Supplementary Material

Synthesis of 2,3-diaminopyridine-derived 4-azabenzimidazoles and (benzylimino)pyridine analogues as potential anti-plasmodial agents

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III. NMR spectra of other compounds S12

I. NMR analysis of *2-(3,5-Dichloro-2-hydroxyphenyl)-4-azabenzimidazole* (14c)

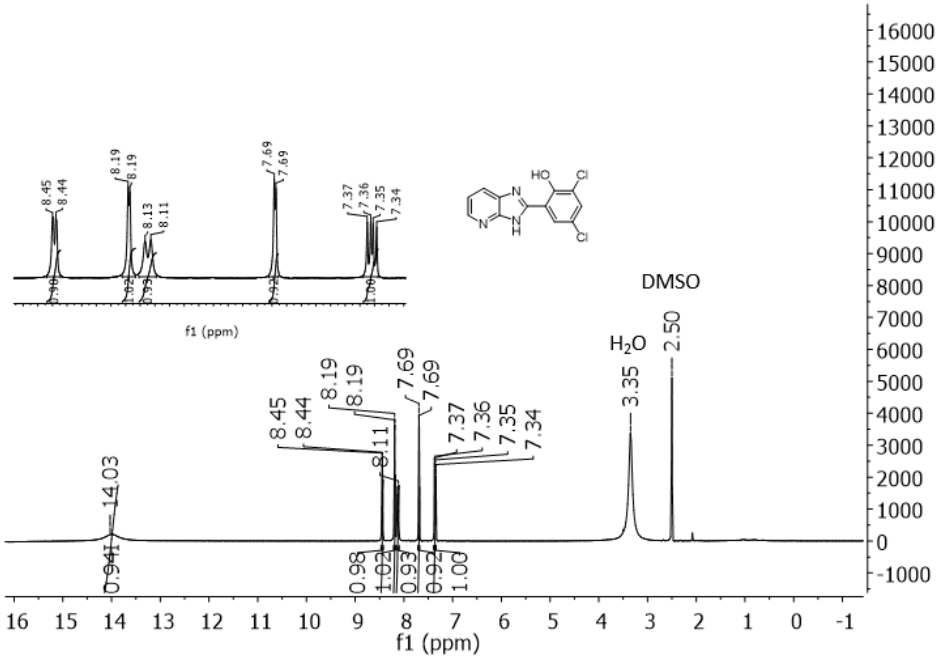

Figure S1. 400 MHz ^{1}H NMMR spectrum of **14c** in DMSO- d_6.

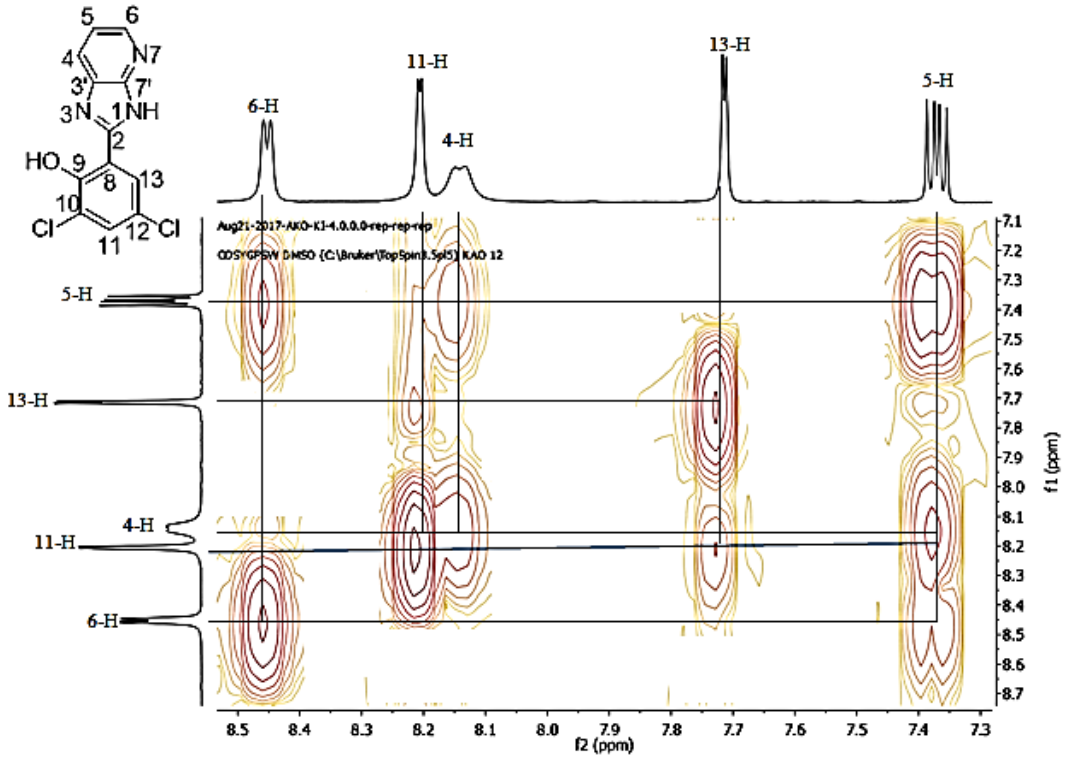

Figure S2. 400 MHz COSY NMR spectrum of **14c** in DMSO-d_6.

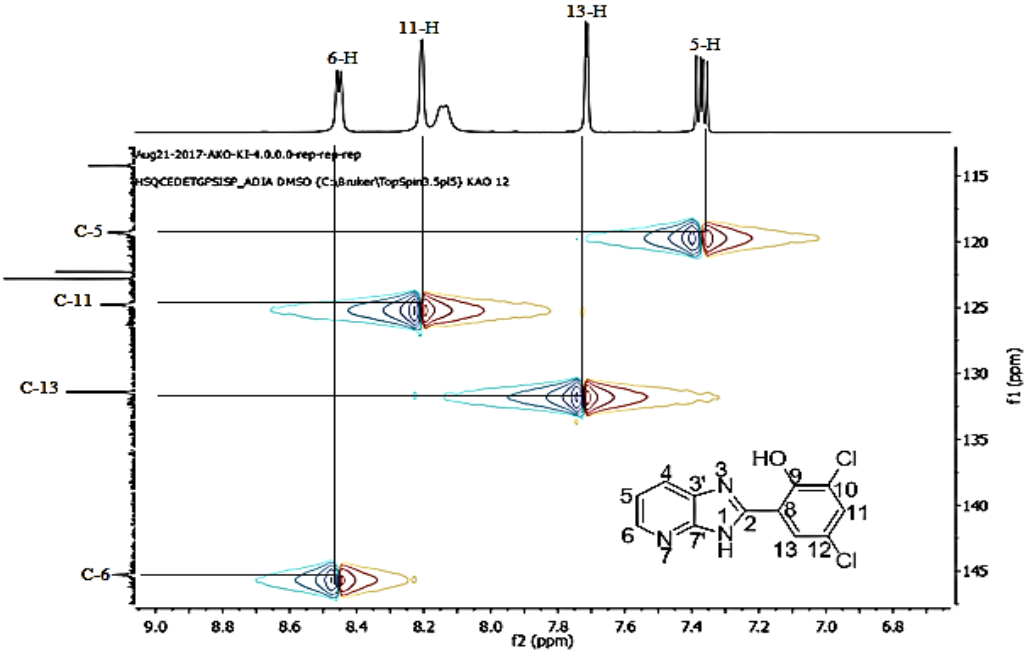

Figure S3. HSQC NMR spectrum of **14c** in DMSO-d_6

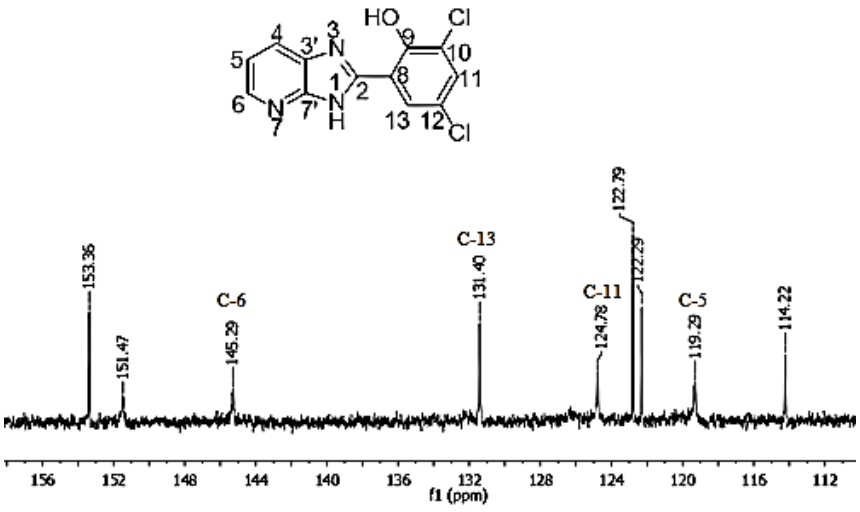

Figure S4. 100 MHz ^{13}C NMR spectrum of **14c** in DMSO-d_6.

The apparent absence of the signals corresponding to the quaternary carbon in the 4-azabenzimidazole system is attributed to line-broadening effects associated with proton transfer between the tautomeric structures.

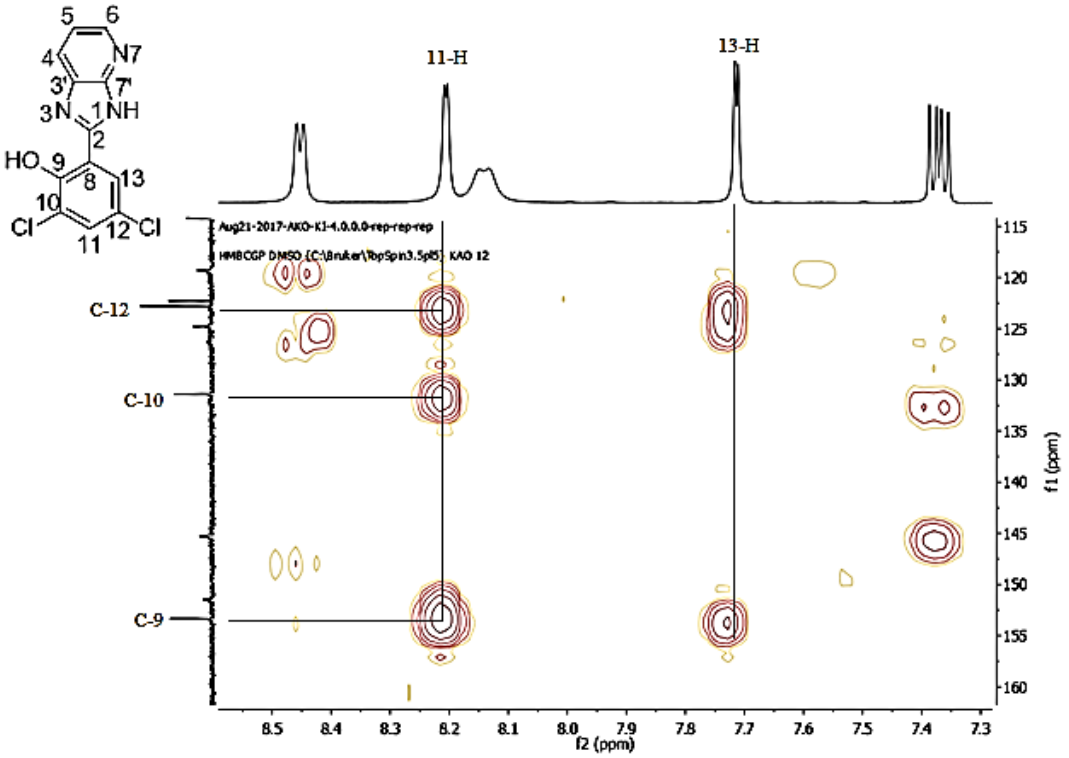

Figure S5. HMBC NMR spectrum of **14c** in DMSO-d_6.

II. NMR analysis of *2-Amino-5-bromo-3-(*2-hydroxy-3-methoxybenzylimino)pyridine (**16f**) and 2-Amino-5-bromo-3-(2-hydroxy-3-methoxybenzylamino)pyridine (**17f**)

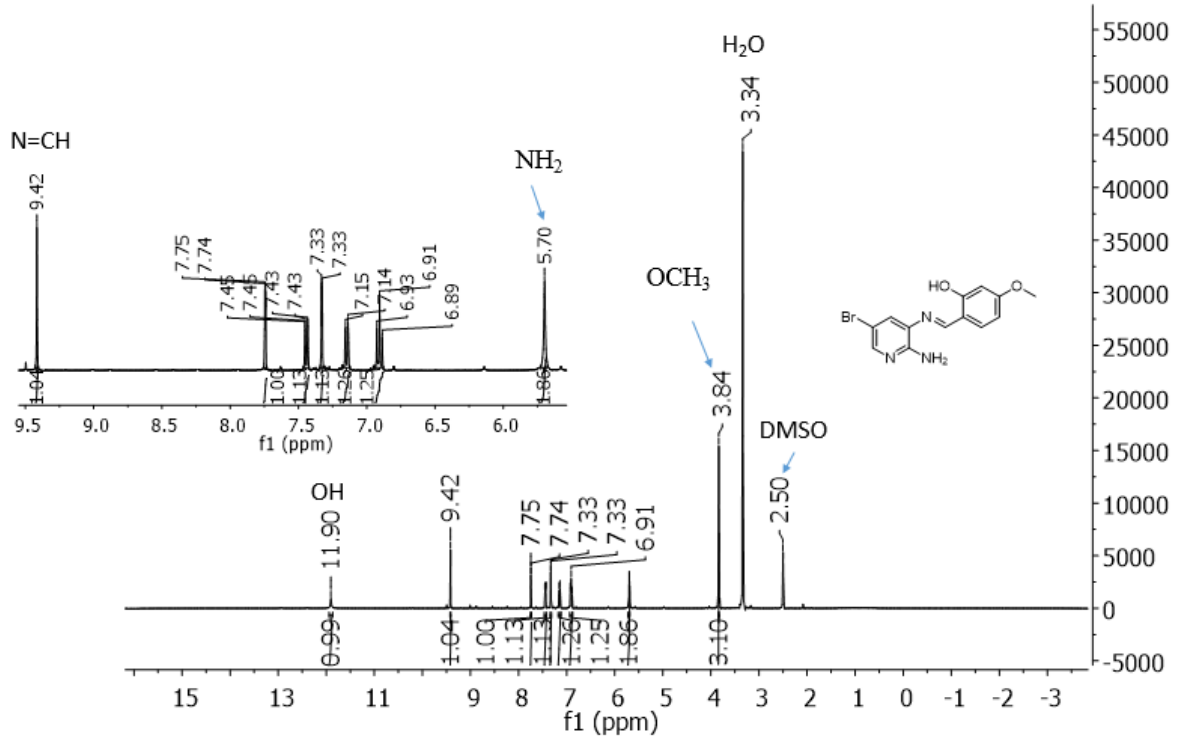

Figure S6. 400 MHz ^{1}H NMR spectrum of **16f** in DMSO-d_6.

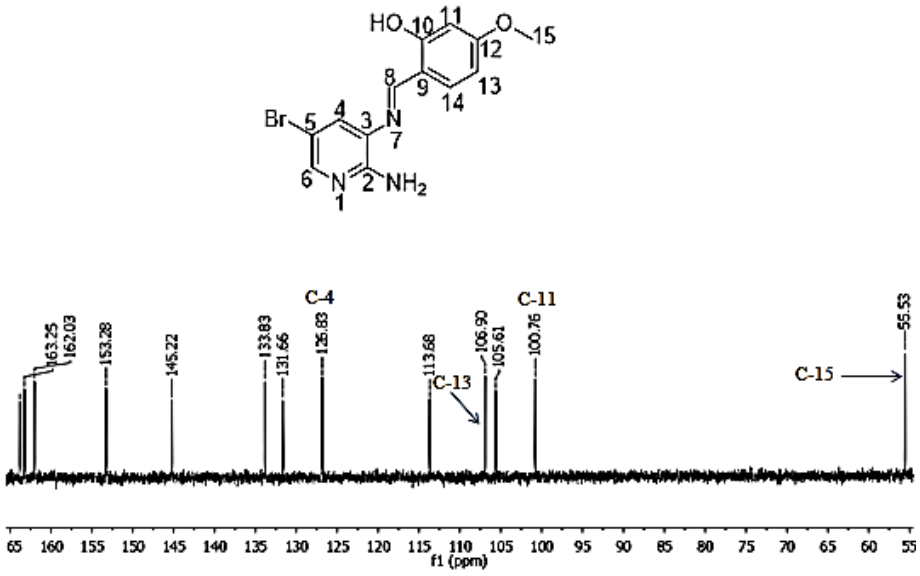

Figure S7. 100 MHz ^{13}C NMR spectrum of **16f** in DMSO-d_6.

