

Supporting information

Lanthanide contraction and chelating effect on a new family of lanthanide complexes with tetrakis(O-isopropyl)methylenediphosphonate: synthesis, structures, and terahertz time-domain spectroscopy

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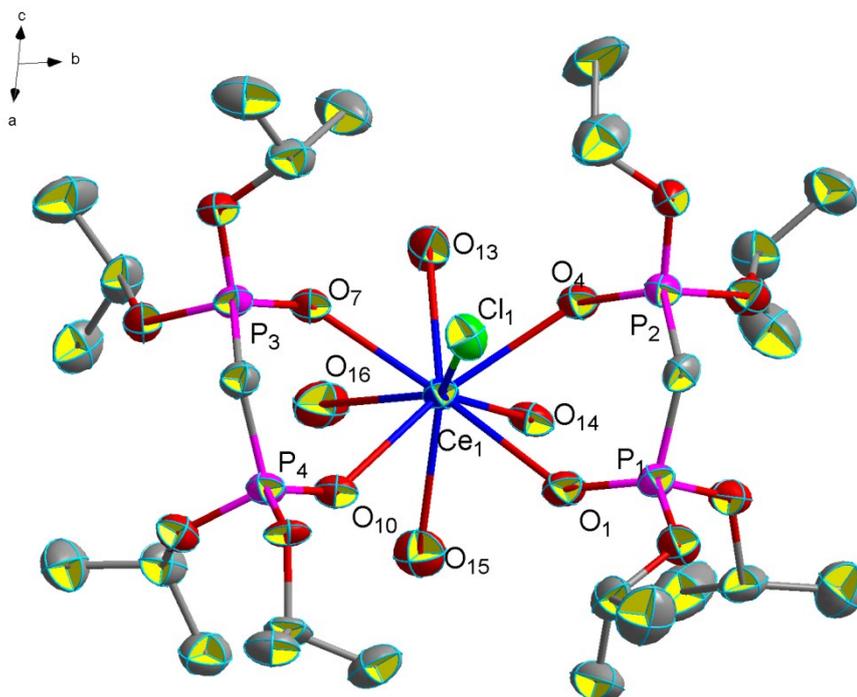


Fig.S1 Molecular structure of complex 2. Hydrogen atoms and solvent molecule were omitted for clarity.

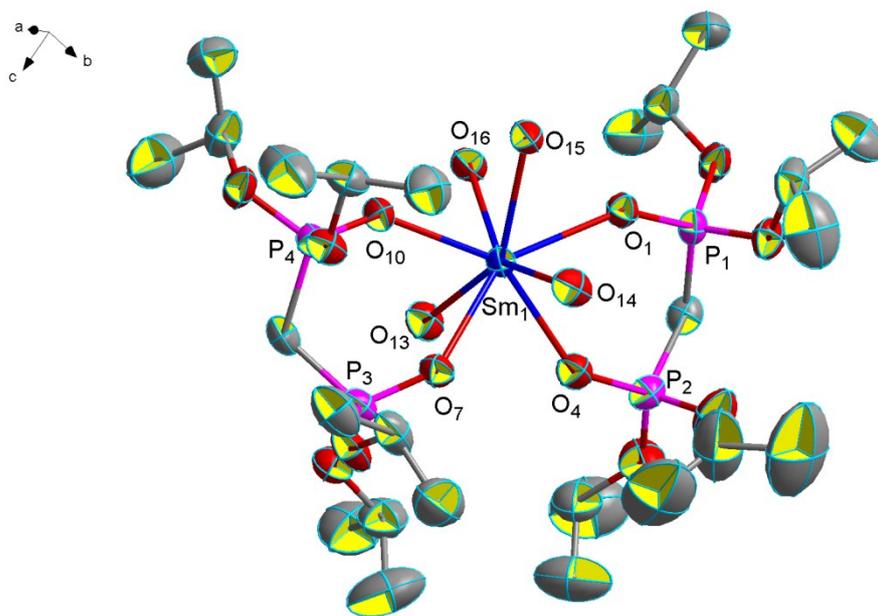


Fig.S2

Molecular structure of complex 4. Hydrogen atoms and solvent molecule were omitted for clarity.

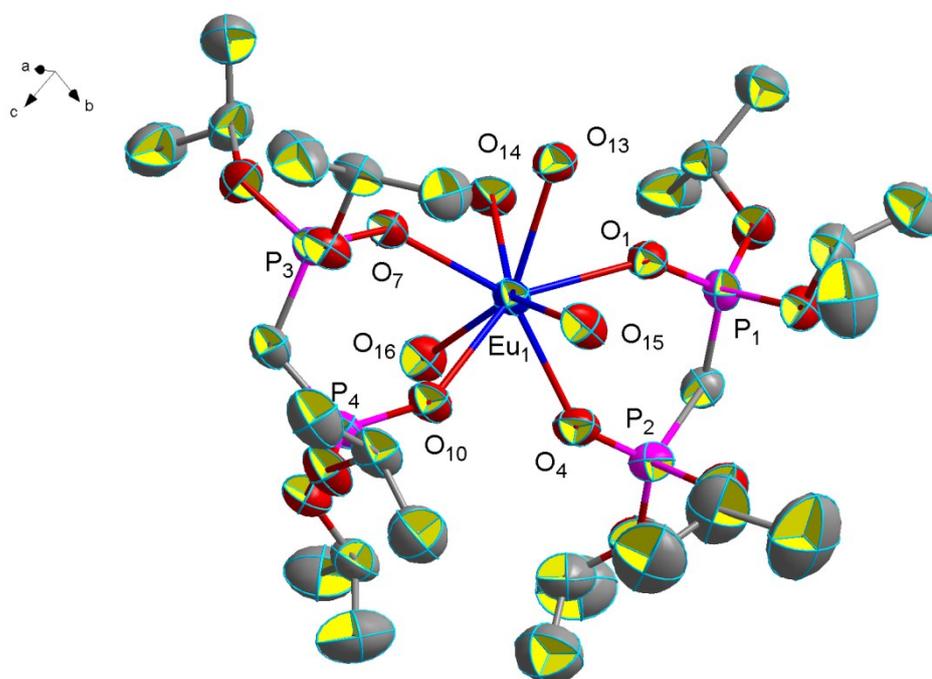


Fig.S3 Molecular structure of complex 5. Hydrogen atoms and solvent molecule

were omitted for clarity.

