

## ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

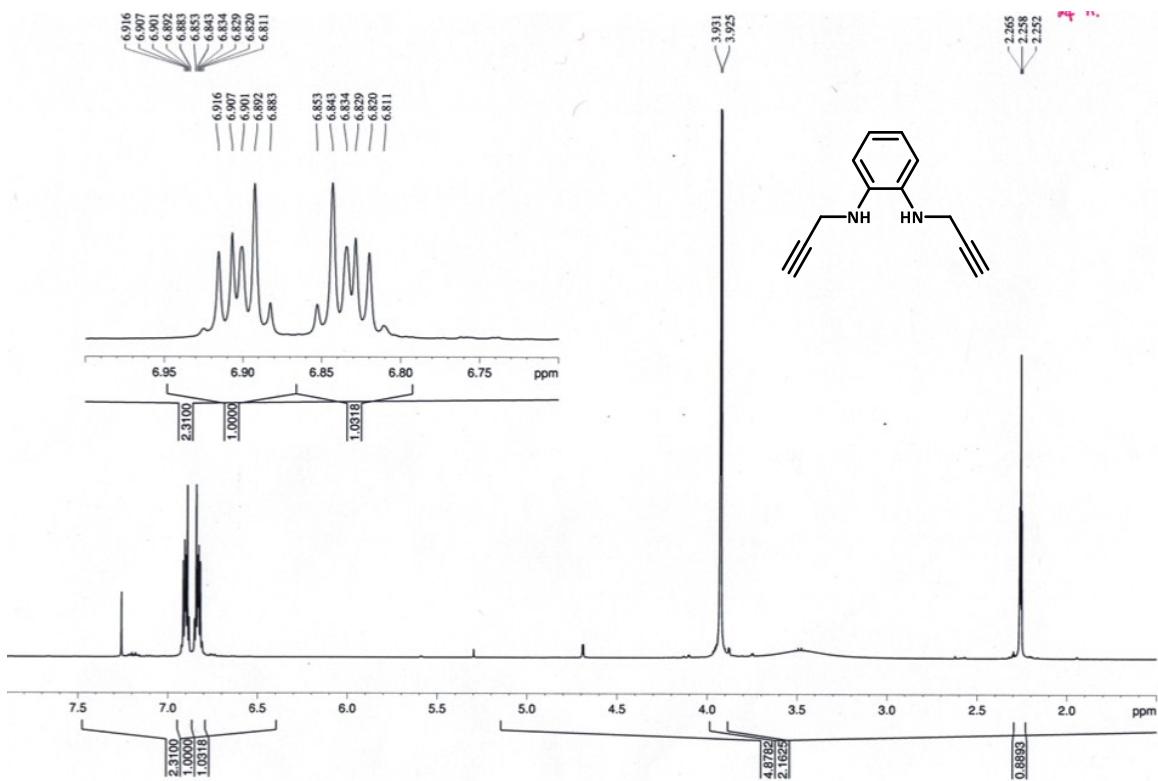
### Benzimidazole-triazole ligands with pendent triazole functionality: Unexpected formation and effects on copper-catalyzed aerobic alcohol oxidation

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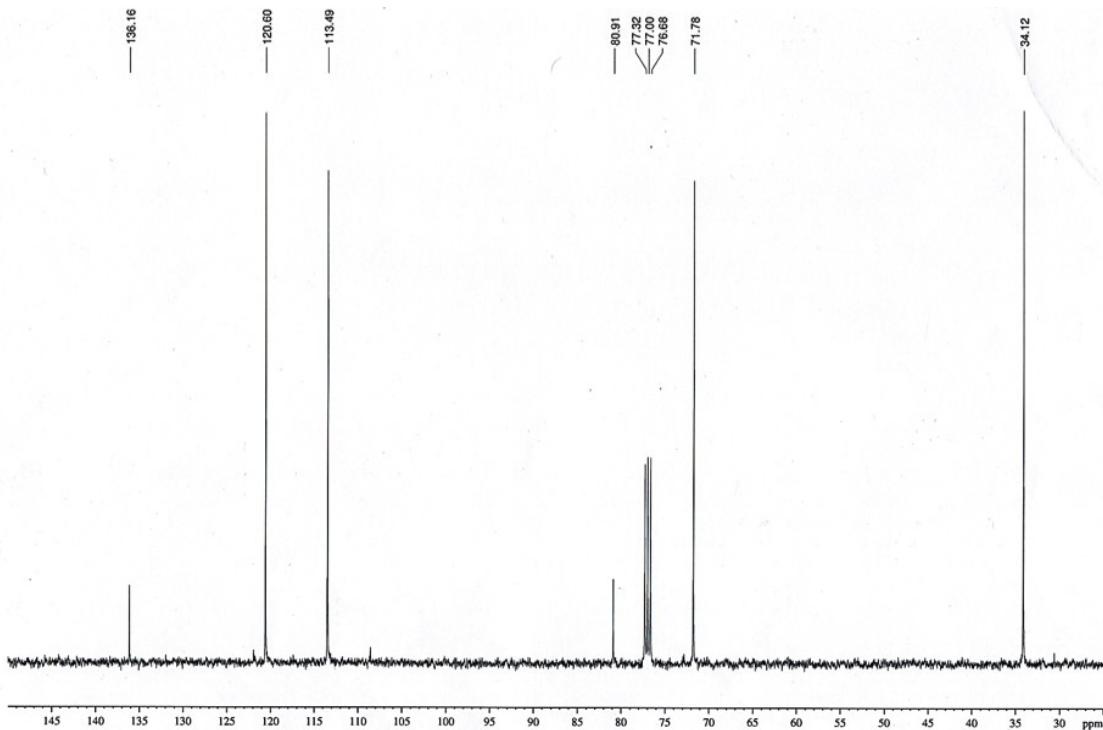
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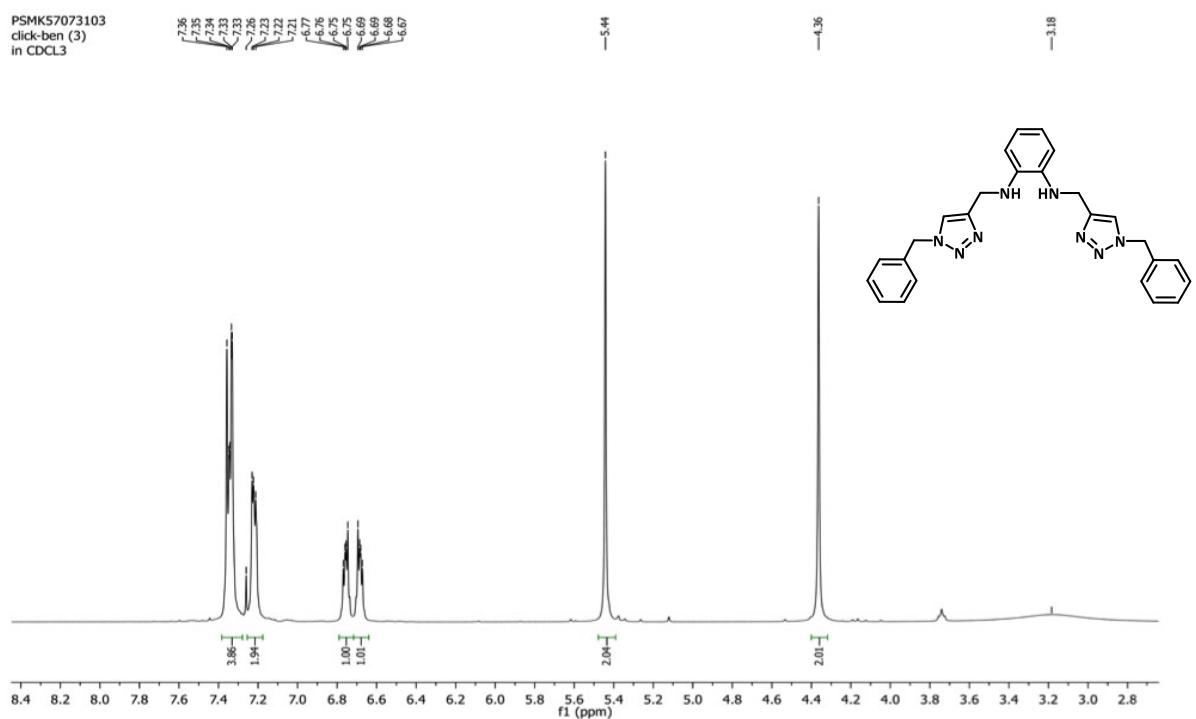
<sup>‡</sup>Center for Catalysis, Department of Chemistry, Faculty of Science, Mahidol University, 272 Rama VI Rd. Bangkok, 10400, Thailand.



