

Supplementary Information

Using NBS Entirely: One-Pot Tandem Synthesis of *N*-Arylsuccinimides from Activated Arenes under Microwave Irradiation

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Bromination of thiophene: solvent screening

Table S1. Bromination of thiophene conversion in solvent screening

<chem>c1ccsc1</chem> (1a) $\xrightarrow[\text{solvent, r.t.}]{\text{NBS (1 eq.)}}$ <chem>Brc1ccsc1</chem> (1a') + <chem>BrC1=CC(=C(C(=C1)S)Br)</chem> (1a'') + <chem>O=C1CCC(=O)N1</chem>			
Exp ^a	Solvent	Conversion ^b / %	
		1a'	1a''
1	dimethylformamide	67	12
2	hexane	–	–
3	ethyl acetate	33	12
4	acetone	58	10
5	acetonitrile	64	16
6	ethanol	33	11
7	water	33	26
8	chloroform	48	22
9	dichloromethane	52	22

^aReaction conditions: **1a** (2 mmol), solvent (1 mL) and NBS (1 eq.) were stirred at room temperature for 24 h; ^bconversion values were measured by gas chromatography (GC).

Table S2. Gas chromatography (GC) analysis of bromination and succinimidation of compounds **1a** to **1l**

Starting material (1)	Conversion to 1' ^{a,b} / %	Conversion from 1' to 2 ^{b,c} / %
1a	77	79
1b	98	83
1c	> 98	84
1d	> 98	85
1e	95	20
1f	71	— ^d
1g	97	— ^d
1h	85	— ^d
1i	85	— ^d
1j	92	50
1k	97	99
1l	98	60
1m	94	65

^aReaction conditions: **1a-1m** (2 mmol), DMF (1 mL) and NBS (1.1 eq.) were stirred at room temperature for 24 h;

^bConversion values were measured by GC. ^cCu₂O (200 mg), K₃PO₄ (200 mg) were added and submitted in microwave radiation in 2 cycles, for 20 min at 170 °C. ^dNot determined.

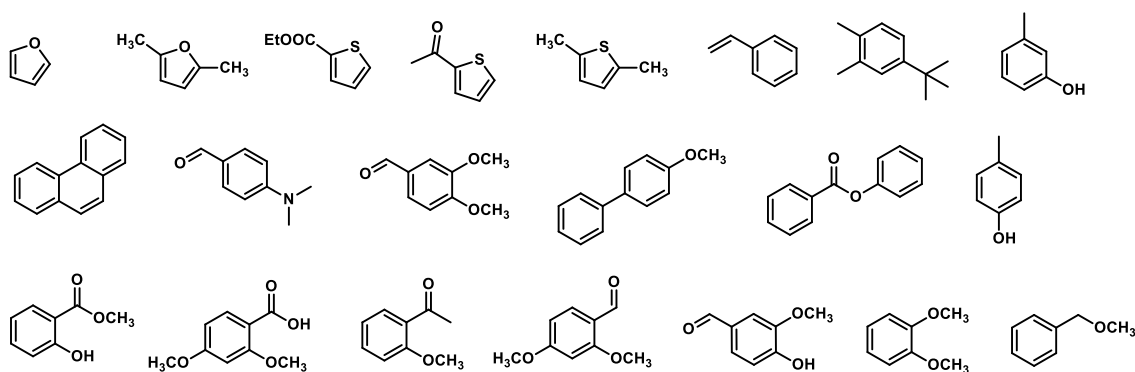


Figure S1. Arenes tested that did not provide imidation product.

LRMS spectra

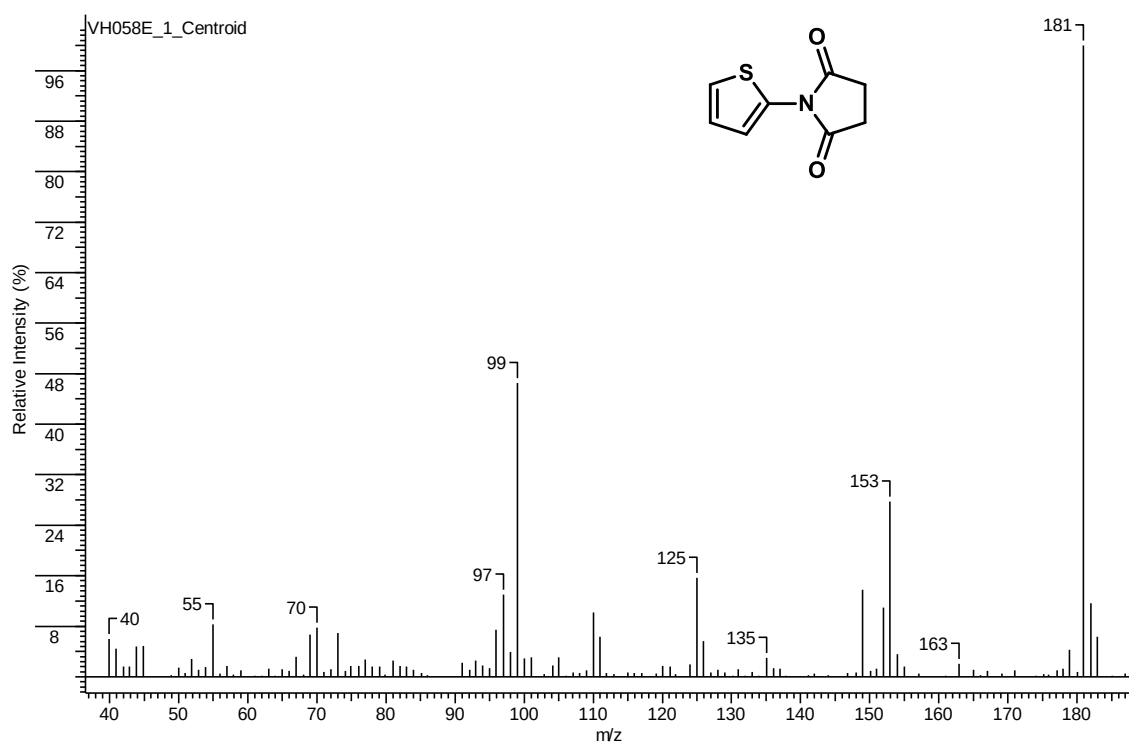


Figure S2. LRMS of compound 2a.

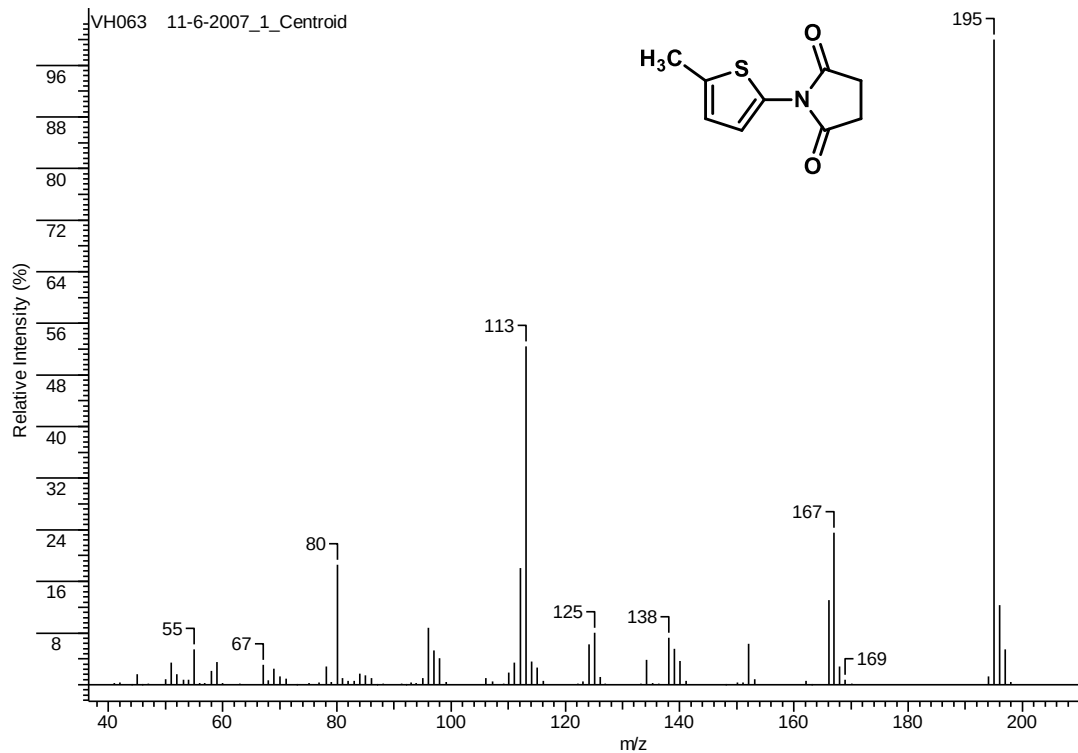


Figure S3. LRMS of compound 2b.

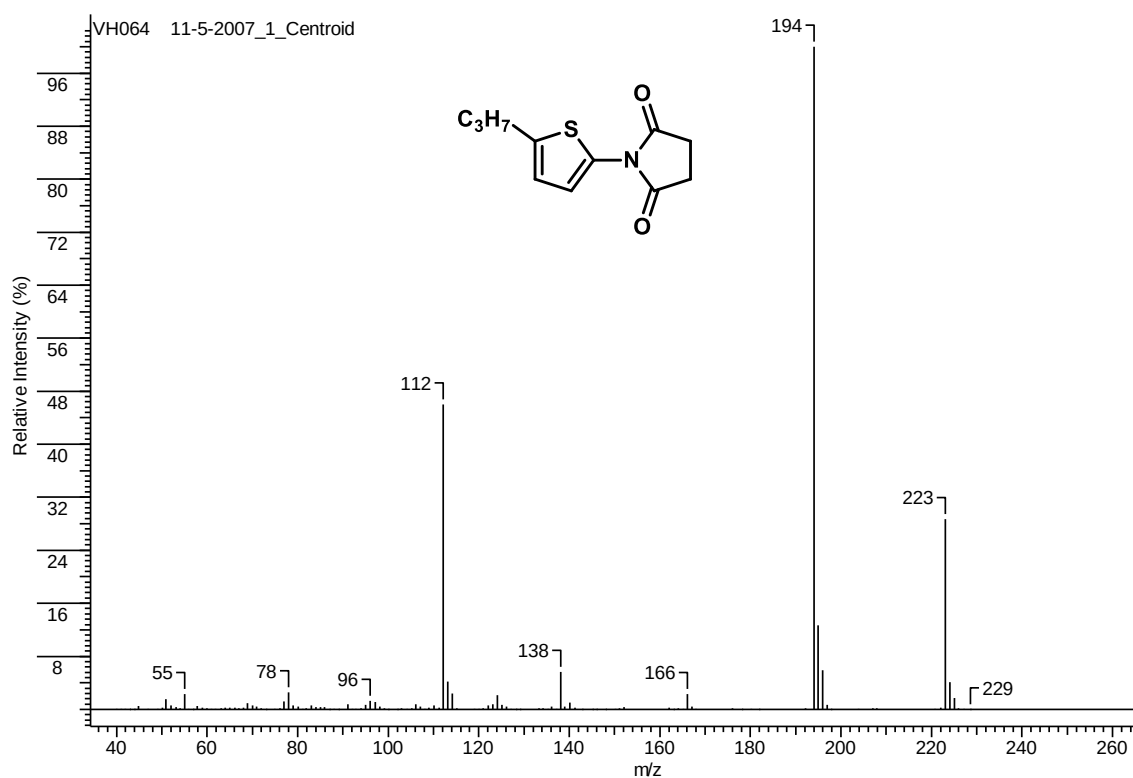


Figure S4. LRMS of compound 2c.

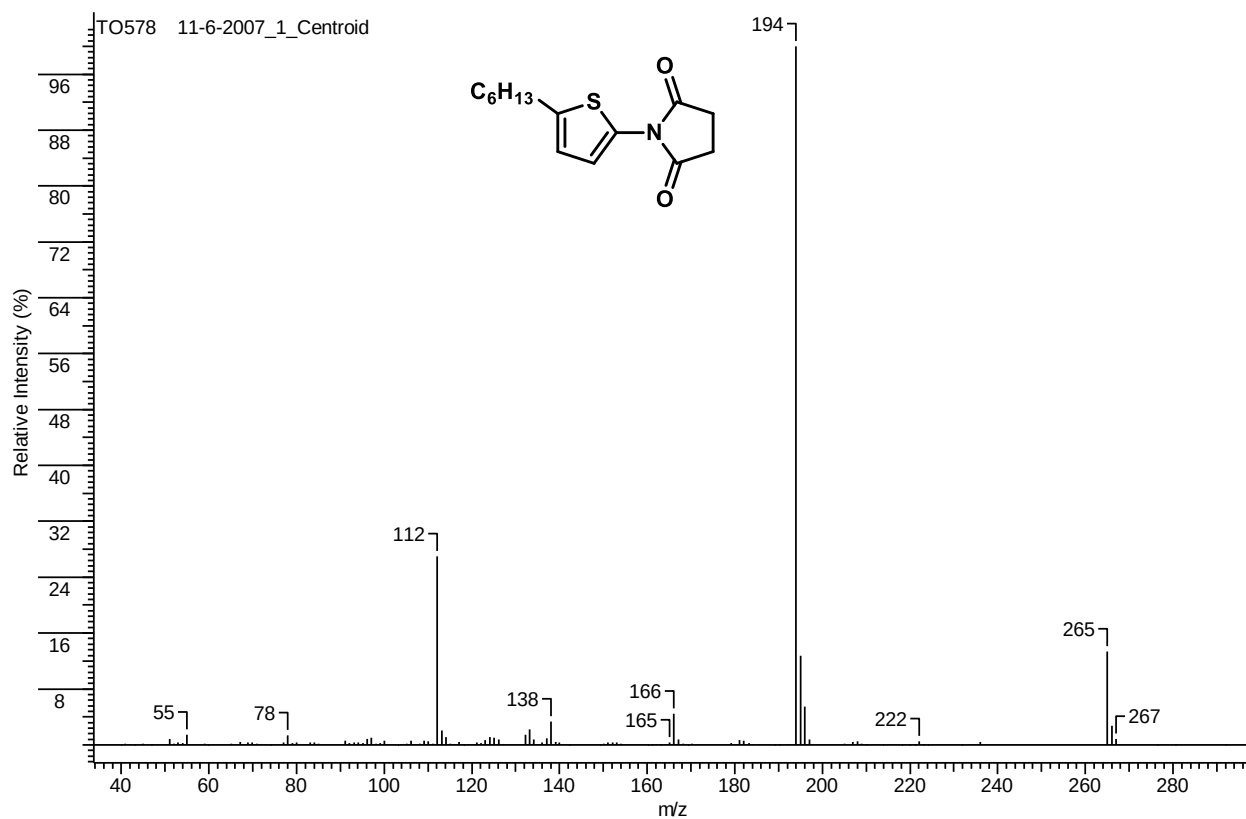


Figure S5. LRMS of compound 2d.

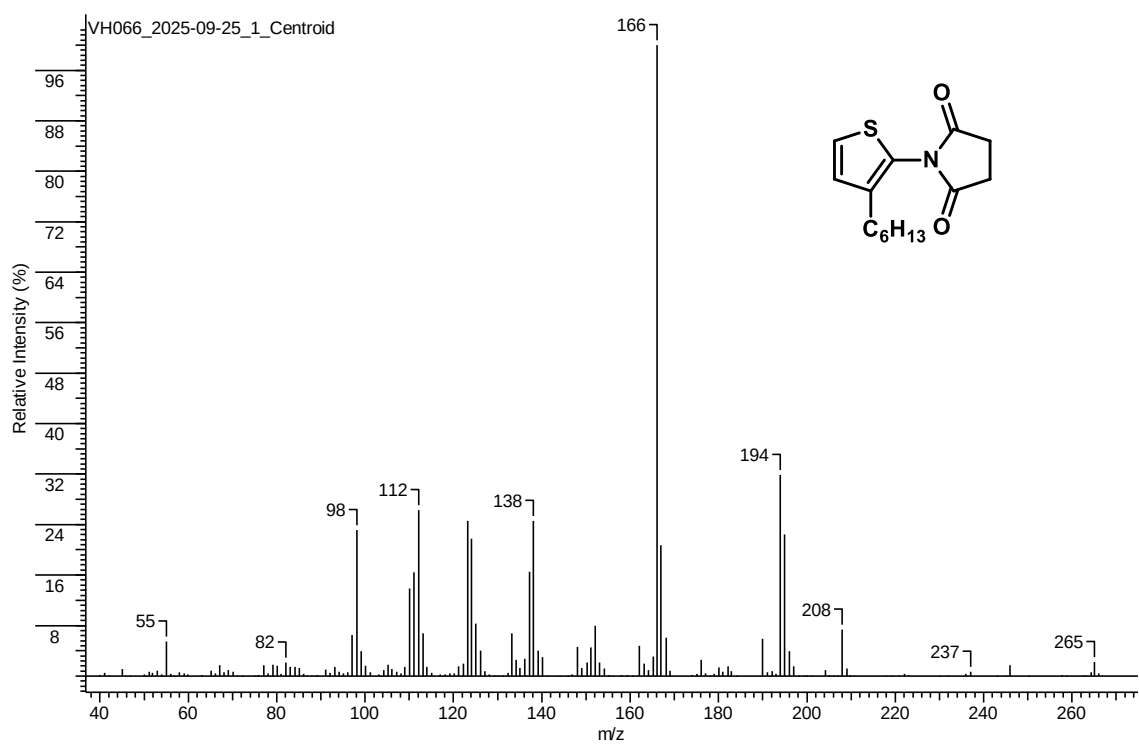


Figure S6. LRMS of compound 2e.

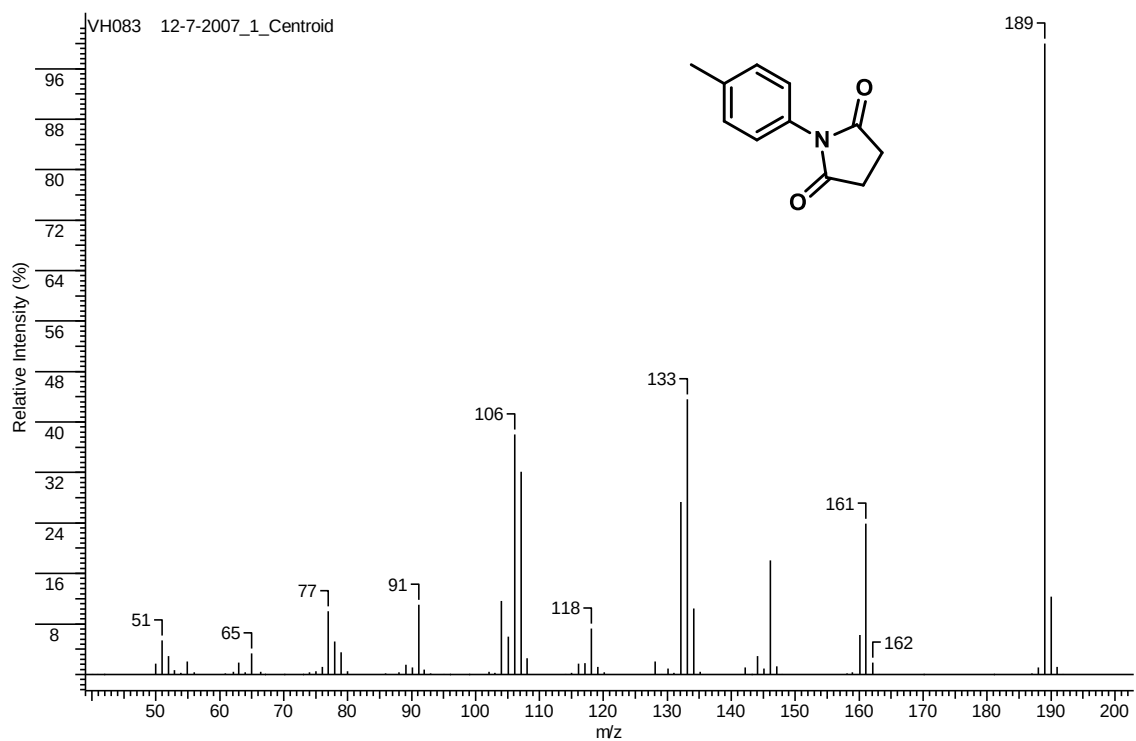


Figure S7. LRMS of compound 2f.

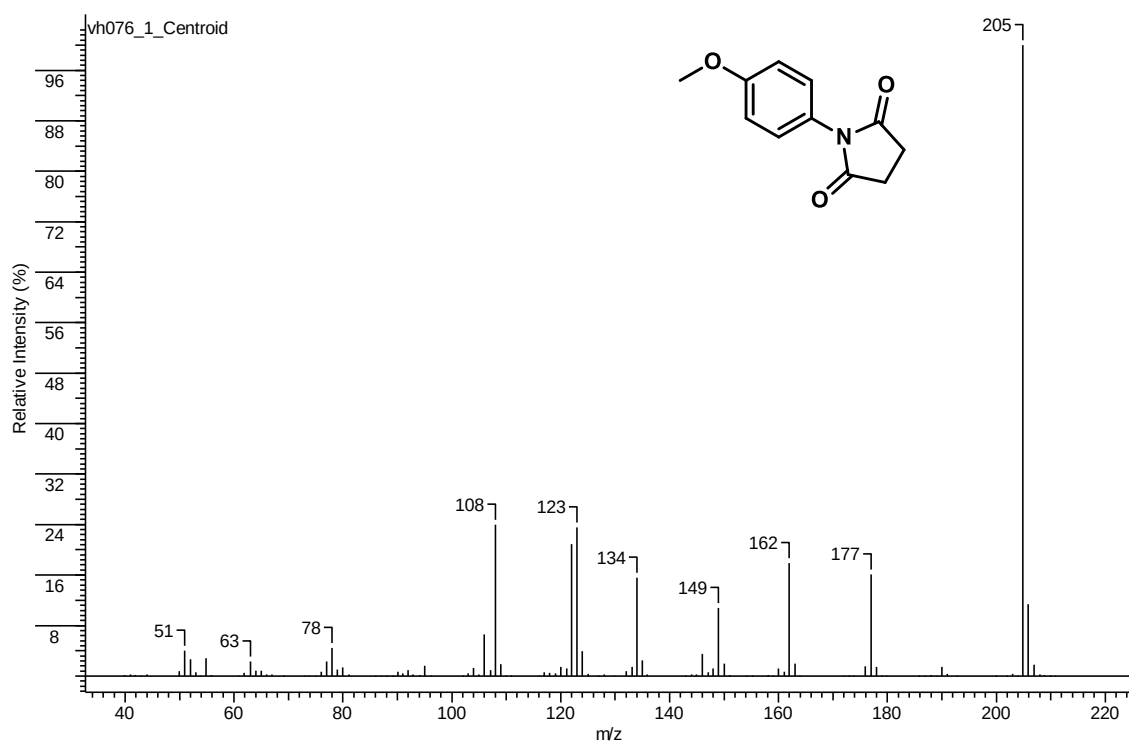


Figure S8. LRMS of compound **2g**.

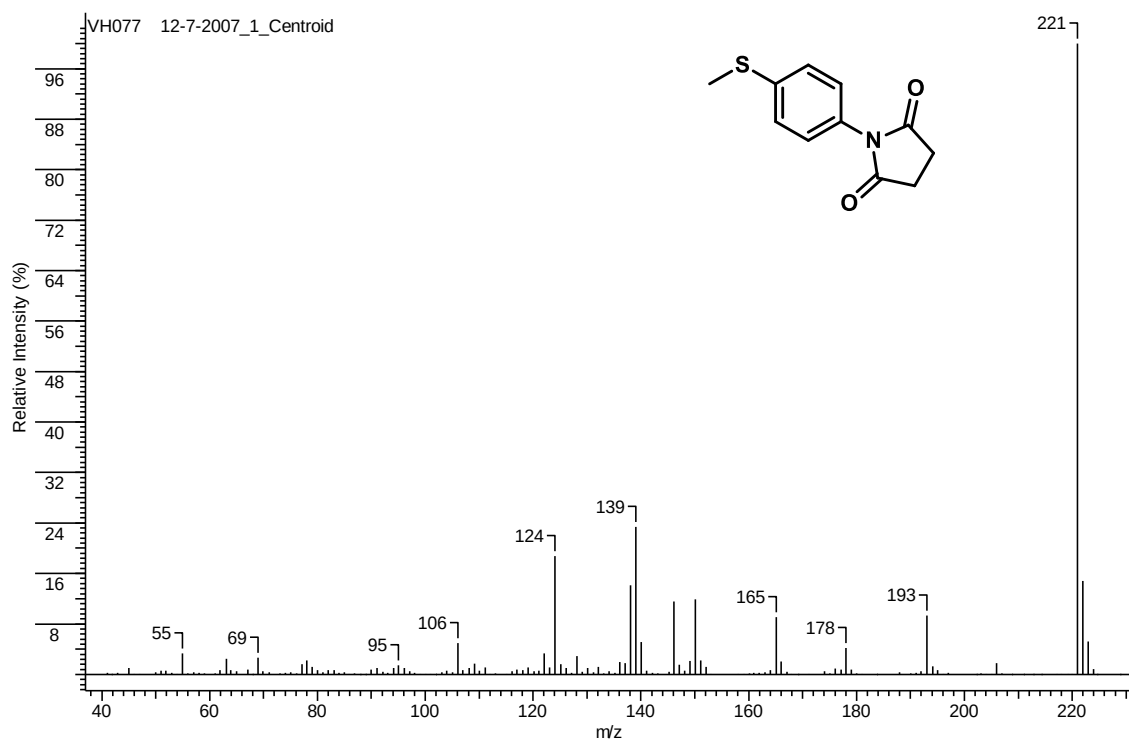


Figure S9. LRMS of compound **2h**.

