

## Supplementary Material

### Synthesis of furo[2',3':4,5]pyrrolo[1,2-*d*][1,2,4]triazine derivatives and their antibacterial activity

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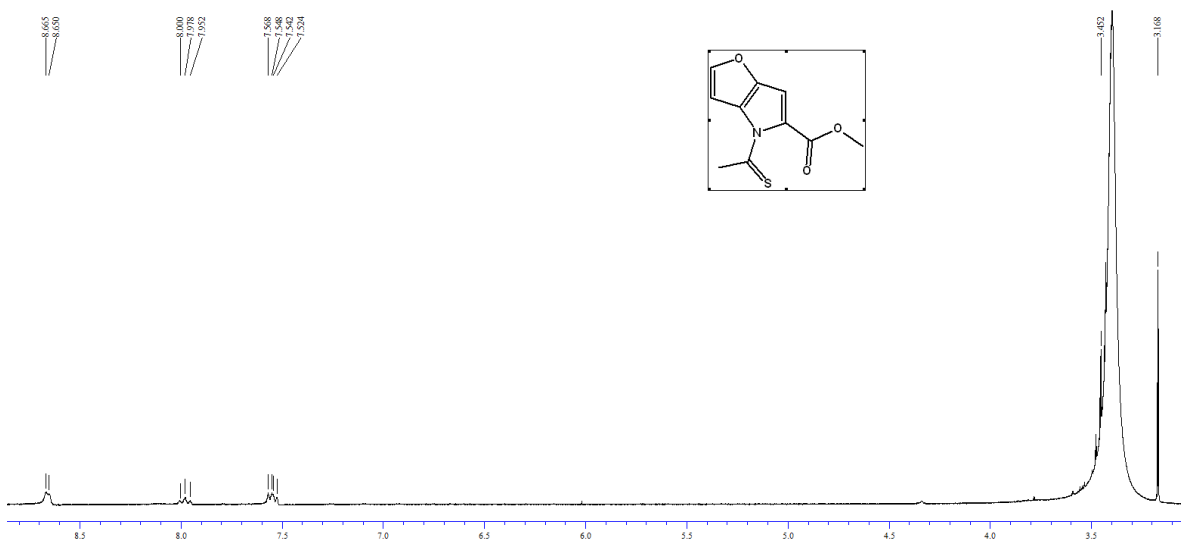


Figure S1.  $^1\text{H NMR}$  (300 MHz,  $\text{DMSO-}d_6$ ) of compound 4.

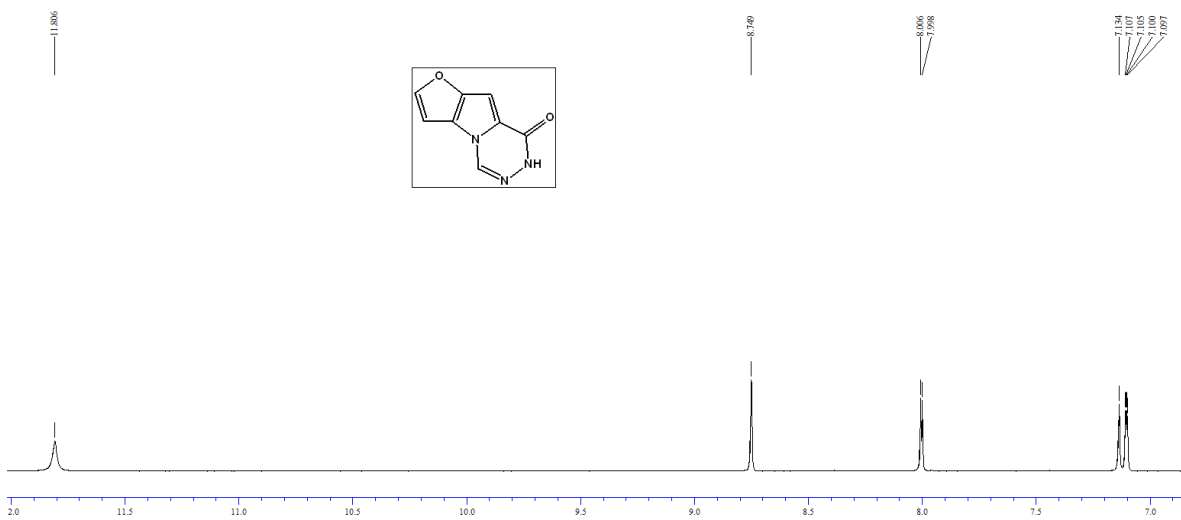


Figure S2.  $^1\text{H NMR}$  (300 MHz,  $\text{DMSO-}d_6$ ) of compound 5a.

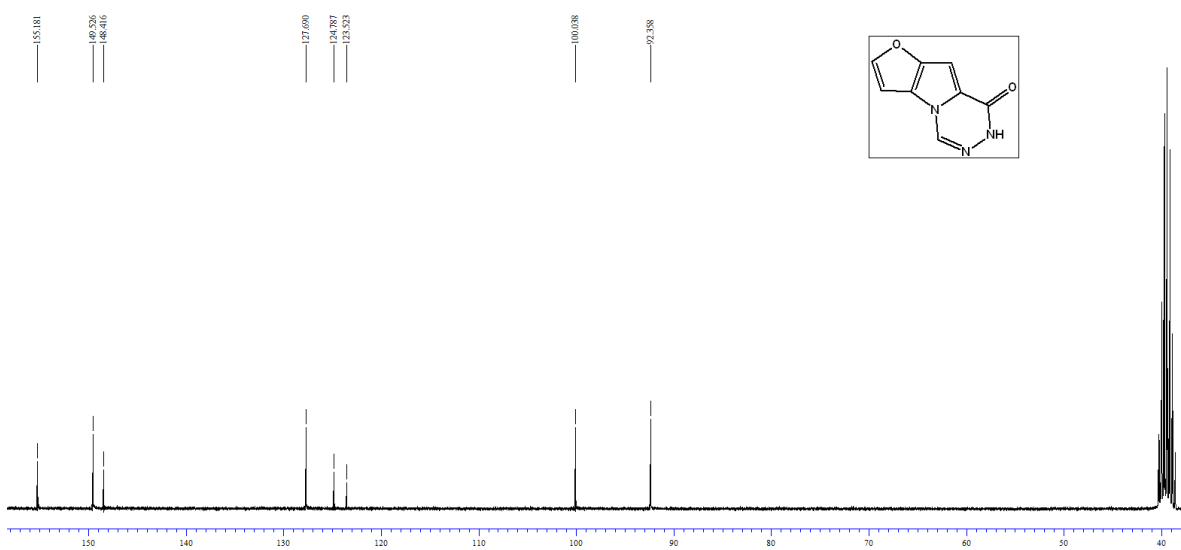


Figure S3.  $^{13}\text{C}$  NMR spectrum (75 MHz, DMSO- $d_6$ ) of compound 5a.

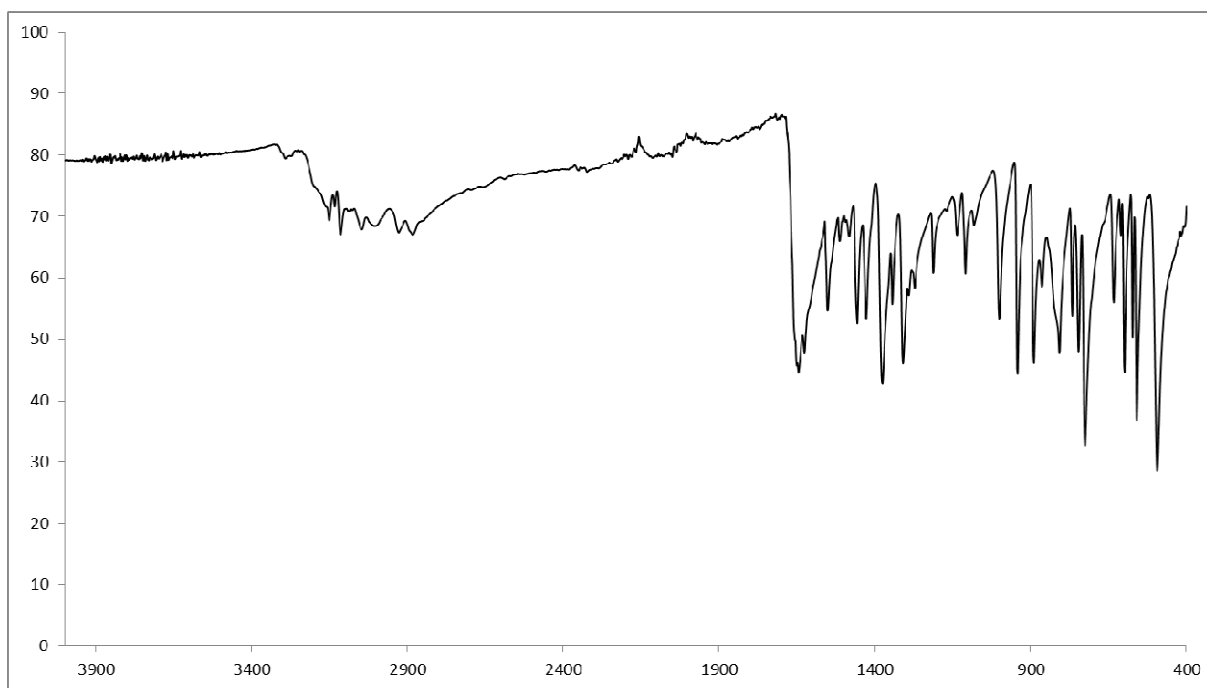


Figure S4. FTIR (KBr) spectrum of compound 5a.

