Microwave-assisted large scale synthesis of lanthanide Metal− Organic Frameworks (Ln-MOFs), having preferred conformation and photoluminescence properties

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Supplimentory Information

Contents

1. IR-Spectra

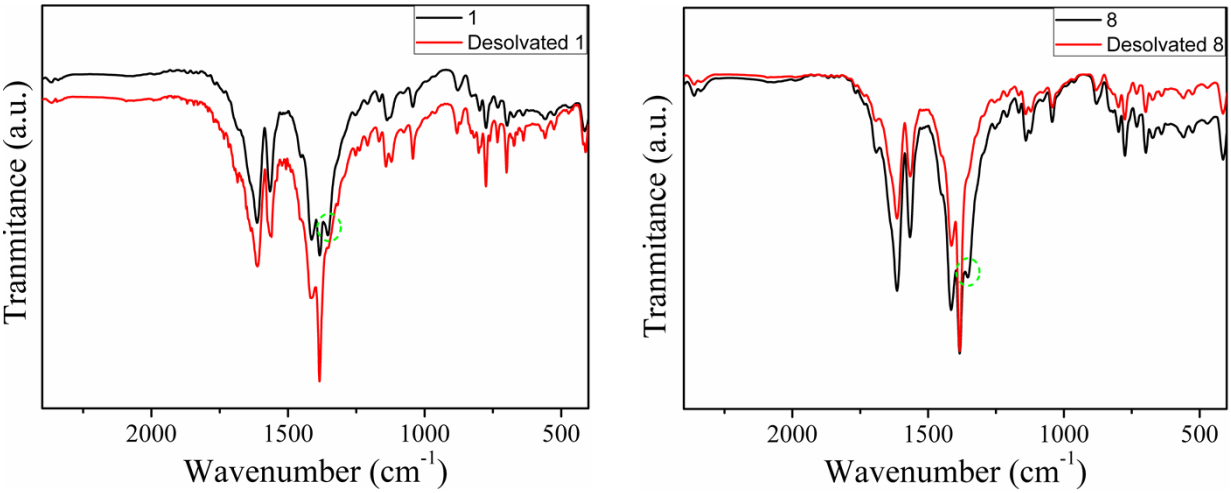


Figure S1. IR spectra of as-synthesized and desolvated samples of **1** and **8**.

2. ^{1}H-NMR Spectrum

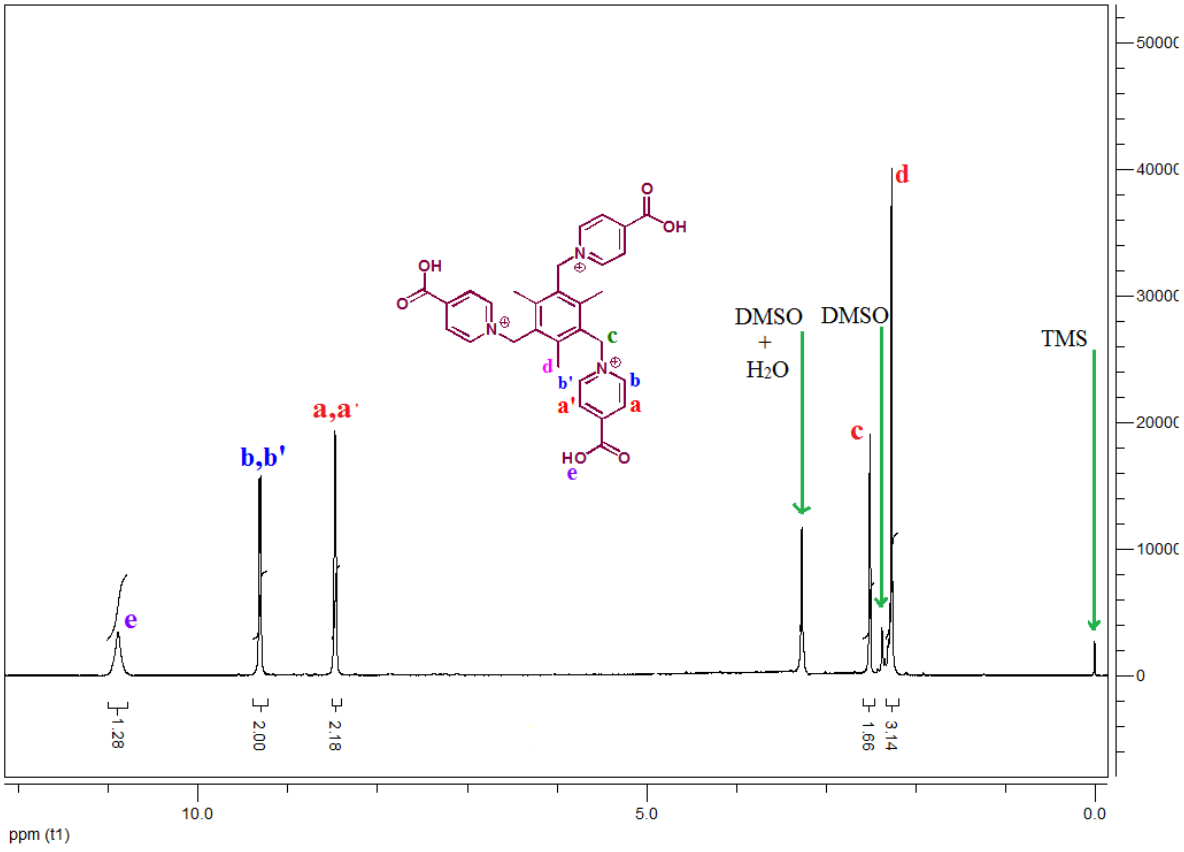


Figure S2. ^{1}H-NMR spectrum of ligand (H_3TTTPC) before MOF preparation in DMSO-d_6 solvent.

