

Table S1. Crystallographic Data of 1

Chemical Formula	Cd ₃ C ₇₂ H ₆₁ N ₉ O ₁₅ Cl ₂	λ (MoK α), Å	0.71073
a, Å	19.173 (3)	ρ_{obs} , g/cm ³	1.538
c, Å	17.416 (4)	ρ_{calc} , g/cm ³	1.528
V, Å ³	5544.6 (2)	μ , cm ⁻¹ (MoK α)	9.97
Z	3	Min. and max. residual density, e/Å ³	-0.46, 0.70
Formula Wt	1700.40	R1	0.0266
Crystal System	Trigonal	wR2	0.0596
Space Group	R32 (No. 155)	Goodness of fit	0.98
T, K	293 (2)		

Table S2 - Fractional Coordinates and Isotropic Displacement Parameters of non-Hydrogen atoms for 1

Atom	x	y	z	U(eq) [Ang ²]
Cd	2/3	0.45125 (1)	1/3	0.0362 (1)
*O1	0.66670	0.33330	0.3517 (3)	0.0240 (18)
O2	0.79912 (13)	0.52206 (15)	0.36812 (15)	0.0553 (7)
N1	0.63576 (18)	0.44938 (16)	0.46651 (16)	0.0536 (9)
*N2	1.4288 (12)	1.0886 (12)	0.3237 (19)	0.054 (5)
C1	0.5655 (3)	0.4403 (3)	0.4887 (3)	0.0767 (17)
C2	0.5409 (4)	0.4329 (4)	0.5630 (3)	0.103 (3)
C3	0.5925 (5)	0.4377 (5)	0.6187 (4)	0.112 (3)
C4	0.6671 (4)	0.4492 (4)	0.5980 (3)	0.098 (2)
C5	0.6860 (2)	0.4540 (2)	0.5211 (2)	0.0665 (14)
*C6	0.8568 (11)	0.5235 (11)	0.3232 (8)	0.031 (3)
*C7	0.9315 (10)	0.6074 (9)	0.338 (2)	0.045 (3)
*C8	0.9392 (7)	0.6637 (10)	0.3901 (11)	0.057 (3)
*C9	1.0118 (7)	0.7373 (7)	0.3950 (6)	0.061 (3)
*C10	1.0745 (5)	0.7552 (5)	0.3474 (6)	0.053 (3)
*C11	1.0661 (8)	0.6986 (7)	0.2958 (8)	0.063 (4)
*C12	0.9954 (12)	0.6242 (8)	0.2910 (12)	0.061 (4)
*C13	1.1494 (4)	0.8348 (5)	0.3532 (4)	0.059 (2)
*C14	1.2121 (4)	0.8601 (4)	0.3105 (4)	0.063 (3)
*C15	1.2877 (5)	0.9395 (5)	0.3193 (7)	0.058 (4)
*C16	1.2979 (7)	0.9963 (6)	0.3711 (7)	0.067 (4)
*C17	1.3674 (13)	1.0702 (12)	0.3722 (12)	0.072 (5)
*C18	1.4182 (10)	1.0348 (11)	0.2741 (11)	0.066 (4)
*C19	1.3503 (6)	0.9592 (7)	0.2696 (7)	0.068 (3)
*O3	0.8551 (10)	0.8836 (11)	0.4881 (11)	0.169 (13)
*O4	0.9682 (9)	0.9045 (10)	0.4340 (6)	0.227 (12)
*O5	0.9486 (9)	0.8787 (8)	0.5584 (5)	0.134 (8)
*O6	0.8787 (10)	0.7822 (6)	0.4738 (6)	0.143 (7)