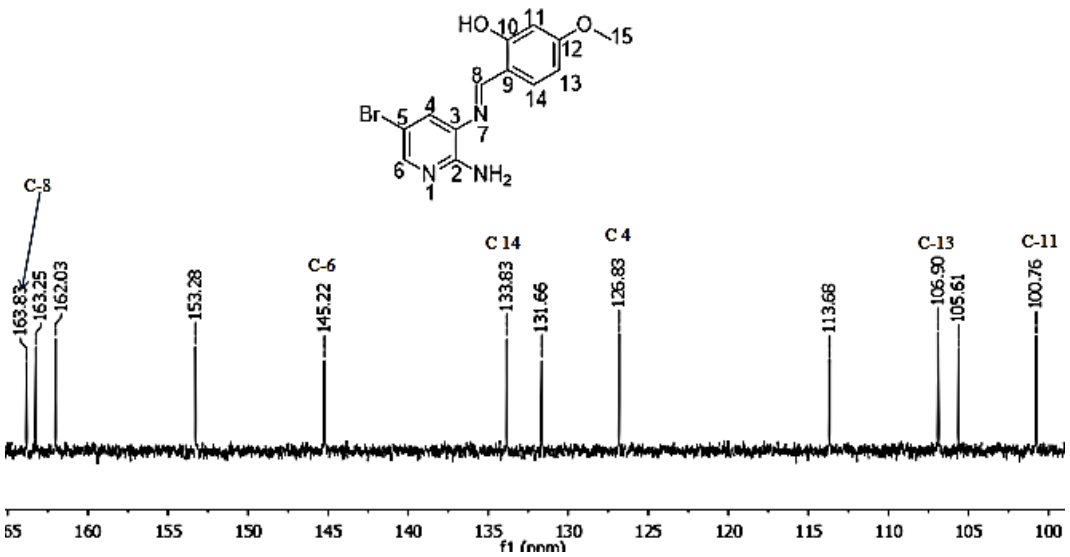

Figure S8. 100 MHz ^{13}C NMR spectrum of **16f** in DMSO- d_6 (expanded).

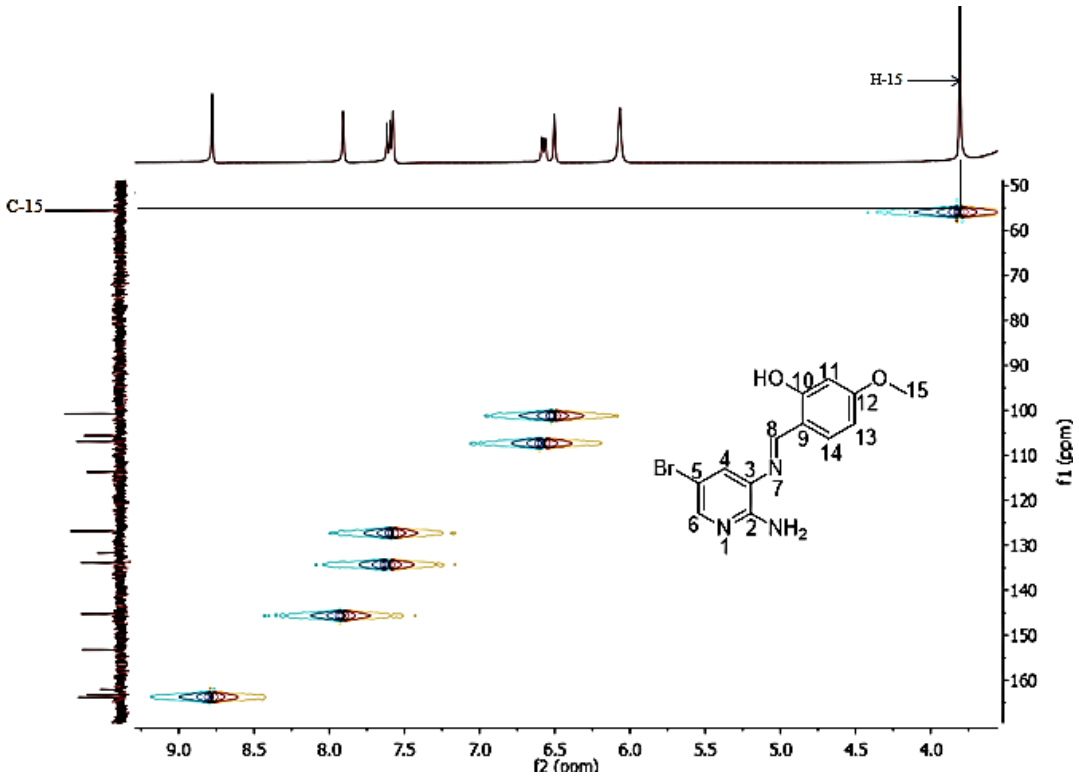

Figure S9. HSQC spectrum of **16f** in DMSO-d_6.

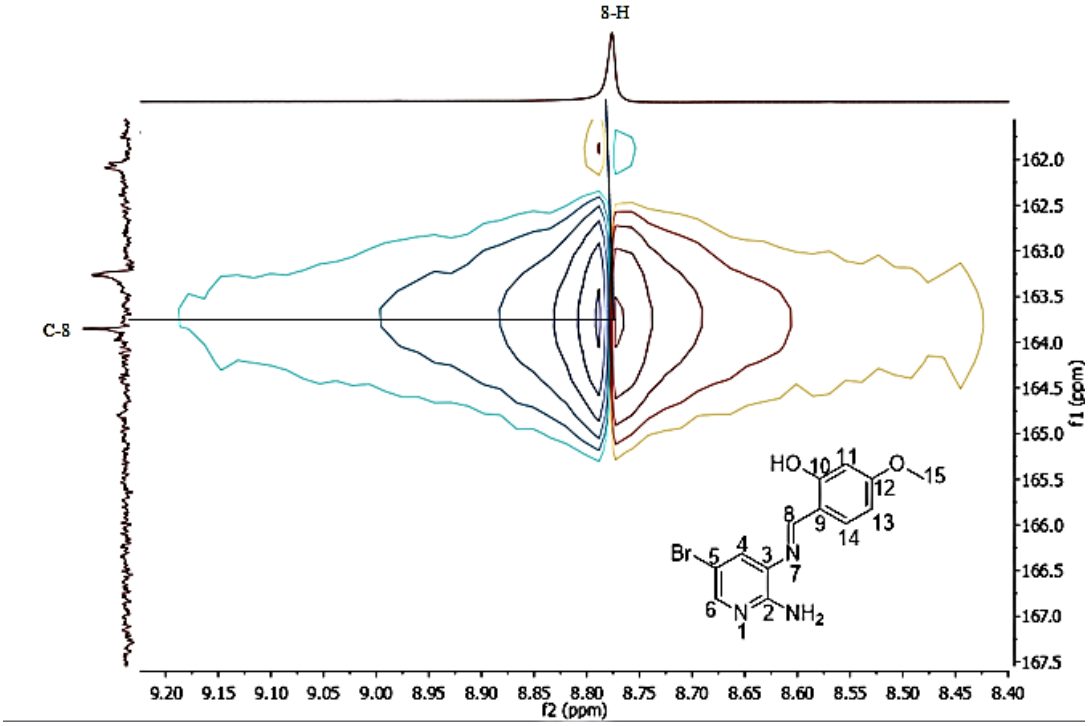

Figure S10. HSQC spectrum of **16f** in DMSO-d_6 (expanded).

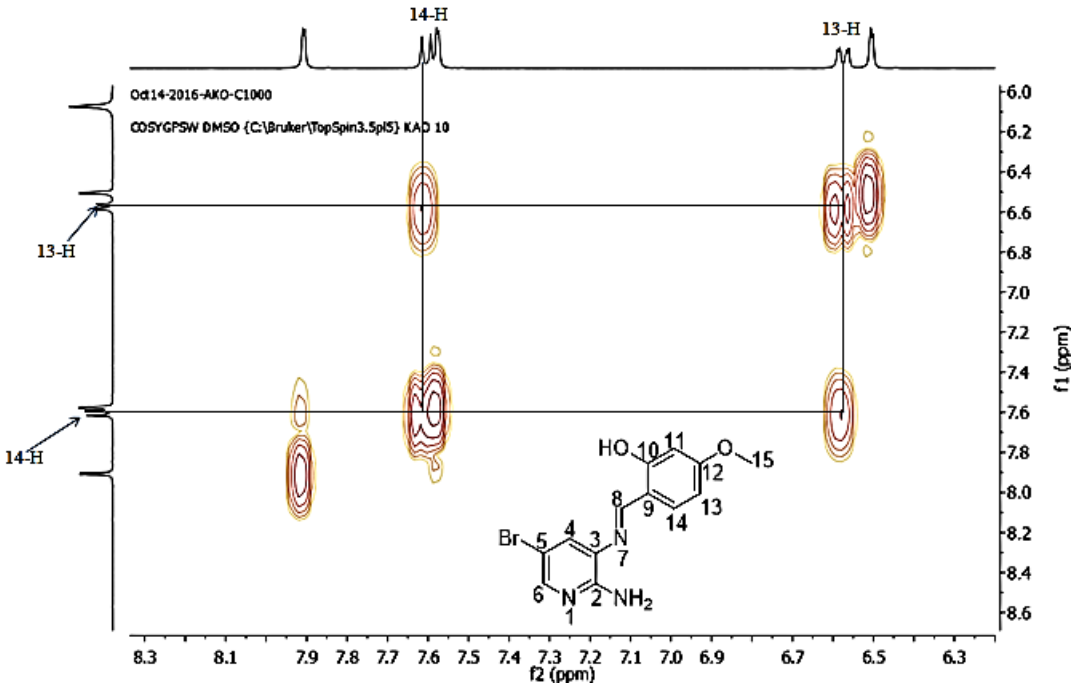

Figure S11. COSY spectrum of **16f** in DMSO- d_6.

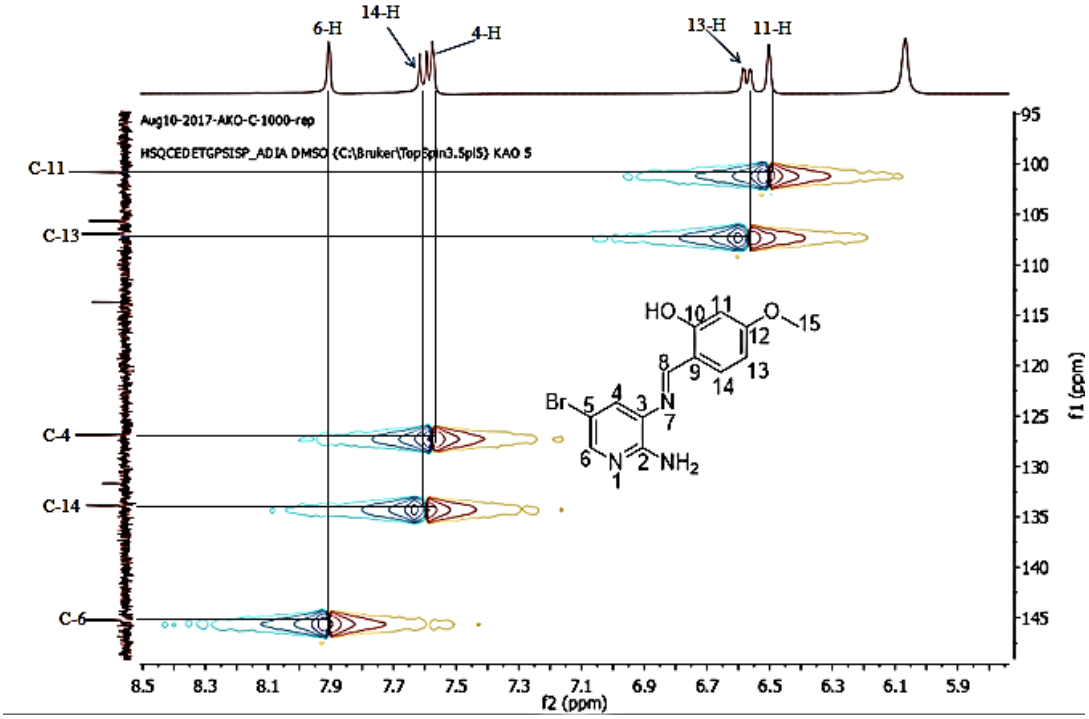

Figure S12. HSQC spectrum of **16f** in DMSO-d_6 (expanded).

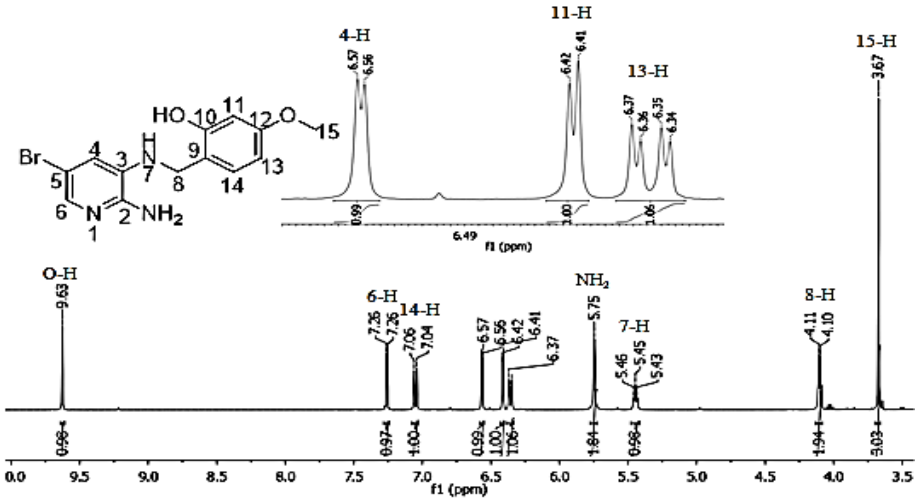

Figure S13. Partial 400MHz ^{1}H NMR spectrum of **17f** in DMSO-d_6.

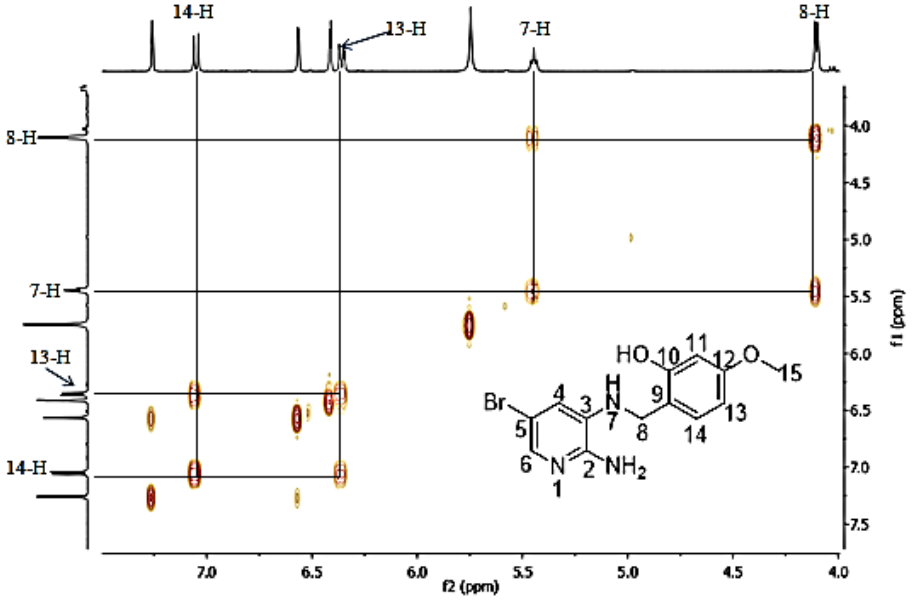

Figure S14. Partial 400 MHz COSY spectrum of **17f** in DMSO-d_6.

