

SUPPLEMENTARY MATERIAL

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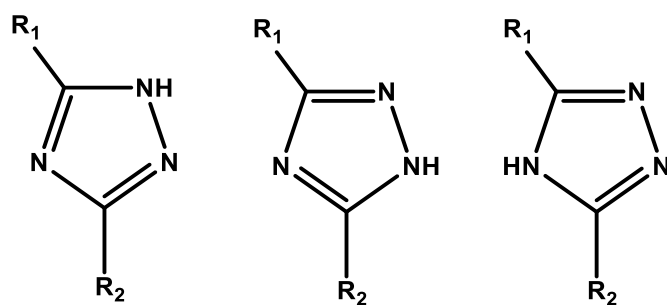


Figure S1. The three possible tautomeric forms of 3,5-disubstituted 1,2,4-triazoles

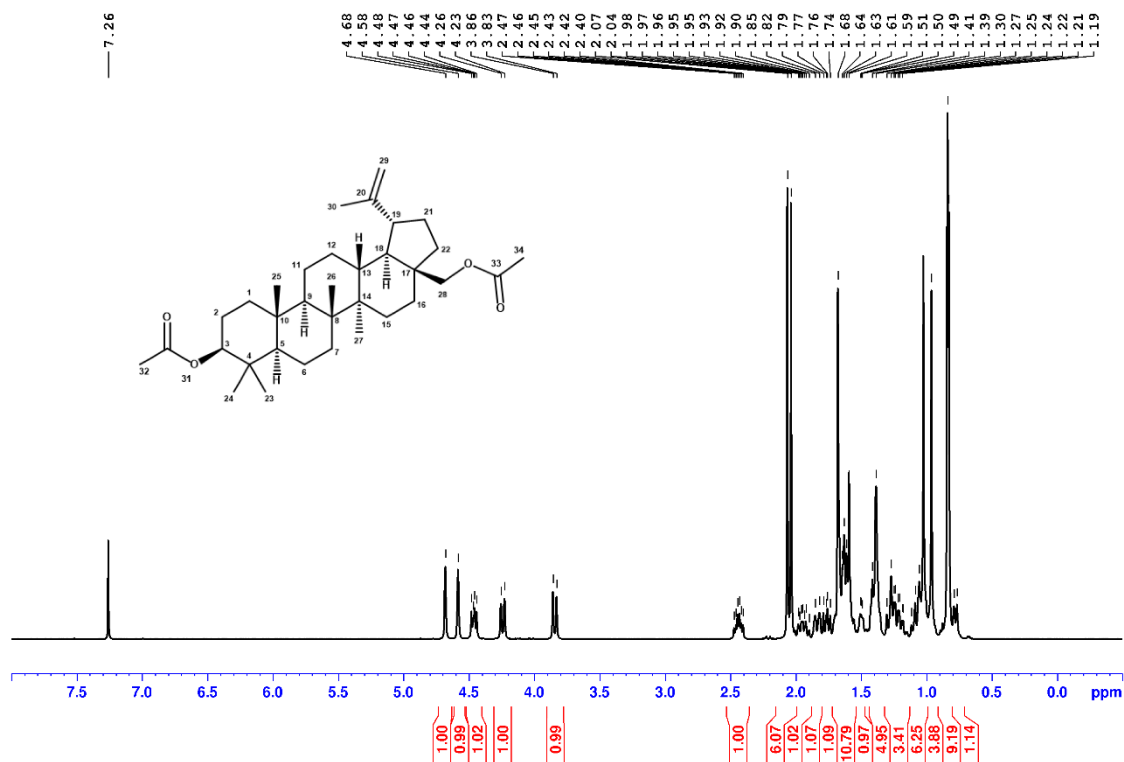


Figure S2. ^1H NMR spectrum of 3-O,28-O-diacetyl-betulin (400 MHz, CDCl_3)

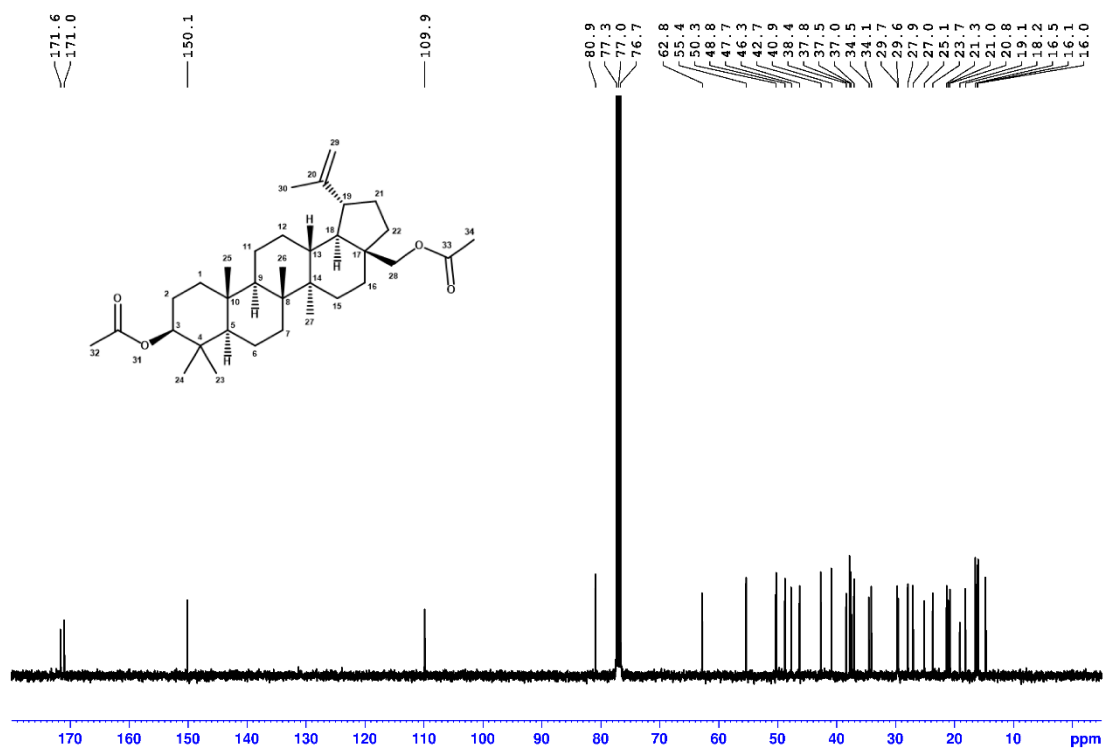


Figure S3. ^{13}C NMR spectrum of 3-O,28-O-diacetyl-betulin (100 MHz, CDCl_3)

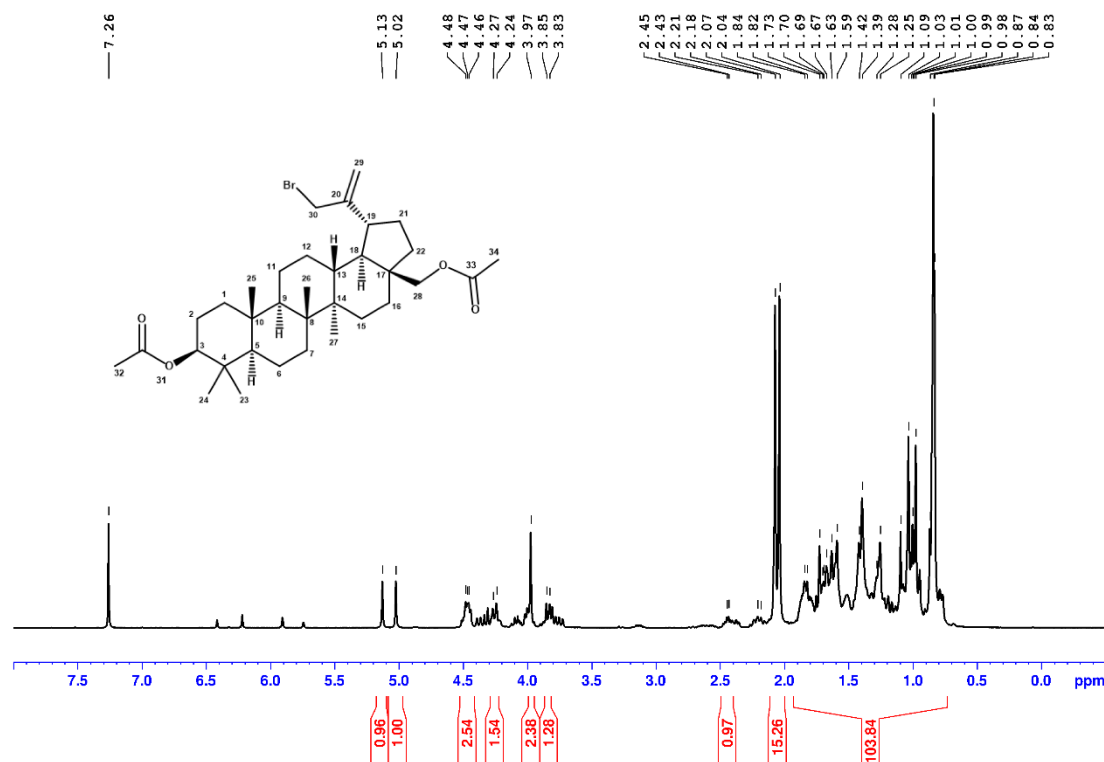


Figure S4. ^1H NMR spectrum of 3-O, 28-O-diacetyl-30-bromo-betulin (400 MHz, CDCl_3)