Table S3. Selected Bond Distances (Å) and Angles (deg.) for 1

Cd	-O1	2.2843(9)	C7	-C12	1.37(4)		
Cd	-O2	2.283(3)	C8	-C9	1.40(2)		
Cd	-N1	2.390(3)	C9	-C10	1.356(17)		
Cd	-O1_e	2.2823(9)	C10	-C13	1.487(12)		
C1	-O6	1.359(12)	C10	-C11	1.355(16)		
C1	-O5	1.337(12)	C11	-C12	1.39(2)		
C1	-O3	1.36(2)	C13	-C14	1.285(11)		
C1	-O4	1.364(16)	C14	-C15	1.495(11)		
N1	-C1	1.327(7)	C15	-C19	1.371(17)		
O2	-C6	1.34(2)	C15	-C16	1.351(15)		
O2	-C6_e	1.17(2)	C16	-C17	1.38(2)		
N1	-C5	1.324(5)	C18	-C19	1.38(2)		
N2	-C18	1.28(3)	N2	-C17	1.34(4)		
C1	-C2	1.360(8)	C2	-C3	1.355(11)		
C3	-C4	1.382(13)	C4	-C5	1.378(7)		
C6	-C7	1.55(3)	C7	-C8	1.36(3)		
O1	-H21	0.67(10)					
O1	-Cd	-O2	90.04(7)	O4	-C1	-O6	108.7(10)
O1	-Cd	-N1	88.40(15)	O5	-C1	-O6	110.5(9)
O1	-Cd	-N2_d	175.2(8)	O3	-C1	-O4	108.3(12)
O1	-Cd	-O2_f	94.33(9)	O4	-C1	-O5	110.0(11)
O1	-Cd	-N1_f	104.12(15)	O3	-C1	-O5	110.0(12)
O1	-Cd	-N2_h	167.6(8)	O3	-C1	-O6	109.3(13)
O2	-Cd	-N1	86.85(11)	Cd	-O2	-C6	121.1(8)
O2	-Cd	-N2_d	91.5(8)	Cd	-O2	-C6_e	132.2(8)
O2	-Cd	-O2_f	175.59(10)	Cd	-O1	-Cd_a	118.03(6)
O2	-Cd	-N1_f	92.67(11)	Cd	-O1	-Cd_c	118.07(6)
O2	-Cd	-N2_h	84.1(8)	Cd_a	-O1	-Cd_c	118.11(6)
N1	-Cd	-N2_d	87.1(8)	Cd	-O1	-H21	98.05(13)
O2_f	-Cd	-N1	92.66(11)	Cd_c	-O1	-H21	98.06(13)
N1	-Cd	-N1_f	167.48(11)	Cd_a	-O1	-H21	98.05(13)
N1	-Cd	-N2_h	80.4(8)	Cd	-N1	-C1	120.8(3)
O1_e	-Cd	-O2_f	90.04(9)	Cd	-N1	-C5	121.9(3)
O1_e	-Cd	-N1_f	88.41(15)	Cd_b	-N2	-C17	119.8(18)
O1_e	-Cd	-N2_h	175.2(8)	Cd_b	-N2	-C18	123.7(19)
C7	-C8	-C9	119.8(16)	C8	-C9	-C10	121.7(12)
C9	-C10	-C13	119.8(9)	C11	-C10	-C13	122.3(10)
C9	-C10	-C11	117.9(10)	C10	-C11	-C12	121.6(15)
C7	-C12	-C11	120.1(17)	C10	-C13	-C14	126.1(8)
C13	-C14	-C15	125.0(8)	C14	-C15	-C16	124.4(10)
C16	-C15	-C19	116.5(10)	C15	-C16	-C17	121.0(14)
C1	-N1	-C5	117.2(4)	C14	-C15	-C19	119.0(9)
N2	-C17	-C16	122.1(19)	N2	-C18	-C19	125(2)
C15	-C19	-C18	119.2(13)	C17	-N2	-C18	117(2)
N1	-C1	-C2	124.6(6)	C1	-C2	-C3	118.1(8)
C2	-C3	-C4	119.1(6)	C3	-C4	-C5	118.7(6)
N1	-C5	-C4	122.3(5)	O2	-C6	-C7	104.4(15)
O2_e	-C6	-C7	128(2)	O2	-C6	-O2_e	124.2(16)
C6	-C7	-C8	128(2)	C6	-C7	-C12	113(2)
C8	-C7	-C12	118.8(15)				

