

Supplementary Materials

The ^1H -NMR, MS and IR spectra of phenylurea derivatives (3a–3i, 4a–4i) were listed below:

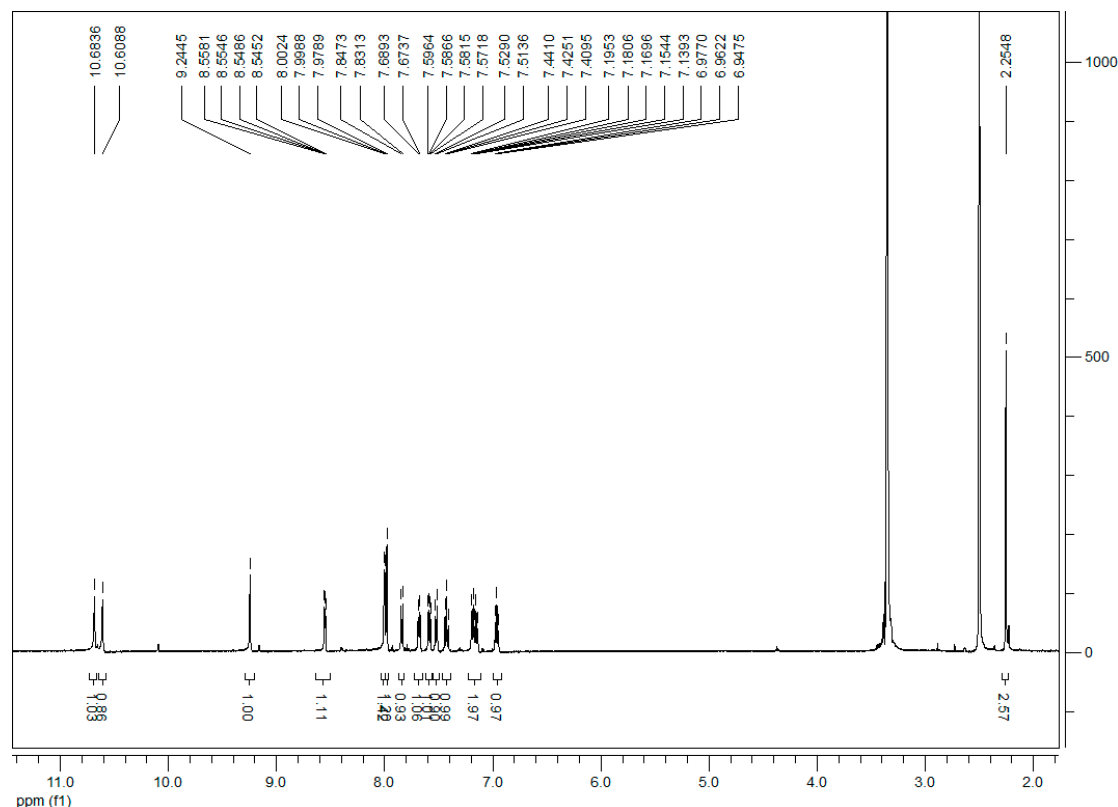


Figure S1. ^1H -NMR of compound 3a (500 MHz, $\text{DMSO}-d_6$).

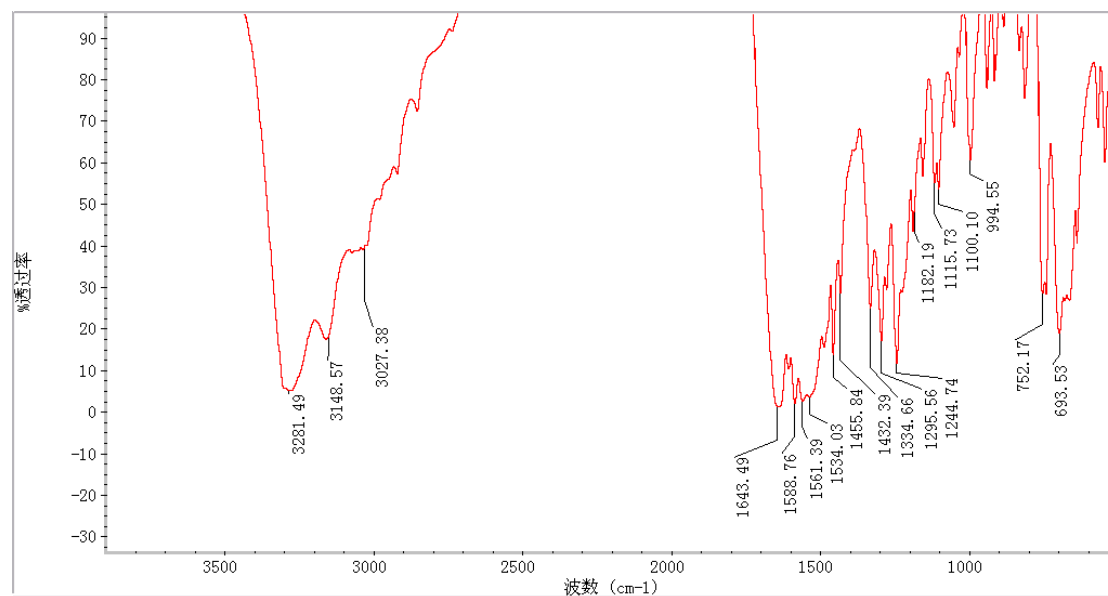


Figure S2. IR of compound 3a.

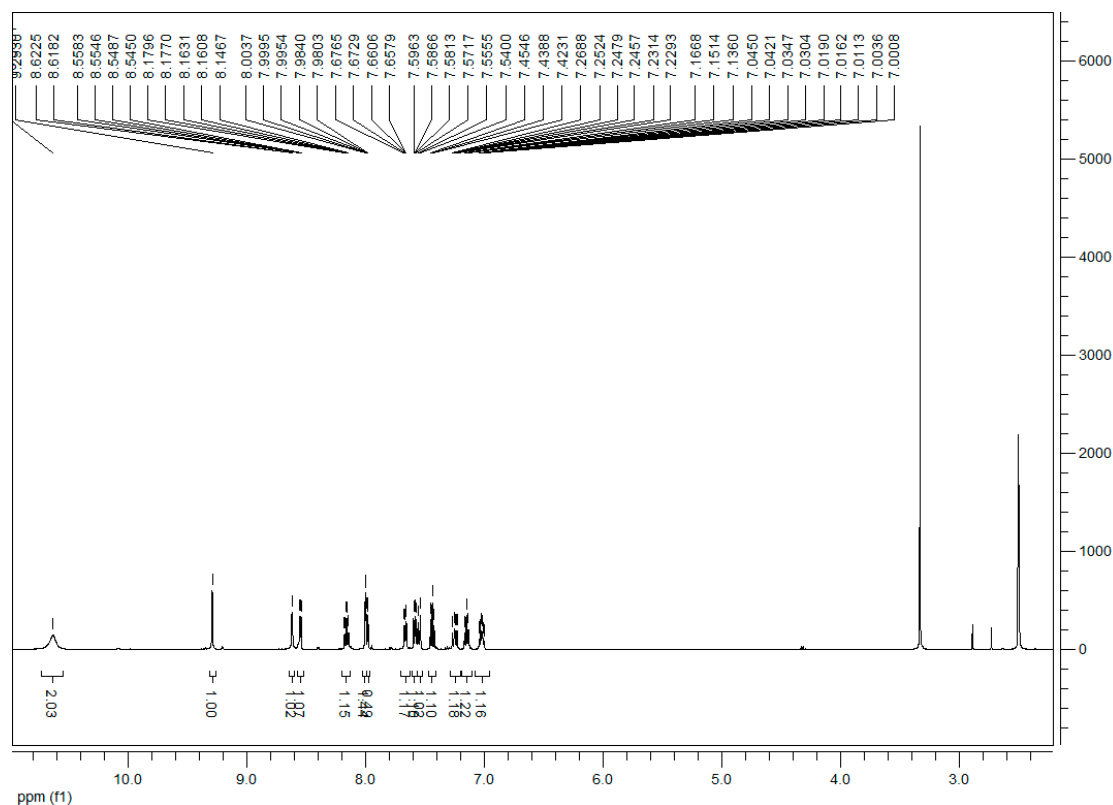


Figure S3. ¹H-NMR of compound **3b** (500 MHz, DMSO-*d*₆).

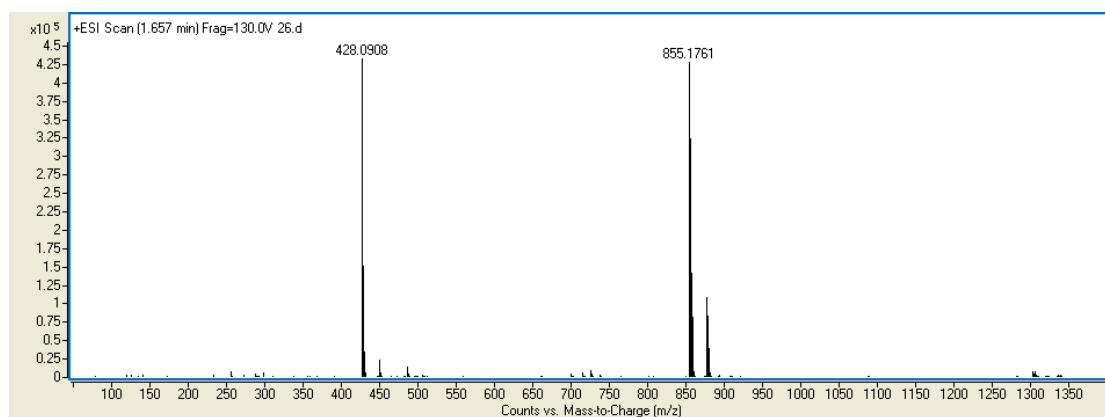


Figure S4. HR-ESI-MS of compound **3b**.

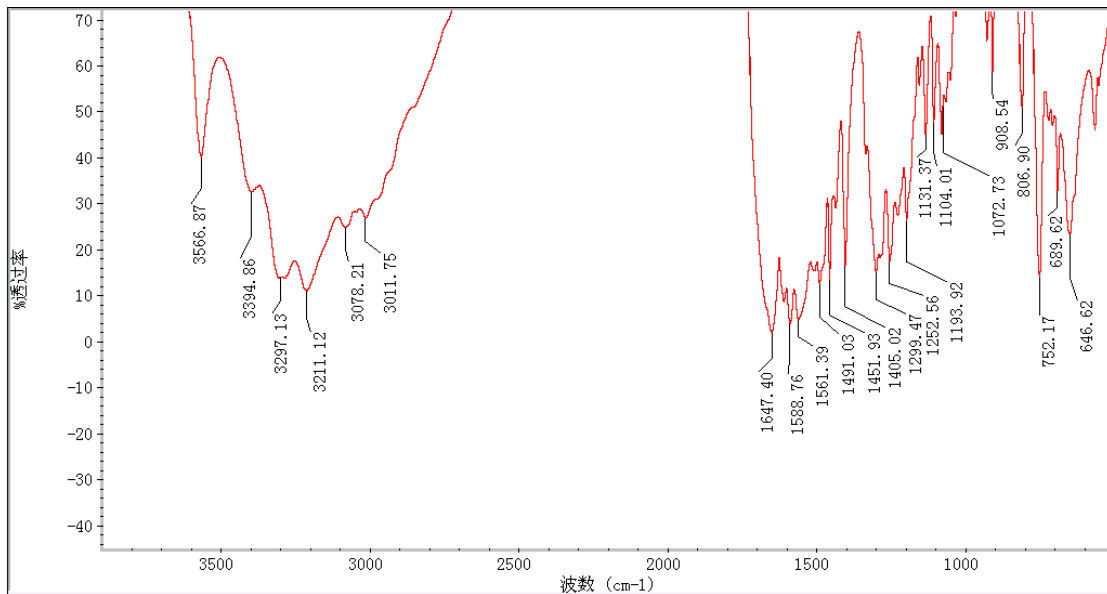


Figure S5. IR of compound **3b**.

