

Supporting Information

Sixteen New Prenylated Flavonoids from the Fruit of *Sinopodophyllum hexandrum*

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Abstract: Sixteen new prenylated flavonoids, sinoflavonoids P–Z (**1–11**) and sinoflavonoids NA–NE (**12–16**), were isolated from the fruit of *Sinopodophyllum hexandrum*, along with eight known analogues (**17–24**). Their structures were elucidated on the basis of extensive spectroscopic data (HR-ESI-MS, ¹H-NMR, ¹³C-NMR, HSQC, HMBC). The cytotoxic activities of compounds **1–18**, **20**, and **22** were evaluated by MTT assay. Compound **6** showed the most potent cytotoxicity in MCF-7, and HepG2 cell lines, with IC₅₀ values of 6.25 and 3.83 μM, respectively.

Keywords: *Sinopodophyllum hexandrum*; prenylated flavonoid; cytotoxic activity

Content

The 1D and 2D NMR spectra of compound 1	3
The 1D and 2D NMR spectra of compound 2	5
The 1D and 2D NMR spectra of compound 3	7
The 1D and 2D NMR spectra of compound 4	9
The 1D and 2D NMR spectra of compound 5	11
The 1D and 2D NMR spectra of compound 6	13
The 1D and 2D NMR spectra of compound 7	15
The 1D and 2D NMR spectra of compound 8	17
The 1D and 2D NMR spectra of compound 9	19
The 1D and 2D NMR spectra of compound 10	21
The 1D and 2D NMR spectra of compound 11	23
The 1D and 2D NMR spectra of compound 12	25
The 1D and 2D NMR spectra of compound 13	27
The 1D and 2D NMR spectra of compound 14	29
The 1D and 2D NMR spectra of compound 15	31
The 1D and 2D NMR spectra of compound 16	33