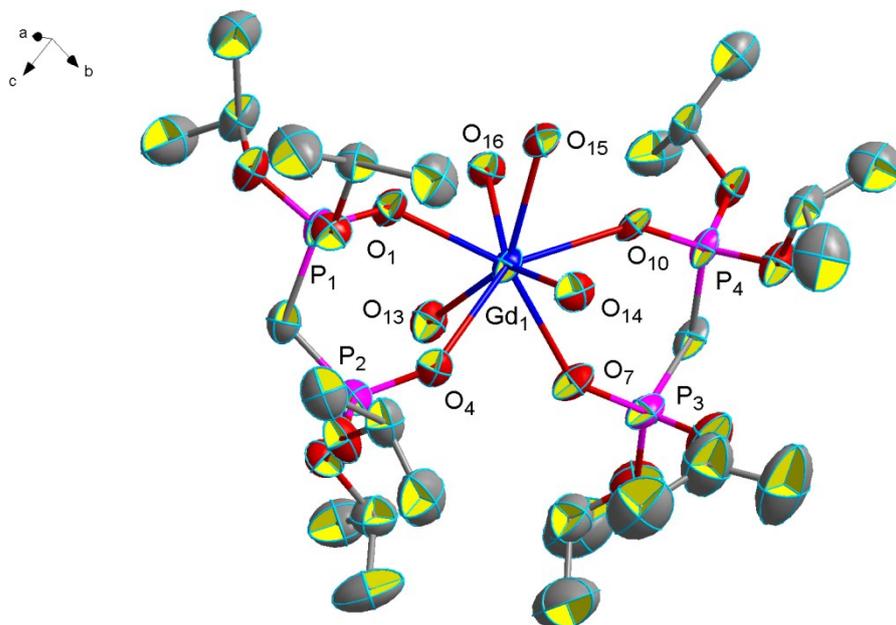


Fig.S4 Molecular structure of complex 6. Hydrogen atoms and solvent molecule were omitted for clarity.

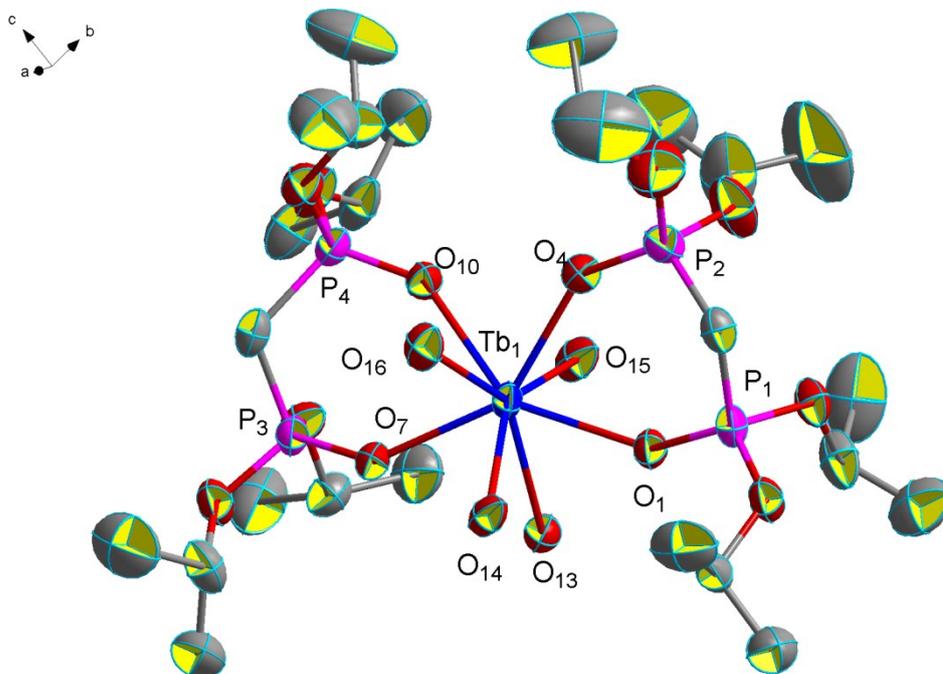


Fig.S5 Molecular structure of complex **7**. Hydrogen atoms and solvent molecule were omitted for clarity.

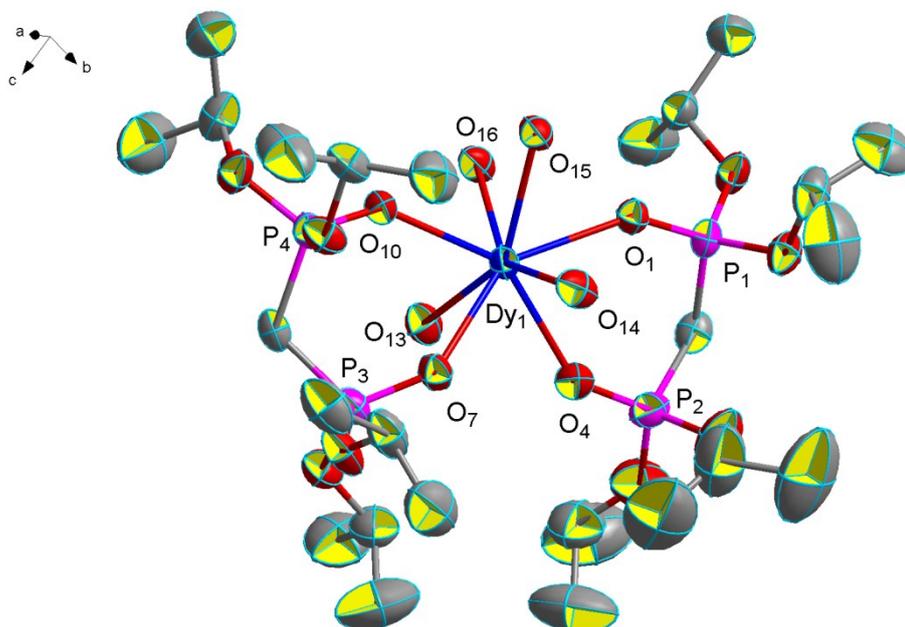


Fig.S6 Molecular structure of complex **8**. Hydrogen atoms and solvent molecule were omitted for clarity.

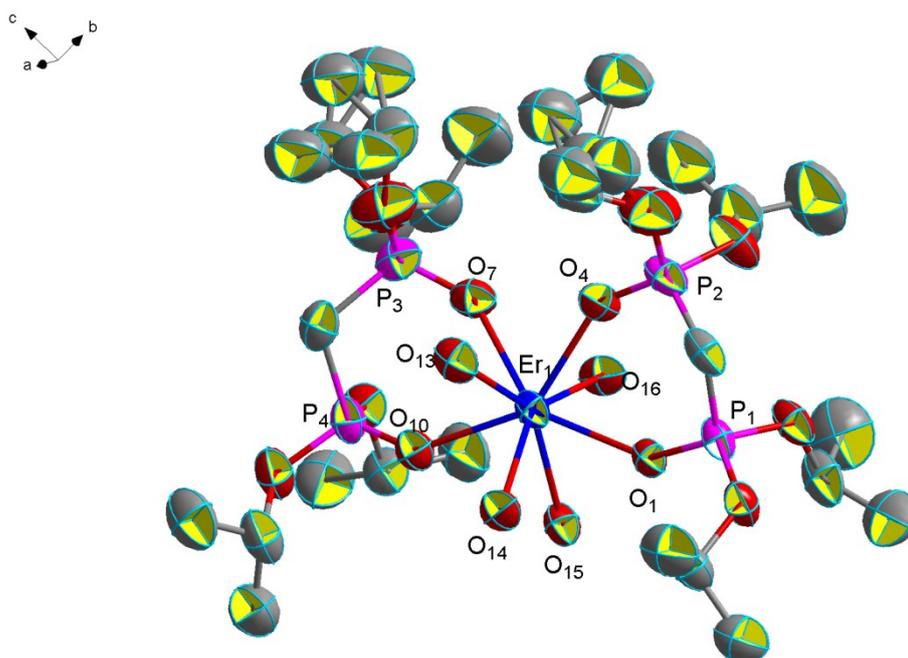


Fig.S7 Molecular structure of complex **9**. Hydrogen atoms and solvent molecule were omitted for clarity.

