

**A homochiral network constructed by supramolecular packing of 2D  
chiral bilayer: synthesis, structure and property of metal(II) complex  
based on achiral 3, 3', 4, 4'-oxydiphthalate and coligand**

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**Table S1** Selected bond lengths (Å) and bond angles (°) for complexes **1-4**

<i>Complex 1</i>			
Ni(1)-O(3)	2.047(5)	Ni(1)-O(6)	2.060(6)
Ni(1)-O(7)	2.061(5)	Ni(1)-O(1)	2.093(6)
Ni(1)-N(1)	2.108(6)	Ni(1)-N(2)#1	2.077(5)
O(3)-Ni(1)-O(7)	178.5(2)	O(3)-Ni(1)-O(6)	88.9(3)
N(2)#1-Ni(1)-N(1)	178.7(3)	O(6)-Ni(1)-N(2)#1	87.6(3)
O(1)-Ni(1)-N(1)	92.1(3)	O(7)-Ni(1)-N(1)	89.7(3)
<i>Complex 2</i>			
Cu(1)-O(12)#2	1.956(4)	Cu(1)-O(19)	2.566(7)
Cu(2)-O(13)#2	1.955(4)	Cu(2)-O(6)	2.258(4)
Cu(2)-N(1)	2.013(6)	Cu(2)-N(2)	1.989(5)
O(16)-Cu(1)-O(19)	176.08(17)	O(6)-Cu(1)-N(3)	176.55(19)
N(3)-Cu(1)-O(19)	77.2(2)	O(16)-Cu(2)-O(6)	82.41(15)
N(4)-Cu(1)-N(3)	80.7(2)	N(2)-Cu(2)-N(1)	79.7(2)
<i>Complex 3</i>			
Co(1)-O(13)	2.108(2)	Co(1)-O(14)	2.1414(18)
Co(1)-N(3)	2.131(2)	Co(2)-N(1)	2.143(3)

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Co(2)-N(2)	2.131(2)	Co(2)-O(8)	2.0774(17)
Co(2)-O(10)	2.093(2)	Co(2)-O(11)	2.091(2)
O(13)-Co(1)-O(14)	84.93(8)	O(14)#3-Co(1)-O(14)	172.63(10)
O(8)-Co(2)-O(11)	84.68(8)	O(8)-Co(2)-O(12)	172.32(7)
N(3)#3-Co(1)-N(3)	77.33(12)	N(2)-Co(2)-N(1)	75.88(9)
O(8)-Co(2)-N(1)	88.77(8)	O(13)#3-Co(1)-N(3)	172.53(9)

**Complex 4**

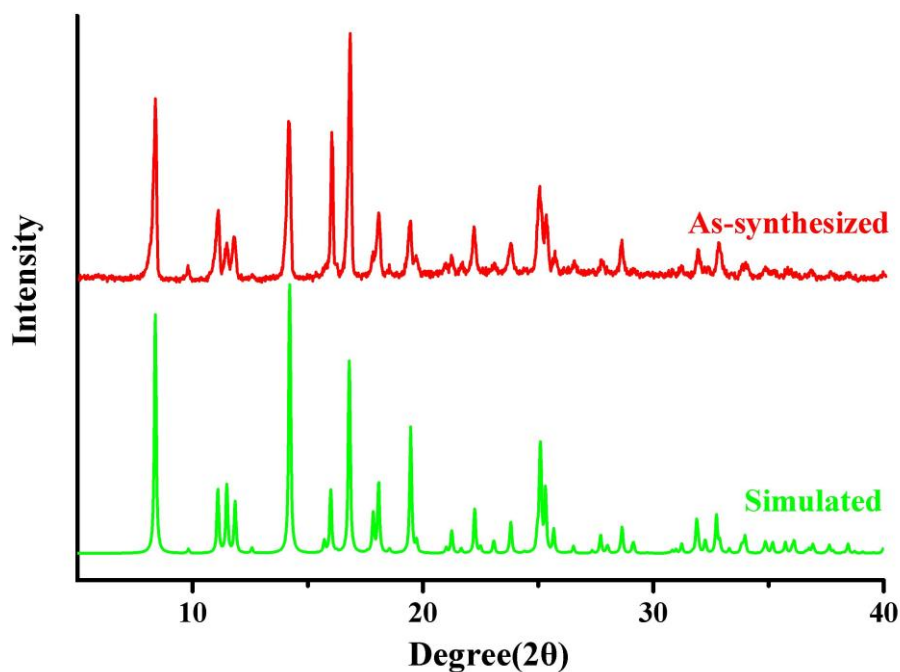
Zn(1)-O(6)	1.905(6)	Zn(1)-O(1)	1.924(6)
Zn(1)-O(8)	1.949(6)	Zn(1)-O(3)#4	1.927(6)
O(6)-Zn(1)-O(8)	92.2(3)	O(3)#4-Zn(1)-O(8)	122.0(3)
O(6)-Zn(1)-O(3)#4	98.9(3)	O(6)-Zn(1)-O(1)	122.9(3)

