



STRUCTURAL
CHEMISTRY

Volume 74 (2018)

Supporting information for article:

**A series of two-dimensional lanthanide coordination polymers:
synthesis, structures, magnetism and selective luminescence
detection for heavy metal ions and toxic solvents**

**Hongguo Hao, Hongyan Liu, Yuchen Wang, Suxian Yuan, Han Xu, Jingyue
Zhang, Ying Wang, Dacheng Li and Junshan Sun**

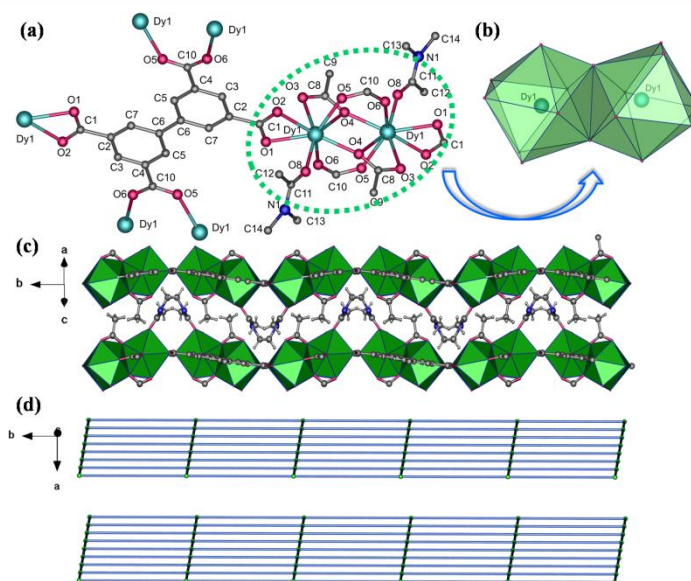


Figure S1 (a) View of the coordination environments of the fully deprotonated ligand BPTC⁴⁻ and Dy(III) atoms; (b) The polyhedron of Dy₂ (III) node; (c) The polyhedron of 3D framework in CP 2; (d) The 3D simplified topology structure of CP 2.

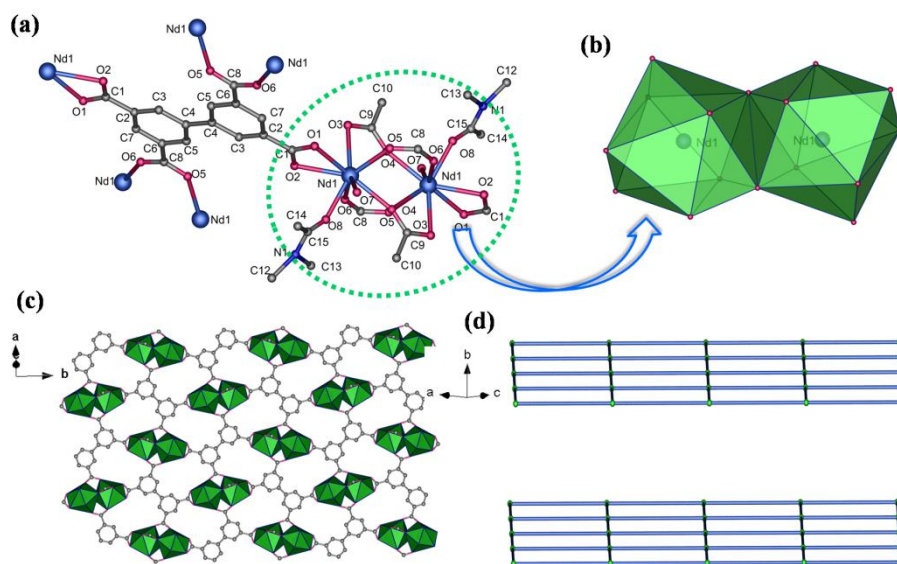


Figure S2 (a) View of the coordination environments of the fully deprotonated ligand BPTC⁴⁻ and Nd(III) atoms; (b) The polyhedron of Nd₂ (III) node; (c) The polyhedron of 2D sheet in *ab* plane in CP 3; (d) The 3D simplified topology structure of CP 3.