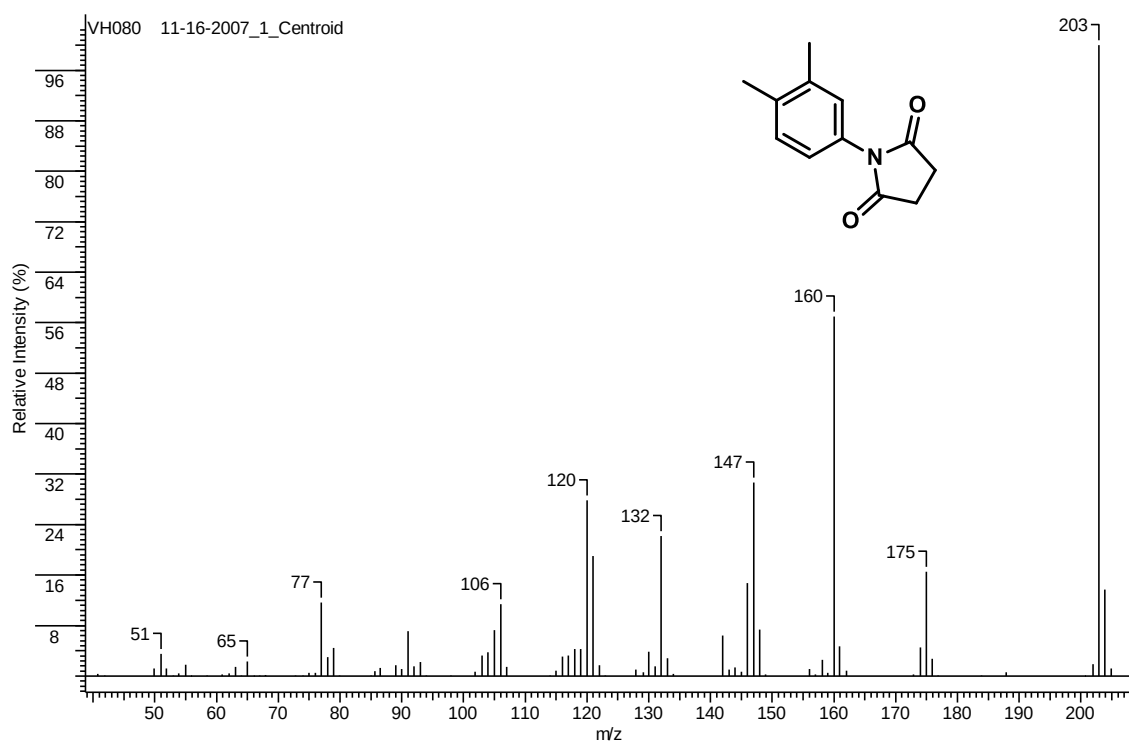


Figure S10. LRMS of compound **2i**.

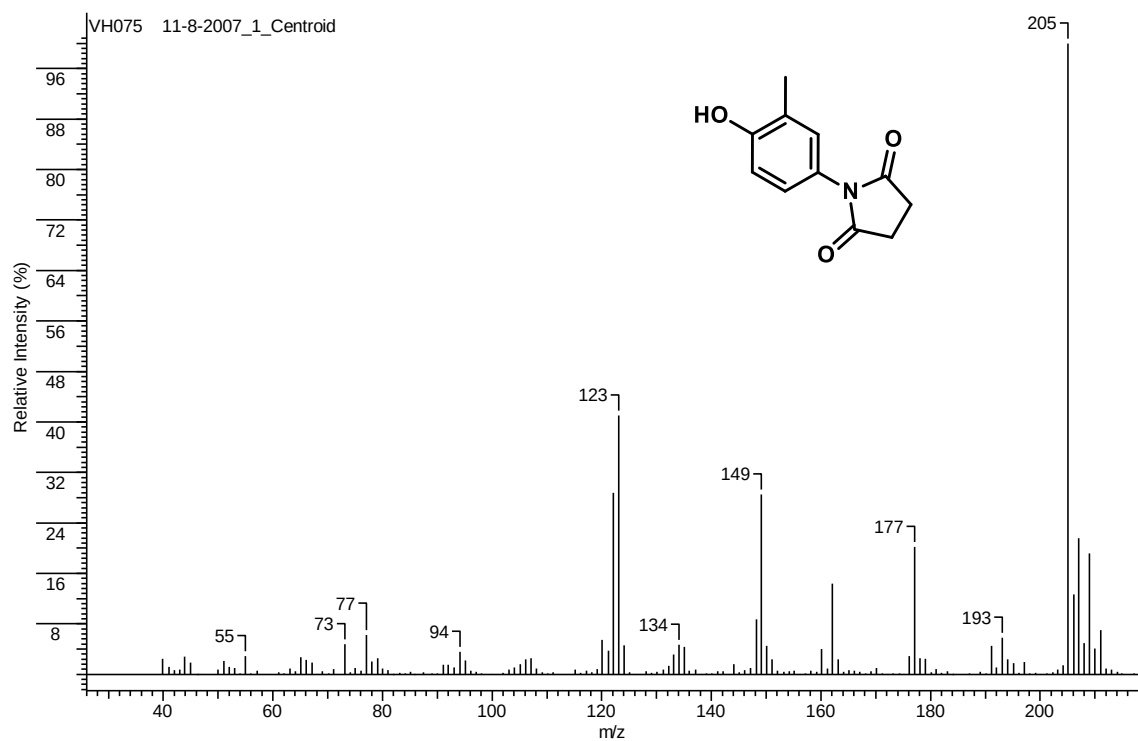


Figure S11. LRMS of compound **2j**.

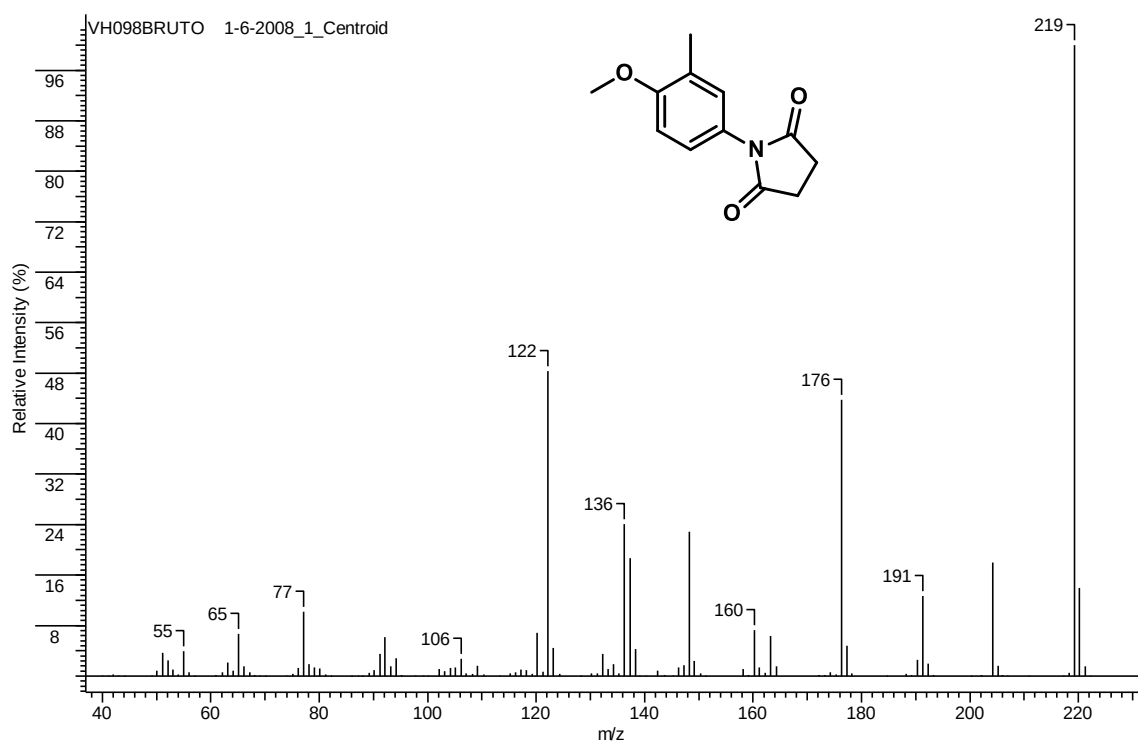


Figure S12. LRMS of compound 2k.

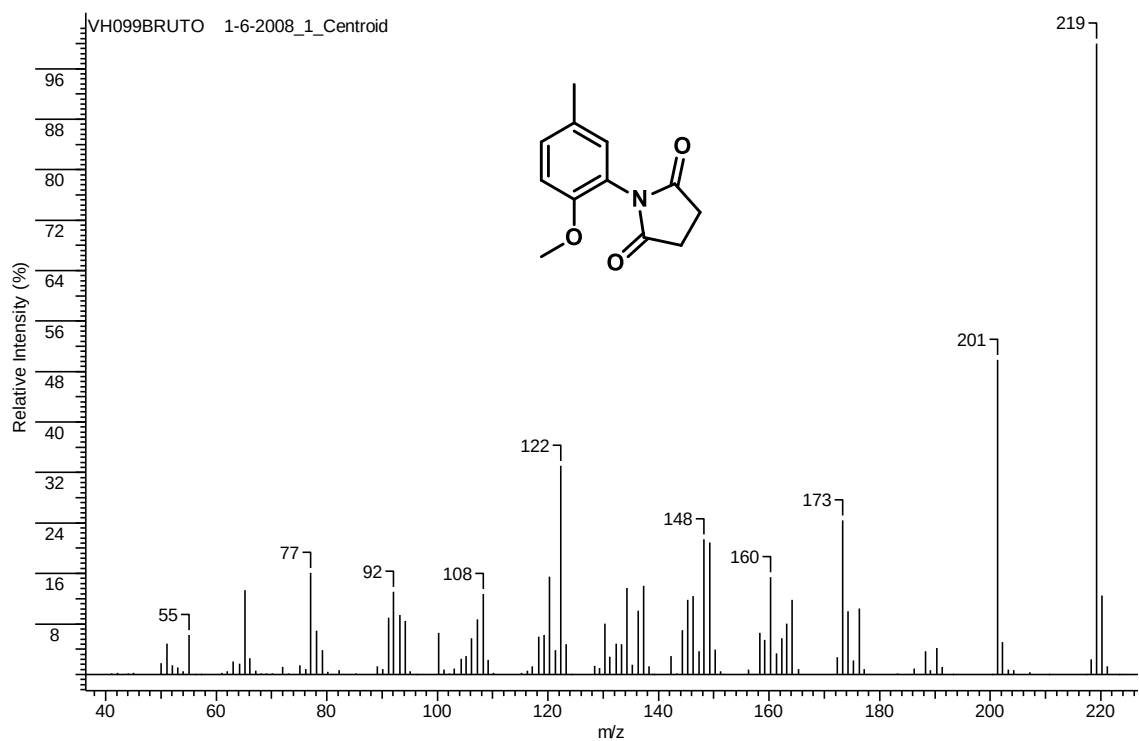


Figure S13. LRMS of compound 2l.

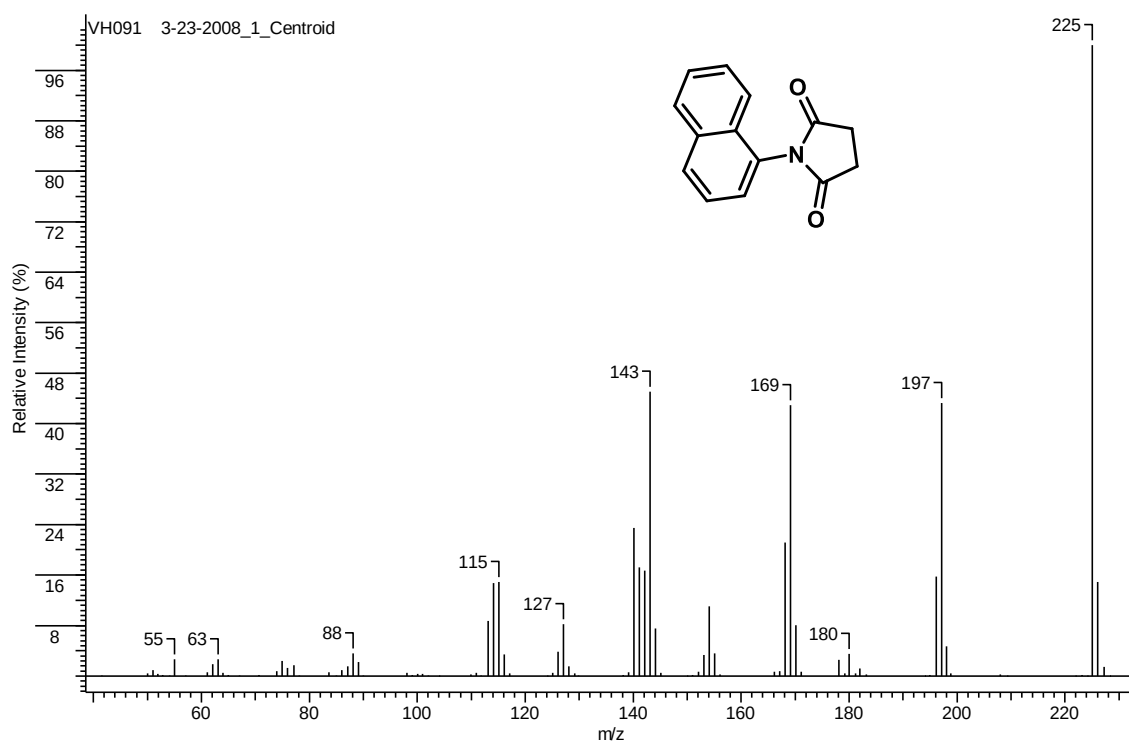


Figure S14. LRMS of compound **2m**.

HRMS spectra

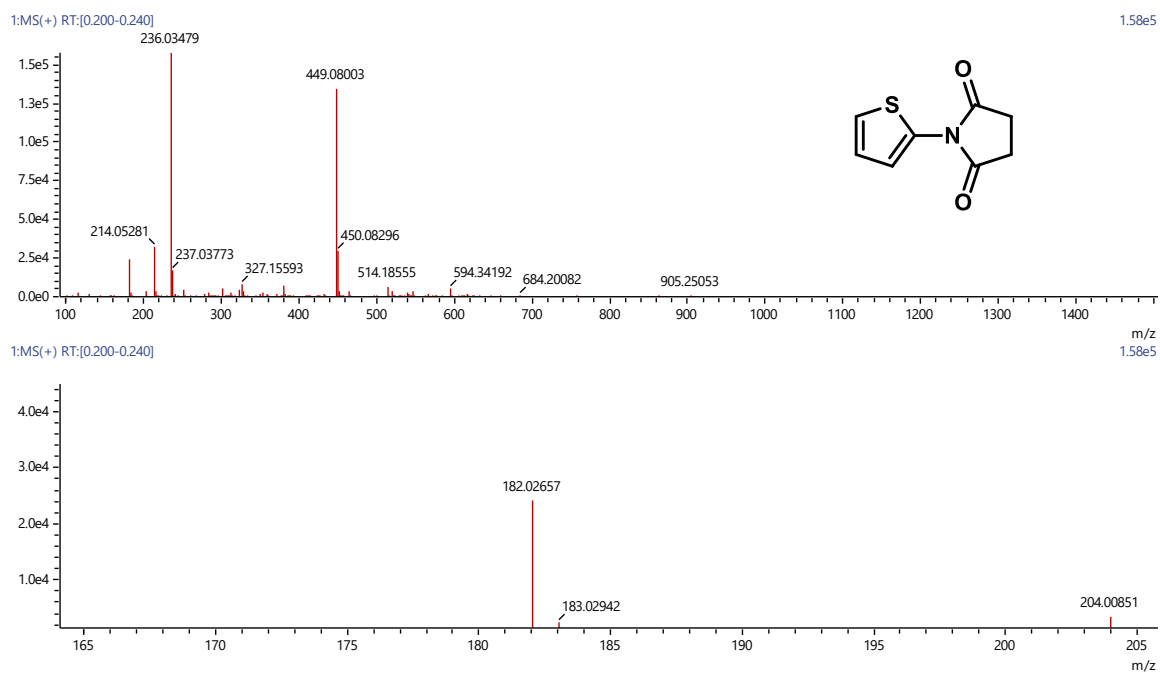


Figure S15. HRMS of compound 2a.

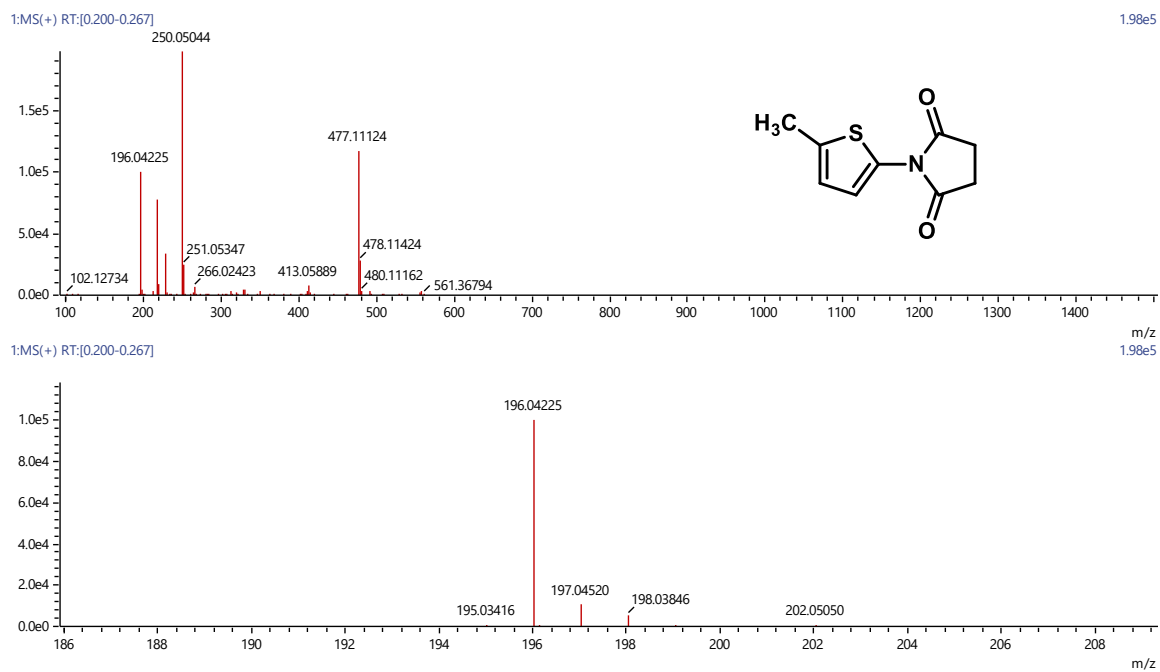


Figure S16. HRMS of compound 2b.

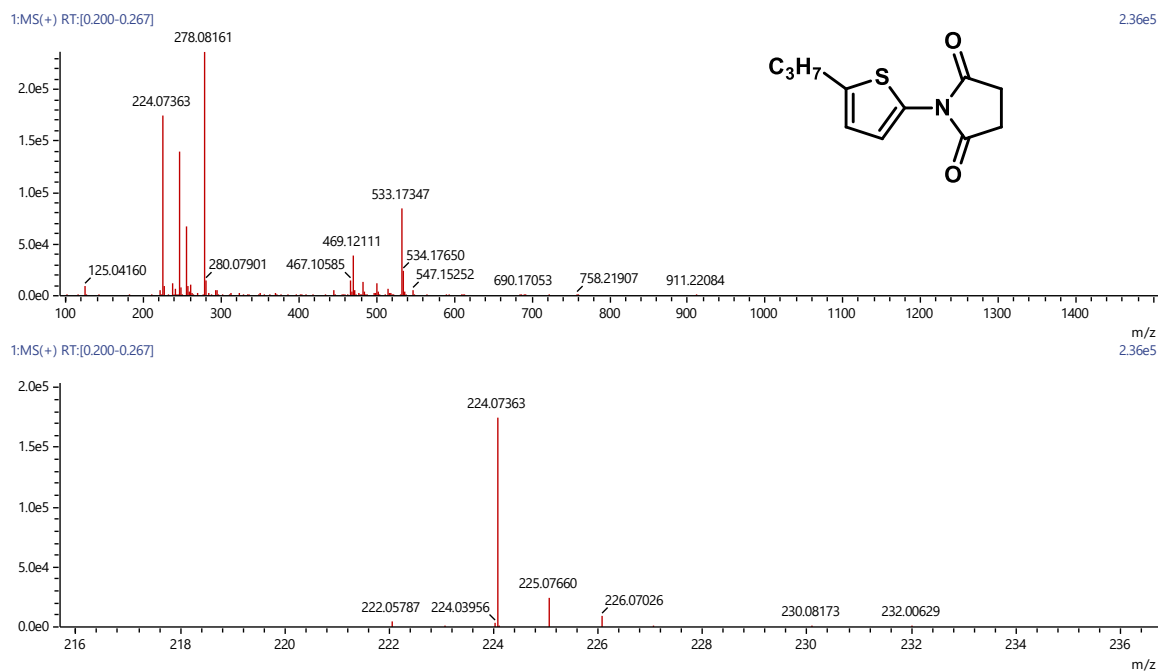


Figure S17. HRMS of compound 2c.

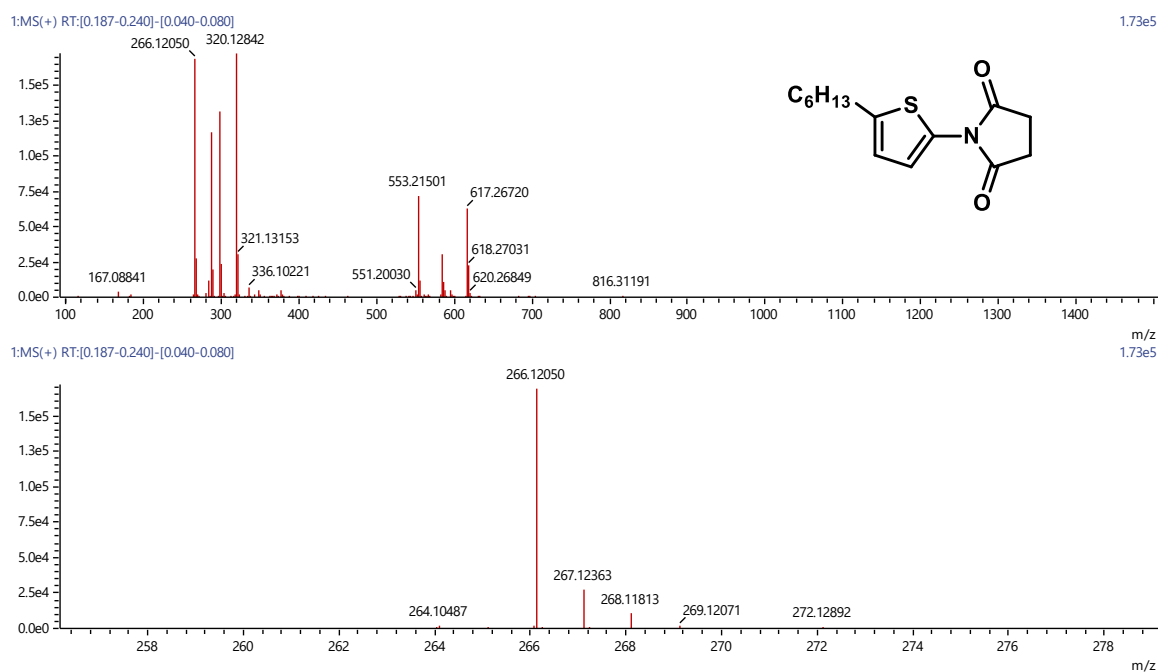


Figure S18. HRMS of compound 2d.

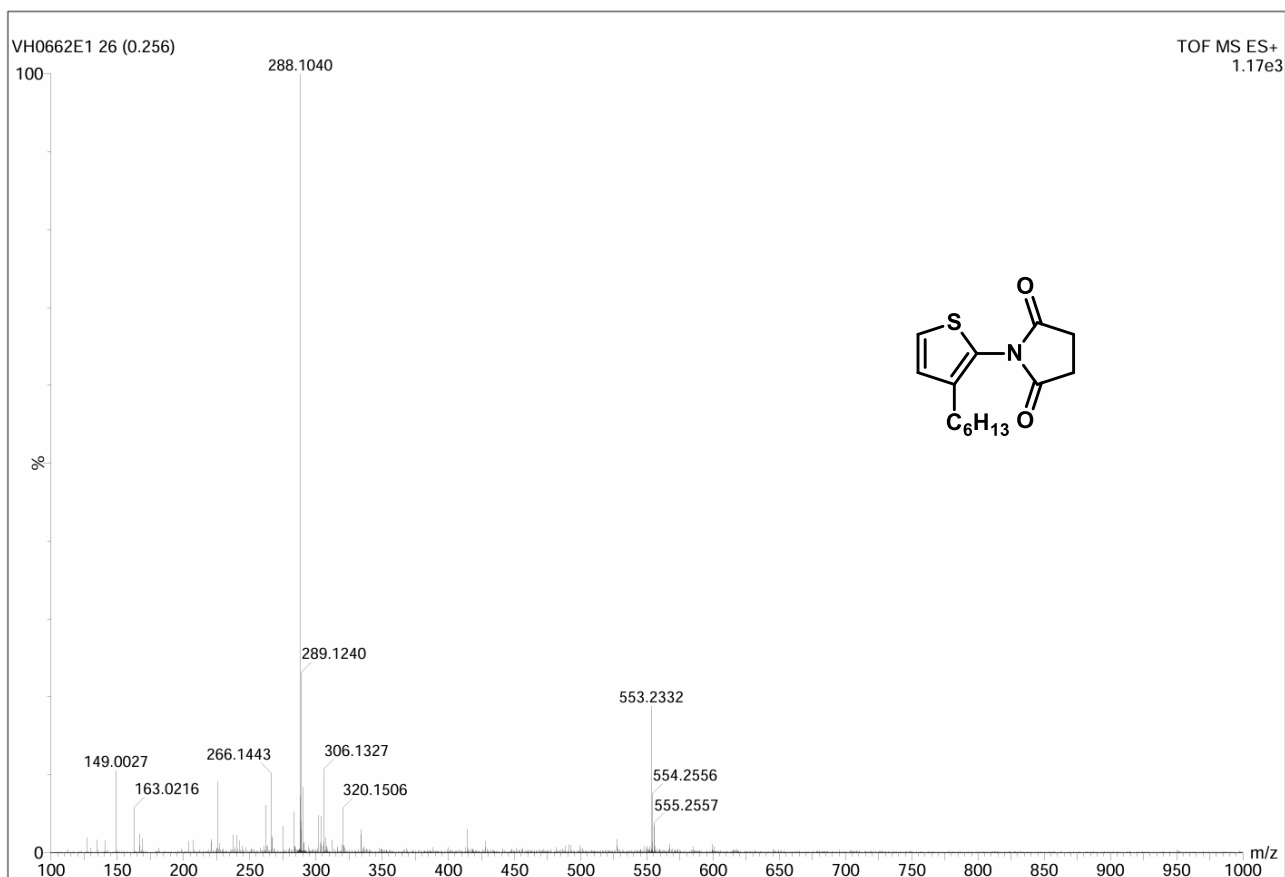


Figure S19. HRMS of compound **2e**.