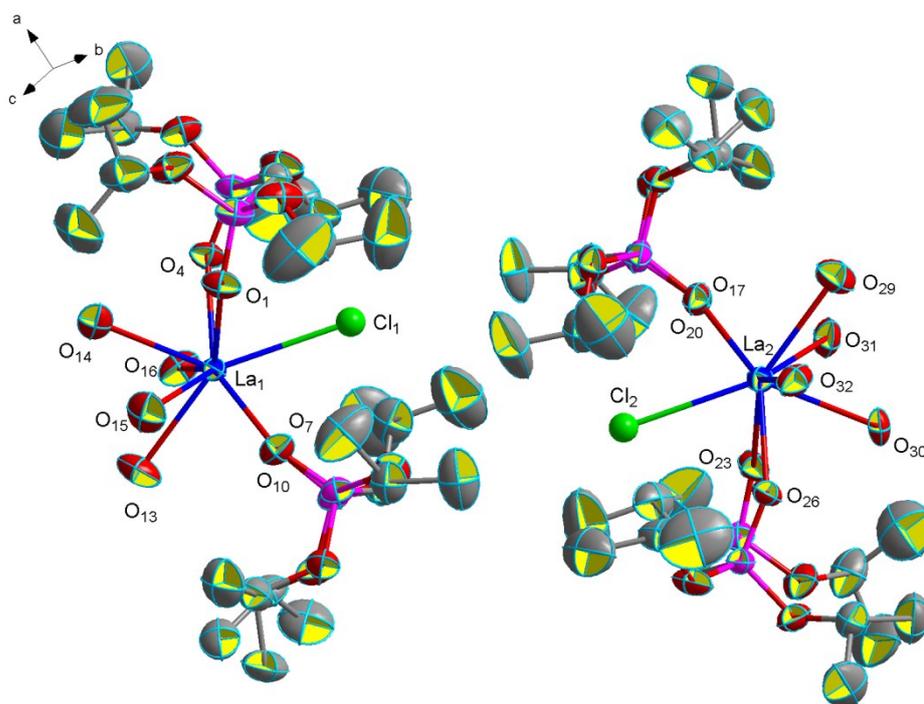


Fig.S8 Molecular structure of complex **10**. Hydrogen atoms and solvent molecule were omitted for clarity.

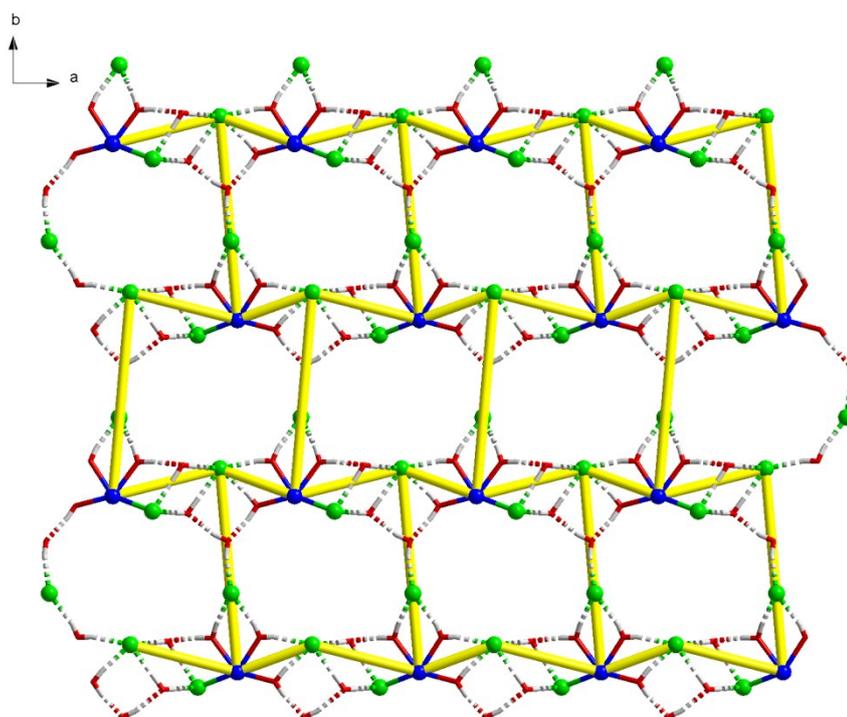


Fig.S9 Schematic representation of a two-dimensional mesh 6^3 topology formed by hydrogen bonds.

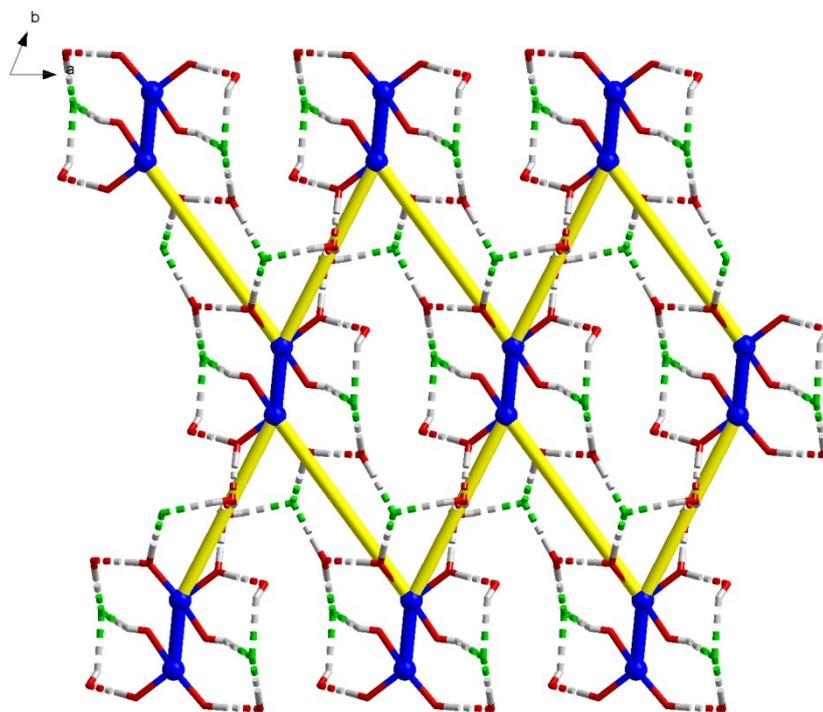


Fig.S10 Schematic representation of a two-dimensional mesh 6^3 topology formed by hydrogen bonds.