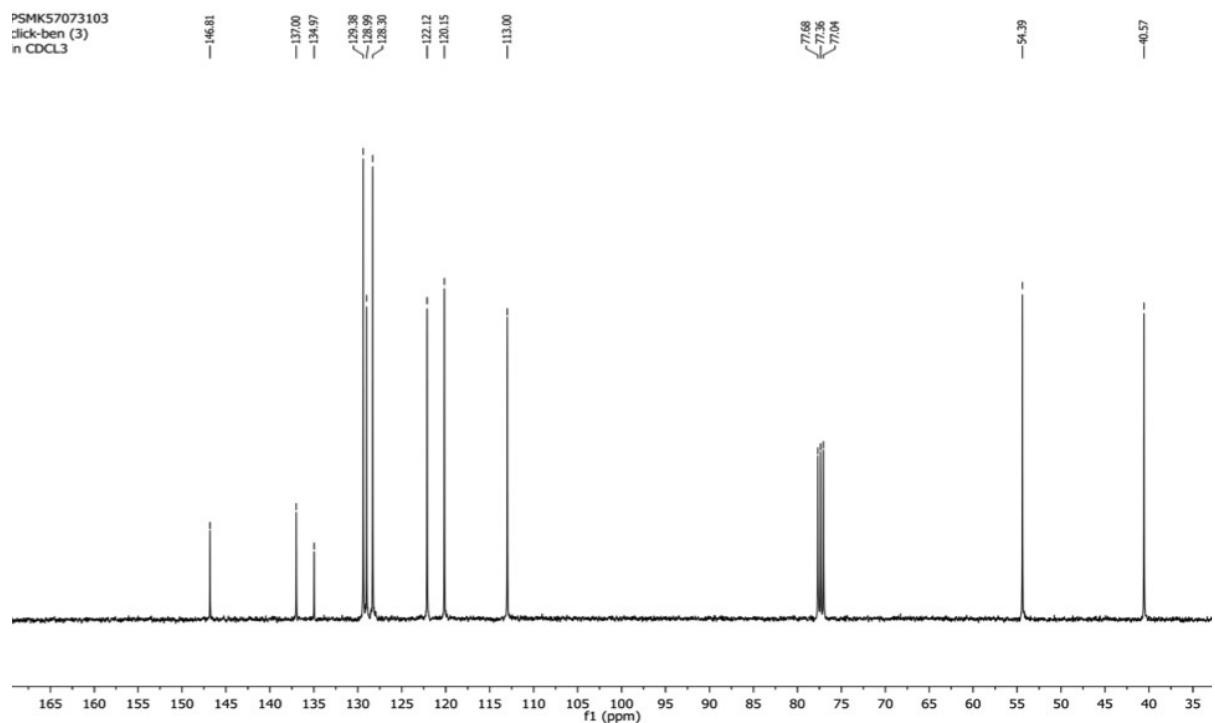
**Figure S1.**  $^1\text{H}$  NMR spectrum of **1** in  $\text{CDCl}_3$



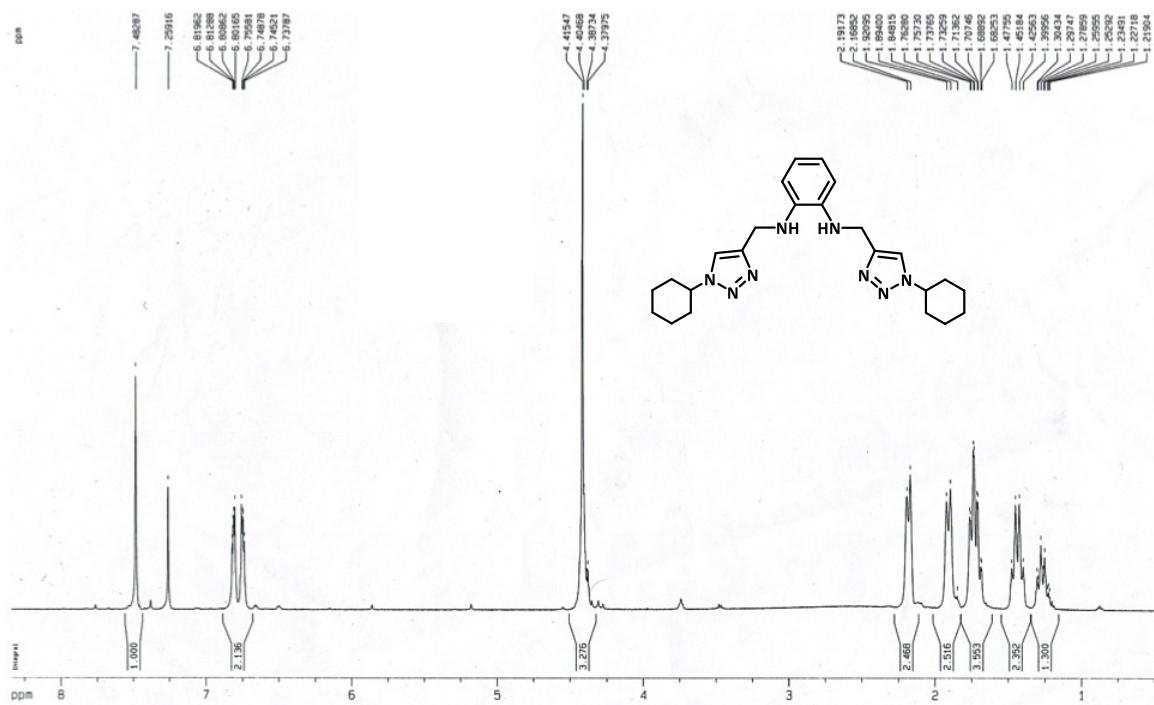
**Figure S2.**  $^{13}\text{C}$  NMR spectrum of **1** in  $\text{CDCl}_3$



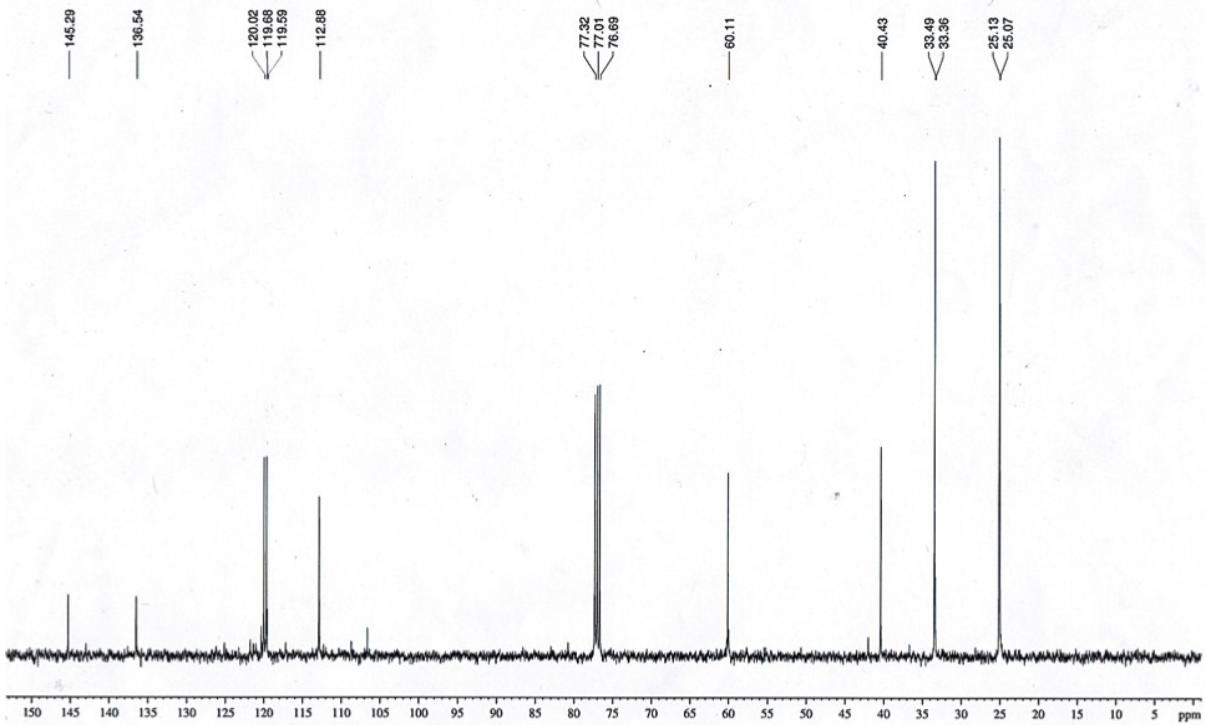
**Figure S3.** <sup>1</sup>H NMR spectrum of **2a** in CDCl<sub>3</sub>



