SUPPORTING INFORMATION

Combination of "pillaring" strategy and chiral induction: an approach to prepare homochiral three-dimensional coordination polymers from achiral precursors

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S1. Experimental Section

S1.1 *Materials and Methods.* All chemicals were purchased commercially and used without further purification except **L**. The hydrogenated Schiff base **L** (1,2-bis(4'-pyridylmethylamino)ethane) was prepared according to the reported method.[1] The structural determination of single crystal was performed on Rigaku SCXmini diffractometer with graphite-monochromated Mo-Ka (λ = 0.71073 Å) radiation at room temperature. Empirical absorption corrections were applied to the data using the SADABS program.[2] The structures were solved by the direct method and refined by the full-matrix least-squares on F^2 using the SHELXL-97 program.[3] All of the non-hydrogen atoms were refined anisotropically, and the hydrogen atoms attached to carbon were located at their ideal positions. Elemental analyses (C, H, and N) were performed with a Vario MICRO CHNOS Elemental Analyzer. The infrared spectra with KBr pellet were recorded in the range of 4000–400 cm^{-1} on a Perkin-Elmer Spectrum One FT-IR Spectrometer. Powder X-ray diffraction (PXRD) data were collected on a DMAX-2500 diffractometer with Cu-Ka. Thermal analyses were performed on a NETZSCH STA 449C instrument from room temperature to 1000 ^oC with a heating rate of 10 ^oC min^{-1} under nitrogen flow. Circular dichroism (CD) spectra were conducted on a Jasco J-810 spectrodichrometer. The solid-state luminescence emission/excitation spectra were recorded on a FLS920 fluorescence spectrophotometer. The solid state UV–Vis spectra were recorded on PerkinElmer Lambda-900 spectrometer and $BaSO_4$ was used as the reference.

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b) A. Jäntti, K. Rissanen and J. Valkonen, *Acta Chem. Scand.,* **1998**, *52*, 1010.
2. G. M. Sheldrick, SADABS. University of Göttingen: Göttingen, Germany, **1996**.
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S1.2 **Synthesis of coordination polymers 1-4.**

Synthesis of 1: To a solution of **L** (48 mg, 0.2 mmol) in H_2O/EtOH (2 mL/2 mL), a solution of $Zn(NO_3)_2 \cdot 6H_2O$ (60 mg, 0.2 mmol) in 6 mL H_2O was added. After 20 min, the mixture was filtered and the filtrate was evaporated to yield colorless crystals **1** (75 mg, 80%). Elemental analysis calcd (%) for $C_{14}H_{22}N_6O_8Zn$: C 35.95, H 4.74, N 17.97; found: C 35.10, H 4.94, N 18.28. IR (solid KBr pellet, ν/cm^{-1}) 3245 (m), 3070 (vw), 2962 (vw), 2918 (w), 2882 (vw), 2362 (m), 2337 (w), 1957 (vw), 1620 (s), 1561 (m), 1430 (m), 1379 (s), 1291 (s), 1223 (m), 1016 (s), 970 (m), 843 (m), 822 (m), 805 (s), 641 (m), 632 (m), 501 (m).

Synthesis of conglomerate 2, 2M, and **2P:** Complex **2** was prepared by layering a solution of $Na_2MoO_4 \cdot 2H_2O$ (48 mg, 0.2 mmol) in H_2O/EtOH (2 mL/4 mL) over the mixture of **L** (48 mg, 0.2 mmol) and $Zn(NO_3)_2 \cdot 6H_2O$ (60 mg, 0.2 mmol) in H_2O/EtOH (8 mL/2 mL). Colorless crystals **2** were isolated after one month. Yield: 46 mg, 40%. The preparation of **2M** is similar to that of **2**, except for the addition of a solution of (1S)-(+)-10-camphorsulfonic acid (46 mg, 0.2 mmol) in 4 ml H_2O to the mixture of **L** and Zn(II) before diffusion. Yield: 12 mg, 11%.The preparation of **2P** is similar to that of **2**, except for the addition of a solution of (1R)-(-)-10-camphorsulfonic acid (46 mg, 0.2 mmol) in 4 ml H_2O to the mixture of **L** and Zn(II). Yield: 14 mg, 12%. Elemental analysis calcd (%) for $C_{14}H_{30}N_4O_{10}ZnMo$ (**2P**): C 29.21, H 5.25, N 9.73; found: C 29.12, H 5.30, N 10.19;

Elemental analysis calcd (%) for $C_{14}H_{26}N_4O_8ZnMo$ (**2M**): C 31.16, H 4.86, N 10.38; found: C 31.51, H 4.57, N 10.34. IR (solid KBr pellet, ν/cm^{-1}) 3363 (m), 3238 (vw), 3198 (m), 3028 (vw), 2970 (w), 2918 (w), 2863 (w), 2358 (w), 2229 (vw), 1622 (s), 1558 (m), 1476 (m), 1446 (m), 1415 (m), 1223 (m), 1110 (w), 1071 (m), 1013 (m), 952 (w), 921 (s), 888 (s), 851 (s), 812 (s), 796 (s), 741 (m), 638 (m), 610 (m), 507 (m).

Synthesis of 3: The preparation of colorless crystals **3** is similar to that of **2**, except for the use of Na_2SO_4 instead of Na_2MoO_4. Yield: 49 mg, 46%. Elemental analysis calcd (%) for $C_{14}H_{32}N_4O_{11}SZn$: C 31.73, H 6.09, N 10.57; found: C 31.95, H 5.75, N 10.69. IR (solid KBr pellet, ν/cm^{-1}) 3427 (m), 3192 (m), 3070 (vw), 2970 (w), 2933 (w), 2890 (w), 1619 (s), 1558 (m), 1491 (w), 1427 (m), 1232 (m), 1113 (s), 1058 (s0, 1022 (m), 848 (m), 808 (m), 635 (m), 613 (m), 488 (m).

