

Supplementary Materials

Polyphenols from acorn leaves (*Quercus liaotungensis*) protect pancreatic beta cells and their inhibitory activity against α -glucosidase and protein tyrosine phosphatase 1B

Jing Xu^{a,b}, Xude Wang^{a,b}, Jiayin Yue^{a,b}, Yuanyuan Sun^{a,b}, Xiaoshu Zhang^{a,b*}, Yuqing Zhao^{a, b*}

^a *School of Functional Food and Wine, Shenyang Pharmaceutical University, Shenyang 110016, People's Republic of China.*

^b *Key Laboratory of Structure-based Drug Design and Discovery of Ministry of Education, Shenyang Pharmaceutical University, Shenyang 110016, China.*

* Corresponding author.

Tel: +86-24-23986521, Fax: +86-24-23986521, email: zyq4885@126.com *(Y. Zhao) or Tel:

+86-24-23986522, Fax: +86-24-23986521, email: xiaoshu2397@163.com *(X. Zhang)

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Mass Spectrum SmartFormula Report

Analysis Info

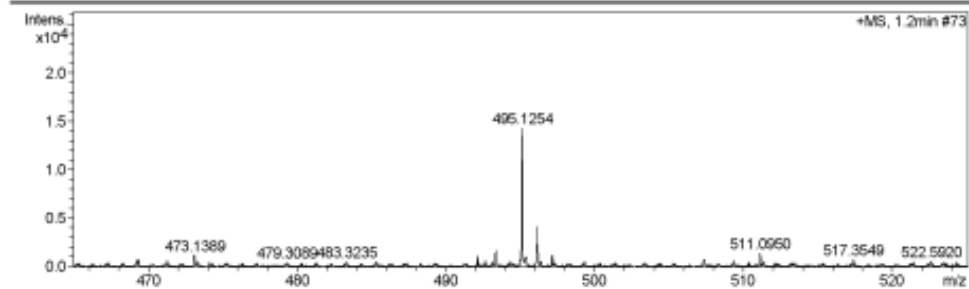
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 Sample Name XY-N-6
 Comment

Acquisition Date 4/10/2018 12:41:24 PM

Operator Bruker Customer
 Instrument / Ser# micrOTOF-Q 125

Acquisition Parameter

Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	1.2 Bar
Focus	Active	Set Capillary	4500 V	Set Dry Heater	180 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	8.0 l/min
Scan End	1500 m/z	Set Collision Cell RF	400.0 Vpp	Set Divert Valve	Source



Meas. m/z	#	Formula	m/z	err [ppm]	Mean err [ppm]	rdb	N-Rule	e ⁻ Conf	mSigma	Std I	Std Mean m/z	Std Var/No	Std I m/z	Std Comb Dev
495.12	54	1 C ₂₄ H ₂₄ NaO ₁₀	495.12	1.6	1.5	12.5	ok	even	21.35	0.0443	0.0023	0.0161	0.0006	0.8427

Figure S1. HR-ESI-MS of Compound 1

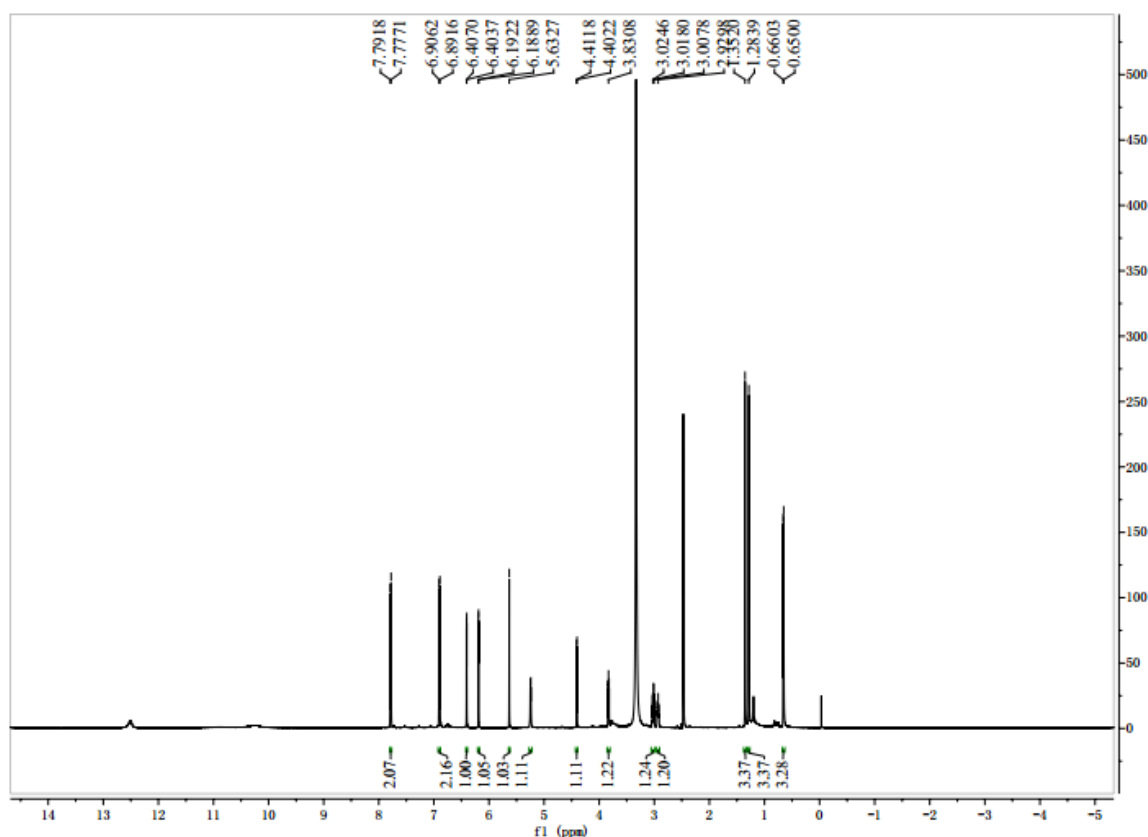


Figure S2. ¹H-NMR of Compound 1 (600MHz, DMSO-d₆)

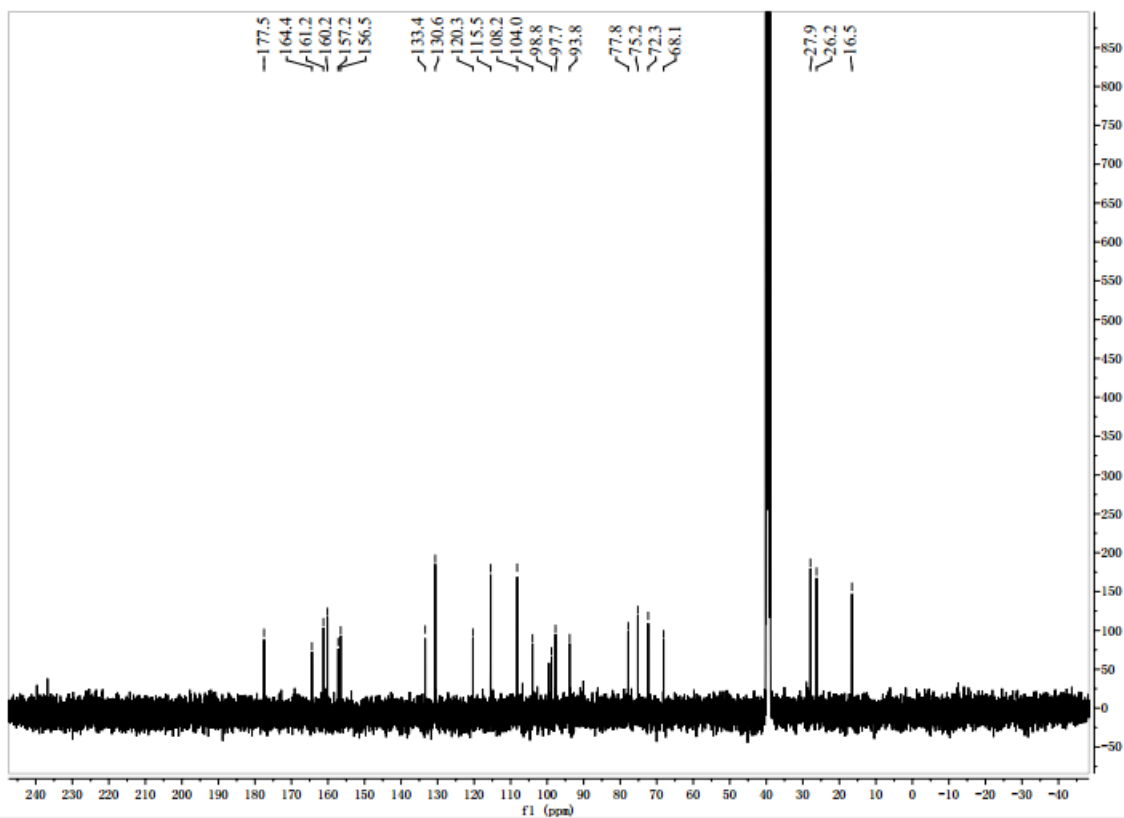


Figure S3. ^{13}C -NMR of Compound 1 (100MHz, DMSO-d_6)