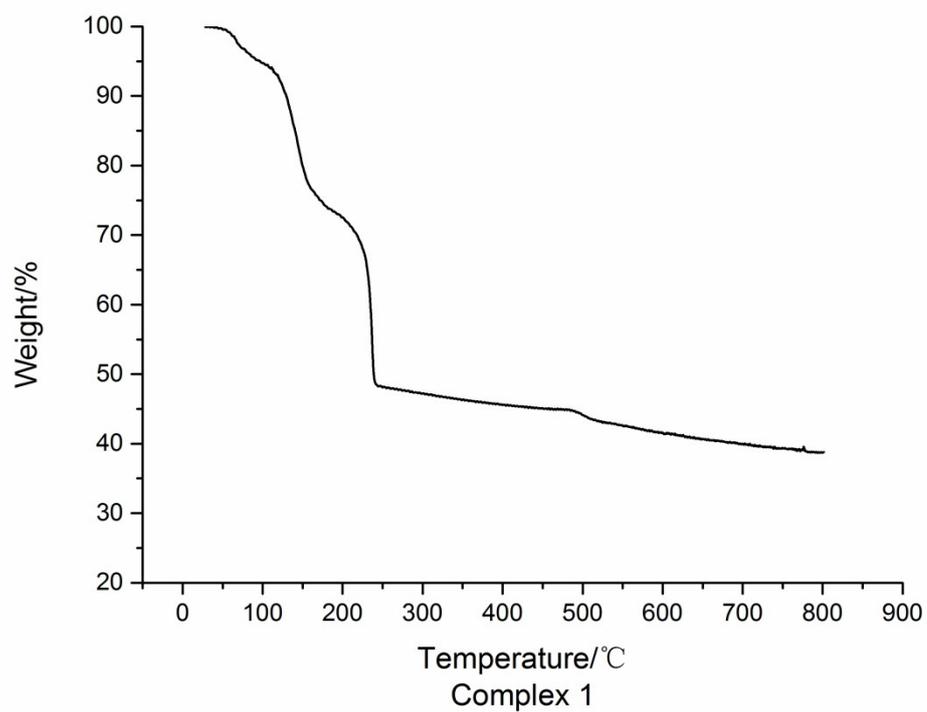


Fig. S11a. TG curves of the complexes 1.

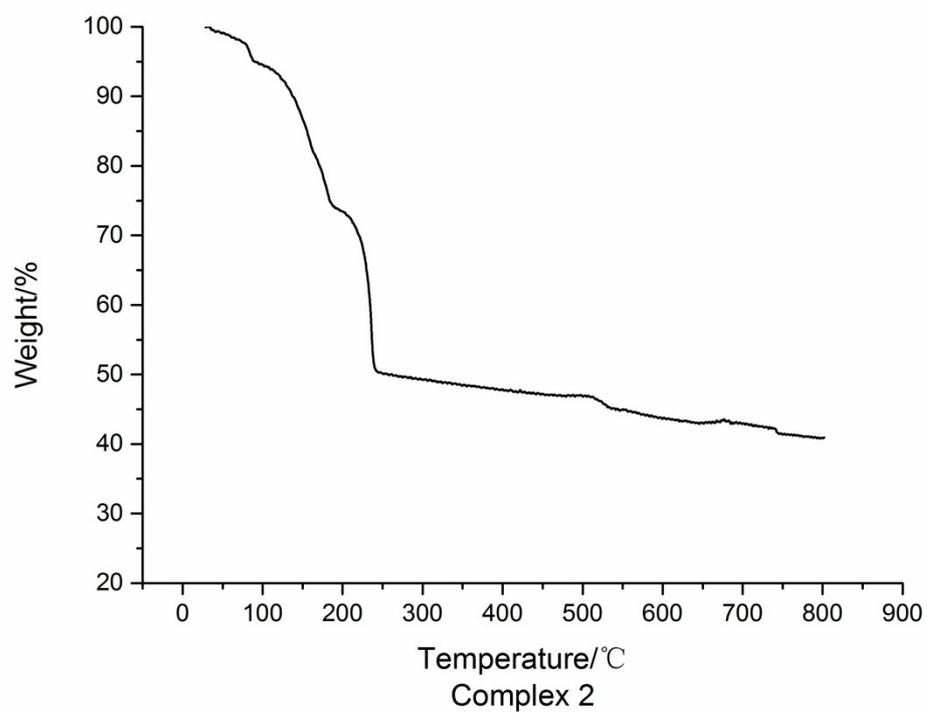


Fig. S11b. TG curves of the complexes **2**.

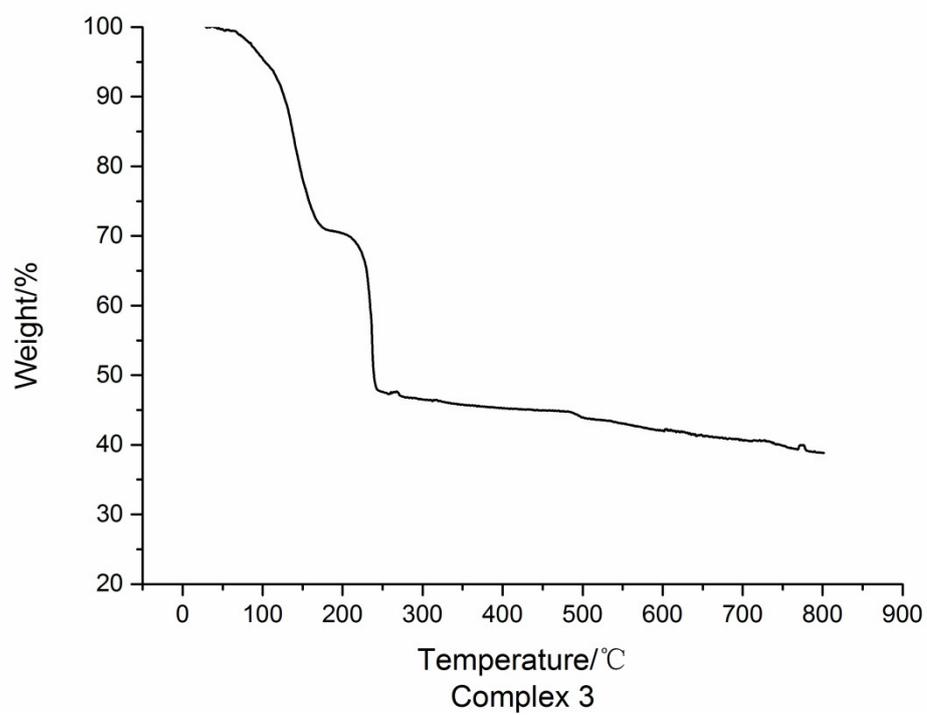


Fig. S11c. TG curves of the complexes **3**.