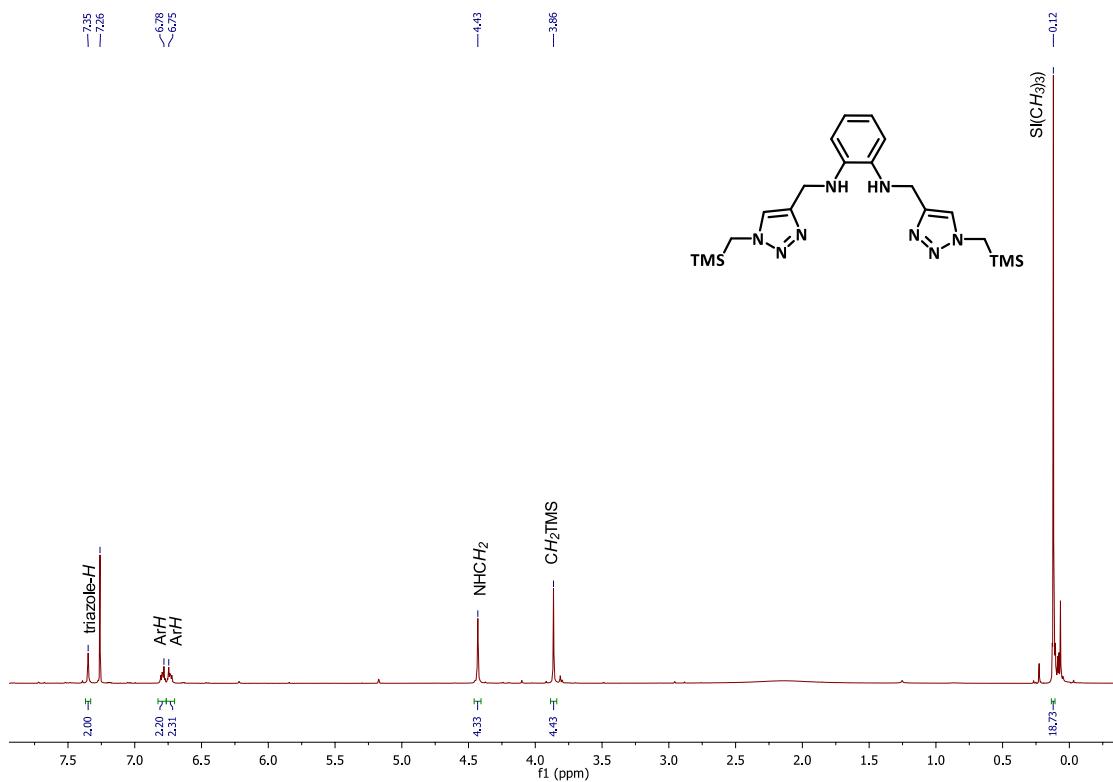
**Figure S4.** <sup>13</sup>C NMR spectrum of **2a** in CDCl<sub>3</sub>



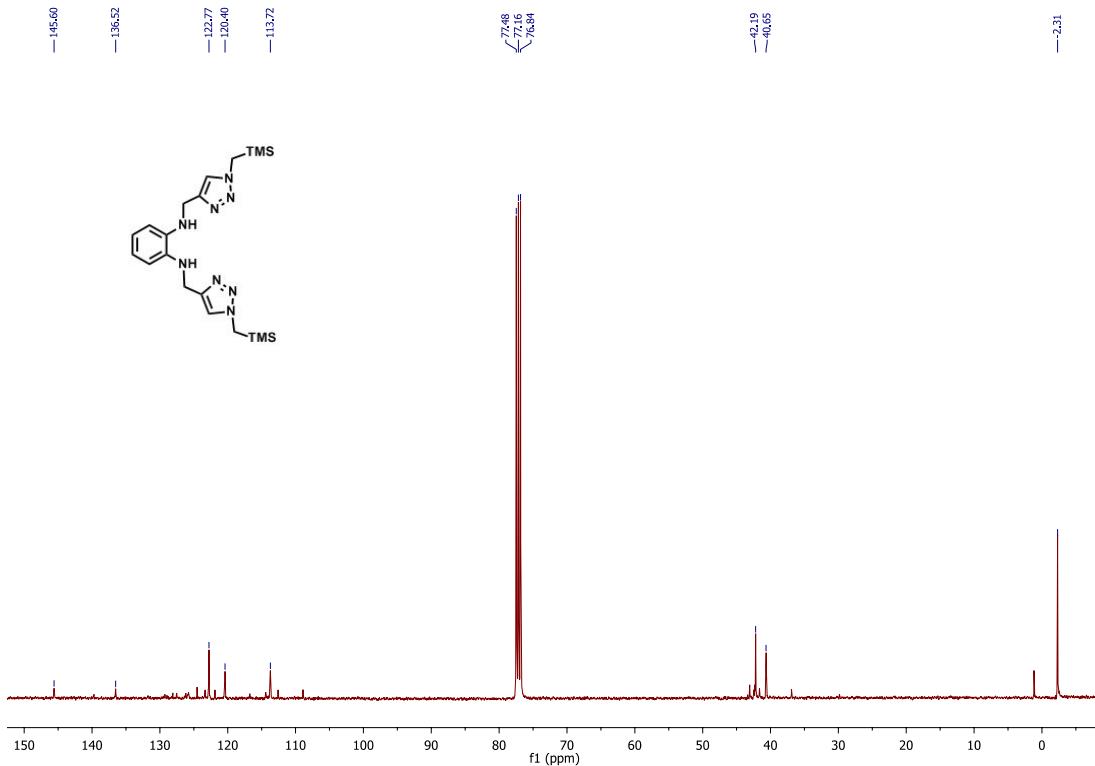
**Figure S5.**  $^1\text{H}$  NMR spectrum of **2b** in  $\text{CDCl}_3$



