

## Supplementary Material

### Ultrasound assisted Synthesis of Thiazolidine Thiones Containing 1,2,3-triazoles Using Cu/TiO<sub>2</sub>

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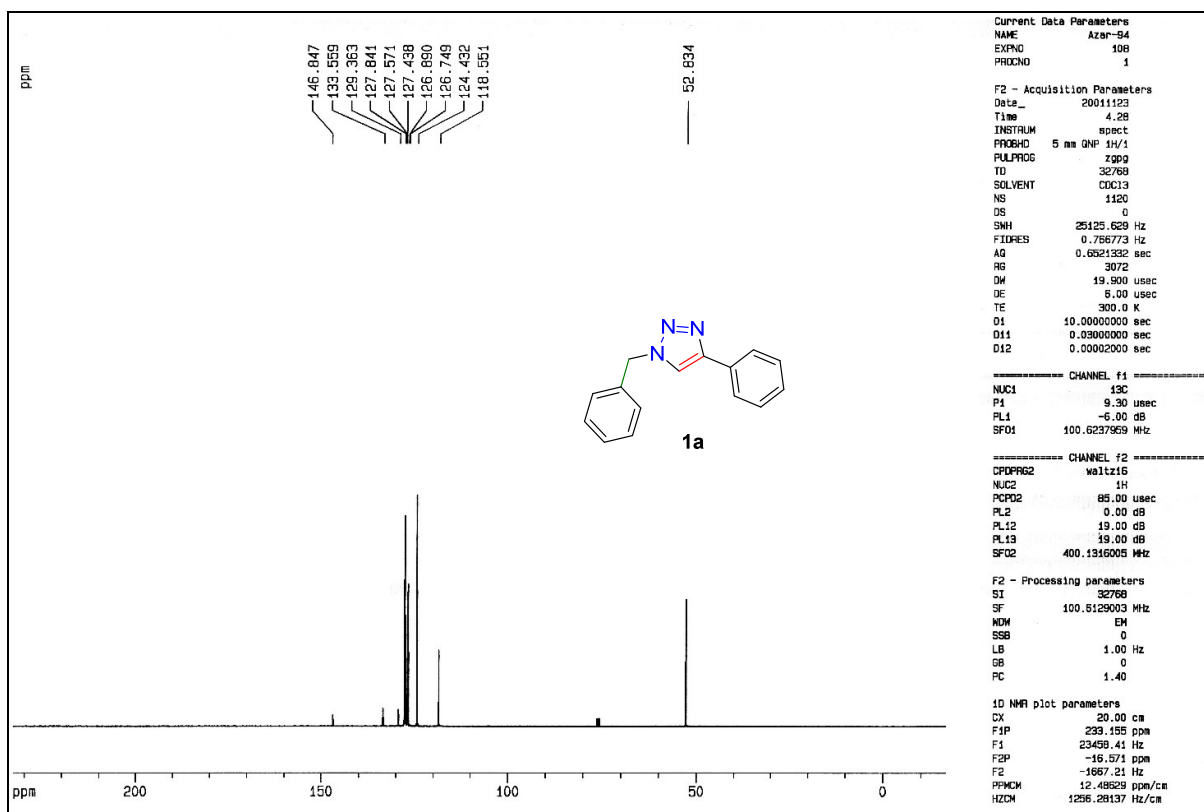
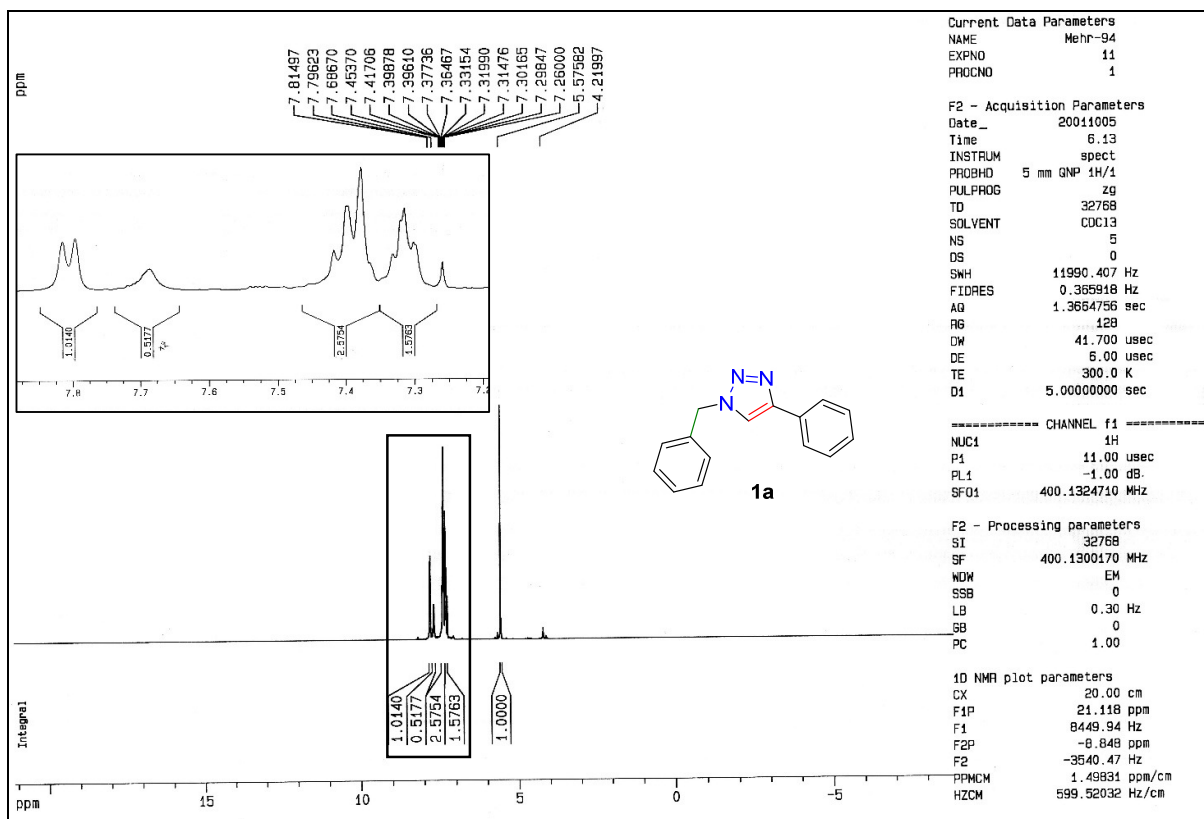
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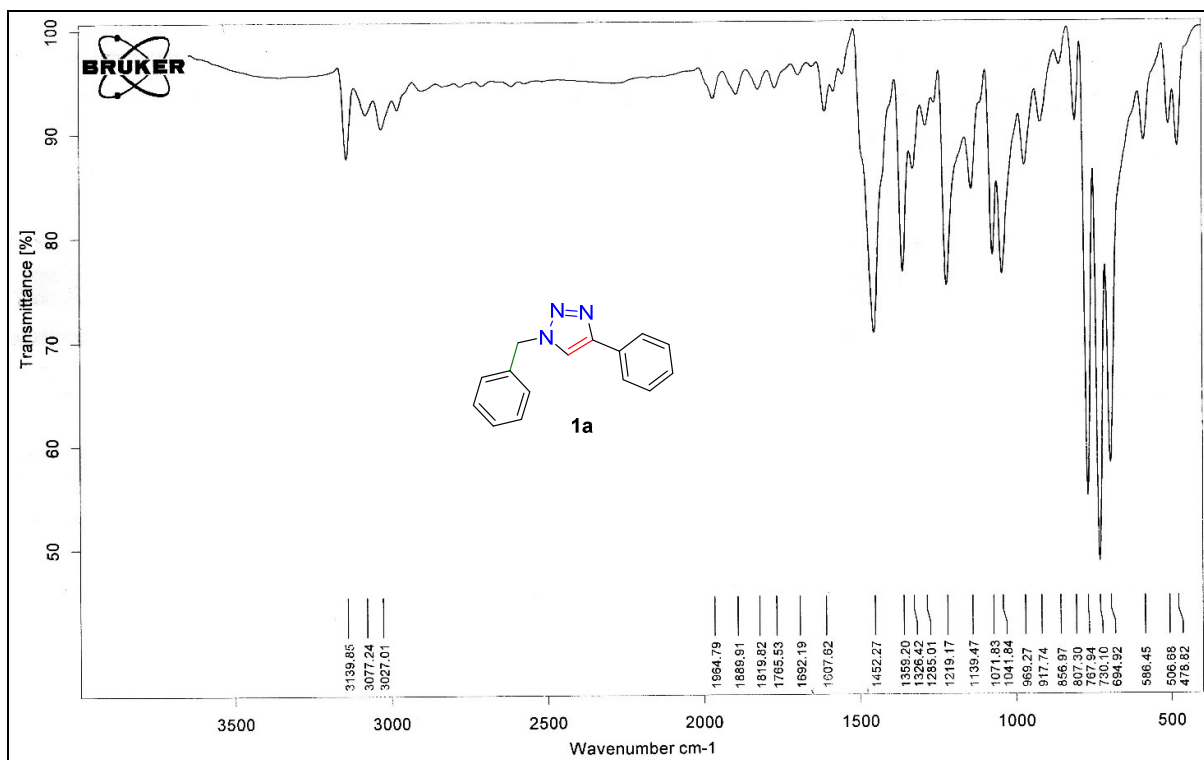