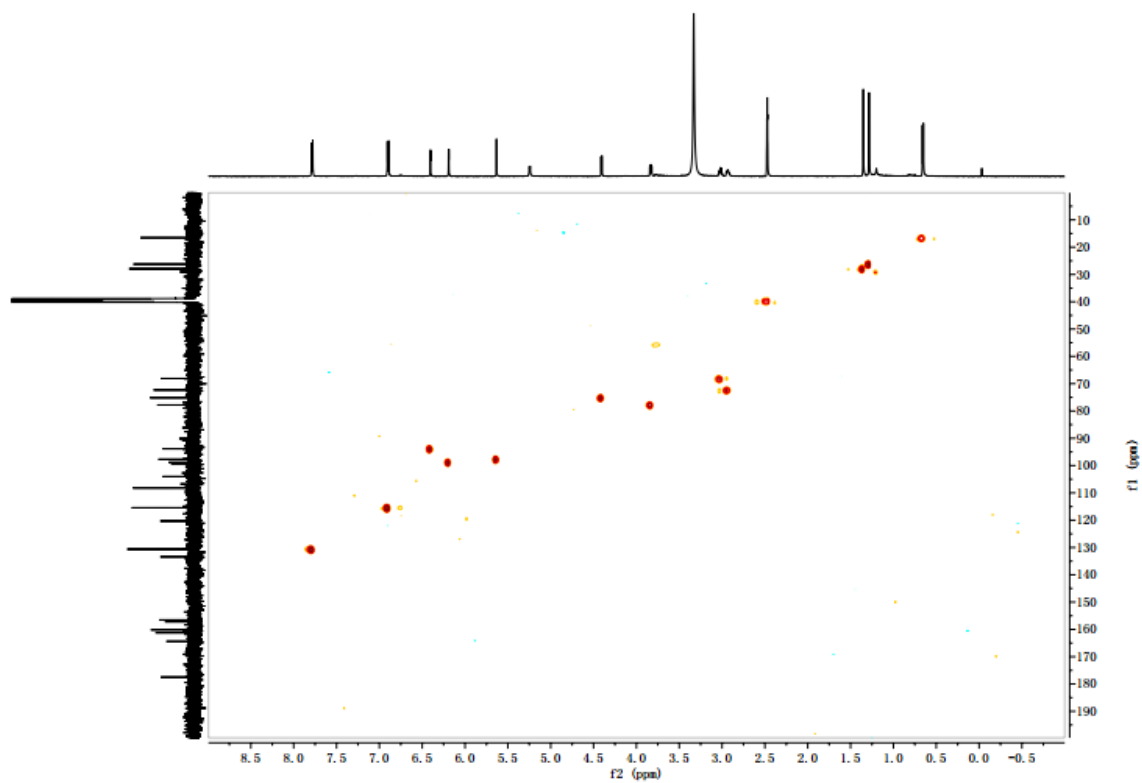


Figure S4. HSQC of Compound 1

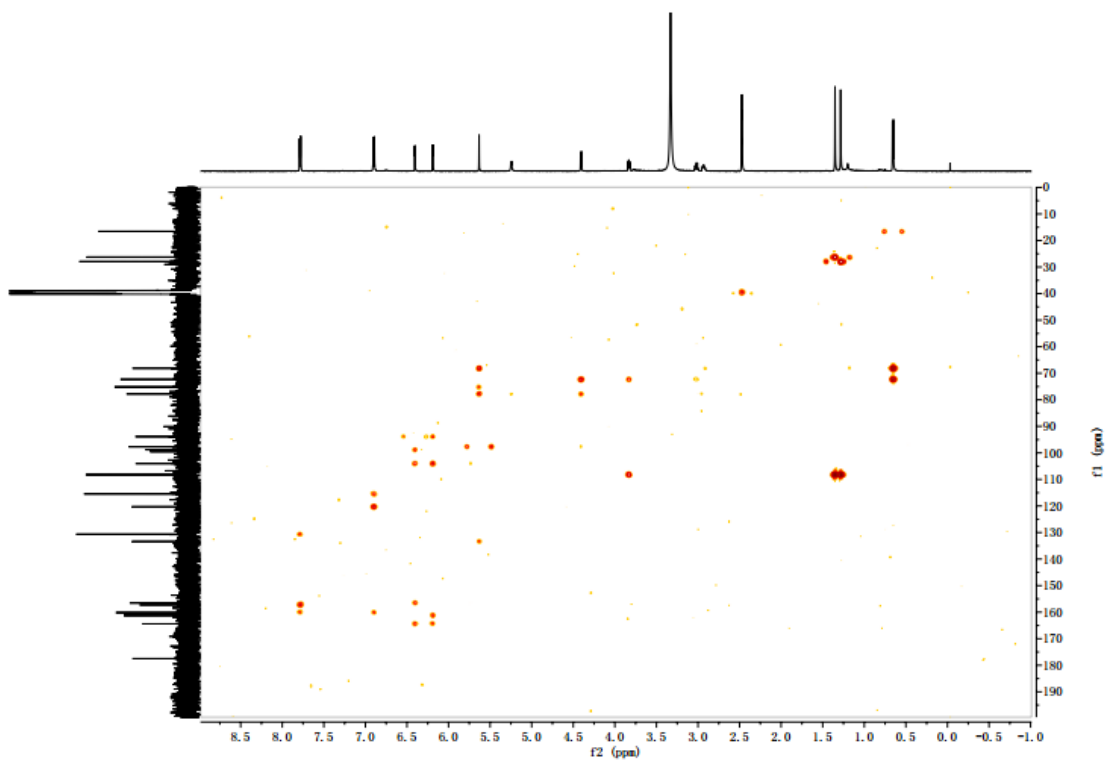


Figure S5. HMBC of Compound 1

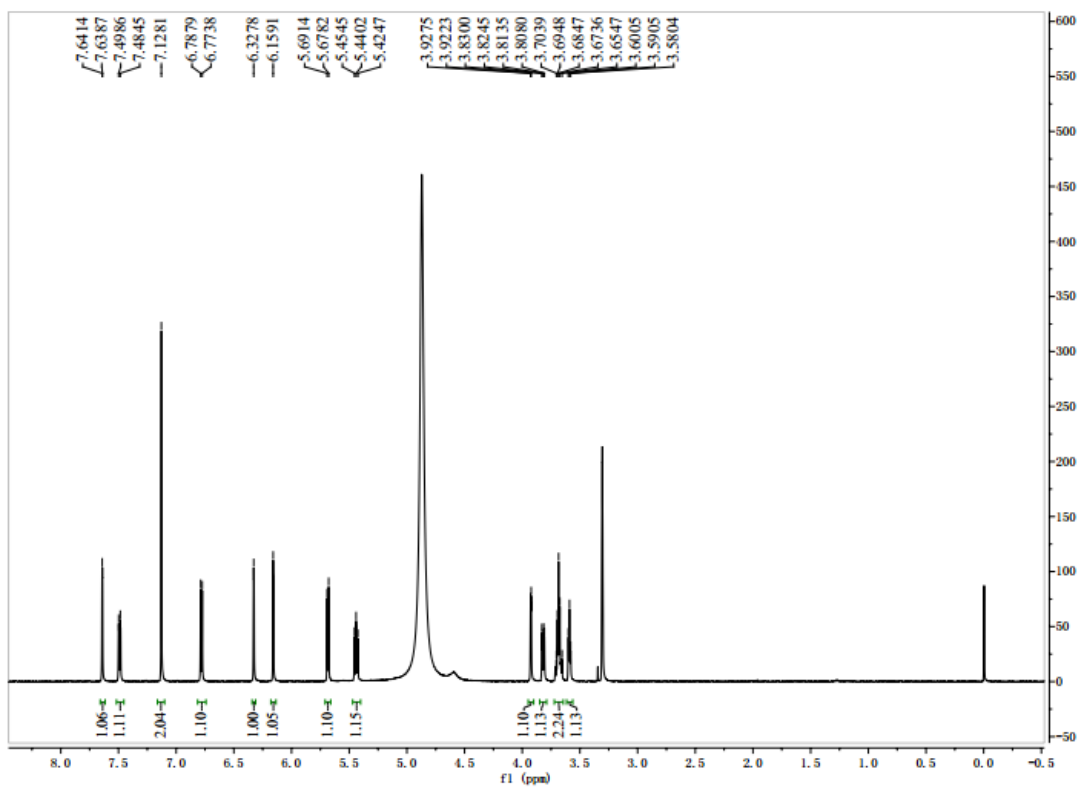


Figure S6. ¹H-NMR of Compound 2 (600MHz, CD₃OD)

