

## A photoluminescent microporous metal organic anionic framework for nitroaromatic explosive sensing

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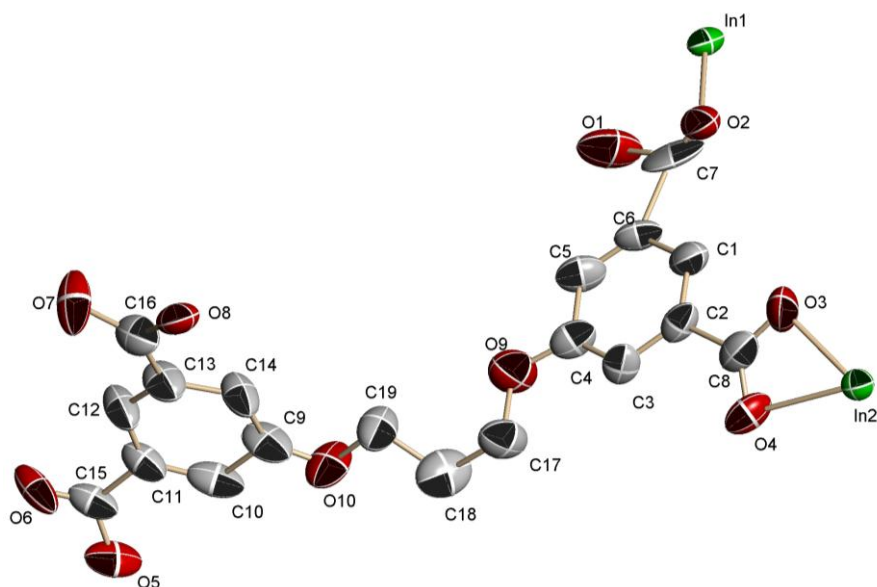
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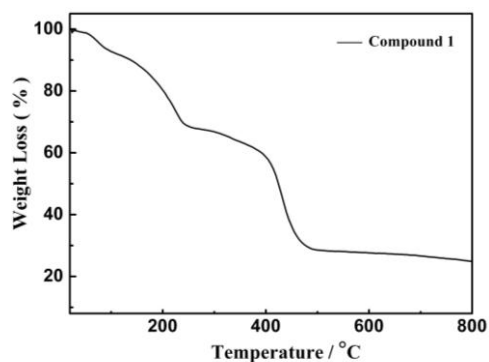
**Table S1.** Selected bond lengths (Å) and angles (deg) for **1**

In1—O2	2.112(6)	In2—O3	2.140(7)	In2—O5 <sup>v</sup>	2.434(7)
In1—O7 <sup>ii</sup>	2.175(6)	In2—O6 <sup>v</sup>	2.152(7)		
In1—O8 <sup>ii</sup>	2.278(5)	In2—O4	2.381(6)		
O2 <sup>i</sup> —In1—O2	117.2(3)	O3—In2—O3 <sup>iv</sup>	80.5(5)	O3—In2—O5 <sup>v</sup>	90.9(3)
O2—In1—O7 <sup>ii</sup>	112.7(3)	O3—In2—O6 <sup>v</sup>	138.0(3)	O6 <sup>v</sup> —In2—O5 <sup>v</sup>	53.9(2)
O2—In1—O7 <sup>iii</sup>	81.5(3)	O3—In2—O6 <sup>vi</sup>	110.0(3)	O6 <sup>vi</sup> —In2—O5 <sup>v</sup>	138.3(2)
O7 <sup>ii</sup> —In1—O7 <sup>iii</sup>	153.4(3)	O6 <sup>v</sup> —In2—O6 <sup>vi</sup>	89.4(4)	O4—In2—O5 <sup>v</sup>	78.4(2)
O2 <sup>i</sup> —In1—O8 <sup>ii</sup>	145.1(3)	O3—In2—O4	55.3(3)	O3—In2—O5 <sup>vi</sup>	79.4(2)
O2—In1—O8 <sup>ii</sup>	87.4(2)	O6 <sup>v</sup> —In2—O4	91.8(2)	O4—In2—O5 <sup>vi</sup>	102.22(19)
O7 <sup>ii</sup> —In1—O8 <sup>ii</sup>	65.5(3)	O6 <sup>vi</sup> —In2—O4	84.6(2)	O5 <sup>v</sup> —In2—O5 <sup>vi</sup>	167.3(3)
O2 <sup>i</sup> —In1—O8 <sup>iii</sup>	87.4(2)	O3—In2—O4 <sup>iv</sup>	129.5(3)		
O7 <sup>ii</sup> —In1—O8 <sup>iii</sup>	94.2(3)	O4—In2—O4 <sup>iv</sup>	174.9(3)		
O8 <sup>ii</sup> —In1—O8 <sup>iii</sup>	84.1(3)				