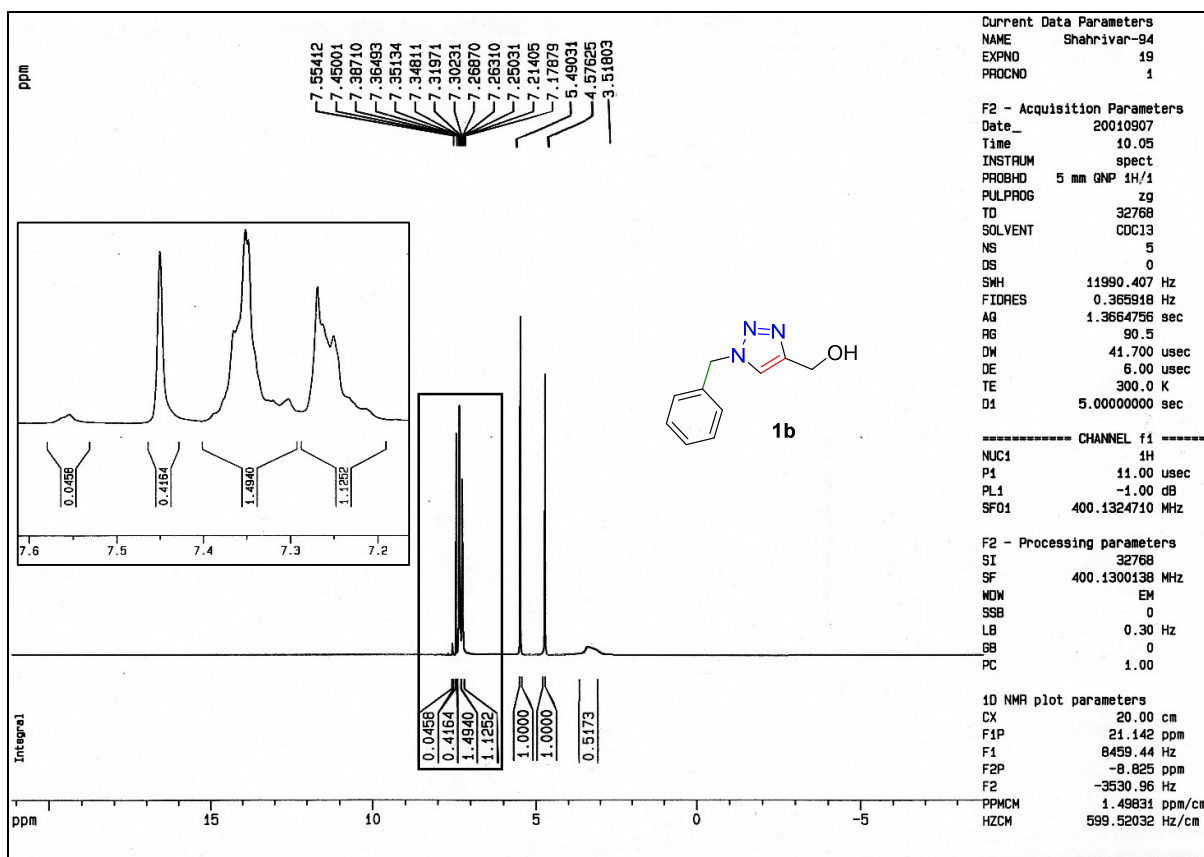
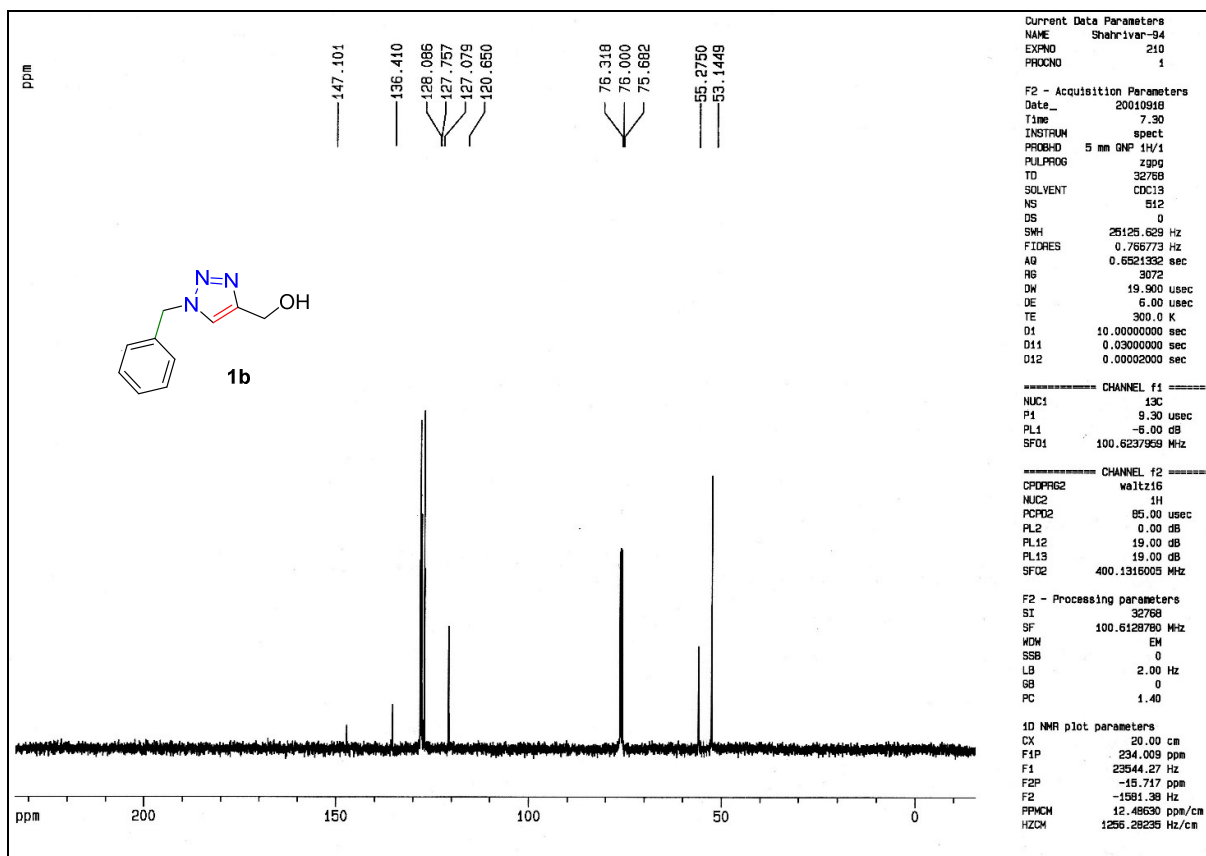
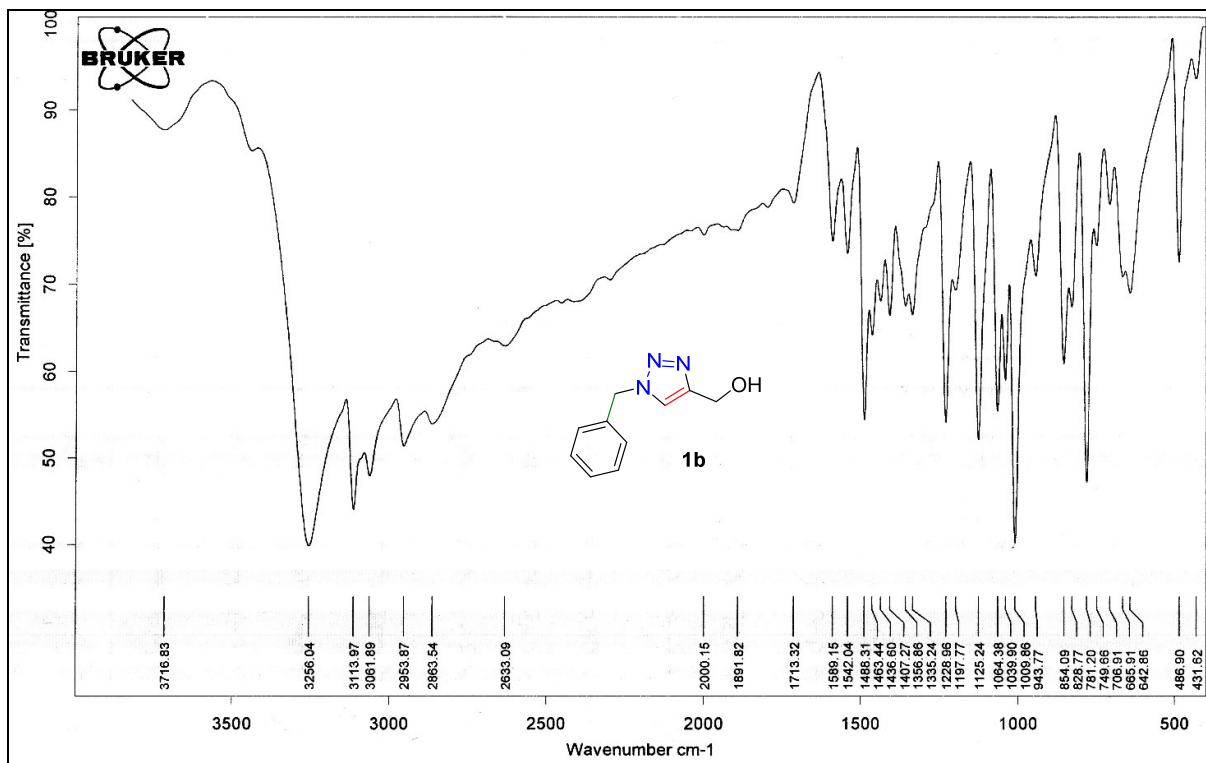
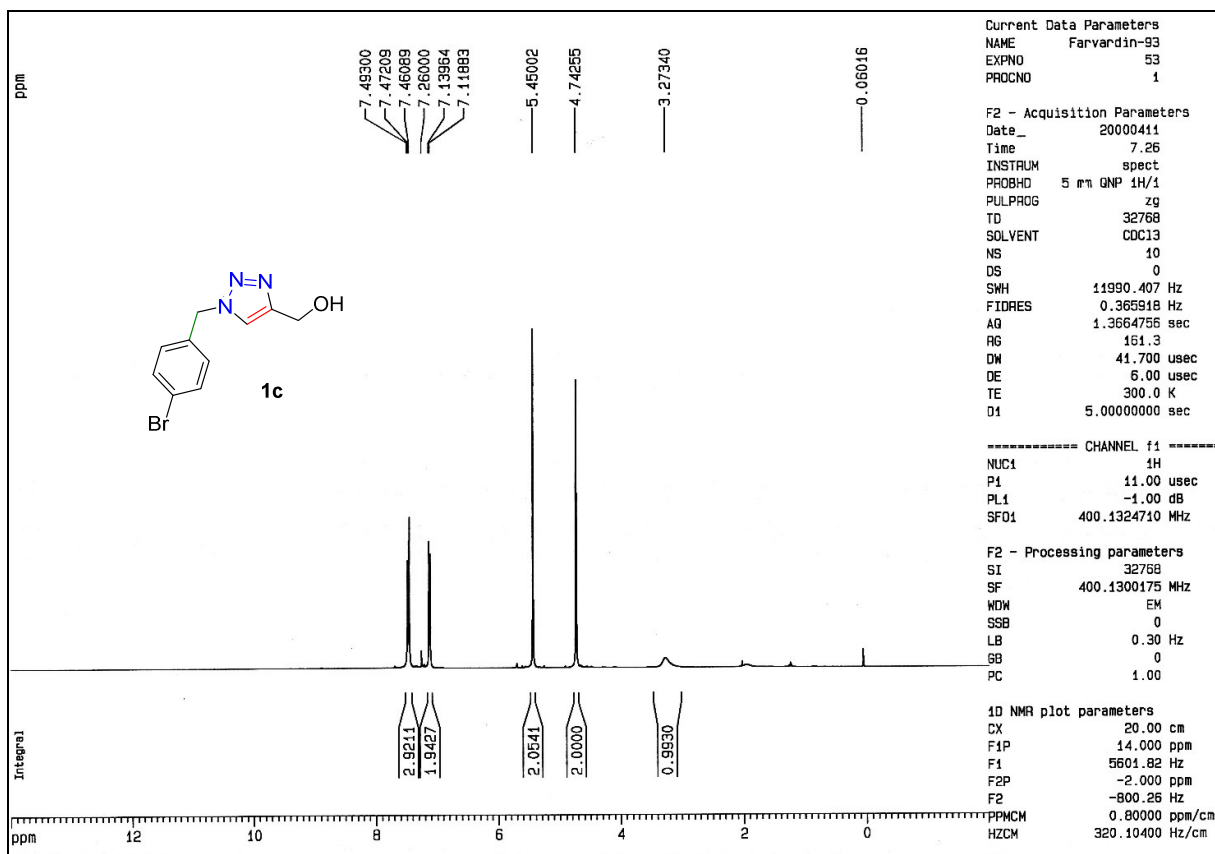
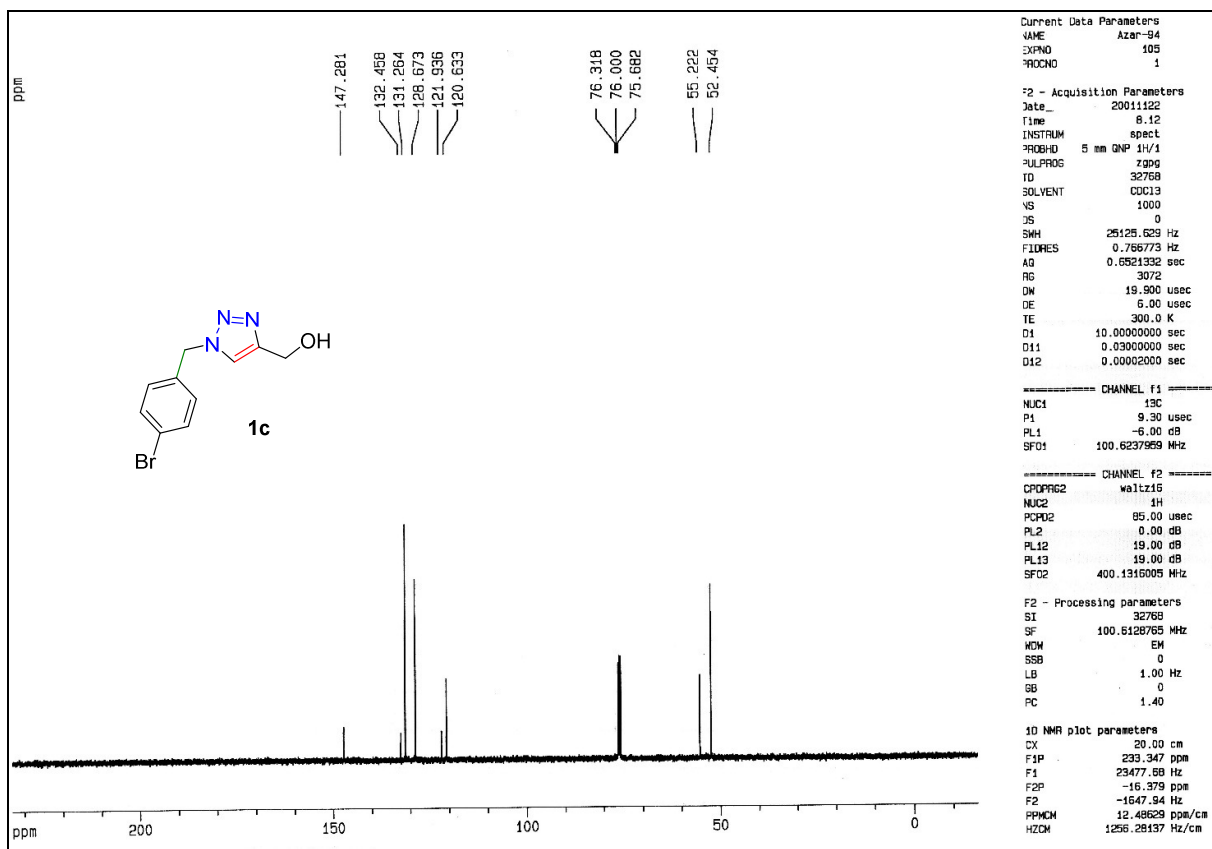
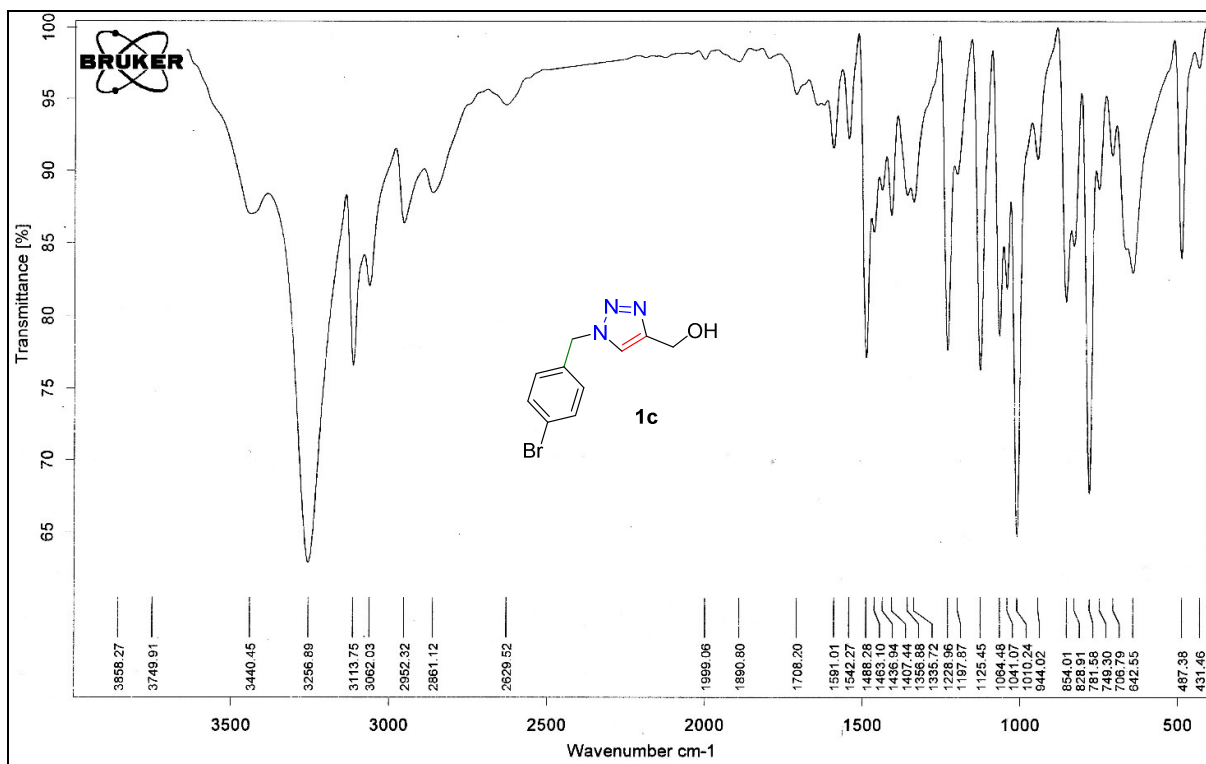
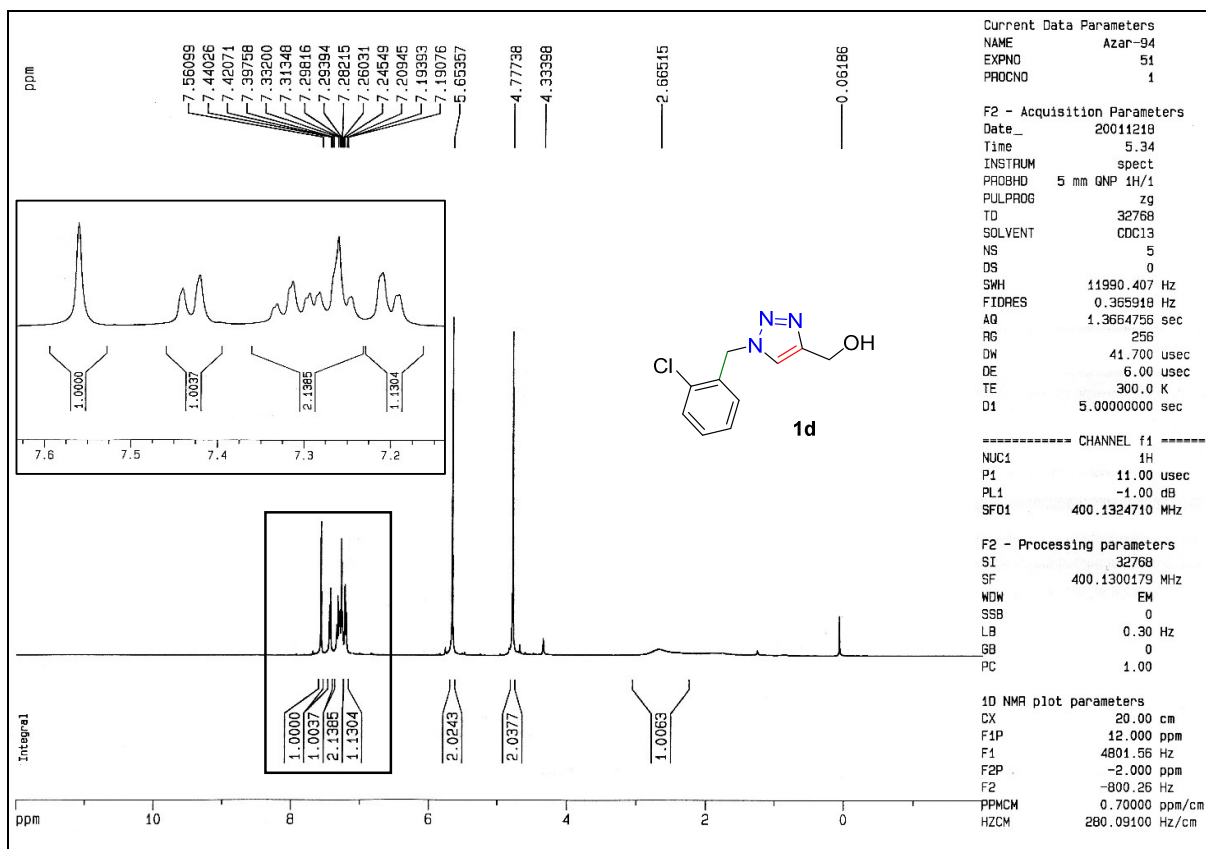


Figure S3. FTIR (KBr) spectrum of compound 1a.

