

## Supplementary Material

### Synthesis, characterization and antimicrobial activity of new 1,2,4-triazole and pyridine derivatives bearing methyl 4-aminosalicylate moiety as a substructure

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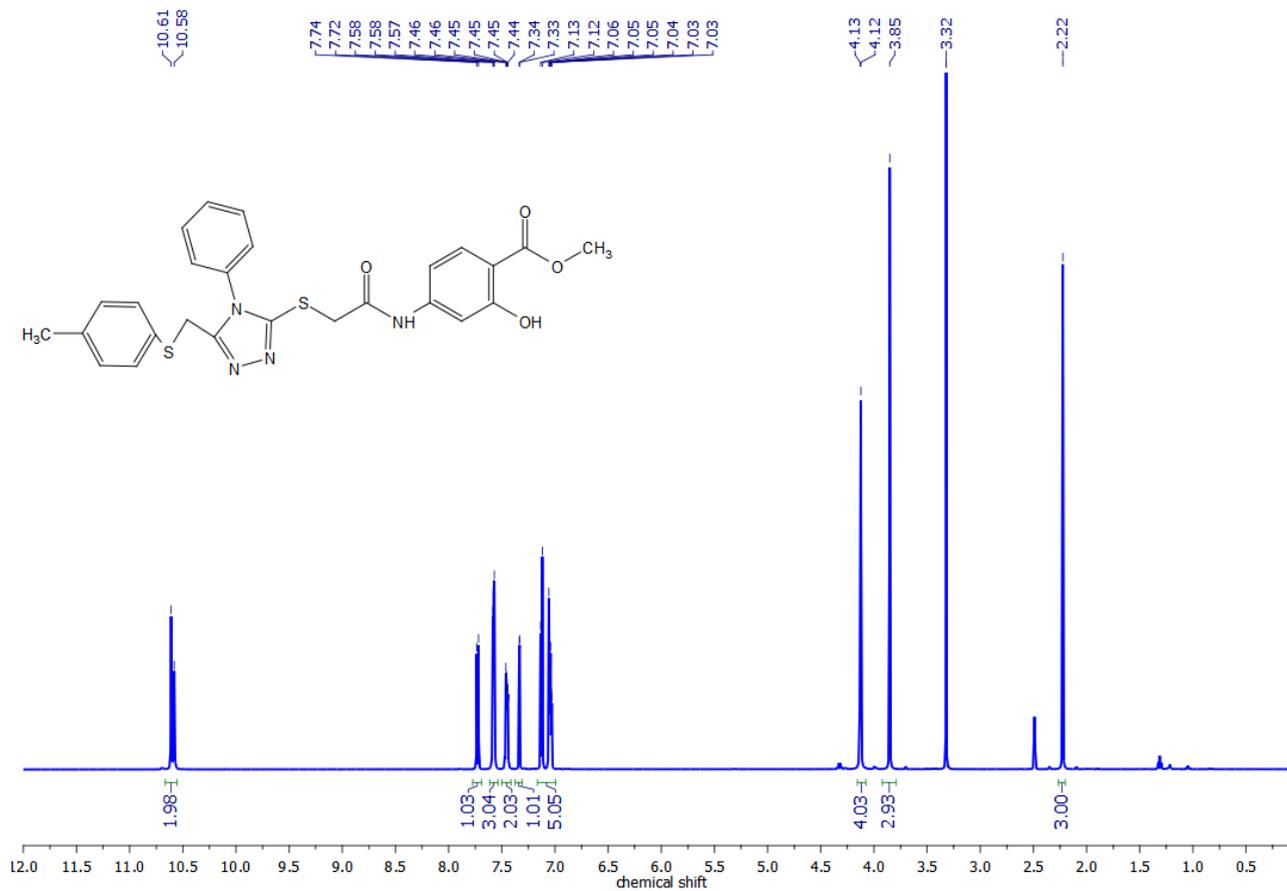


Figure S1.  $^1\text{H}$  NMR spectrum of compound **5b** in DMSO- $d_6$

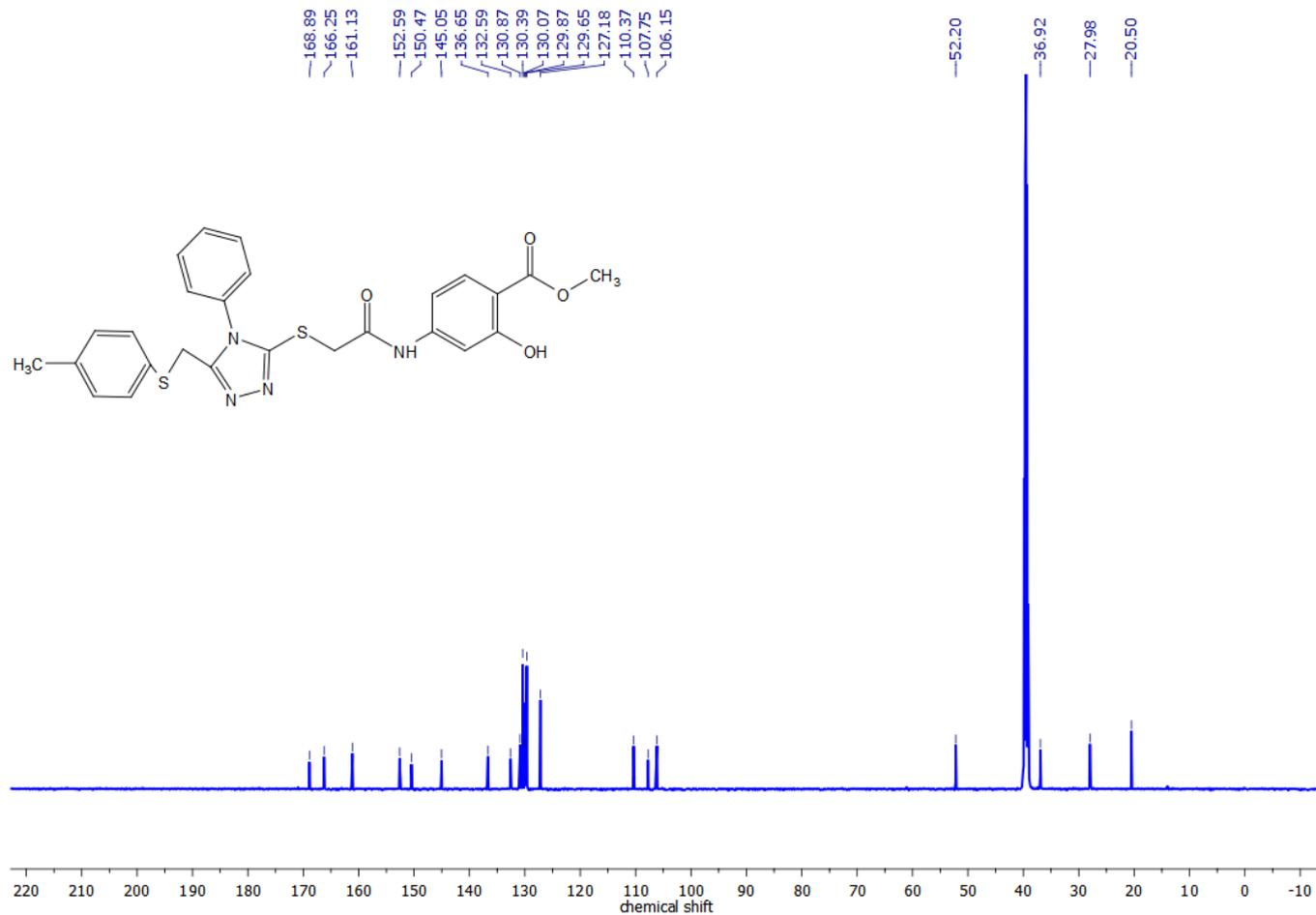


Figure S2.  $^{13}\text{C}$  NMR spectrum of compound **5b** in  $\text{DMSO-}d_6$