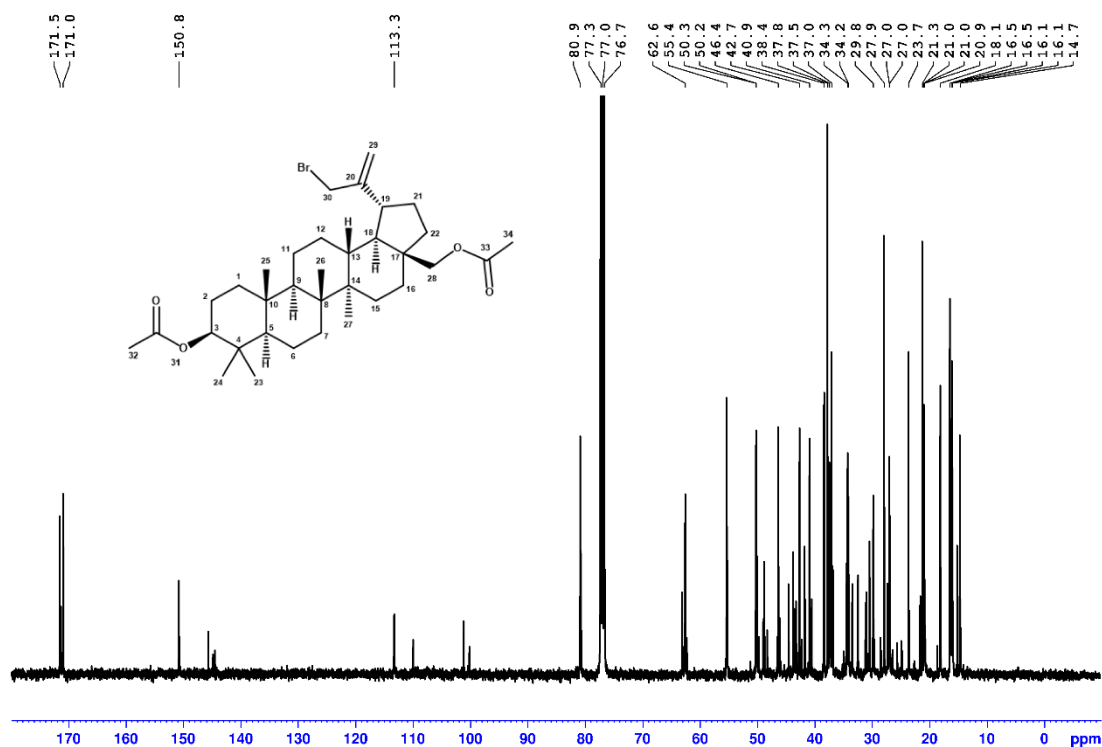


Figure S5. ^{13}C NMR spectrum of 3-O, 28-O-diacetyl-30-bromo-betulin (100 MHz, CDCl_3)

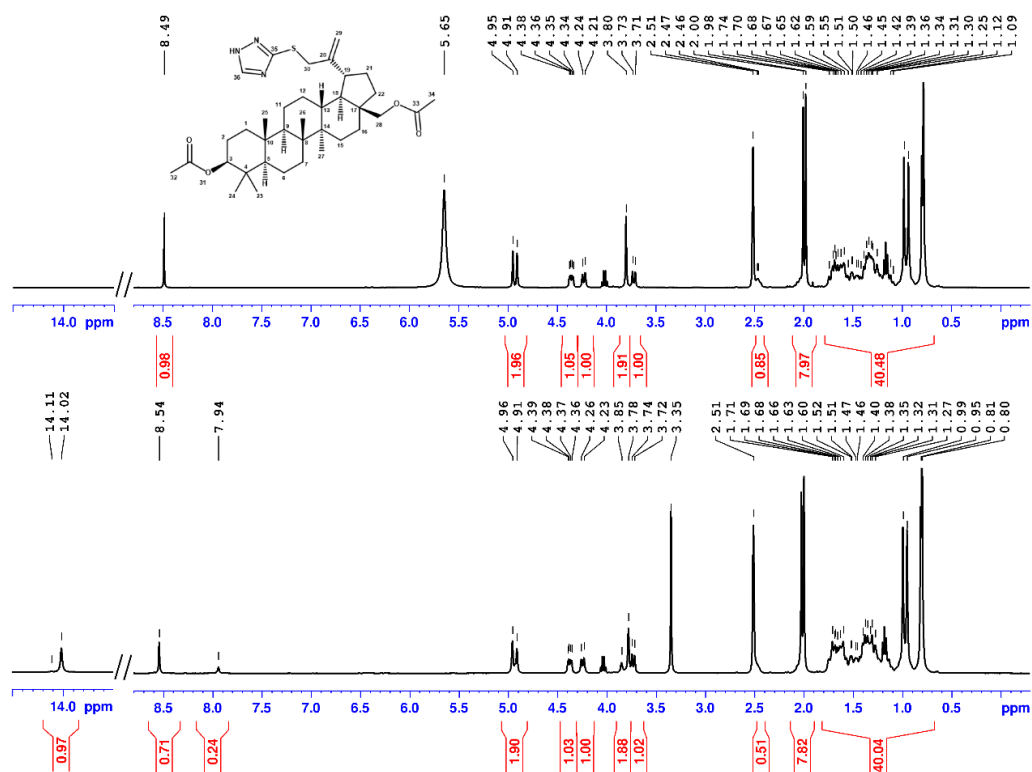


Figure S6. ^1H NMR spectrum of Bet-TZ1 in DMSO- d_6 (bottom) and DMSO- d_6 with 1 drop of TFA (up)

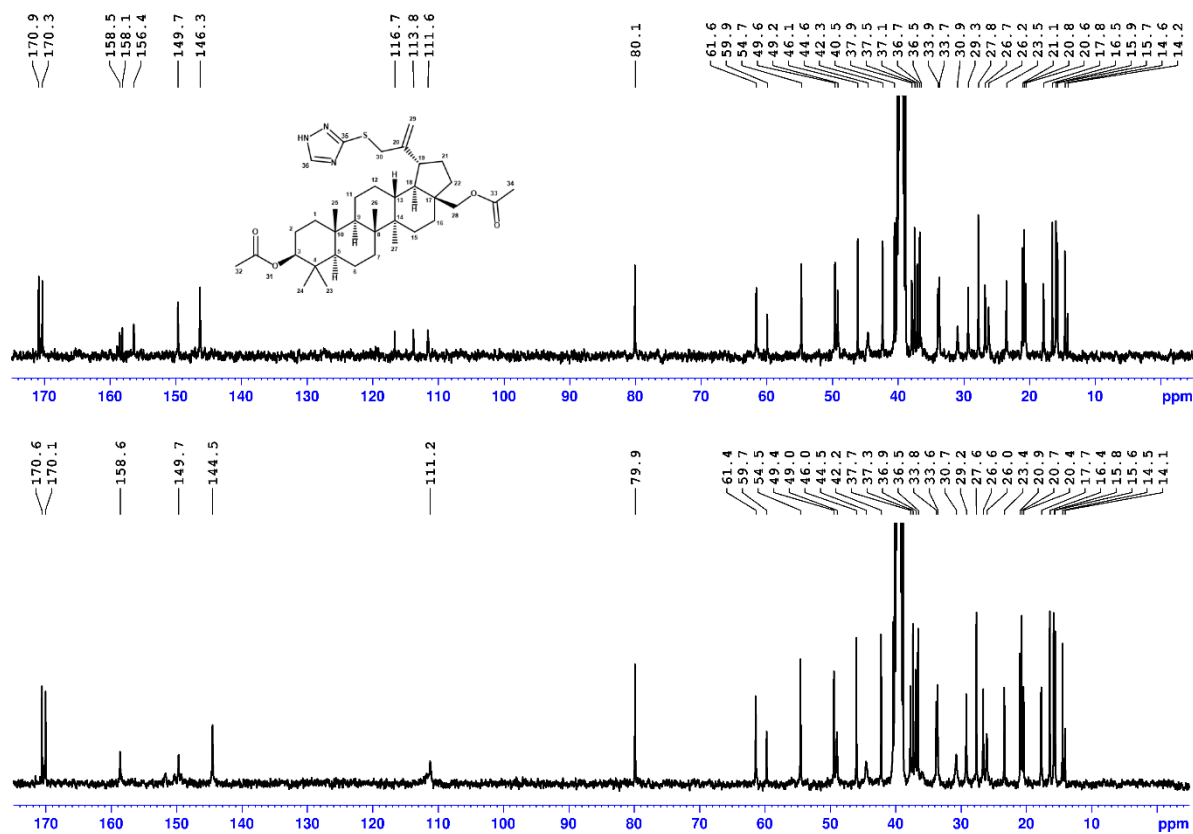


Figure S7. ¹³C NMR spectrum of Bet-TZ₁ in DMSO-d₆ (bottom) and DMSO-d₆ with 1 drop of TFA (up)