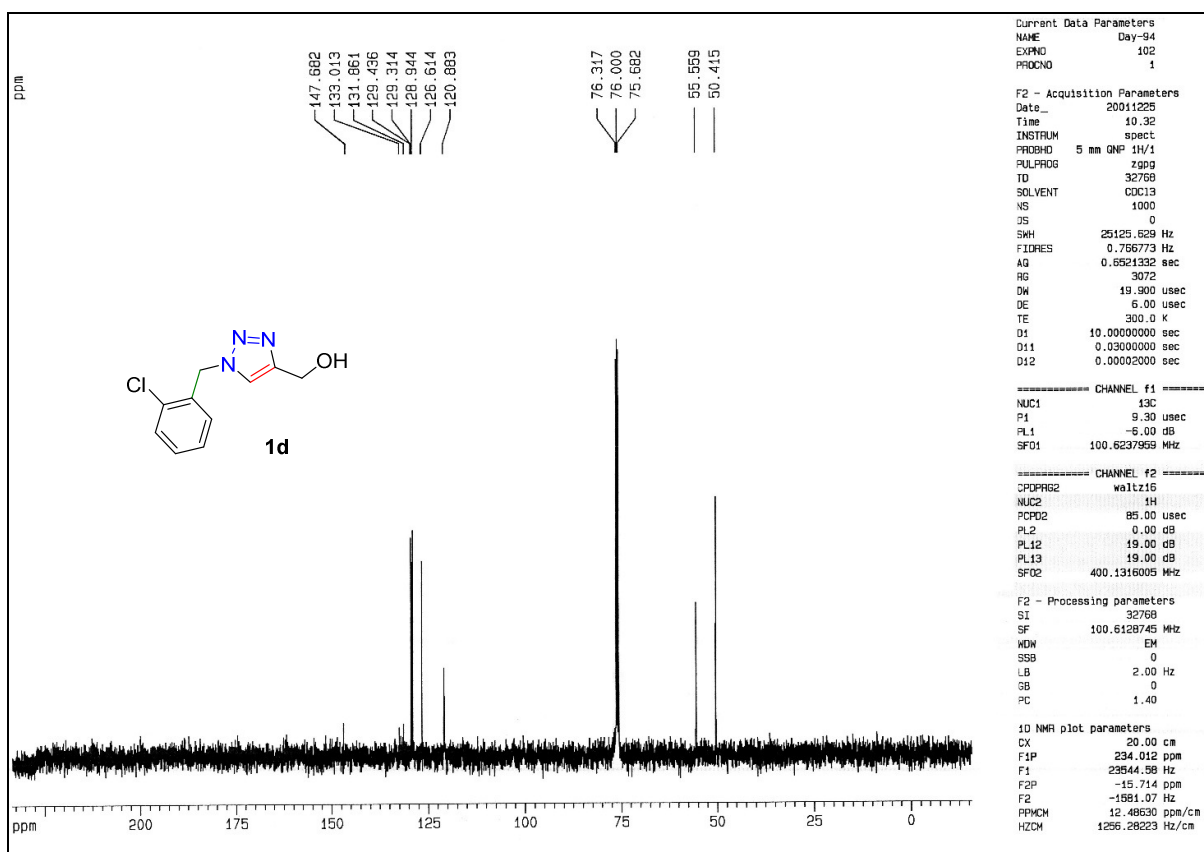
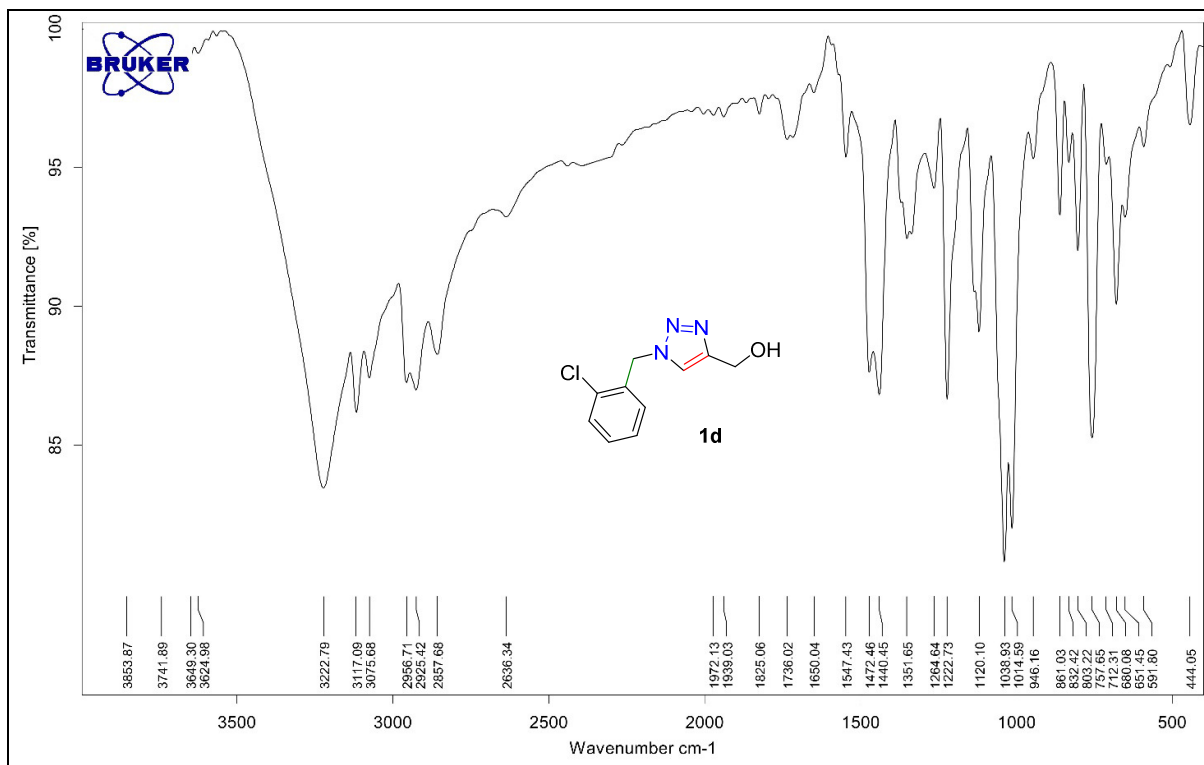
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Figure S5.  $^{13}\text{C}$  NMR spectrum (100 MHz,  $\text{CDCl}_3$ ) of compound **1b**.Figure S6. FTIR (KBr) spectrum of compound **1b**.

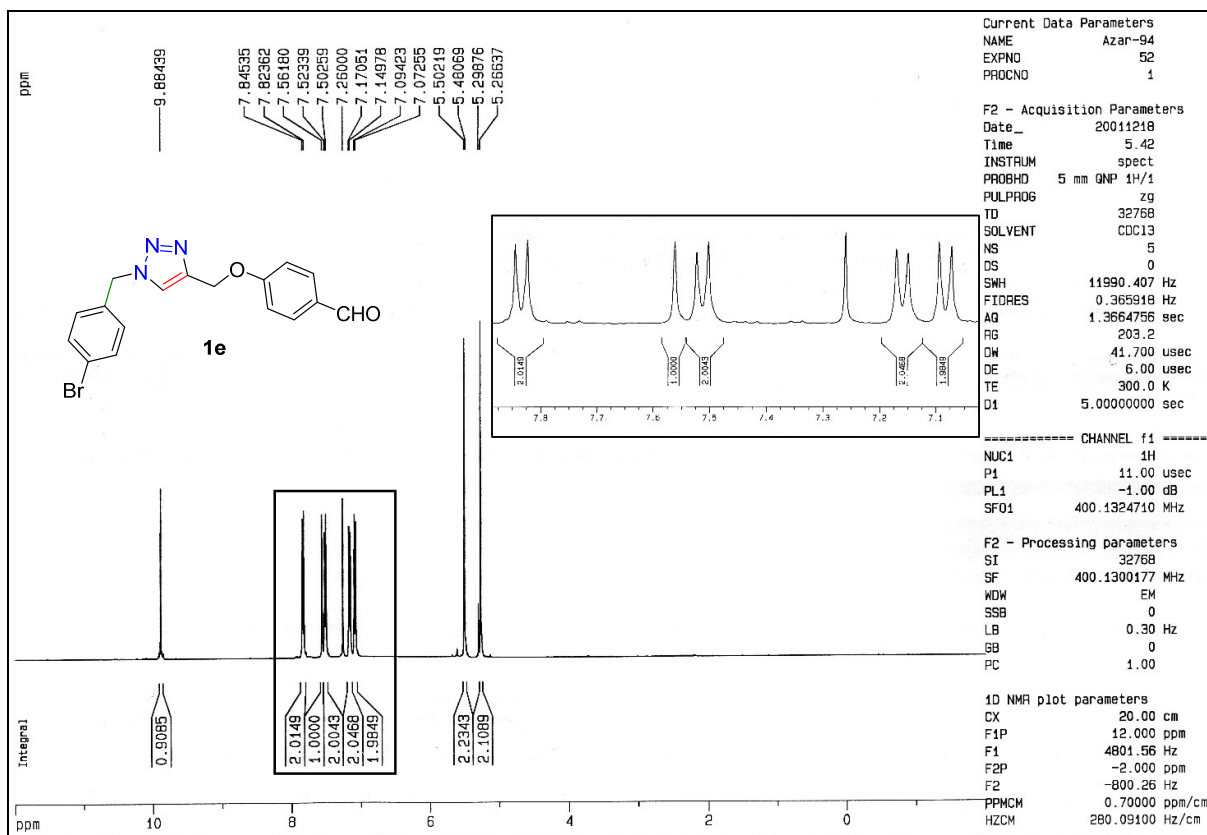
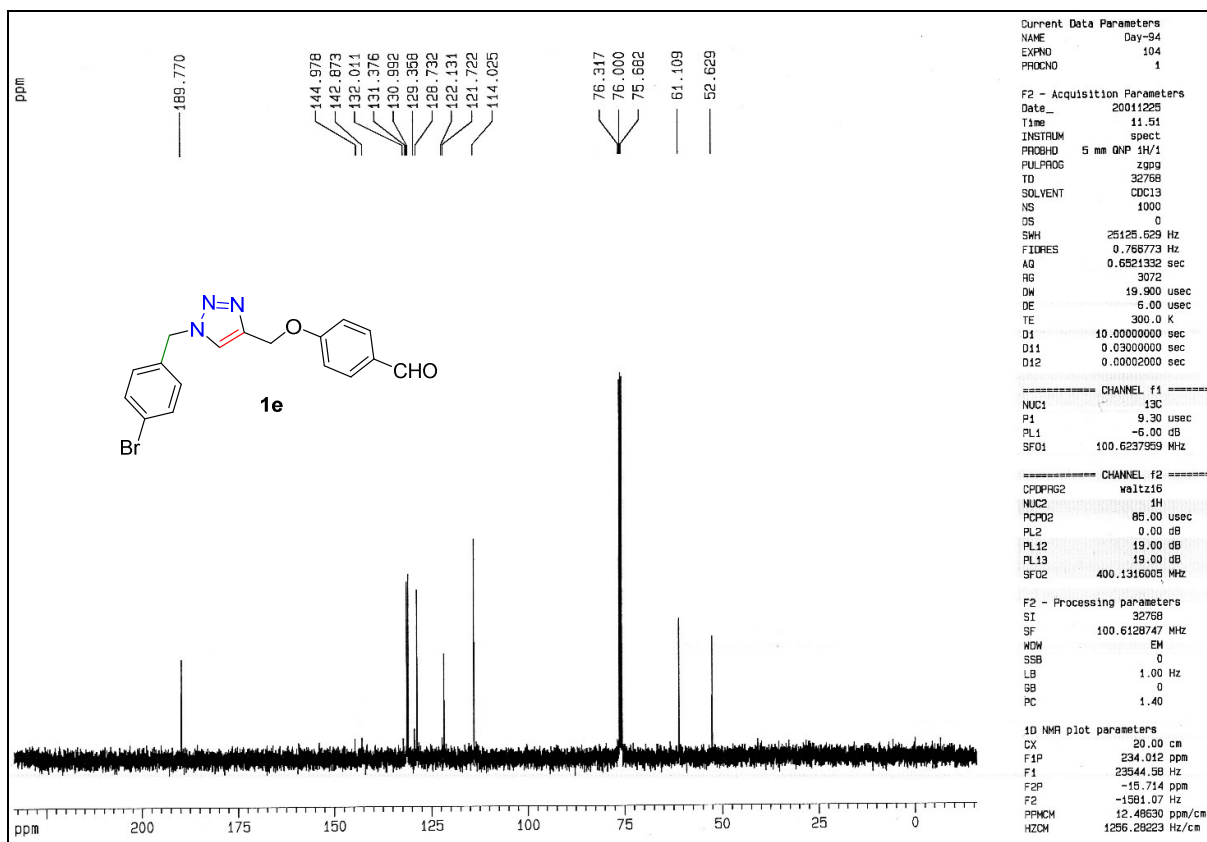
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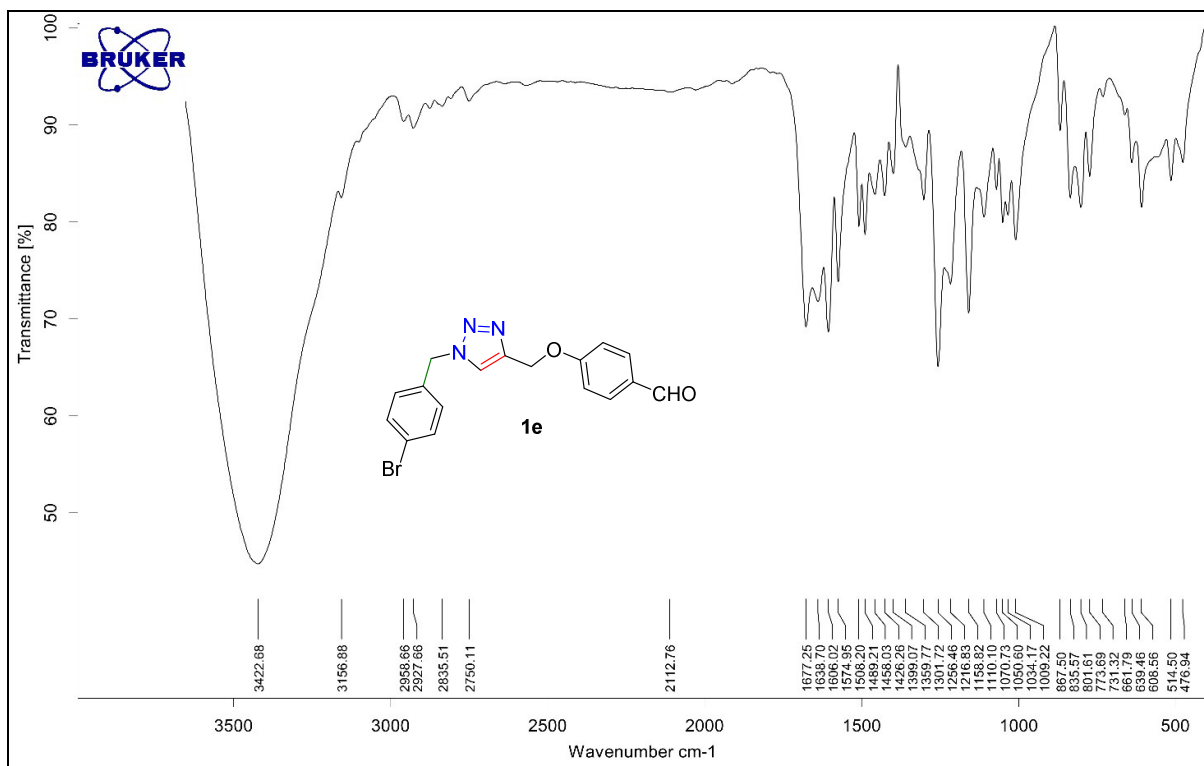
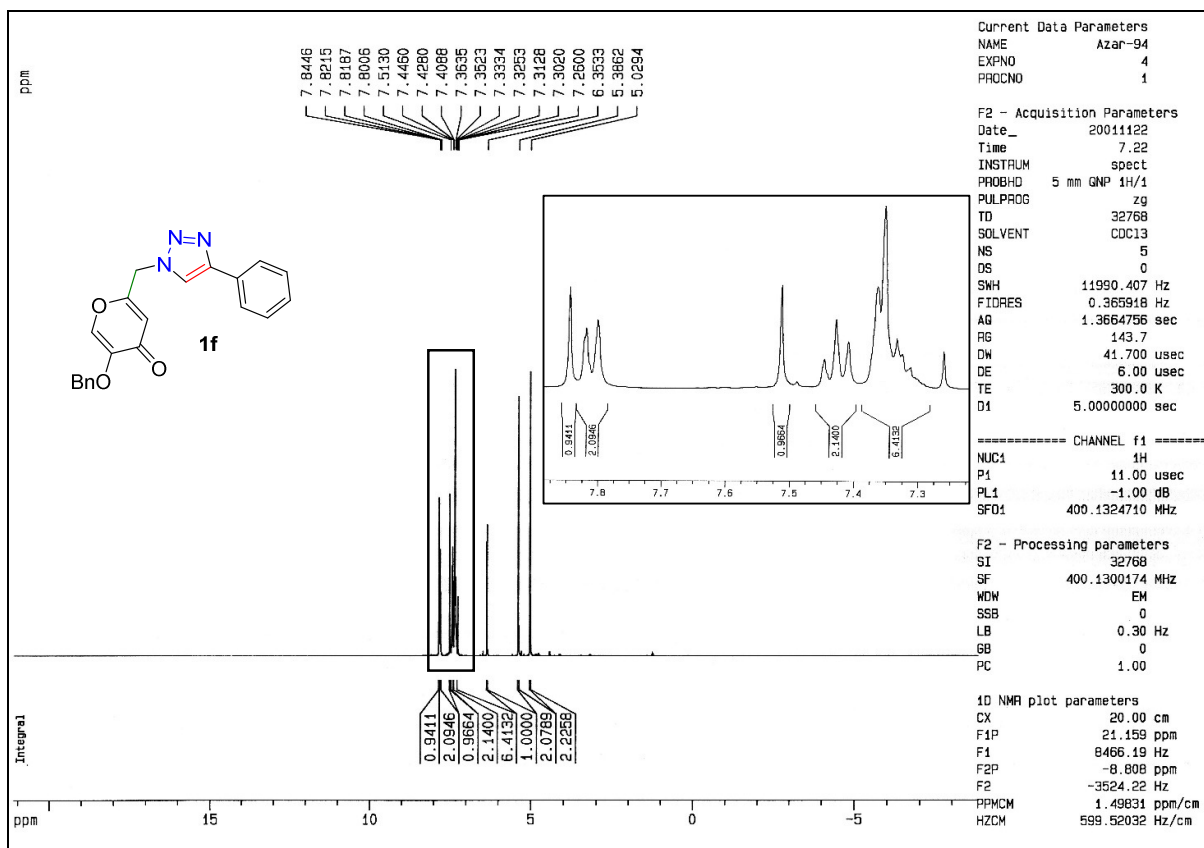
Figure S9. FTIR (KBr) spectrum of compound **1c**Figure S10. <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound **1d**