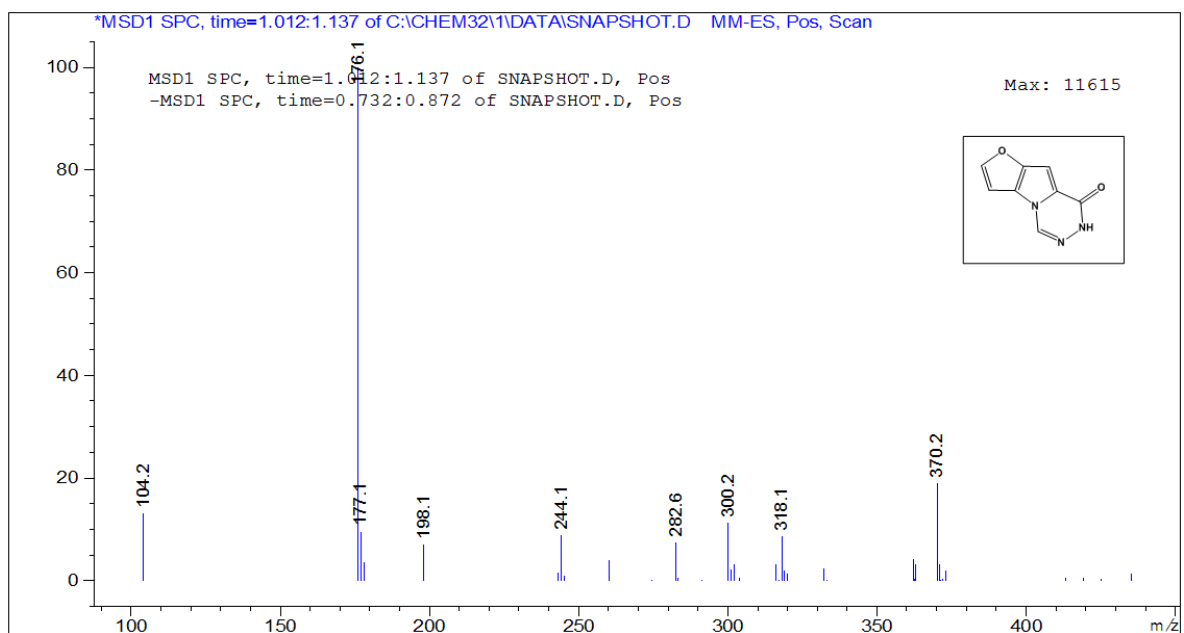


Figure S5. MS (ESI+) spectrum of compound 5a.

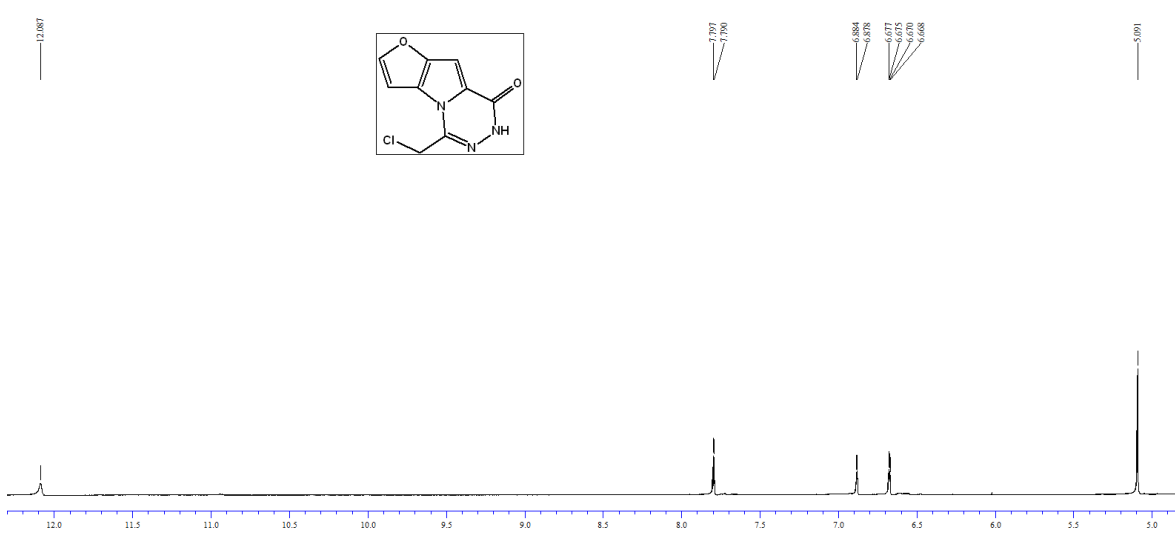


Figure S6.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound 5b.

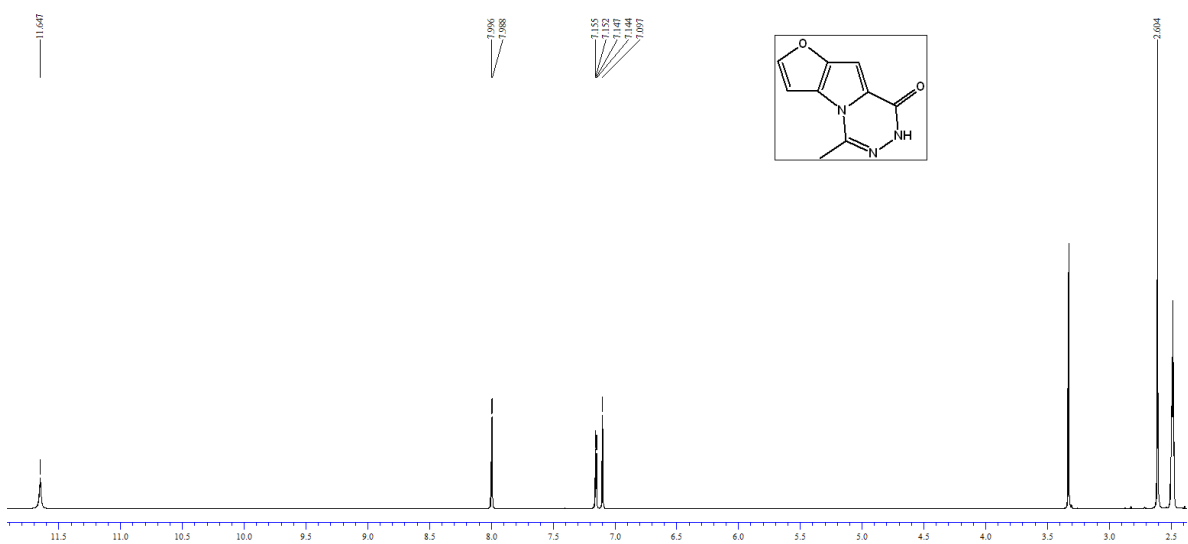


Figure S7. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 5c (method A).