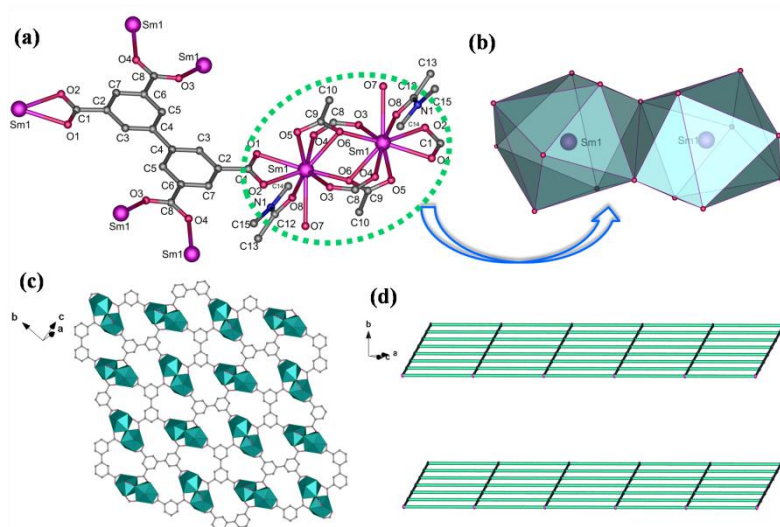


Figure S3 (a) View of the coordination environments of the fully deprotonated ligand BPTC⁴⁻ and Sm(III) atoms; (b) The polyhedron of Sm₂(III) node; (c) The polyhedron of 2D sheet in *ab* plane in CP 4; (d) The 3D simplified topology structure of CP 4.

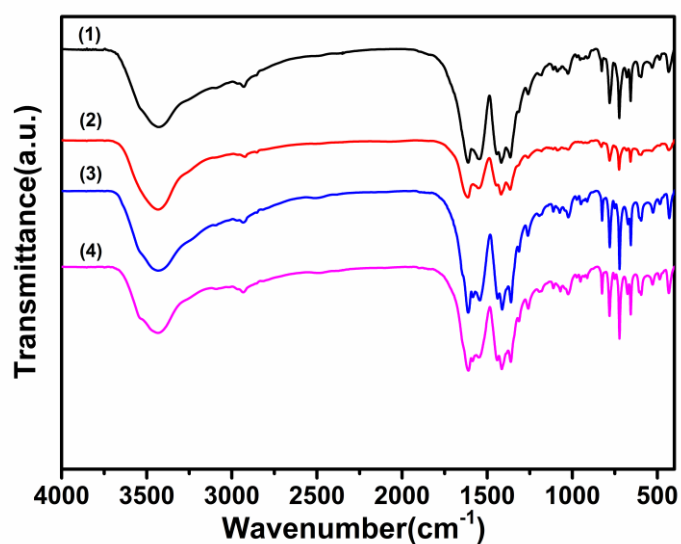


Figure S4 FT-IR Spectra of CPs 1-4.

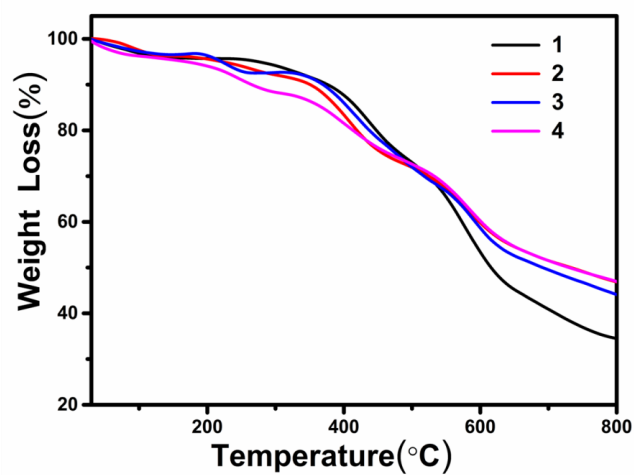


Figure S5 TGA plots of CPs 1-4.

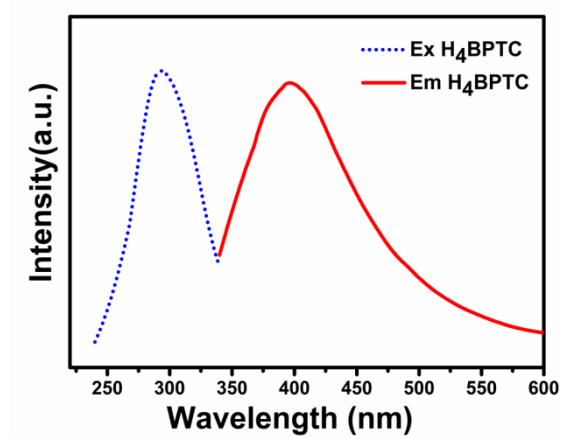


Figure S6 Solid state excitation and emission spectra of H₄BPTC ligand.