3. Powder X-Ray Diffraction

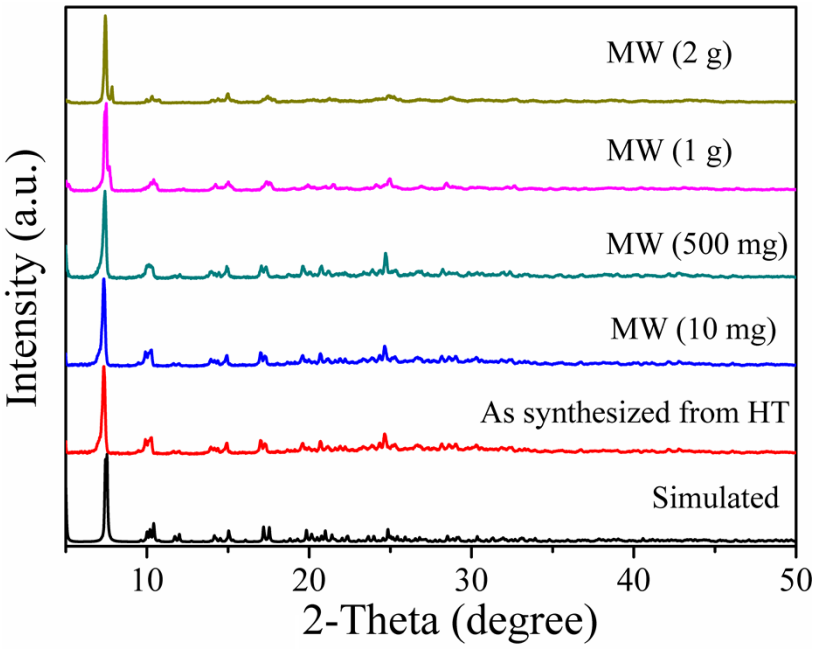


Figure S3. PXRD patterns of Ln-MOF, synthesized by microwave (MW). Here the PXRD patterns show the purity of MOF was obtained perfectly up to 2g scale.

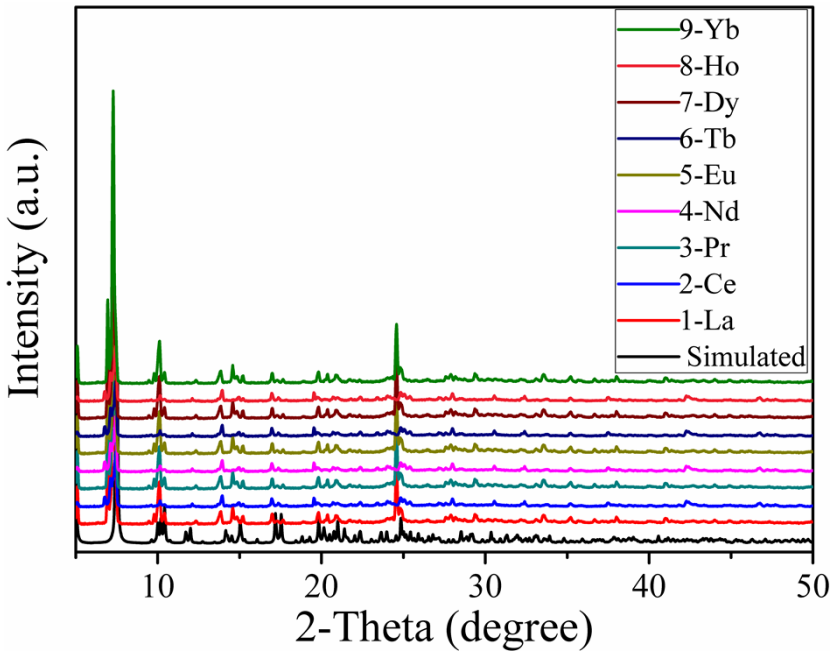


Figure S4. PXRD patterns of **1-9.**

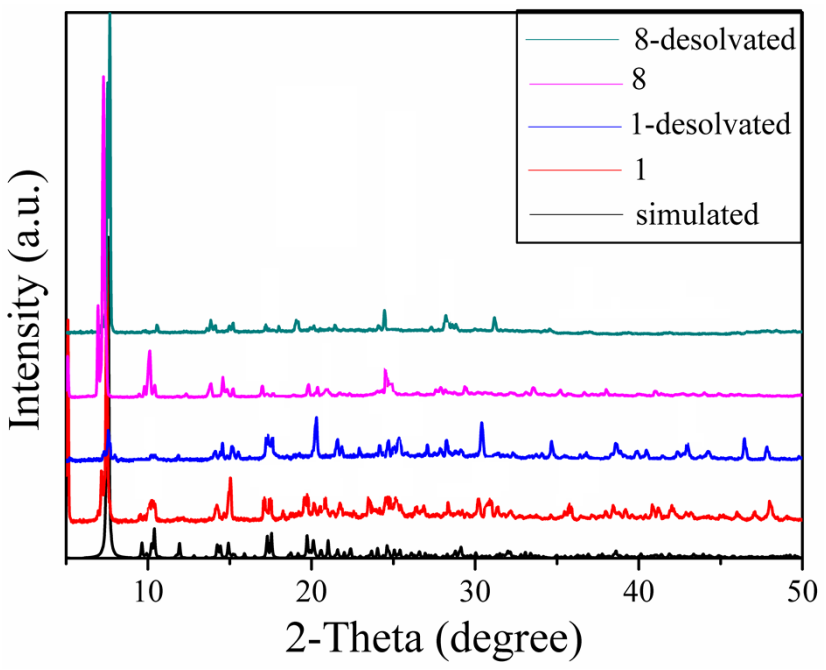


Figure S5. PXRD patterns of as-synthesized and desolvated samples of **1** and **8.**