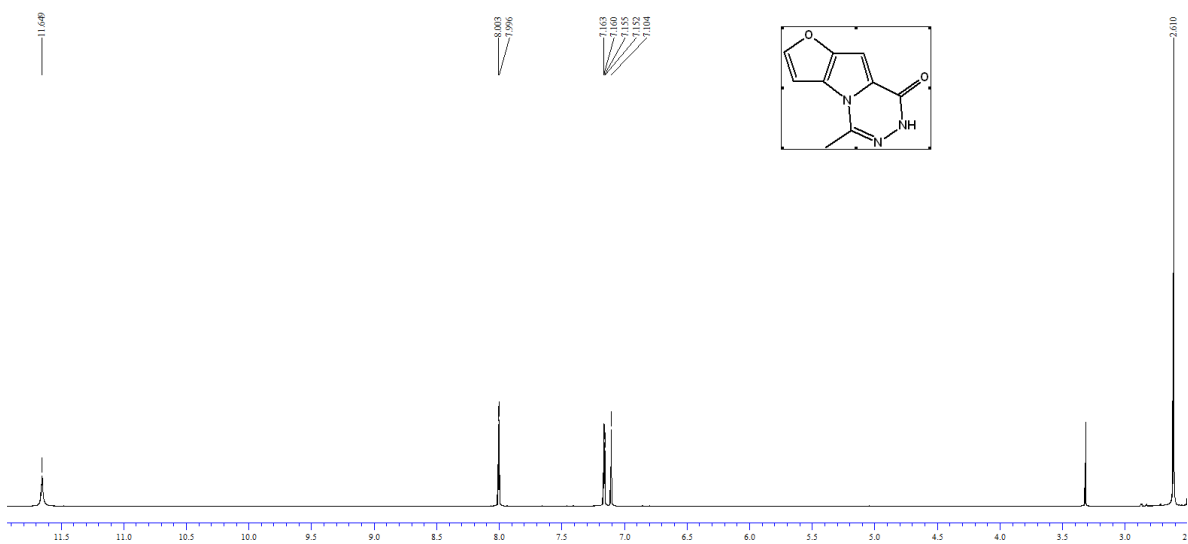
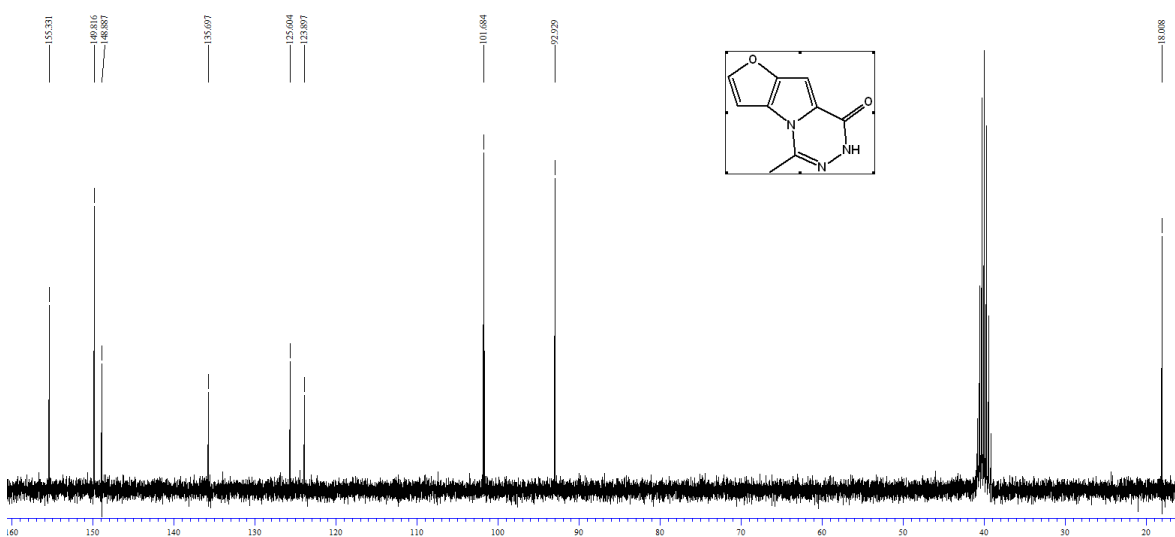
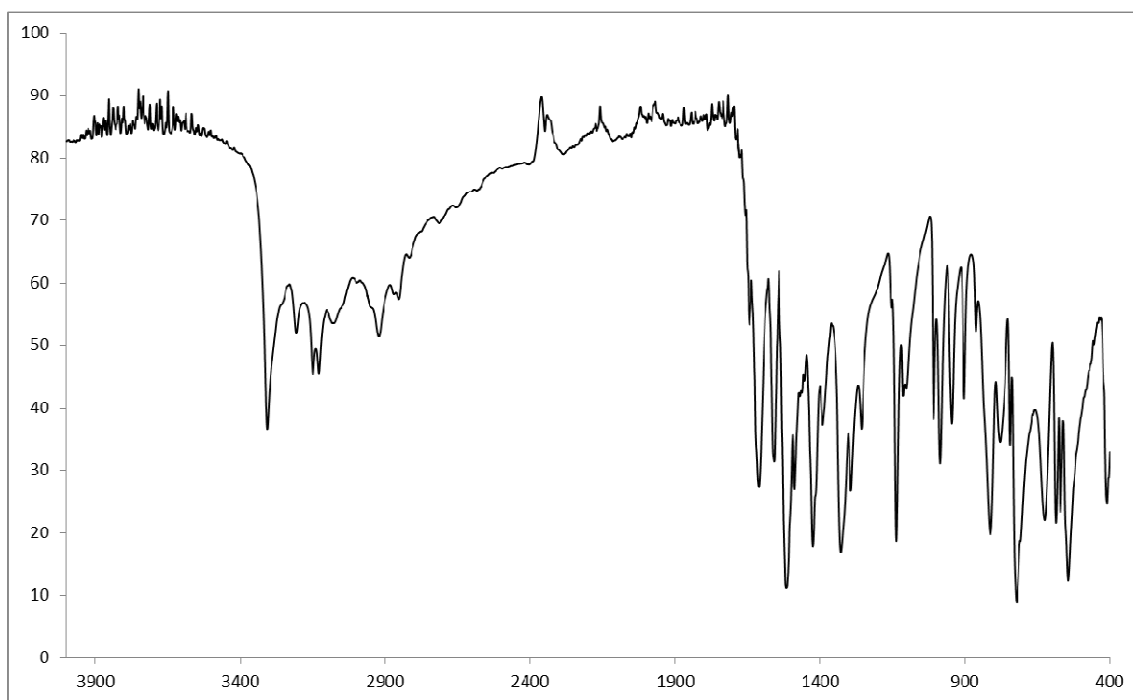


Figure S8. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 5c (method B).



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



**Figure S10.** FTIR (KBr) spectrum of compound **5c** (method B).

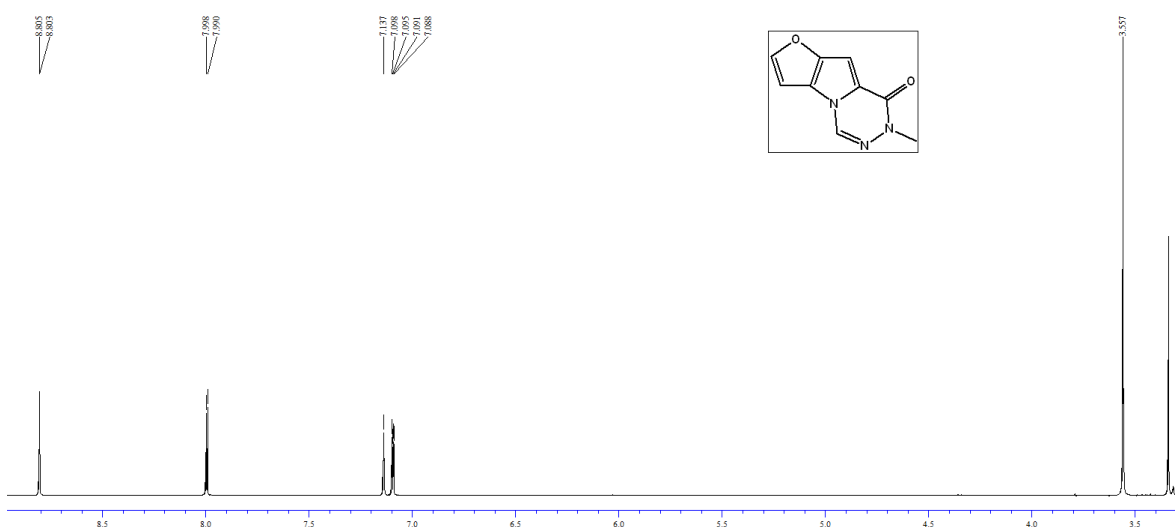


Figure S11.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound 6a.

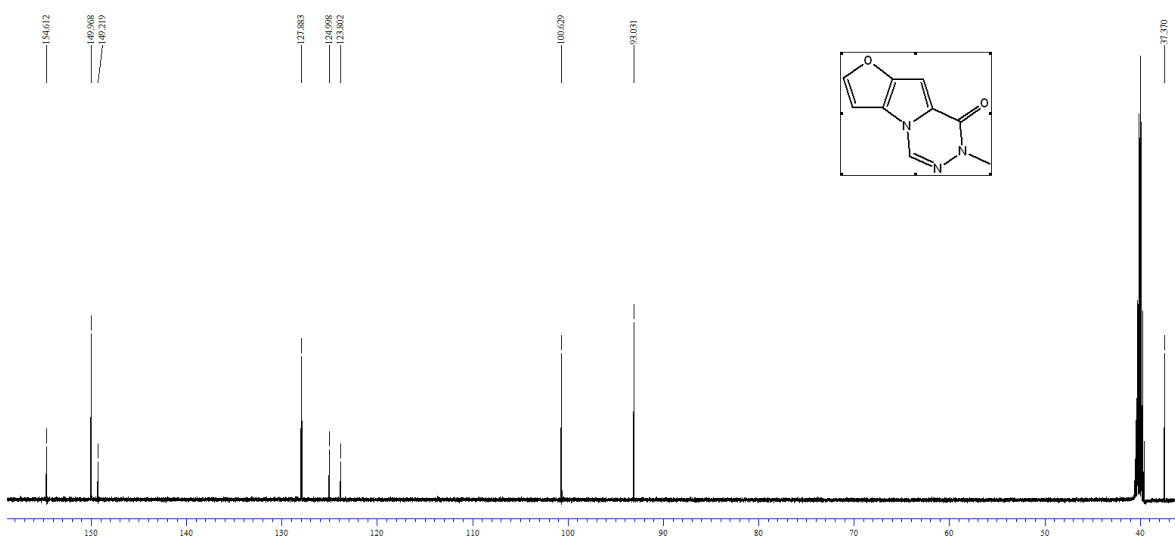


Figure S12.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO}-d_6$ ) of compound 6a.



