

## Supplementary Material

### Synthesis and antibacterial activity of furo[3,2-*b*]pyrrole derivatives

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#### Table of Contents

- Figure S1.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **1d**  
**Figure S2.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **1d**  
**Figure S3.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **4**  
**Figure S4.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **4**  
**Figure S5.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **5a**  
**Figure S6.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **5a**  
**Figure S7.** FTIR (ATR) spectrum of compound **5a**  
**Figure S8.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **5b**  
**Figure S9.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **5b**  
**Figure S10.** FTIR (ATR) spectrum of compound **5b**  
**Figure S11.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **5c**  
**Figure S12.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **5c**  
**Figure S13.** FTIR (ATR) spectrum of compound **5c**  
**Figure S14.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **6a**  
**Figure S15.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **6a**  
**Figure S16.** FTIR (ATR) spectrum of compound **6a**  
**Figure S17.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **6b**  
**Figure S18.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **6b**  
**Figure S19.** FTIR (ATR) spectrum of compound **6b**  
**Figure S20.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **7a**  
**Figure S21.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **7a**  
**Figure S22.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **7b**  
**Figure S23.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **7b**  
**Figure S24.** FTIR (ATR) spectrum of compound **7b**  
**Figure S25.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **7c**  
**Figure S26.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **7c**  
**Figure S27.** FTIR (ATR) spectrum of compound **7c**  
**Figure S28.** <sup>1</sup>H NMR spectrum (300 MHz, DMSO-*d*<sub>6</sub>) of compound **8a**

**Figure S29.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8a**

**Figure S30.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**

**Figure S31.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**

**Figure S32.** FTIR (ATR) spectrum of compound **8b**

**Figure S33.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-}d_6$ ) of compound **8c**

**Figure S34.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8c**

**Figure S35.** MS (ESI-) spectrum of compound **8c**

**Figure S36.** FTIR (ATR) spectrum of compound **8c**

**Figure S37.**  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **9**

**Figure S38.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **9**

**Figure S39.** FTIR (ATR) spectrum of compound **9**

**Figure S40.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-}d_6$ ) of compound **10a**

**Figure S41.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **10a**

**Figure S42.** FTIR (ATR) spectrum of compound **10a**

**Figure S43.**  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **10b**

**Figure S44.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **10b**

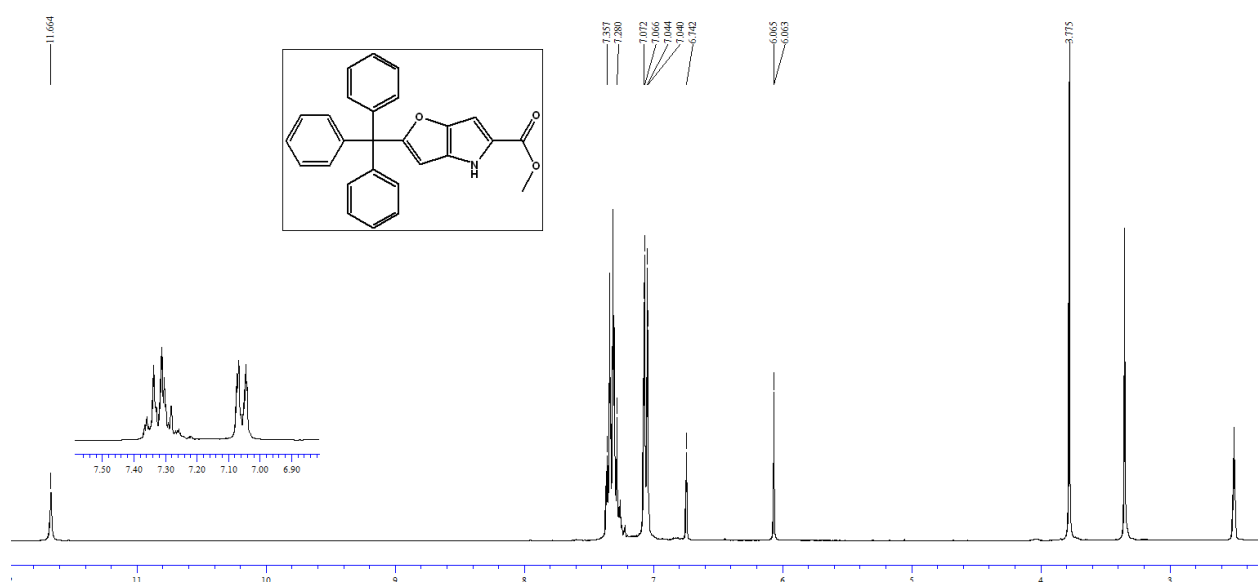
**Figure S45.** FTIR (ATR) spectrum of compound **10b**

**Figure S46.** HSQC spectrum ( $\text{DMSO-}d_6$ ) of compound **10b**

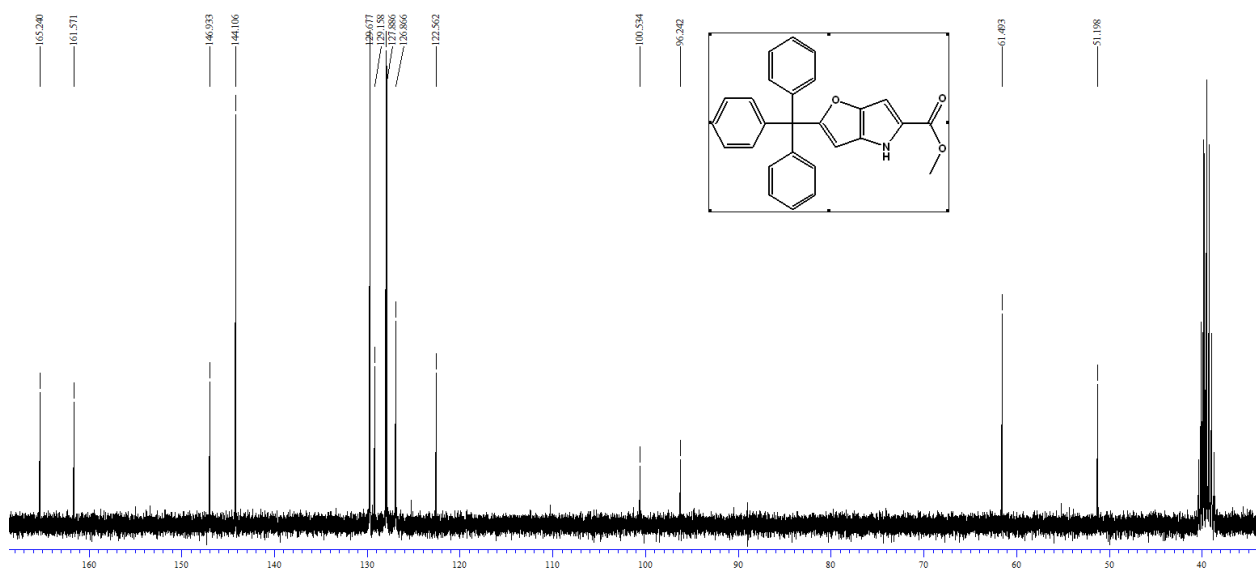
**Figure S47.** HMBC spectrum ( $\text{DMSO-}d_6$ ) of compound **10b**

**Figure S48.** HMBC spectrum ( $\text{DMSO-}d_6$ ) of compound **10b**

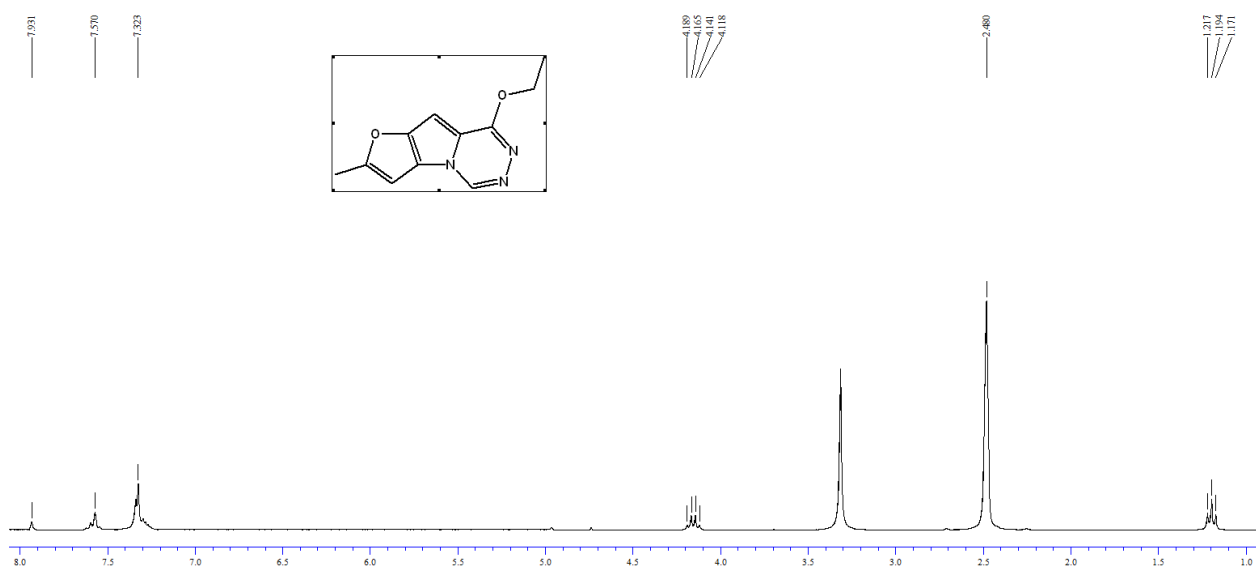
**Figure S49.** NOESY1D spectrum ( $\text{DMSO-}d_6$ ) of compound **10b**



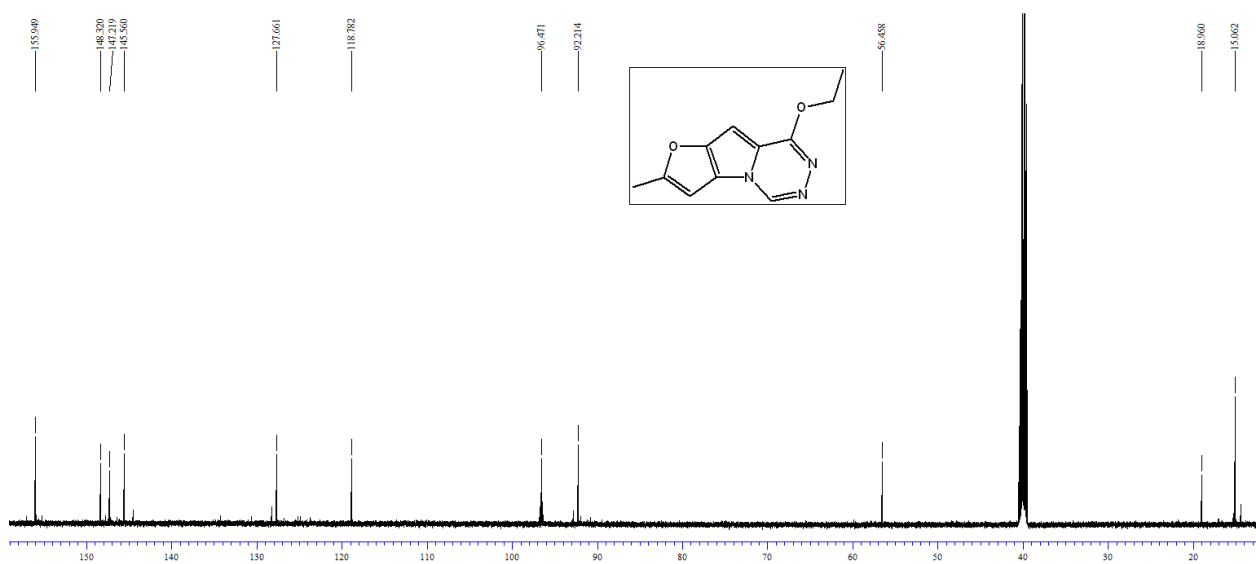
**Figure S1.**  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **1d**



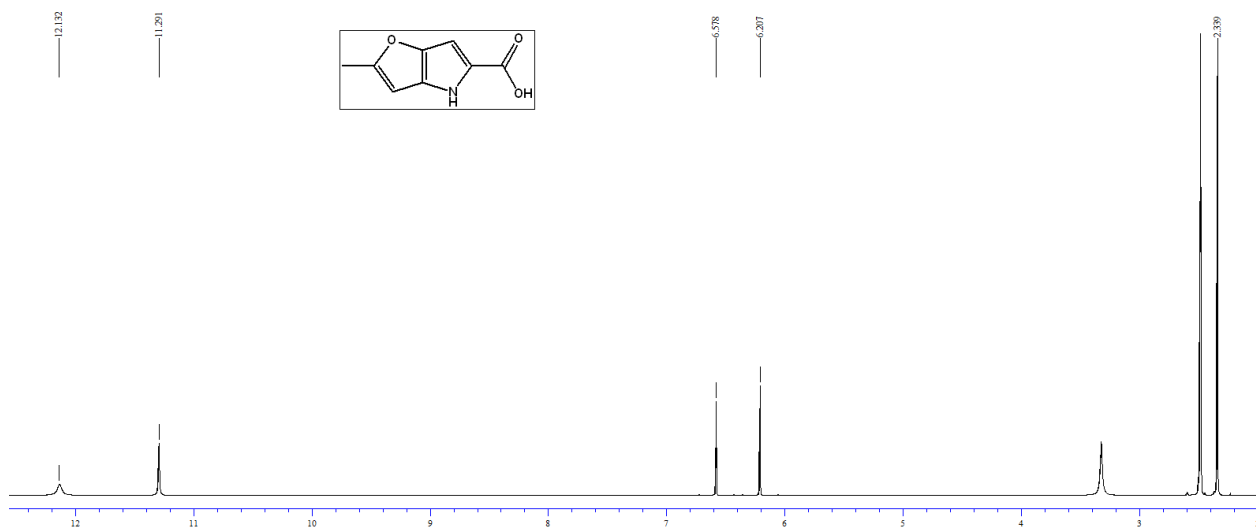
**Figure S2.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **1d**