4. Thermogravimetric Analysis (TGA)

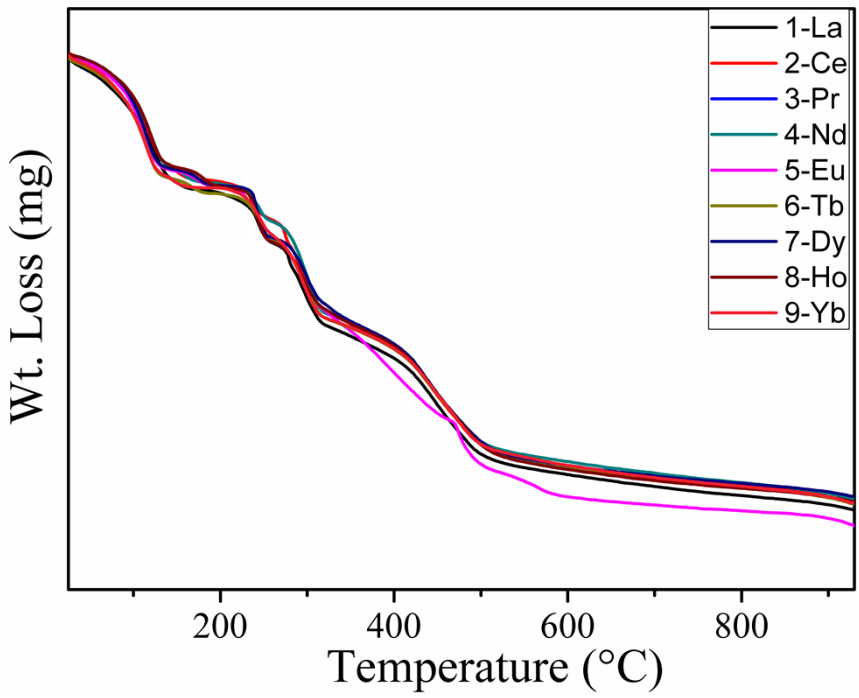


Figure S6. TGA plots of as-synthesized samples of **1 - 8**.

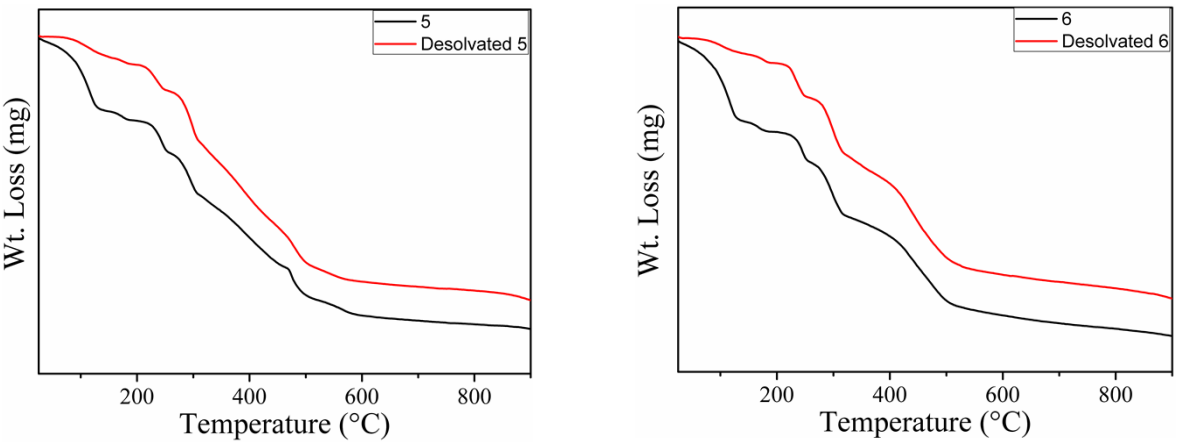
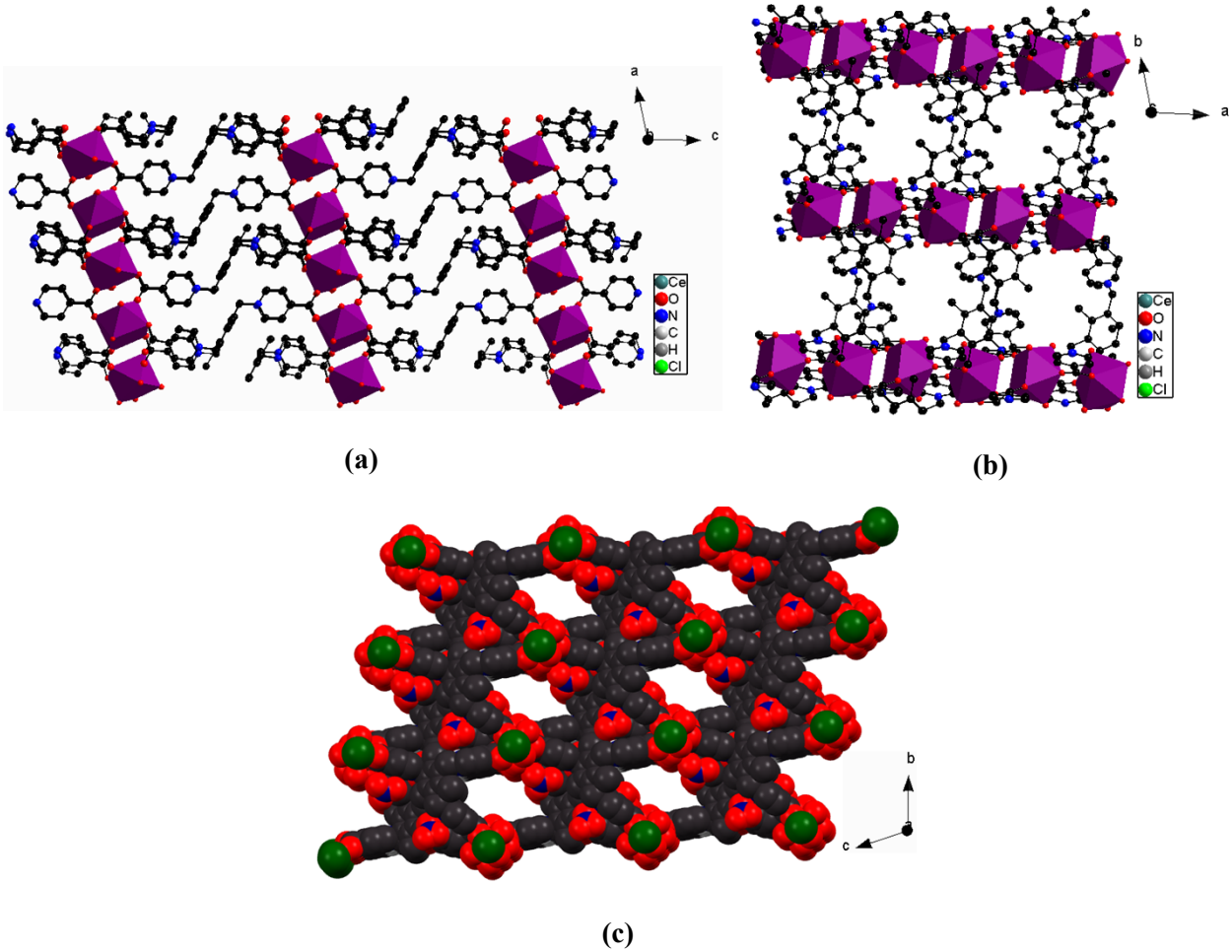


Figure S7. TGA plots of as-synthesized and desolvated samples of **5** and **6**.

