

Supplementary Materials

Chromone Derivatives and Other Constituents from Cultures of the Marine Sponge-Associated Fungus *Penicillium erubescens* KUFA0220 and Their Antibacterial Activity

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Figure S1. Structures of β -sitostenone and ergosterol 5,8-endoperoxide isolated from *Penicillium erubescens* KUFA 0220.

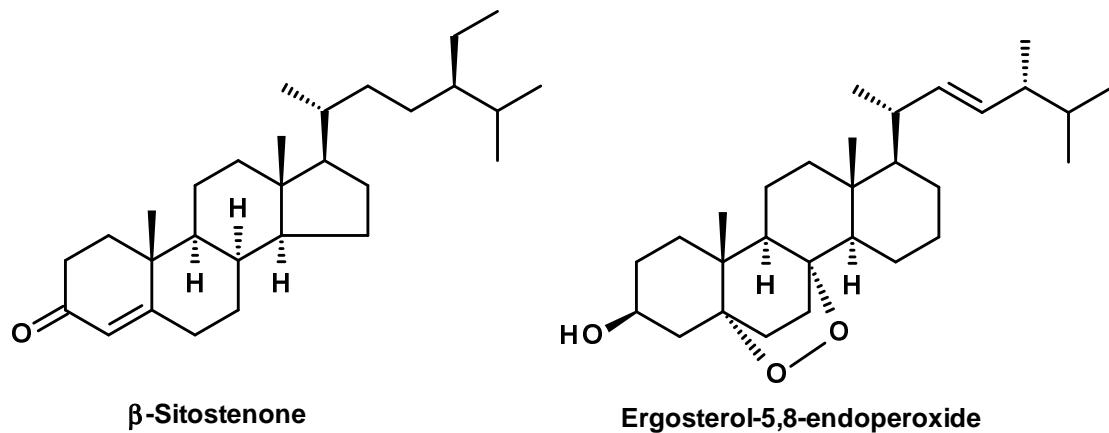


Figure S2. ^1H NMR spectrum of β -sitostenone (CDCl_3 , 300.13 MHz).

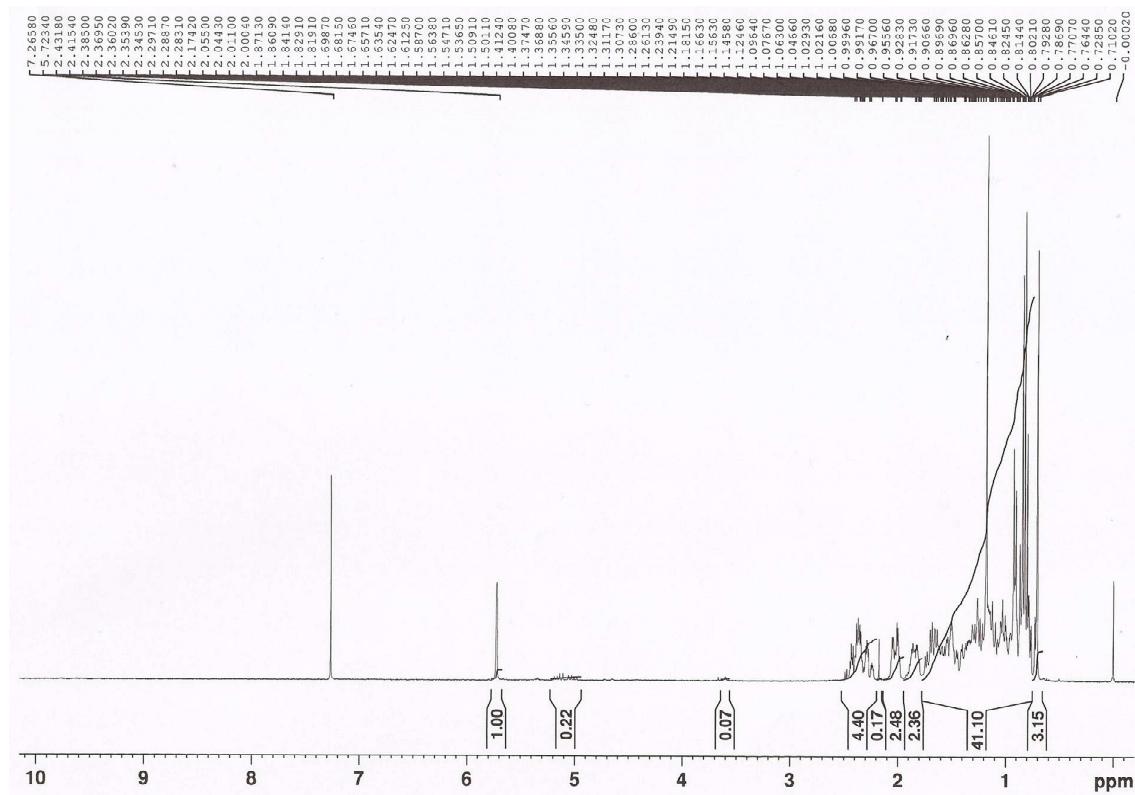


Figure S3. ^{13}C NMR spectrum of β -sitostenone (CDCl_3 , 75.4 MHz).

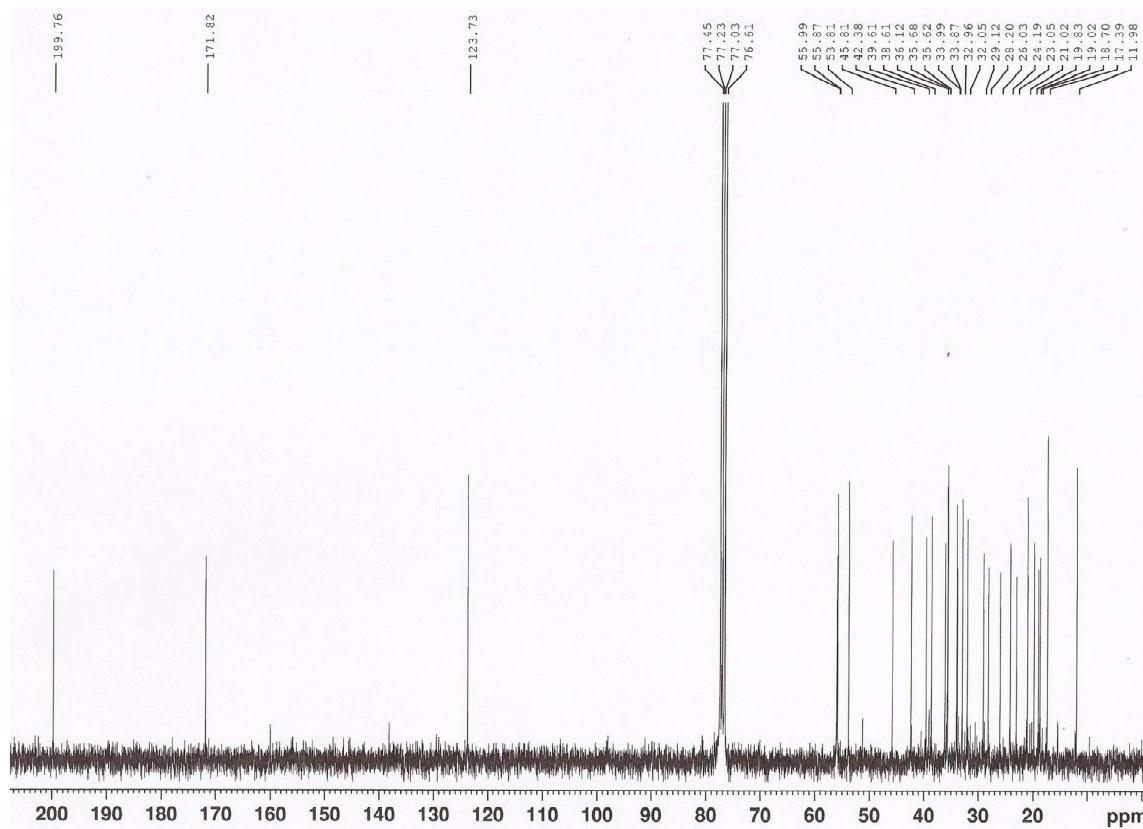


Figure S4. ^1H NMR spectrum of ergosterol-5, 8-endoperoxide (CDCl_3 , 300.13 MHz).

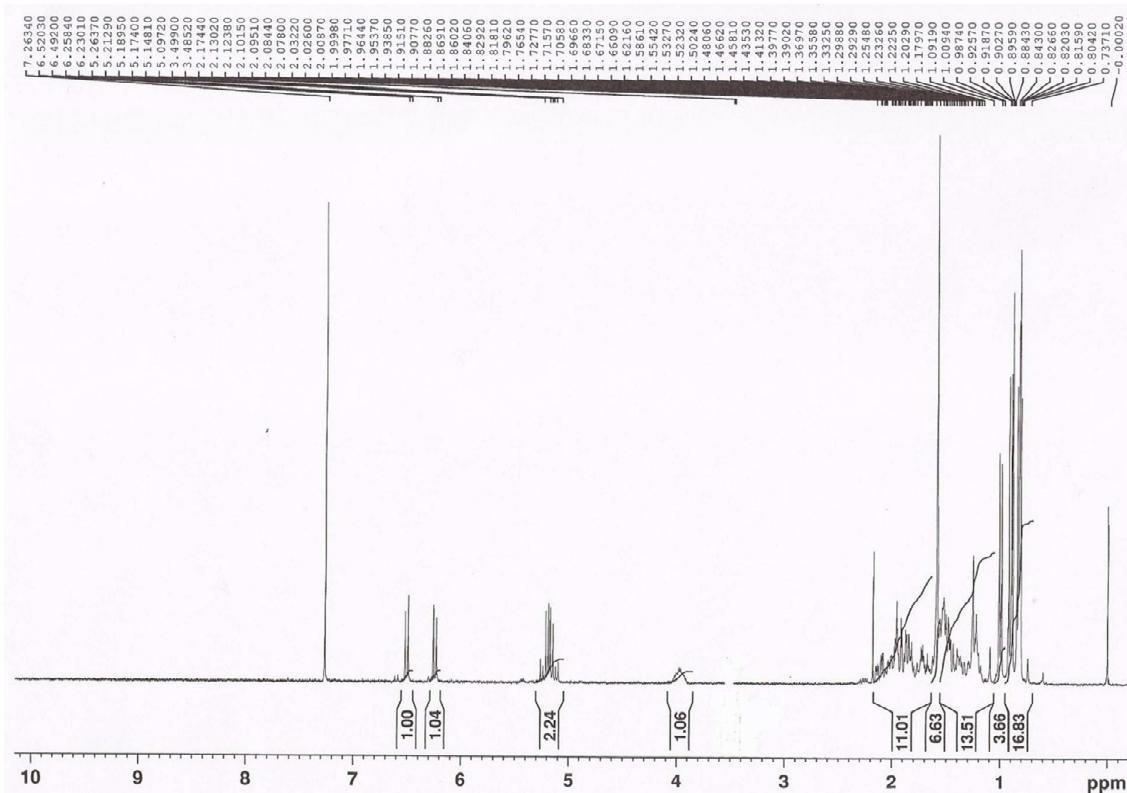


Figure S5. ^{13}C NMR spectrum of ergosterol-5, 8-endoperoxide (CDCl_3 , 75.4 MHz).

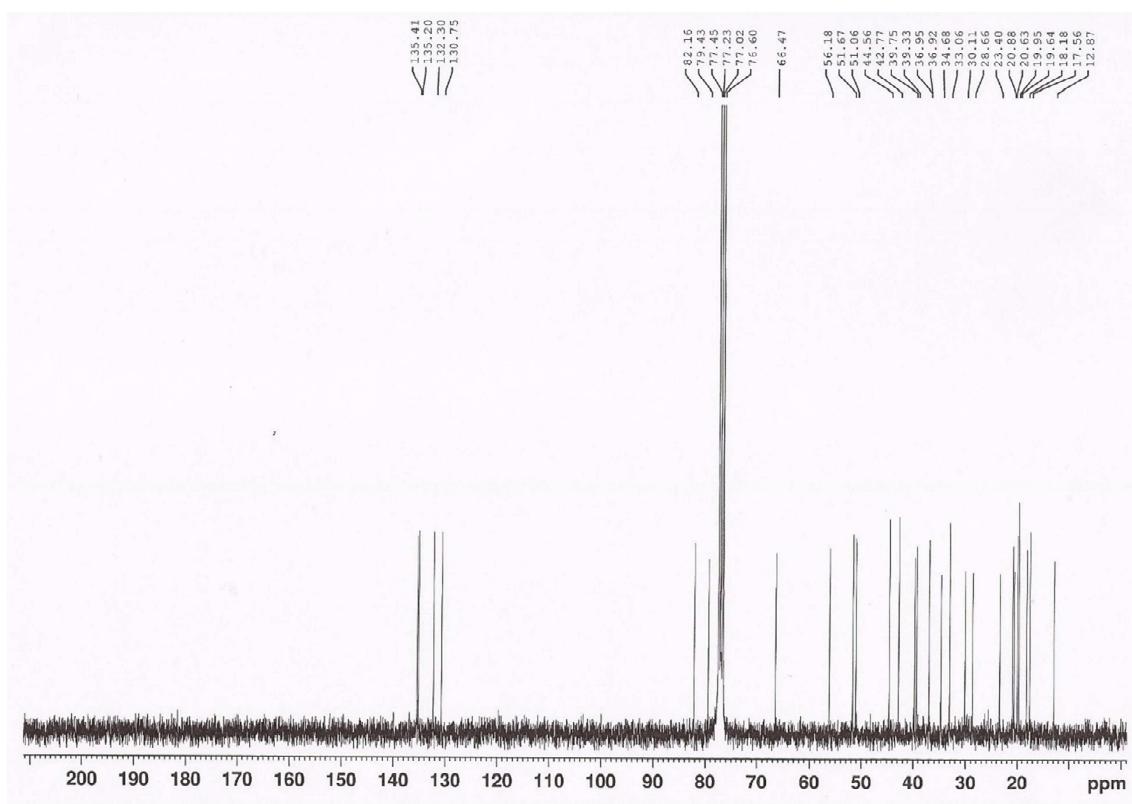


Figure S6. ^1H NMR spectrum of **1a** (DMSO-d_6 , 300.13 MHz).

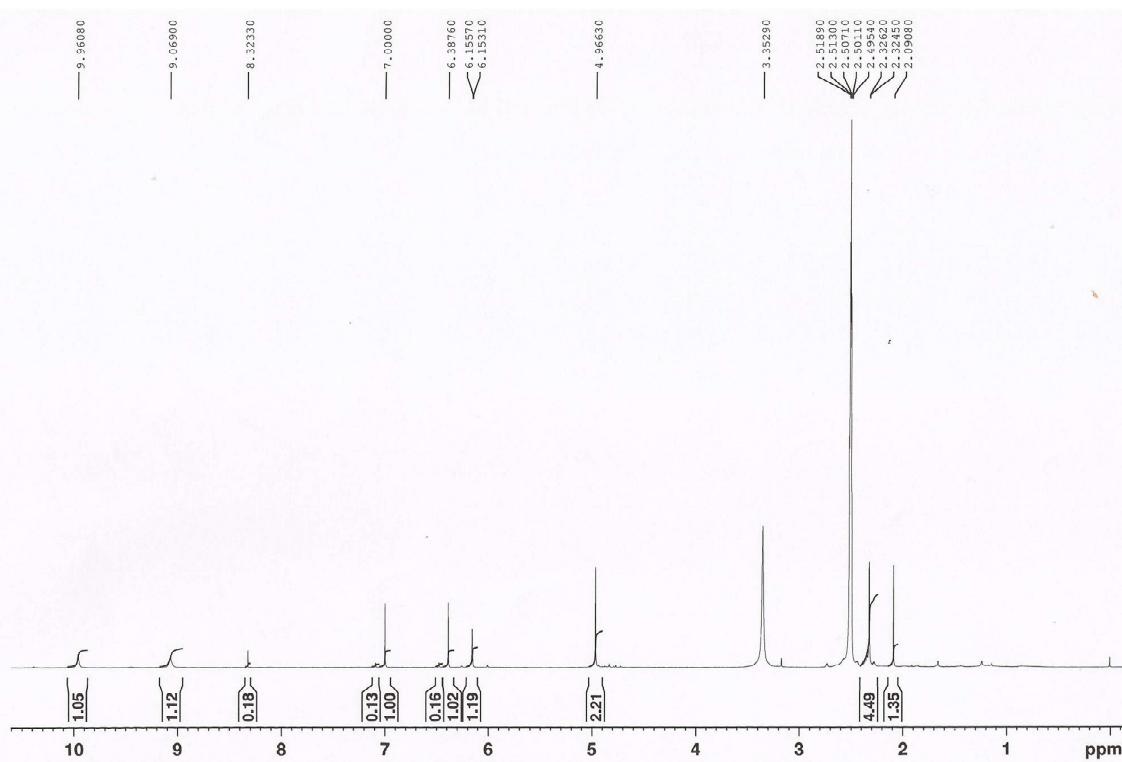


Figure S7. ^{13}C NMR spectrum of **1a** (DMSO-d₆, 75.4 MHz).

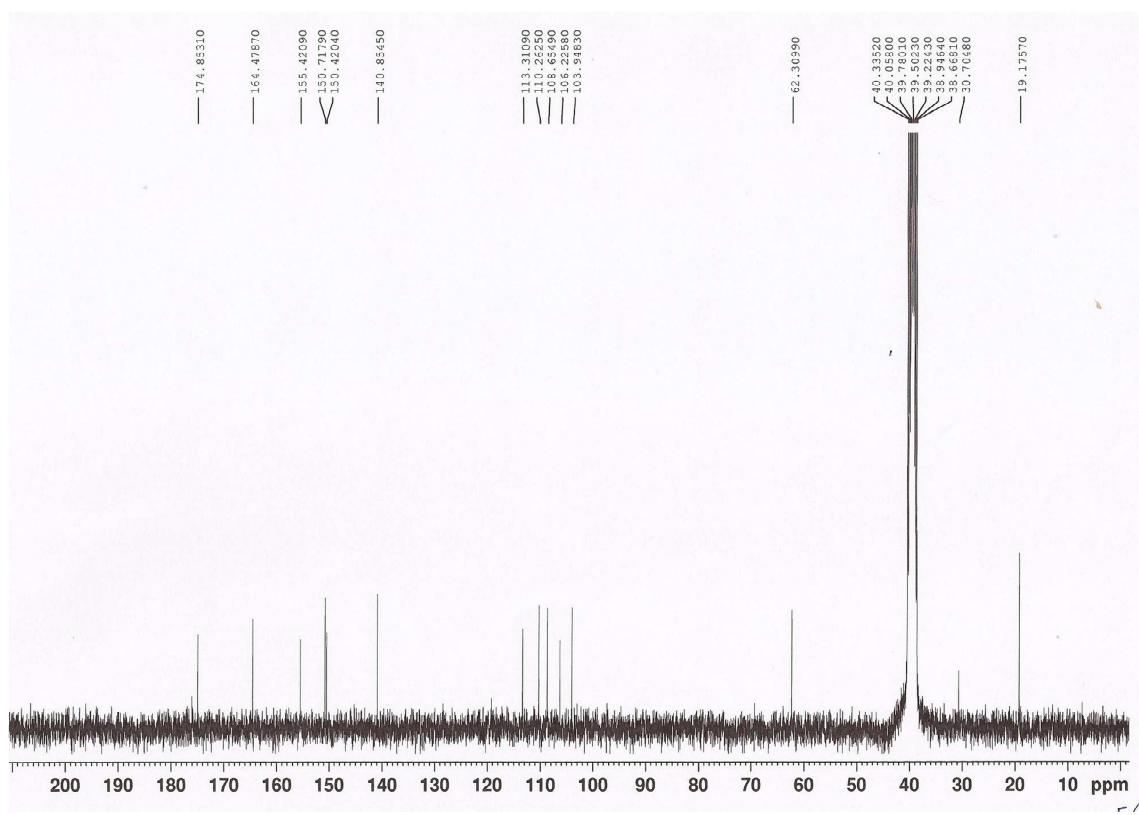


Figure S8. ^1H NMR spectrum of **1b** (DMSO-d₆, 300.13 MHz).