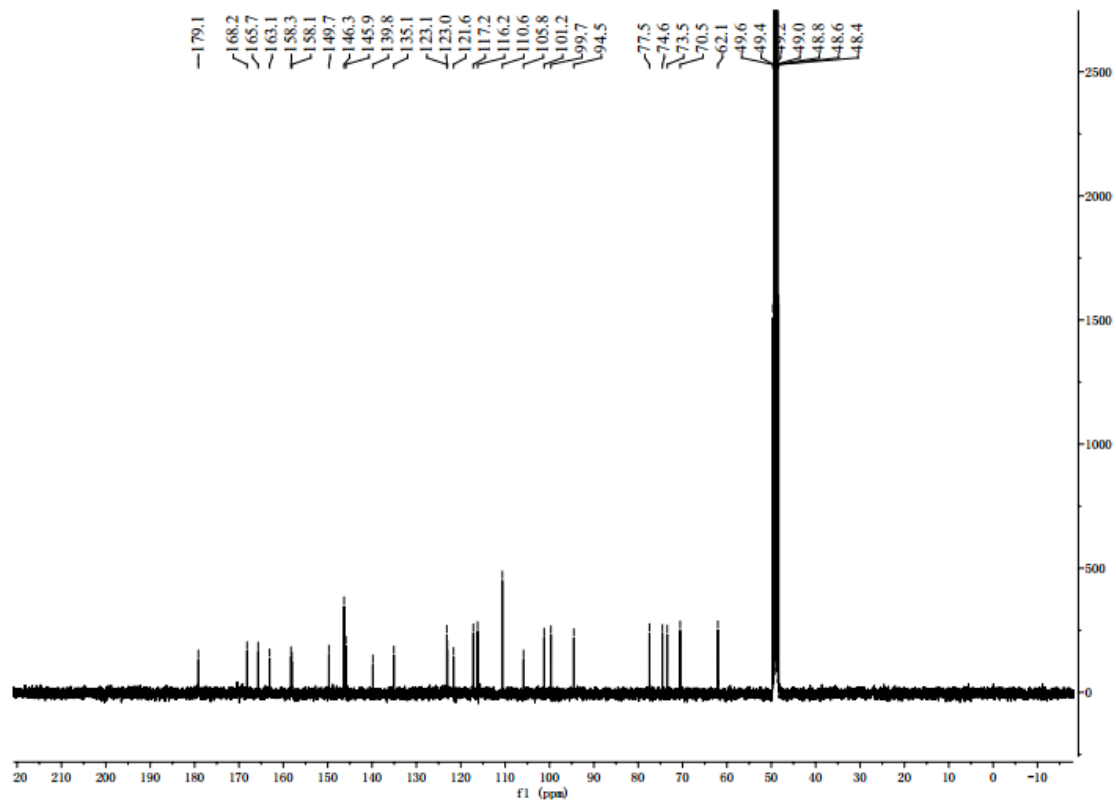


Figure S7. ^{13}C -NMR of Compound 2 (100MHz, CD_3OD)