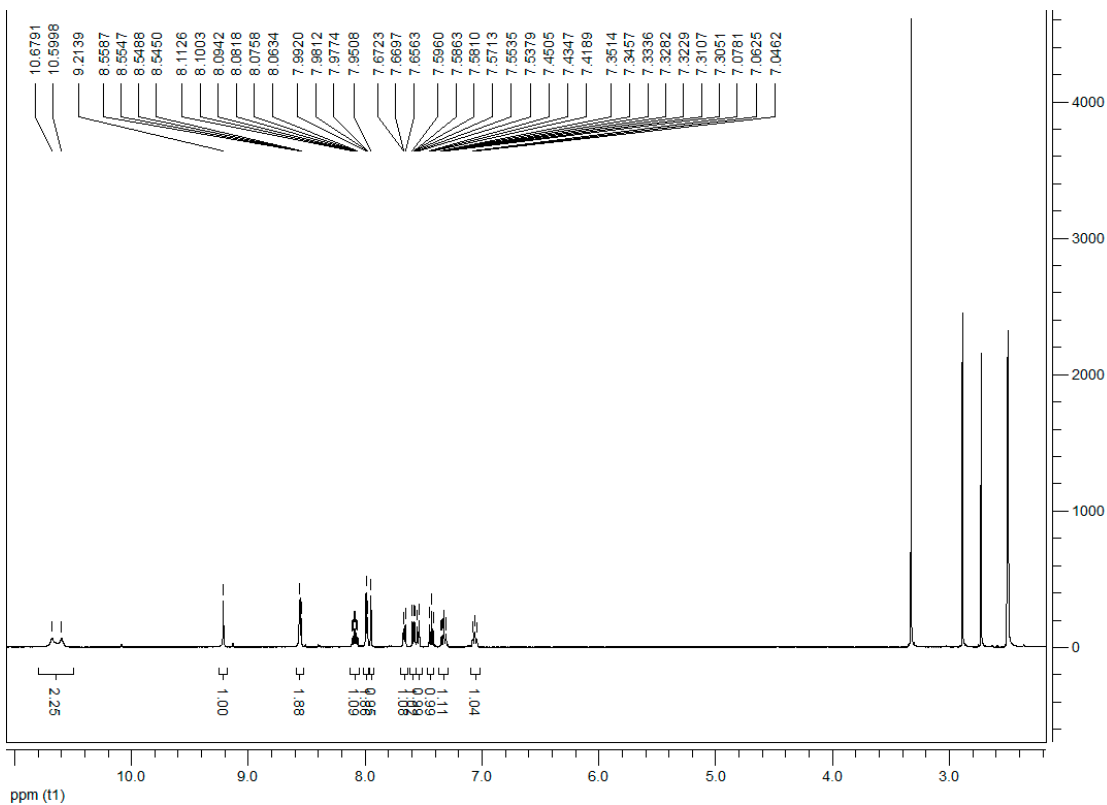


Figure S6. ^1H -NMR of compound **3c** (500 MHz, $\text{DMSO}-d_6$).

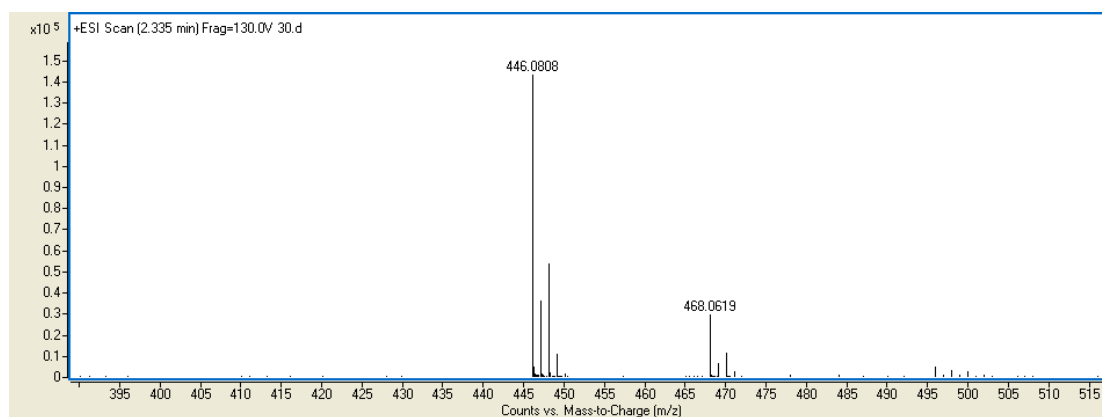


Figure S7. HR-ESI-MS of compound 3c.

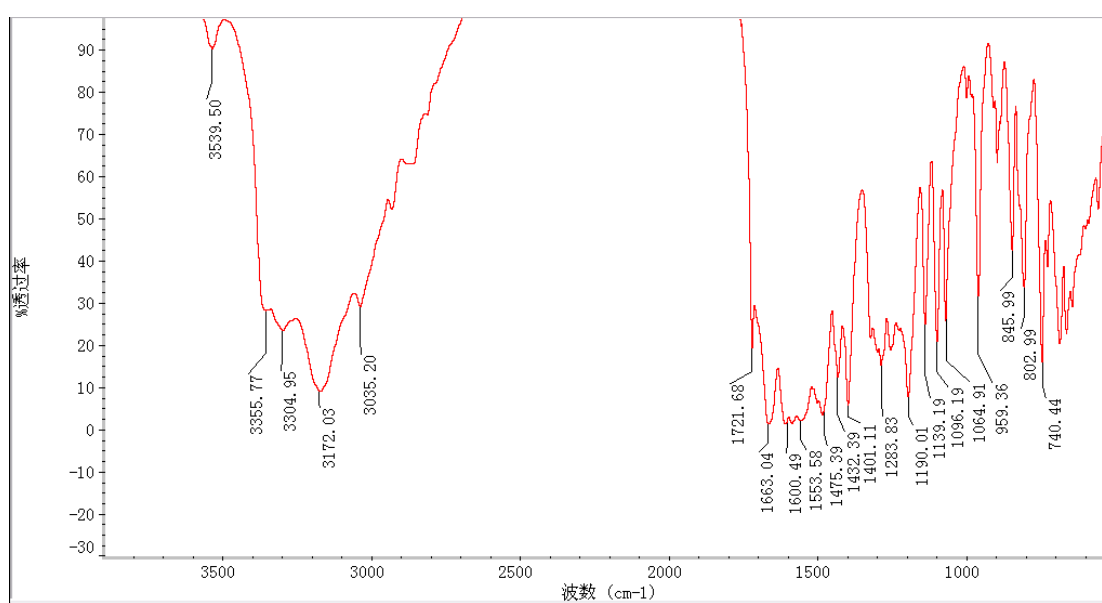


Figure S8. IR of compound 3c.

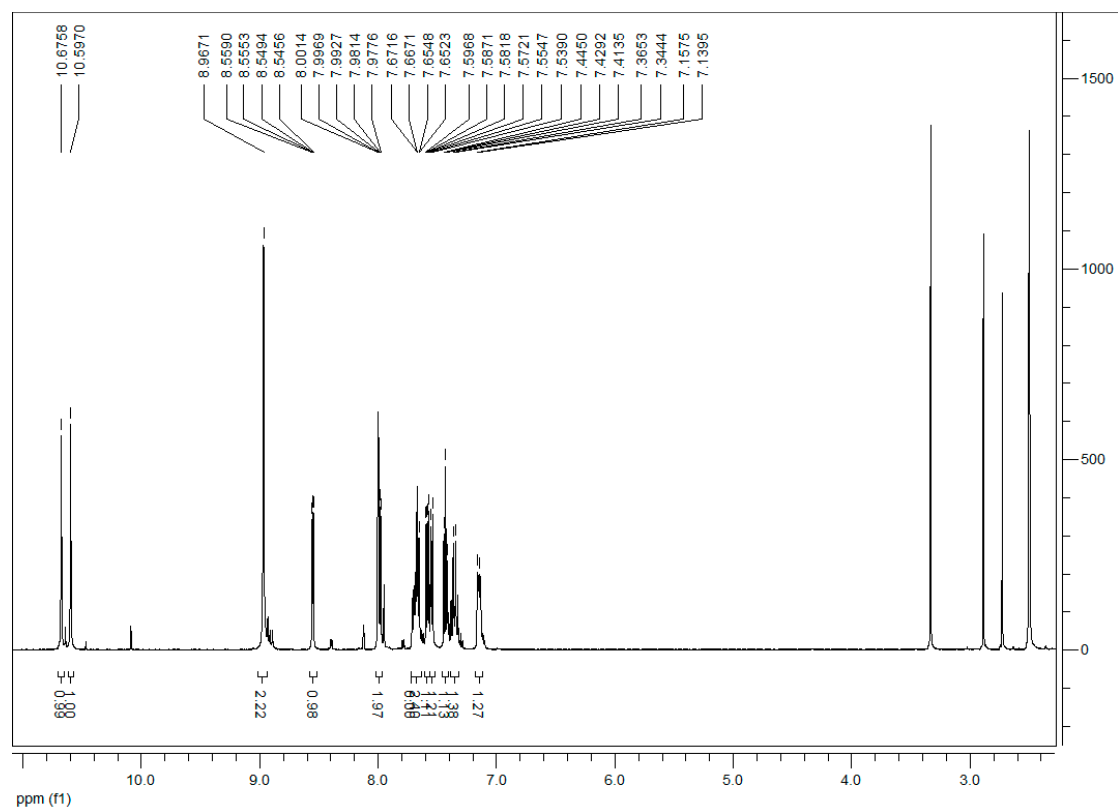


Figure S9. ¹H-NMR of compound **3d** (500 MHz, DMSO-*d*₆).

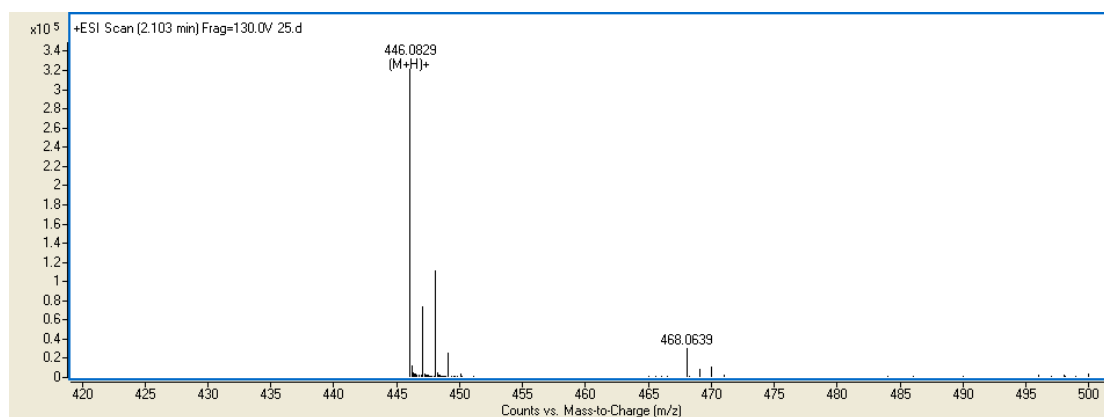


Figure S10. HR-ESI-MS of compound **3d**.

