

## Supporting Information for

# A Chiral Salen-based MOF Catalytic Material with highly thermal, aqueous and chemical stabilities

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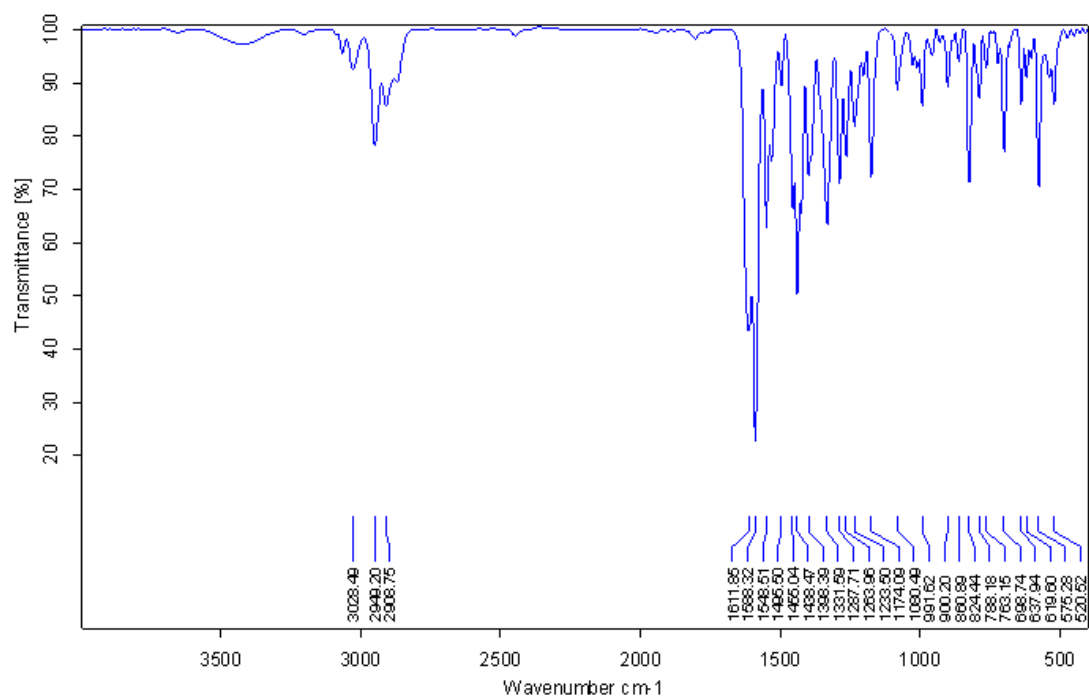
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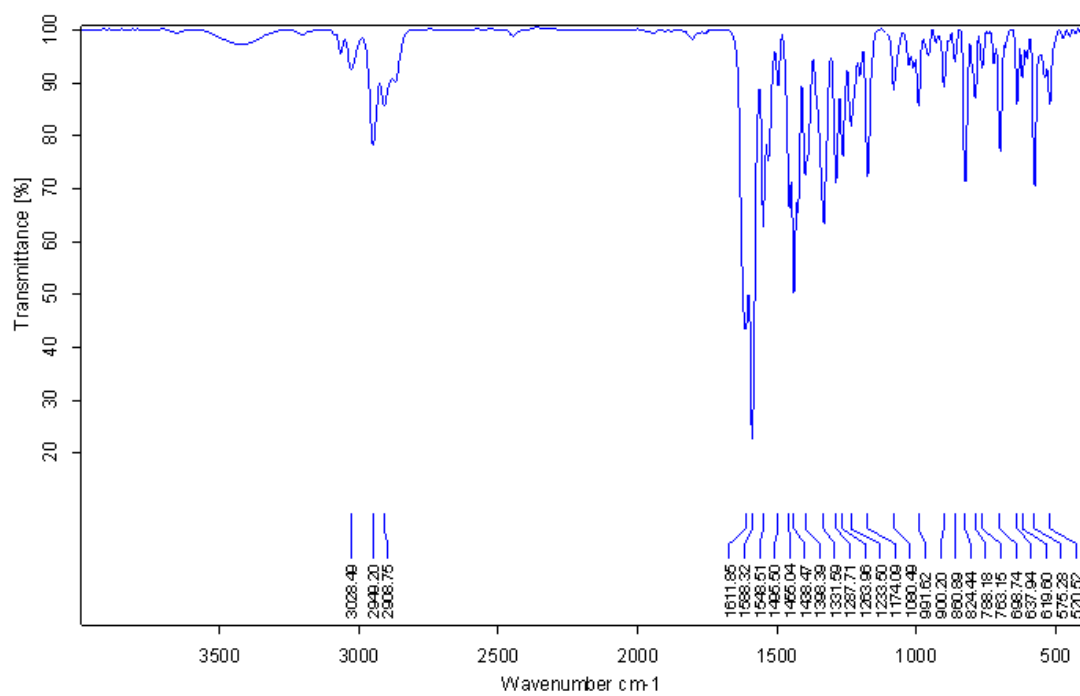
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**Figure S1.** IR spectrum of L