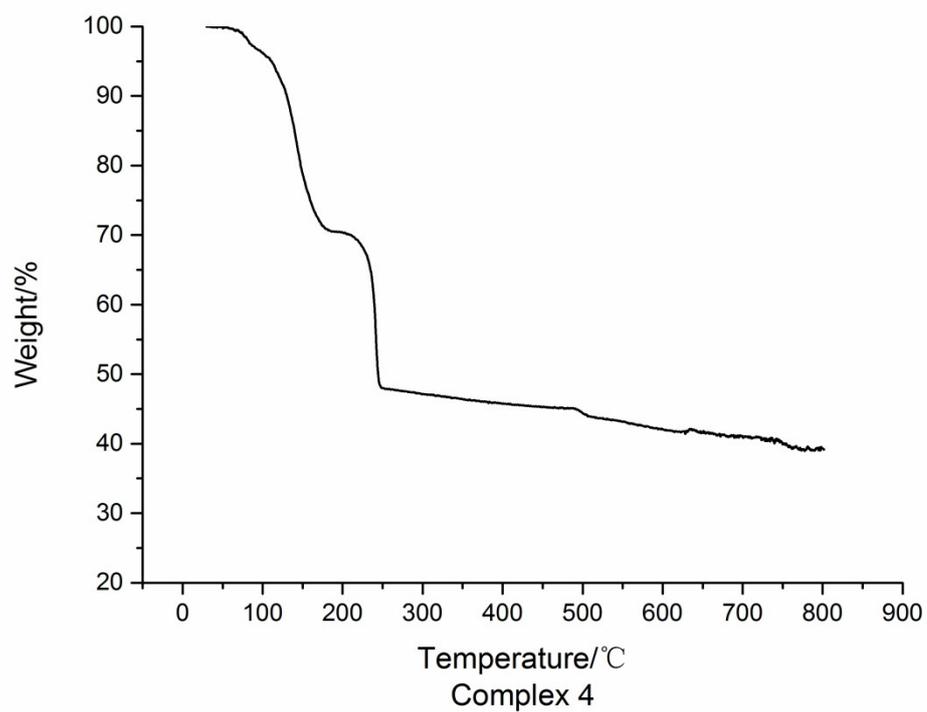


Fig. S11d. TG curves of the complexes 4.

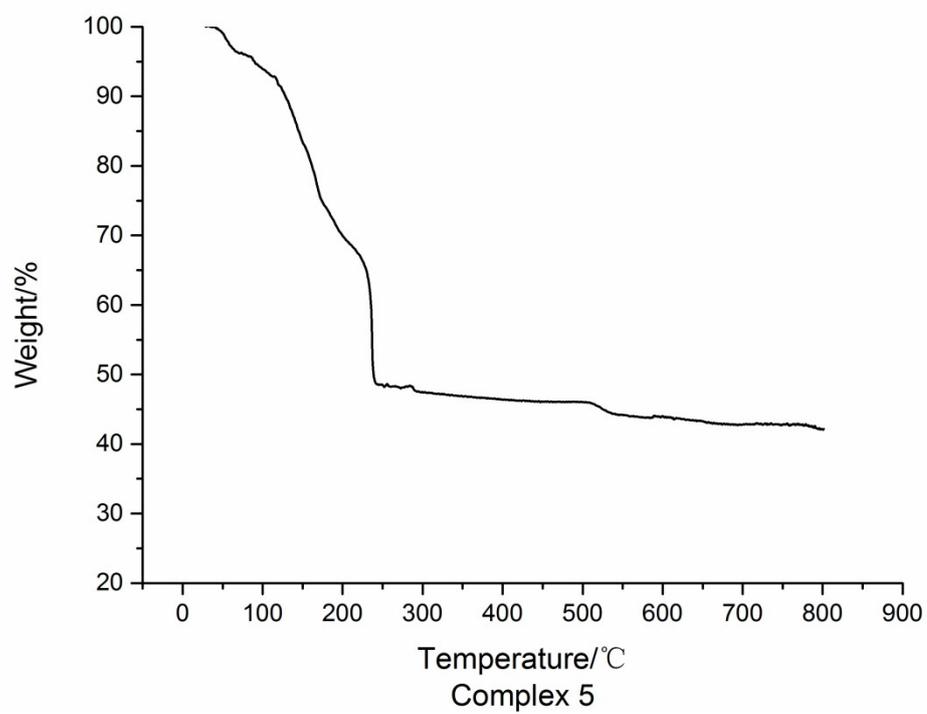


Fig. S11e. TG curves of the complexes **5**.

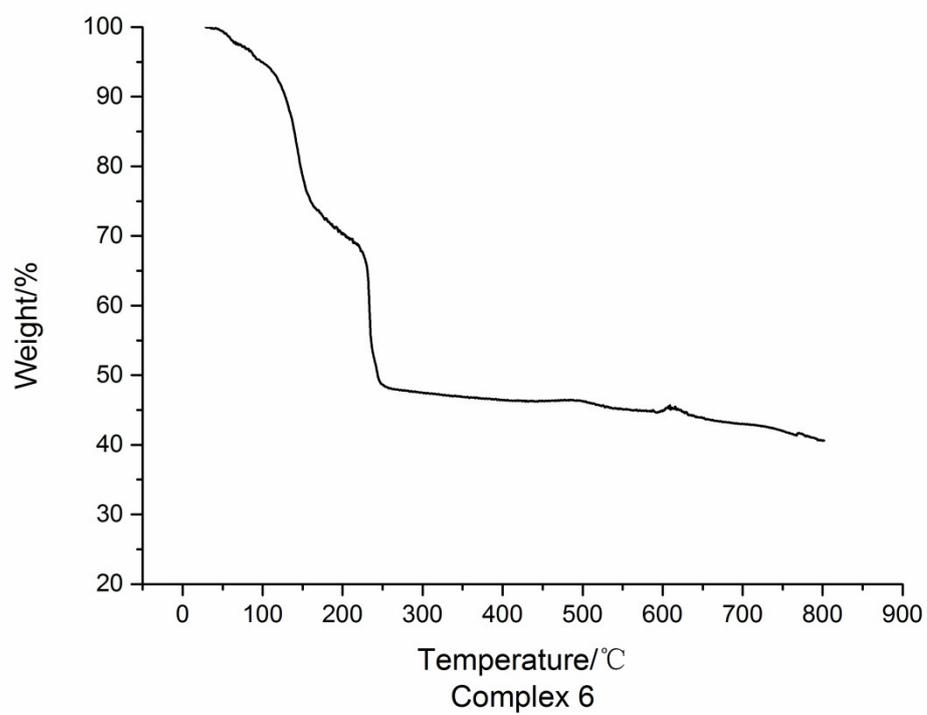


Fig. S11f. TG curves of the complexes **6**.

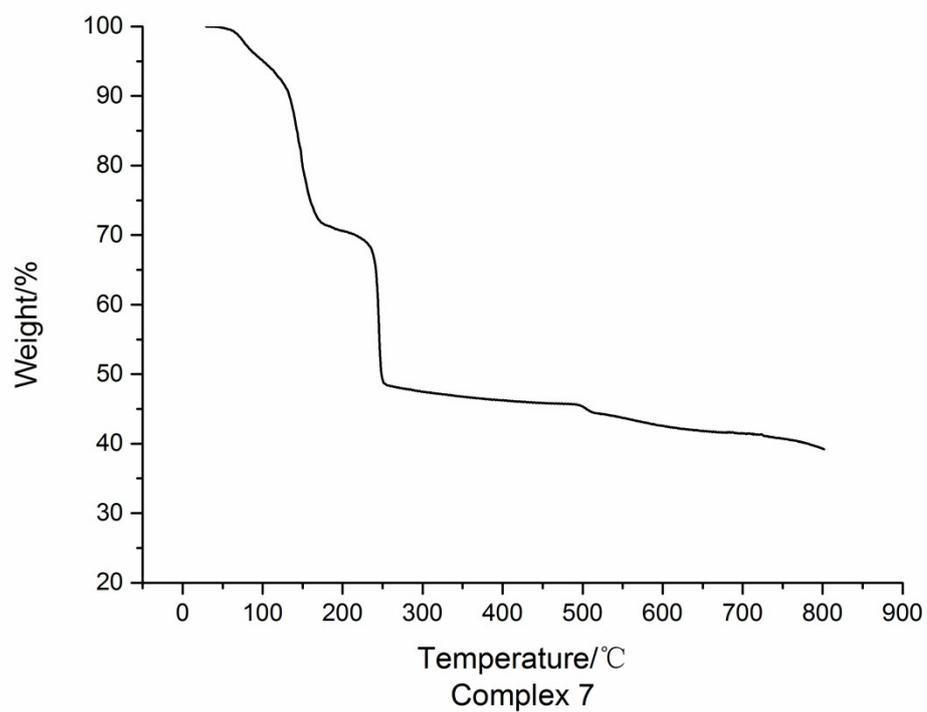


Fig. S11g. TG curves of the complexes 7.