**Figure S3.** <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **4**



**Figure S4.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound 4



**Figure S5.** <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 5a

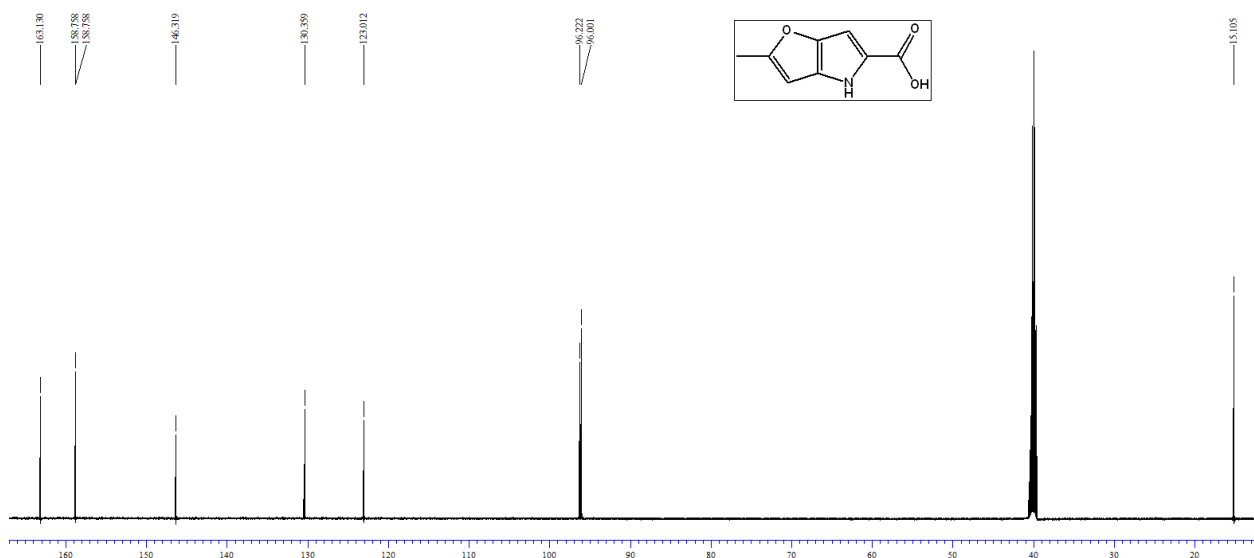


Figure S6. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound 5a

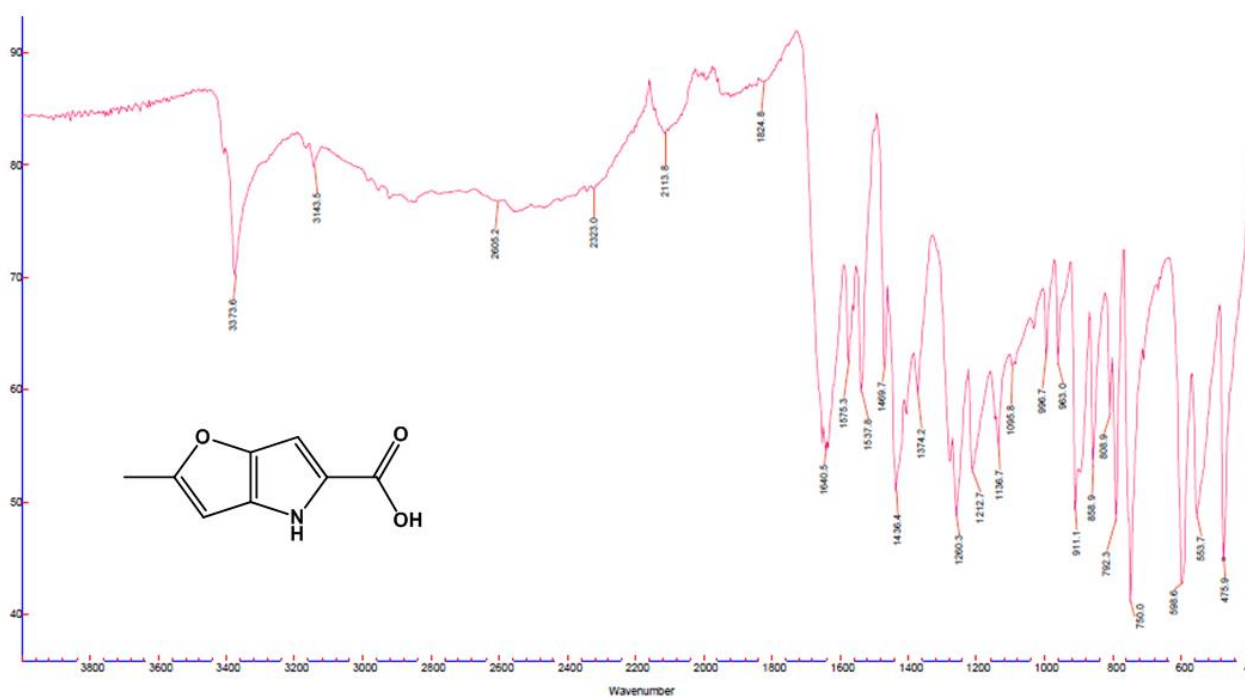


Figure S7. FTIR (ATR) spectrum of compound 5a

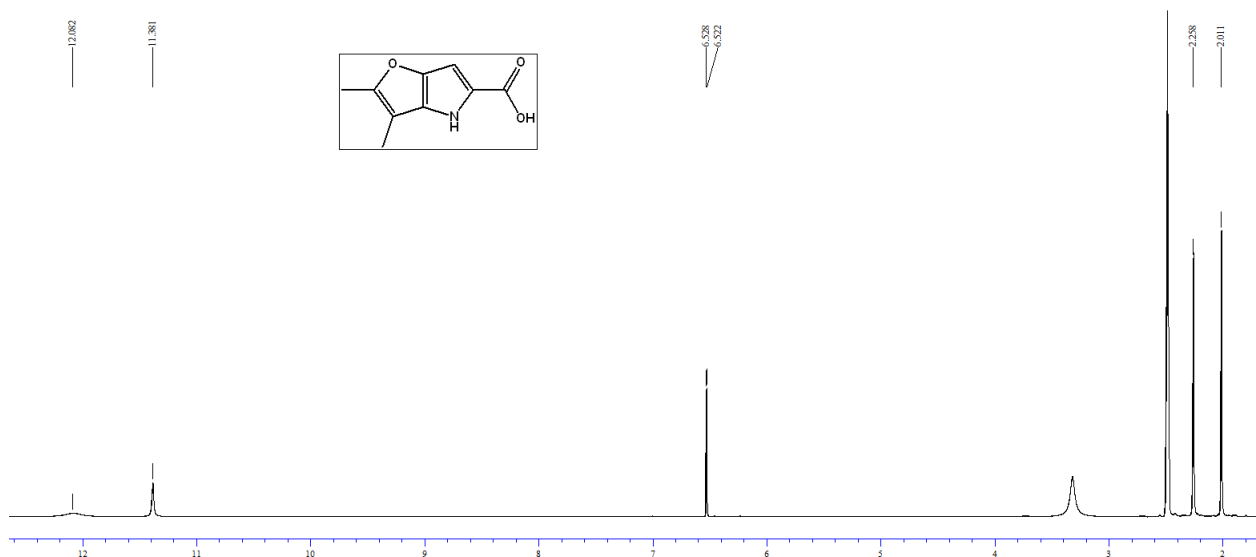


Figure S8.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound 5b

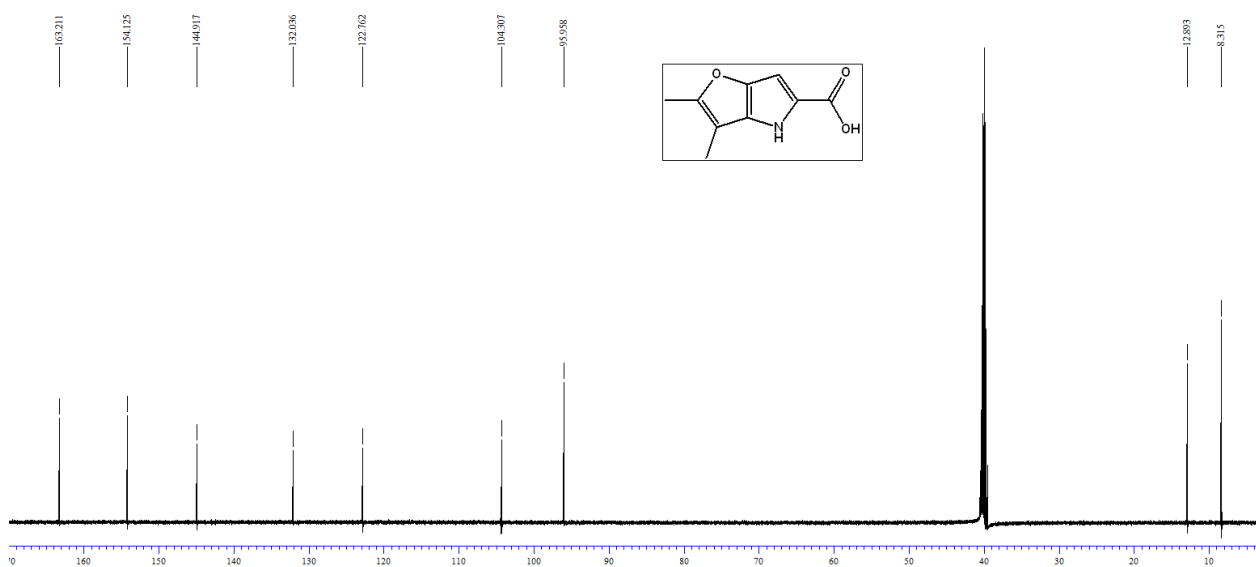
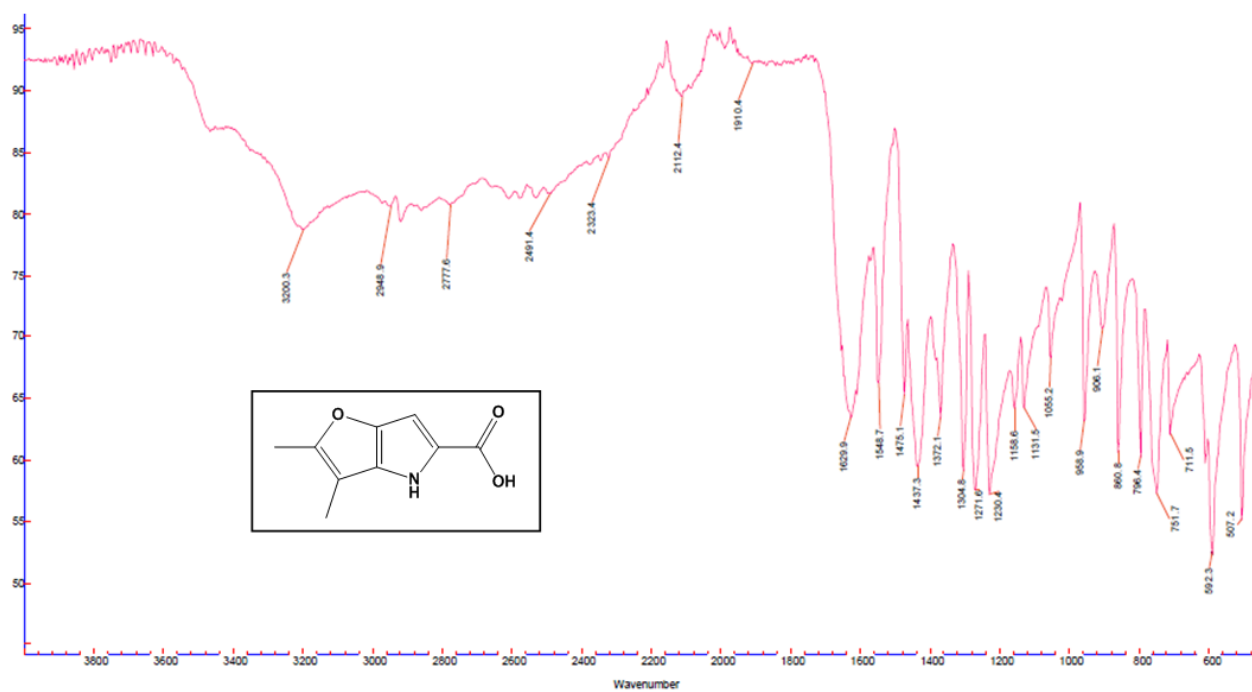
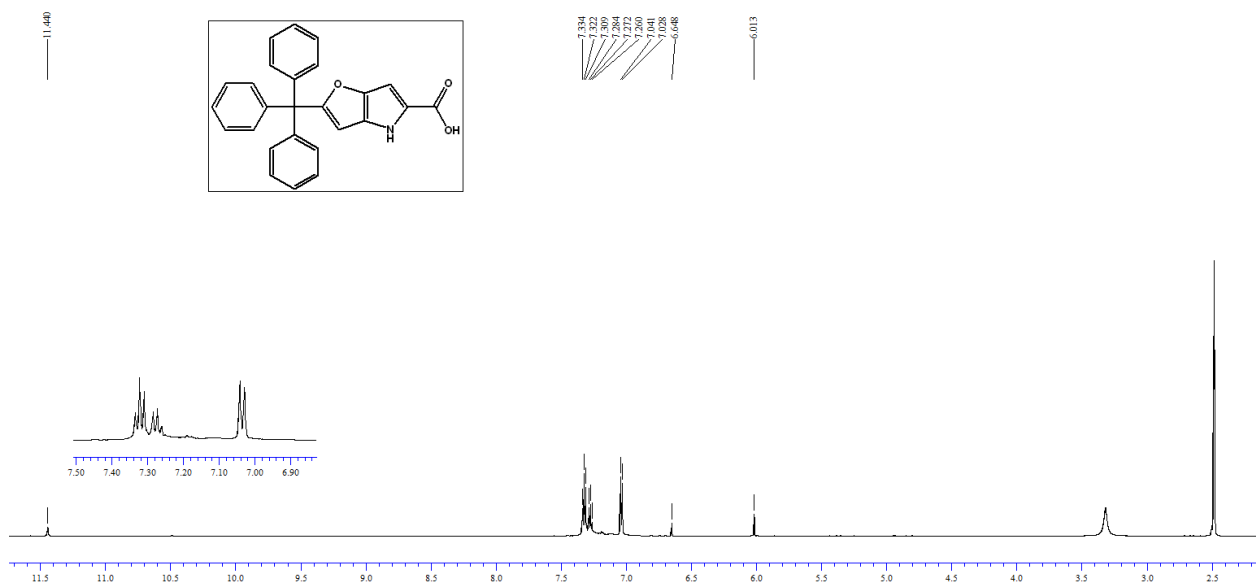


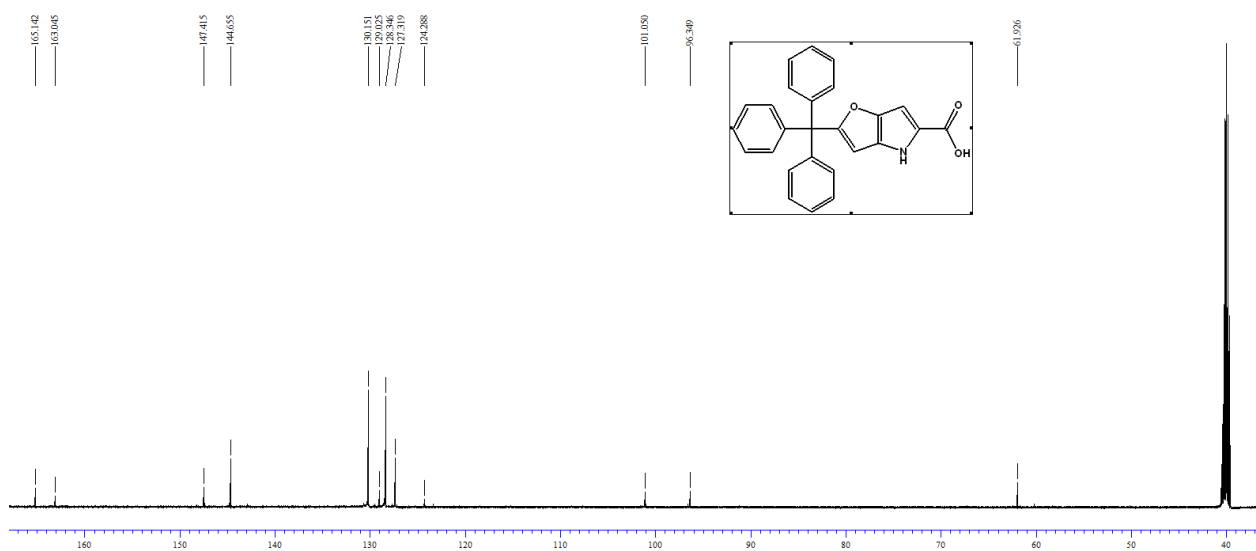
Figure S9.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound 5b