Synthesis of 4: The preparation of crystals **4** is similar to that of **2**, except that K_2CrO_4 was used instead of Na_2MoO_4. Yield: 44 mg, 41%. Elemental analysis calcd (%) for $C_{14}H_{30}N_4O_{10}CrZn$: C 31.62, H 5.69, N 10.54; found: C 31.12, H 5.59, N 10.42. IR (solid KBr pellet, ν/cm^{-1}) 3403 (m), 3171 (m), 2933 (w), 2881 (w), 1616 (s), 1558 (m), 1470 (w), 1427 (m), 1354 (w), 1229 (m), 1068 (m), 1025 (m), 988 (m), 885 (s), 842 (m), 805 (m), 632 (m), 491 (m).

Table S1 *Crystallographic data and refinement details for complexes* ***1-4****.*

compound	**1**	**2M**	**2P**	**3**	**4**
Empirical formula	$C_{56}H_{88}N_{24}O_{32}Zn_4$	$C_{28}H_{52}N_8O_{16}Zn_2Mo_2$	$C_{28}H_{60}N_8O_{20}Zn_2Mo_2$	$C_{28}H_{64}N_8O_{22}S_2Zn_2$	$C_{28}H_{60}N_8O_{20}Cr_2Zn_2$
M	467.75	539.70	575.73	529.87	531.79
Crystal system	monoclinic	monoclinic	monoclinic	monoclinic	monoclinic
Space group	$C2/c$	$C2$	$C2$	$C2$	$C2$
a (Å)	14.043(2)	13.901(7)	13.971(19)	13.783(9)	13.85(3)
b (Å)	12.4823(15)	12.713(6)	12.841(19)	12.697(9)	12.77(2)
c (Å)	12.349(2)	7.070(3)	7.137(11)	6.743(5)	6.939(14)
α (°)	90.00	90.00	90	90	90
β(°)	111.890(8)	91.139(9)	90.74(5)	90.759(14)	91.45(3)
γ(°)	90.00	90.00	90	90	90
V/Å^3	2008.6(6)	1249.1(10)	1280(3)	1180.1(14)	1227(4)
Z	4	2	2	2	2
D_c/g cm^{-3}	1.547	1.435	1.493	1.491	1.440
μ/mm^{-1}	1.277	1.501	1.475	1.188	1.471
θ_{range} (°)	3.22-24.49	2.88- 27.58	2.15-25.00	3.02-27.44	2.17-27.37
h, k, l, ranges	-18 to 18, -16 to 16, -16 to 13	-18 to 12, -16 to 16, -9 to 9	-16 to 16, -15 to 14, -8 to 7	-17 to 17, -16 to 16, -8 to 8	-17 to 17, -16 to 15, -8 to 8
F(000)	968	548	588	556	552
R_1,[a] wR_2[b] [$I>2\sigma(I)$]	0.0606, 0.1705	0.0402, 0.0966	0.0761, 0.2024	0.0606, 0.1534	0.0614, 0.1571
GOF on F^2	1.056	0.973	0.972	1.065	1.002

[a] $R = \Sigma(||Fo| - |Fc||)/\Sigma|Fo|$. [b] $Rw = \{\Sigma w[(Fo^2 - Fc^2)^2]/\Sigma w[(Fo^2)^2]\}^{1/2}$.

Table S2 *Selected bond lengths (Å) and angles (°) of complexes* ***1-4.***

Table S2.1 Selected bond lengths (Å) and angles (°) of complex **1.**

Zn(1)-N(1)[a]	2.154(3)	N(1)[a]-Zn(1)-O(1)	88.53(11)
Zn(1)-N(1)	2.154(3)	N(1)-Zn(1)-O(1)	91.14(11)
Zn(1)-N(2)[b]	2.168(3)	N(2)[b]-Zn(1)-O(1)	87.82(11)
Zn(1)-N(2)[c]	2.168(3)	N(2)[c]-Zn(1)-O(1)	92.50(12)
Zn(1)-O(1)	2.252(3)	N(1)[a]-Zn(1)-O(1)[a]	91.14(11)
Zn(1)-O(1)[a]	2.252(3)	N(1)-Zn(1)-O(1)[a]	88.53(11)
C(1)-N(1)	1.476(5)	N(2)[b]-Zn(1)-O(1)[a]	92.50(12)
C(2)-N(1)	1.479(4)	N(2)[c]-Zn(1)-O(1)[a]	87.82(11)
C(5)-N(2)	1.302(6)	O(1)-Zn(1)-O(1)[a]	179.56(15)
N(3)-O(2)	1.208(6)	C(1)-N(1)-C(2)	113.3(3)
N(3)-O(3)	1.221(5)	C(1)-N(1)-Zn(1)	106.2(2)
N(3)-O(1)	1.251(5)	C(2)-N(1)-Zn(1)	116.0(2)
N(2)-Zn(1)[d]	2.168(3)	O(2)-N(3)-O(3)	119.2(5)
N(1)[a]-Zn(1)-N(1)	82.42(15)	O(2)-N(3)-O(1)	120.8(4)
N(1)[a]-Zn(1)-N(2)[b]	95.12(11)	O(3)-N(3)-O(1)	120.0(4)
N(1)-Zn(1)-N(2)[b]	177.36(10)	C(5)-N(2)-C(6)	114.6(4)
N(1)[a]-Zn(1)-N(2)[c]	177.36(10)	C(5)-N(2)-Zn(1)[d]	123.6(3)
N(1)-Zn(1)-N(2)[c]	95.12(11)	C(6)-N(2)-Zn(1)[d]	121.7(3)
N(2)[b]-Zn(1)-N(2)[c]	87.35(16)	N(3)-O(1)-Zn(1)	131.4(3)

Symmetry codes: (a) -x+1, y, -z+1/2; (b) x+1/2, y+1/2, z; (c) -x+1/2, y+1/2, -z+1/2; (d) x-1/2, y-1/2, z.