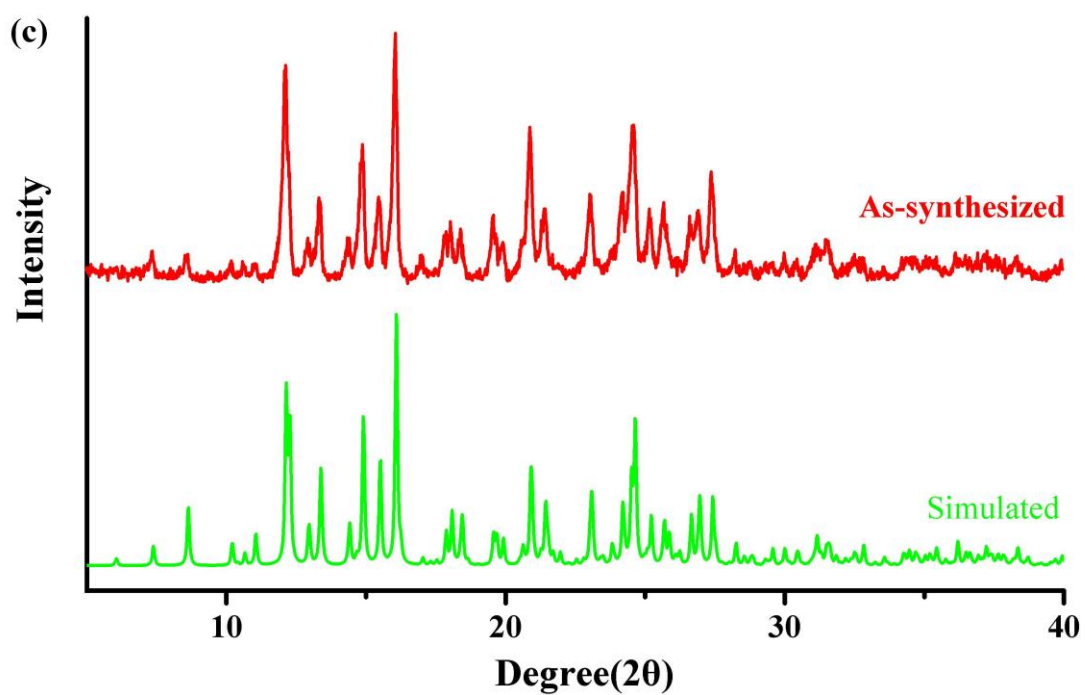
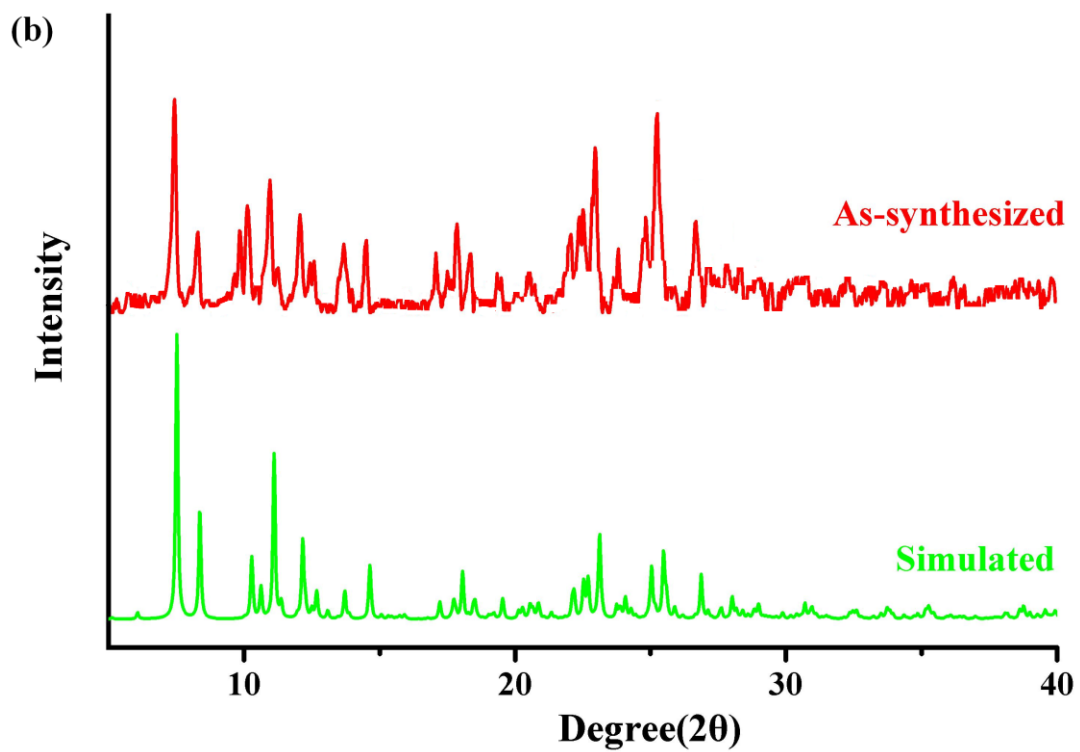
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Symmetry transformations used to generate equivalent atoms:

#1  $x+1, y, z$     #2  $-x, -y+1, -z$     #3  $-x, y, -z+1/2$     #4  $-x, -y+1, -z+1$

(a)





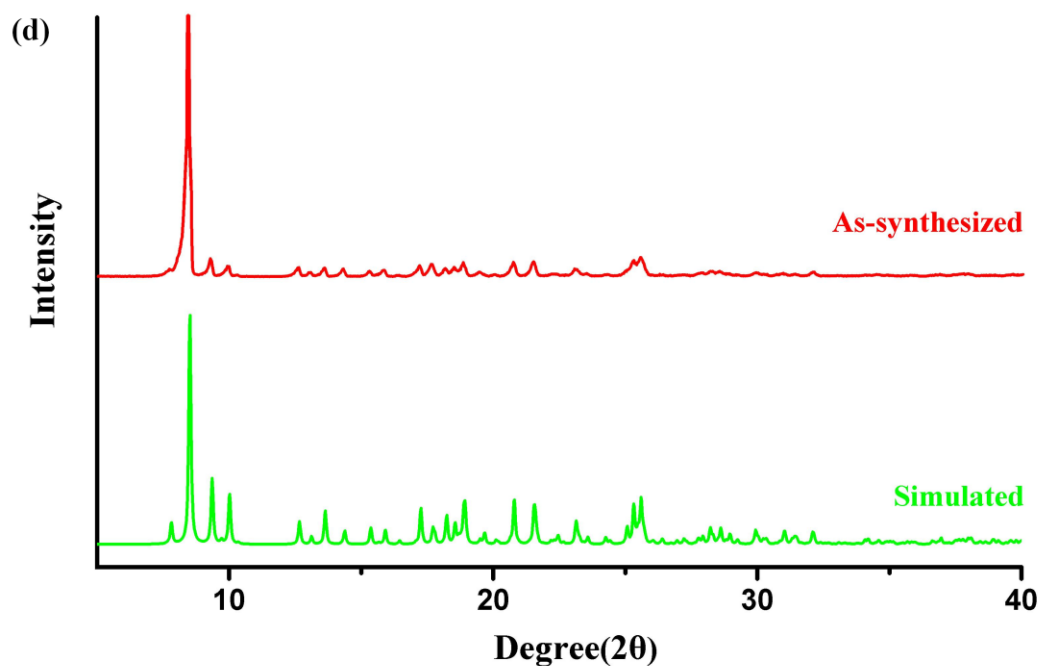


Fig.S1 The PXRD patterns of complexes 1 (a), 2 (b), 3 (c) and 4 (d).