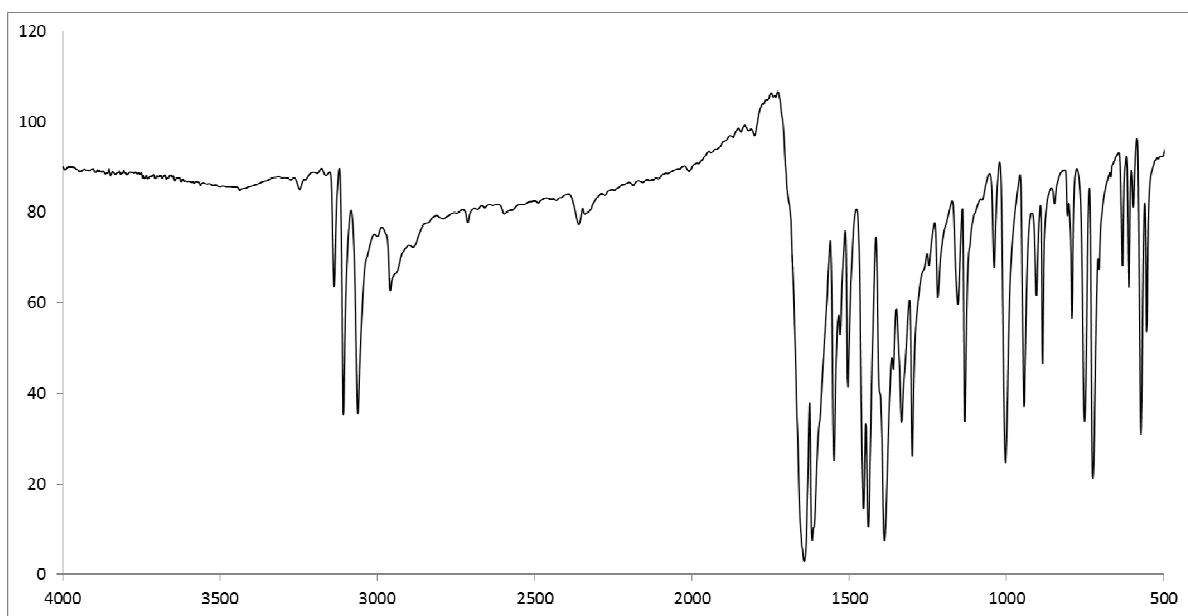


Figure S13. FTIR (KBr) spectrum of compound 6a.

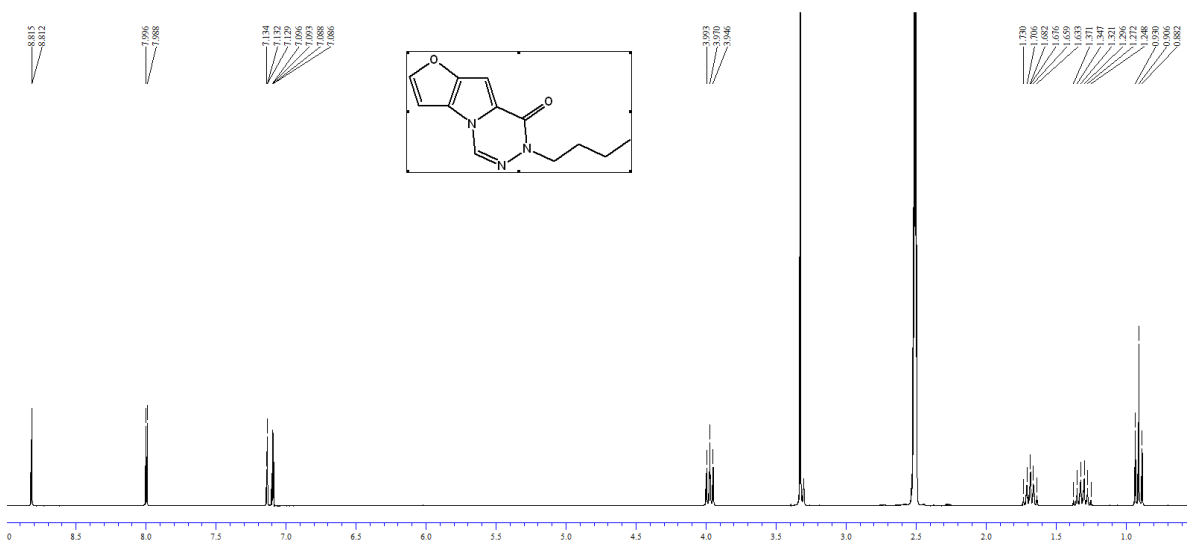


Figure S14.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound 6b.

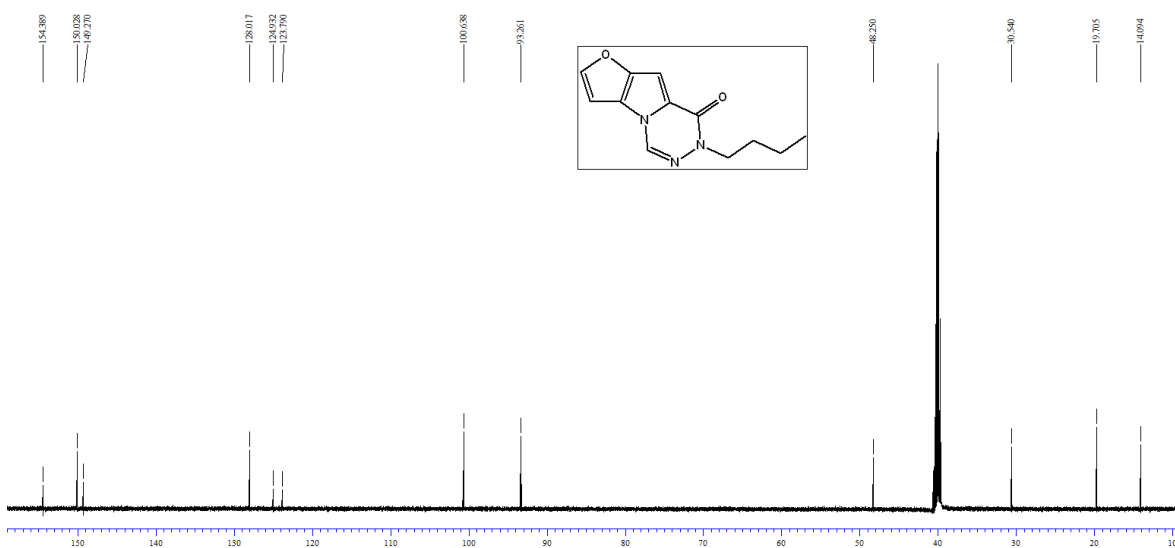


Figure S15. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **6b**.

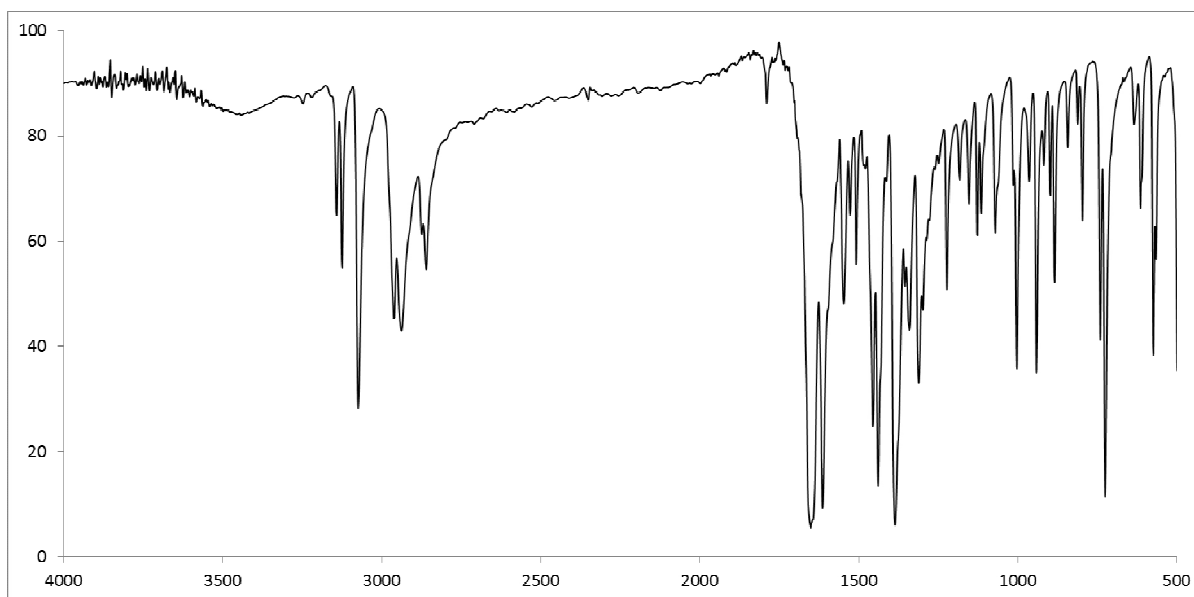


Figure S16. FTIR (KBr) spectrum of compound **6b**.