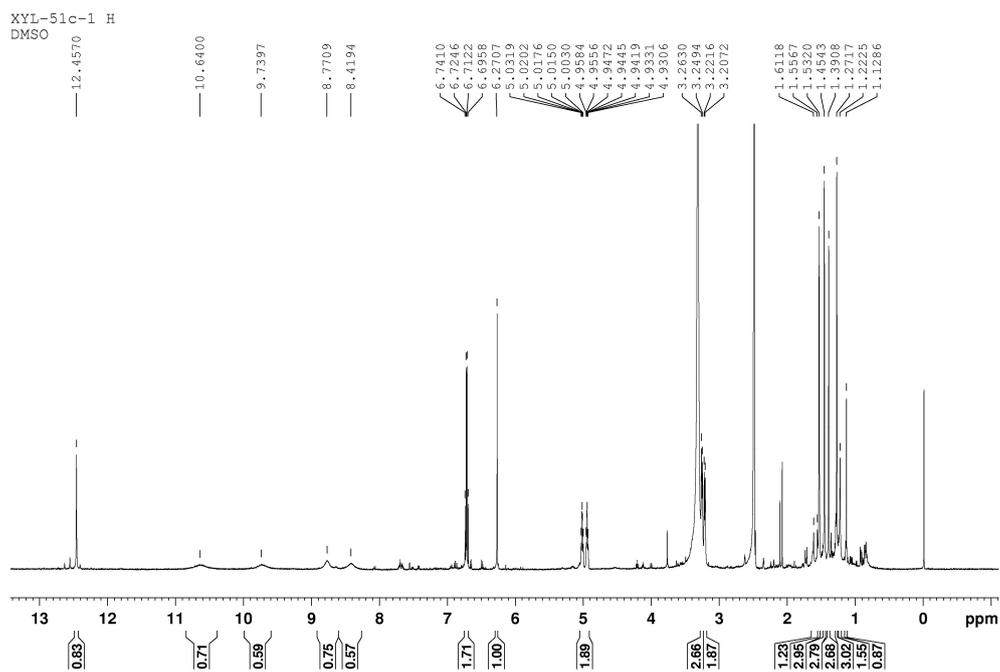


Figure S1. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**

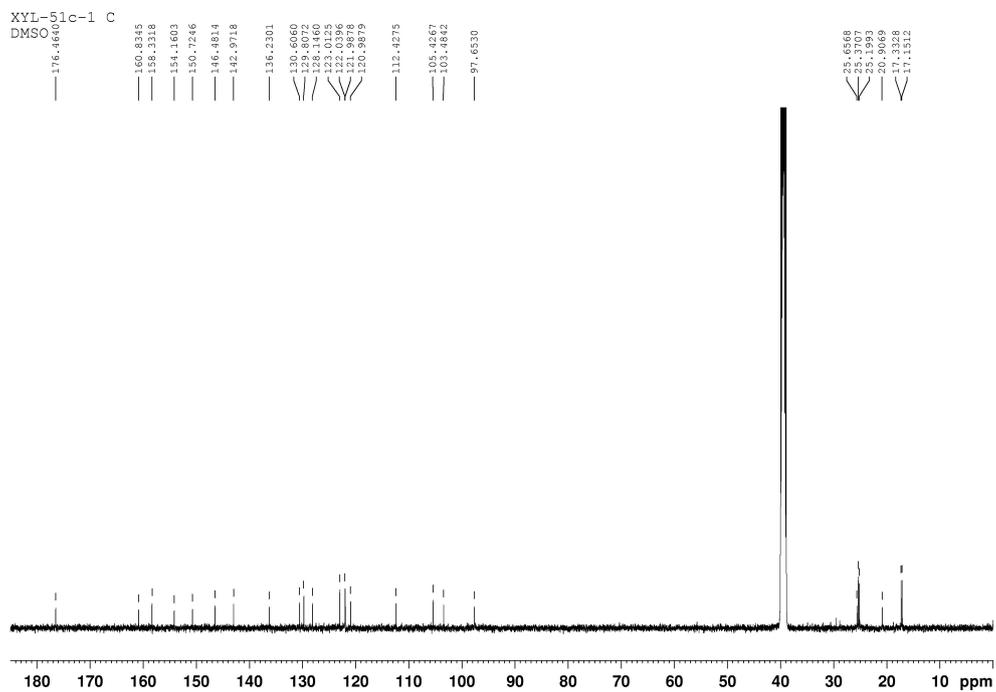


Figure S2. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**

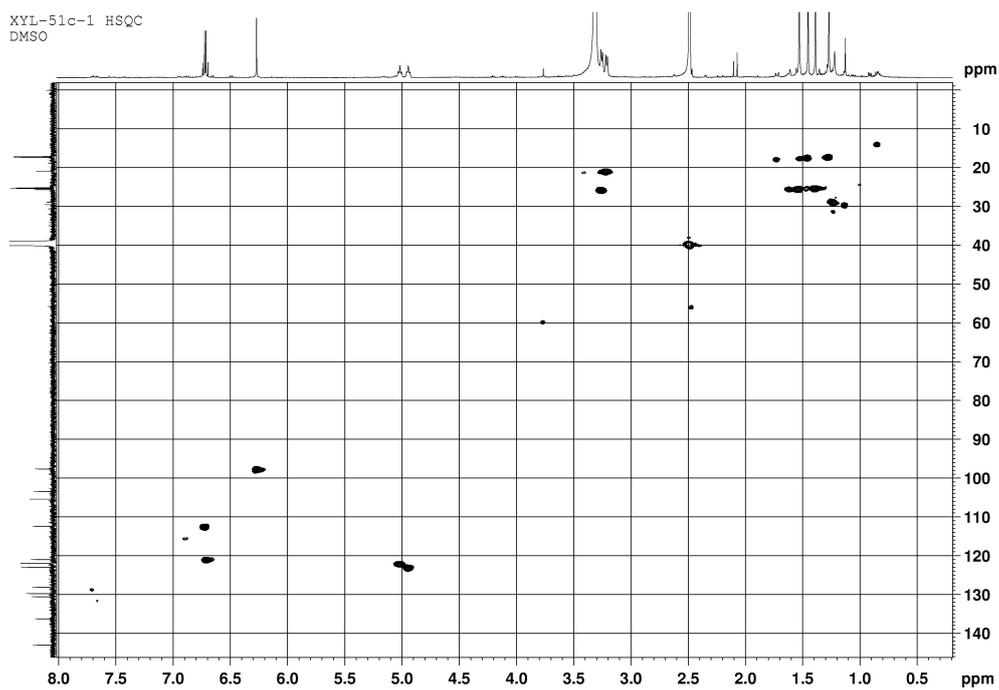


Figure S3. HSQC spectrum of compound **1**

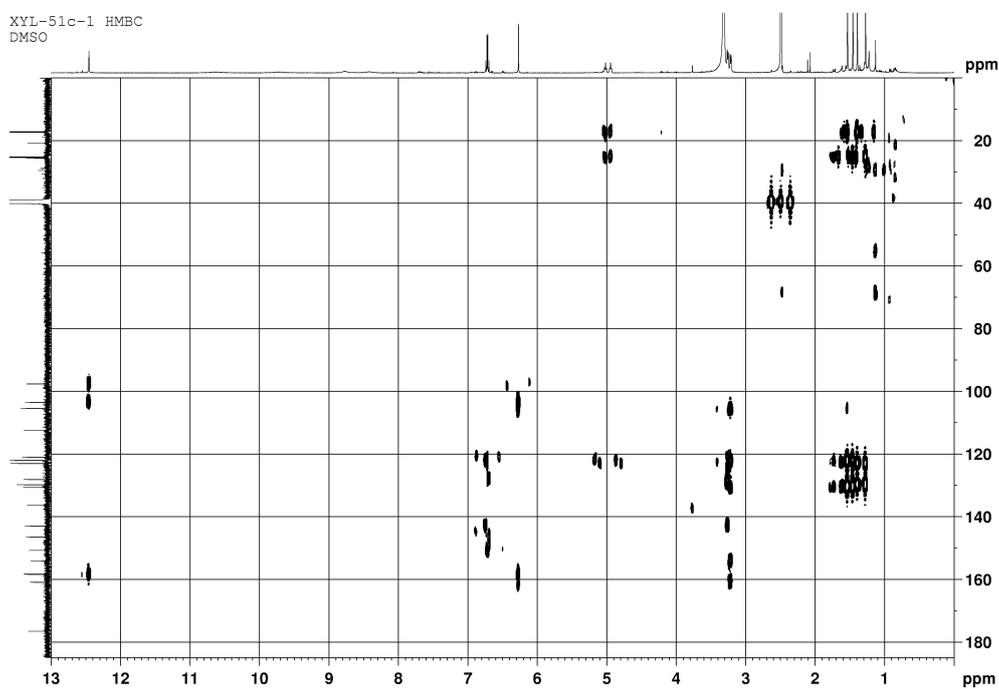


Figure S4. HMBC spectrum of compound **1**

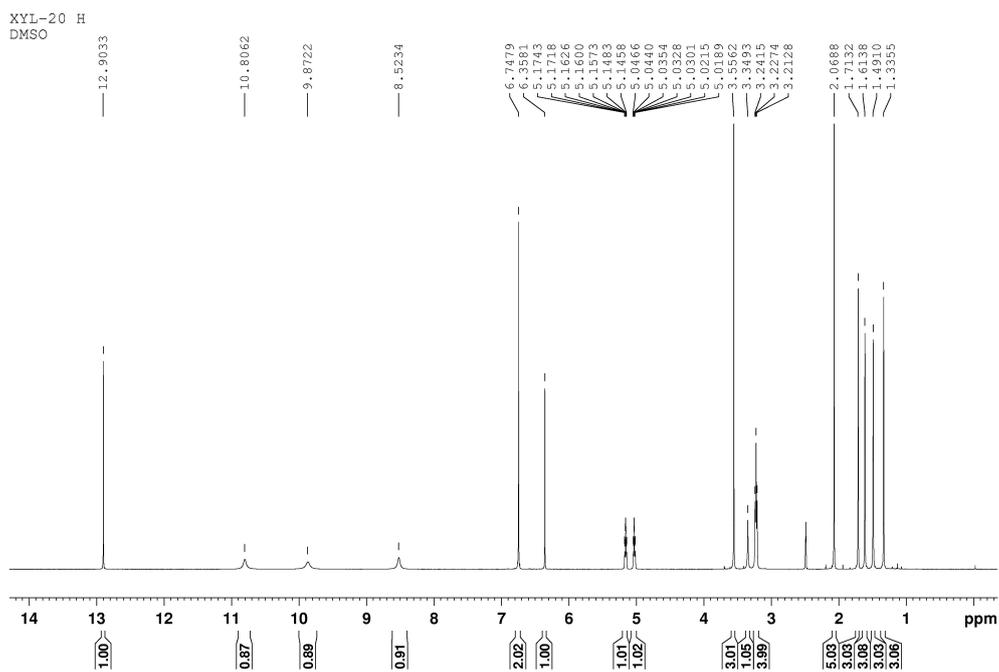


Figure S5. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **2**

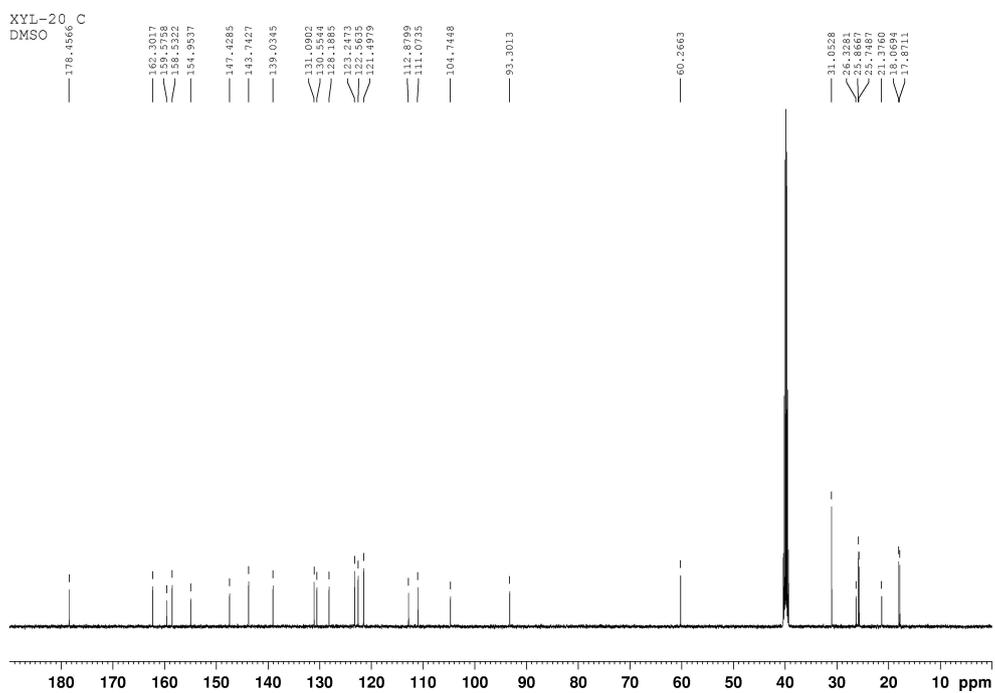


Figure S6. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **2**

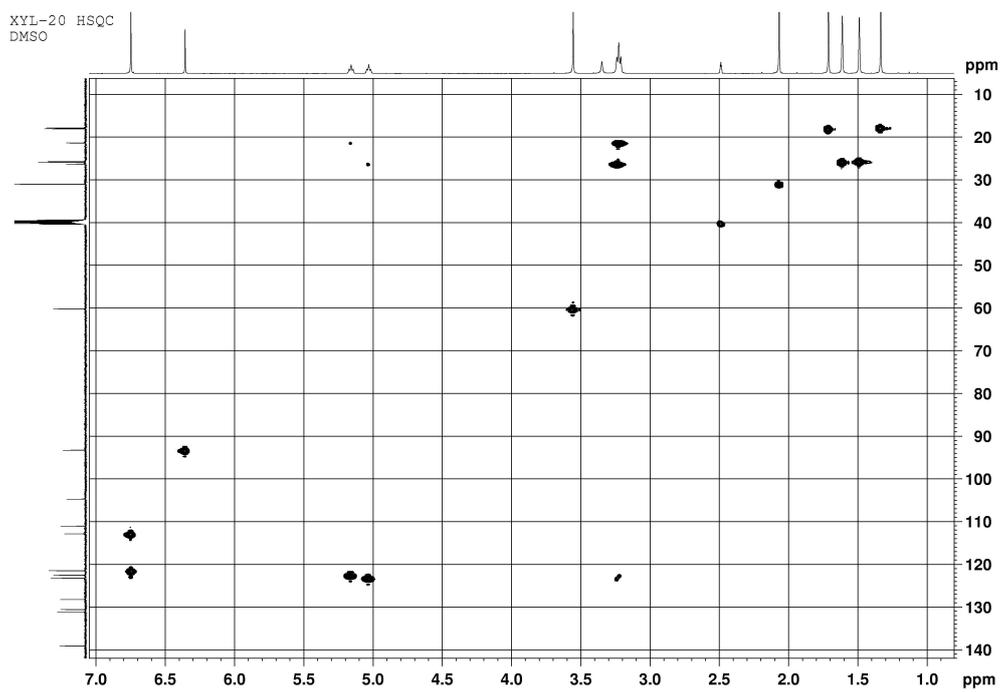


Figure S7. HSQC spectrum of compound **2**

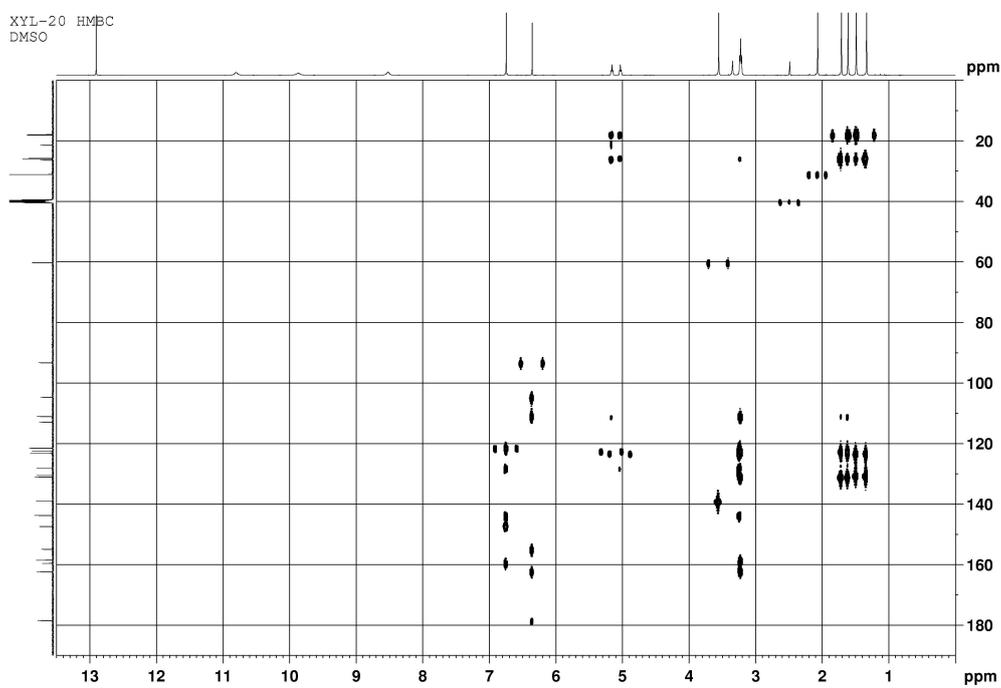


Figure S8. HMBC spectrum of compound **2**

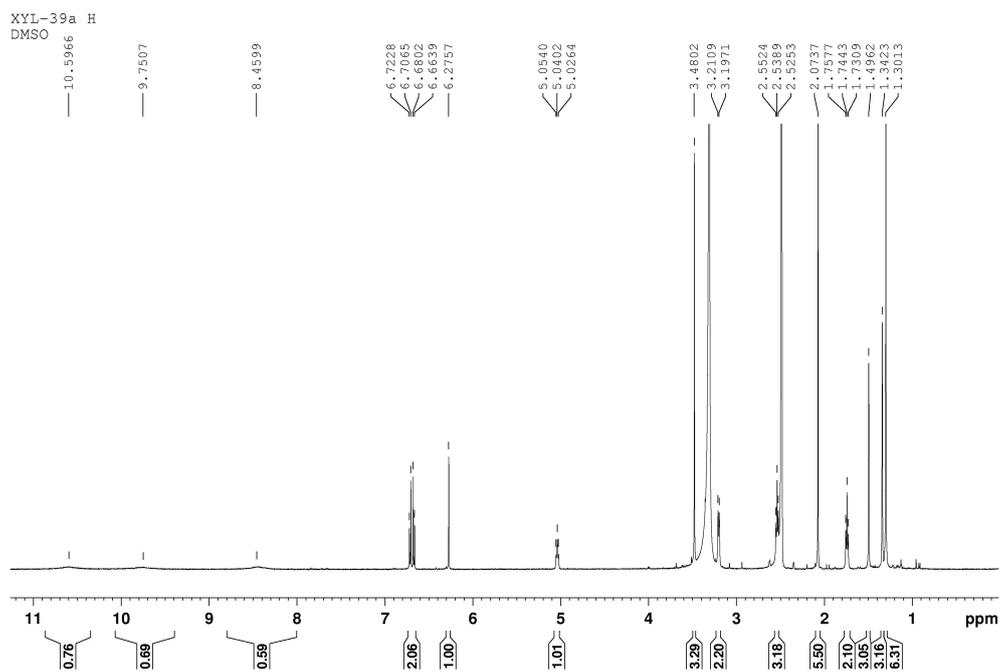


Figure S9. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**