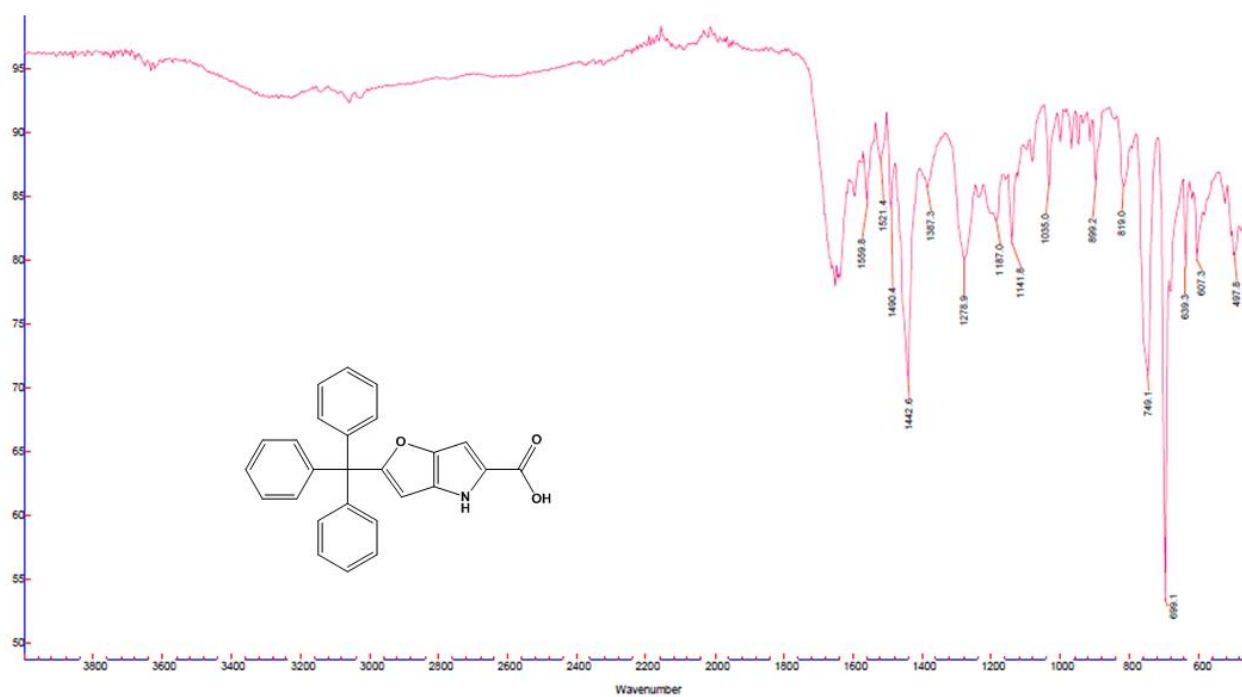
**Figure S10.** FTIR (ATR) spectrum of compound **5b**



