

Supporting Information

Figure captions:

Fig. S1 The PXRD patterns of **1-4**

Fig.S2 The IR spectra of the complexes (a) **1** (b) **2** (c) **3** (d) **4**

Fig. S3 The excitation spectra of **1-4** and the ligands

Fig. S4 PXRD patterns of **1** in solutions with pH = 4, 7, 11

Fig. S5 The PXRD after immersion of **1** in different solvents

Fig. S6 The response time of **1** toward BPA (inset: emission spectra of **1** before (0 s) and after (10 s) the addition of BPA) (a); The response time of **1** toward IMH (inset: emission spectra of **1** before (0 s) and after (10 s) the addition of IMH) (b)

Fig. S7 The recycling experiments of **1** after luminescent sensing for BPA

Fig. S8 The recycling experiments of **1** after luminescent sensing for IMH

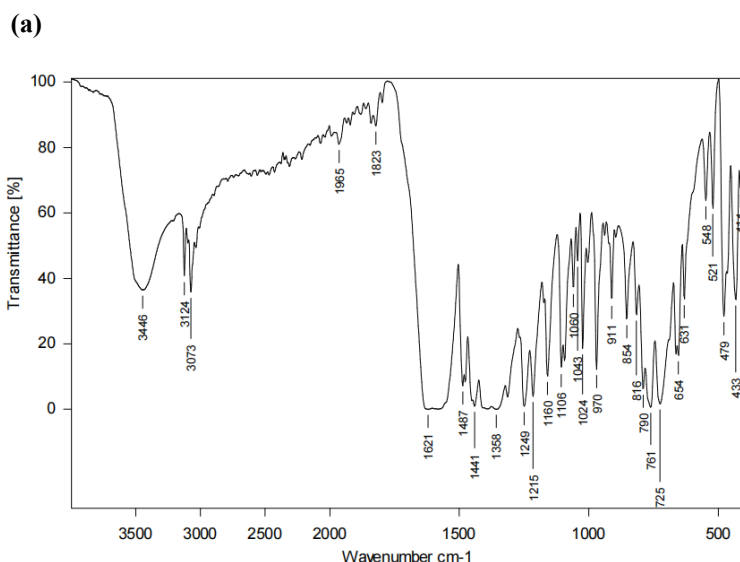
Fig. S9 PXRD patterns of **1** immersed in different solutions including BPA/IMH solution for 3 days

Table S1. Selected bond lengths [\AA] and angles [$^\circ$] for complexes **1-4**

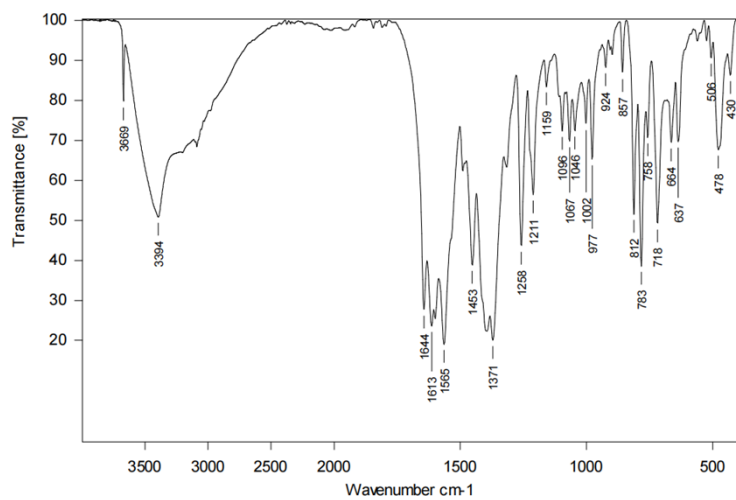
Table S2. A comparison of the analysis time of BPA with other reported methods

Table S3. A comparison of the analysis time of IMH with other reported methods

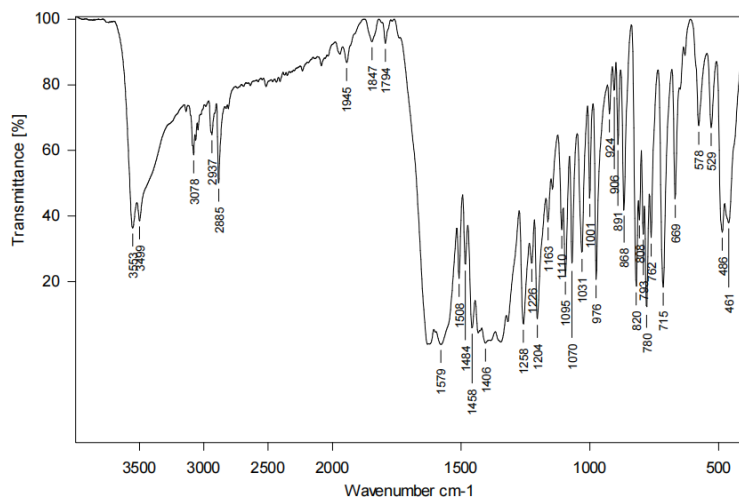
Fig. S1 The PXRD patterns of **1-4**



(b)