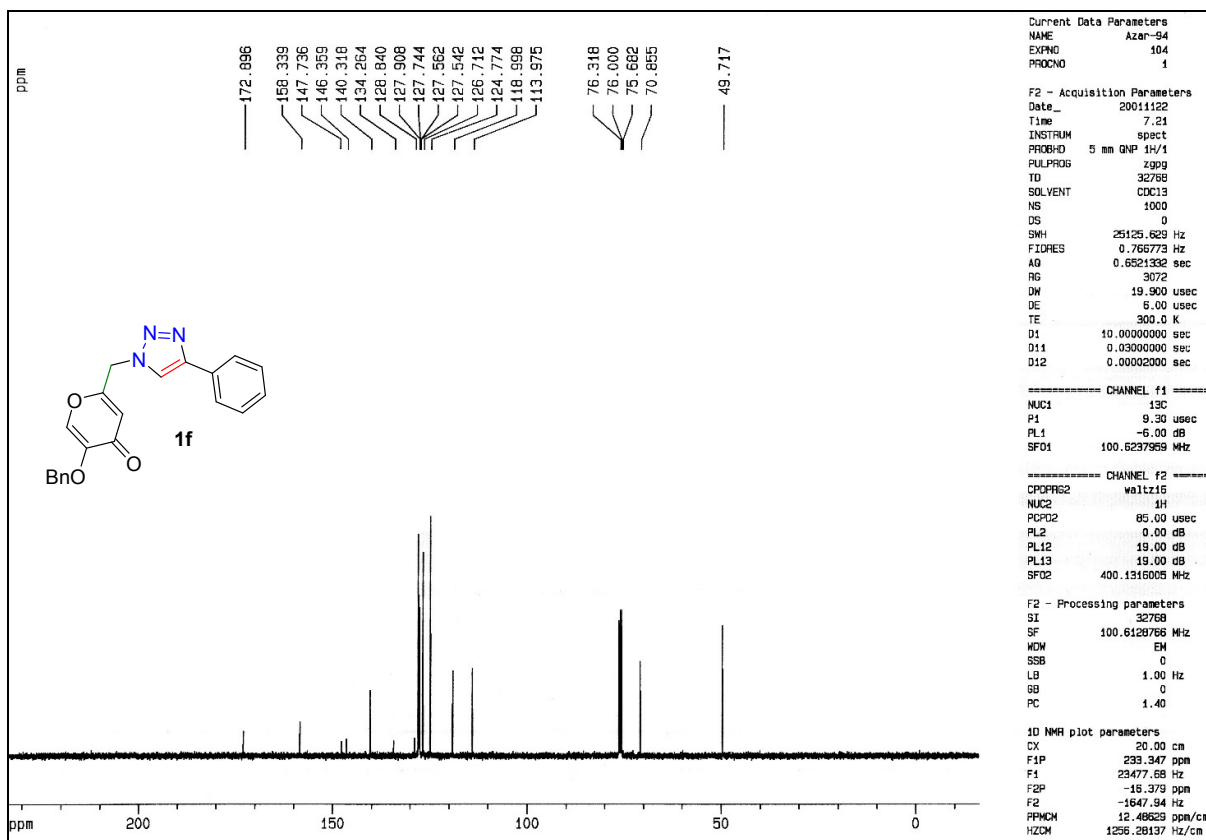
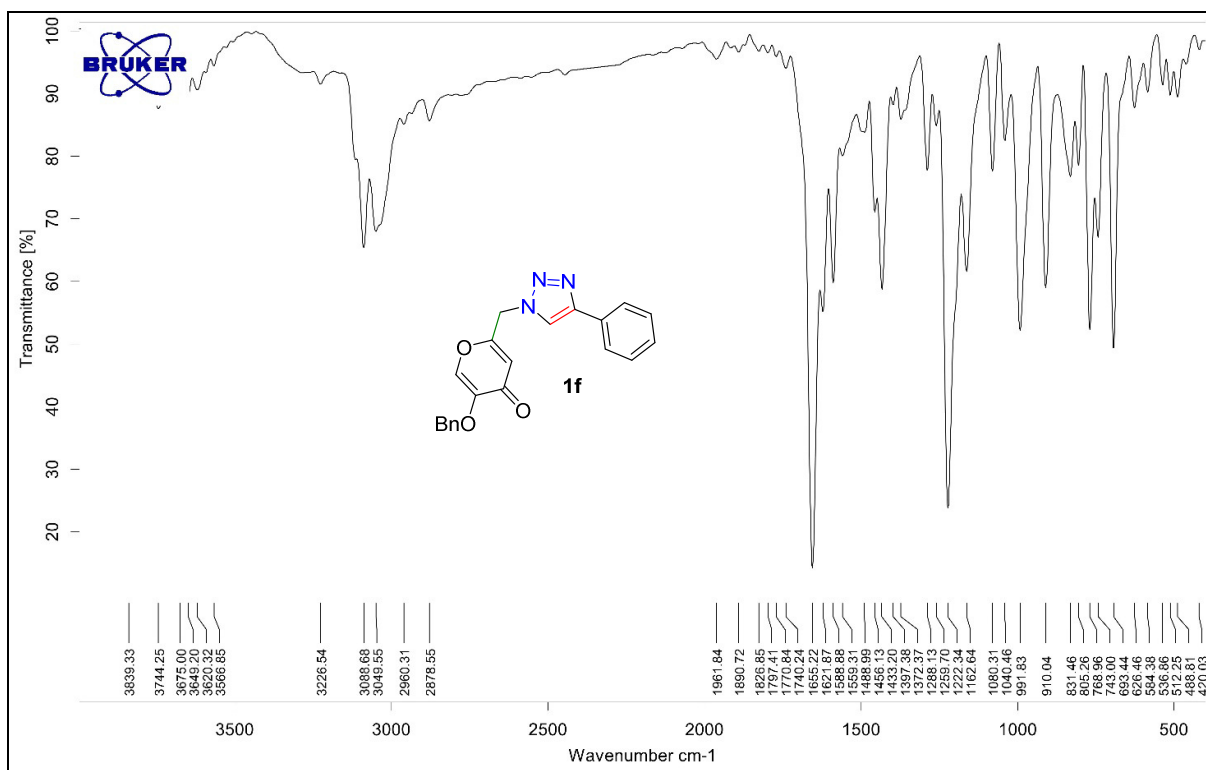