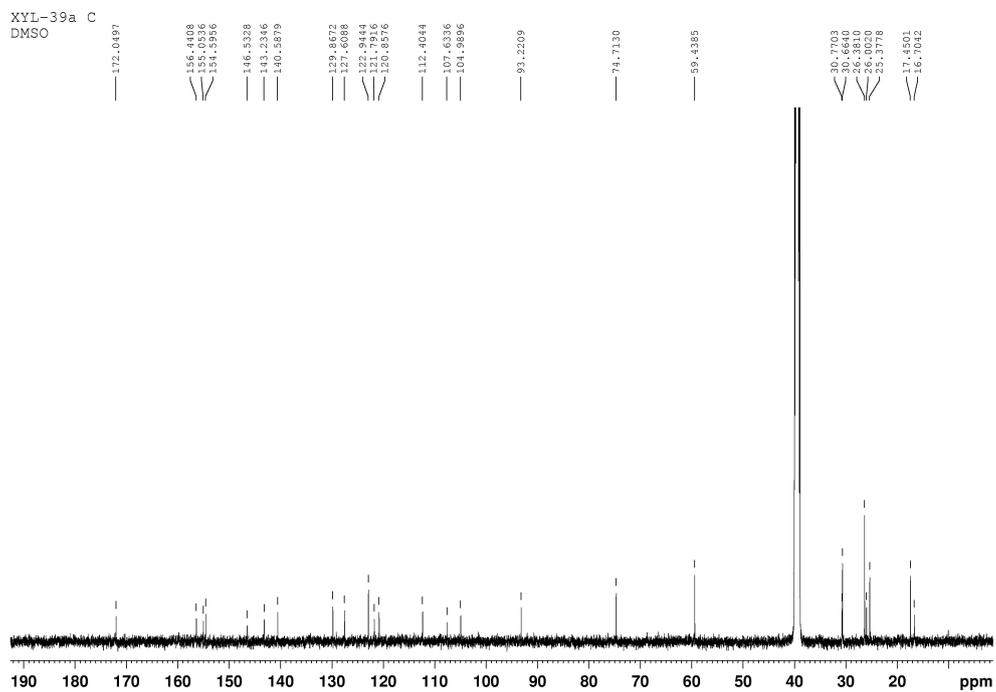


Figure S10. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**

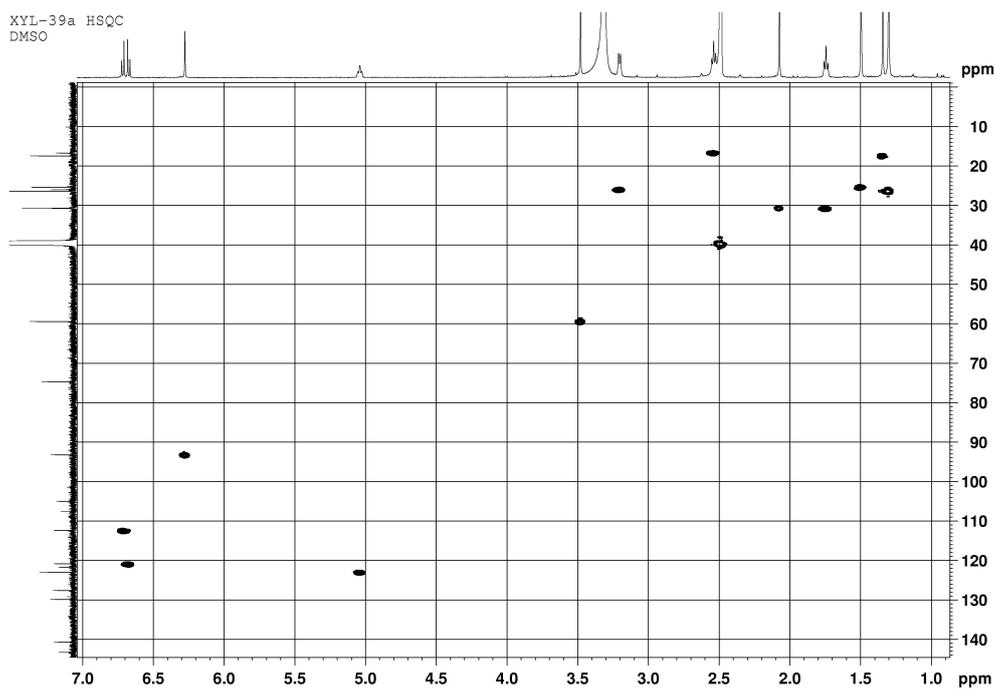


Figure S11. HSQC spectrum of compound **3**

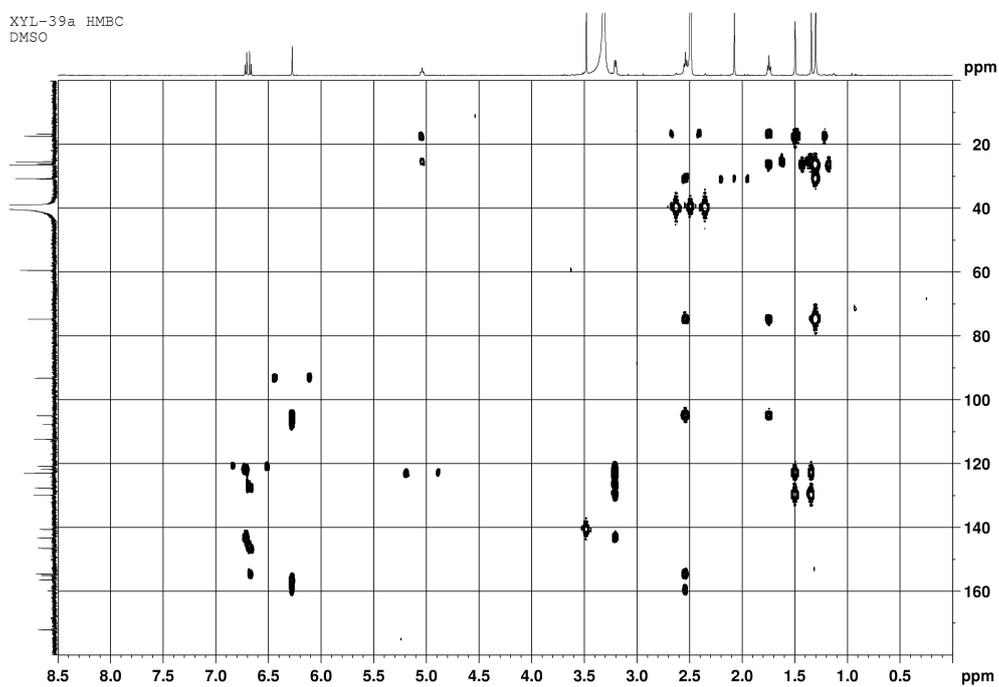


Figure S12. HMBC spectrum of compound **3**

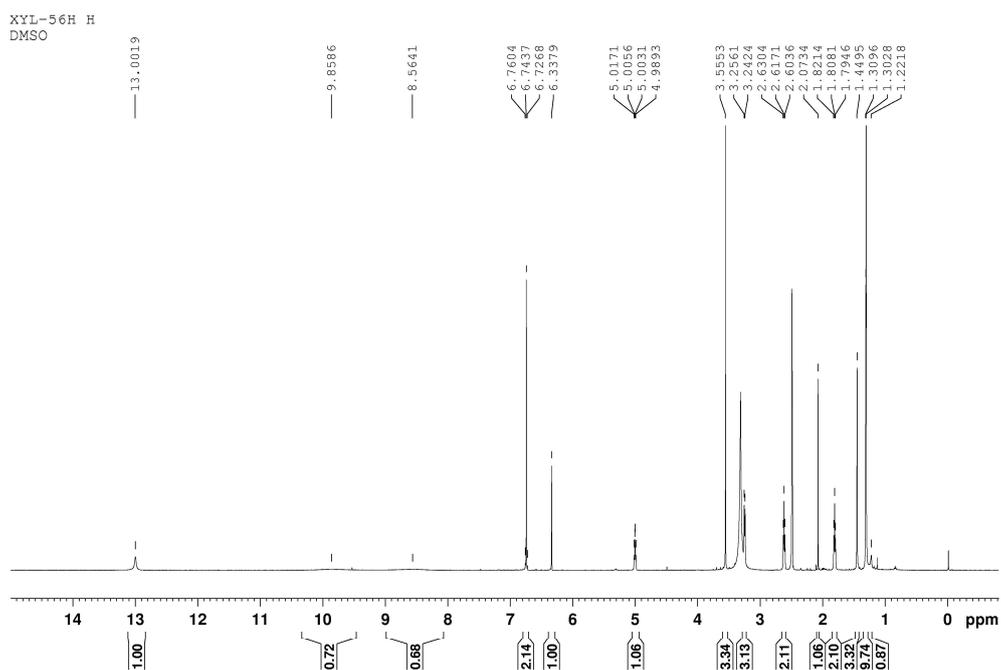


Figure S13. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound 4

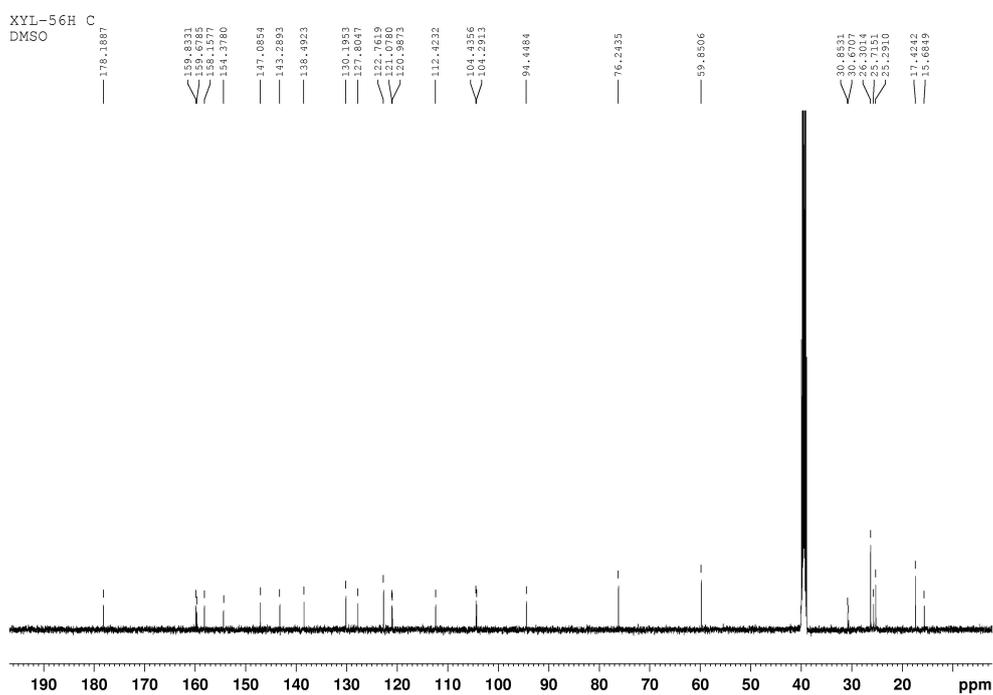


Figure S14. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound 4

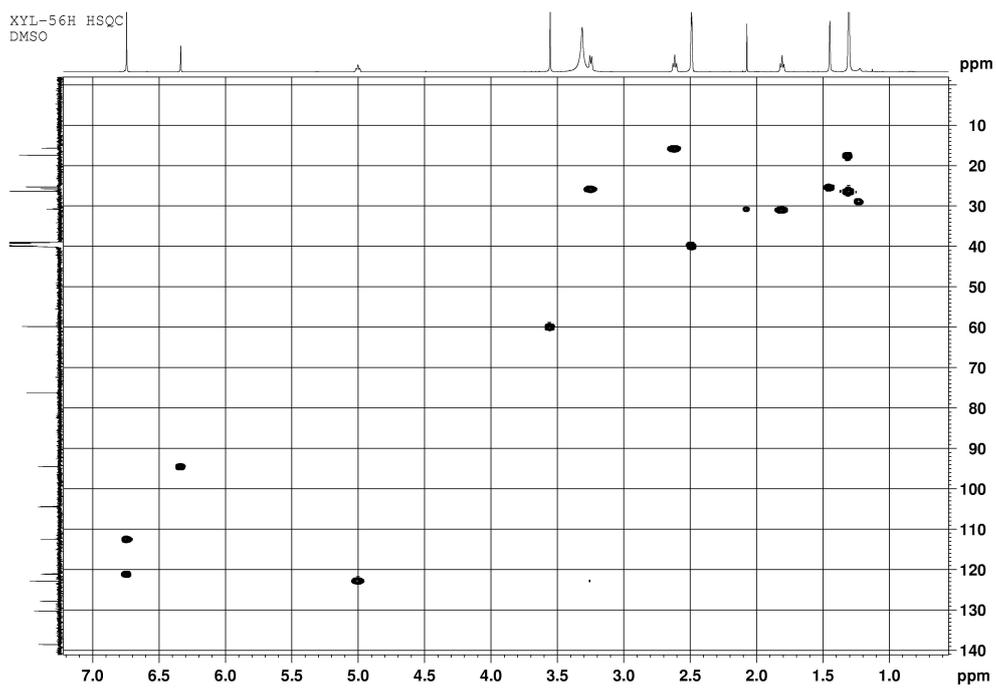


Figure S15. HSQC spectrum of compound **4**

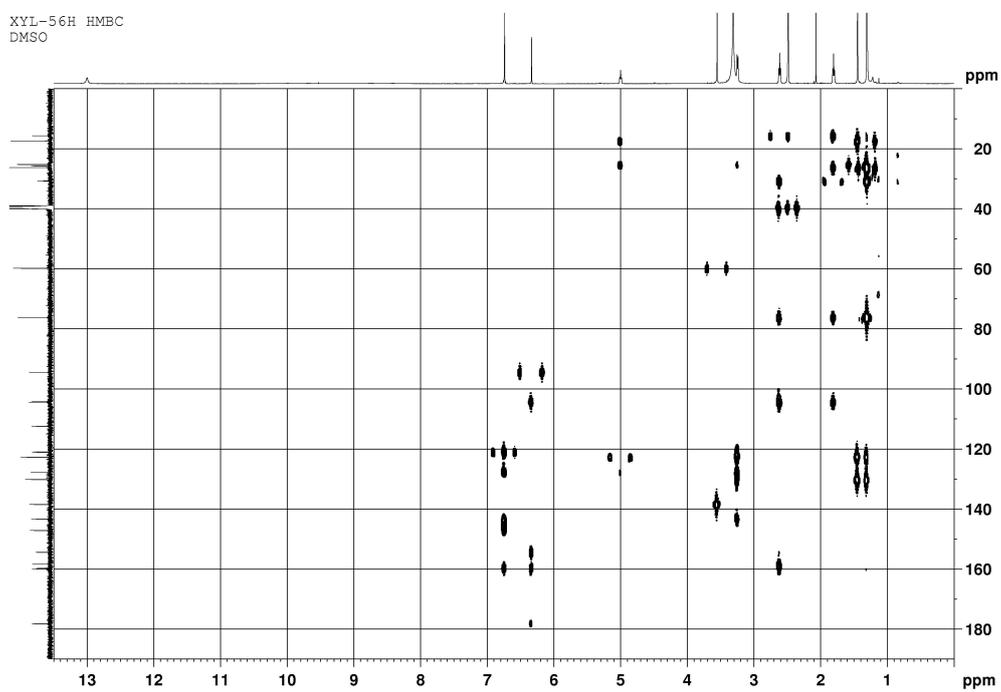


Figure S16. HMBC spectrum of compound **4**

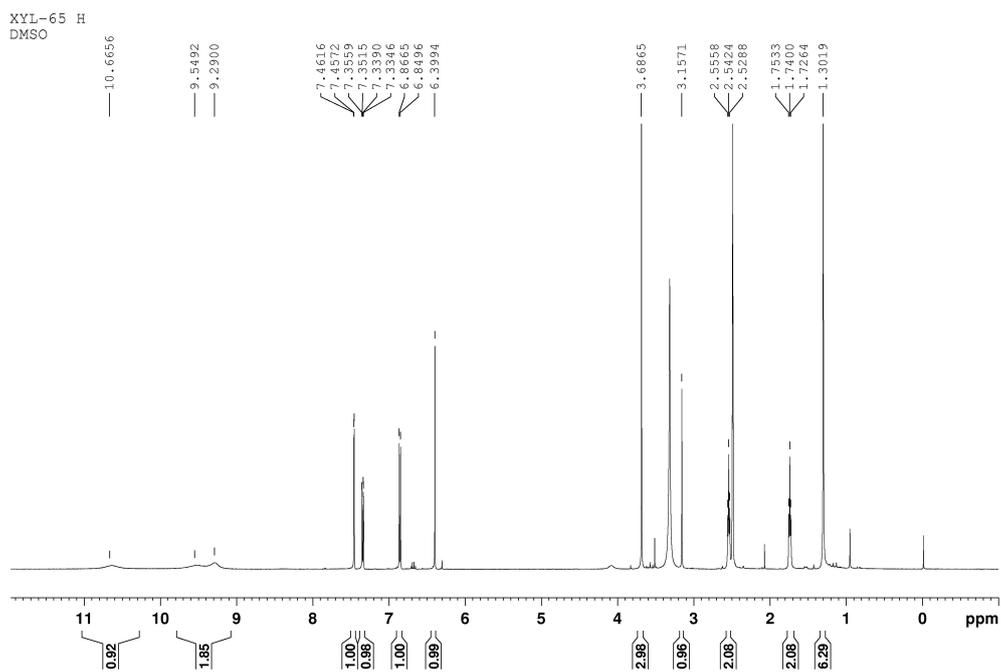


Figure S17. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **5**

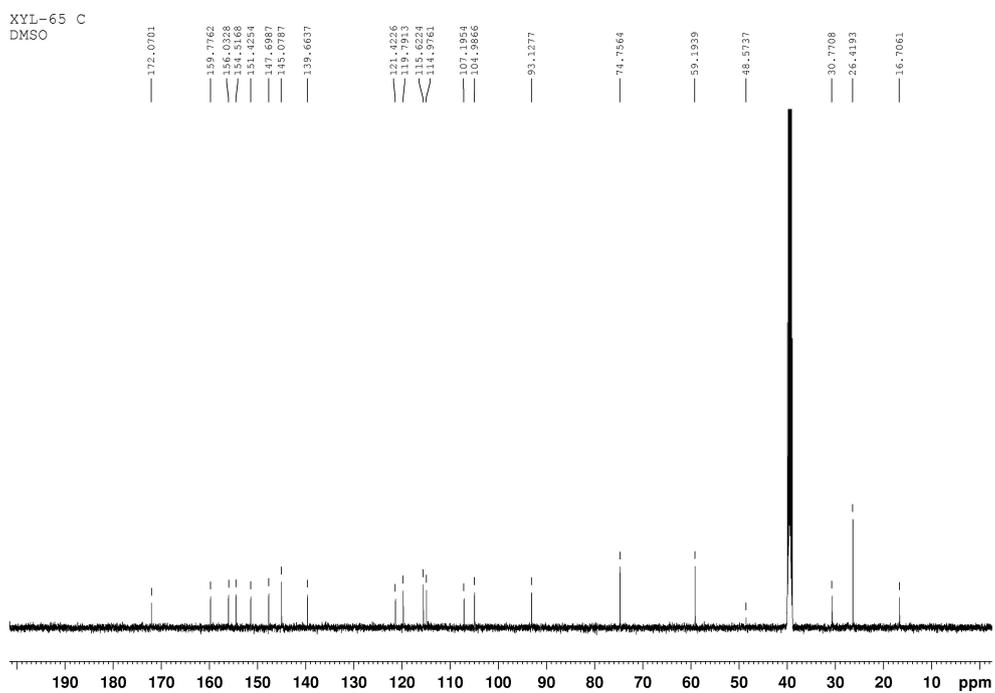