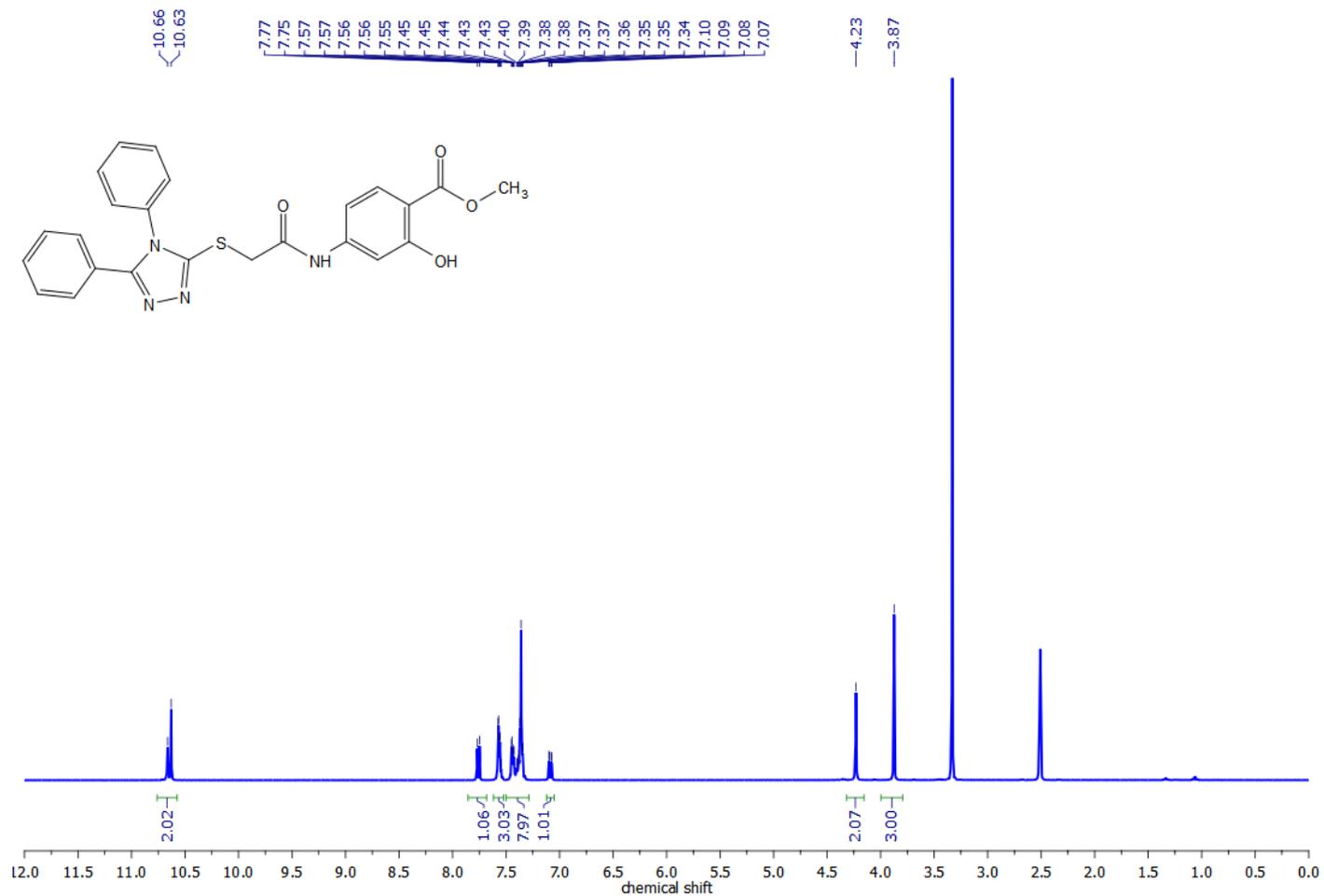


Figure S3.  $^1\text{H NMR}$  spectrum of compound **5d** in  $\text{DMSO-}d_6$

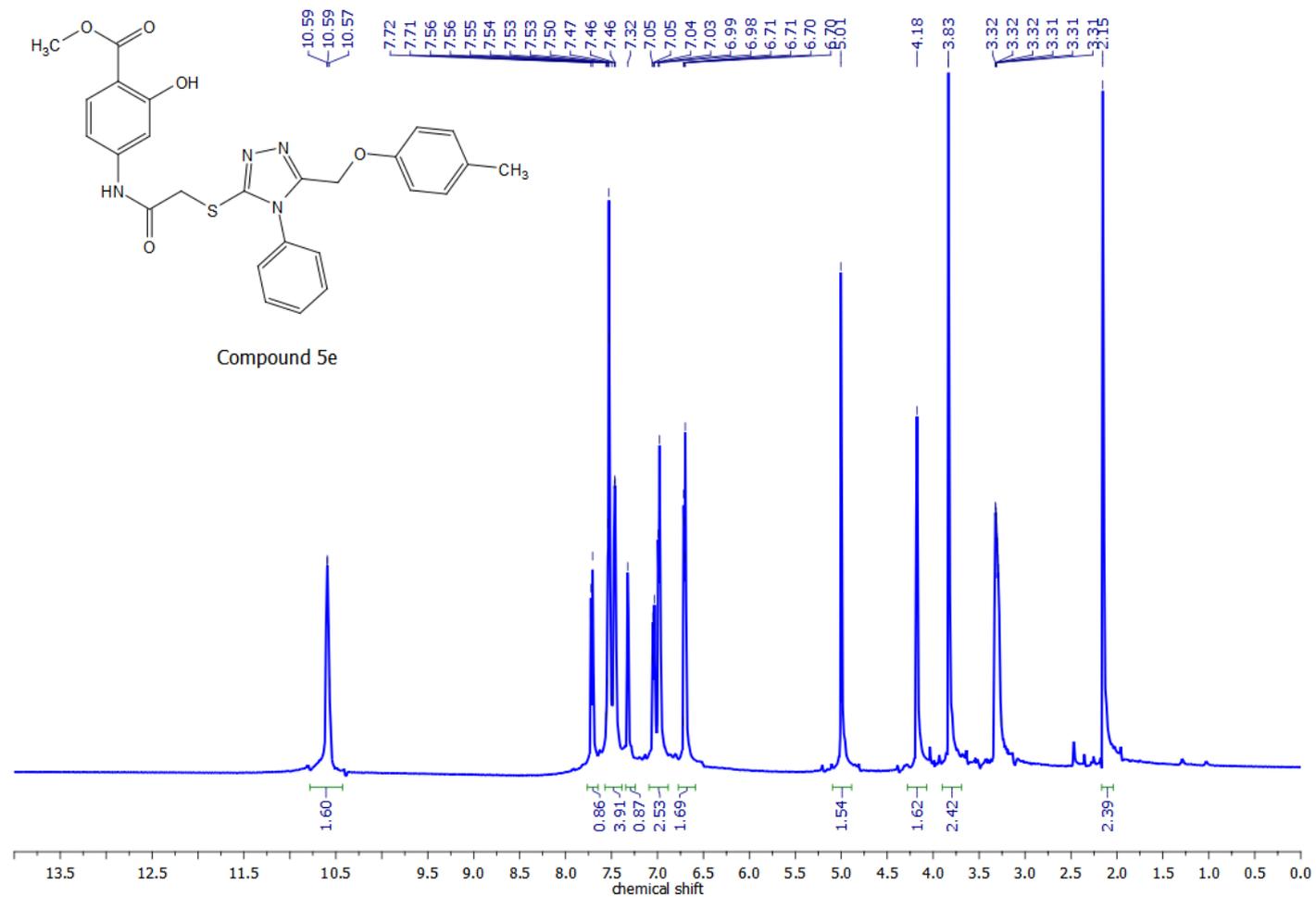


Figure S4.  $^1\text{H}$  NMR spectrum of compound 5e in  $\text{DMSO-}d_6$

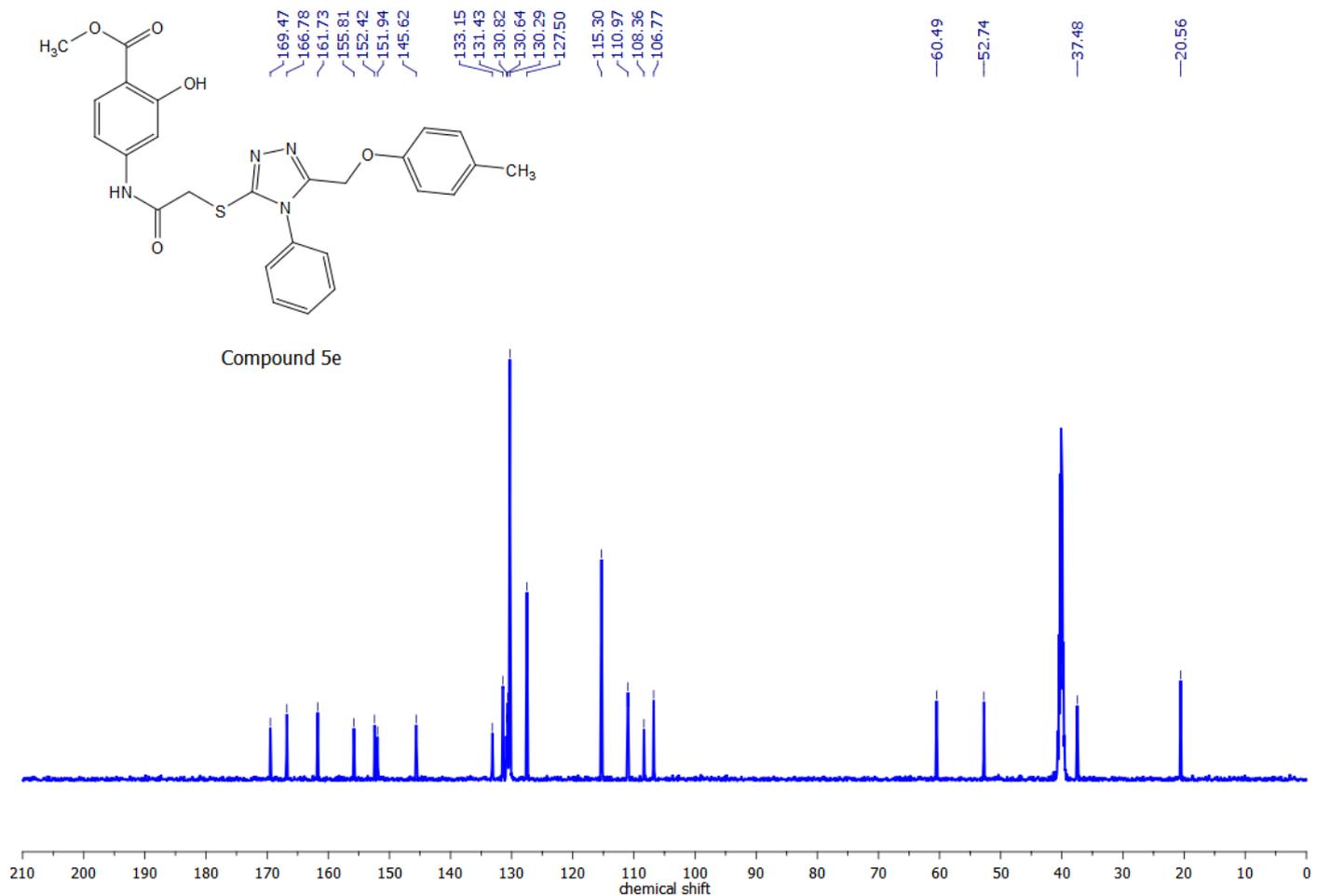


Figure S5.  $^{13}\text{C}$ NMR spectrum of compound 5e in  $\text{DMSO-}d_6$

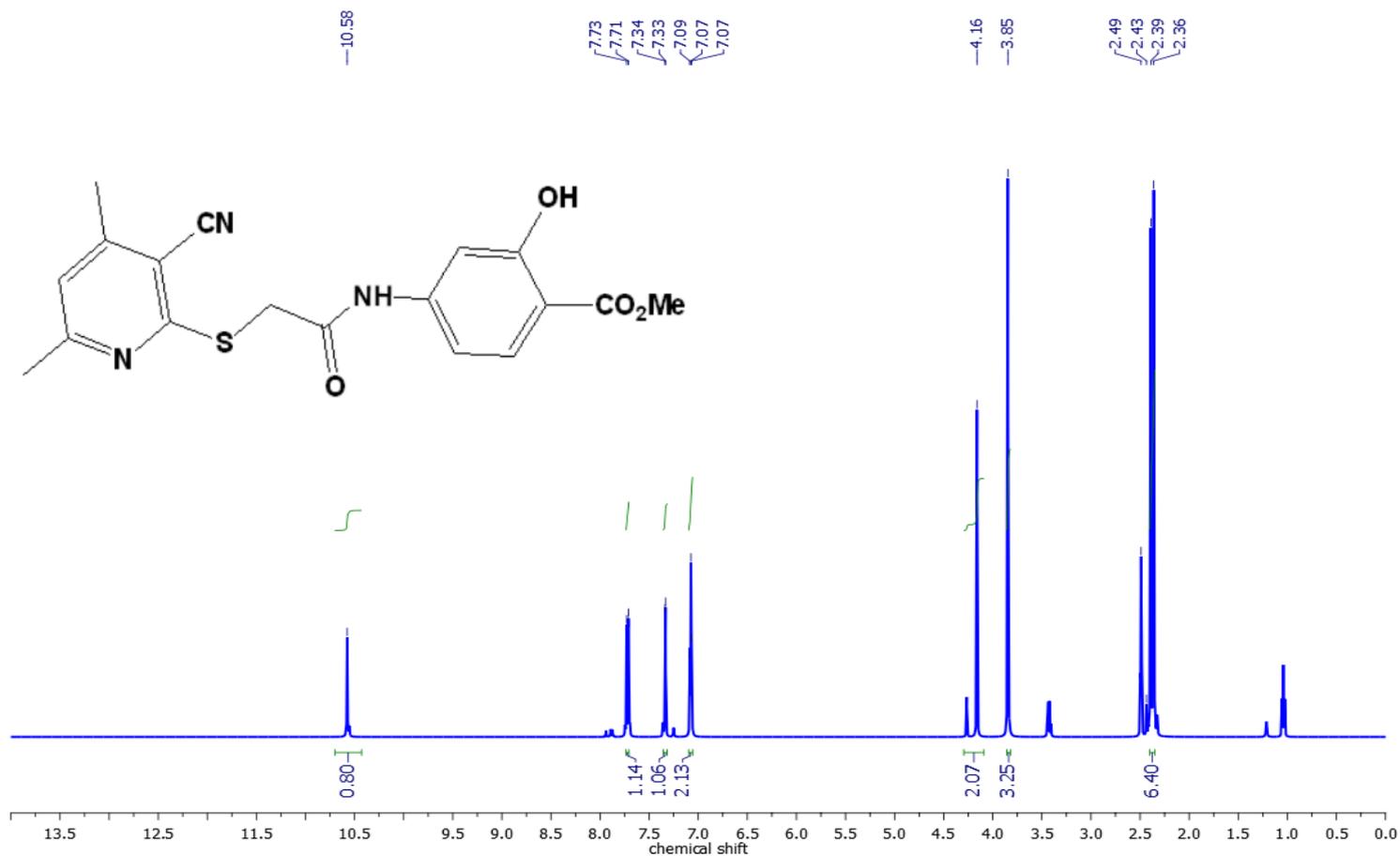


Figure. S6:  $^1\text{H}$  NMR spectrum of compound 7 in DMSO- $d_6$ .

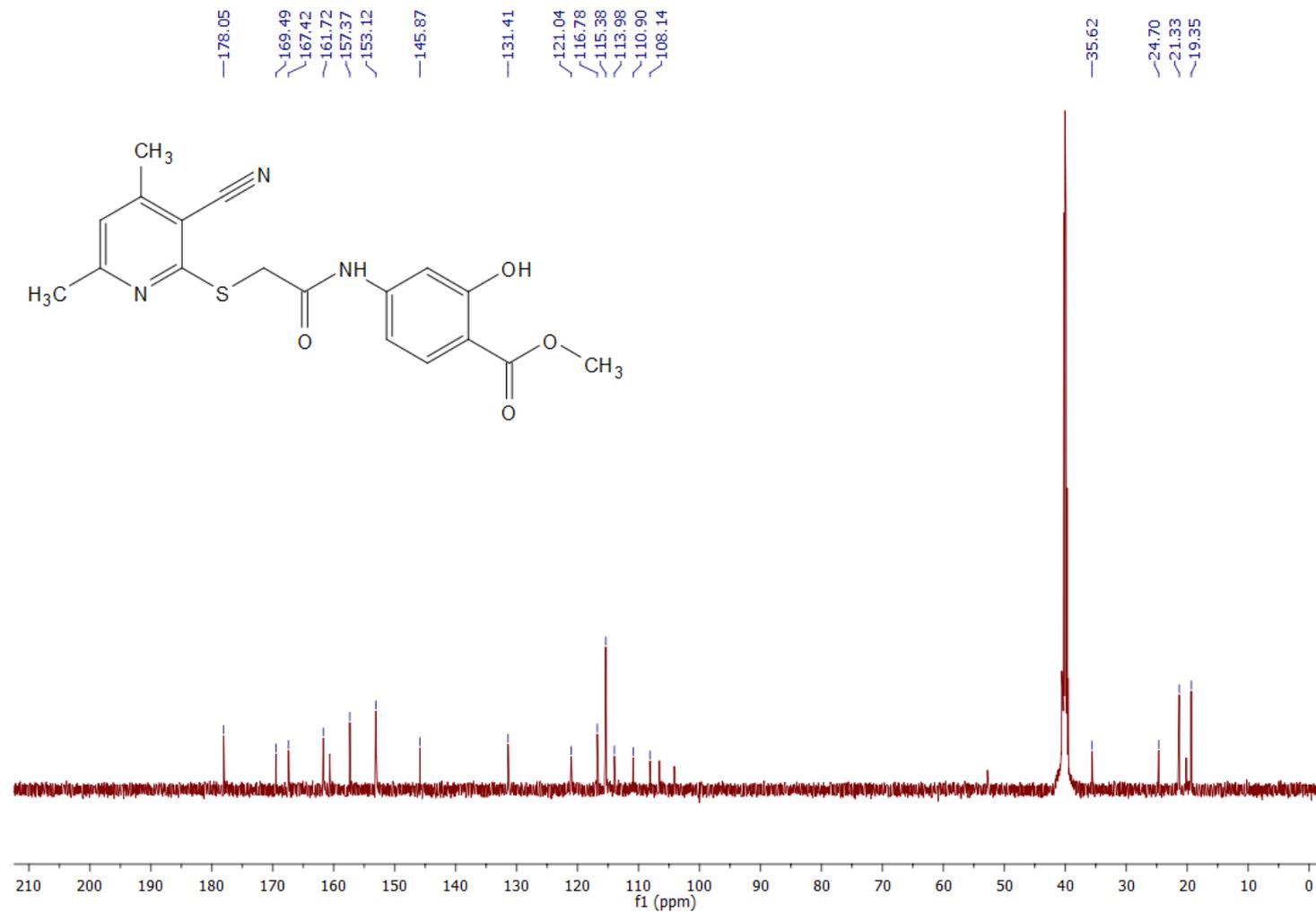


Figure. S7:  $^{13}\text{C}$  NMR spectrum of compound 7 in  $\text{DMSO-}d_6$ .

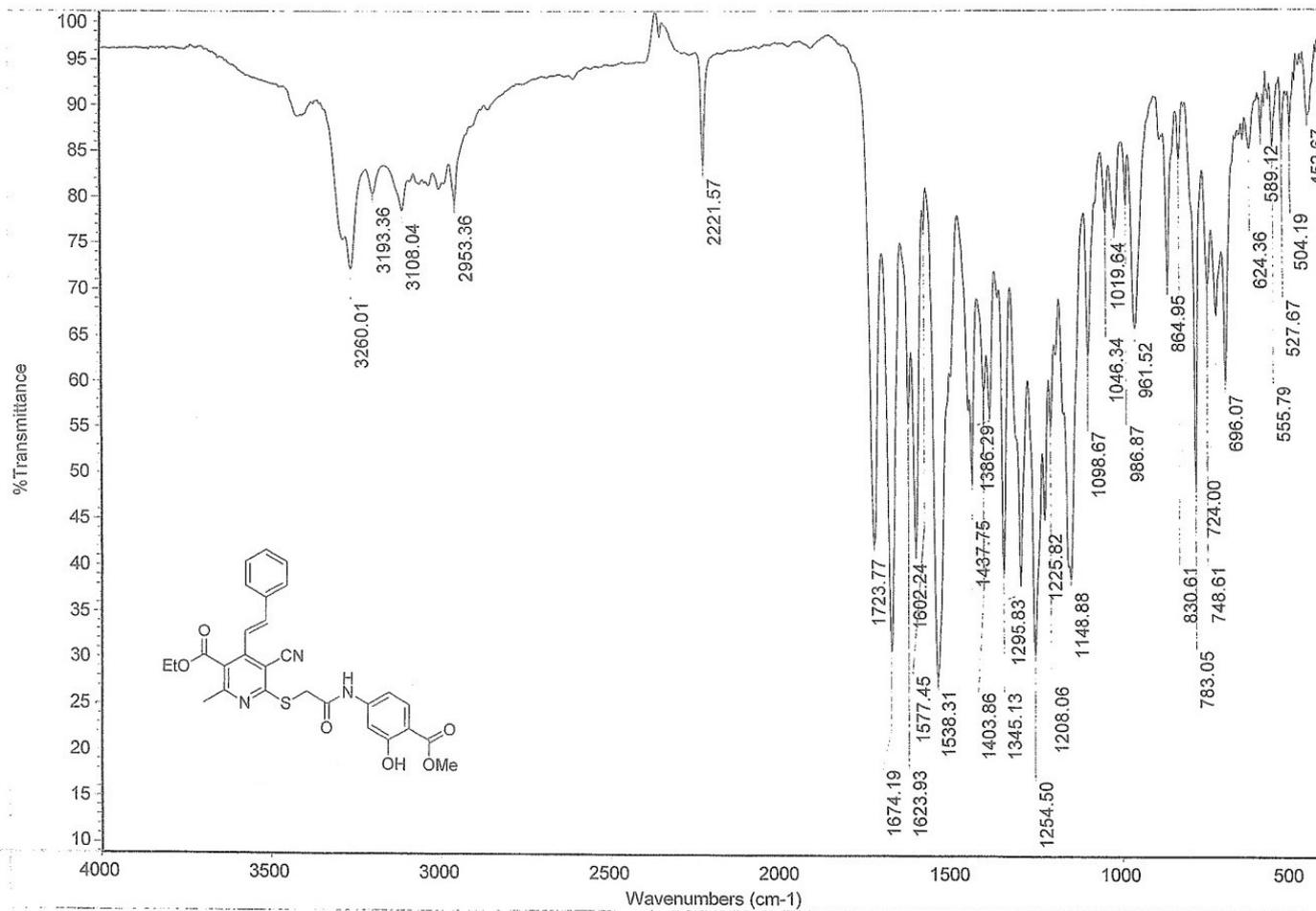


Figure S8: IR spectrum of compound 9a.

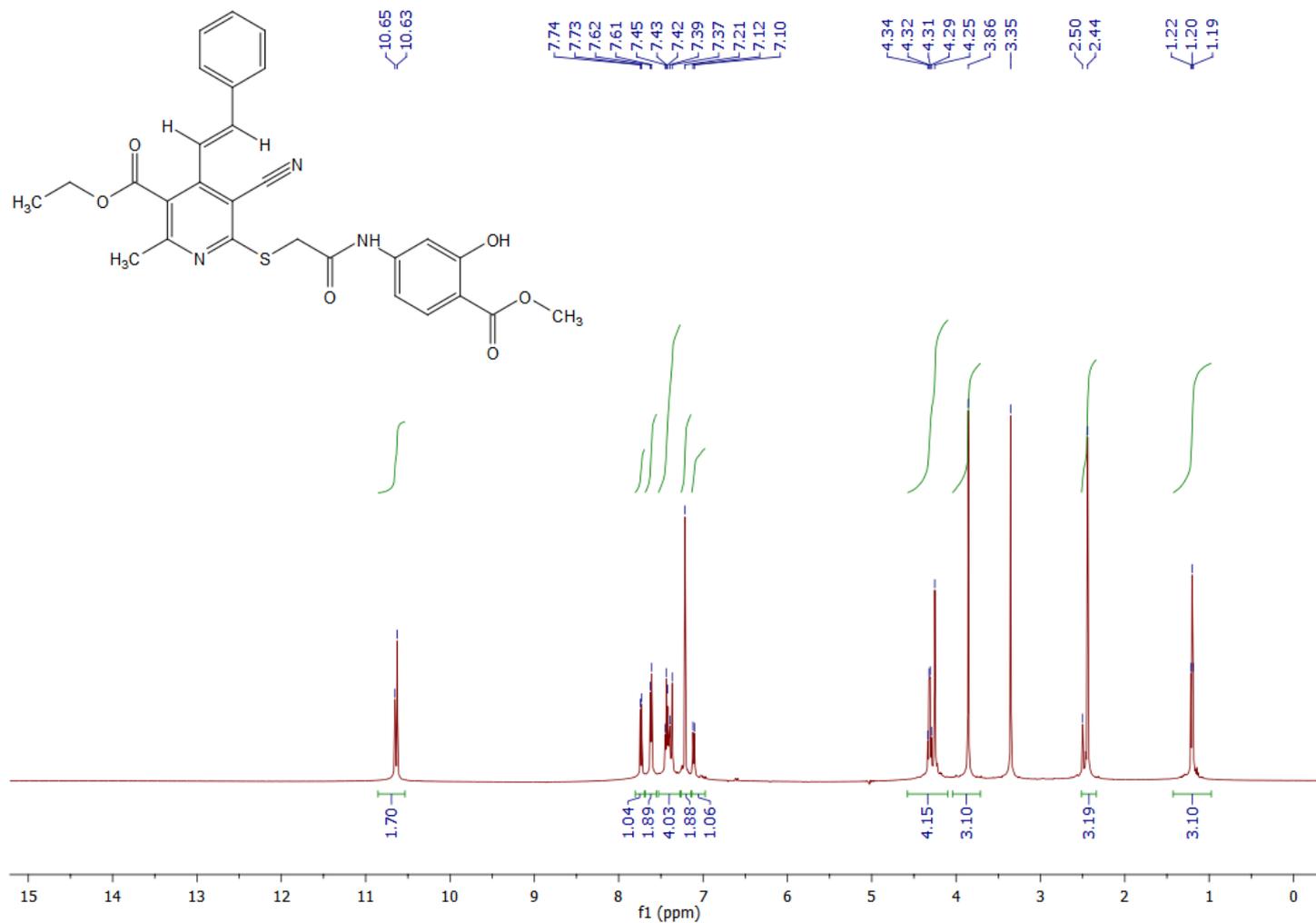


Figure S9.  $^1\text{H}$  NMR spectrum of compound **9a** in DMSO- $d_6$ .