Table S2.2 Selected bond lengths (Å) and angles (°) of complex **2M.**

Zn(1)-O(1)	2.125(4)	O(1)[a]-Zn(1)-N(1)	90.48(15)
Zn(1)-O(1)[a]	2.125(4)	N(2)[b]-Zn(1)-N(1)	176.53(16)
Zn(1)-N(2)[b]	2.173(4)	N(2)[c]-Zn(1)-N(1)	95.42(15)
Zn(1)-N(2)[c]	2.173(4)	O(1)-Zn(1)-N(1)[a]	90.48(15)
Zn(1)-N(1)	2.197(4)	O(1)[a]-Zn(1)-N(1)[a]	88.78(15)
Zn(1)-N(1)[a]	2.197(4)	N(2)[b]-Zn(1)-N(1)[a]	95.42(15)
Mo(1)-O(2)[d]	1.746(4)	N(2)[c]-Zn(1)-N(1)[a]	176.53(17)
Mo(1)-O(2)	1.746(4)	N(1)-Zn(1)-N(1)[a]	81.3(2)
Mo(1)-O(1)[d]	1.773(3)	O(2)[d]-Mo(1)-O(2)	108.3(4)
Mo(1)-O(1)	1.773(3)	O(2)[d]-Mo(1)-O(1)[d]	108.7(2)
C(2)-N(1)	1.441(7)	O(2)-Mo(1)-O(1)[d]	110.1(2)
C(1)-N(1)	1.469(6)	O(2)[d]-Mo(1)-O(1)	110.1(2)
C(6)-N(2)	1.307(7)	O(2)-Mo(1)-O(1)	108.7(2)
C(5)-N(2)	1.326(7)	O(1)[d]-Mo(1)-O(1)	110.9(2)
N(2)-Zn(1)[e]	2.173(4)	N(1)-C(2)-C(3)	115.0(4)
O(1)-Zn(1)-O(1)[a]	179.03(18)	C(2)-N(1)-C(1)	115.1(4)
O(1)-Zn(1)-N(2)[b]	90.15(15)	C(2)-N(1)-Zn(1)	116.5(3)
O(1)[a]-Zn(1)-N(2)[b]	90.54(15)	C(1)-N(1)-Zn(1)	107.8(3)

O(1)-Zn(1)-N(2)^{c}	90.54(15)	C(6)-N(2)-C(5)	116.5(5)
O(1)^{a}-Zn(1)-N(2)^{c}	90.15(15)	C(6)-N(2)-Zn(1)^{e}	123.0(4)
N(2)^{b}-Zn(1)-N(2)^{c}	87.9(2)	C(5)-N(2)-Zn(1)^{e}	120.5(4)
O(1)-Zn(1)-N(1)	88.78(15)	Mo(1)-O(1)-Zn(1)	141.29(19)

Symmetry codes: (a) -x, y, -z-1; (b) x+1/2, y+1/2, z; (c) -x-1/2, y+1/2, -z-1; (d) -x, y, -z-2; (e) x-1/2, y-1/2, z.

Table S2.3 Selected bond lengths (Å) and angles (°) of complex **2P.**

Mo(1)-O(2)	1.740(19)	O(1)-Zn(1)-N(1)^{b}	90.6(4)
Mo(1)-O(2)^{a}	1.740(19)	O(1)^{b} -Zn(1)-N(1)^{b}	90.5(4)
Mo(1)-O(1)	1.769(9)	O(1)-Zn(1)-N(1)	90.5(4)
Mo(1)-O(1)^{a}	1.769(9)	O(1)^{b}-Zn(1)-N(1)	90.6(4)
Zn(1)-O(1)	2.146(10)	N(1)^{b}-Zn(1)-N(1)	88.1(7)
Zn(1)-O(1)^{b}	2.146(10)	O(1)-Zn(1)-N(2)^{c}	88.6(4)
Zn(1)-N(1)^{b}	2.150(13)	O(1)^{b}-Zn(1)-N(2)^{c}	90.3(4)
Zn(1)-N(1)	2.150(13)	N(1)^{b}-Zn(1)-N(2)^{c}	175.5(5)
Zn(1)-N(2)^{c}	2.223(11)	N(1)-Zn(1)-N(2)^{c}	96.3(5)
Zn(1)-N(2)^{d}	2.223(11)	O(1)-Zn(1)-N(2)^{d}	90.3(4)
C(3)-N(1)	1.33(2)	O(1)^{b}-Zn(1)-N(2)^{d}	88.6(4)
C(6)-N(2)	1.50(2)	N(1)^{b}-Zn(1)-N(2)^{d}	96.3(5)
C(7)-N(2)	1.396(19)	N(1)-Zn(1)-N(2)^{d}	175.5(5)
N(2)-Zn(1)^{f}	2.223(11)	N(2)^{c}-Zn(1)-N(2)^{d}	79.2(7)
O(2)-Mo(1)-O(2)^{a}	106.3(10)	C(1)-N(1)-C(3)	112.7(14)
O(2)-Mo(1)-O(1)	111.5(6)	C(1)-N(1)-Zn(1)	121.6(11)
O(2)^{a}-Mo(1)-O(1)	108.4(6)	C(3)-N(1)-Zn(1)	125.6(11)
O(2)-Mo(1)-O(1)^{a}	108.4(6)	C(7)-N(2)-C(6)	120.0(13)
O(2)^{a}-Mo(1)-O(1)^{a}	111.5(6)	C(7)-N(2)-Zn(1)^{f}	107.4(11)
O(1)-Mo(1)-O(1)^{a}	110.8(6)	C(6)-N(2)-Zn(1)^{f}	115.2(9)
O(1)-Zn(1)-O(1)^{b}	178.6(5)	Mo(1)-O(1)-Zn(1)	143.0(6)

Symmetry codes: (a)-x, y, -z+1 ; (b) -x, y, -z; (c) -x+1/2, y+1/2, -z; (d) x-1/2, y+1/2, z; (e) -x+1, y, -z; (f) x+1/2, y-1/2, z.