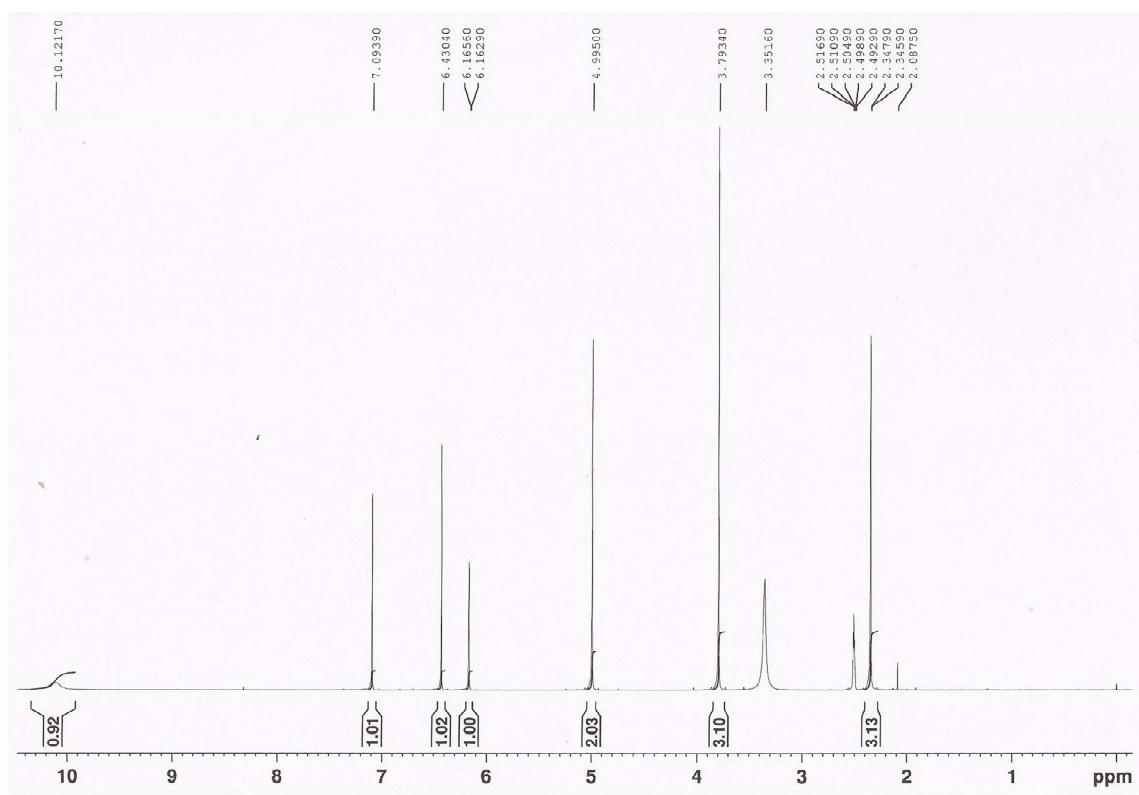


Figure S9. ^{13}C NMR spectrum of **1b** (DMSO-d₆, 75.4 MHz).

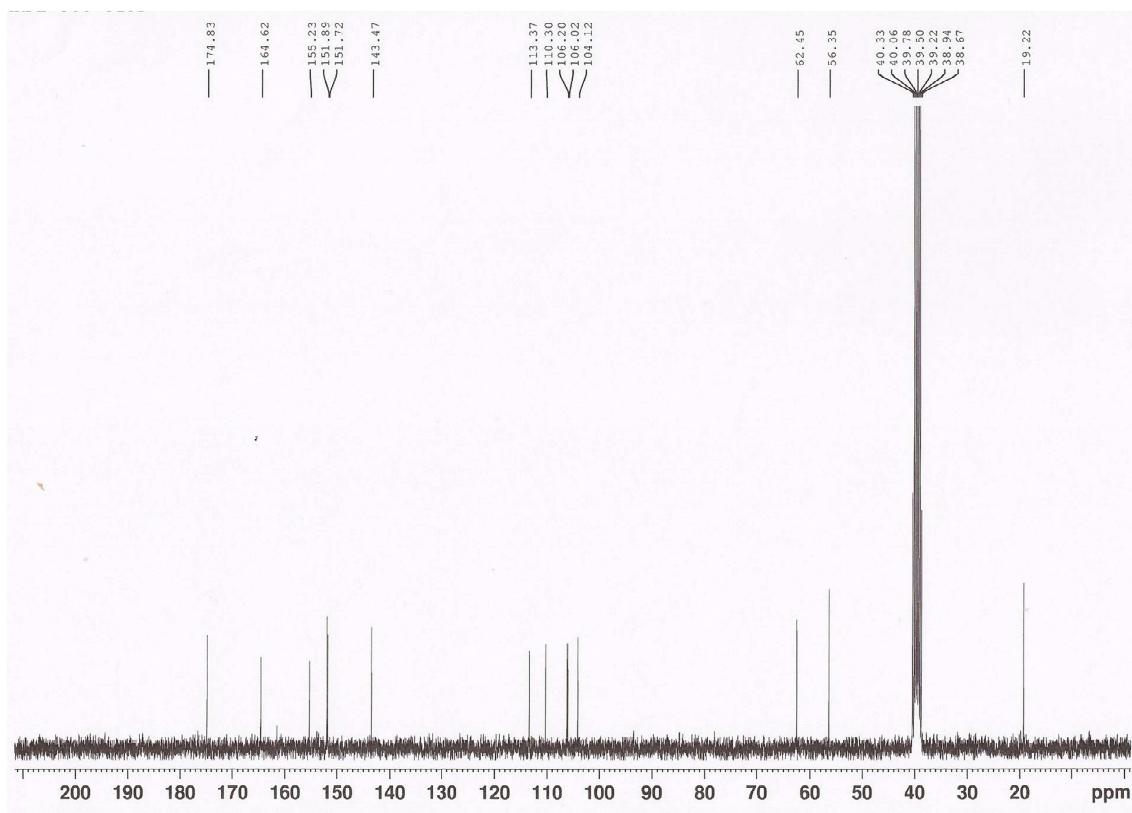


Figure S10. ^1H NMR spectrum of **1c** (DMSO-d₆, 500.13 MHz).

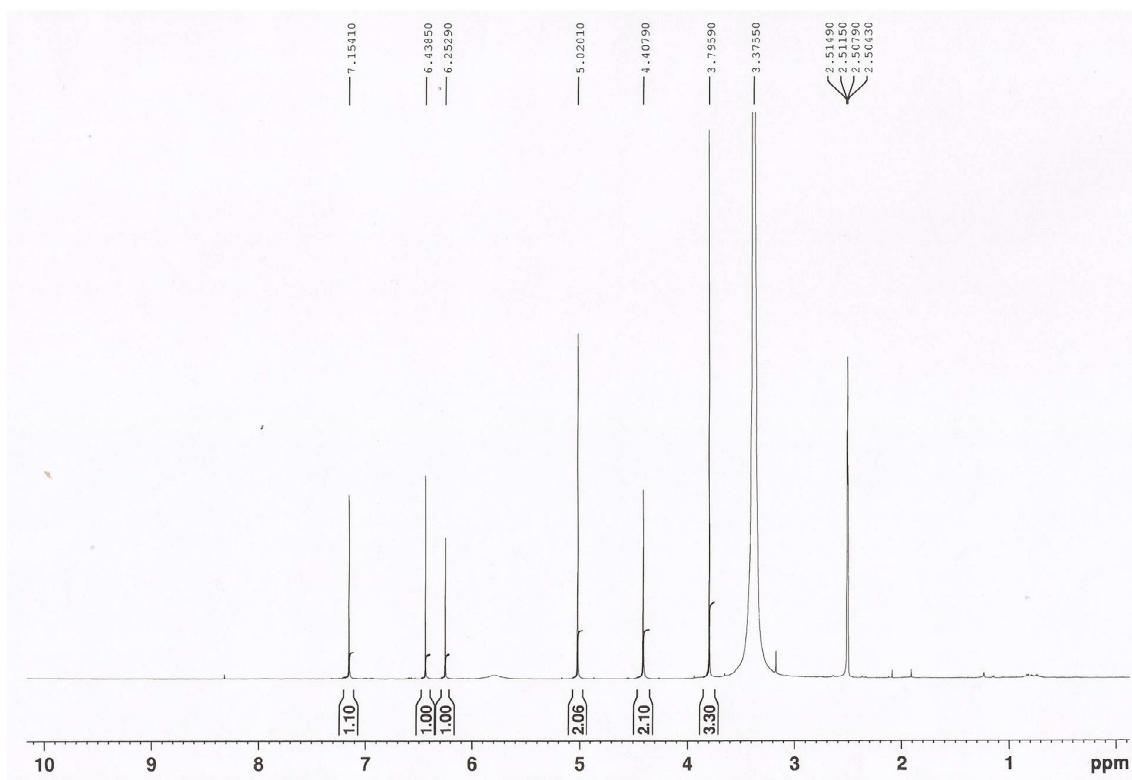


Figure S11. ^{13}C NMR spectrum of **1c** (DMSO-d₆, 125.4 MHz).

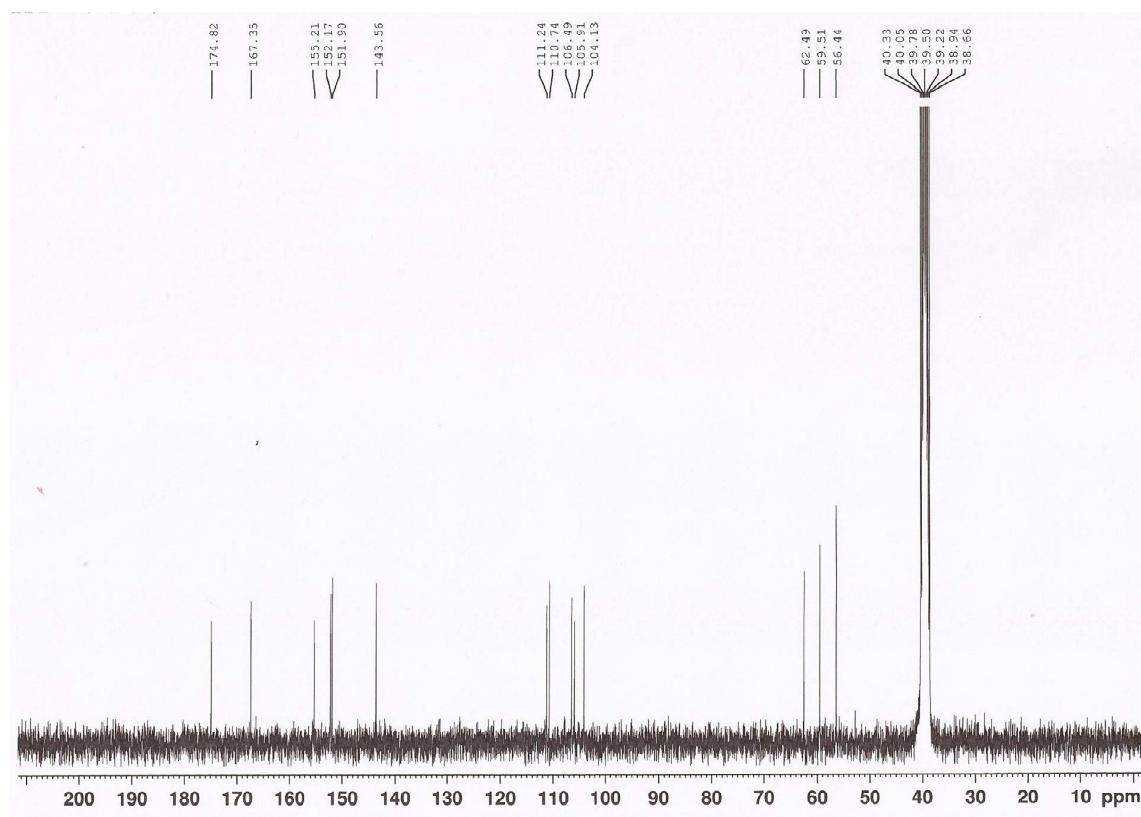


Figure S12. HSQC spectrum of **1c** (DMSO-d₆, 500.13 MHz).

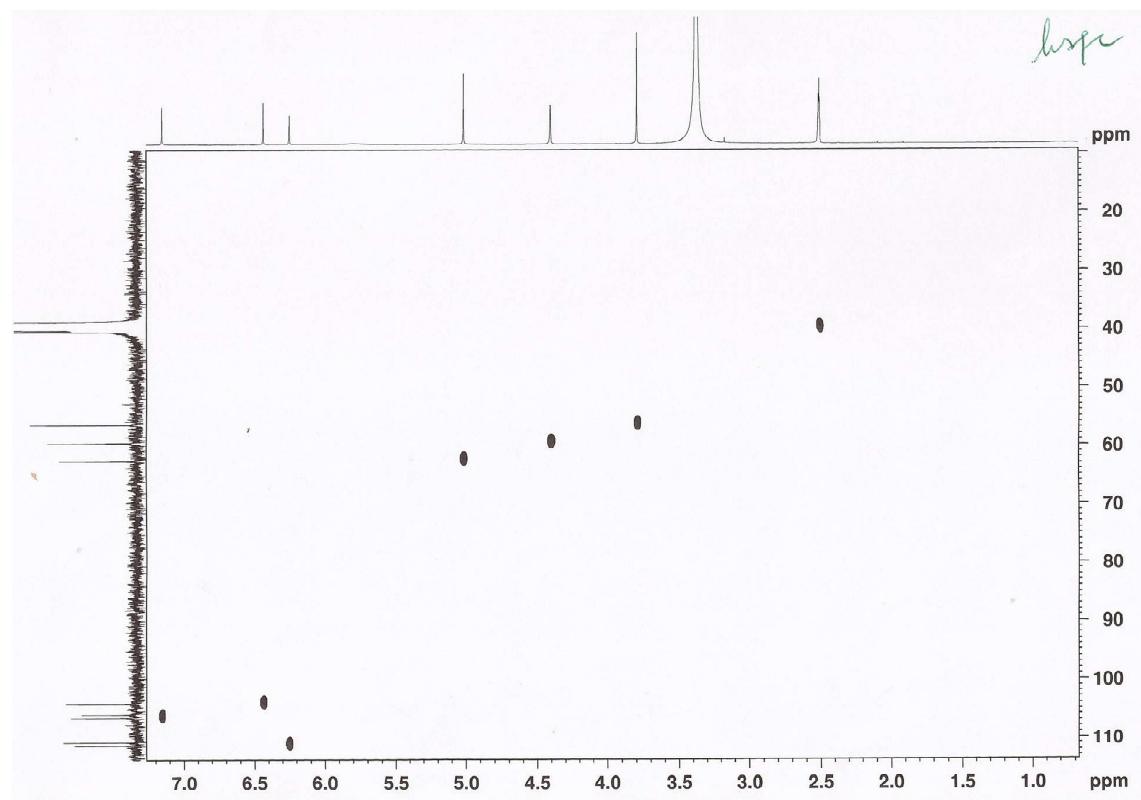


Figure S13. HMBC spectrum of **1c** (DMSO-d₆, 500.13 MHz).

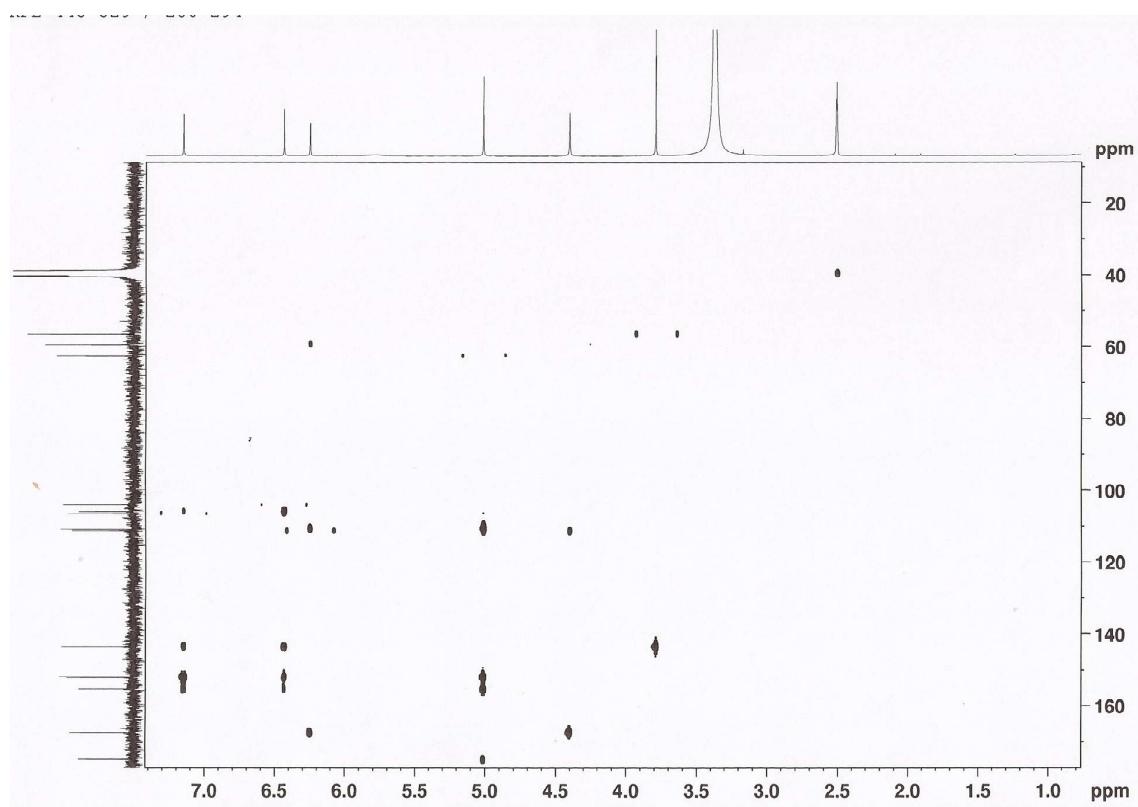


Figure S14. NOESY spectrum of **1c** (DMSO-d₆, 500.13 MHz).