**Figure S2.** IR spectrum of 1

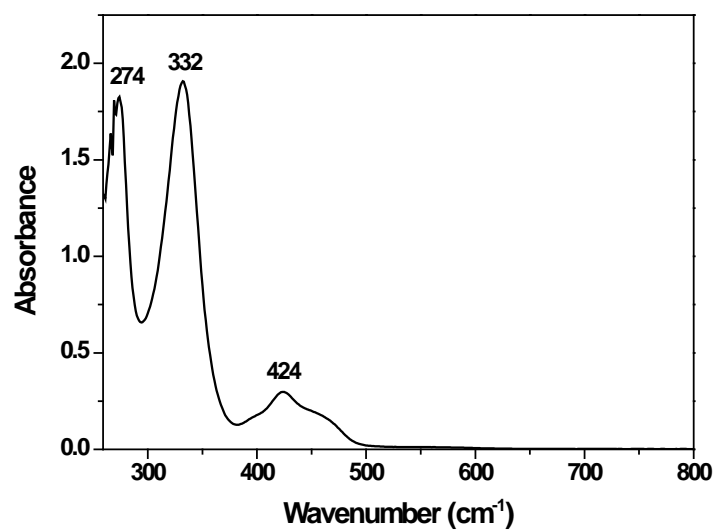


Figure S3. UV-vis spectrum of L

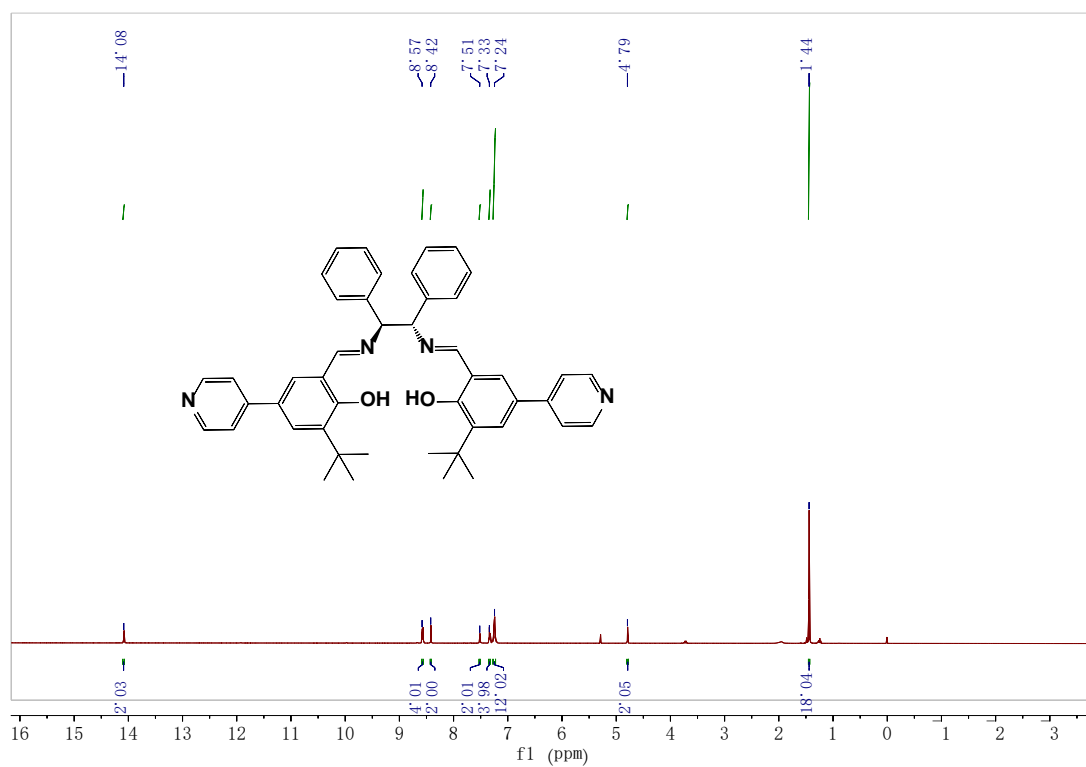


Figure S4. <sup>1</sup>H NMR of L

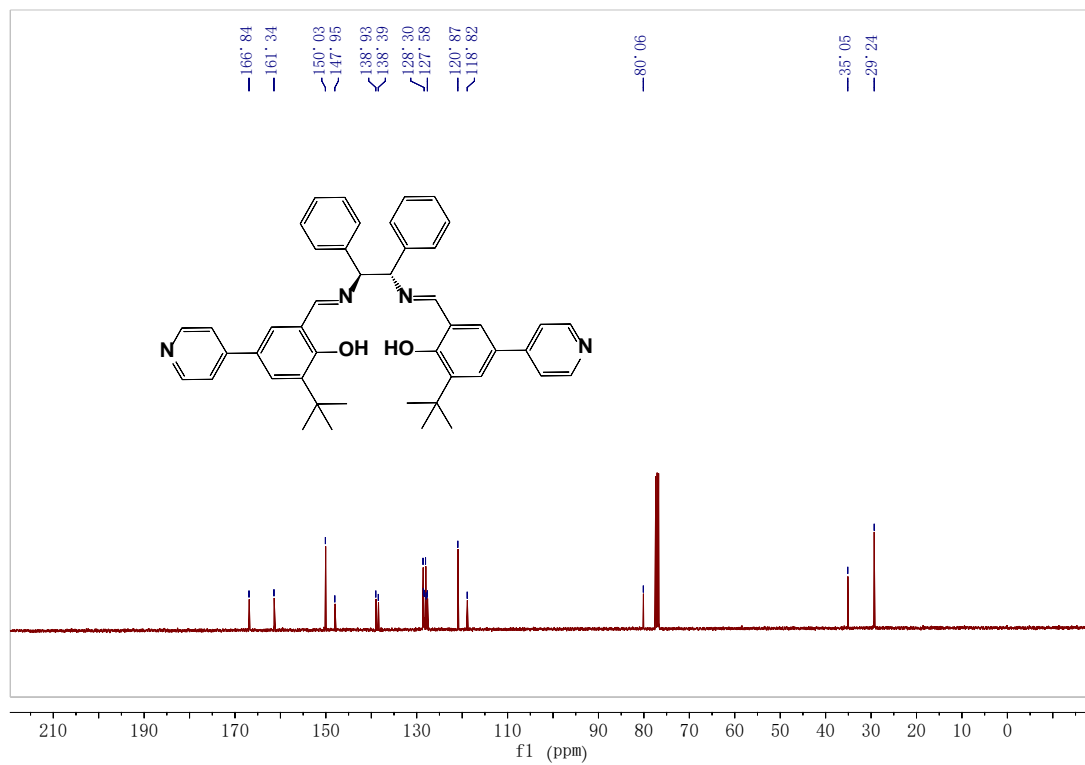


Figure S5. <sup>13</sup>C NMR of L

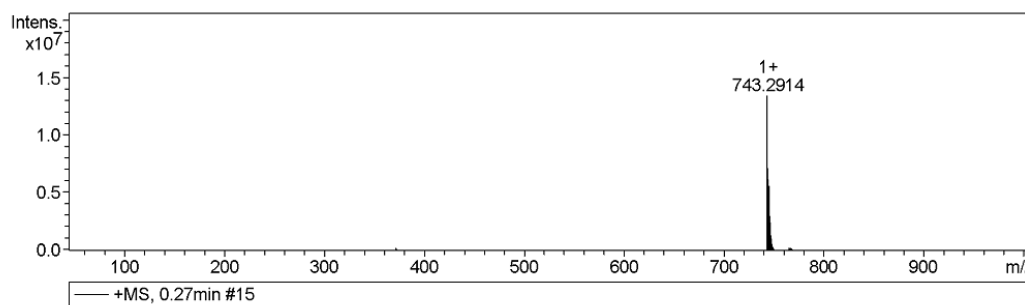
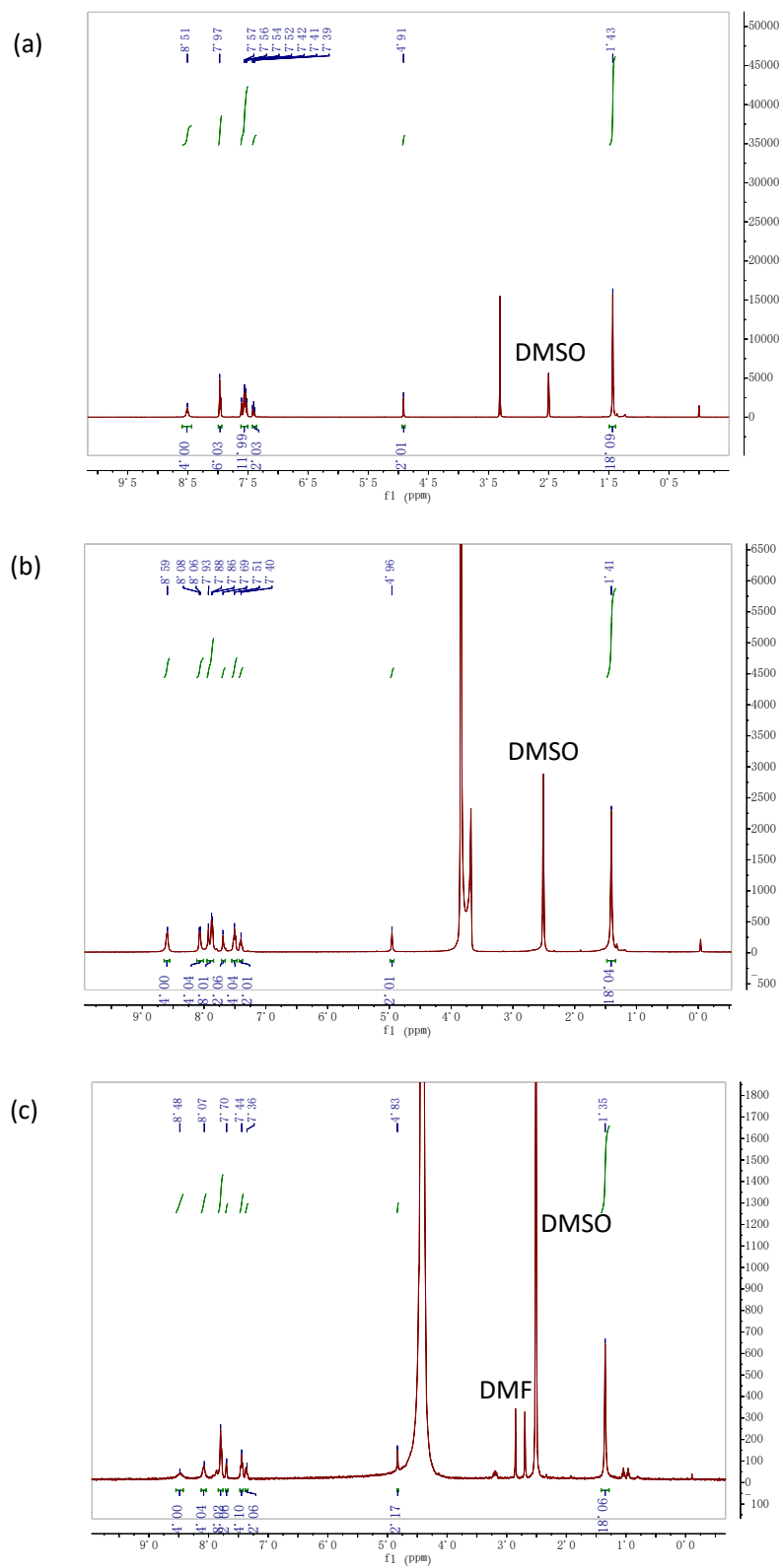


Figure S6. HR-MS of L



**Figure S7.** (a)  $^1\text{H}$  NMR of NiL in *d*-DMSO; (b)  $^1\text{H}$  NMR of NiL in *d*-DCl and *d*-DMSO (V/V, 1:1); (c)  $^1\text{H}$  NMR of **1** after dissolved in *d*-DCl and *d*-DMSO (V/V, 1:1).