Figure S18. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **5**

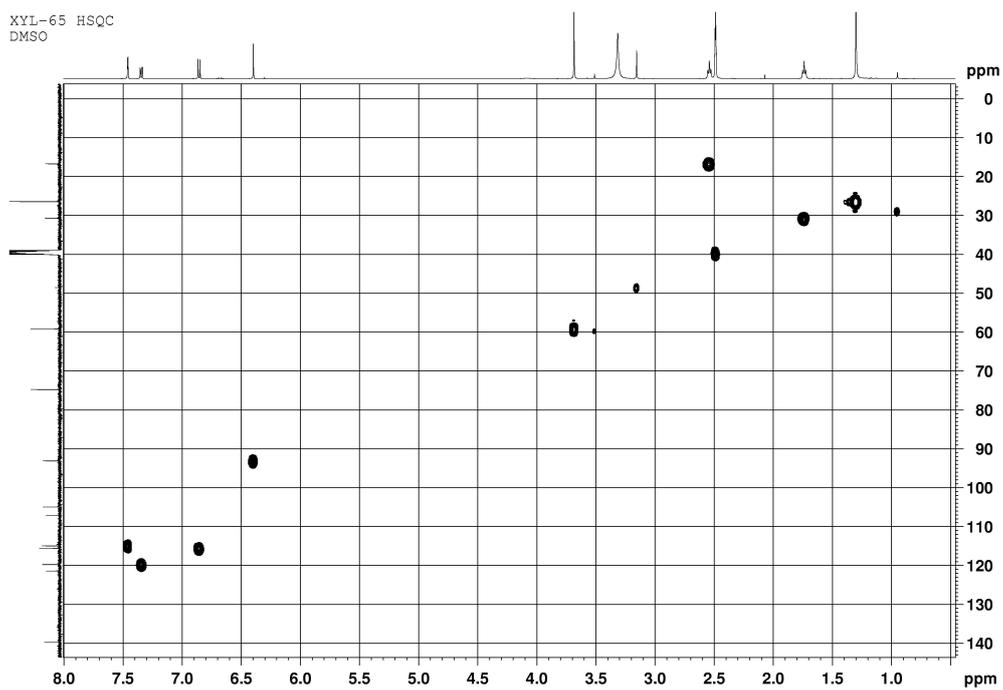


Figure S19. HSQC spectrum of compound 5

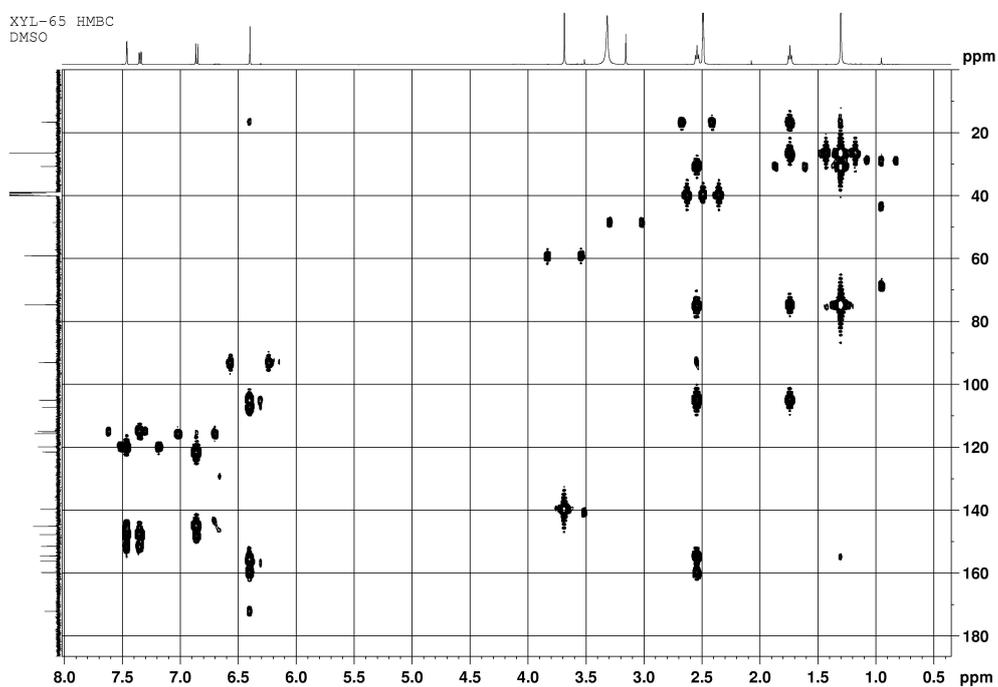


Figure S20. HMBC spectrum of compound 5

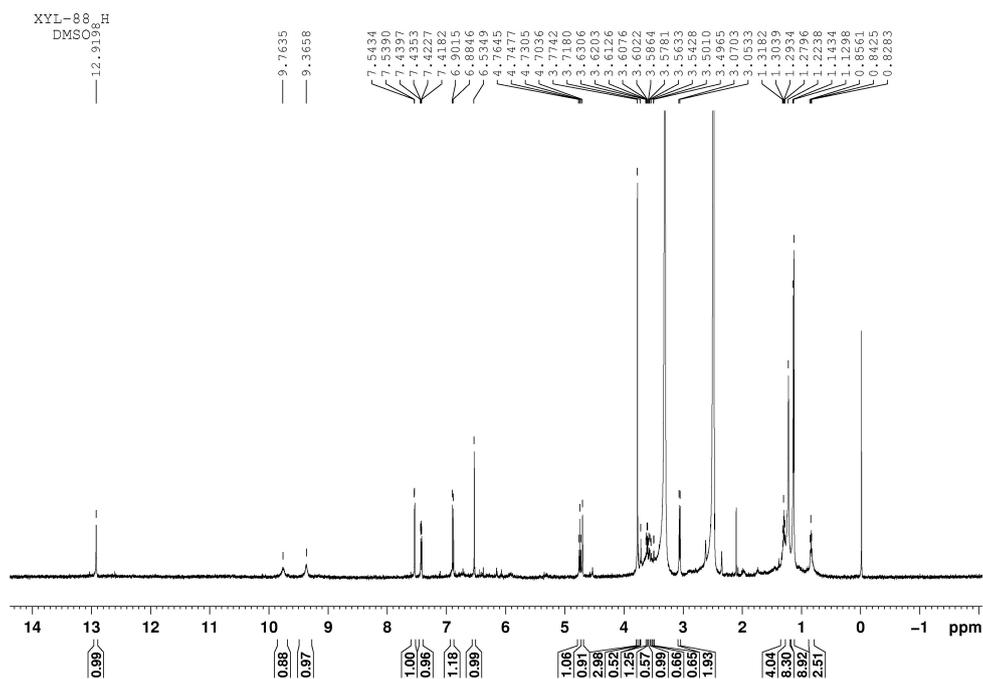


Figure S21. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **6**

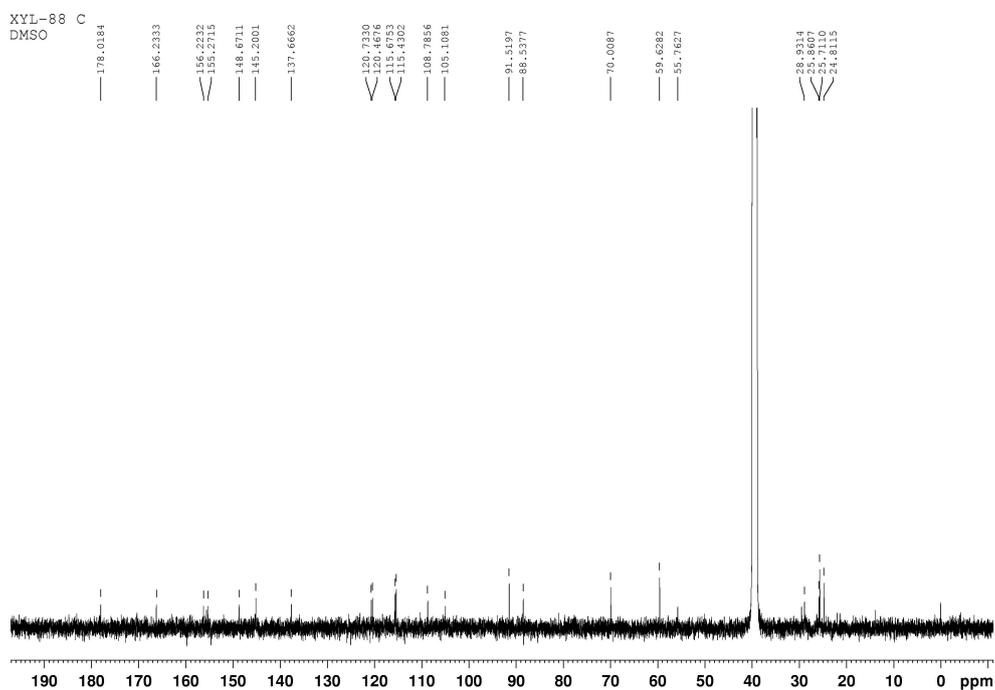


Figure S22. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **6**

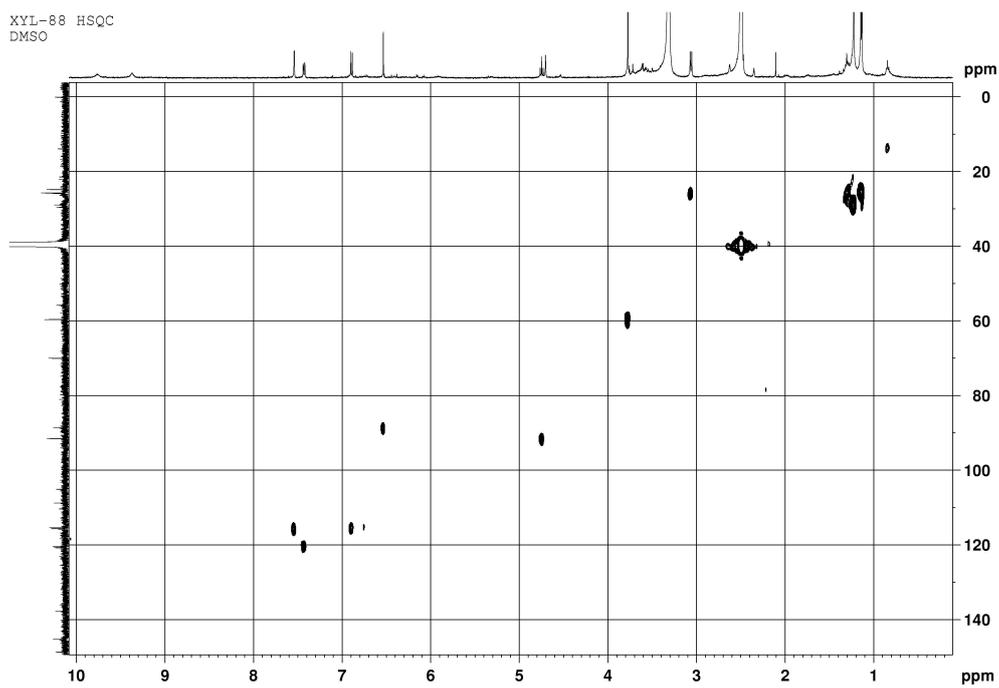


Figure S23. HSQC spectrum of compound **6**

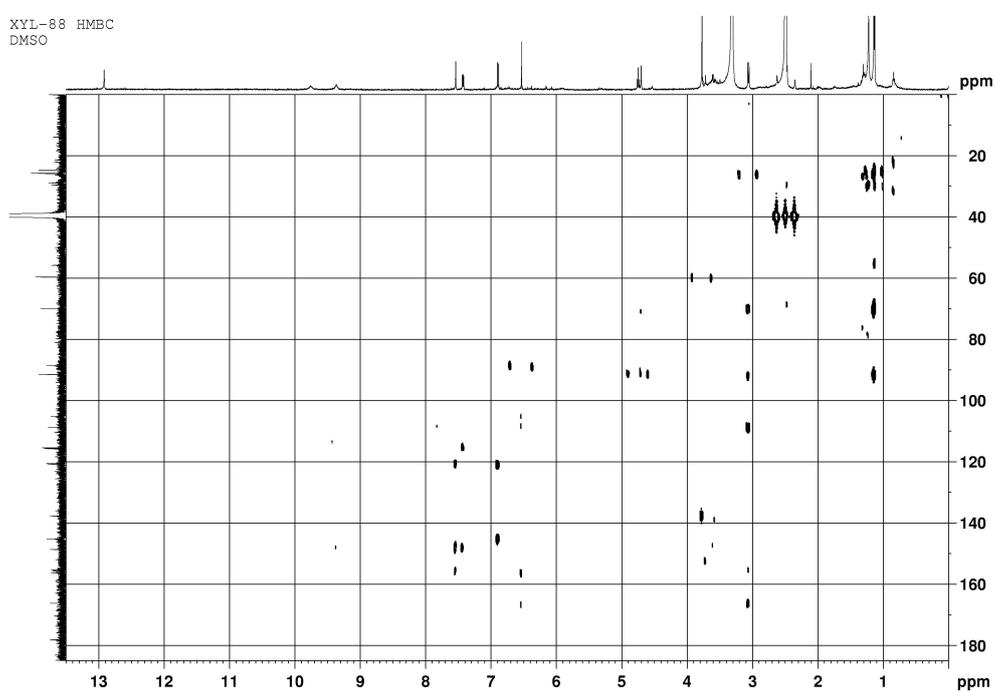


Figure S24. HMBC spectrum of compound **6**

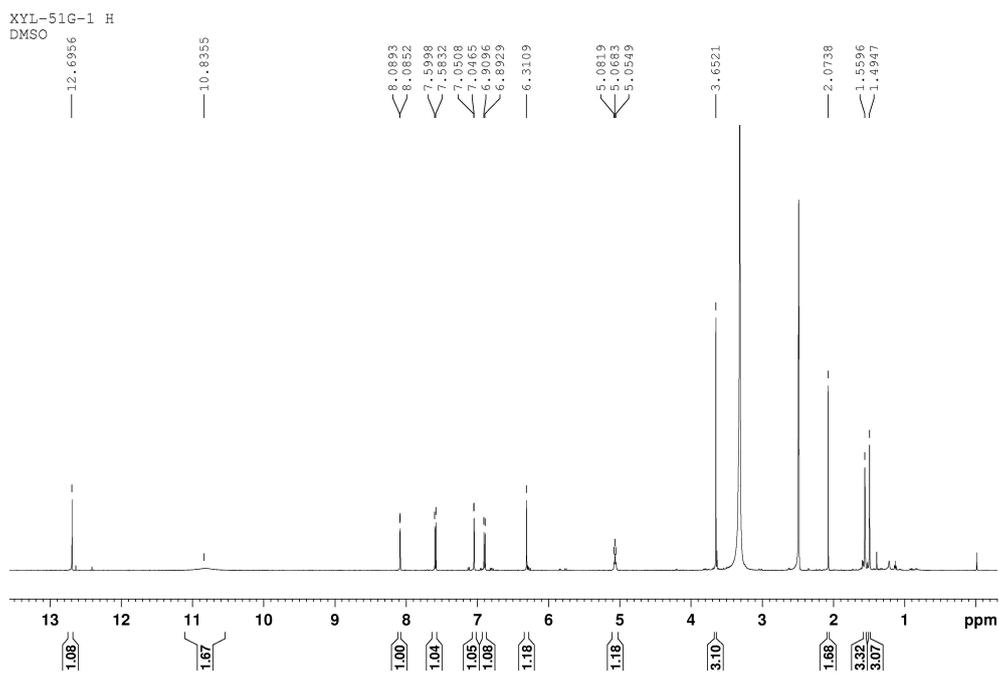


Figure S25. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound 7

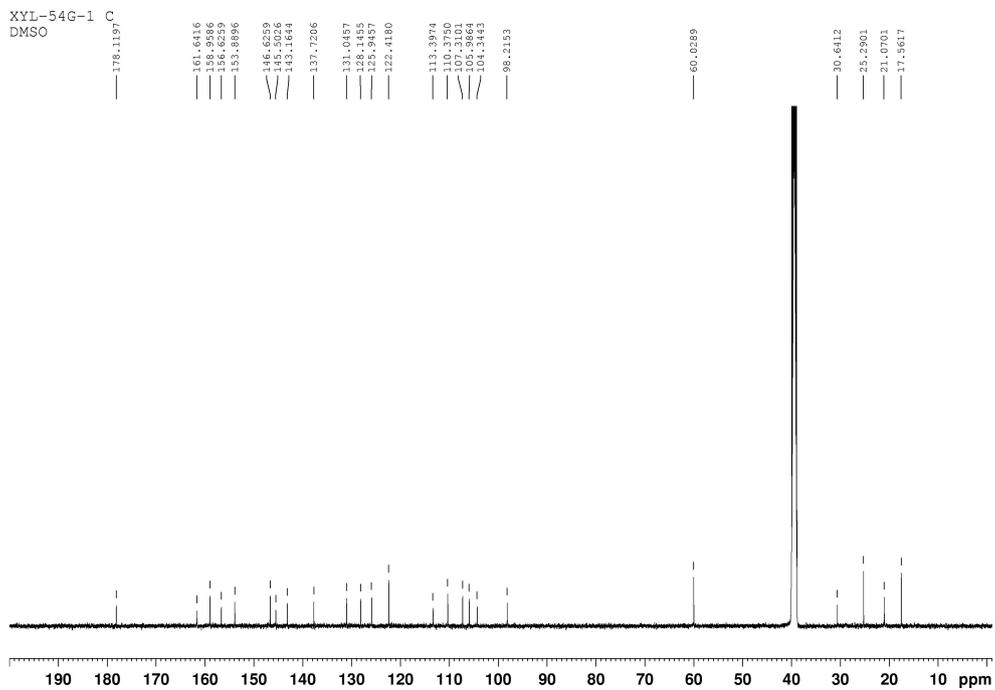


Figure S26. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound 7

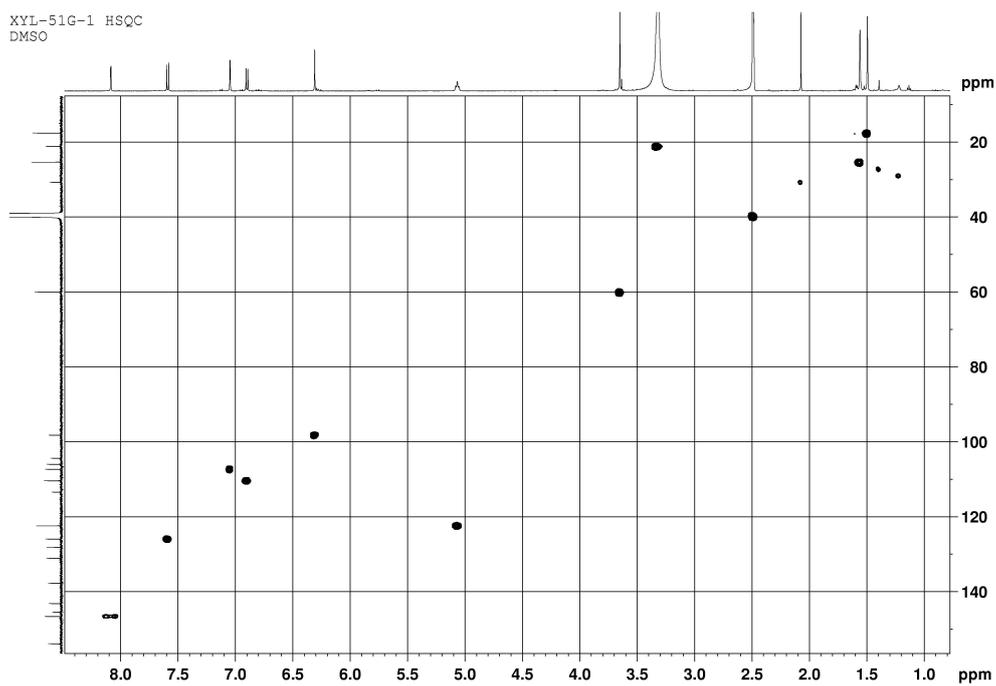