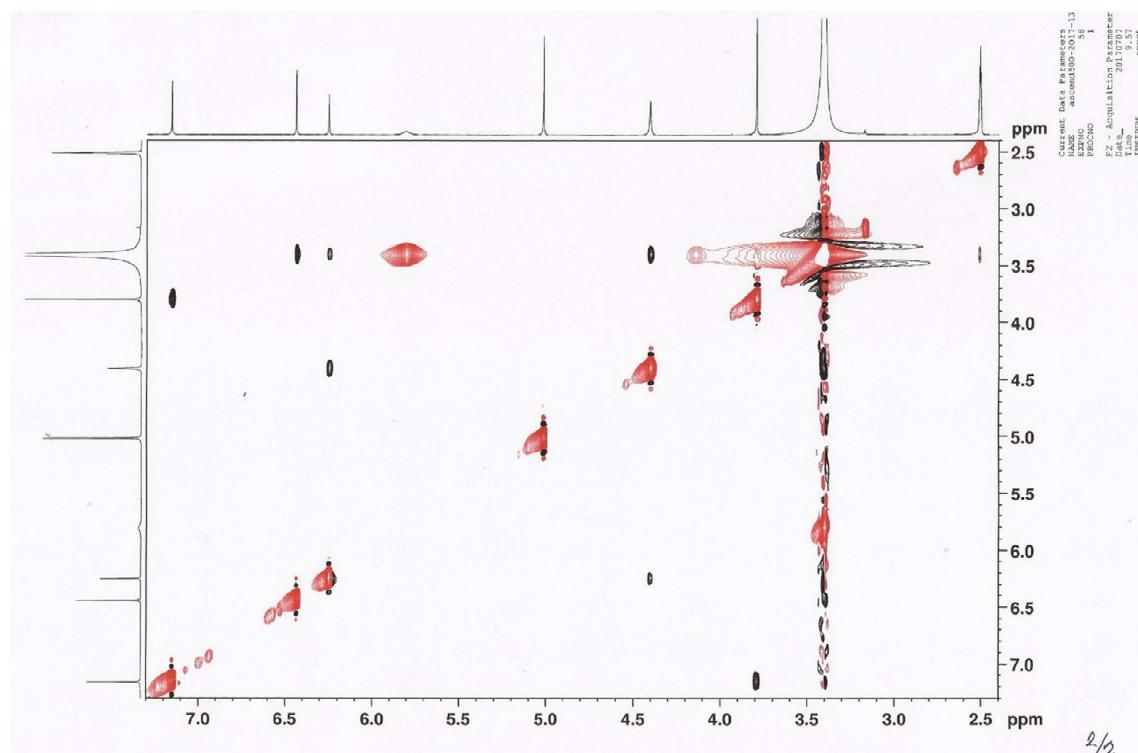


Figure S15. ^1H NMR spectrum of **1d** (DMSO-d₆, 500.13 MHz).

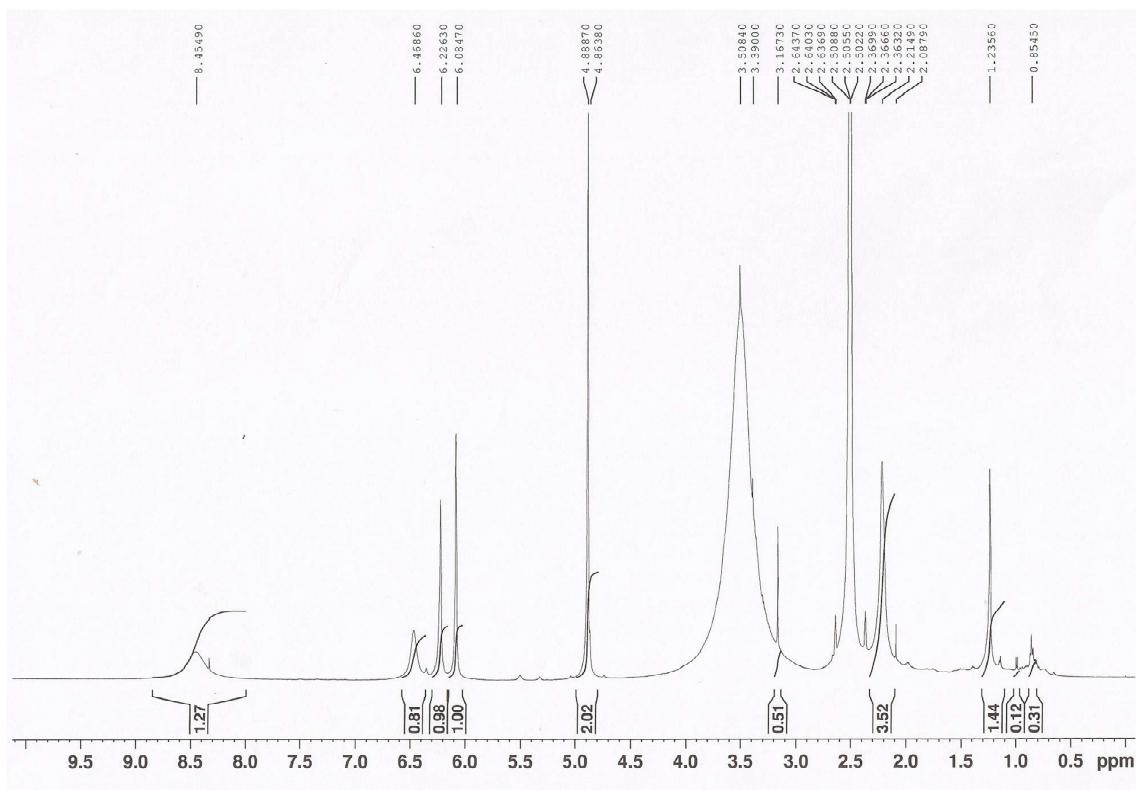


Figure S16. ^{13}C NMR spectrum of **1d** (DMSO-d₆, 125.4 MHz).

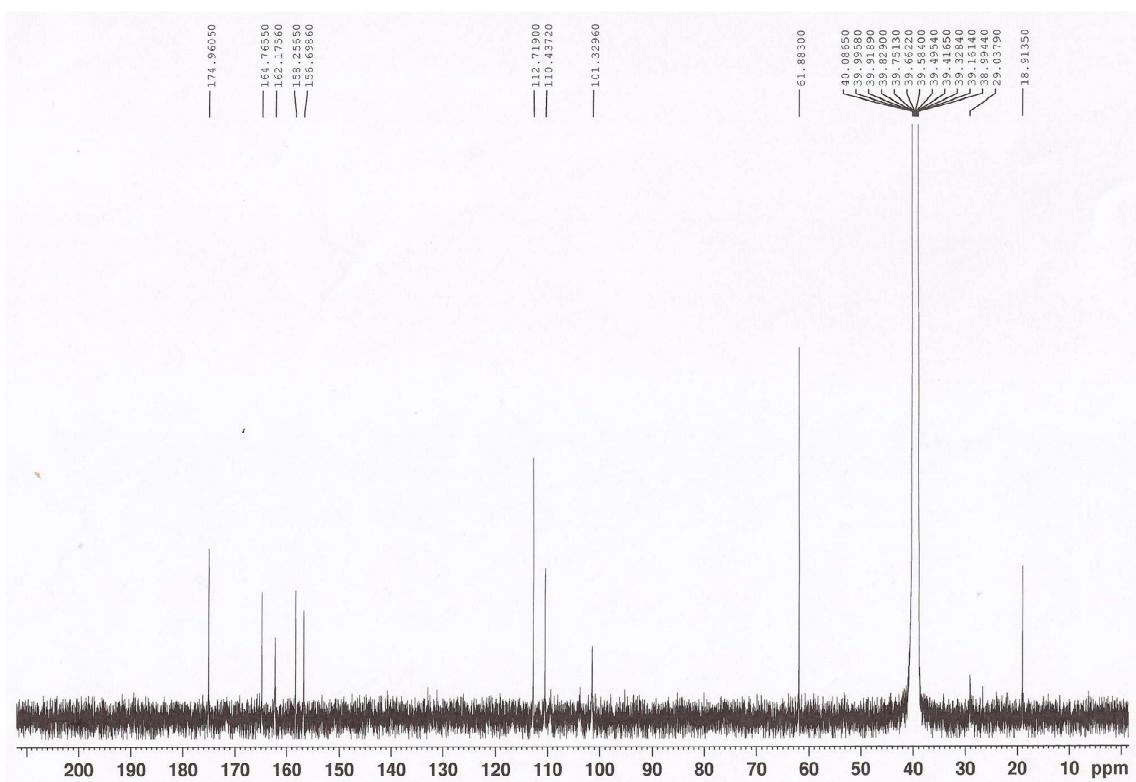


Figure S17. ^1H spectrum of **1e** (DMSO-d₆, 300.13 MHz).

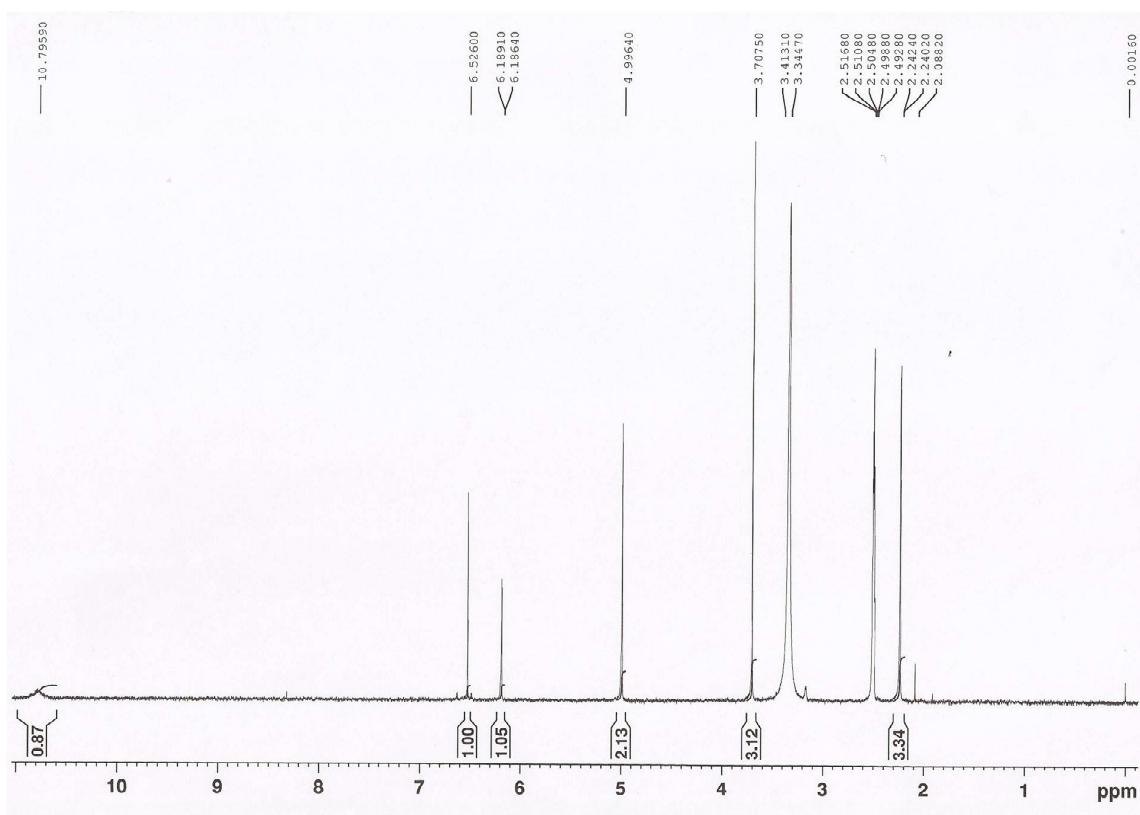


Figure S18. ^{13}C NMR spectrum of **1e** (DMSO-d₆, 75.4 MHz).

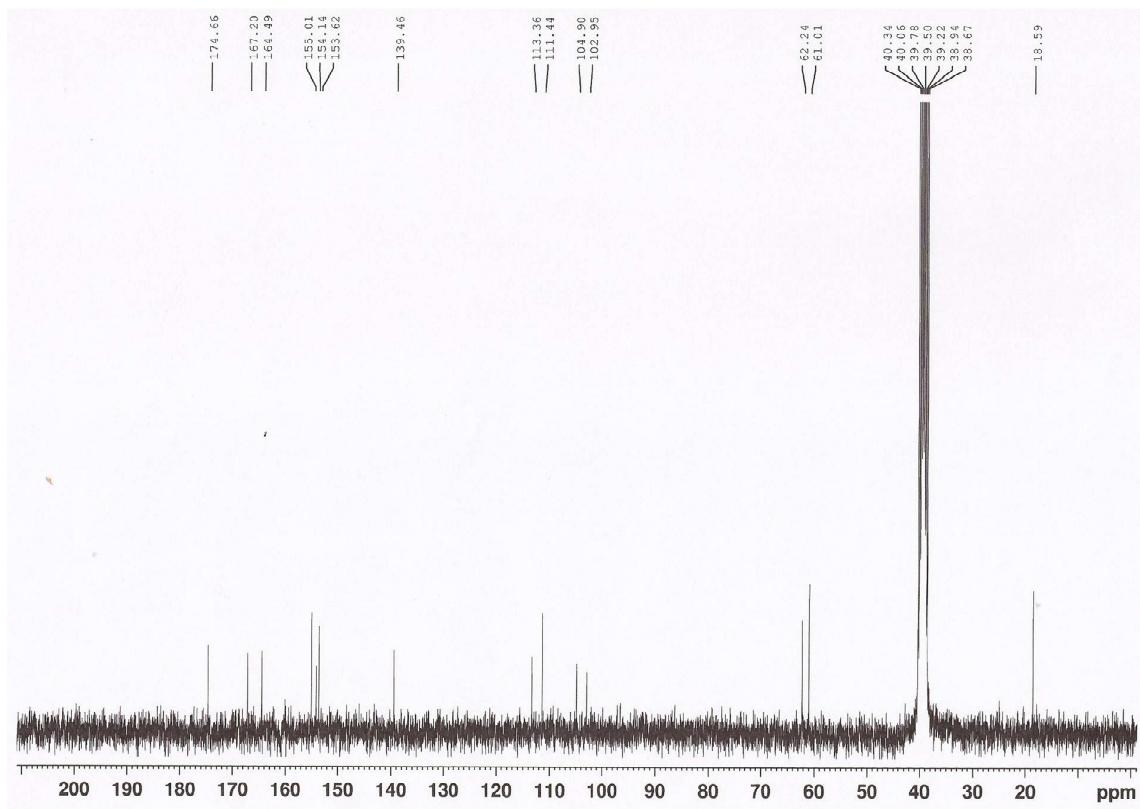


Figure S19. ^1H spectrum of **2a** (DMSO-d₆, 300.13 MHz).

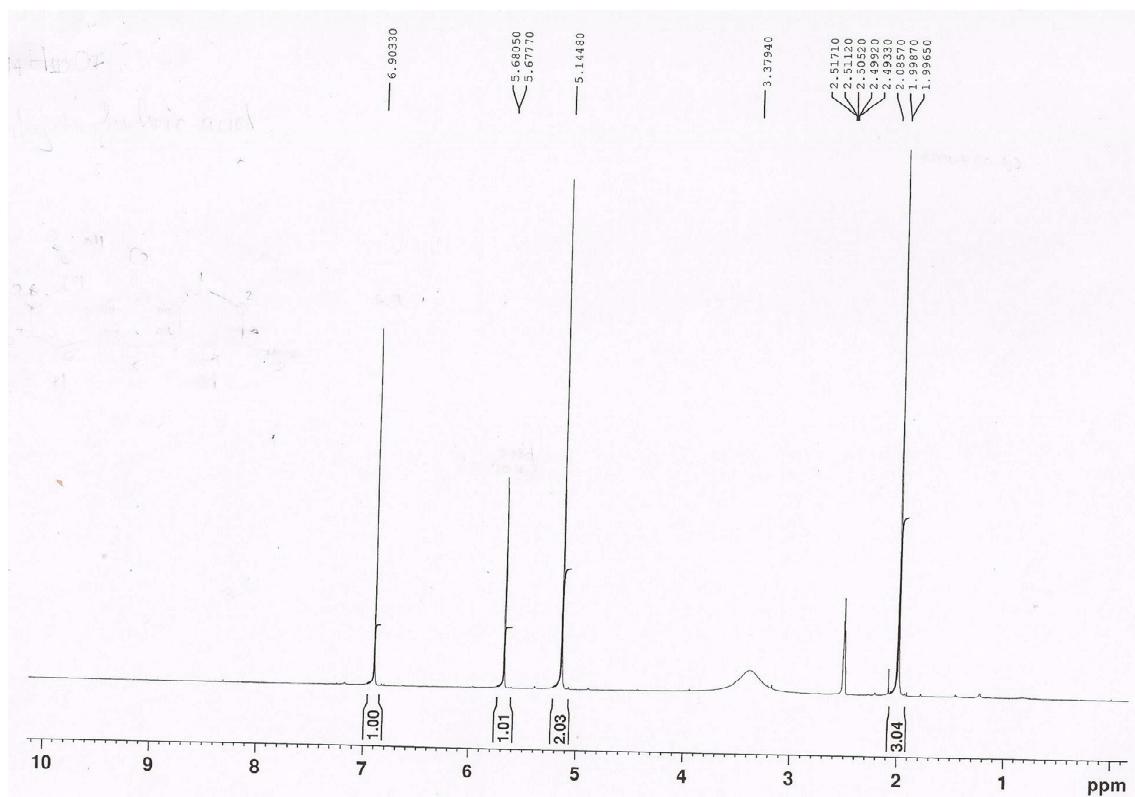


Figure S20. ^{13}C NMR spectrum of **2a** (DMSO-d₆, 75.4 MHz).

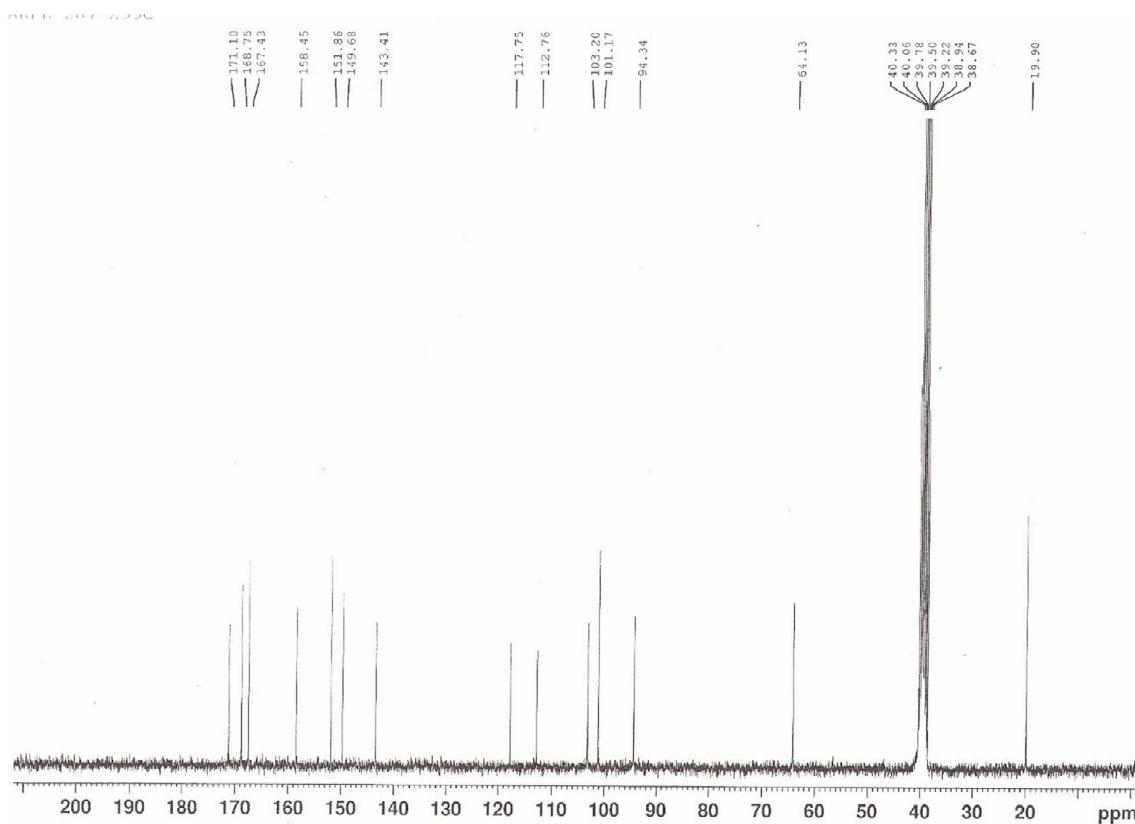


Figure S21. ^1H NMR spectrum of a mixture of **2b** and **3b** (DMSO-d₆, 500.13 MHz).