Symmetry Codes: a = 1-y, x-y, z; b = 2-y, 1+x-y, z; c = 1-x+y, 1-x, z; d = 1-x+y, 2-x, z; e = 1/3+y, -1/3+x, 2/3-z; f = 4/3-x, 2/3-x+y, 2/3-z; h = 1/3+x-y, 5/3-y, 2/3-z

Fig S1. A diagram showing two disordered orientations of μ_3 -OH and bridging ligand L.

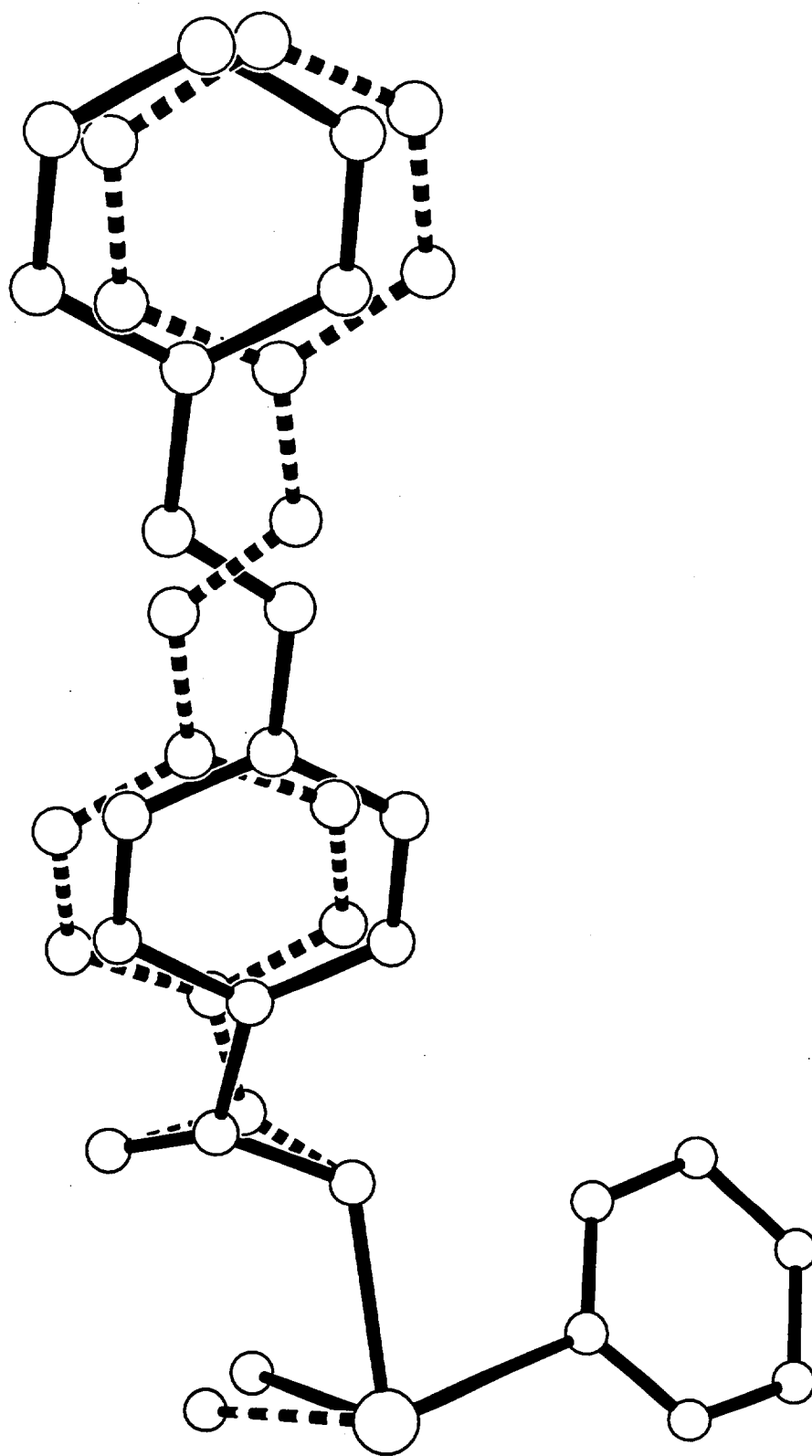


Fig S2. A diagram showing two disordered orientations of perchlorate anions.