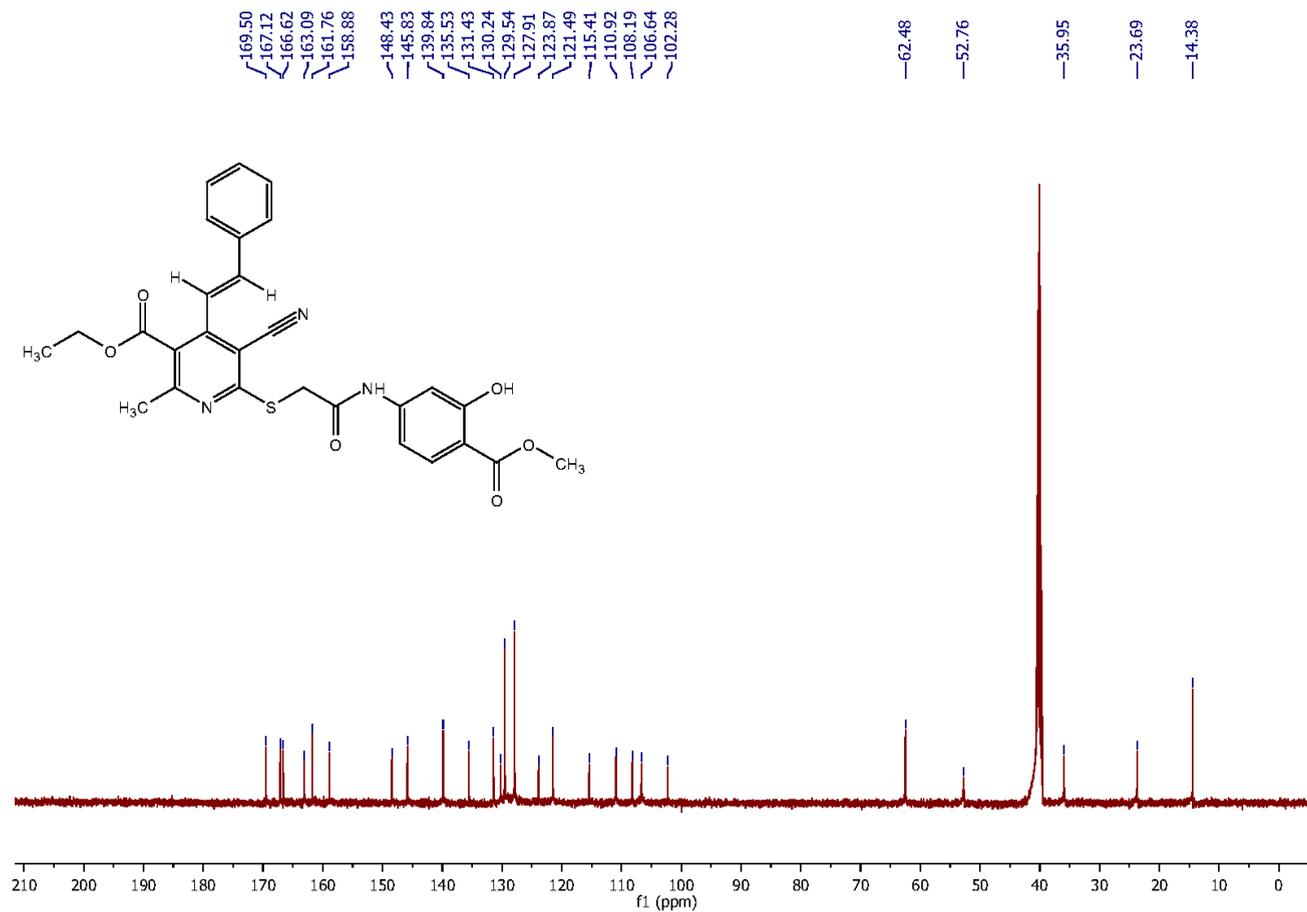


Figure S10. <sup>13</sup>C NMR spectrum of compound **9a** in DMSO-*d*<sub>6</sub>

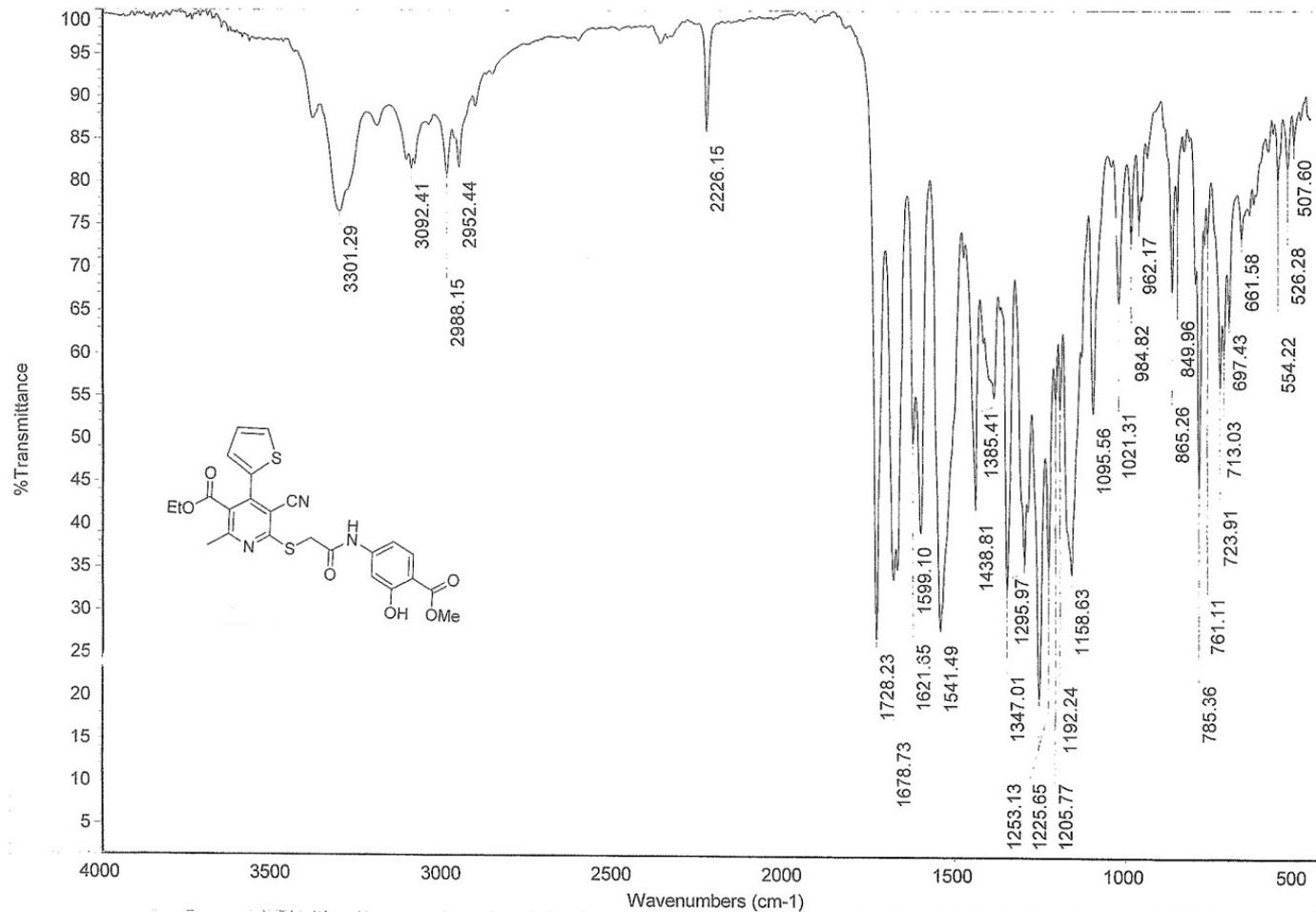


Figure S11. IR spectrum of compound **9b**.

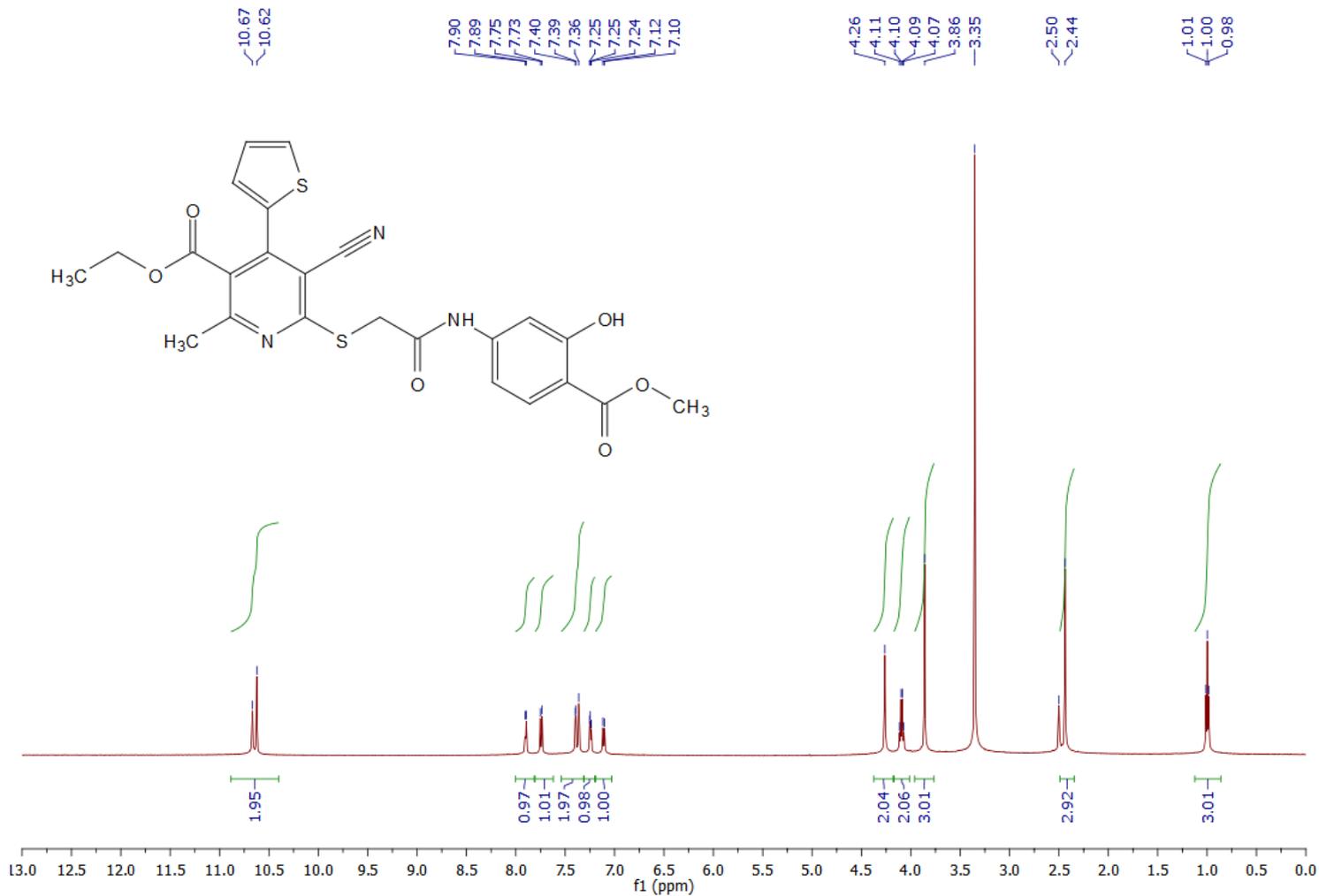


Figure S12. <sup>1</sup>H NMR spectrum of compound **9b** in DMSO-*d*<sub>6</sub>.

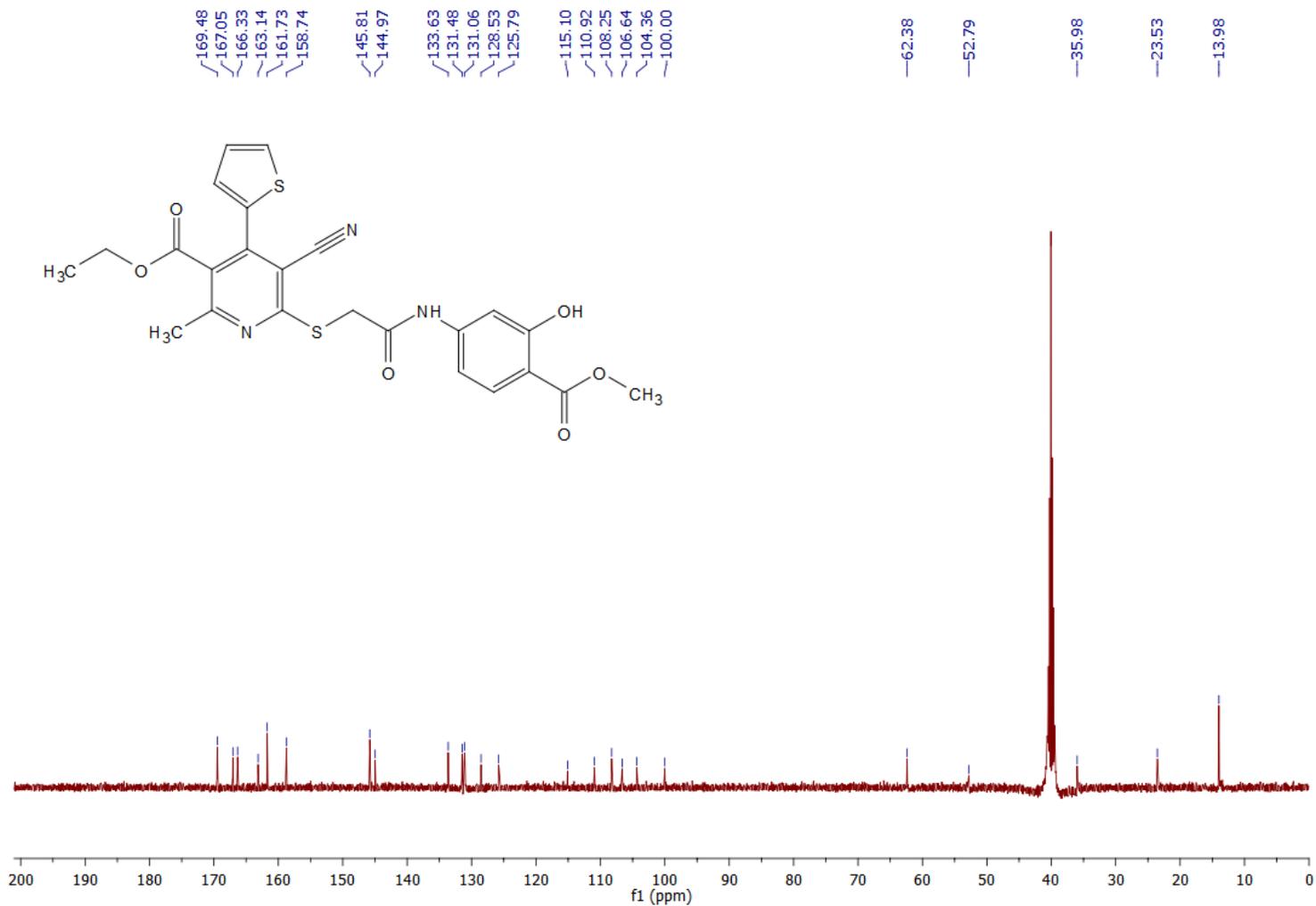


Figure S13:  $^{13}\text{C}$  NMR spectrum of compound **9b** in  $\text{DMSO-}d_6$ .

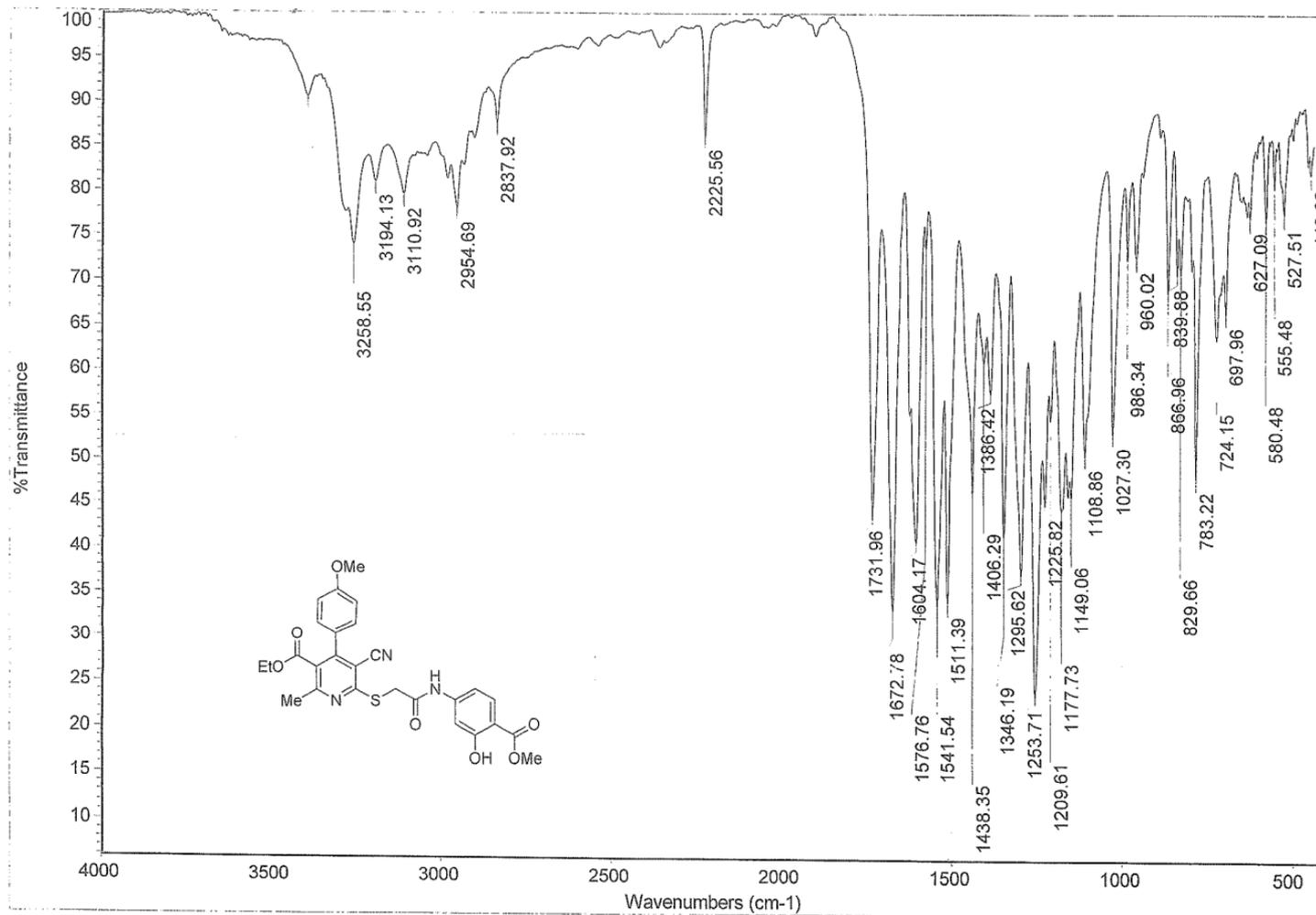


Figure S14. IR spectrum of compound 9c.