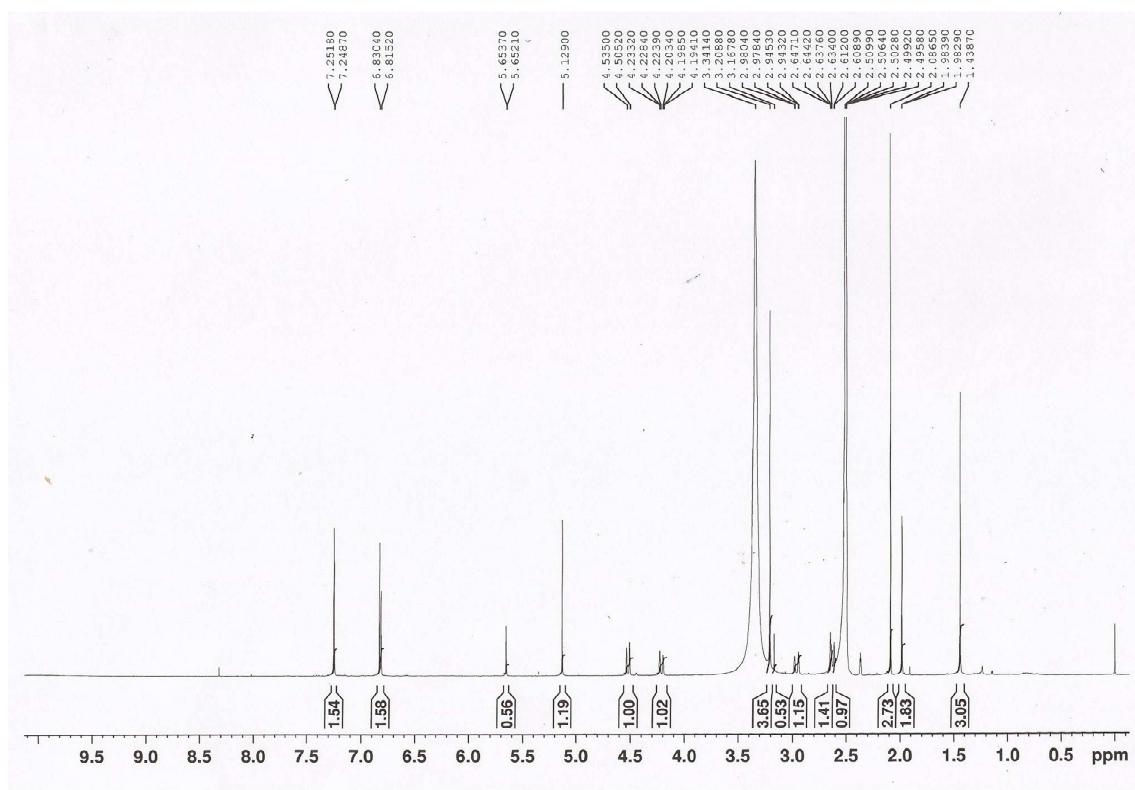


Figure S22. ^{13}C NMR spectrum of a mixture of **2b** and **3b** (DMSO-d₆, 125.4 MHz).

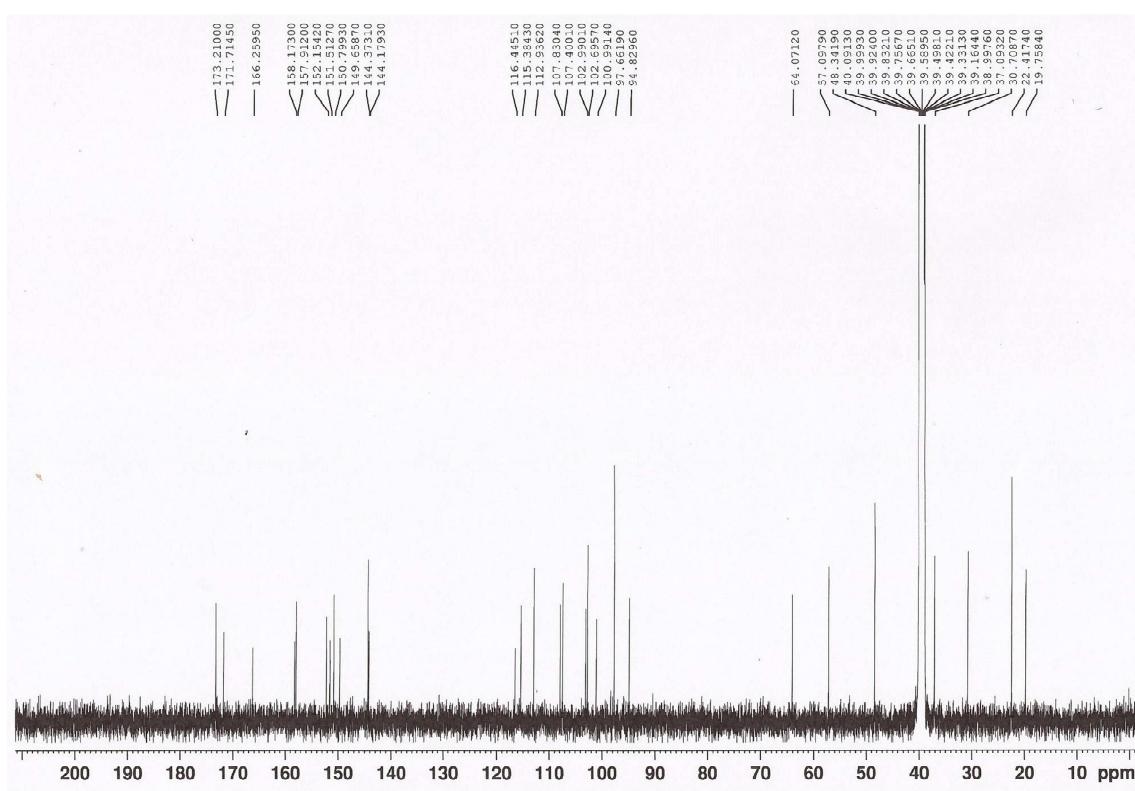


Figure S23. COSY spectrum of a mixture of **2b** and **3b** (DMSO-d₆, 500.13 MHz).

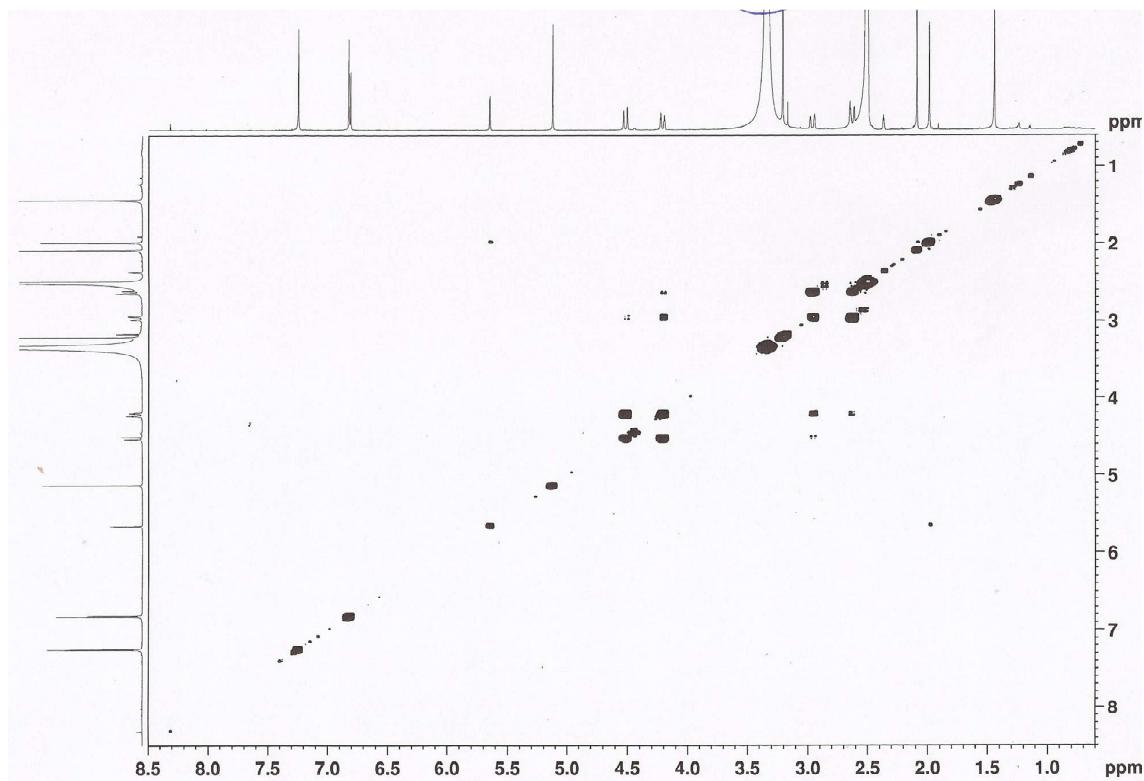


Figure S24. HSQC spectrum of a mixture of **2b** and **3b** (DMSO-d₆, 500.13 MHz).

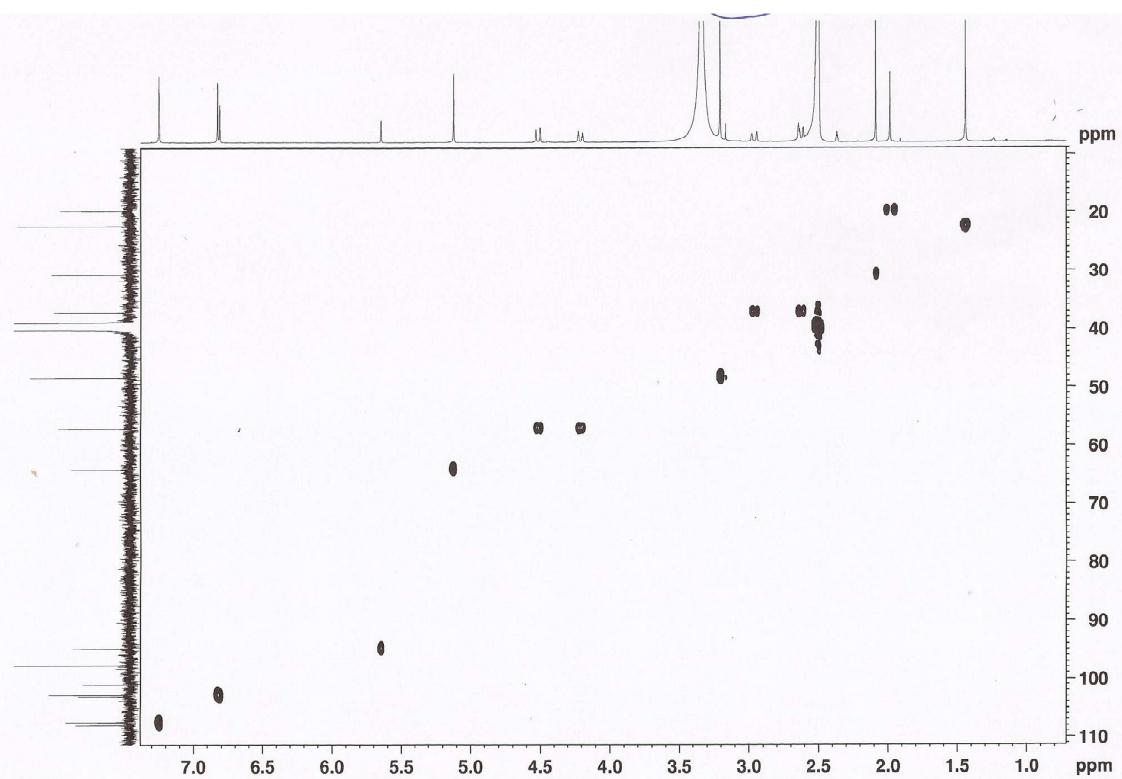


Figure S25. HMBC spectrum of a mixture of **2b** and **3b** (DMSO-d₆, 500.13 MHz).

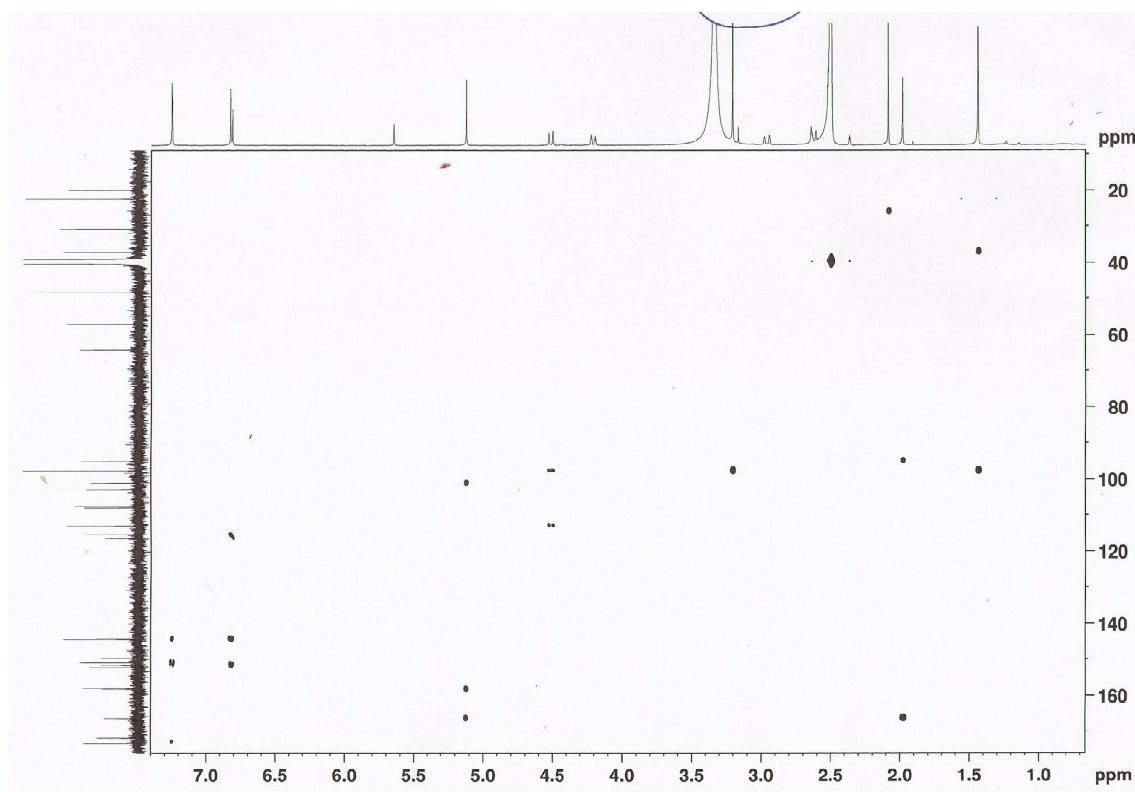


Figure S26. ¹H NMR spectrum of **2c** (DMSO-d₆, 500.13 MHz).

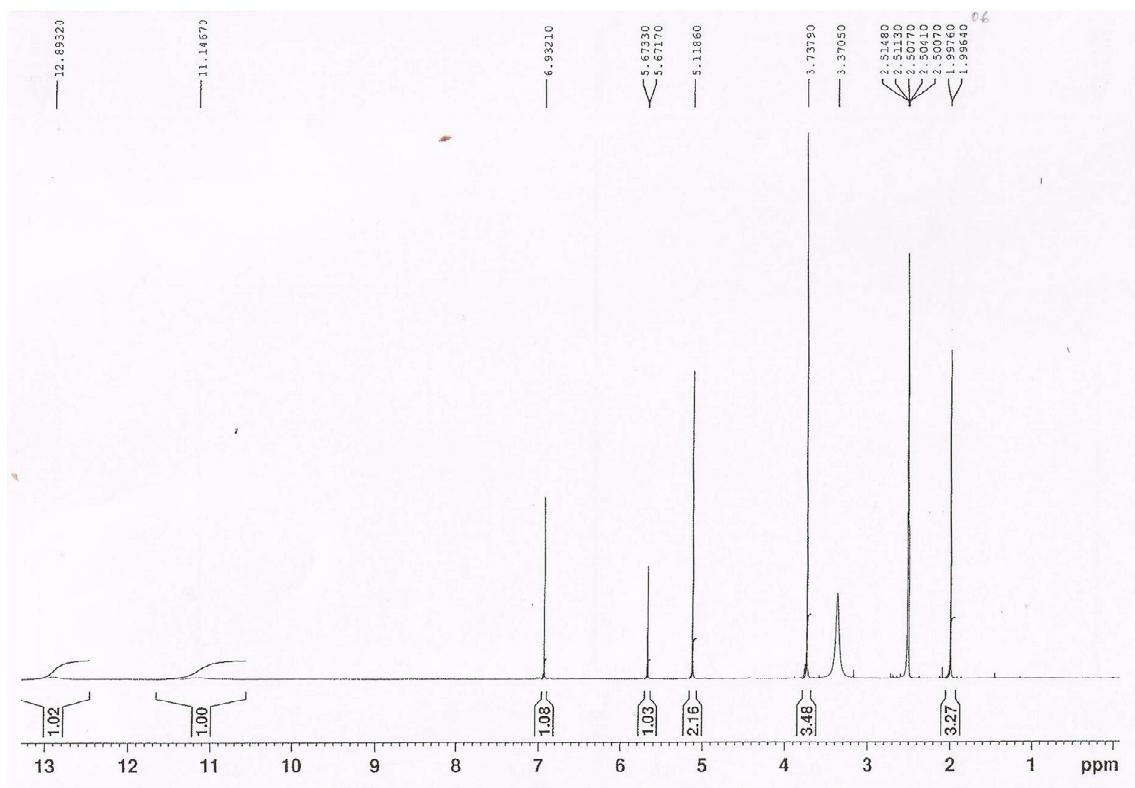


Figure S27. ^{13}C NMR spectrum of **2c** (DMSO-d₆, 125.4 MHz).