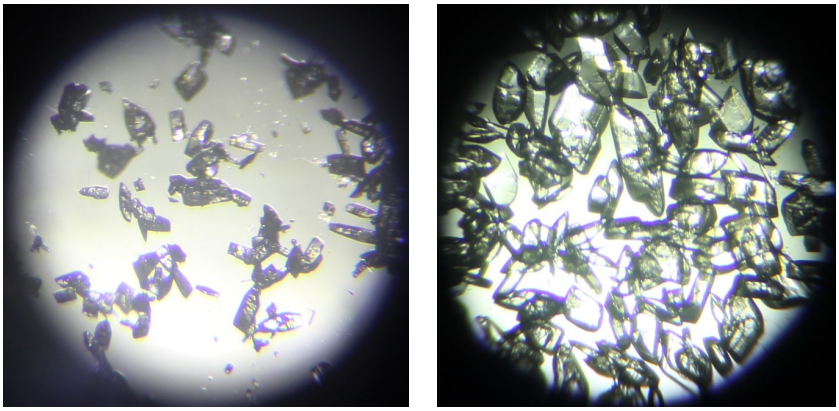
5. Additional figures



(a) **(b)**

(c)

Figure S8. Packing patterns of LnMOFs. (a) along *b*-axis, (b) along *c*-axis and (c) spacefill model of the packing along *a*-axis.



(a) **(b)**

Figure S9. Photography of single crystals, **(a)** obtained from MWASR (experiment duration was 30 min.) and **(b)** solvothermal oven (experiment duration was 2 days). Notice that obtained crystals from both processes are single crystal of similar shape and unit cell parameters are also same.

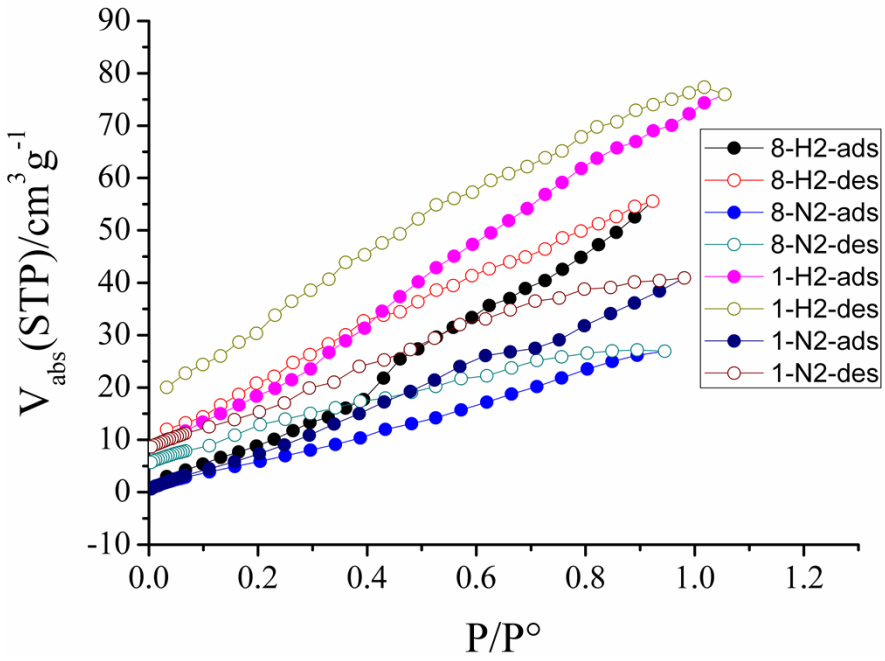


Figure S10. Sorption isotherms for 1 and 8. Filled circles represent adsorptions and open circles represent desorption. Po is the saturated vapor pressure at 77K.

6. The solid—state photoluminescence spectra

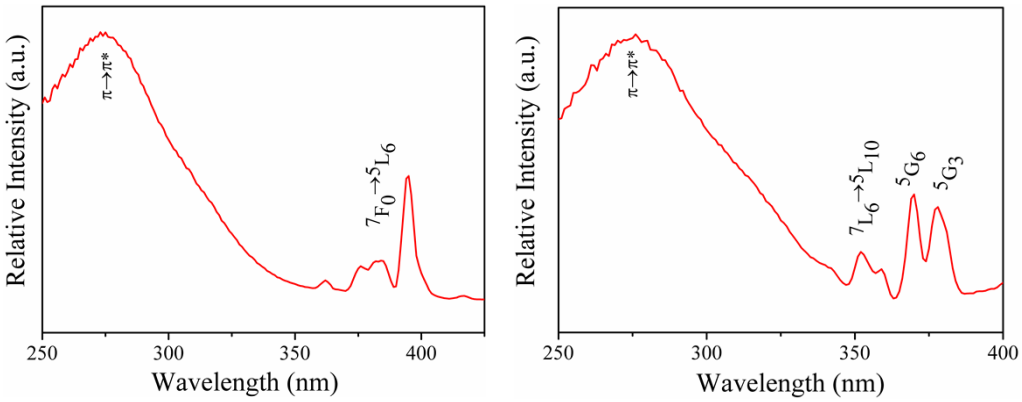


Figure S11. Solid-state excitation spectrum for the **5** (left) and **6** (right) at 298 K(emission monitored at 612 nm).