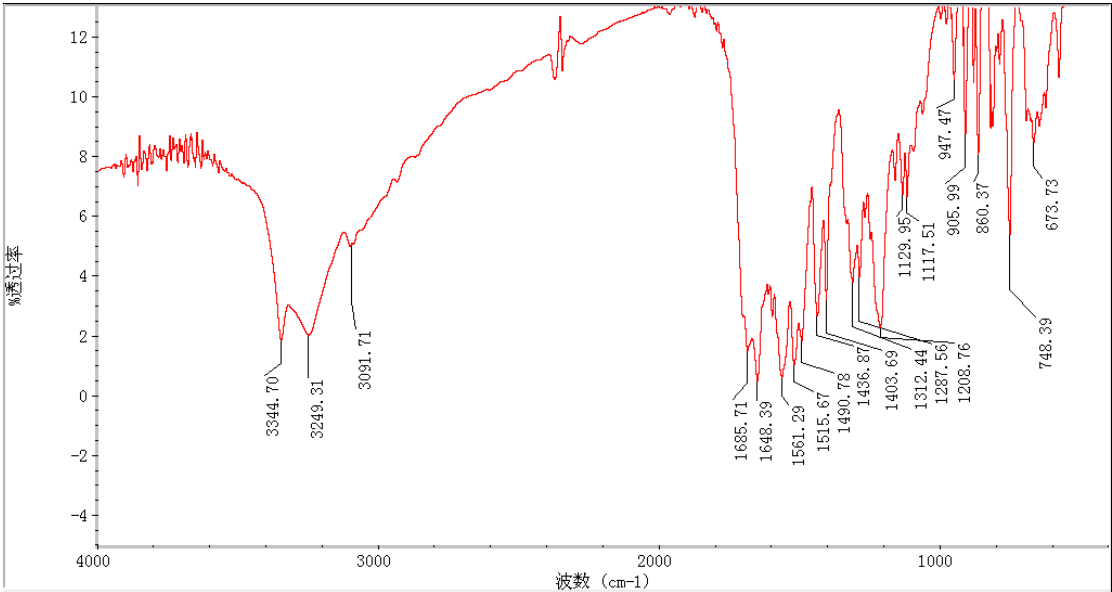


Figure S11. IR of compound **3d**

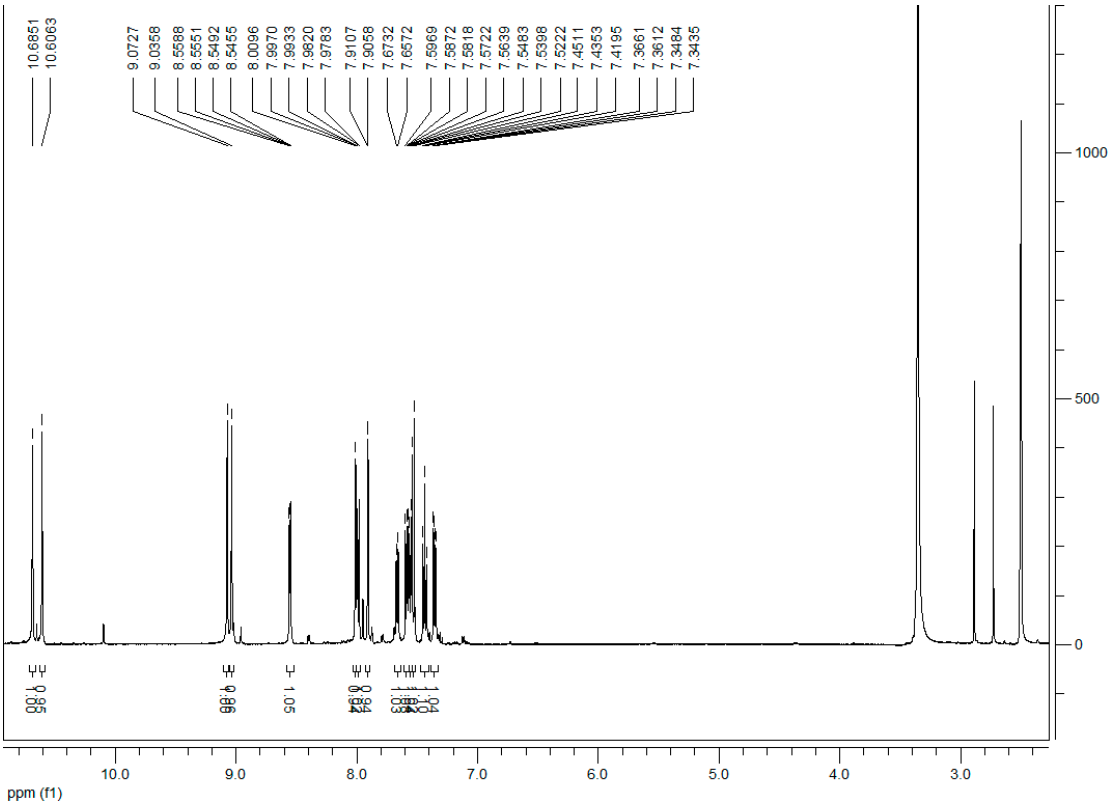


Figure S12. ^1H -NMR of compound **3e** (500 MHz, DMSO- d_6).

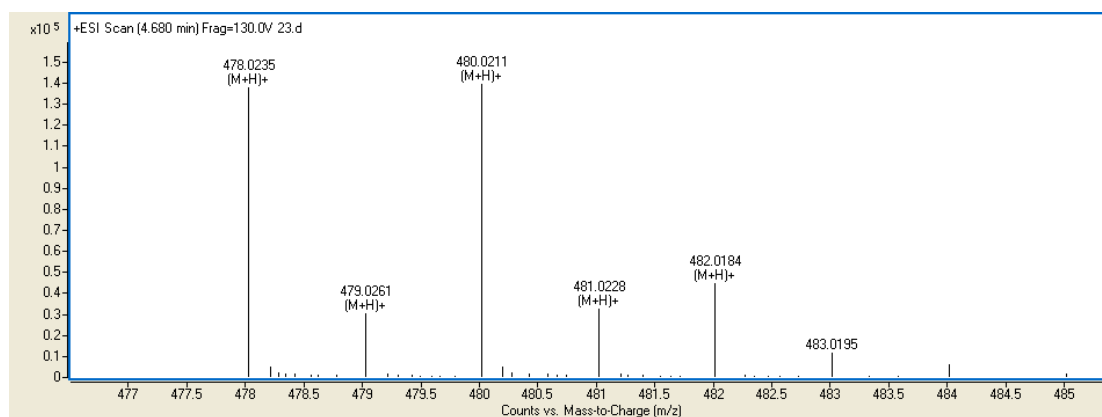


Figure S13. HR-ESI-MS of compound **3e**.

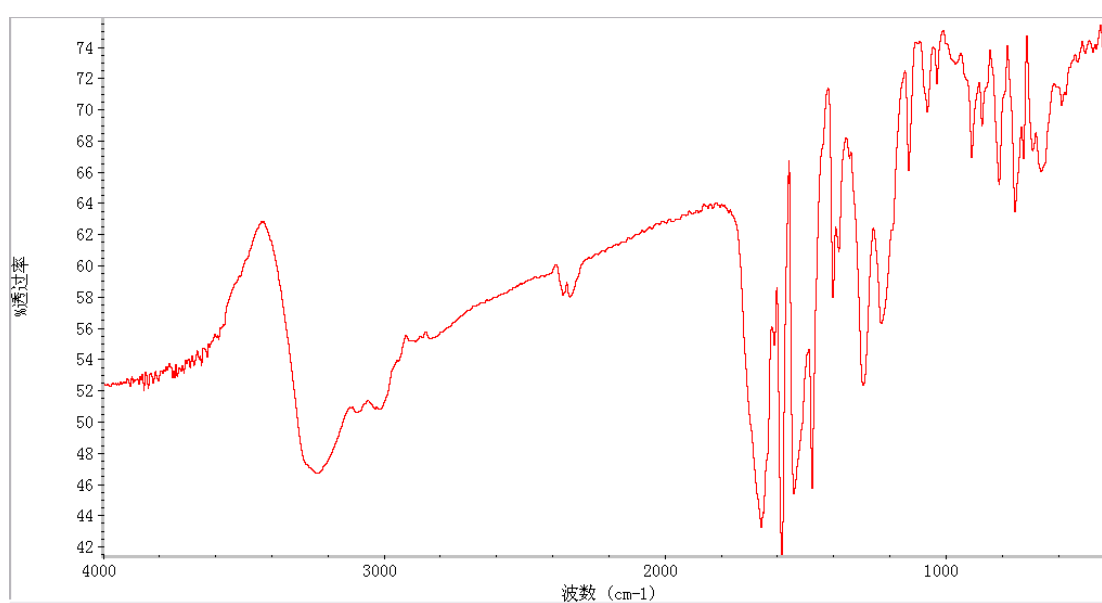


Figure S14. IR of compound **3e**.

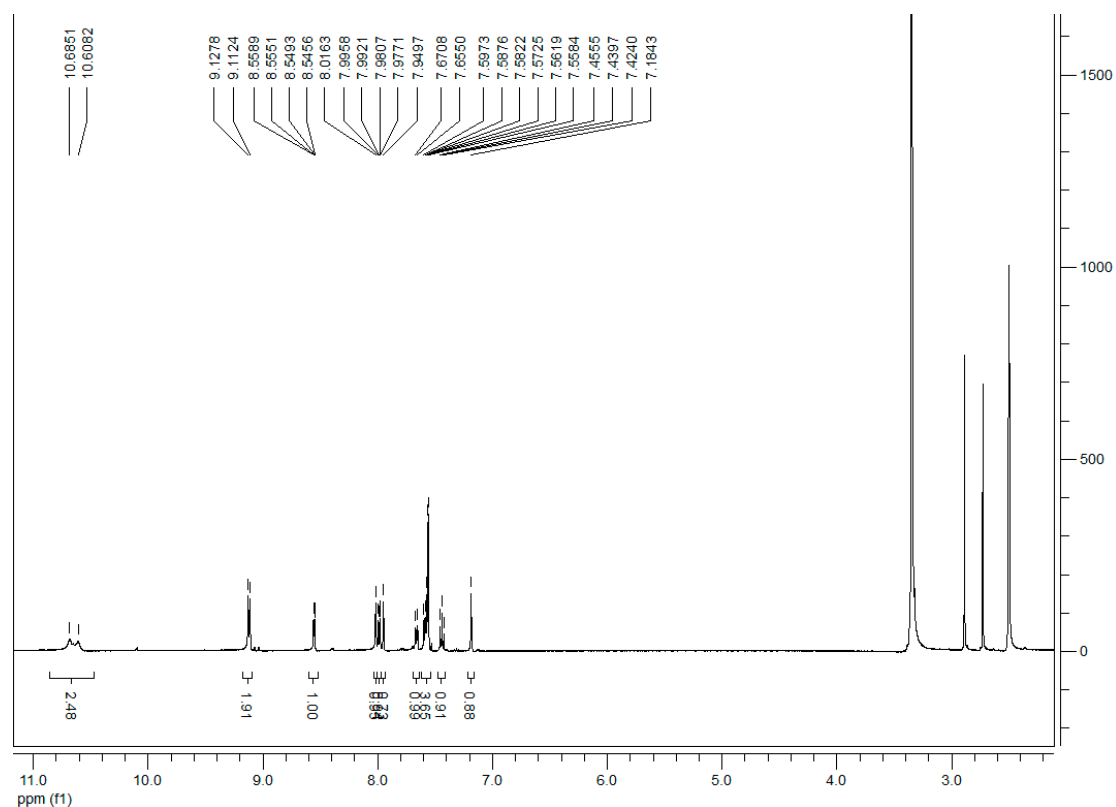


Figure S15. ¹H-NMR of compound **3f** (500 MHz, DMSO-*d*₆).

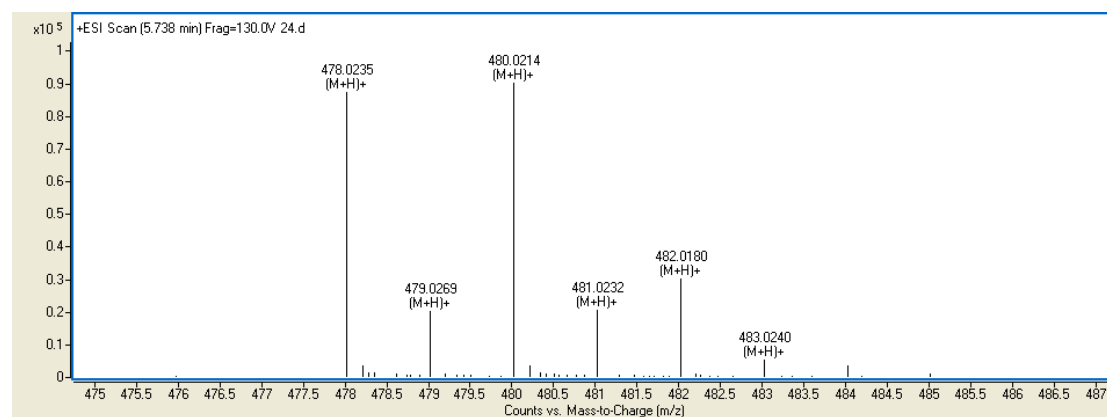


Figure S16. HR-ESI-MS of compound **3f**.

