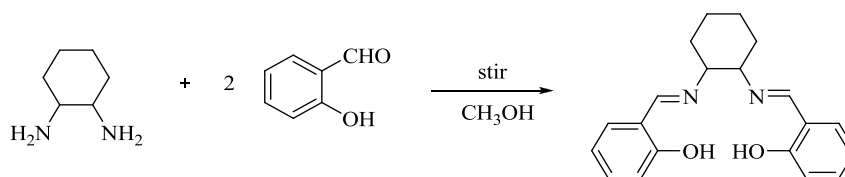


## Supporting Information

### Slow relaxation processes of salen type Dy<sub>2</sub> complex and 1D ionic spiral Dy<sub>n</sub> coordination polymer

Jing Zhu, Hui-Feng Song, Peng-Fei Yan,\* Guang-Feng Hou, Guang-Ming Li\*



Scheme 1 Synthesis of the ligand

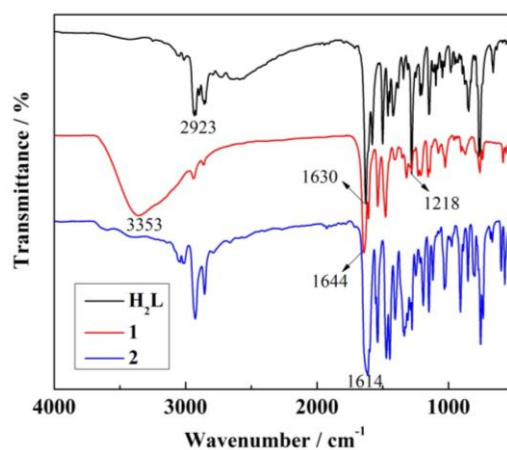


Fig. S1 IR spectra of the  $H_2L$ , **1** and **2**.

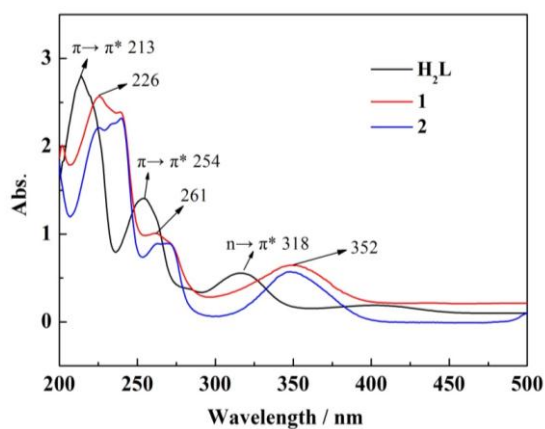


Fig. S2 UV absorption spectra of the  $H_2L$ , **1** and **2** in MeOH.

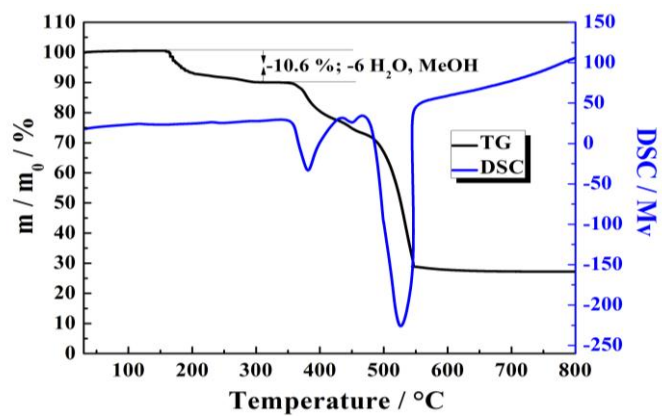


Fig. S3 TG-DSC curves of complex 1

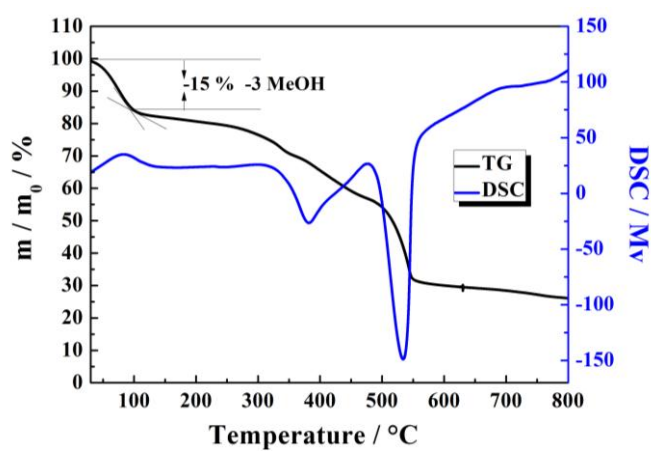


Fig. S4 TG-DSC curves of complex 2.