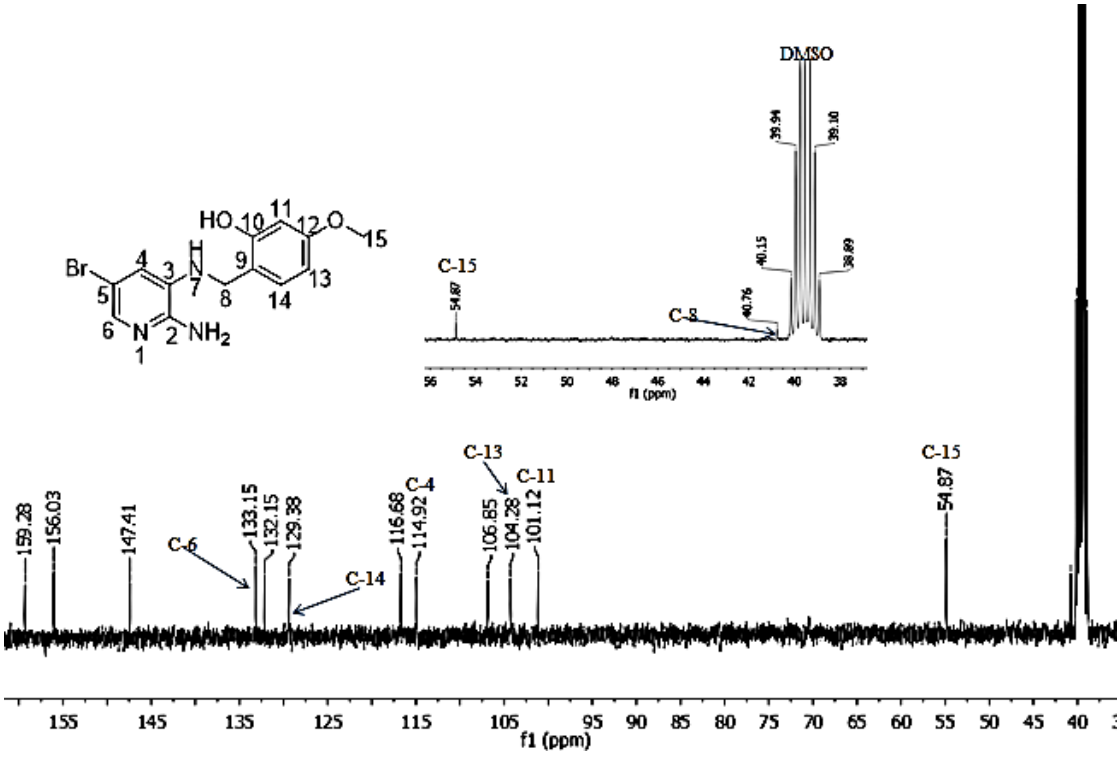

Figure S15. Partial 100 MHz ^{13}C NMR spectrum of **17f** in DMSO-d_6.

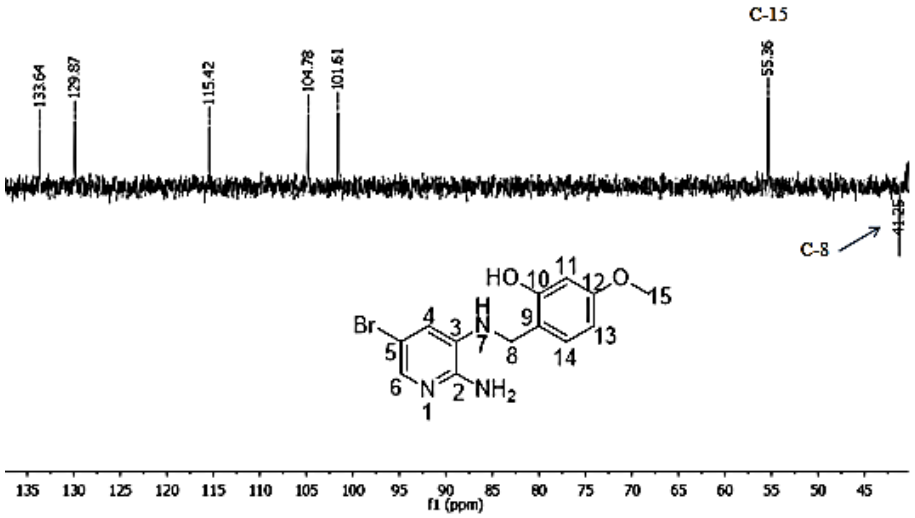

Figure S16. Partial 100 MHz DEPT-135 spectrum of **17f** in DMSO- d_6.

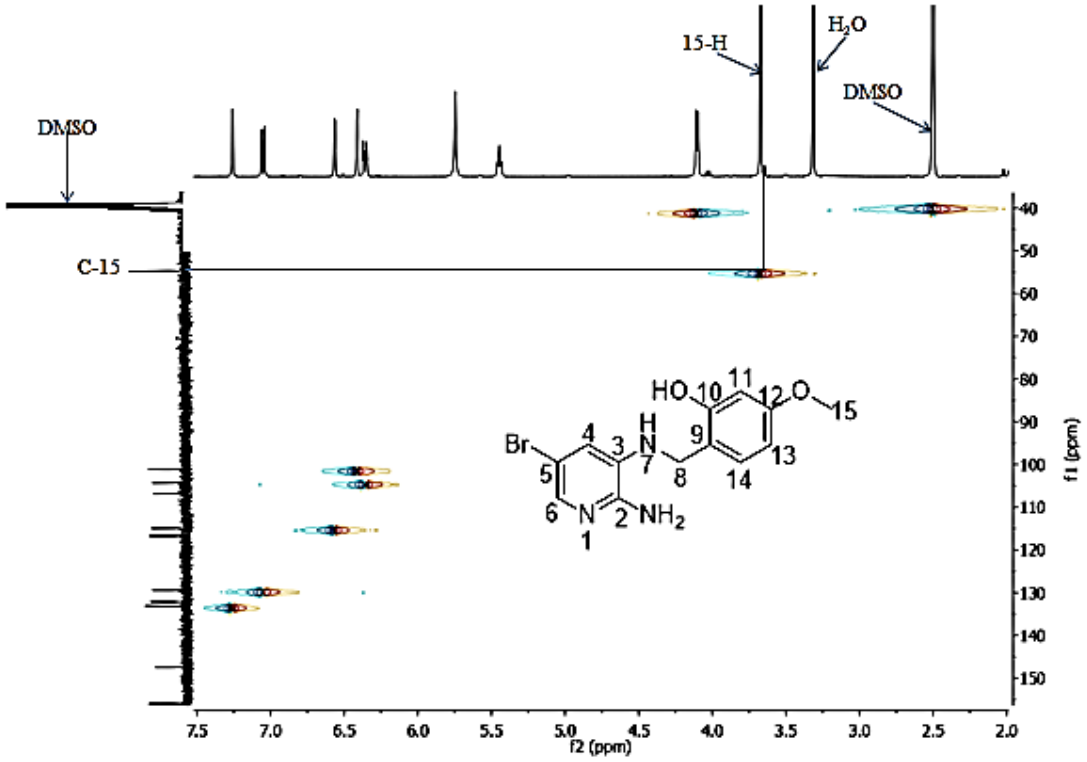

Figure S17. Partial HSQC spectrum of **17f** in DMSO-d_6.

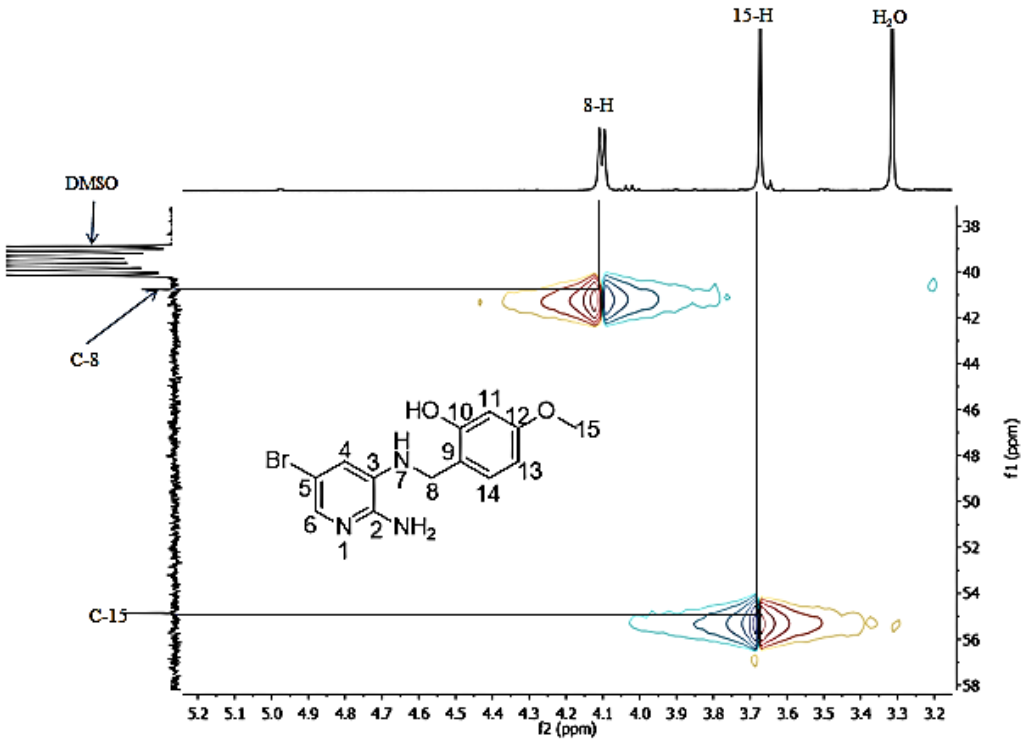

Figure S18. Partial HSQC spectrum of **17f** in DMSO-d_6 (expanded).

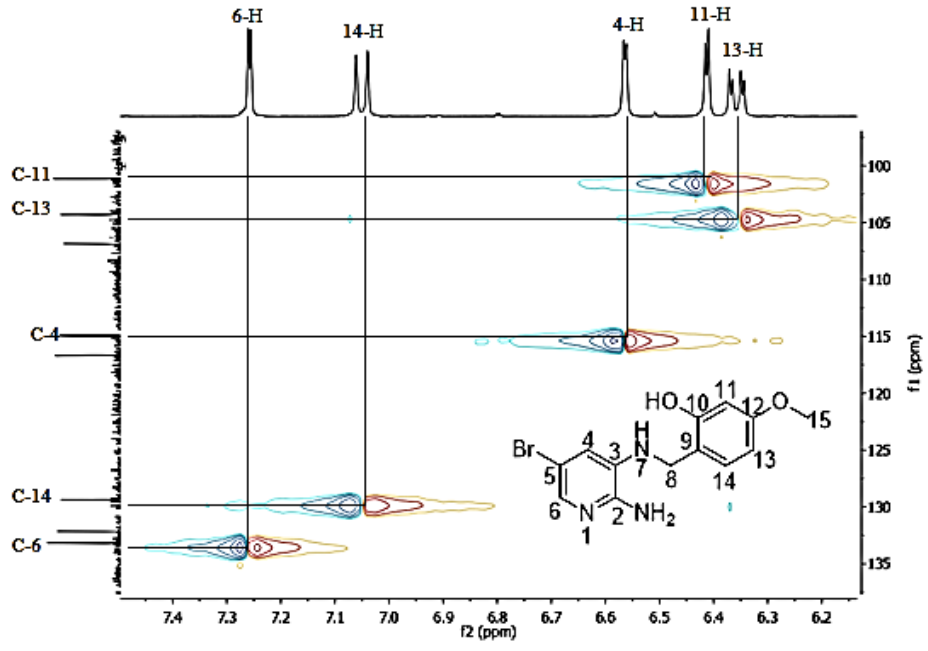

Figure S19. Partial HSQC spectrum of **17f** in DMSO-d_6 (expanded).