Figure S27. HSQC spectrum of compound 7

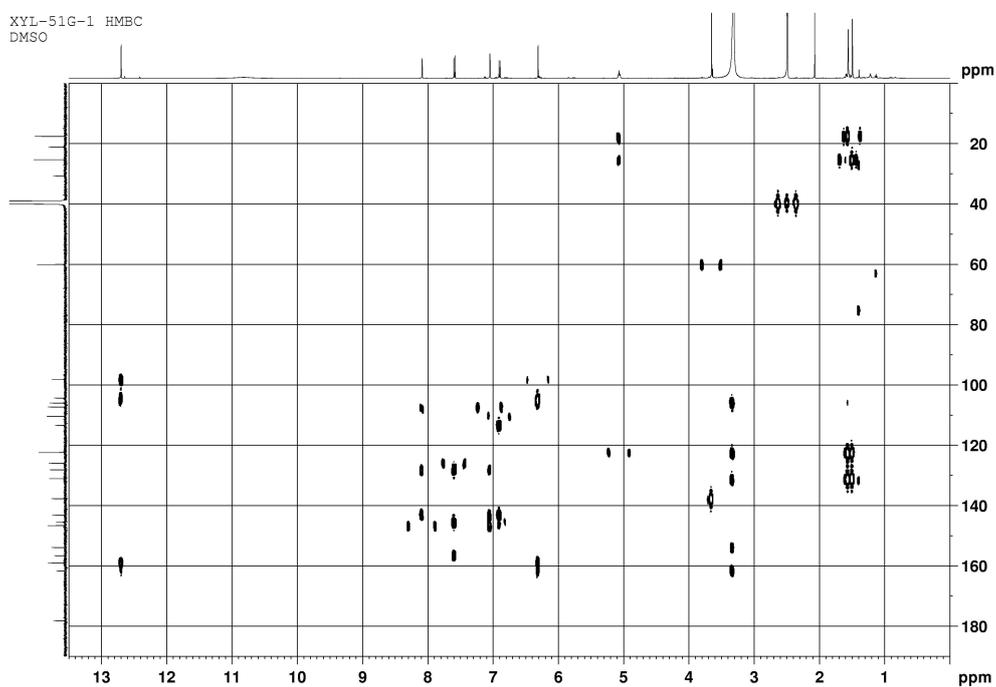


Figure S28. HMBC spectrum of compound 7

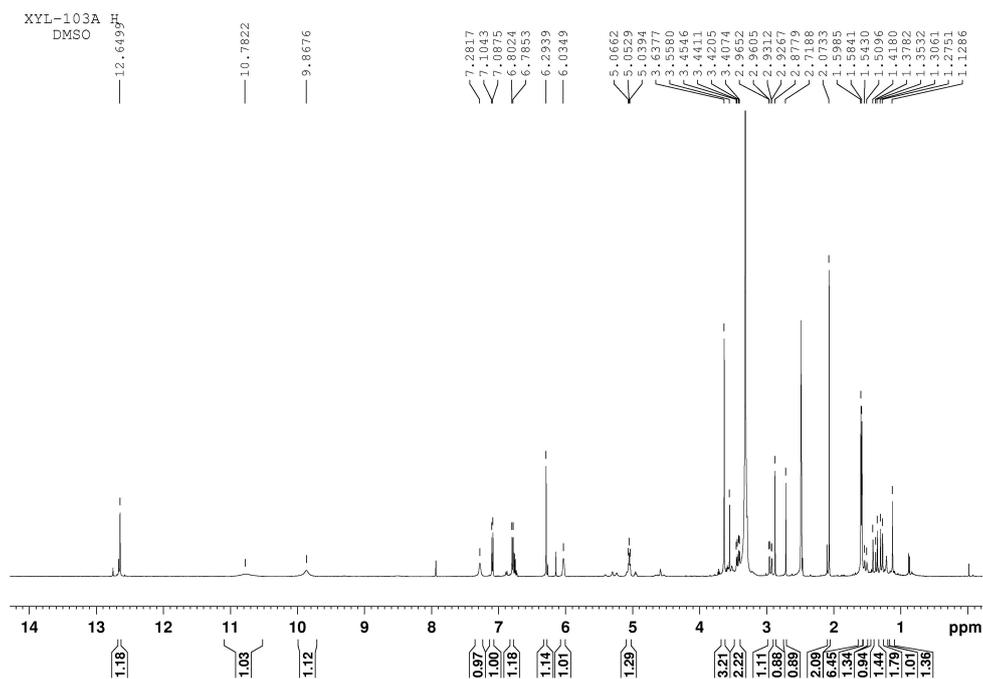


Figure S29. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **8**

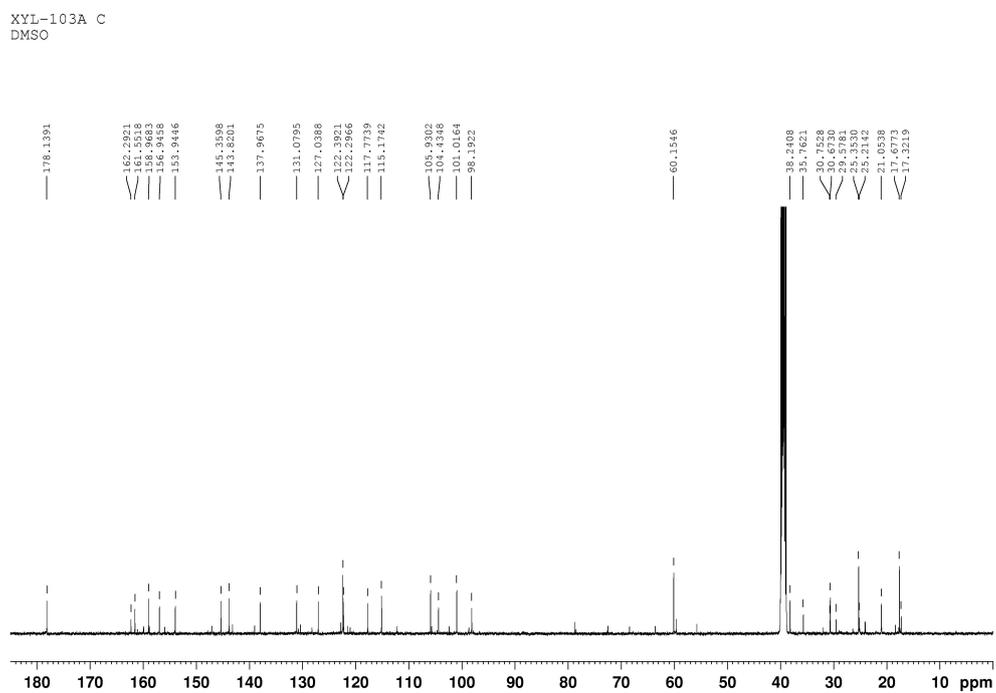


Figure S30. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **8**

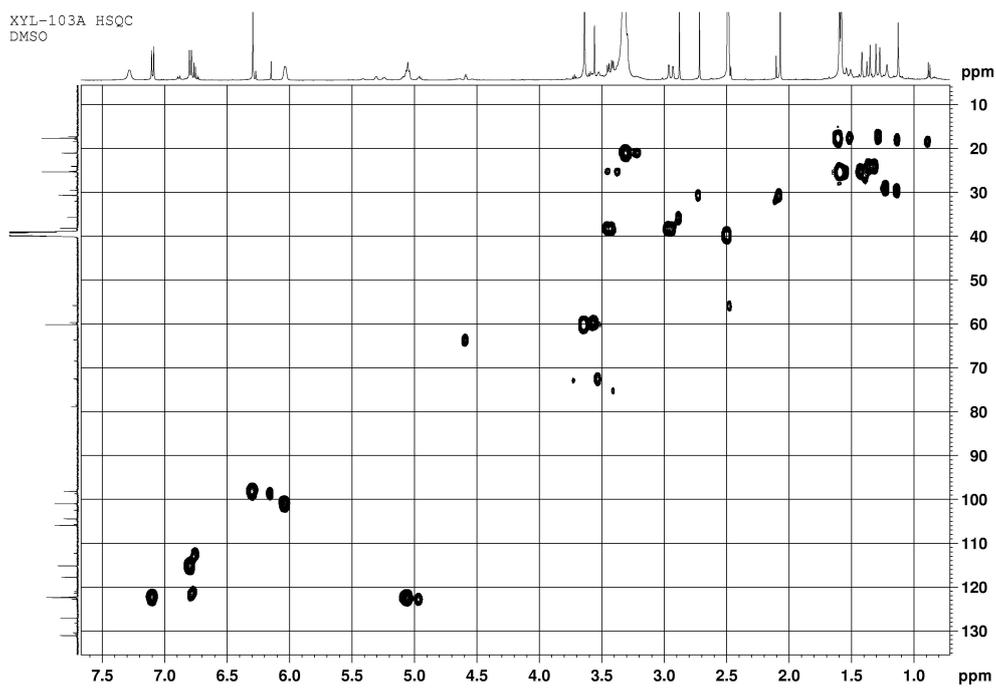


Figure S31. HSQC spectrum of compound **8**

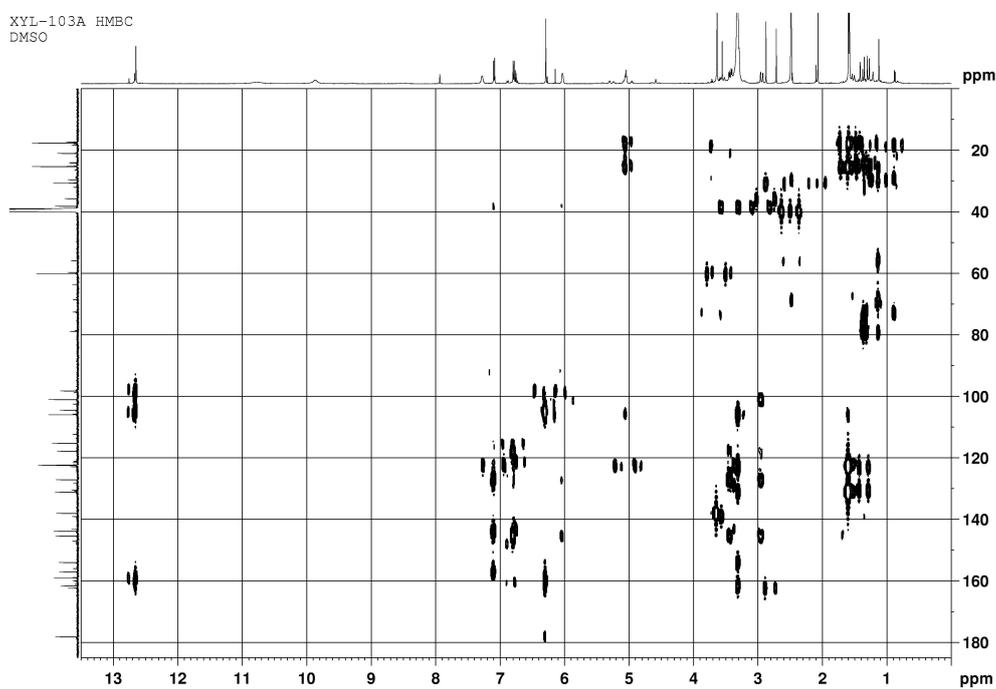


Figure S32. HMBC spectrum of compound **8**

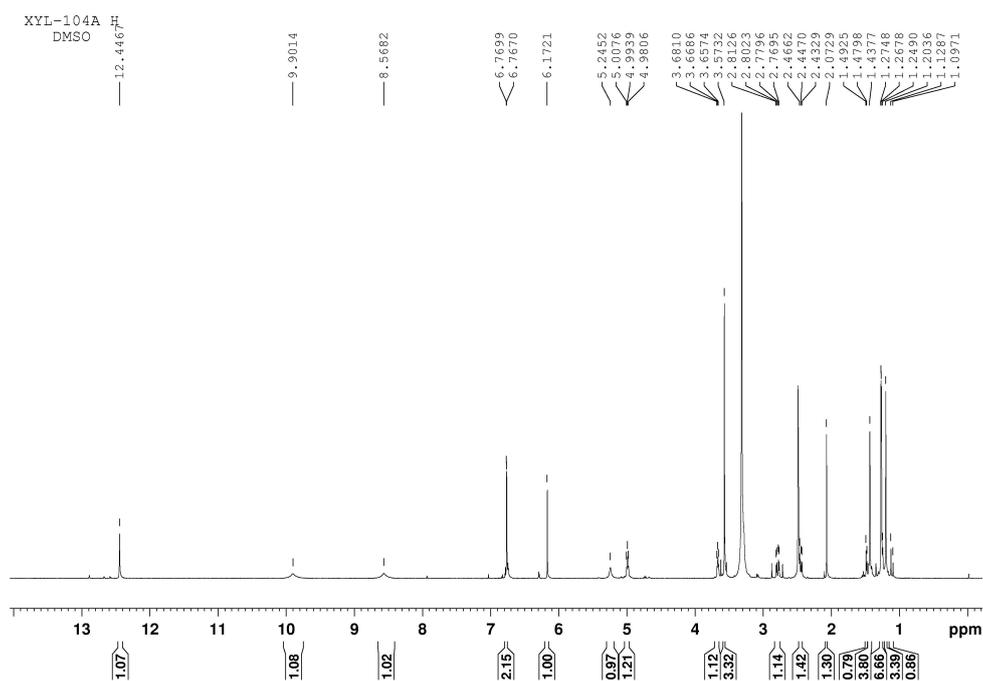


Figure S33. ^1H -NMR (500 MHz, DMSO-*d*₆) spectrum of compound **9**

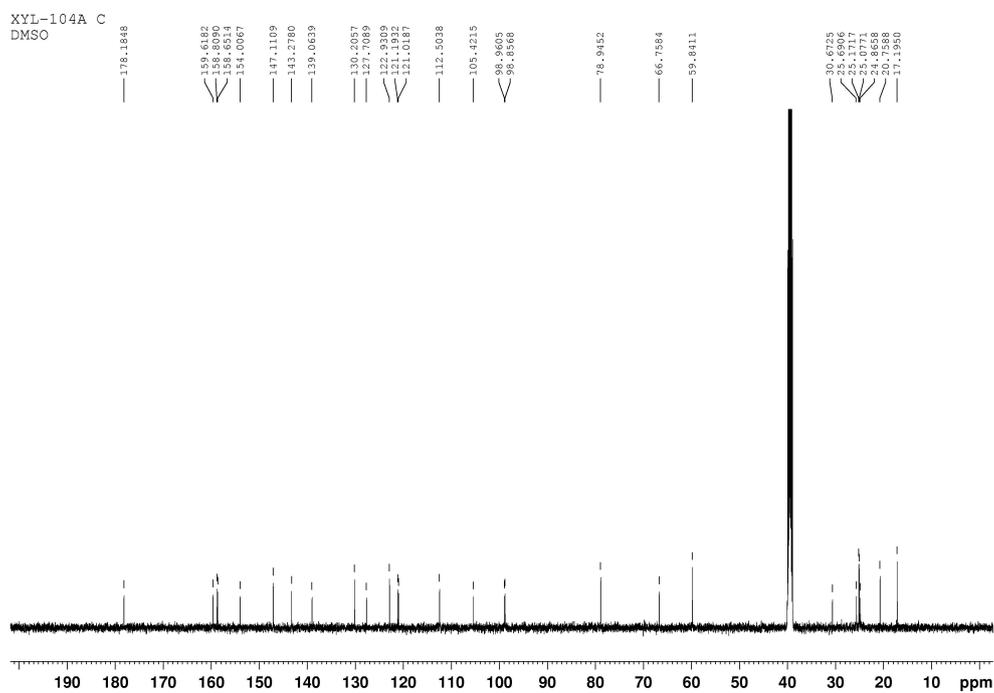


Figure S34. ^{13}C -NMR (125 MHz, DMSO-*d*₆) spectrum of compound **9**

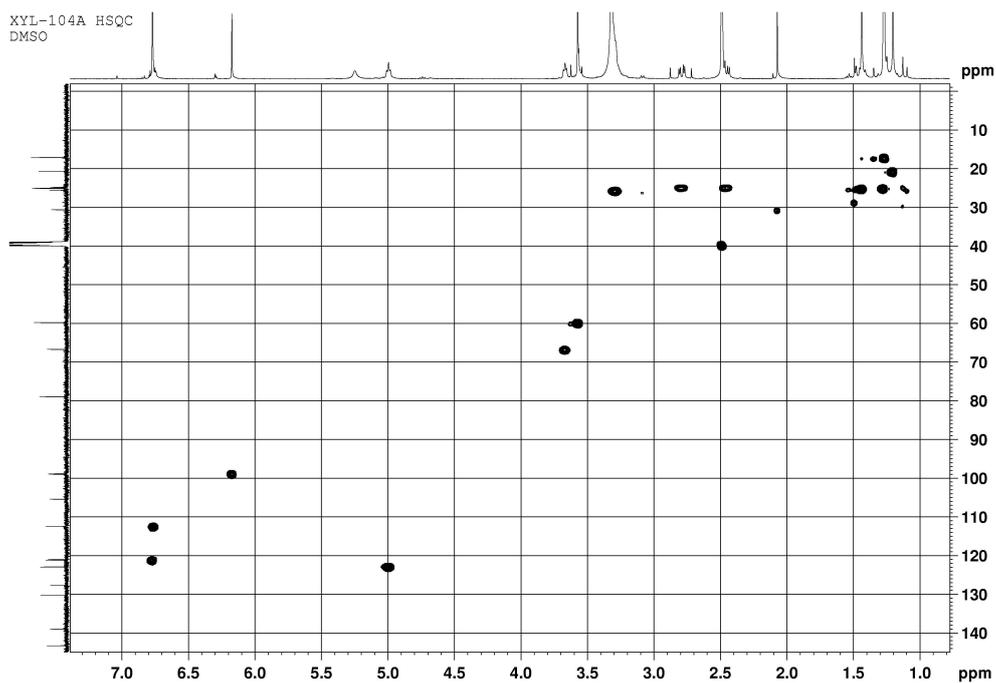


Figure S35. HSQC spectrum of compound **9**

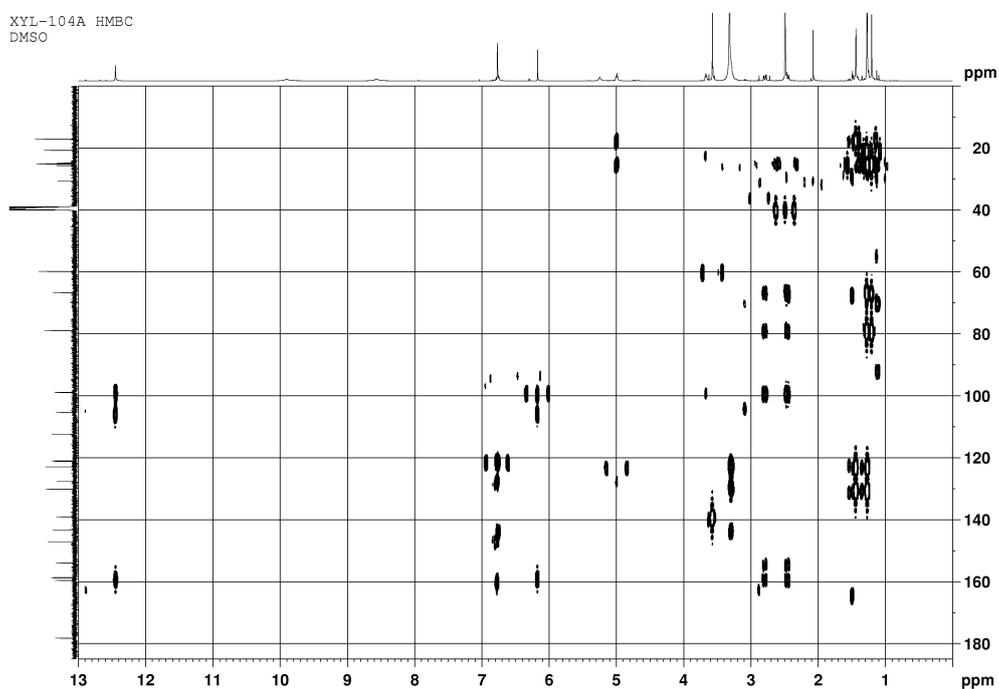