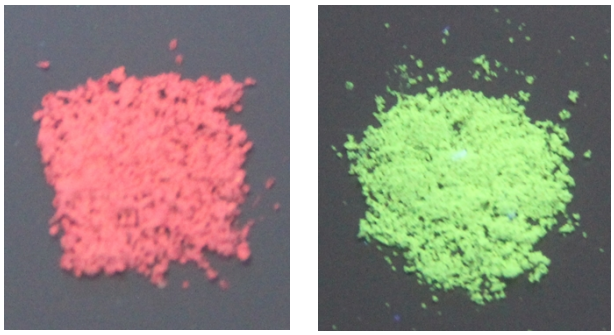
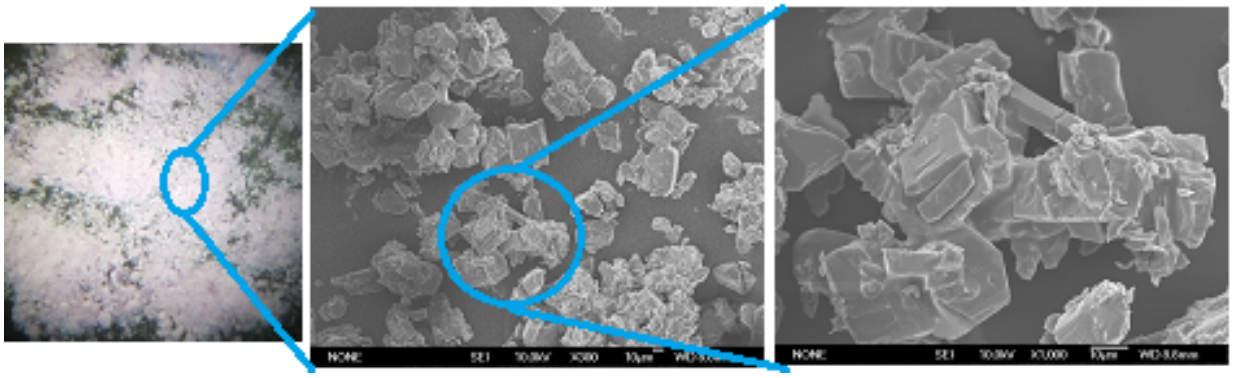


Figure S12. Photography of **5** (left) and **6** (right) under a UV lamp (excited at 254 nm)

7. Scanning Electron Spectroscopy (SEM) image.



(a) **(b)** **(c)**

Figure S13. (a) Photography of microcrystals obtained from MWASR (experiment duration was 5 min.). SEM image of these microcrystals **(b)** and **(c)**, where the crystalline property is observed clearly.

8. Selected bond distances and angles

Table S1. Selected bond lengths (Å) and angles (°) for **1**.

La1—O1	2.508(4)	La1—O5_e	2.492(3)
La1—O2_g	2.435(4)	La1—O6_d	2.543(4)
La1—O3_f	2.466(5)	La1—O7	2.600(5)
La1—O4_c	2.528(5)	La1—O8	2.544(5)
O1—La1—O7	72.0(1)	O3_f —La1—O7	72.6(2)
La1—O1—C1	129.4(4)	O2_g—La1—O7	72.0(1)
O1—La1—O8	73.1(1)	O4_c—La1—O8	73.3(2)
La1_g—O2—C1	176.6(4)	O6_d—La1—O8	140.3(2)
O1—La1—O4_c	145.2(1)	O5_e—La1—O8	74.5(1)
La1_f—O3—C23	136.0(4)	O3_f—La1—O8	135.8(2)
O1—La1—O6_d	140.0(1)	O2_g—La1—O8	73.3(2)
La1_b—O4—C23	134.0(4)	O4_c—La1—O6_d	74.4(1)
O1—La1—O5_e	83.0(1)	O4_c—La1—O5_e	79.6(1)
La1_e—O5—C30	170.6(4)	O3_f—La1—O4_c	125.3(1)
O1—La1—O3_f	75.7(1)	O2_g—La1—O4_c	77.9(1)
La1_a—O6—C30	106.0(4)	O5_e—La1—O6_d	121.1(1)
O1—La1—O2_g	100.7(1)	O3_f—La1—O6_d	82.5(1)
O7—La1—O8	124.1(2)	O2_g—La1—O6_d	77.9(1)
O4_c—La1—O7	136.9(1)	O3_f—La1—O5_e	71.4(1)
O6_d—La1—O7	69.6(1)	O2_g—La1—O5_e	144.8(1)
O5_e—La1—O7	140.1(1)	O2_g—La1—O3_f	143.7(1)

Symmetry codes: (i) x,-1+y,-1+z; (ii) x,y,-1+z; (iii) x,y,1+z; (iv) x,1+y,1+z; (v) -x,1-y,1-z; (vi) -x,2-y,1-z; (vii) 1-x,2-y,2-z.

Table S2. Selected bond lengths (Å) and angles (°) for **2**.

Ce1—O1	2.405(4)	Ce1—O5_d	2.456(3)
Ce1—O2_g	2.487(4)	Ce1—O6_e	2.507(4)
Ce1—O3_c	2.443(5)	Ce1—O7	2.579(5)
Ce1—O4_f	2.489(5)	Ce1—O8	2.513(5)
O1—Ce1—O7	71.8(2)	O4_f—Ce1—O7	136.8(2)
Ce1—O1—C1	176.6(4)	O2_g—Ce1—O7	72.8(1)
O1—Ce1—O8	73.4(2)	O3_c—Ce1—O8	136.7(2)
Ce1_g—O2—C1	129.8(4)	O5_d—Ce1—O8	74.5(1)
O1—Ce1—O3_c	143.2(1)	O6_e—Ce1—O8	140.1(2)
Ce1_b —O3—C23	135.6(4)	O4_f—Ce1—O8	73.0(2)
O1—Ce1—O5_d	145.2(1)	O2_g—Ce1—O8	73.3(2)
Ce1_f —O4—C23	134.8(4)	O3_c—Ce1—O5_d	71.5(1)
O1—Ce1—O6_e	78.3(1)	O3_c—Ce1—O6_e	81.5(1)
Ce1_a—O5—C30	173.1(4)	O3_c—Ce1—O4_f	124.7(1)
O1—Ce1—O4_f	78.6(1)	O2_g—Ce1—O3_c	76.3(1)
Ce1_e—O6—C30	107.6(4)	O5_d—Ce1—O6_e	120.8(1)
O1—Ce1—O2_g	100.8(1)	O4_f—Ce1—O5_d	79.5(1)
O7—Ce1—O8	124.7(2)	O2_g—Ce1—O5_d	82.3(1)
O3_c—Ce1—O7	72.4(2)	O4_f—Ce1—O6_e	74.4(1)
O5_d—Ce1—O7	139.9(1)	O2_g —Ce1—O6_e	140.4(1)
O6_e—Ce1—O7	69.4(1)	O2_g—Ce1—O4_f	144.9(1)

Symmetry codes: (i) -1+x,-1+y,-1+z; (ii) -1+x,y,-1+z; (iii) 1+x,y,1+z; (iv) 1+x,1+y,1+z; (v) 1-x,1-y,1-z; (vi) 1-x,2-y,1-z; (vii) 1-x,2-y,2-z.