III. NMR Spectra of other compounds

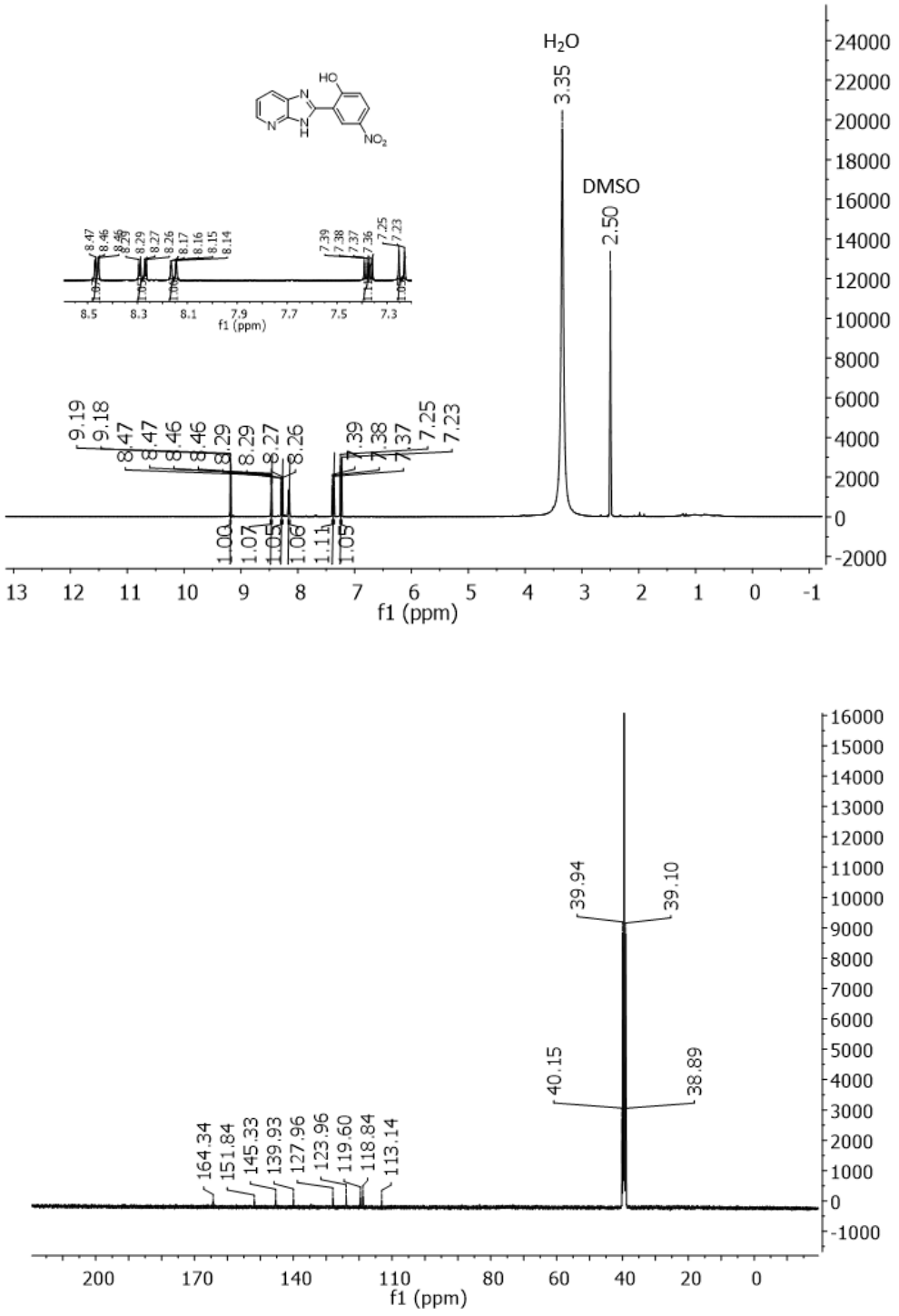

Figure S20· Proton and C-13 NMR spectra of **14a** in DMSO-*d*6

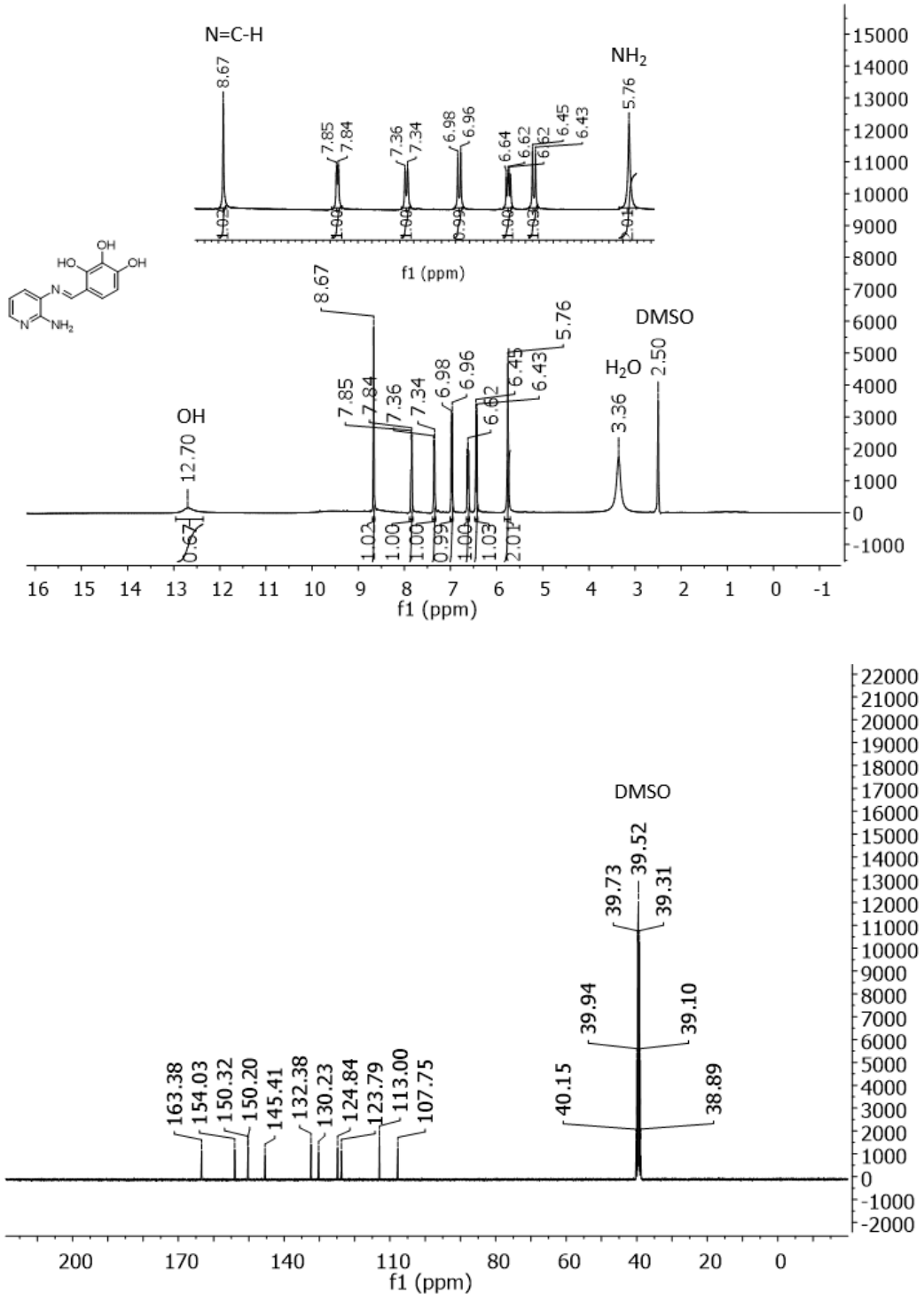

Figure 21a. Proton and C-13 NMR spectra of **14b'** in DMSO-d_6

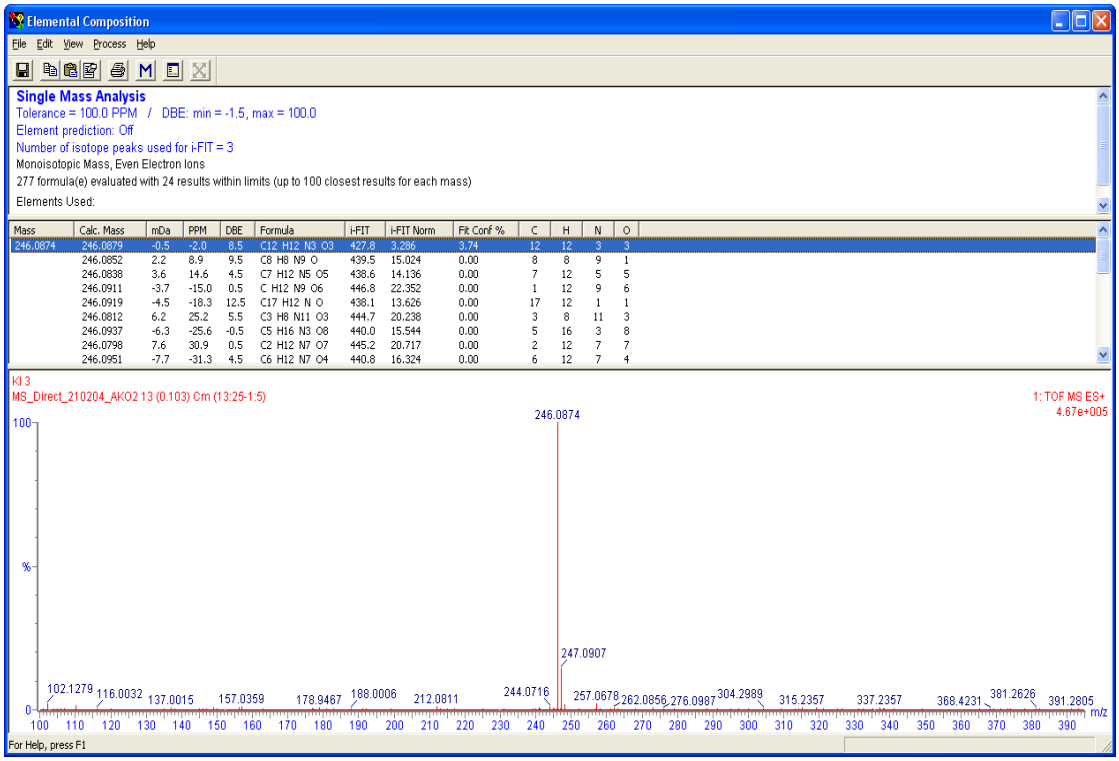

Figure S21b. HRMS data for **14b'**

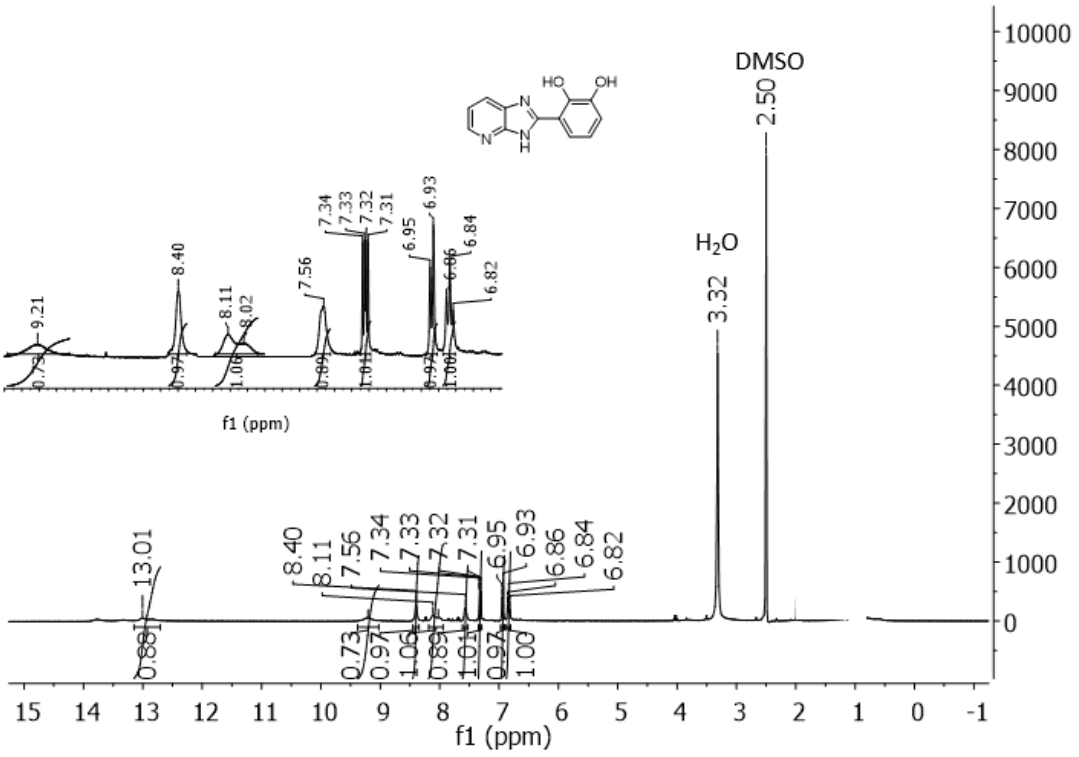

Figure S22. 600 MHz ^{1}H NMR spectrum of **14d** in DMSO-d_6

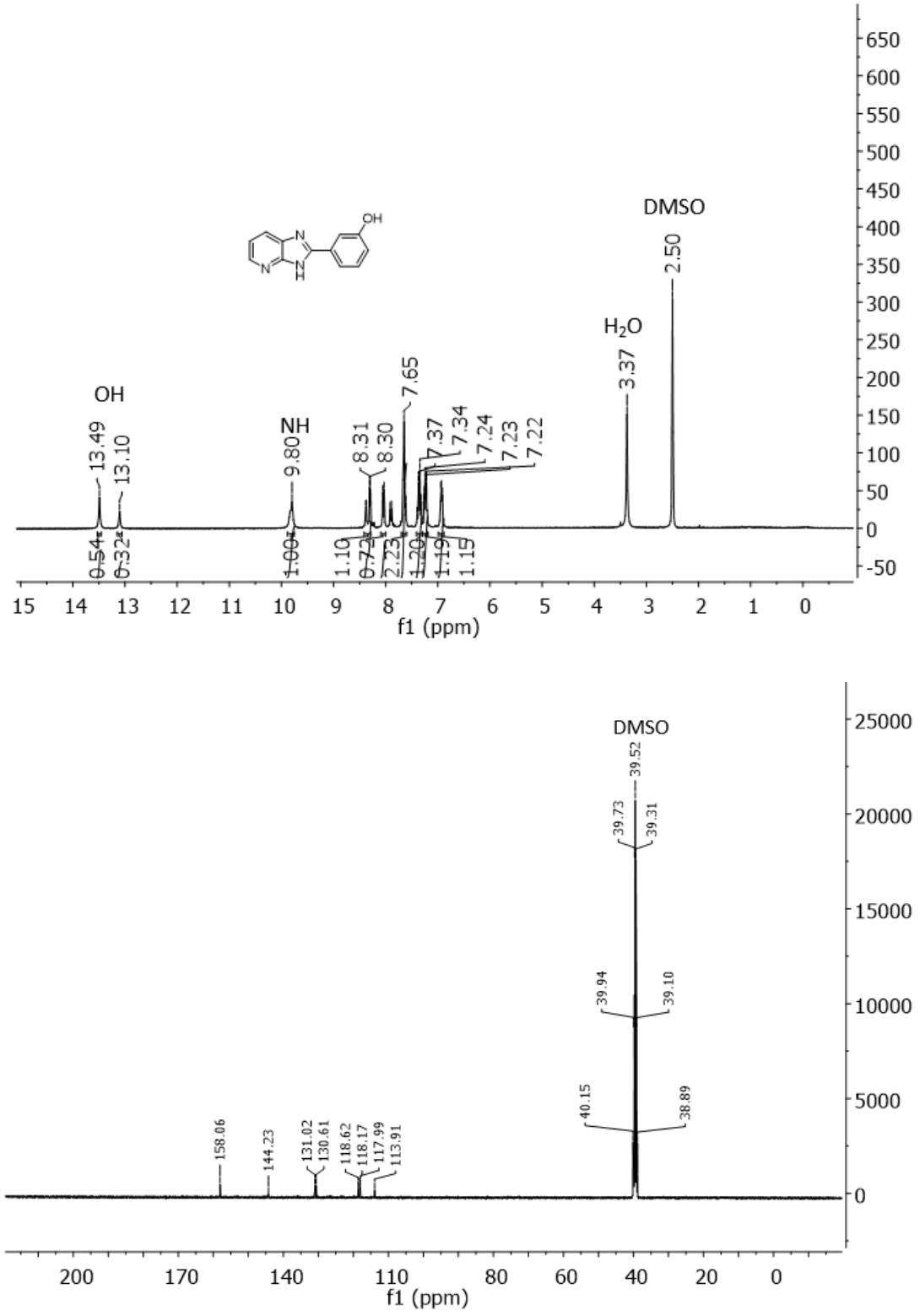

Figure S23. Proton and C-13 NMR spectra of **14e** in DMSO-d_6