**Figure S11.** <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **5c**



**Figure S12.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **5c**



**Figure S13.** FTIR (ATR) spectrum of compound **5c**



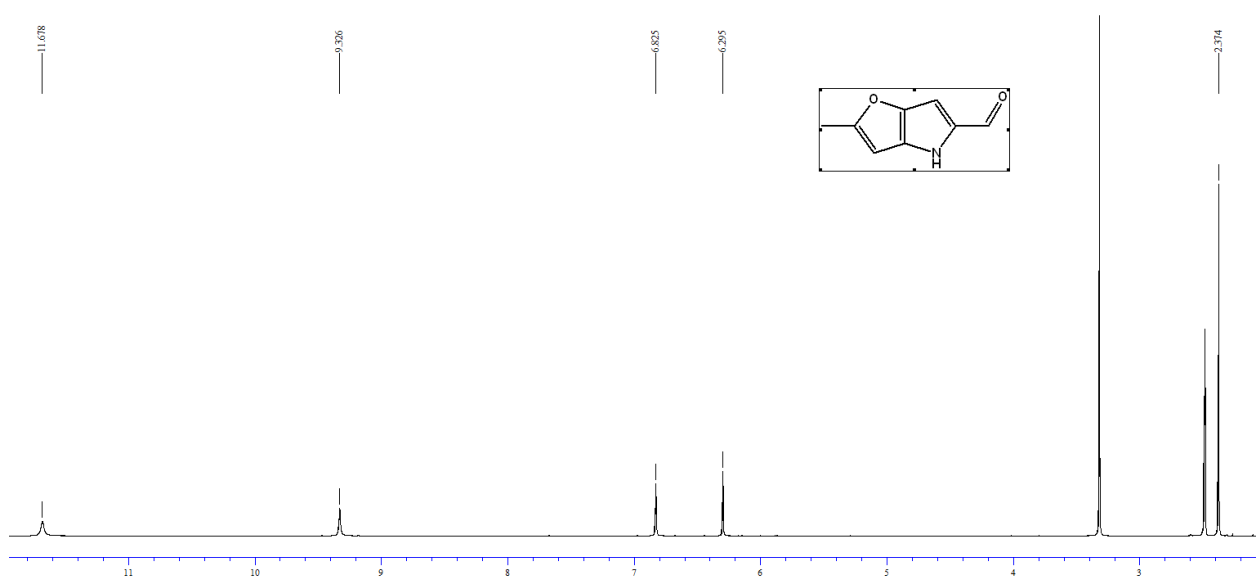


Figure S14. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 6a

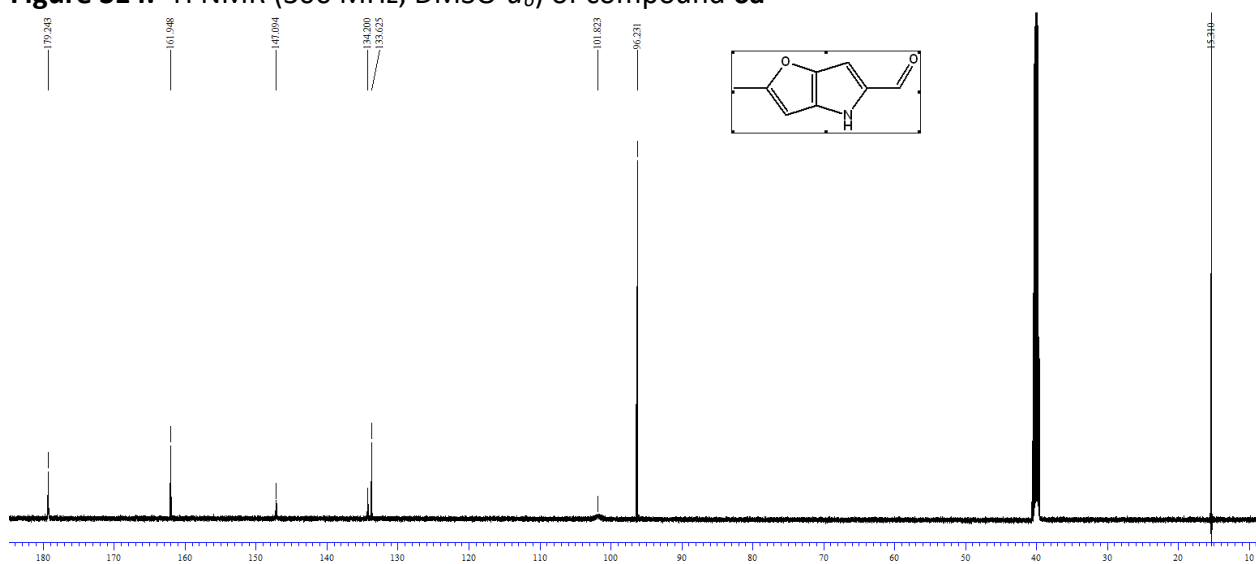


Figure S15. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound 6a

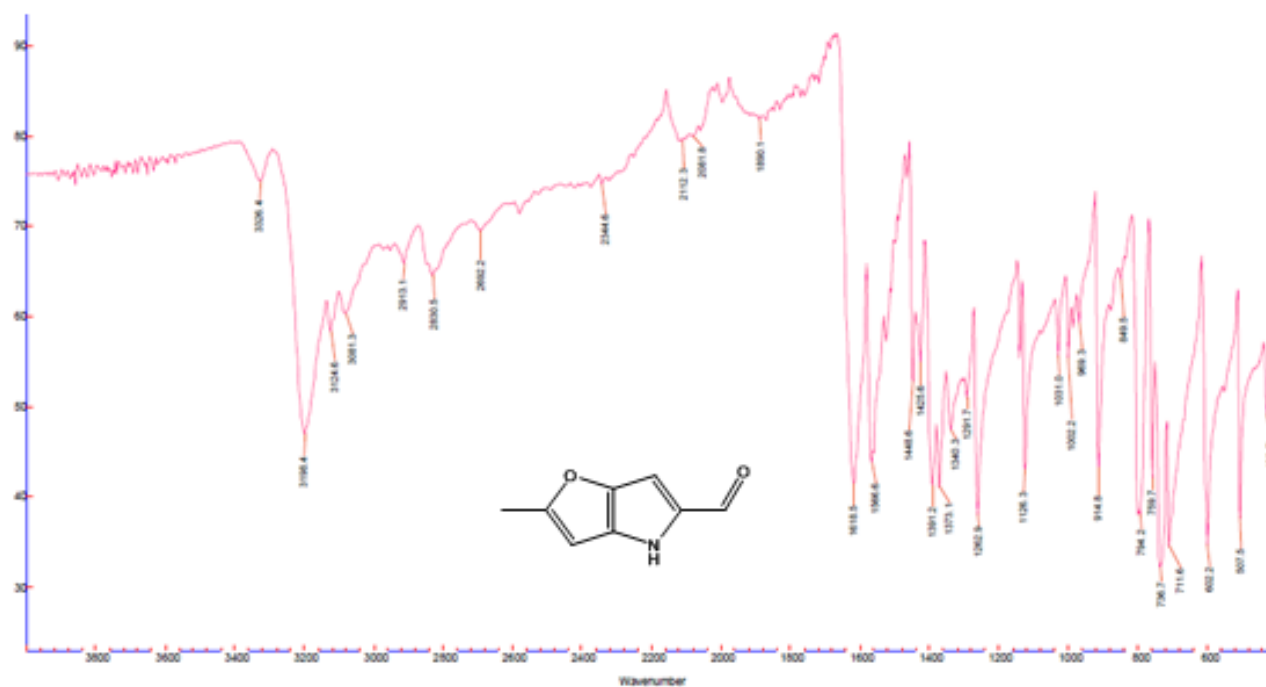


Figure S16. FTIR (ATR) spectrum of compound 6a

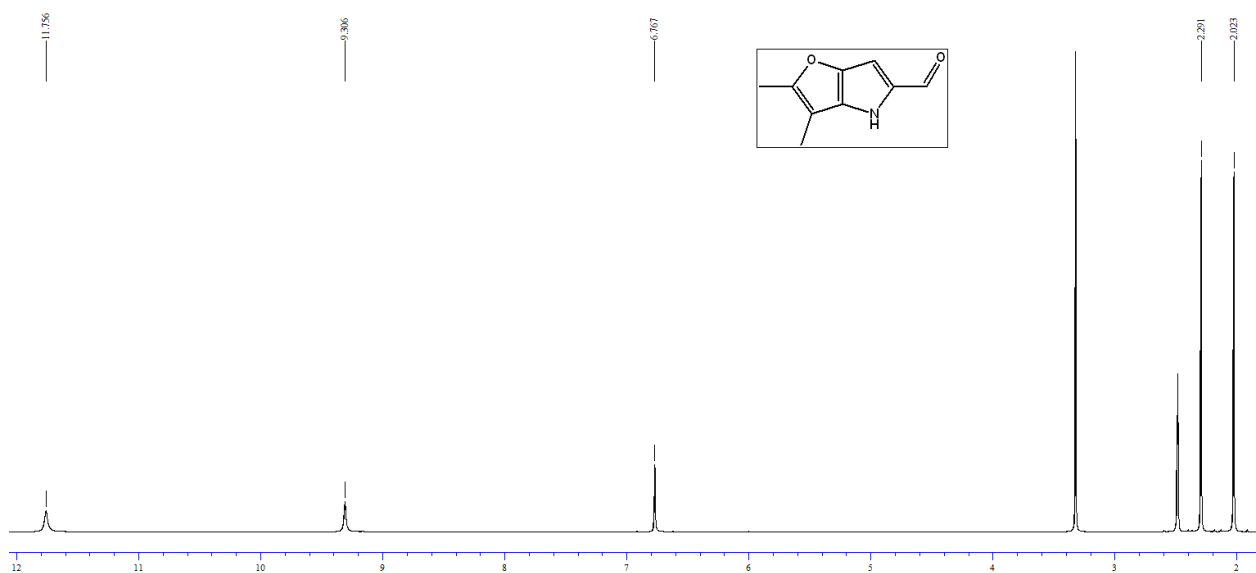


Figure S17. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 6b

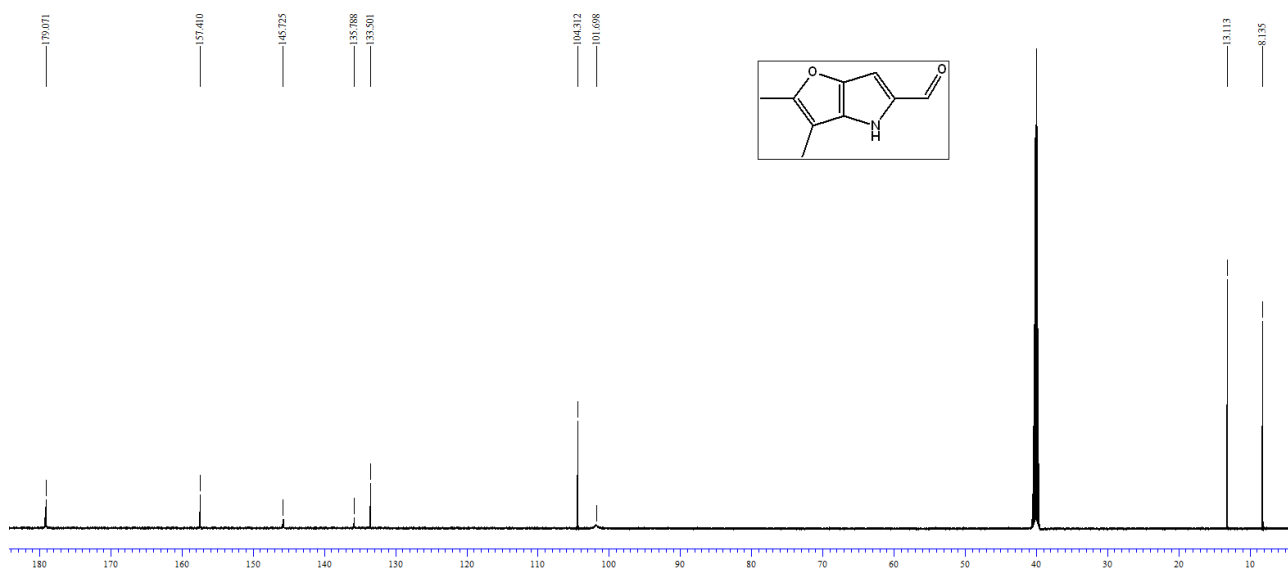


Figure S18. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **6b**

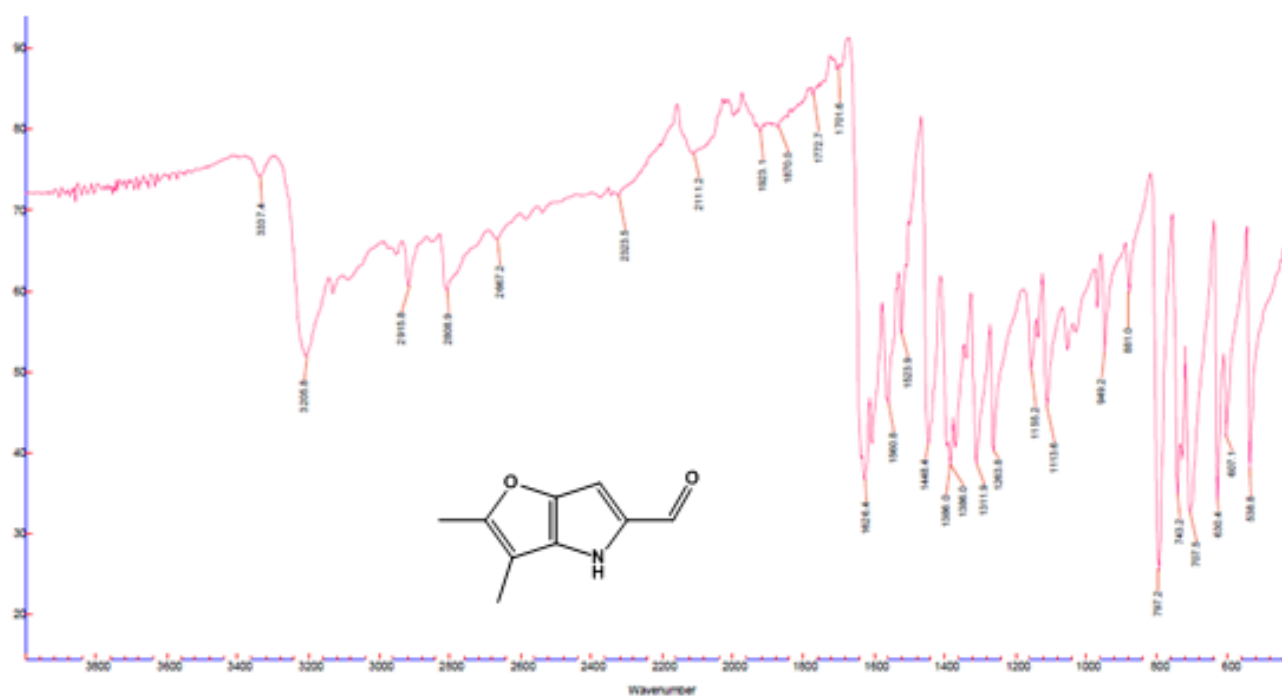


Figure S19. FTIR (ATR) spectrum of compound **6b**

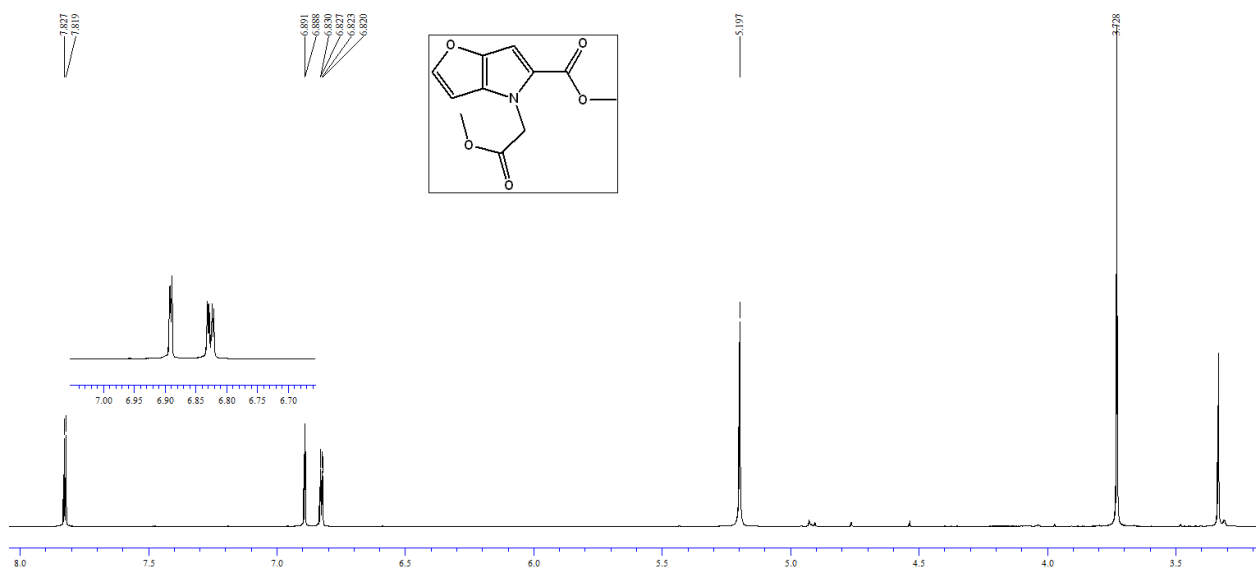


Figure S20. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **7a**

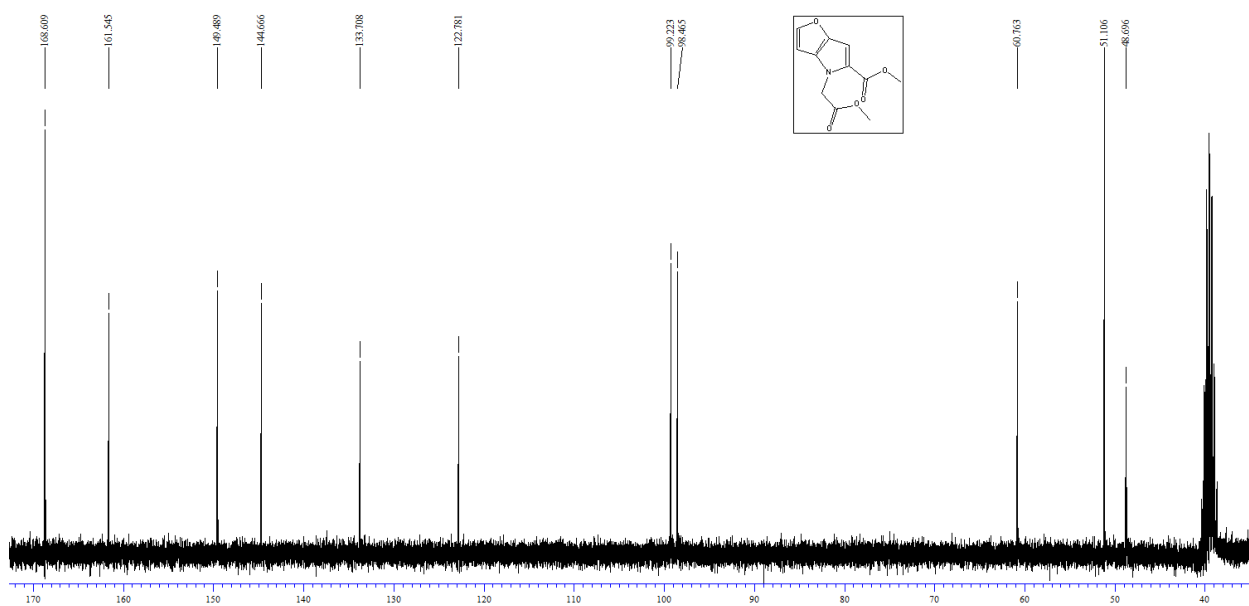
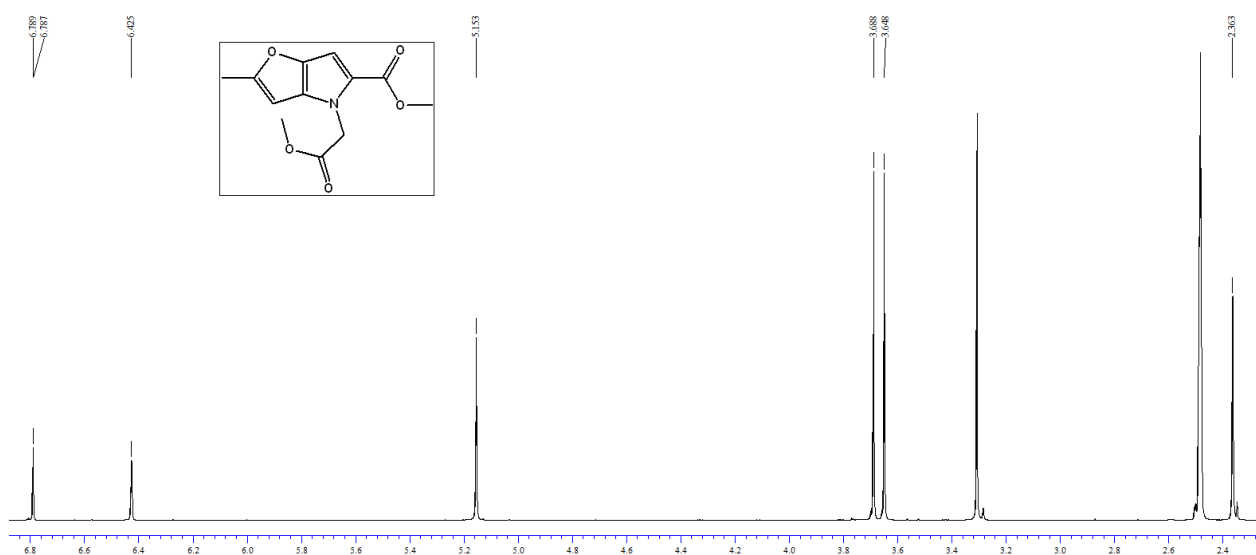
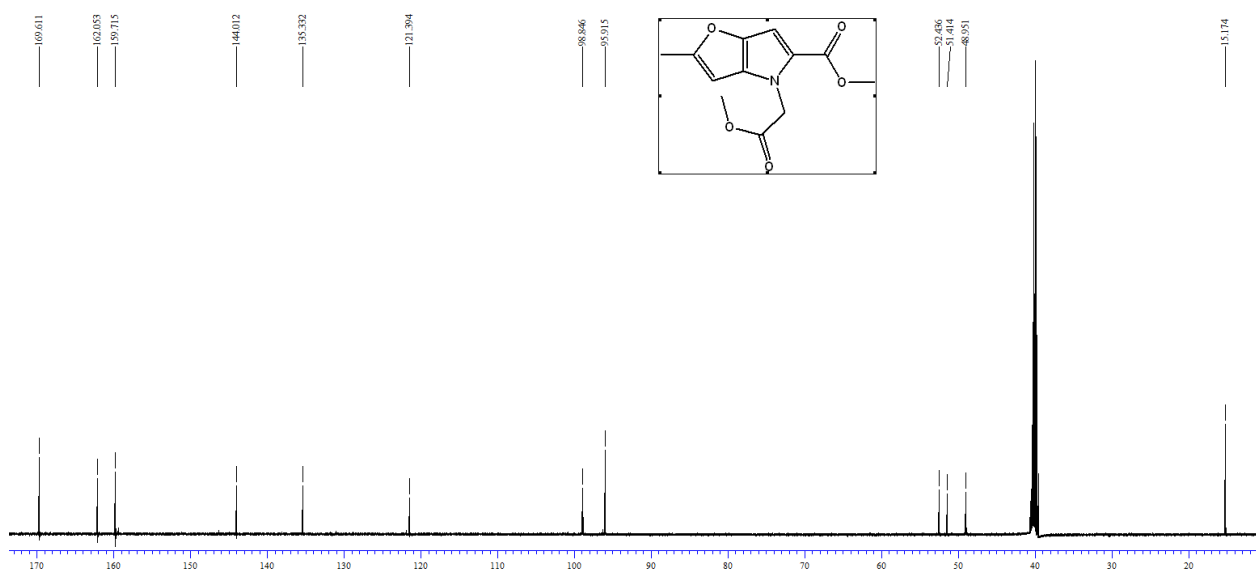