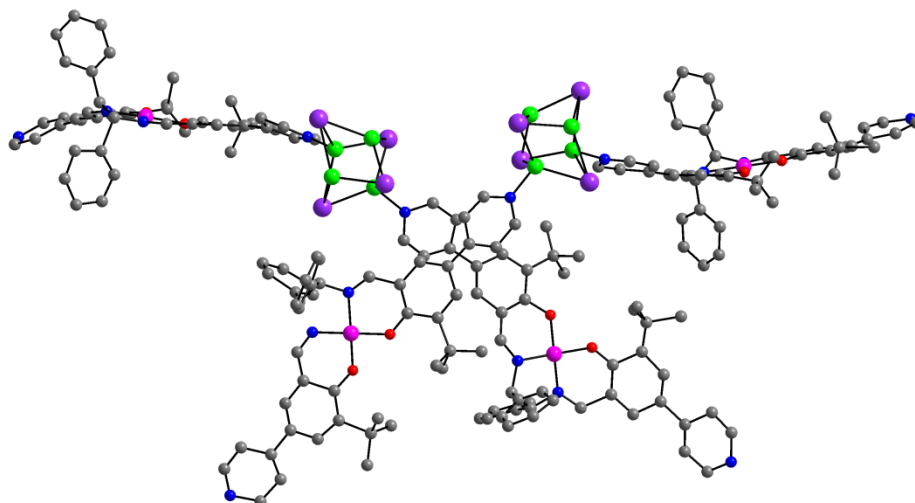


Figure S8. Asymmetric unit of 1

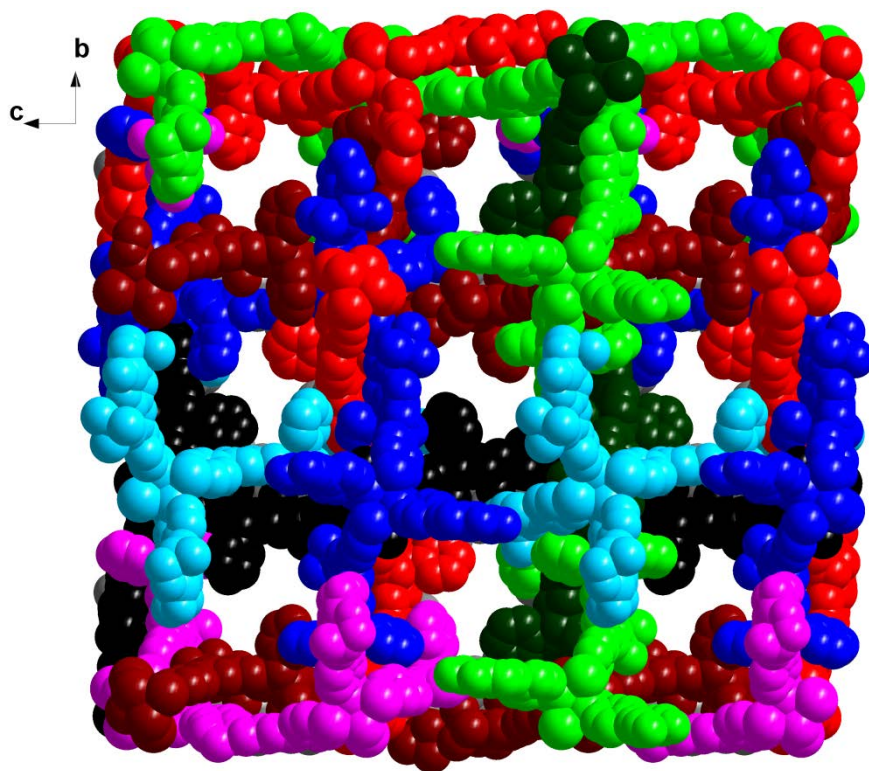


Figure S9. Space-filling model of the 8-fold interpenetrated framework along *a* axis

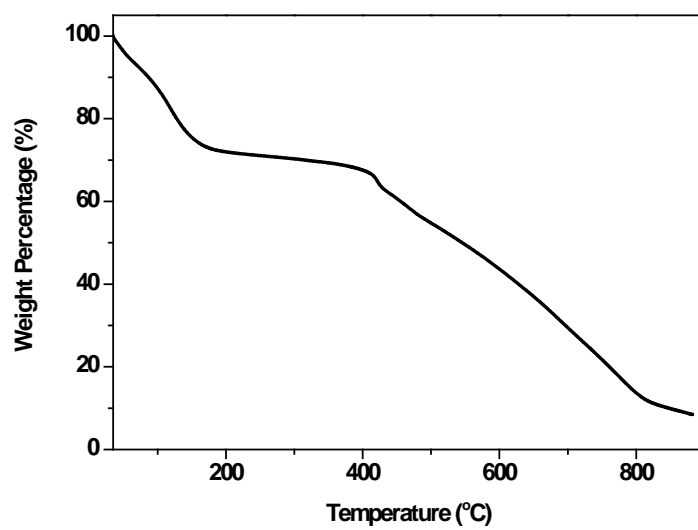
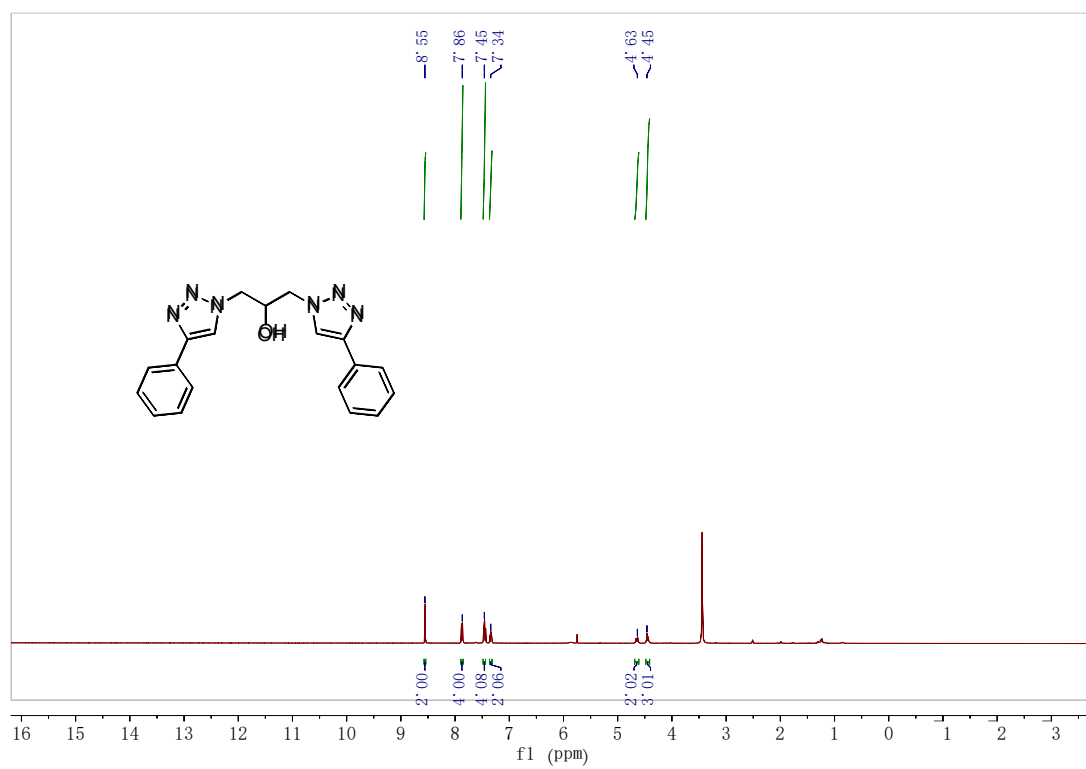
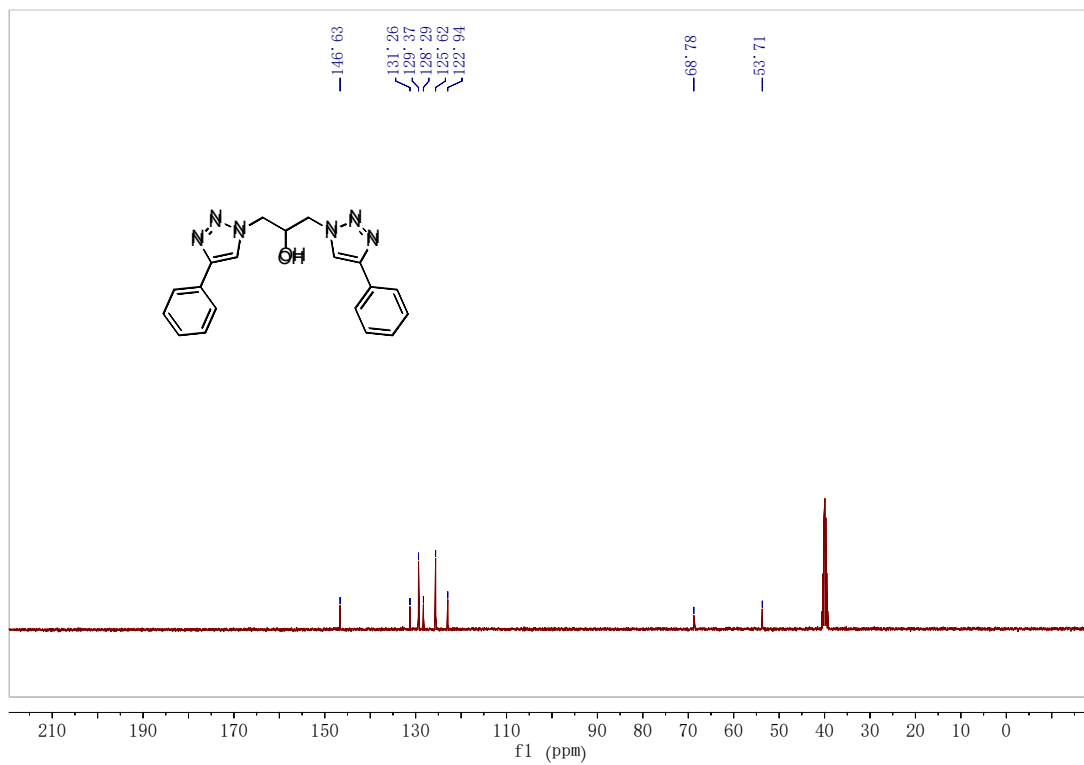