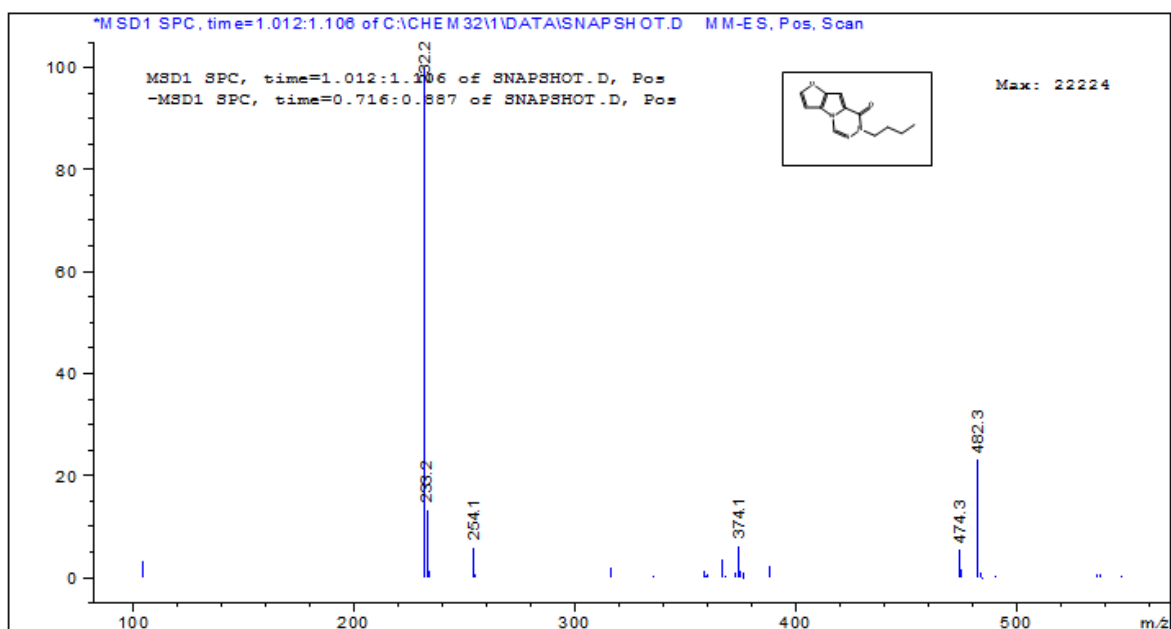


Figure S17. MS (ESI+) spectrum of compound 6b.

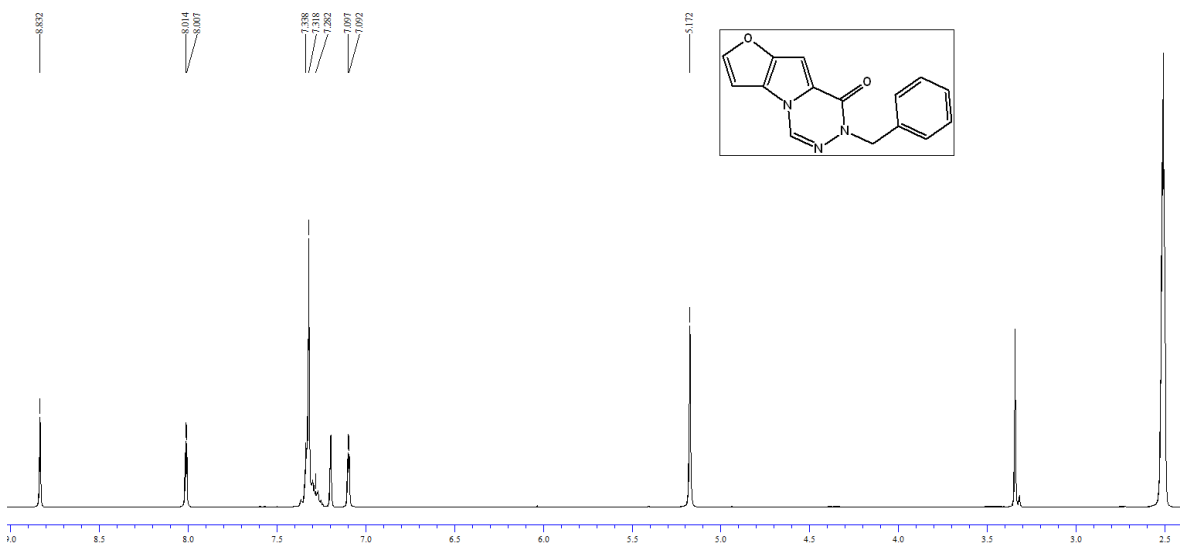
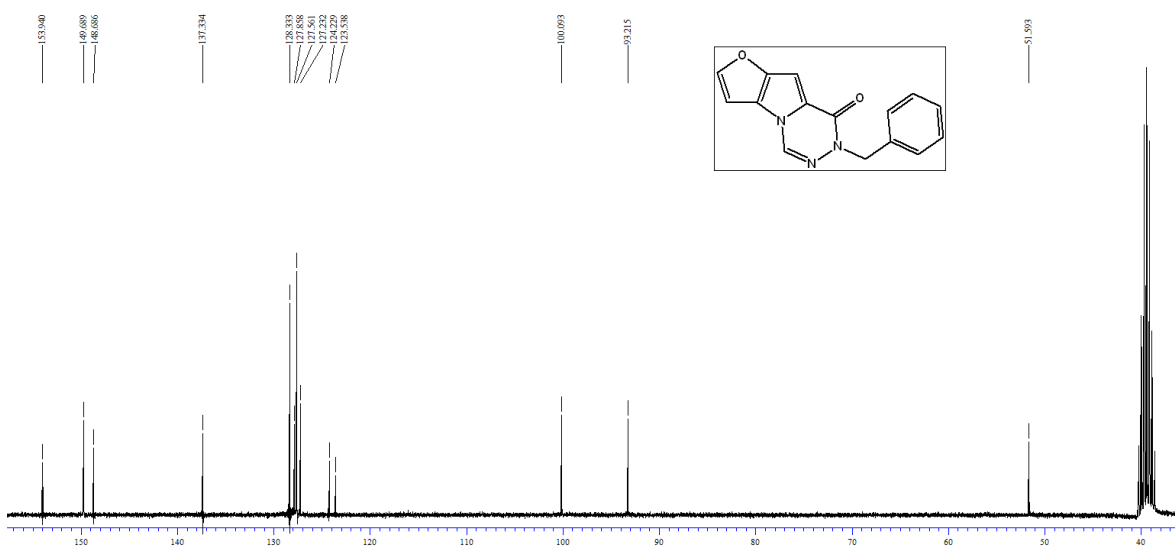
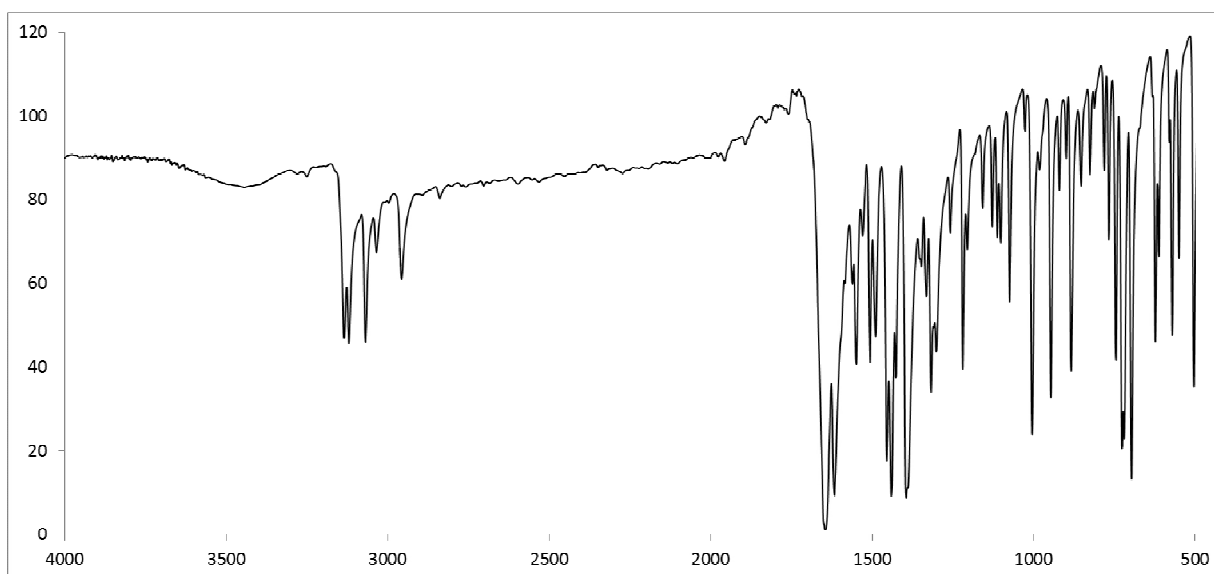


Figure S18. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound 6c.



**Figure S19.** <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **6c**.



**Figure S20.** FTIR (KBr) spectrum of compound **6c**.

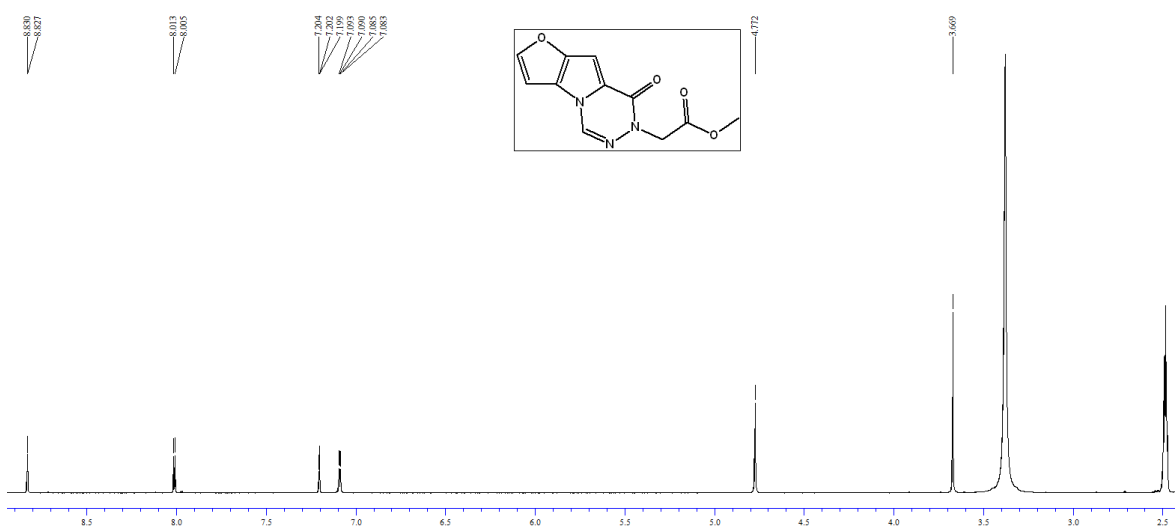


Figure S21.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound 6d.

