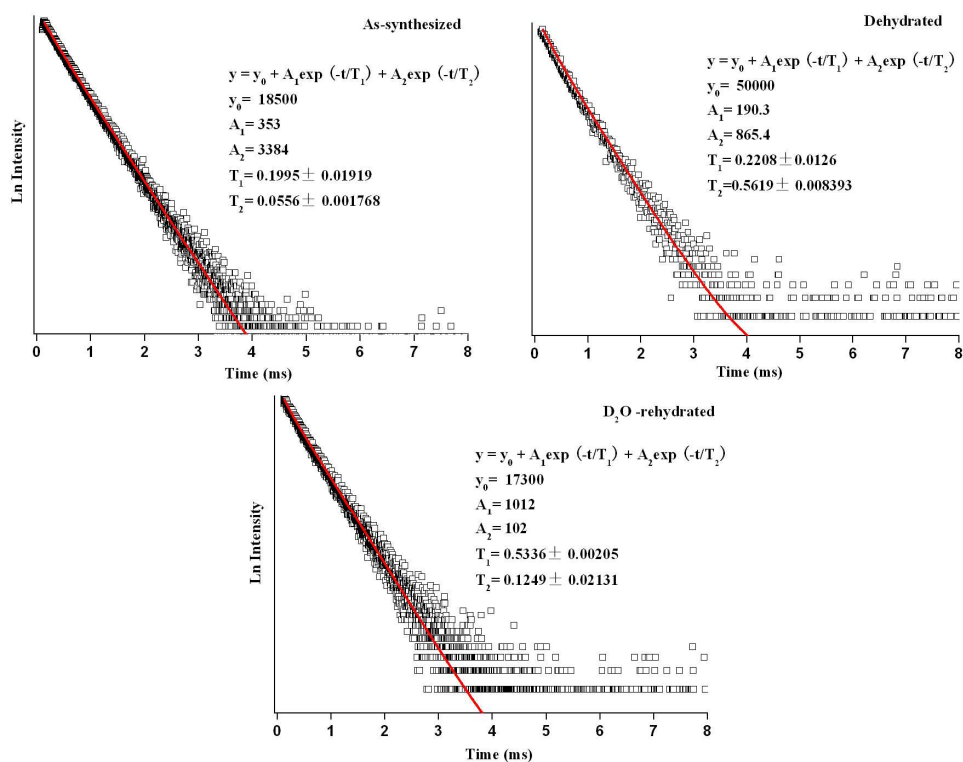


Figure S8. The emission spectra of the as-synthesized, dehydrated and  $D_2O$ -rehydrated phases of **4**.



**Figure S9.** Room temperature emission decay curve of the as-synthesized, dehydrated and rehydrated phases of **3** monitored at 642 nm and excited at 365 nm.



**Figure S10.** Room temperature emission decay curves of the as-synthesized, dehydrated and rehydrated phases of **4** monitored at 618 nm and excited at 365 nm.