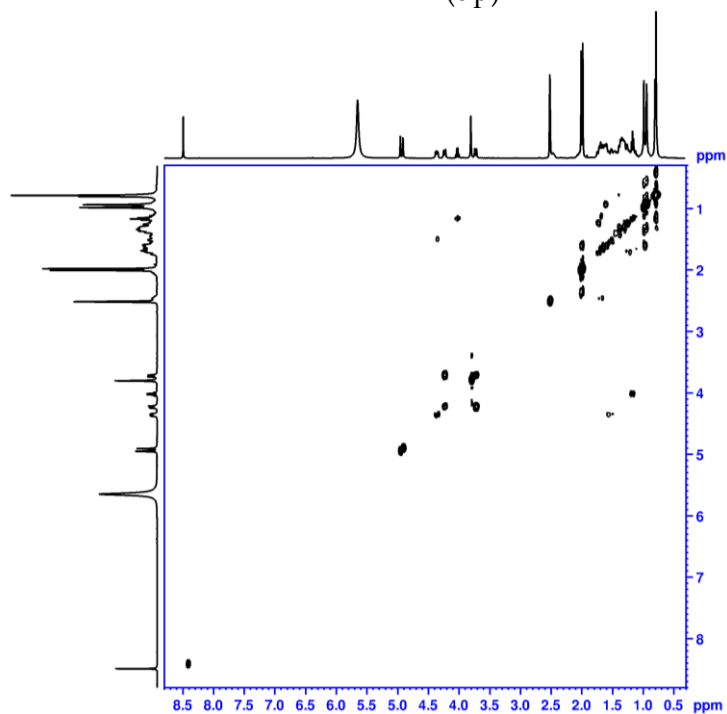


Figure S8. H,H-COSY NMR spectrum of Bet-TZ₁ in DMSO-d₆ with 1 drop of TFA

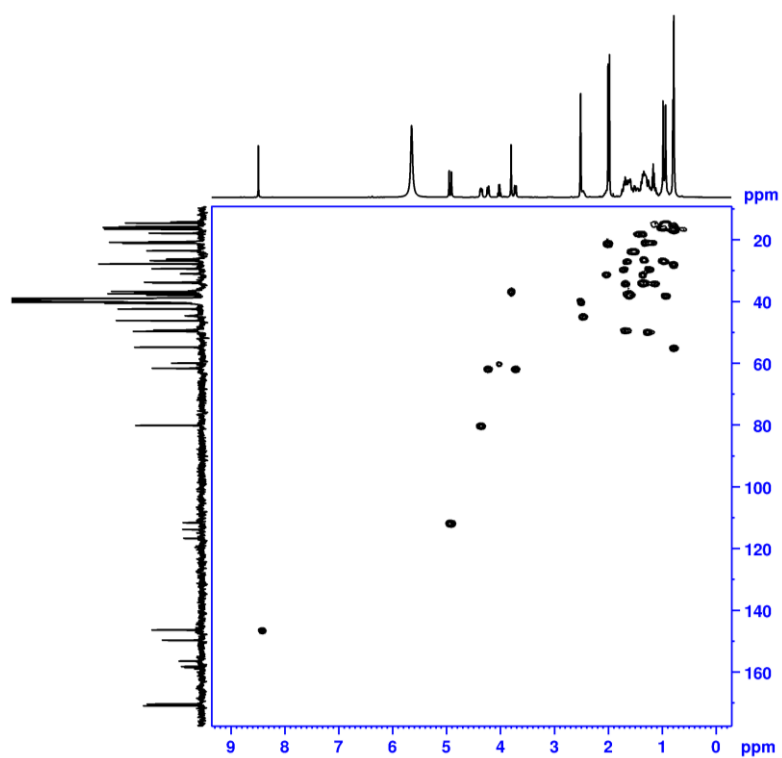


Figure S9. $^1\text{H}, ^{13}\text{C}$ -HSQC NMR spectrum of Bet-TZ₁ in DMSO- d_6 with 1 drop of TFA

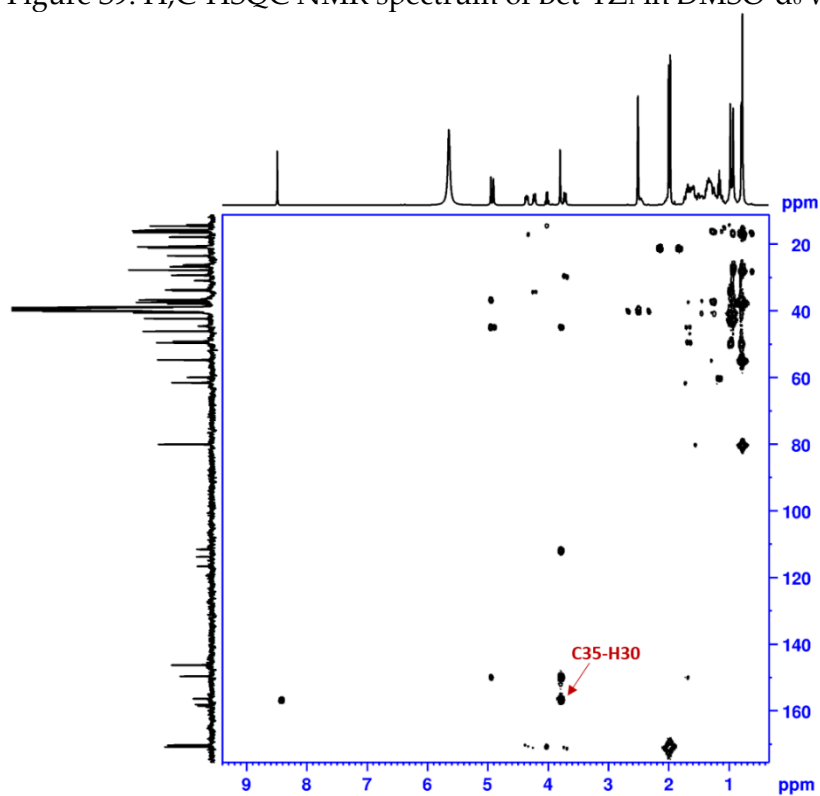


Figure S10. $^1\text{H}, ^{13}\text{C}$ -HMBC NMR spectrum of Bet-TZ₁ in DMSO- d_6 with 1 drop of TFA

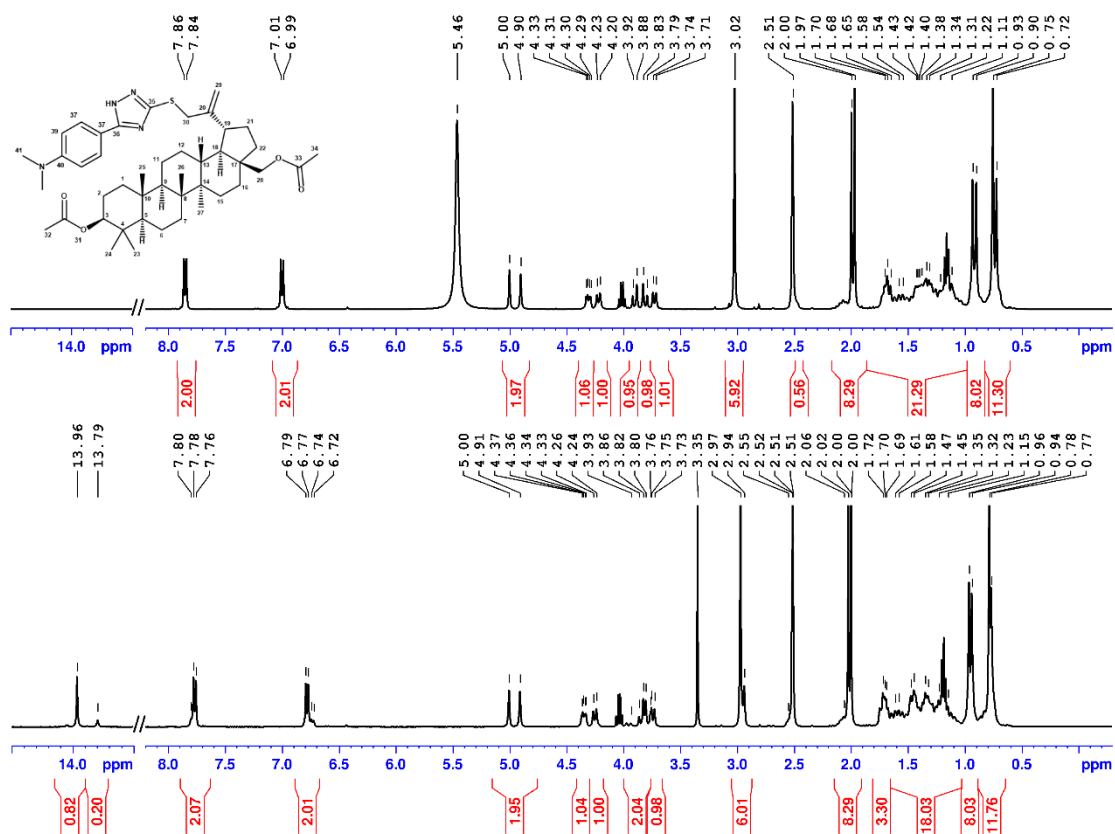


Figure S11. ^1H NMR spectrum of Bet-TZ₂ in DMSO-d_6 (bottom) and DMSO-d_6 with 1 drop of TFA (up)