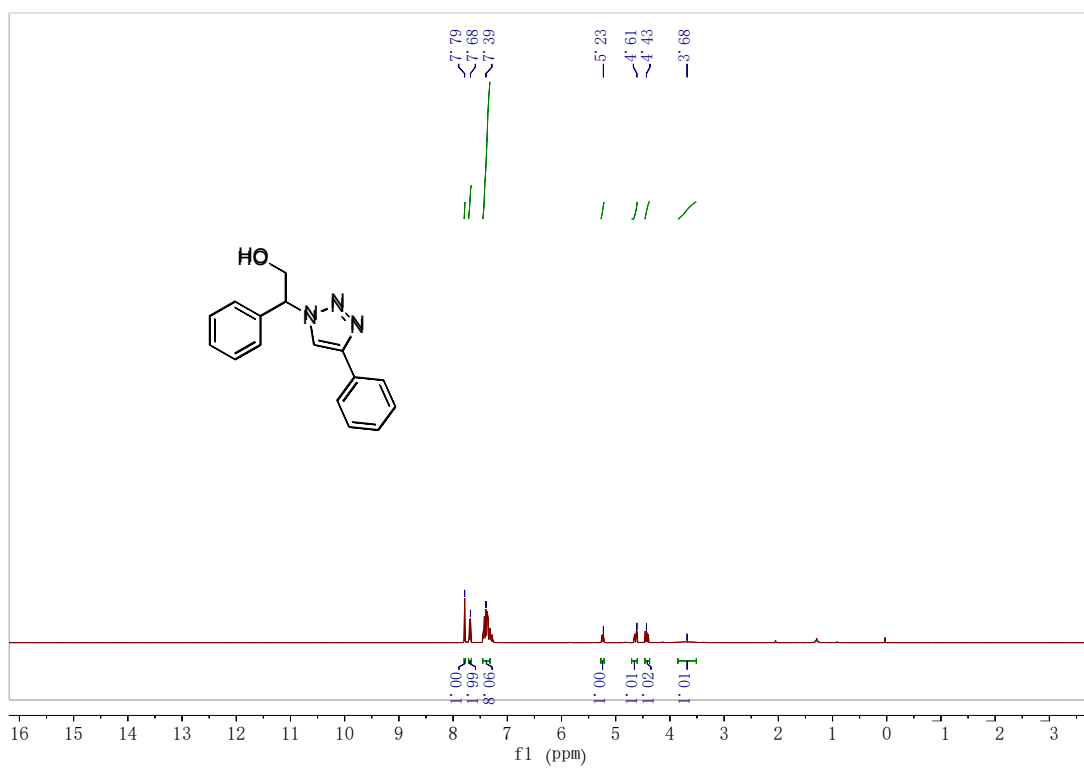
Figure S10. TG curve of 1



<sup>1</sup>H NMR

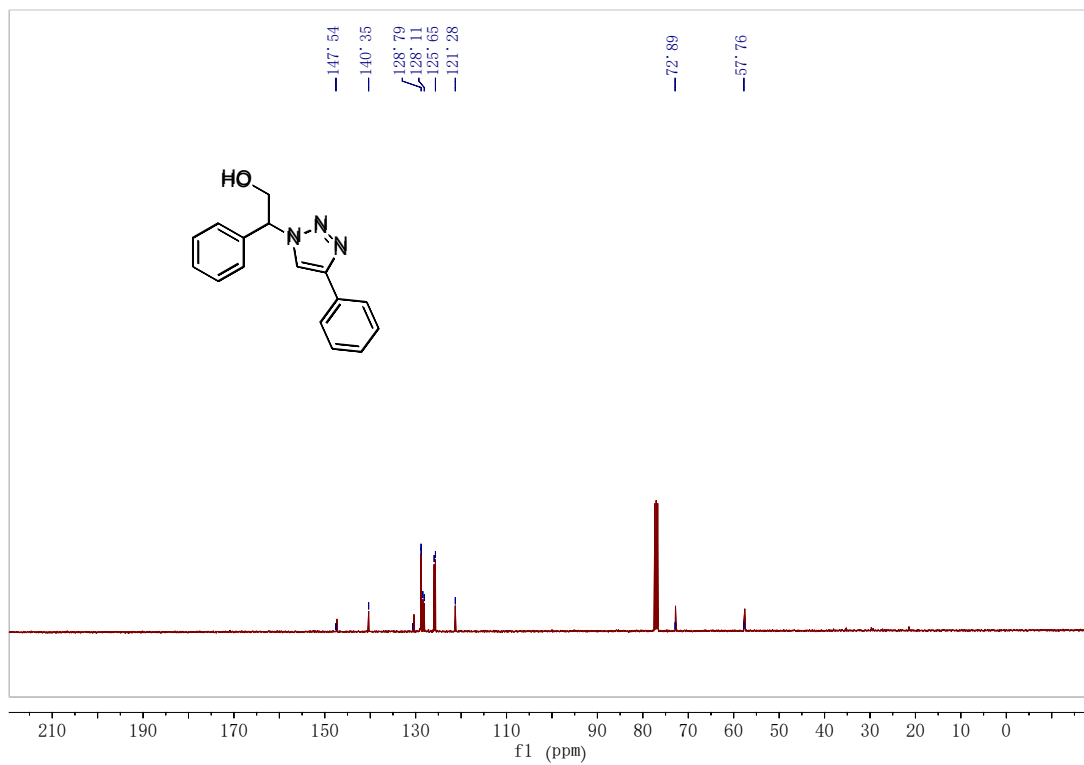


<sup>13</sup>C NMR

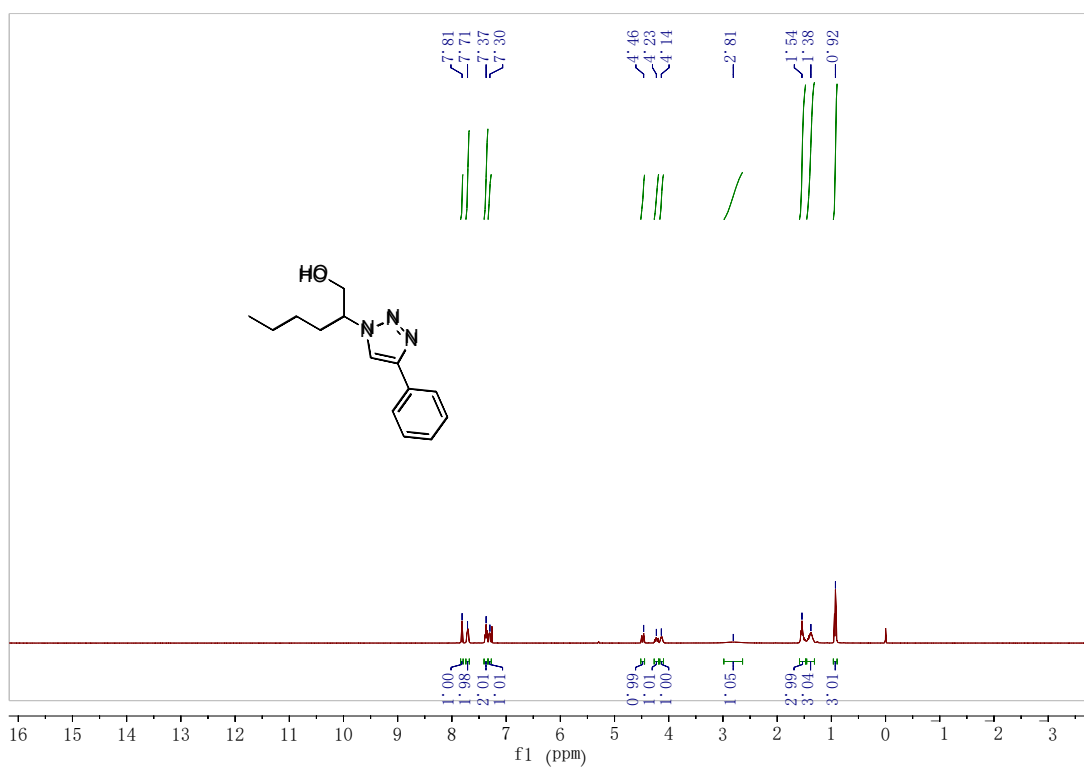