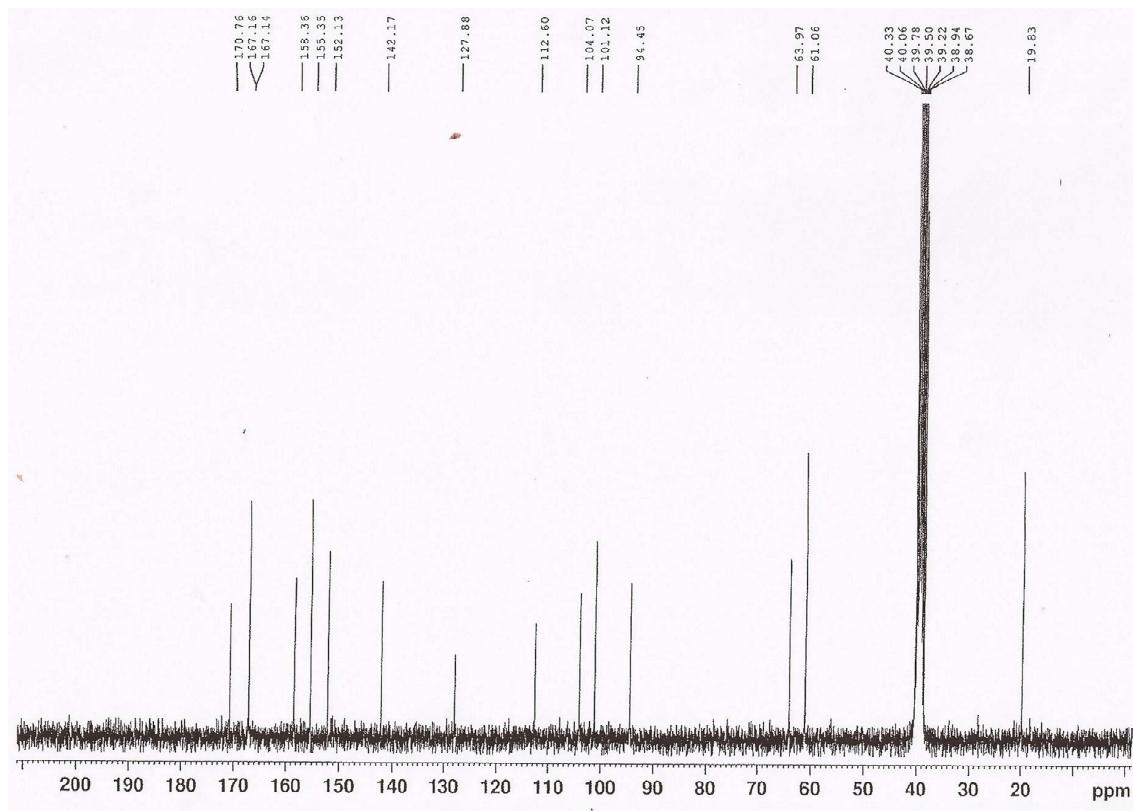


Figure S28. ^1H NMR spectrum of **3a** (DMSO-d₆, 300.13 MHz).

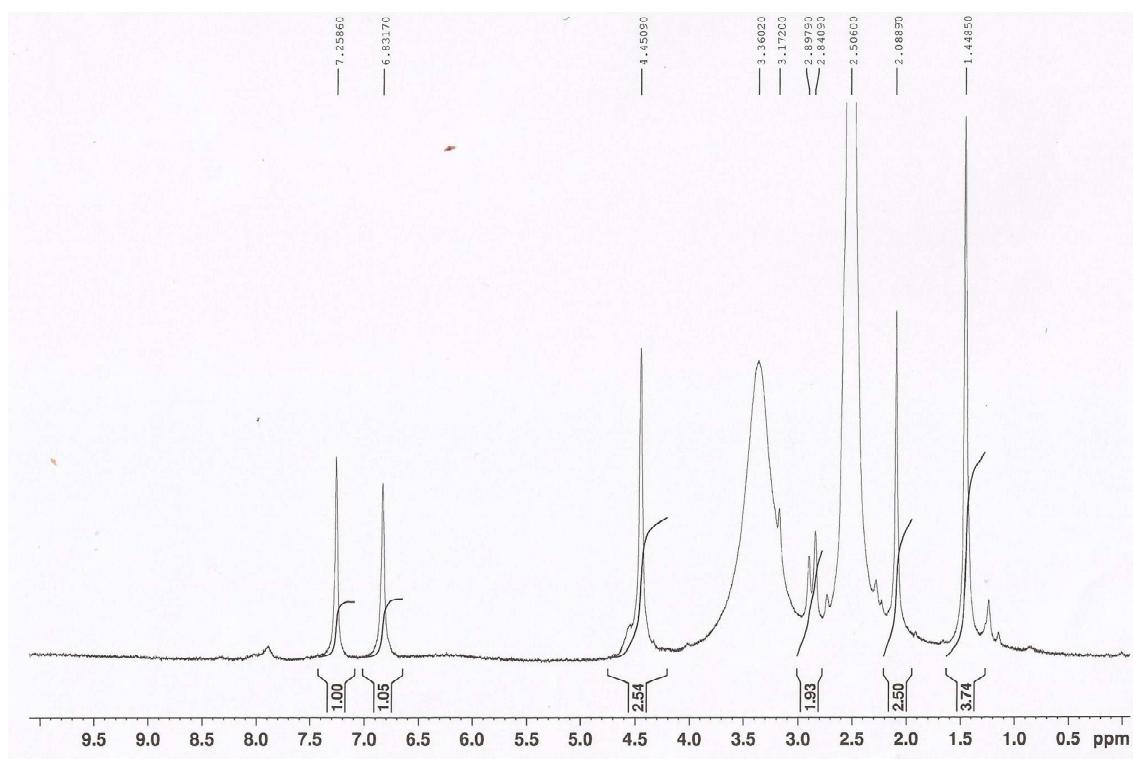


Figure S29. ^{13}C NMR spectrum of **3a** (DMSO-d₆, 75.4 MHz).

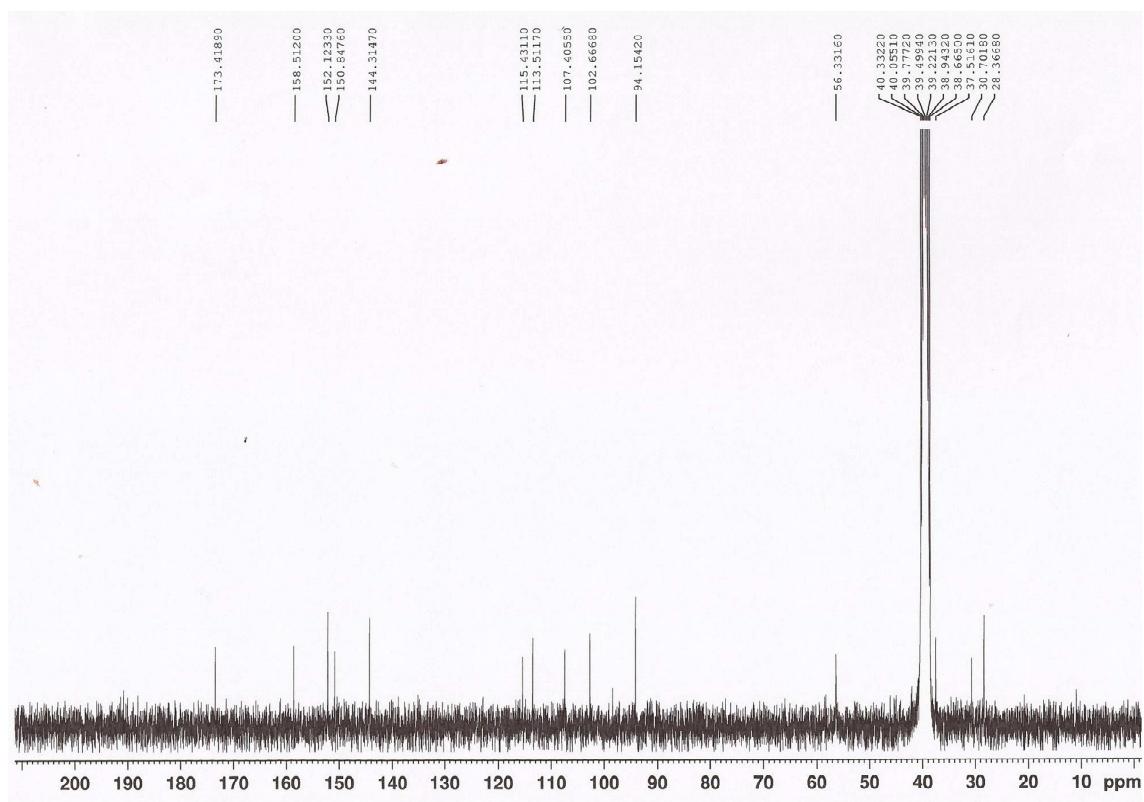


Figure S30. ^1H NMR spectrum of **4** (DMSO-d₆, 300.13 MHz).

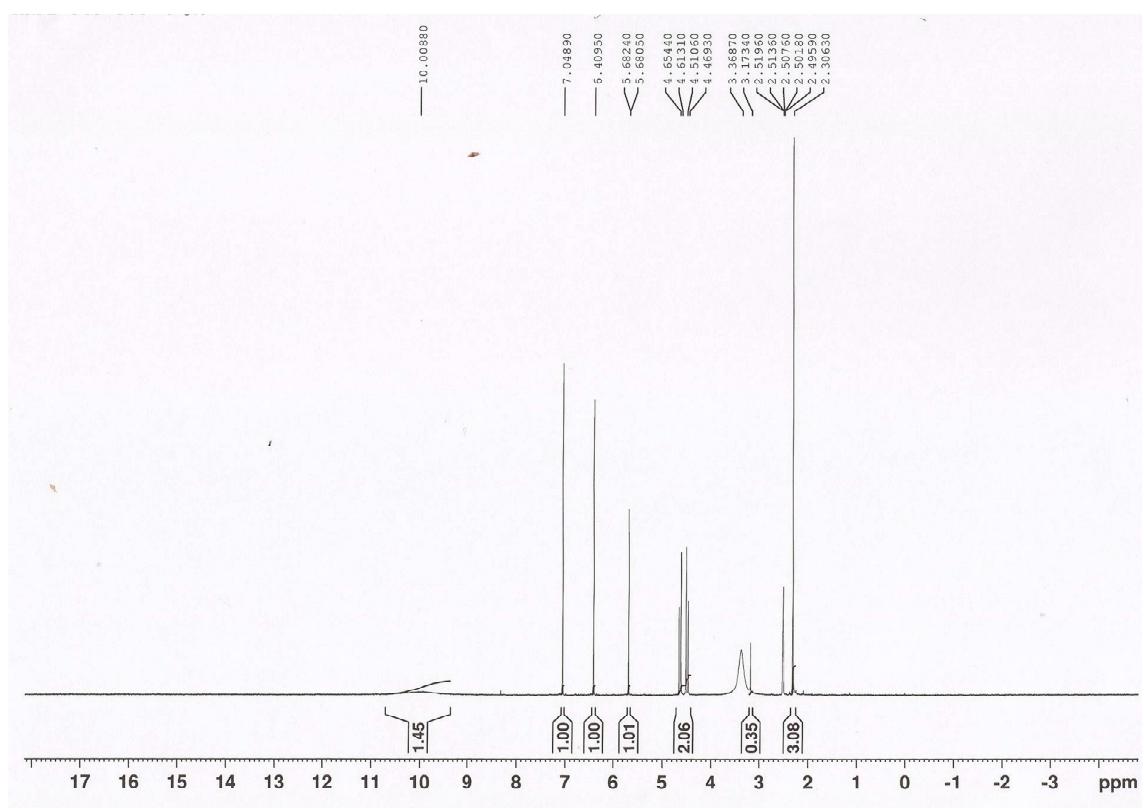


Figure S31. ^{13}C NMR spectrum of **4** (DMSO-d₆, 75.4 MHz).

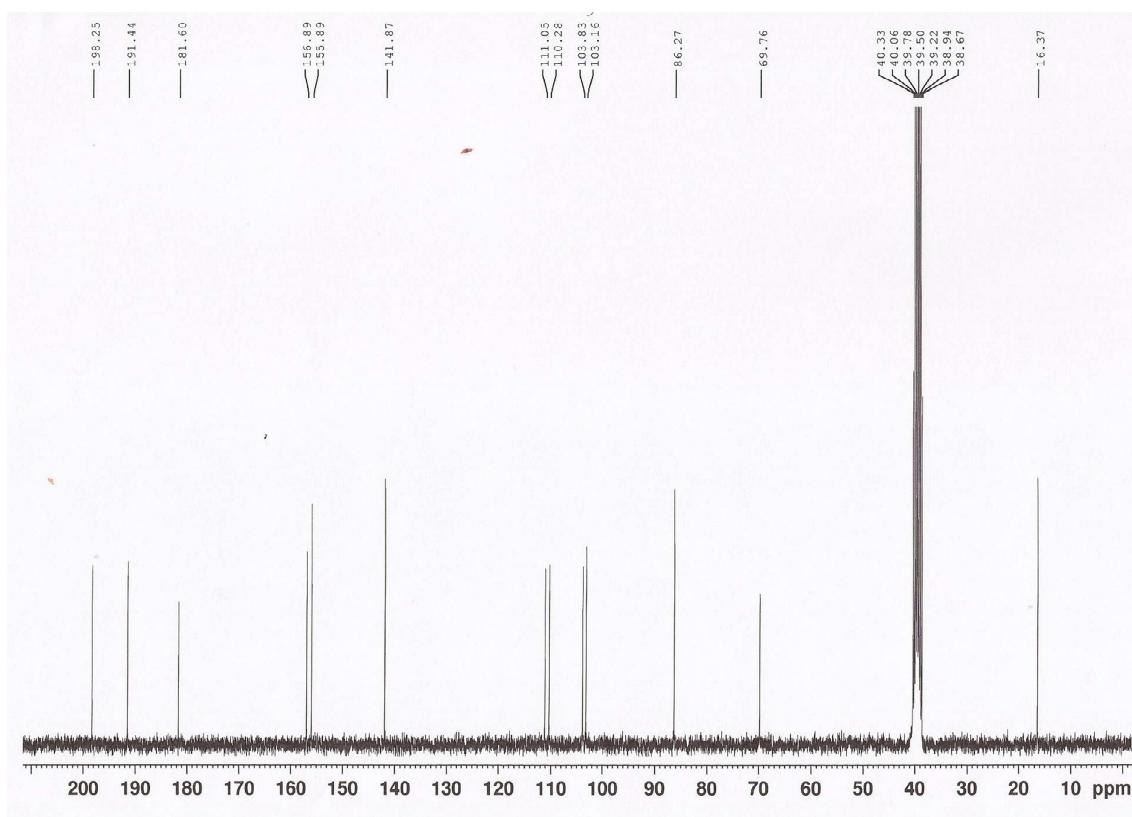


Figure S32. COSY spectrum of **4** (DMSO-d₆, 300.13 MHz).

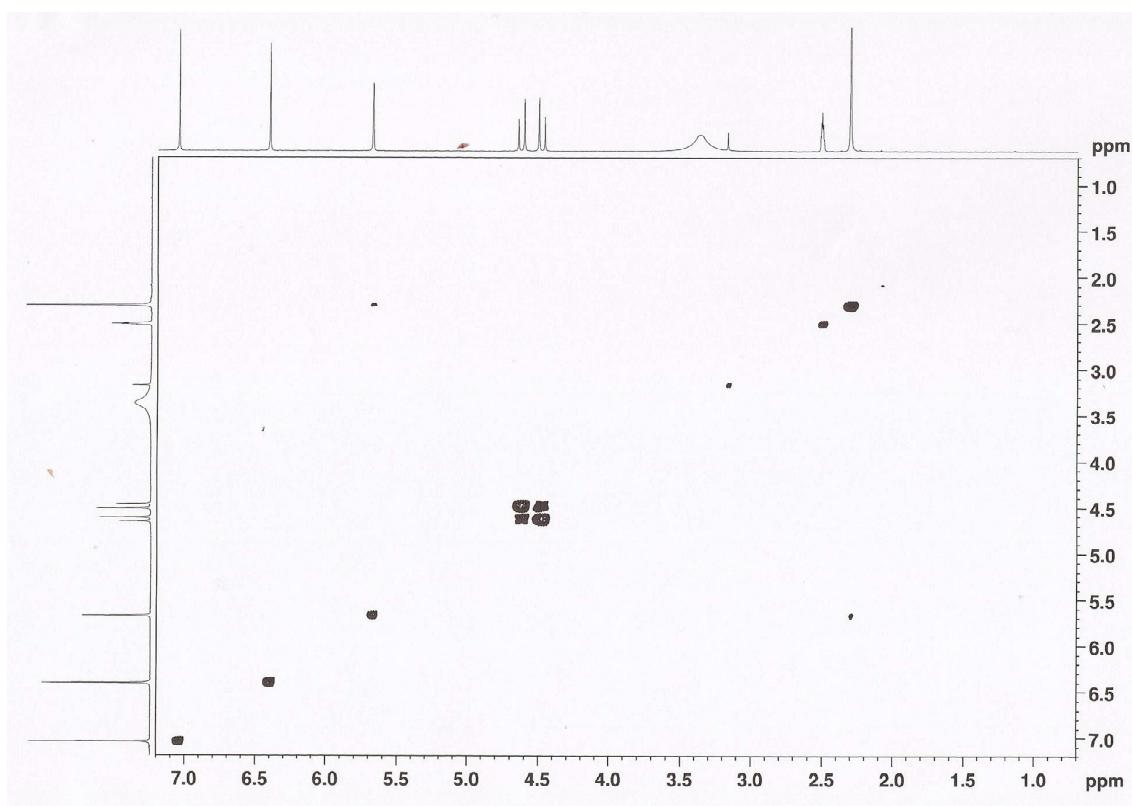


Figure S33. HSQC spectrum of **4** (DMSO-d₆, 300.13 MHz).