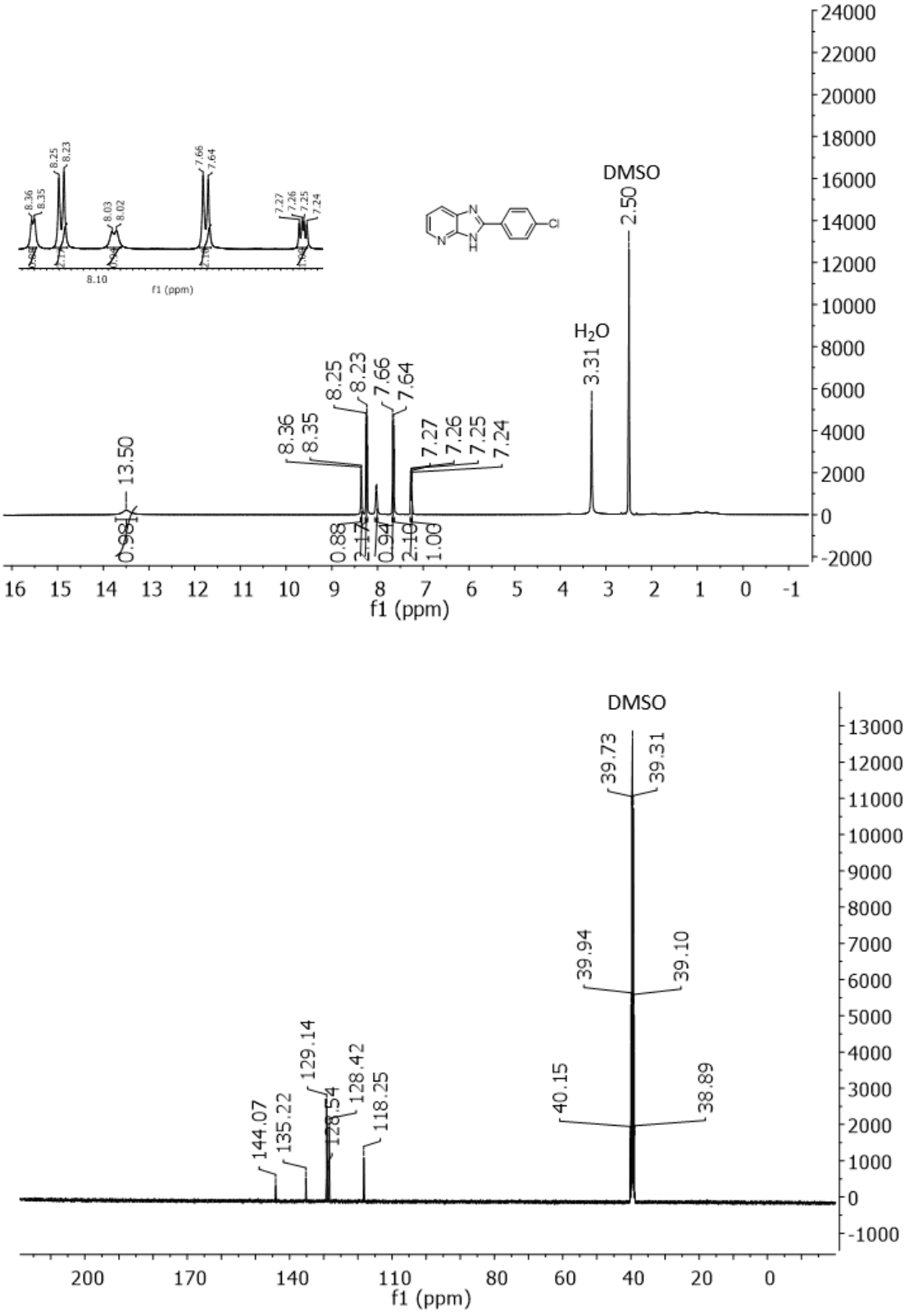

Figure S24. Proton and C-13 NMRspectra of **14f** in DMSO-d_6

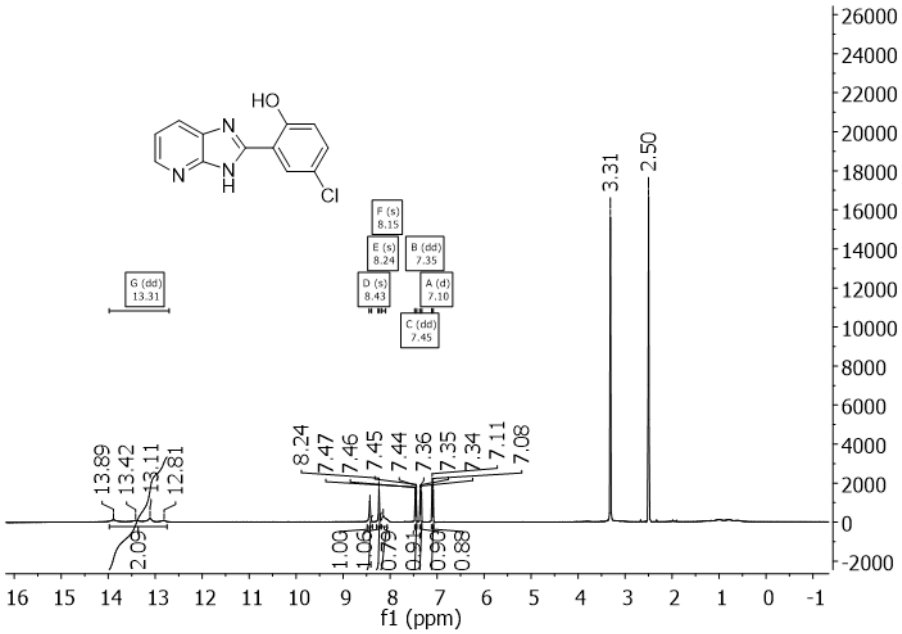

Figure S25. Proton NMR spectrum of **14g** in DMSO-d_6

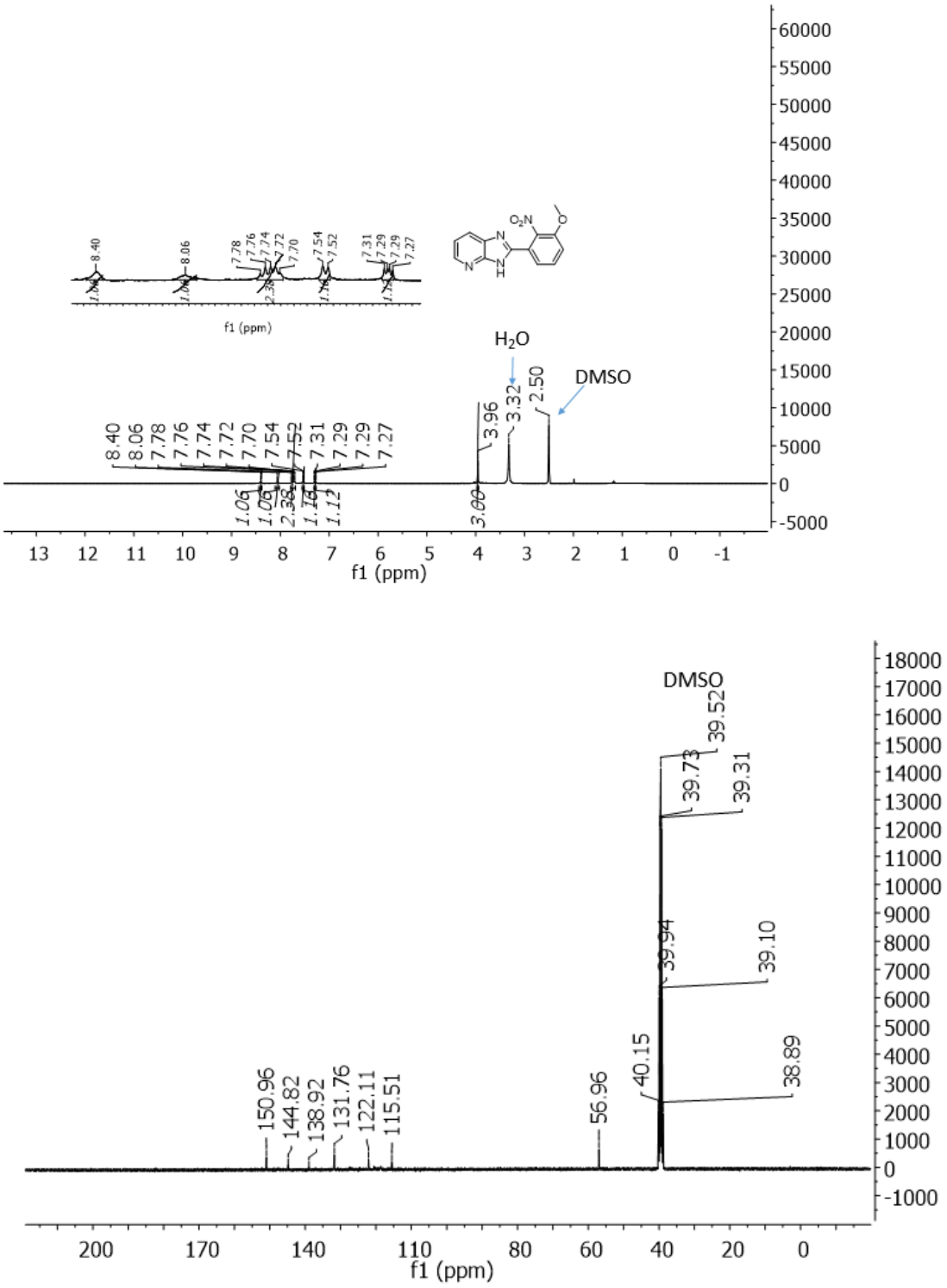

Figure S26. Proton and C-13 NMR spectra of **14h** in DMSO-d_6

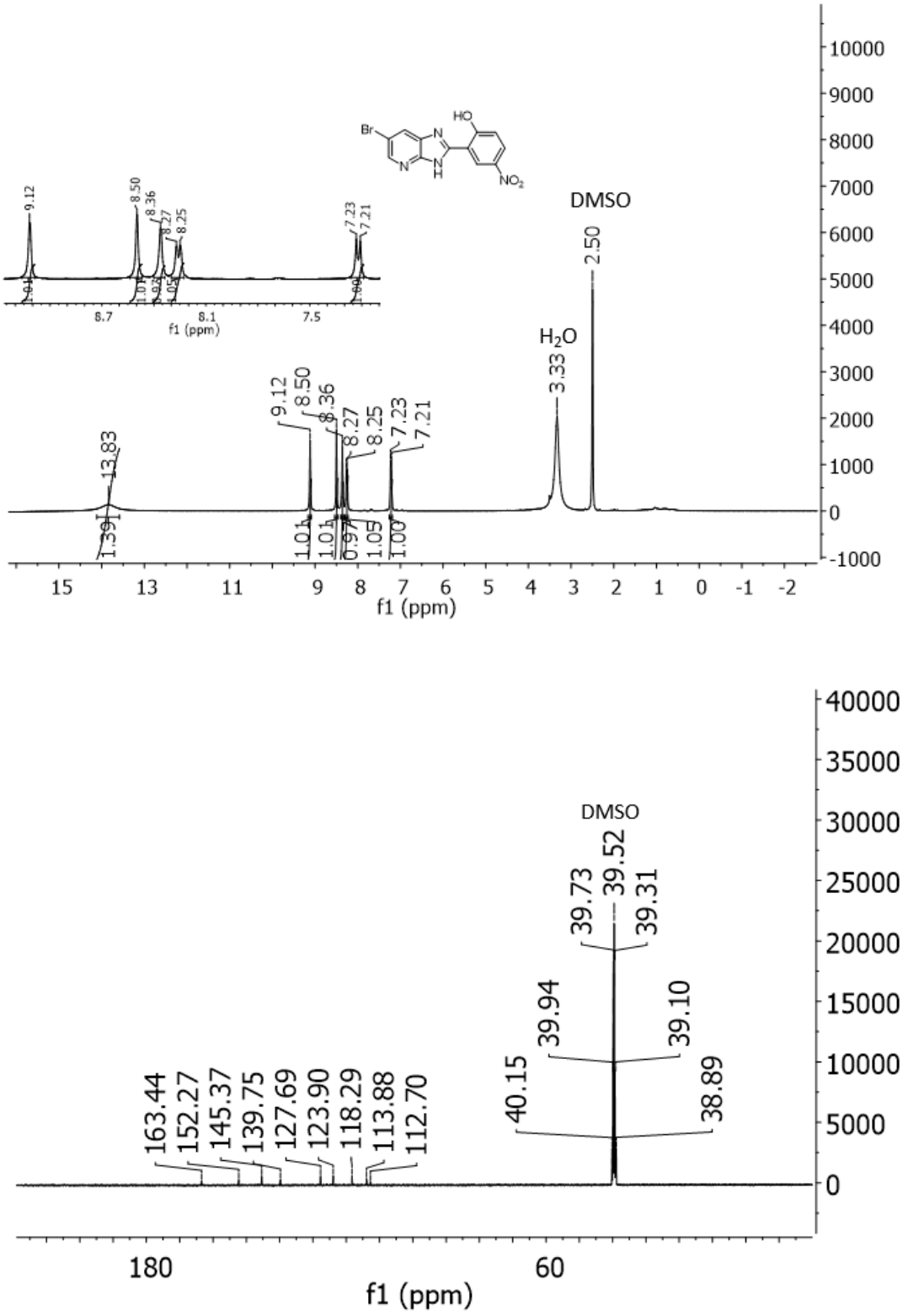

Figure S27. Proton and C-13 NMR spectra of **15a** in DMSO-d_6

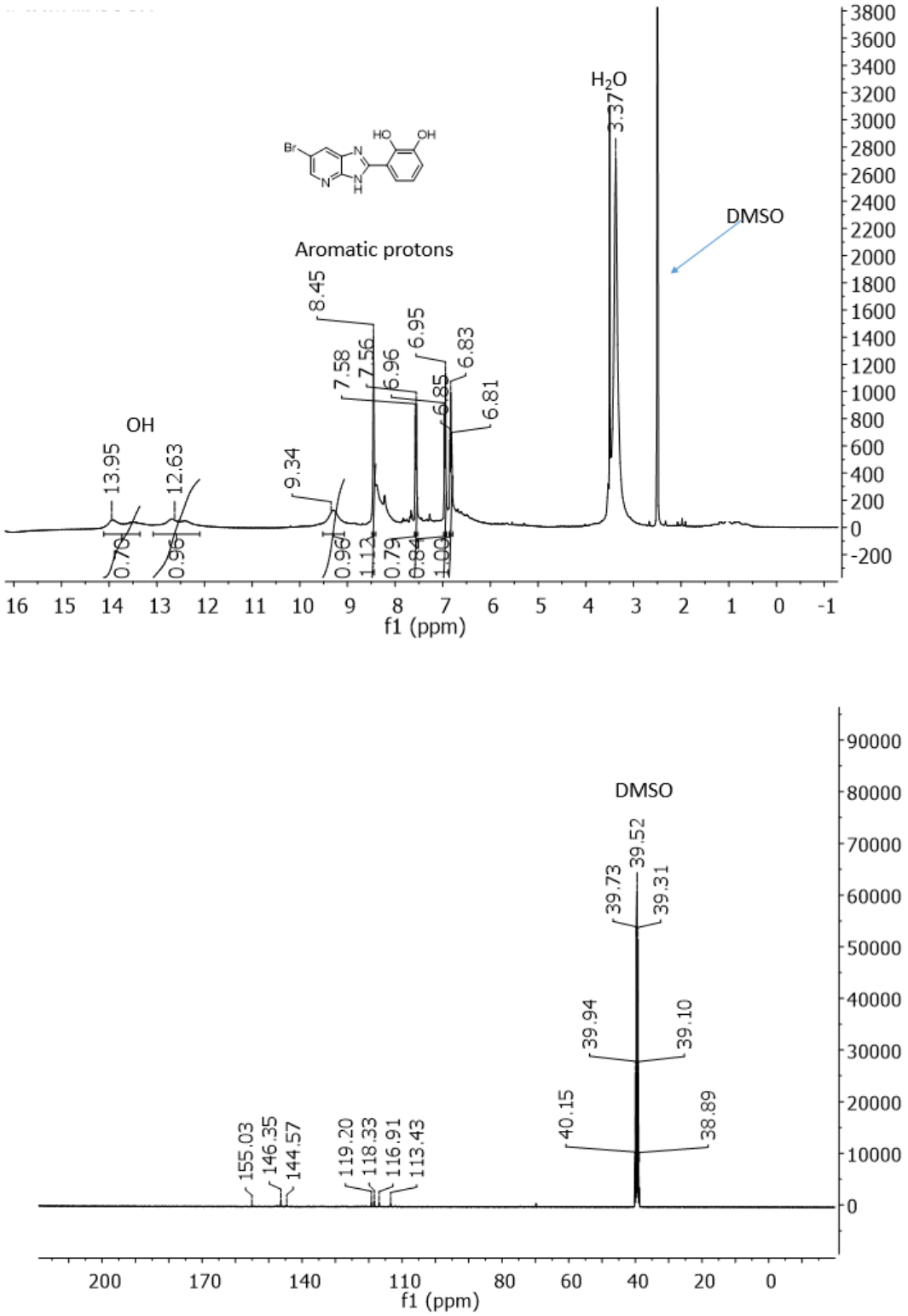

Figure S28. Proton and C-13 NMRspectra of **15d** in DMSO-d_6

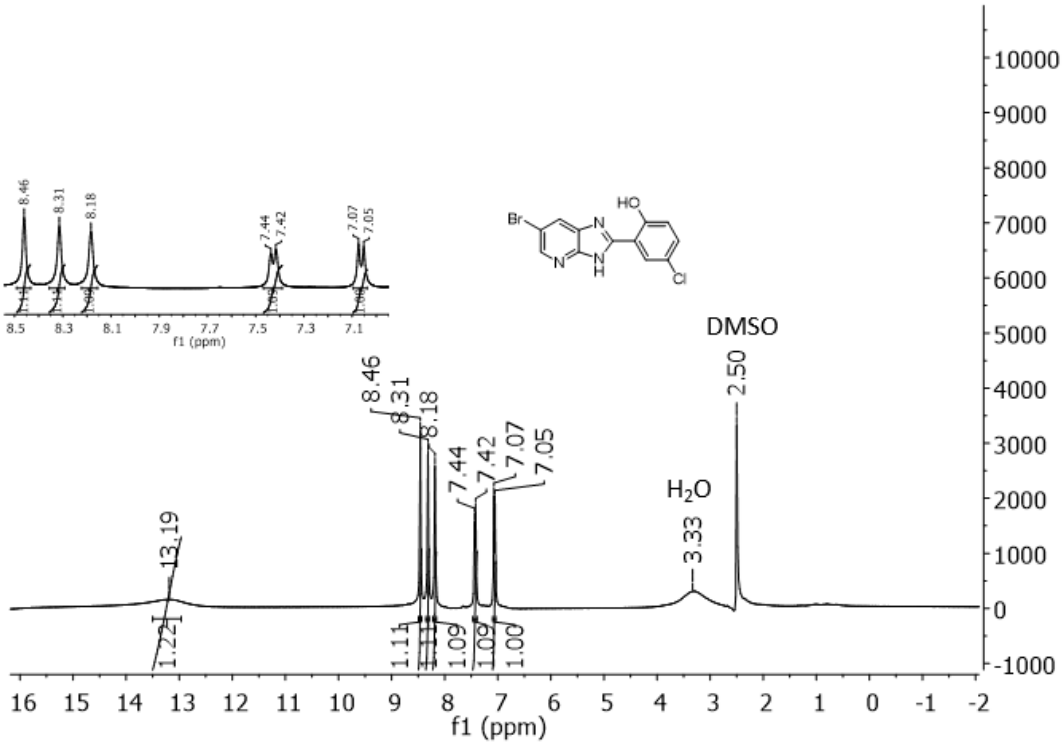