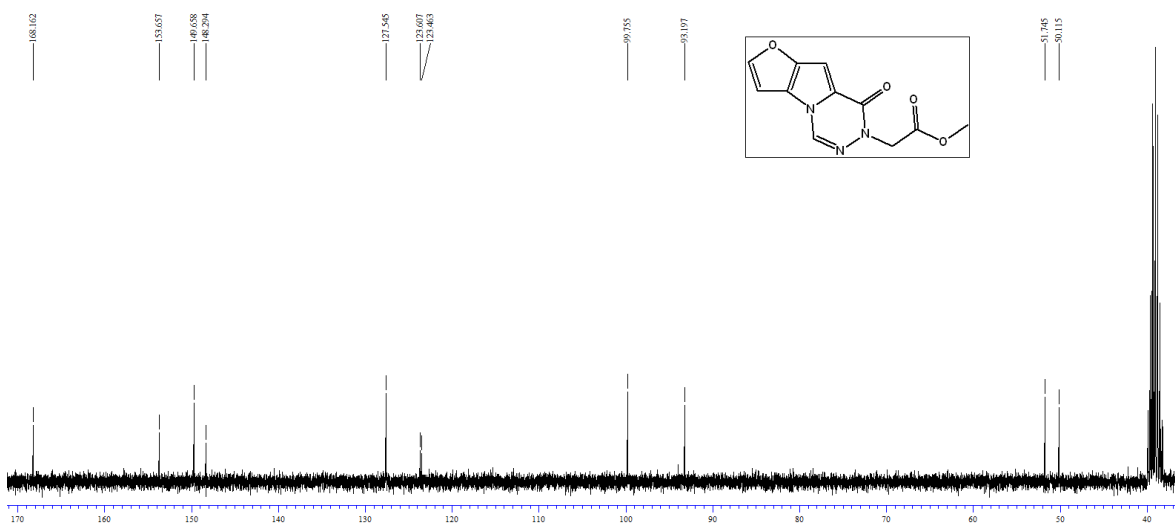


Figure S22.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO}-d_6$ ) of compound 6d.

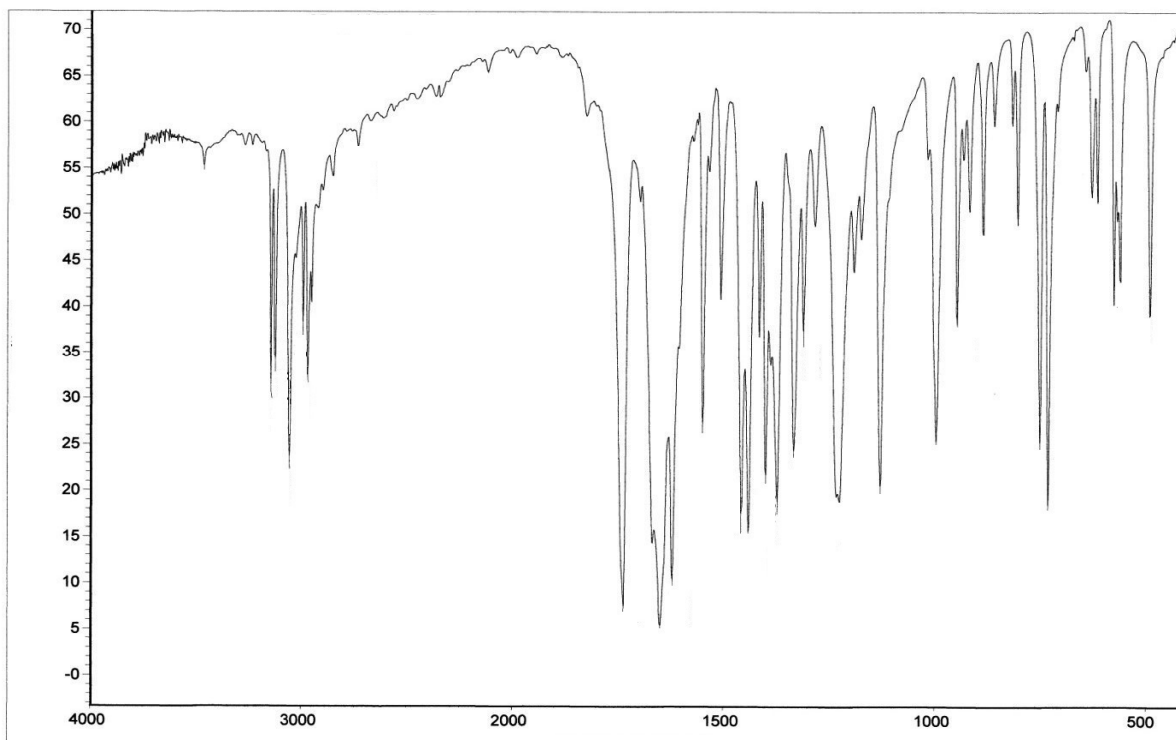


Figure S23. FTIR (KBr) spectrum of compound **6d**.

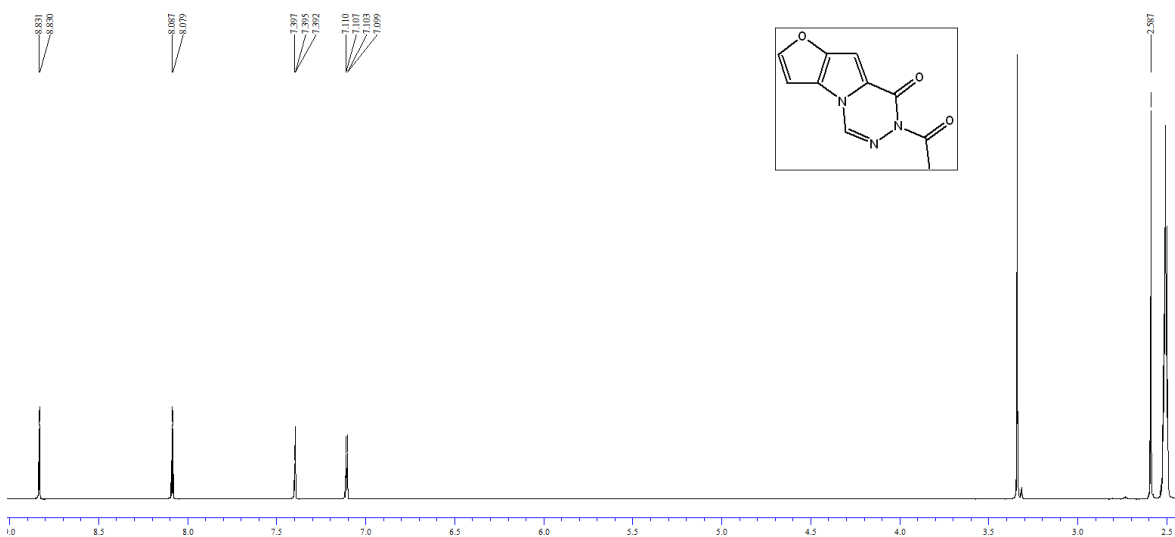


Figure S24.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound **6e**.

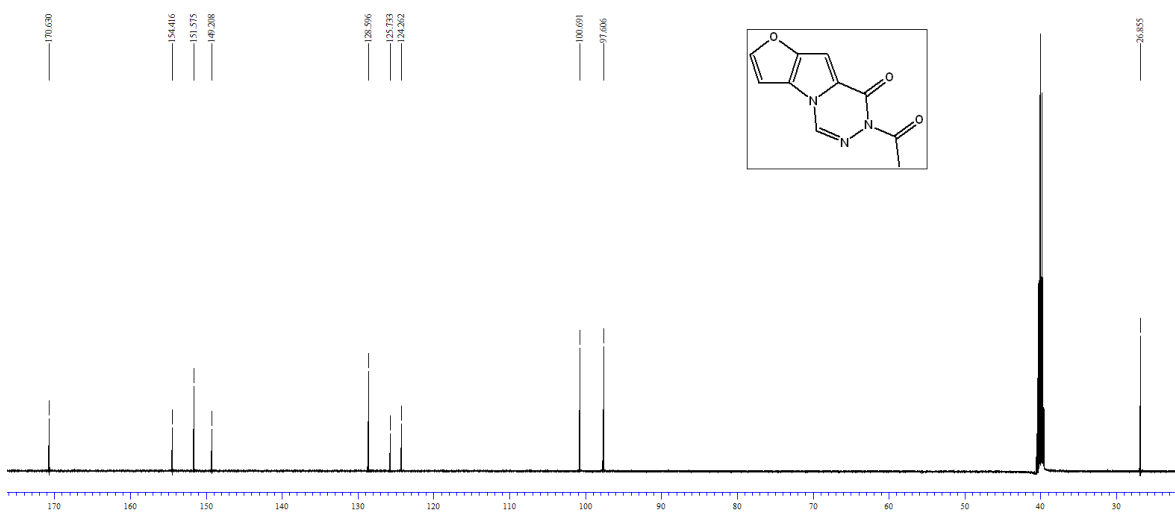


Figure S25.  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{DMSO-}d_6$ ) of compound 6e.