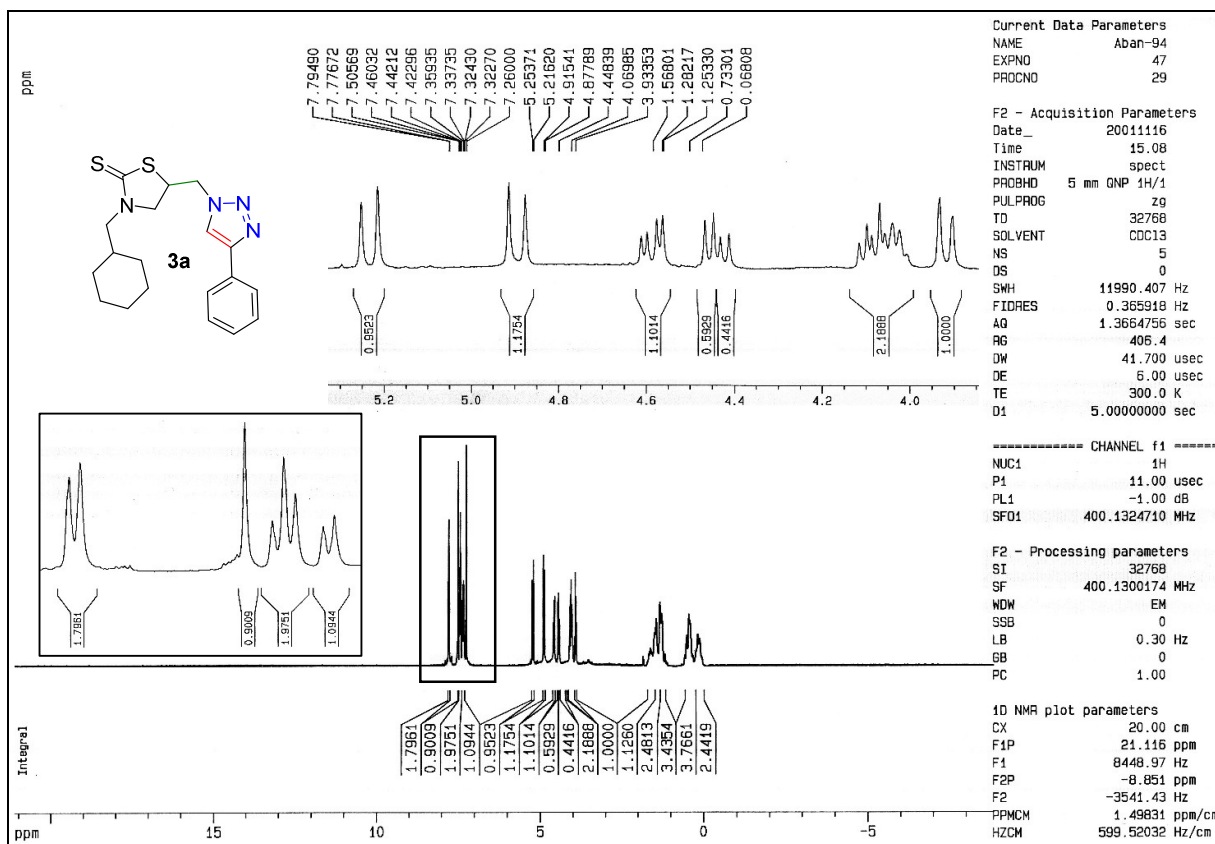
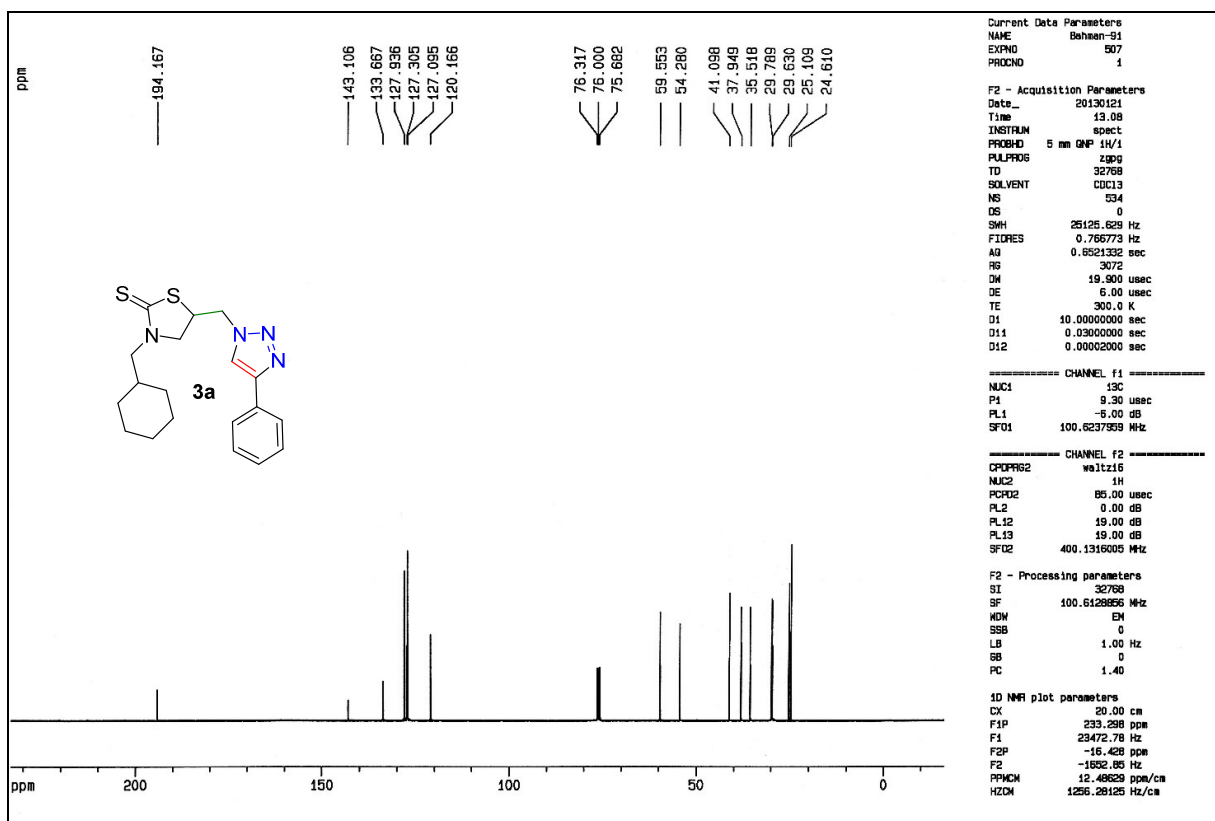
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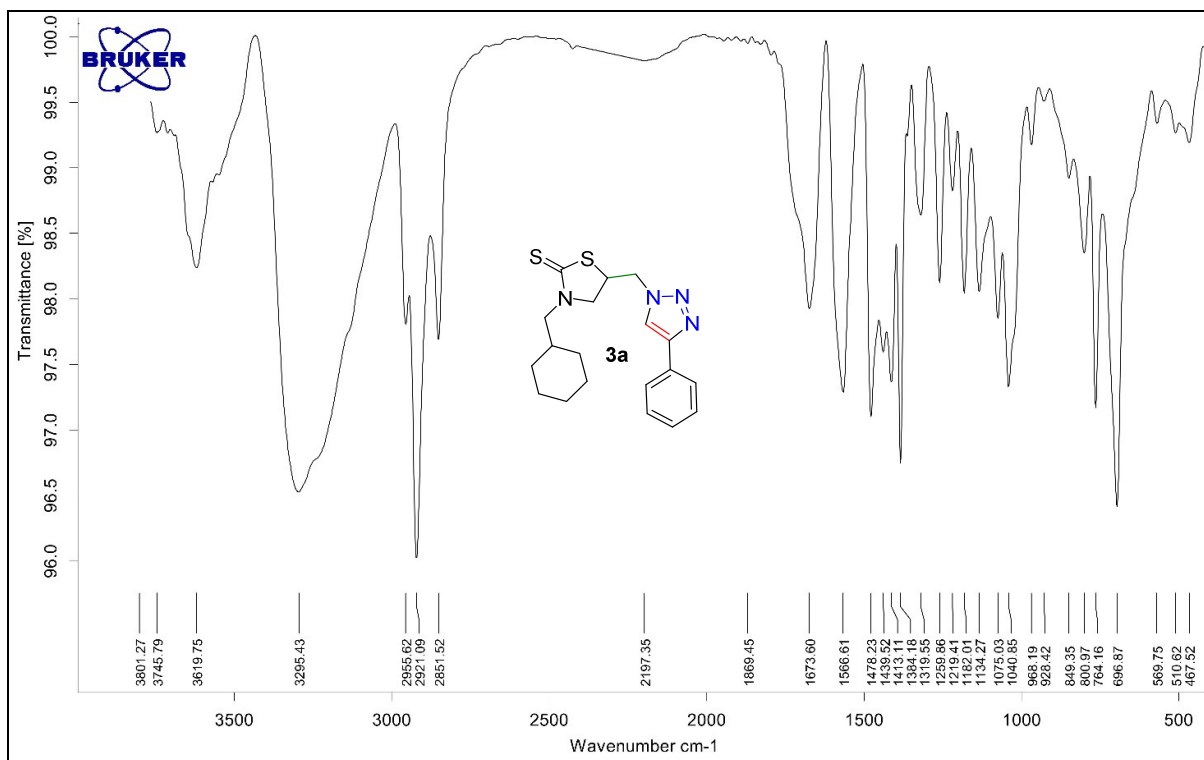
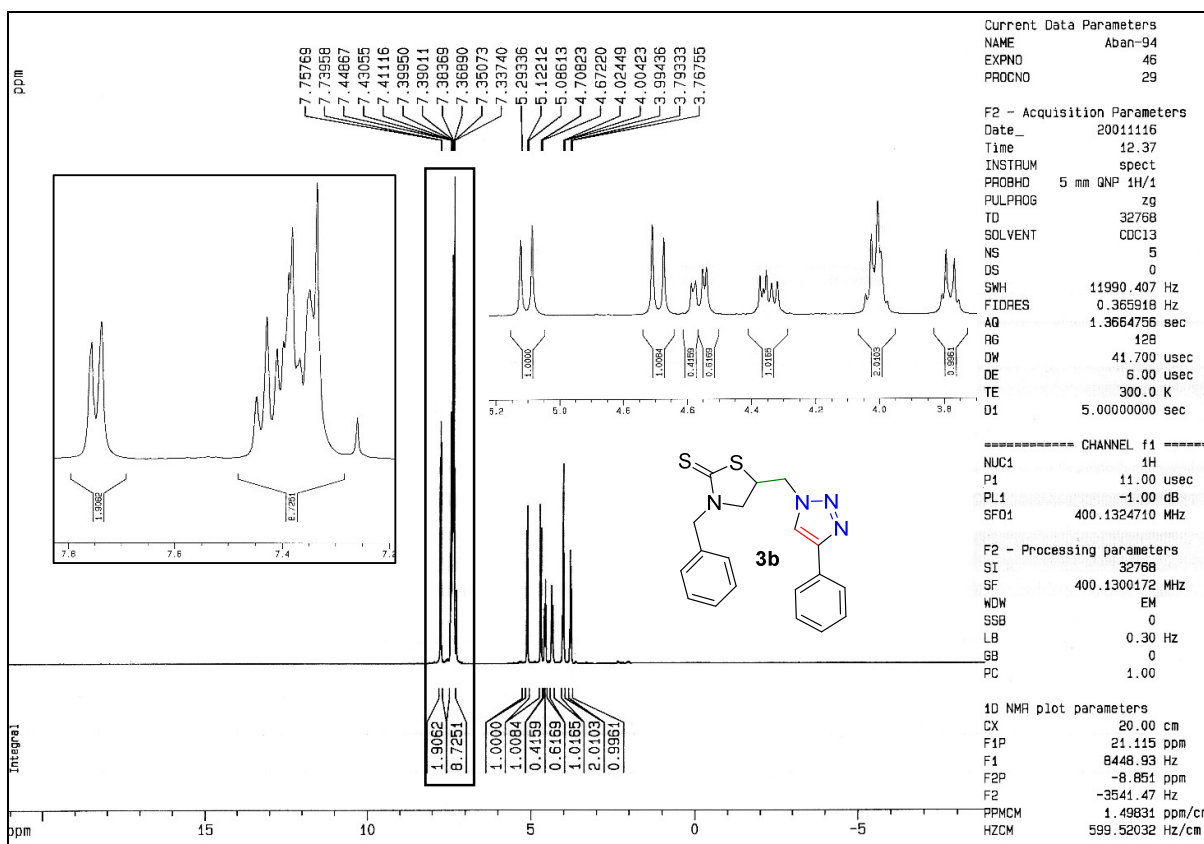