Figure S29. 400 MHz ^{1}H NMR spectrum of **15g** in DMSO-d_6

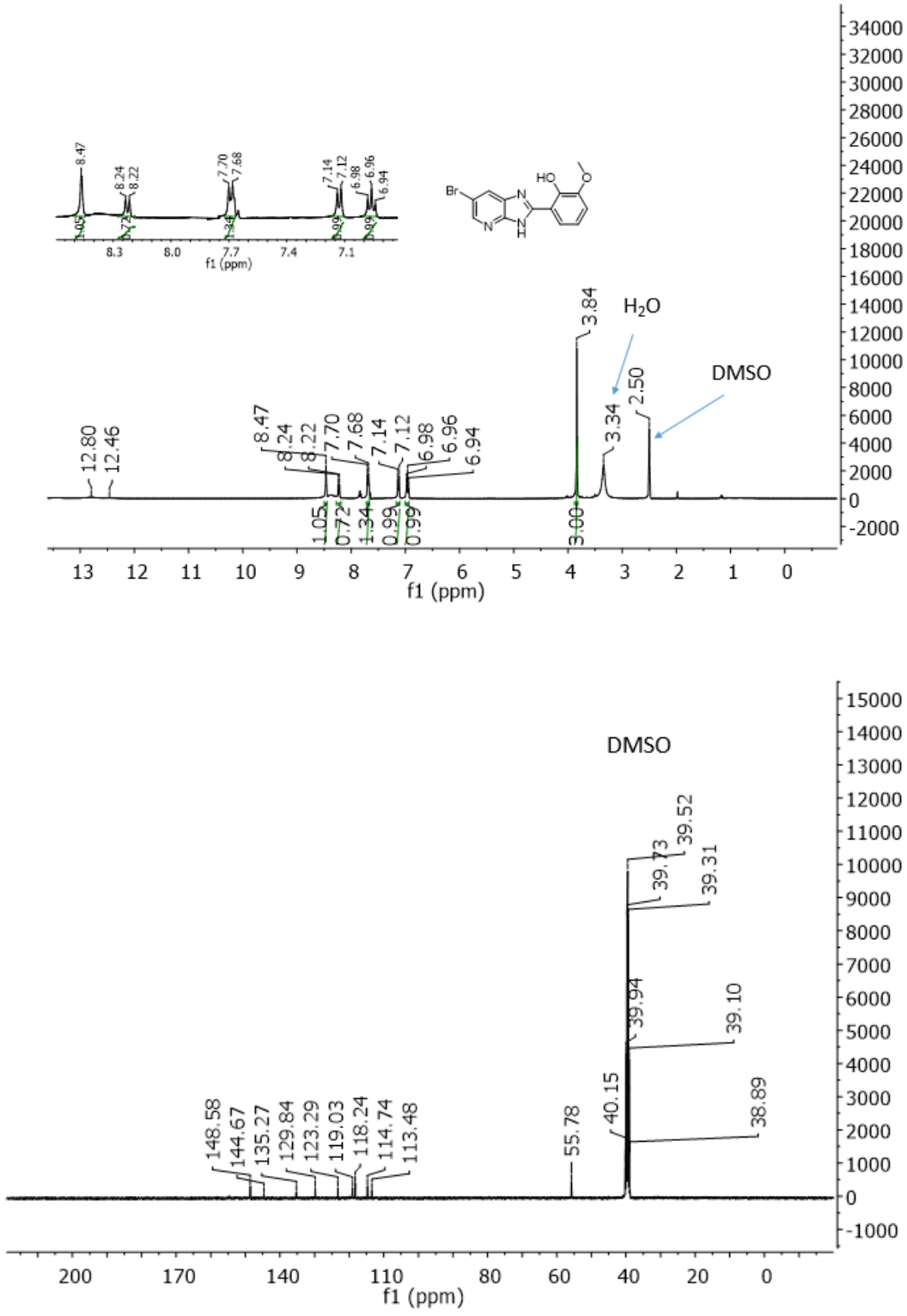

Figure S30. Proton and C-13 NMR spectra of **15i** in DMSO-d_6

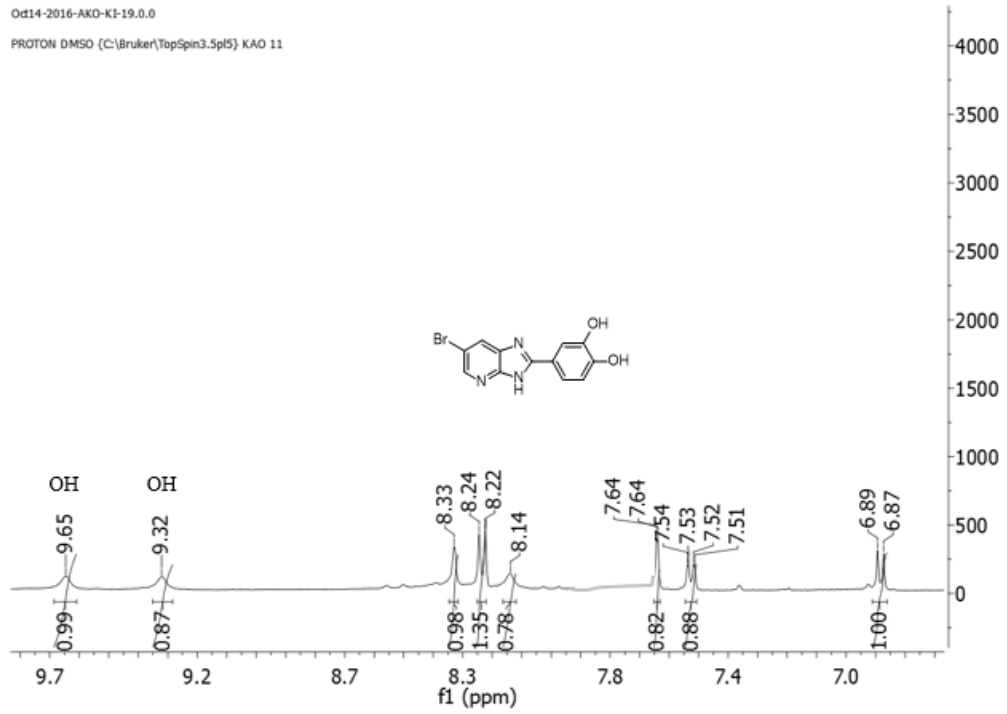

Figure S31. 400 MHz ^{1}H NMR spectrum of **15j** in DMSO-d_6

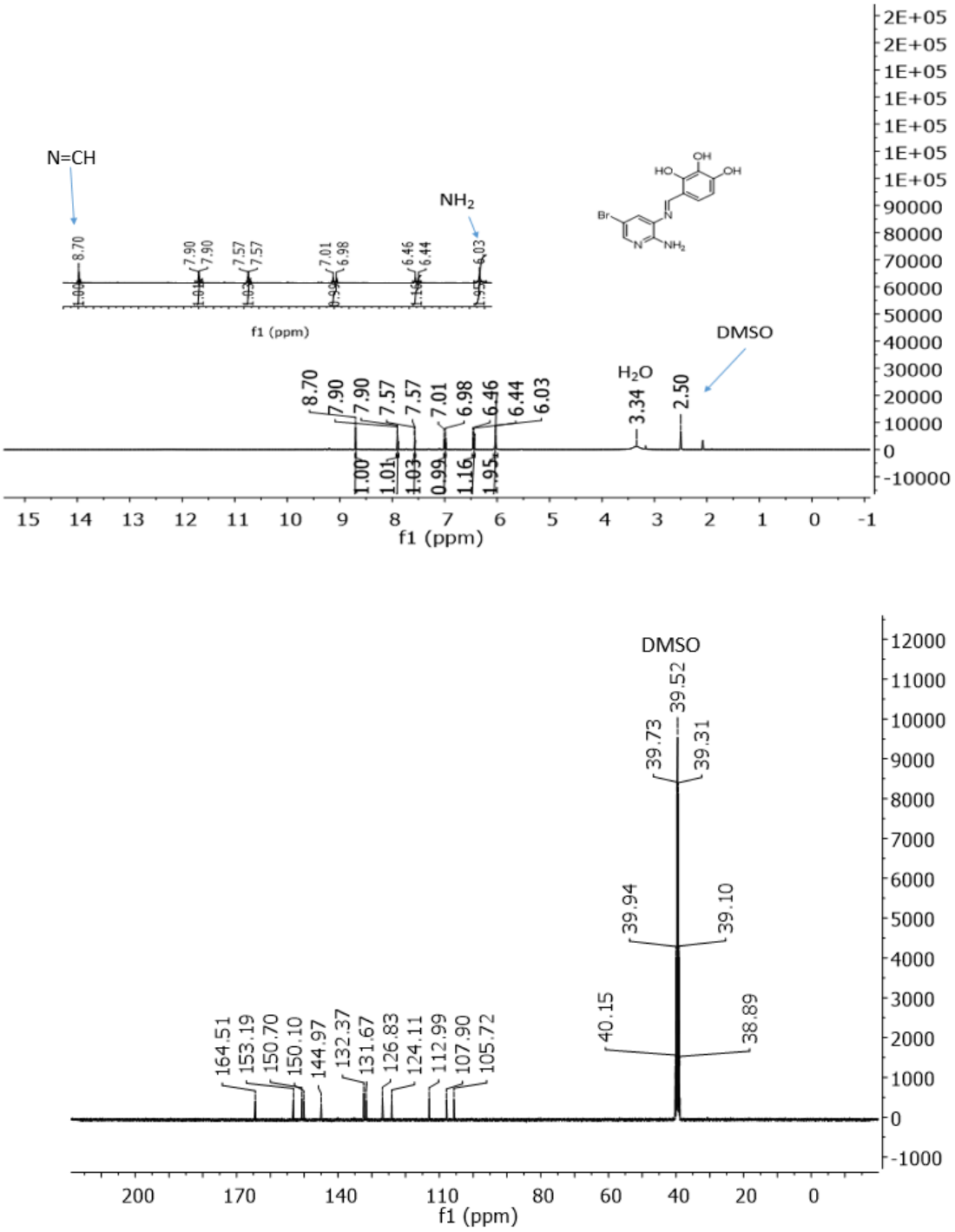

Figure S32. Proton and C-13 NMRspectra of **16a** in DMSO-d_6

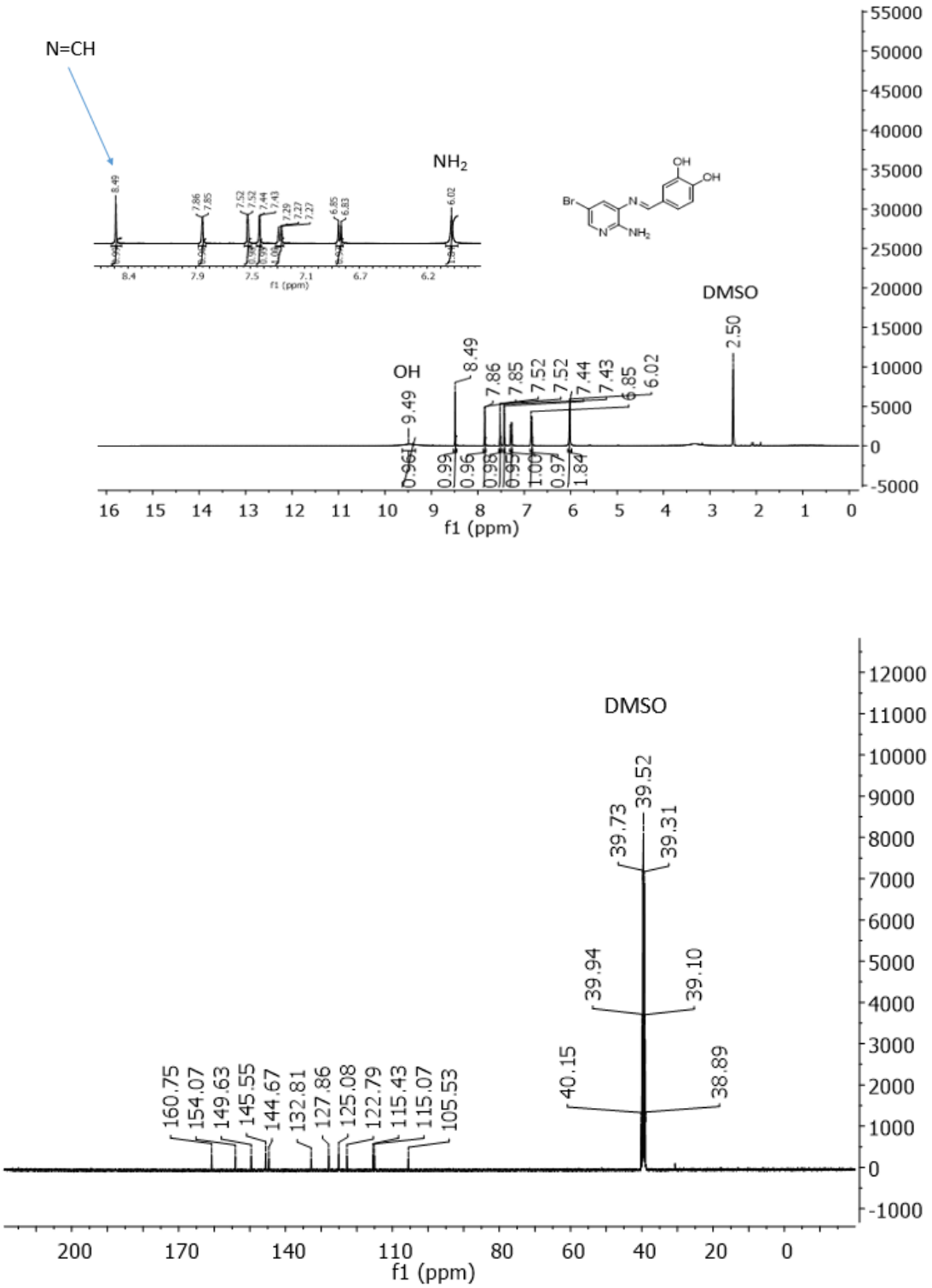

Figure S33. Proton and C-13 NMRspectra of **16b** in DMSO-d_6 [Known compound reported by N.C. Ramos *et al*., *Cogent Chemistry*, 2 (2016) 1-11.]