Table S3. Selected bond lengths (Å) and angles (°) for **3**.

Pr1—O1	2.489(4)	Pr1—O7	2.485(5)
Pr1—O2_g	2.429(3)	Pr1—O8	2.568(5)
Pr1—O3_c	2.480(5)	Pr1—O5_d	2.466(4)
Pr1—O4_f	2.420(5)	Pr1—O6_e	2.386(4)
O1—Pr1—O7	140.0(2)	O4_f—Pr1—O7	137.2(2)
Pr1—O1—C1	108.6(4)	O2_g—Pr1—O7	74.4(1)
O1—Pr1—O8	69.9(2)	O3_c—Pr1—O8	137.2(2)
Pr1_g—O2—C1	173.8(4)	O5_d—Pr1—O8	72.2(1)
O1—Pr1—O3_c	74.2(1)	O6_e—Pr1—O8	71.9(2)
Pr1_b—O3—C23	135.3(4)	O4_f—Pr1—O8	72.2(2)
O1—Pr1—O5_d	140.3(1)	O2_g—Pr—O8	139.9(1)
Pr1_f—O4—C23	135.5(4)	O3_c—Pr1—O5_d	145.2(1)
O1—Pr1—O6_e	79.0(1)	O3_c—Pr1—O6_e	79.1(1)
Pr1_a—O5—C30	130.2(4)	O3_c—Pr1—O4_f	124.1(1)
O1—Pr1—O4_f	80.9(1)	O2_g—Pr1—O3_c	79.2(1)
Pr1_e—O6—C30	176.7(4)	O5_d—Pr1—O6_e	100.1(1)
O1—Pr1—O2_g	120.6(1)	O4_f—Pr1—O5_d	76.8(1)
O7—Pr1—O8	124.7(2)	O2_g—Pr1—O5_d	82.7(1)
O3_c—Pr1—O7	73.0(2)	O4_f—Pr1—O6_e	143.1(1)
O5_d—Pr1—O7	73.6(2)	O2_g—Pr1—O6_e	144.9(1)
O6_e—Pr1—O7	73.0(2)	O2_g—Pr1—O4_f	71.8(1)

Symmetry codes: (i) x,-1+y,-1+z; (ii) x,-1+y,z; (iii) x,1+y,z; (iv) x,1+y,1+z; (v) 1-x,2-y,-z; (vi) 2-x,2-y,1-z; (vii) 2-x,3-y,1-z.

Table S4. Selected bond lengths (Å) and angles (°) for **4**.

Nd1—O1	2.460(4)	Nd1—O5_a	2.451(4)
Nd1—O3_b	2.466(5)	Nd1—O6_g	2.378(4)
Nd1—O2_e	2.409(3)	Nd1—O7	2.546(5)
Nd1—O4_f	2.416(5)	Nd1—O8	2.474(5)
O1—Nd1—O7	70.2(2)	O4_f—Nd1—O7	72.1(2)
Nd1—O1—C1	110.0(4)	O6_g—Nd1—O7	72.1(2)
O1—Nd1—O8	140.2(2)	O5_a—Nd1—O8	73.1(2)
Nd1_e—O2—C1	174.1(4)	O3_b—Nd1—O8	73.5(2)
O1—Nd1—O5_a	140.5(1)	O2_e—Nd1—O8	74.3(2)
Nd1_c—O3—C23	135.9(4)	O4_f—Nd1—O8	137.0(2)
O1—Nd1—O3_b	73.9(1)	O6_g—Nd1—O8	73.1(2)
Nd1_f—O4—C23	135.8(4)	O3_b—Nd1—O5_a	145.3(1)
O1—Nd1—O2_e	120.5(1)	O2_e—Nd1—O5_a	83.0(1)
Nd1_d—O5—C30	130.9(4)	O4_f—Nd1—O5_a	76.9(1)
O1—Nd1—O4_f	81.1(1)	O5_a—Nd1—O6_g	100.0(1)
Nd1_g—O6—C30	176.9(4)	O2_e—Nd1—O3_b	79.1(1)
O1—Nd1—O6_g	79.0(1)	O3_b—Nd1—O4_f	124.1(1)
O7—Nd1—O8	124.4(2)	O3_b—Nd1—O6_g	79.1(1)
O5_a—Nd1—O7	71.9(2)	O2_e—Nd1—O4_f	72.0(1)
O3_b—Nd1—O7	137.3(2)	O2_e—Nd1—O6_g	144.7(1)
O2_e—Nd1—O7	139.9(2)	O4_f—Nd1—O6_g	143.1(1)

Symmetry codes: (i) x,-1+y,-1+z; (ii) x,-1+y,z; (iii) x,1+y,z; (iv) x,1+y,1+z; (v) -x,-y,-z; (vi) -x,1-y,-z; (vii) 1-x,1-y,1-z.

Table S5. Selected bond lengths (Å) and angles (°) for **5**.