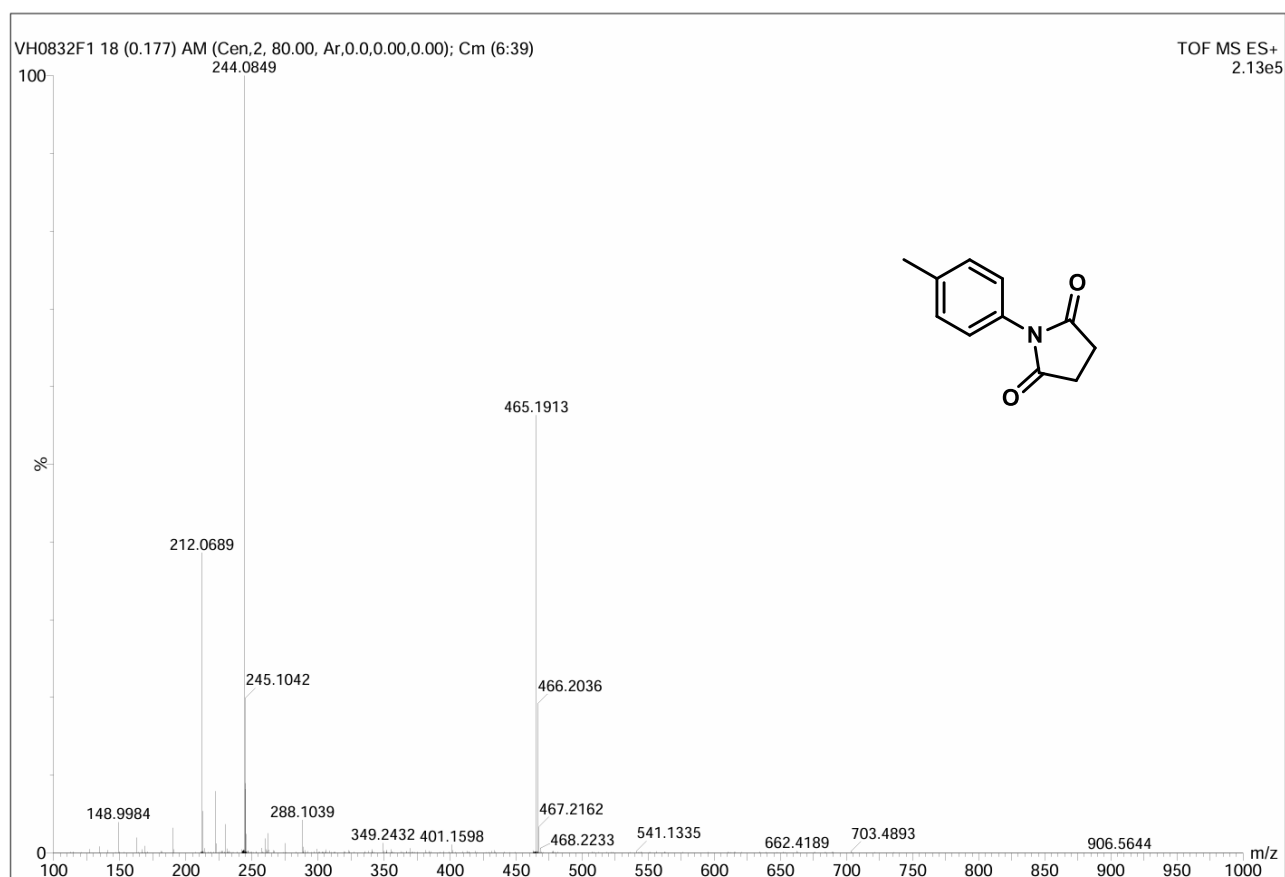


Figure S20. HRMS of compound **2f**.

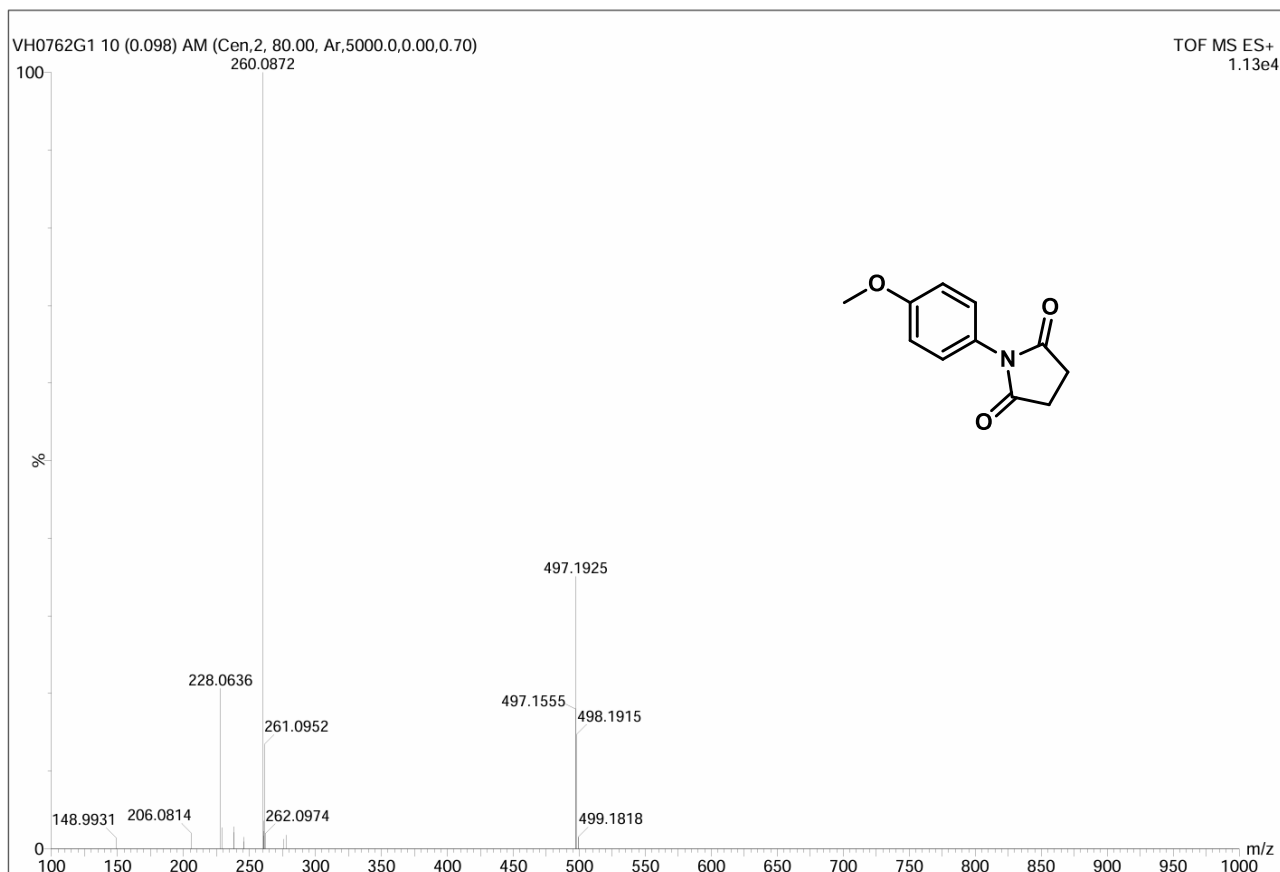


Figure S21. HRMS of compound 2g.

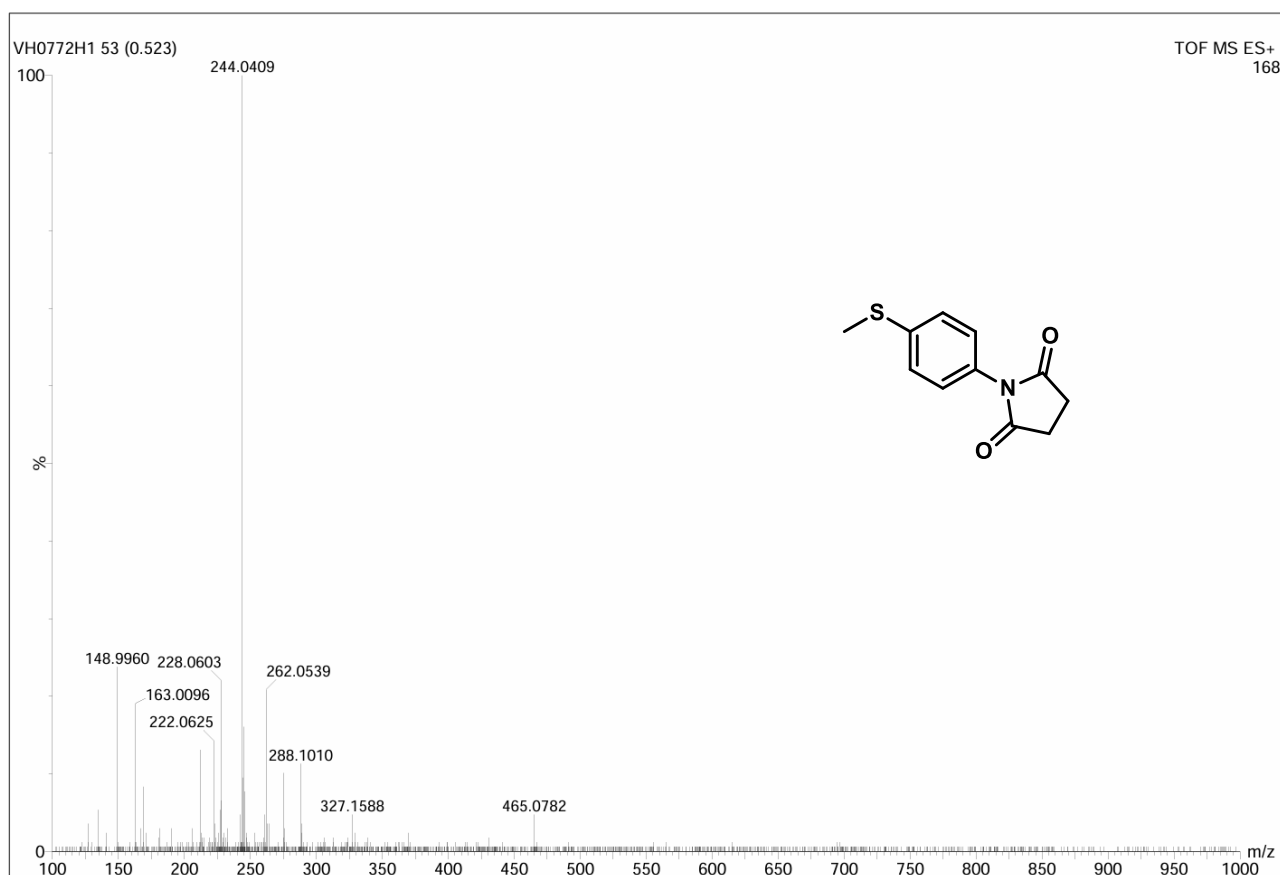


Figure S22. HRMS of compound 2h.

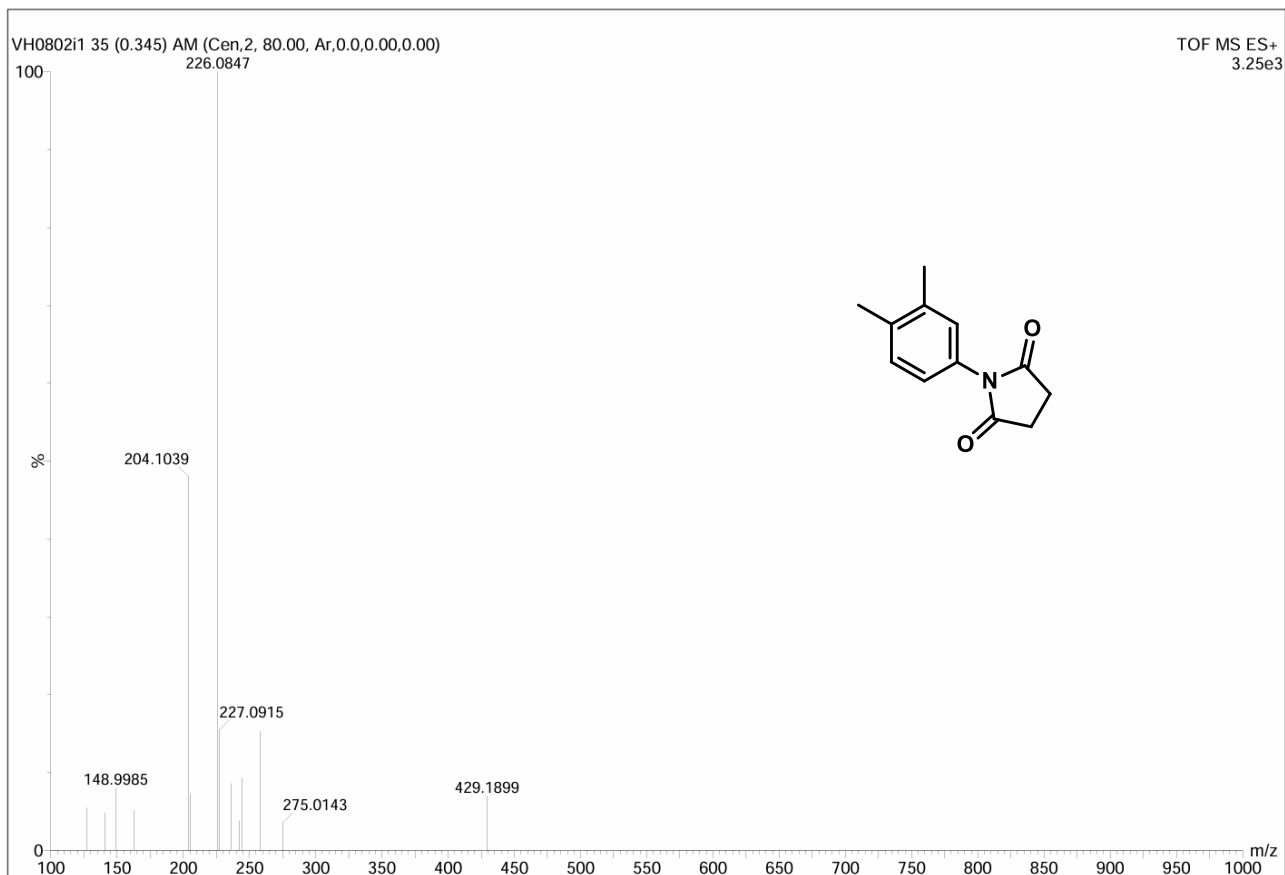


Figure S23. HRMS of compound 2i.

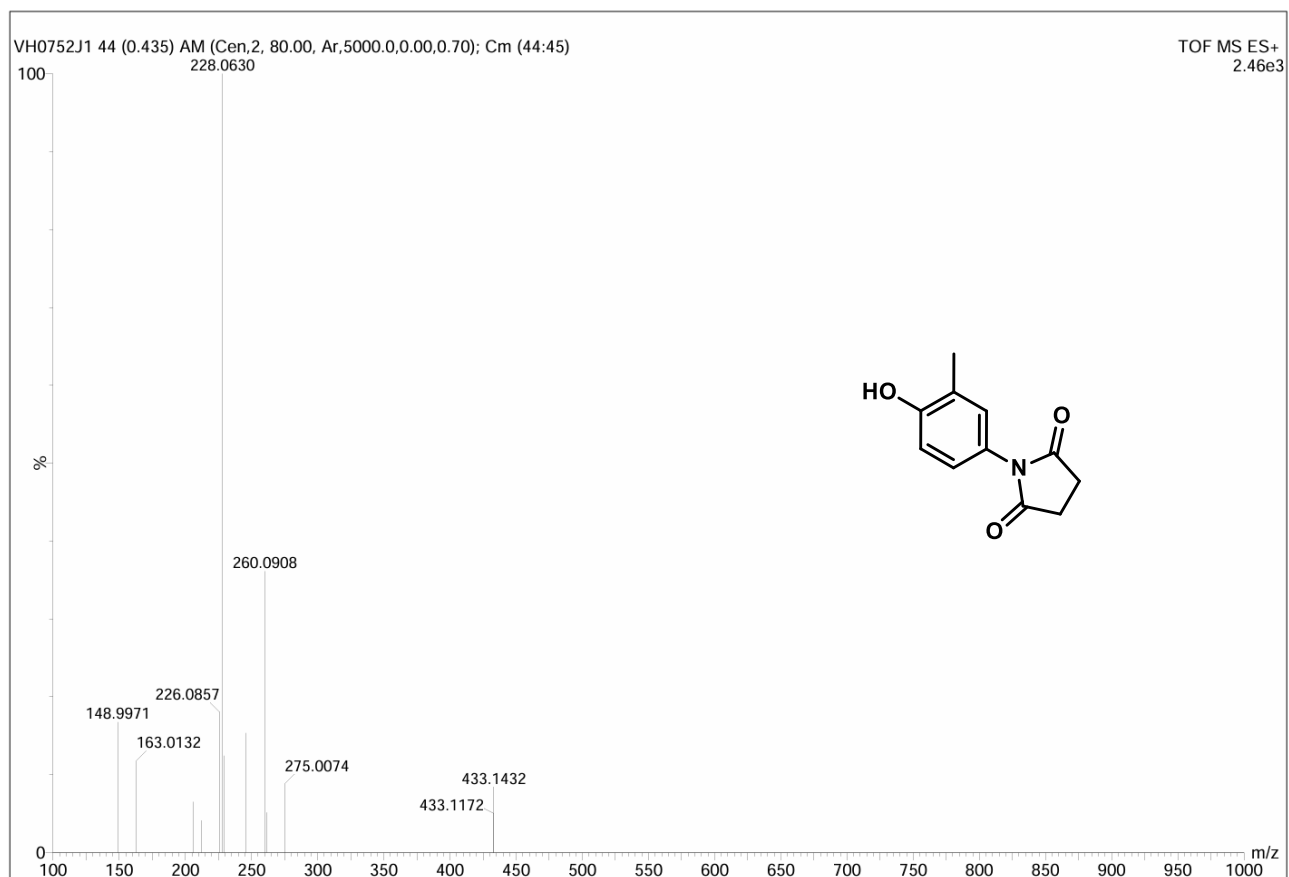


Figure S24. HRMS of compound 2j.

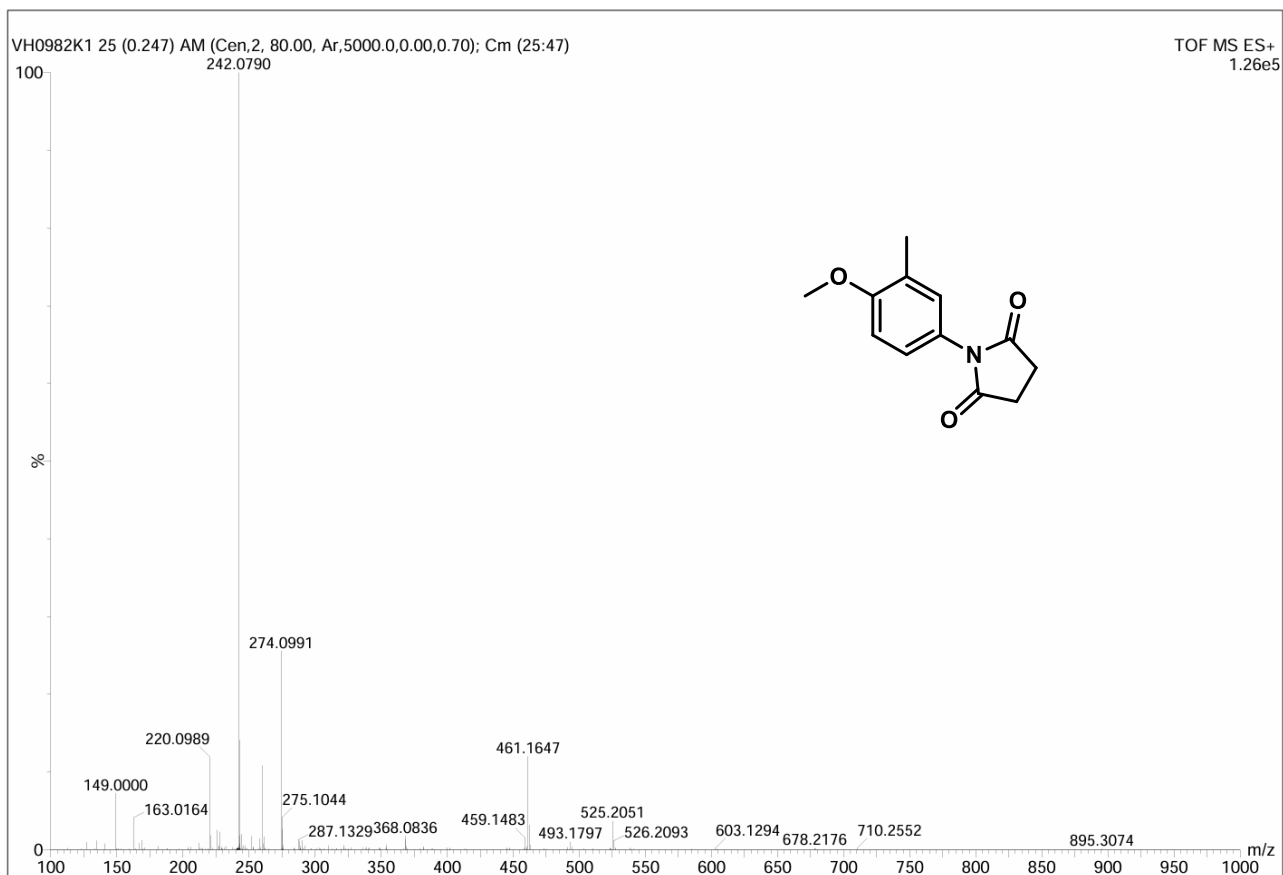


Figure S25. HRMS of compound 2k.

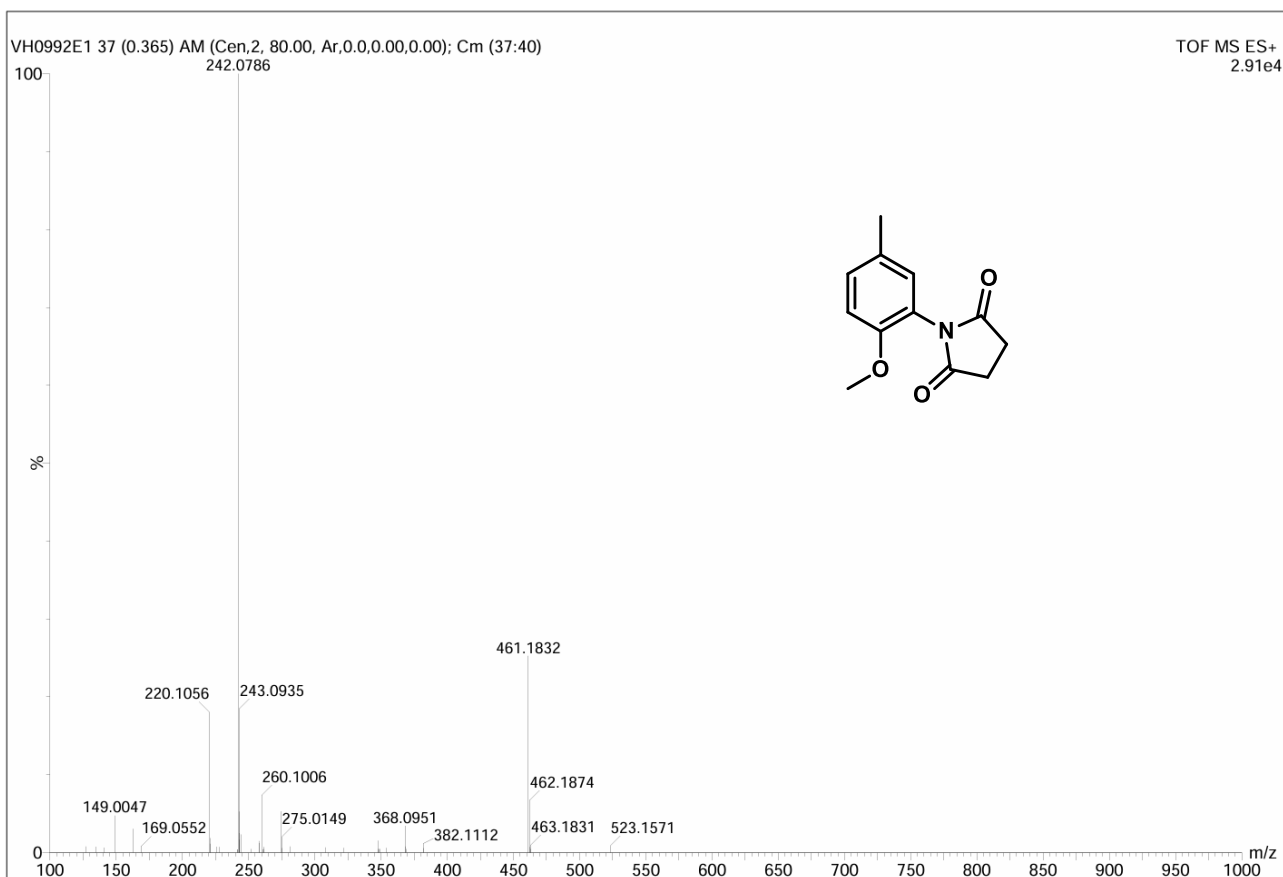


Figure S26. HRMS of compound 2l.

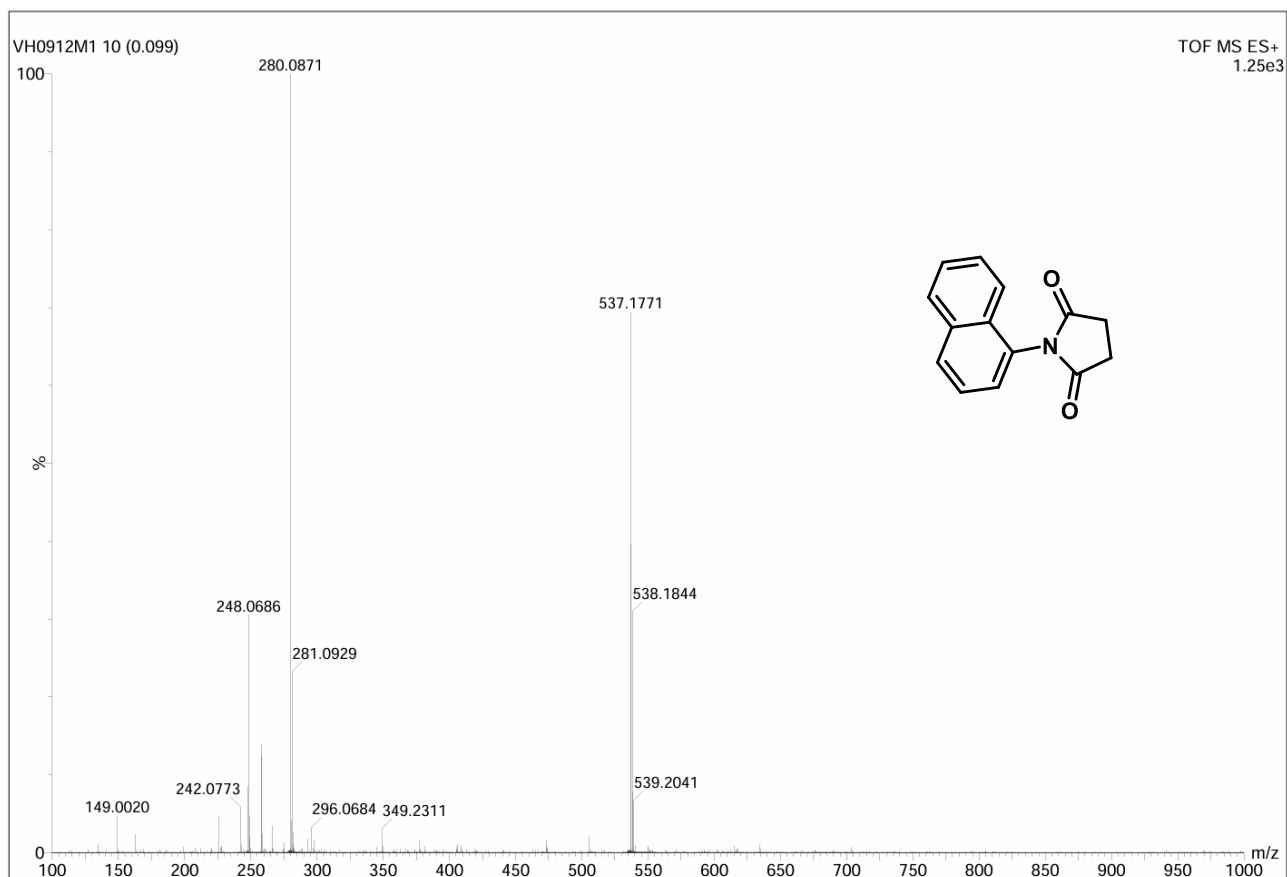


Figure S27. HRMS of compound **2m**.