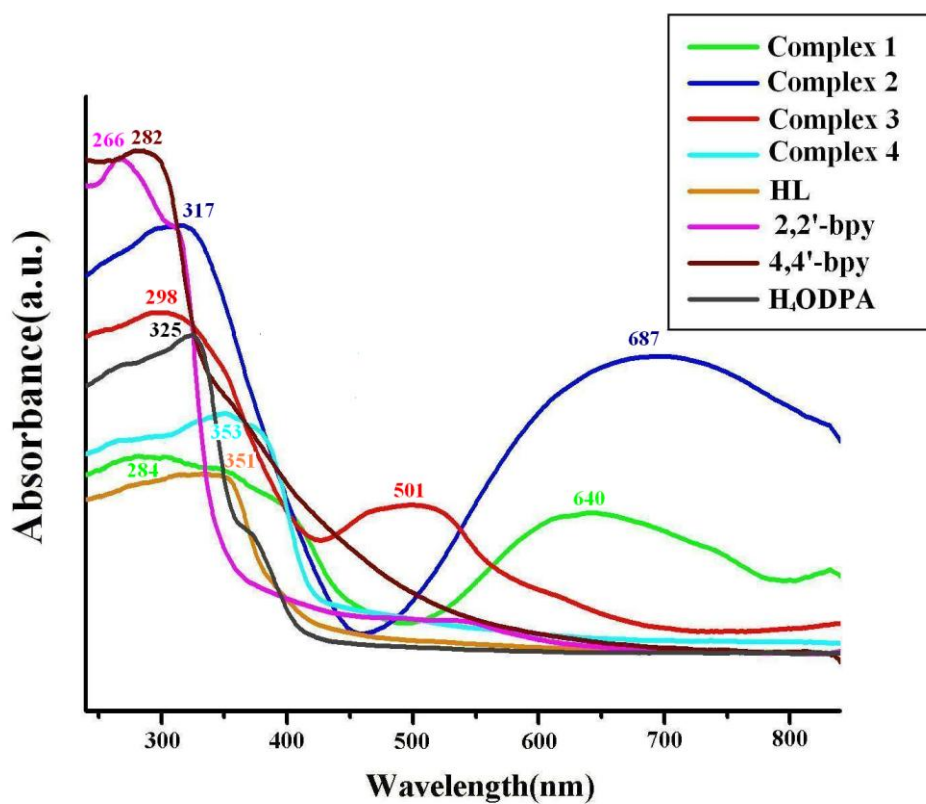
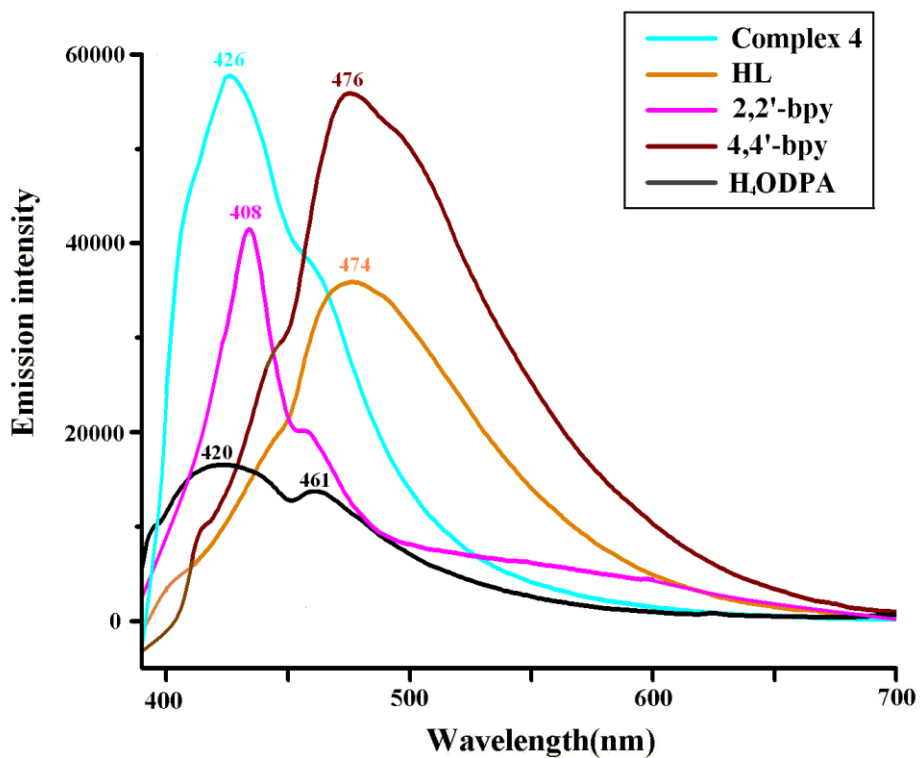