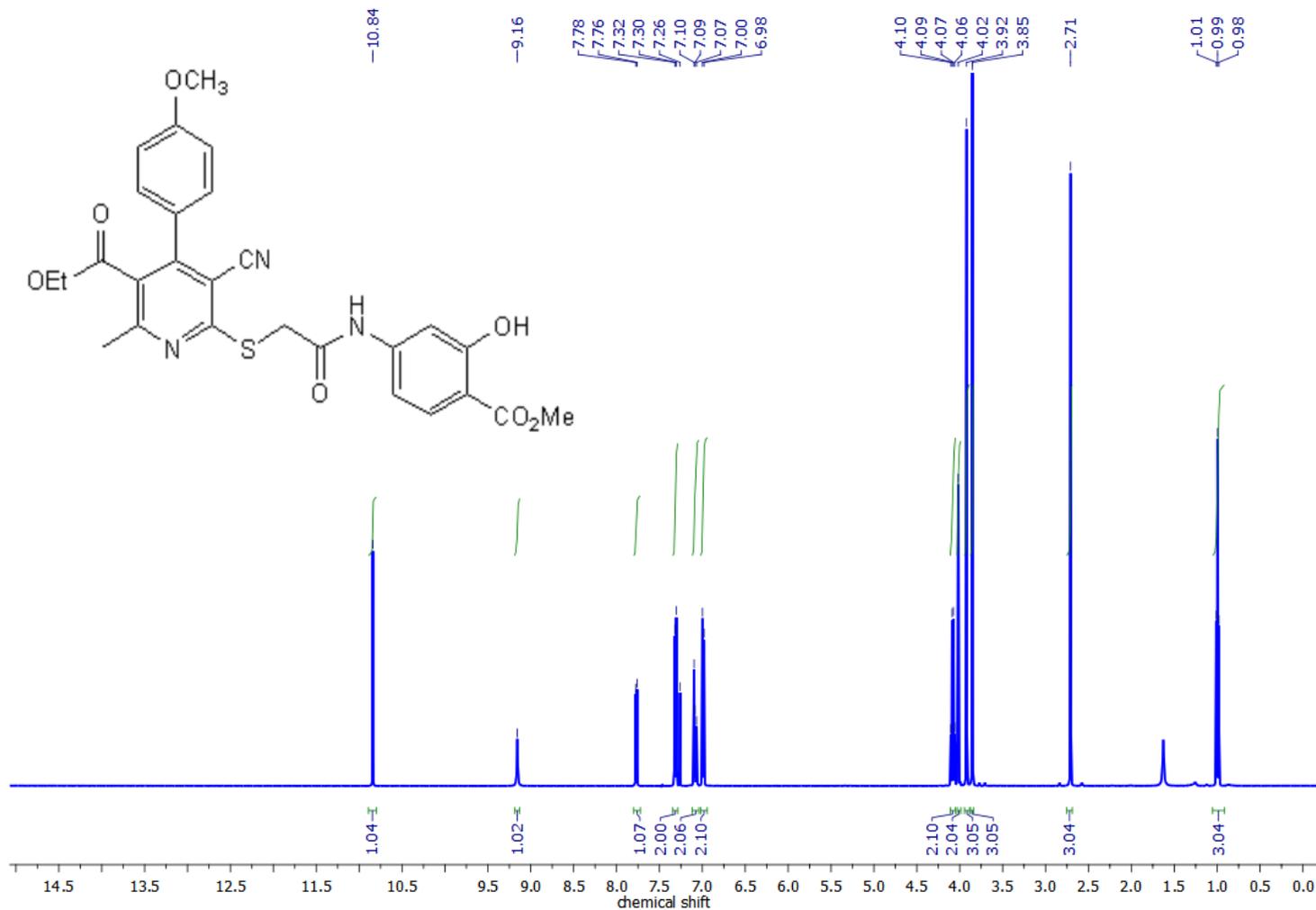


Figure S15.  $^1\text{H}$  NMR spectrum of compound **9c** in  $\text{CDCl}_3$ .

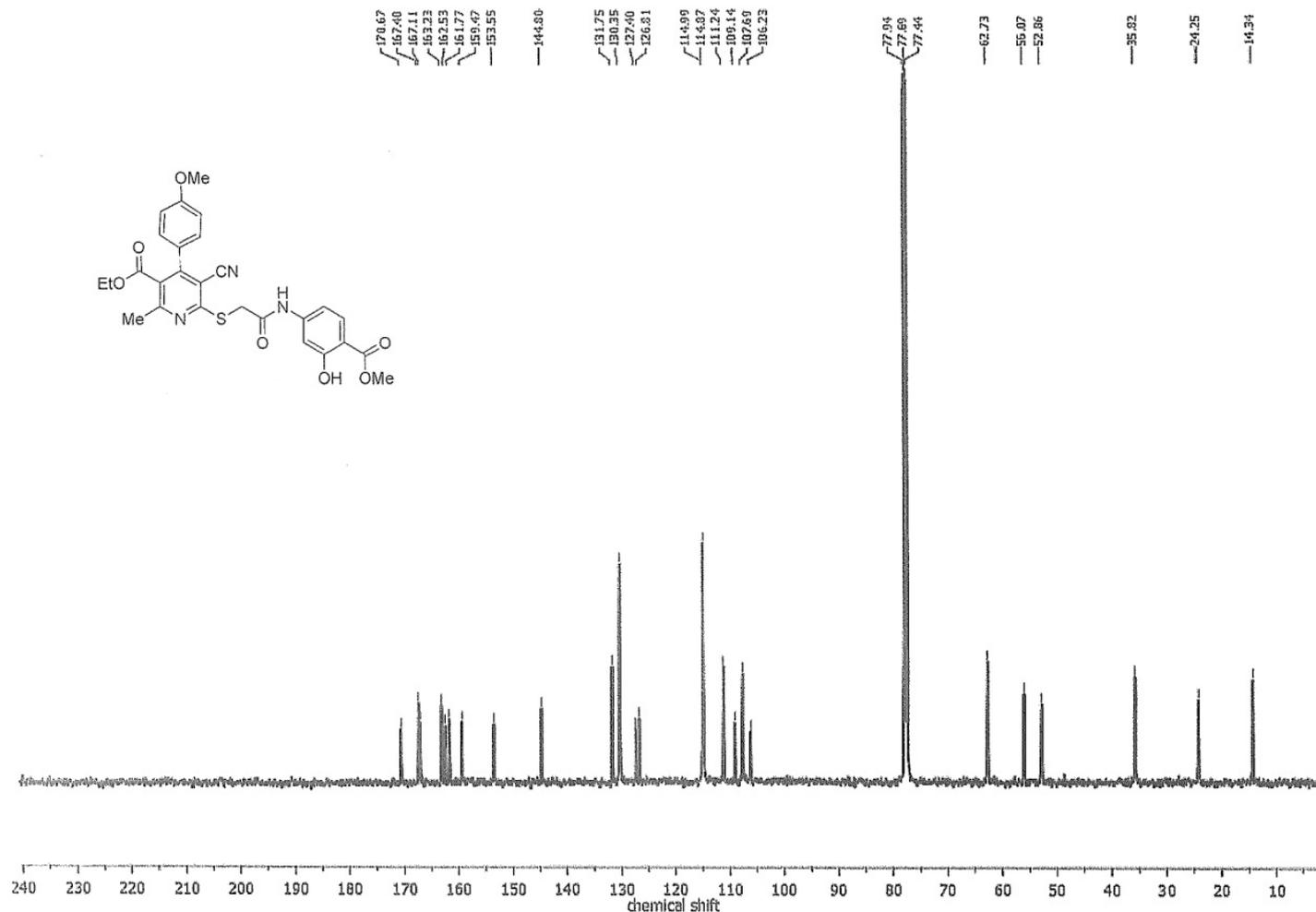


Figure S16. <sup>13</sup>C NMR spectrum of compound **9c** in CDCl<sub>3</sub>.

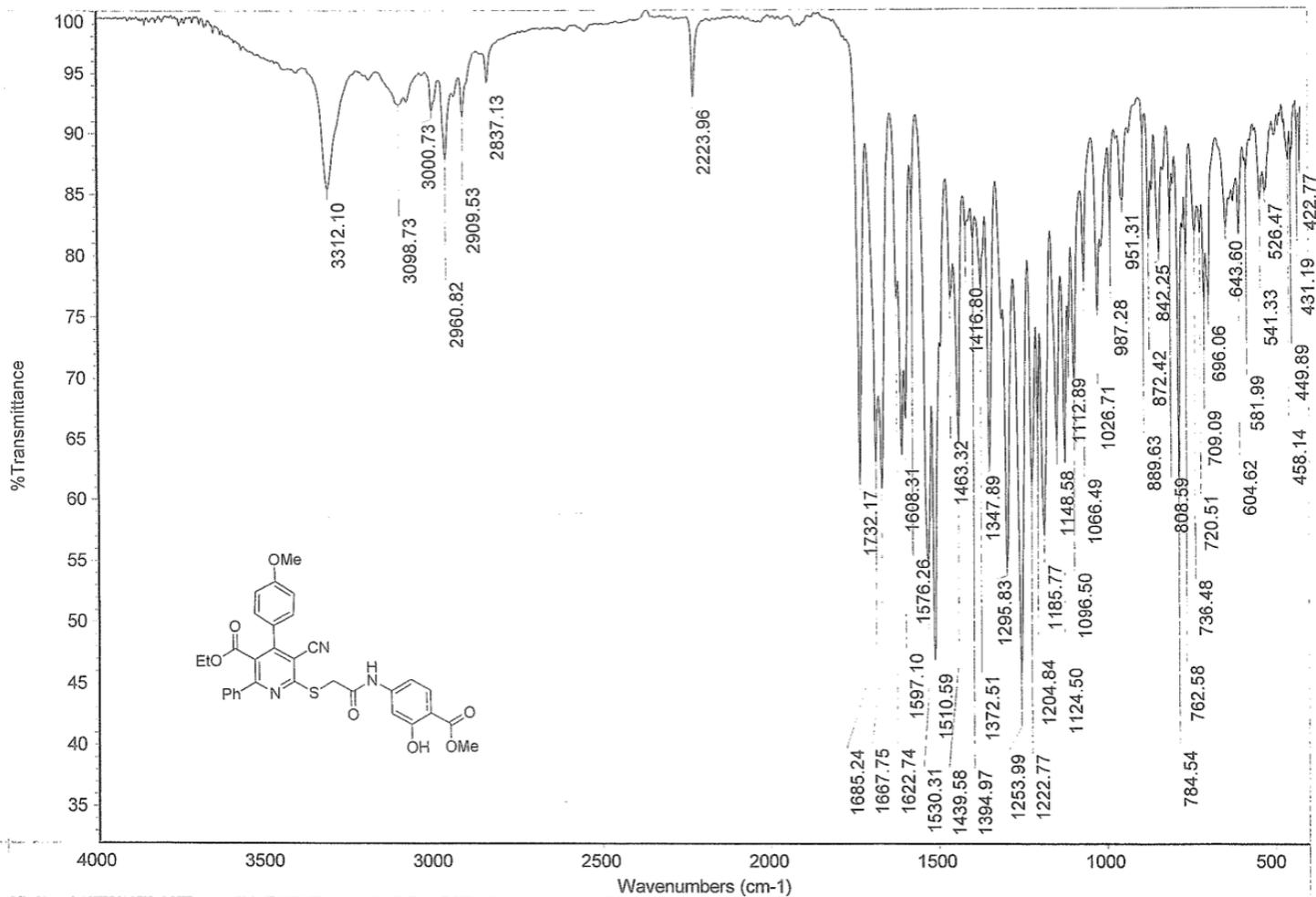


Figure S17. IR spectrum of compound 9d.

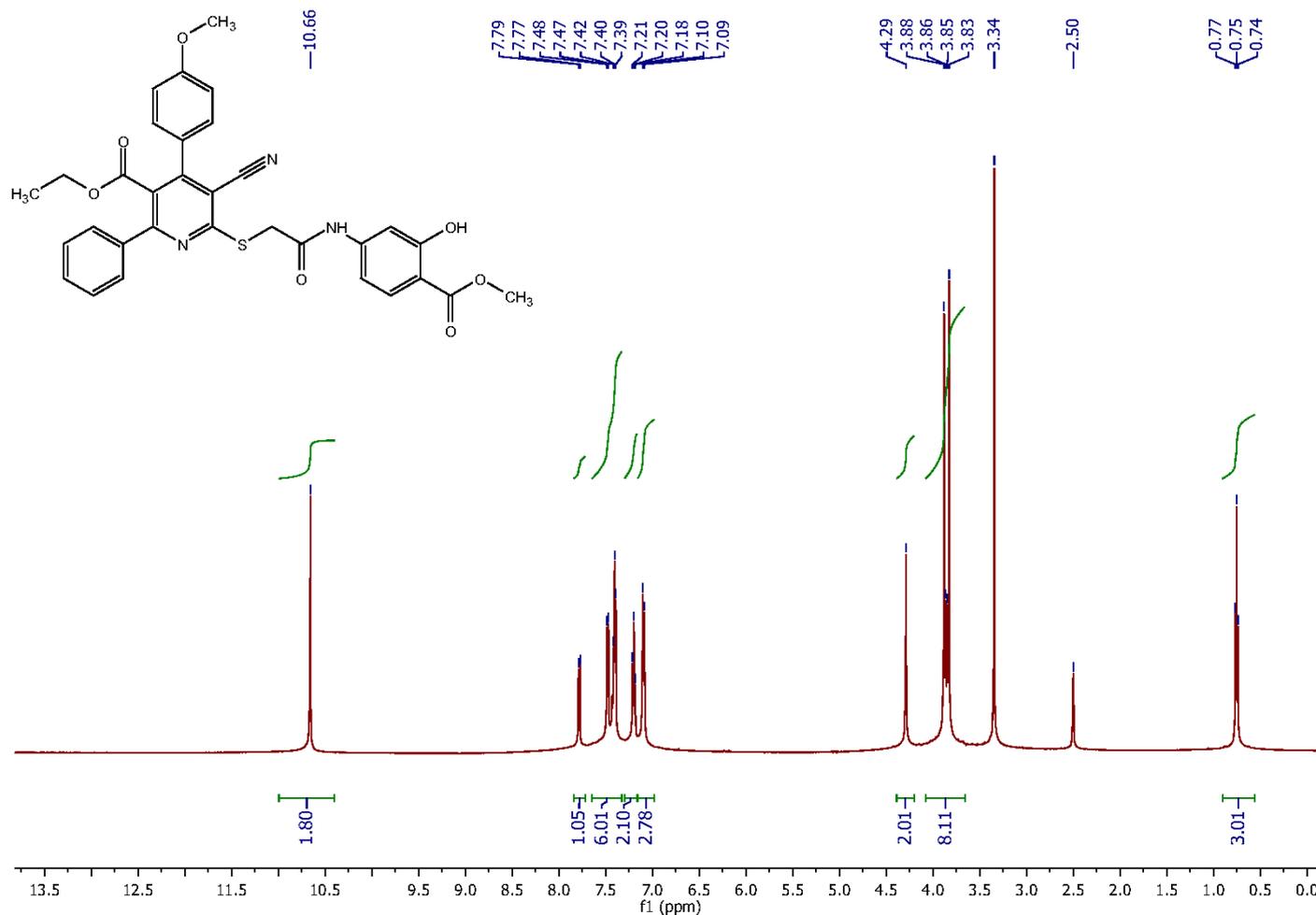


Figure S18.  $^1\text{H}$  NMR spectrum of compound **9d** in  $\text{DMSO-}d_6$ .

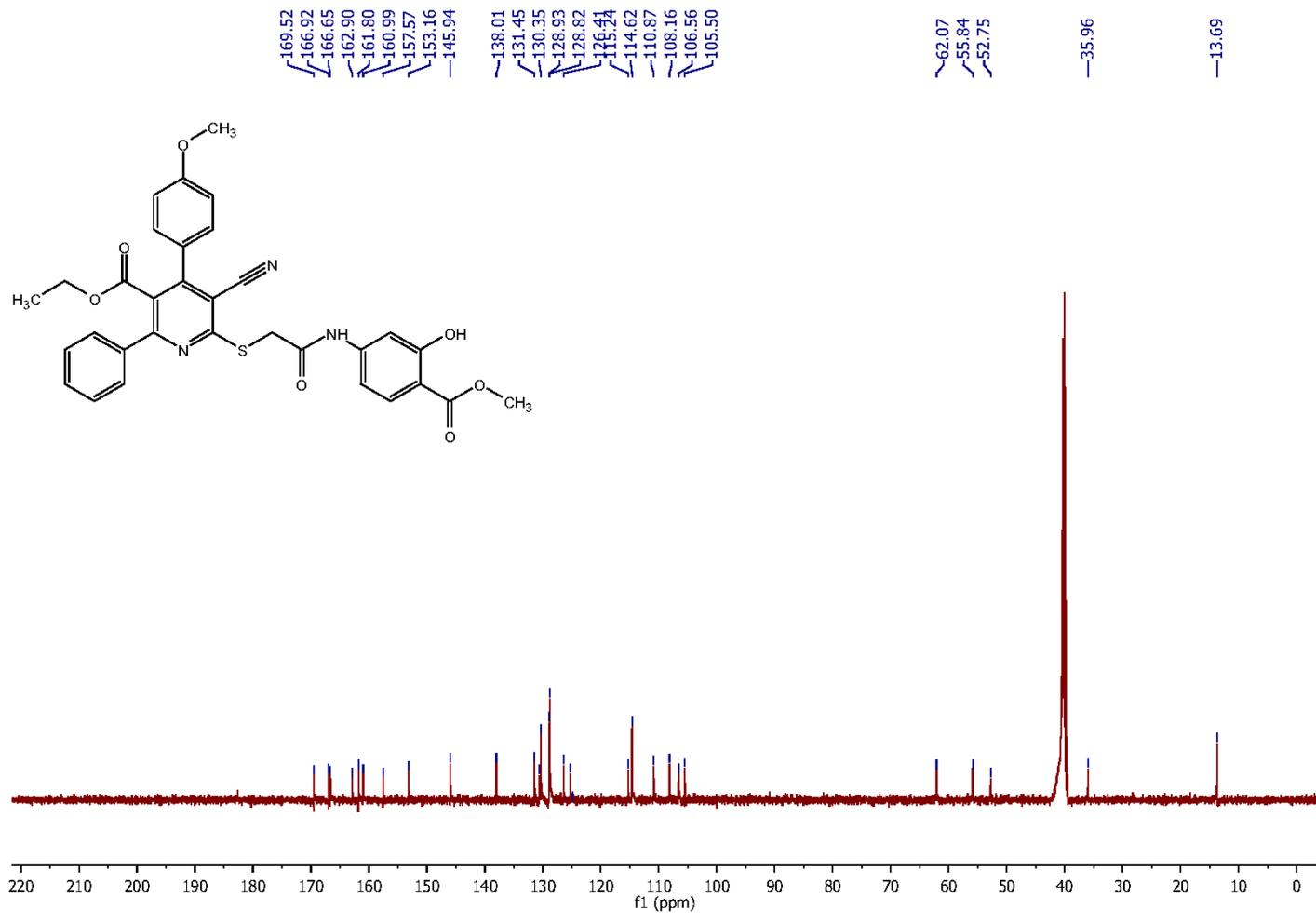


Figure S19. <sup>13</sup>C NMR spectrum of compound **9d** in DMSO-*d*<sub>6</sub>.