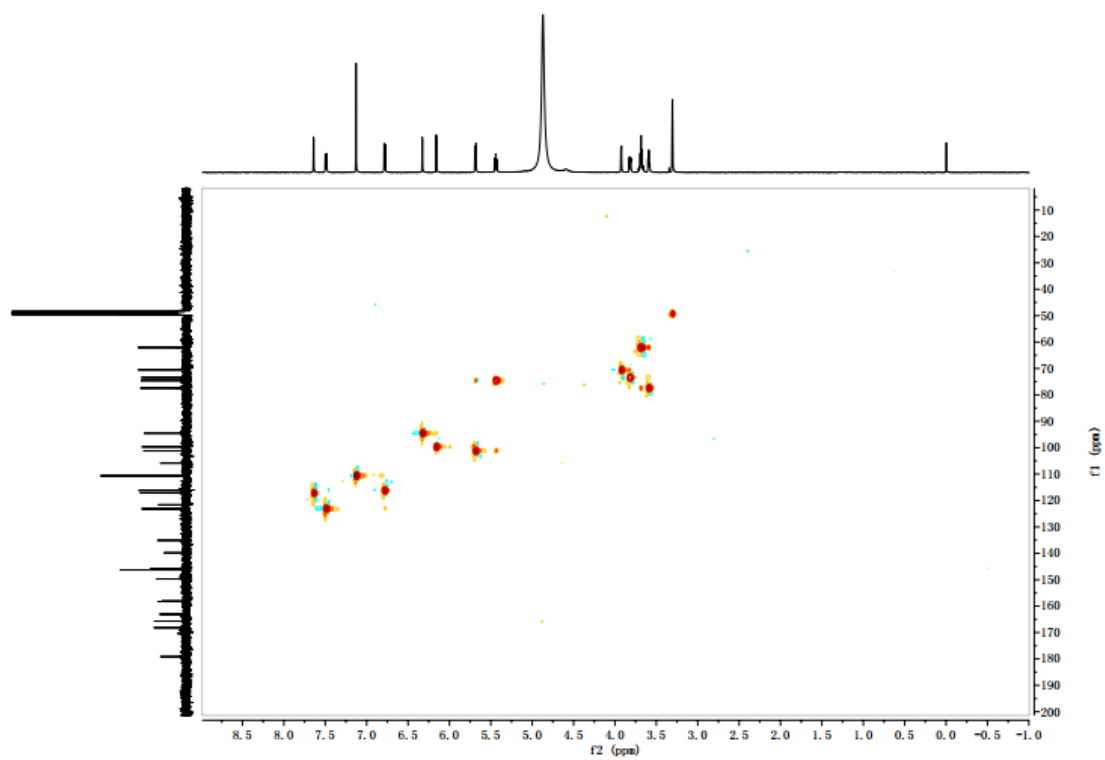


Figure S8. HSQC of Compound 2

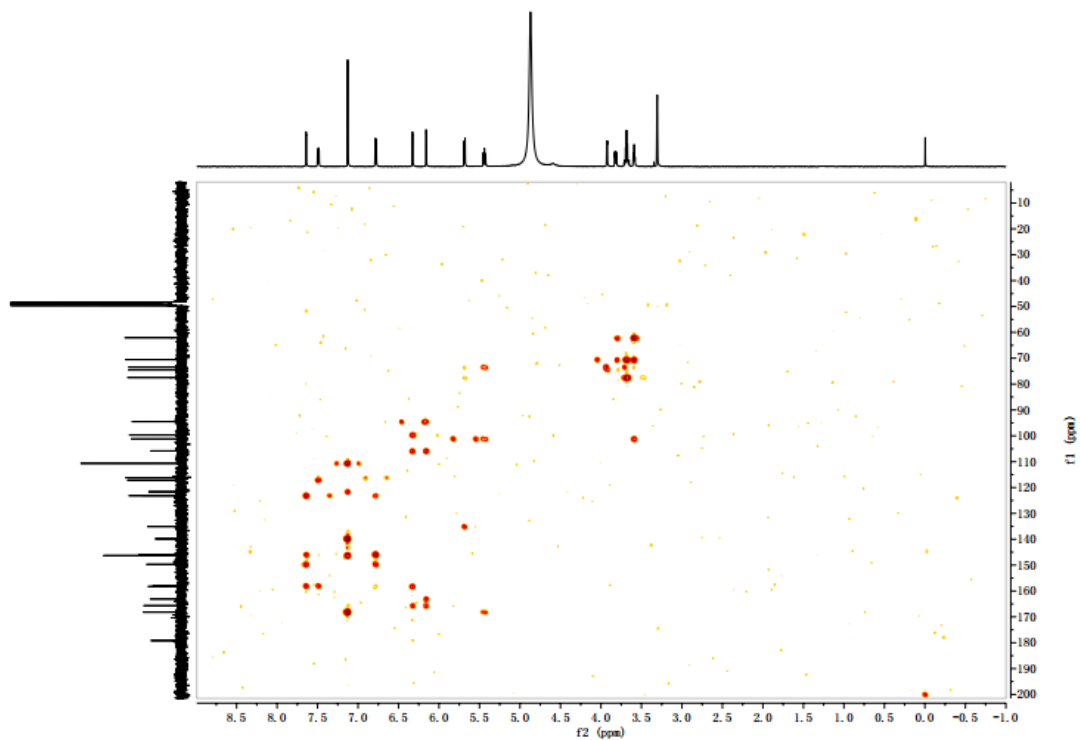


Figure S9. HMBC of Compound 2

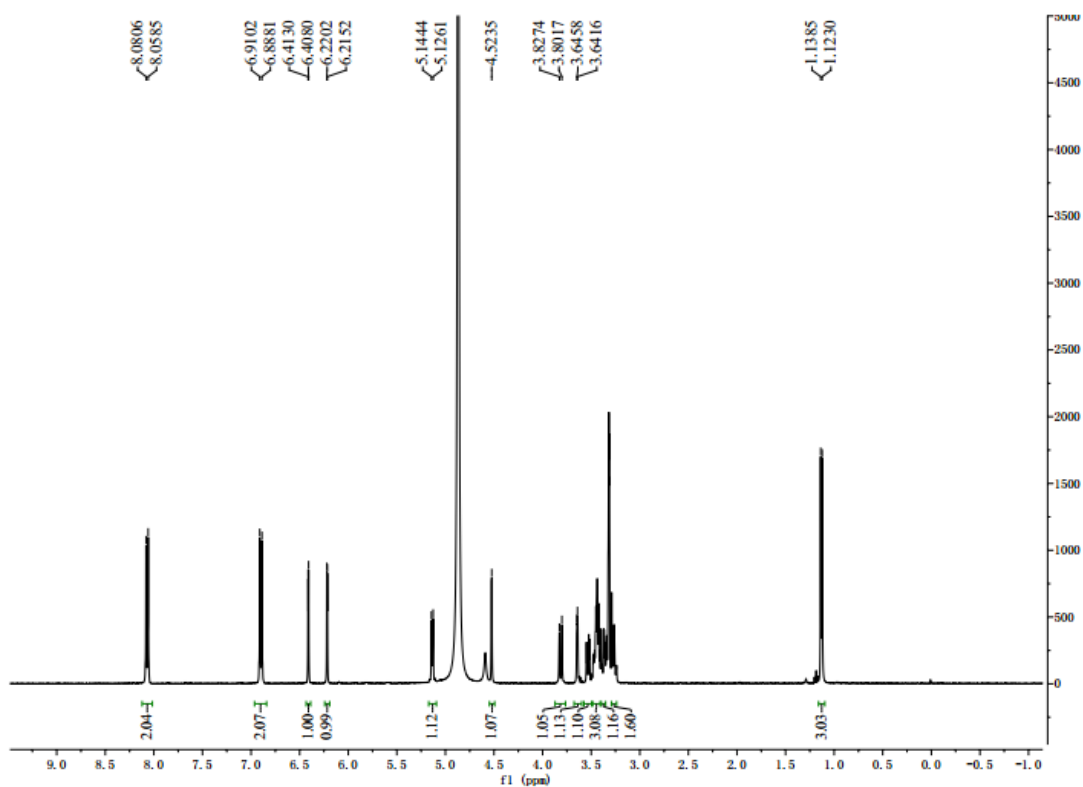


Figure S10. ¹H-NMR of Compound 3 (400MHz, CD₃OD)

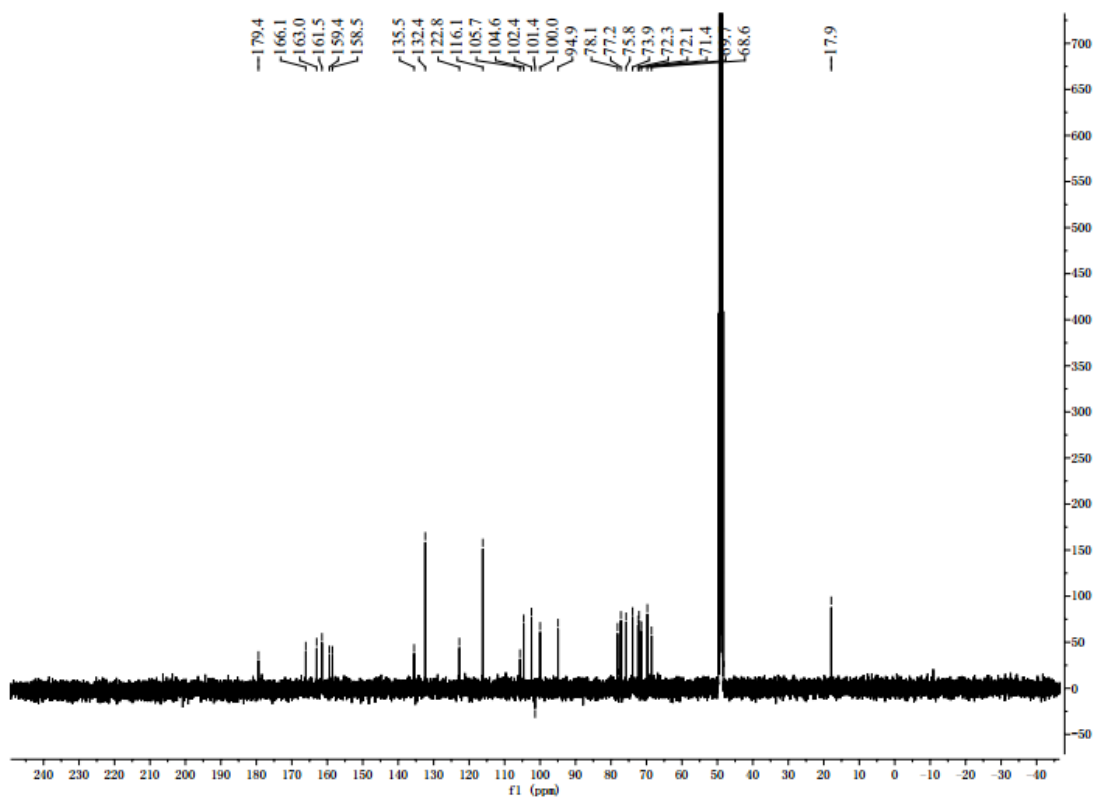


Figure S11. ^{13}C -NMR of Compound 3 (100MHz, CD_3OD)