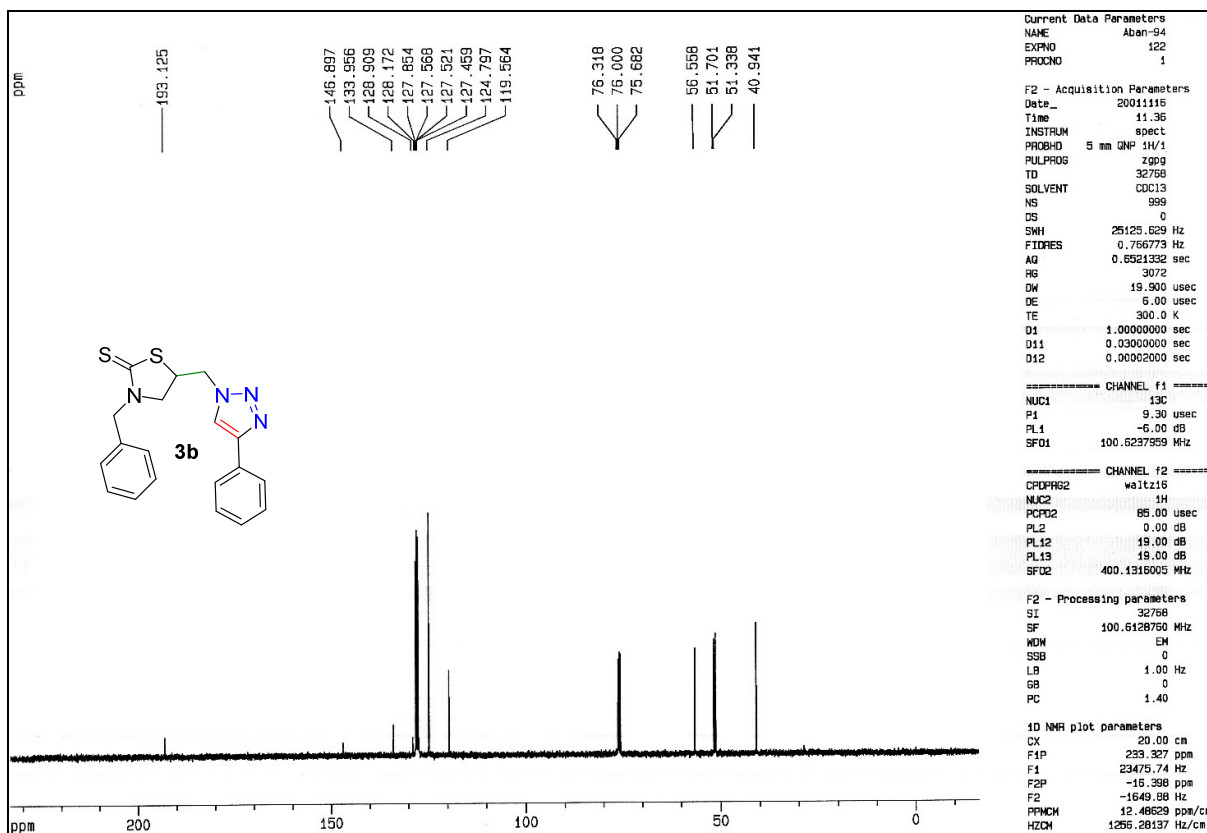
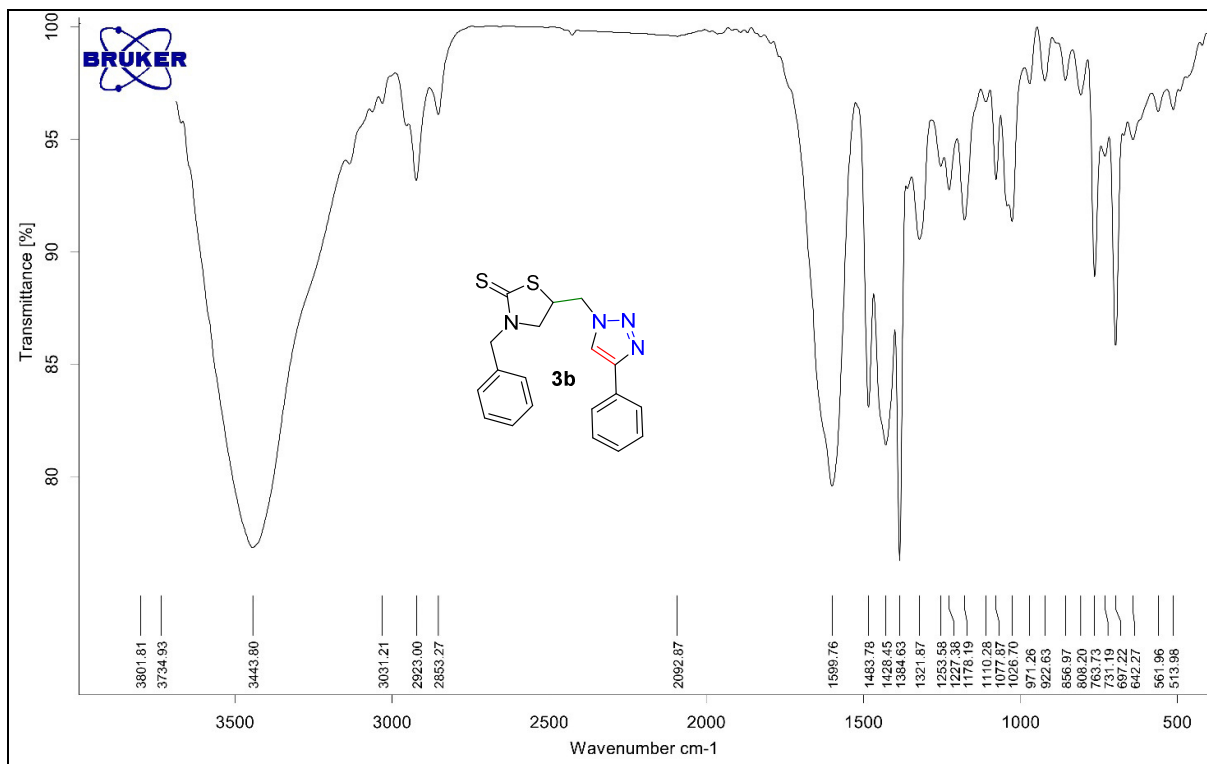
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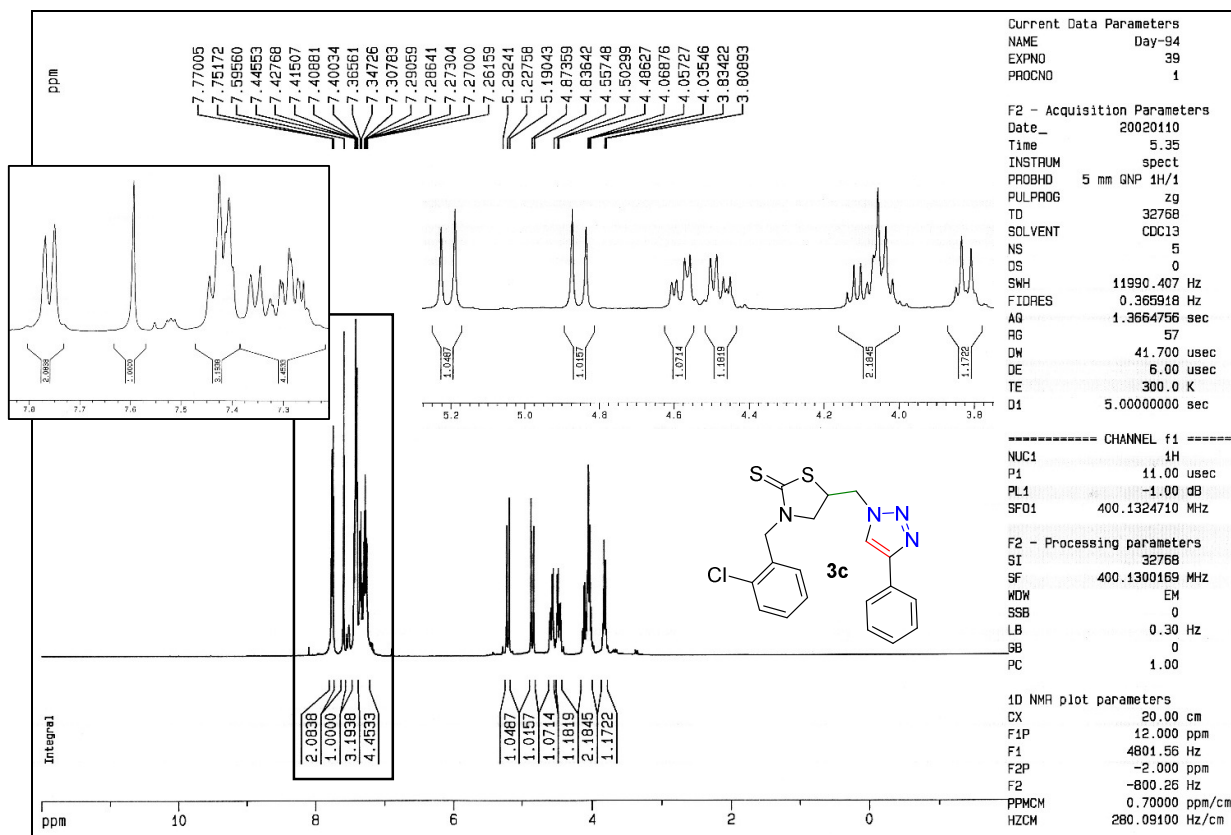
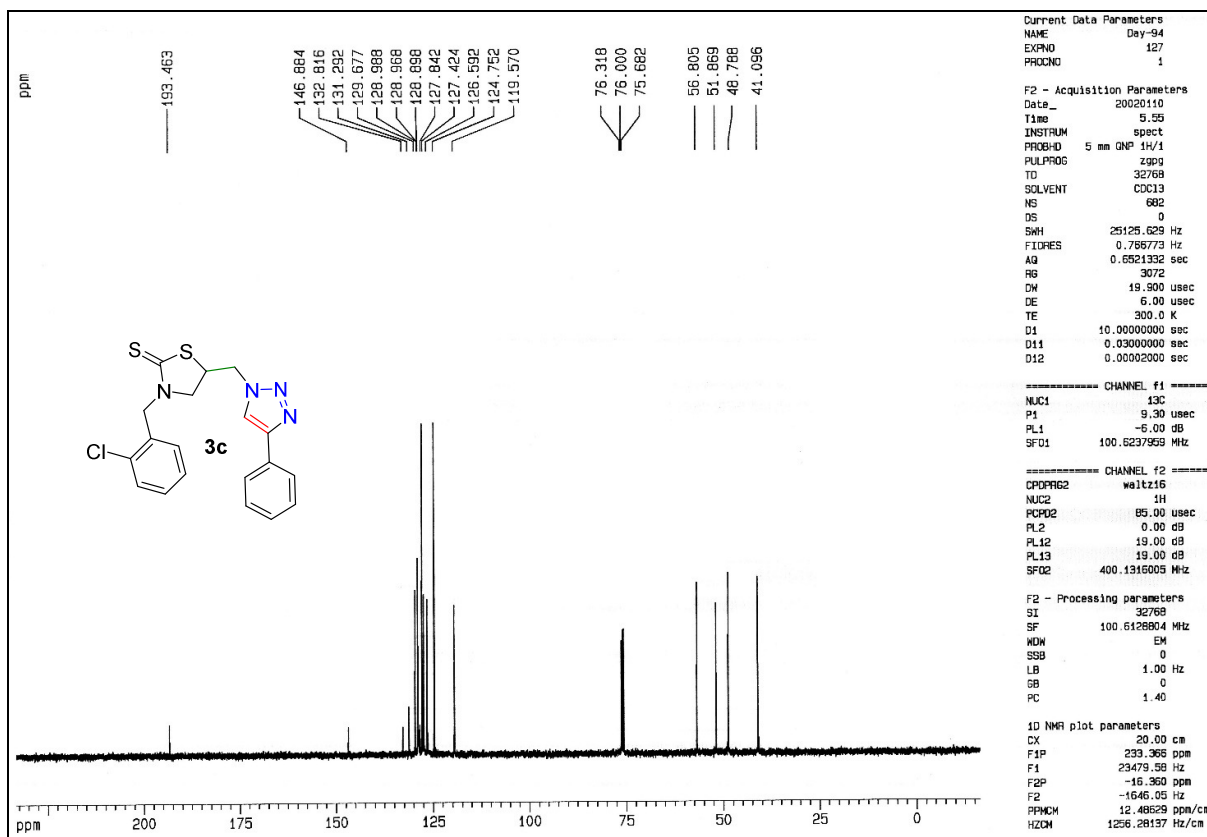
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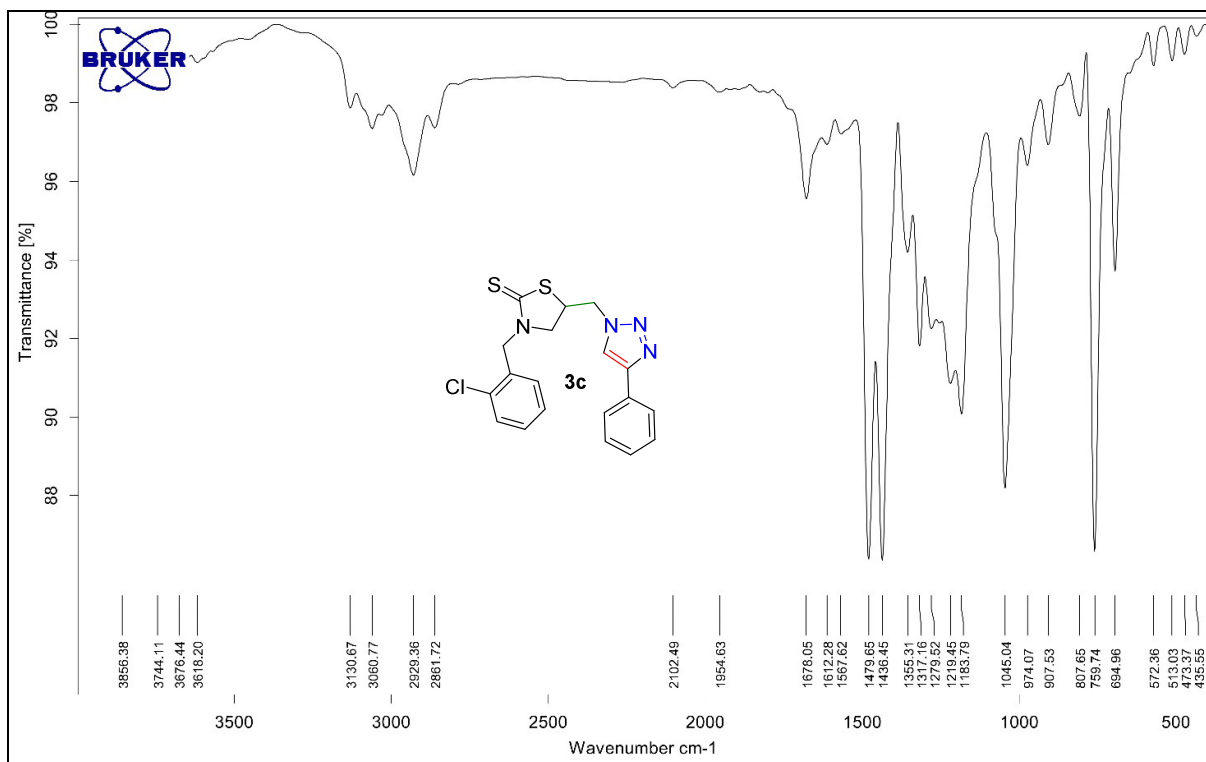
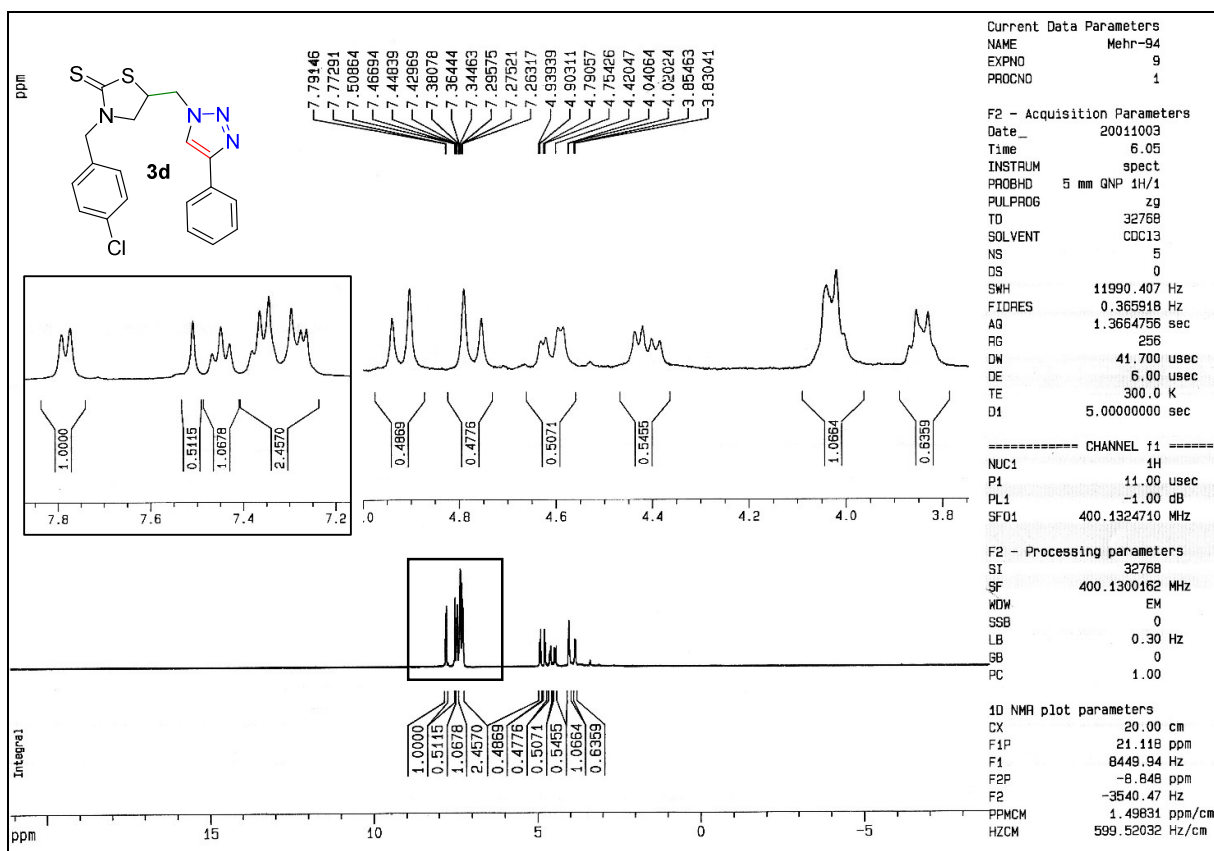
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Figure S23.  $^{13}\text{C}$  NMR spectrum (100 MHz,  $\text{CDCl}_3$ ) of compound **3b**Figure S24. FTIR (KBr) spectrum of compound **3b**



Figure S25. <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound 3cFigure S26. <sup>13</sup>C NMR spectrum (100 MHz, CDCl<sub>3</sub>) of compound 3c



Figure S27. FTIR (KBr) spectrum of compound **3c**Figure S28. <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound **3d**