Table S2.4 Selected bond lengths (Å) and angles (°) of complex **3.**

Zn(1)-N(2)	2.147(6)	N(2)-Zn(1)-N(2)^{a}	87.0(3)
Zn(1)-N(2)^{a}	2.147(6)	N(2)-Zn(1)-N(3)^{b}	177.5(3)
Zn(1)-N(3)^{b}	2.163(6)	N(2)^{a}-Zn(1)-N(3)^{b}	95.40(15)
Zn(1)-N(3)^{c}	2.163(6)	N(2)-Zn(1)-N(3)^{c}	95.40(15)
Zn(1)-O(1)^{a}	2.223(4)	N(2)^{a}-Zn(1)-N(3)^{c}	177.5(3)
Zn(1)-O(1)	2.223(4)	N(3)^{b}-Zn(1)-N(3)^{c}	82.2(3)
C(1)-N(3)	1.466(8)	N(2)-Zn(1)-O(1)^{a}	89.5(2)
C(2)-N(3)	1.474(9)	N(2)^{a}-Zn(1)-O(1)^{a}	89.67(19)
C(4)-N(2)	1.298(10)	N(3)^{b}-Zn(1)-O(1)^{a}	91.1(2)
C(5)-N(2)	1.326(9)	N(3)^{c}-Zn(1)-O(1)^{a}	89.8(2)
N(3)-Zn(1)^{e}	2.163(6)	N(2)-Zn(1)-O(1)	89.67(19)

O(1)–S(1)	1.473(4)	N(2)[a]–Zn(1)–O(1)	89.5(2)
O(2)–S(1)	1.462(5)	N(3)[b]–Zn(1)–O(1)	89.8(2)
S(1)–O(2)[f]	1.462(5)	N(3)[c]–Zn(1)–O(1)	91.1(2)
S(1)–O(1)[f]	1.473(4)	O(1)[a]–Zn(1)–O(1)	178.9(3)
C(5)–N(2)–Zn(1)	122.0(5)	S(1)–O(1)–Zn(1)	139.2(3)
C(1)–N(3)–C(2)	114.1(5)	O(2)–S(1)–O(2)[f]	110.4(5)
C(1)–N(3)–Zn(1)[e]	106.9(4)	O(2)–S(1)–O(1)	109.6(3)
C(2)–N(3)–Zn(1)[e]	116.1(4)	O(2)[f]–S(1)–O(1)	109.5(3)
C(4)–N(2)–C(5)	115.6(6)	O(2)–S(1)–O(1)[f]	109.5(3)
C(4)–N(2)–Zn(1)	122.4(5)	O(2)[f]–S(1)–O(1)[f]	109.6(3)
		O(1)–S(1)–O(1)[f]	108.3(5)

Symmetry codes: (a) -x, y, -z+1; (b) x+1/2, y+1/2, z; (c) -x-1/2, y+1/2, -z+1; (d) -x-1, y, -z+1; (e) x-1/2, y-1/2, z; (f) -x, y, -z.

Table S2.5 Selected bond lengths (Å) and angles (°) of complex **4.**

Zn(1)–O(1)	2.167(6)	O(1)–Zn(1)–N(2)[b]	90.01(19)
Zn(1)–O(1)[a]	2.167(6)	O(1)[a]–Zn(1)–N(2)[b]	90.8(2)
Zn(1)–N(1)	2.189(6)	N(1)–Zn(1)–N(2)[b]	177.0(2)
Zn(1)–N(1)[a]	2.189(6)	N(1)[a]–Zn(1)–N(2)[b]	95.1(2)
Zn(1)–N(2)[b]	2.170(6)	O(1)–Zn(1)–N(2)[c]	90.8(2)
Zn(1)–N(2)[c]	2.170(6)	O(1)[a]–Zn(1)–N(2)[c]	90.01(19)
Cr(1)–O(2)[d]	1.648(6)	N(1)–Zn(1)–N(2)[c]	95.1(2)
Cr(1)–O(2)	1.648(6)	N(1)[a]–Zn(1)–N(2)[c]	177.0(2)
Cr(1)–O(1)	1.654(5)	N(2)[b]–Zn(1)–N(2)[c]	87.8(3)
Cr(1)–O(1)[d]	1.654(5)	O(2)[d]–Cr(1)–O(2)	108.8(5)
C(1)–N(1)	1.477(9)	O(2)[d]–Cr(1)–O(1)	109.6(3)
C(1)–C(1)$_a$	1.541(13)	O(2)–Cr(1)–O(1)	109.0(3)
C(2)–N(1)	1.480(9)	O(2)[d]–Cr(1)–O(1)[d]	109.0(3)
C(5)–N(2)	1.329(9)	O(2)–Cr(1)–O(1)[d]	109.6(3)
C(6)–N(2)	1.309(9)	O(1)–Cr(1)–O(1)[d]	110.7(4)
N(2)–Zn(1)[e]	2.170(6)	C(1)–N(1)–C(2)	112.7(5)
O(1)–Zn(1)–O(1)[a]	178.9(3)	C(1)–N(1)–Zn(1)	107.4(4)
O(1)–Zn(1)–N(1)	89.41(19)	C(2)–N(1)–Zn(1)	115.4(4)
O(1)[a]–Zn(1)–N(1)	89.72(19)	C(6)–N(2)–C(5)	115.5(6)
O(1)–Zn(1)–N(1)[a]	89.72(19)	C(6)–N(2)–Zn(1)[e]	121.4(5)
O(1)[a]–Zn(1)–N(1)[a]	89.41(19)	C(5)–N(2)–Zn(1)[e]	123.0(5)
N(1)–Zn(1)–N(1)[a]	81.9(3)	Cr(1)–O(1)–Zn(1)	140.5(3)

Symmetry codes: (a) -x, y, -z-1; (b) x+1/2, y+1/2, z; (c) -x-1/2, y+1/2, -z-1; (d) -x, y, -z-2; (e) x-1/2, y-1/2, z.

Table S3 *Summary of multiple crystal datas for CPs* ***2M*** *and* ***2P****.*

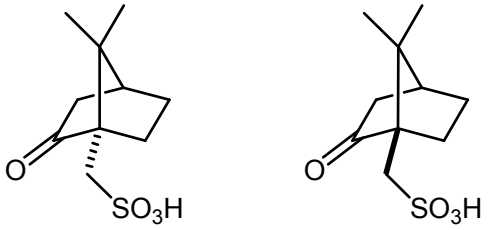
Table S3.1 A summary of crystal data and refinement results of six randomly selected crystals for **2** grown in the presence of (1S)-(+)-10-camphorsulfonic acid.