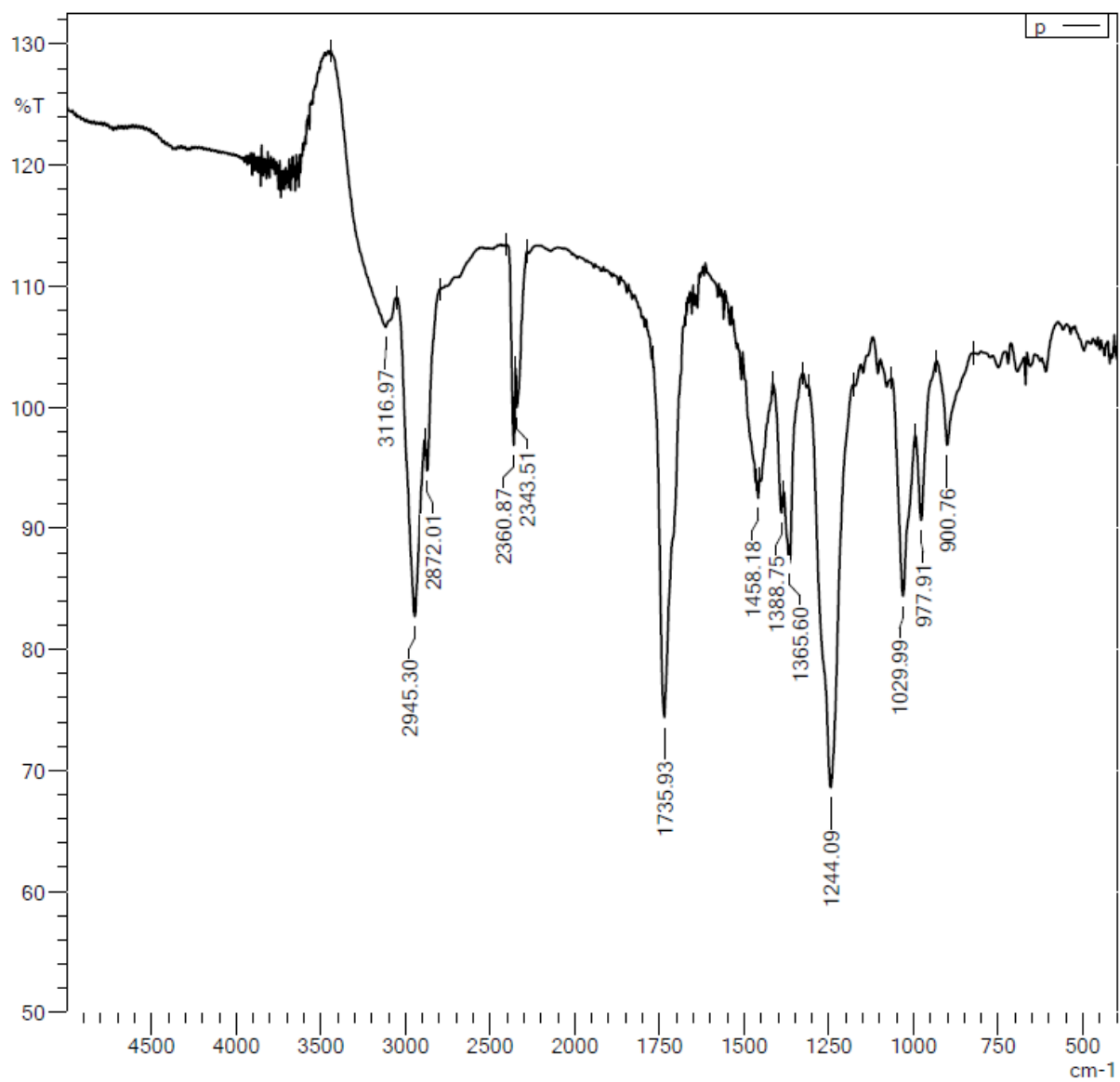


Figure S12. FTIR spectrum of Bet-TZ₂

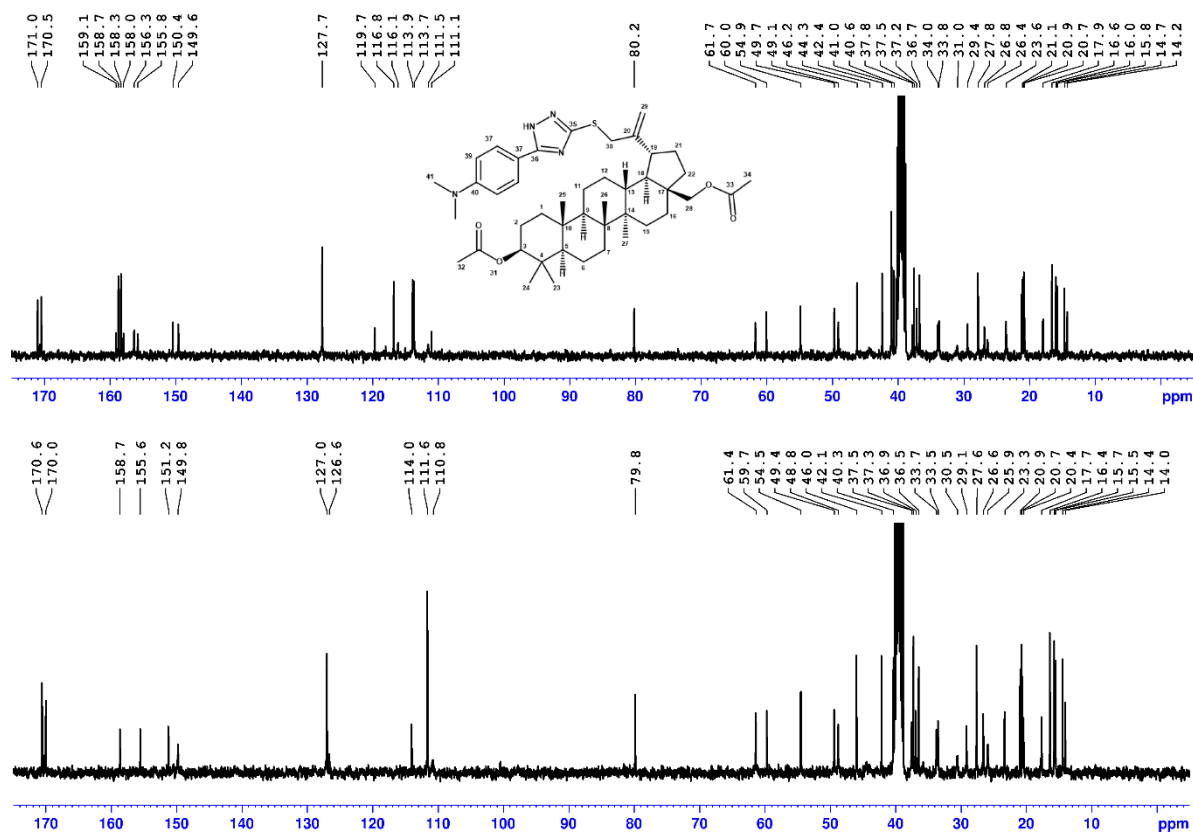


Figure S13. ^{13}C NMR spectrum of Bet-TZ₂ in DMSO- d_6 (bottom) and DMSO- d_6 with 1 drop of TFA (up)