(c)



(d)

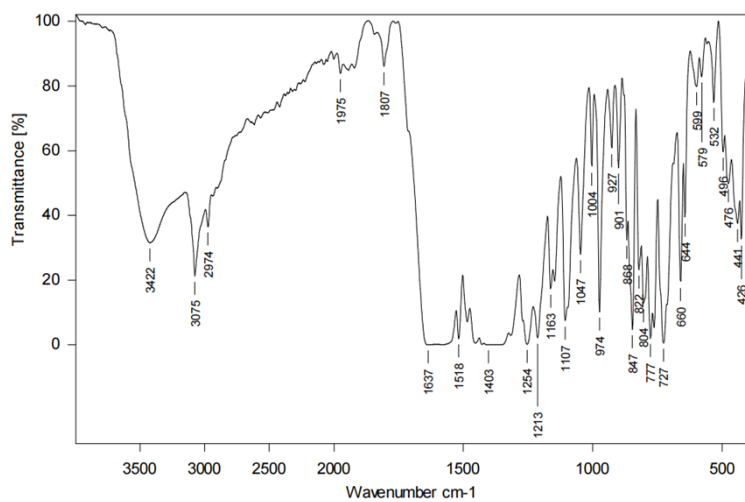


Fig.S2 The IR spectra of the complexes (a) 1 (b) 2 (c) 3 (d) 4

Fig. S3 The excitation spectra of **1-4** and the ligands

The excitation spectra of **1-4** all showed wide excitation bands at 275nm for **1**, 279nm for **2**, 286nm for **3**, and 276nm for **4**, respectively. The excitation spectra of O-cpiaH₃, 2,2'-bpy, 4,4'-bpy, bpp and phen were recorded at λ_{em} =344nm, 366nm, 367nm, 433nm and 362nm, respectively. A wide excitation band can be seen near 276nm (O-cpia), 272nm (2,2'-bpy), 278nm (4,4'-bpy), 362nm (bpp), 272nm (phen).

Fig. S4 The PXRD patterns of **1** in solutions with pH = 4, 7, 11

Fig.S5 The PXRD after immersion of **1** in different solvents

(a)

(b)

Fig.S6 The response time of **1** toward BPA (inset: emission spectra of **1** before (0 s) and after (10 s) the addition of BPA) (a); The response time of **1** toward IMH (inset: emission spectra of **1** before (0 s) and after (10 s) the addition of IMH) (b)

Fig.S7 The recycling experiments of **1** after luminescent sensing for BPA

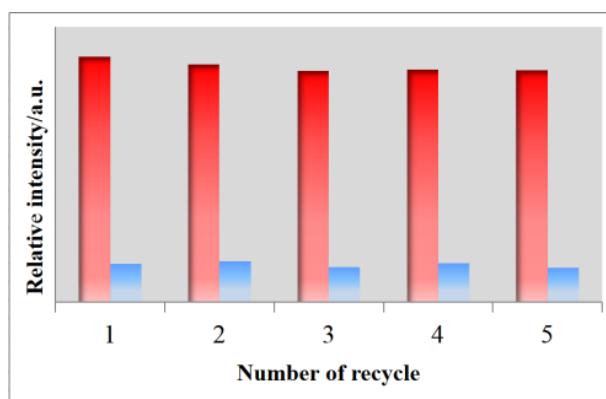


Fig.S8 The recycling experiments of **1** after luminescent sensing for IMH

Fig. S9 The PXRD patterns of **1** immersed in different solutions including BPA/IMH solution for 3 days