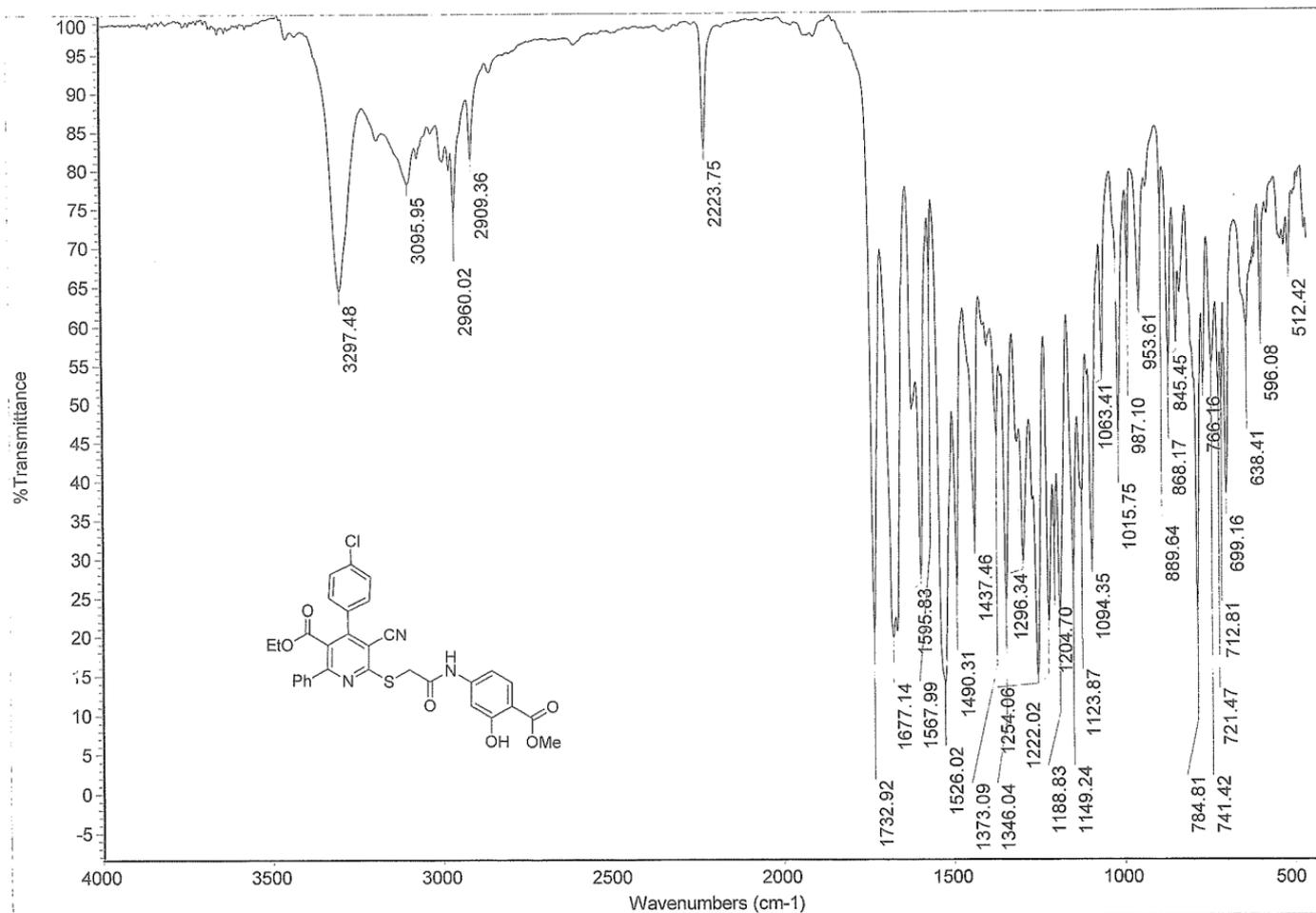


Figure S20. IR spectrum of compound 9e.

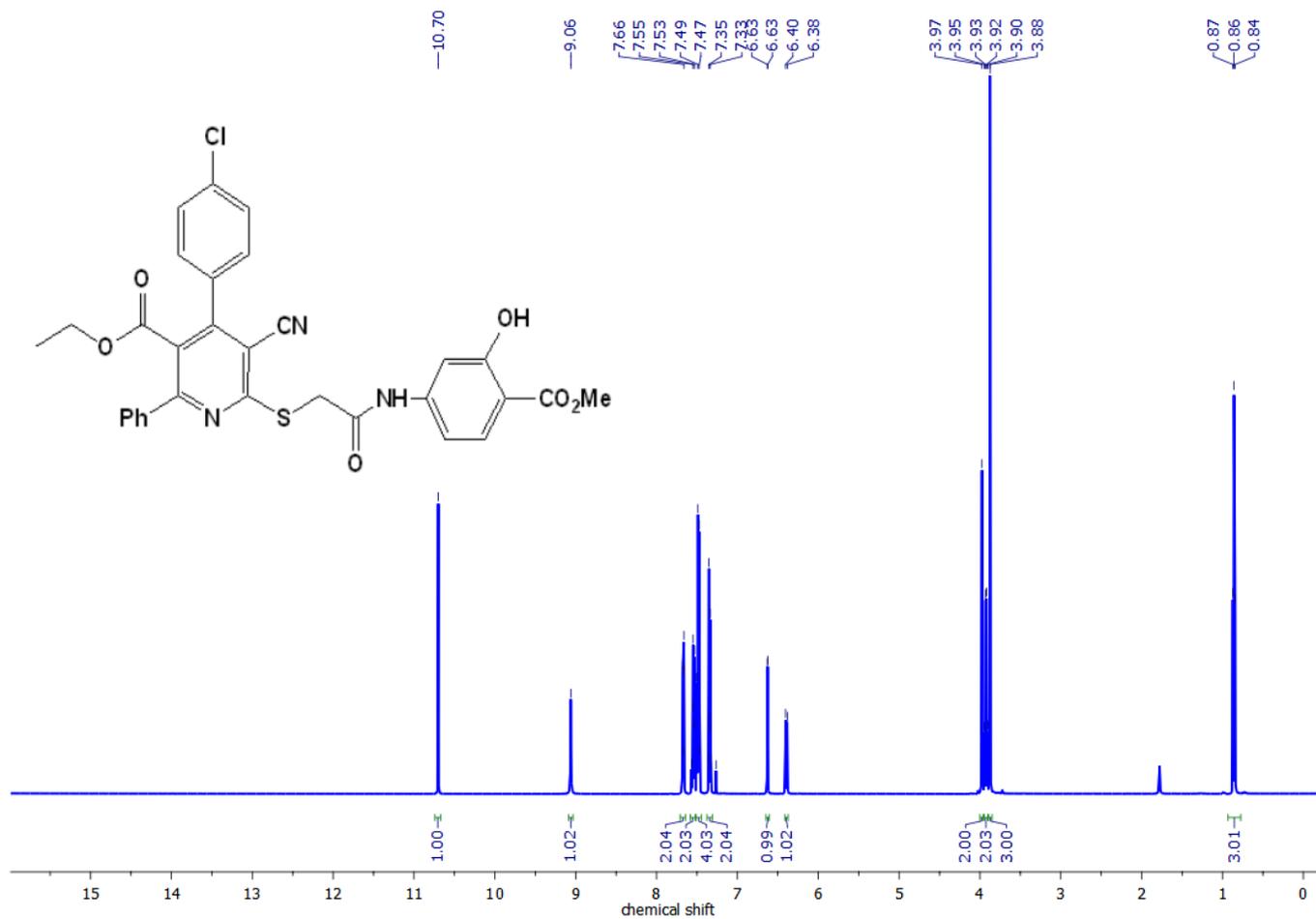


Figure S21.  $^1\text{H}$  NMR spectrum of compound **9e** in  $\text{CDCl}_3$ .

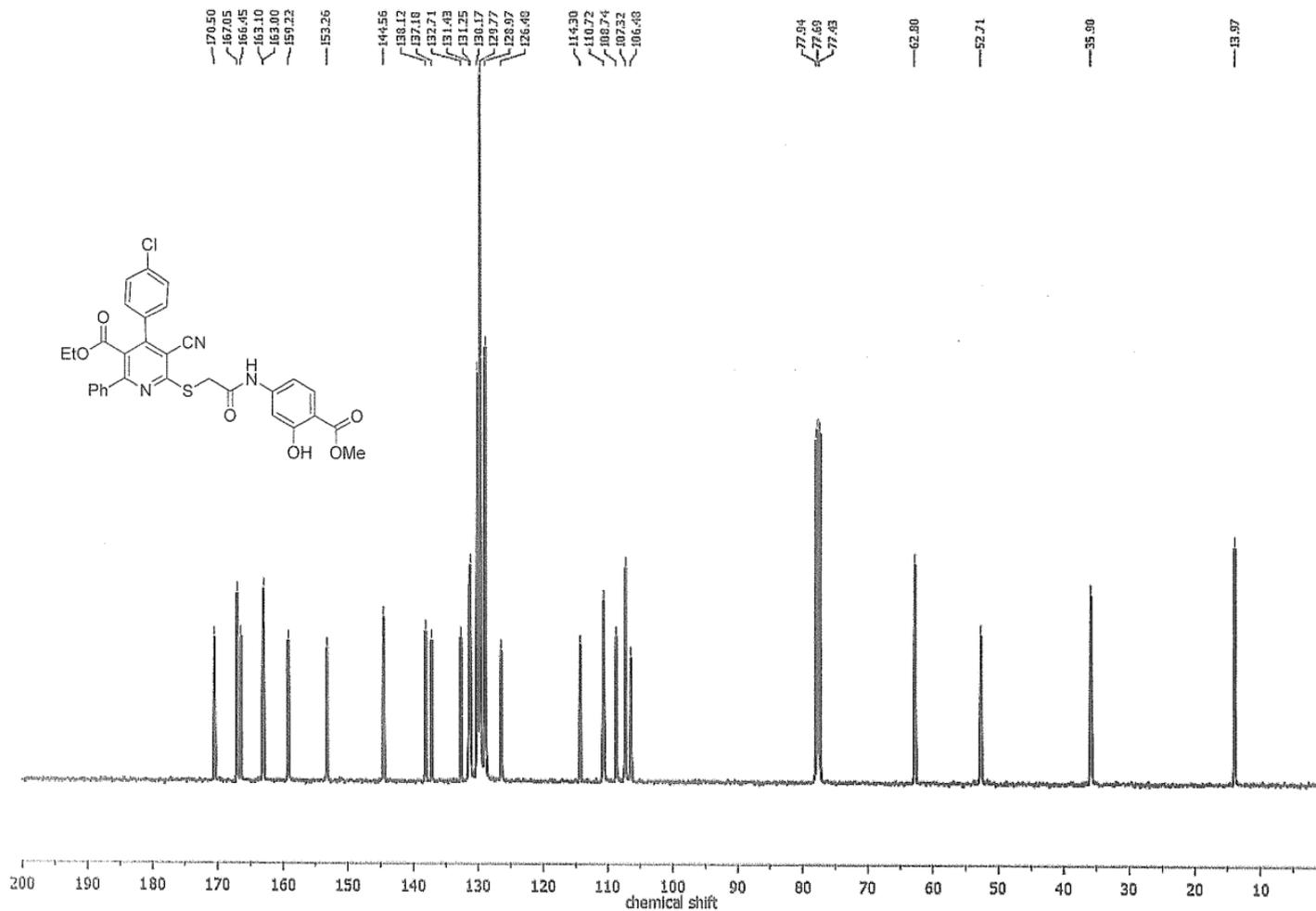


Figure S22. <sup>13</sup>C NMR spectrum of compound 9e in CDCl<sub>3</sub>.

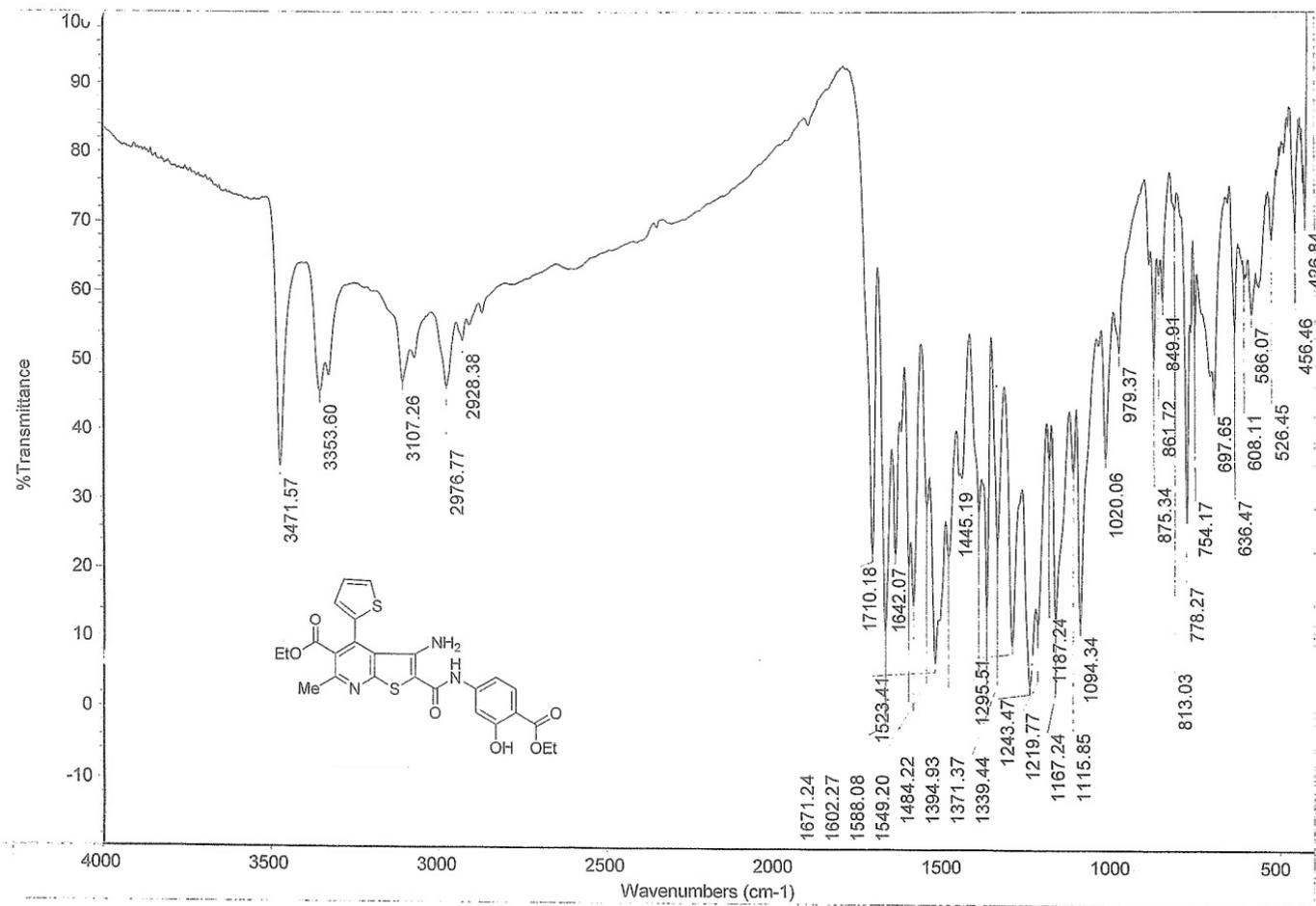


Figure S23. IR spectrum of compound 10.

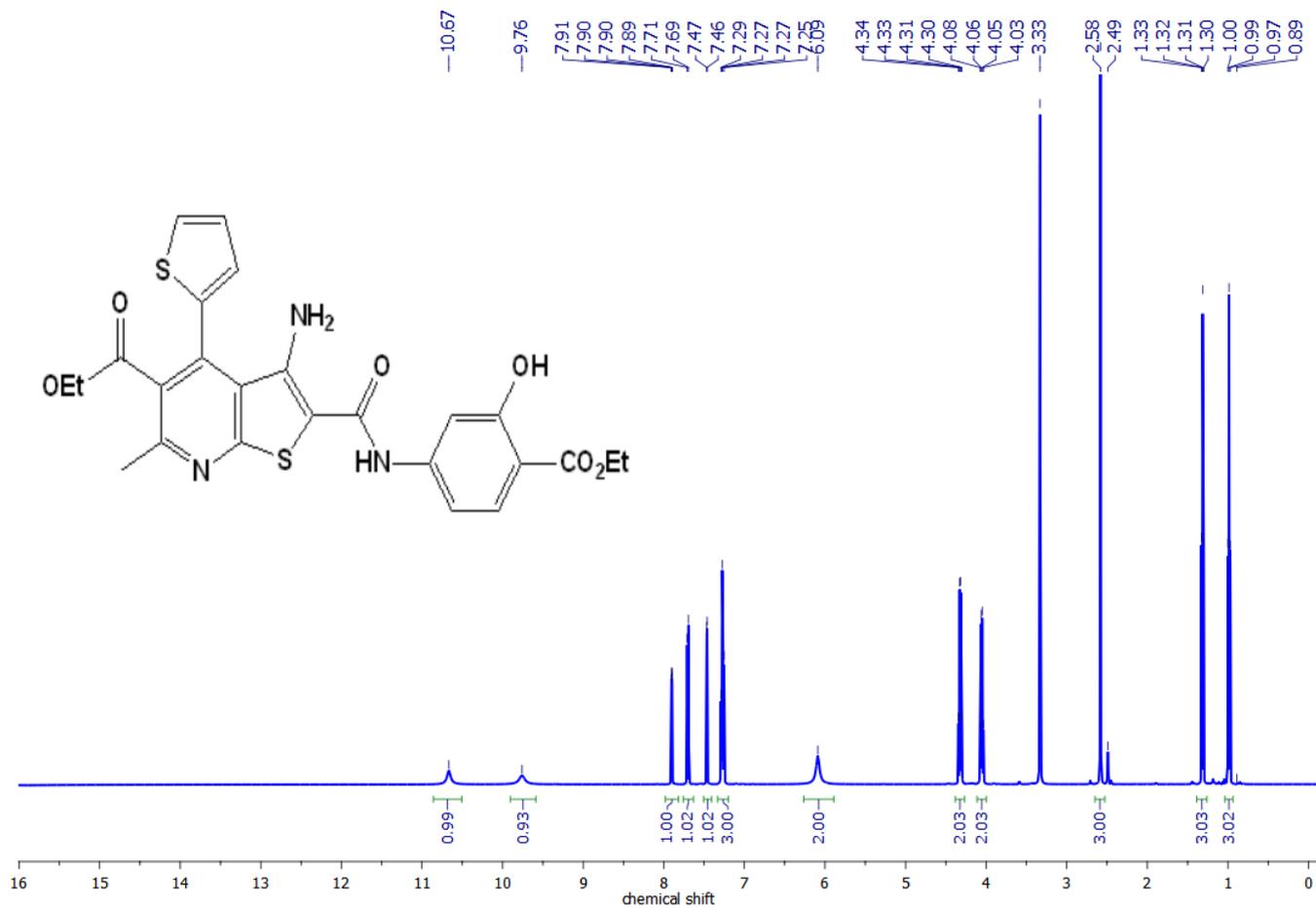


Figure S24.  $^1\text{H}$  NMR spectrum of compound **10** in  $\text{DMSO}-d_6$ .