Figure S36. HMBC spectrum of compound **9**

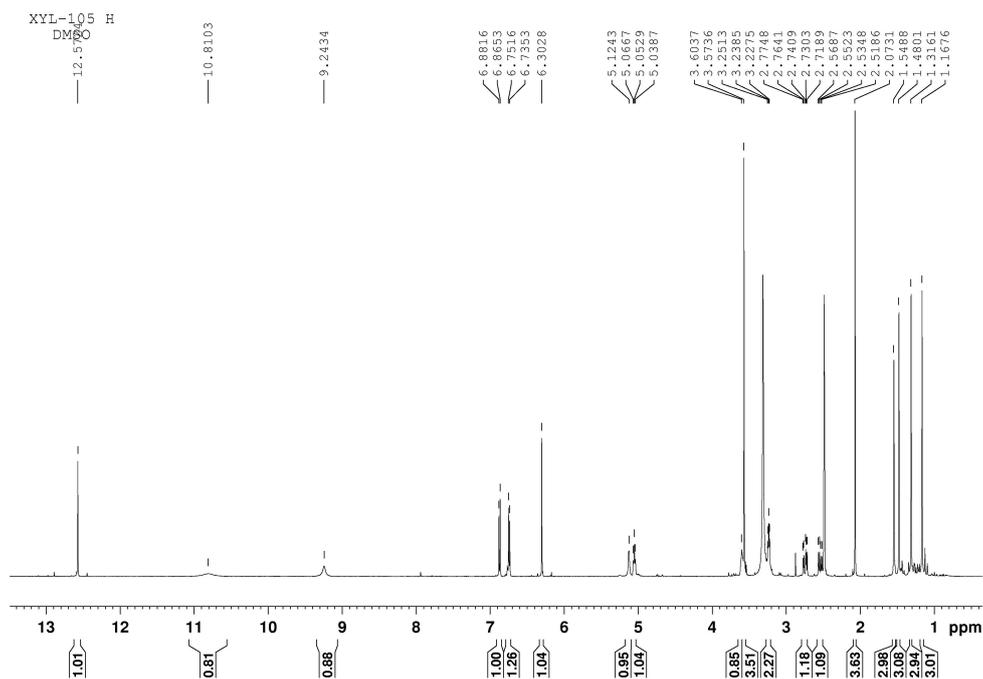


Figure S37. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **10**

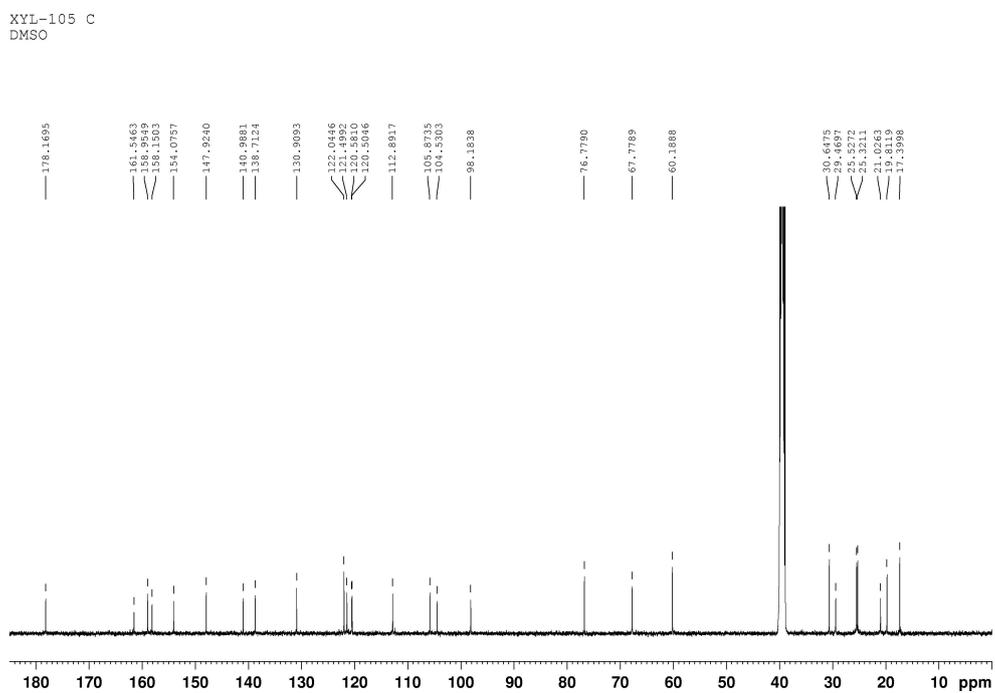


Figure S38. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **10**

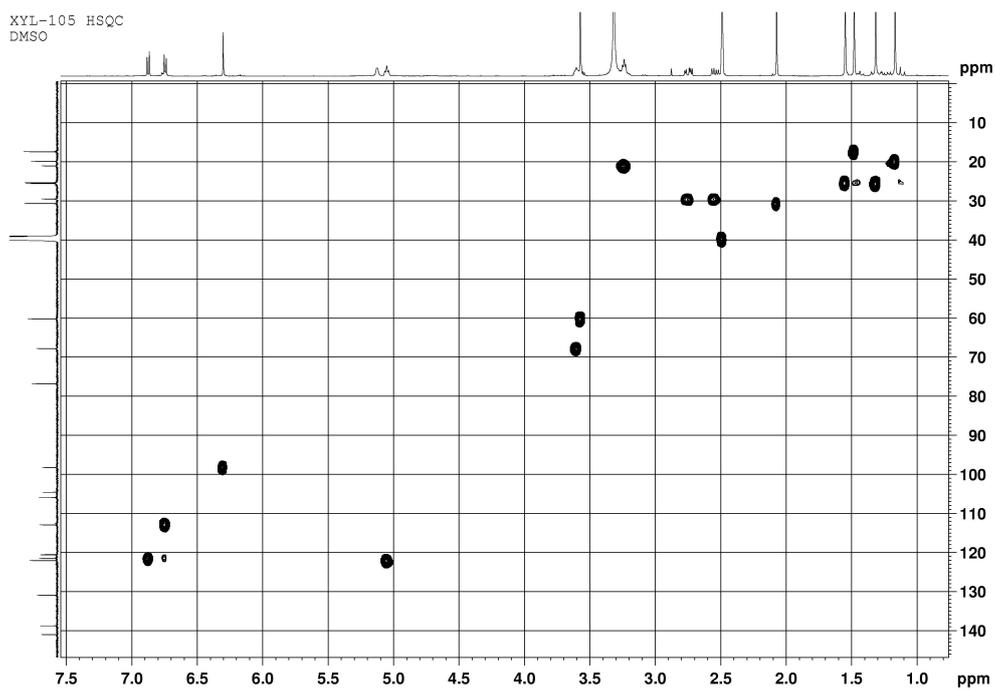


Figure S39. HSQC spectrum of compound **10**

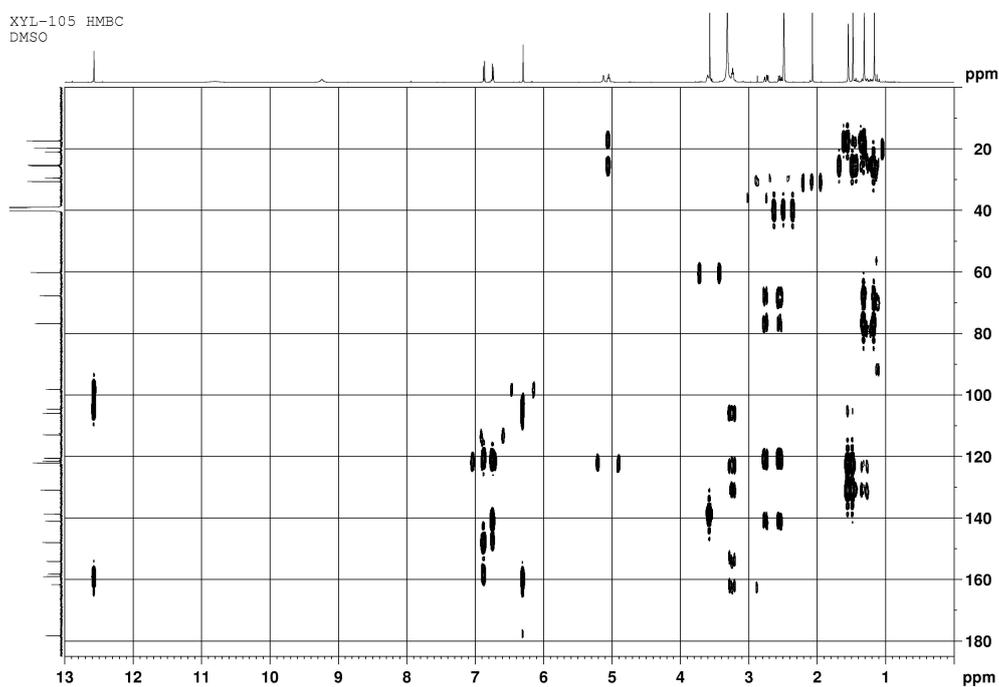


Figure S40. HMBC spectrum of compound **10**

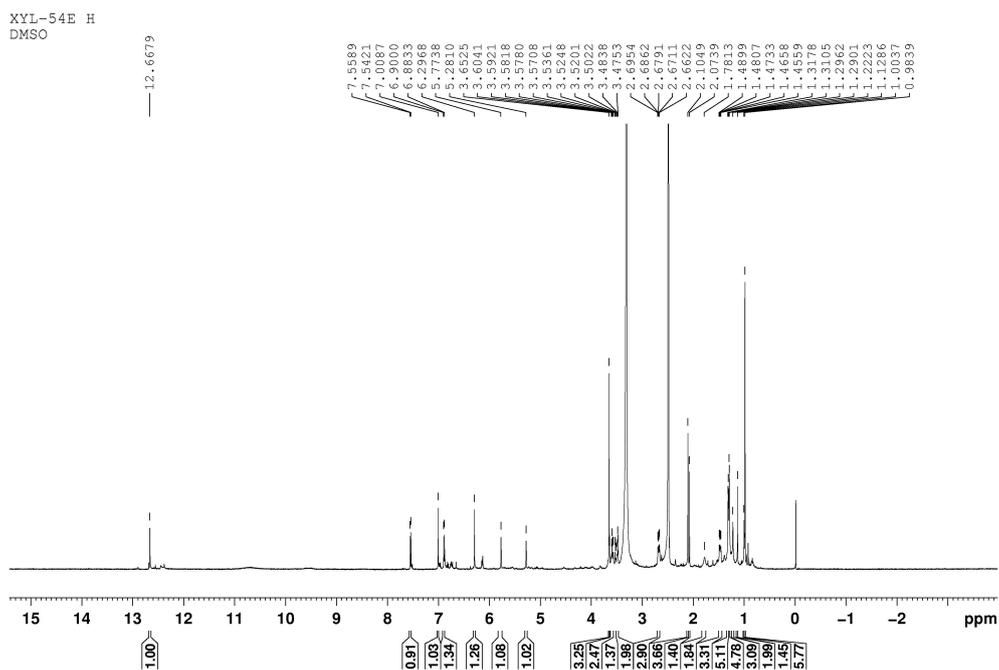


Figure S41. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **11**

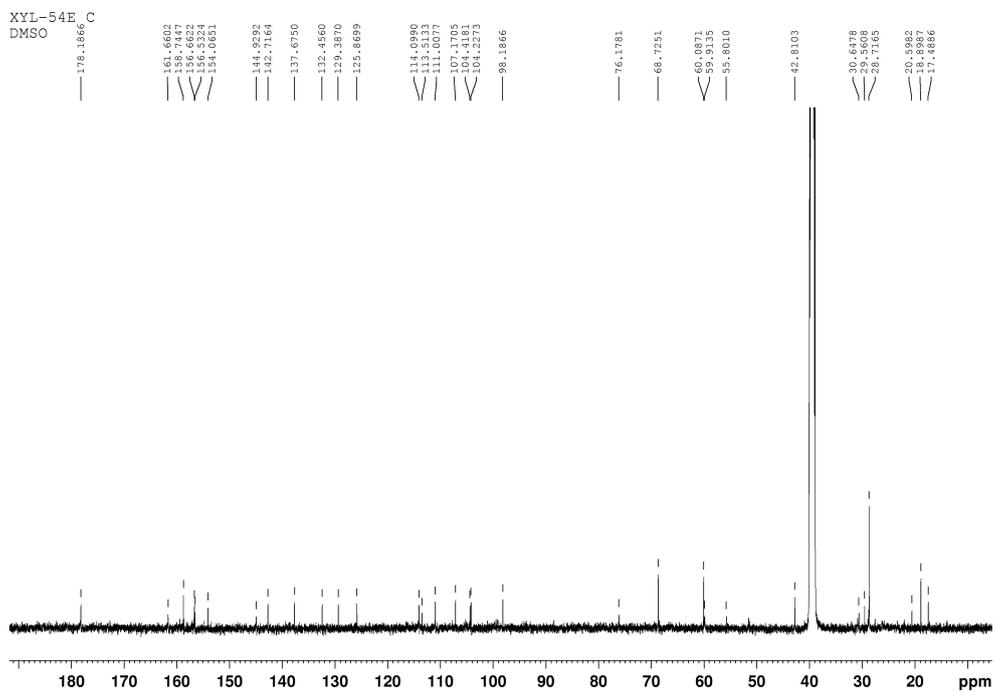


Figure S42. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **11**

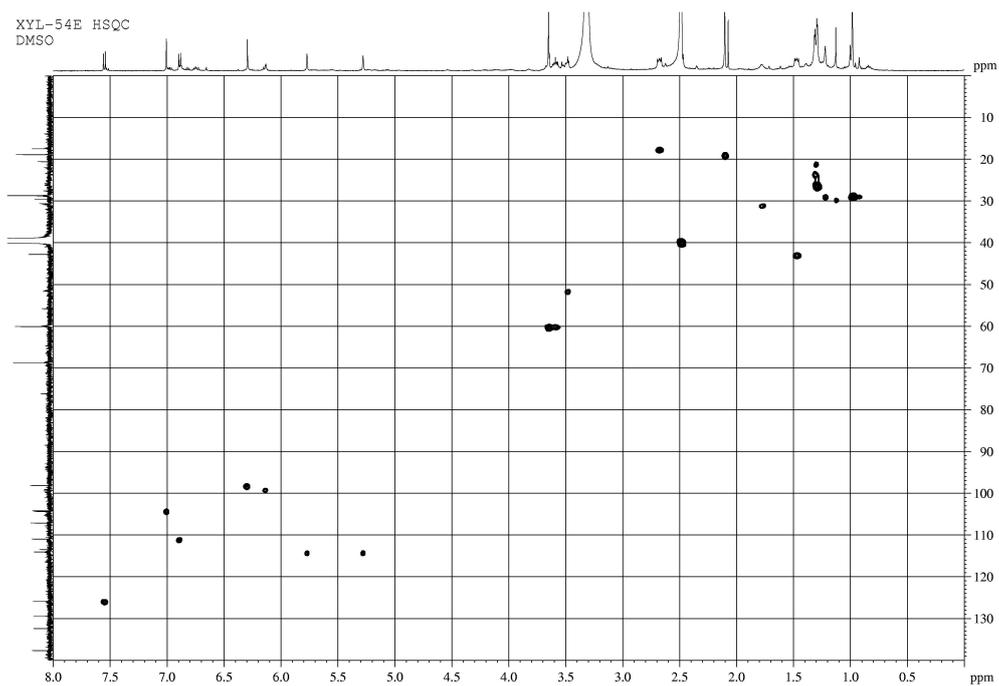


Figure S43. HSQC spectrum of compound **11**

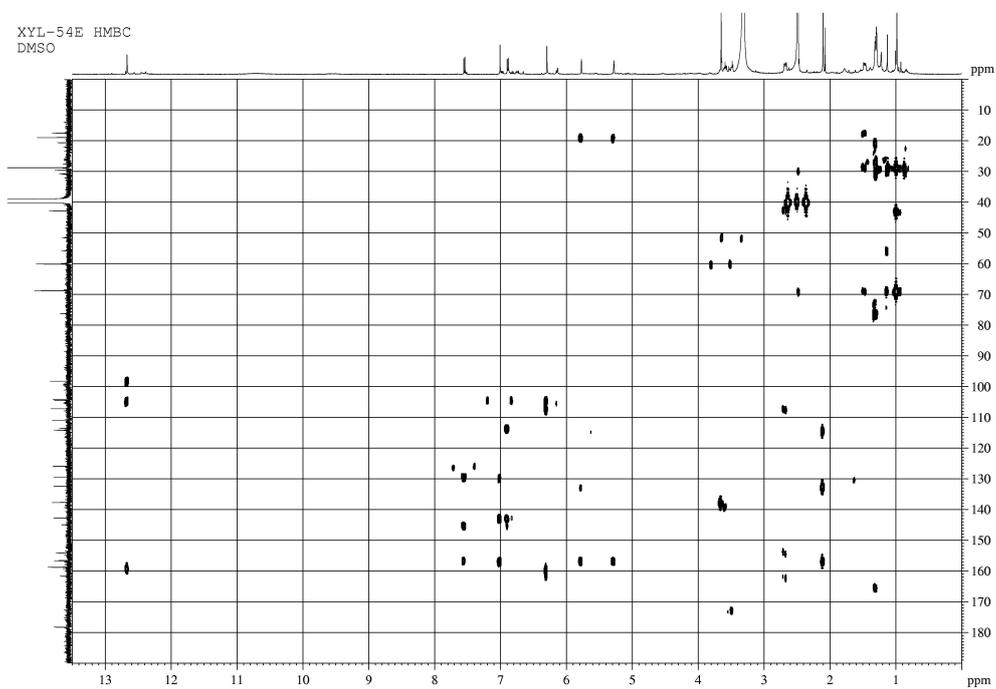


Figure S44. HMBC spectrum of compound **11**

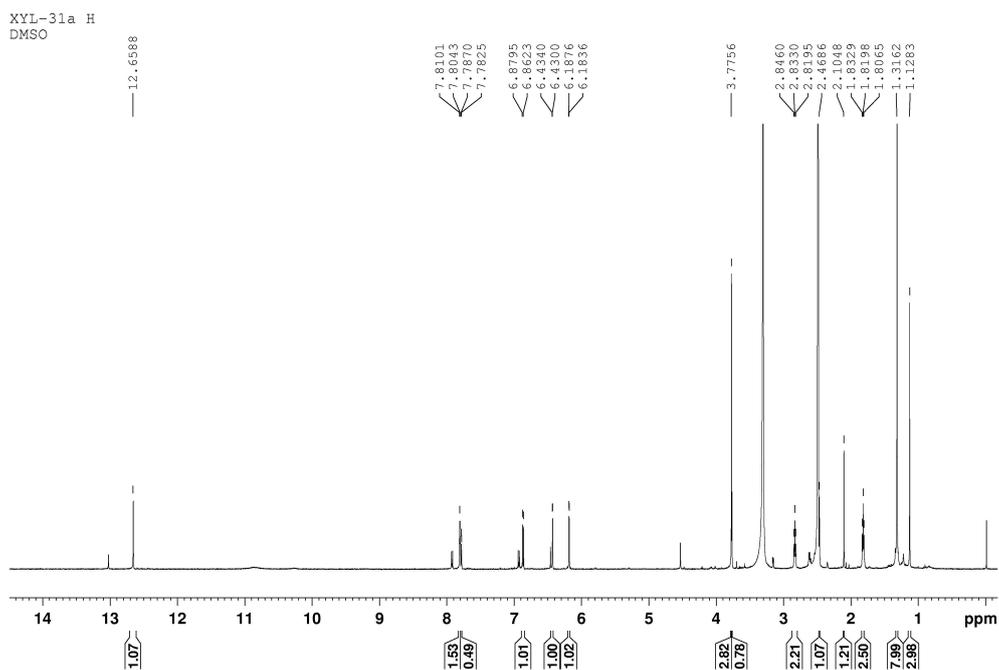