Table S1 Selected bond lengths [\AA] and angles [$^\circ$] for complexes **1-4**

1			
Zn(1)-O(4)A	1.938(2)	Zn(2)-O(8)A	2.050(2)
Zn(1)-O(2)	1.952(2)	Zn(2)-O(6)B	2.113(2)
Zn(1)-O(3)A	2.805(9)	Zn(2)-N(2)	2.120(3)
Zn(1)-O(8)A	1.968(2)	Zn(2)-N(1)	2.148(3)
Zn(1)-O(7)B	1.982(2)	Zn(2)-O(8)C	2.150(2)
		Zn(2)-O(1)	2.196(2)
O(4)A-Zn(1)-O(2)	109.72(10)	N(2)-Zn(2)-N(1)	76.95(11)
O(4)A-Zn(1)-O(8)A	112.69(10)	O(8)A-Zn(2)-O(8)C	79.30(10)
O(2)-Zn(1)-O(8)A	114.54(10)	O(6)B-Zn(2)-O(8)C	175.57(9)
O(4)A-Zn(1)-O(7)B	108.44(10)	N(2)-Zn(2)-O(8)C	91.24(10)
O(2)-Zn(1)-O(7)B	103.90(10)	N(1)-Zn(2)-O(8)C	94.91(10)
O(8)A-Zn(1)-O(7)B	106.98(10)	O(8)A-Zn(2)-O(1)	90.47(9)
O(8)A-Zn(2)-O(6)B	96.34(10)	O(6)B-Zn(2)-O(1)	91.24(10)
O(8)A-Zn(2)-N(2)	170.53(10)	N(2)-Zn(2)-O(1)	89.53(10)
O(6)B-Zn(2)-N(2)	93.13(10)	N(1)-Zn(2)-O(1)	165.82(10)
O(8)A-Zn(2)-N(1)	103.58(10)	O(8)C-Zn(2)-O(1)	89.57(9)
O(6)B-Zn(2)-N(1)	85.33(10)		

1: A: $-x+1,-y,-z-1$; B: $-x,-y-1,-z-1$; C: $-x,-y,-z-1$; D: $x,y-1,z$;

2			
Zn(1)-O(4)A	1.970(2)	Zn(2)-O(6)B	1.935(2)

Zn(1)-N(1)	2.076(2)	Zn(2)-O(7)C	1.936(2)
Zn(1)-O(8)D	2.0901(19)	Zn(2)-O(8)D	1.9364(19)
Zn(1)-O(8)	2.0907(19)	Zn(2)-O(1)	1.938(2)
Zn(1)-O(2)	2.120(2)		
O(4)A-Zn(1)-N(1)	106.39(9)	O(8)D-Zn(1)-O(2)	90.04(8)
O(4)A-Zn(1)-O(8)D	104.90(8)	O(8)-Zn(1)-O(2)	164.74(9)
N(1)-Zn(1)-O(8)D	148.70(9)	O(6)B-Zn(2)-O(7)C	126.34(10)
O(4)A-Zn(1)-O(8)	97.39(8)	O(6)B-Zn(2)-O(8)D	105.34(8)
N(1)-Zn(1)-O(8)	96.33(9)	O(7)C-Zn(2)-O(8)D	108.24(9)
O(8)D-Zn(1)-O(8)	79.36(8)	O(6)B-Zn(2)-O(1)	107.20(10)
O(4)A-Zn(1)-O(2)	95.92(9)	O(7)C-Zn(2)-O(1)	100.62(9)
N(1)-Zn(1)-O(2)	87.01(9)	O(8)D-Zn(2)-O(1)	108.06(9)

2 : A: $-x+1,y,-z+1/2$; B: $x,y+2,z$; C: $-x,y,-z+1/2$;

3

Zn(1)-O(1)	1.9250(7)	Zn(2)-O(5)A	1.9664(7)
Zn(1)-O(1)	1.9250(7)	Zn(2)-O(7)	1.9865(15)
Zn(1)-N(2)C	2.0542(10)	Zn(2)-O(4)	1.9917(8)
Zn(1)-N(2)	2.0542(10)	Zn(2)-N(1)B	2.0385(9)
		Zn(2)-O(6)	2.4548(17)
O(1)-Zn(1)-O(1)	119.03(5)	O(7)-Zn(2)-O(4)	93.21(5)
O(1)-Zn(1)-N(2)C	118.84(3)	O(5)A-Zn(2)-N(1)B	106.09(3)
O(1)-Zn(1)-N(2)C	101.86(4)	O(7)-Zn(2)-N(1)B	134.40(4)
O(1)-Zn(1)-N(2)	101.86(4)	O(4)-Zn(2)-N(1)B	96.64(4)
O(1)-Zn(1)-N(2)	118.84(3)	O(5)A-Zn(2)-O(6)	96.15(5)
N(2)C-Zn(1)-N(2)	94.63(5)	O(7)-Zn(2)-O(6)	57.64(5)
O(5)A-Zn(2)-O(7)	107.66(5)	O(4)-Zn(2)-O(6)	141.05(5)
O(5)A-Zn(2)-O(4)	118.69(3)	N(1)B-Zn(2)-O(6)	89.18(4)

3: A: $x+1,y,z$; B: $-x,y-1/2,-z-1/2$; C: $-x-1,-y,-z-1$;