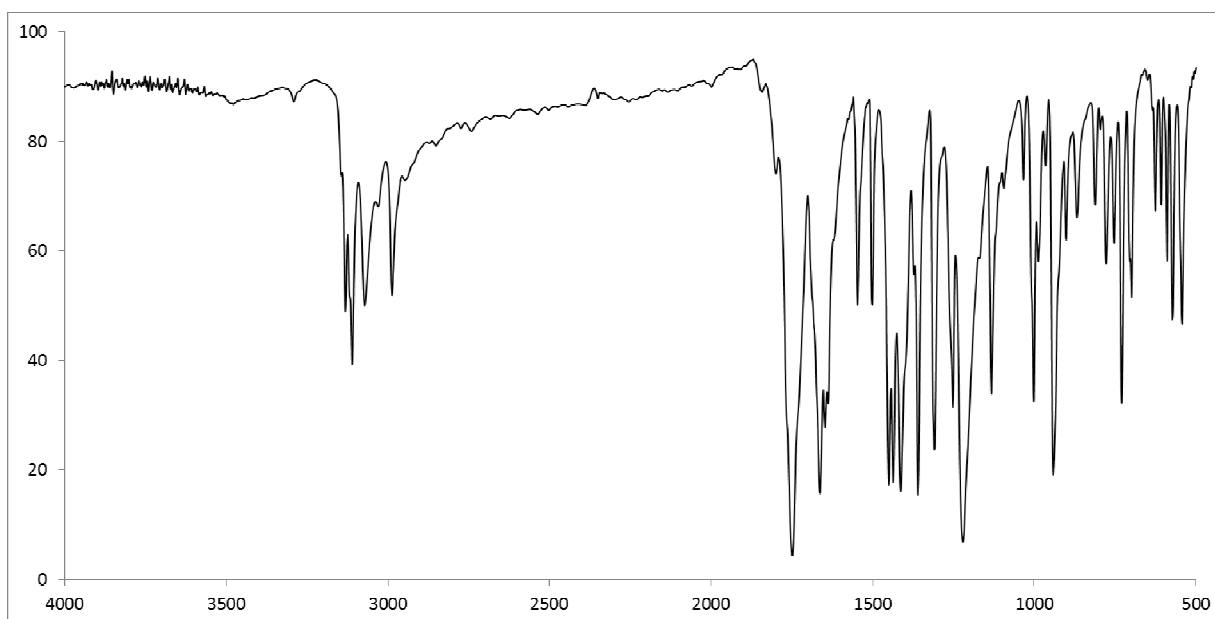


Figure S26. FTIR (KBr) spectrum of compound 6e.





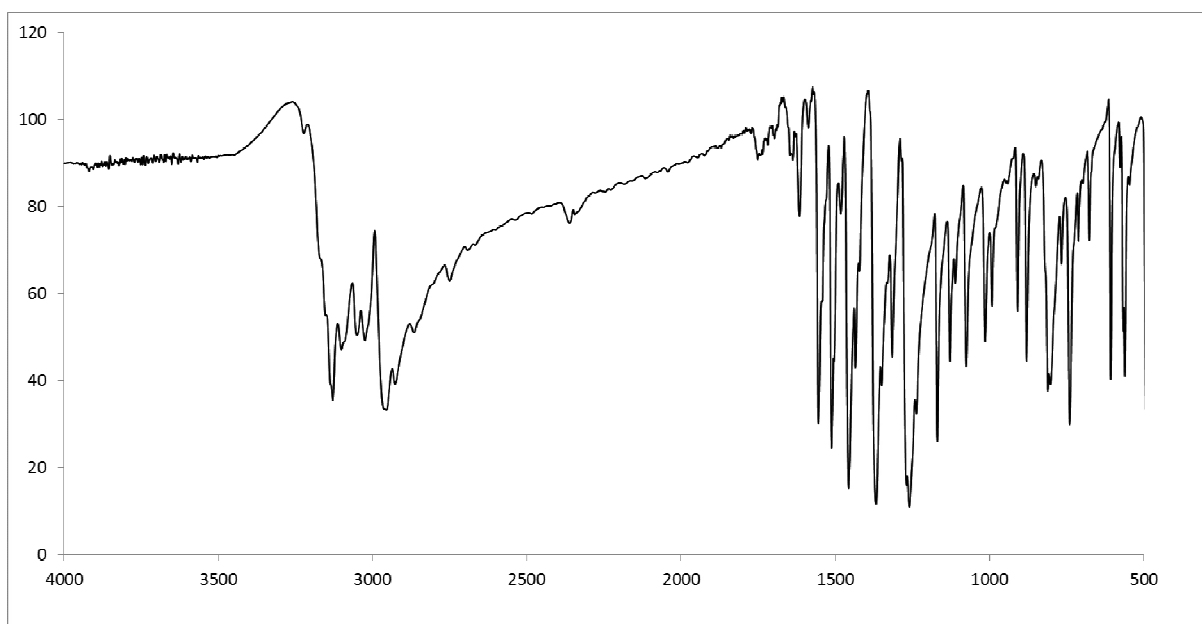


Figure S29. FTIR (KBr) spectrum of compound 7.

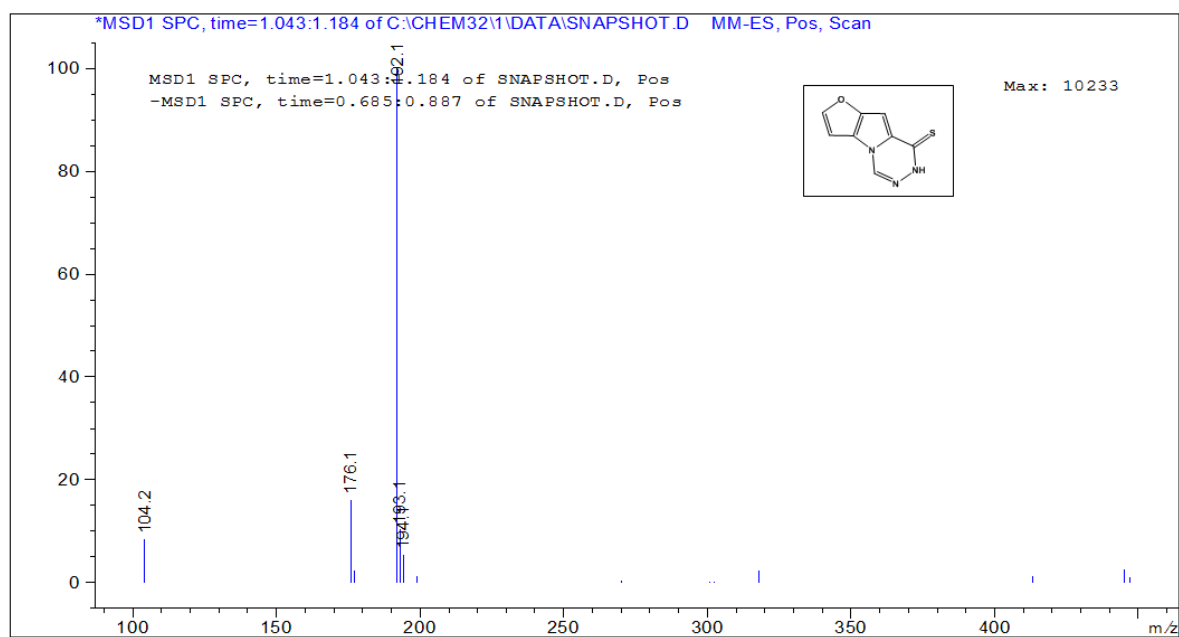


Figure S30. MS (ESI+) spectrum of compound 7.

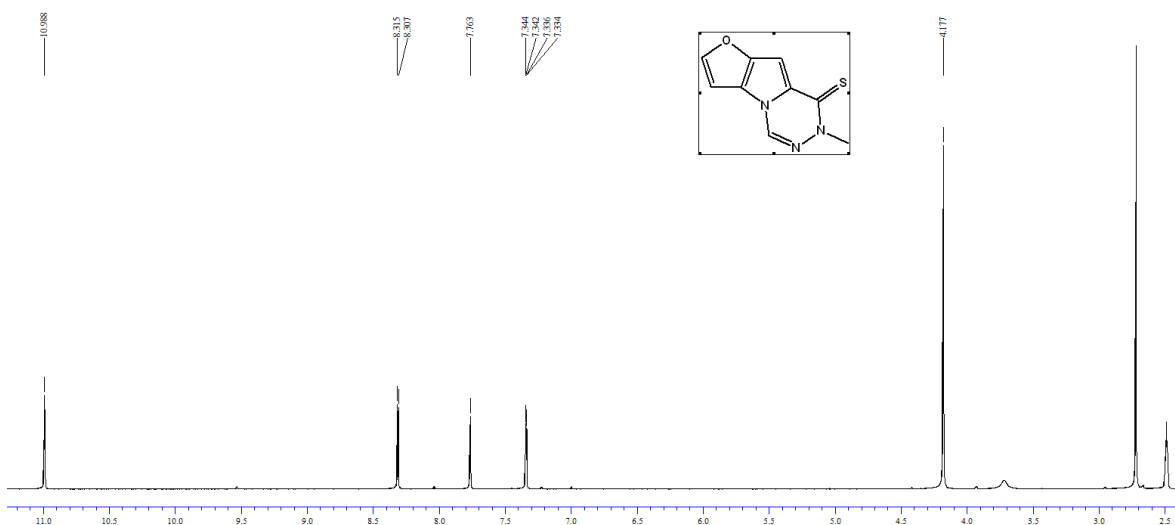


Figure S31. <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) of compound **8a**.