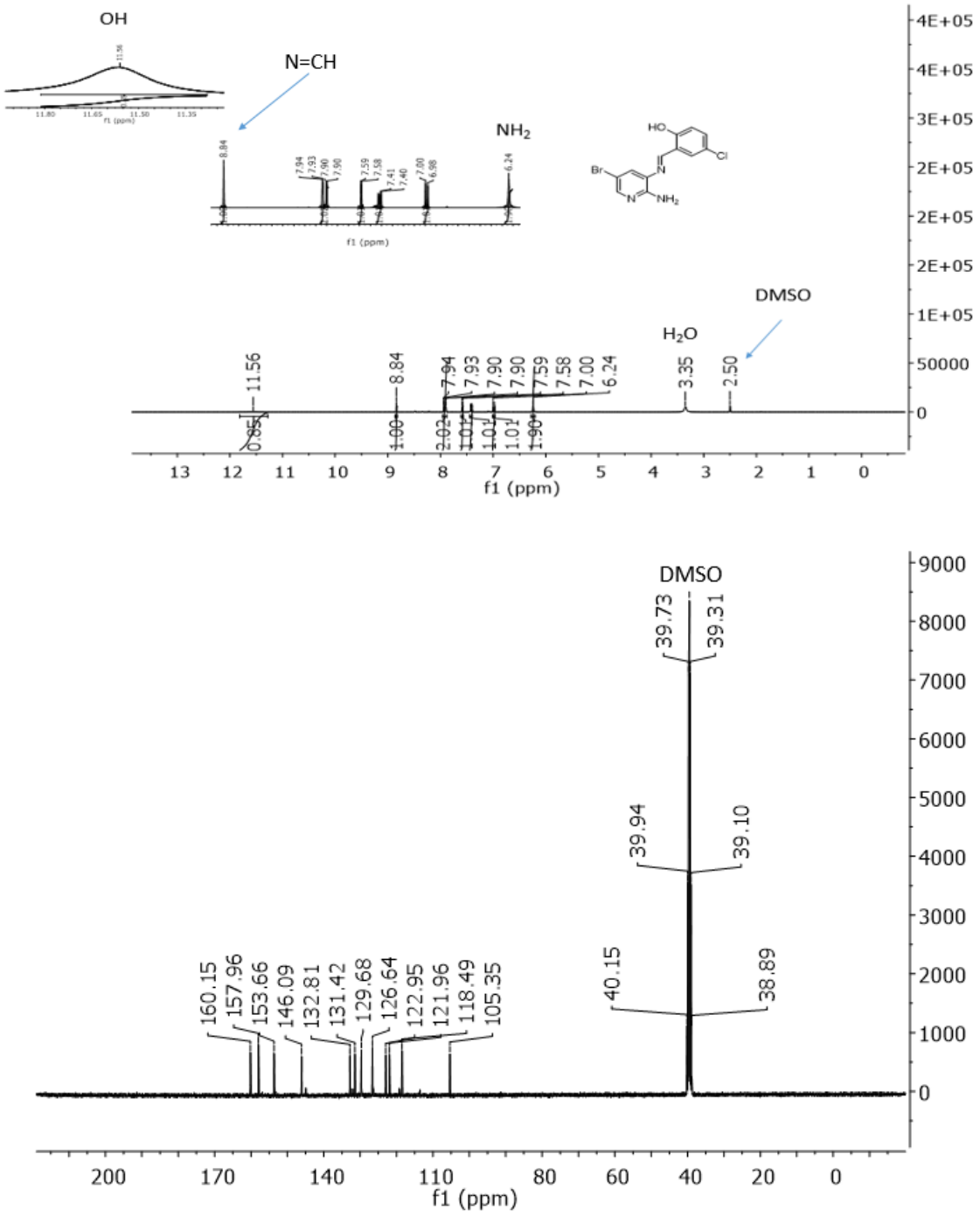

Figure S34. Proton and C-13 NMRspectra of **16c** in DMSO-d_6

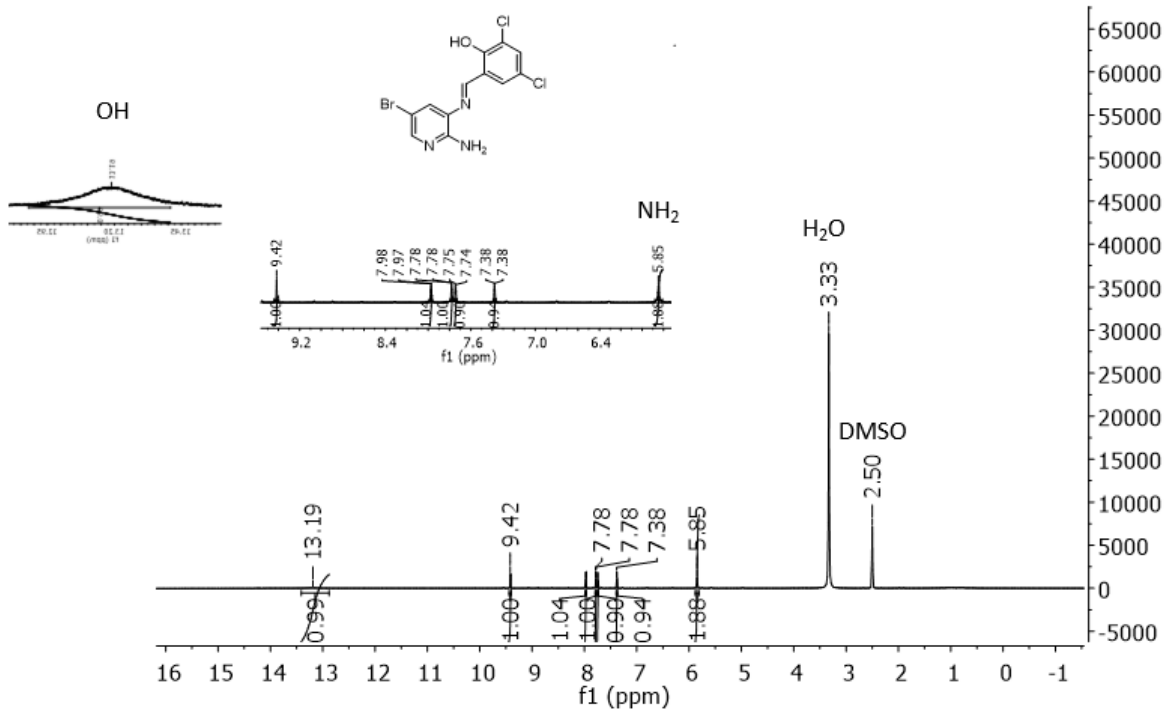

Figure S35. 400 MHz ^{1}H NMR spectrum of **16d** in DMSO-d_6

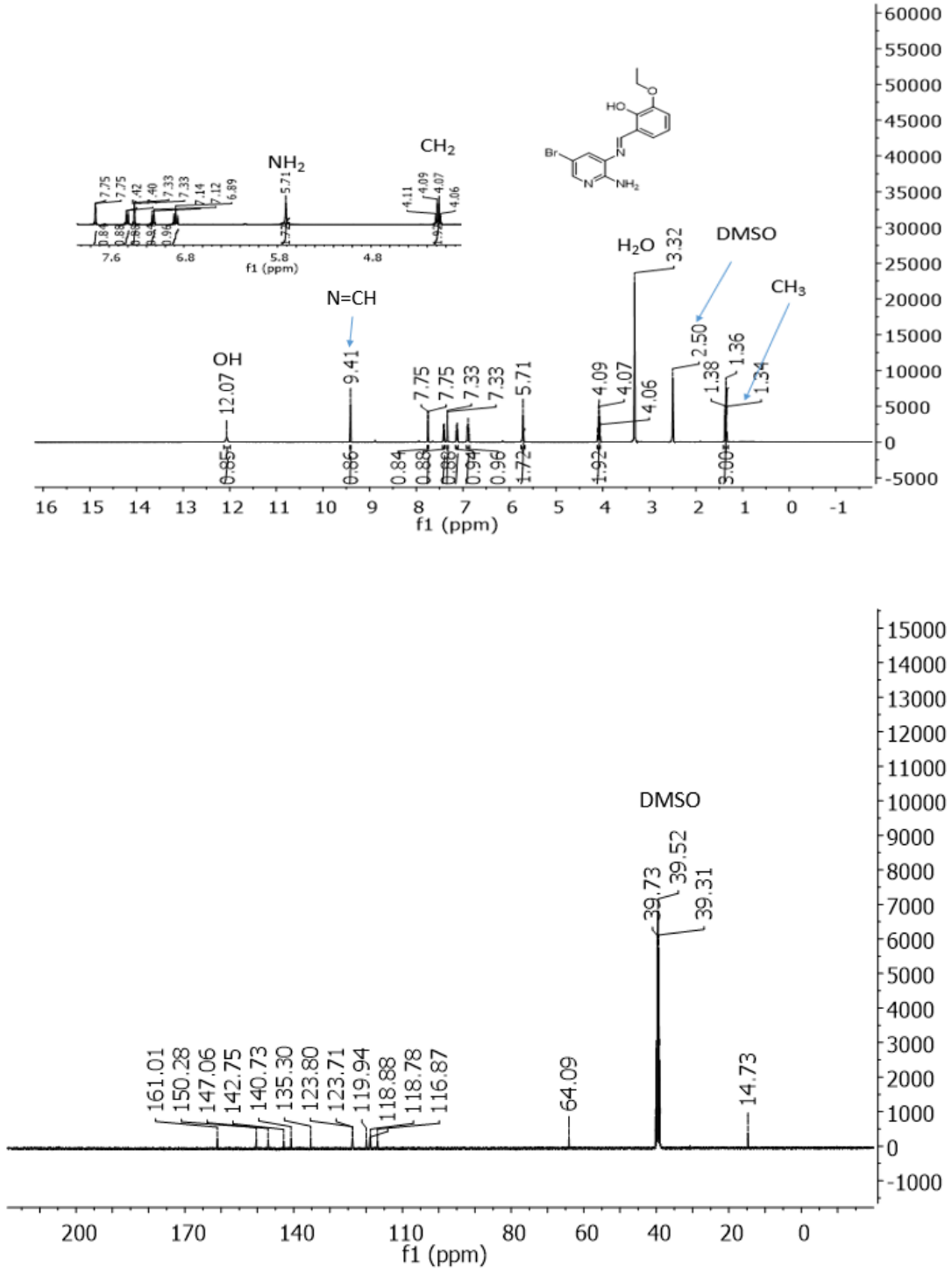

Figure S36. Proton and C-13 NMR spectra of **16e** in DMSO-d_6

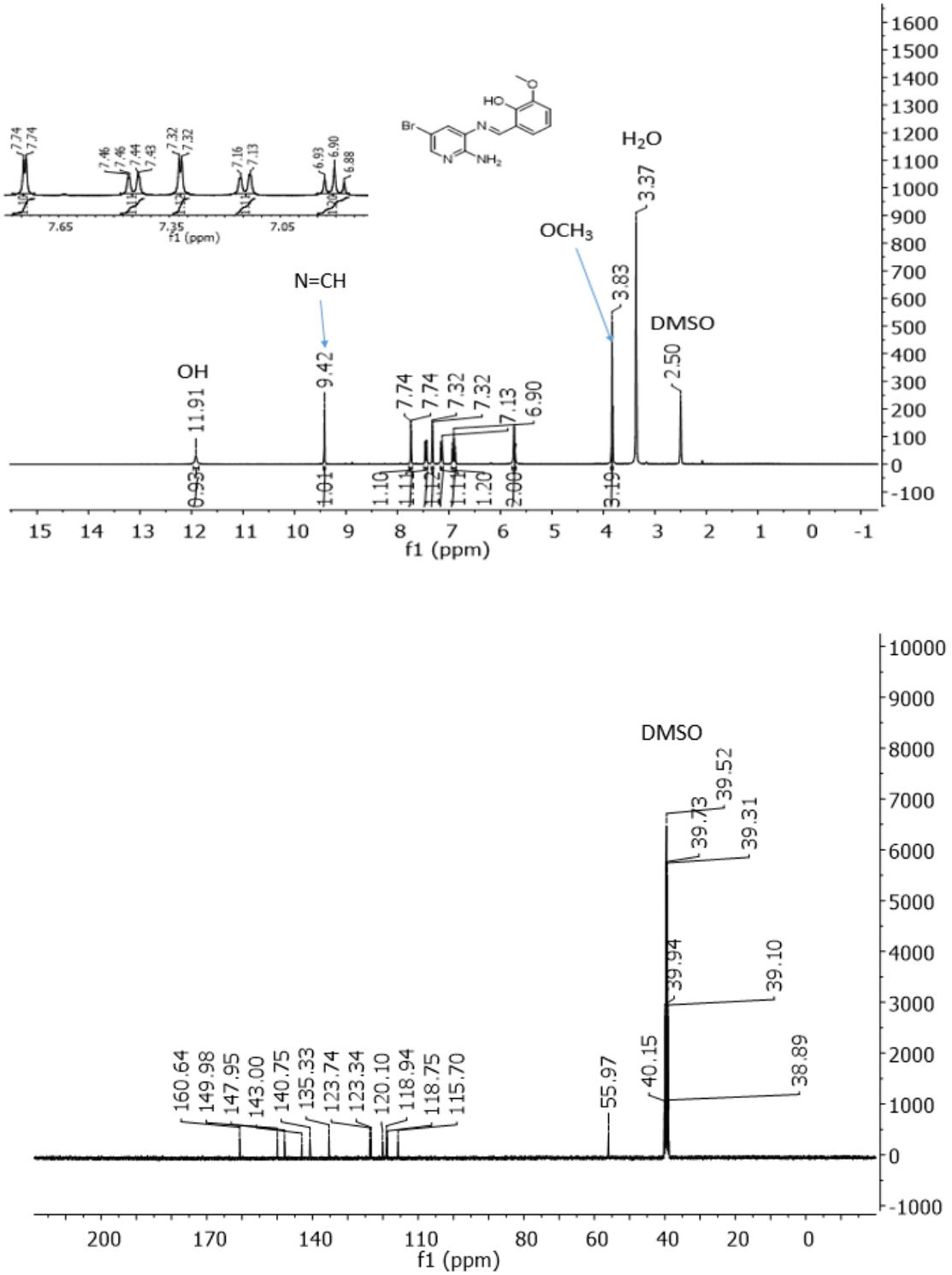

Figure S37. Proton and C-13 NMR spectra of **16f** in DMSO-d_6

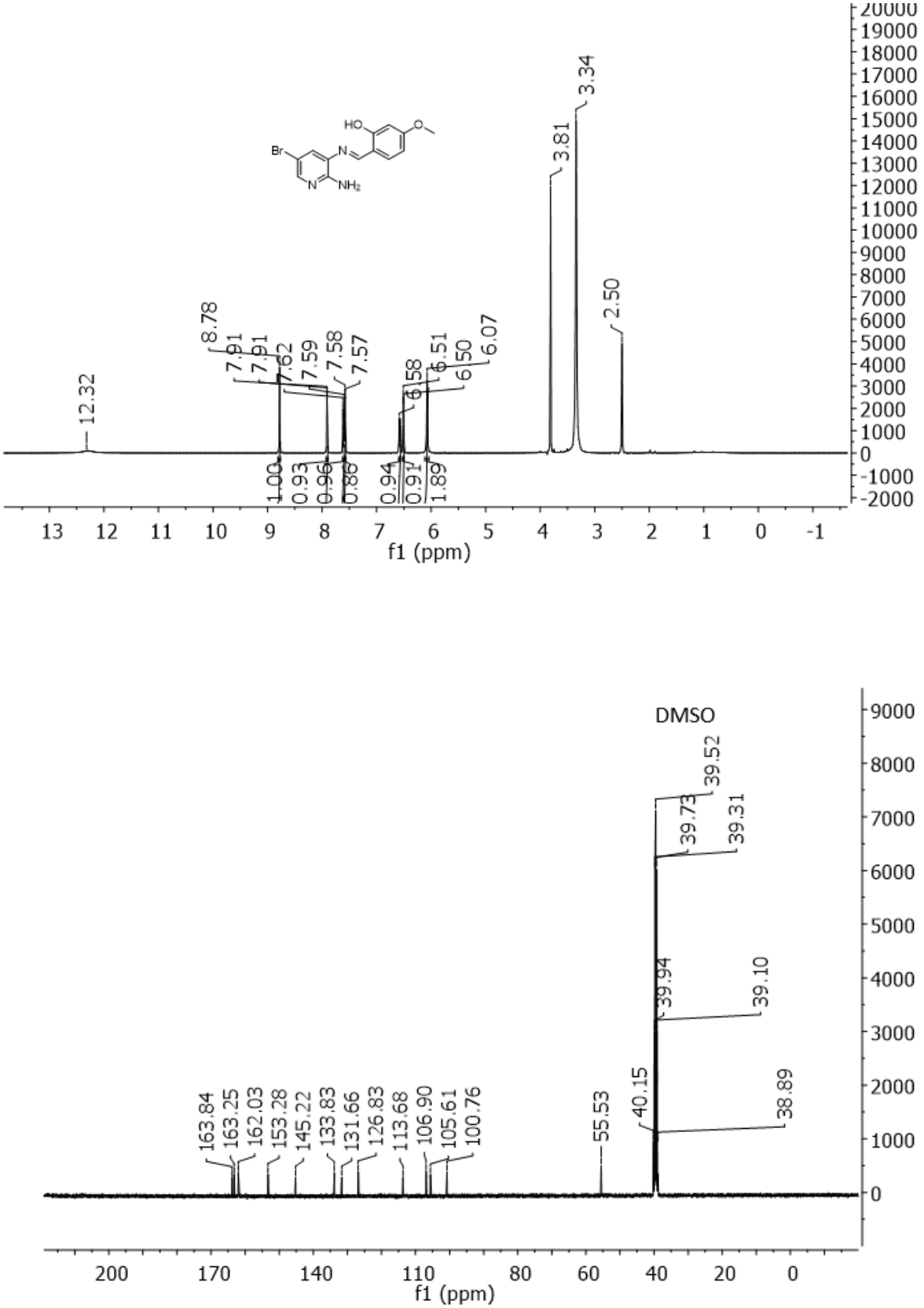

Figure S38. Proton and C-13 NMR spectra of **16g** in DMSO-d_6

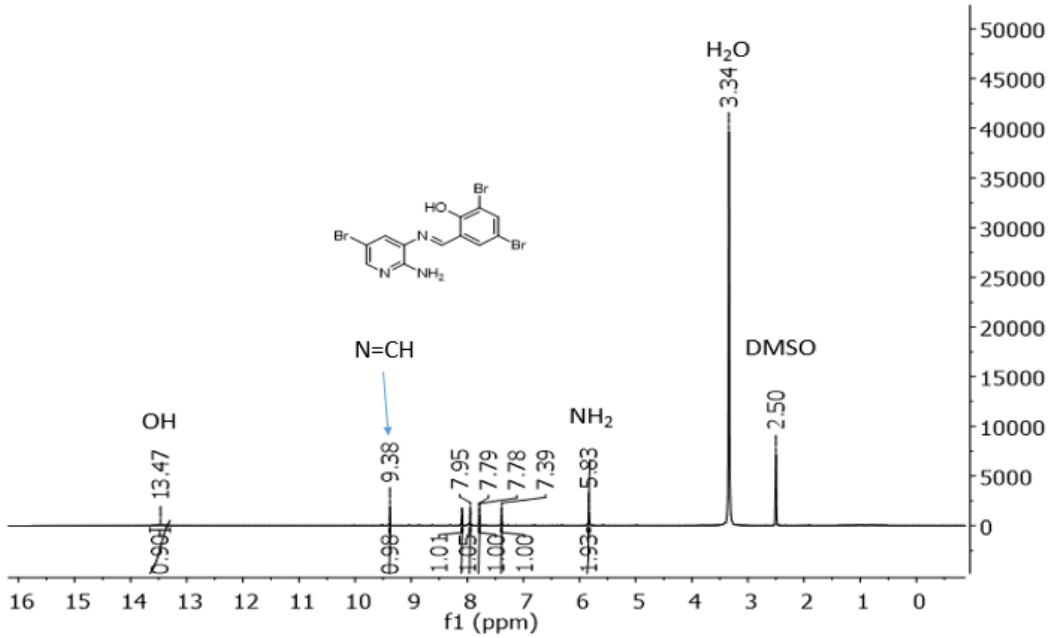