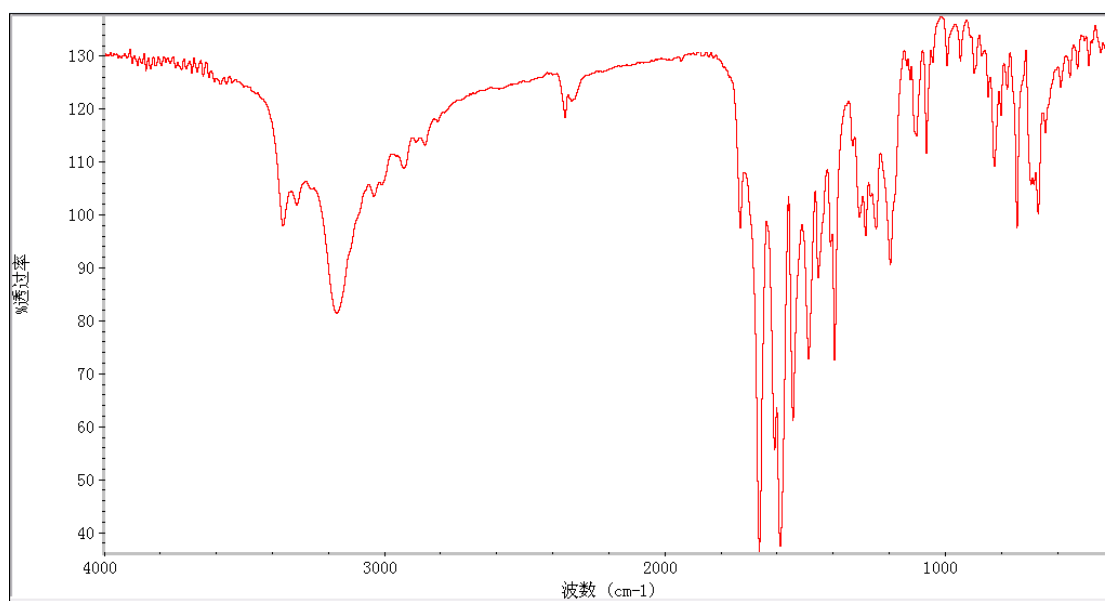


Figure S17. IR of compound 3f.

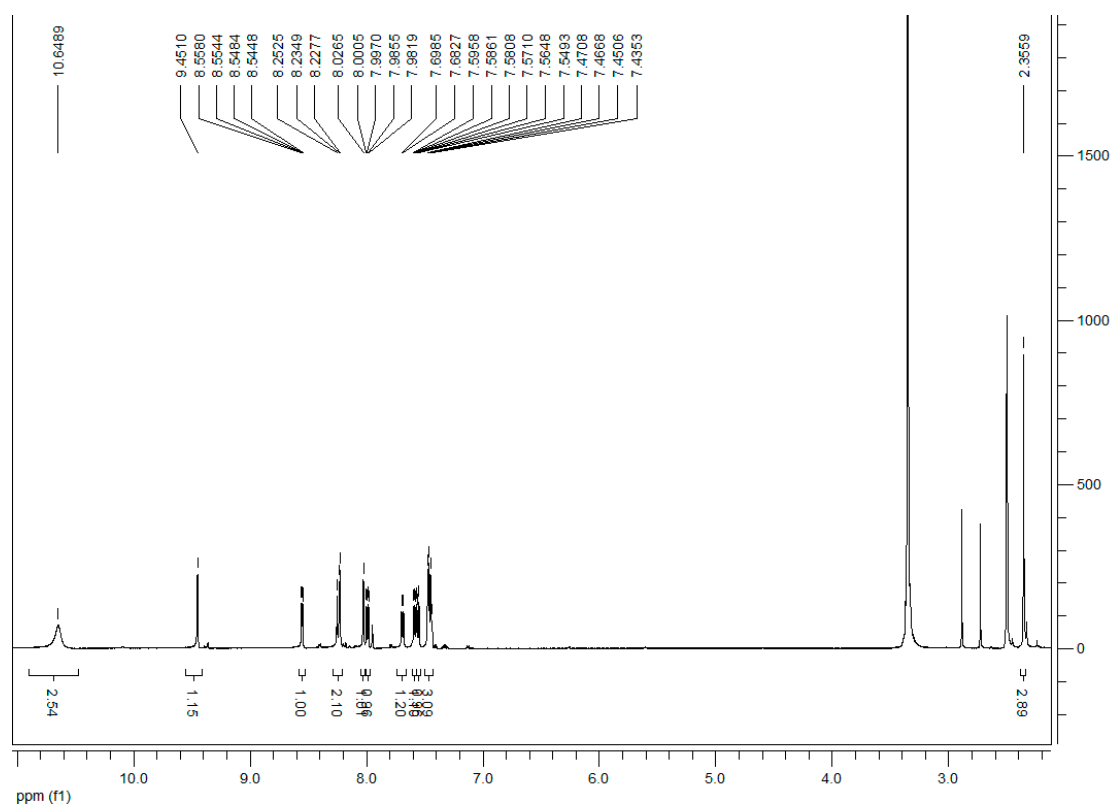


Figure S18. ¹H-NMR of compound 3g (500 MHz, DMSO-*d*₆).

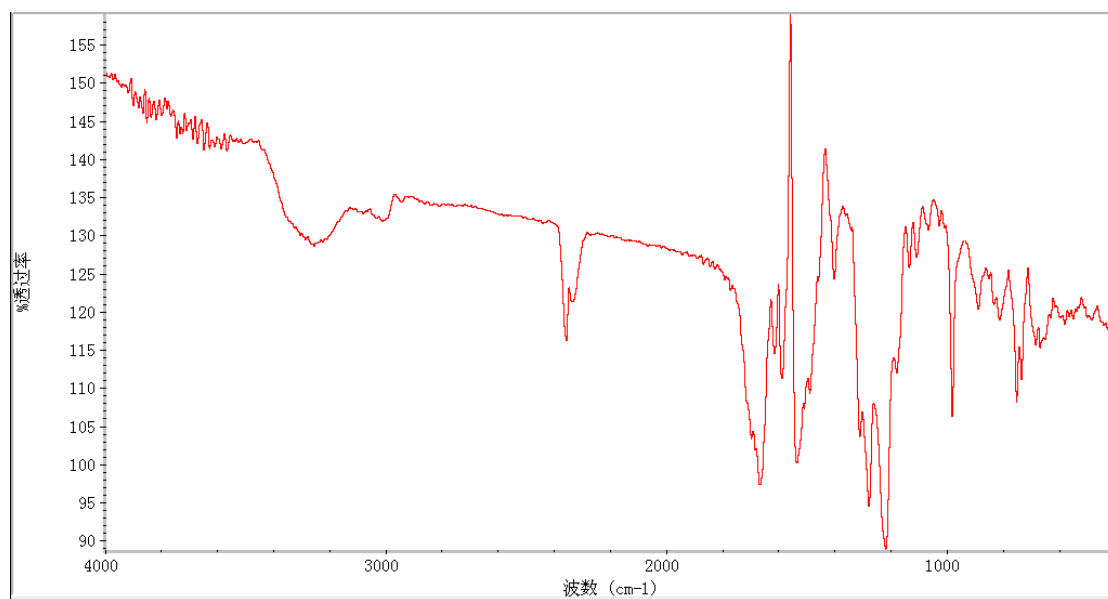


Figure S19. IR of compound **3g**.

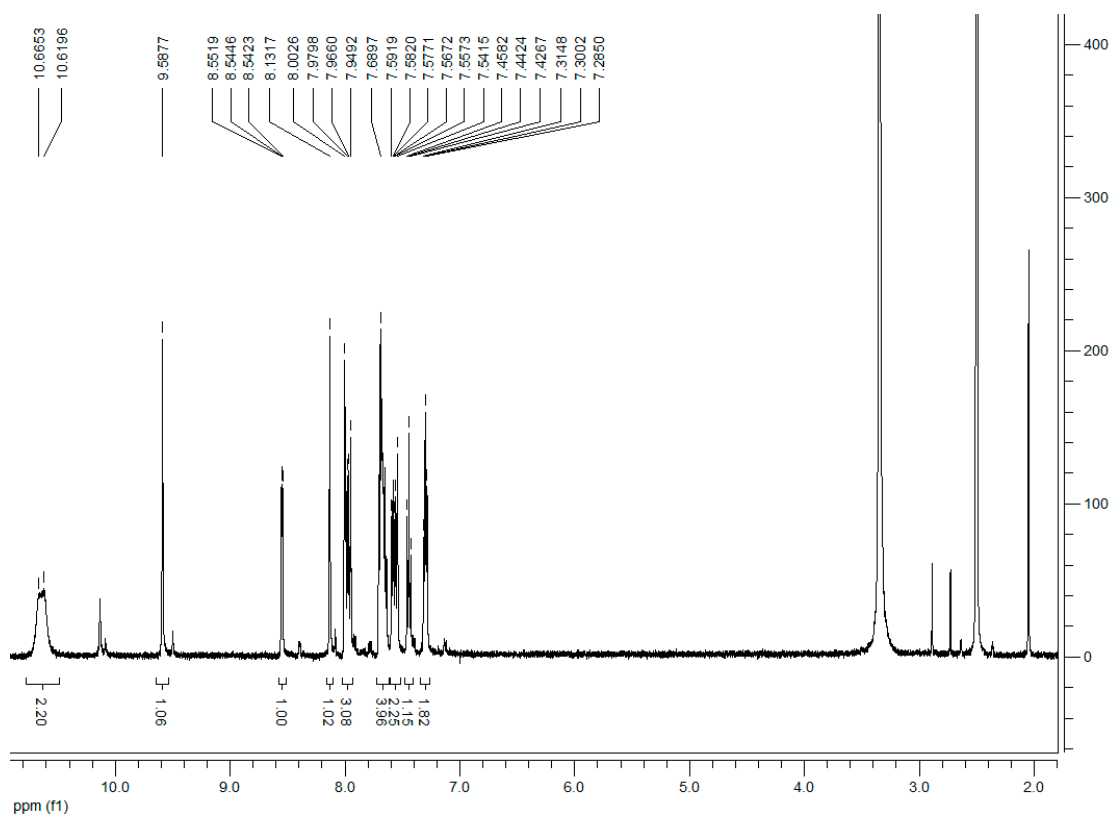


Figure S20. ^1H -NMR of compound **3h** (500 MHz, $\text{DMSO}-d_6$).

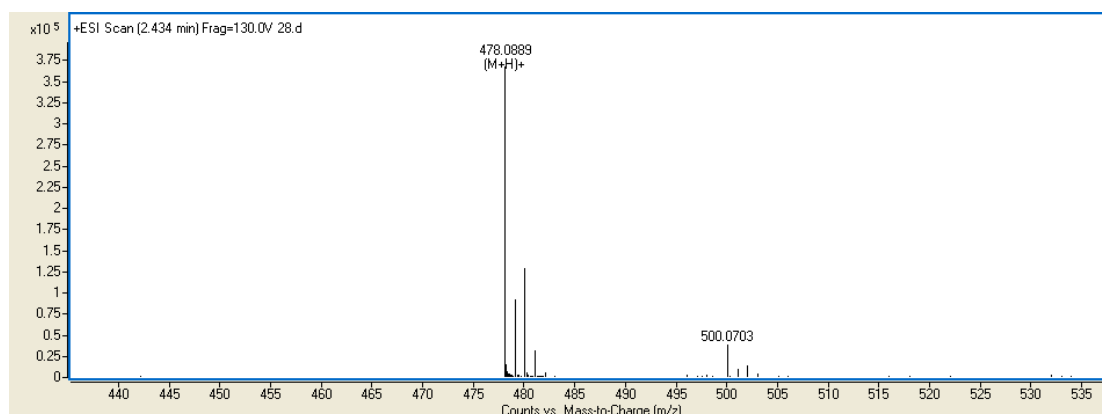


Figure S21. HR-ESI-MS of compound 3h.