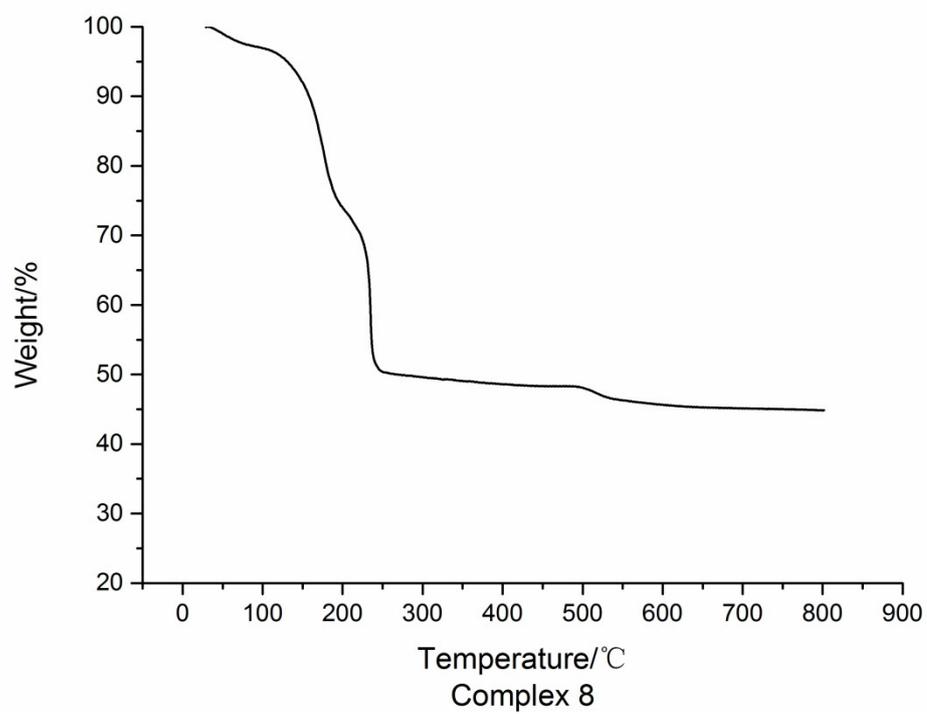


Fig. S11h. TG curves of the complexes **8**.

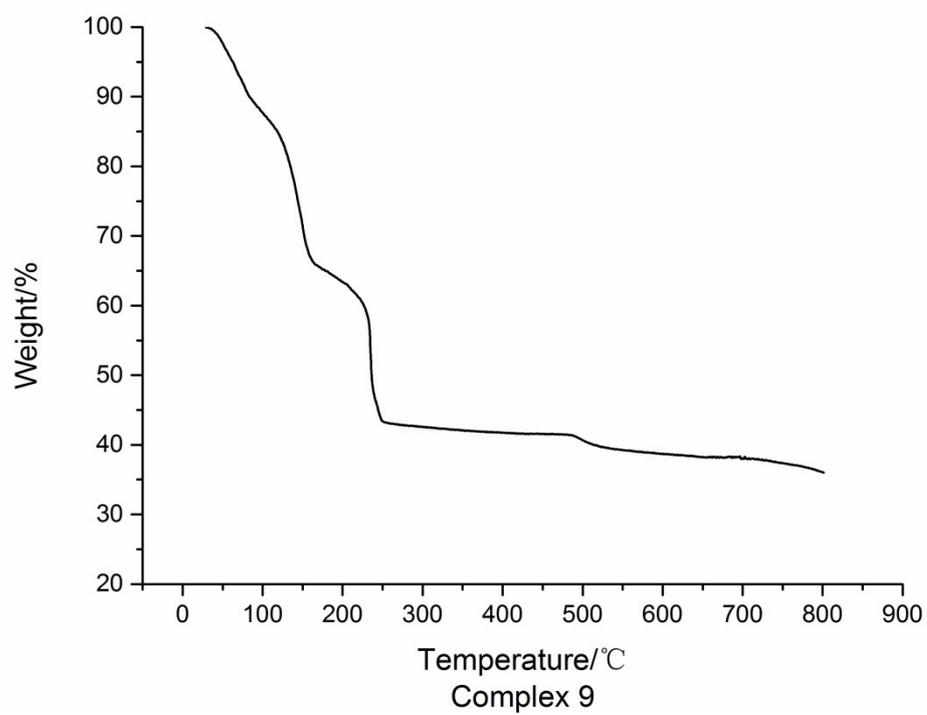


Fig. S11i. TG curves of the complexes **9**.

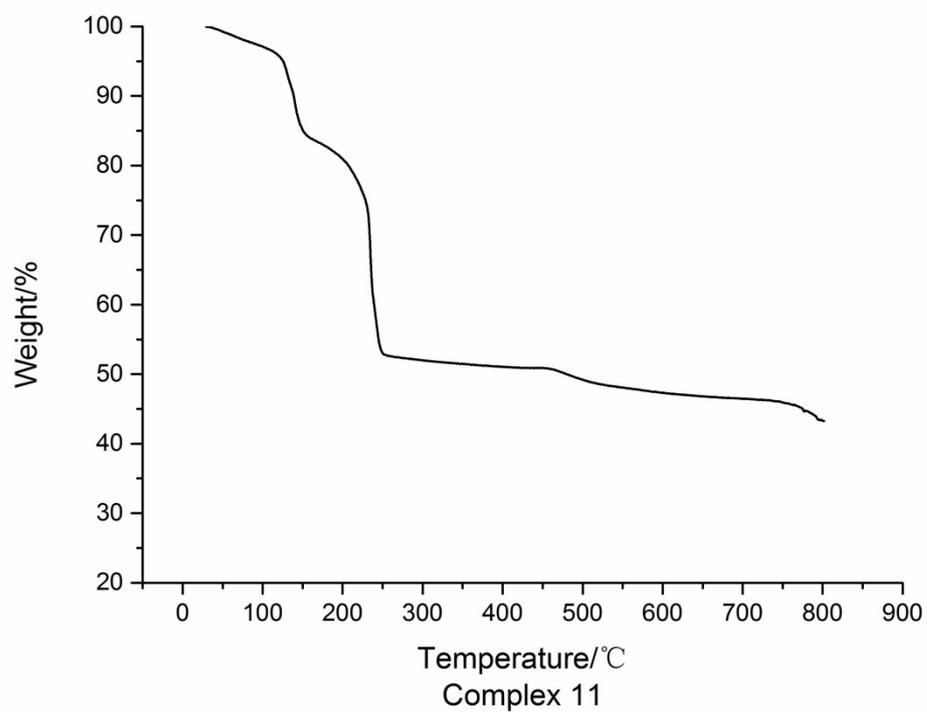


Fig. S11j. TG curves of the complexes **11**.