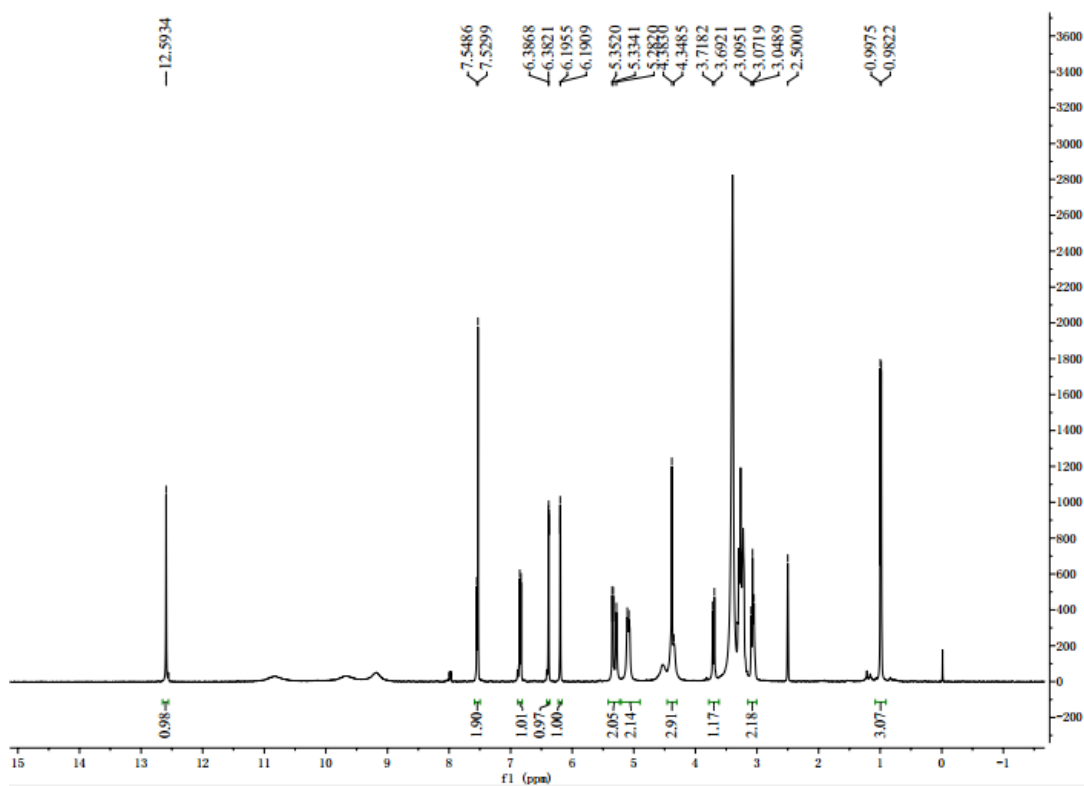


Figure S12. ^1H -NMR of Compound 4 (400MHz, DMSO-d_6)

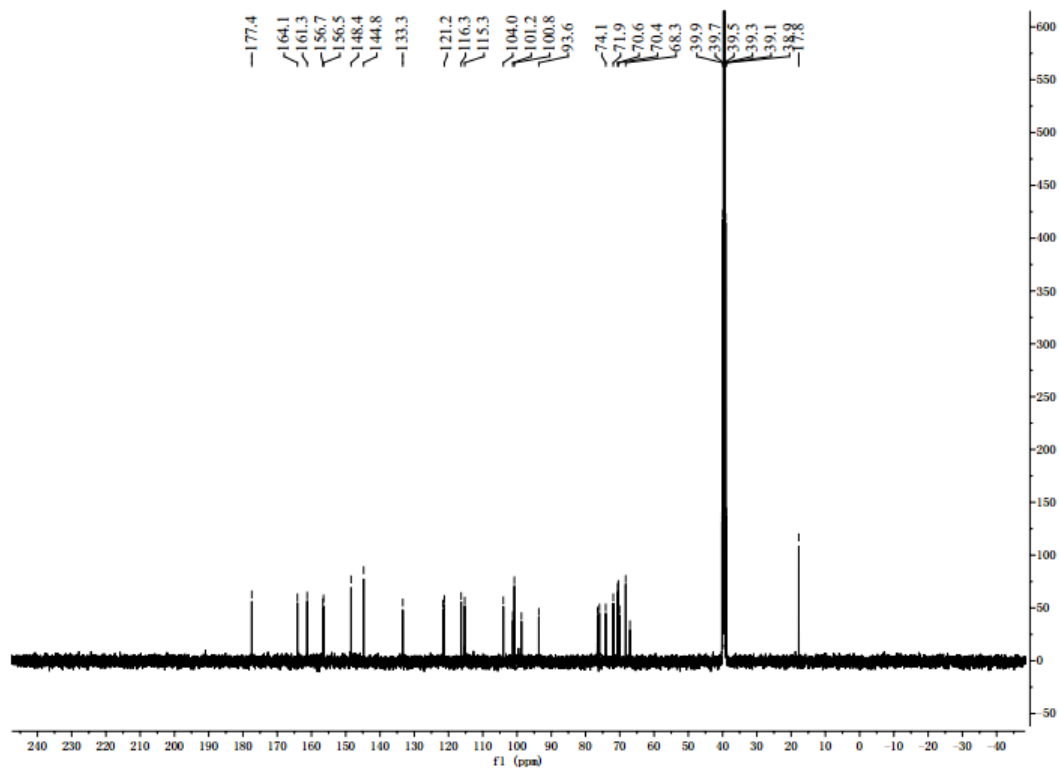


Figure S13. ^{13}C -NMR of Compound 4 (100MHz, DMSO-d_6)

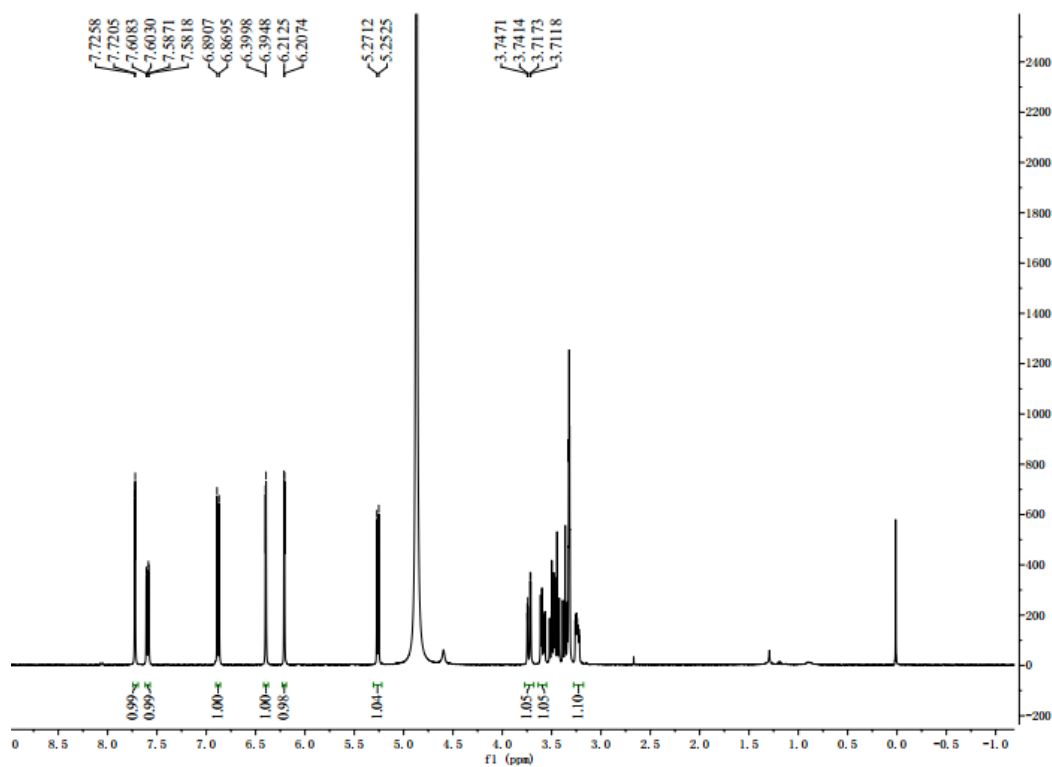


Figure S14. ^1H -NMR of Compound 5 (400MHz, CD_3OD)

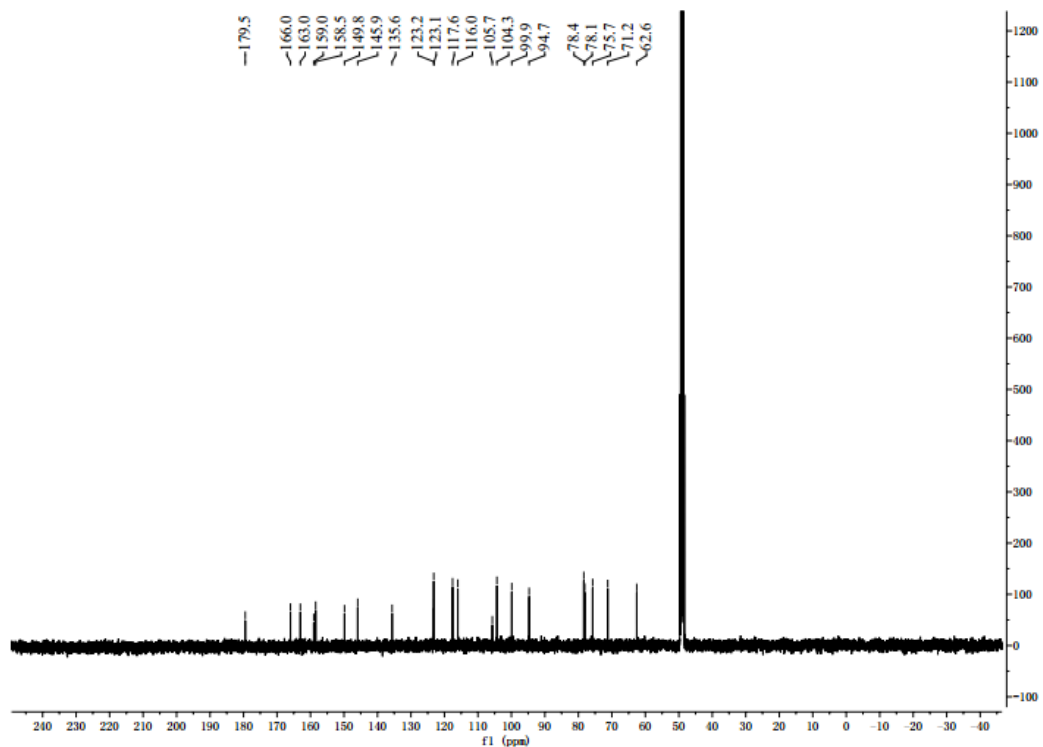


Figure S15. $^{13}\text{C-NMR}$ of Compound 5 (100MHz, CD_3OD)