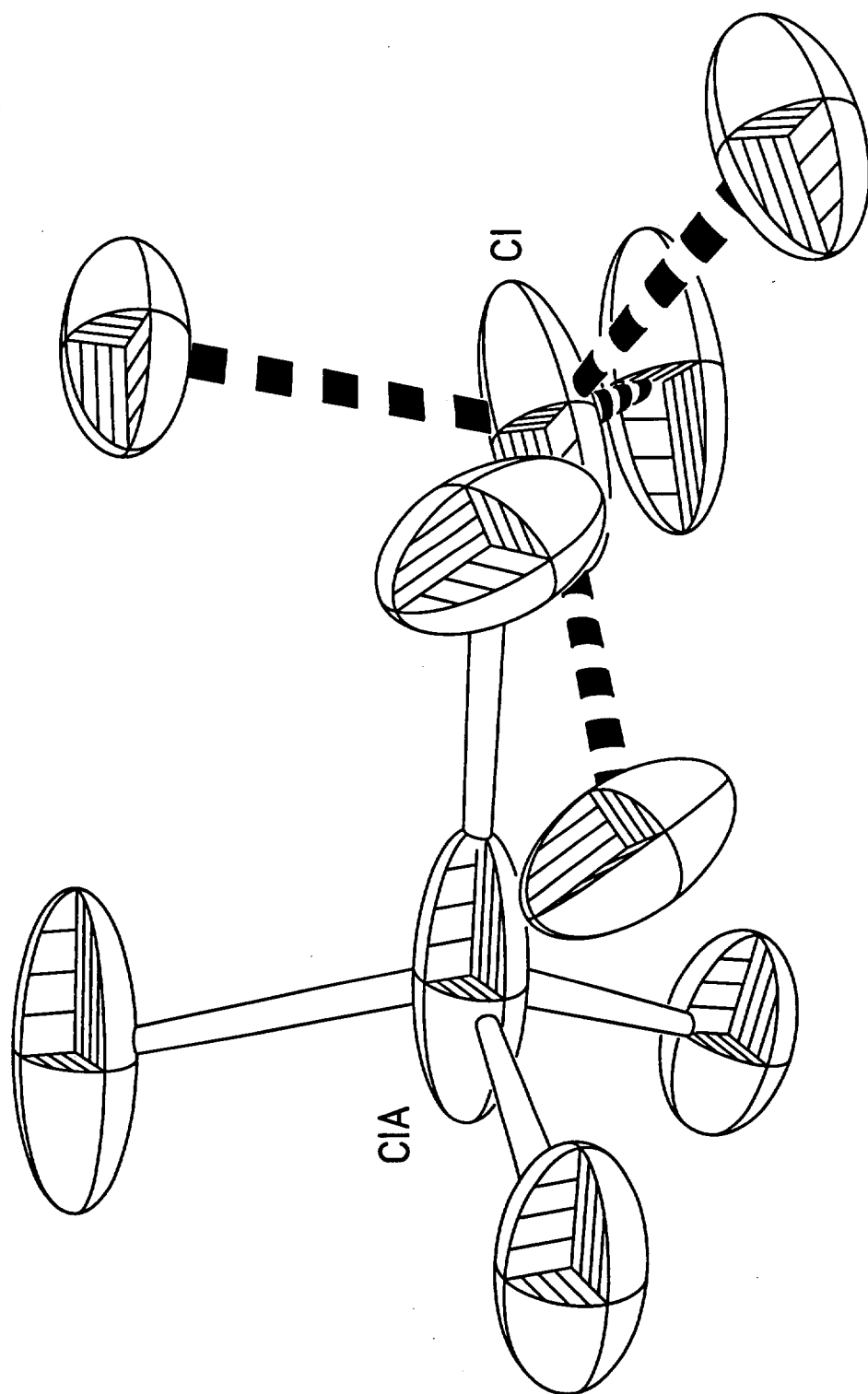


Fig. S3. A view down the *a* axis showing the locations of disordered perchlorate anions. Aromatic