Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting Information

Pillared-layer strategy to construct water-stable Zn-organic frameworks for iodine capture and luminescent sensing of Fe^{3+}

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Table S1 Selected Bond Lengths [Å] and Angles [°] for Compounds **1** and **2**.

Compound **1**			
Zn(1)-O(1)	2.073(5)	Zn(1)-N(2)	2.190(7)
Zn(1)-O(1)#1	2.073(5)	Zn(1)-N(3)#3	2.189(6)
Zn(1)-N(1)#2	2.146(6)		
O(1)-Zn(1)-O(1)#1	89.3(4)	O(1)-Zn(1)-N(1)#2	135.33(18)
O(1)#1-Zn(1)-N(1)#2	135.33(18)	O(1)-Zn(1)-N(2)	93.05(19)
O(1)#1-Zn(1)-N(2)	93.05(19)	N(1)#2-Zn(1)-N(2)	86.9(3)
O(1)-Zn(1)-N(3)#3	88.47(18)	O(1)#1-Zn(1)-N(3)#3	88.47(18)
N(1)#2-Zn(1)-N(3)#3	91.0(2)	N(2)-Zn(1)-N(3)#3	177.9(2)
Compound **2**			
Zn(1)-O(1)#1	2.091(5)	Zn(1)-N(1)	2.166(7)
Zn(1)-O(1)	2.091(5)	Zn(1)-N(2)#3	2.211(8)
Zn(1)-N(3)#2	2.154(7)	Zn(1)-O(2)#1	2.570(7)
Zn(1)-O(2)	2.570(7)		
O(1)#1-Zn(1)-O(1)	87.0(3)	O(1)#1-Zn(1)-N(3)#2	136.49(17)
O(1)-Zn(1)-N(3)#2	136.49(17)	O(1)#1-Zn(1)-N(1)	88.3(2)
O(1)-Zn(1)-N(1)	88.3(2)	N(3)#2-Zn(1)-N(1)	91.7(3)
O(1)#1-Zn(1)-N(2)#3	93.0(2)	O(1)-Zn(1)-N(2)#3	93.0(2)
N(3)#2-Zn(1)-N(2)#3	86.4(3)	N(1)-Zn(1)-N(2)#3	178.2(3)

Symmetry codes for **1**: (#1) x, -y+1, z; (#2) x+1/2, y+1/2, z; (#3) x, y, z+1. **2**: (#1) x, -y, z; (#2) x+1/2, y-1/2, z; (#3) x, y, z-1.

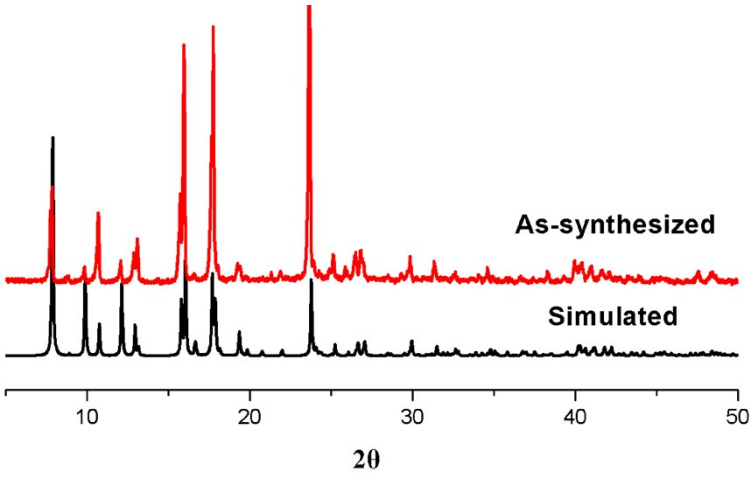

Fig. S1 PXRD patterns of simulated from the single-crystal data of compound **1** (black); as-synthesized (red).