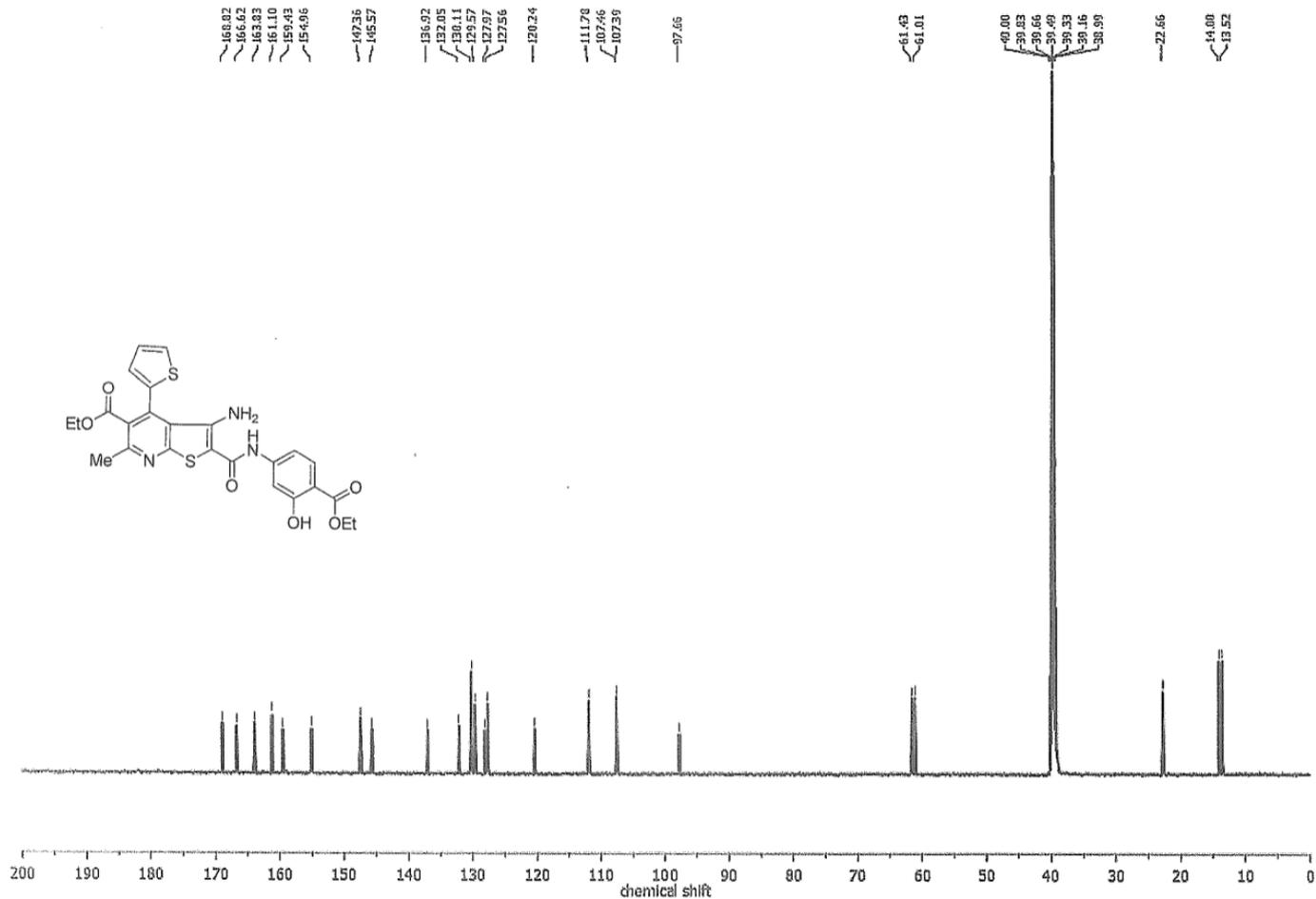


Figure S25.  $^{13}\text{C}$  NMR spectrum of compound **10** in  $\text{DMSO}-d_6$ .

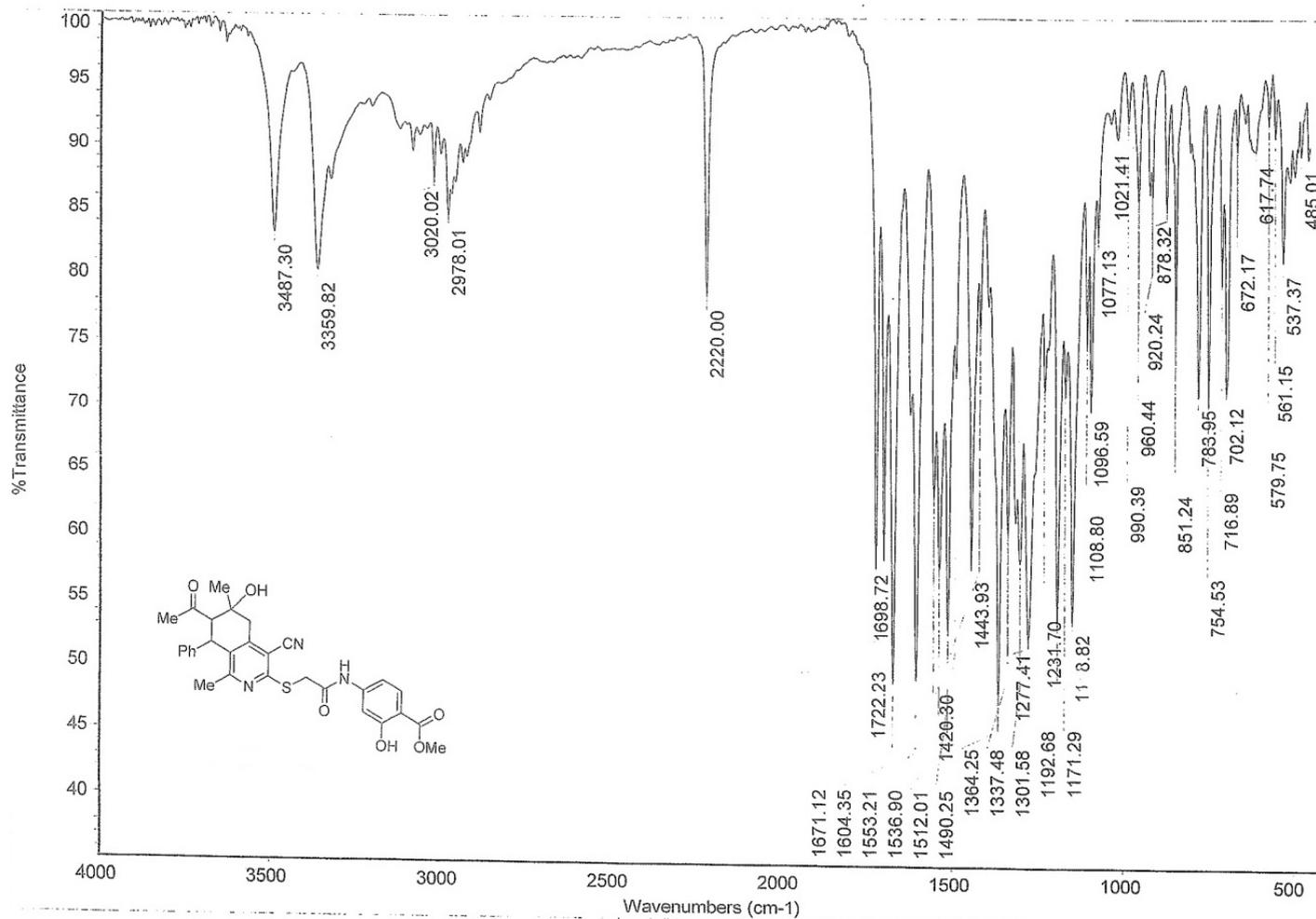


Figure S26: IR spectrum of compound 12.

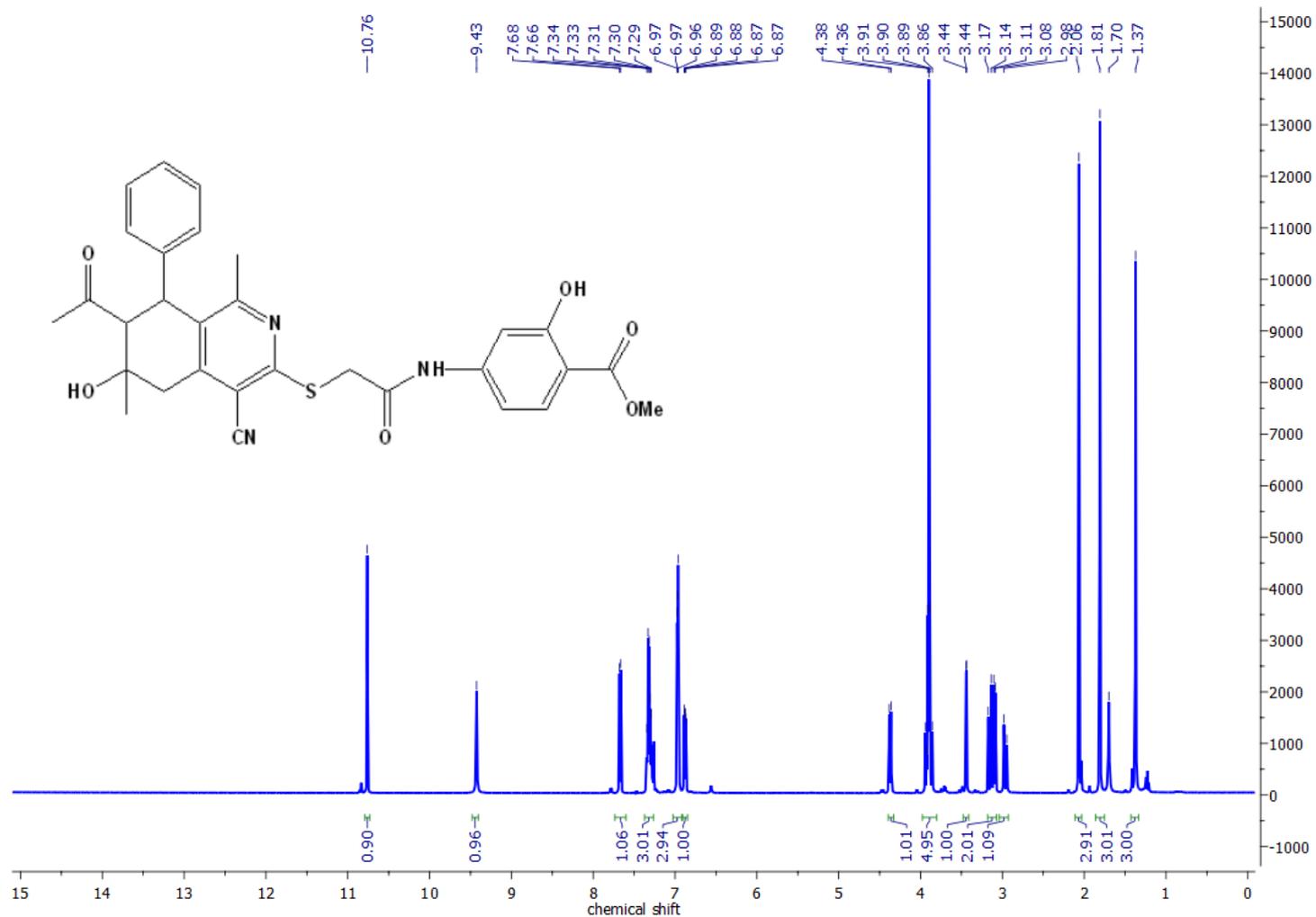


Figure S27.  $^1\text{H}$  NMR spectrum of compound **12** in CDCl<sub>3</sub>.

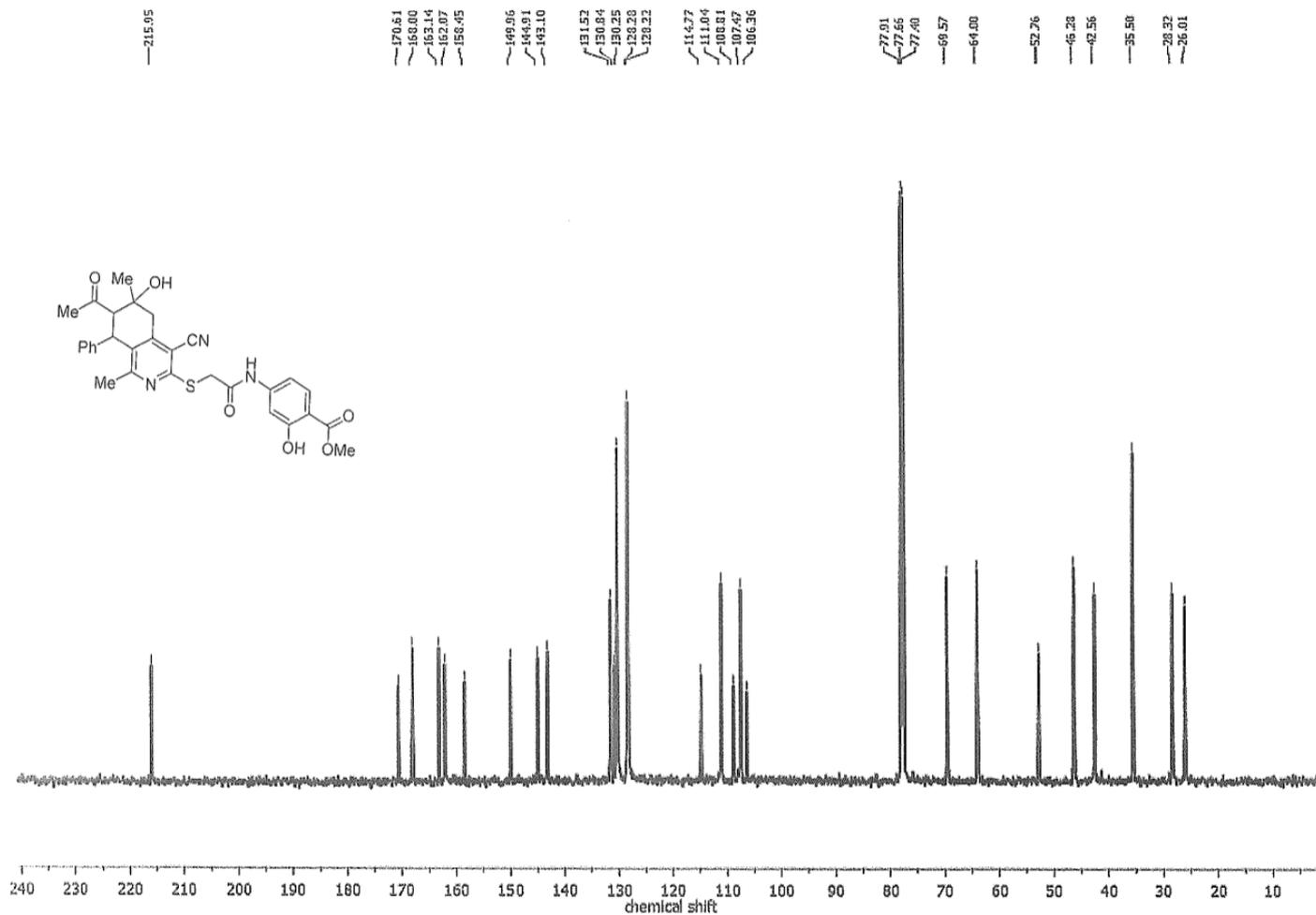


Figure S28.  $^{13}\text{C}$  NMR spectrum of compound **12** in  $\text{CDCl}_3$ .

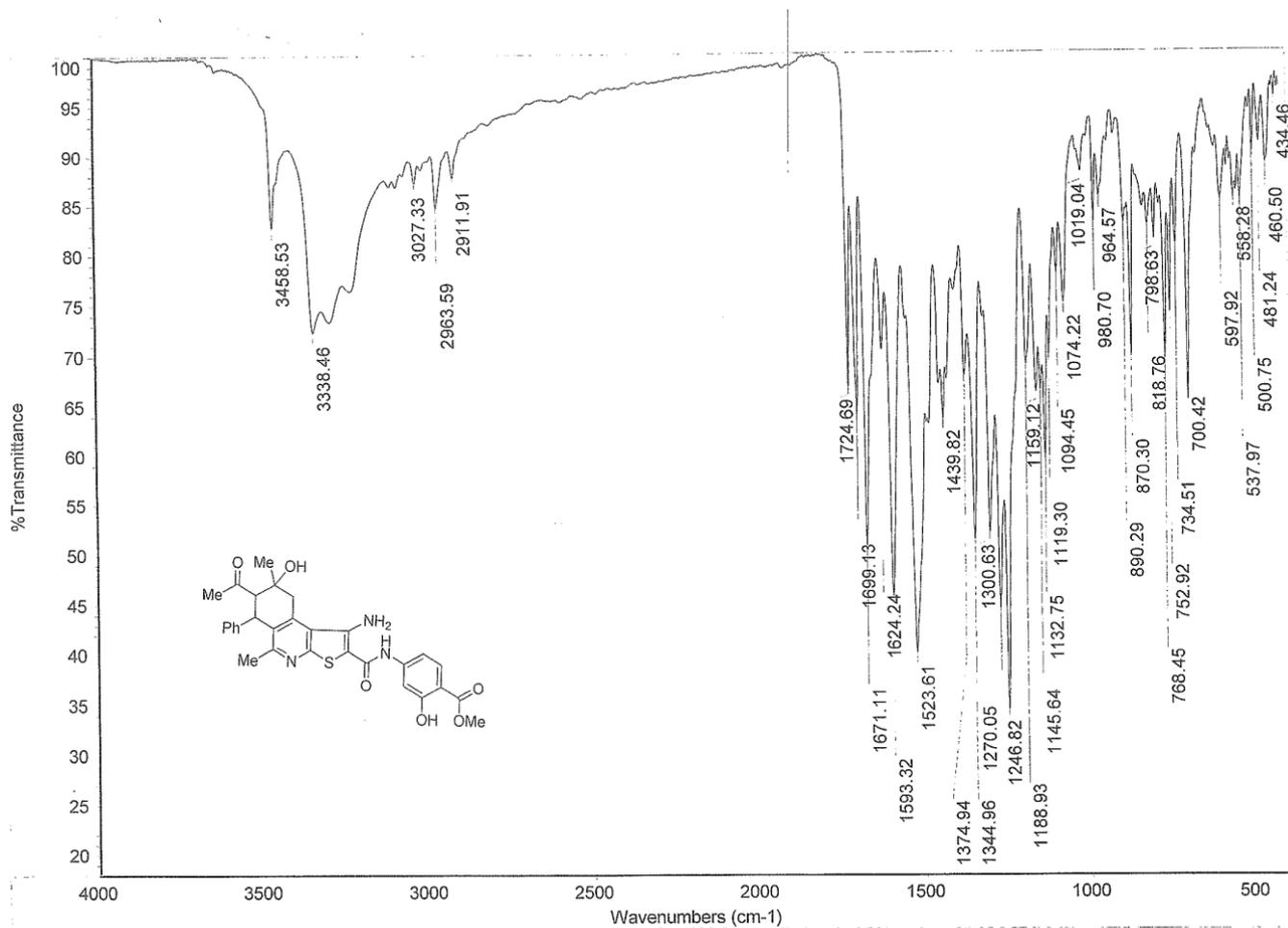


Figure S29. IR spectrum of compound 13.