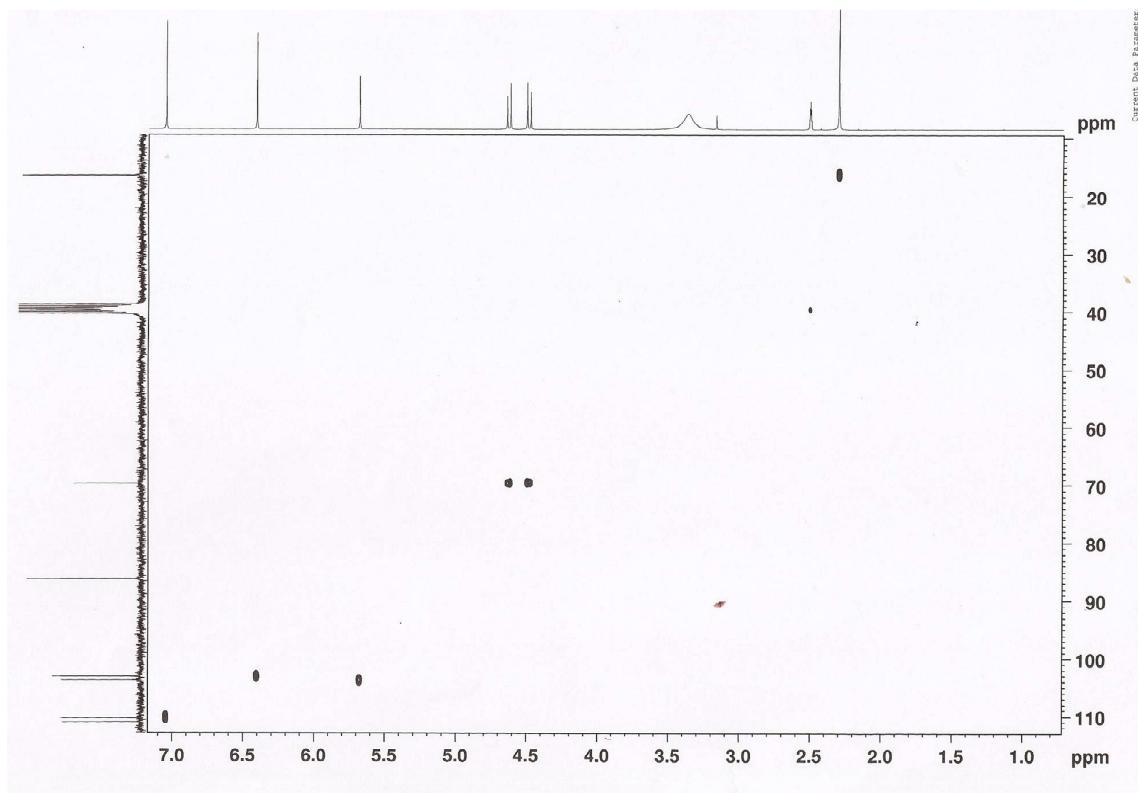


Figure S34. HMBC spectrum of **4** (DMSO-d₆, 300.13 MHz).

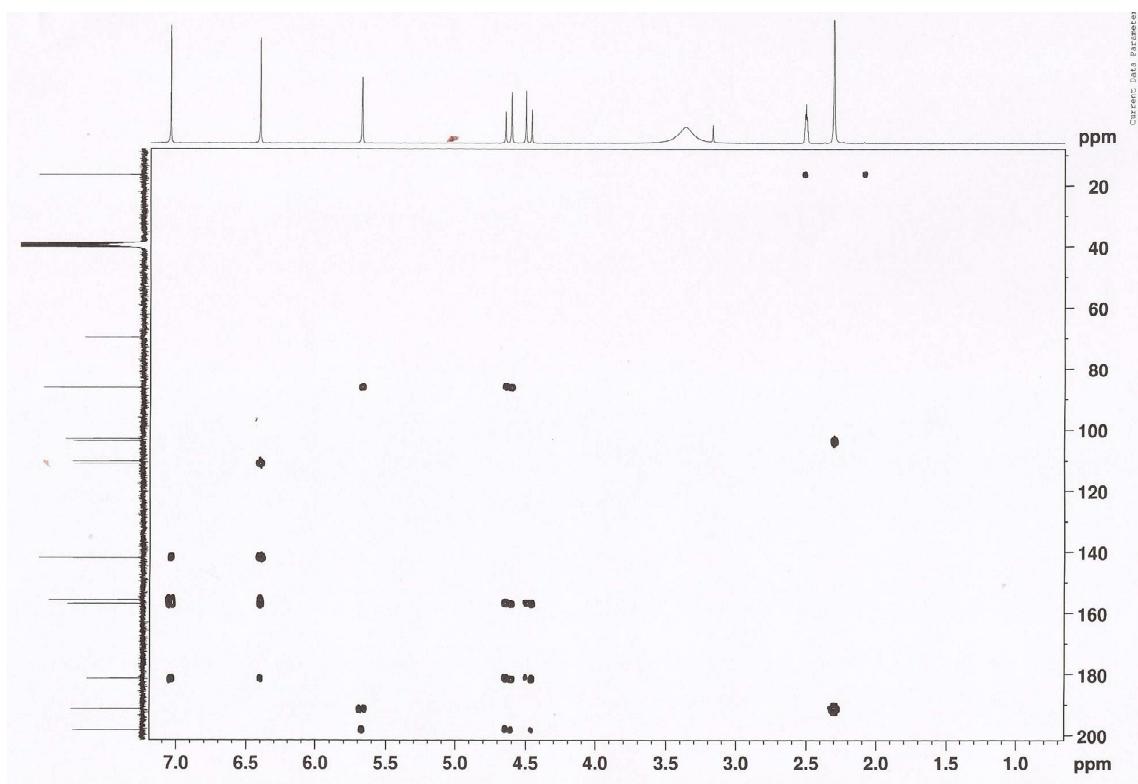


Figure S35. ^1H NMR spectrum of **5** (DMSO-d₆, 500.13 MHz).

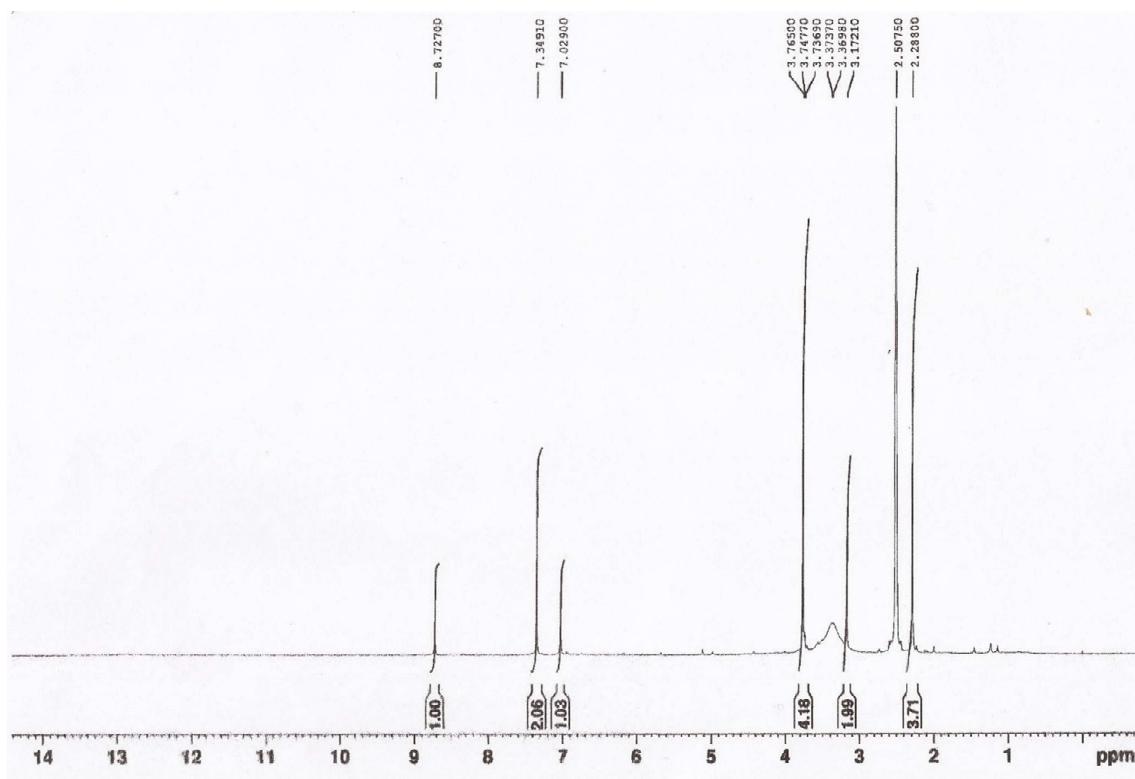


Figure S36. ^{13}C NMR spectrum of **5** (DMSO-d₆, 125.4 MHz).

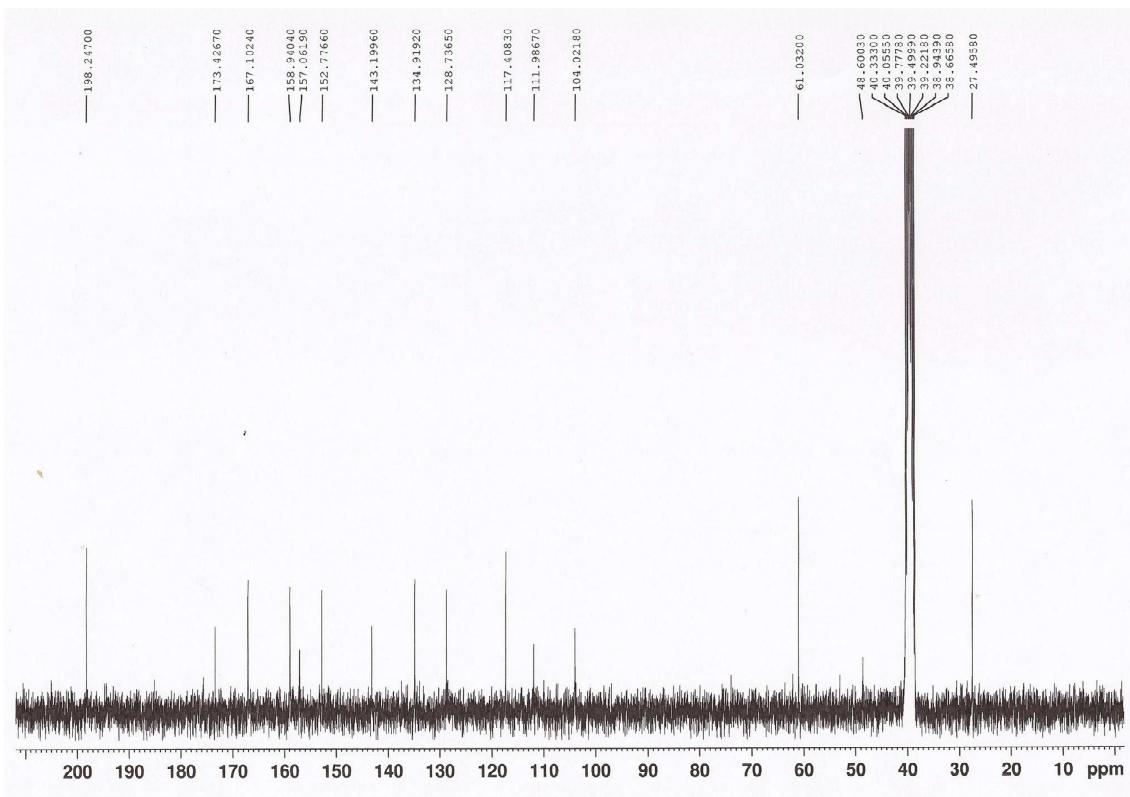


Figure S37. HSQC spectrum of **5** (DMSO-d₆, 500.13 MHz).

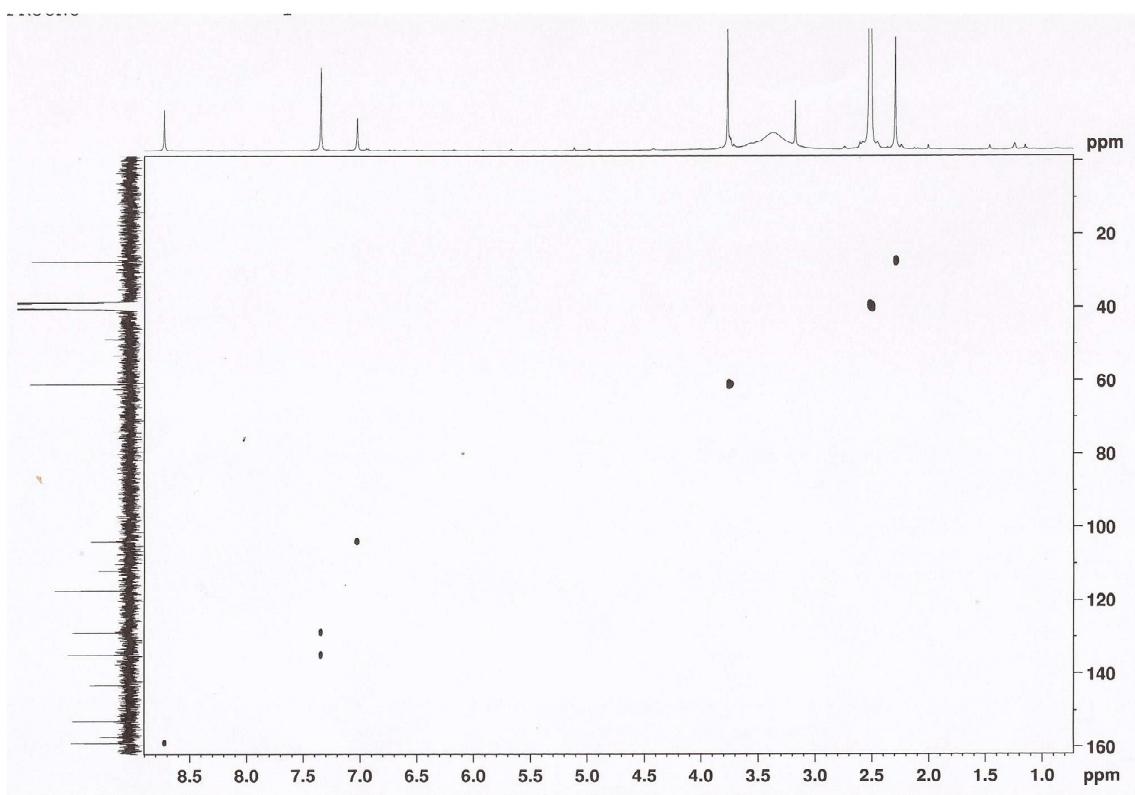


Figure S38. HMBC spectrum of **5** (DMSO-d₆, 500.13 MHz).

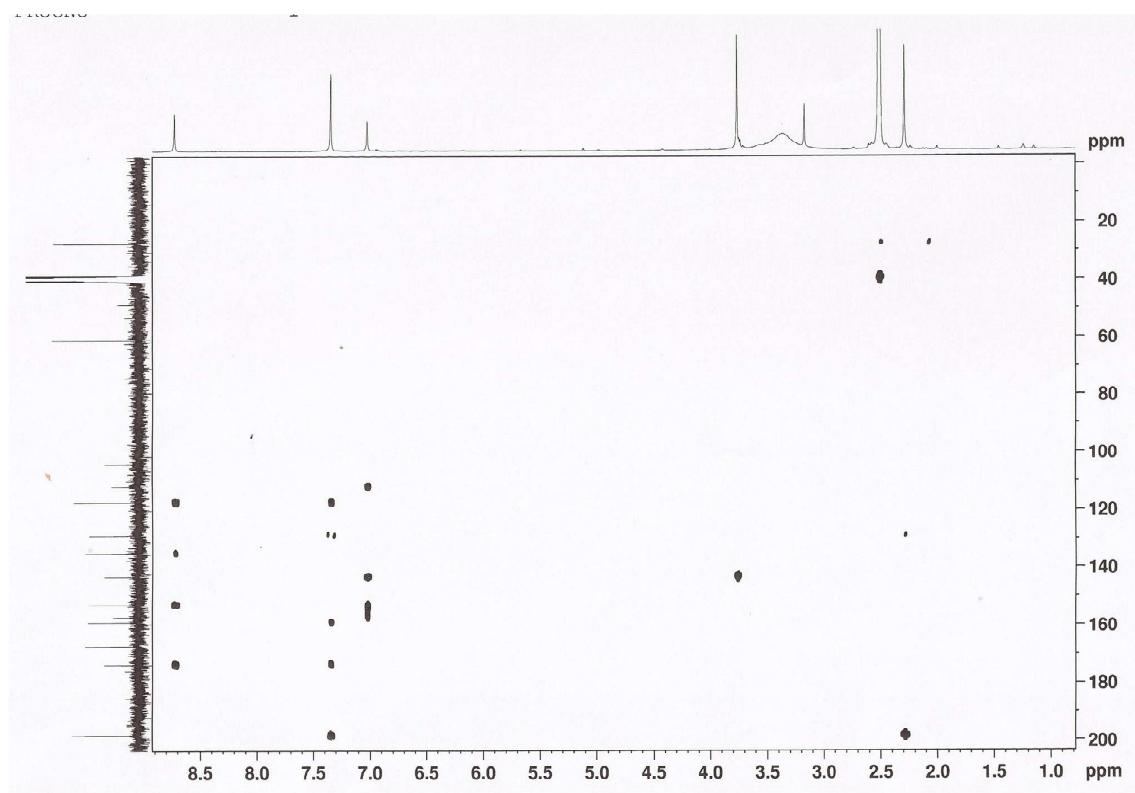


Figure S39. ^1H NMR spectrum of **6** (DMSO-d₆, 500.13 MHz).

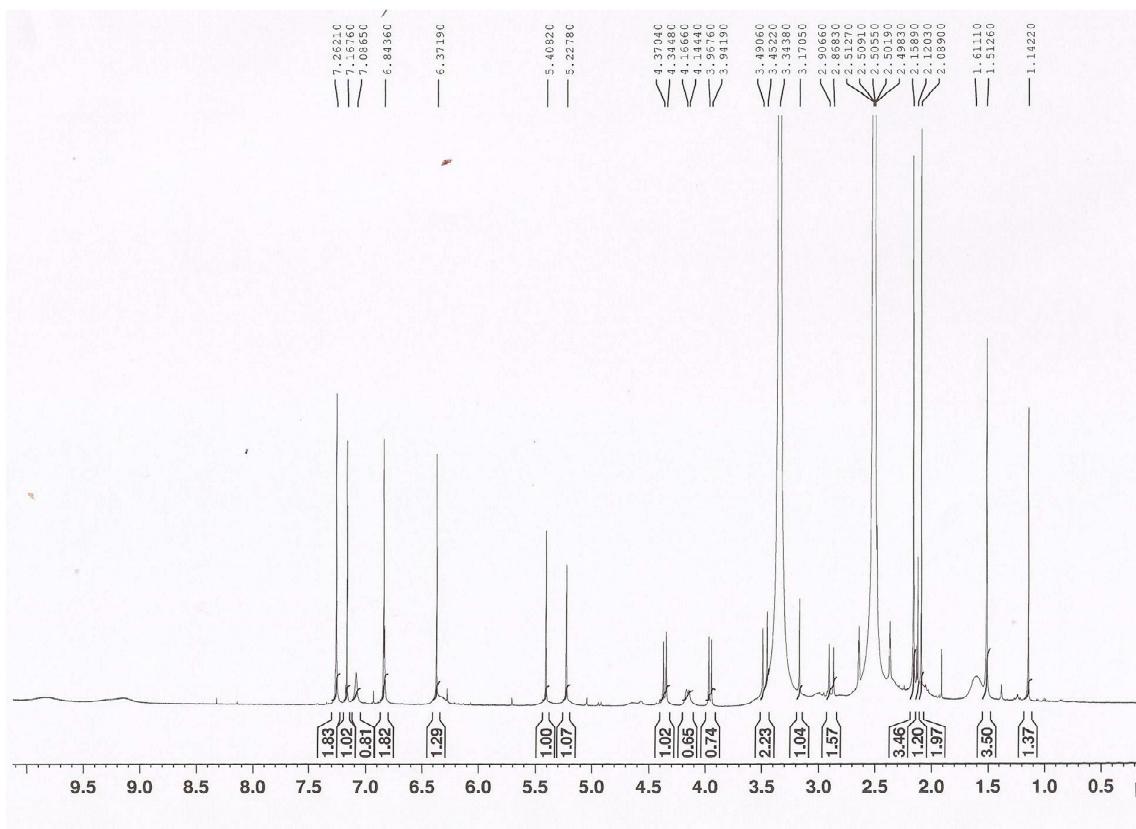


Figure S40. ^{13}C NMR spectrum of **6** (DMSO-d₆, 125.4 MHz).