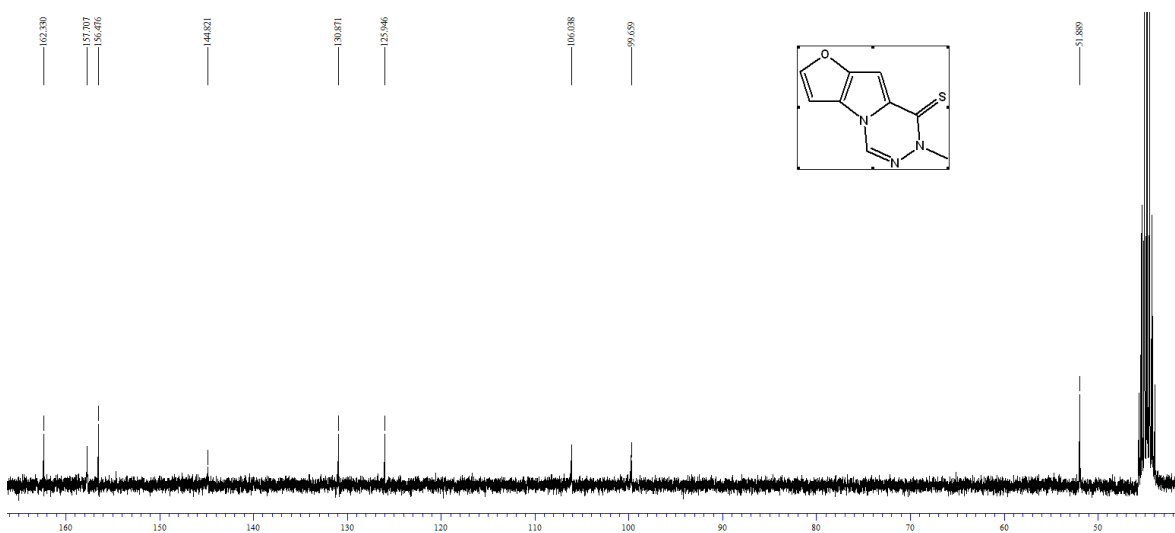


Figure S32. <sup>13</sup>C NMR spectrum (75 MHz, DMSO-*d*<sub>6</sub>) of compound **8a**.

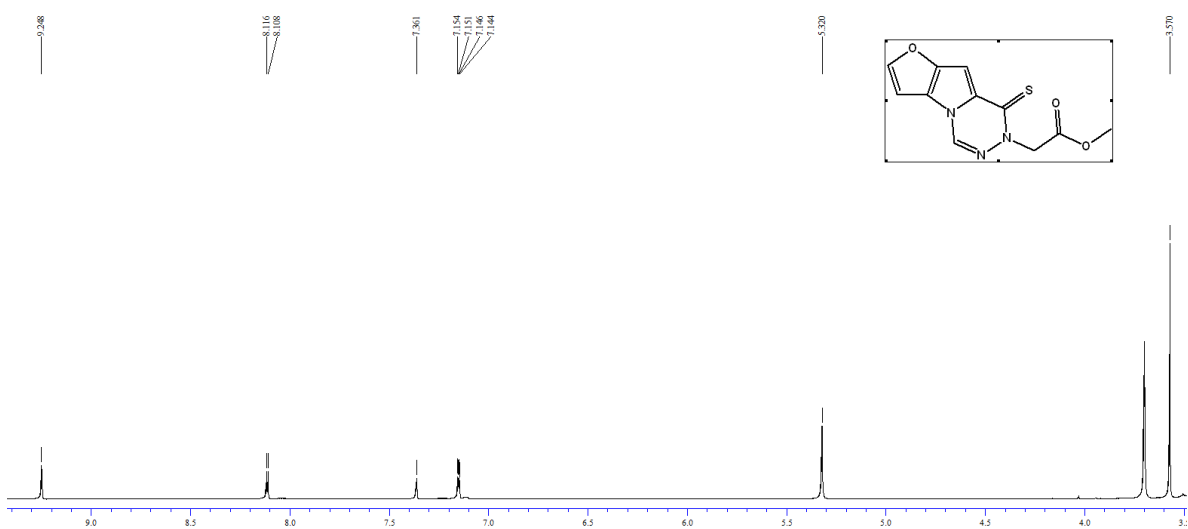


Figure S33  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**.

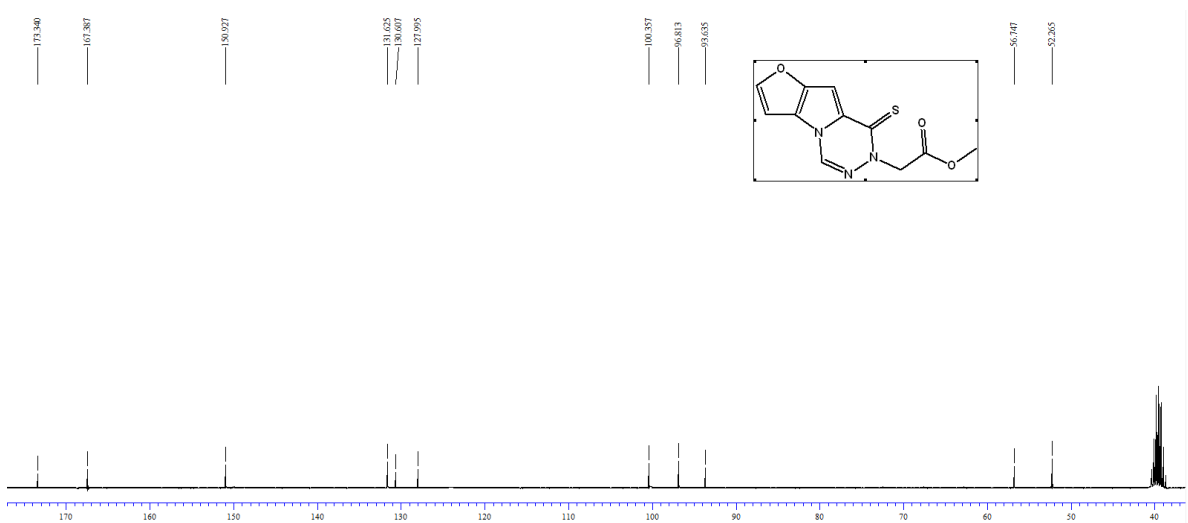


Figure S34.  $^{13}\text{C}$  NMR (75 MHz,  $\text{DMSO-}d_6$ ) of compound **8b**.



Figure S35.  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ ) of compound 9.

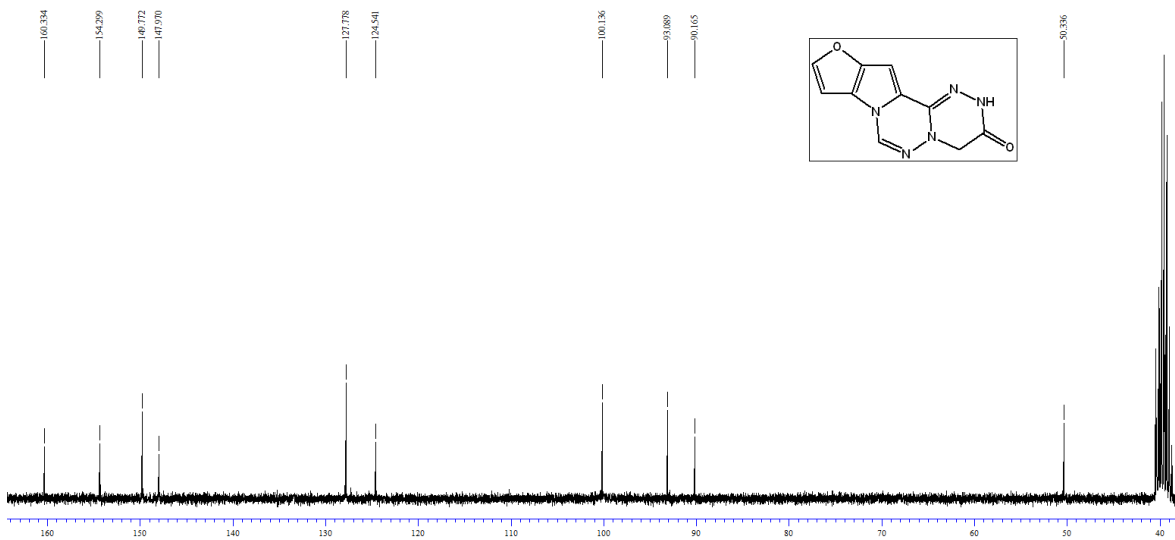


Figure S36.  $^{13}\text{C}$  NMR (75 MHz,  $\text{DMSO}-d_6$ ) of compound 9.