Eu1—O1	2.328(4)	Eu1—O5_d	2.354(4)
Eu1—O3_c	2.365(6)	Eu1—O6_e	2.423(5)
Eu1—O4_f	2.421(6)	Eu1—O7	2.502(6)
Eu1—O2_g	2.411(6)	Eu1—O8	2.438(6)
O1—Eu1—O7	72.1(2)	O4_f—Eu1—O7	137.1(2)
Eu1—O1—C1	177.8(4)	O2_g—Eu1—O7	72.6(2)
O1—Eu1—O8	72.7(2)	O3_c—Eu1—O8	138.4(2)
Eu1_g—O2—C1	131.8(4)	O5_d—Eu1—O8	73.8(2)
O1—Eu1—O3_c	143.2(2)	O6_e—Eu1—O8	140.1(2)
Eu1_b—O3—C23	136.2(5)	O4_f—Eu1—O8	73.8(2)
O1—Eu1—O5_d	144.0(2)	O2_g—Eu1—O8	73.1(2)
Eu1_f—O4—C23	136.8(5)	O3_c—Eu1—O5_d	72.7(2)
O1—Eu1—O6_e	80.0(2)	O3_c—Eu1—O6_e	79.3(2)
Eu1_a—O5—C30	176.3(5)	O3_c—Eu1—O4_f	122.1(2)
O1—Eu1—O4_f	79.6(2)	O2_g—Eu1—O3_c	78.6(2)
Eu1_e—O6—C30	112.7(5)	O5_d—Eu1—O6_e	120.0(2)
O1—Eu1—O2_g	99.9(2)	O4_f—Eu1—O5_d	78.8(2)
O7—Eu1—O8	124.6(2)	O2_g—Eu1—O5_d	82.4(2)
O3_c—Eu1—O7	72.4(2)	O4_f—Eu1—O6_e	73.1(2)
O5_d—Eu1—O7	140.3(2)	O2_g—Eu1—O6_e	141.4(2)
O6_e—Eu1—O7	70.8(2)	O2_g—Eu1—O4_f	145.3(2)

Symmetry codes: (i) -1+x,-1+y,-1+z; (ii) -1+x,y,-1+z; (iii) 1+x,y,1+z; (iv) 1+x,1+y,1+z; (v) 1-x,1-y,1-z; (vi) 1-x,2-y,1-z; (vii) 1-x,2-y,2-z.

Table S6. Selected bond lengths (Å) and angles (°) for **6**.

Tb1—O1	2.462(4)	Tb1—O5_g	2.377(7)
Tb1—O4_b	2.467(5)	Tb1—O6_a	2.448(4)
Tb1—O2_e	2.410(3)	Tb1—O7	2.468(5)
Tb1 -O3_f	2.415(5)	Tb1—O8	2.547(5)
O1—Tb1—O7	140.3(2)	O3_f—Tb1—O7	137.0(2)
Tb1—O1—C1	110.1(4)	O5_g—Tb1—O7	73.1(2)
O1—Tb1—O8	70.1(2)	O6_a—Tb1—O8	71.9(2)
Tb1_e—O2—C1	173.8(4)	O4_b—Tb1—O8	137.3(2)
O1—Tb1—O6_a	140.3(1)	O2_e—Tb1—O8	140.0(2)
Tb1_f—O3—C23	135.9(4)	O3_f—Tb1—O8	72.1(2)
O1—Tb1—O4_b	74.0(1)	O5_g—Tb1—O8	72.1(2)
Tb1_c—O4—C23	135.9(4)	O4_b—Tb1—O6_a	145.4(1)
O1—Tb1—O2_e	120.5(1)	O2_e—Tb1—O6_a	83.2(1)
Tb1_g—O5—C30	176.74	O3_f—Tb1—O6_a	76.9(1)
O1—Tb1—O3_f	81.0(1)	O5_g—Tb1—O6_a	100.0(2)
Tb1_d—O6—C30	130.9(4)	O2_e—Tb1—O4_b	79.0(1)
O1—Tb1—O5_g	78.9(2)	O3_f—Tb1—O4_b	124.0(1)
O7—Tb1—O8	124.3(2)	O4_b—Tb1—O5_g	79.0(2)
O6_a—Tb1—O7	73.2(2)	O2_e—Tb1—O3_f	72.1(1)
O4_b—Tb1—O7	73.5(2)	O2_e—Tb1—O5_g	144.7(2)
O2_e—Tb1—O7	74.3(2)	O3_f—Tb1—O5_g	143.1(2)

Symmetry codes: (i) x,-1+y,-1+z; (ii) x,-1+y,z; (iii) x,1+y,z; (iv) x,1+y,1+z; (v) -x,-y,-z; (vi) -x,1-y,-z; (vii) 1-x,1-y,1-z.

Table S7. Selected bond lengths (Å) and angles (°) for **7**.

Dy1—O1	2.316(3)	Dy1—O5_e	2.359(4)
Dy1—O4_c	2.323(5)	Dy1—O6_d	2.291(4)
Dy1—O3_f	2.378(6)	Dy1—O7	2.409(5)
Dy1—O2_g	2.379(4)	Dy1—O8	2.468(5)
O1—Dy1—O7	73.9(2)	O3_f—Dy1—O7	73.9(2)
Dy1—O1—C1	176.9(4)	O2_g—Dy1—O7	140.1(2)
O1—Dy1—O8	140.2(2)	O4_c—Dy1—O8	72.2(2)
Dy1_g—O2—C1	115.1(4)	O6_d—Dy1—O8	71.6(2)
O1—Dy1—O4_c	72.5(1)	O5_e—Dy1—O8	73.1(2)
Dy1_f—O3—C23	137.50	O3_f—Dy1—O8	136.8(2)
O1—Dy1—O6_d	144.8(1)	O2_g—Dy1—O8	70.4(2)
Dy1_b—O4—C23	137.5(4)	O4_c—Dy1—O6_d	142.5(1)
O1—Dy1—O5_e	82.4(1)	O4_c—Dy1—O5_e	78.5(2)
Dy1_e—O5 —C30	131.9(4)	O3_f—Dy1—O4_c	121.4(2)
O1—Dy1—O3_f	78.6(2)	O2_g—Dy1—O4_c	78.8(2)
Dy1_a—O6—C30	179.2(4)	O5_e—Dy1—O6_d	99.8(2)
O1—Dy1—O2_g	119.4(1)	O3_f—Dy1—O6_d	80.7(2)
O7—Dy1—O8	125.5(2)	O2_g—Dy1—O6_d	80.3(2)
O4_c—Dy1—O7	138.5(2)	O3_f—Dy1—O5_e	145.7(2)
O6_d—Dy1—O7	73.2(2)	O2_g—Dy1—O5_e	141.4(2)
O5_e—Dy1—O7	73.5(2)	O2_g—Dy1—O3_f	72.8(2)

Symmetry codes: (i) -1+x,-1+y,-1+z; (ii) x,-1+y,z; (iii) x,1+y,z; (iv) 1+x,1+y,1+z; (v) 2-x,2-y,-z; (vi) 2-x,2-y,1-z; (vii) 2-x,3-y,1-z.