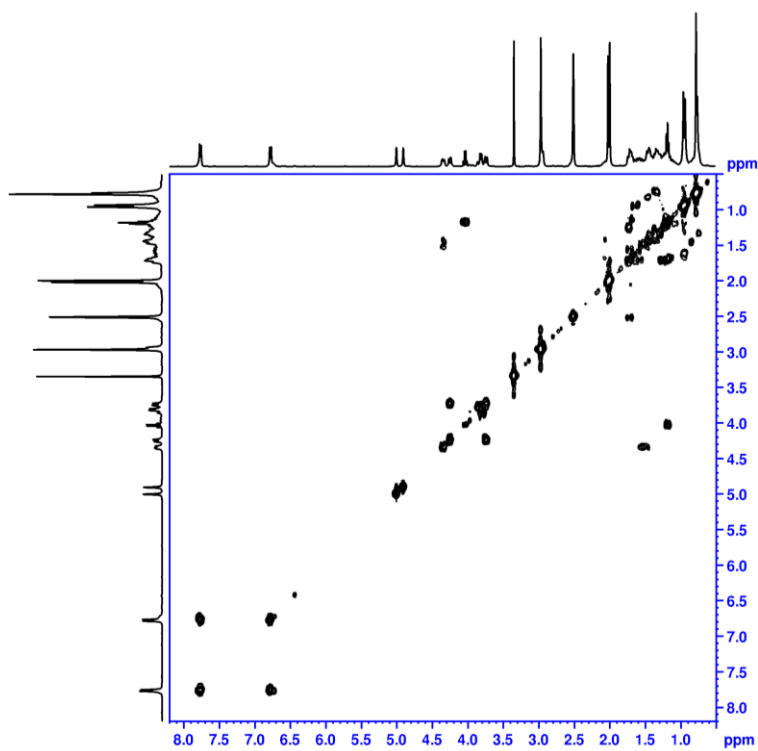


Figure S14. ^1H , ^1H -COSY NMR spectrum of Bet-TZ₂ in DMSO- d_6

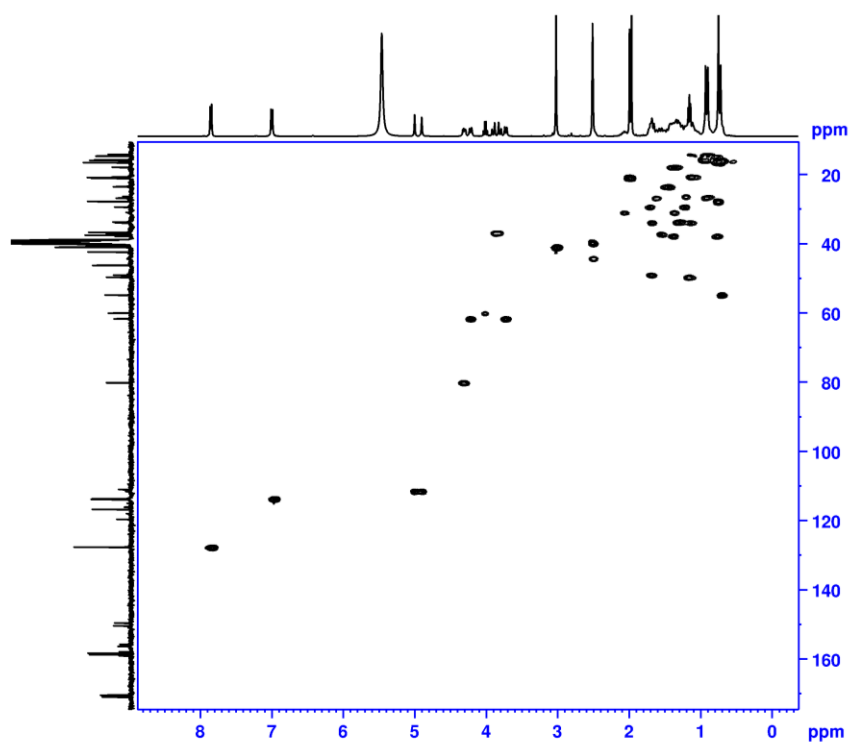


Figure S15. H,C-HSQC NMR spectrum of Bet-TZ₂ in DMSO-d₆ with one drop of TFA

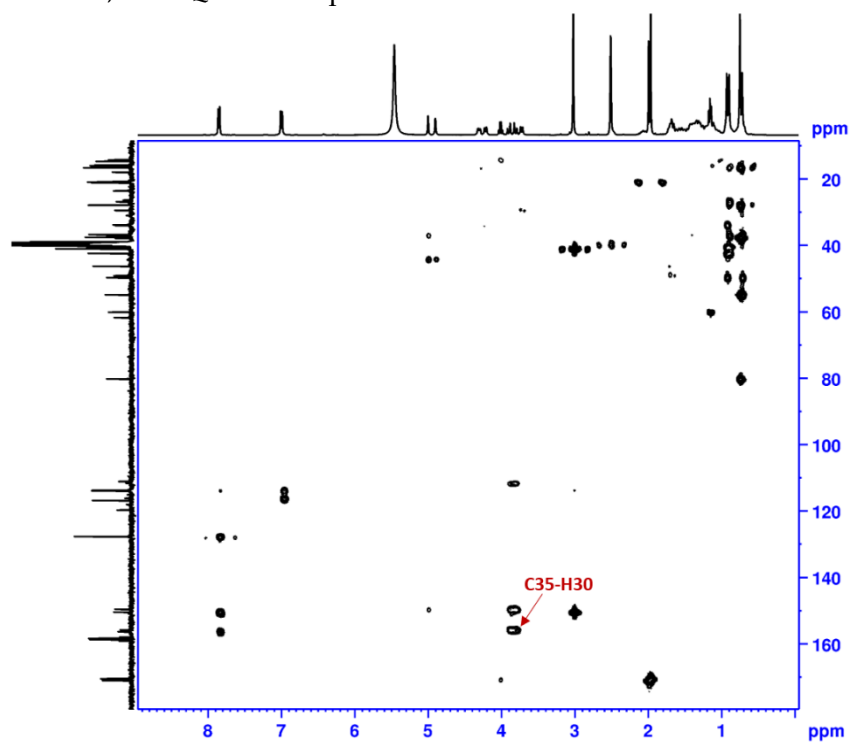


Figure S16. H,C-HMBC NMR spectrum of Bet-TZ₂ in DMSO-d₆ with one drop of TFA

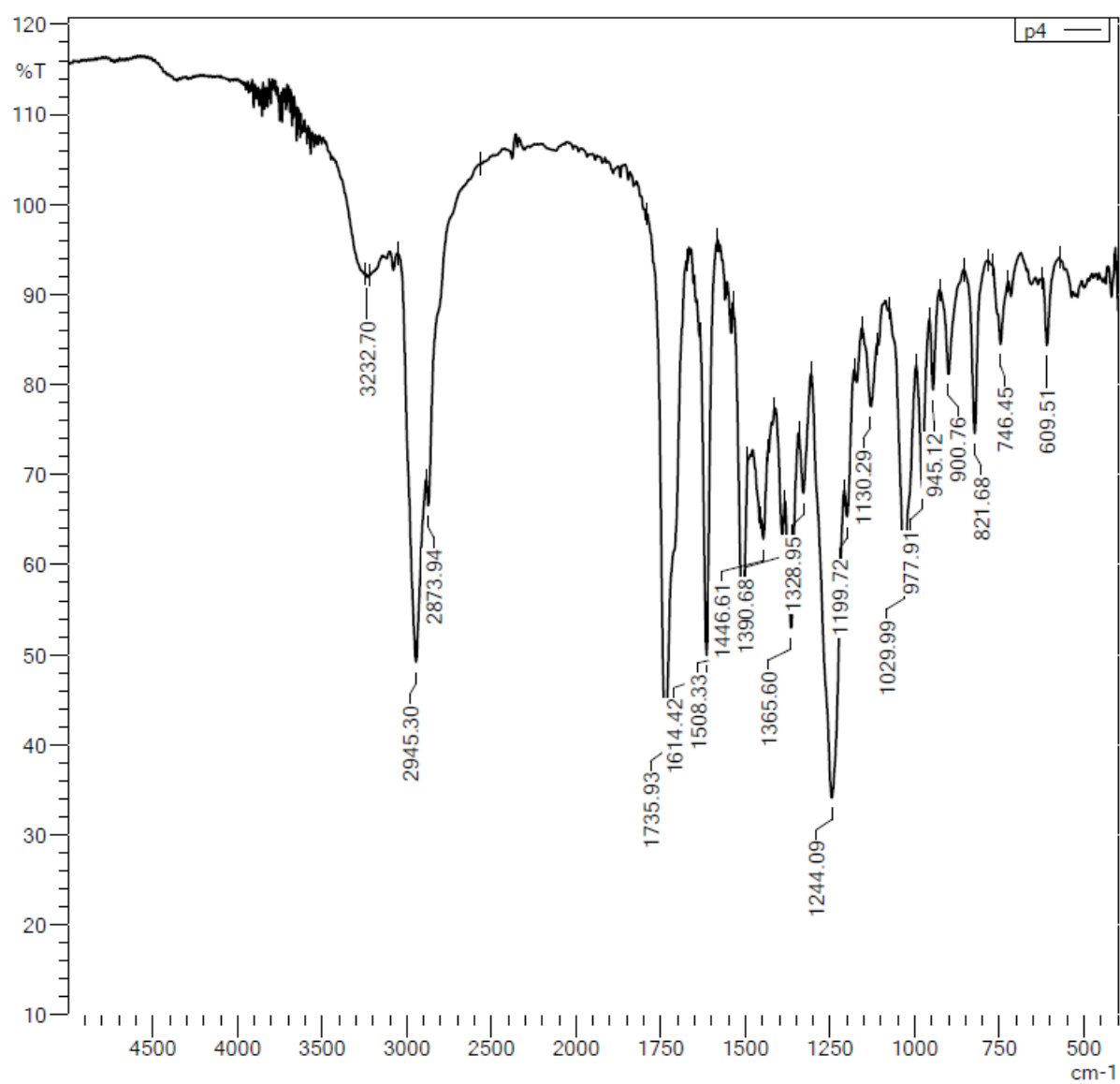


Figure S17. FTIR spectrum of Bet-TZ₂

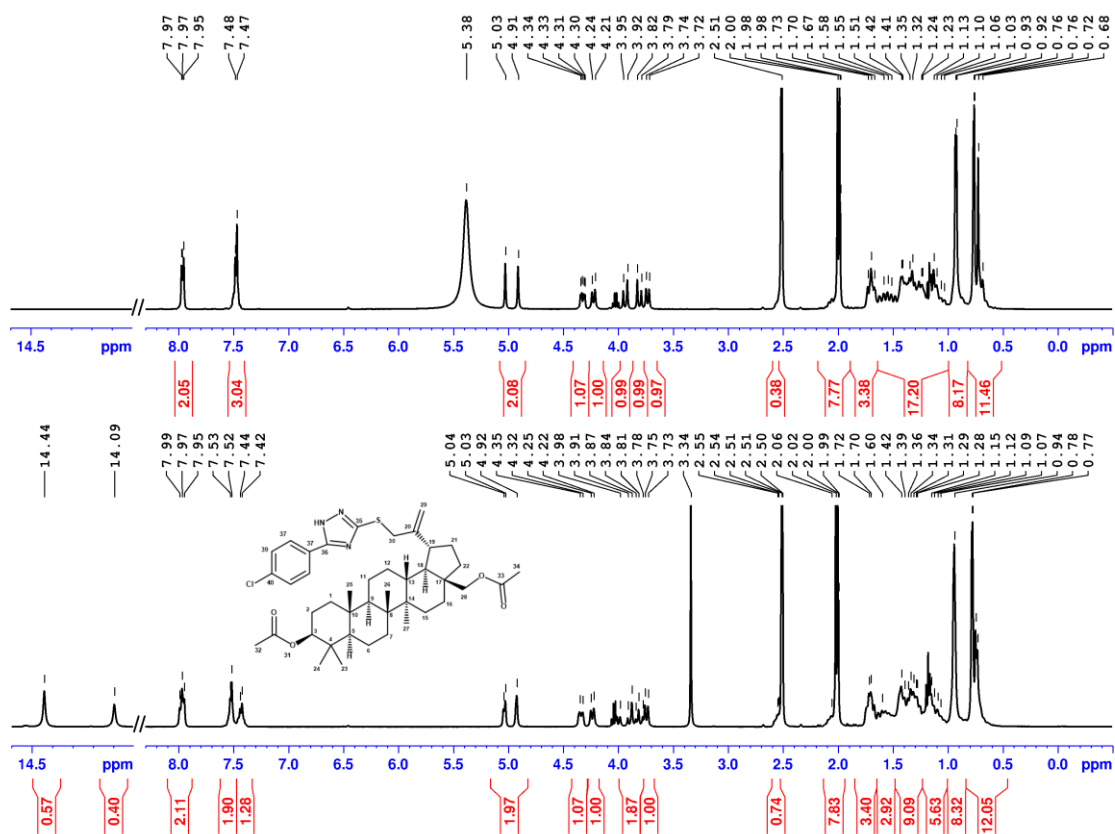


Figure S18. ^1H NMR spectrum of Bet-TZ₃ in DMSO- d_6 (bottom) and DMSO- d_6 with 1 drop of TFA (up)