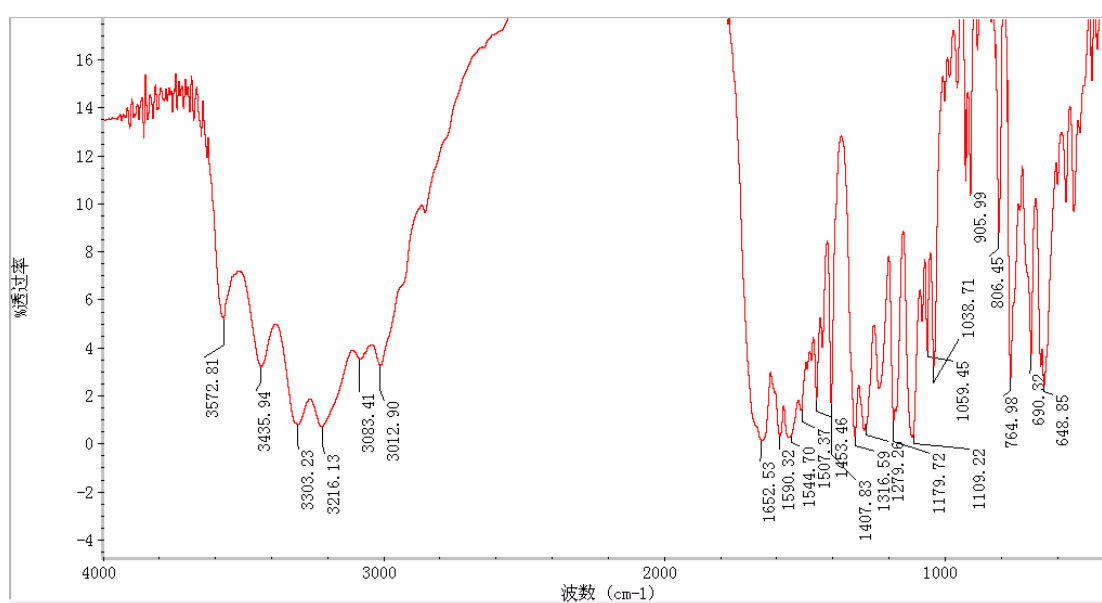


Figure S22. IR of compound 3h.

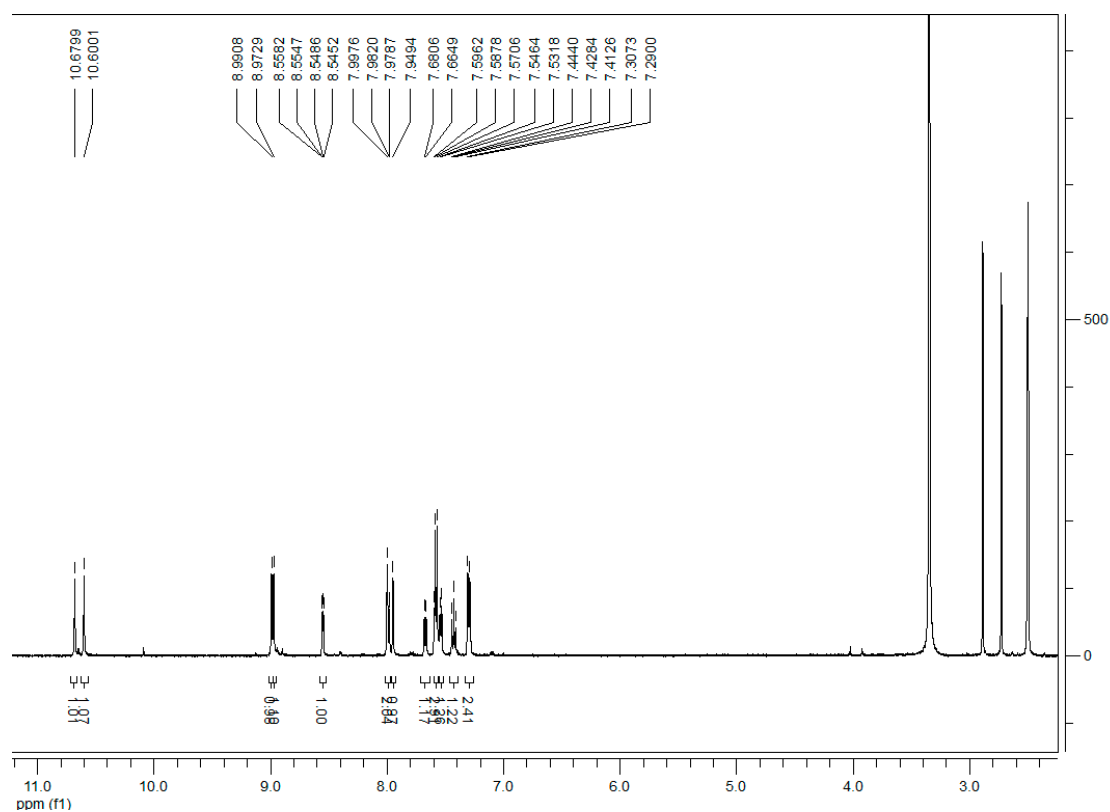


Figure S23. ¹H-NMR of compound **3i** (500 MHz, DMSO-*d*₆).

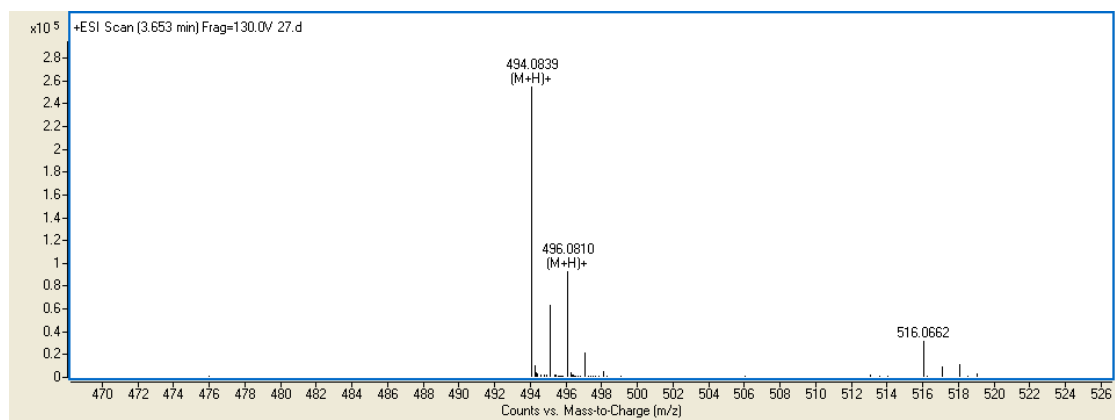


Figure S24. HR-ESI-MS of compound **3i**.

[illegible]

Figure S26. ^1H -NMR of compound **4a** (500 MHz, DMSO- d_6).

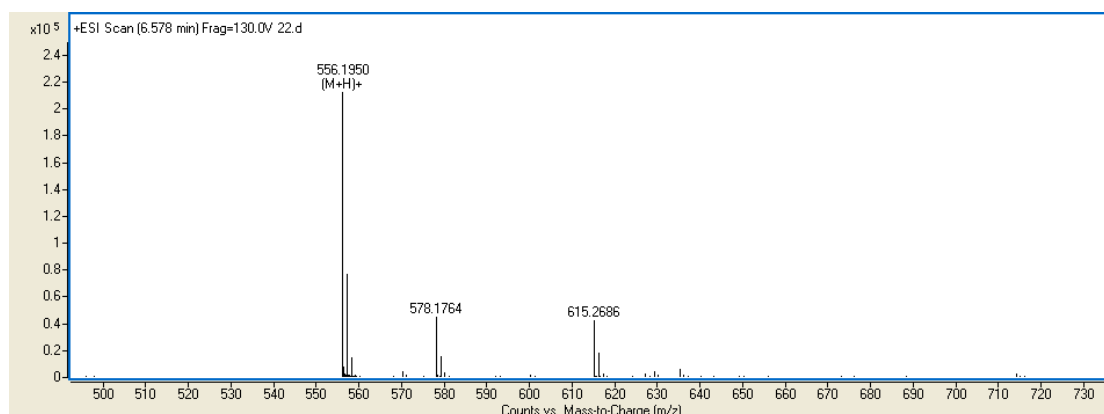


Figure S27. HR-ESI-MS of compound 4a.

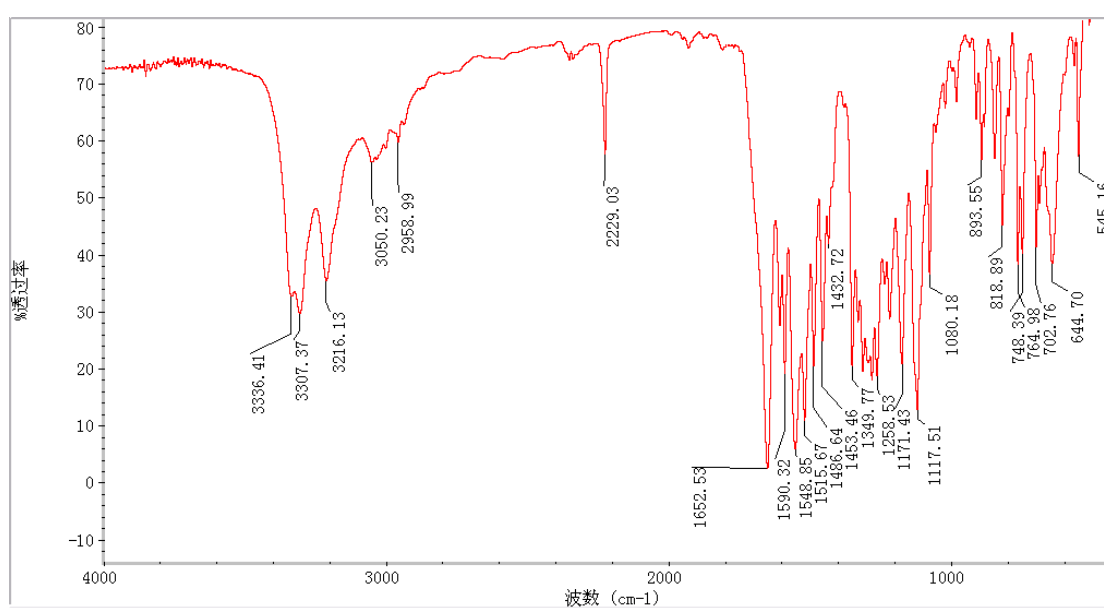


Figure S28. IR of compound 4a.

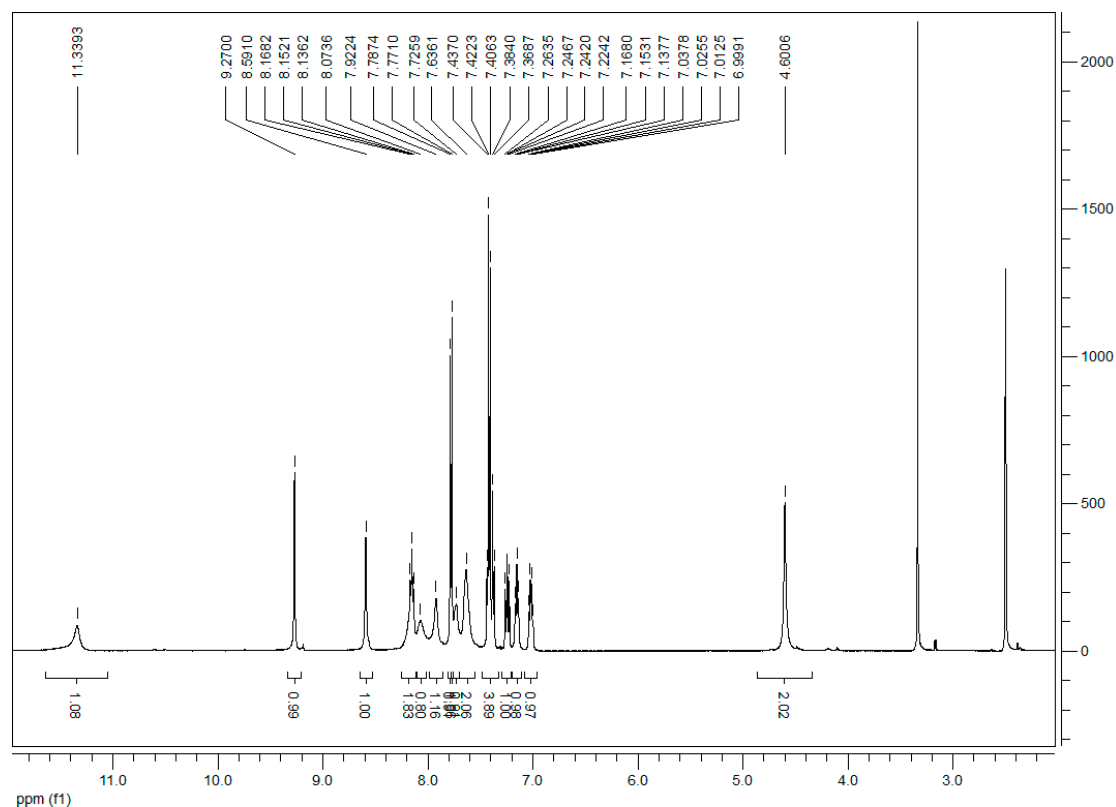


Figure S29. ^1H -NMR of compound **4b** (500 MHz, $\text{DMSO}-d_6$).