<sup>1</sup>H NMR

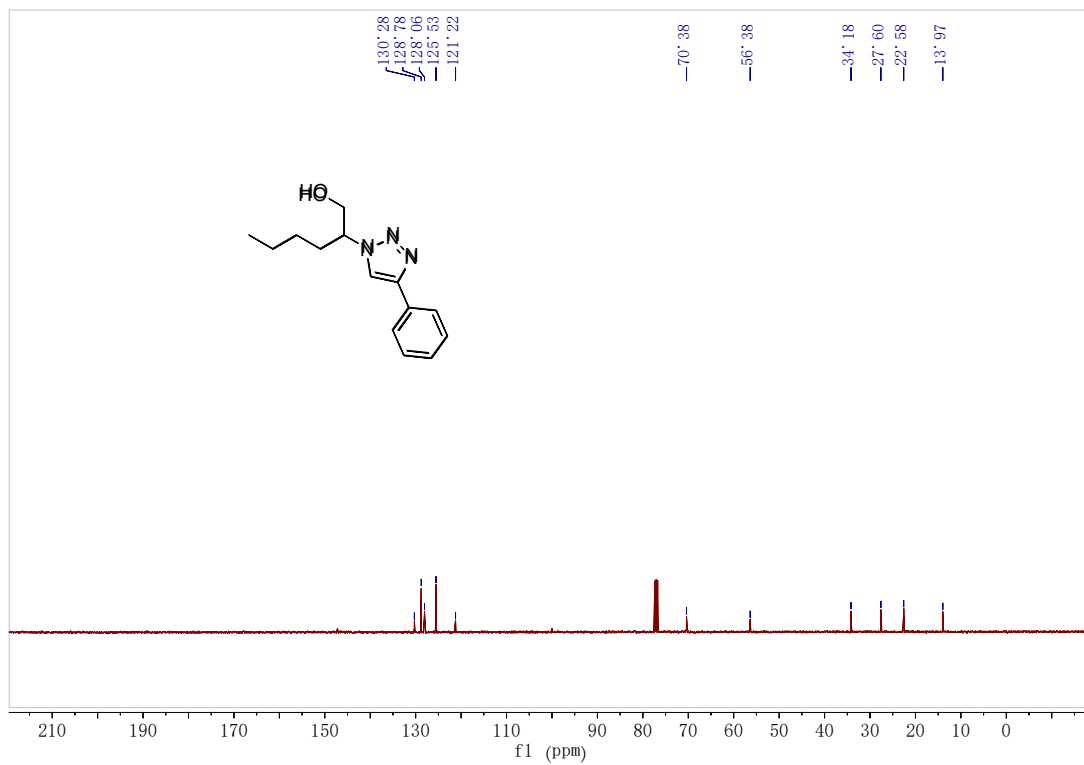




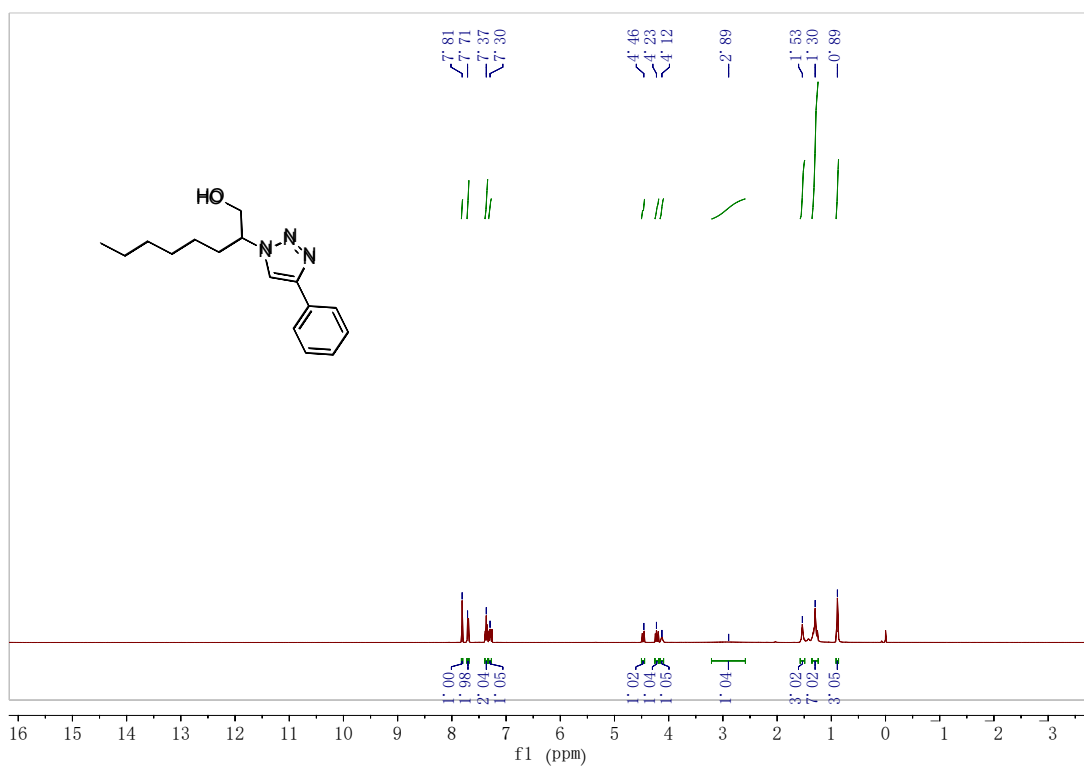
<sup>13</sup>C NMR



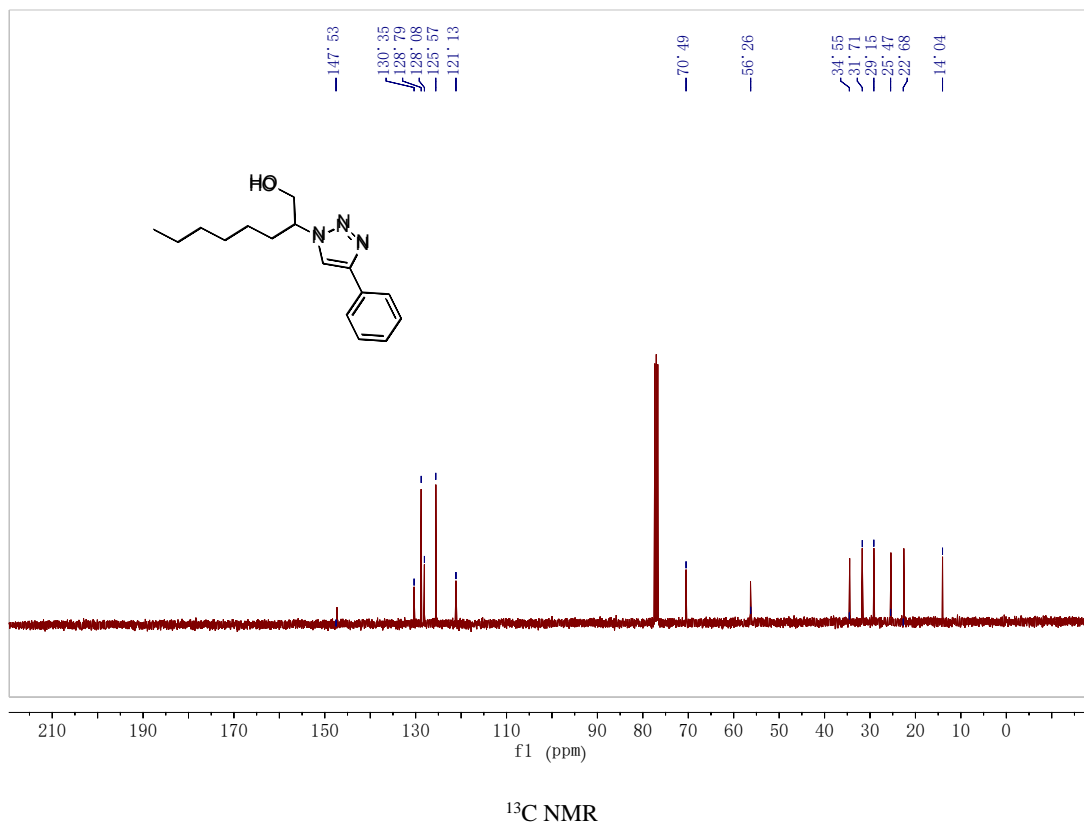
<sup>1</sup>H NMR