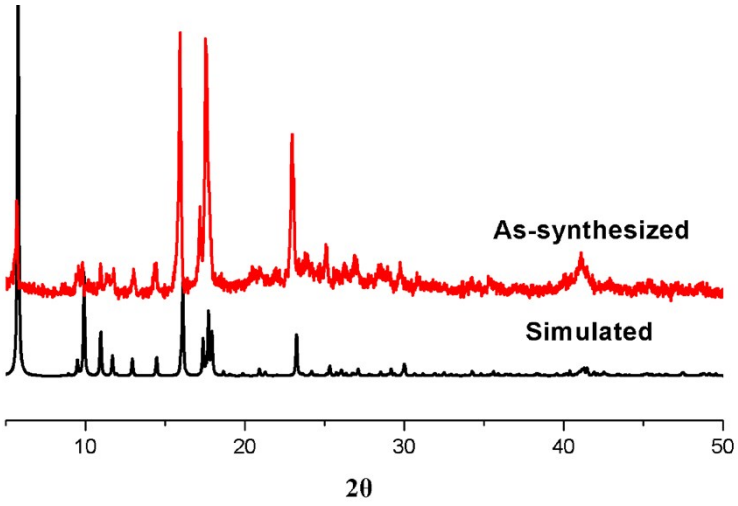

Fig. S2 PXRD patterns of simulated from the single-crystal data of compound **2** (black); as-synthesized (red).

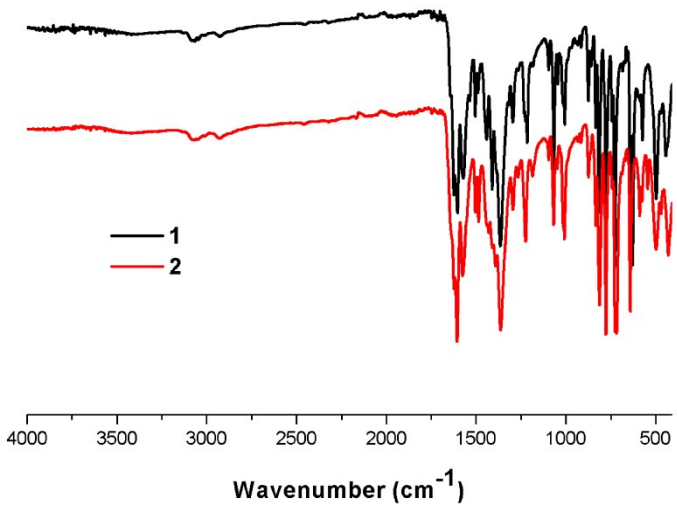

Fig. S3 IR spectra for compounds **1** and **2**.

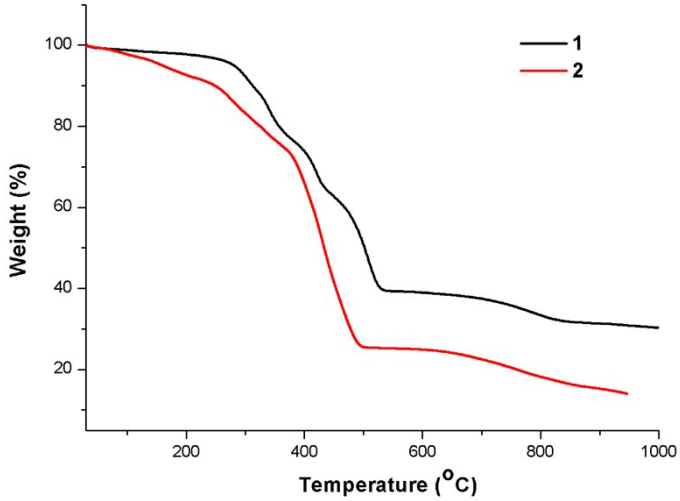

Fig. S4 TGA curves for compounds **1** and **2**.

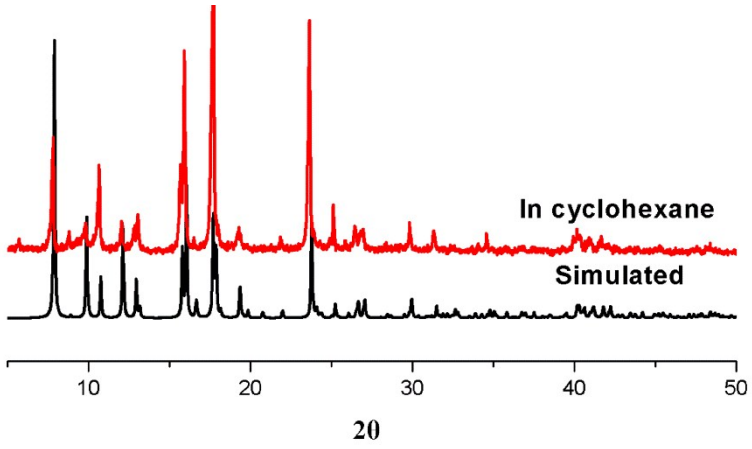

Fig. S5 PXRD patterns of simulated from the single-crystal data of compound **1** (black); in cyclohexane (red).

