A Coordination Polymer of Dy(III) with Polycarboxylic Acid Ligand: Synthesis, Characterization and Magnetic Properties

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Supporting Information

Table S1 Important bond length (Å) and angles (°) for complex **1**

1			
Dy(1)-O(6)#1	2.321(3)	Dy(1)-O(3)	2.404(3)
Dy(1)-O(1)	2.330(3)	Dy(1)-O(3)#1	2.420(3)
Dy(1)-O(7)	2.338(3)	Dy(1)-N(1)	2.660(3)
Dy(1)-O(5)	2.371(3)	Dy(1)-Dy(1)#1	3.8675(5)
Dy(1)-O(2)#2	2.373(3)		
O(6)#1-Dy(1)-O(1)	146.33(9)	O(6)#1-Dy(1)-O(3)	73.47(10)
O(6)#1-Dy(1)-O(7)	115.47(11)	O(1)-Dy(1)-O(3)	107.81(10)
O(1)-Dy(1)-O(7)	79.51(11)	O(7)-Dy(1)-O(3)	152.42(11)
O(6)#1-Dy(1)-O(5)	139.01(10)	O(5)-Dy(1)-O(3)	76.49(10)
O(1)-Dy(1)-O(5)	70.02(10)	O(2)#2-Dy(1)-O(3)	125.67(10)
O(7)-Dy(1)-O(5)	81.55(12)	O(6)#1-Dy(1)-O(3)#1	72.94(9)
O(6)#1-Dy(1)-O(2)#2	73.98(10)	O(1)-Dy(1)-O(3)#1	140.53(9)
O(1)-Dy(1)-O(2)#2	79.18(10)	O(7)-Dy(1)-O(3)#1	84.18(11)
O(7)-Dy(1)-O(2)#2	81.52(12)	O(5)-Dy(1)-O(3)#1	72.18(10)
O(5)-Dy(1)-O(2)#2	147.01(10)	O(2)#2-Dy(1)-O(3)#1	133.50(10)
O(3)-Dy(1)-O(3)#1	73.40(11)	O(6)#1-Dy(1)-N(1)	87.05(10)
O(1)-Dy(1)-N(1)	65.25(10)	O(7)-Dy(1)-N(1)	138.83(11)
O(5)-Dy(1)-N(1)	104.24(10)	O(2)#2-Dy(1)-N(1)	71.88(10)
O(3)-Dy(1)-N(1)	64.17(10)	O(3)#1-Dy(1)-N(1)	136.77(10)

Symmetry transformations used to generate equivalent atoms: **1**: #1 -x+2, -y+1, -z+1; #2 -x+3/2, y+1/2, z; #3 -x+3/2, y-1/2, z; #4 x, -y+1/2, z-1/2; #5 x, -y+1/2, z+1/2 .