	a (Å)	*b* (Å)	*c* (Å)	β (°)	Vol. (Å^3)	R1	wR2	Flack param	heli city
1	13.812(11)	12.752(11)	7.086(6)	90.796(12)	1248.0(18)	0.0585	0.1267	0.06(2)	M
2	13.826(2)	12.699(2)	7.0542(16)	90.614(12)	1238.5(4)	0.0507	0.1543	0.05 (2)	M
3	13.780(10)	12.737(10)	7.085(5)	90.867(12)	1243.4(16)	0.0529	0.1410	0.03(2)	M
4	13.900(4)	12.808(5)	7.117(3)	90.70(3)	1266.9(8)	0.0622	0.1822	0.04(3)	M
5	13.860(5)	12.635(4)	7.023(3)	90.49(3)	1229.9(8)	0.0743	0.2189	0.06(4)	M
6	13.8078(18)	12.752(2)	7.0898(13)	90.901(10)	1248.2(4)	0.0391	0.1080	0.04(2)	M

Table S3.2 A summary of crystal data and refinement results of six randomly selected crystals for **2** grown in the presence of (1R)-(-)-10-camphorsulfonic acid.

	a (Å)	*b* (Å)	*c* (Å)	β (°)	Vol. (Å^3)	R1	wR2	Flack param	heli city
1	13.832(11)	12.752(11)	7.089(6)	90.880(15)	1250.2(18)	0.0498	0.1388	0.05(2)	P
2	13.893(8)	12.735(7)	7.078(4)	91.062(9)	1252.0(12)	0.0375	0.1040	0.02 (2)	P
3	13.769(4)	12.687(4)	7.053(2)	90.66(2)	1231.9(7)	0.0868	0.2433	0.14(4)	P
4	13.78(2)	12.649(19)	7.026(11)	90.981(17)	1225(3)	0.0803	0.2251	0.08(4)	P
5	13.799(12)	12.734(11)	7.079(6)	90.940(18)	1243.6(19)	0.0734	0.2312	0.04(4)	P
6	13.8946(19)	12.691(2)	7.0517(12)	91.075(12)	1243.3(3)	0.0480	0.1478	0.03(3)	P

Figure S1 *Structural formulas of the chiral inducing agents.*



(1S)-(+)-10-camphorsulfonic acid

(1R)-(-)-10-camphorsulfonic acid

Figure S2 *Crystal structure for CPs* ***1-4.***

Figure S2.1 Crystal structure for CPs **1** contains two different layers, and they have a "mirror symmetry".

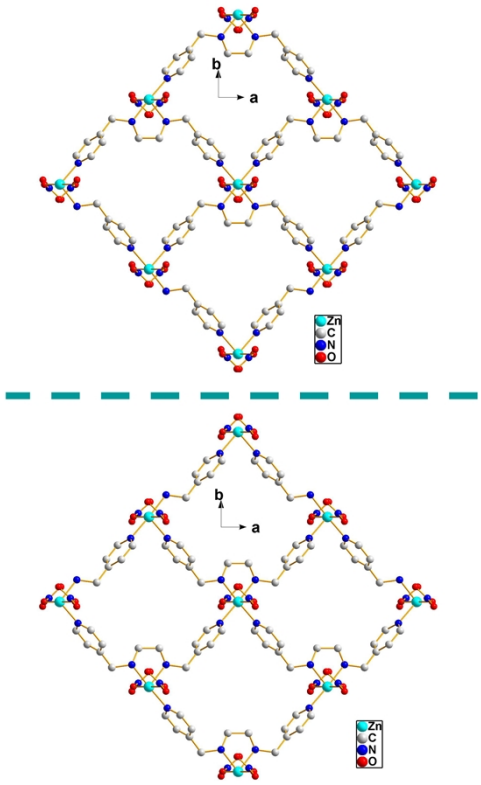


Figure S2.2 (a) **C**rystal structure for CPs **2M** and **2P**. **2M** (upper) and **2P** (lower) have a "mirror symmetry", which illustrates that they are supramolecular enantiomers. (b) Right- and left- handed helical motifs composed of inorganic chains of **2P** and **2M**.

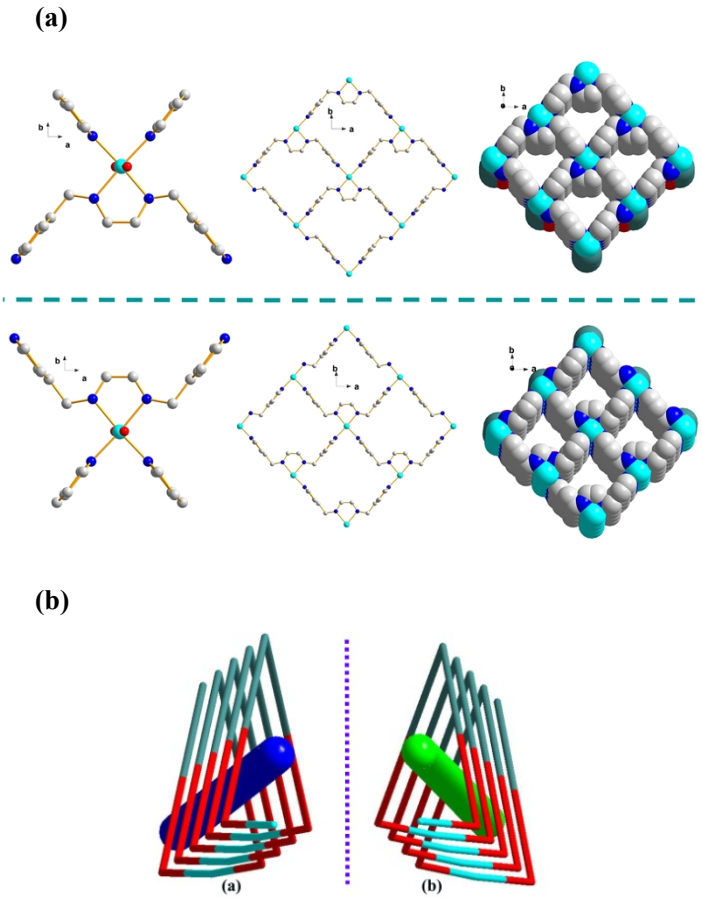
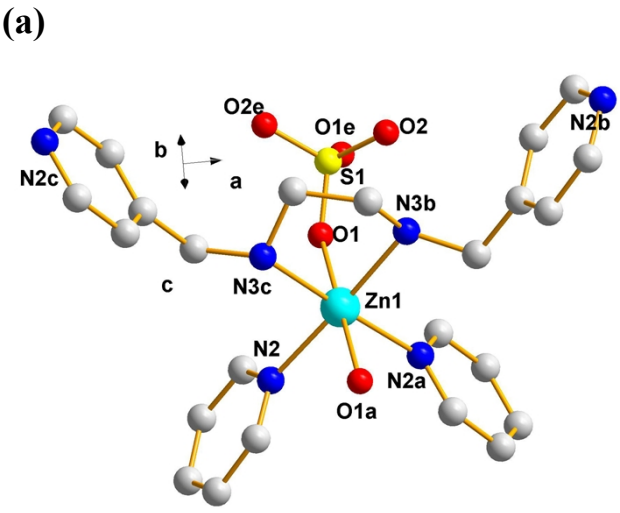
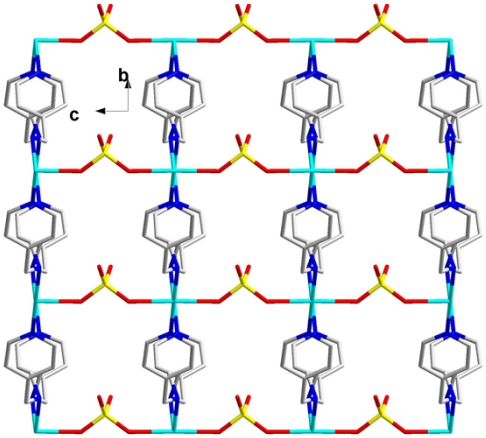