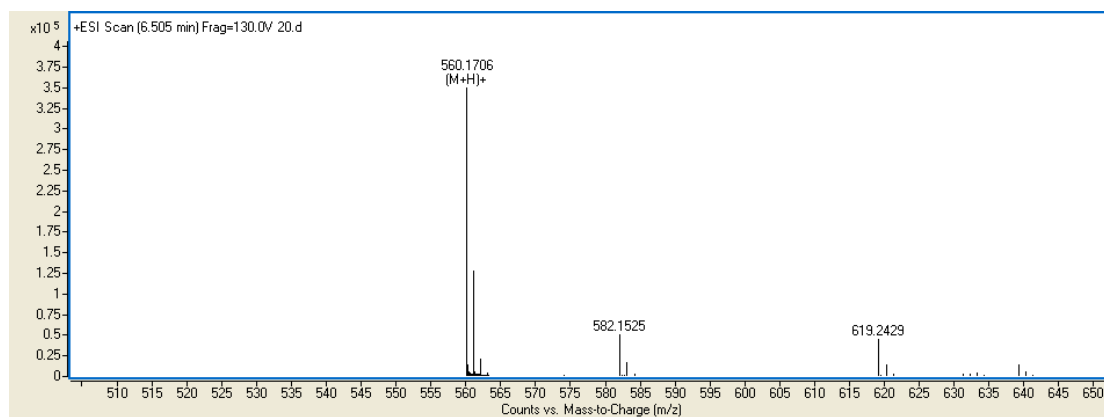


Figure S30. HR-ESI-MS of compound **4b**.

11.3329

9.2148
8.5455
8.1772
8.0992
8.0811
8.0688
8.0514
7.9085
7.7834
7.7671
7.7298
7.6287
7.4311
7.4161
7.4001
7.3782
7.3630
7.3427
7.3376
7.3199
7.3025
7.2872
7.0745
7.0580
7.0414

4.5960

1.02
0.96
1.00
0.71
1.86
1.10
1.90
3.82
0.97
1.93

ppm (f1)

Figure S32. ^1H -NMR of compound **4c** (500 MHz, DMSO- d_6).

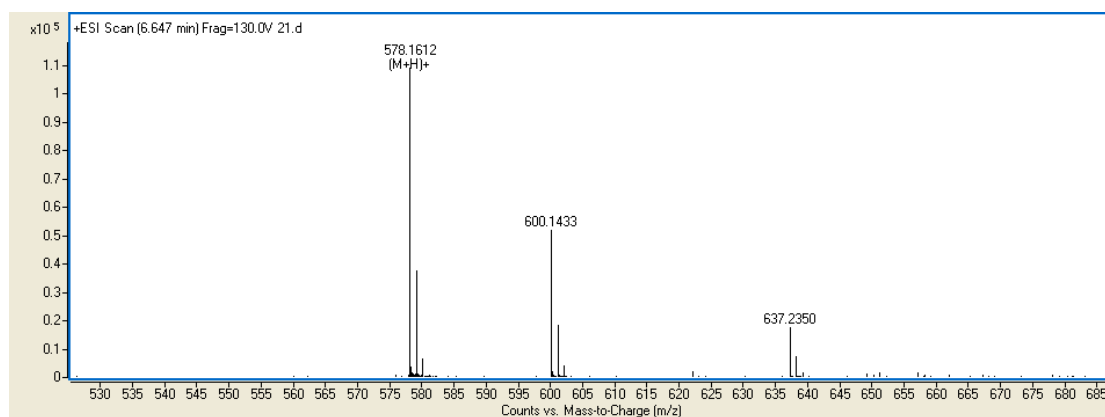


Figure S33. HR-ESI-MS of compound **4c**.

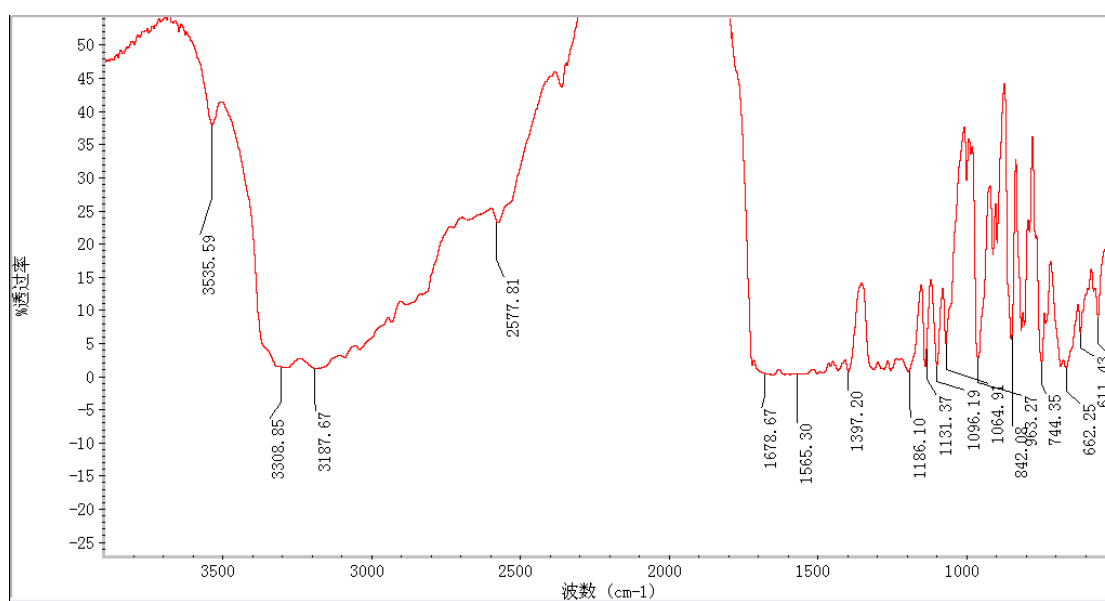


Figure S34. IR of compound **4c**.

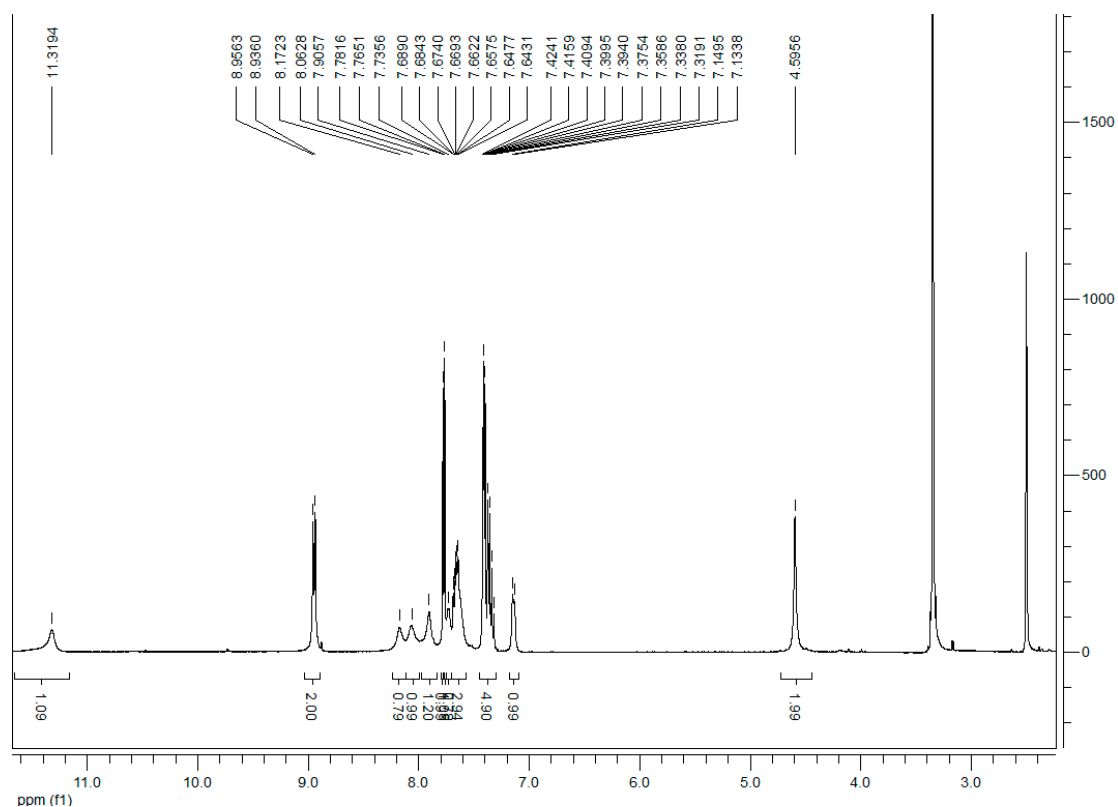


Figure S35. ^1H -NMR of compound **4d** (500 MHz, DMSO- d_6).

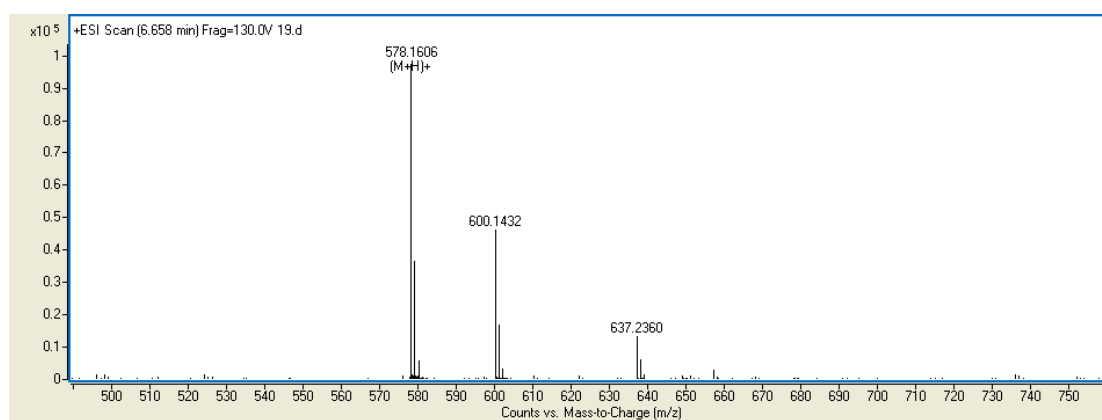


Figure S36. HR-ESI-MS of compound **4d**.

¹H NMR spectrum (CDCl₃) of compound 10a. The x-axis represents the chemical shift in ppm (f1), ranging from 0 to 10.0. The spectrum shows several peaks with corresponding integration values:

- Peak at ~11.3275 ppm (integration 1.24).
- Peak at ~8.0673 ppm (integration 2.00).
- Peak at ~7.7318 ppm (integration 4.76).
- Peak at ~7.3383 ppm (integration 1.00).
- Peak at ~4.5962 ppm (integration 2.05).