FTIR spectra

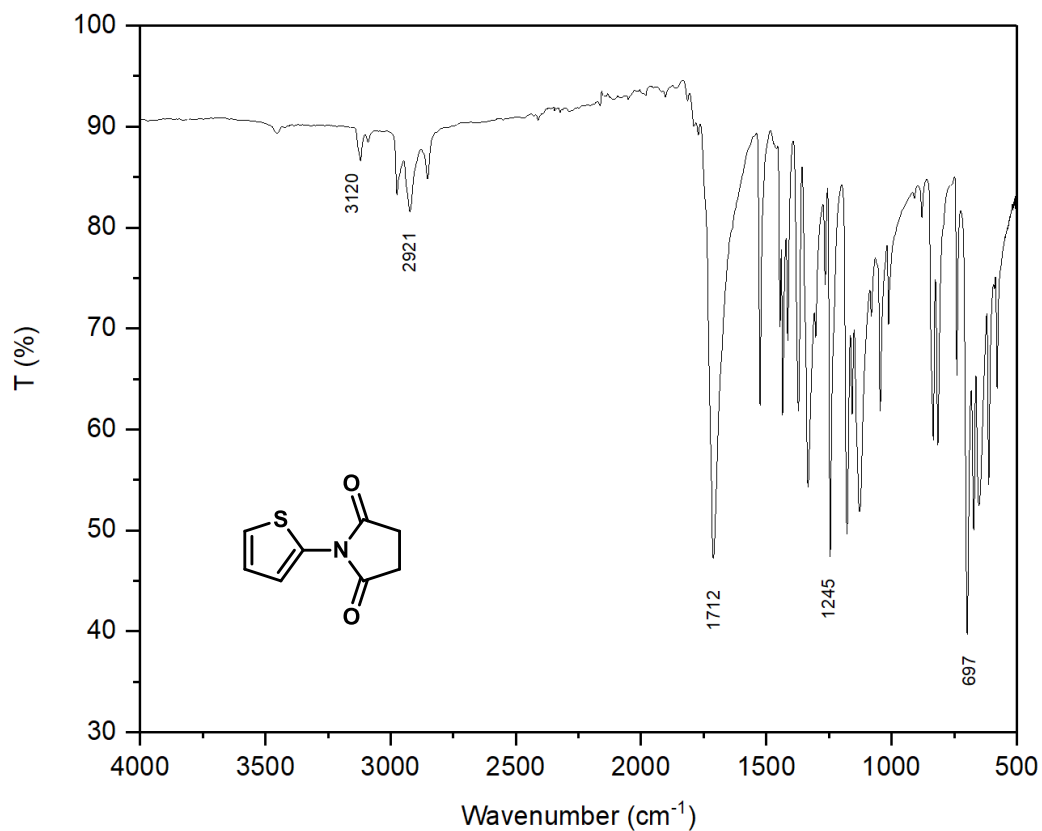


Figure S28. FTIR (ATR) spectra of compound **2a**.

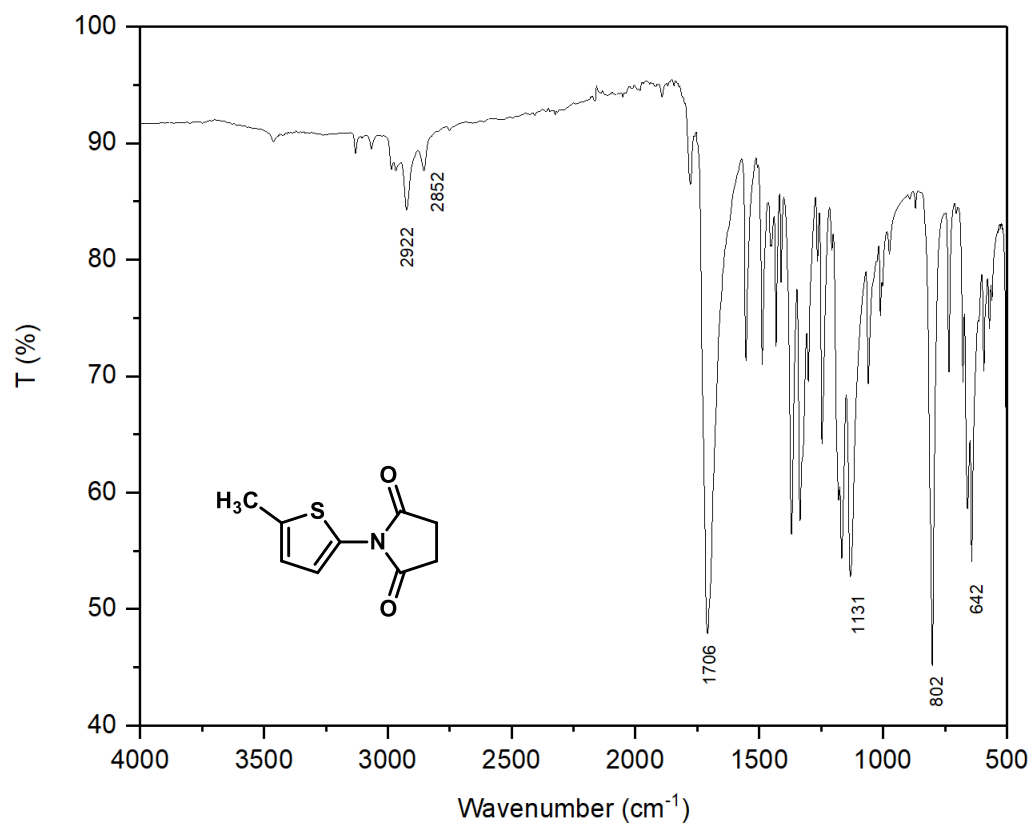


Figure S29. FTIR (ATR) spectra of compound **2b**.

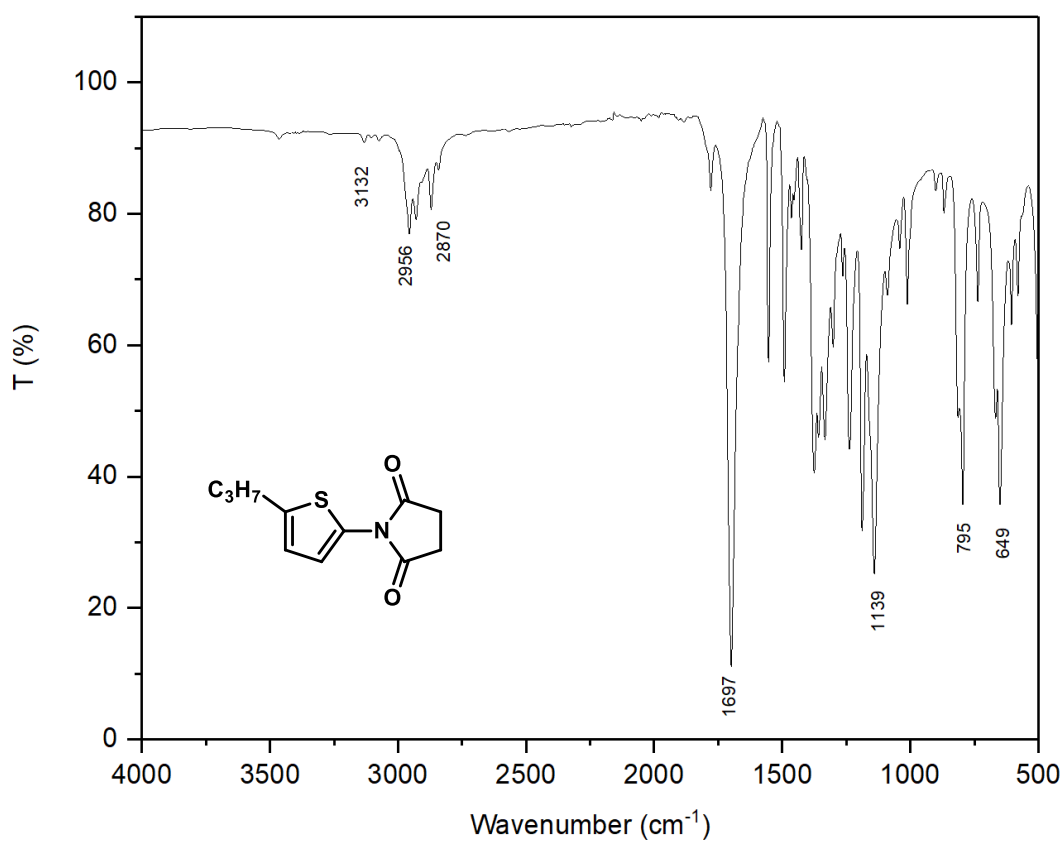


Figure S30. FTIR (ATR) spectra of compound **2c**.

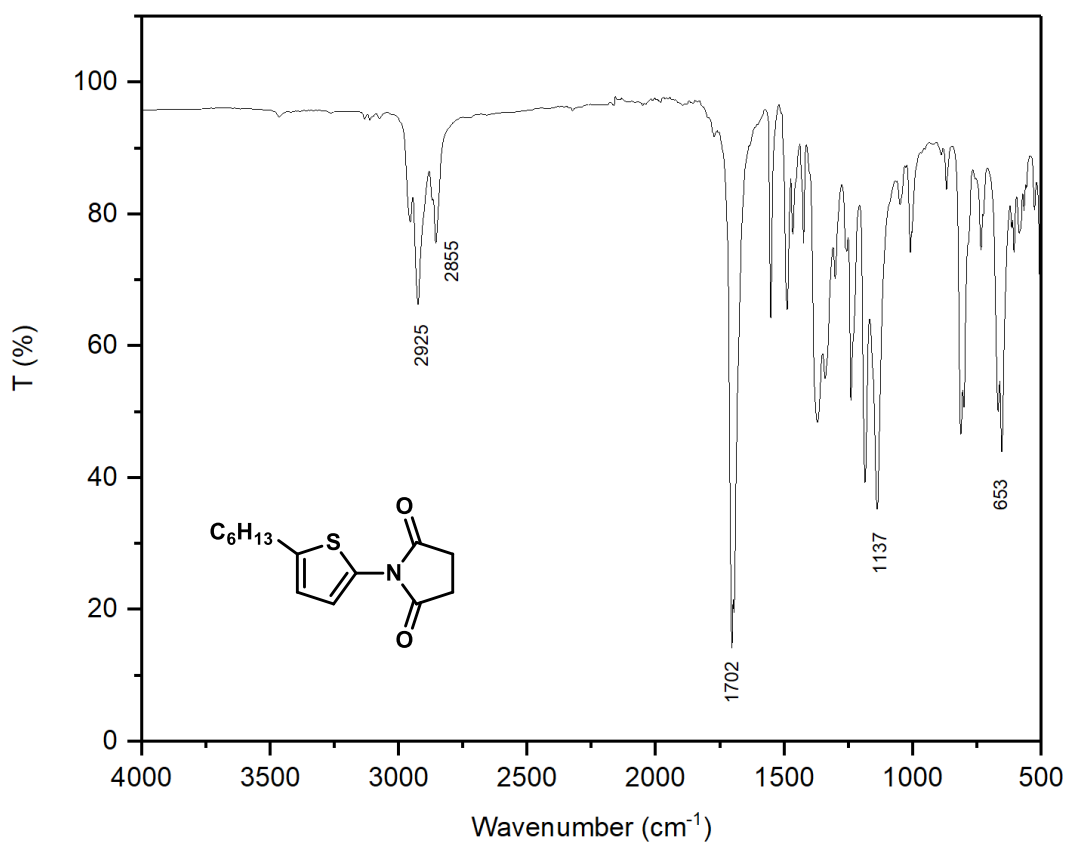


Figure S31. FTIR (ATR) spectra of compound **2d**.

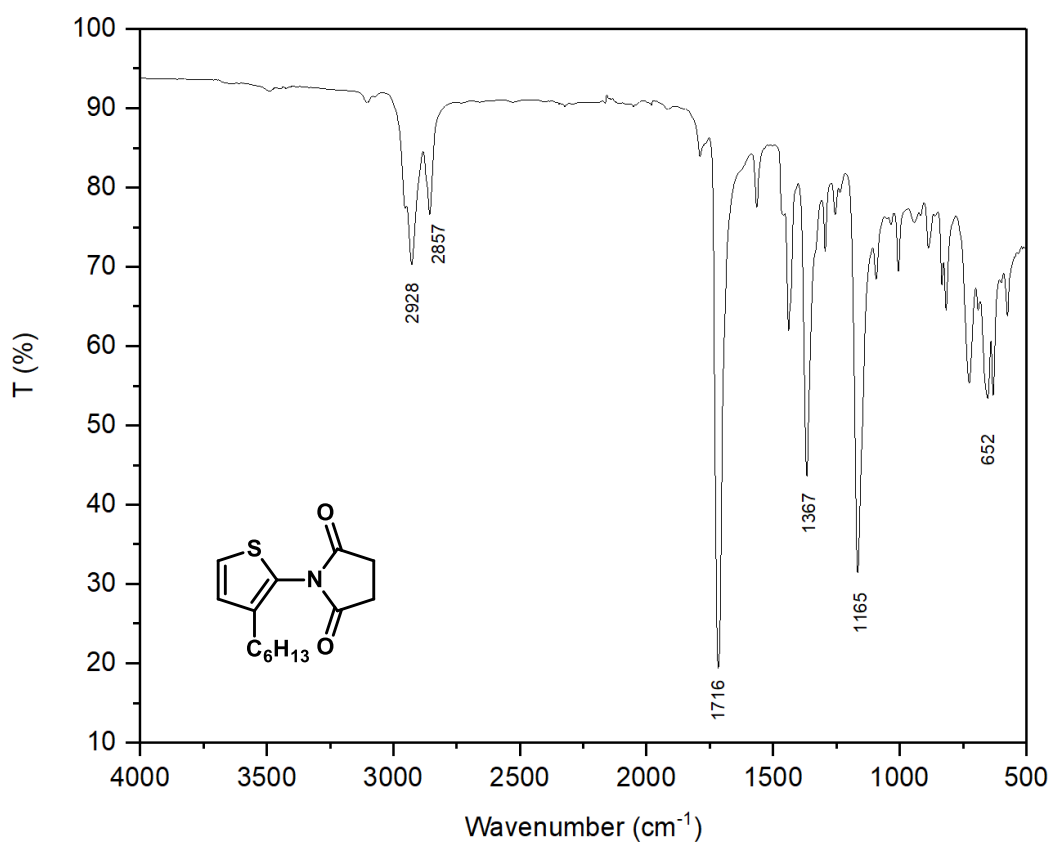


Figure S32. FTIR (ATR) spectra of compound **2e**.

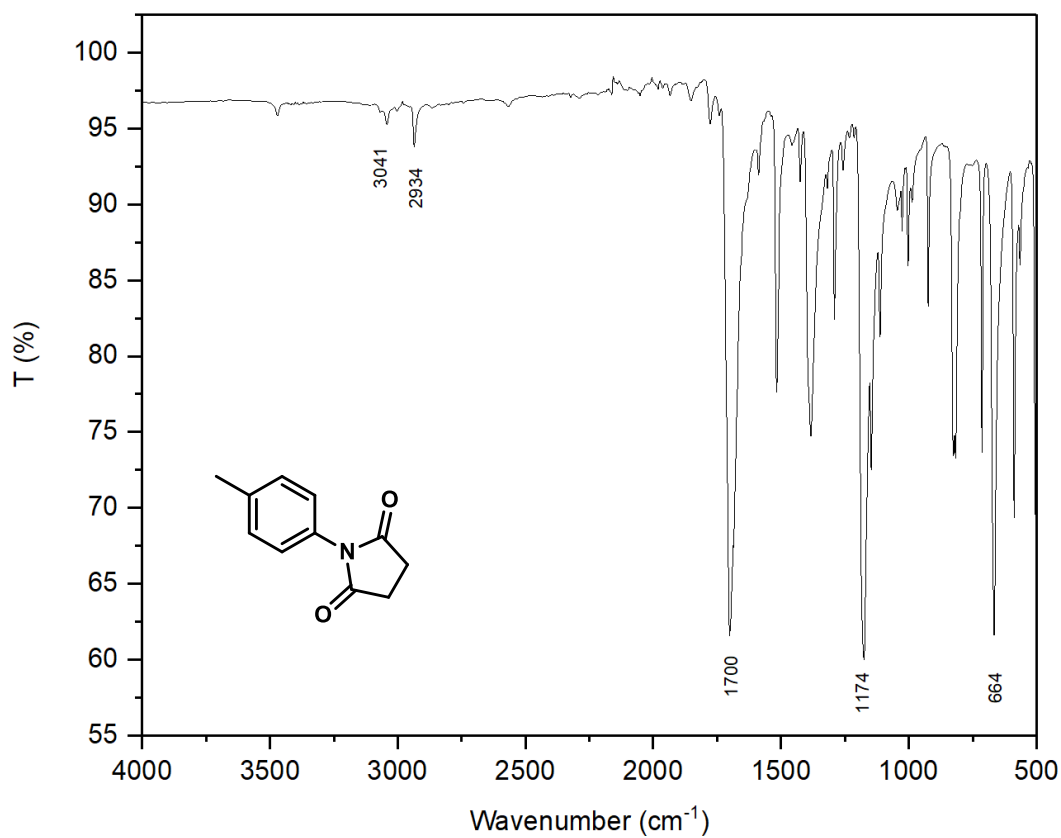


Figure S33. FTIR (ATR) spectra of compound **2f**.

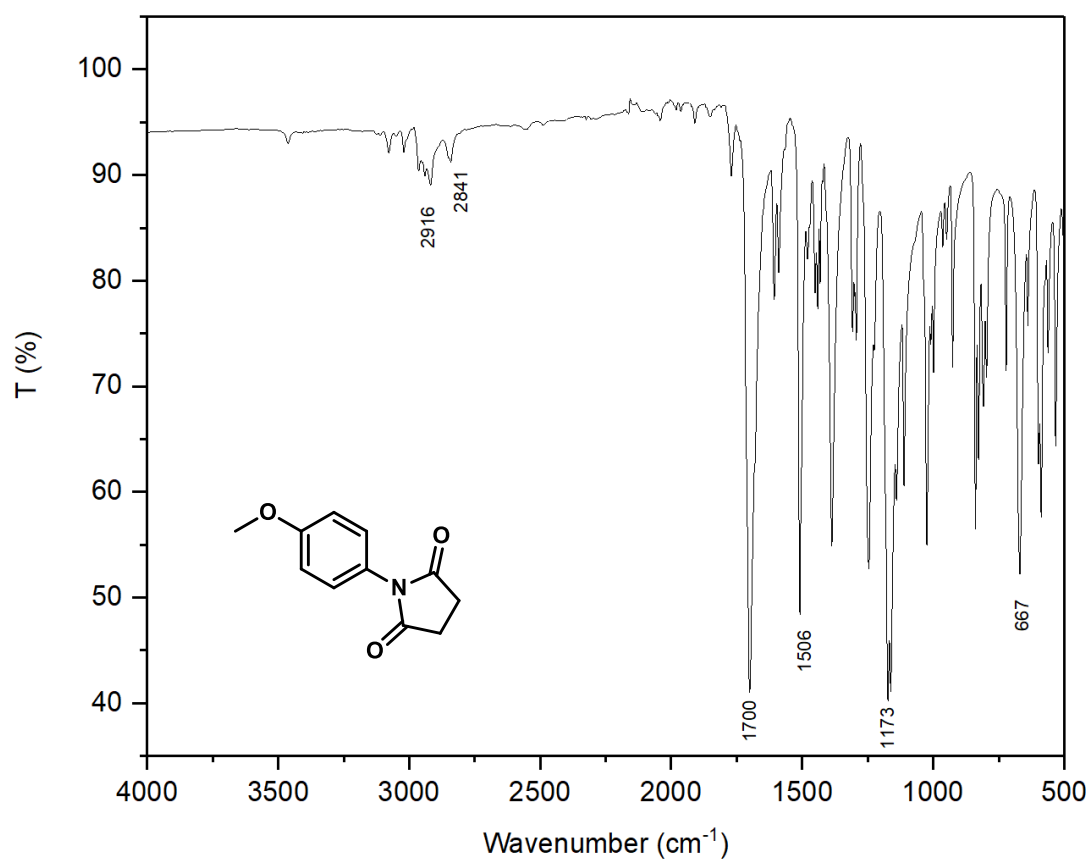


Figure S34. FTIR (ATR) spectra of compound **2g**.

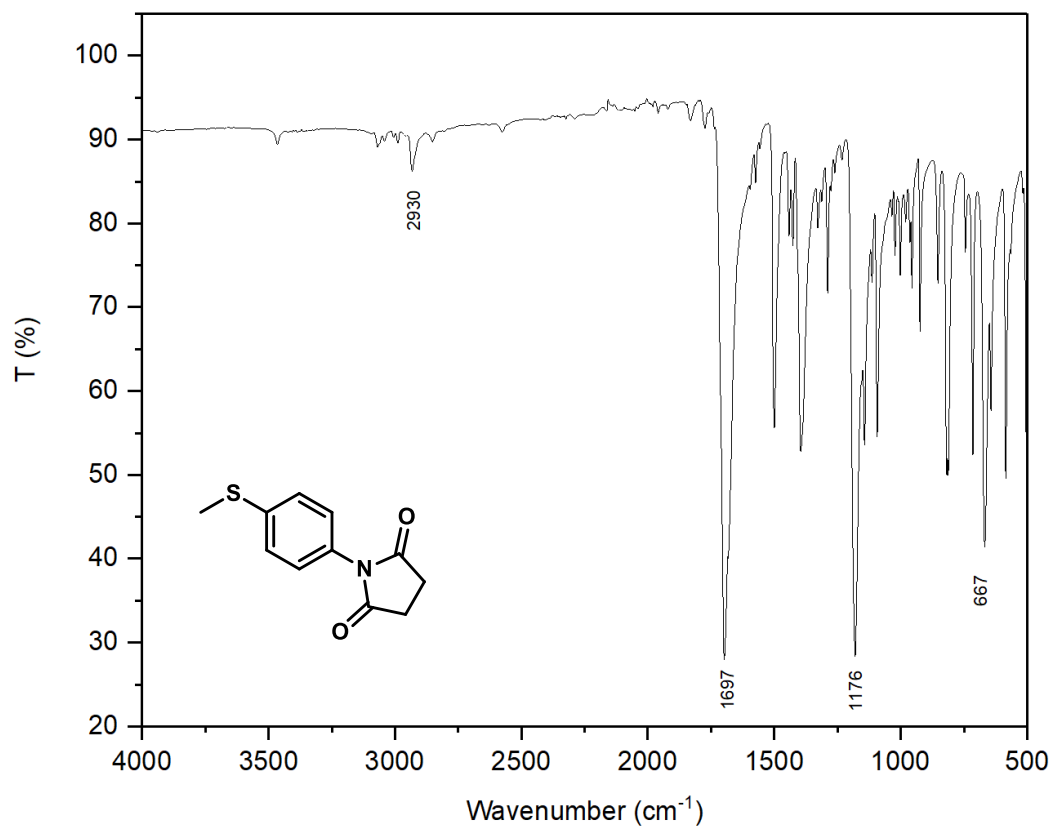


Figure S35. FTIR (ATR) spectra of compound **2h**.

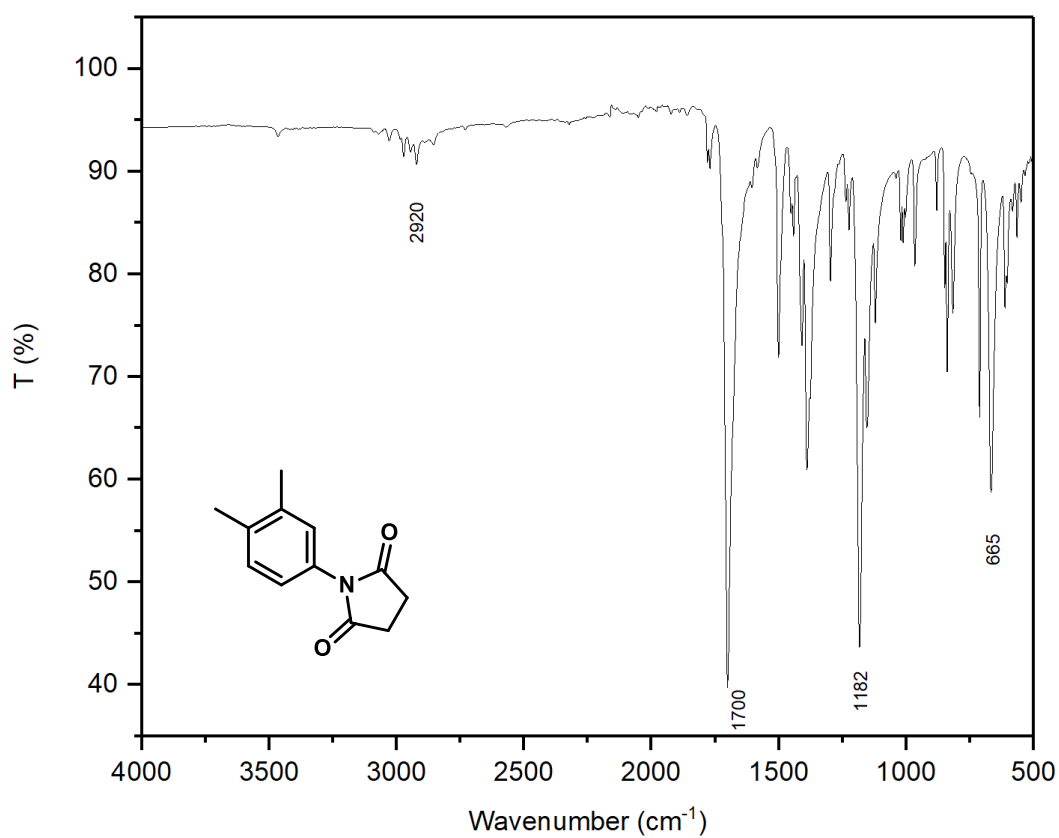


Figure S36. FTIR (ATR) spectra of compound **2i**.