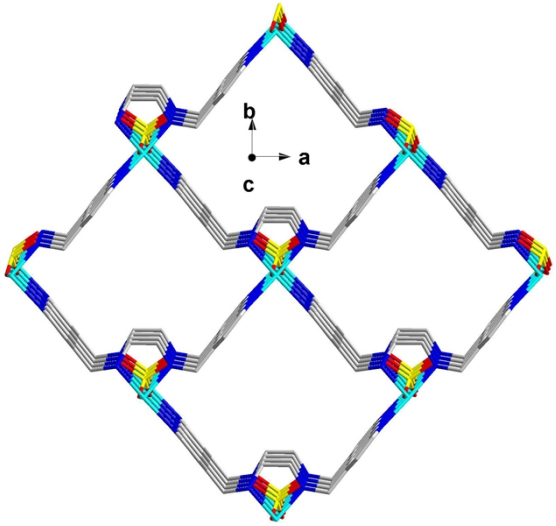
Figure S2.3 Crystal diagrams for CPs **3**. (a) Coordination configurations of Zn(II) atom in crystal **3** (hydrogen atoms and disordered oxygen atoms have been omitted for clarity). Symmetry code: a) -x, y, -z+1; b) x+1/2, y+1/2, z; c) -x-1/2, y+1/2, -z+1; d) -x-1, y, -z+1; e) -x, y, -z. (b) 3D structure of **3** viewed down the a-axis. (c) 3D structure of **3** viewed down the c-axis. (d)The space-filling model of **3** viewed down the c-axis.



(b)



(c)



(d)

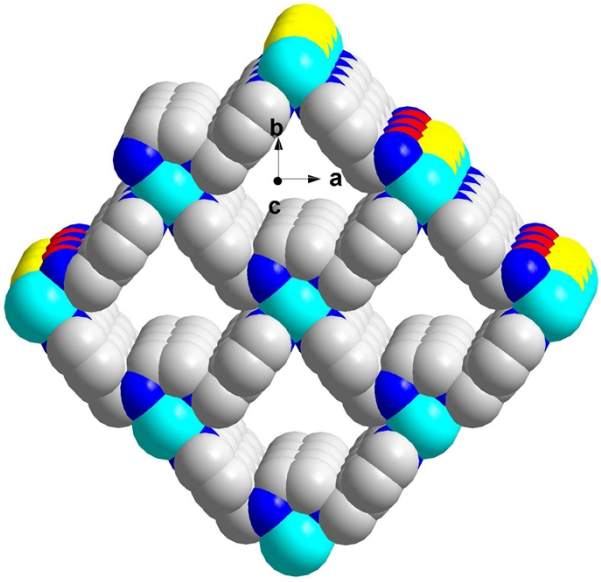
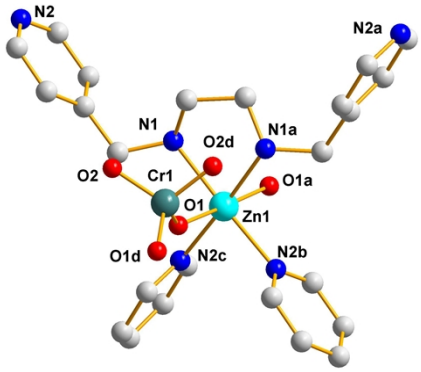
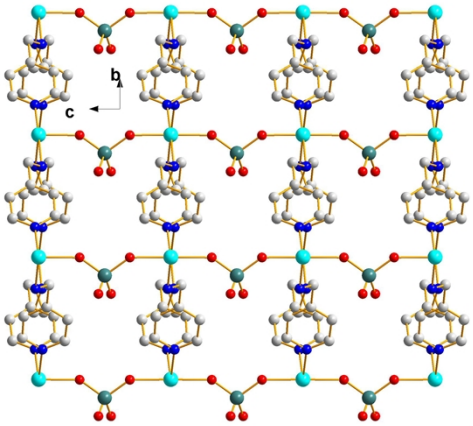


Figure S2.4 Crystal structure for CPs **4**. (a) Coordination configurations of Zn(II) atom in crystal **4** (hydrogen atoms and disordered oxygen atoms have been omitted for clarity). Symmetry code: a) -x, y, -z-1; b) x+1/2, y+1/2, z; c) -x-1/2, y+1/2, -z-1; d) -x, y, -z-2. (b) 3D structure of **4** viewed down the a-axis. (c) 3D structure of **4** viewed down the c-axis. (d)The space-filling model of **4** viewed down the c-axis.