Figure S21. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **7a**



**Figure S22.**  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound **7b**



**Figure S23.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO}-d_6$ ) of compound **7b**

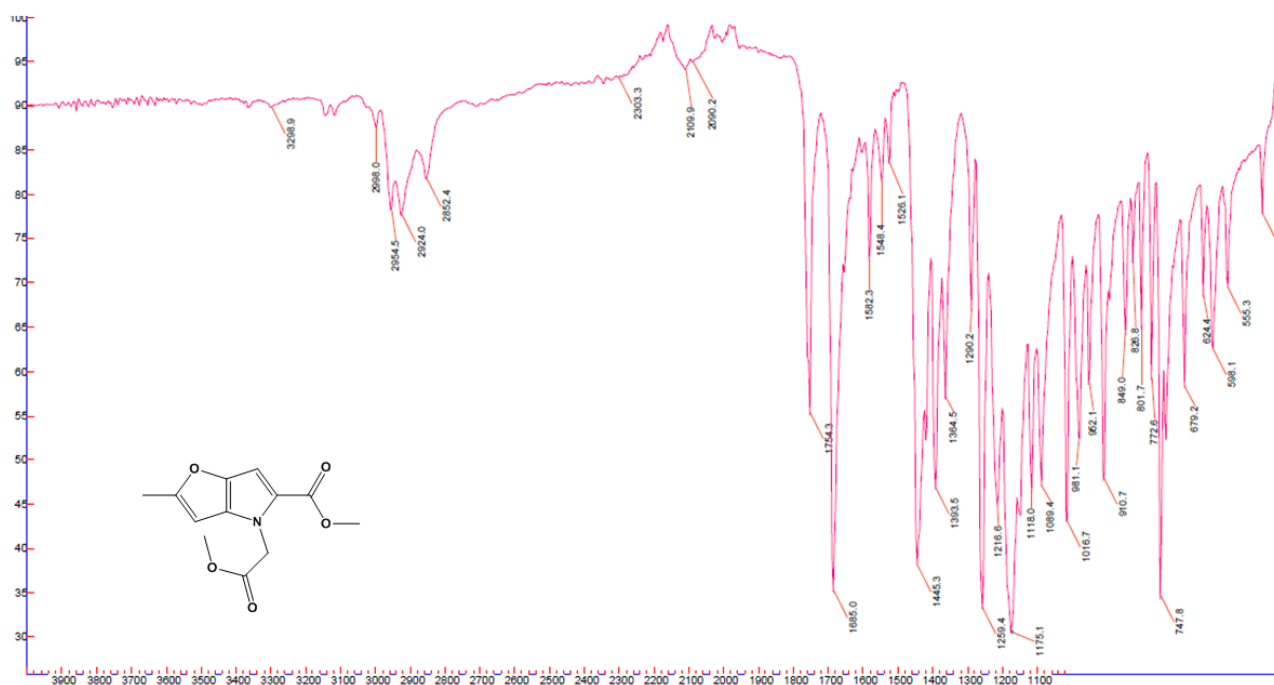


Figure S24. FTIR (ATR) spectrum of compound **7b**

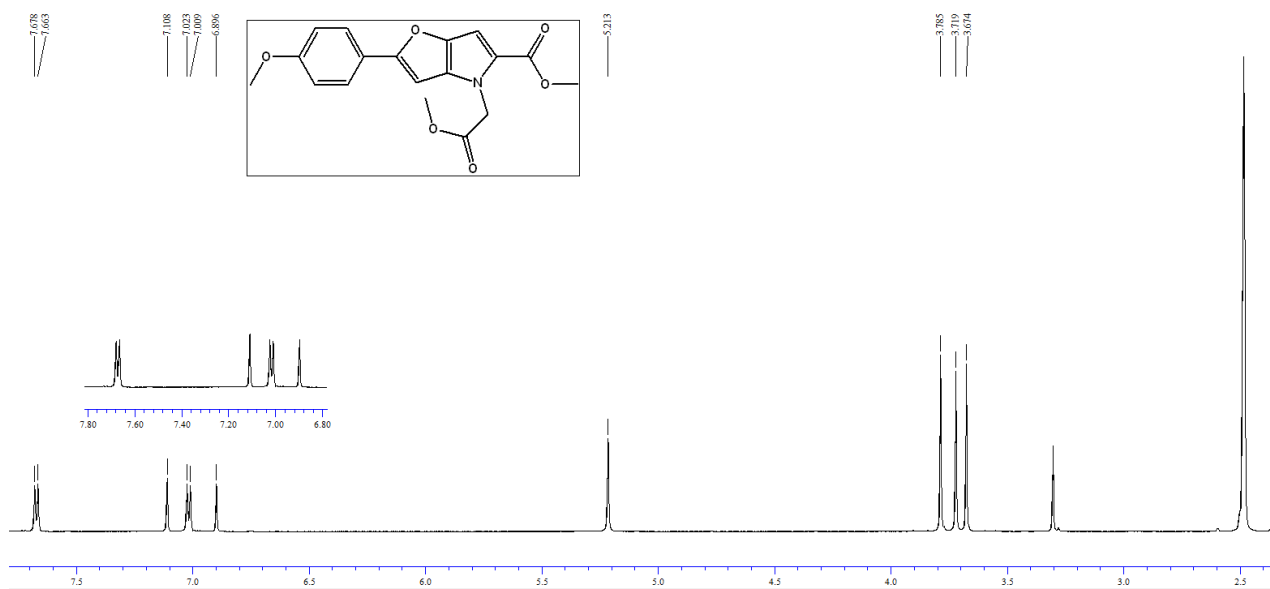


Figure S25. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **7c**

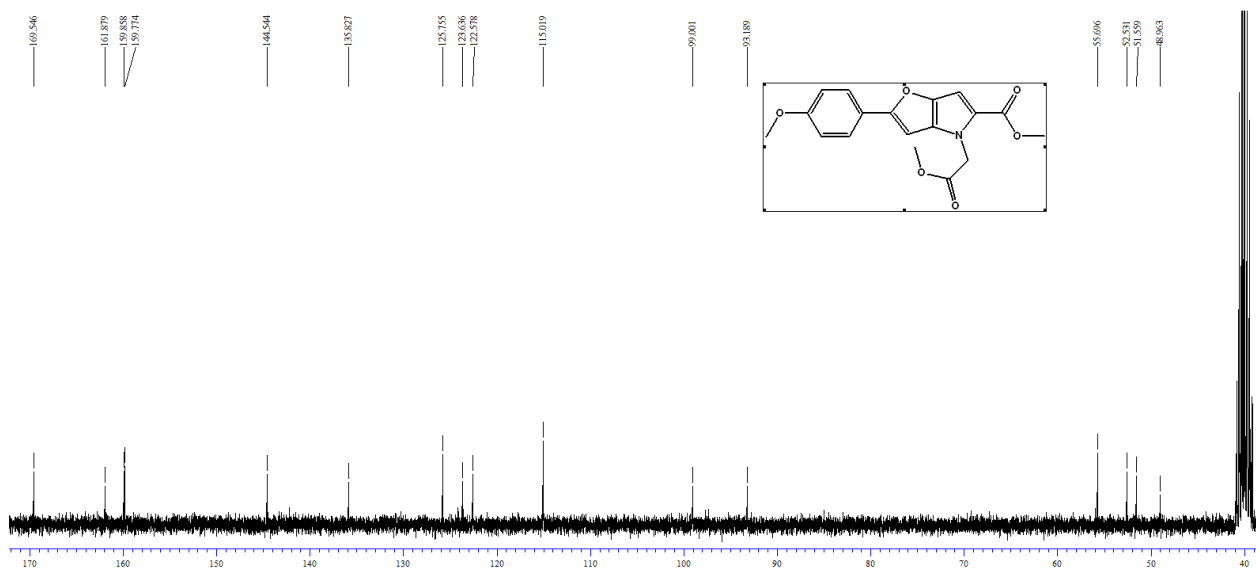


Figure S26. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **7c**

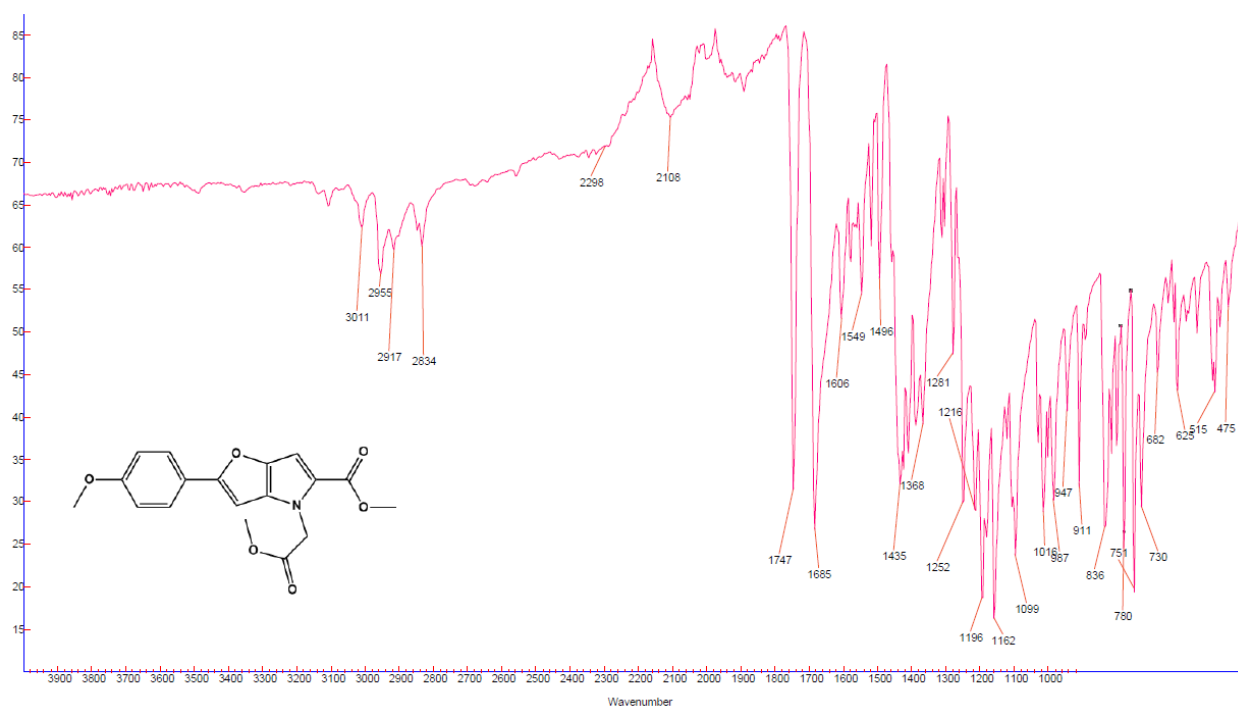


Figure S27. FTIR (ATR) spectrum of compound **7c**

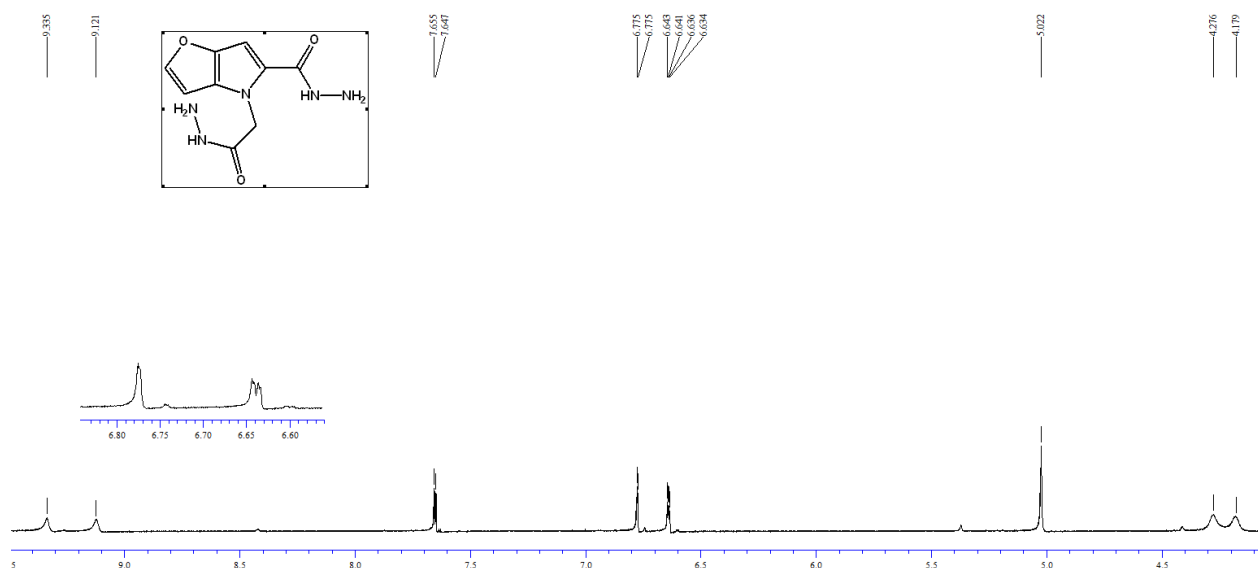


Figure S28.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **8a**

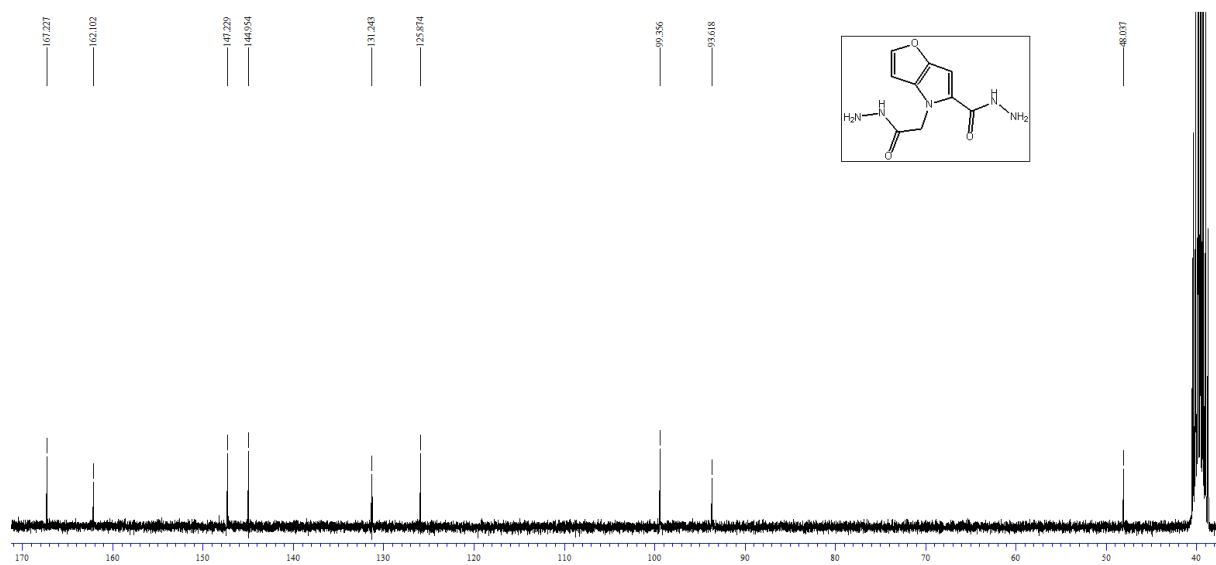
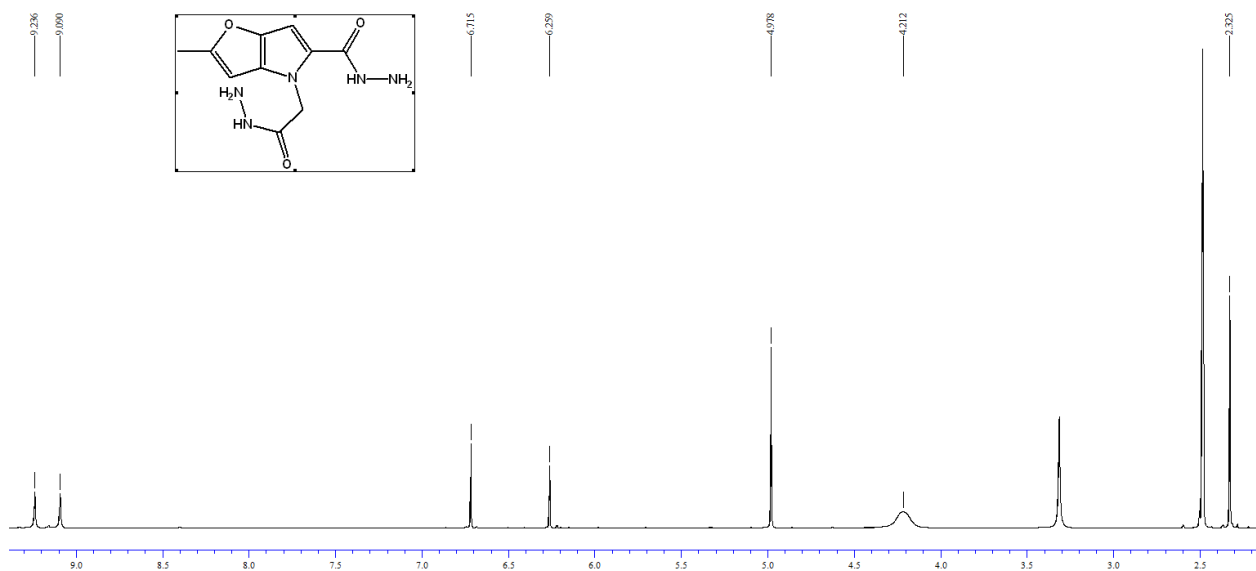
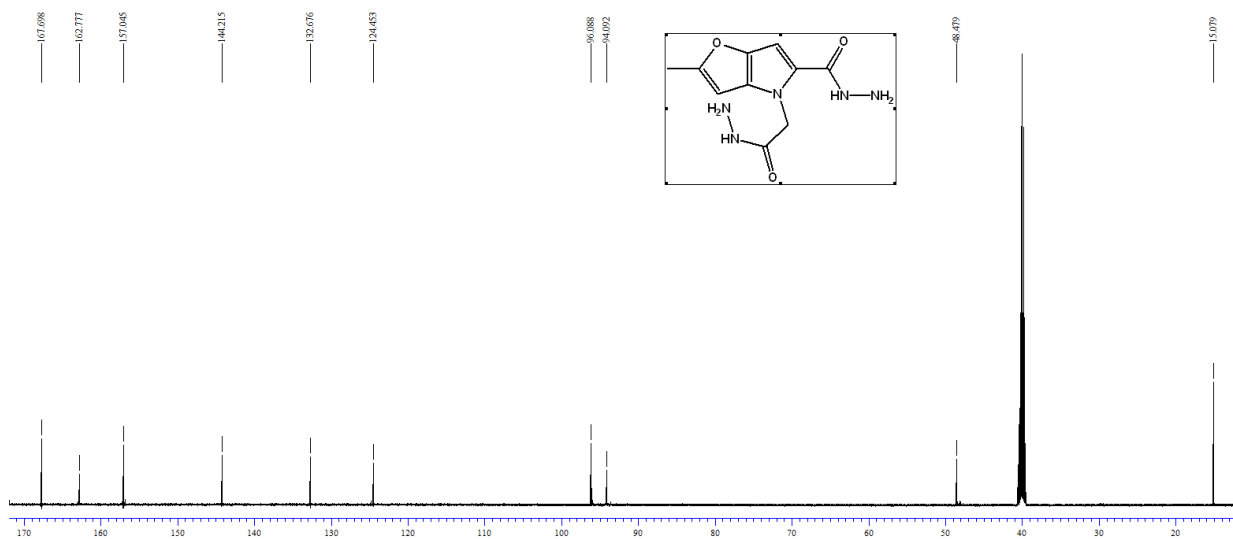