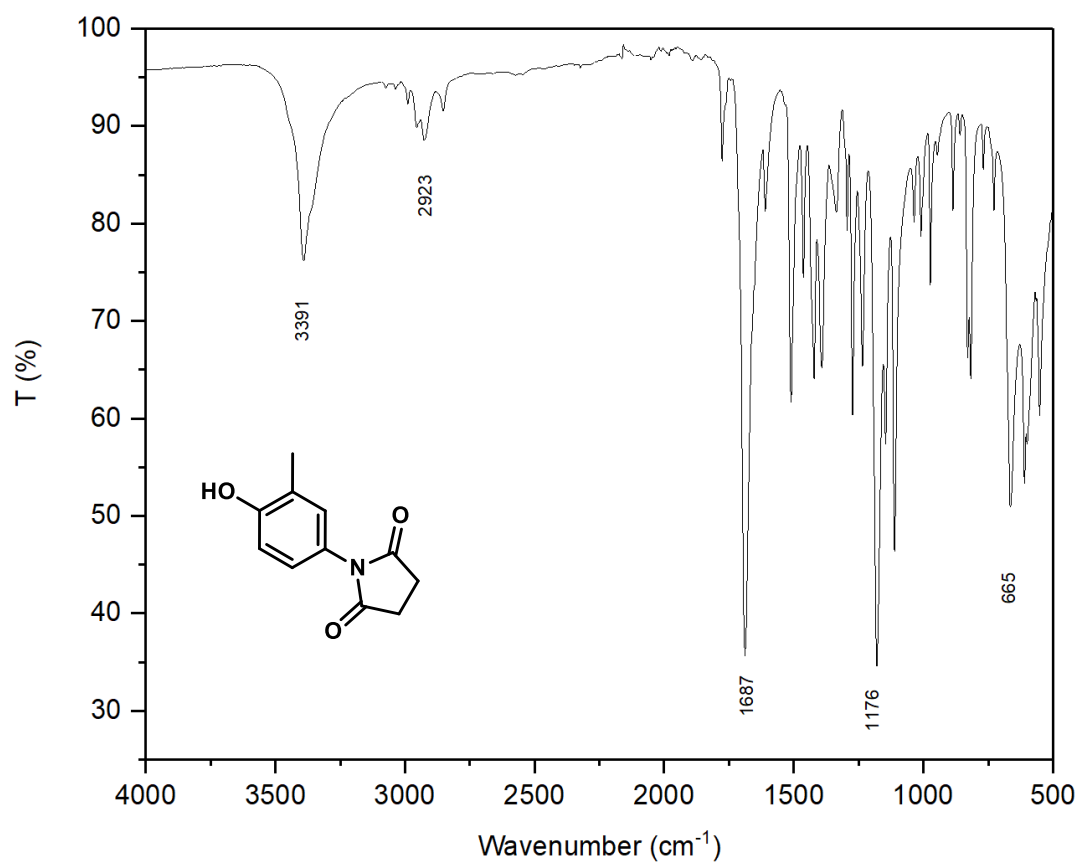


Figure S37. FTIR (ATR) spectra of compound **2j**.

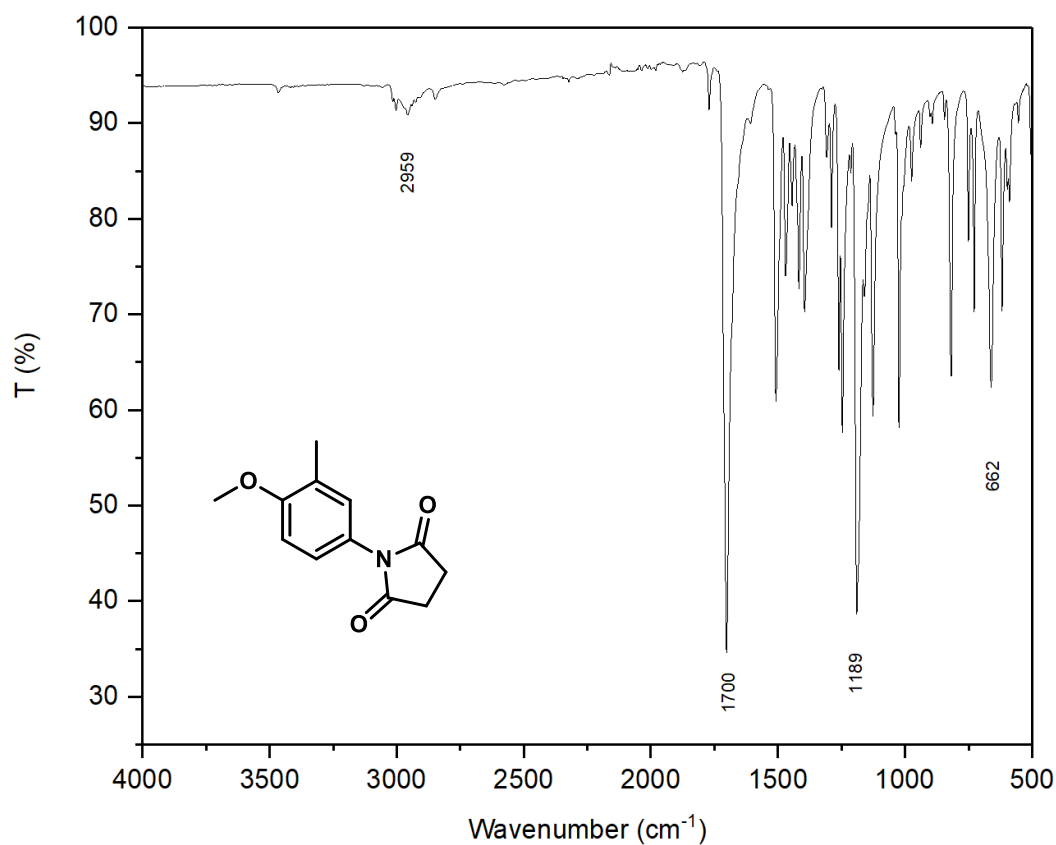


Figure S38. FTIR (ATR) spectra of compound **2k**.

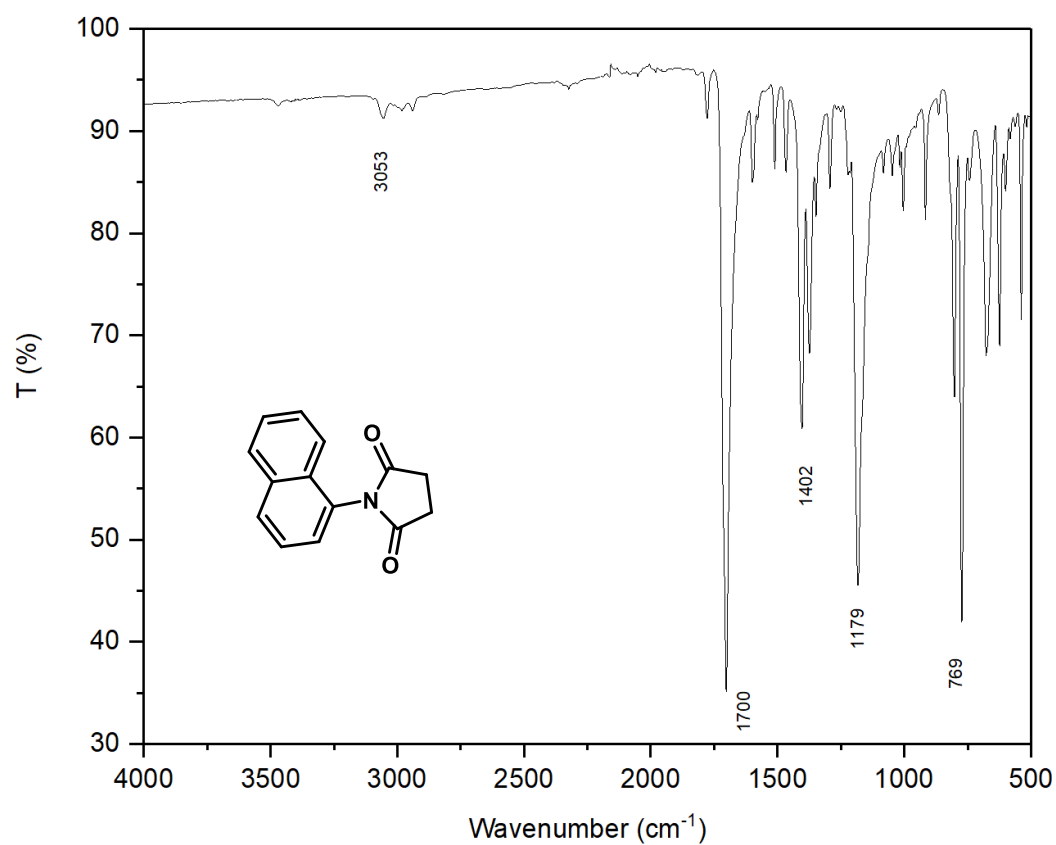


Figure S39. FTIR (ATR) spectra of compound **2m**.

NMR Spectra

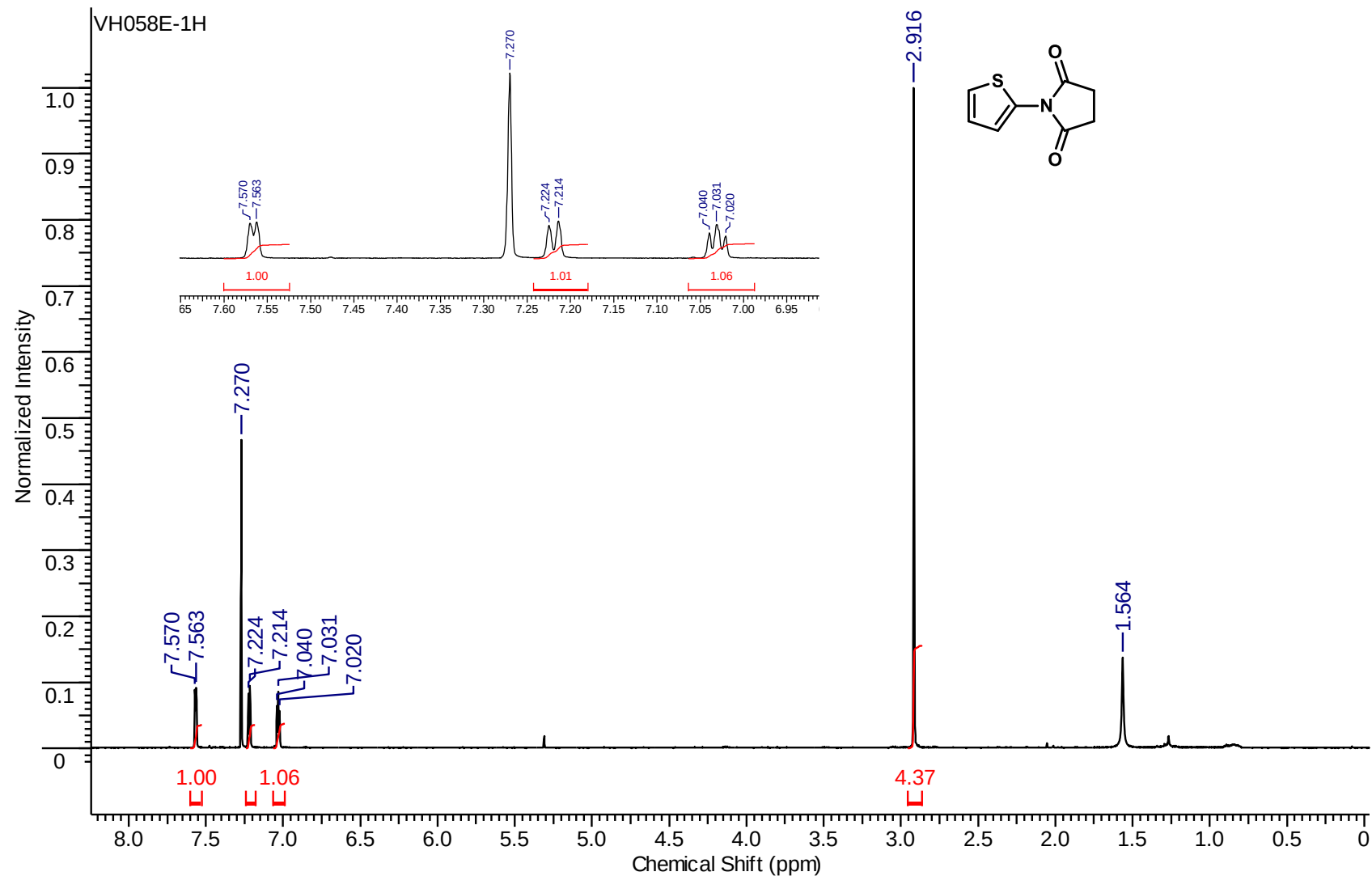


Figure S40. ^1H NMR spectra (500 MHz, CDCl_3) of compound 2a.

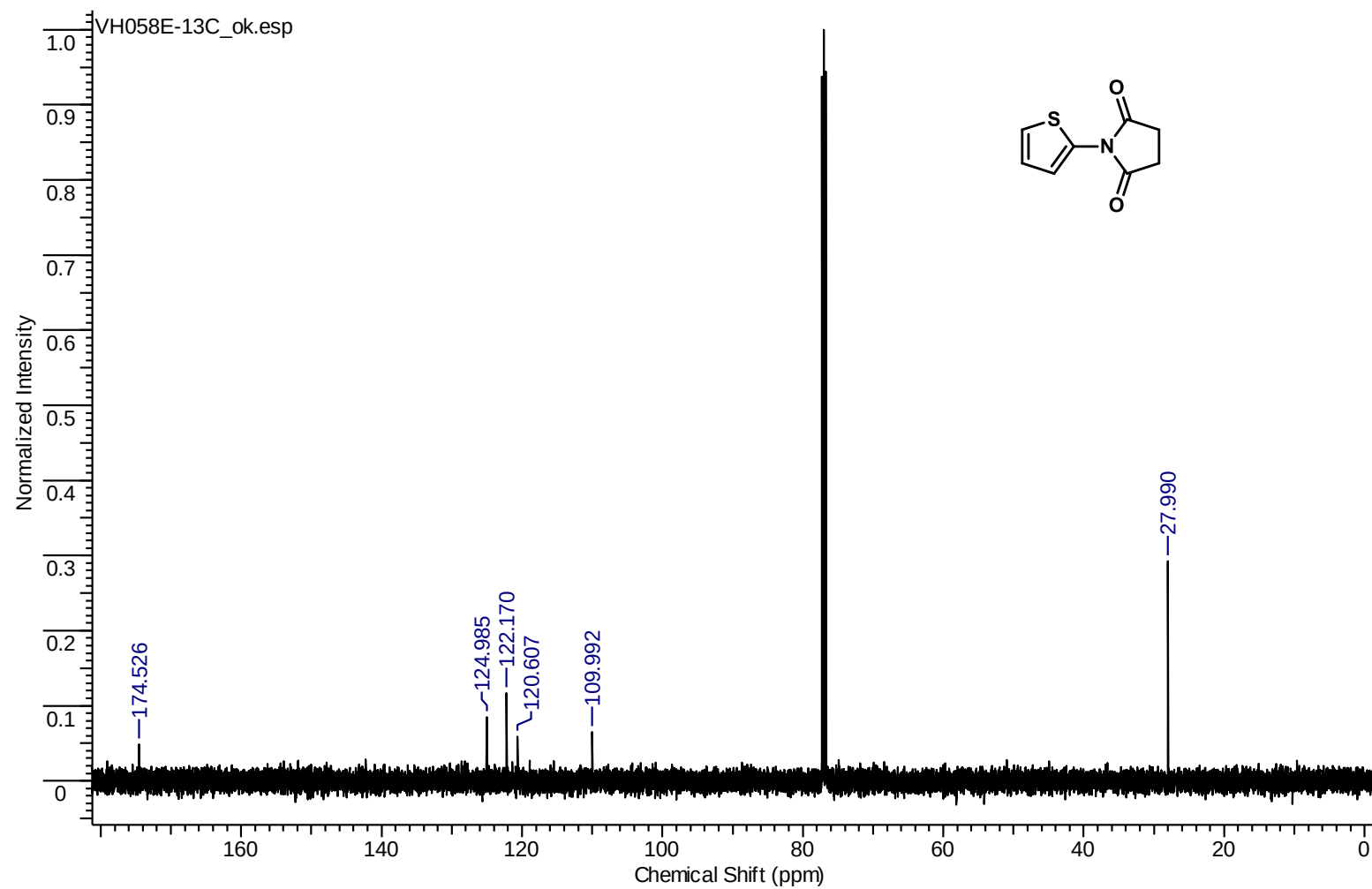


Figure S41. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2a**.

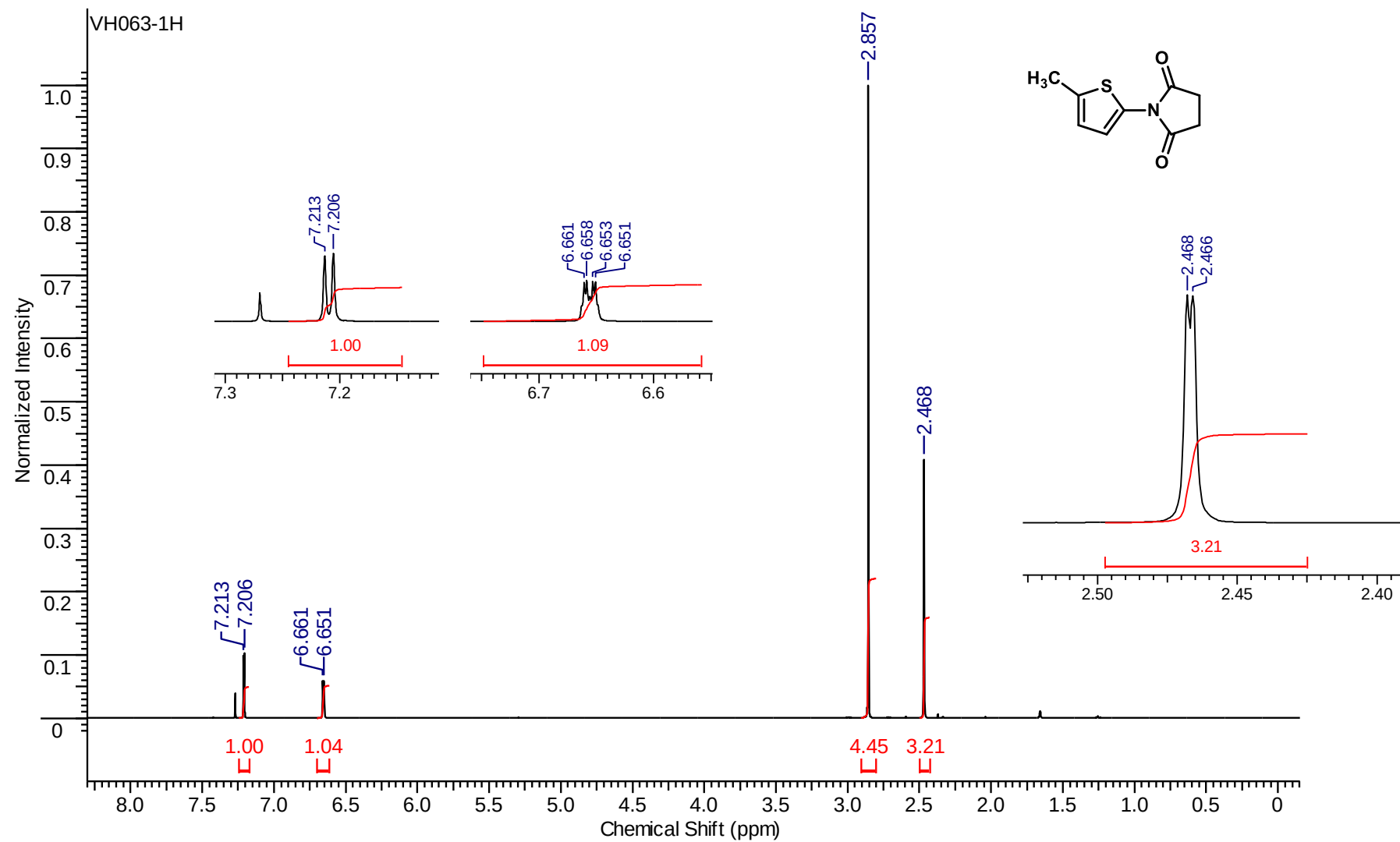


Figure S42. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2b**.

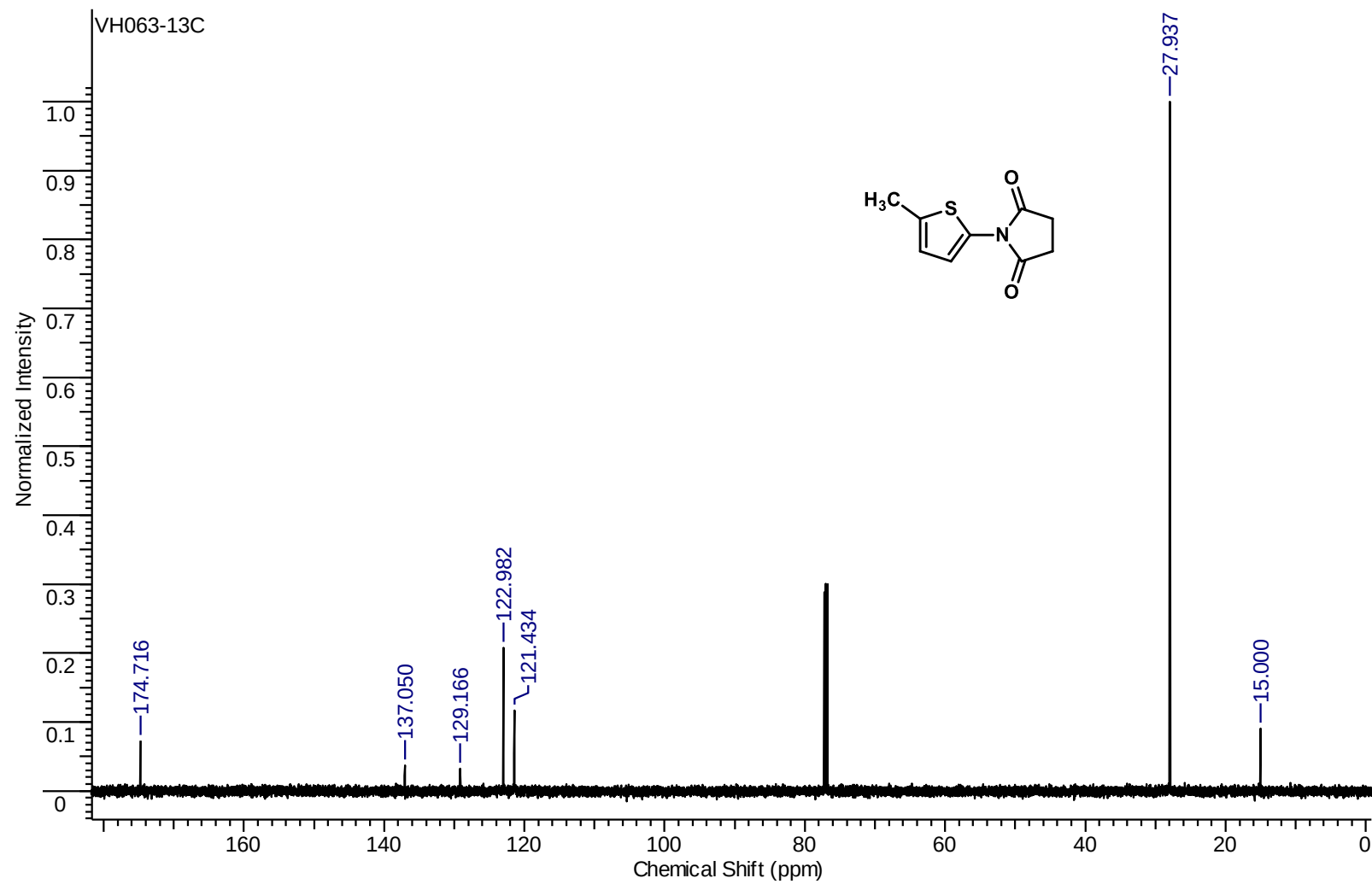


Figure S43. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2b**.

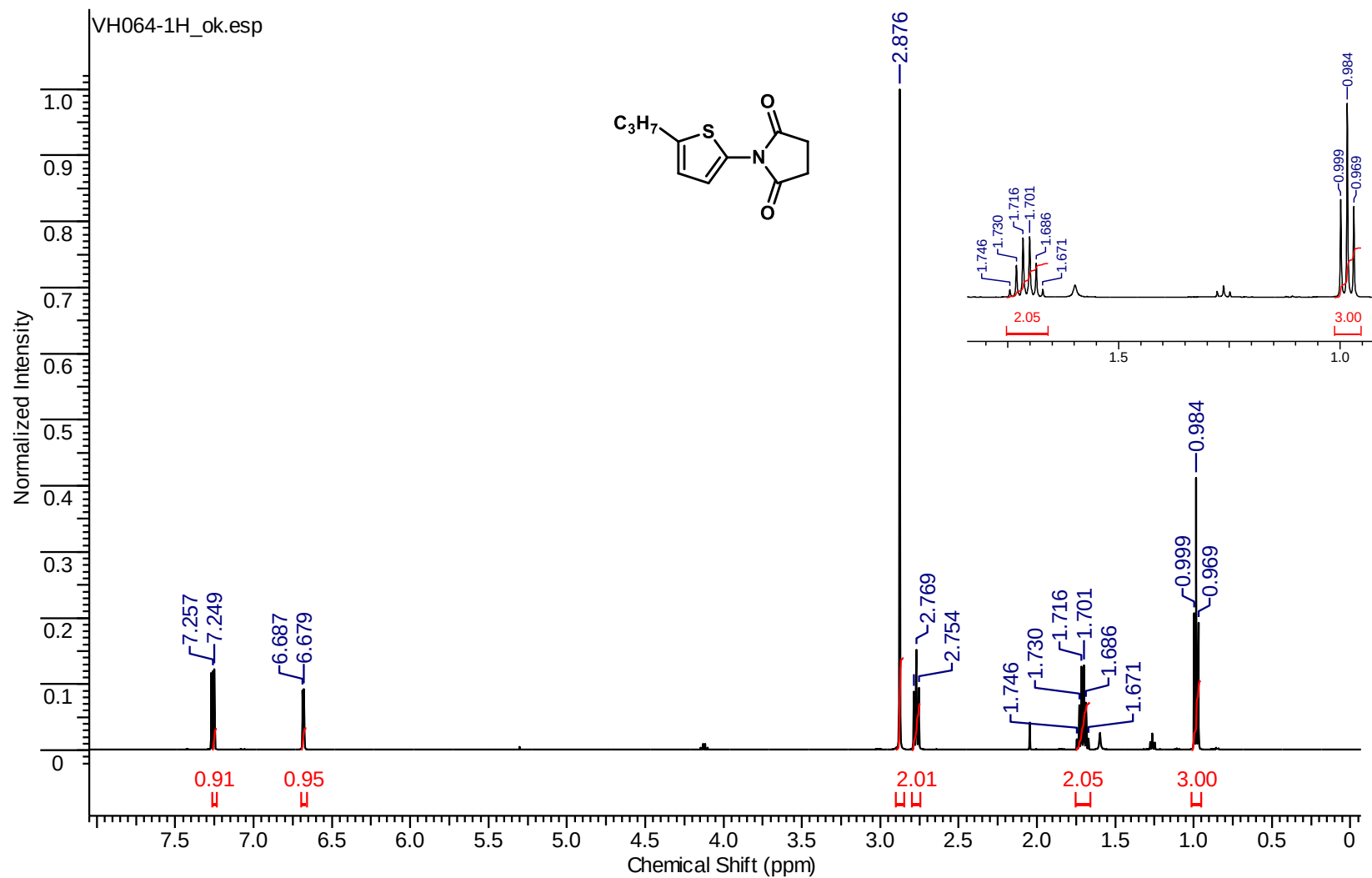


Figure S44. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2c**.