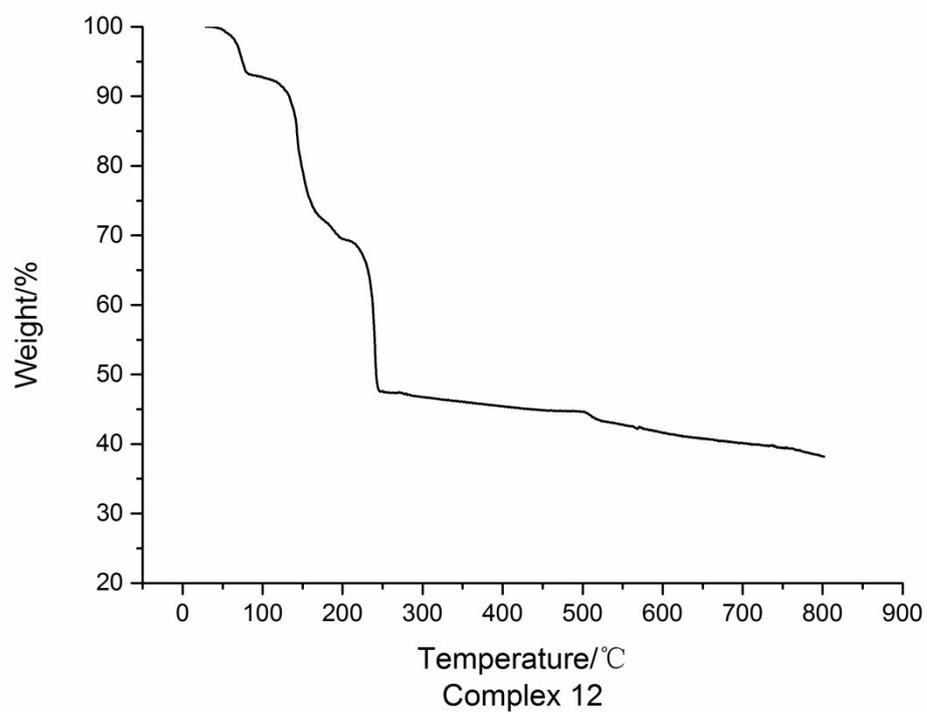


Fig. S11k. TG curves of the complexes **12**.

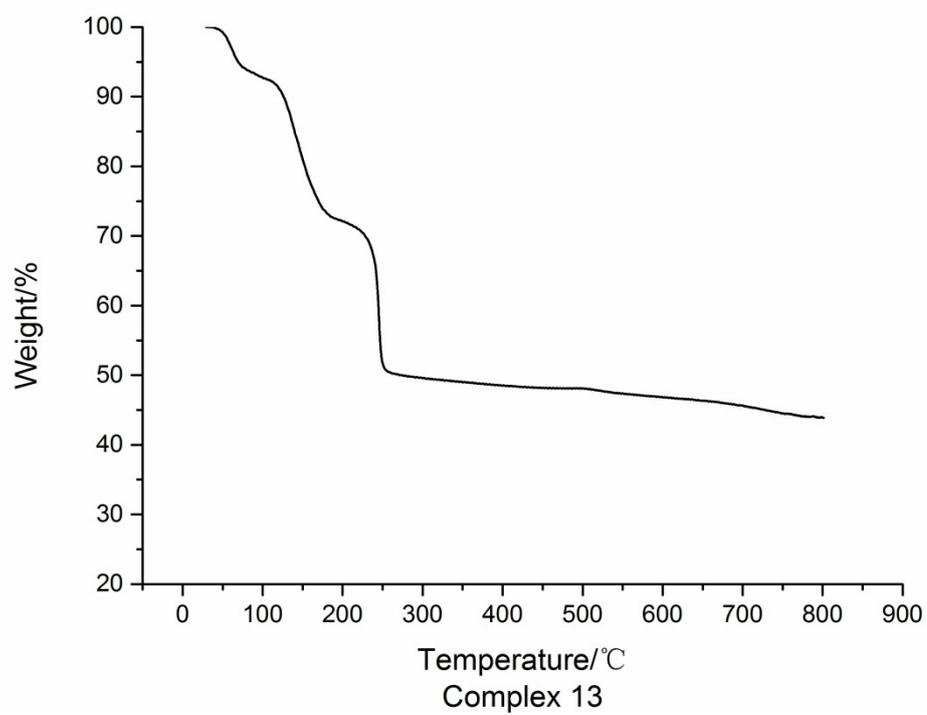


Fig. S11l. TG curves of the complexes **13**.

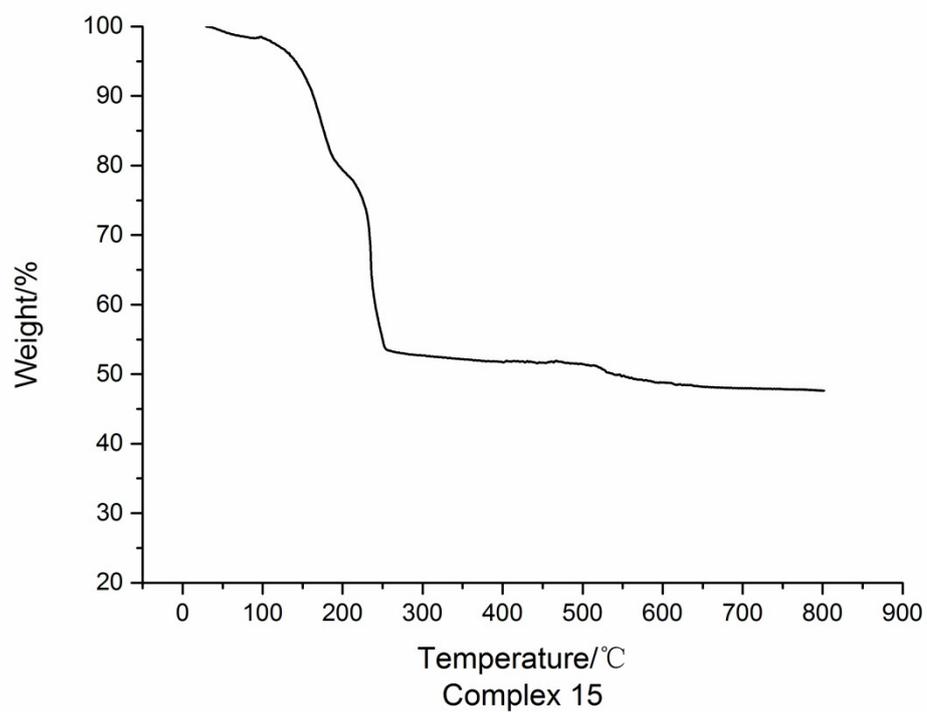


Fig. S11m. TG curves of the complexes **15**.