Table S8. Selected bond lengths (Å) and angles (°) for **8**.

Ho1—O1	2.364(3)	Ho1—O5_d	2.350(4)
Ho1—O3_c	2.374(4)	Ho1—O6_e	2.275(4)
Ho1—O4_f	2.316(4)	Ho1—O7	2.381(5)
Ho1—O2_g	2.296(3)	Ho1—O8	2.451(5)
O1—Ho1—O7	139.8(2)	O4_f—Ho1—O7	138.8(2)
Ho1—O1—C18	116.4(3)	O2_g—Ho1—O7	73.7(2)
O1—Ho1—O8	70.7(2)	O3_c—Ho1—O8	136.9(2)
Ho1_g—O2—C18	176.5(4)	O5_d—Ho1—O8	72.9(2)
O1—Ho1—O3_c	72.6(1)	O6_e—Ho1—O8	71.8(2)
Ho1_b—O3—C24	137.8(4)	O4_f—Ho1—O8	71.9(2)
O1—Ho1—O5_d	141.5(1)	O2_g—Ho1—O8	140.1(2)
Ho1_f—O4—C24	137.4(3)	O3_c—Ho1—O5_d	145.9(1)
O1—Ho1—O6_e	80.6(1)	O3_c—Ho1—O6_e	80.8(1)
Ho1_a—O5—C30	132.8(4)	O3_c—Ho1—O4_f	121.3(1)
O1—Ho1—O4_f	78.6(1)	O2_g—Ho1—O3_c	78.5(1)
Ho1_e—O6—C30	179.60	O5_d—Ho1—O6_e	99.8(1)
O1—Ho1—O2_g	119.1(1)	O4_f—Ho1—O5_d	78.6(1)
O7—Ho1—O8	126.0(2)	O2_g—Ho1—O5_d	82.5(1)
O3_c—Ho1—O7	73.5(2)	O4_f—Ho1—O6_e	142.5(1)
O5_d—Ho1—O7	74.0(2)	O2_g—Ho1—O6_e	144.7(1)
O6_e—Ho1—O7	73.2(2)	O2_g—Ho1—O4_f	72.7(1)

Symmetry codes: (i) x,-1+y,-1+z; (ii) x,-1+y,z; (iii) x,1+y,z; (iv) x,1+y,1+z; (v) -x,2-y,-z; (vi) 1-x,2-y,1-z; (vii) 1-x,3-y,1-z.

Table S9. Selected bond lengths (Å) and angles (°) for **9**.

Yb1—O1	2.400(4)	Yb1—O5_d	2.448(4)
Yb1—O2_g	2.487(4)	Yb1—O6_e	2.506(5)
Yb1—O3_c	2.442(6)	Yb1—O7	2.576(6)
Yb1—O4_f	2.490(6)	Yb1—O8	2.504(6)
O1—Yb1—O7	72.0(2)	O4_f—Yb1—O7	136.9(2)
Yb1—O1—C1	176.7(4)	O2_g—Yb1—O7	72.9(2)
O1—Yb1—O8	73.4(2)	O3_c—Yb1—O8	136.7(2)
Yb1_g—O2—C1	129.6(4)	O5_d—Yb1—O8	74.4(1)
O1—Yb1—O3_c	143.1(2)	O6_e—Yb1—O8	140.3(2)
Yb1_b —O3—C23	135.5(5)	O4_f—Yb1—O8	73.0(2)
O1—Yb1—O5_d	145.1(2)	O2_g—Yb1—O8	73.2(2)
Yb1_f —O4—C23	135.1(5)	O3_c—Yb1—O5_d	71.8(2)
O1—Yb1—O6_e	78.3(2)	O3_c—Yb1—O6_e	81.4(2)
Yb1_a—O5—C30	173.0(5)	O3_c—Yb1—O4_f	124.9(2)
O1—Yb1—O4_f	78.4(2)	O2_g—Yb1—O3_c	76.2(2)
Yb1_e—O6—C30	107.9(5)	O5_d—Yb1—O6_e	120.9(2)
O1—Yb1—O2_g	101.1(2)	O4_f—Yb1—O5_d	79.5(2)
O7—Yb1—O8	124.8(2)	O2_g—Yb1—O5_d	82.2(2)
O3_c—Yb1—O7	72.1(2)	O4_f—Yb1—O6_e	74.5(2)
O5_d—Yb1—O7	139.9(2)	O2_g —Yb1—O6_e	140.4(2)
O6_e—Yb1—O7	69.4(2)	O2_g—Yb1—O4_f	144.7(2)

Symmetry codes: (i) -1+x,-1+y,-1+z; (ii) -1+x,y,-1+z; (iii) 1+x,y,1+z; (iv) 1+x,1+y,1+z; (v) 1-x,1-y,1-z; (vi) 1-x,2-y,1-z; (vii) 1-x,2-y,2-z.

9. **Element analyses of compounds**

Table S10. Element analyses of 1-9

Num.	Formula		C (%)	H (%)	N (%)
1.	$[La(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.78	4.57	6.76
		Found	34.94	4.76	6.85
2.	$[Ce(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.74	4.57	6.75
		Found	34.39	4.42	7.10
3.	$[Pr(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.71	4.56	6.75
		Found	34.74	4.36	7.15
4.	$[Nd(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.71	4.56	6.75
		Found	34.78	4.41	6.85
5.	$[Eu(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.34	4.52	6.68
		Found	34.44	4.51	6.65
6.	$[Tb(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.12	4.49	6.63
		Found	34.52	4.55	6.75
7.	$[Dy(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	34.00	4.47	6.61
		Found	34.30	4.50	6.73
8.	$[Ho(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	33.93	4.46	6.59
		Found	34.14	4.66	6.75
9.	$[Yb(TTTPC)(NO_2)_2(Cl)]\bullet(H_2O)_{10}$	Calcd.	33.67	4.43	6.54
		Found	34.02	4.56	6.69