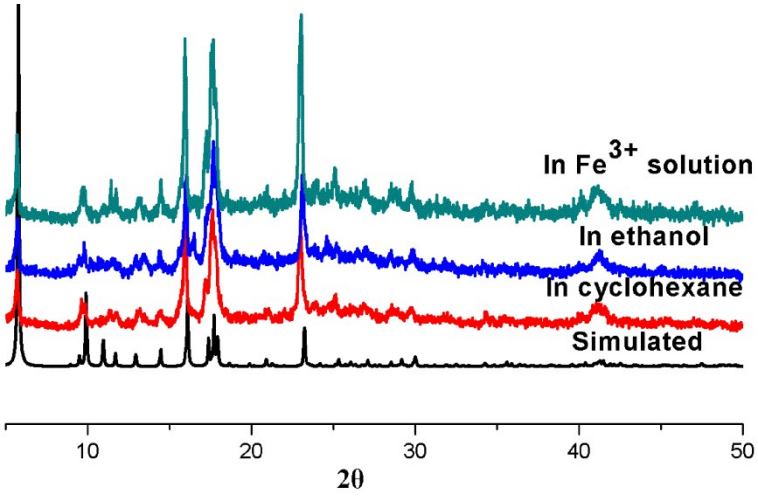

Fig. S6 PXRD patterns of simulated from the single-crystal data of compound **2** (black); in cyclohexane (red); in ethanol (blue); in Fe^{3+} solution (green).

Fig. S7 Color changes of the ethanol solution with time in the I_2 release process.

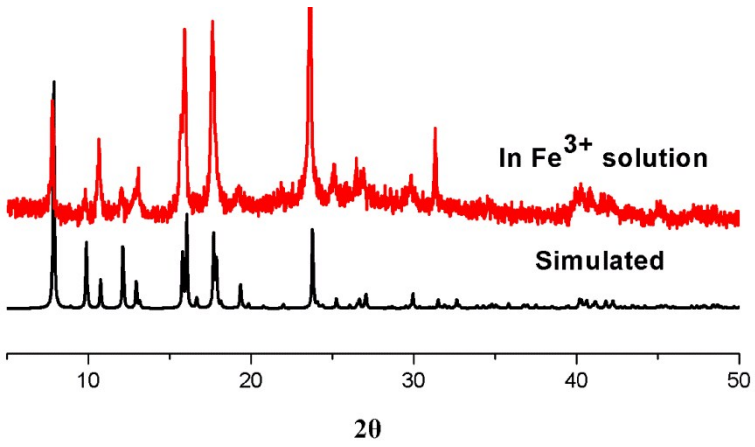

Fig. S8 PXRD patterns of simulated from the single-crystal data of compound **1** (black) and in Fe^{3+} solution (red).

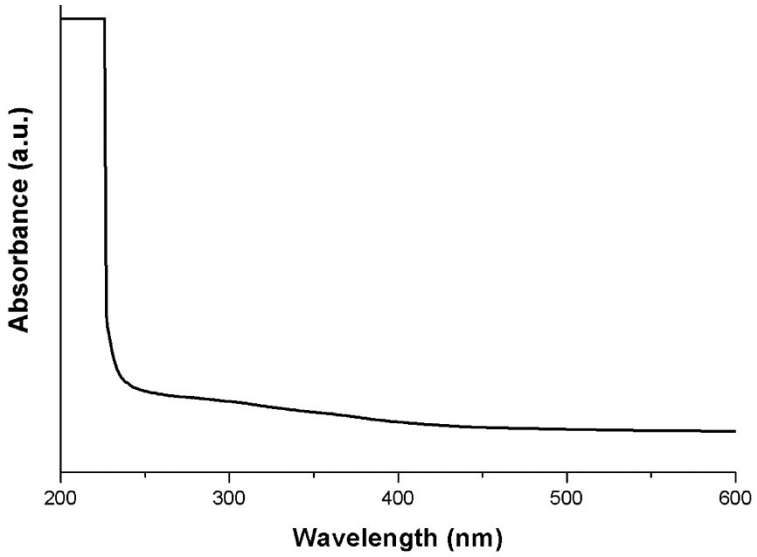

Fig. S9 UV-vis adsorption spectrum of $Fe(NO_3)_3$ aqueous solution.