**Figure S6.**  $^{13}\text{C}$  NMR spectrum of **2b** in  $\text{CDCl}_3$

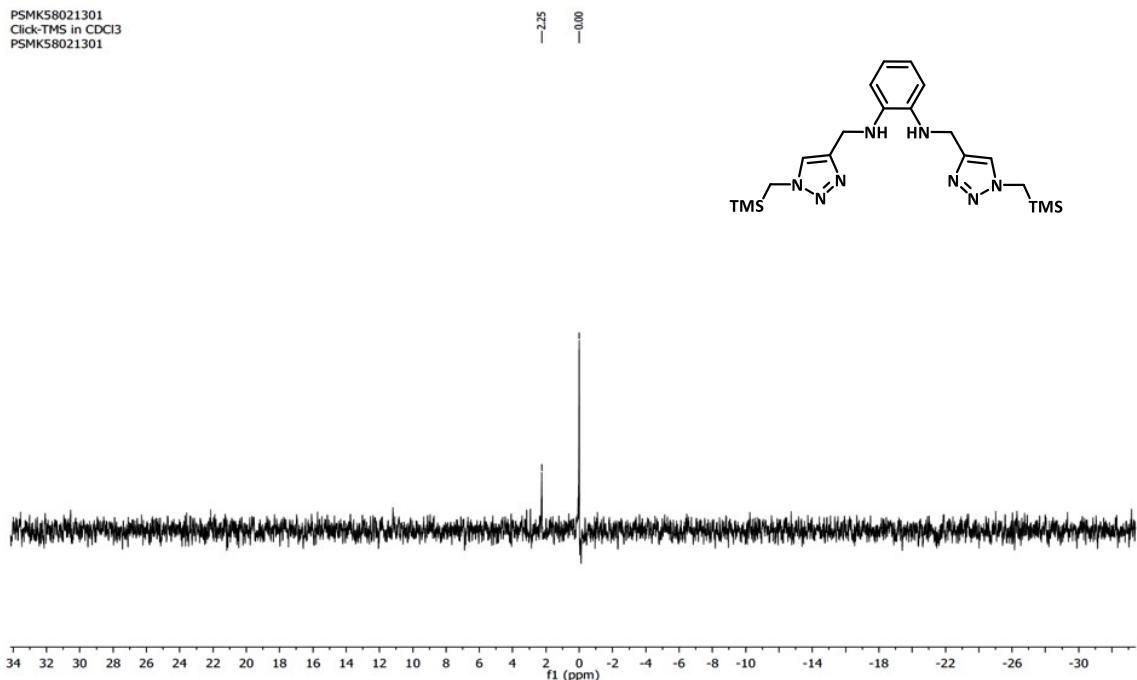


**Figure S7.**  $^1\text{H}$  NMR spectrum of **2c** in  $\text{CDCl}_3$



**Figure S8.**  $^{13}\text{C}$  NMR spectrum of **2c** in  $\text{CDCl}_3$

PSMK58021301  
Click-TMS in CDCl<sub>3</sub>  
PSMK58021301



**Figure S9.** <sup>29</sup>Si NMR spectrum of **2c** in CDCl<sub>3</sub>

PSMK57120401  