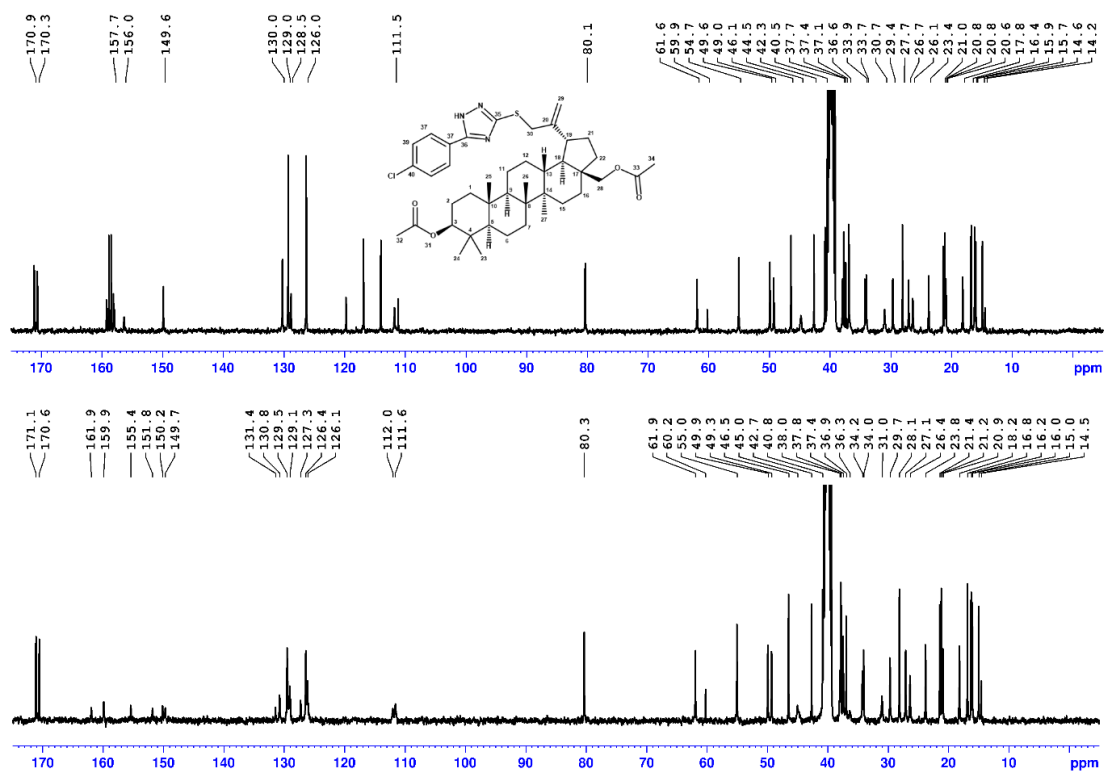


Figure S19. ^{13}C NMR spectrum of Bet-TZ₃ in DMSO- d_6 (bottom) and DMSO- d_6 with 1 drop of TFA (up)