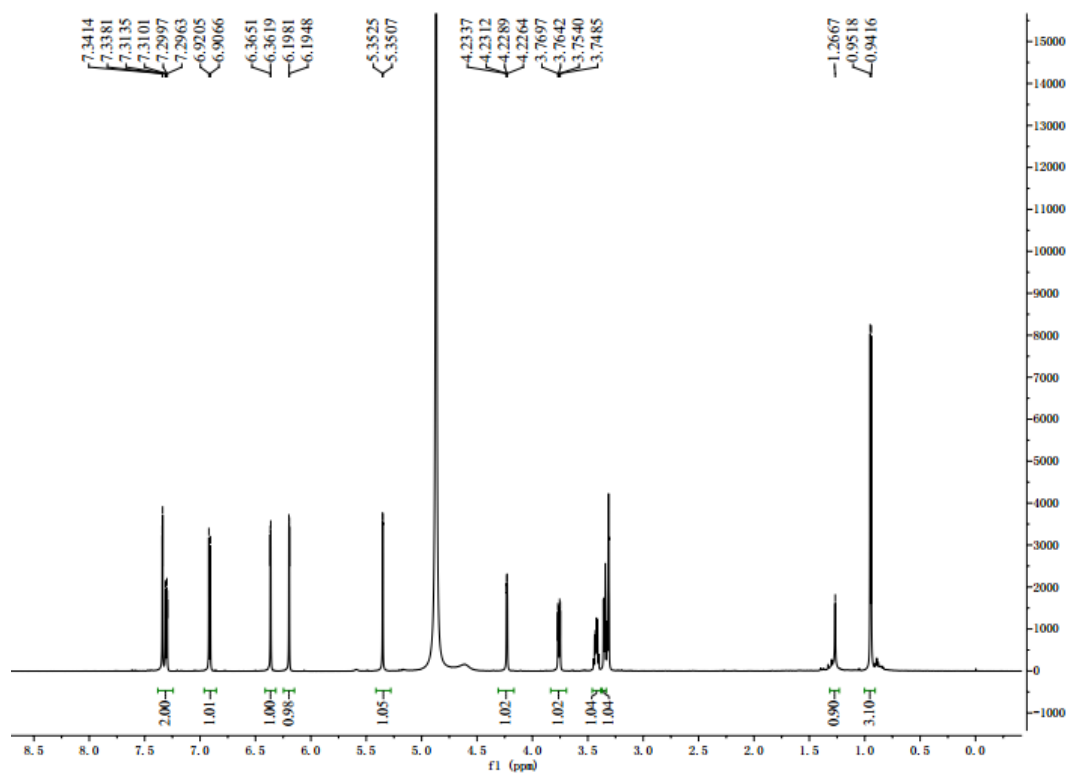


Figure S16. $^1\text{H-NMR}$ of Compound 6 (400MHz, CD_3OD)

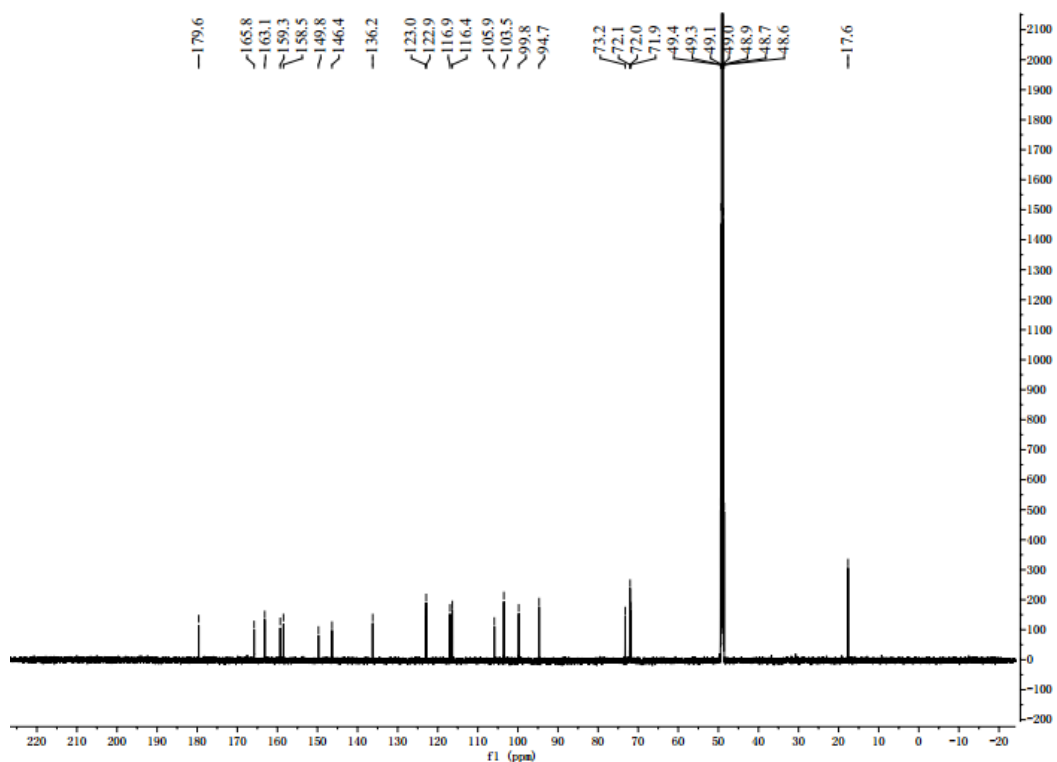


Figure S17. ^{13}C -NMR of Compound 6 (100MHz, CD_3OD)

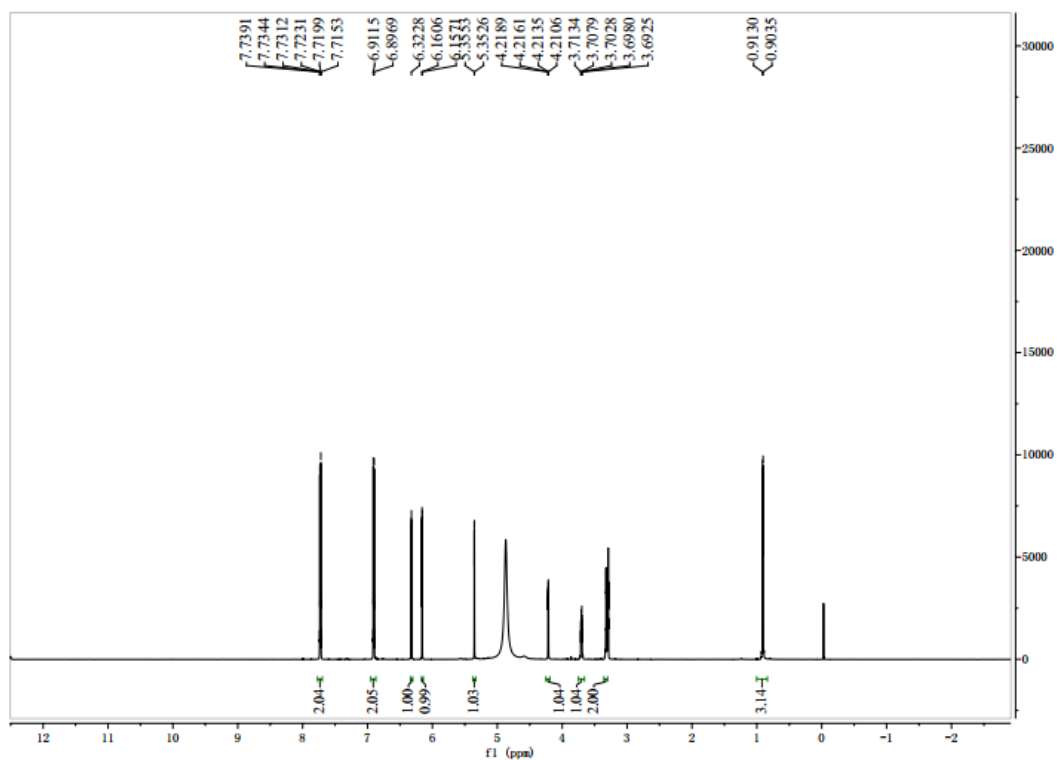


Figure S18. ^1H -NMR of Compound 7 (400MHz, CD_3OD)