cyclized-ben  
column

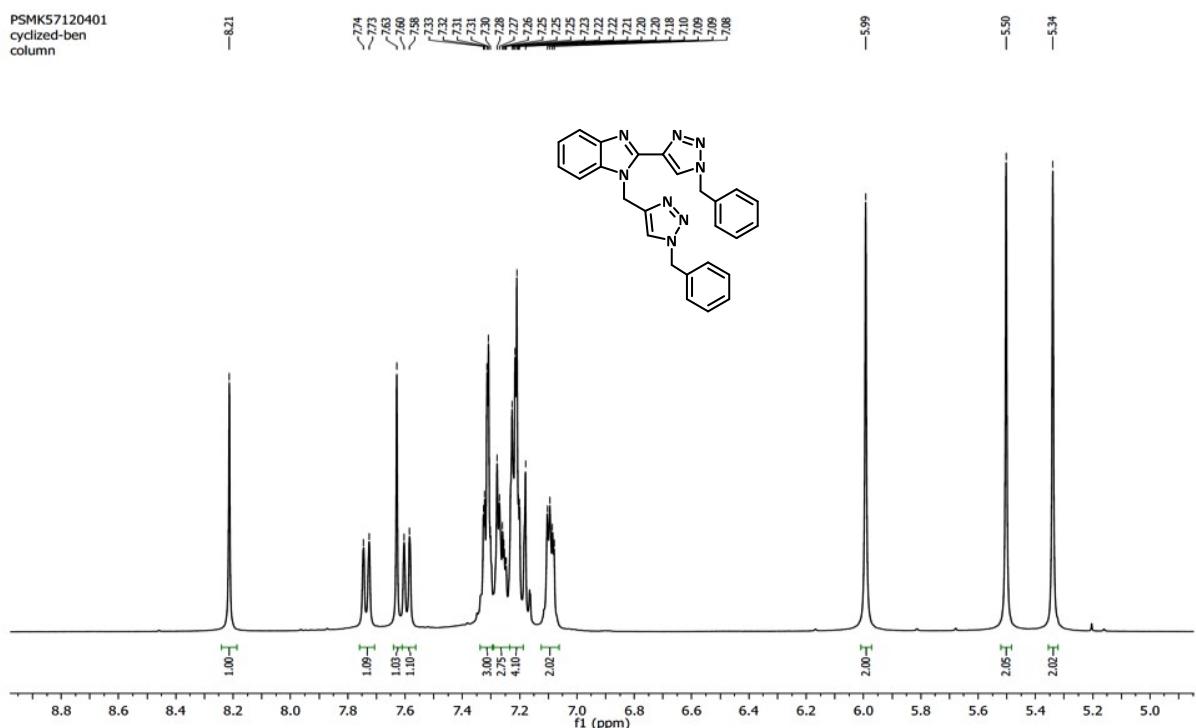


Figure S10.  $^1\text{H}$  NMR spectrum of **3a** in  $\text{CDCl}_3$

PSMK57120401  
cyclized-ben  
column

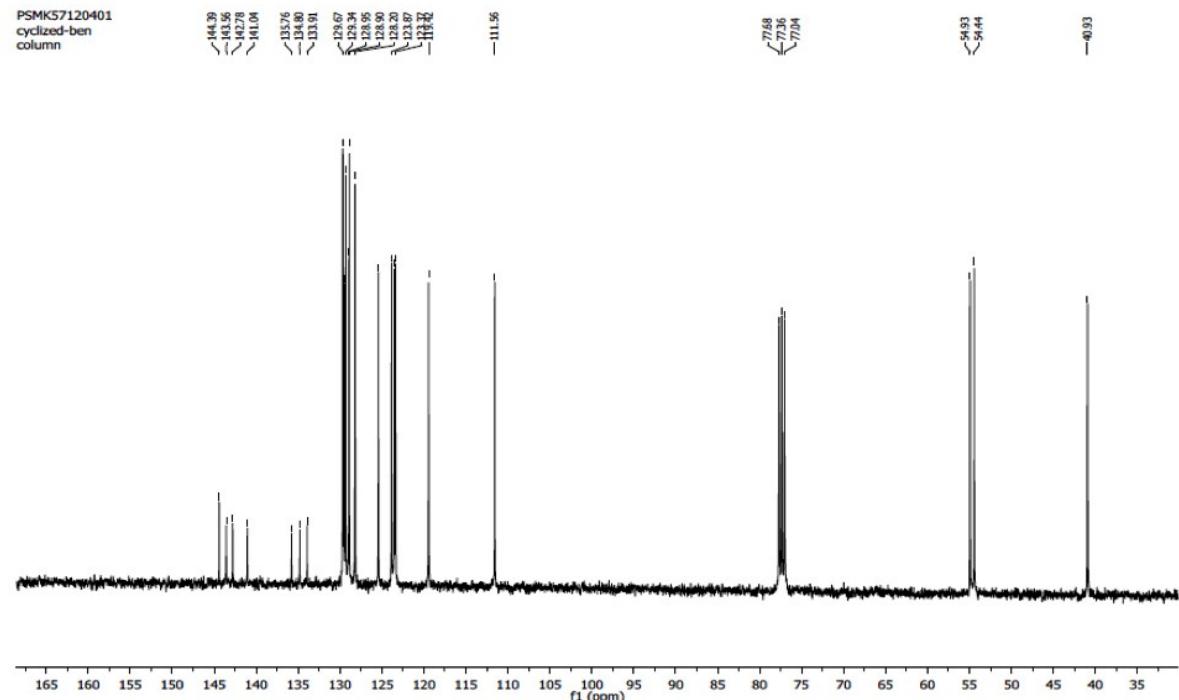
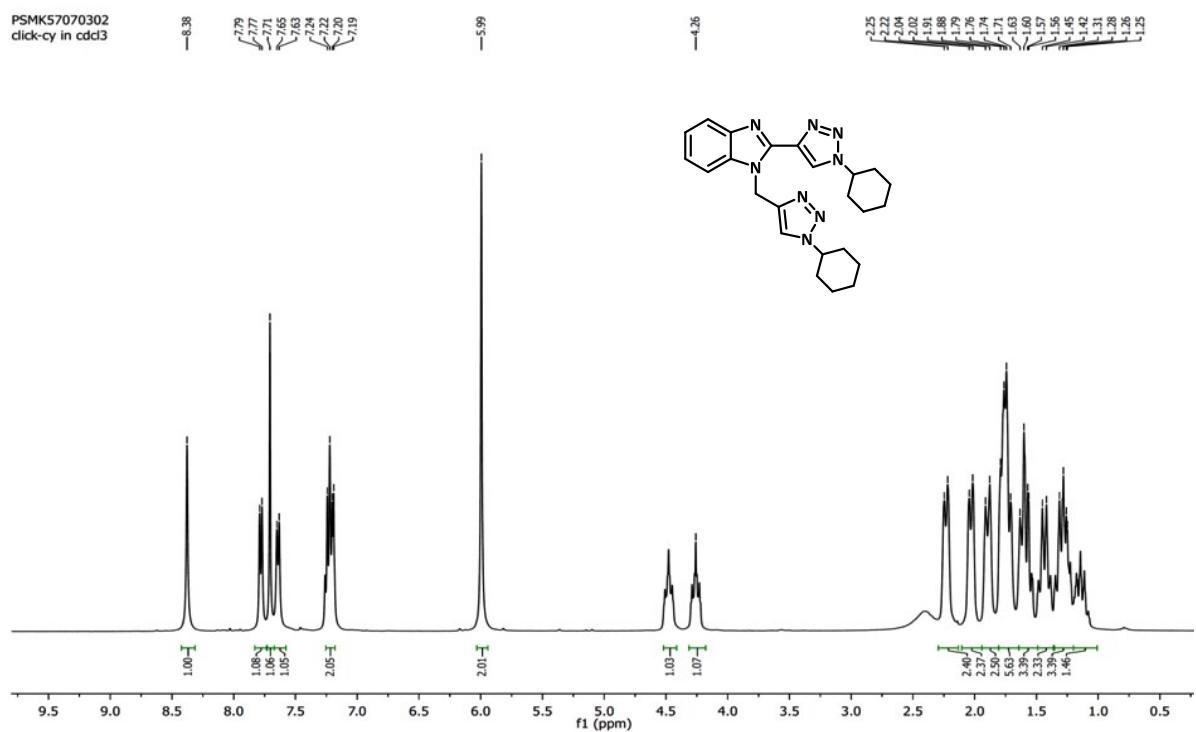
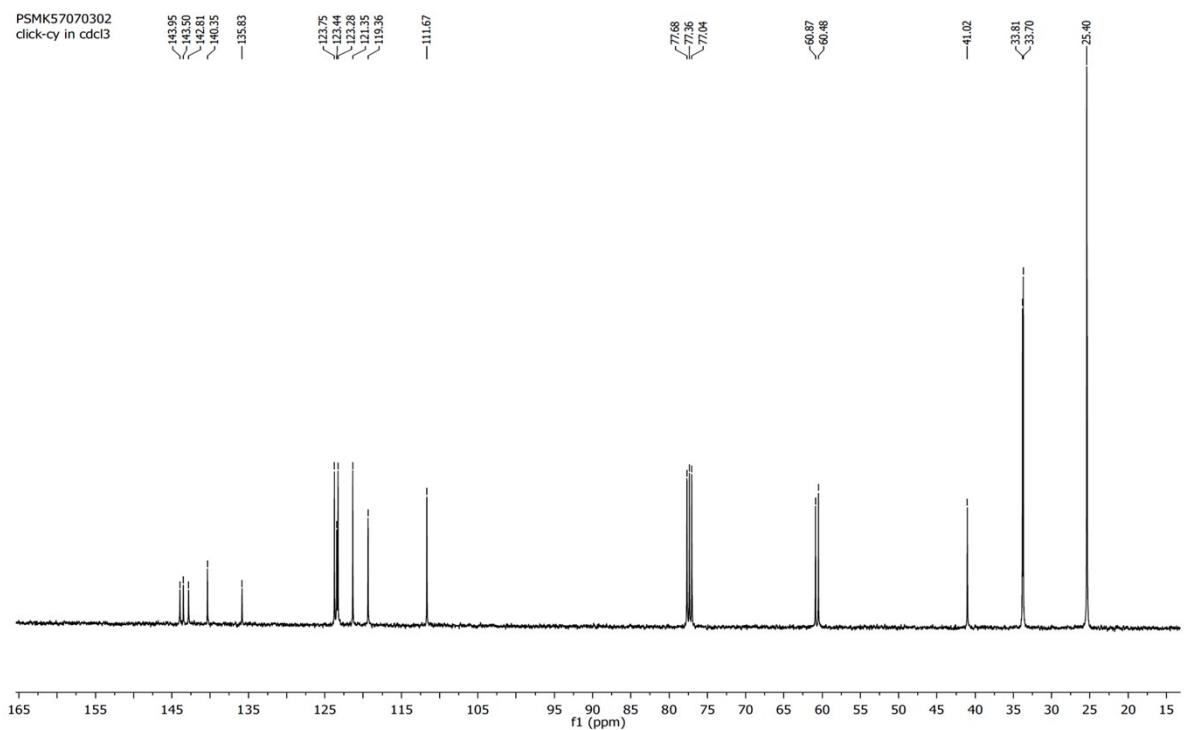


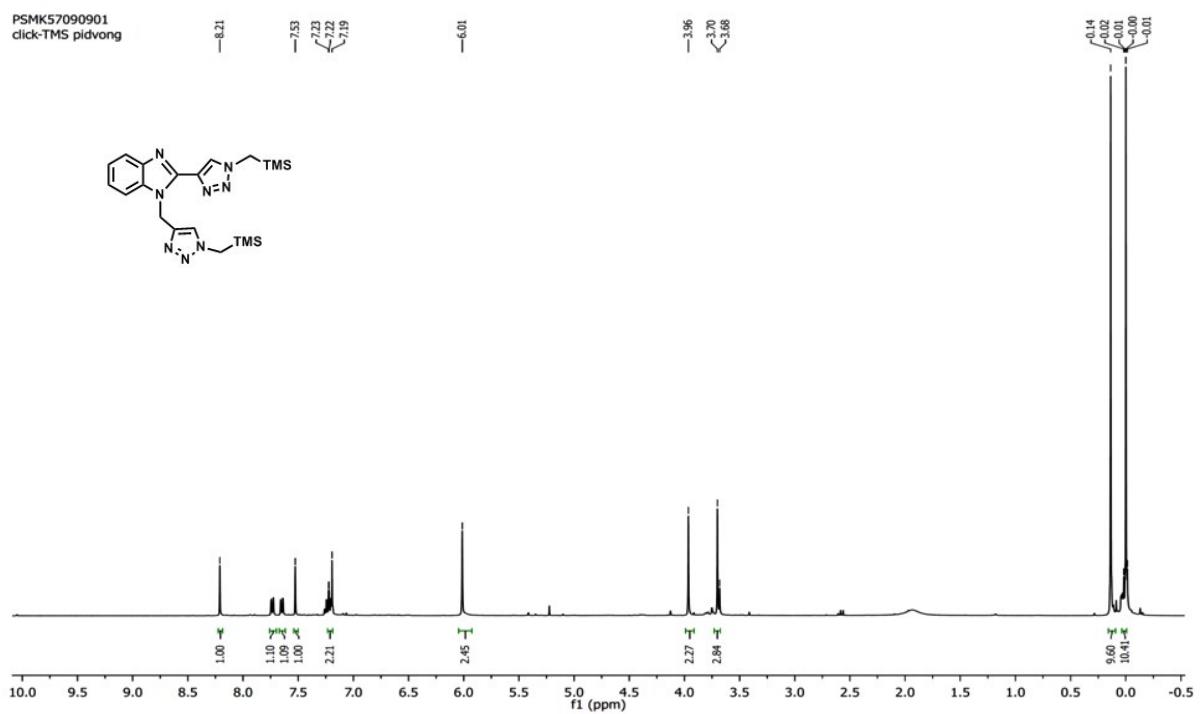
Figure S11.  $^{13}\text{C}$  NMR spectrum of **3a** in  $\text{CDCl}_3$