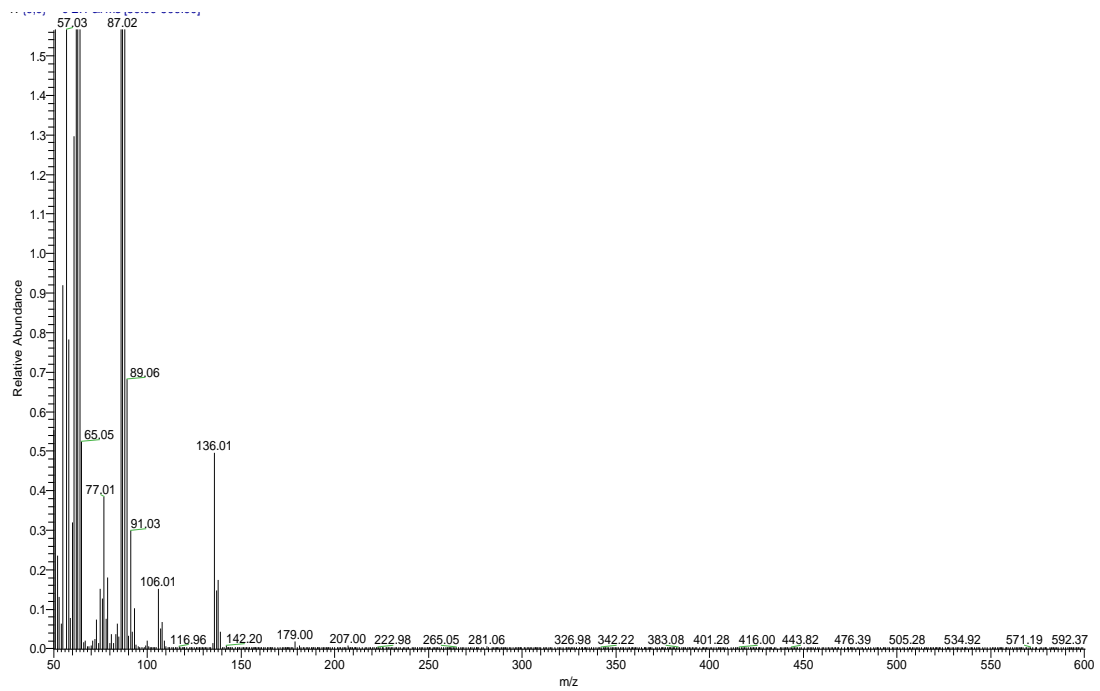
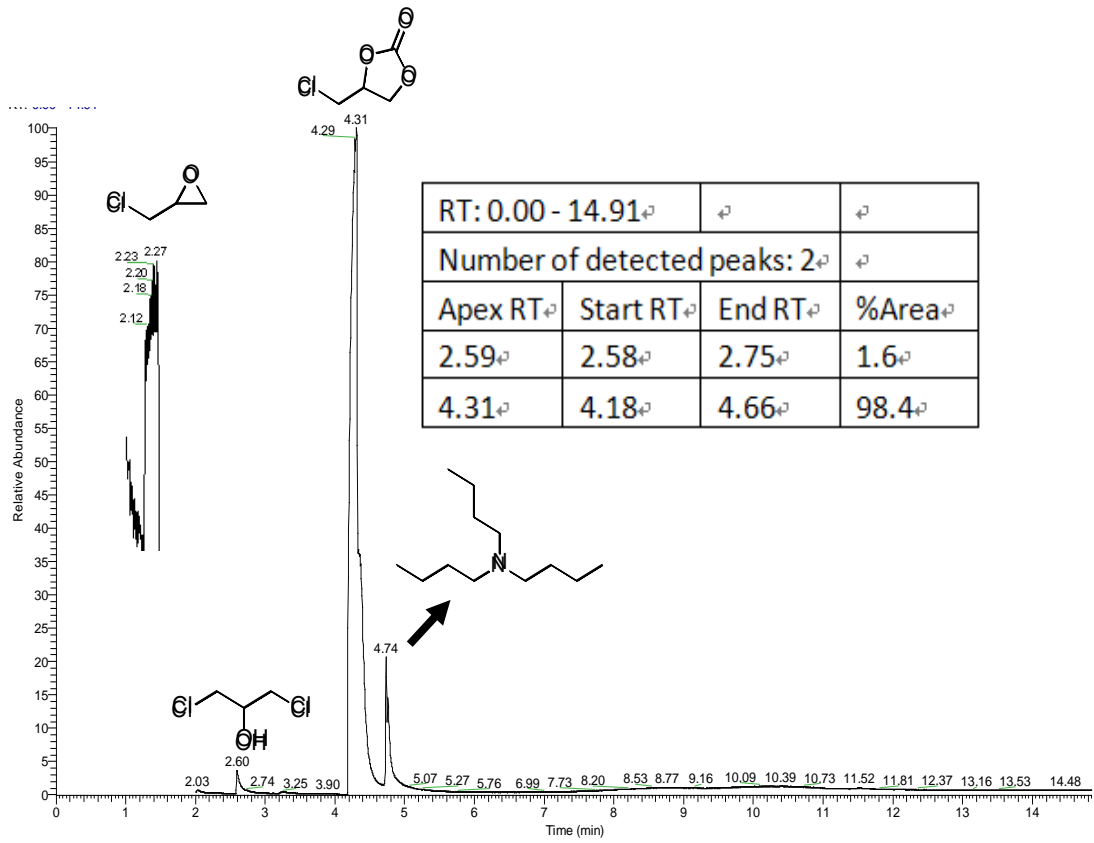
<sup>13</sup>C NMR



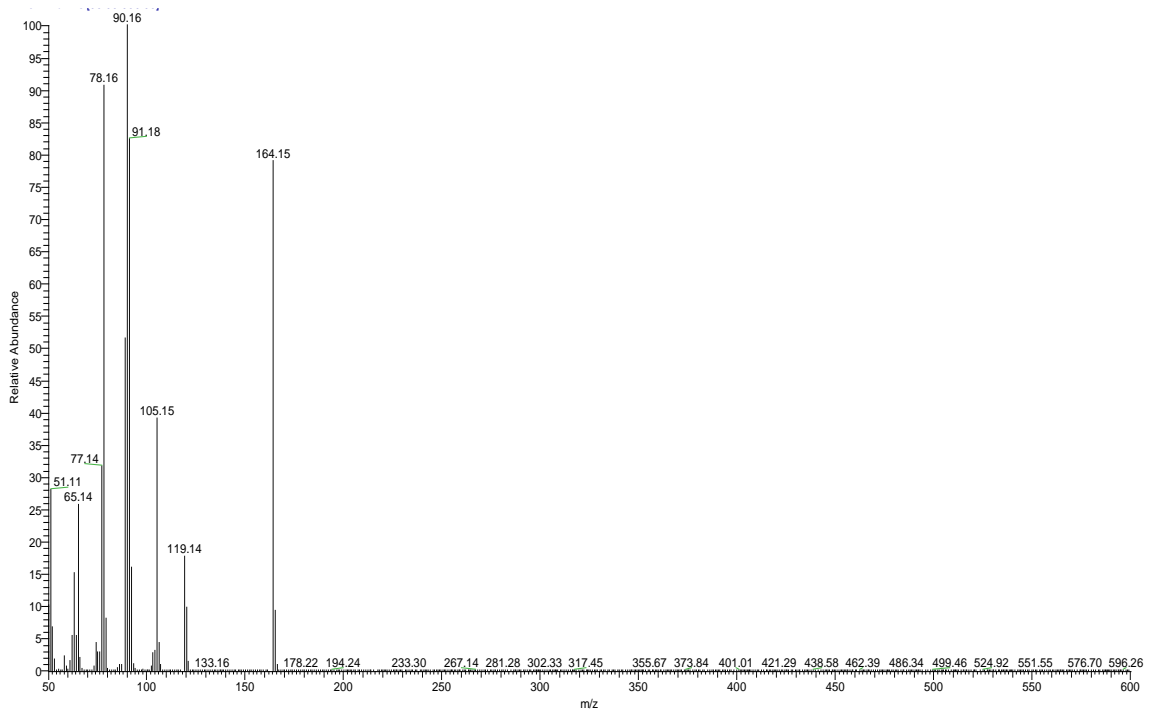
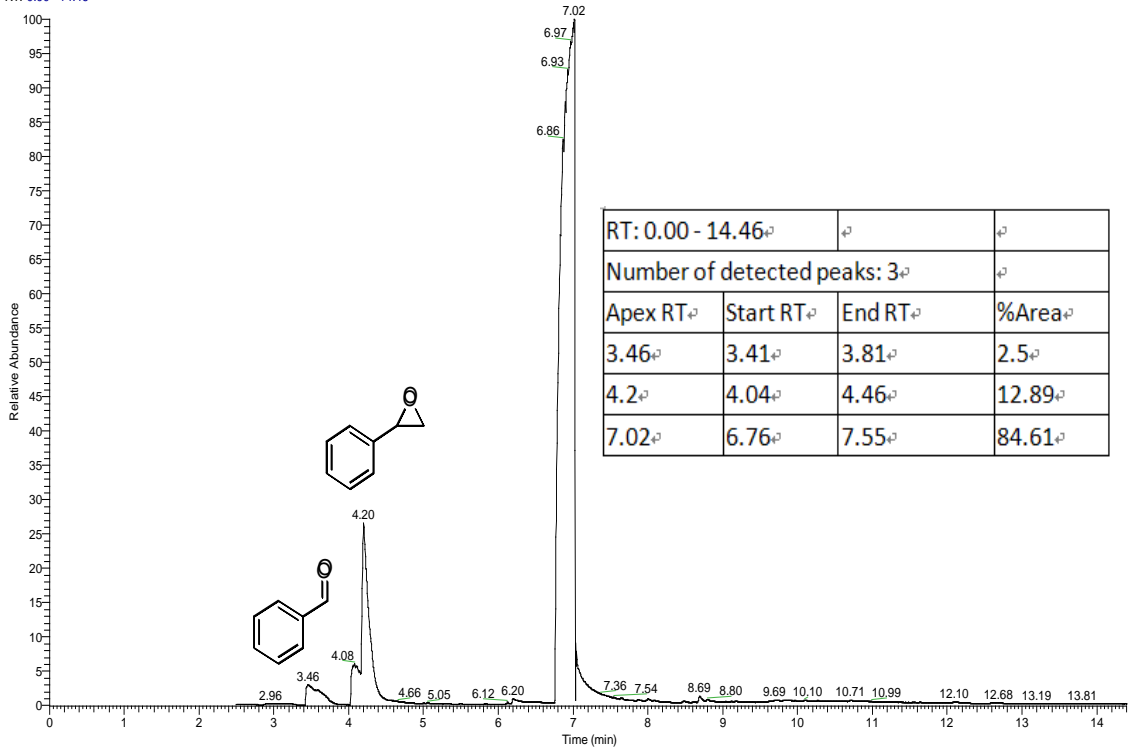
<sup>1</sup>H NMR