Figure S29.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8a**

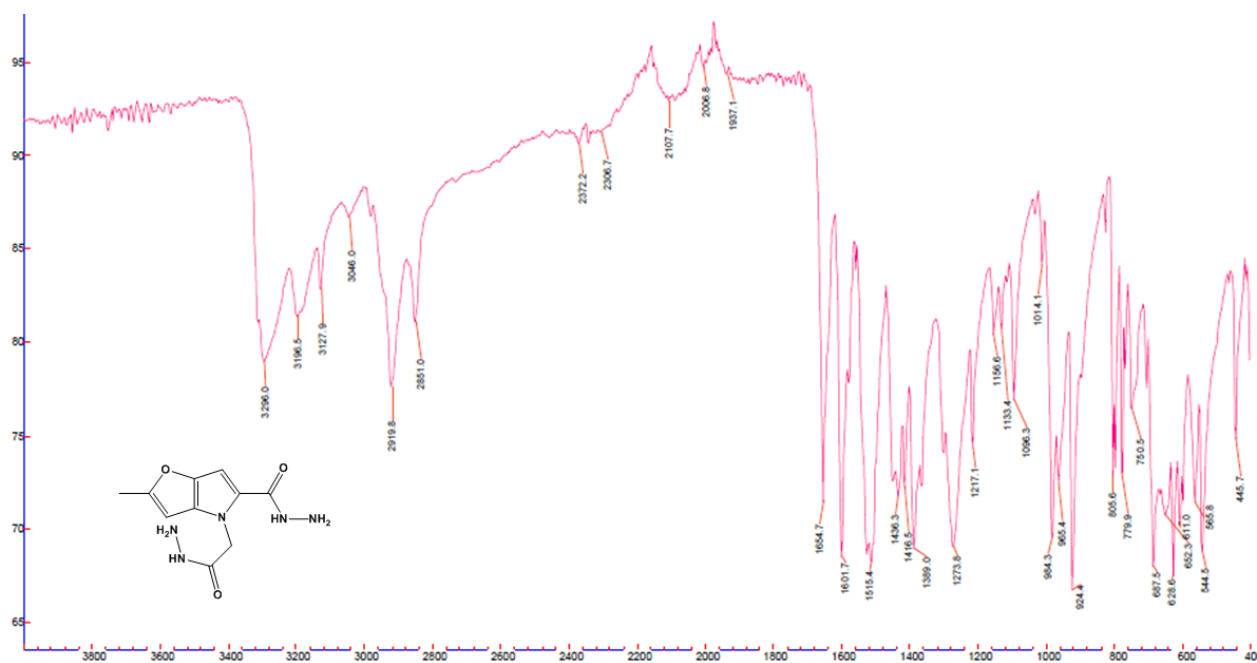
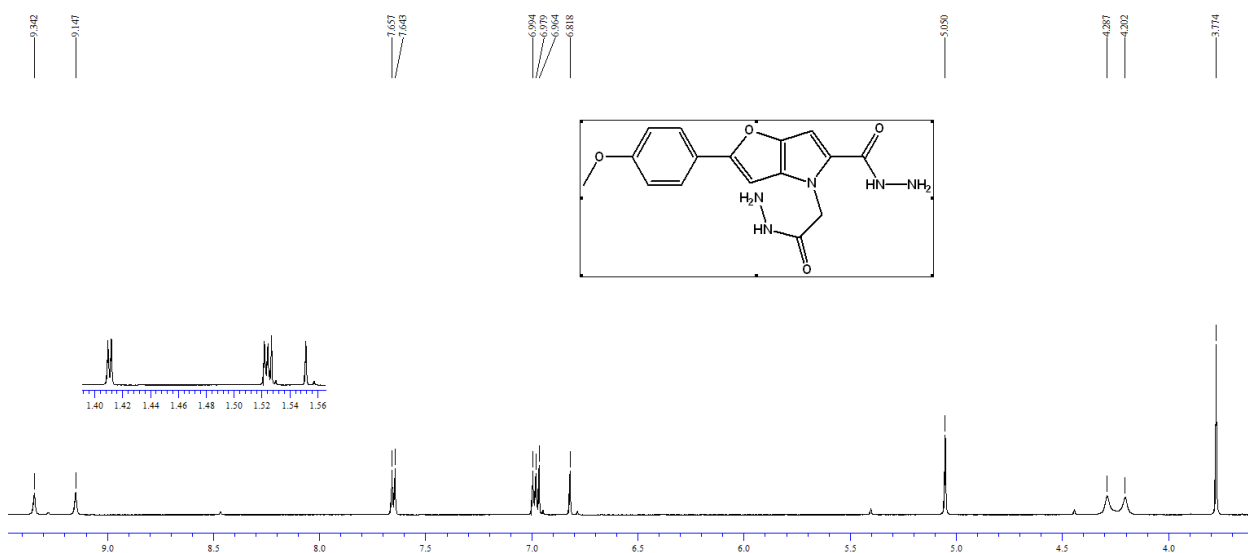




**Figure S30.**  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**



**Figure S31.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**

Figure S32. FTIR (ATR) spectrum of compound **8b**Figure S33. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **8c**