Figure S45. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **12**

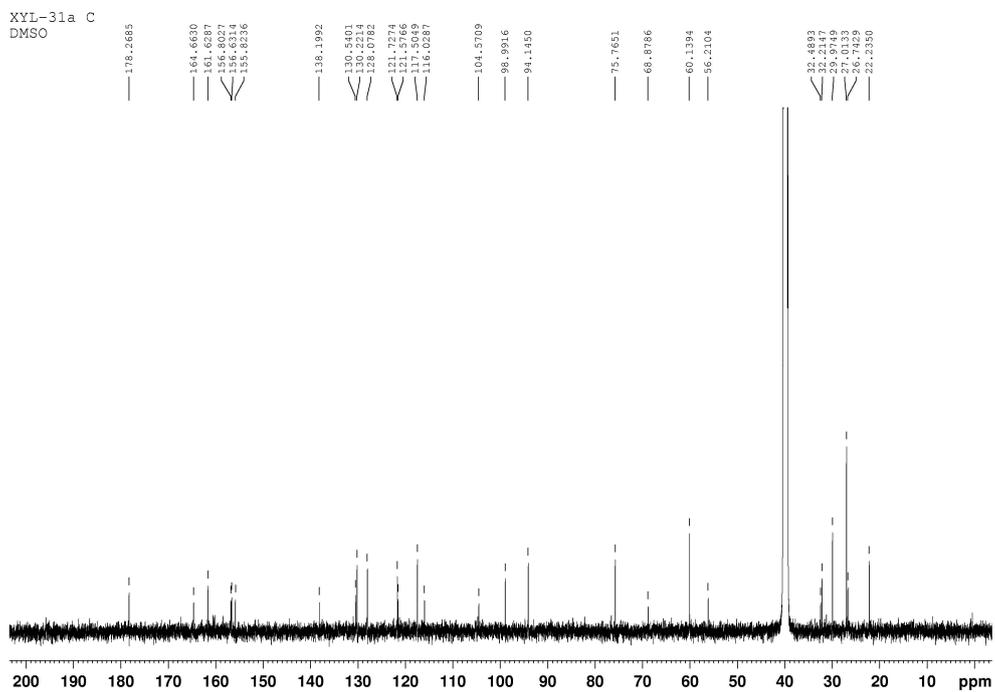


Figure S46. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **12**

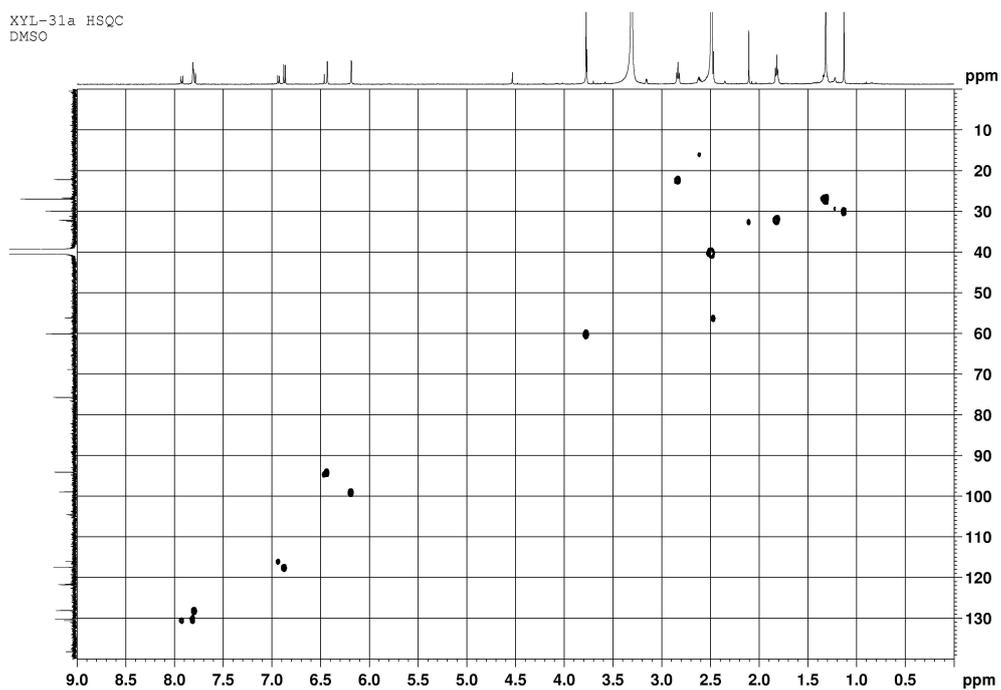


Figure S47. HSQC spectrum of compound 12

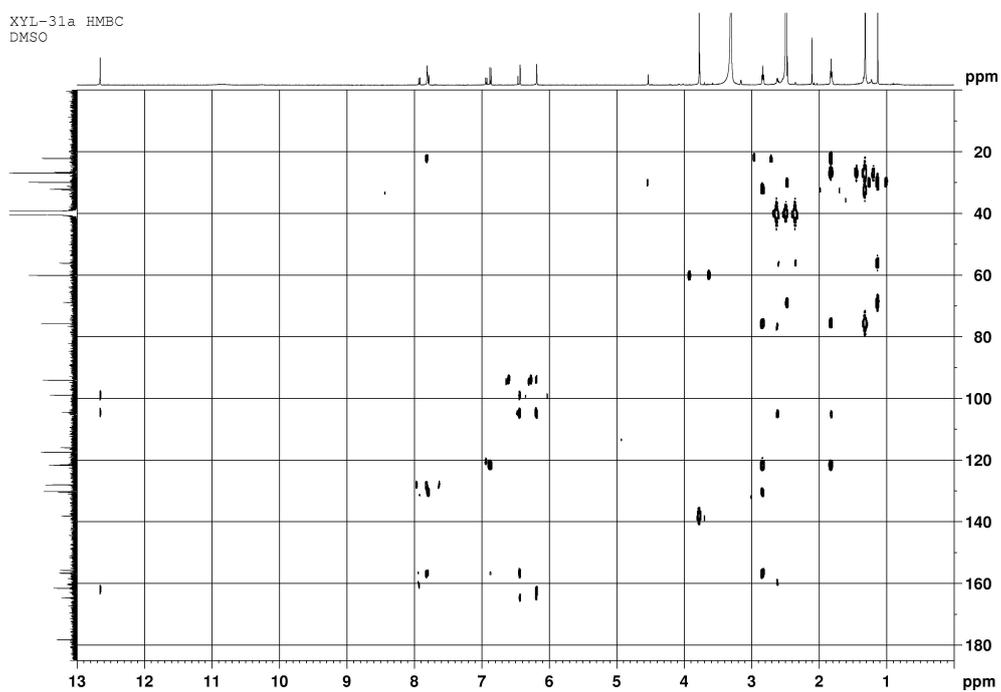


Figure S48. HMBC spectrum of compound 12

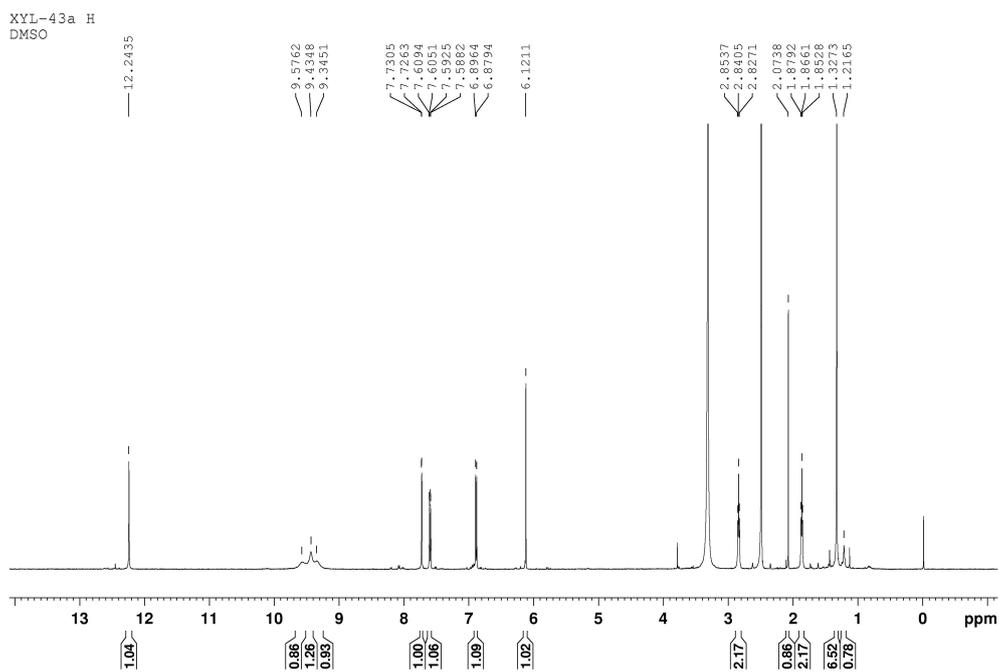


Figure S49. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **13**

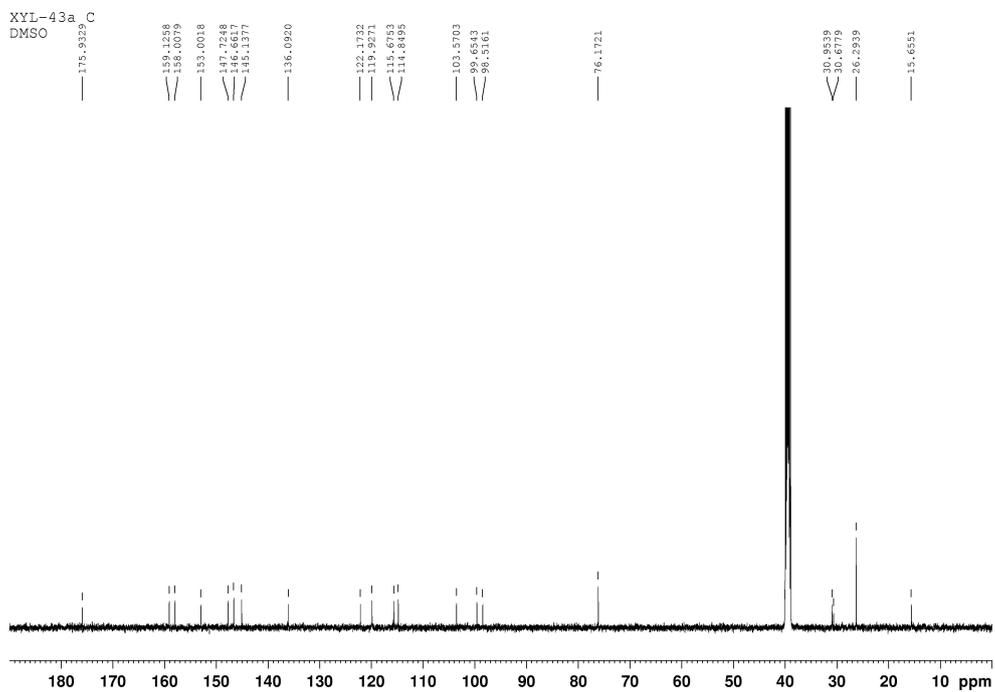


Figure S50. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **13**

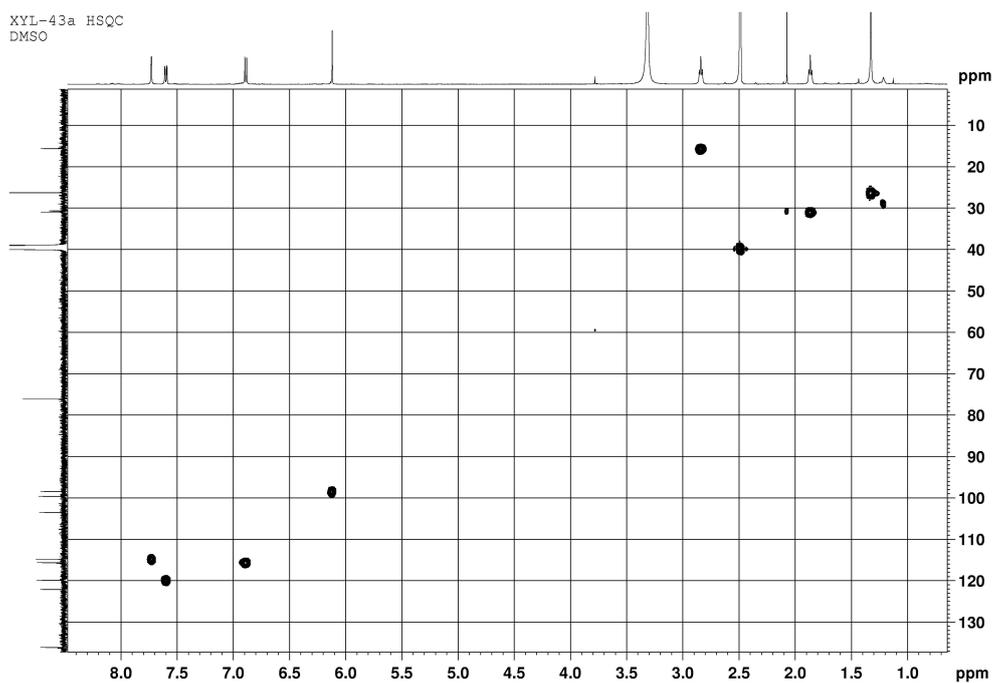


Figure S51. HSQC spectrum of compound **13**

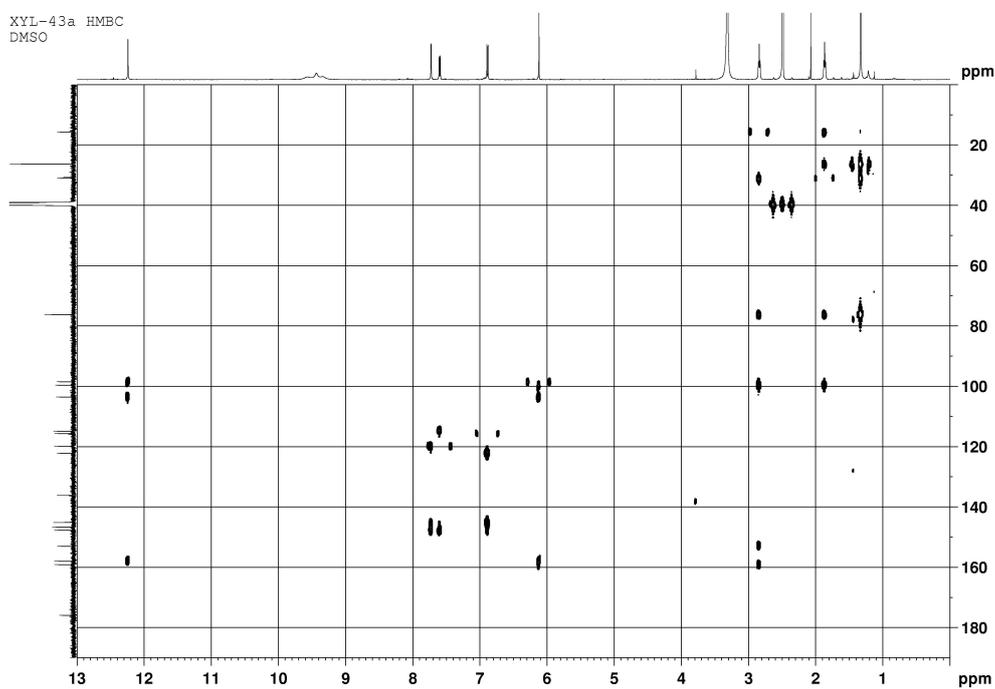


Figure S52. HMBC spectrum of compound **13**

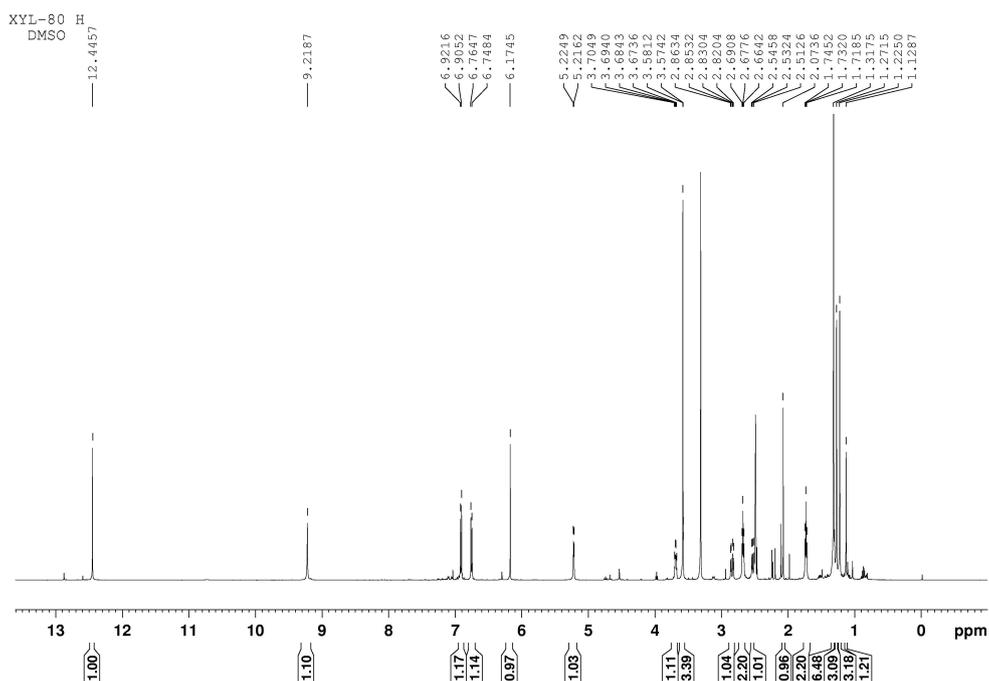


Figure S53. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **14**