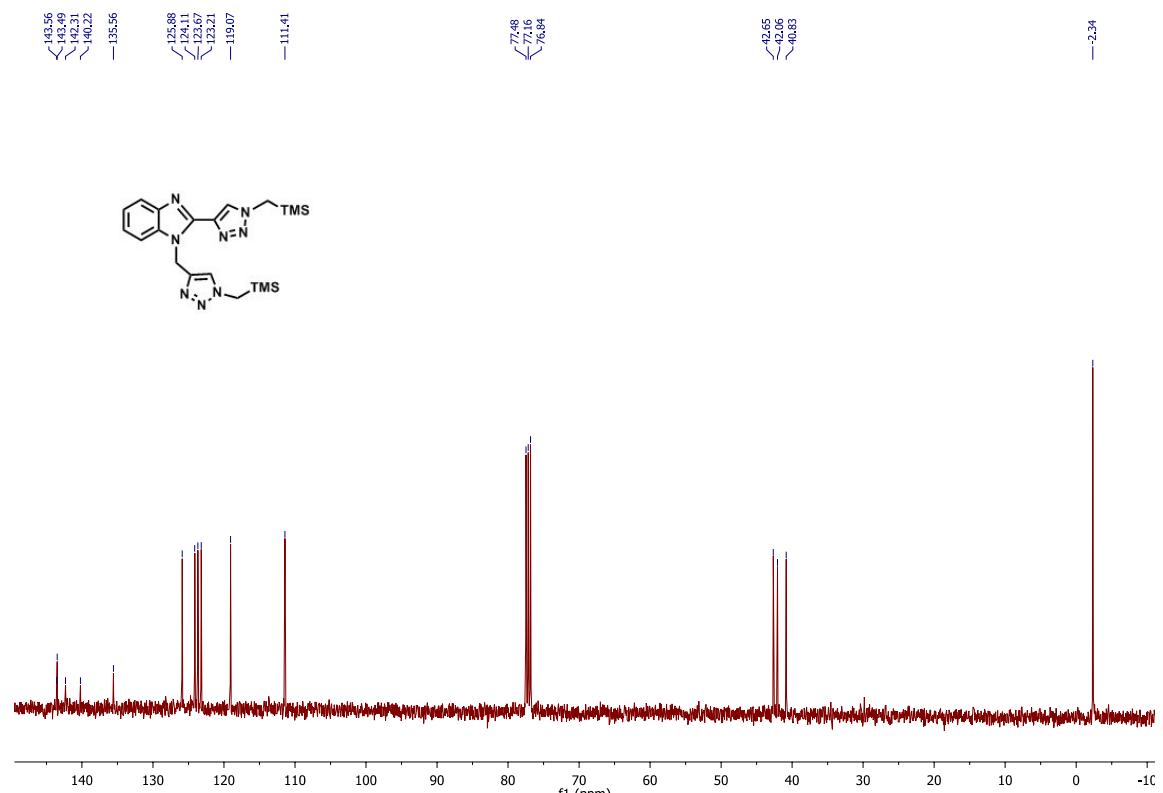
**Figure S12.**  $^1\text{H}$  NMR spectrum of **3b** in  $\text{CDCl}_3$



**Figure S13.**  $^{13}\text{C}$  NMR spectrum of **3b** in  $\text{CDCl}_3$



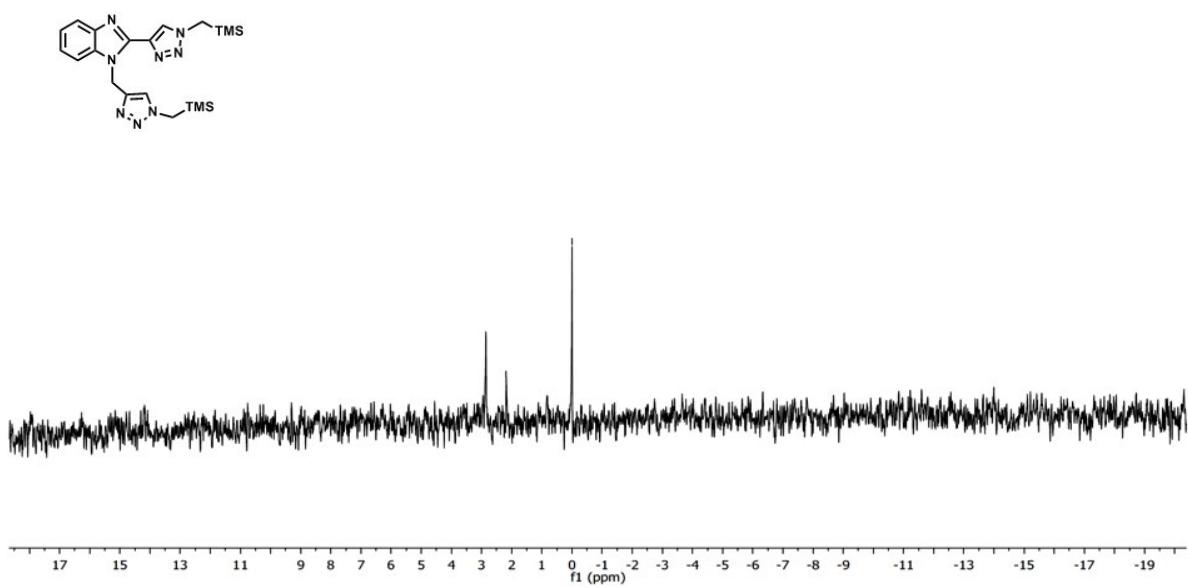
**Figure S14.**  $^1\text{H}$  NMR spectrum of **3c** in  $\text{CDCl}_3$



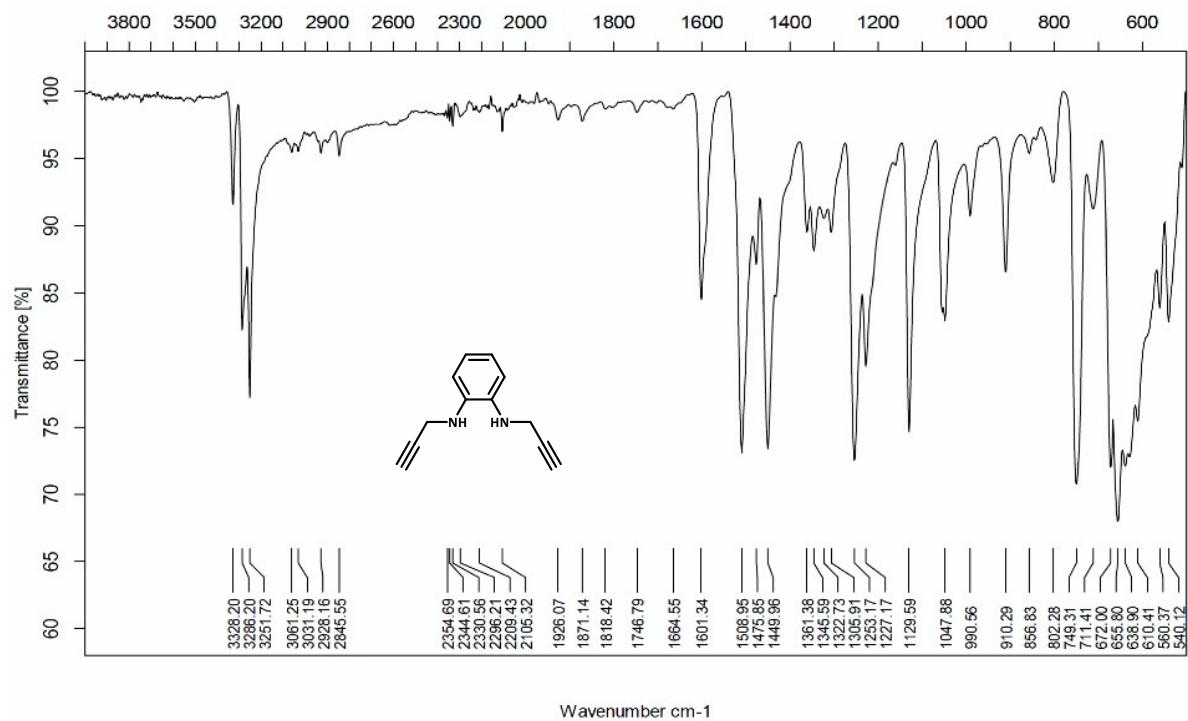
**Figure S15.**  $^{13}\text{C}$  NMR spectrum of **3c** in  $\text{CDCl}_3$

