Structure and Photoluminescent Properties of Lanthanide Coordination Polymers Based on Two Isomers of Iminodiacetic Acid Substituted Isophthalate and Terephthalate Ligands

Jie Ma, Fei-Long Jiang, Lian Chen, Ming-Yan Wu, Shu-Quan Zhang, Ke-Cai Xiong, Dong Han, Mao-Chun Hong

aState Key Laboratory of Structure Chemistry, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou, Fujian, 350002, China, and bGraduate School of the Chinese Academy of Sciences, Beijing, 100049, China.

To whom correspondence should be addressed. Tel: +86-591-83792460. Fax: +86-591-83794946. E-mail: hmc@fjirsm.ac.cn.
Figure S1. XRD patterns of complexes 1-6.
**Figure S2.** View of the triple-stranded helical chains along $c$ axis.

**Figure S3.** TG curves of complexes 1-6.
**Figure S4.** Room temperature UV-vis absorption of ligand H₄adip, complexes 1-3 in the solid state by using BaSO₄ as blank.

**Figure S5.** Room temperature UV-vis absorption of ligand H₄adtp, complexes 4-6 in the solid state by using BaSO₄ as blank.
Figure S6. Room temperature decay curve of 1 monitored at 616 nm and excited at 365 nm.

Figure S7. Room temperature decay curve of 2 monitored at 545 nm and excited at 365 nm.
**Figure S8.** Room temperature decay curve of 3 monitored at 597 nm and excited at 335 nm.

**Figure S9.** Room temperature decay curve of 4 monitored at 614 nm and excited at 365 nm.
Figure S10. Room temperature decay curve of 5 monitored at 543 nm and excited at 365 nm.

Figure S11. Room temperature decay curve of 6 monitored at 597.5 nm and excited at 313 nm.

Figure S12. The dihedral between the C9N1C11 plane and phenyl ring in complex 4.
**Figure S13.** Phosphorescent spectrum of ligand $\text{H}_4\text{adip}$ at 10K.

**Figure S14.** Phosphorescent spectrum of ligand $\text{H}_4\text{adtp}$ at 10K.

**Table S1.** The luminescent excitation and emission slit widths of 1-6.

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