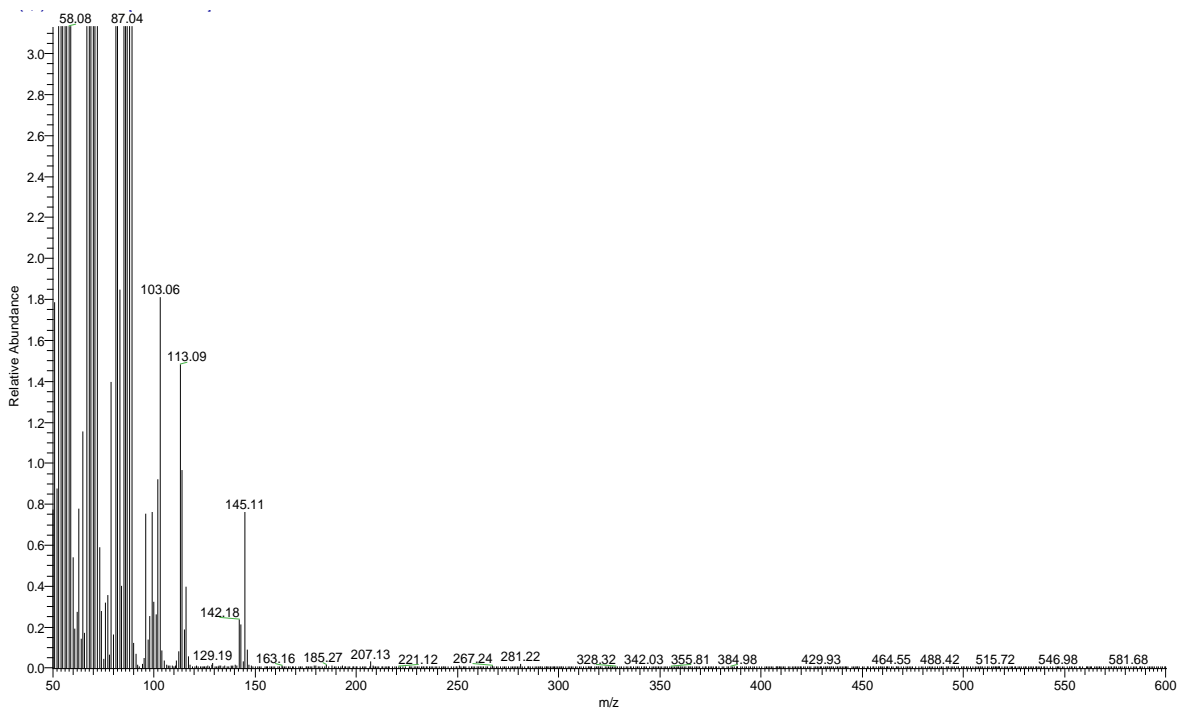
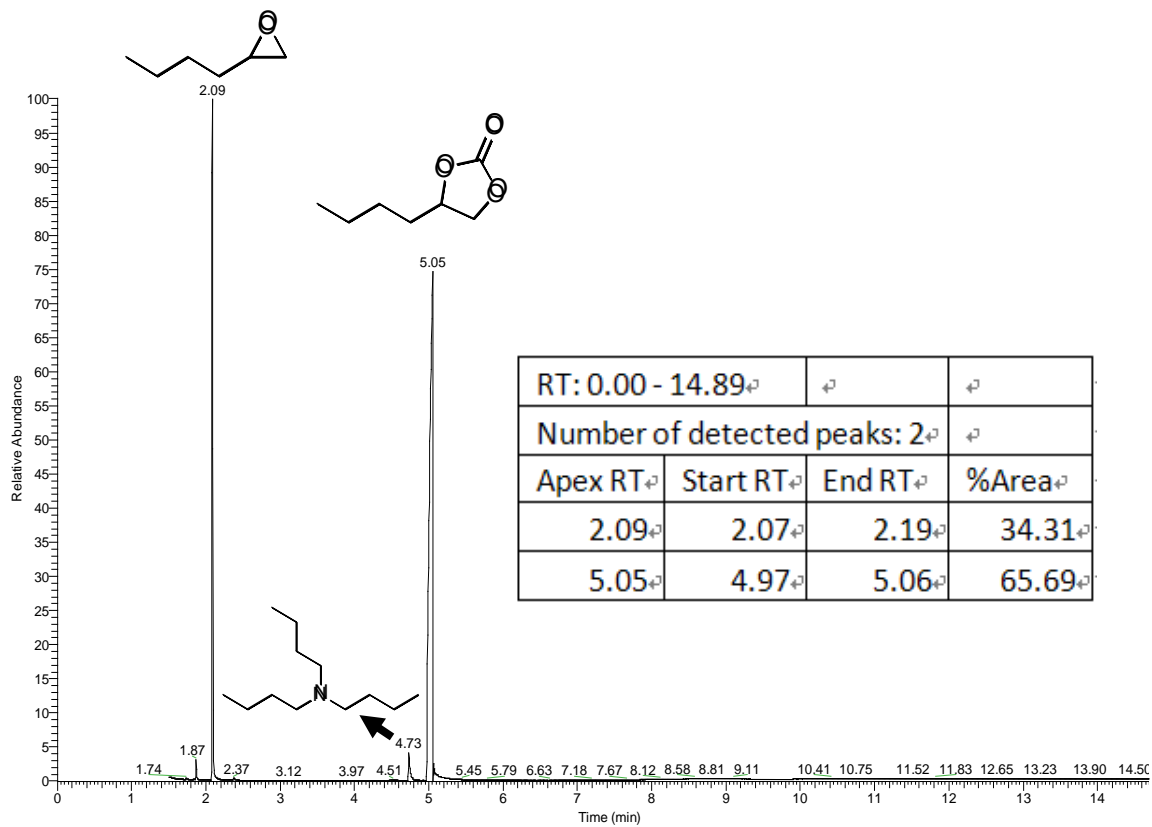