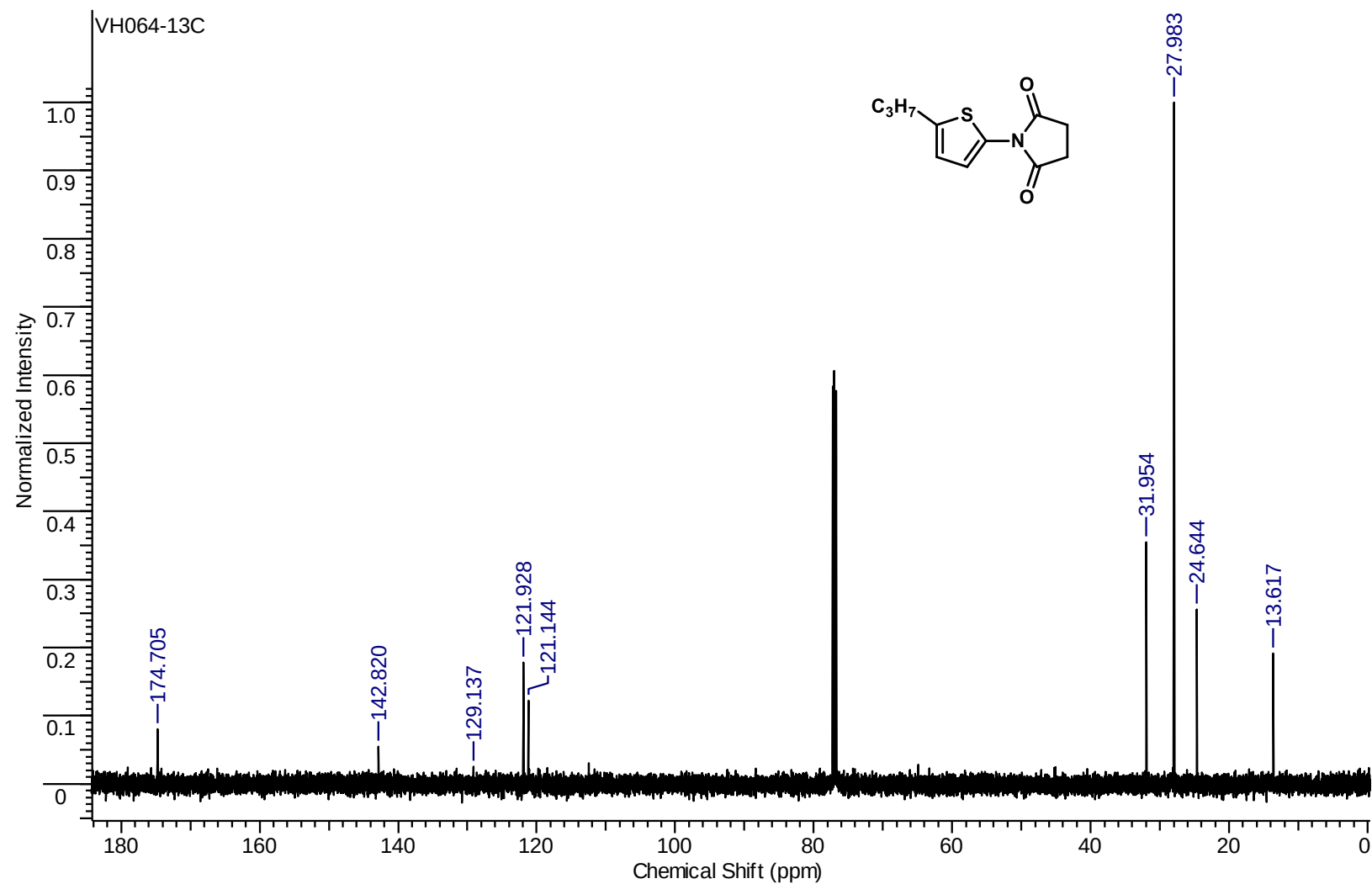


Figure S45. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2c**.

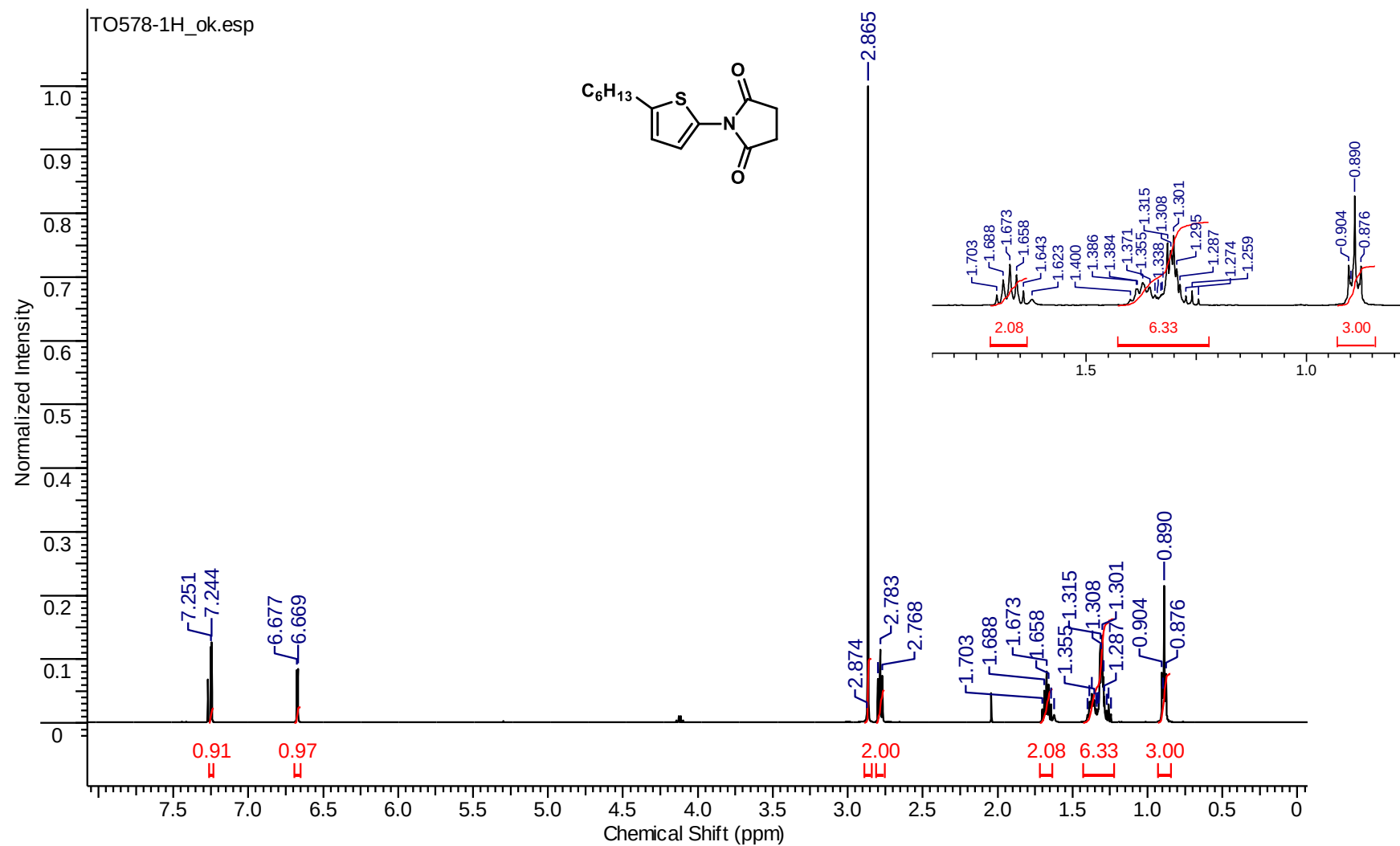


Figure S46. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2d**.

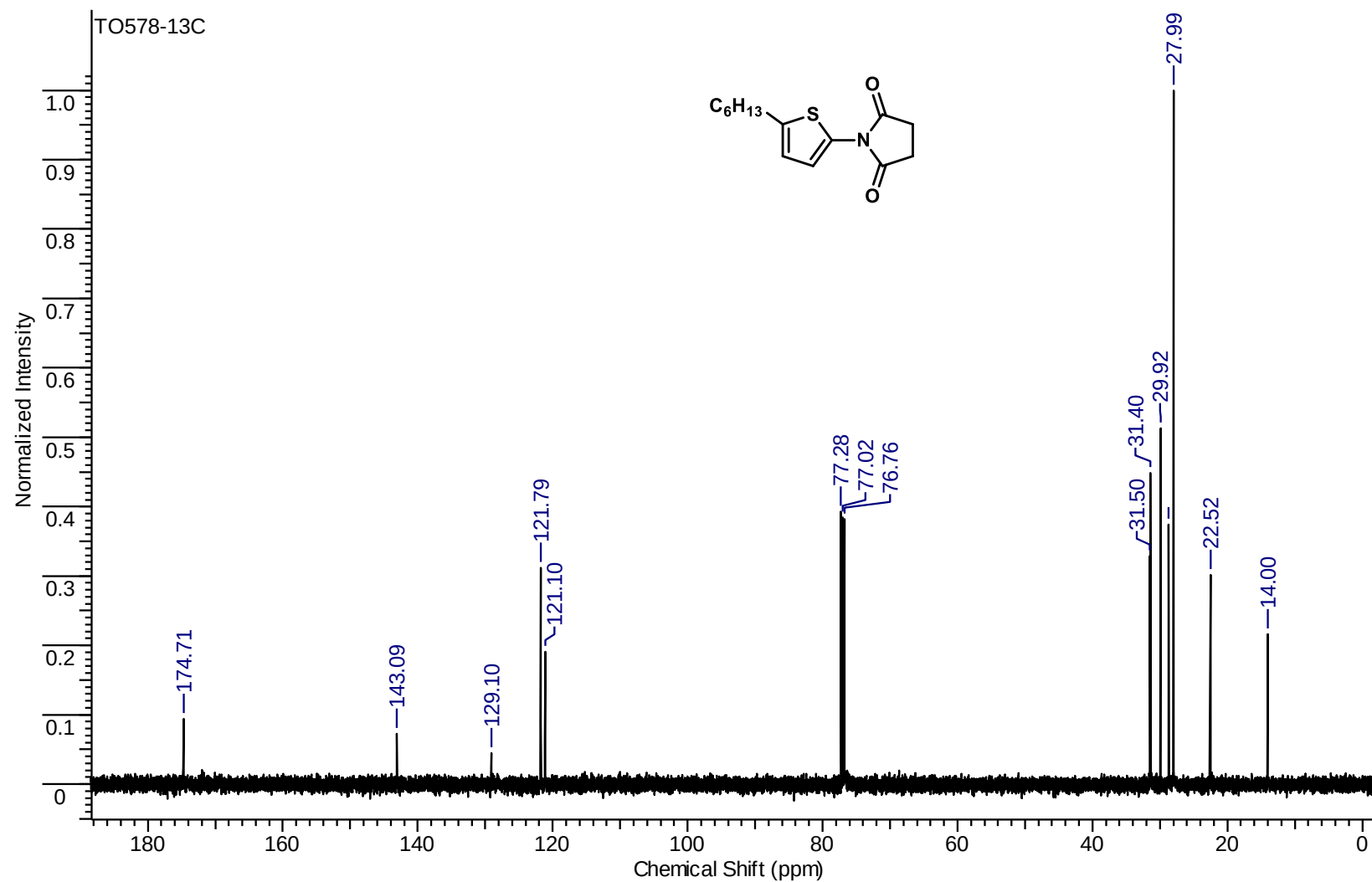


Figure S47. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2d**.

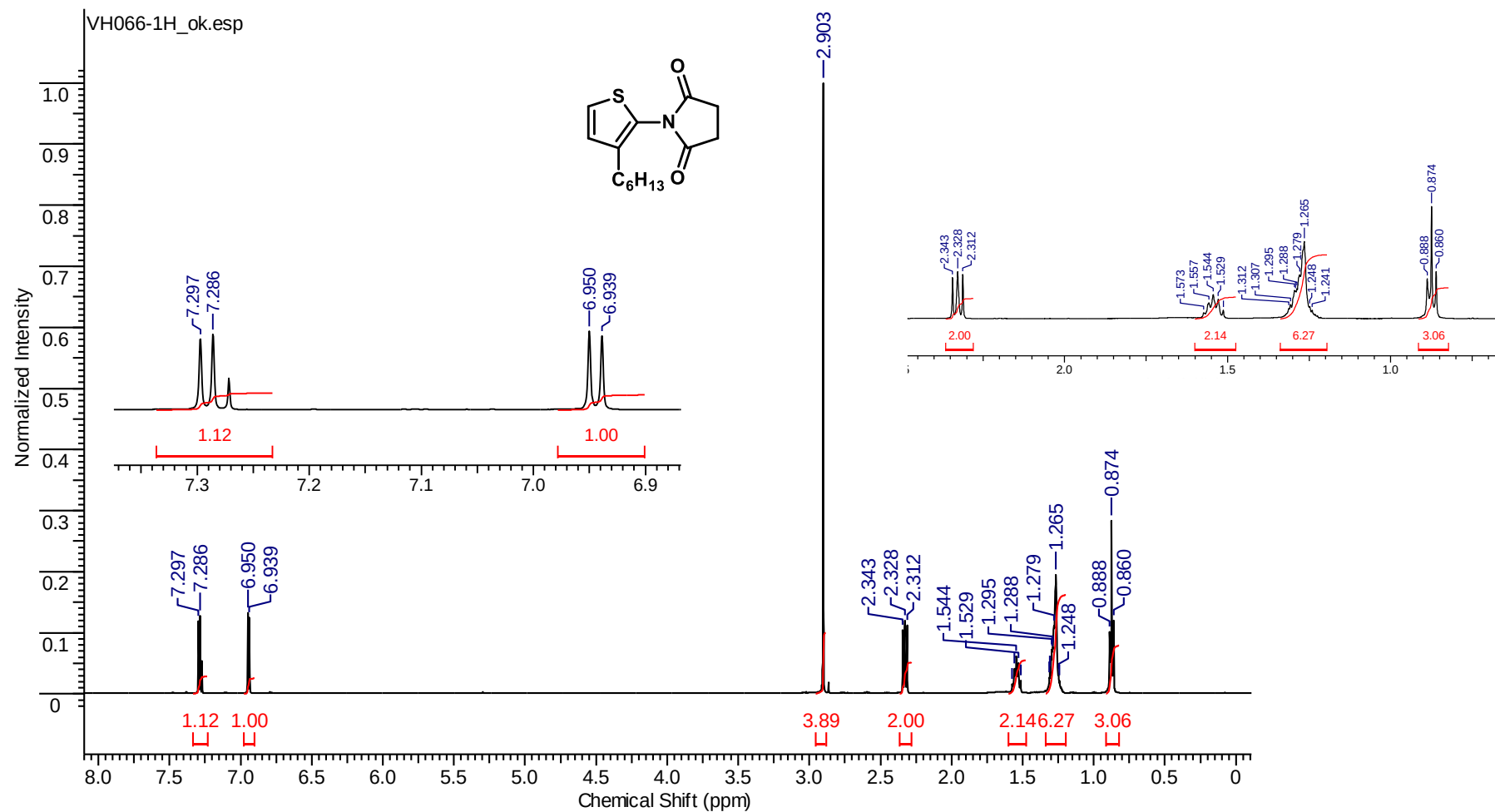


Figure S48. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2e**.

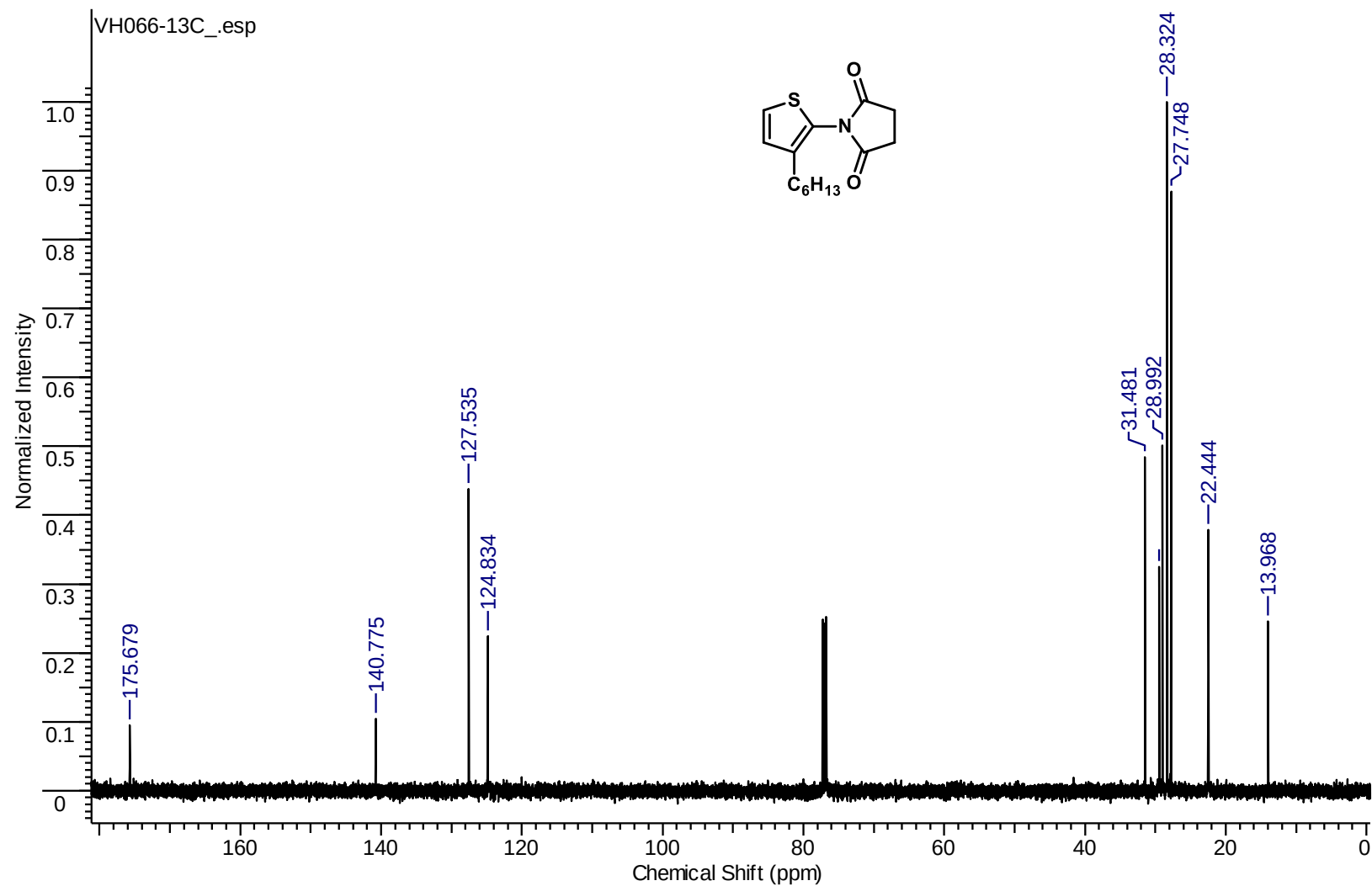


Figure S49. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2e**.

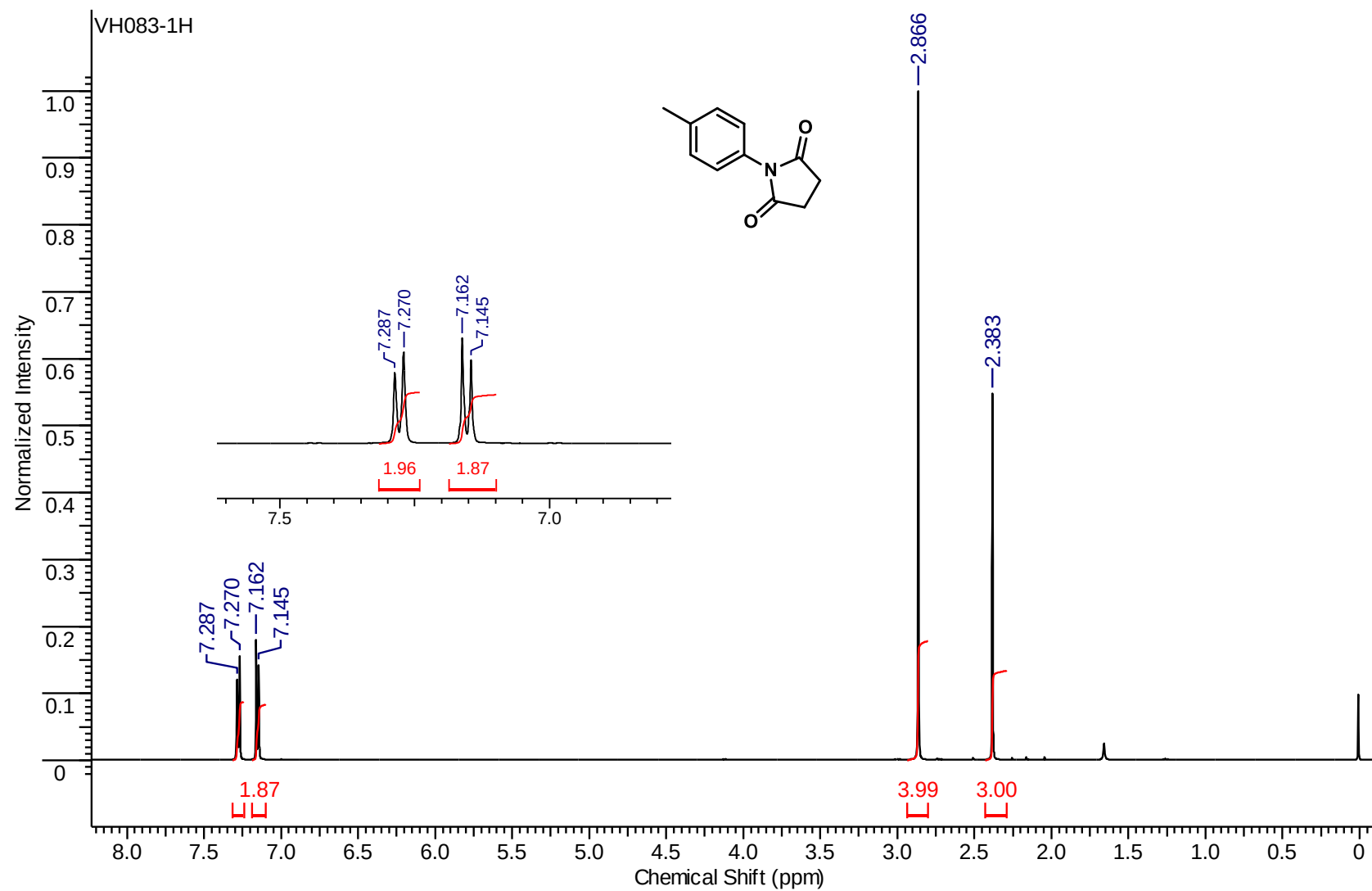


Figure S50. ¹H NMR spectra (500 MHz, CDCl₃) of compound **2f**.

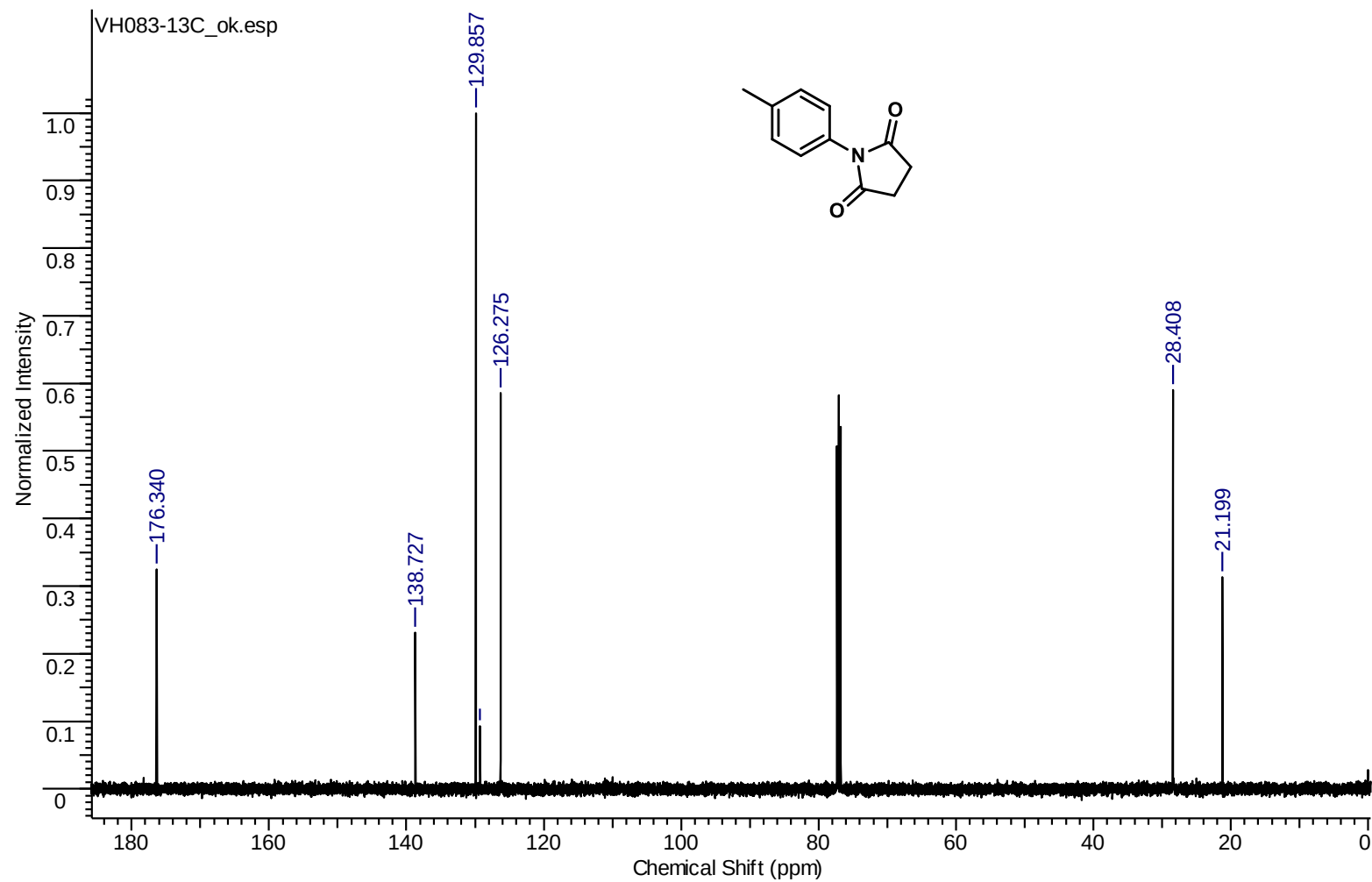


Figure S51. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2f**.