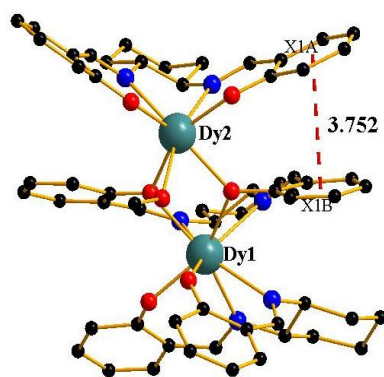


Fig. S5 A view of the molecular structure of 1. Intramolecular  $\pi$ - $\pi$  stacking interaction:  
X1A...X1B 3.752 Å.

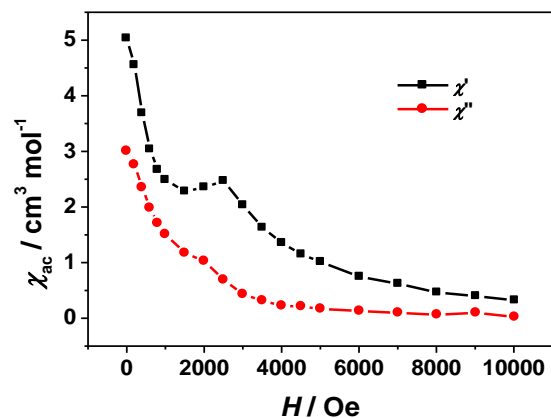


Fig. S6 The field dependence of ac susceptibilities for complex 1 at 2 K and 1000 Hz.

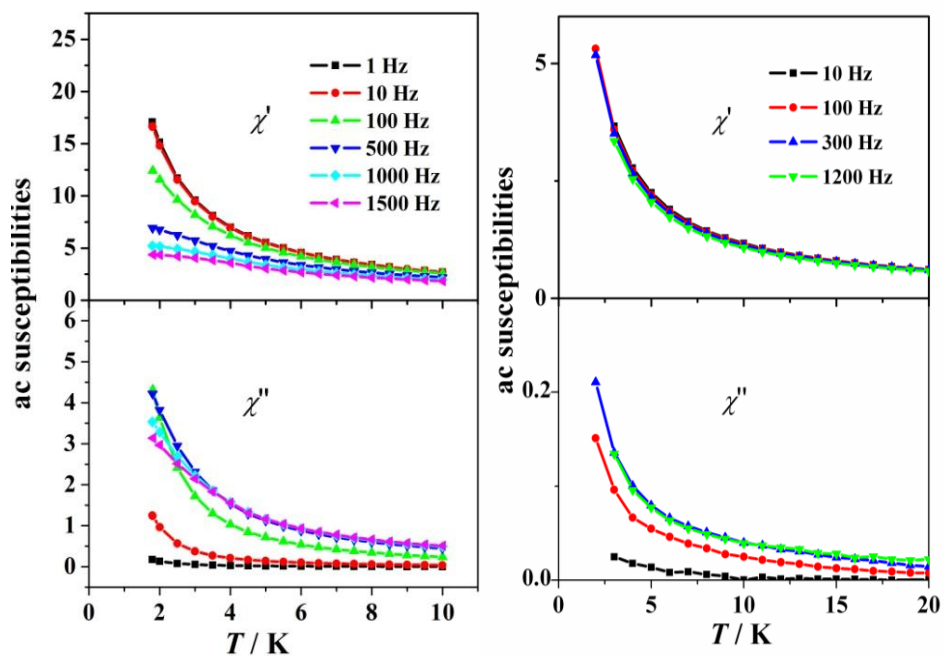


Fig. S7 Temperature dependence of the in-phase ( $\chi'$ ) and out-of-phase ( $\chi''$ ) ac susceptibility of 1 and 2 under zero field in the frequency range 1–1500 Hz at 1.8–10 K (1) and 1.8–20 K (2).