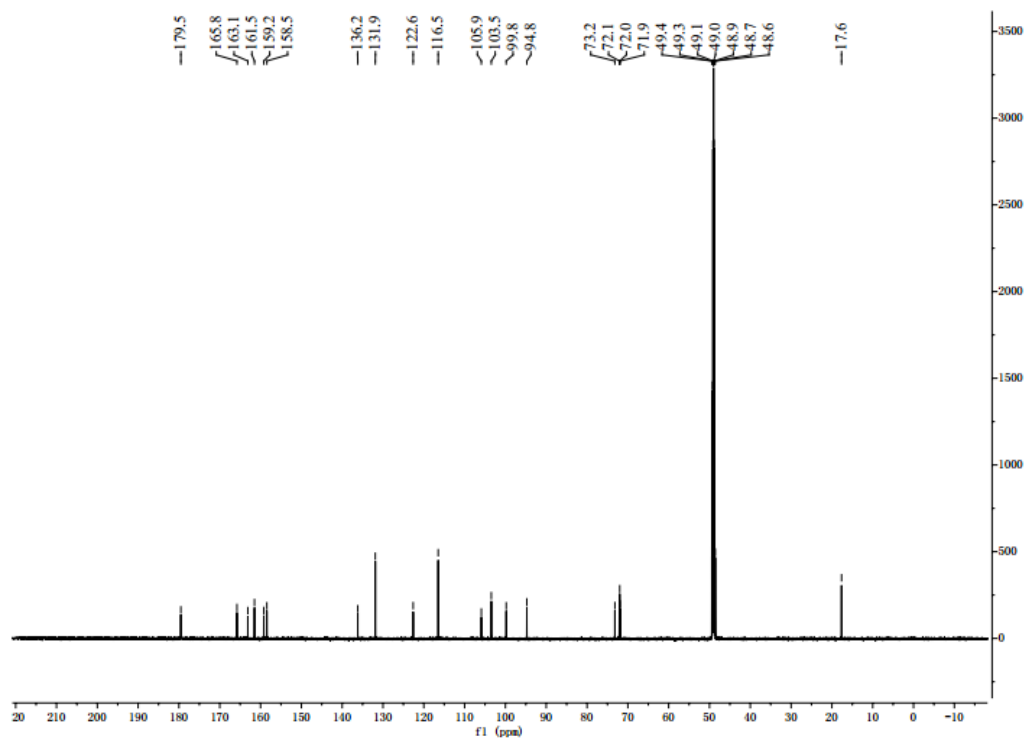


Figure S19. ^{13}C -NMR of Compound 7 (100MHz, CD_3OD)

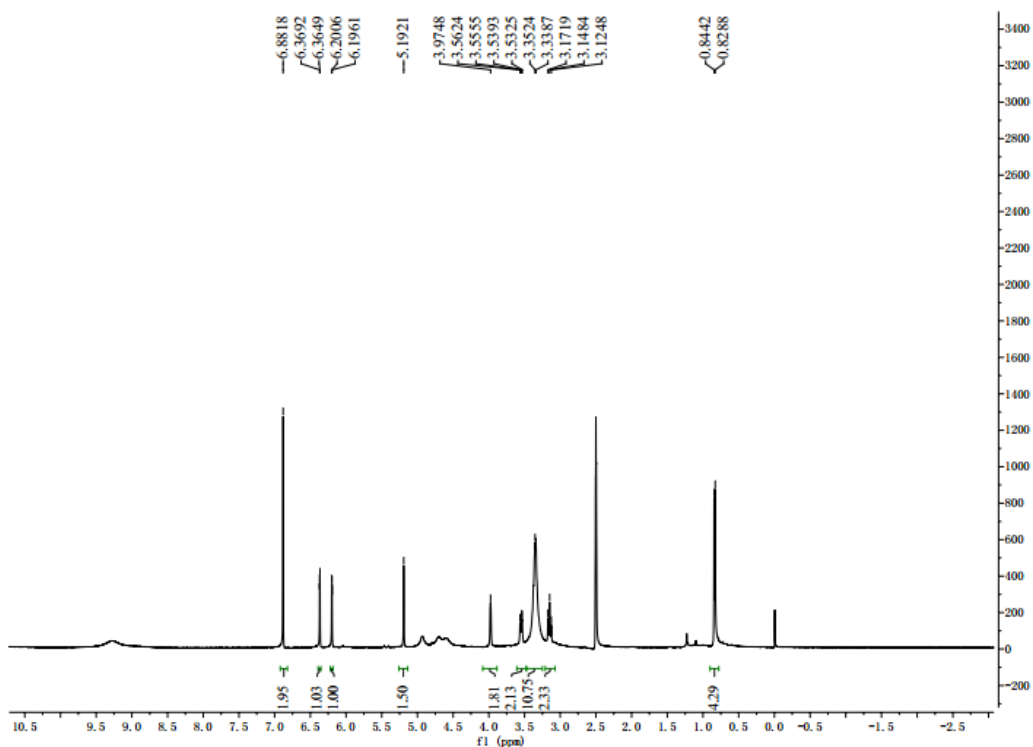


Figure S20. ^1H -NMR of Compound 8 (400MHz, DMSO-d_6)

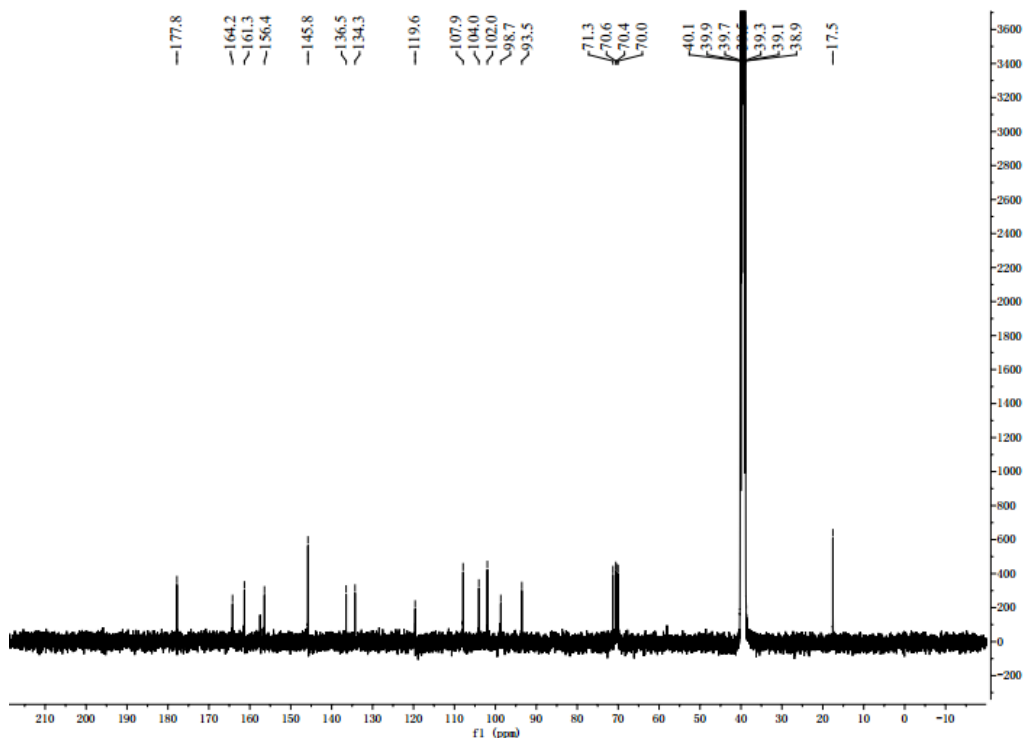


Figure S21. ^{13}C -NMR of Compound 8 (100MHz, DMSO- d_6)