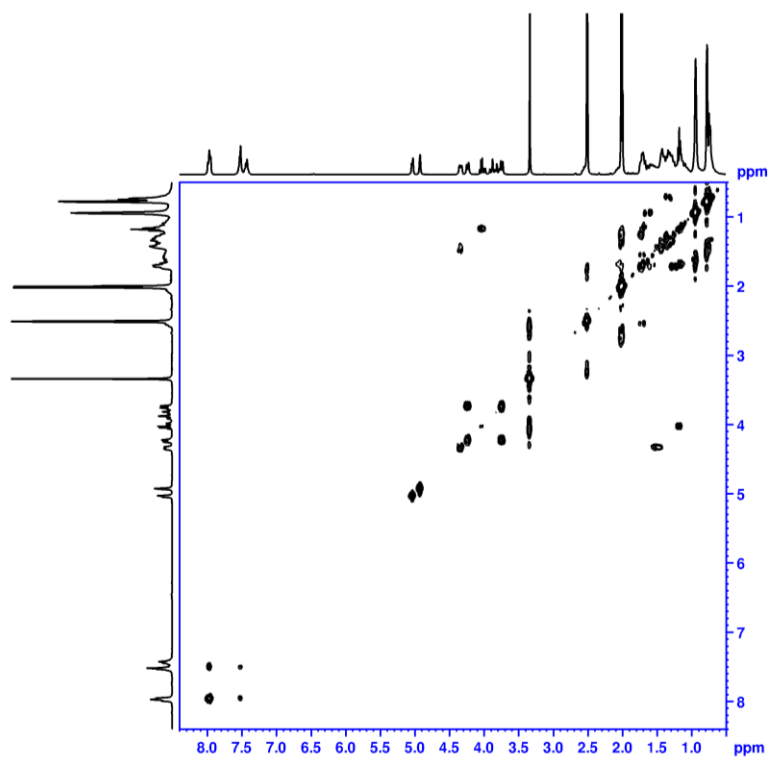


Figure S20. H,H-COSY NMR spectrum of Bet-TZ₃ in DMSO-d₆

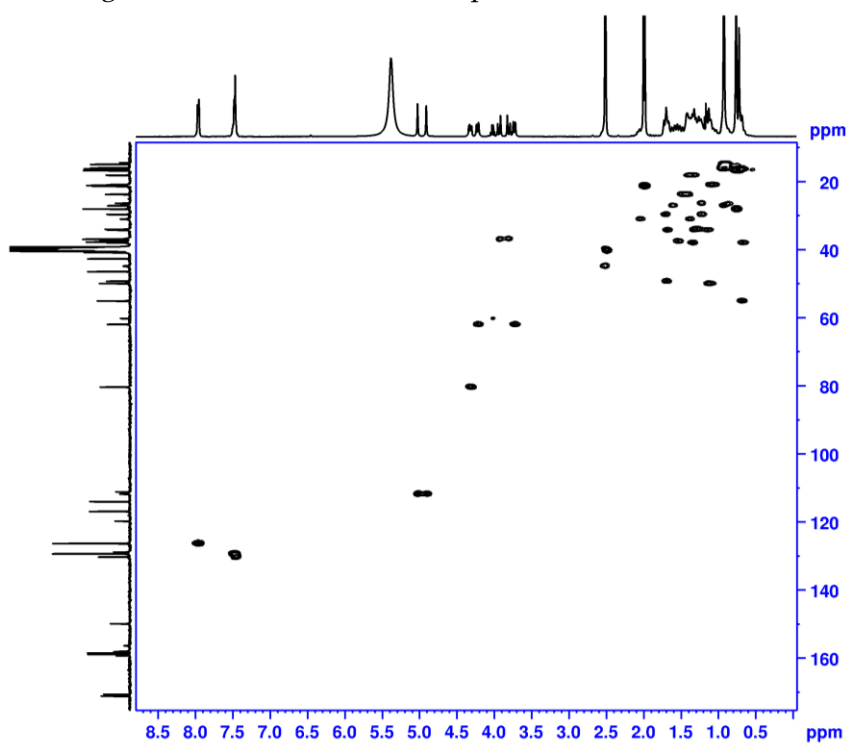


Figure S21. H,C-HSQC NMR spectrum of Bet-TZ₃ in DMSO-d₆ with one drop of TFA

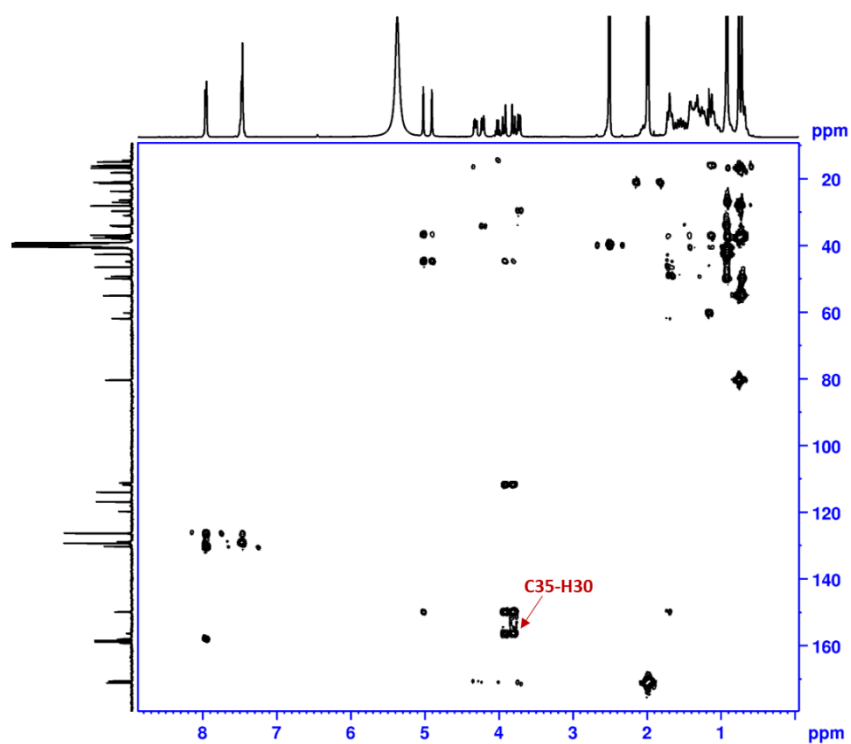


Figure S22. ¹H,¹³C-HMBC NMR spectrum of Bet-TZ₃ in DMSO-d₆ with one drop of TFA

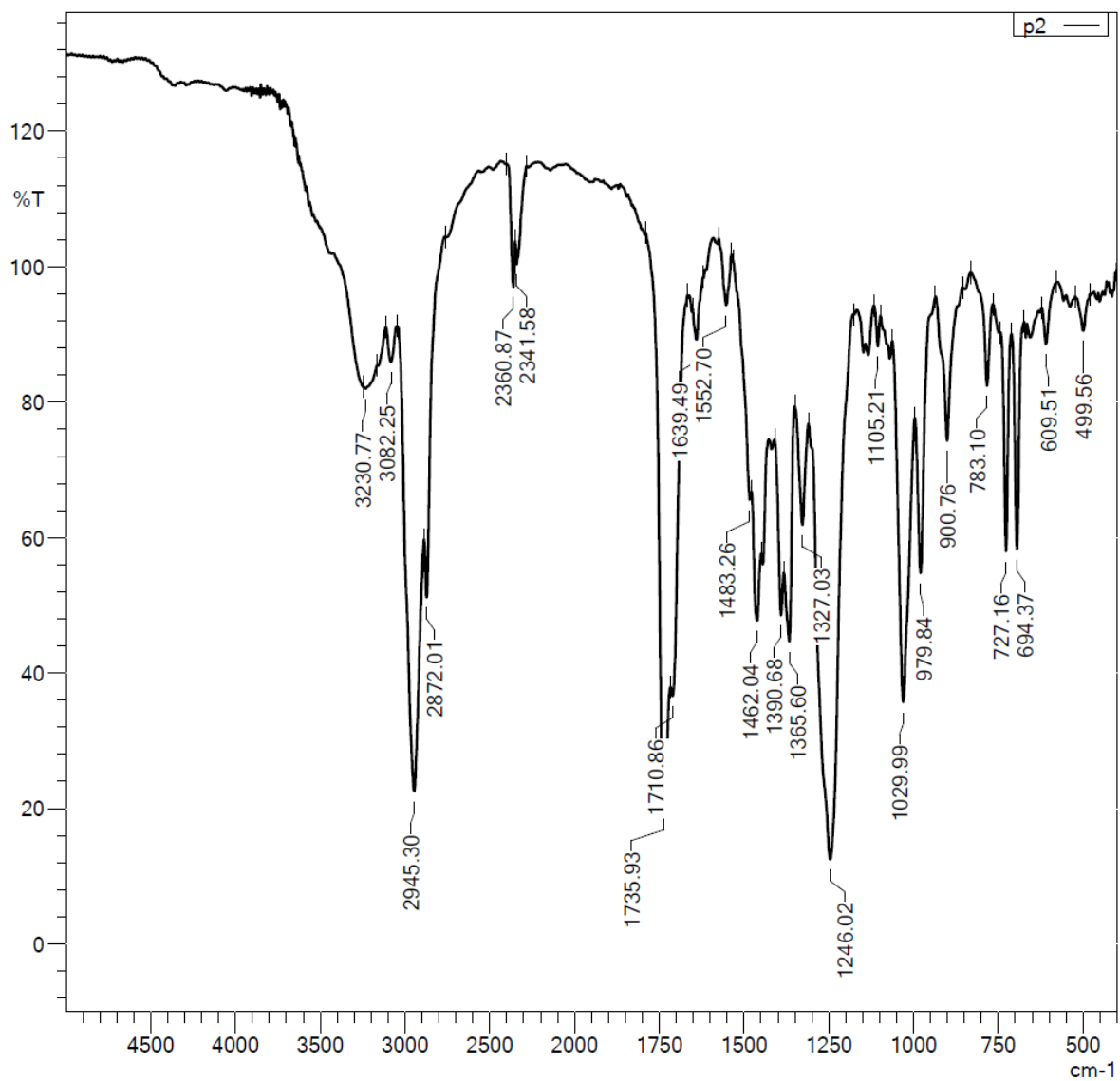


Figure S23. FTIR spectrum of Bet-TZ₃ in DMSO-d₆

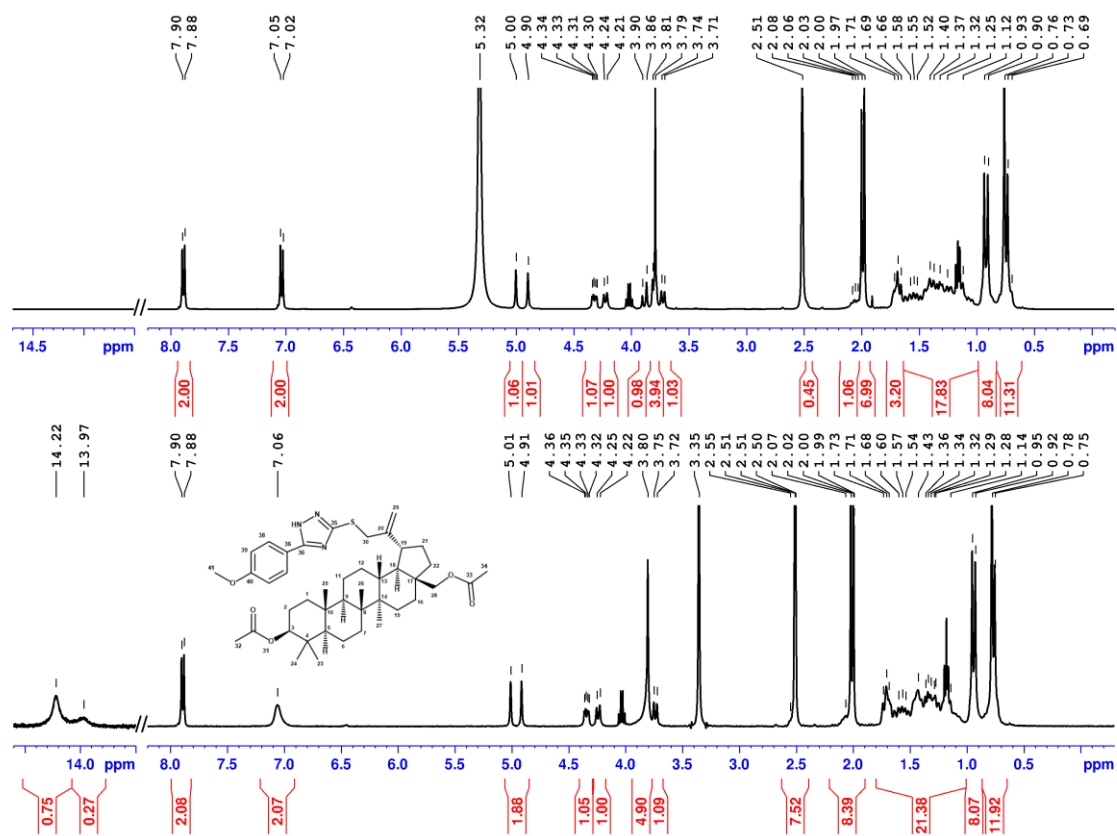


Figure S24. ^1H NMR spectrum of Bet-TZ₄ in $\text{DMSO}-d_6$ (bottom) and $\text{DMSO}-d_6$ with 1 drop of TFA (up)

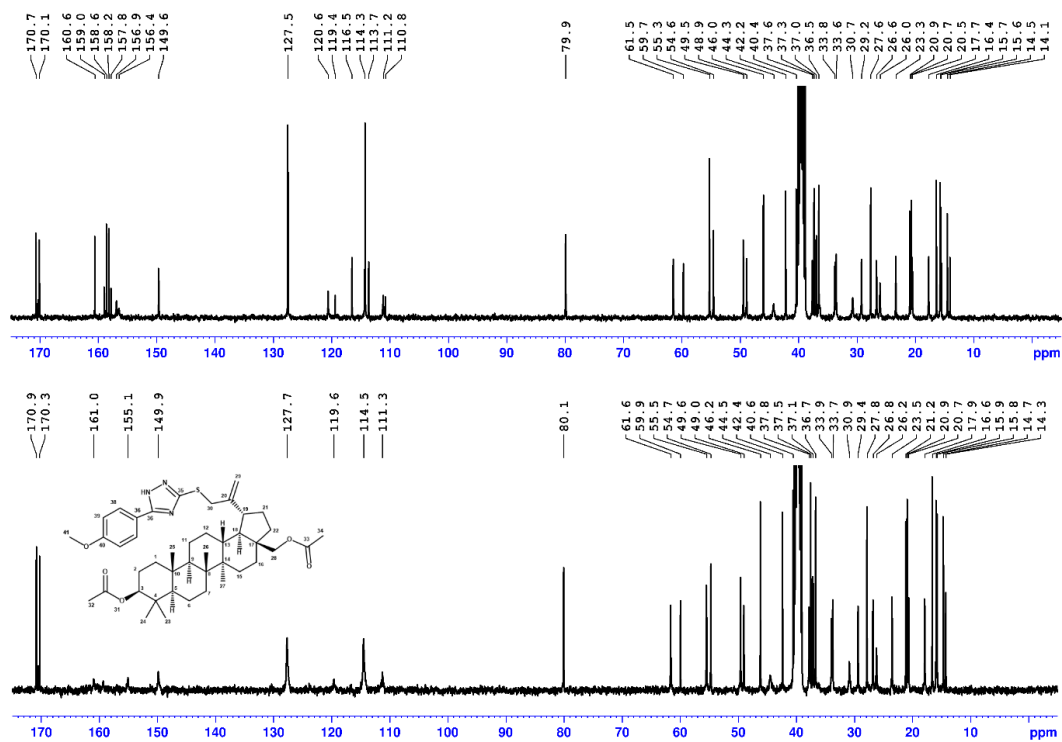


Figure S25. ^{13}C NMR spectrum of Bet-TZ₄ in $\text{DMSO}-d_6$ (bottom) and $\text{DMSO}-d_6$ with 1 drop of TFA (up)