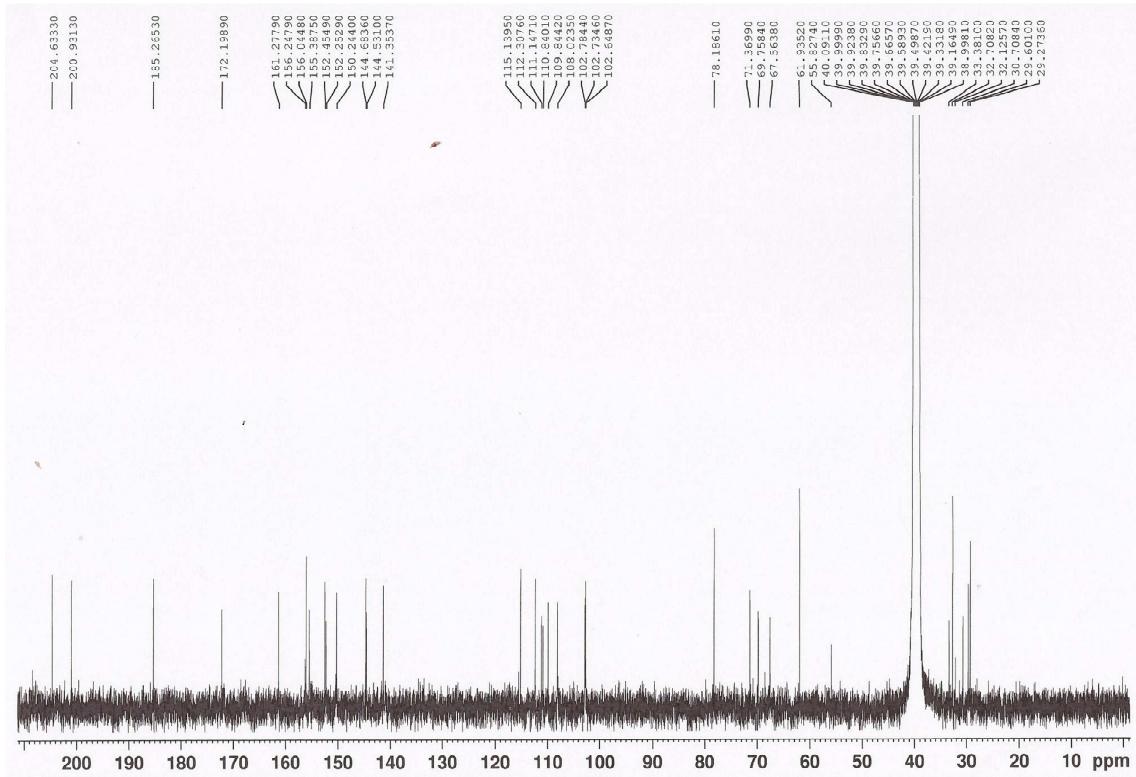


Figure S41. COSY spectrum of **6** (DMSO-d₆, 500.13 MHz).

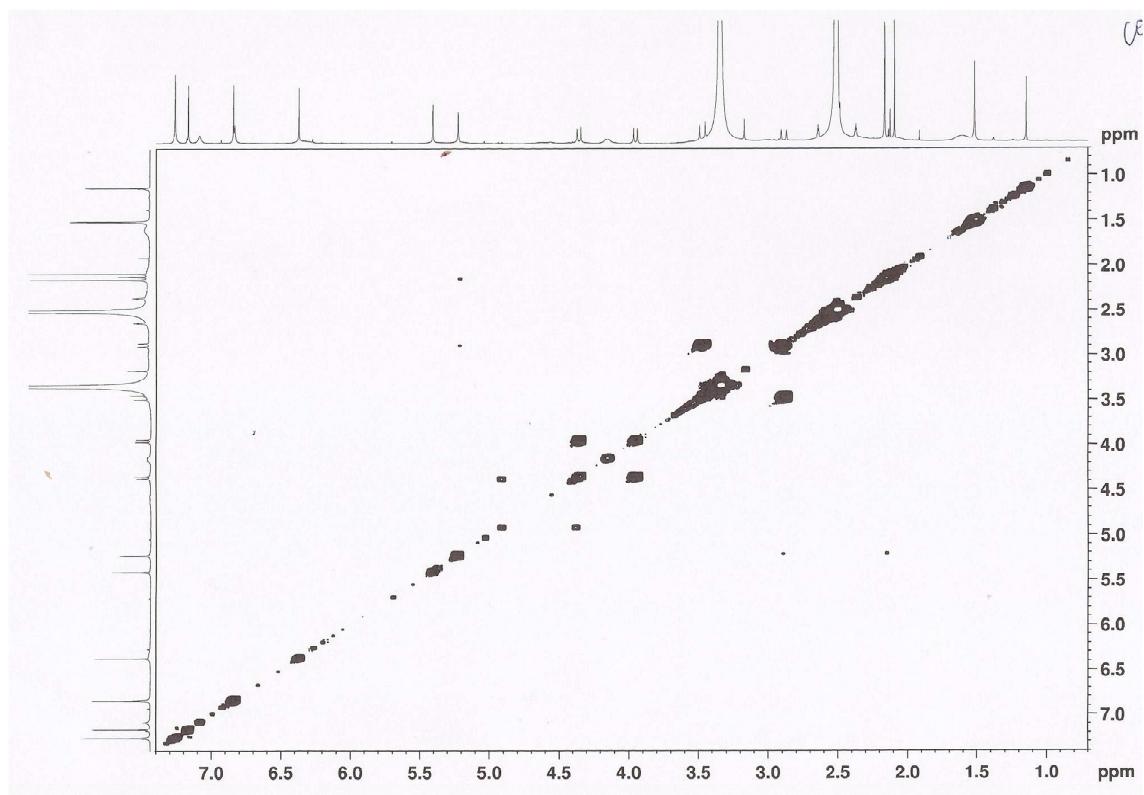


Figure S42. HSQC spectrum of **6** (DMSO-d₆, 500.13 MHz).

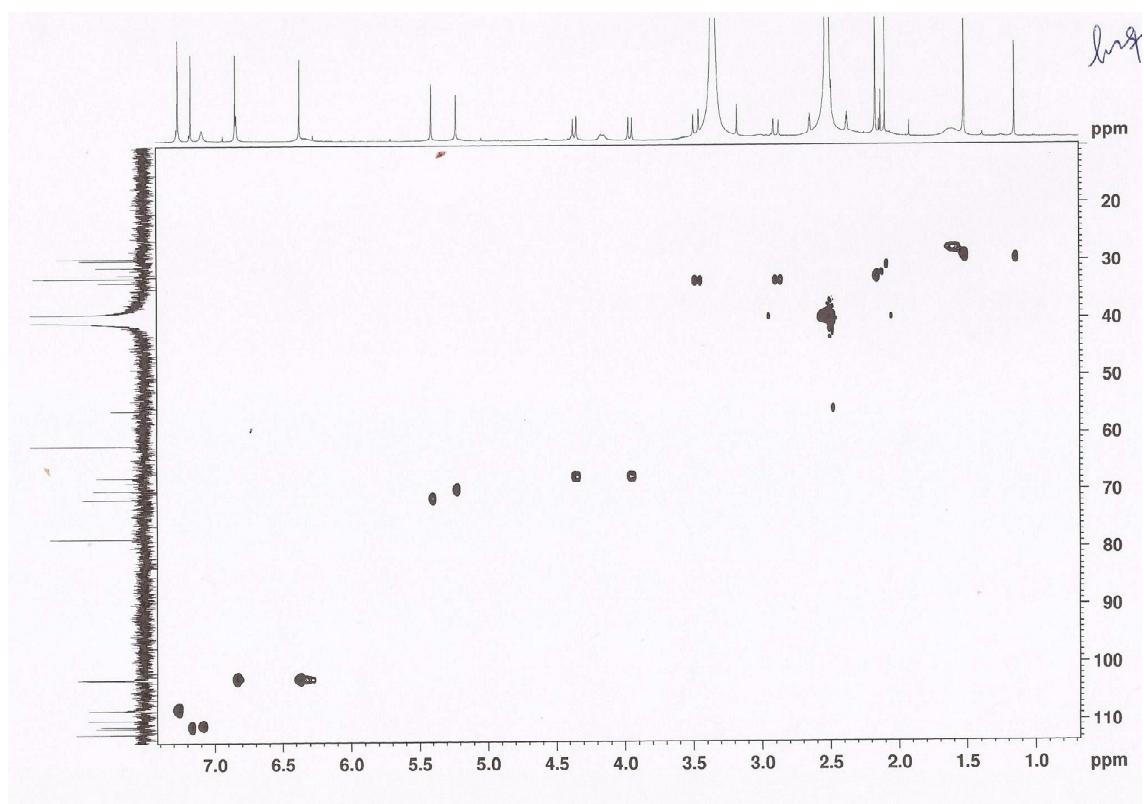


Figure S43. HMBC spectrum of **6** (DMSO-d₆, 500.13 MHz).

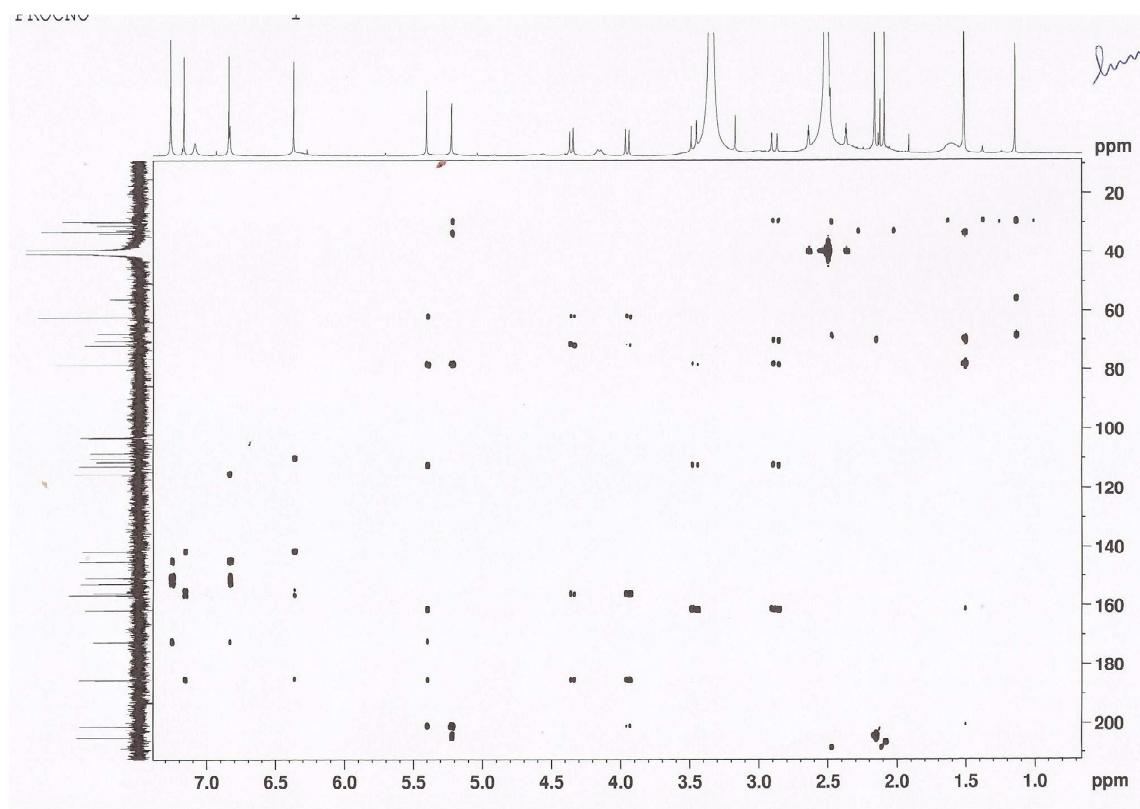


Figure S44. ROESY spectrum of **6** (DMSO-d₆, 500.13 MHz).

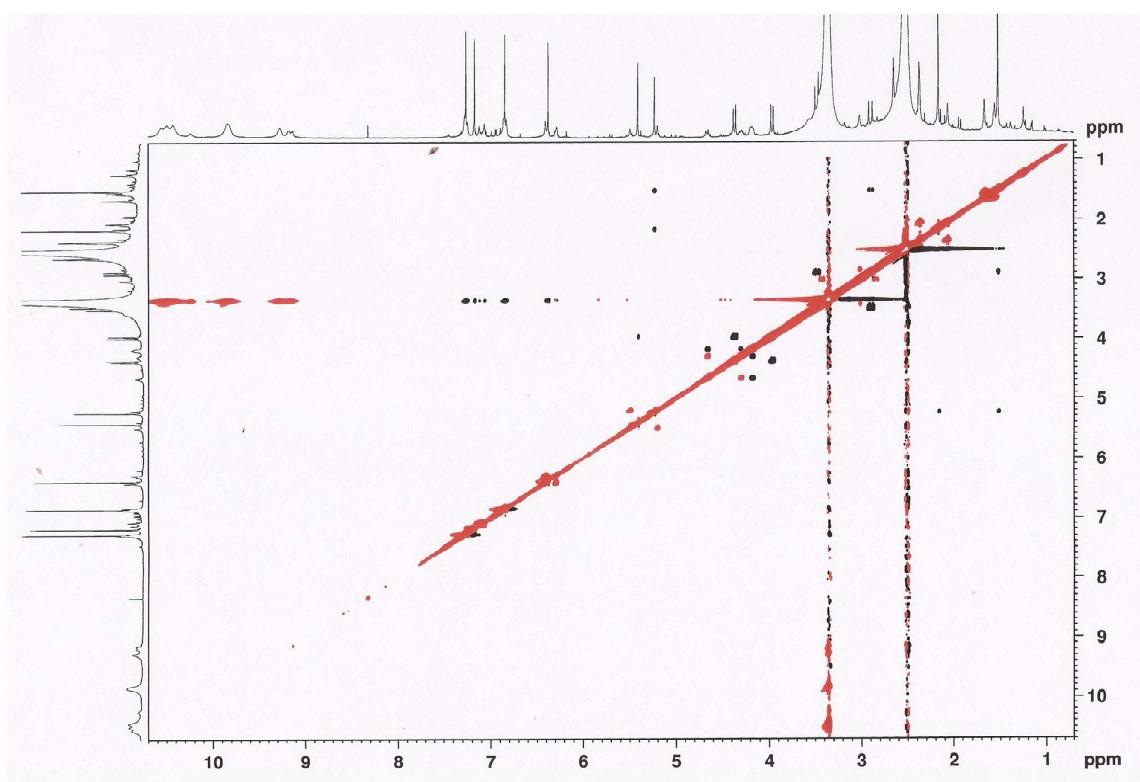


Figure S45. ^1H NMR spectrum of **7** (DMSO-d₆, 500.13 MHz).

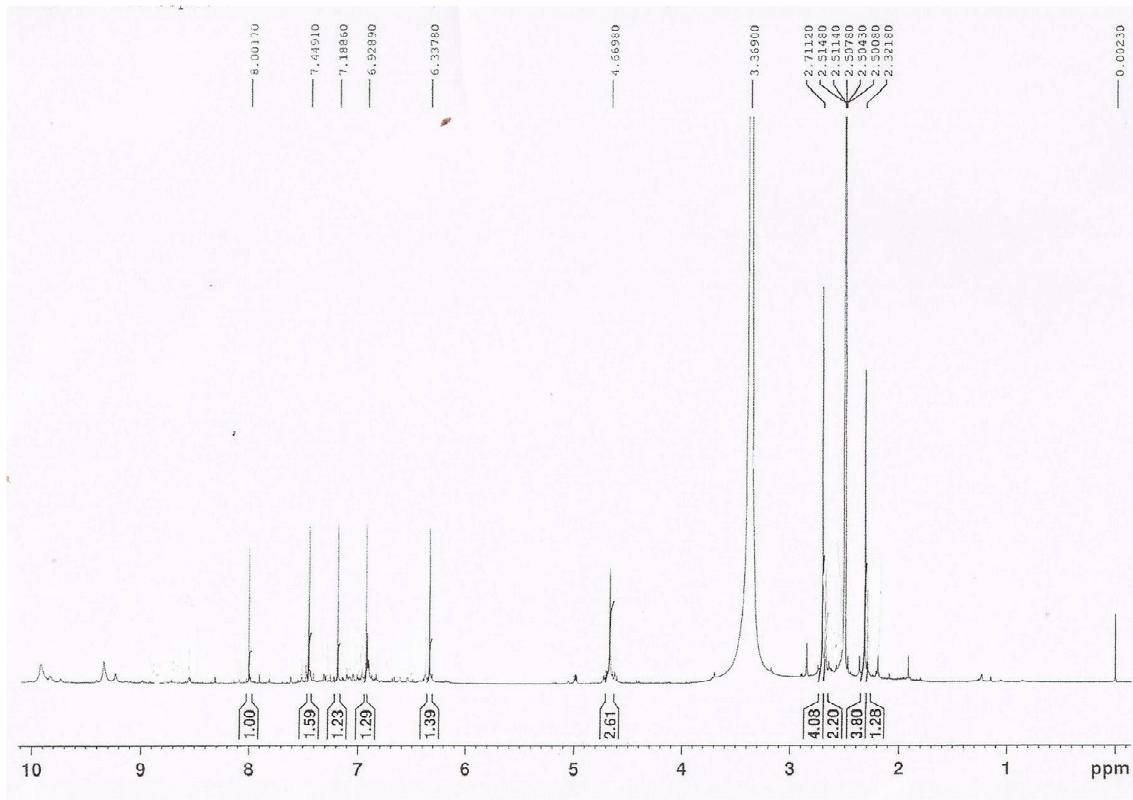


Figure S46. ^{13}C NMR spectrum of **7** (DMSO-d₆, 125.4 MHz).