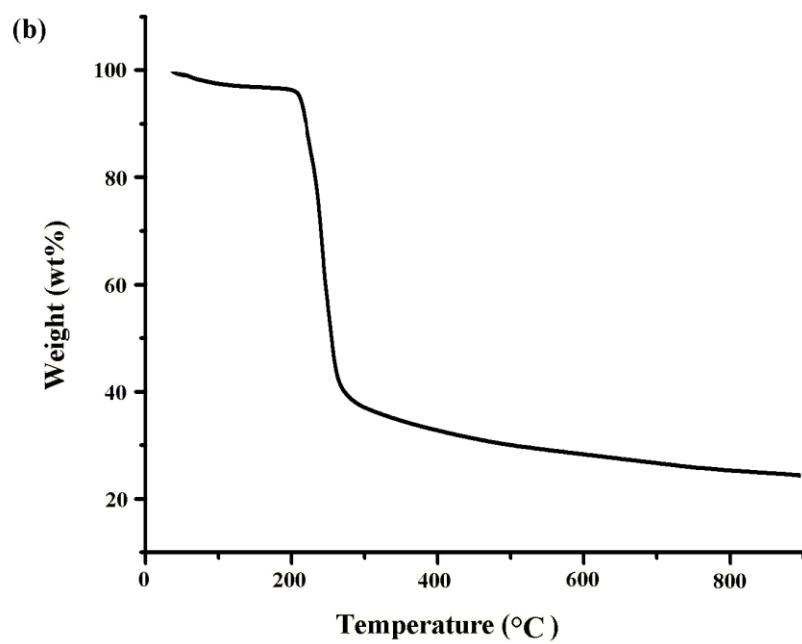
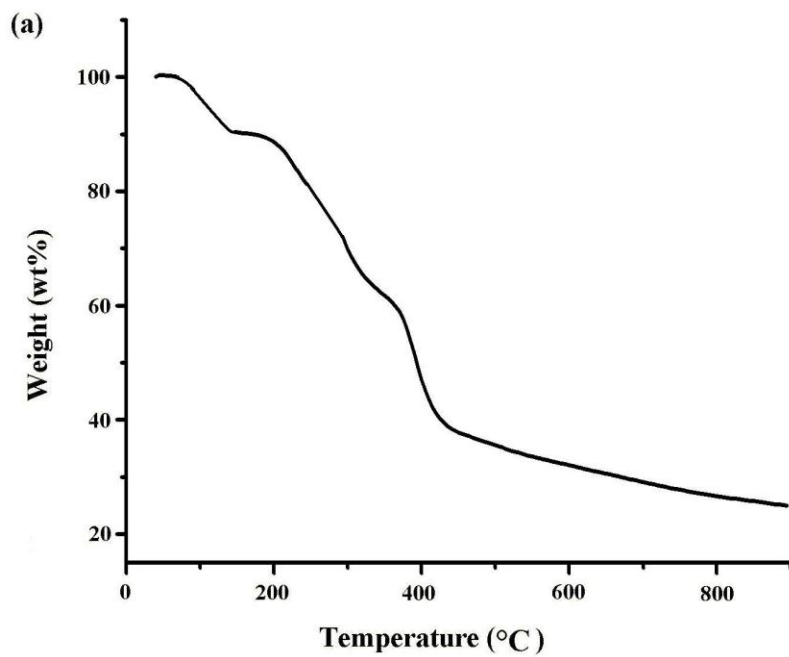