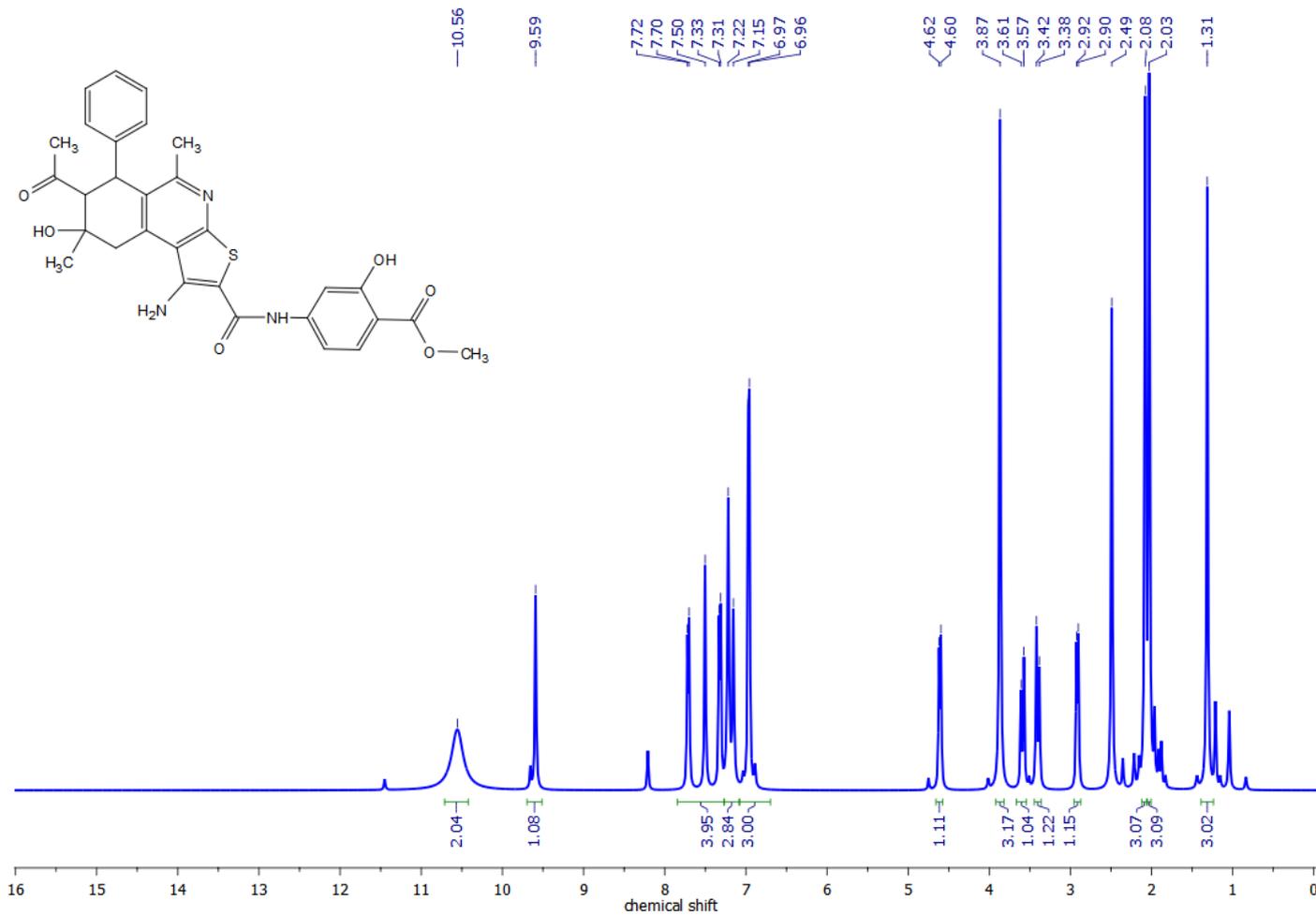


Figure S30. <sup>1</sup>H NMR spectrum of compound 13.

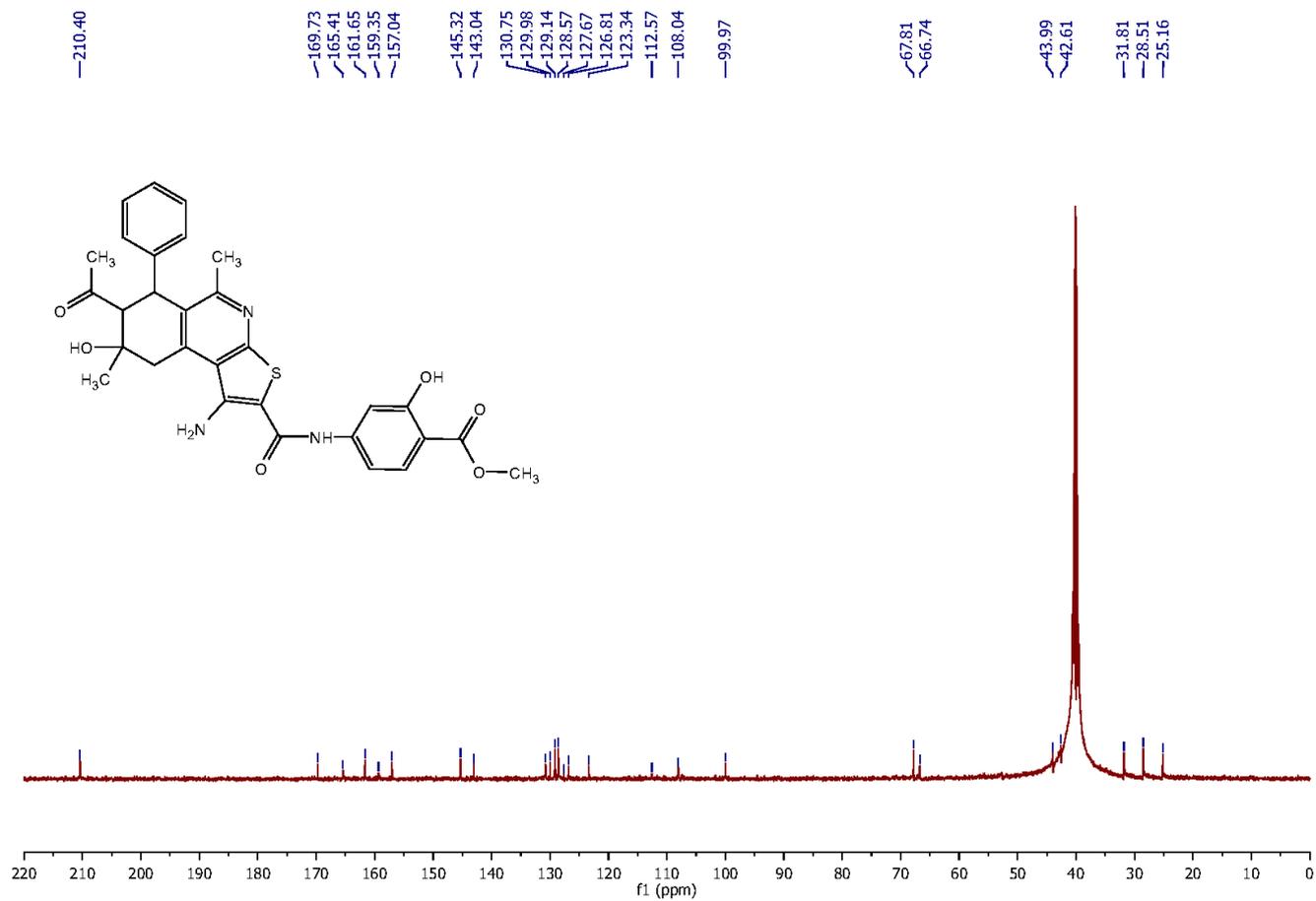
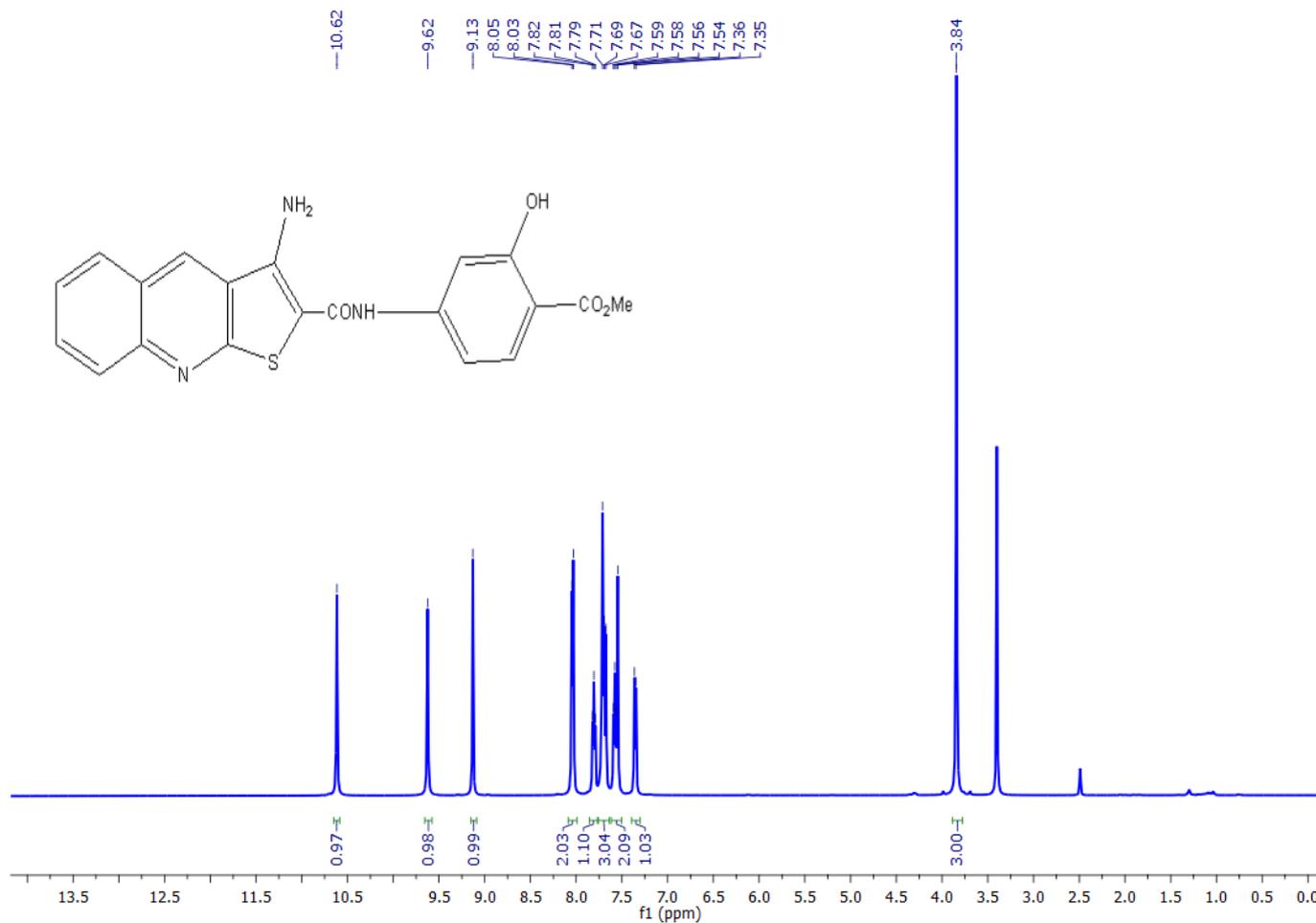


Figure S31.  $^{13}\text{C}$  NMR spectrum of compound 13.

Figure S32.  $^1\text{H}$  NMR spectrum of compound 16.