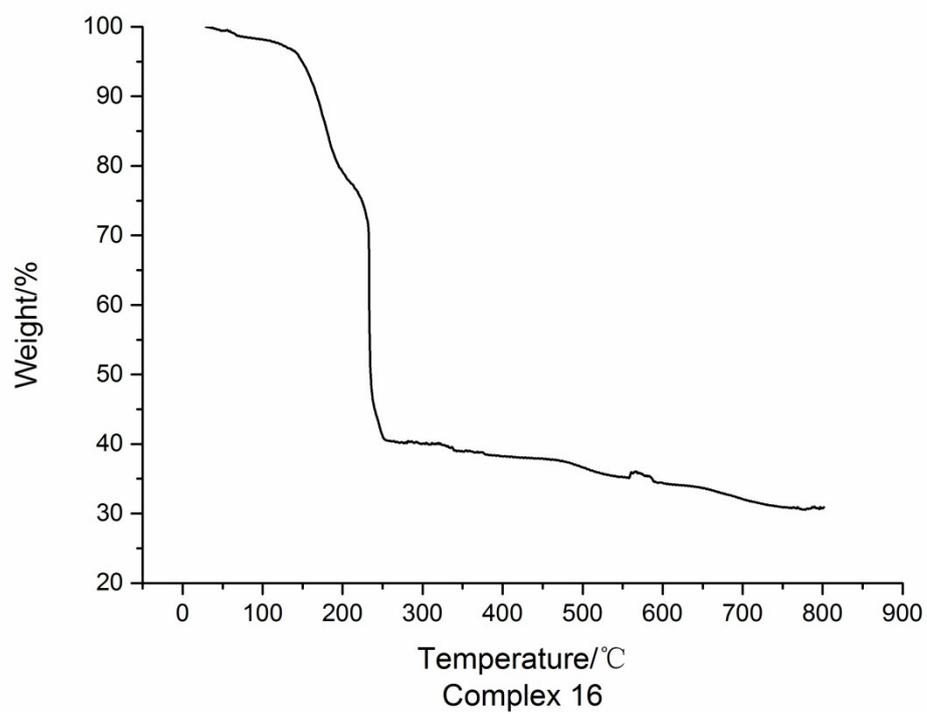


Fig. S11n. TG curves of the complexes **16**.

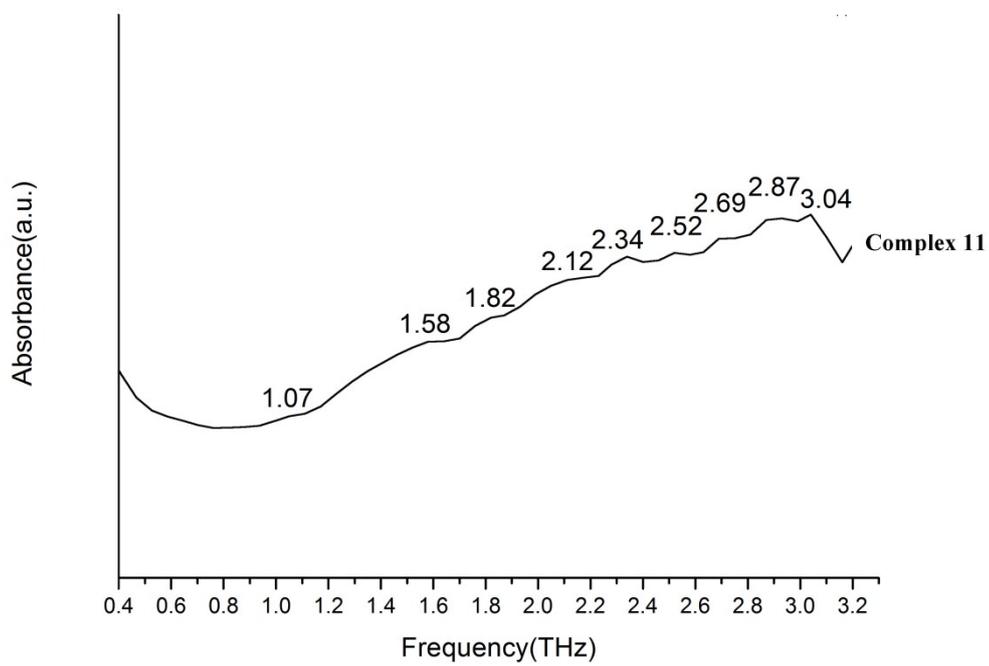


Fig. S12 THz absorption spectra of complex **11**.

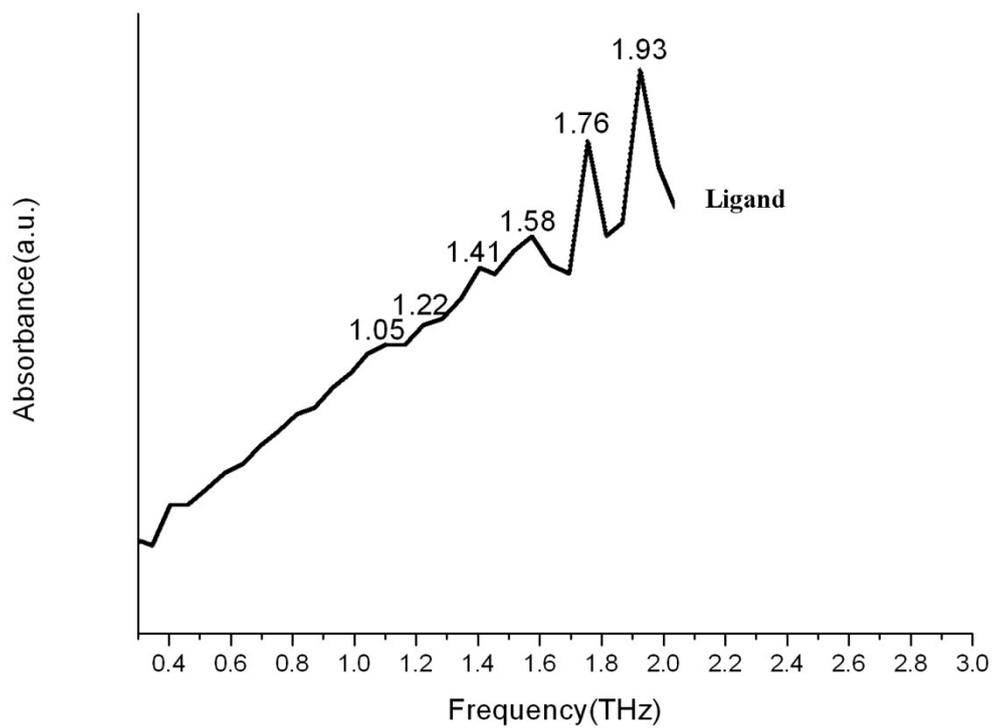


Fig. S13 THz absorption spectra of L ligand.