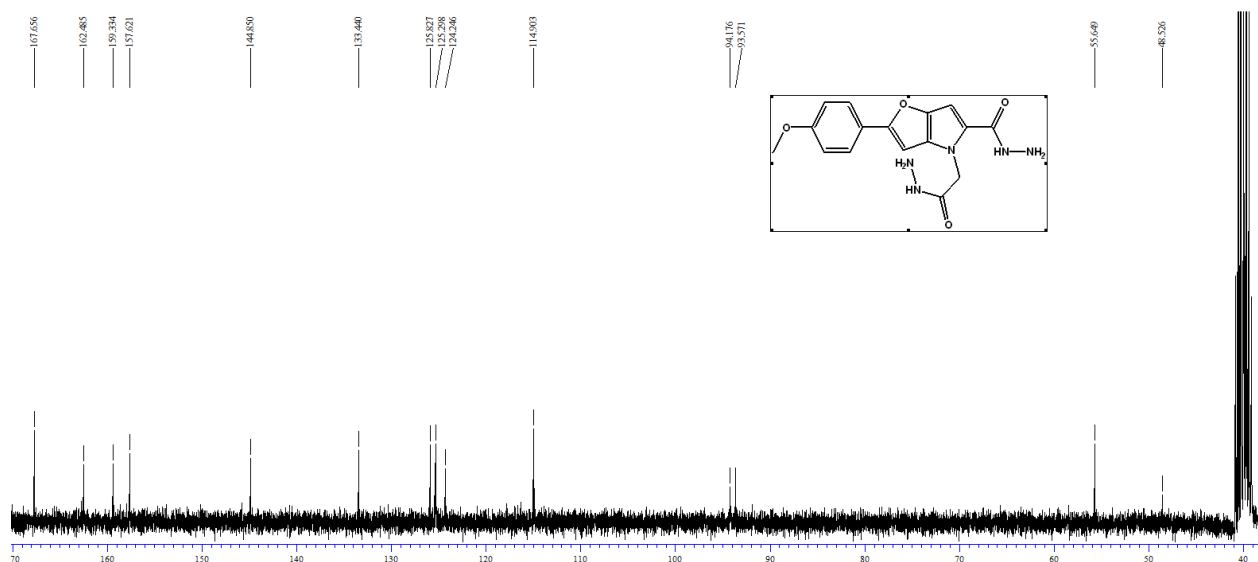


Figure S34. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **8c**

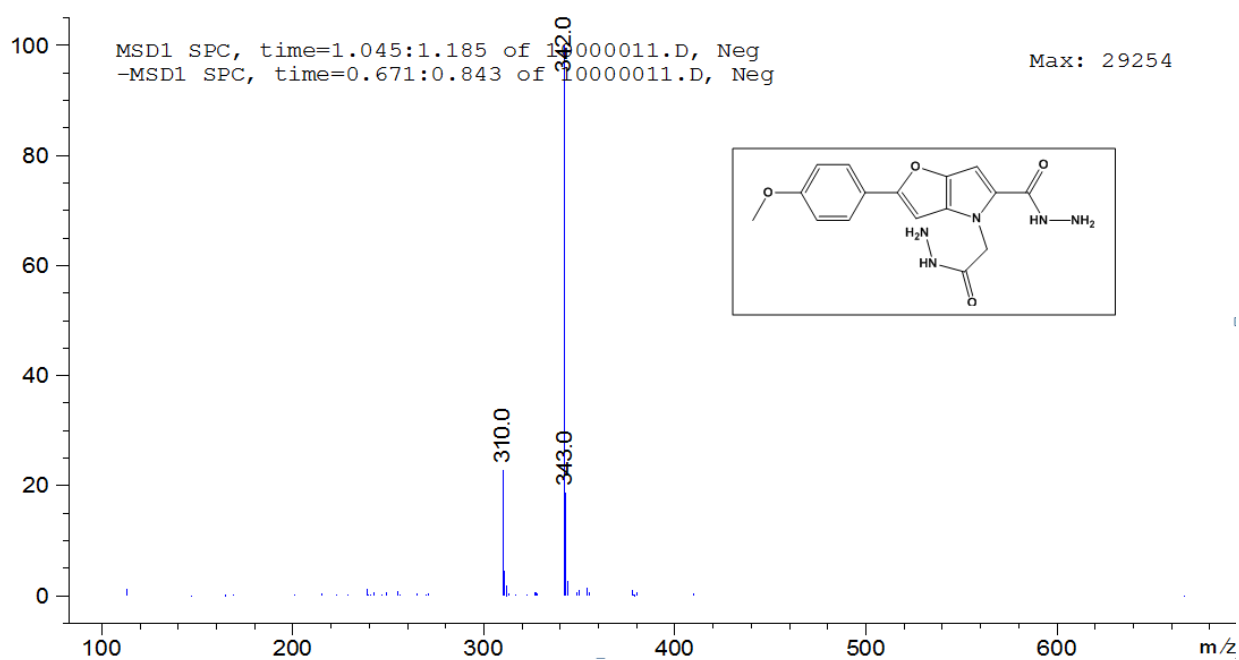


Figure S35. MS (ESI-) spectrum of compound **8c**

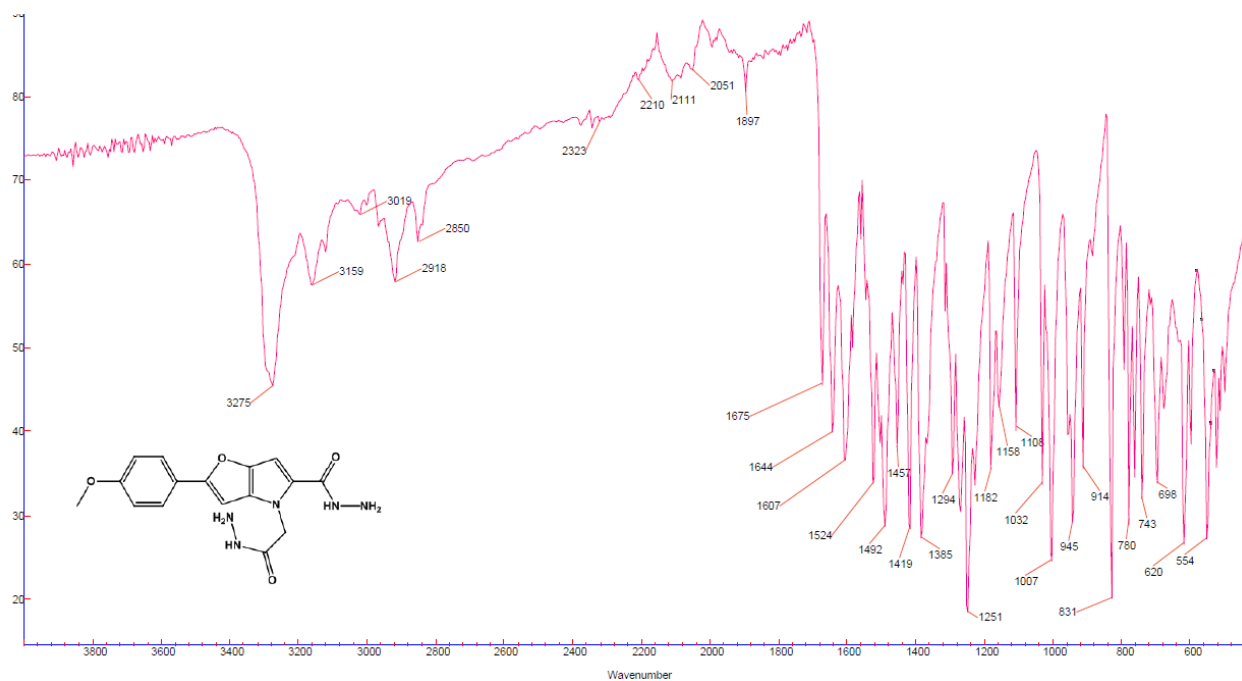


Figure S36. FTIR (ATR) spectrum of compound **8c**

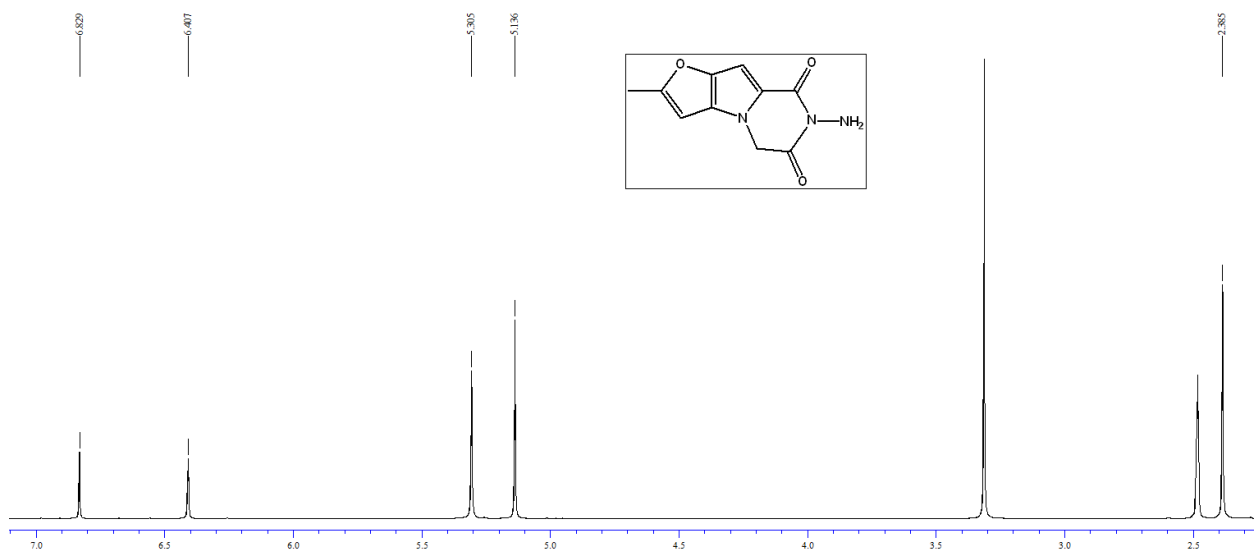
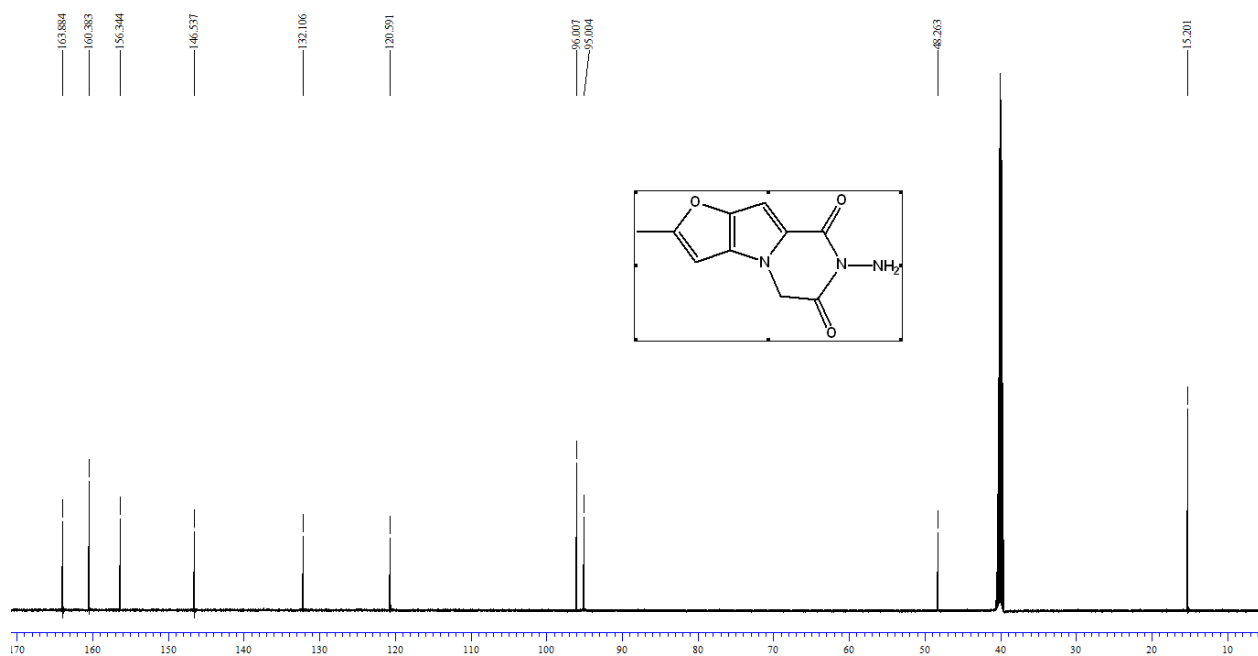
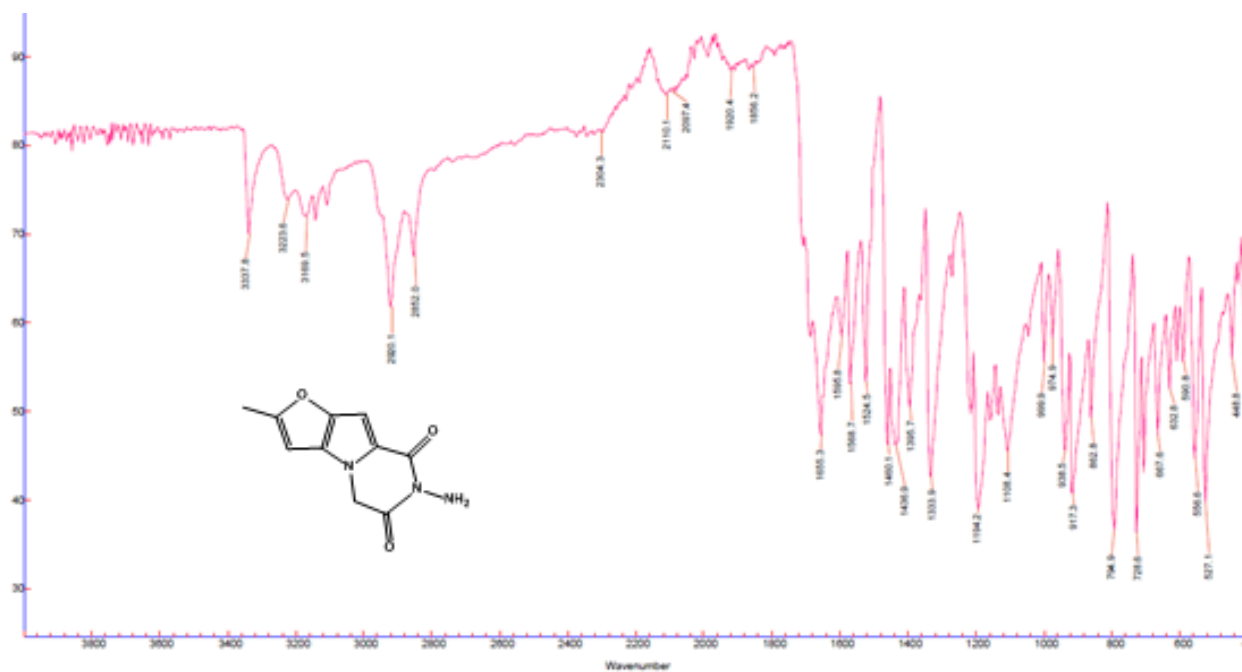


Figure S37. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **9**



**Figure S38.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **9**



**Figure S39.** FTIR (ATR) spectrum of compound **9**

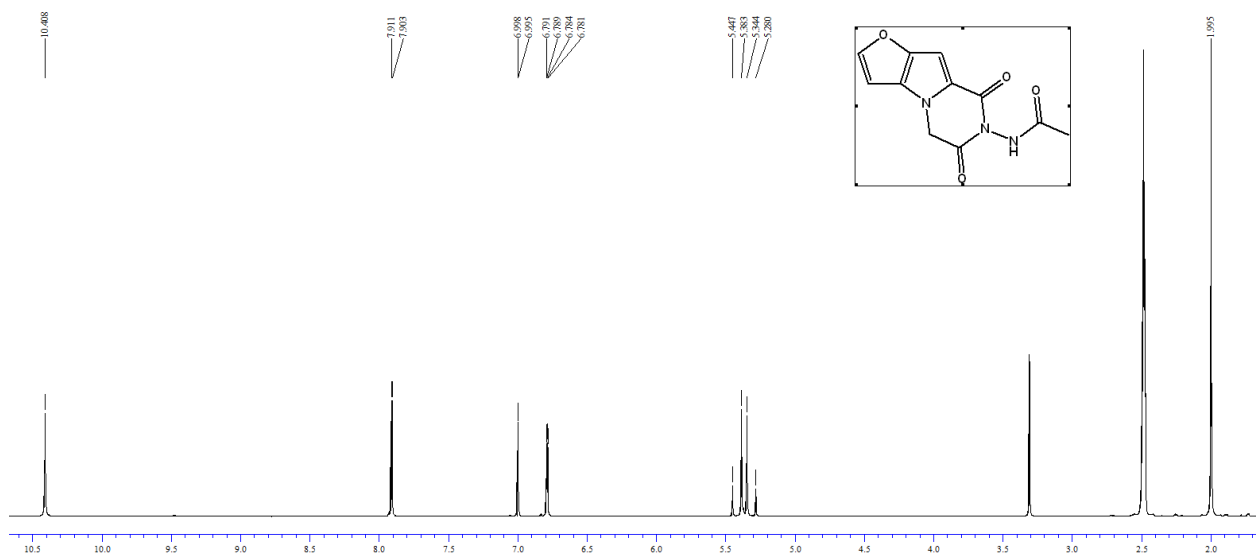


Figure S40.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound 10a

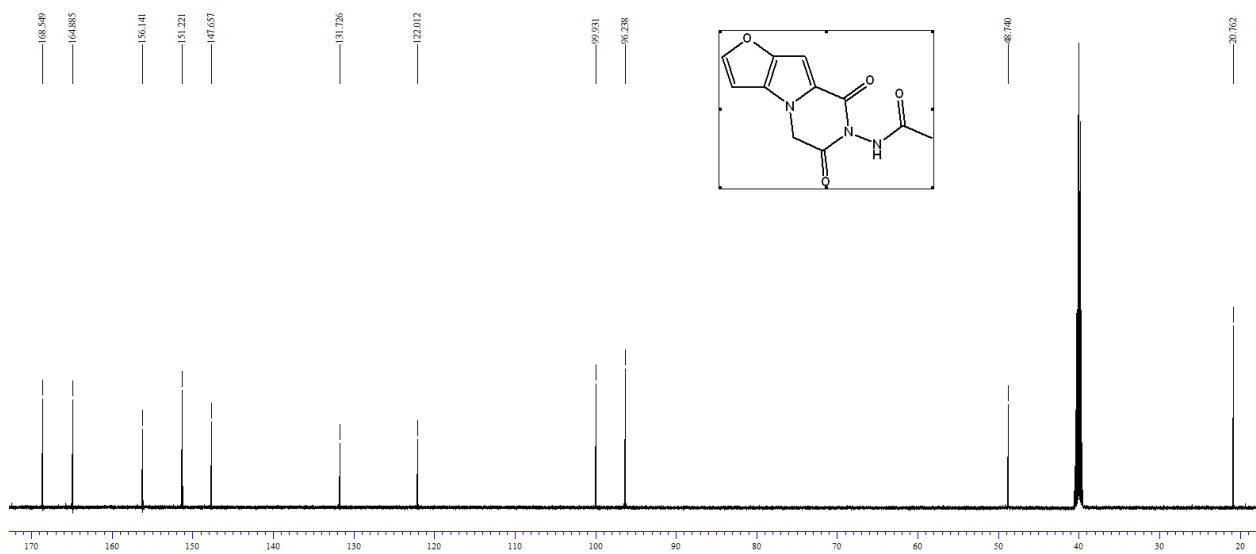


Figure S41.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound 10a



Figure S42. FTIR (ATR) spectrum of compound 10a

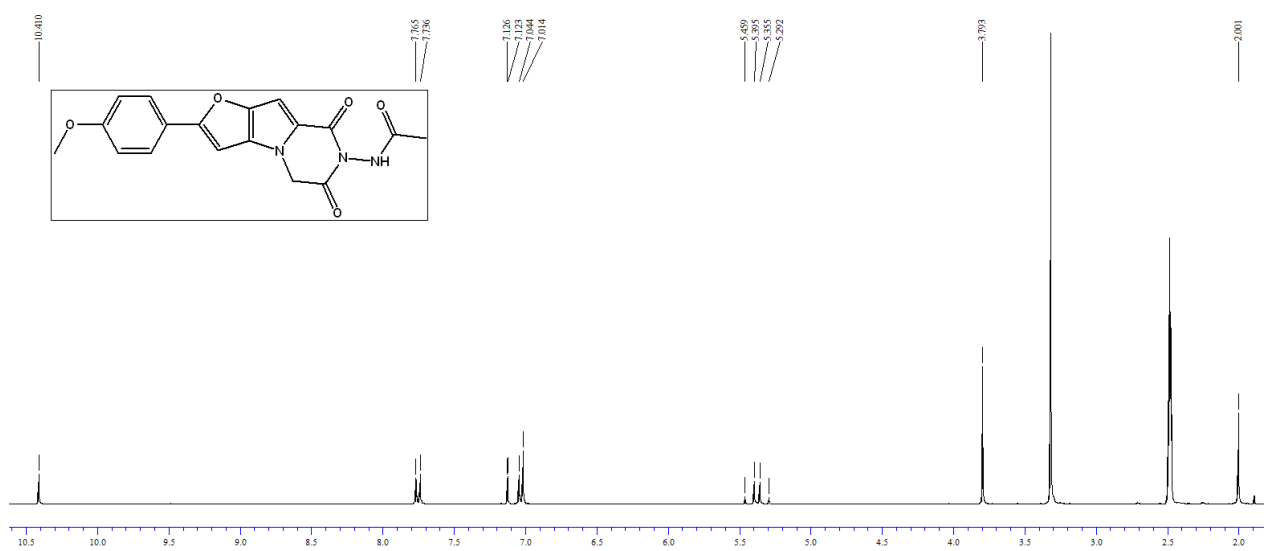
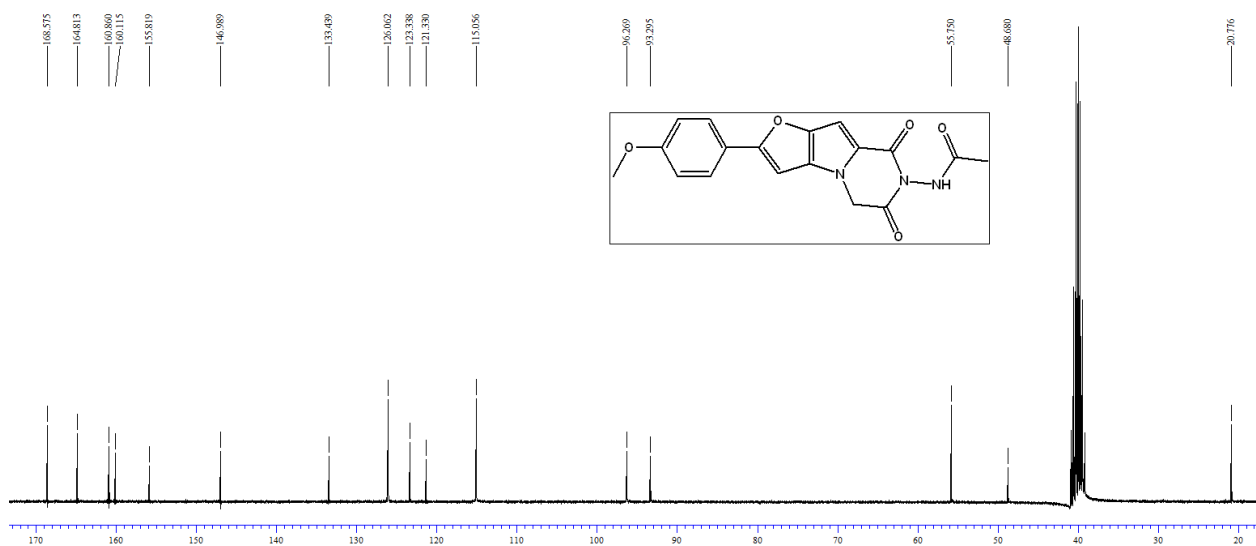
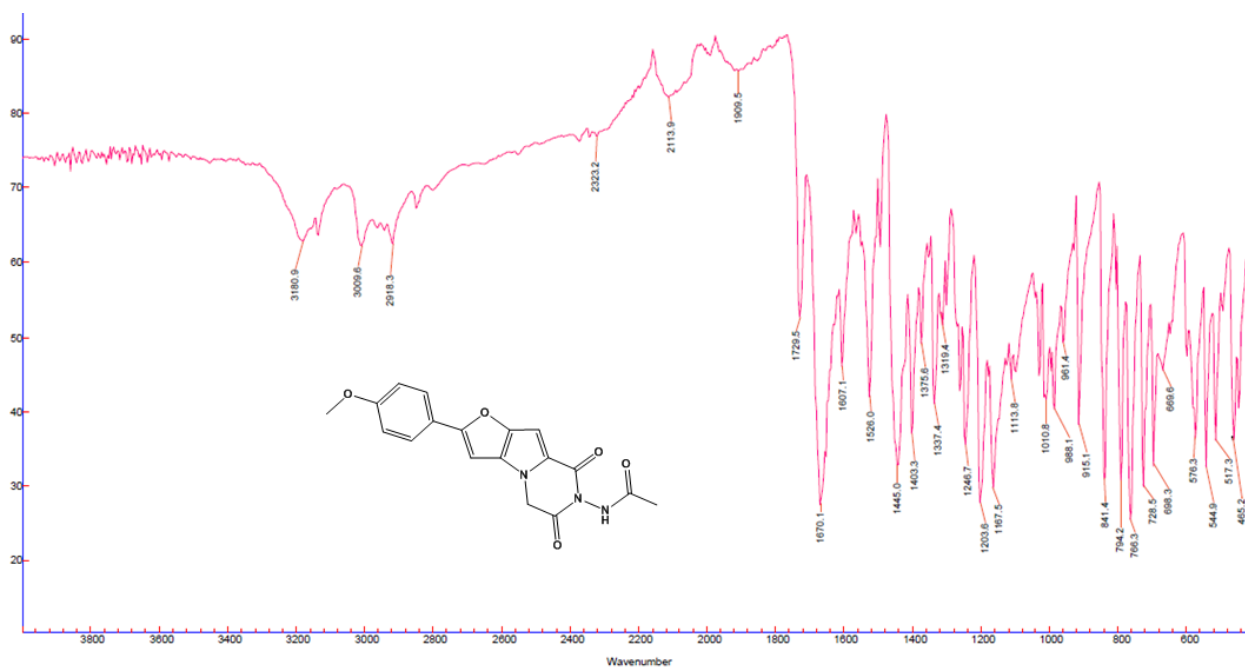


