Table S1. Bond Lengths (Å) for compound $[La_2(C_6O_4Cl_2)_3(fma)_6]\cdot 6fma$ (**1**).

Atom	Atom	Length (Å)	Atom	Atom	Length (Å)
La1	O1D	2.503(4)	C16	C12^2	1.543(8)
La1	O11D	2.468(4)	C16	O16	1.267(7)
La1	O21D	2.508(4)	C21	Cl21	1.731(6)
La1	O2	2.557(4)	C21	C22	1.399(8)
La1	O6^1	2.614(4)	C21	C26	1.405(8)
La1	O12	2.548(4)	C22	C26^3	1.526(8)
La1	O16^2	2.552(4)	C22	O22	1.256(7)
La1	O22	2.526(4)	C26	C22^3	1.526(8)
La1	O26^3	2.544(4)	C26	O26	1.259(7)
O1D	C1D	1.250(8)	O6	La1^1	2.614(4)
O11D	C11D	1.246(7)	O16	La1^2	2.552(4)
O21D	C21D	1.247(8)	O26	La1^3	2.544(4)
C1	Cl1	1.732(7)	C1D	N1D	1.320(8)
C1	C2	1.373(8)	C11D	N11D	1.333(8)
C1	C6	1.399(8)	C21D	N21D	1.328(8)
C2	C6^1	1.543(8)	O100	C100	1.241(8)
C2	O2	1.277(7)	C100	N100	1.324(9)
C6	C2^1	1.543(8)	O200	C200	1.373(9)
C6	O6	1.252(7)	C200	N200	1.216(9)
C11	Cl11	1.736(6)	O300	C300	1.245(11)
C11	C12	1.414(9)	C300	N300	1.151(15)
C11	C16	1.368(8)	C300	N301	1.064(16)
C12	C16^2	1.543(8)	N300	N301	1.289(19)
C12	O12	1.250(7)			

1 = 1-x,1-y,2-z; 2 = -x,2-y,2-z; 3 = -x,2-y,1-z

Table S2. Bond Lengths (Å) for compound $[La_2(C_6O_4Br_2)_3(fma)_6]\cdot 6fma$ (**2**).

Atom	Atom	Length (Å)	Atom	Atom	Length (Å)
La1	O1D	2.520(4)	C3	C1[1]	1.404(9)
La1	O11D	2.508(5)	C11	Br11	1.900(6)
La1	O21D	2.483(4)	C11	C12	1.379(10)
La1	O2	2.622(5)	C11	C13[2]	1.406(10)
La1	O3	2.566(4)	C12	C13	1.547(9)
La1	O12	2.556(5)	C13	C11[2]	1.406(10)
La1	O13	2.557(5)	C21	Br21	1.887(7)
La1	O22	2.544(4)	C21	C22	1.391(9)
La1	O23	2.539(4)	C21	C23[3]	1.386(8)
O1D	C1D	1.252(8)	C22	C23	1.551(9)
O11D	C11D	1.231(9)	C23	C21[3]	1.386(8)
O21D	C21D	1.239(7)	C1D	N1D	1.310(8)
O2	C2	1.239(7)	C11D	N11D	1.319(9)
O3	C3	1.261(8)	C21D	N21D	1.318(9)
O12	C12	1.270(8)	O100	O10'	1.220(19)
O13	C13	1.236(8)	O100	C100	1.265(16)
O22	C22	1.261(7)	O10'	C100	1.02(2)
O23	C23	1.250(7)	C100	N100	1.159(14)
C1	Br1	1.873(8)	O101	C101	1.247(9)
C1	C2	1.425(9)	C101	N101	1.323(11)
C1	C3[1]	1.404(9)	O102	C102	1.231(9)
C2	C3	1.530(10)	C102	N102	1.335(9)

1 = 1-x,1-y,1-z; 2 = 2-x,-y,1-z; 3 = 2-x,-y,2-z

Table S3. Bond Lengths for compound $[Eu_2(C_6O_4Cl_2)_3(fma)_6]\cdot 6fma$ (**3**).

Atom	Atom	Length/Å	Atom	Atom	Length/Å
Eu1	O1D	2.377(3)	O100	C100	1.231(7)
Eu1	O2	2.454(3)	O101	C101	1.234(6)
Eu1	$O6^1$	2.465(3)	O102	C102	1.239(5)
Eu1	O11D	2.418(3)	N001	N100	1.308(12)
Eu1	O12	2.455(3)	N001	C100	1.037(11)
Eu1	$O16^2$	2.548(3)	N1D	C1D	1.303(5)
Eu1	O21D	2.400(3)	N11D	C11D	1.300(5)
Eu1	O22	2.444(3)	N21D	C21D	1.296(5)
Eu1	$O26^3$	2.459(3)	N100	C100	1.189(8)
Cl1	C1	1.728(4)	N101	C101	1.316(6)
Cl11	C11	1.733(4)	N102	C102	1.288(6)
Cl21	C21	1.727(4)	C1	C2	1.384(6)
O1D	C1D	1.236(5)	C1	C6	1.413(5)
O2	C2	1.263(5)	C2	$C6^1$	1.527(6)
O6	C6	1.246(5)	C11	C12	1.376(6)
O11D	C11D	1.244(5)	C11	C16	1.411(6)
O12	C12	1.272(5)	C12	$C16^2$	1.527(6)
O16	C16	1.244(5)	C21	C22	1.393(5)
O21D	C21D	1.240(5)	C21	C26	1.396(5)
O22	C22	1.257(5)	C22	$C26^3$	1.532(6)
O26	C26	1.255(5)			