rings of bridging ligands L are shown with straight lines.

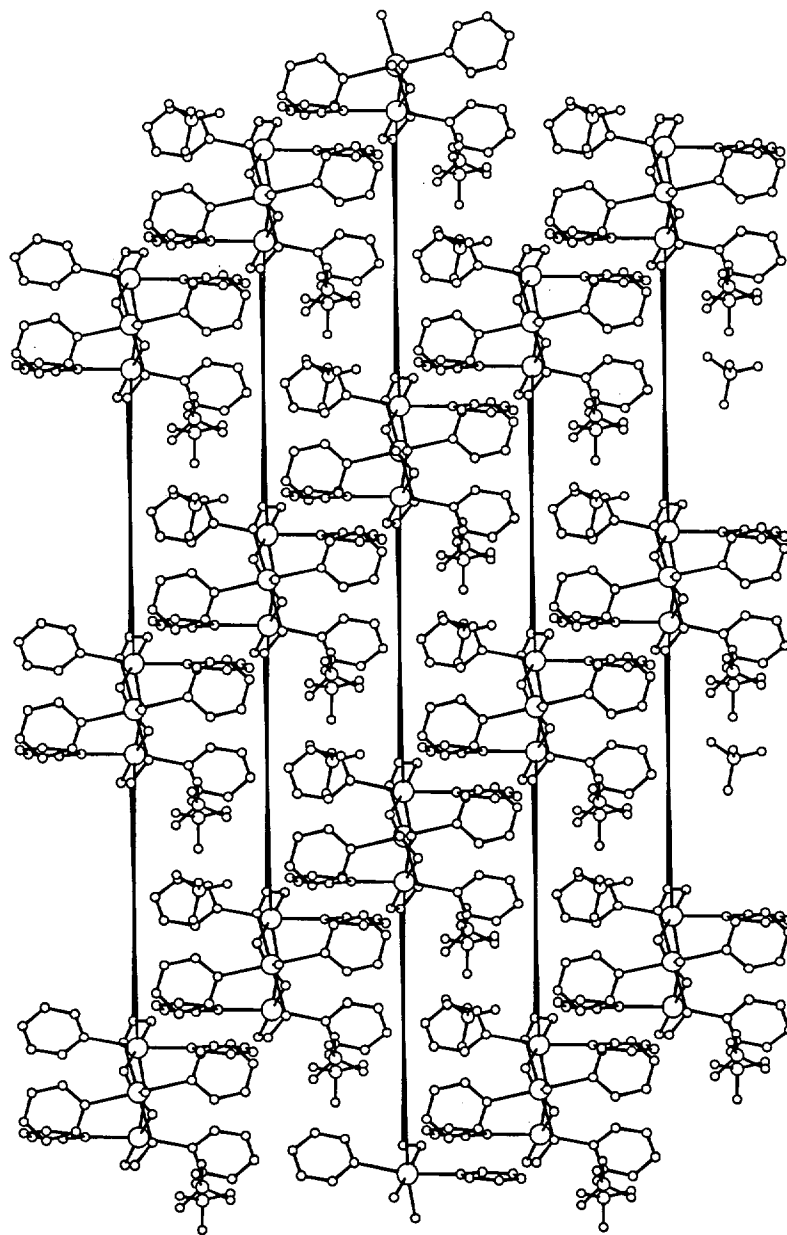


Fig S4. TGA Curve of Compound 1