PSMK58013101  
Cyclized-TMS

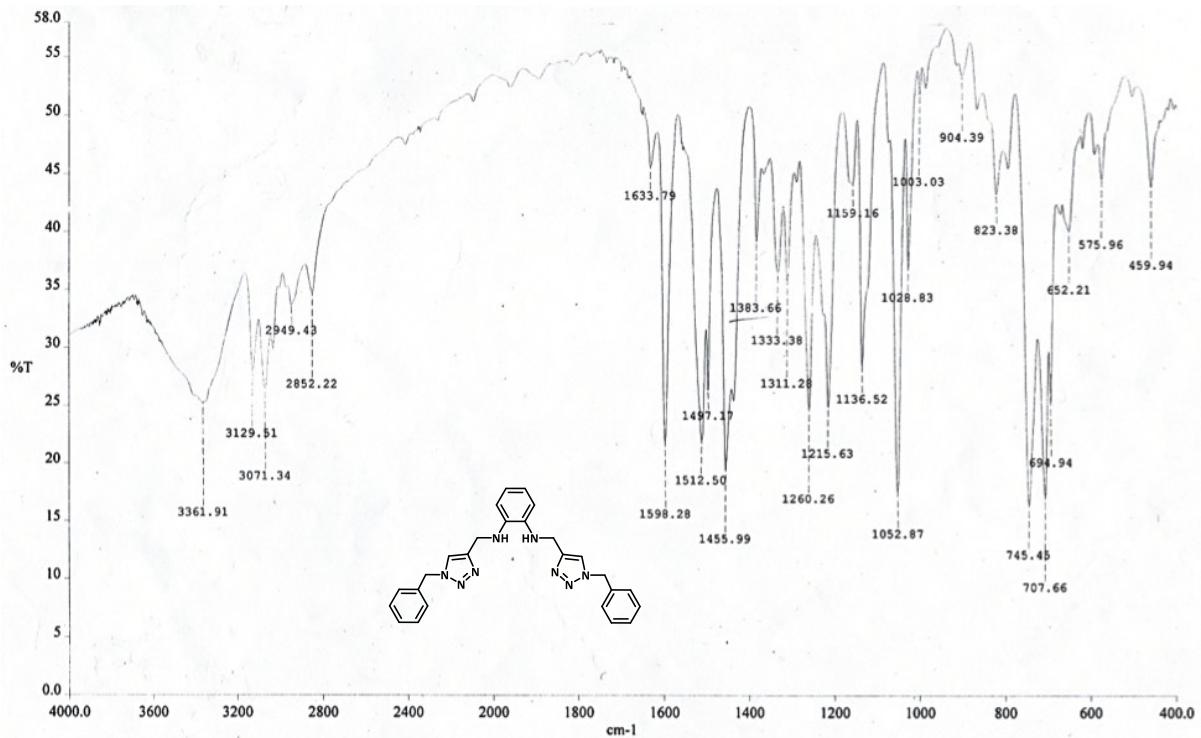
—2.86  
—2.18  
—0.00



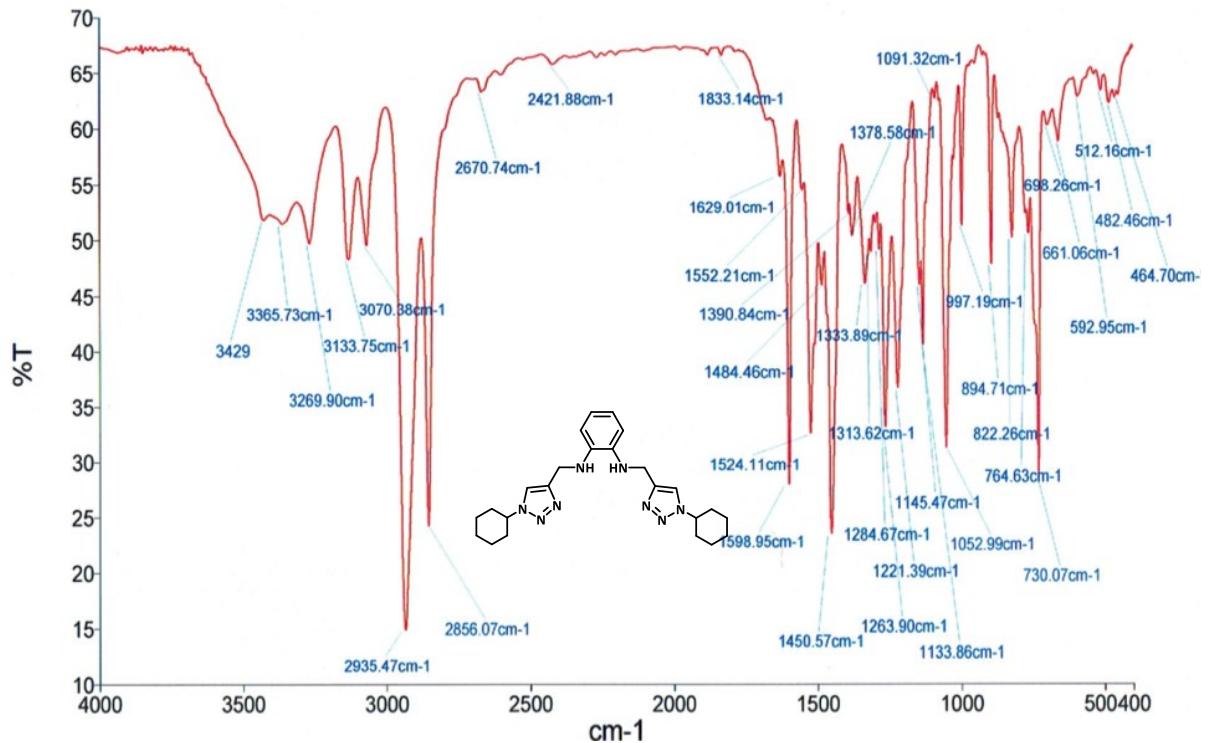
**Figure S16.** <sup>29</sup>Si NMR spectrum of **3c** in CDCl<sub>3</sub>