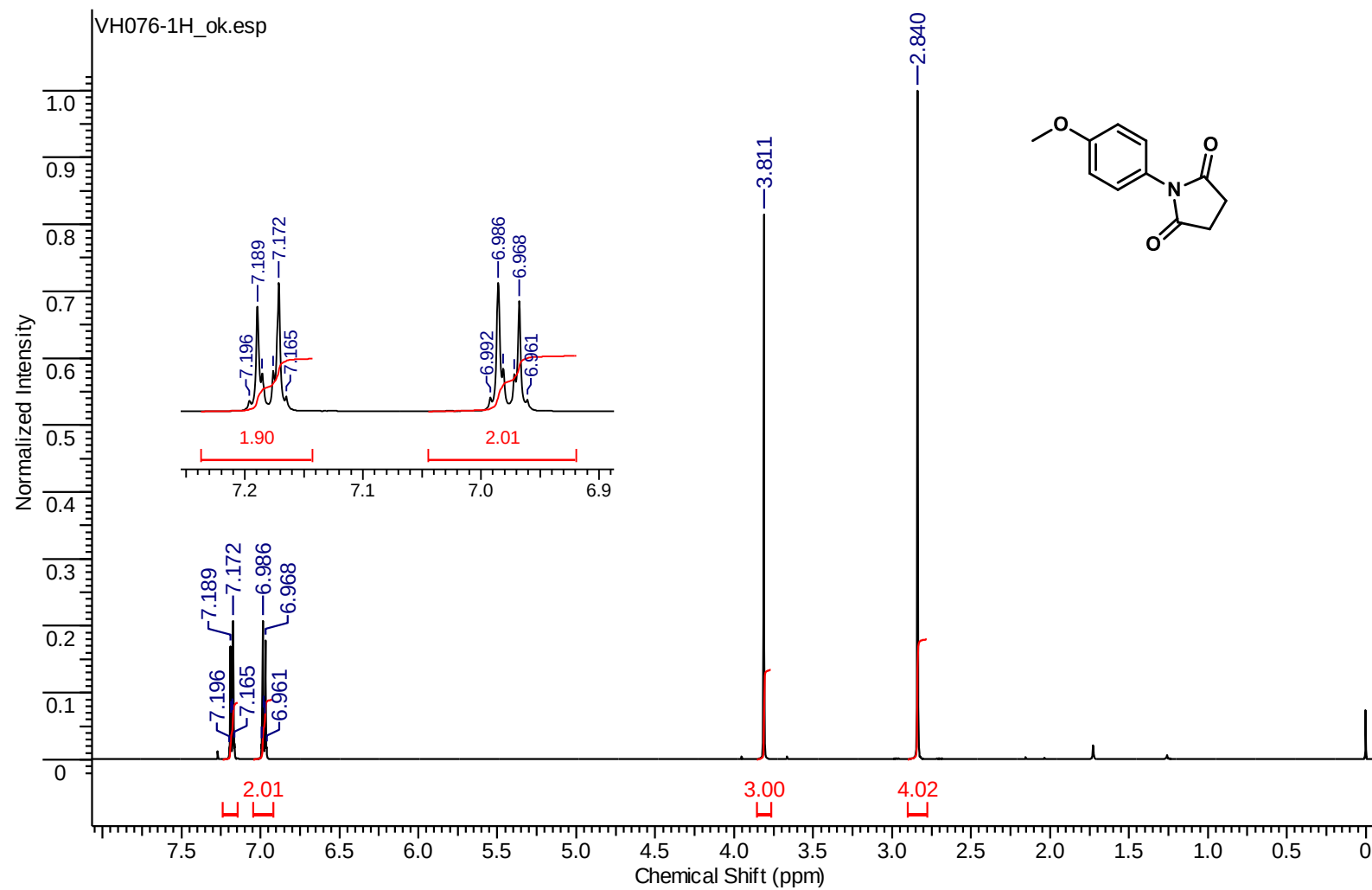


Figure S52. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2g**.

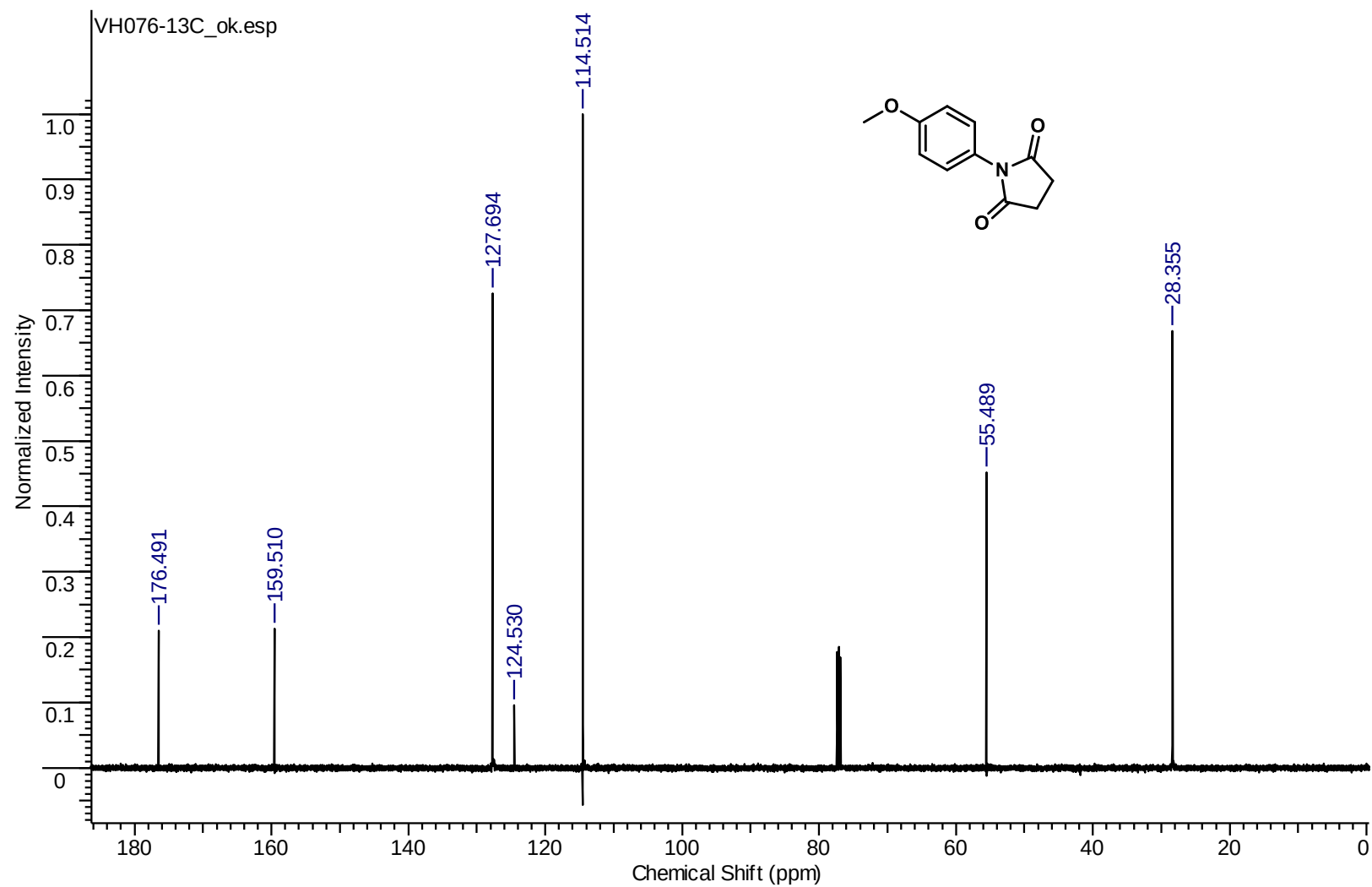


Figure S53. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2g**.

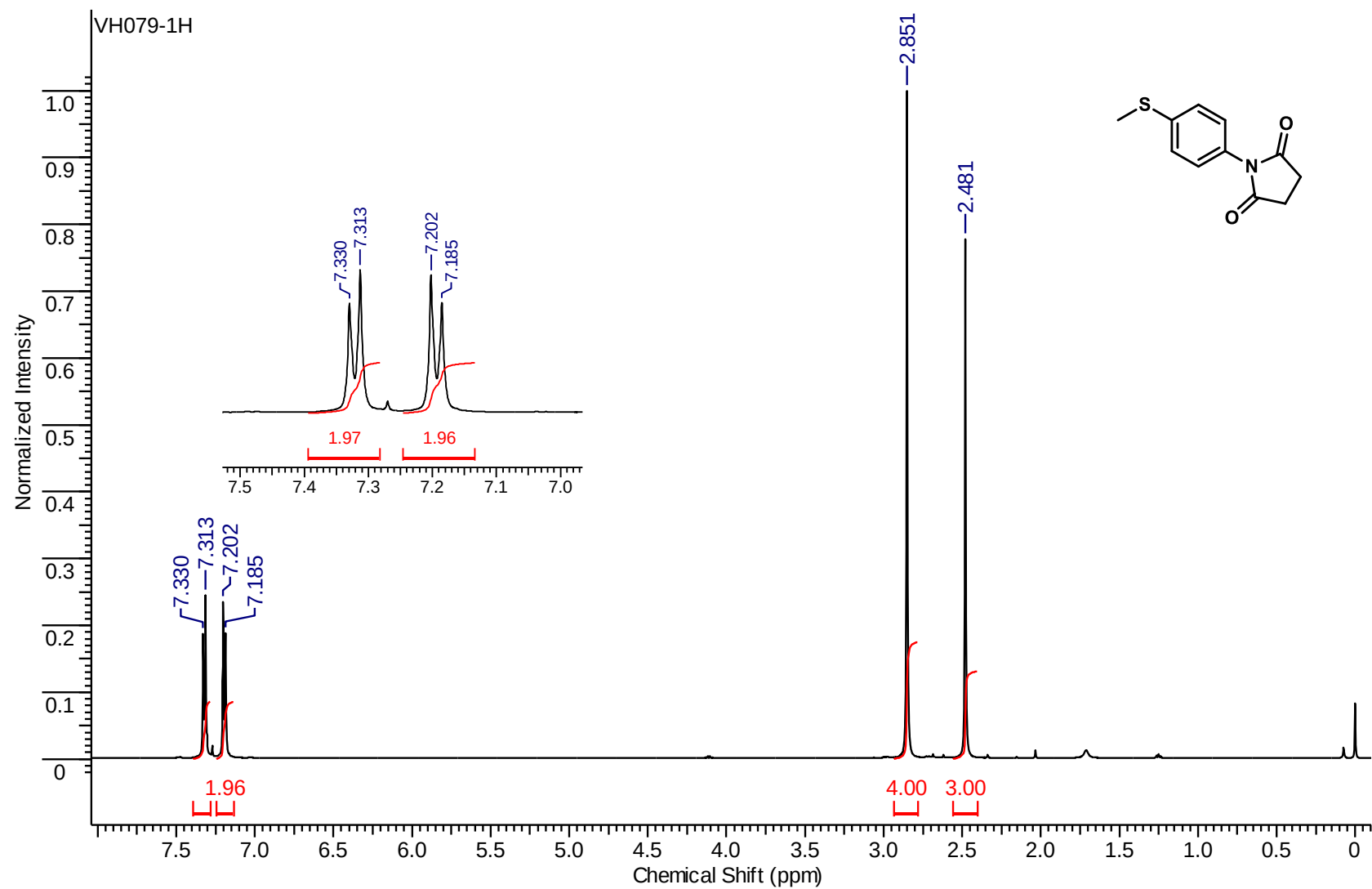


Figure S54. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2h**.

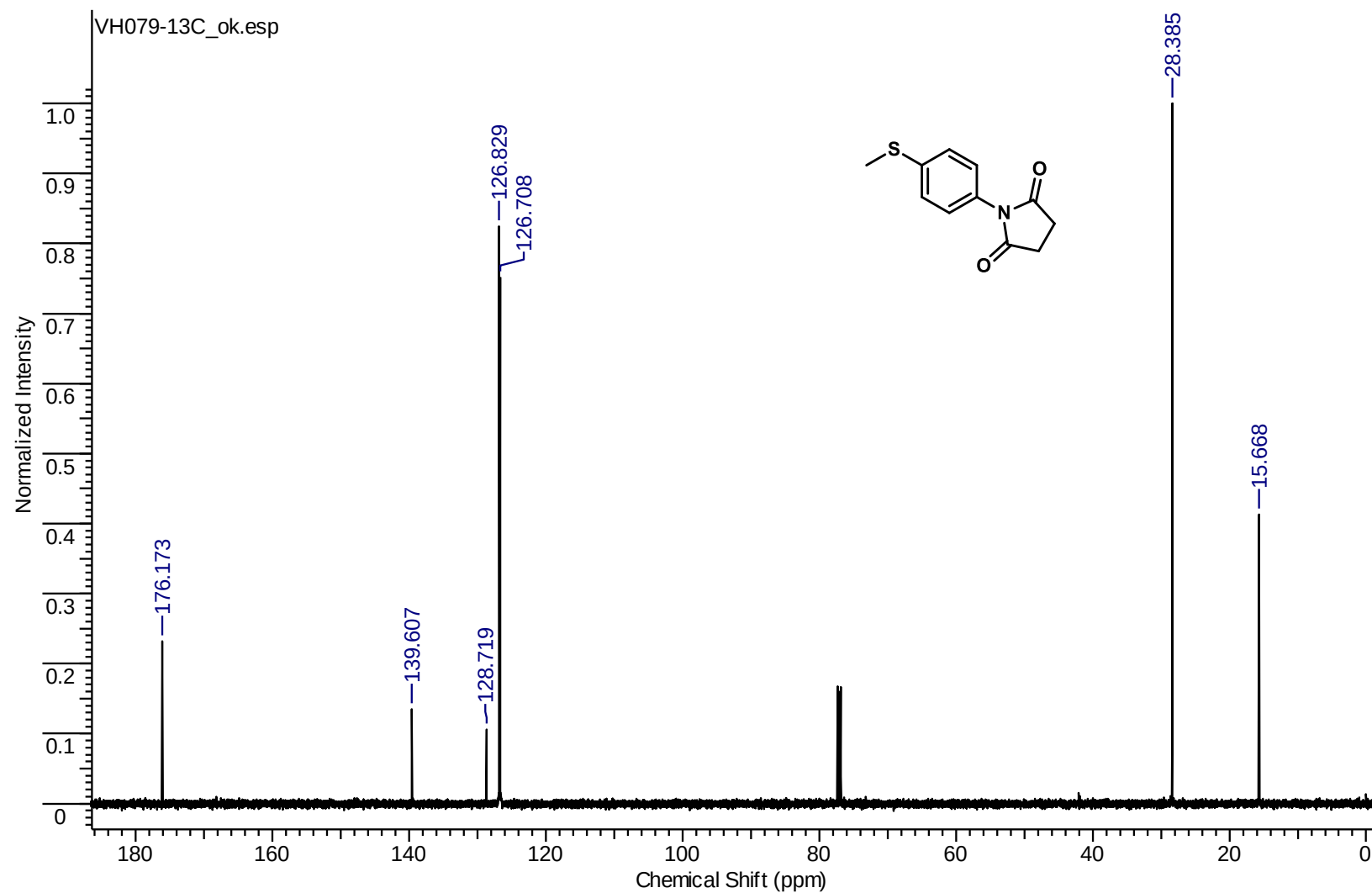


Figure S55. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2h**.

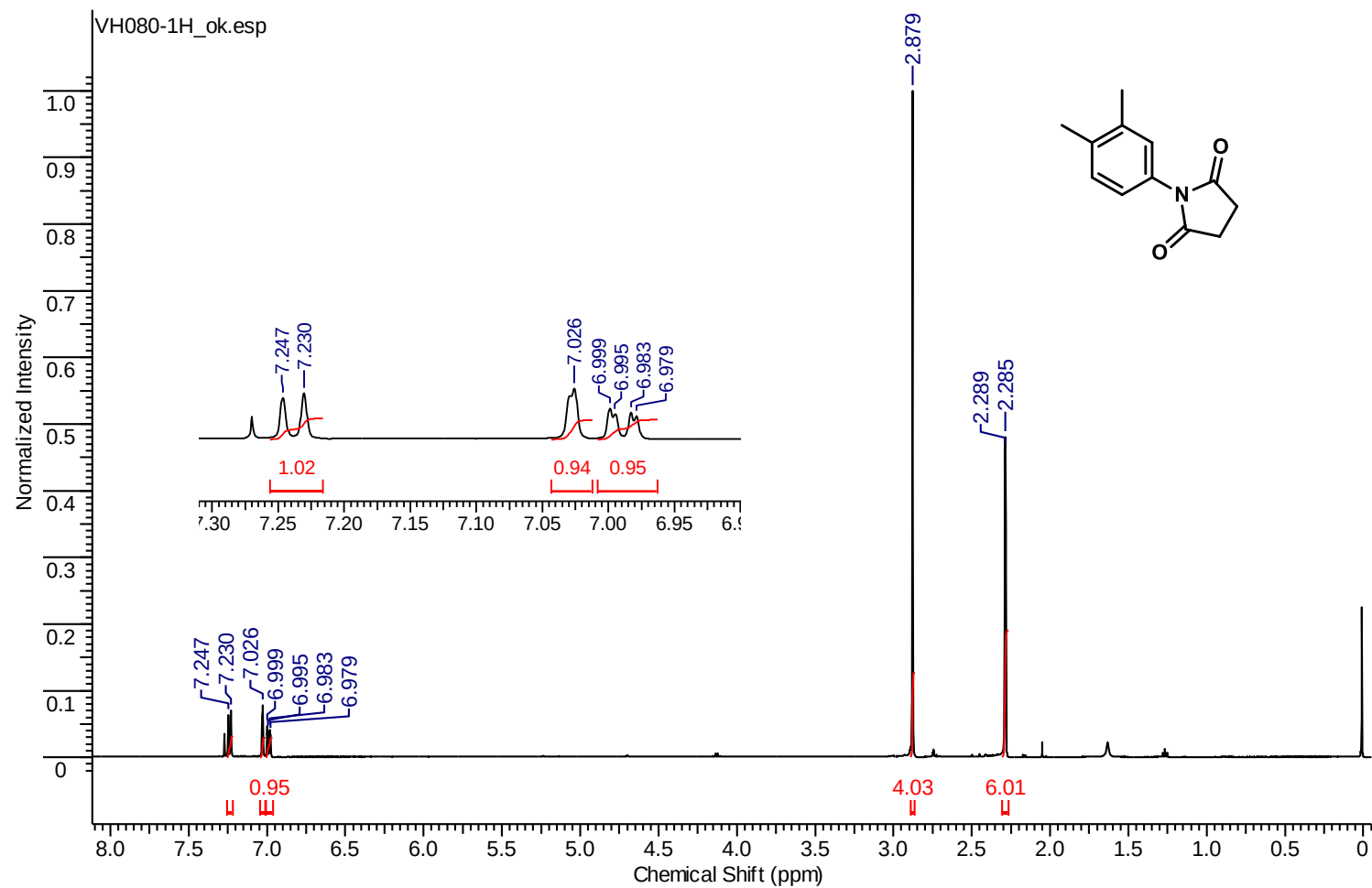


Figure S56. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2i**.

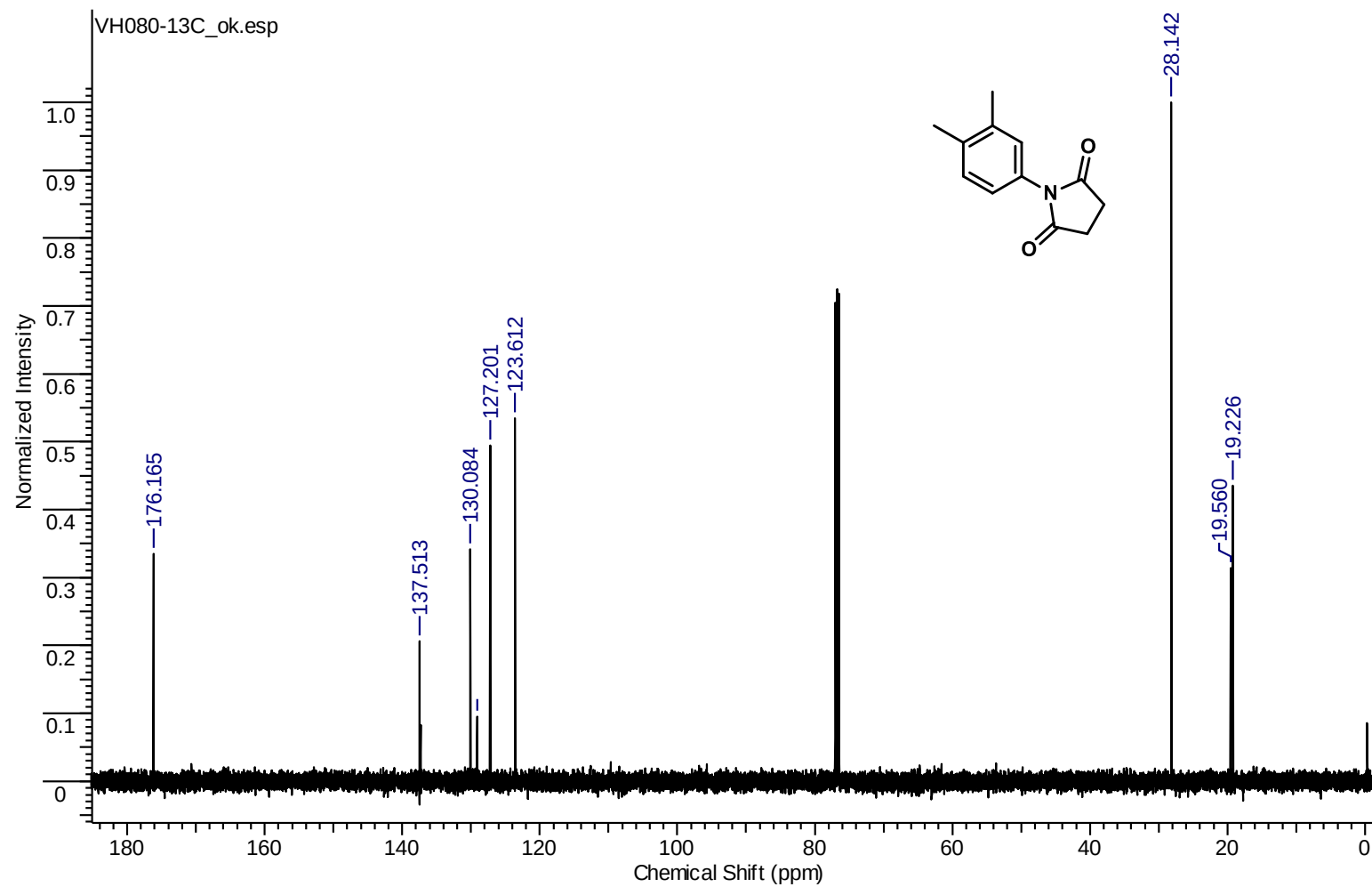


Figure S57. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2i**.

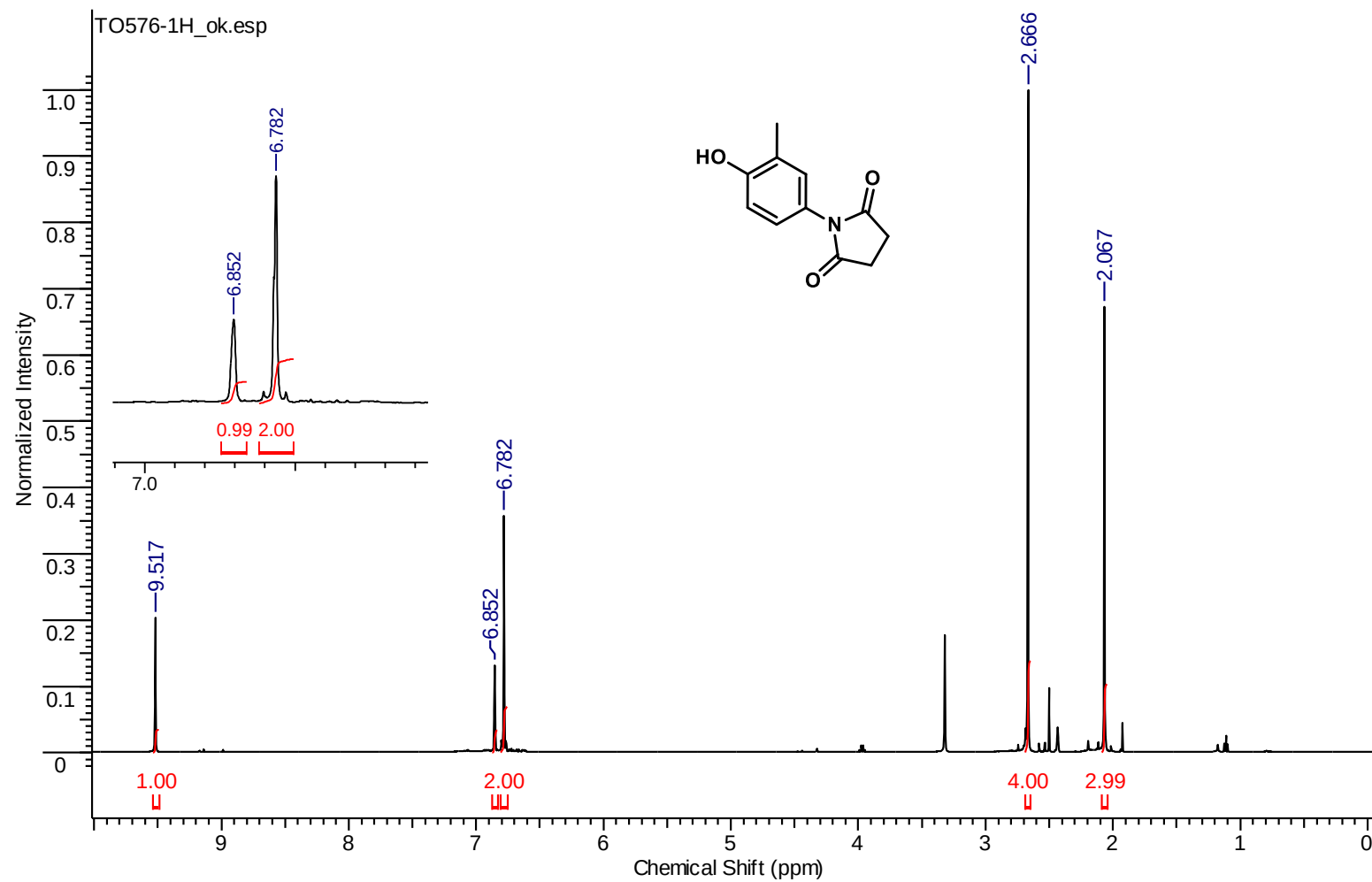


Figure S58. ¹H NMR spectra (500 MHz, DMSO-D₆) of compound **2j**.