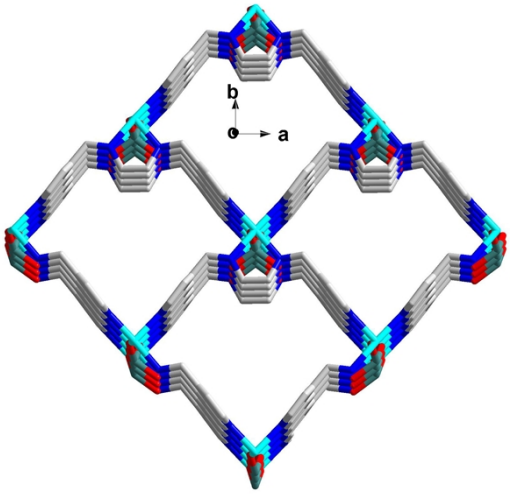
(a)



(b)



(c)



(d)

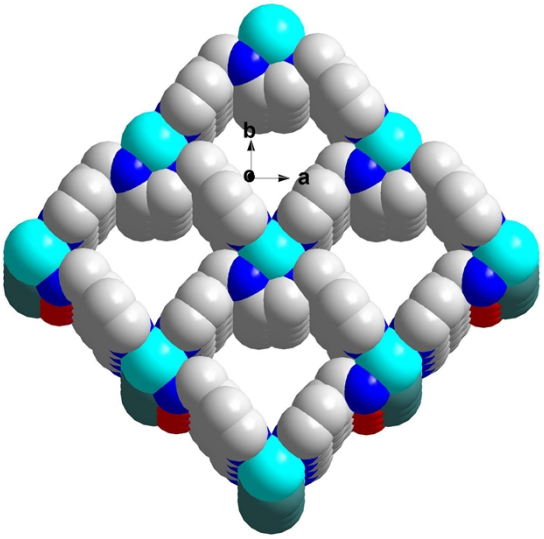


Figure S3 *PXRD patterns for CPs* ***1-4****.*

Figure S3.1 PXRD patterns for CPs **1.**

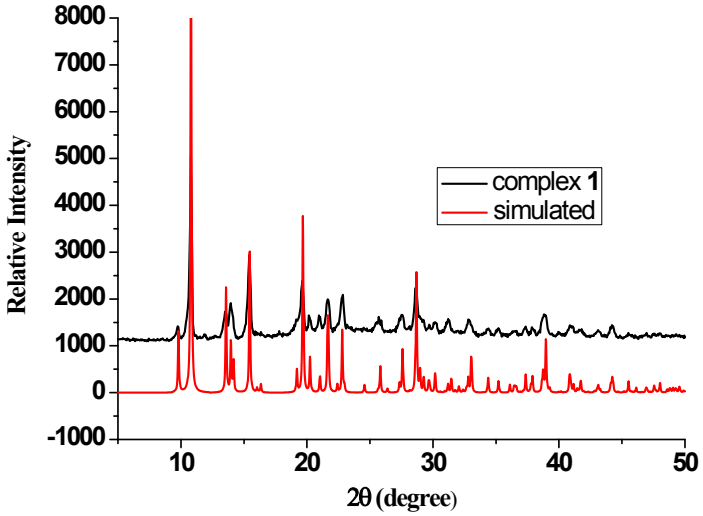


Figure S3.2 PXRD patterns for CPs **2**.

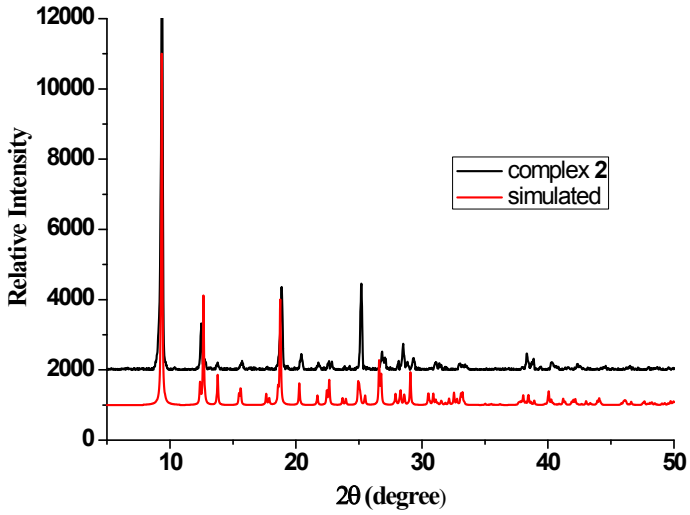


Figure S3.3 PXRD patterns for CPs **3**.

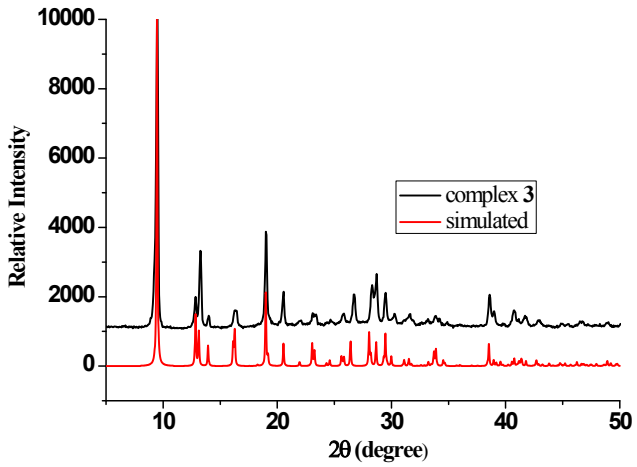


Figure S3.4 PXRD patterns for CPs **4**.