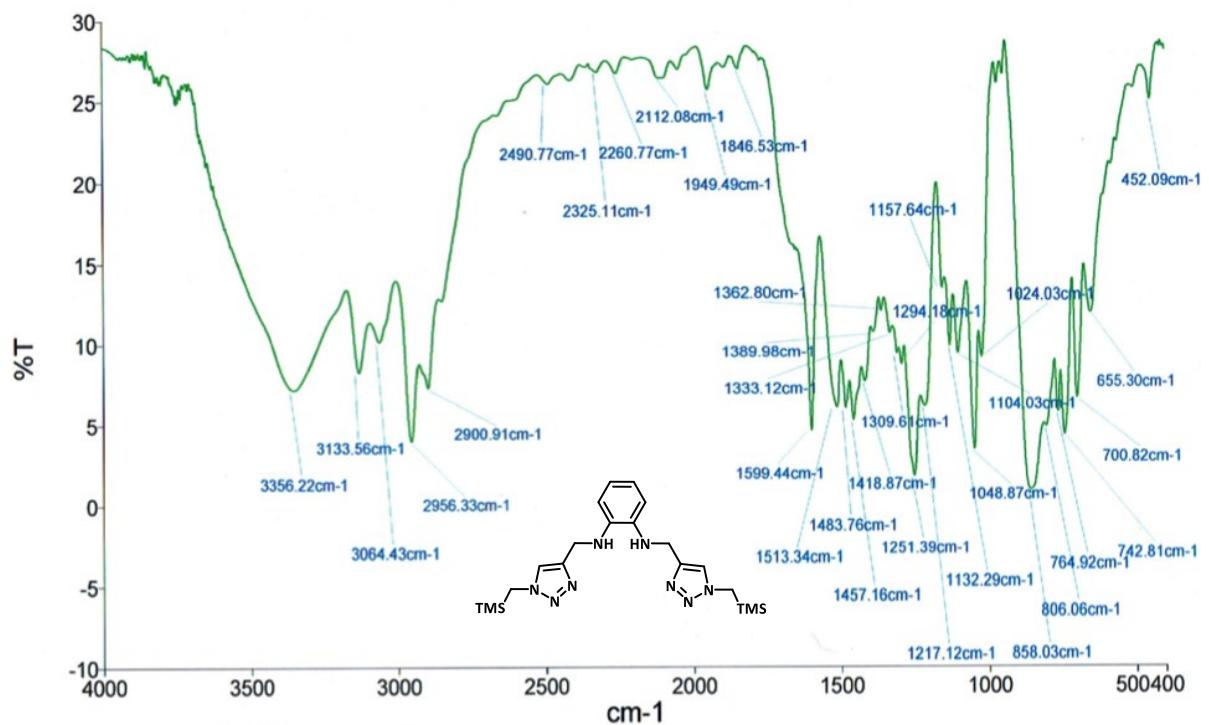
**Figure S17.** FT-IR spectrum of 1



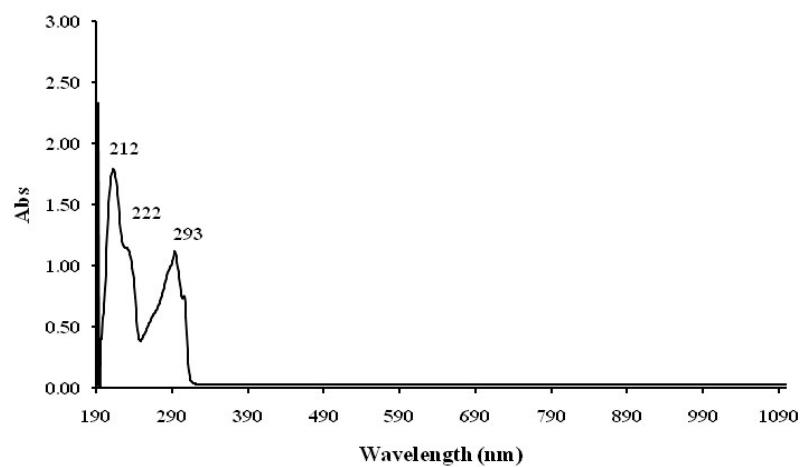
**Figure S18.** FT-IR spectrum of 2a



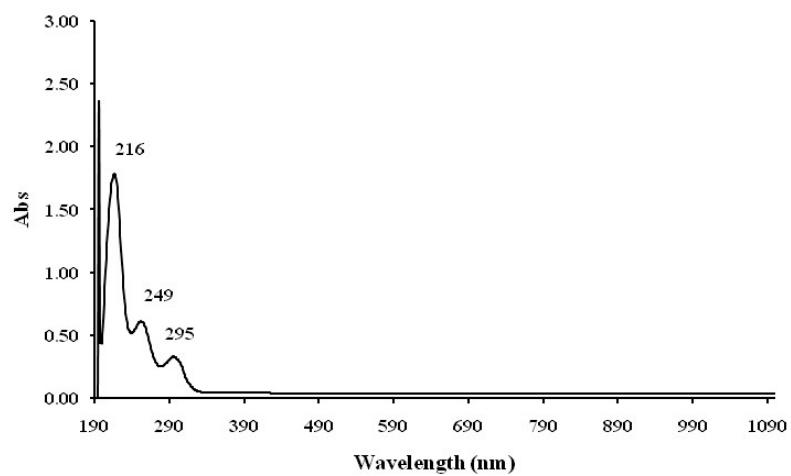
**Figure S19.** FT-IR spectrum of 2b



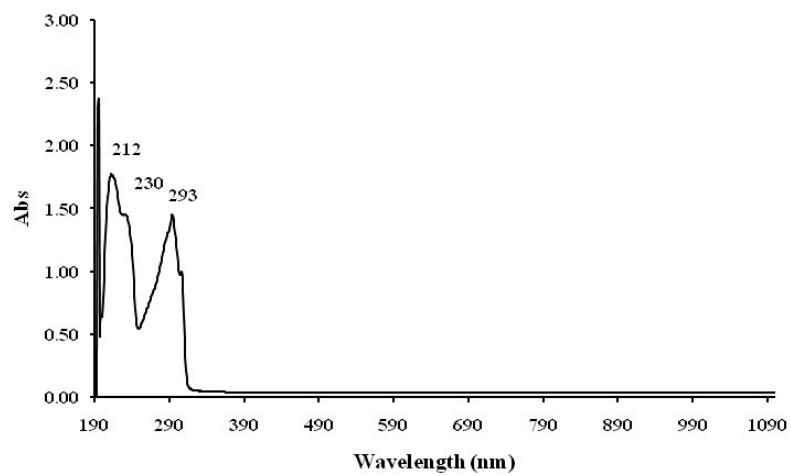
**Figure S20.** FT-IR spectrum of 2c



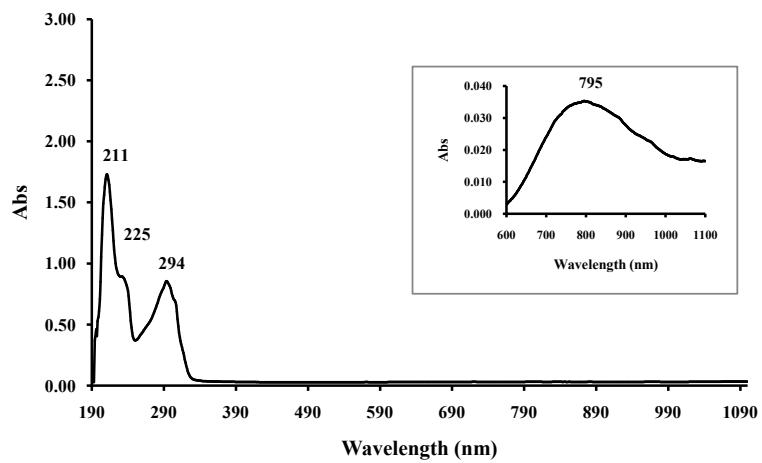
**Figure S21.** UV-vis spectrum of **3a**



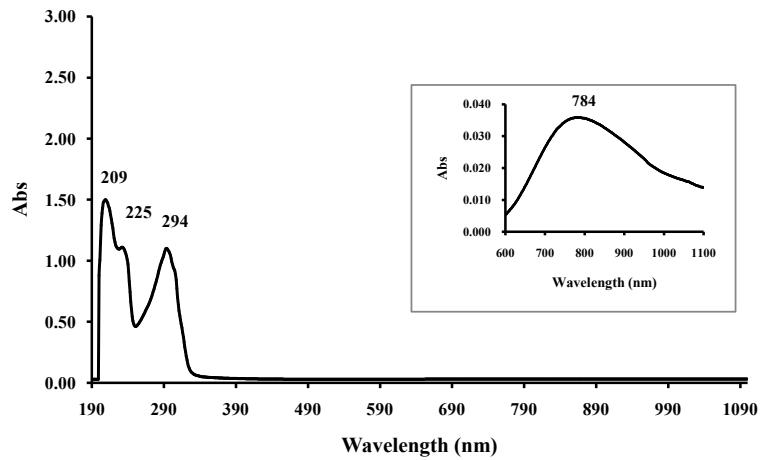
**Figure S22.** UV-vis spectrum of **3b**



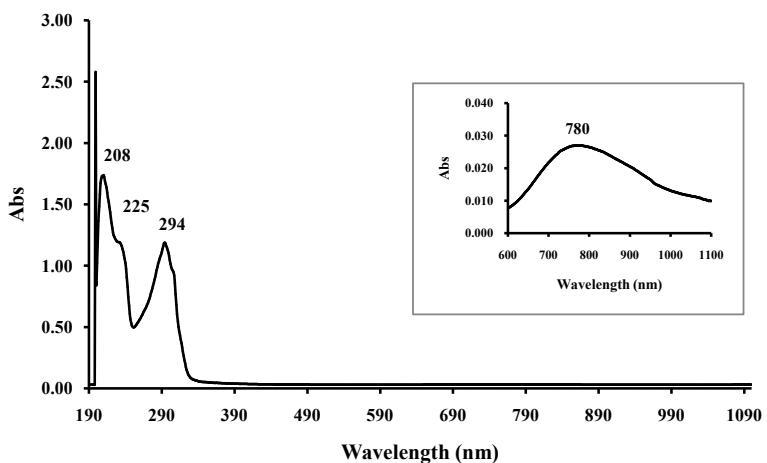
**Figure S23.** UV-vis spectrum of **3c**



**Figure S24.** UV-vis spectrum of **4a**



**Figure S25.** UV-vis spectrum of **4b**



**Figure S26.** UV-vis spectrum of **4c**