Figure S43. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 10b



**Figure S44.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **10b**



**Figure S45.** FTIR (ATR) spectrum of compound **10b**



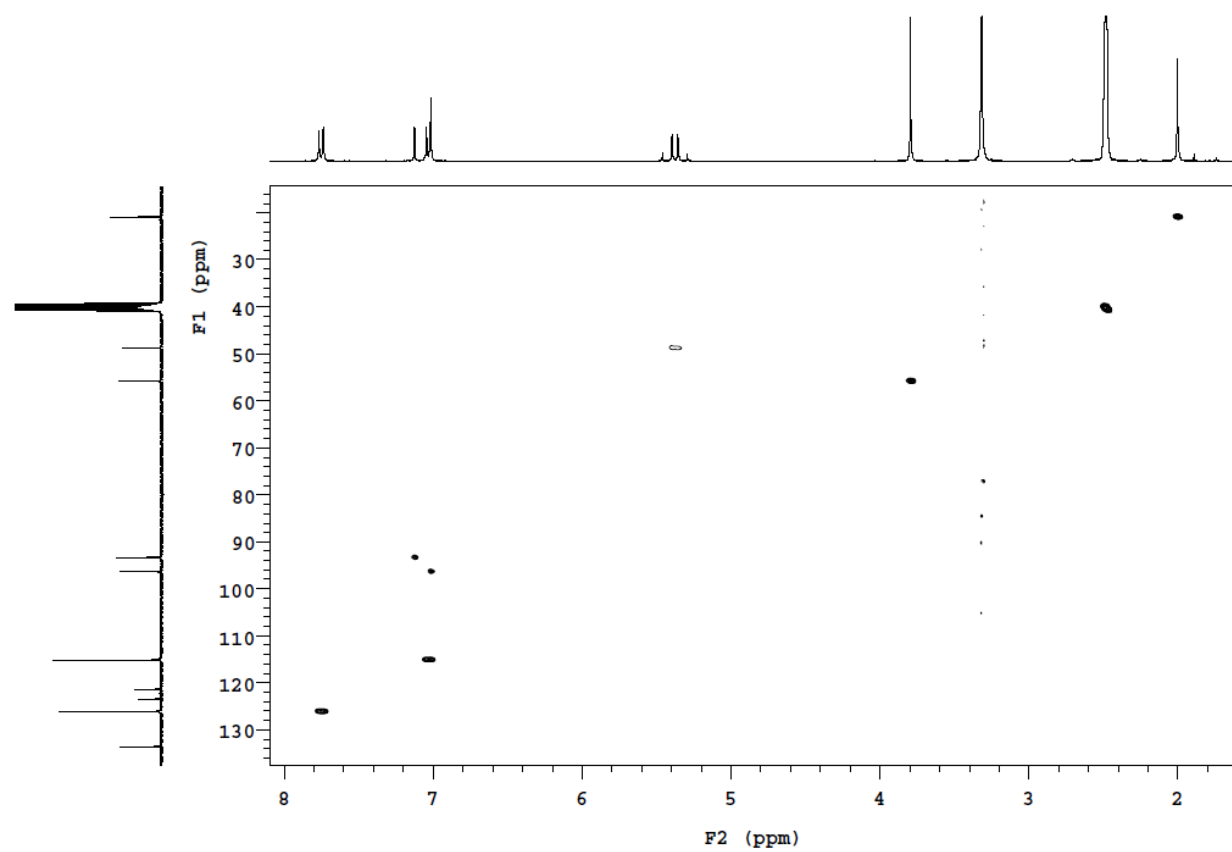


Figure S46. HSQC spectrum (DMSO-d6) of compound **10b**

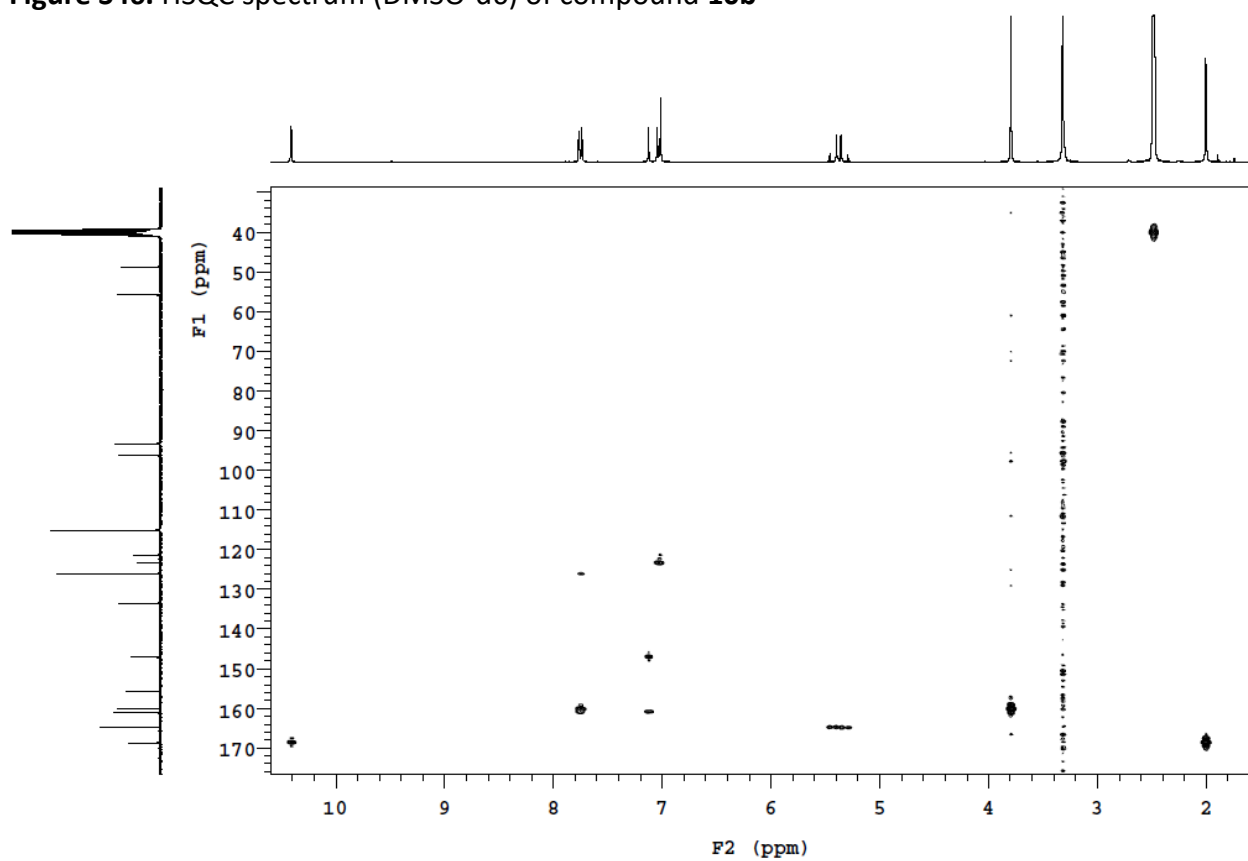


Figure S47. HMBC spectrum (DMSO-d6) of compound **10b**

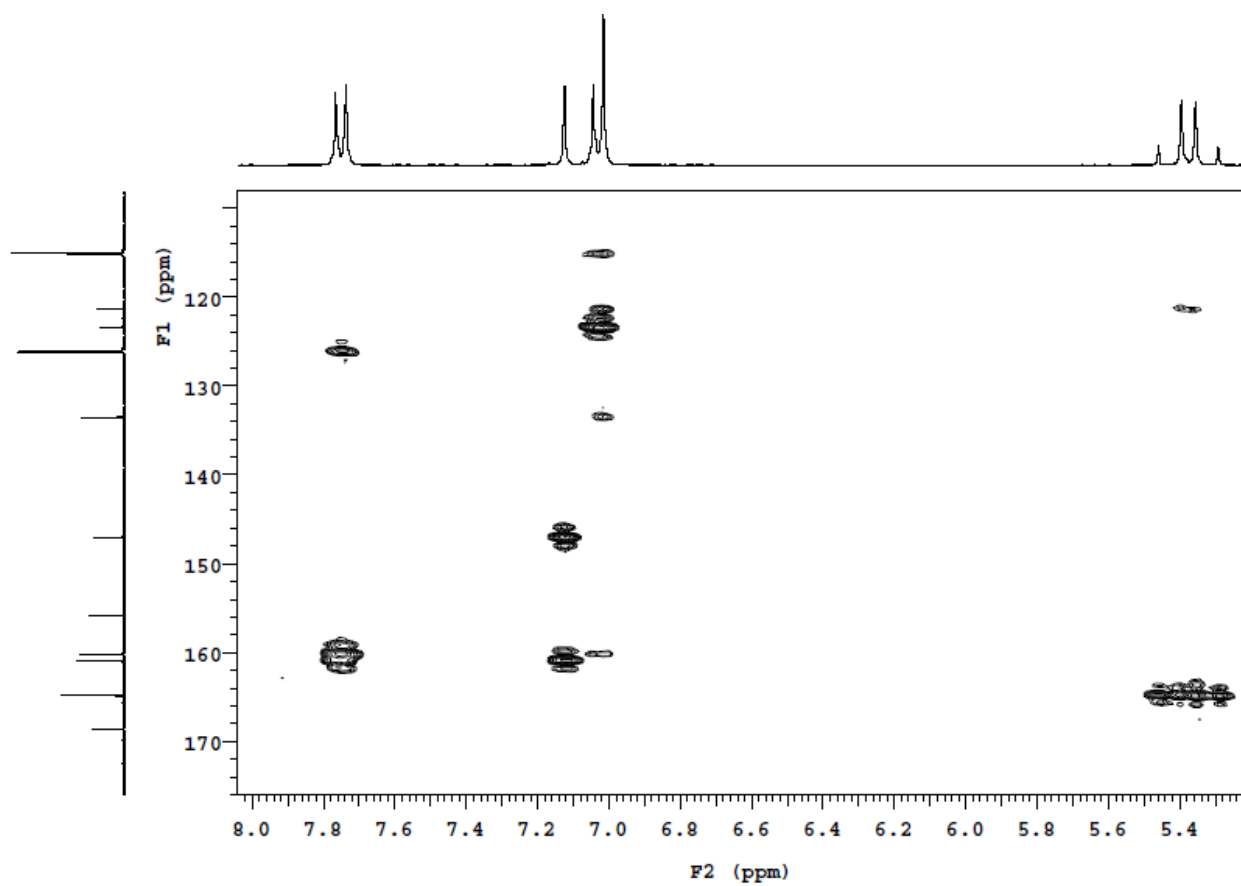


Figure S48. HMBC spectrum (DMSO- $d_6$ ) of compound **10b**

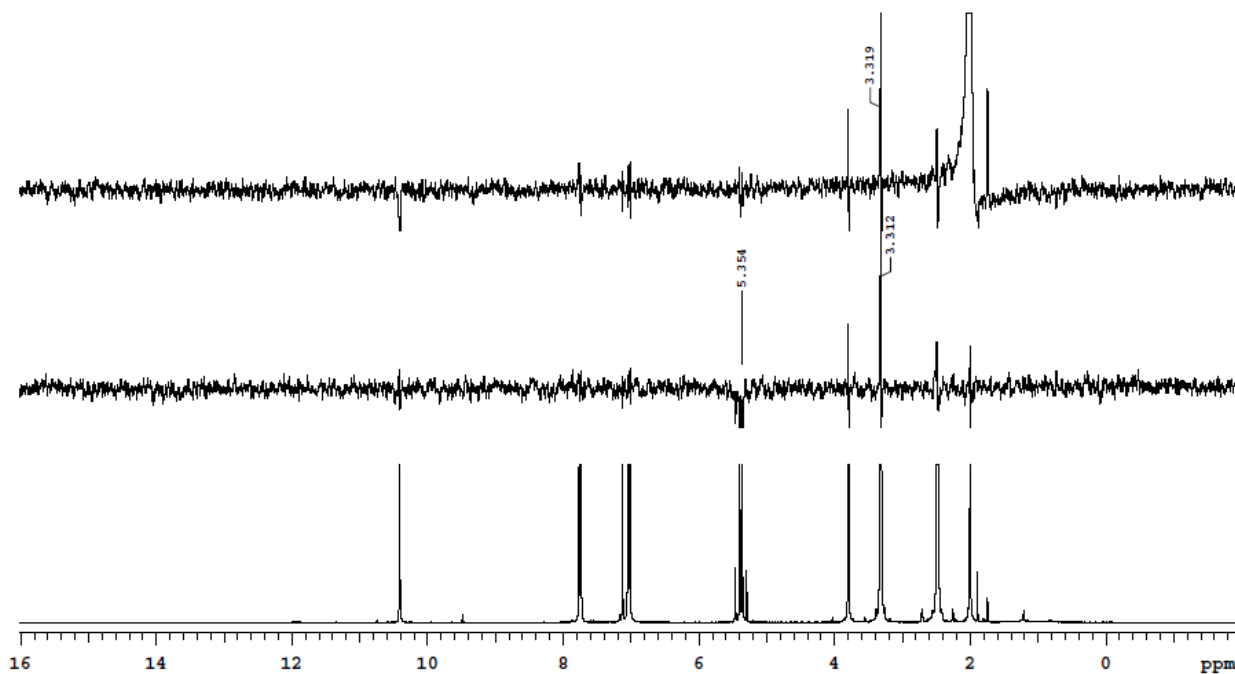


Figure S49. NOESY1D spectrum (DMSO- $d_6$ ) of compound **10b**