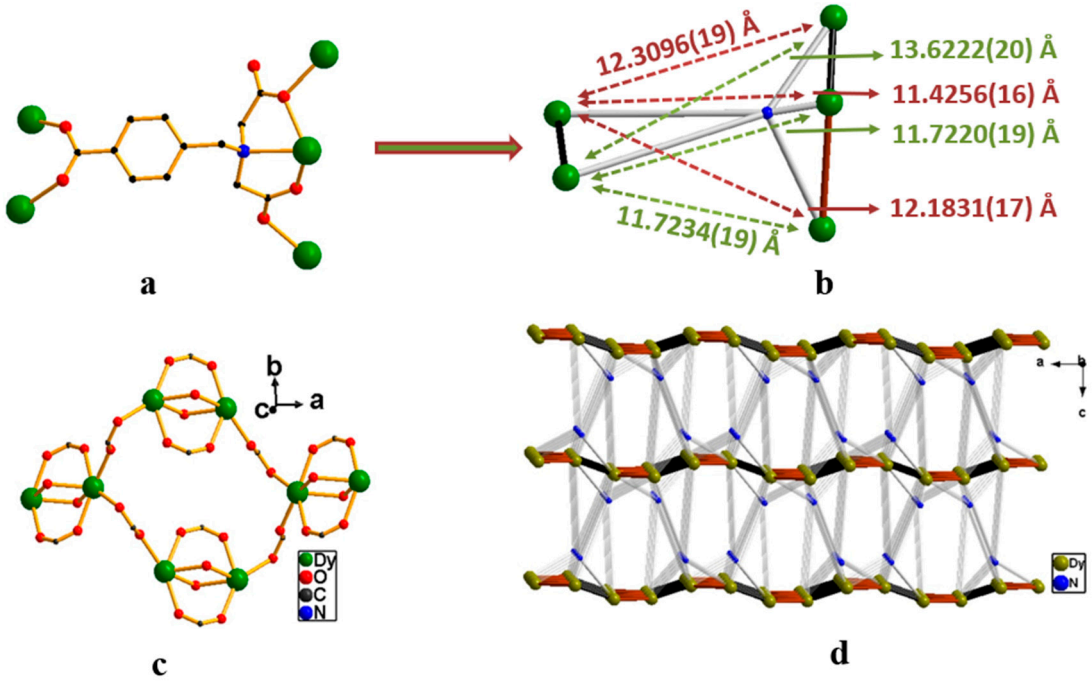


Figure S1 Coordination mode of L^{3-} (a), simplified ligand with the intermetallic distance (b), chair-like Dy_6 ring formed by Dy_2 units (c) and the three-dimensional framework (d) in **1.**

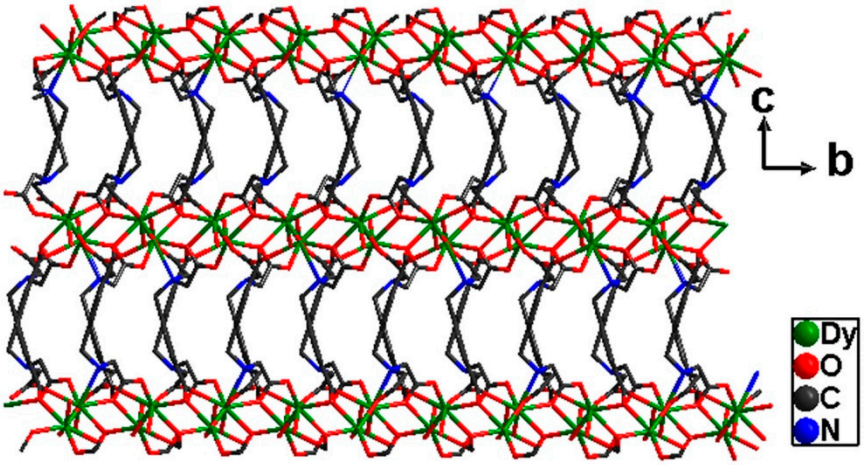


Figure S2 3D framework of **1** along a direction

Table S2 Table of the values extracted from the fitting of χ_M'' *vs* frequency curves.

χ_S	χ_T	τ	α	R^2
2.93667	7.23302	1.46873E-5	0.06403	0.99992
3.11875	7.45964	1.98579E-5	0.06192	0.99988
3.28588	7.69242	2.63778E-5	0.06258	0.99985
3.43804	7.94063	3.44487E-5	0.06819	0.99974
3.5975	8.19724	4.44456E-5	0.07536	0.99961
3.75998	8.46506	5.6553E-5	0.08489	0.99934
3.92928	8.74531	7.10454E-5	0.09711	0.99897
4.11176	9.03082	8.81692E-5	0.11072	0.99824
4.30516	9.323	1.08003E-4	0.12634	0.997
4.51637	9.61718	1.30746E-4	0.14318	0.99509
4.74377	9.9157	1.5641E-4	0.16257	0.99293
4.9943	10.2004	1.84294E-4	0.1823	0.99001
5.26843	10.4808	2.14578E-4	0.20476	0.9867
5.57315	10.7413	2.45854E-4	0.22881	0.98253
5.91371	10.9949	2.78254E-4	0.25619	0.97681
6.29631	11.2781	3.14335E-4	0.28913	0.97045
6.72834	11.627	3.57237E-4	0.32911	0.96289
7.20949	12.0914	4.13509E-4	0.38032	0.95132
2.93667	7.23302	1.46873E-5	0.06403	0.99992