The integration values are: 1.24, 2.00, 4.76, 1.00, 2.05.

Figure S38. ^1H -NMR of compound **4e** (500 MHz, $\text{DMSO}-d_6$).

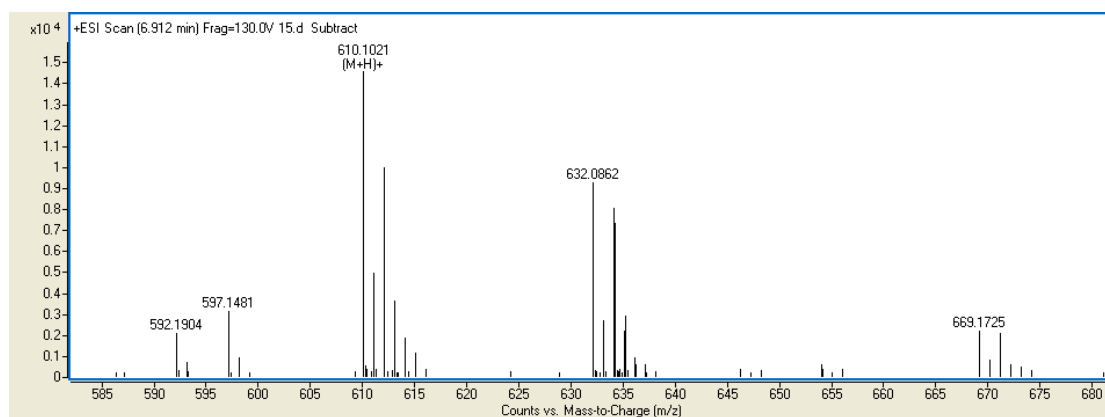


Figure S39. HR-ESI-MS of compound **4e**.

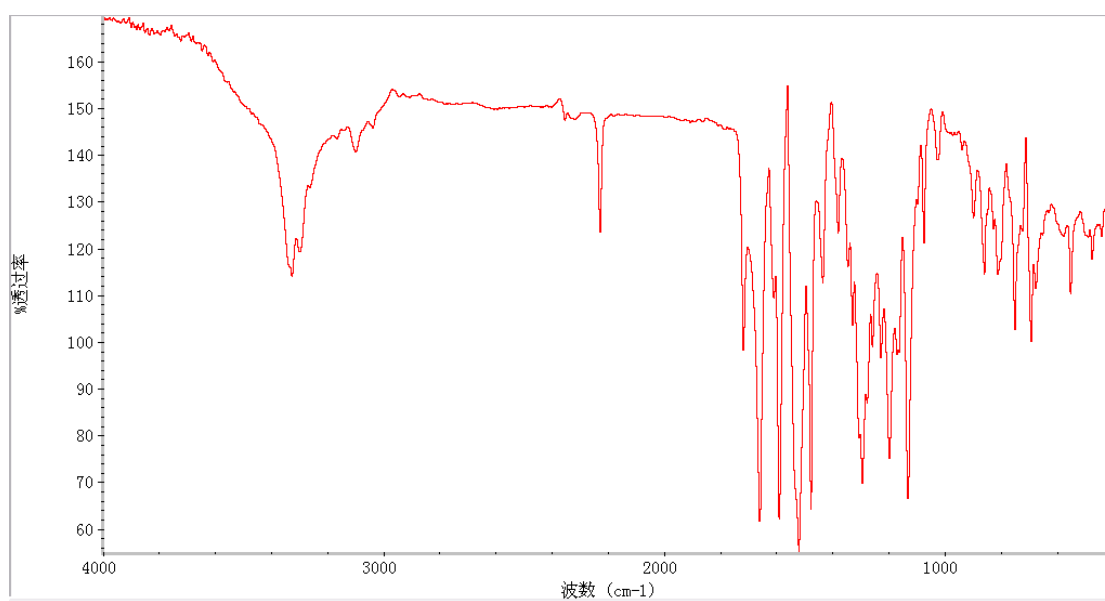


Figure S40. IR of compound **4e**.

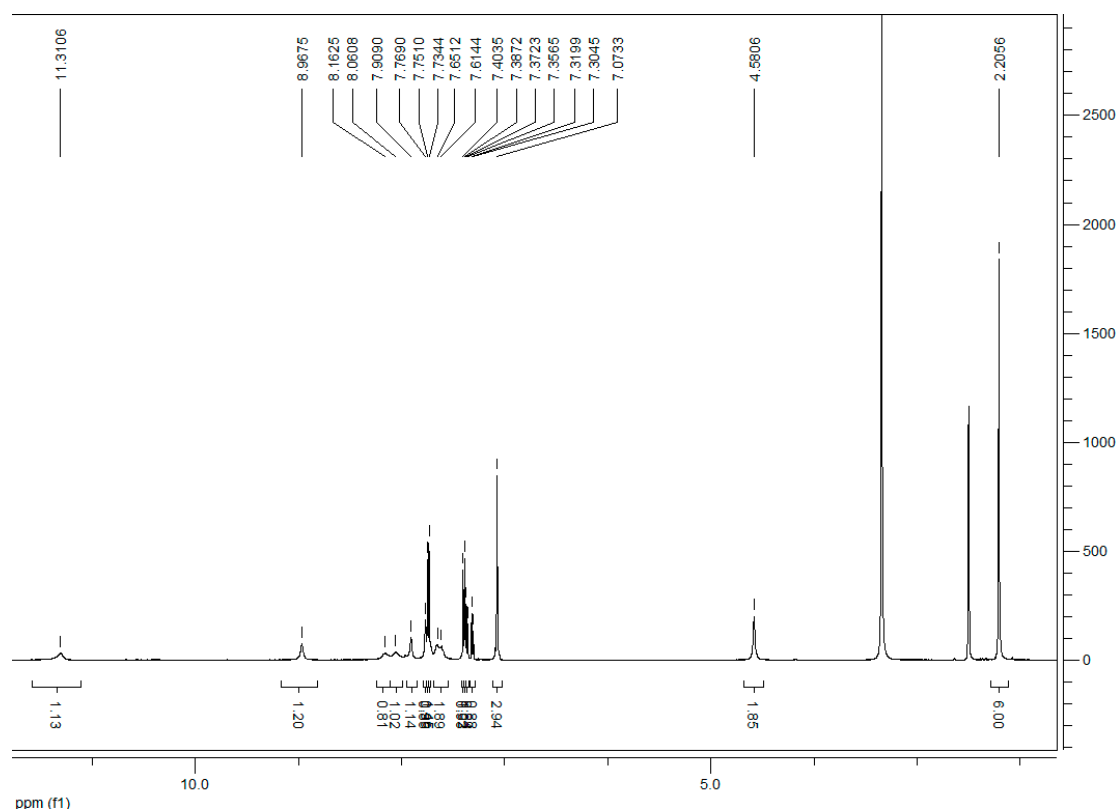


Figure S41. ¹H-NMR of compound **4f** (500 MHz, DMSO-*d*₆).

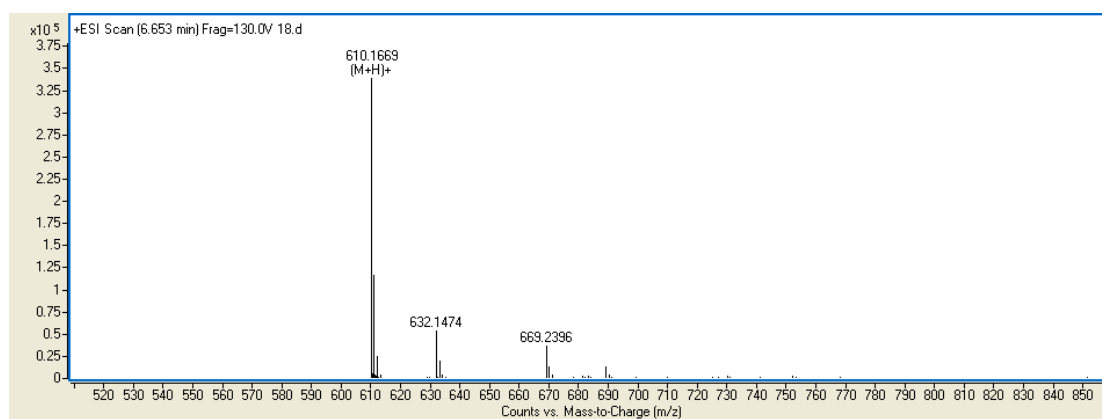


Figure S42. HR-ESI-MS of compound **4g**.

Figure S44. ^1H -NMR of compound **4g** (500 MHz, DMSO- d_6).

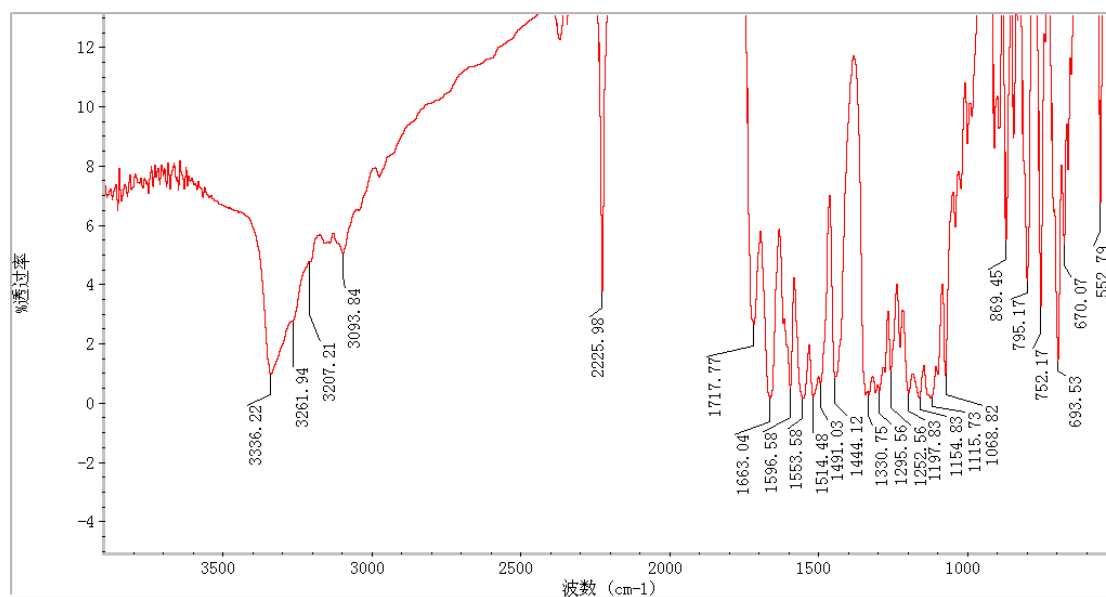


Figure S45. IR of compound **4g**.