Figure S39. 400 MHz ^{1}H NMR spectrum of **16h** in DMSO-d_6

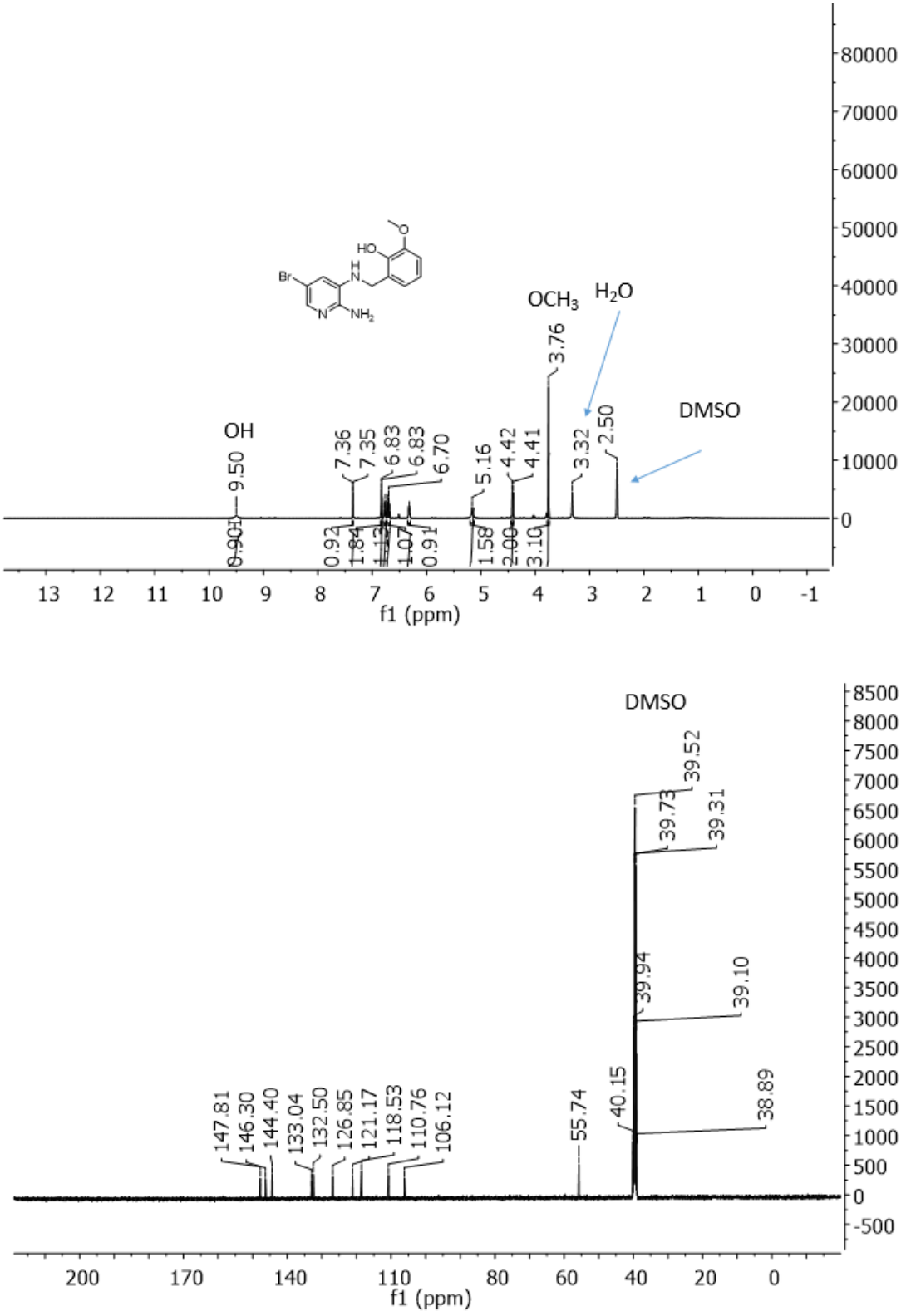

Figure S40. Proton and C-13 NMR spectra of **17f** in DMSO-d_6

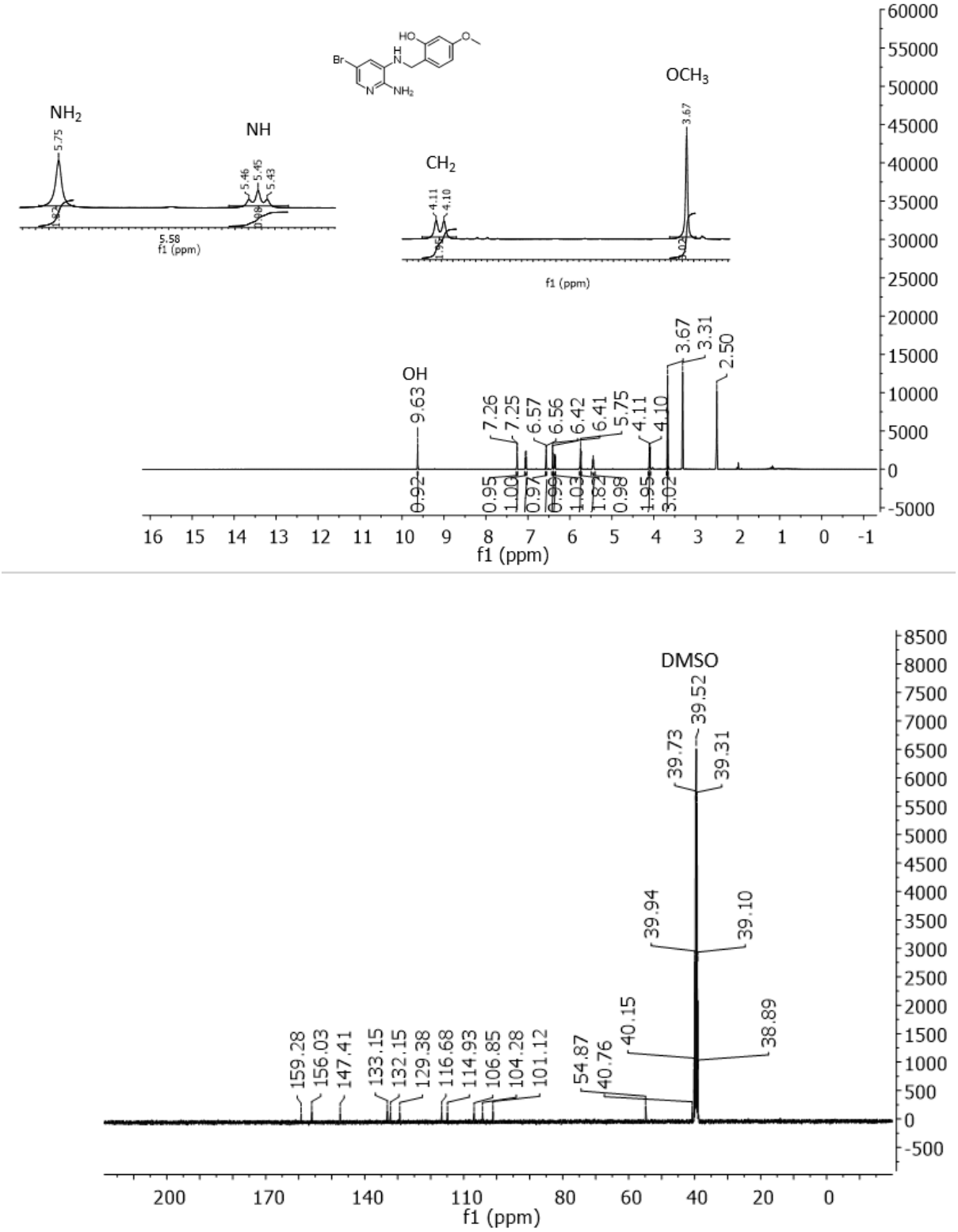

Figure S41. Proton and C-13 NMR spectra of **17g** in DMSO-d_6

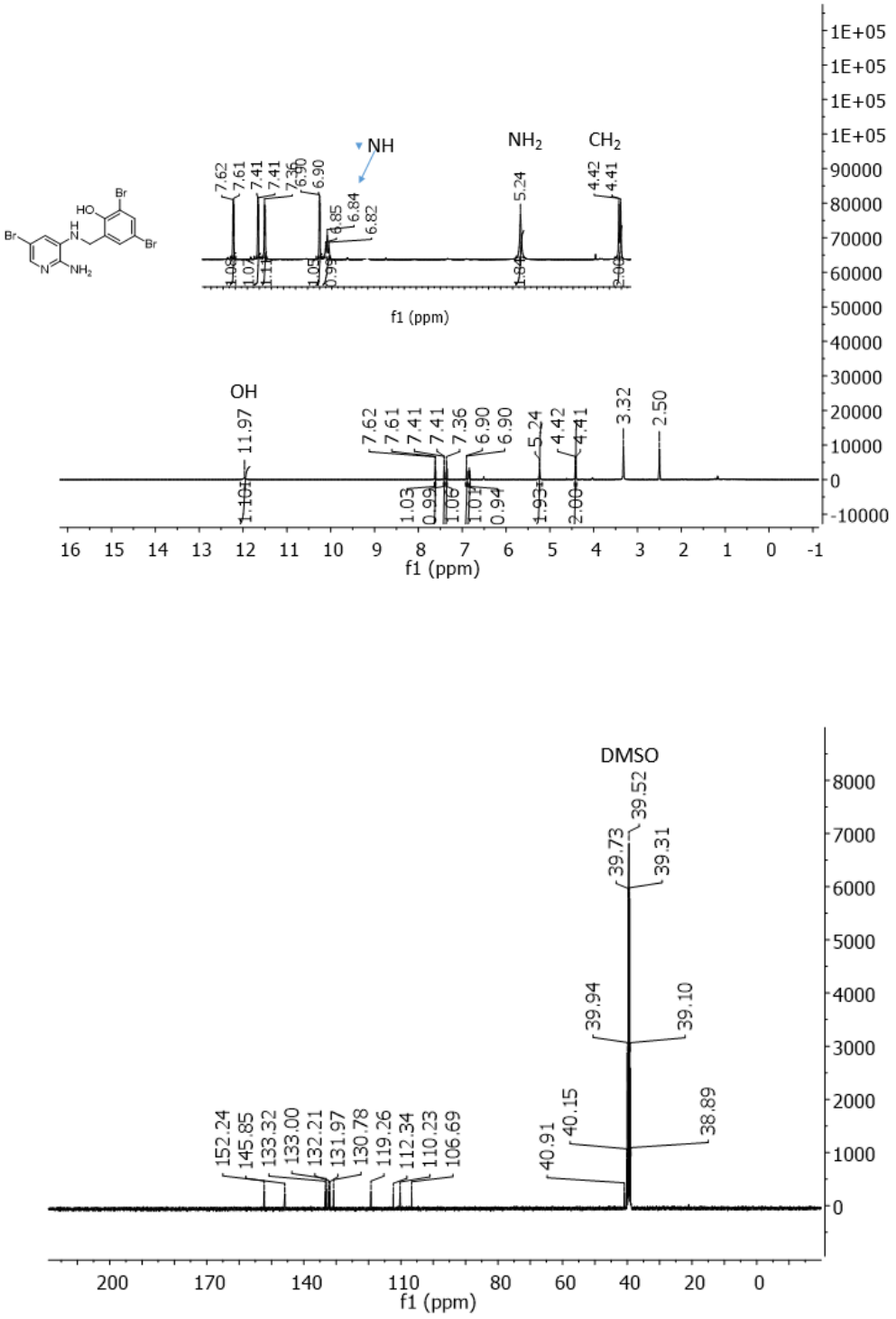

Figure S42. Proton and C-13 NMR spectra of **17h** in DMSO-d_6

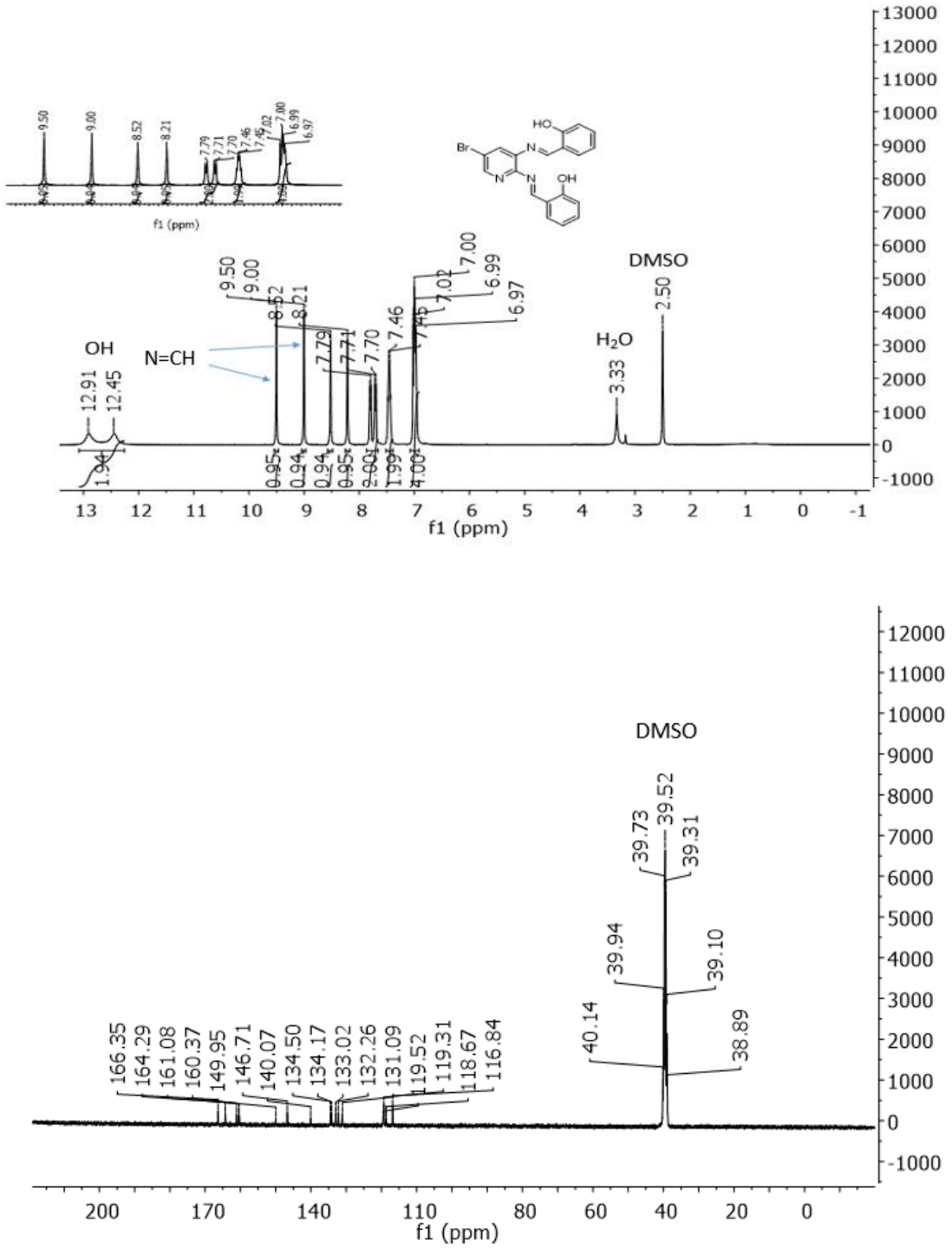

Figure S43. Proton and C-13 NMR spectra of **18** in DMSO-d_6

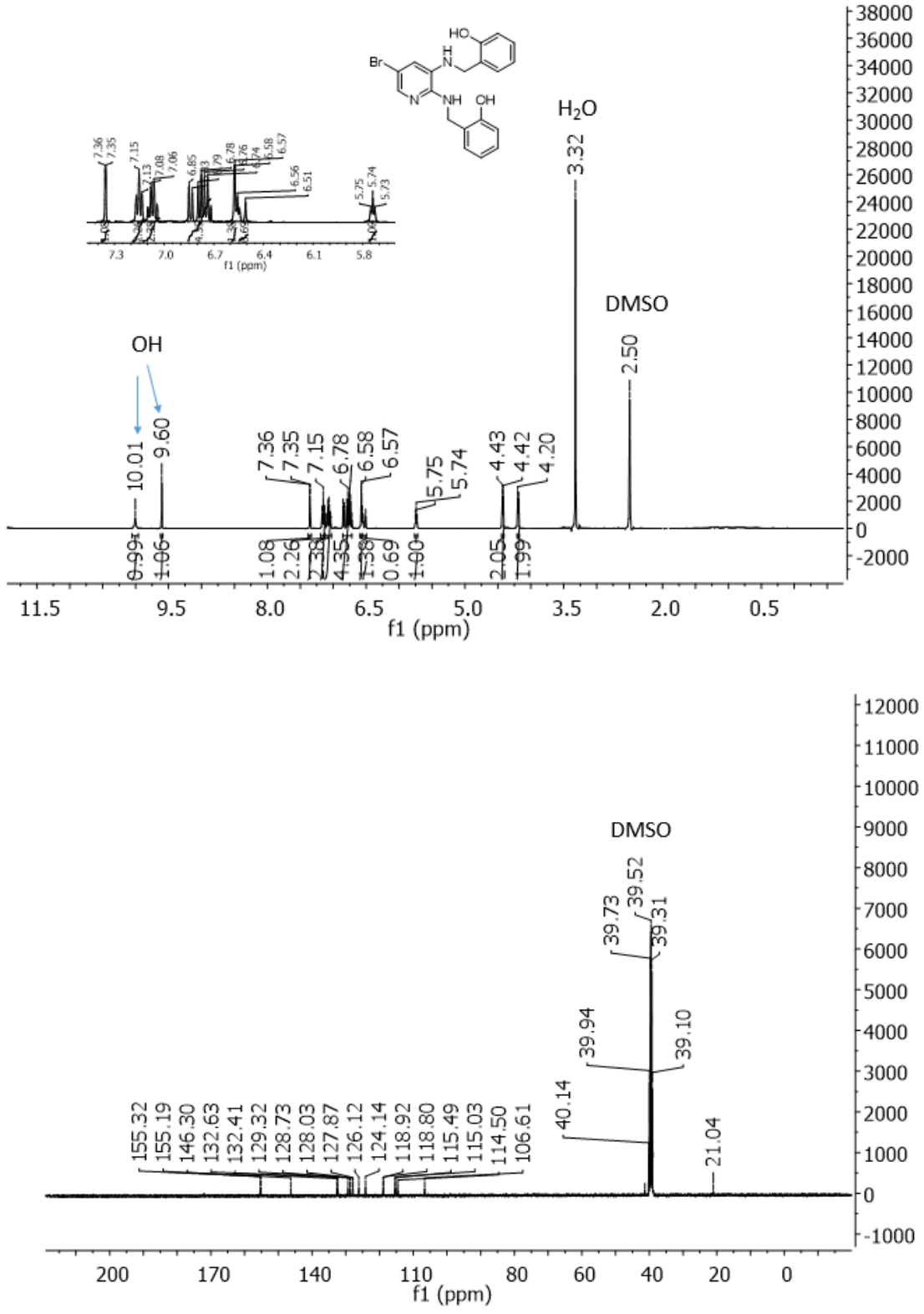

Figure S44. Proton and C-13 NMR spectra of **19** in DMSO-d_6