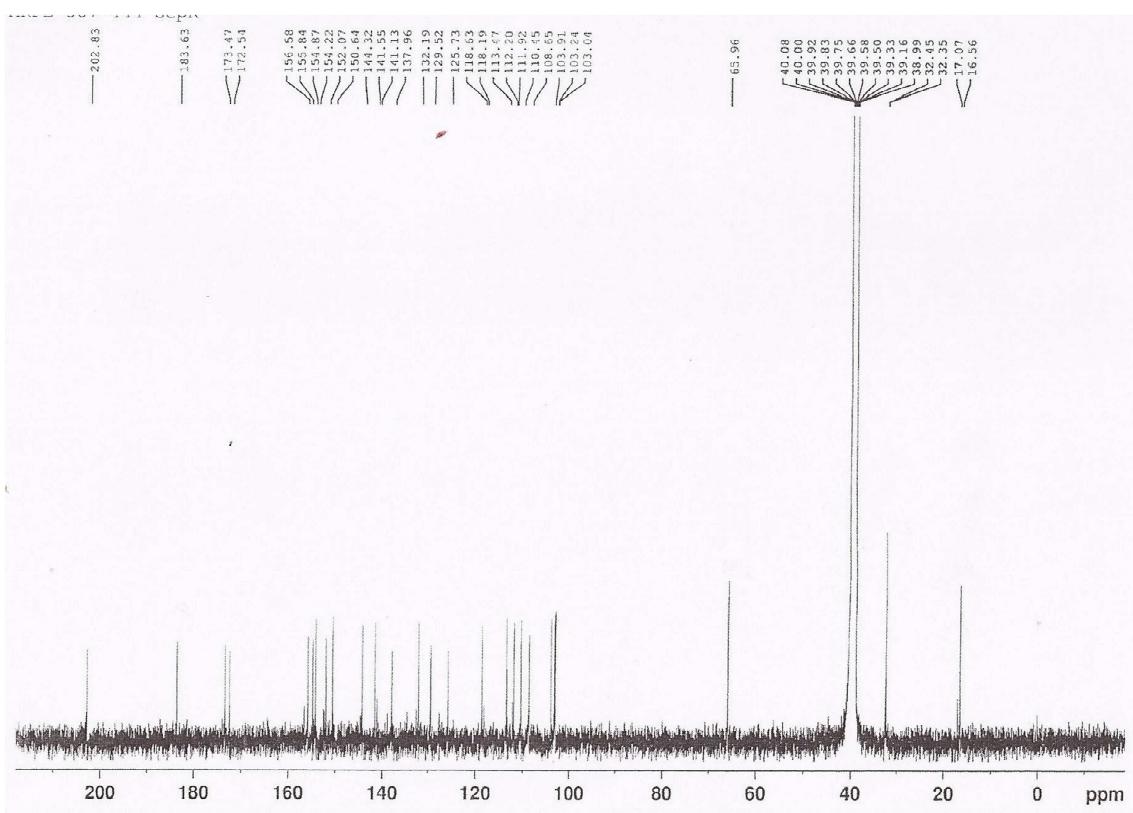


Figure S47. HSQC spectrum of **7** (DMSO-d₆, 500.13 MHz).

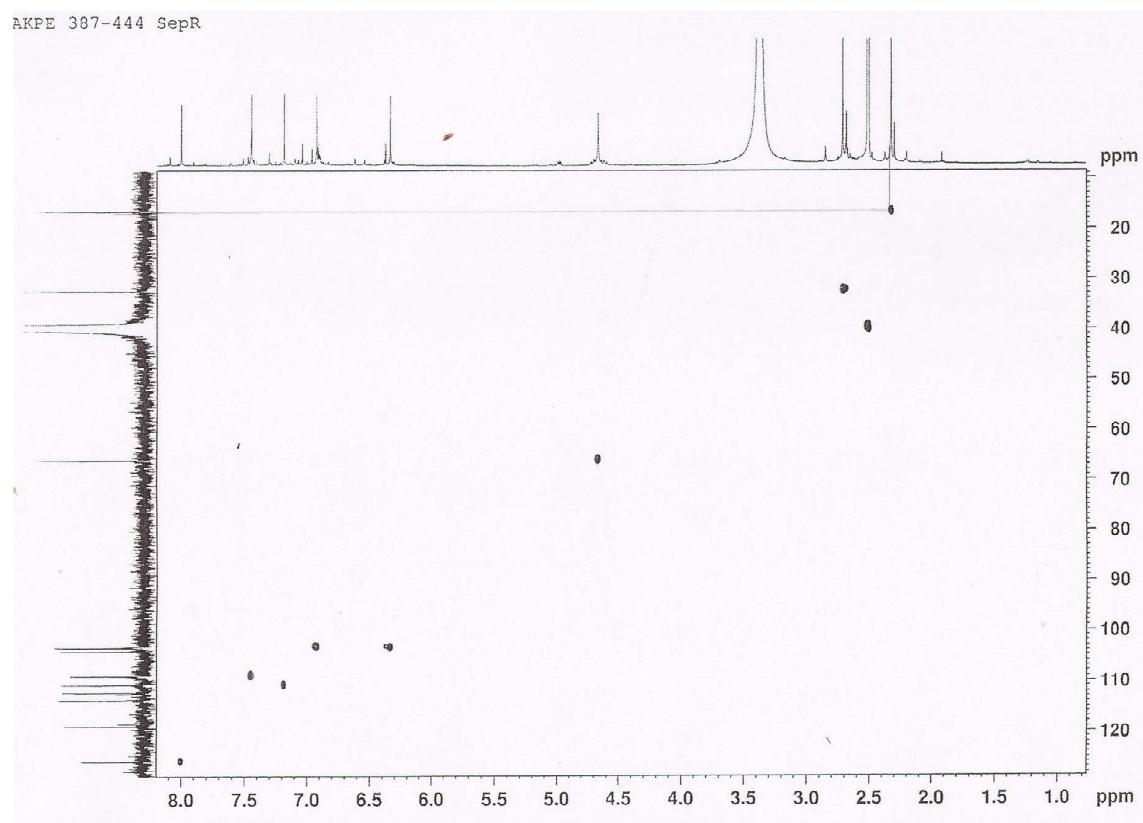


Figure S48. HMBC spectrum of **7** (DMSO-d₆, 500.13 MHz).

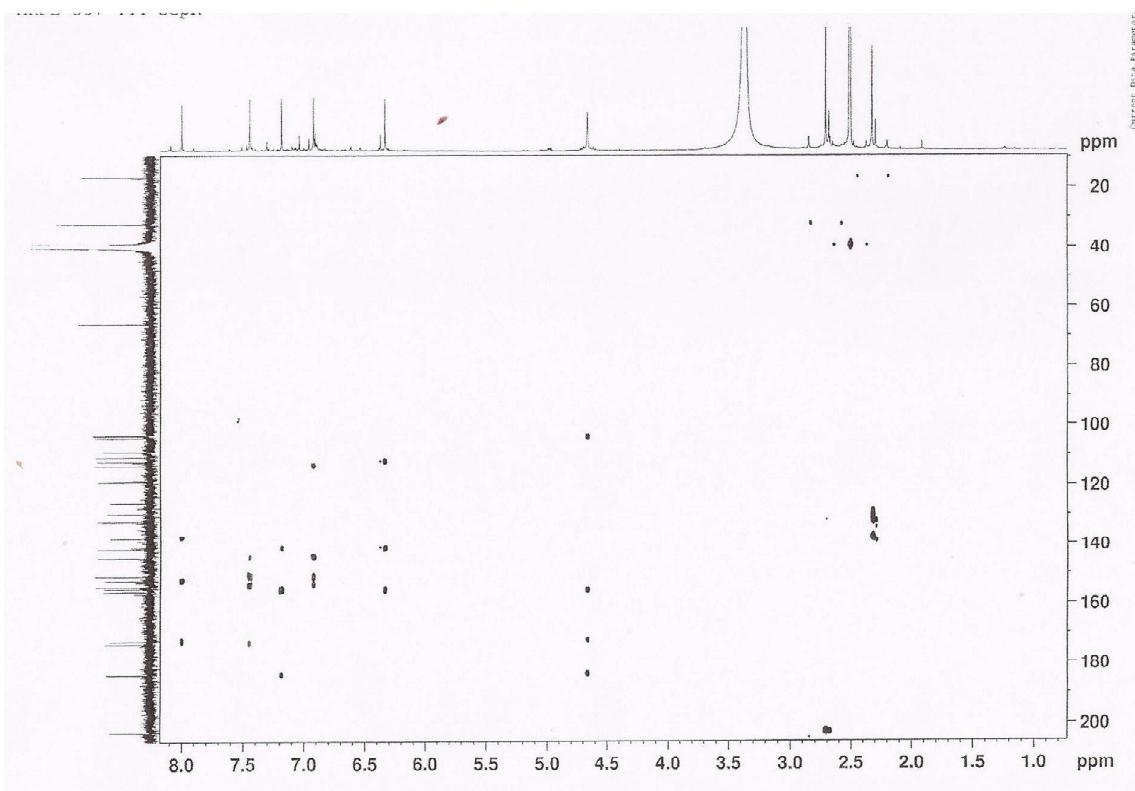


Figure S49. ^1H NMR spectrum of **8** (DMSO-d₆, 300.13 MHz).

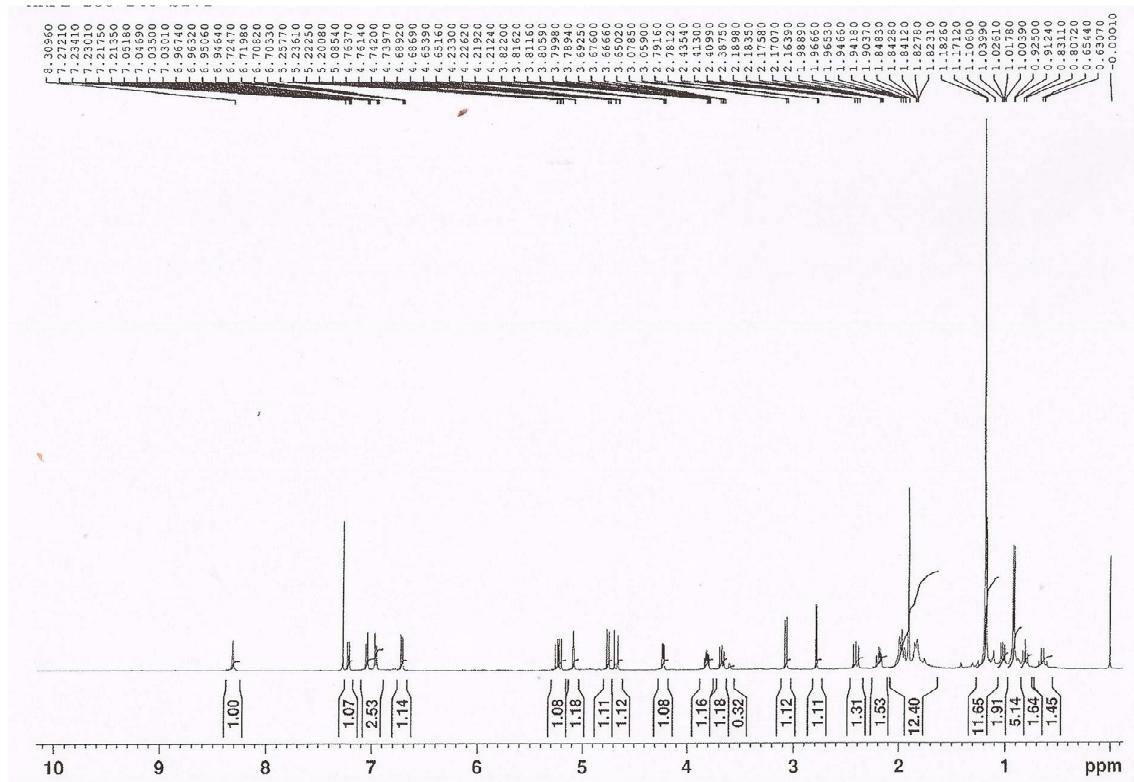


Figure S50. ^{13}C NMR spectrum of **8** (DMSO-d₆, 75.4 MHz).

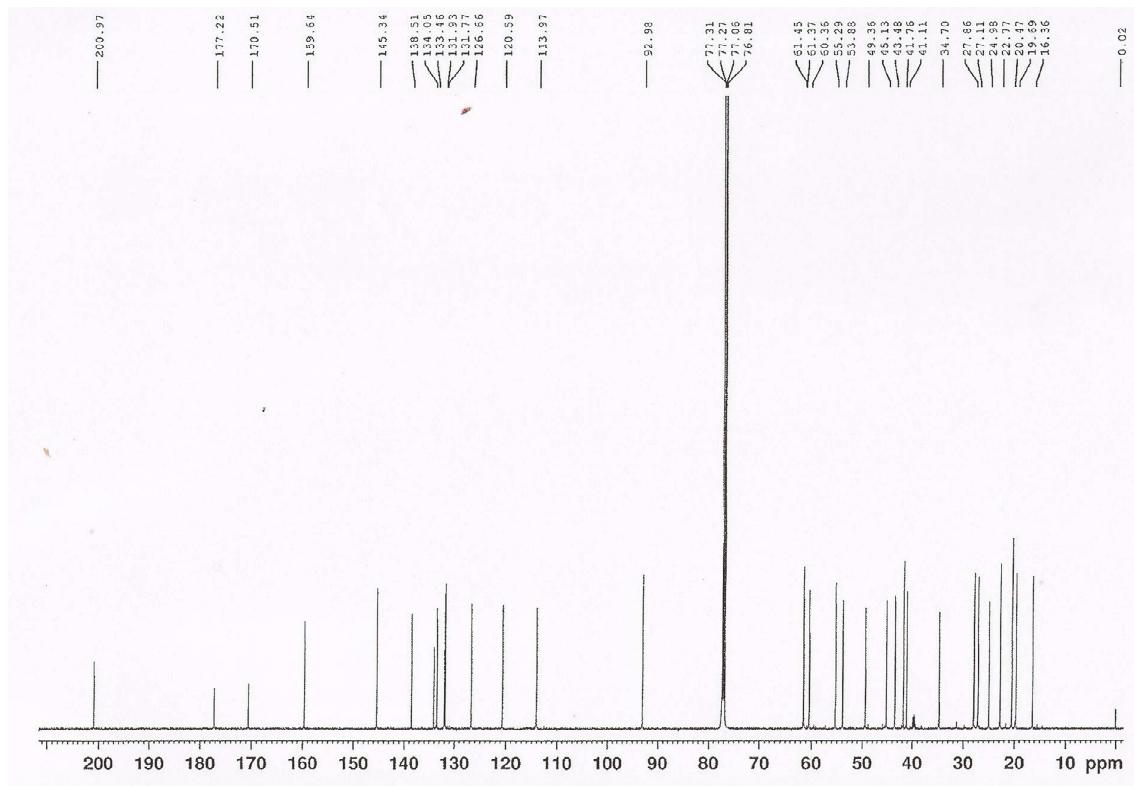


Figure S51. ORTEP view of **8**.

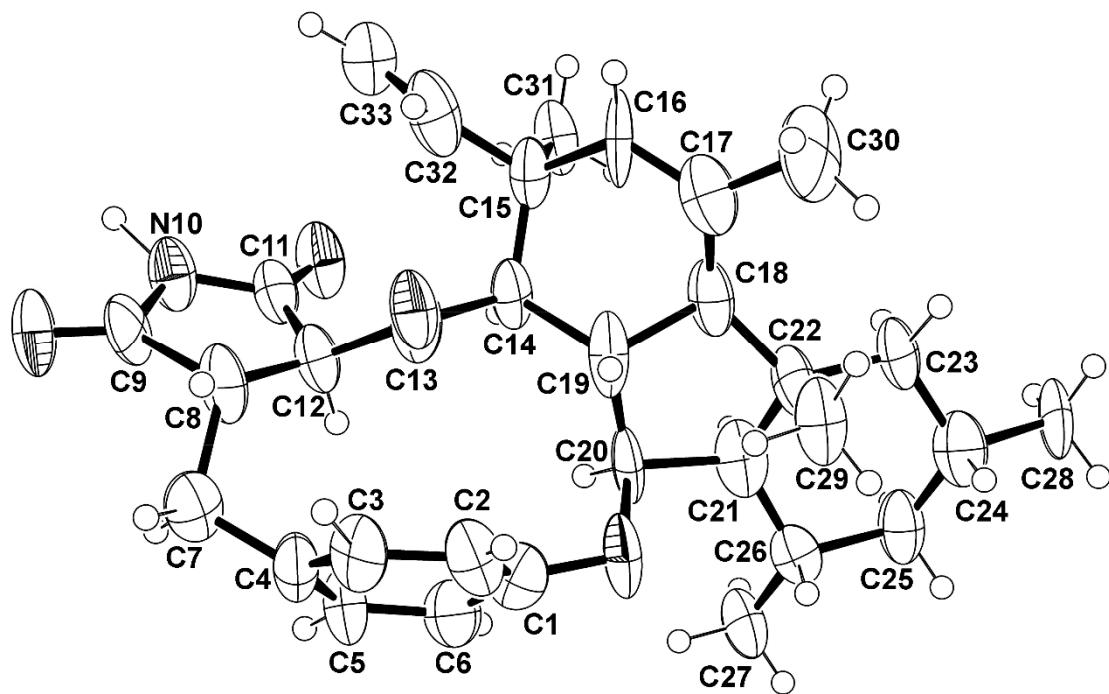


Figure S52. ^1H NMR spectrum of **9** (DMSO- d_6 , 500.3 MHz).

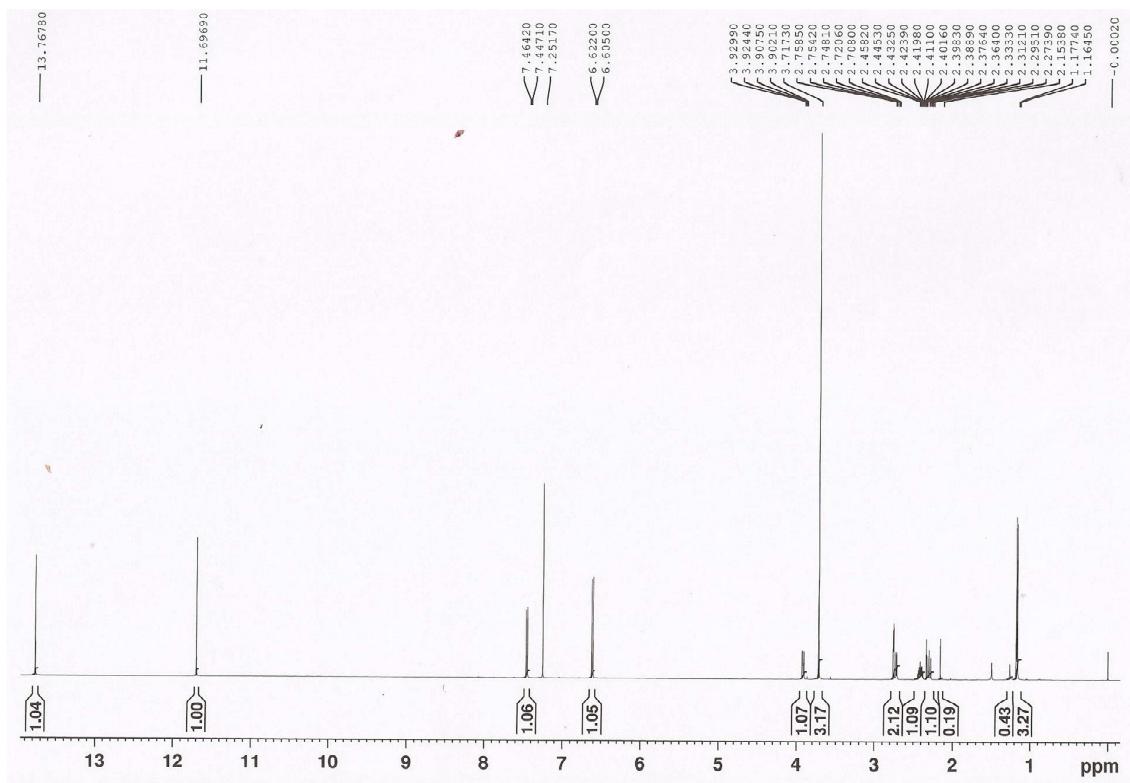


Figure S53. ^{13}C NMR spectrum of **9** (DMSO-d₆, 125.4 MHz).