4

Zn(1)-O(3)	2.053(2)	Zn(3)-O(5)D	1.940(2)
Zn(1)-O(16)C	2.105(2)	Zn(3)-O(7)	1.966(3)
Zn(1)-O(1)	2.121(3)	Zn(3)-O(9)	1.969(2)
Zn(1)-N(2)	2.150(3)	Zn(3)-O(10)	1.972(3)
Zn(1)-N(1)	2.156(3)	Zn(3)-O(6)D	2.793(3)
Zn(1)-O(3)A	2.181(3)	Zn(4)-O(11)	2.067(3)
Zn(2)-O(13)B	1.942(3)	Zn(4)-O(9)	2.090(2)
Zn(2)-O(15)C	1.947(2)	Zn(4)-O(9)B	2.128(3)
Zn(2)-O(3)	1.976(2)	Zn(4)-O(8)	2.143(3)

Zn(2)-O(2)	1.993(3)	Zn(4)-N(4)	2.154(3)
Zn(2)-O(14)B	2.6939(3)	Zn(4)-N(3)	2.164(3)
O(13)B-Zn(2)-O(15)C	111.76(11)	O(16)C-Zn(1)-N(1)	165.15(12)
O(13)B-Zn(2)-O(3)	118.15(11)	O(1)-Zn(1)-N(1)	84.14(12)
O(15)C-Zn(2)-O(3)	107.88(11)	N(2)-Zn(1)-N(1)	77.39(12)
O(13)B-Zn(2)-O(2)	105.97(11)	O(3)-Zn(1)-O(3)A	80.93(10)
O(15)C-Zn(2)-O(2)	105.27(12)	O(16)C-Zn(1)-O(3)A	87.61(10)
O(3)-Zn(2)-O(2)	106.94(10)	O(1)-Zn(1)-O(3)A	172.47(10)
O(5)D-Zn(3)-O(7)	111.36(11)	N(2)-Zn(1)-O(3)A	88.19(11)
O(5)D-Zn(3)-O(9)	111.97(11)	N(1)-Zn(1)-O(3)A	92.51(11)
O(7)-Zn(3)-O(9)	109.65(11)	O(11)-Zn(4)-O(9)	94.32(11)
O(5)D-Zn(3)-O(10)	108.26(11)	O(11)-Zn(4)-O(9)B	173.39(11)
O(7)-Zn(3)-O(10)	105.01(12)	O(9)-Zn(4)-O(9)B	79.08(10)
O(9)-Zn(3)-O(10)	110.36(11)	O(11)-Zn(4)-O(8)	91.82(13)
O(5)D-Zn(3)-Zn(4)	151.81(8)	O(9)-Zn(4)-O(8)	91.63(10)
O(7)-Zn(3)-Zn(4)	88.81(8)	O(9)B-Zn(4)-O(8)	88.68(10)
O(9)-Zn(3)-Zn(4)	40.42(7)	O(11)-Zn(4)-N(4)	84.70(13)
O(10)-Zn(3)-Zn(4)	83.80(8)	O(9)-Zn(4)-N(4)	103.20(11)
O(3)-Zn(1)-O(16)C	91.17(10)	O(9)B-Zn(4)-N(4)	96.46(10)
O(3)-Zn(1)-O(1)	93.27(10)	O(8)-Zn(4)-N(4)	164.96(11)
O(16)C-Zn(1)-O(1)	97.37(11)	O(11)-Zn(4)-N(3)	94.79(12)
O(3)-Zn(1)-N(2)	169.10(11)	O(9)-Zn(4)-N(3)	170.86(11)
O(16)C-Zn(1)-N(2)	87.77(11)	O(9)B-Zn(4)-N(3)	91.81(11)
O(1)-Zn(1)-N(2)	97.62(11)	O(8)-Zn(4)-N(3)	88.94(11)
O(3)-Zn(1)-N(1)	103.53(11)	N(4)-Zn(4)-N(3)	76.82(12)

4: A: x+1,y,z; B: x,y-1,z; C: -x+1,-y+2,-z+1; D: -x+2,-y+1,-z+1;

Table S2 A comparison of the analysis time of BPA with other reported methods

Method	Analysis	Reference
Electrochemistry	2 h	S1
GC-MS	21.63 min	S2
Molecular imprinting methods	250 s	S3
LC-MS	7 min	S4
Photoelectrochemistry	110s	S5
Polarizing microscope	1h	S6
Luminescent detection	10 s	This work

Table S3 A comparison of the analysis time of IMH with other reported methods

Method	Analysis time	Reference
RP-HPLC	3.33 min	S7
PVC membrane	5s	S8
UHPLC–Q-TOF–MS	20 min	S9
Spectrofluorimetric	1h	S10
Flow injection	3 h	S11
Electroanalytical methods	3h	S12
Luminescent detection	10 s	This work

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