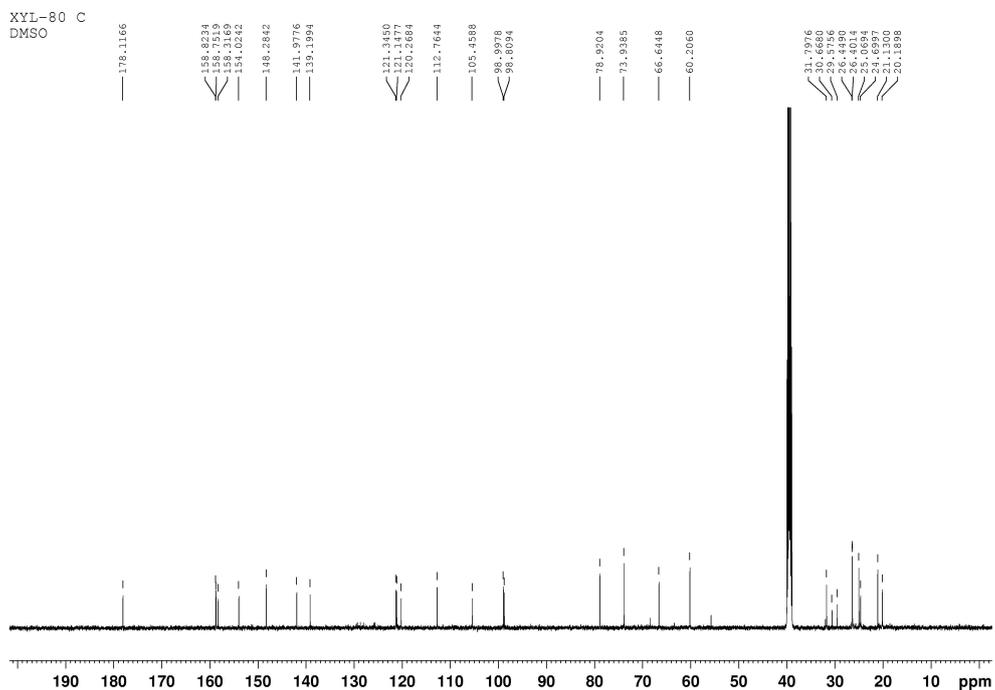


Figure S54. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **14**

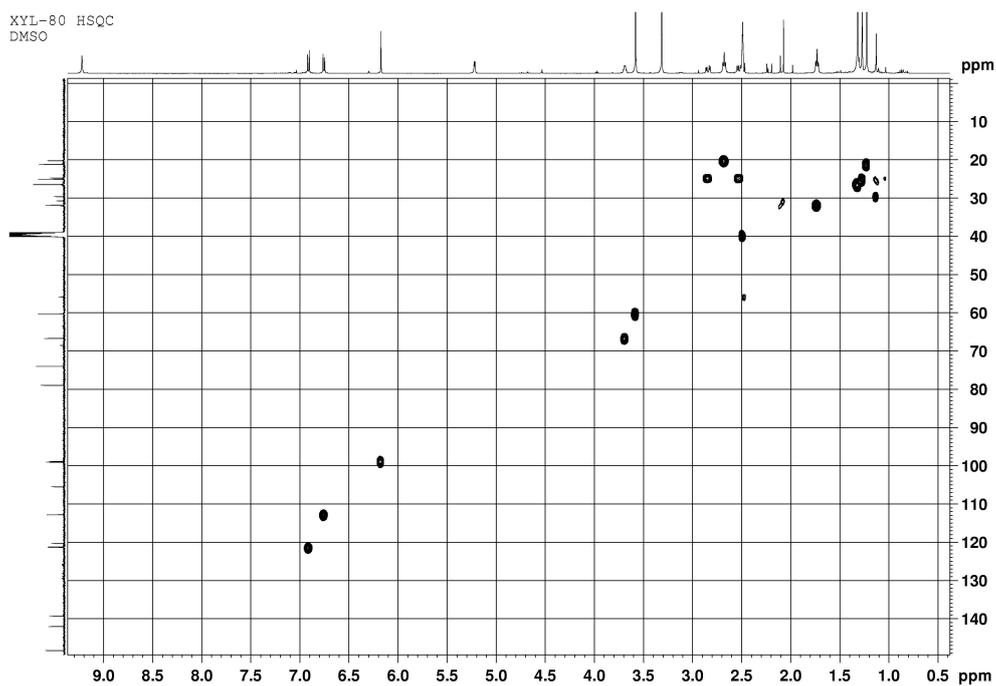


Figure S55. HSQC spectrum of compound 14

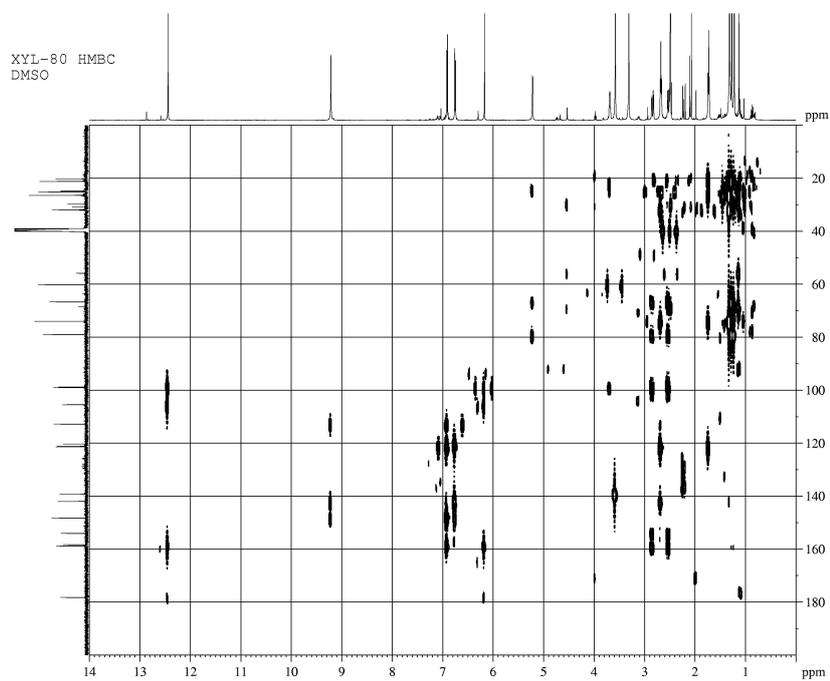


Figure S56. HMBC spectrum of compound 14

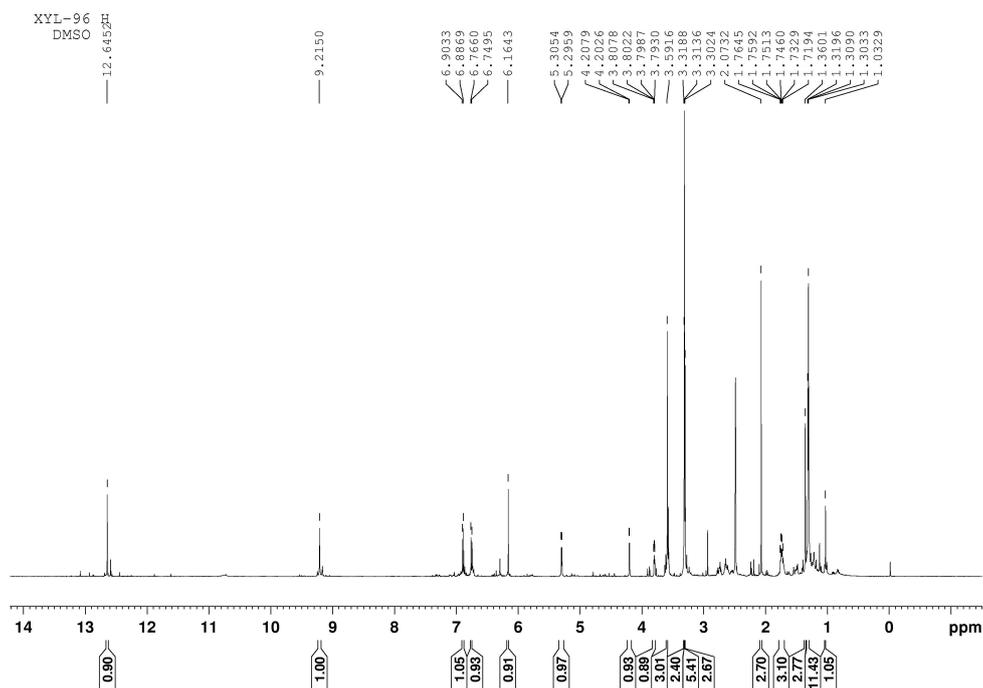


Figure S57. $^1\text{H-NMR}$ (500 MHz, $\text{DMSO-}d_6$) spectrum of compound 15

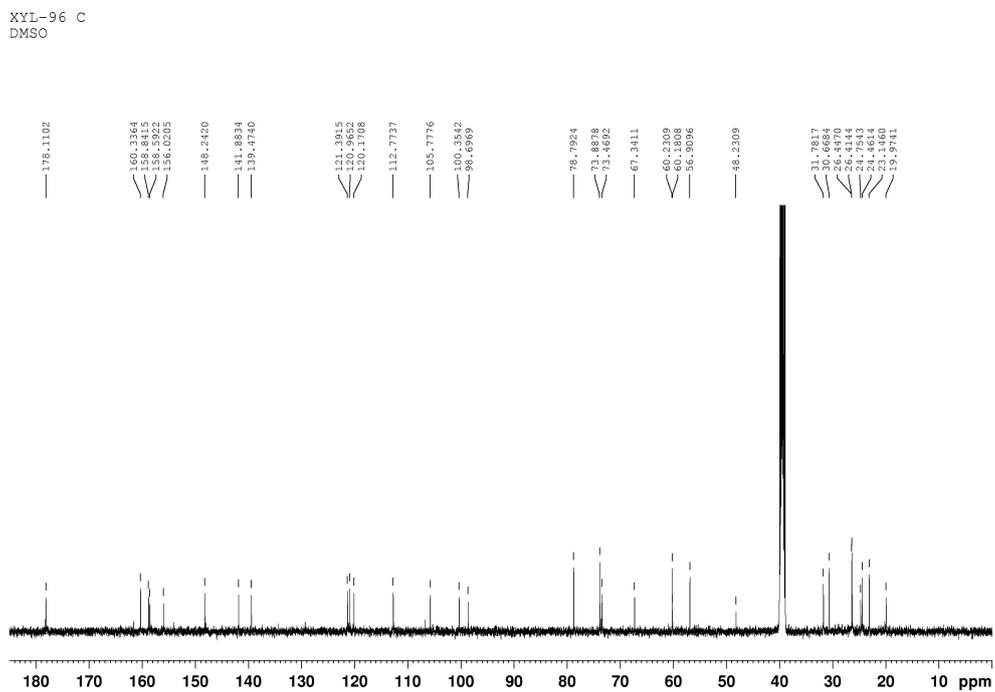


Figure S58. $^{13}\text{C-NMR}$ (125 MHz, $\text{DMSO-}d_6$) spectrum of compound 15

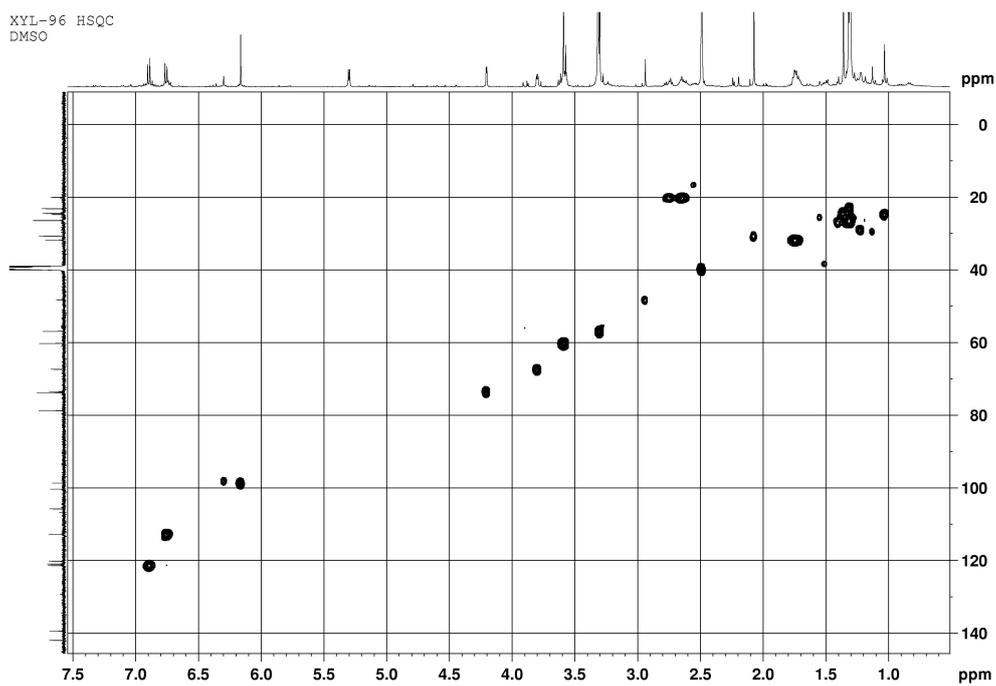


Figure S59. HSQC spectrum of compound 15

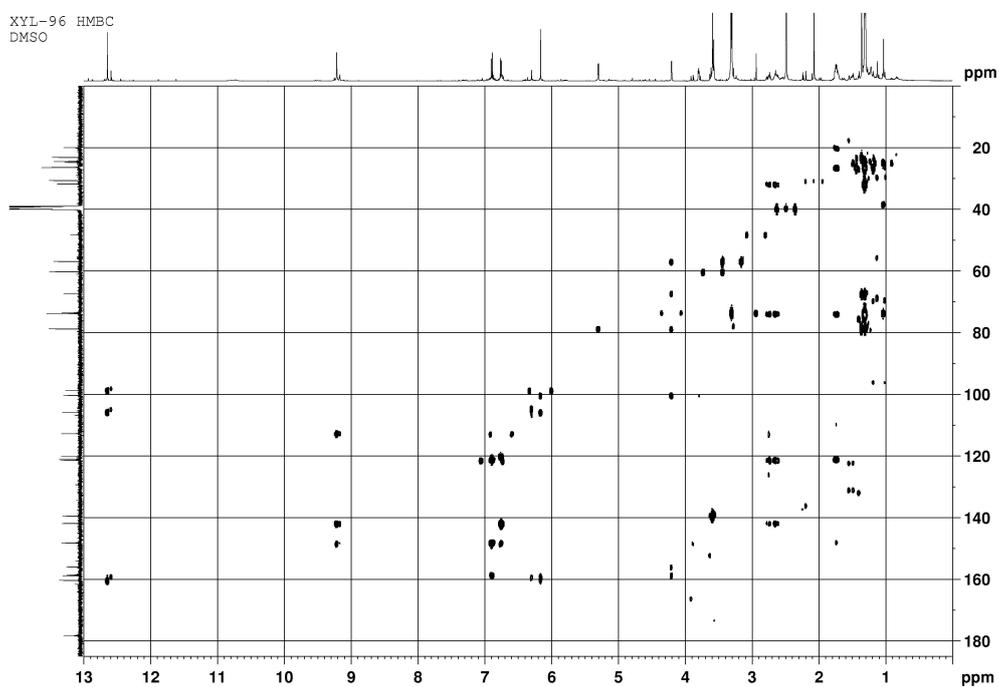


Figure S60. HMBC spectrum of compound 15

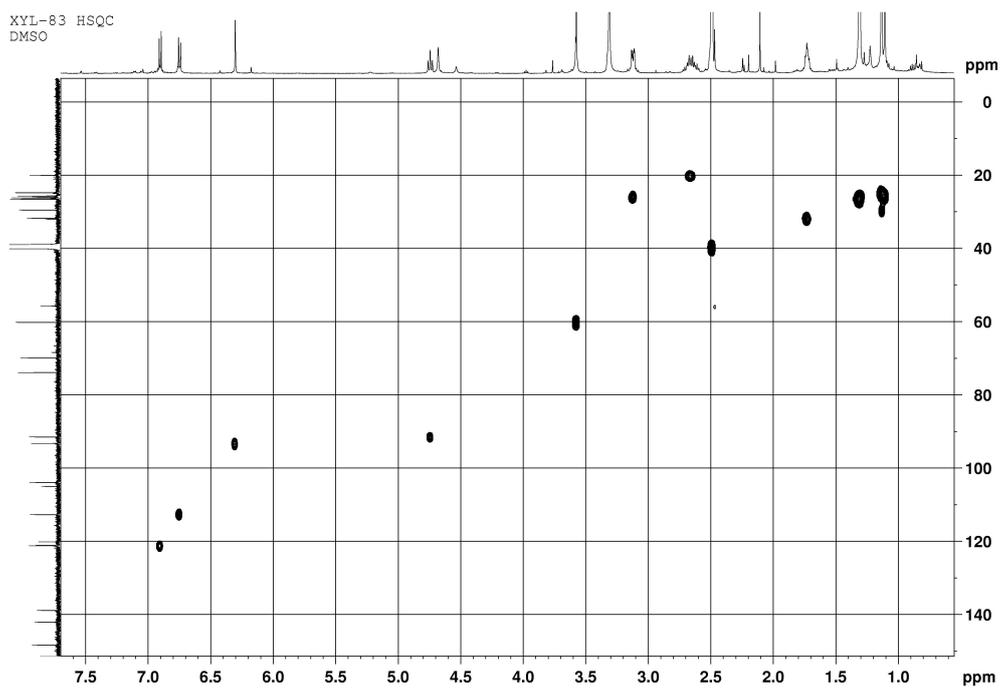


Figure S63. HSQC spectrum of compound 16

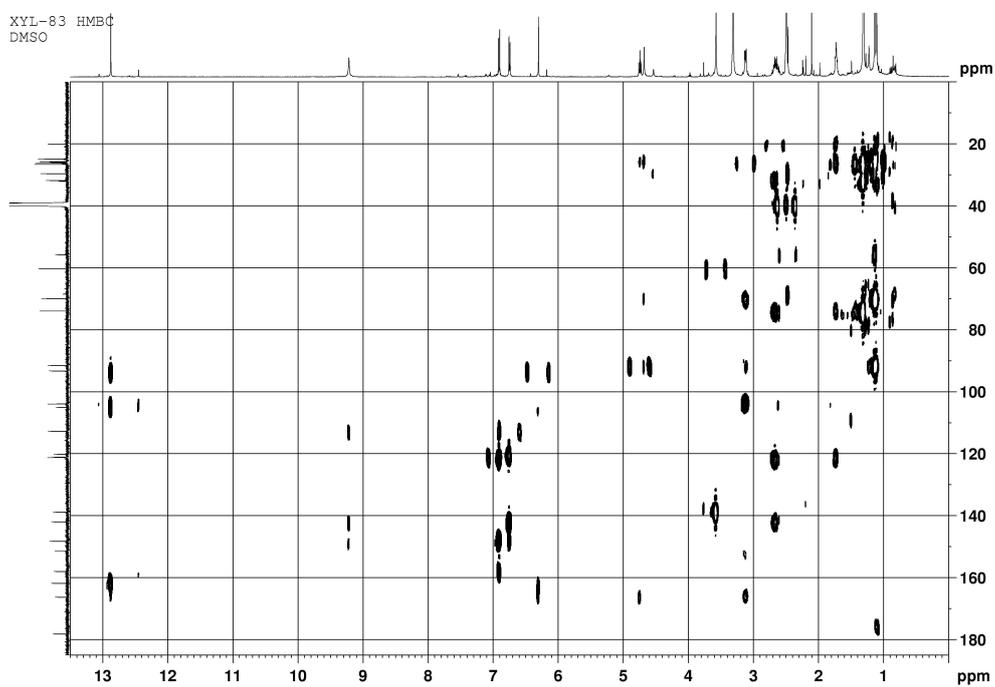


Figure S64. HMBC spectrum of compound 16