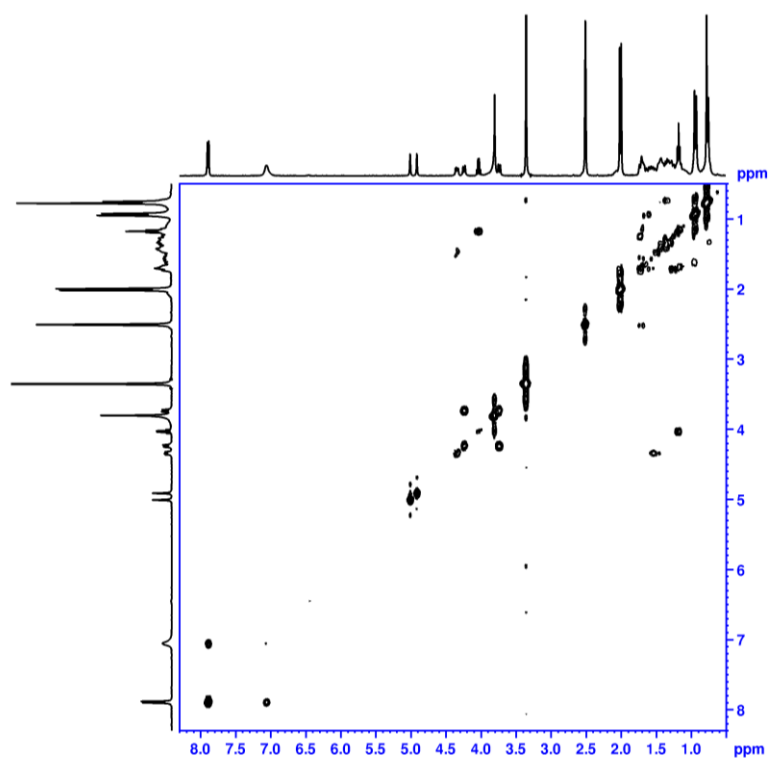


Figure S26. H,H-COSY NMR spectrum of Bet-TZ₄ in DMSO-d₆

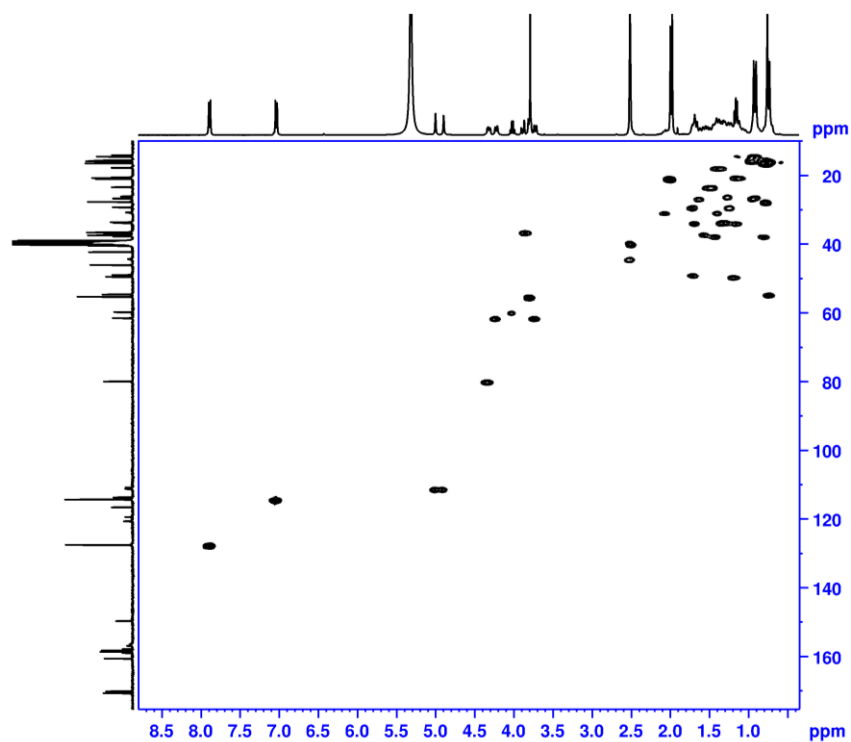


Figure S27. H,C-HSQC NMR spectrum of Bet-TZ₄ in DMSO-d₆ with one drop of TFA

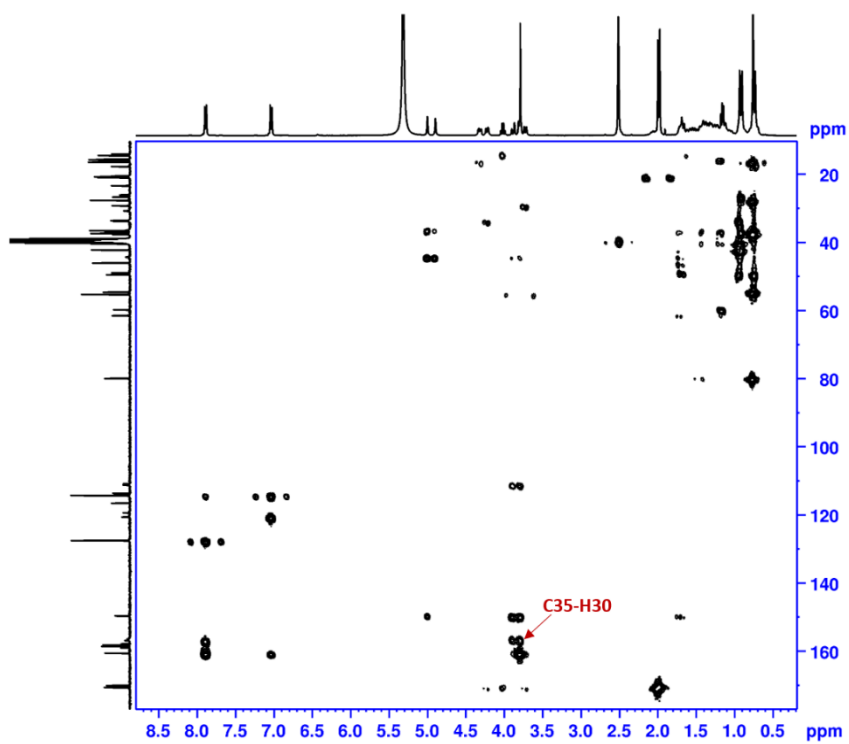


Figure S28. ^1H , ^{13}C -HMBC NMR spectrum of Bet-TZ₄ in DMSO- d_6 with one drop of TFA

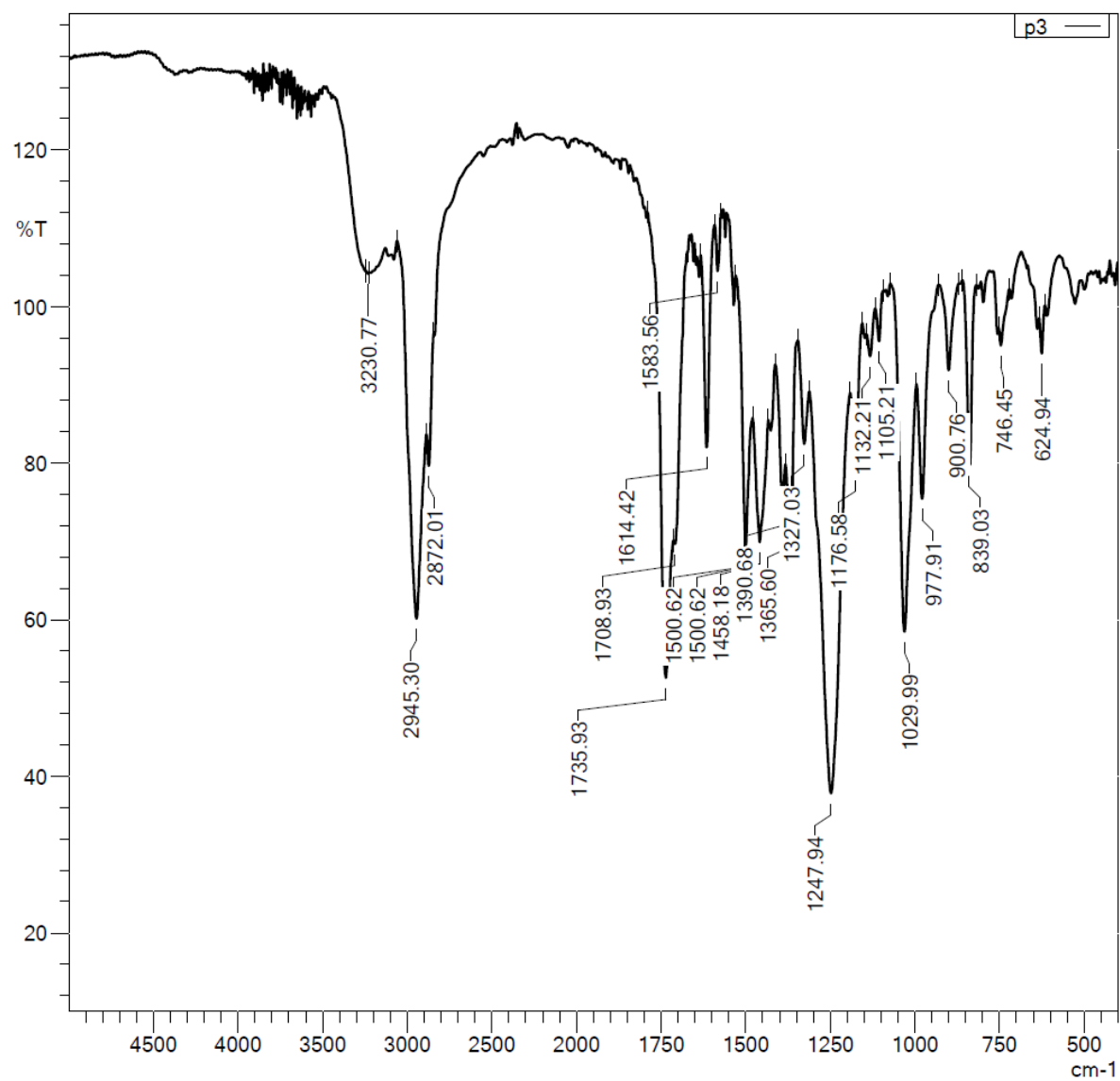


Figure S29. FTIR spectrum of Bet-TZ₄