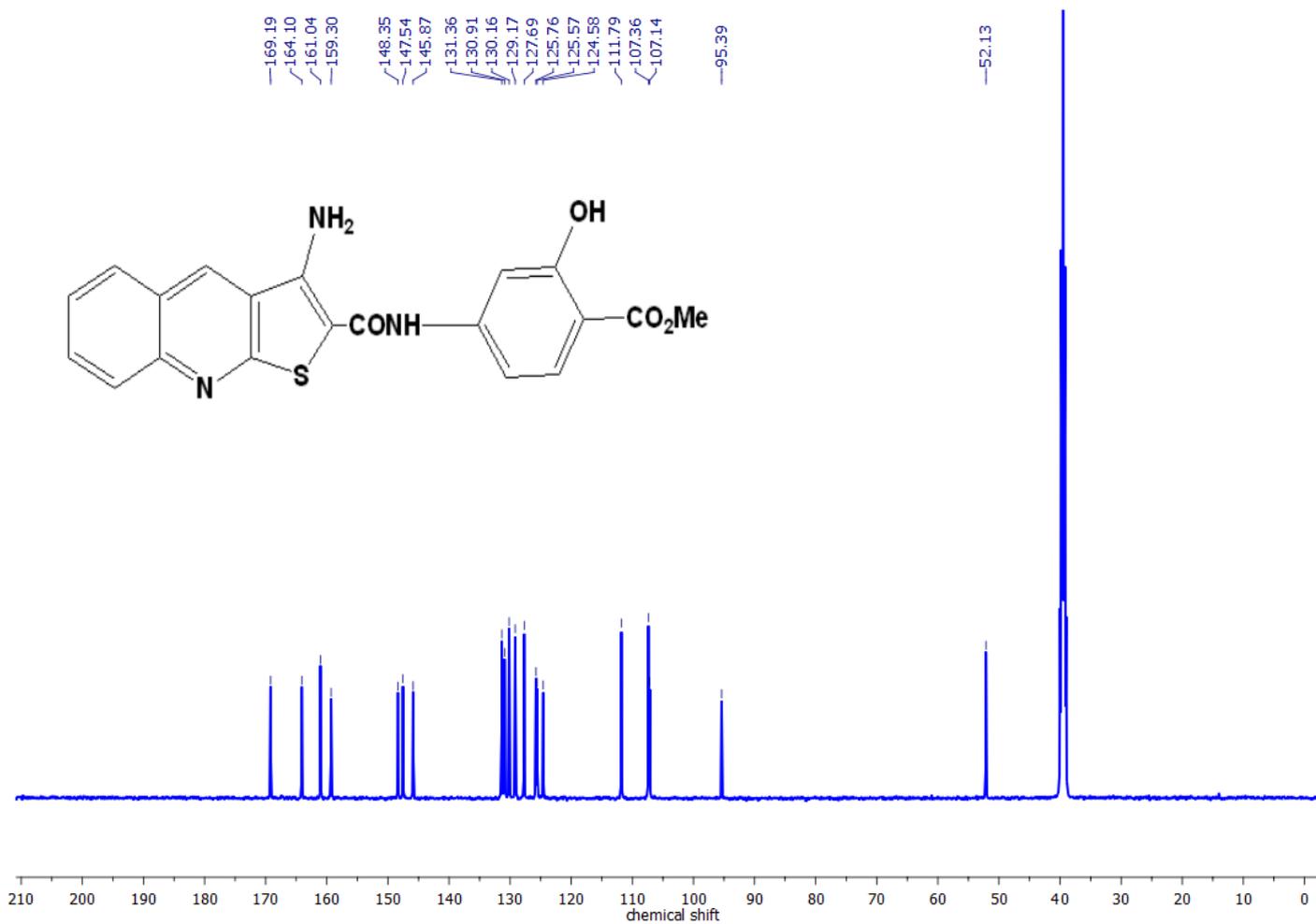
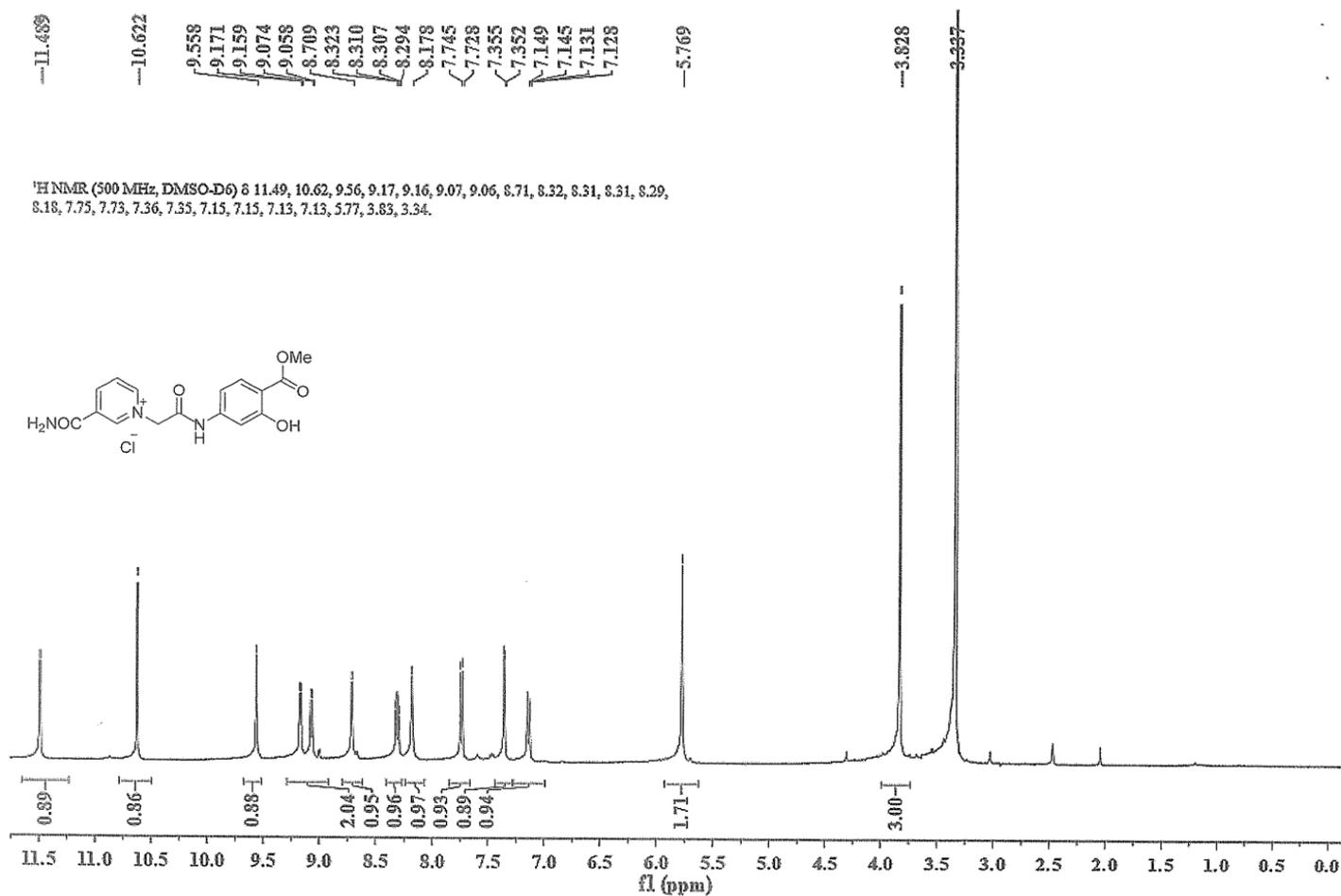
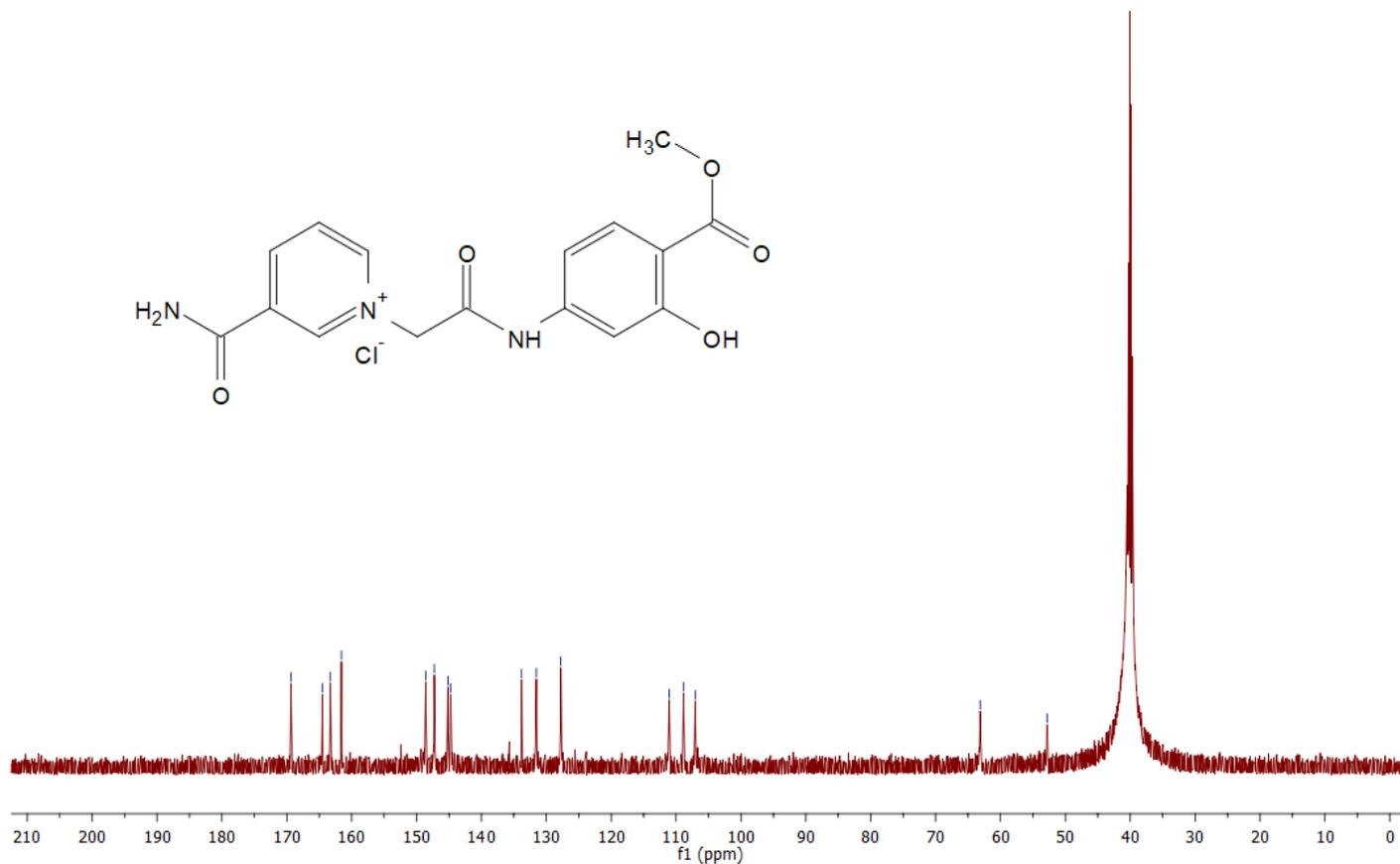


Figure S33.  $^{13}\text{C}$  NMR spectrum of compound 16.

Figure S34: <sup>1</sup>H NMR spectrum of compound 19.

Elotefy/EB19-DMSO-Cl3  
Elotefy/EB19-DMSO-Cl3

169.35  
164.50  
163.28  
161.58  
148.58  
147.26  
145.15  
144.74  
133.81  
131.54  
127.76  
111.06  
108.84  
107.05  
63.13  
52.82

Figure S35: <sup>13</sup>C NMR spectrum of compound 19.

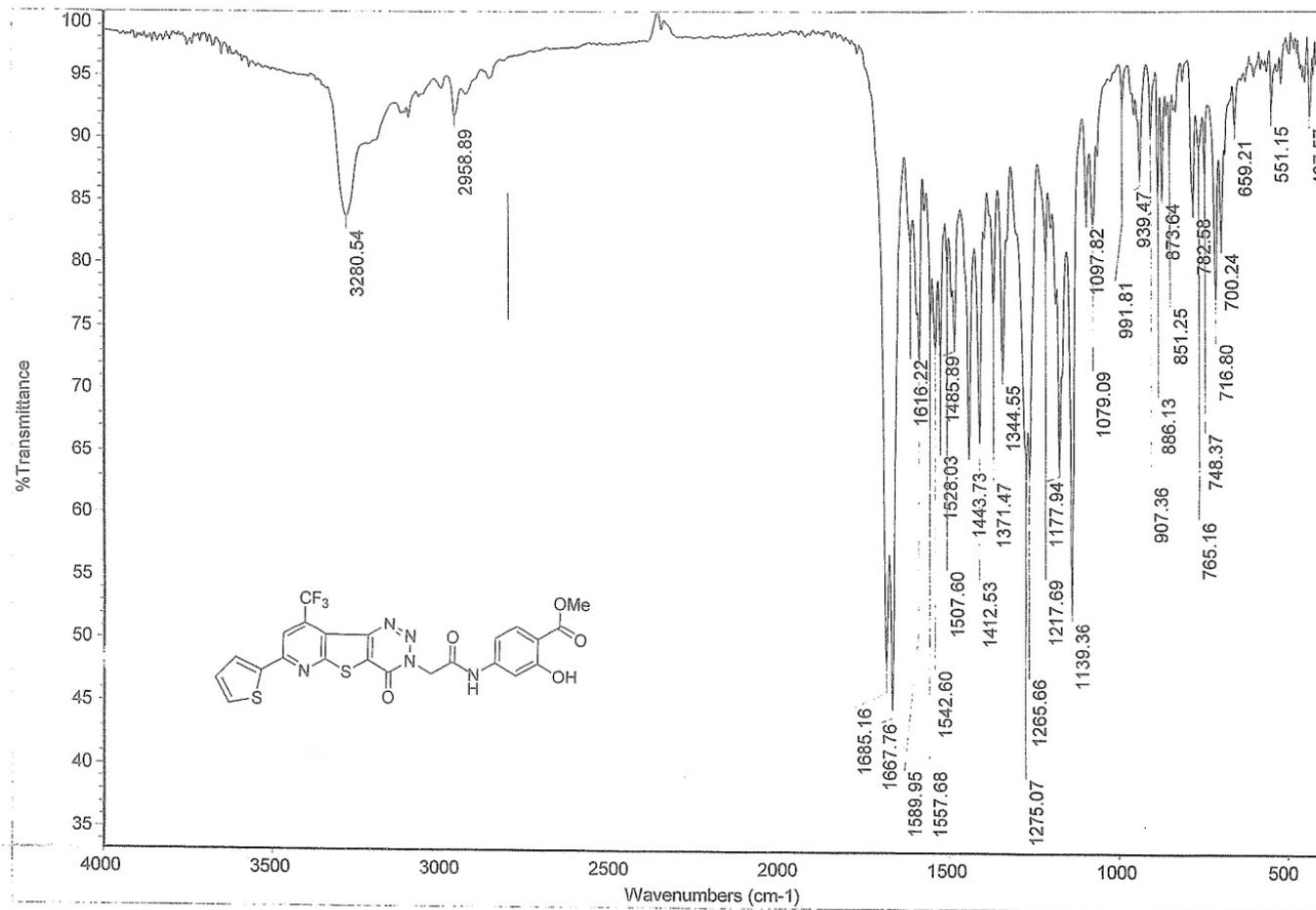


Figure S36: IR spectrum of compound 20.

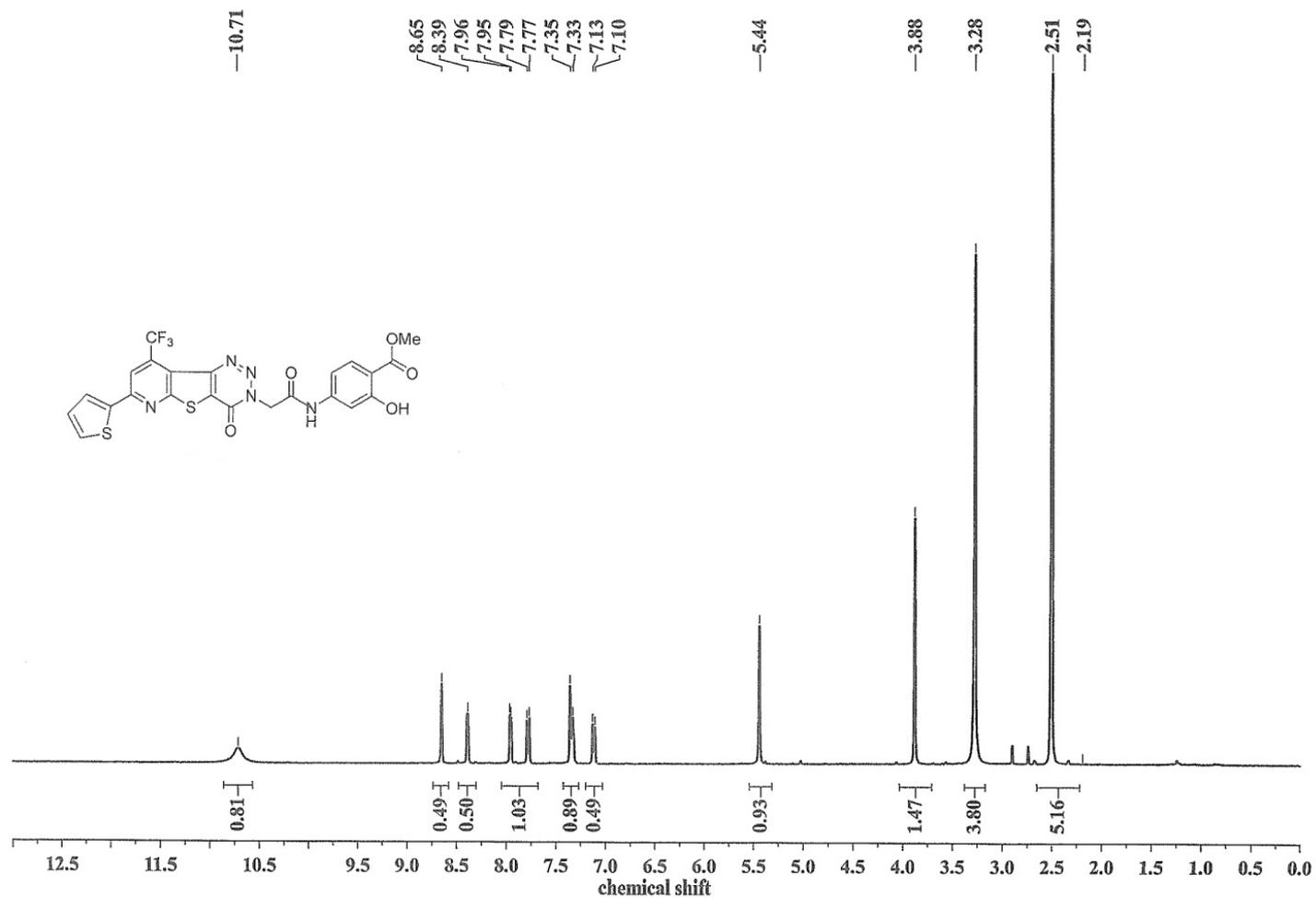


Figure S37: <sup>1</sup>H NMR spectrum of compound 20.

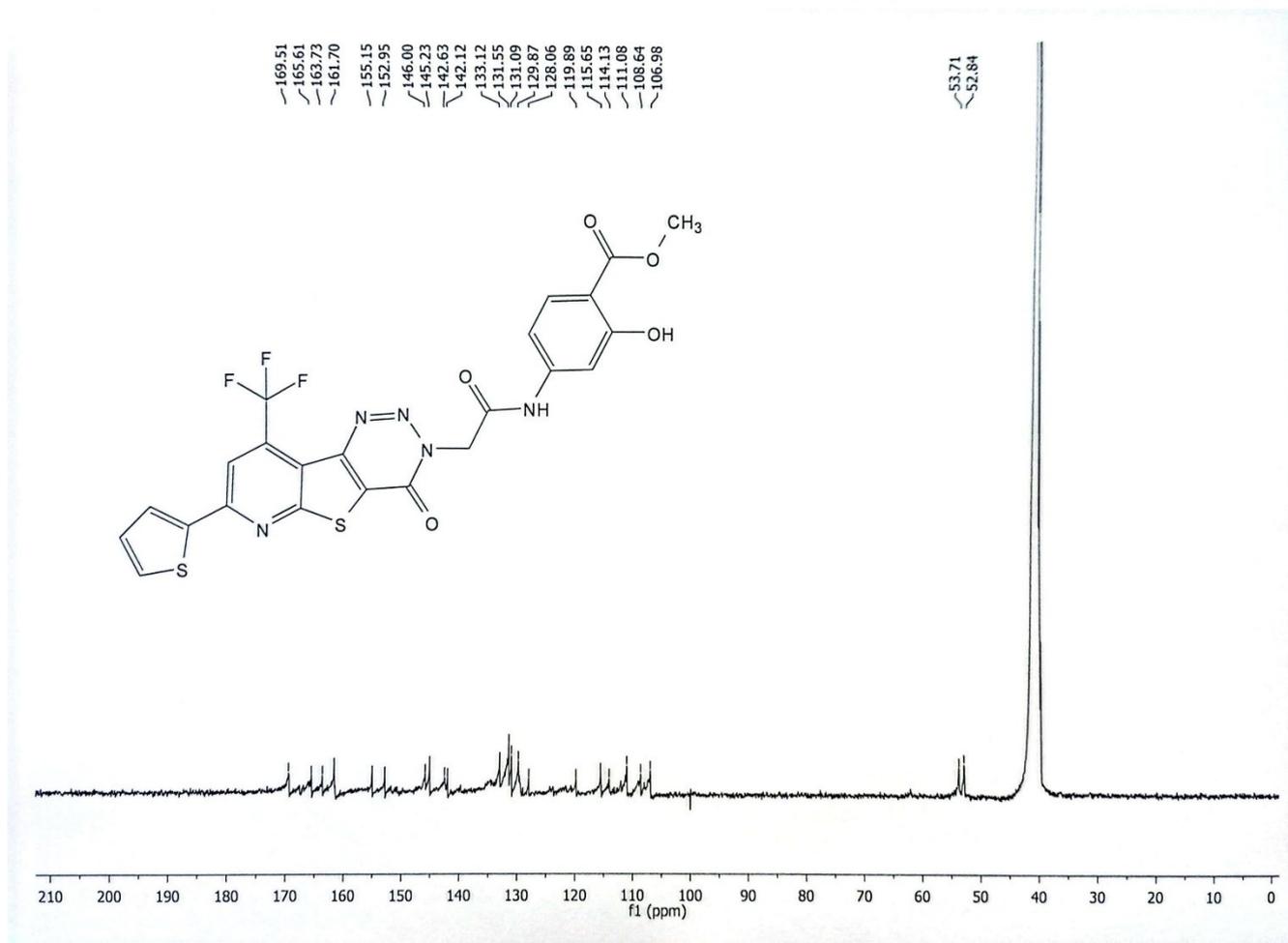


Figure S38: <sup>13</sup>C NMR spectrum of compound 20.