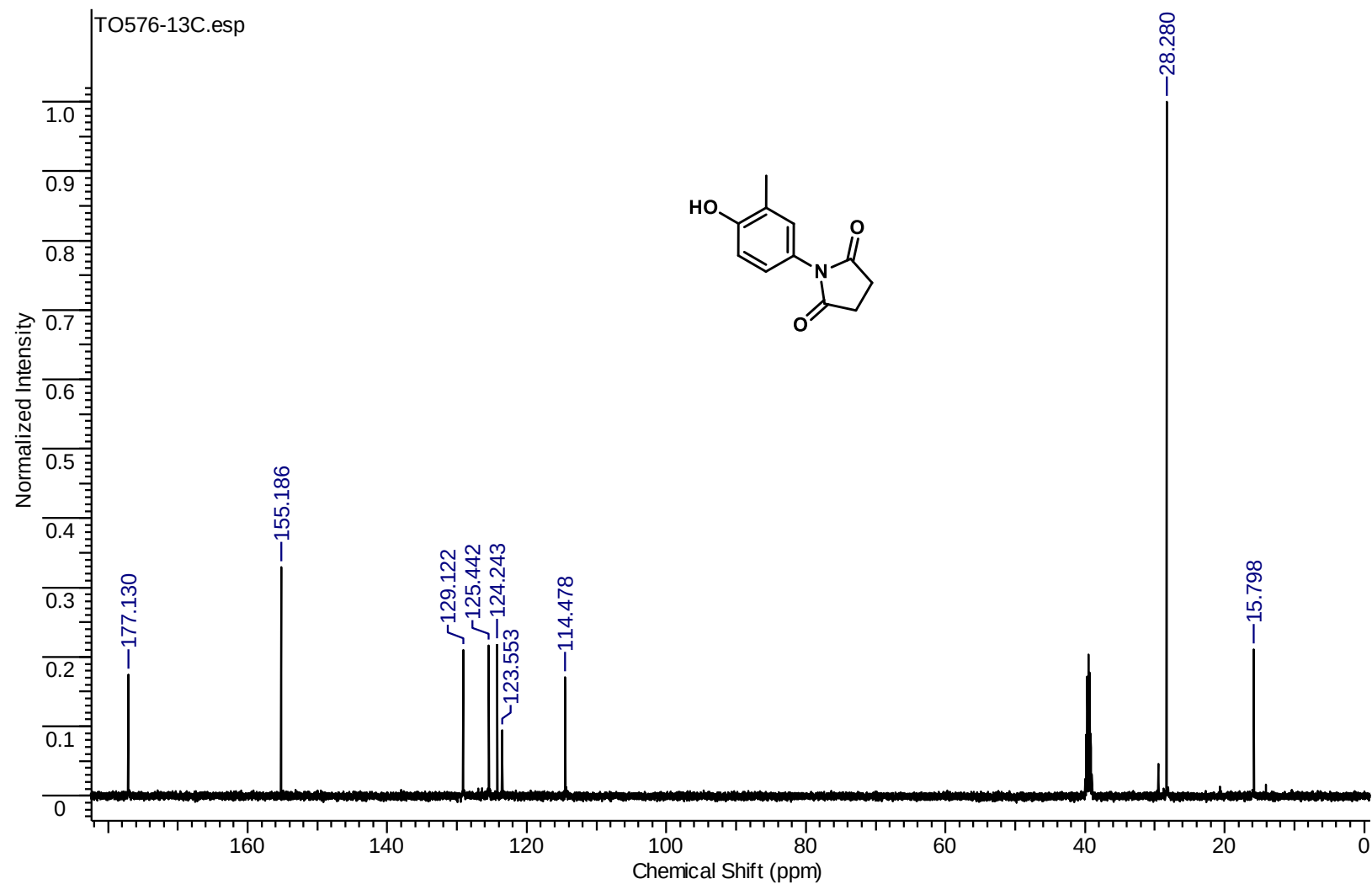


Figure S59. ^{13}C NMR spectra (125 MHz, $\text{DMSO-}D_6$) of compound **2j**.

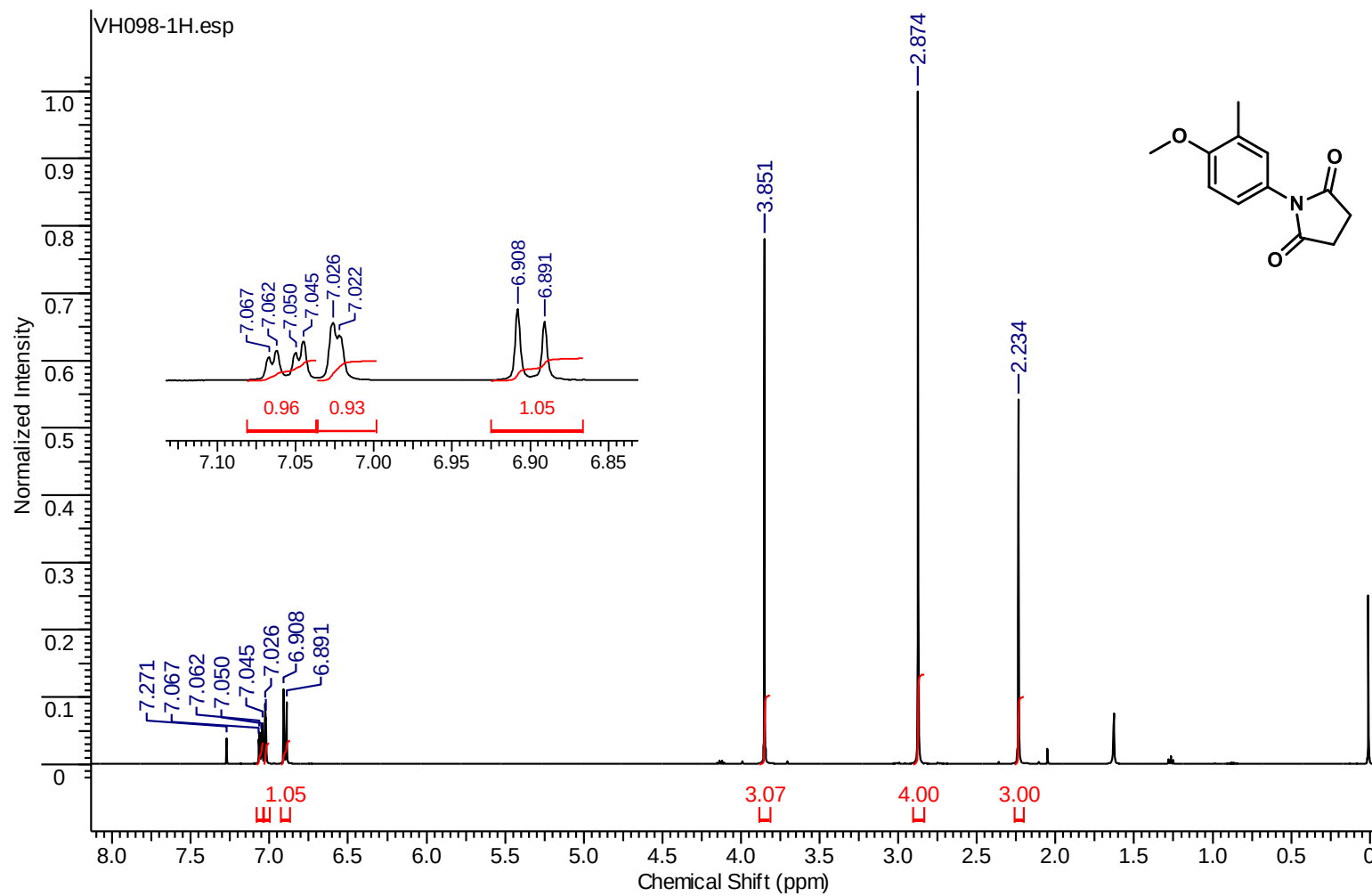


Figure S60. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2k**.

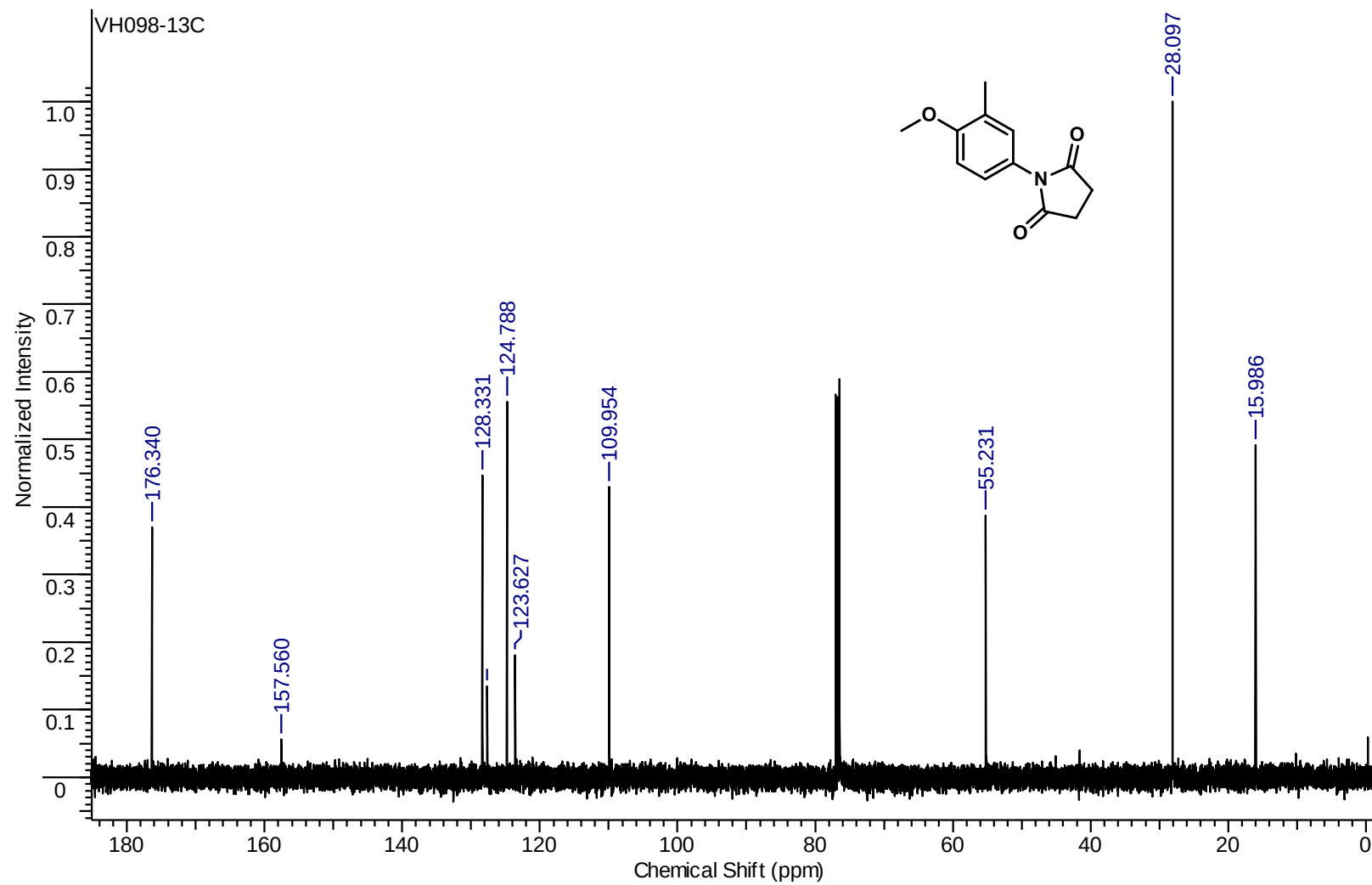


Figure S61. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2k**.

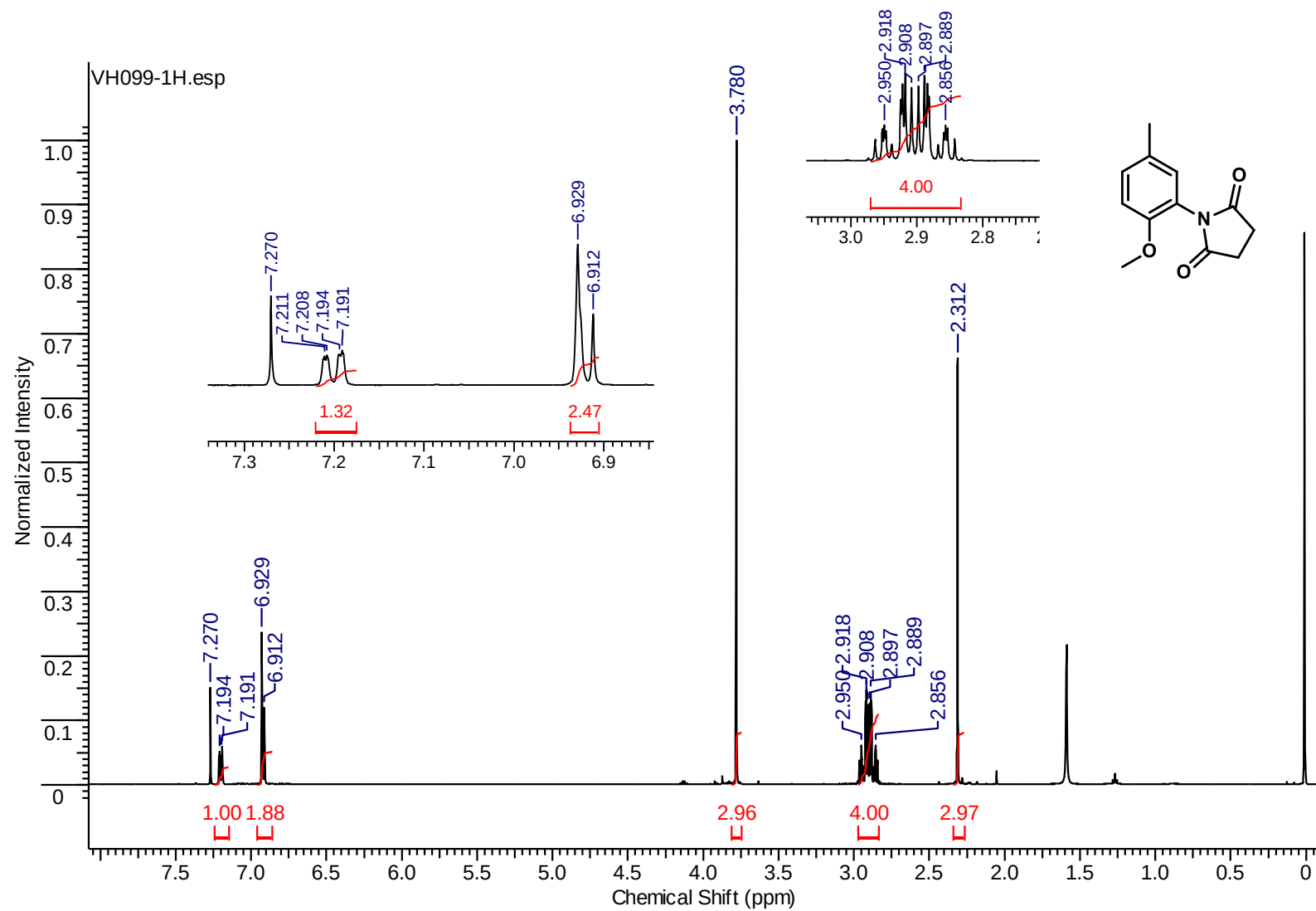


Figure S62. ¹H NMR spectra (500 MHz, CDCl₃) of compound **2l**.

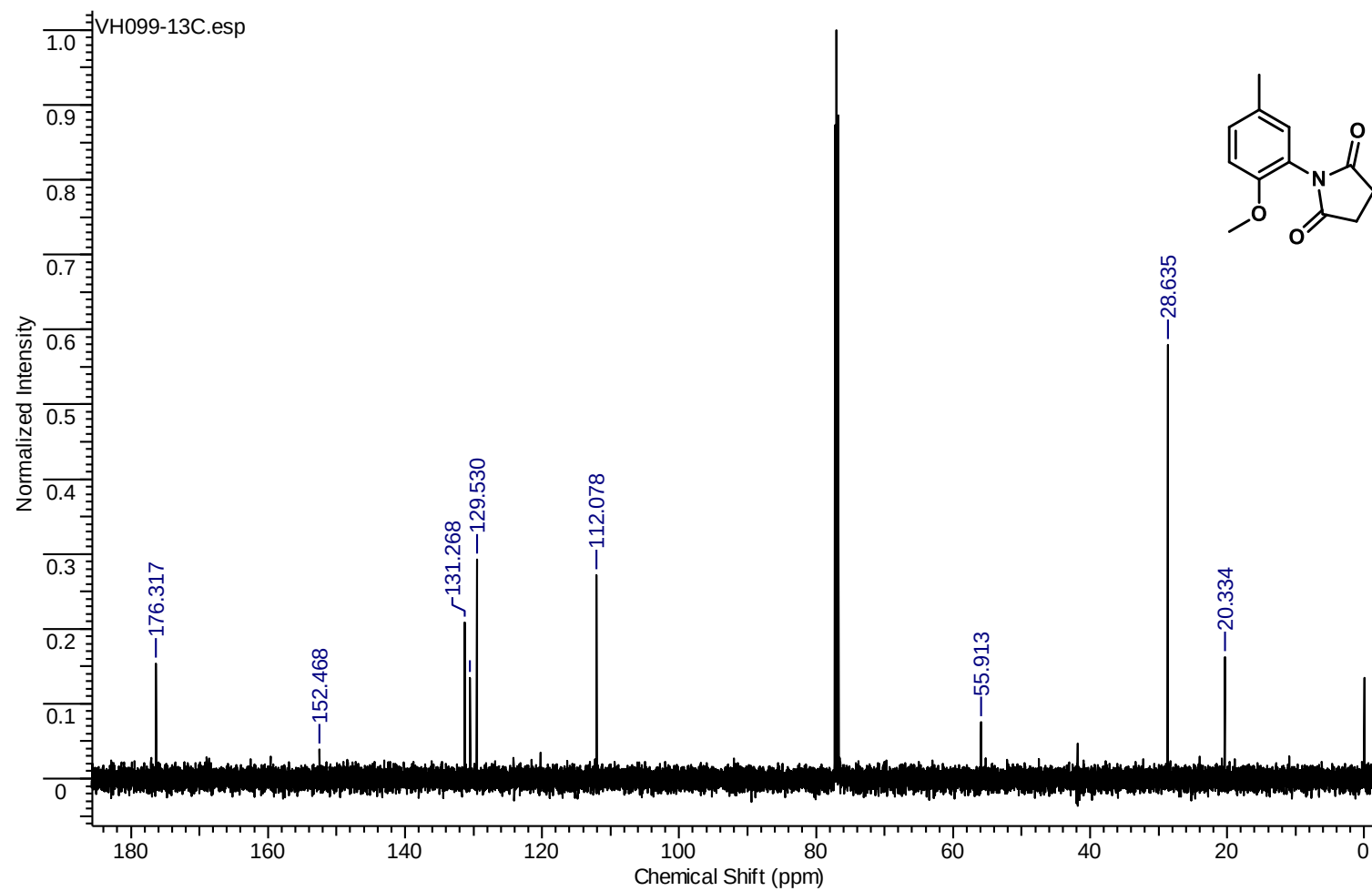


Figure S63. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2l**.

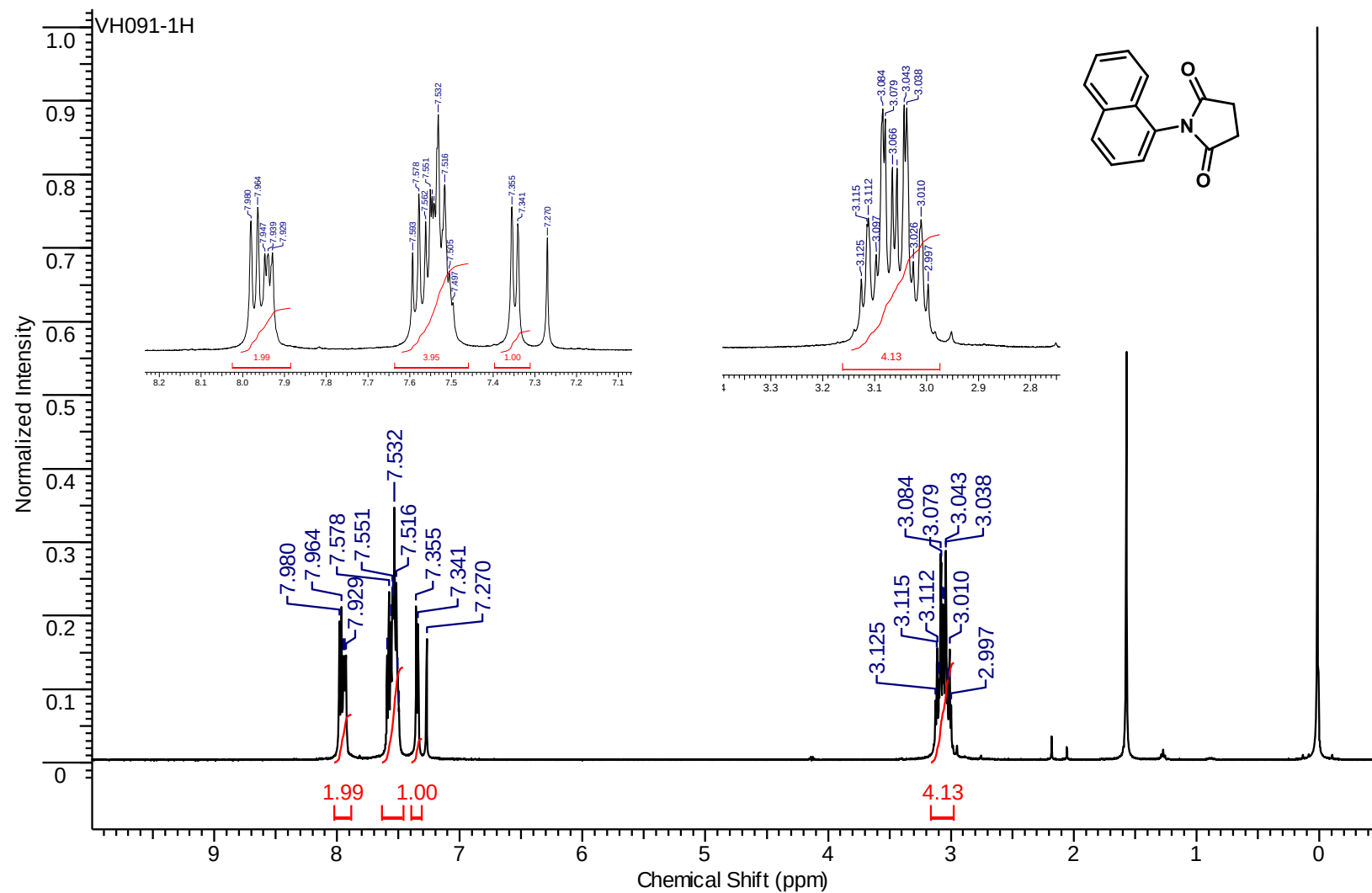


Figure S64. ^1H NMR spectra (500 MHz, CDCl_3) of compound **2m**.

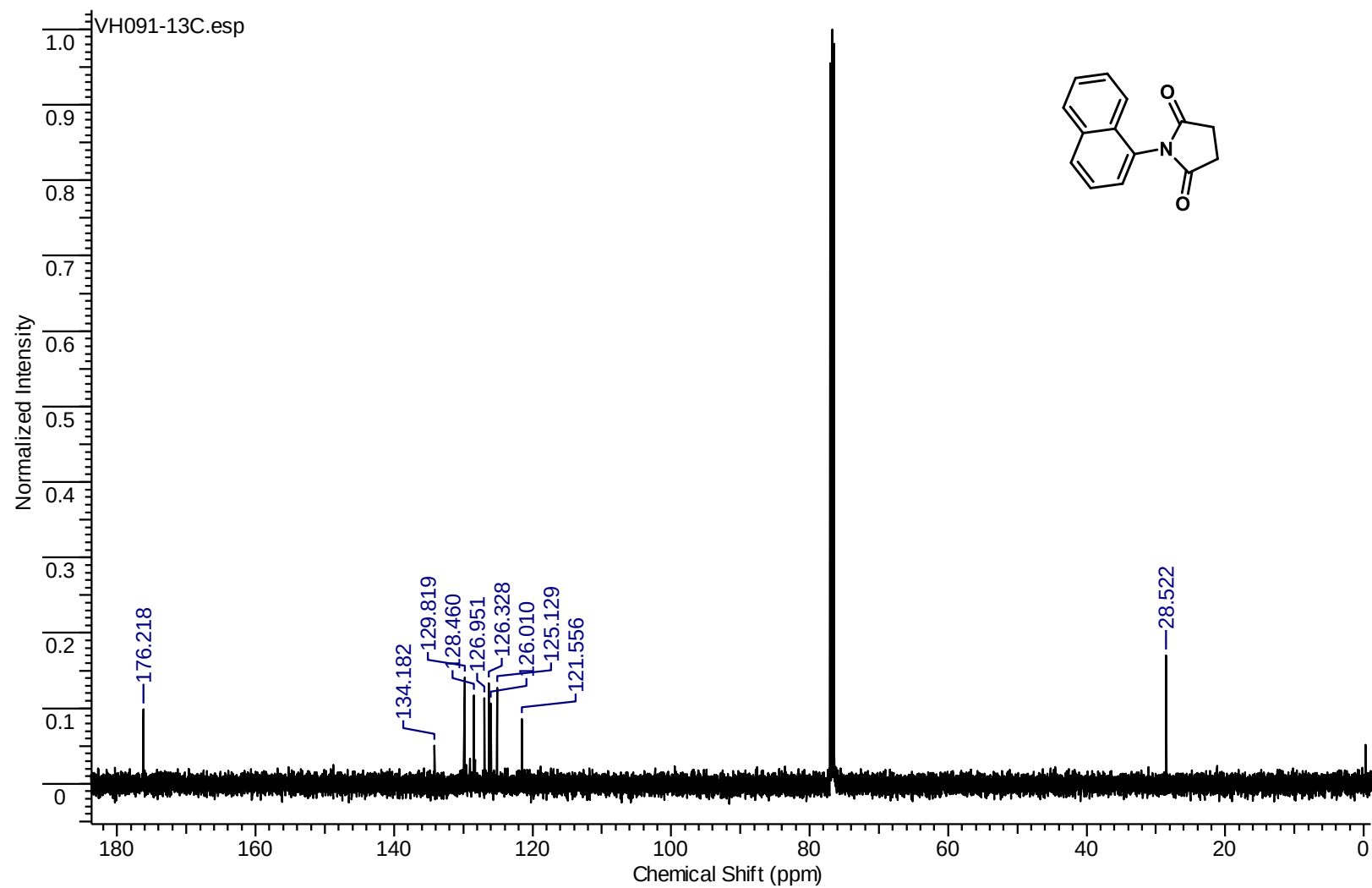


Figure S65. ^{13}C NMR spectra (125 MHz, CDCl_3) of compound **2m**.