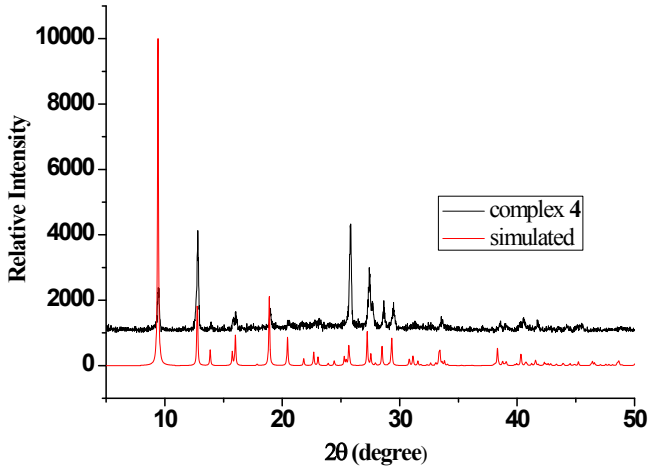


Figure S4 *TGA plots for CPs* ***1-4****.*

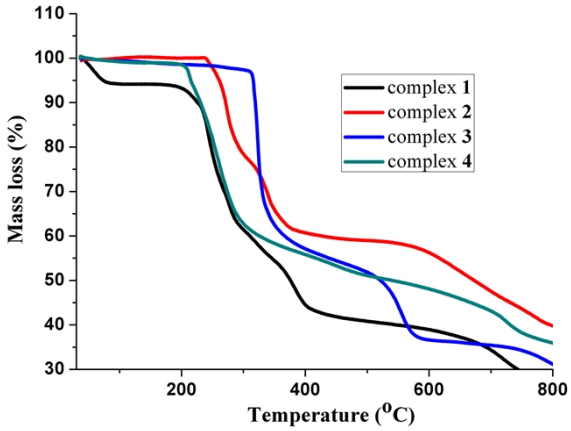


Figure S5 *The emission spectra of complexes 1–4 in solid state at room temperature.*

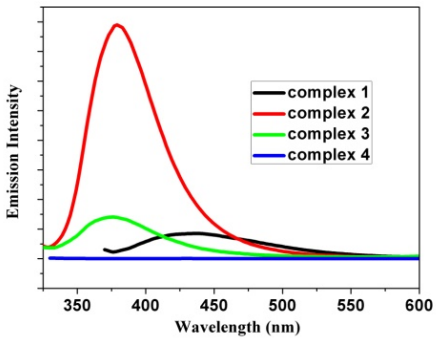


Figure S6 *Solid state CD spectra for different experiments.*

Figure S6.1 Solid state CD spectra recorded for **2** in the presence of (1S)-(+)-10-camphorsulfonic acid. All the bulk materials exhibit a positive CD signal at ~265 nm.

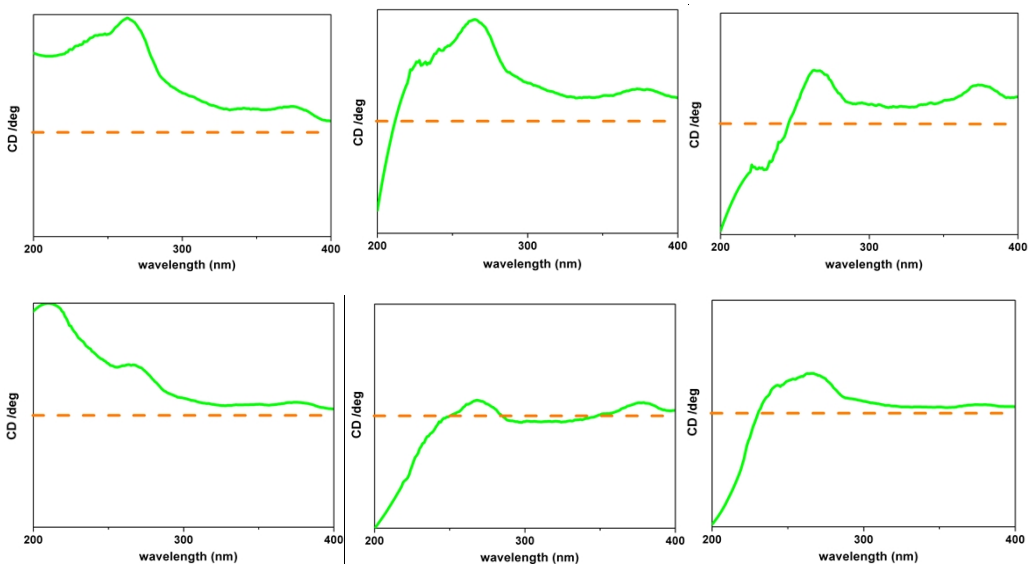


Figure S6.2 Solid state CD spectra recorded for **2** in the presence of (1R)-(-)-10-camphorsulfonic acid. All the bulk materials exhibit a negative CD signal at ~265 nm.

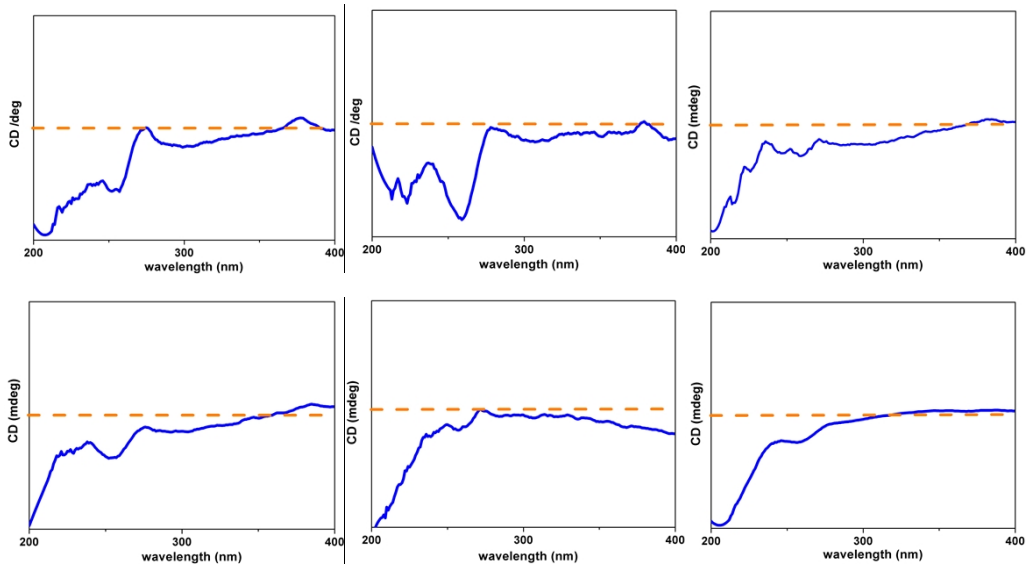


Figure S7 *Solid state UV-Vis spectra of CPs* ***2****.*