1 = -x,2-y,2-z; 2 = 1-x,1-y,2-z; 3 = -x,2-y,1-z

Table S4. Bond Lengths for compound $[Eu_2(C_6O_4Br_2)_3(fma)_6]\cdot 6fma$ (**4**).

Atom	Atom	Length/Å	Atom	Atom	Length/Å
Eu01	O11D	2.413(5)	O21D	C21D	1.237(9)
Eu01	O22	2.477(5)	N100	C100	1.198(12)
Eu01	O6[1]	2.453(5)	N21D	C21D	1.323(9)
Eu01	O1D	2.382(5)	O102	C102	1.241(10)
Eu01	O2	2.453(5)	N11D	C11D	1.304(10)
Eu01	O26[2]	2.483(5)	O101	C101	1.233(8)
Eu01	O12	2.465(5)	N1D	C1D	1.284(7)
Eu01	O16[3]	2.548(5)	C2	C6[1]	1.544(9)
Eu01	O21D	2.429(5)	C2	C1	1.390(11)
Eu01	C6[1]	3.269(8)	C22	C26[2]	1.545(9)
Br21	C21	1.889(7)	C22	C21	1.379(11)
Br11	C11	1.880(8)	C6	C1	1.387(11)
Br1	C1	1.887(7)	C26	C21	1.408(10)
O11D	C11D	1.251(9)	O100	C100	1.369(12)
O22	C22	1.269(9)	N102	C102	1.291(10)
O6	C6	1.251(9)	C11	C12	1.401(11)
O1D	C1D	1.242(8)	C11	C16	1.416(10)
O2	C2	1.278(9)	C12	C16[3]	1.529(11)
O26	C26	1.234(9)	C101	N101	1.231(14)
O12	C12	1.269(9)	C101	N110	1.01(2)
O16	C16	1.233(9)	N101	N110	1.18(2)

1 = -x,2-y,-z; 2 = -x,2-y,1-z; 3 = 1-x,1-y,1-z

Table S5. Selected vibrational frequencies (cm^{-1}) for compounds **1-4.**

M	ν(N-H)s	ν(C=O) ν(C=O)s ν(C-N)s	ν(C=C) ν(C-O)	ν(C-C) ν(C-O)	ν(C-X) δ(C=O) δ(C-O)	ρ(C-X)
1	3144	1687	1505	1325	840	569
2	3421	1684	1508	1384	849	578
3	3423	1679	1547	1385	837	561
4	3415	1684	1506	1383	849	577