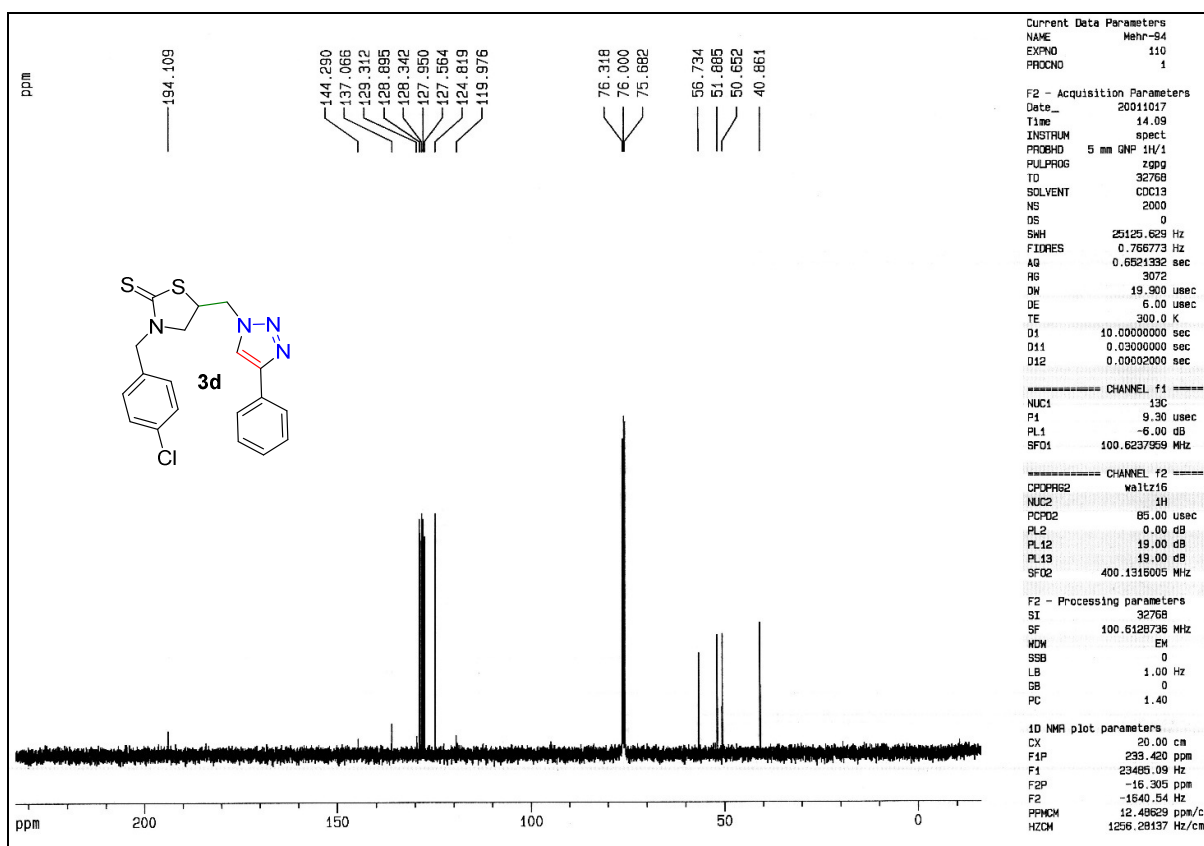
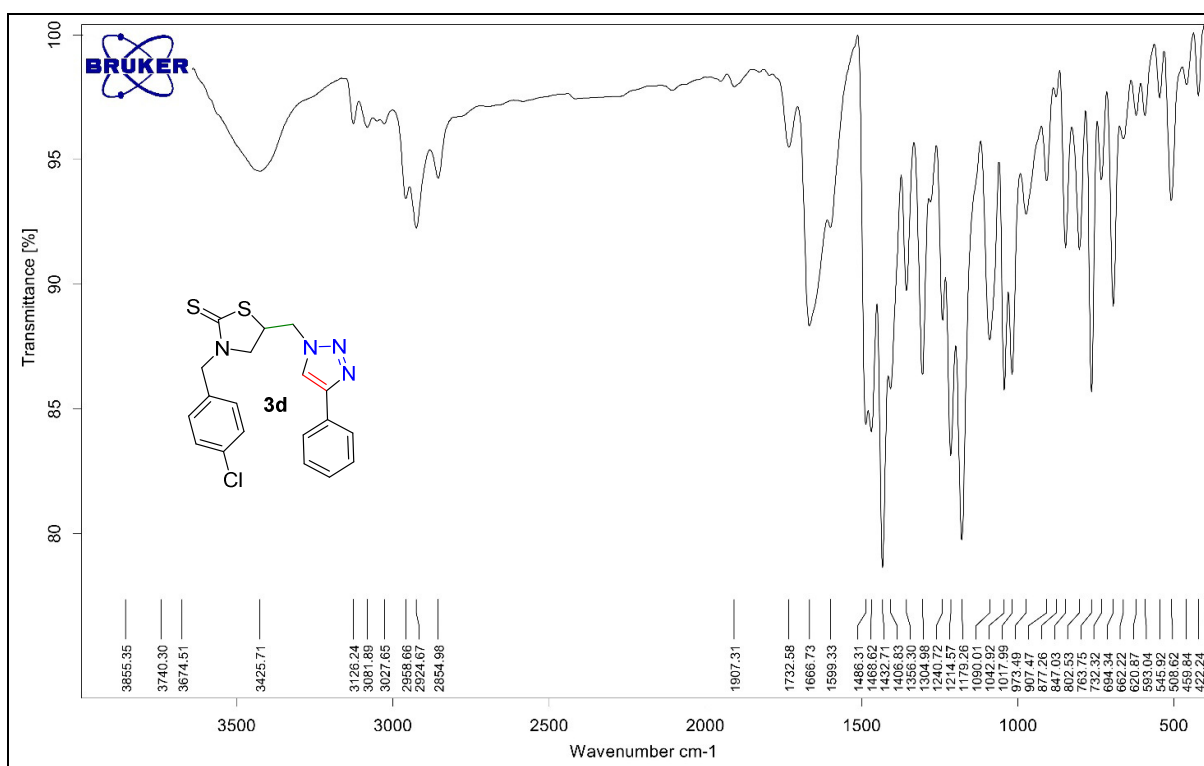
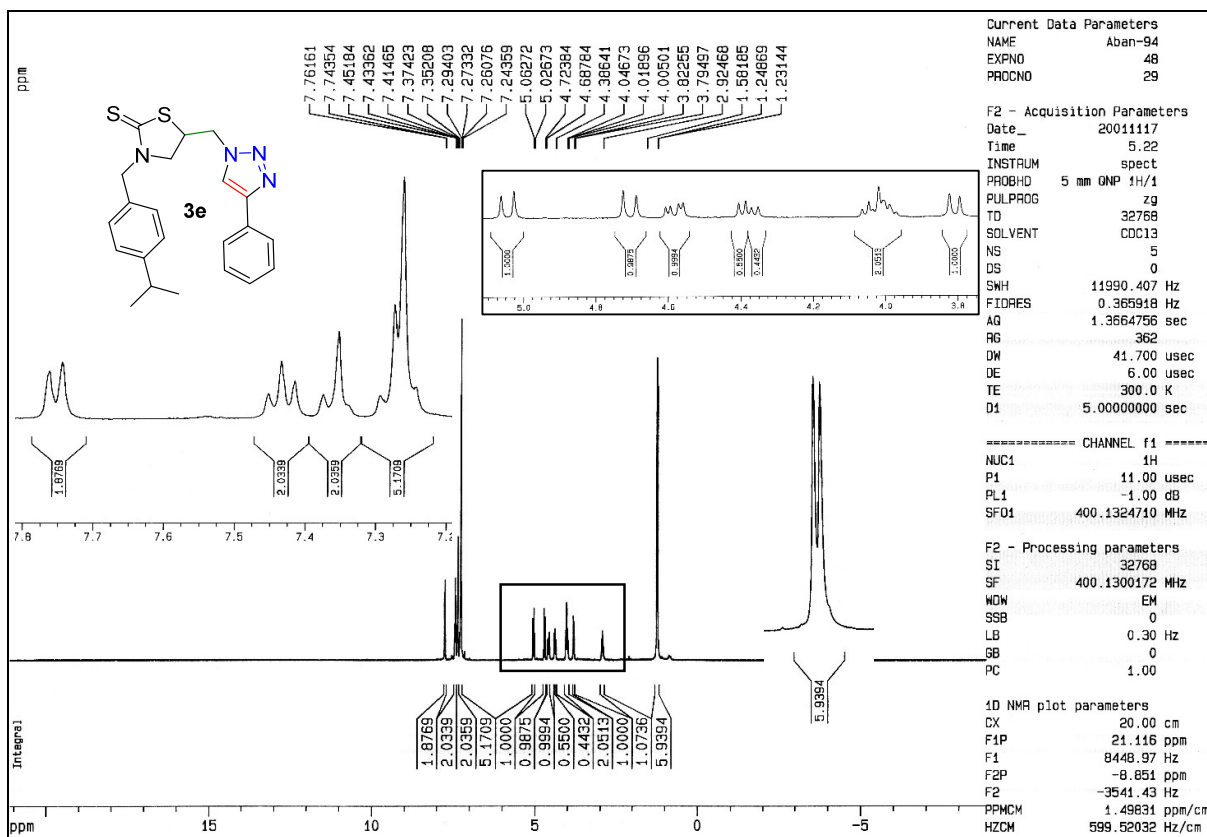
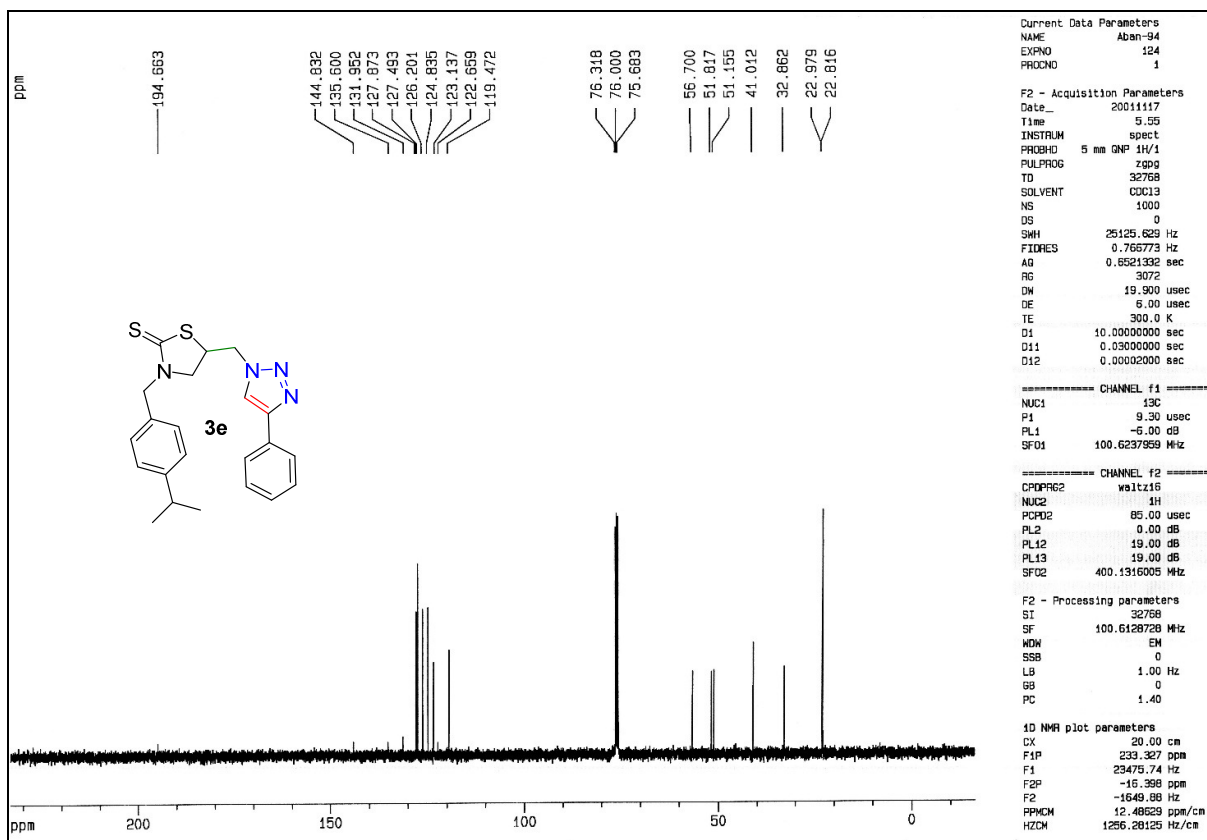
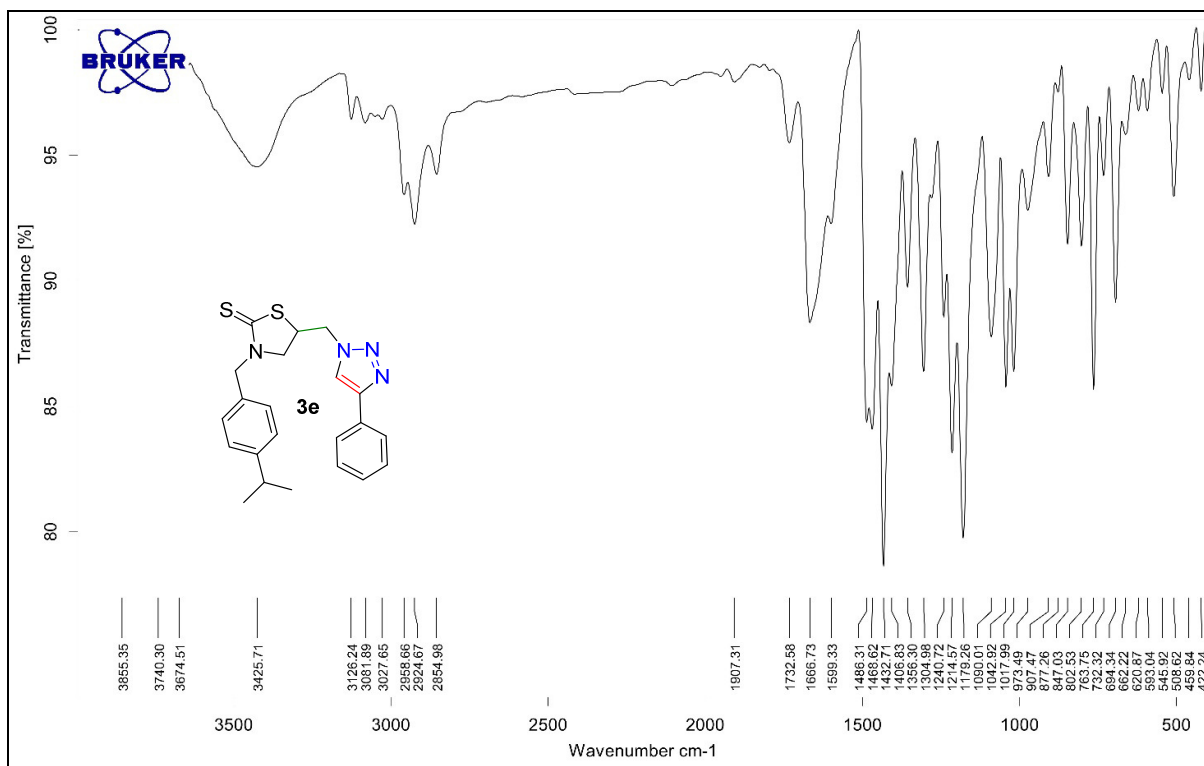
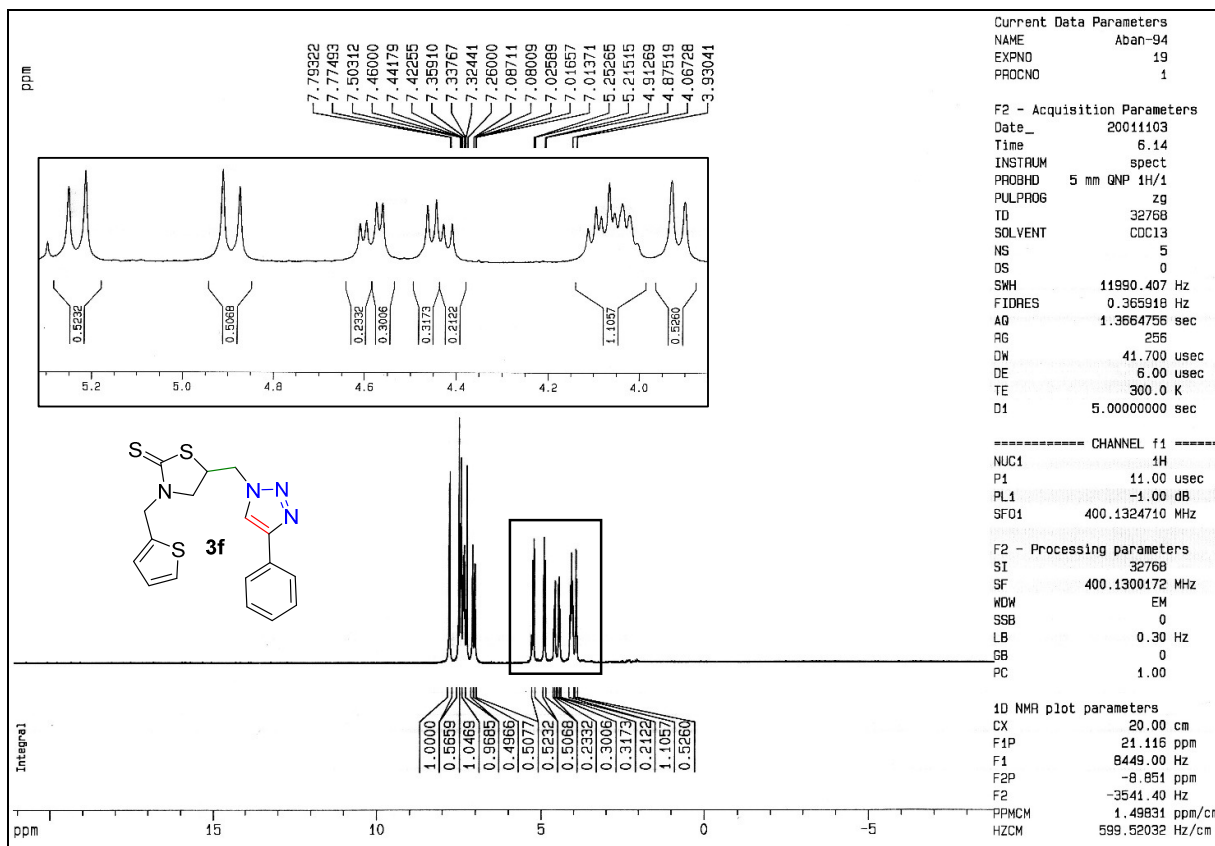
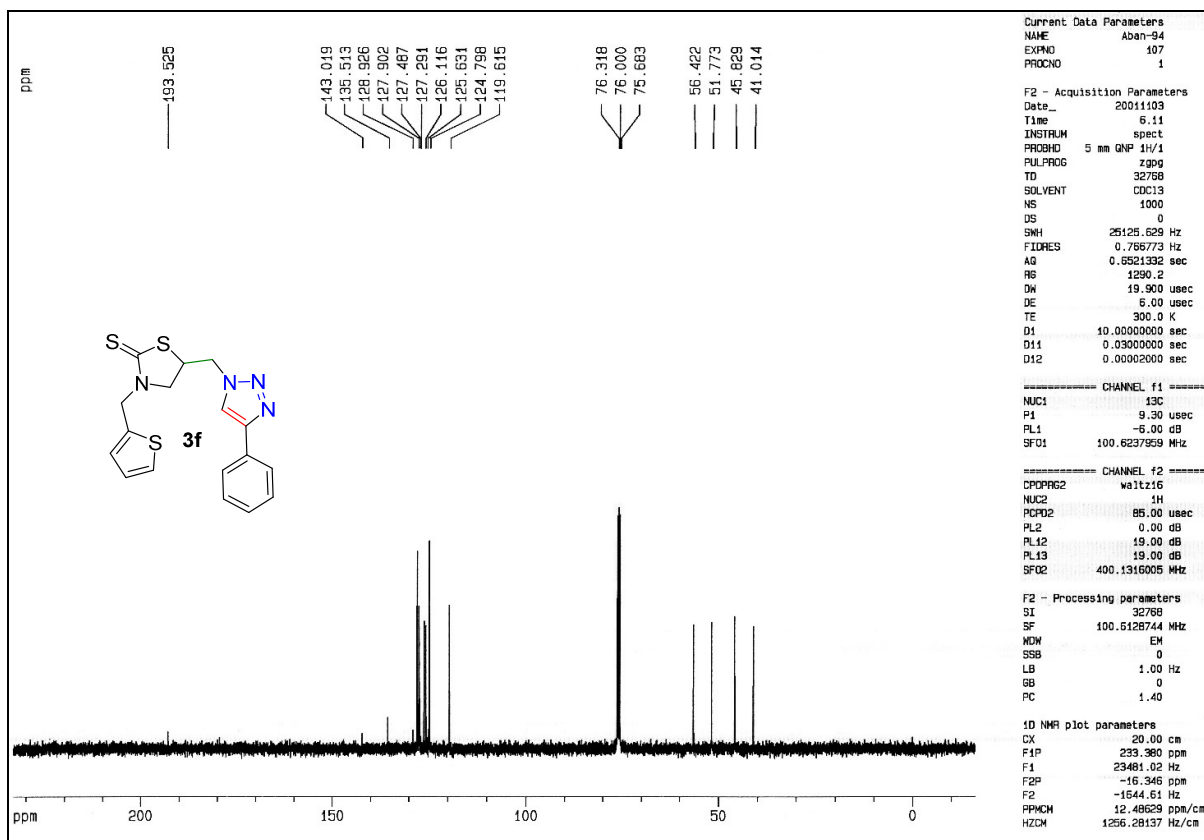
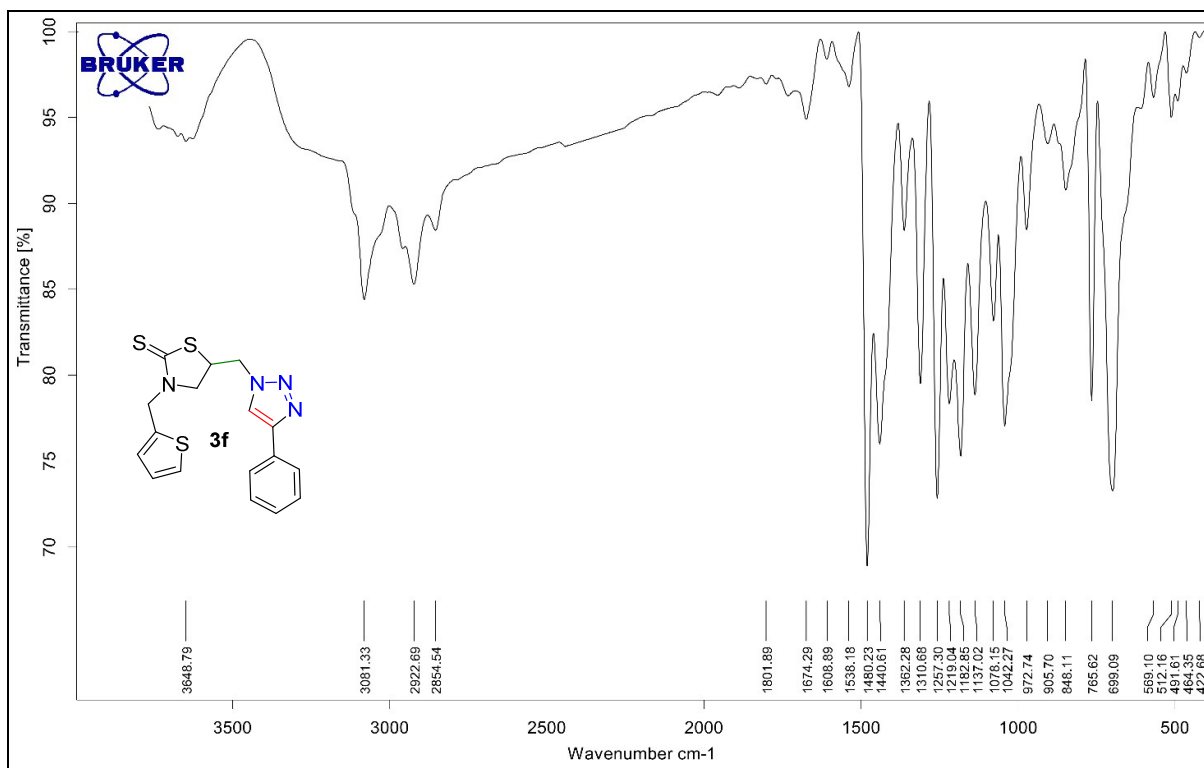
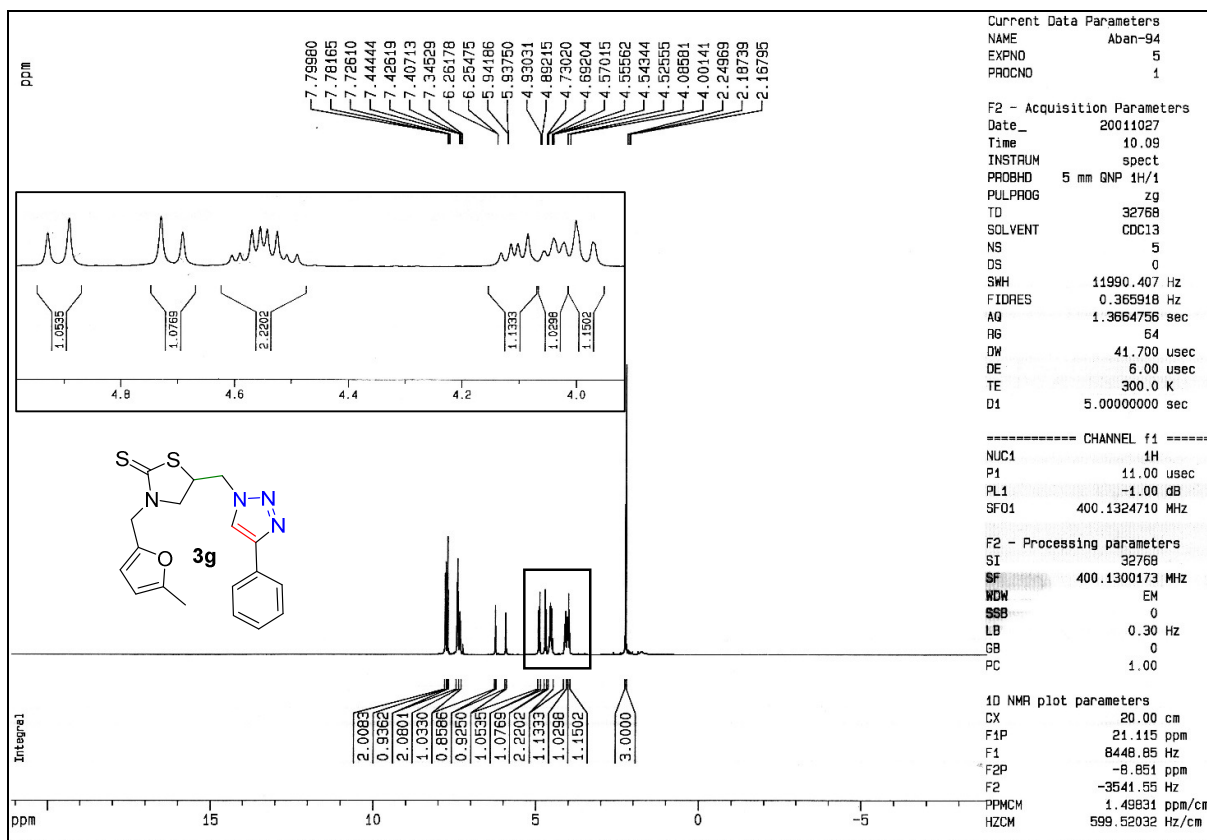
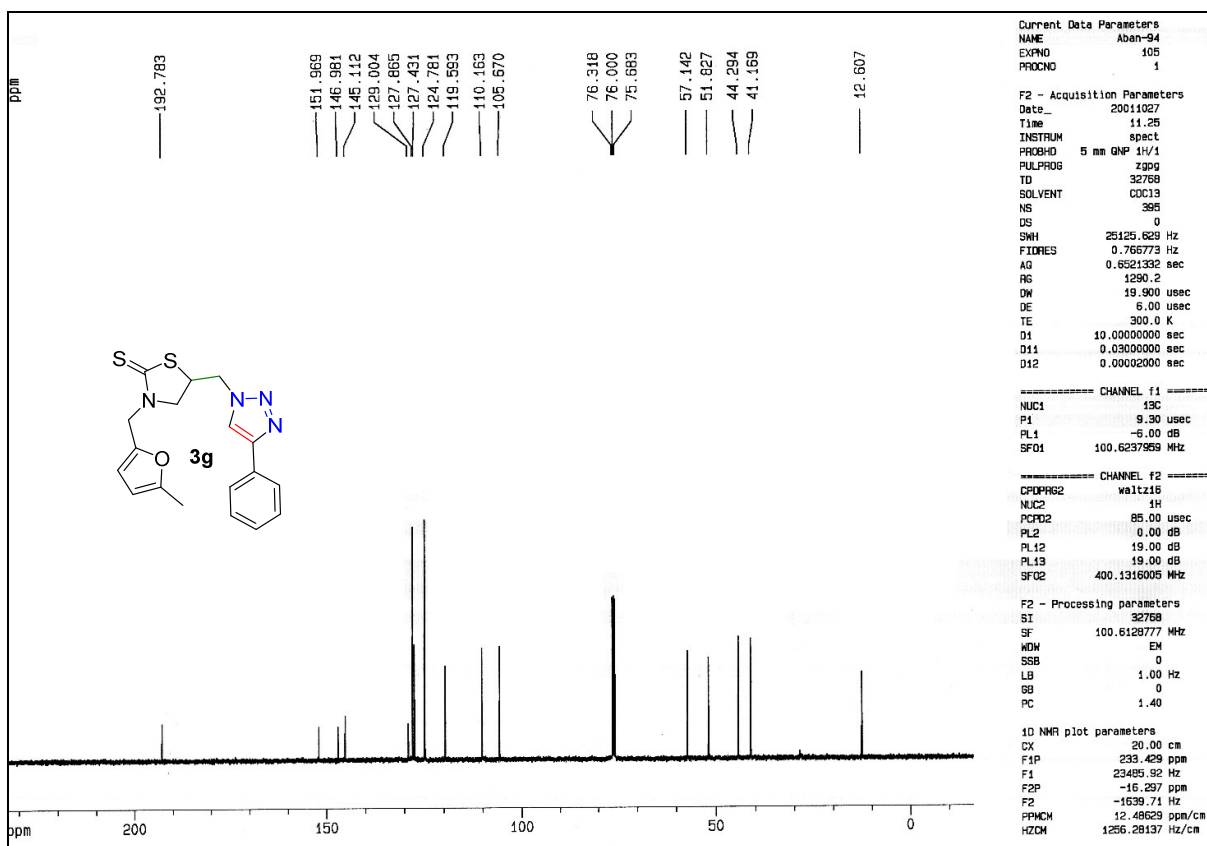
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Figure S30. FTIR (KBr) spectrum of compound 3d