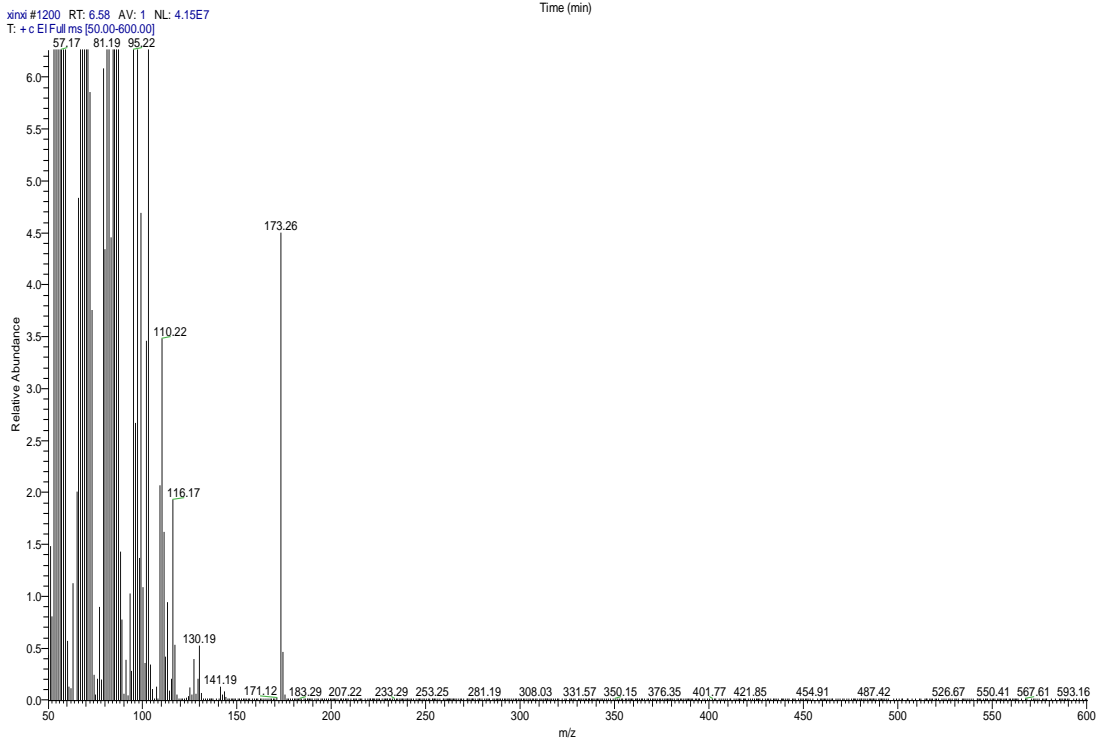
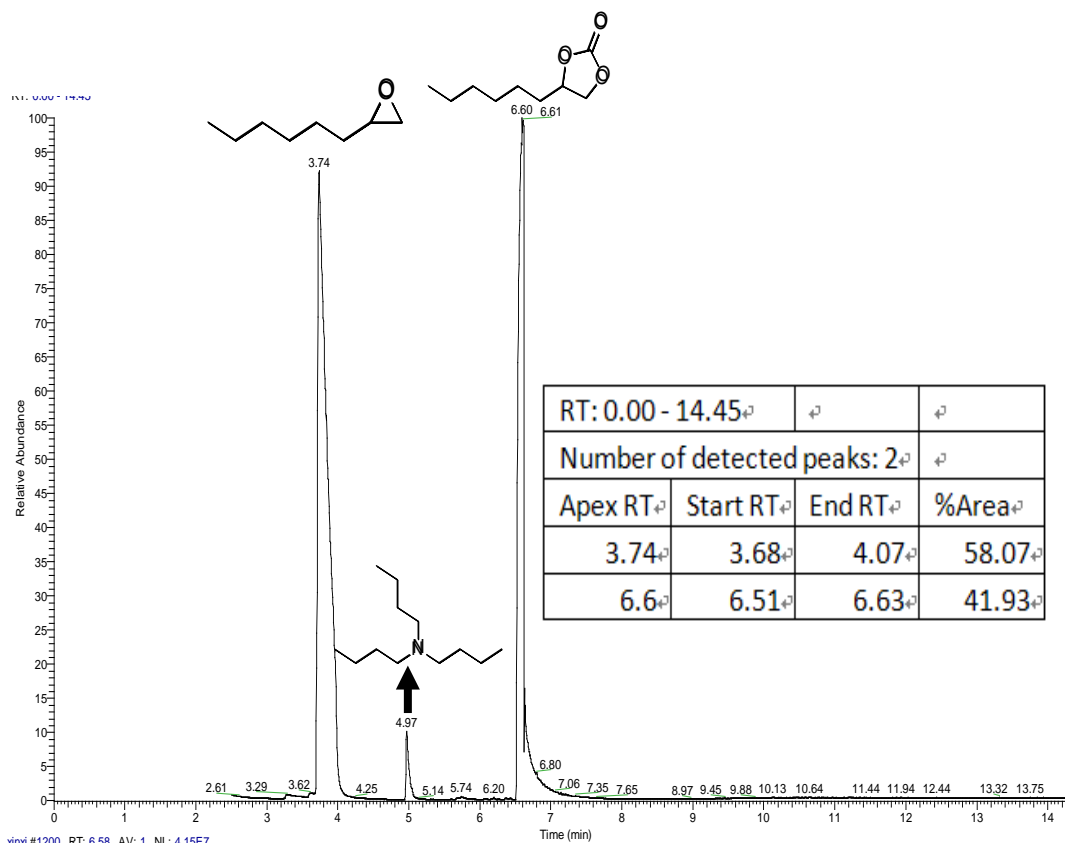
**Figure S11.** NMR spectra of β-hydroxy-1,2,3-triazoles



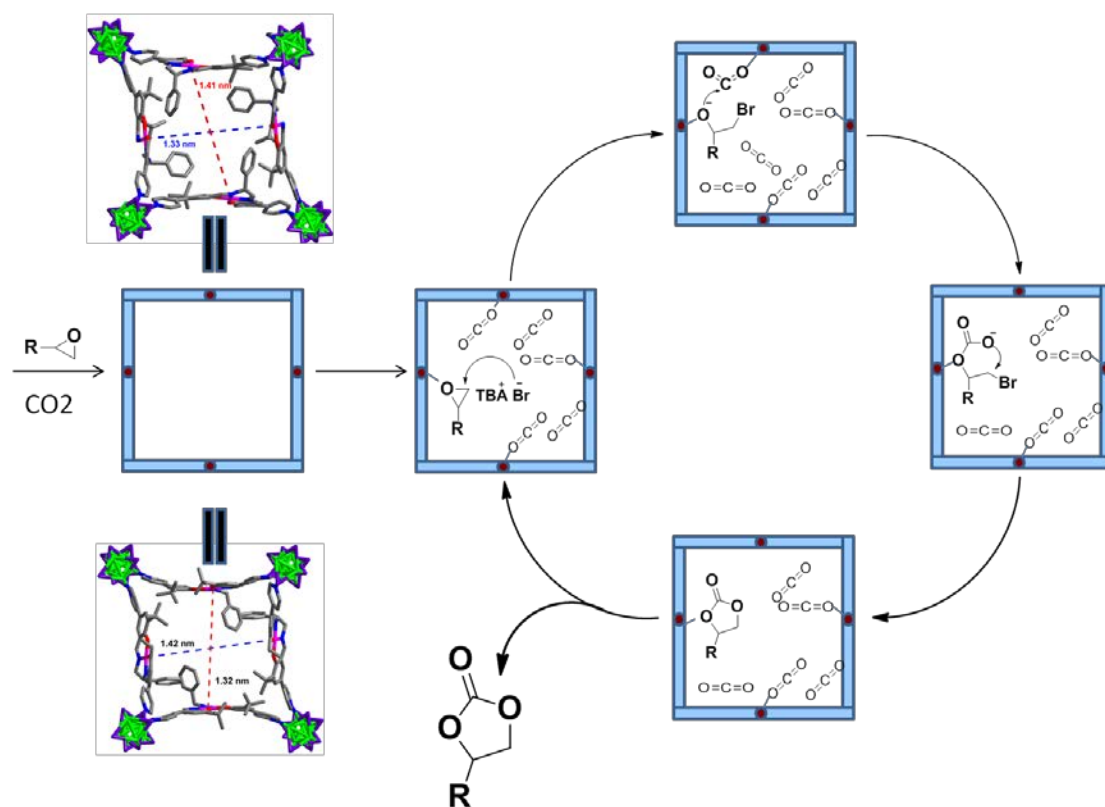
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**Figure S12.** GC-MS analyses of the cyclic carbonates



**Figure S13.** Proposed mechanism for the cycloaddition of CO<sub>2</sub> with epoxides catalyzed by **1**



**Table S1. BET plot data for 1**

<b>BET Surface Area:</b>	527.7582 ± 3.3610 m <sup>2</sup> /g
<b>Slope:</b>	0.008244 ± 0.000052 g/cm <sup>3</sup> STP
<b>Y-Intercept:</b>	0.000003 ± 0.000003 g/cm <sup>3</sup> STP
<b>C:</b>	2873.98242
<b>Qm:</b>	121.252 cm <sup>3</sup> /g STP
<b>Correlation Coefficient:</b>	0.9999595
<b>Molecular Cross-Sectional Area:</b>	0.1620 nm <sup>2</sup>

<b>Relative Pressure</b> <b>(P/P<sub>0</sub>)</b>	<b>Quantity Adsorbed</b> <b>(cm<sup>3</sup>/g STP)</b>	<b>1/[Q(P<sub>0</sub>/P - 1)]</b>
0.020221646	120.6043	0.000171
0.030745699	123.9053	0.000256
0.055884706	128.4697	0.000461
0.084060946	131.5677	0.000698