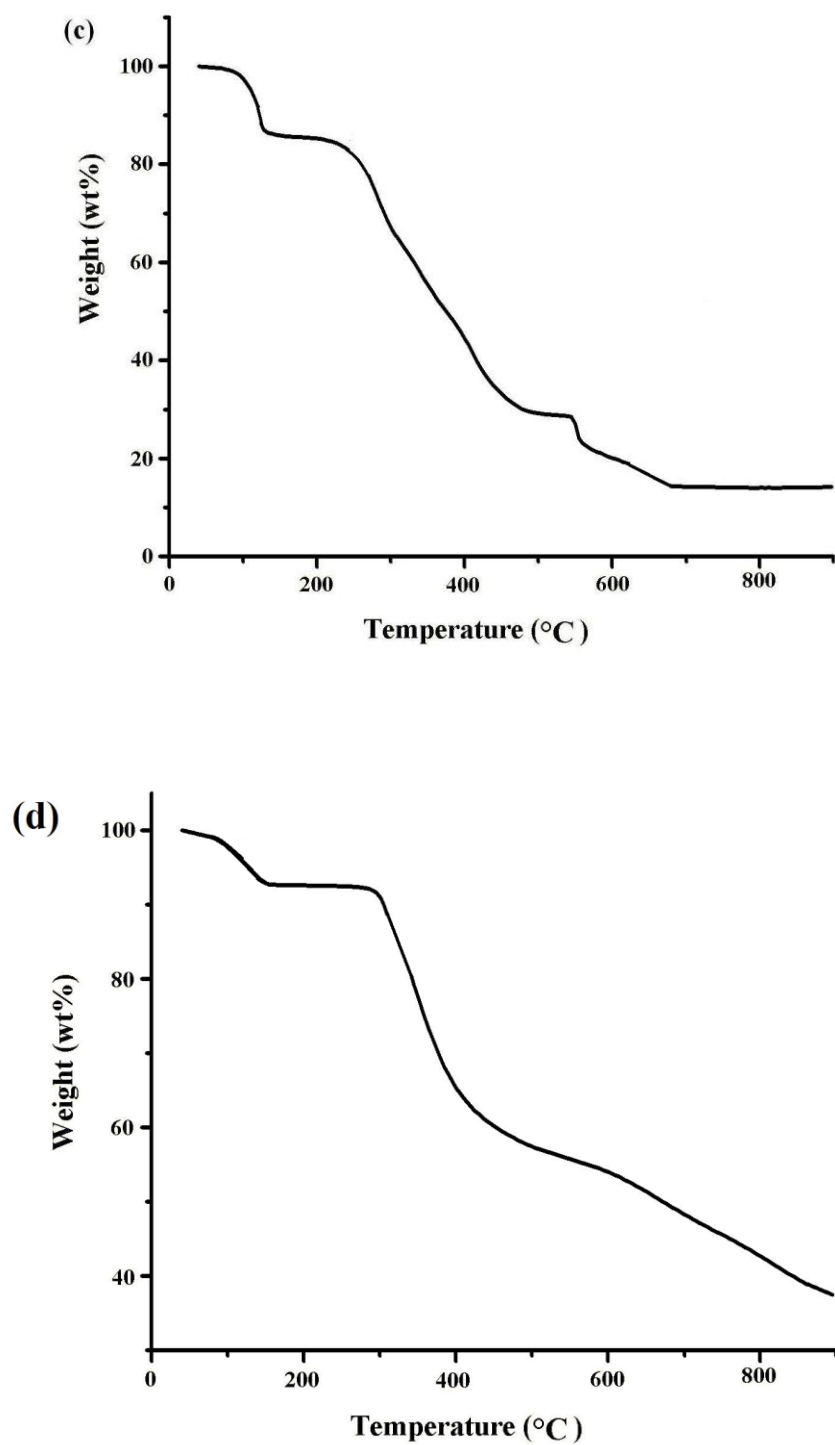
Fig. S2 UV-vis absorption spectra at room temperature for the free ligands and

complexes 1-4.



**Fig. S3** Solid-state emission spectra at room temperature for the free organic ligands H<sub>4</sub>ODPA, 4,4'-bpy, 2,2'-bpy, **HL** and complex **4**.





**Fig.S4** Thermogravimetric curves of complexes **1** (a), **2** (b), **3** (c) and **4** (d).