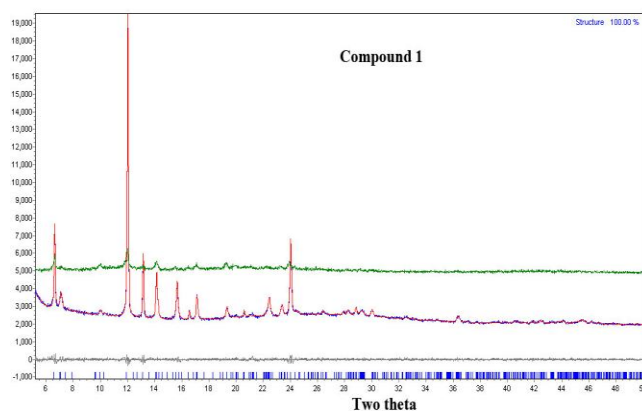
Symmetry transformations: (i) 1-x, y, 1.5-z; (ii) x, 1+y, z; (iii) 1-x, 1+y, 1.5-z; (iv) x, 2-y, 2-z; (v) 2-x, 1-y, 0.5+z; (vi) 2-x, 1+y, 1.5-z; (vii) 2-x, 1-y, -0.5+z; (viii) x, -1+y, z; (ix) 2-x, y, 1.5-z.



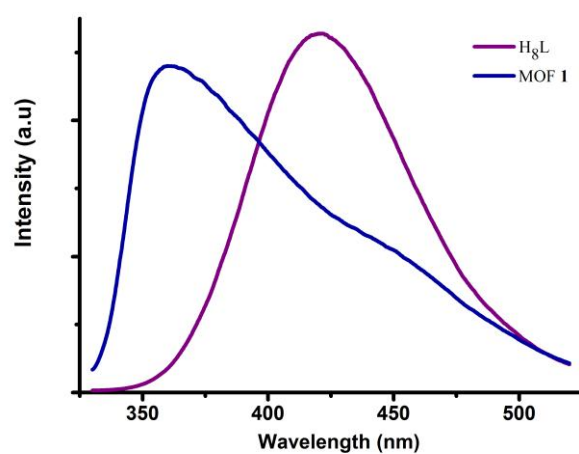
**Fig. S1.** An ORTEP drawing of the asymmetric unit of **1** (with thermal ellipsoids at 30% probability). The H atoms and guest molecules are omitted for clarity.



**Fig. S2** TGA curve of compound **1**.



**Fig. S3** PXRD patterns of **1**: The red, blue, and gray lines are the calculated, the as-synthesized and the difference between the calculated and the as-synthesized. The blue bars are the calculated Bragg positions. The best fitting results for **1**:  $a = 12.537(9)$ ,  $b = 13.483(5)$ ,  $c = 25.13(2)$  Å. The green line is that of the activated sample after gas adsorption measurements.



**Fig. S4** Solid-state photoluminescent spectra of **1** and ligand H<sub>8</sub>L at room temperature.