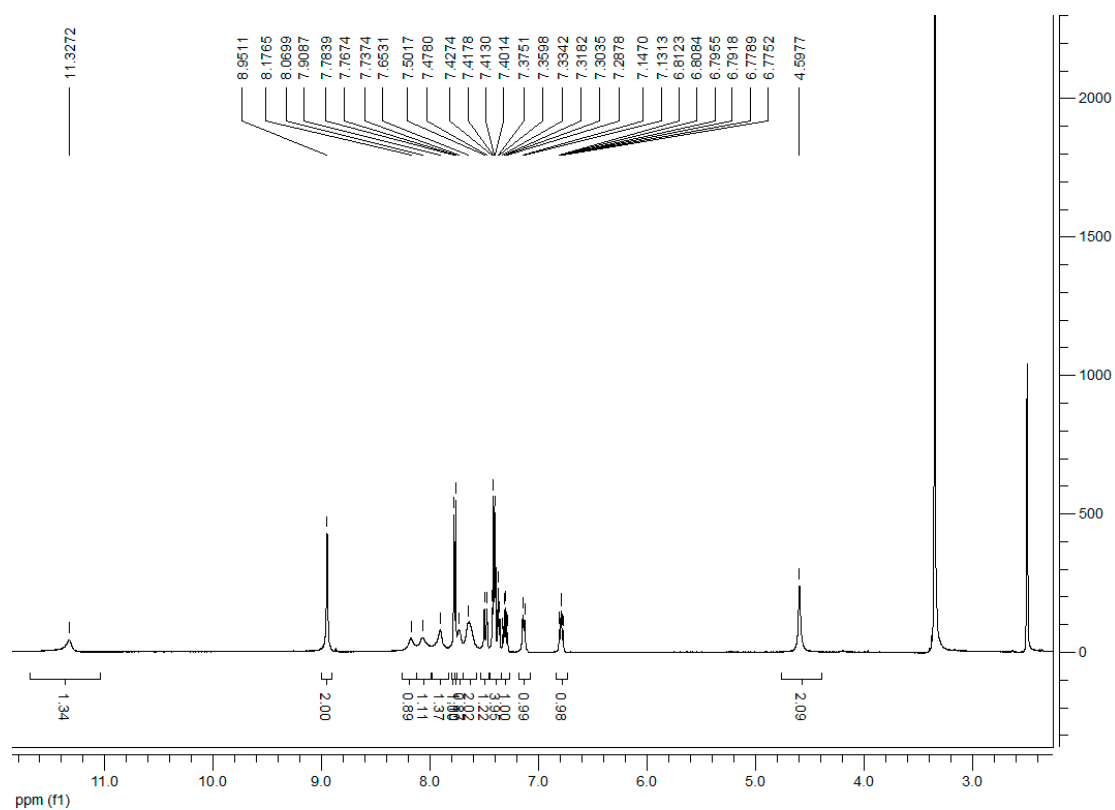


Figure S46. ^1H -NMR of compound **4h** (500 MHz, $\text{DMSO}-d_6$).

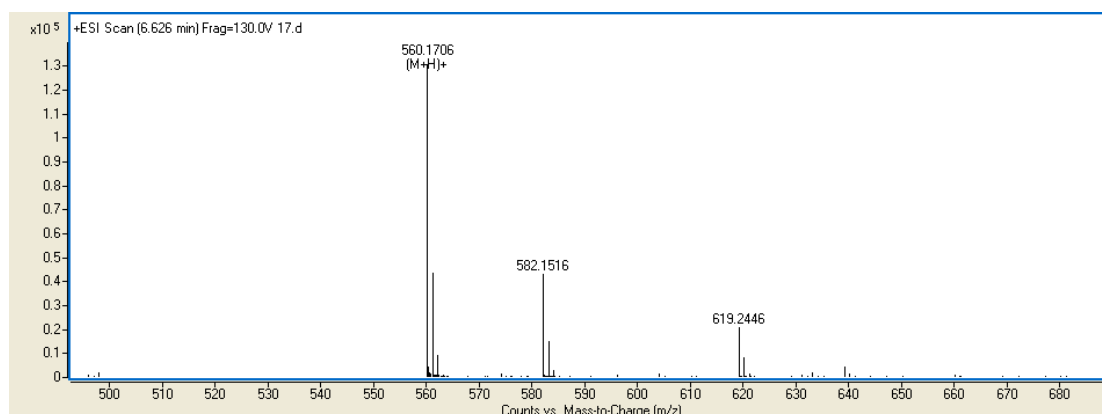


Figure S47. HR-ESI-MS of compound 4h.

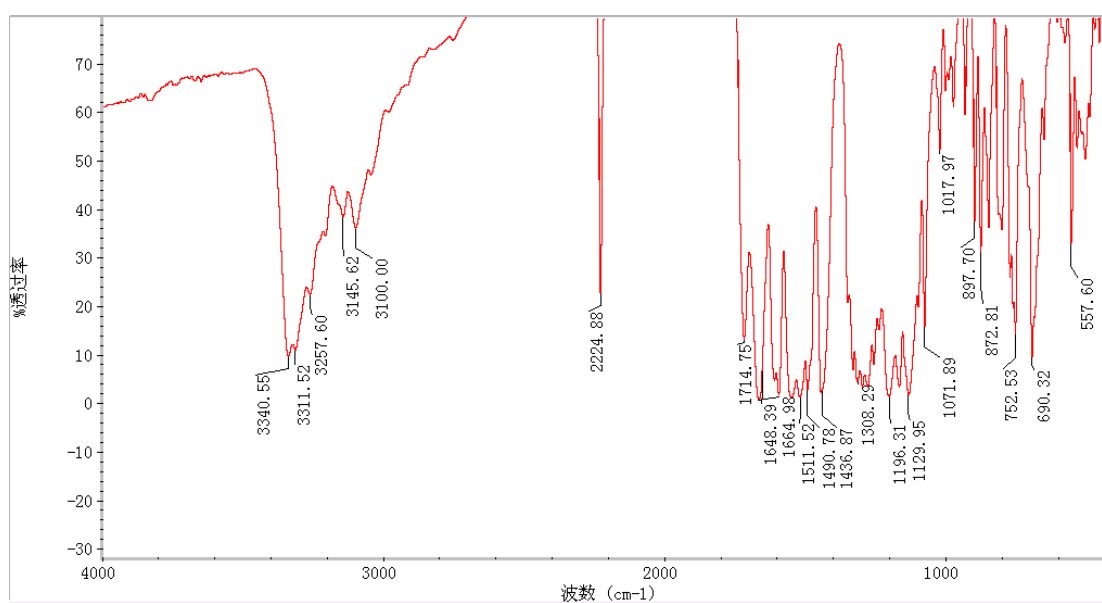


Figure S48. IR of compound 4h (500 MHz, DMSO-*d*₆).

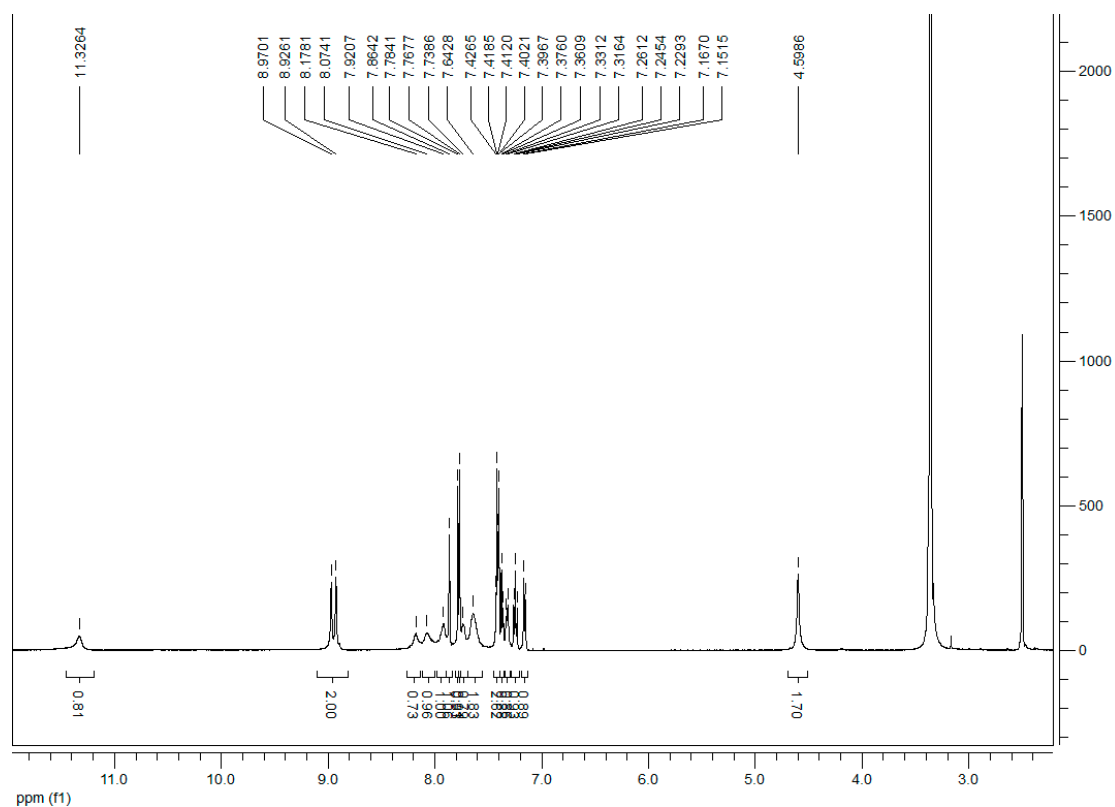


Figure S49. ^1H -NMR of compound **4i** (500 MHz, $\text{DMSO}-d_6$).

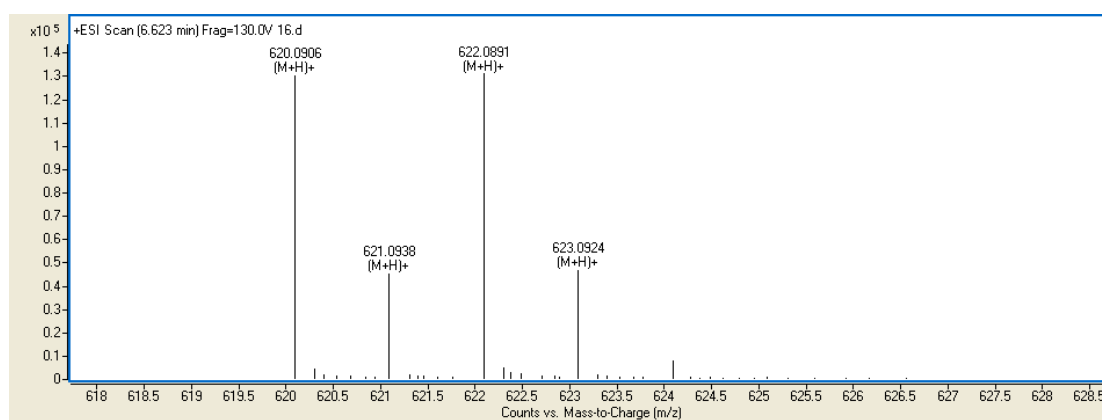


Figure S50. HR-ESI-MS of compound **4i**.

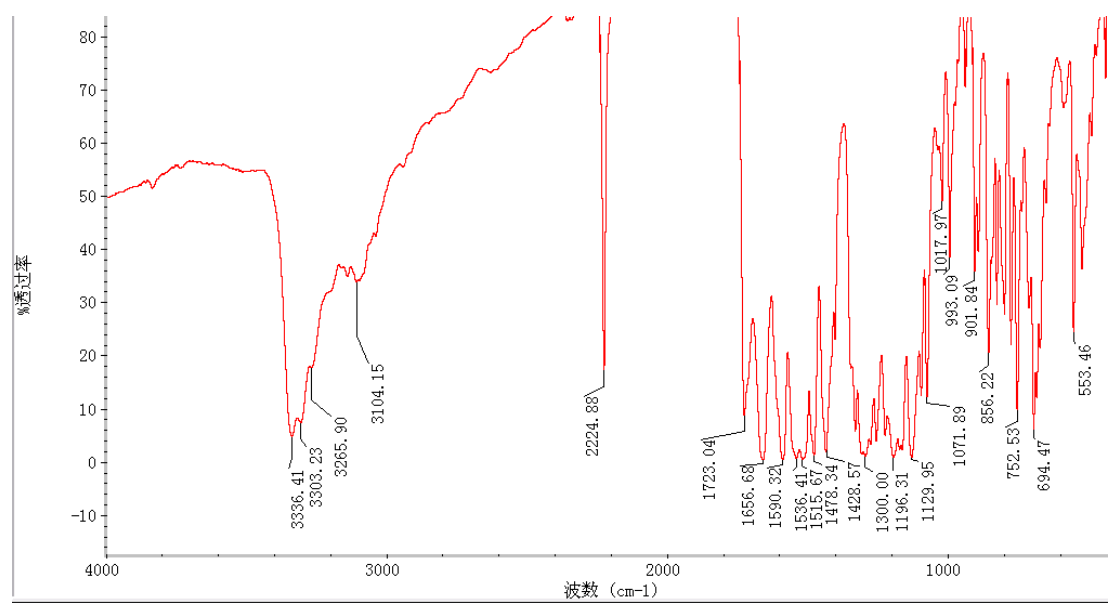


Figure S51. IR of compound **4i**.