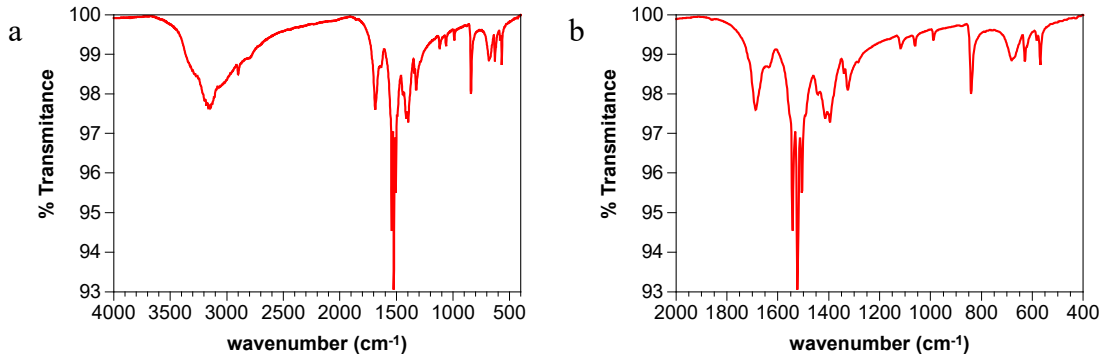

***Figure S1**. FT-IR spectra of **1** in the **a**) 4000-400 cm^{-1}region and **b**) 2000-400 cm^{-1}region.*

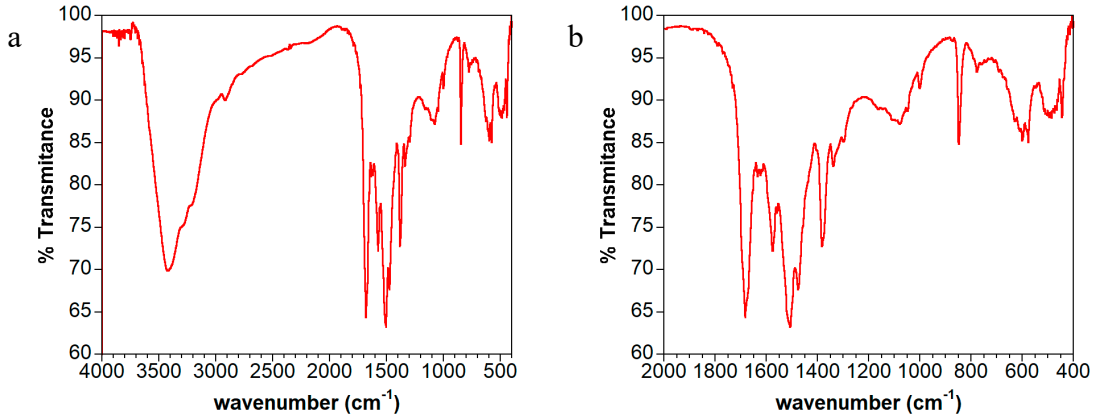

Figure S2. *FT-IR spectra of **2** in the **a**) 4000-400 cm^{-1}region and **b**) 2000-400 cm^{-1}region.*

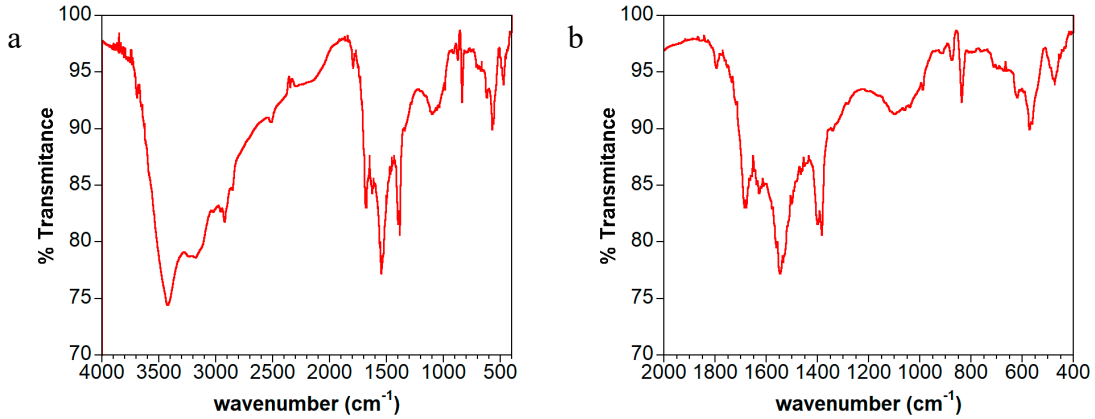

Figure S3. *FT-IR spectra of **3** in the **a**) 4000-400 cm^{-1}region and **b**) 2000-400 cm^{-1}region.*

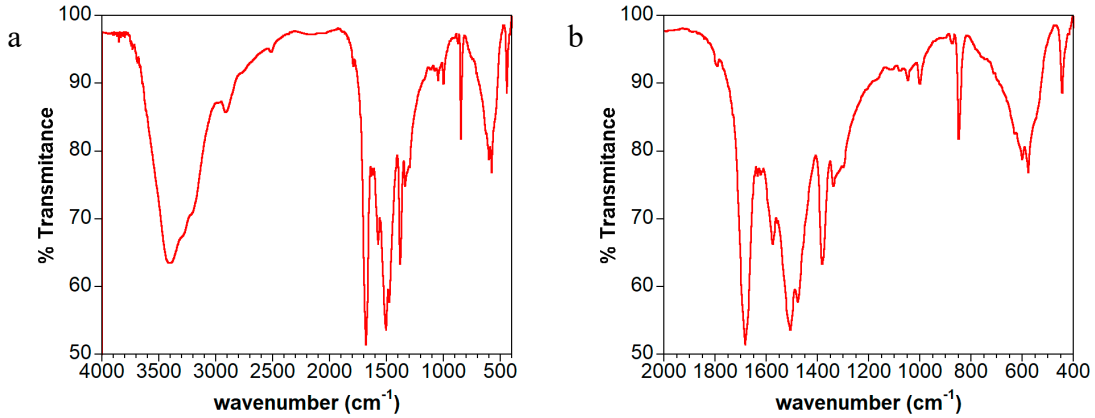

Figure S4. *FT-IR spectra of **4** in the **a**) 4000-400 cm^{-1}region and **b**) 2000-400 cm^{-1}region.*