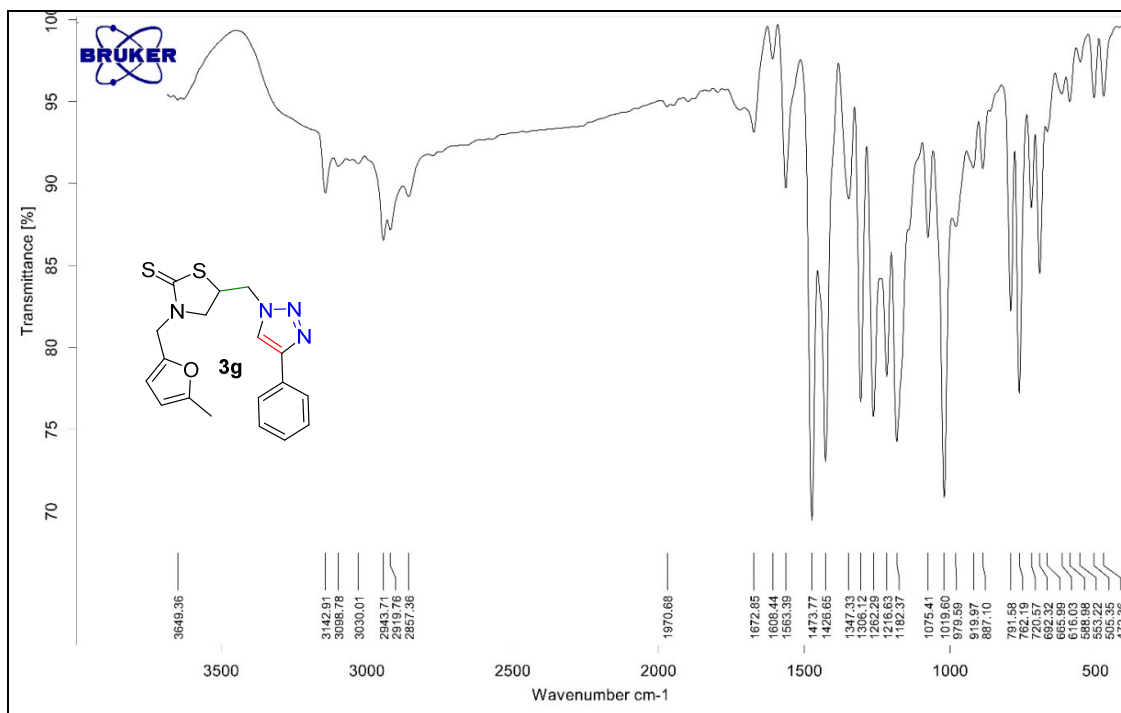
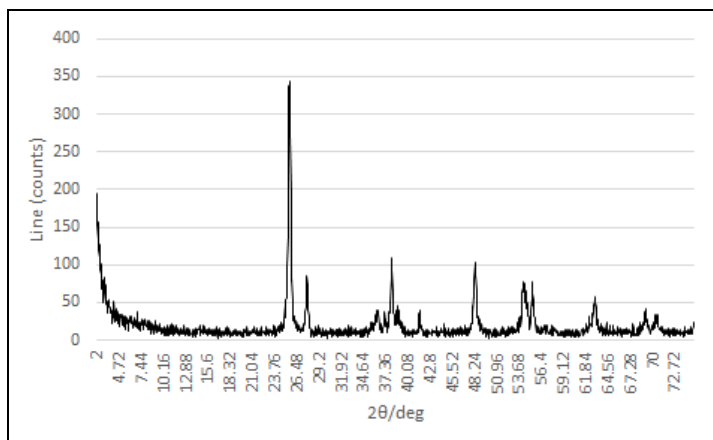
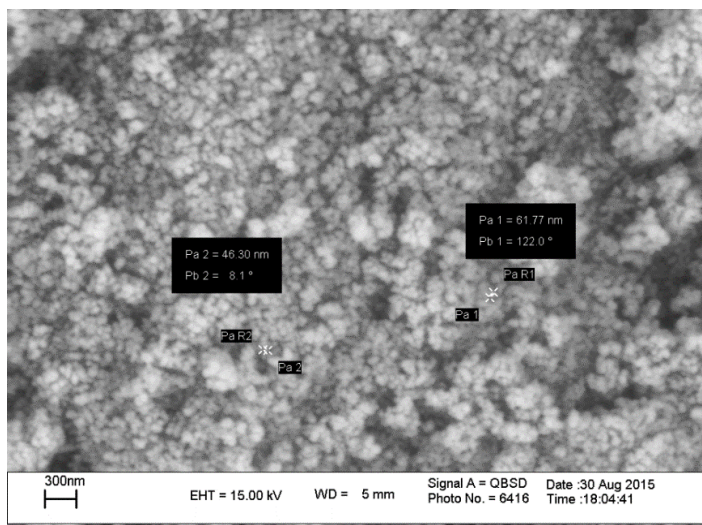
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Figure S35.  $^{13}\text{C}$  NMR spectrum (100 MHz,  $\text{CDCl}_3$ ) of compound **3f**Figure S36. FTIR (KBr) spectrum of compound **3f**

Figure S37. <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound **3g**Figure S38. <sup>13</sup>C NMR spectrum (100 MHz, CDCl<sub>3</sub>) of compound **3g**



Figure S39. FTIR (KBr) spectrum of compound **3g**Figure S40. The XRD of Cu/TiO<sub>2</sub> nanocatalystFigure S41. The SEM of Cu/TiO<sub>2</sub> nanocatalyst