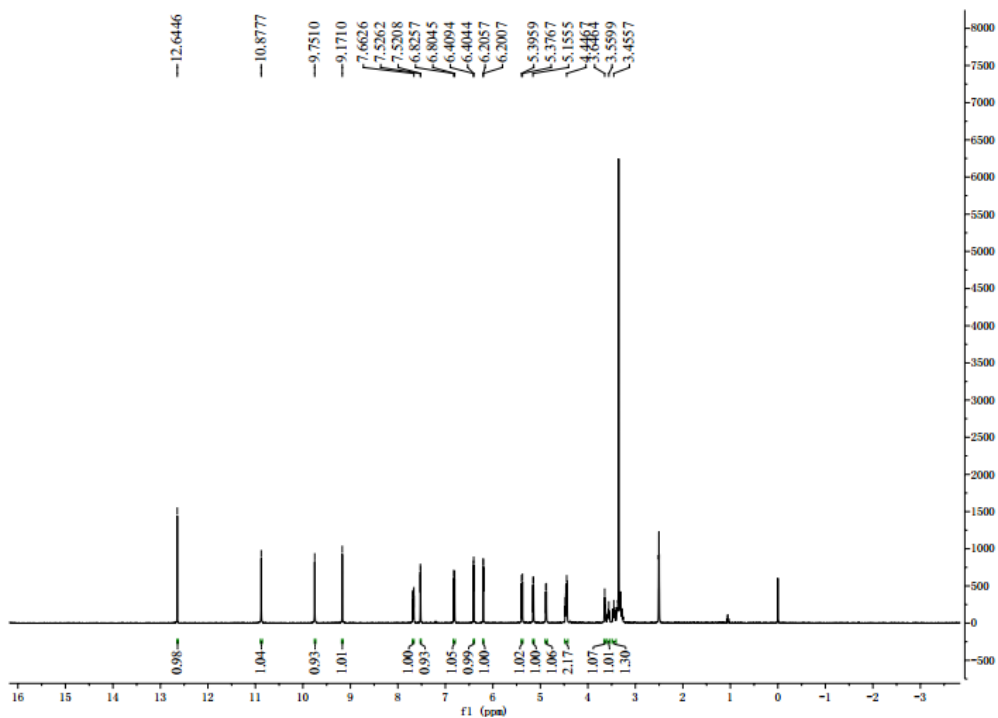


Figure S22. ^1H -NMR of Compound 9 (400MHz, DMSO- d_6)

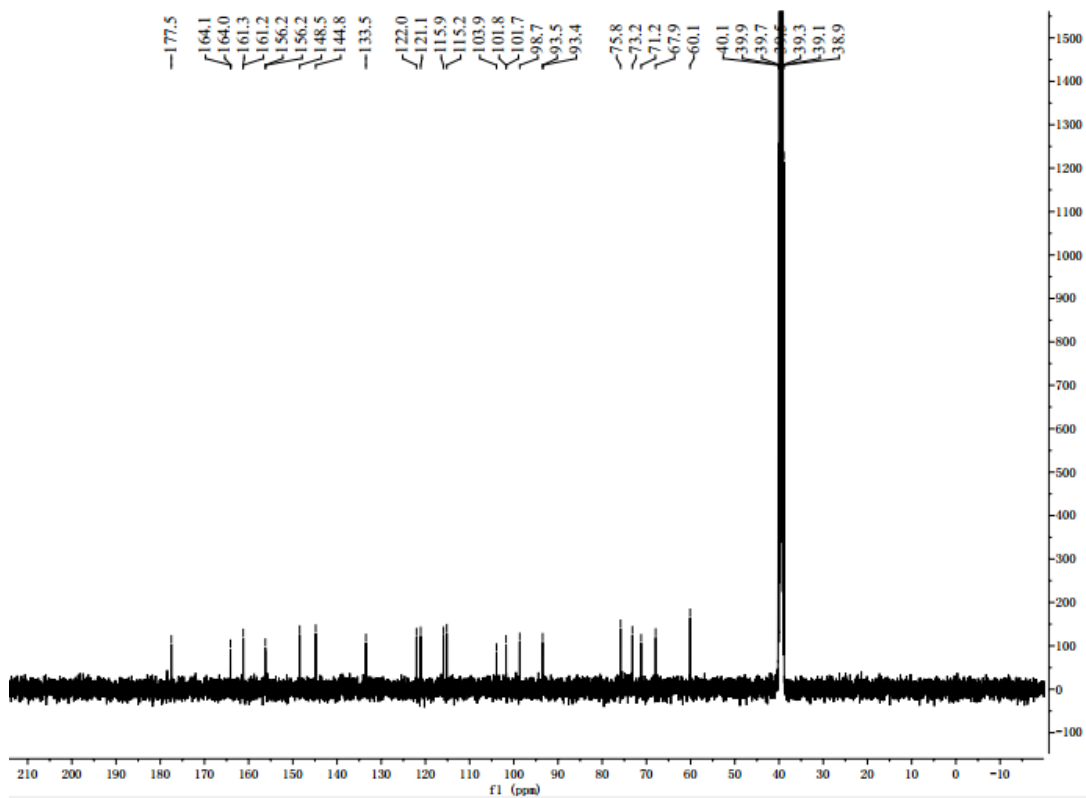


Figure S23. ^{13}C -NMR of Compound 9 (100MHz, DMSO-d_6)

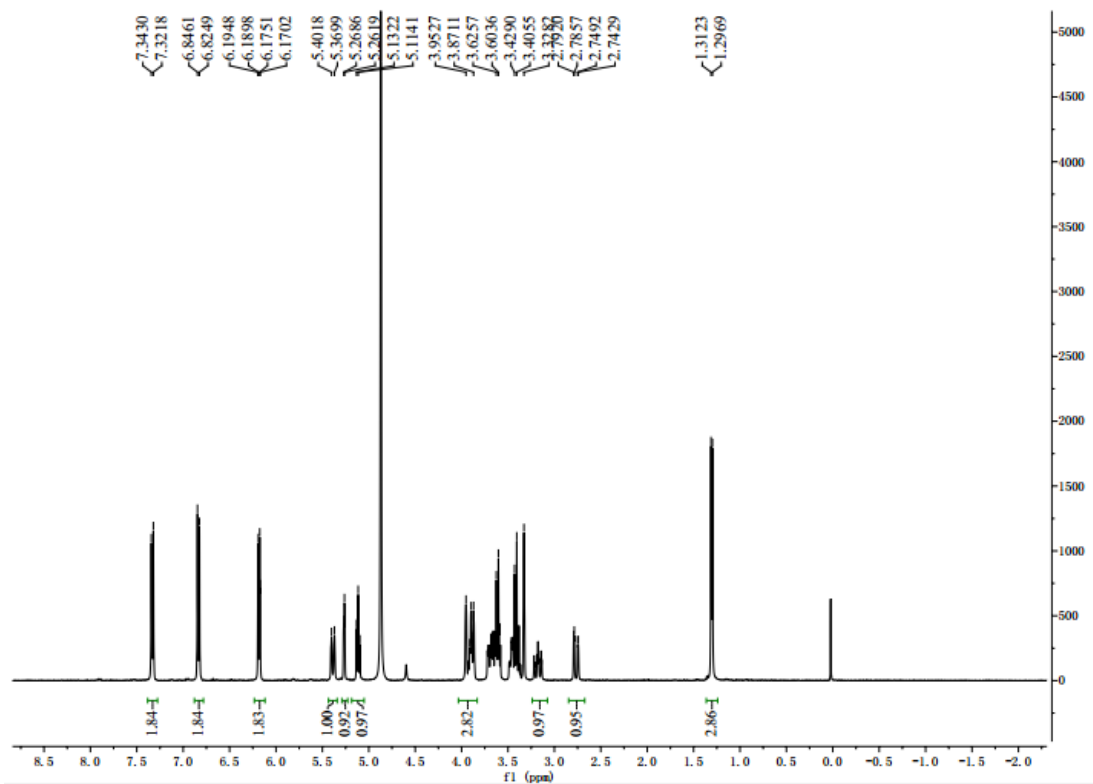


Figure S24. ^1H -NMR of Compound 10 (400MHz, CD_3OD)

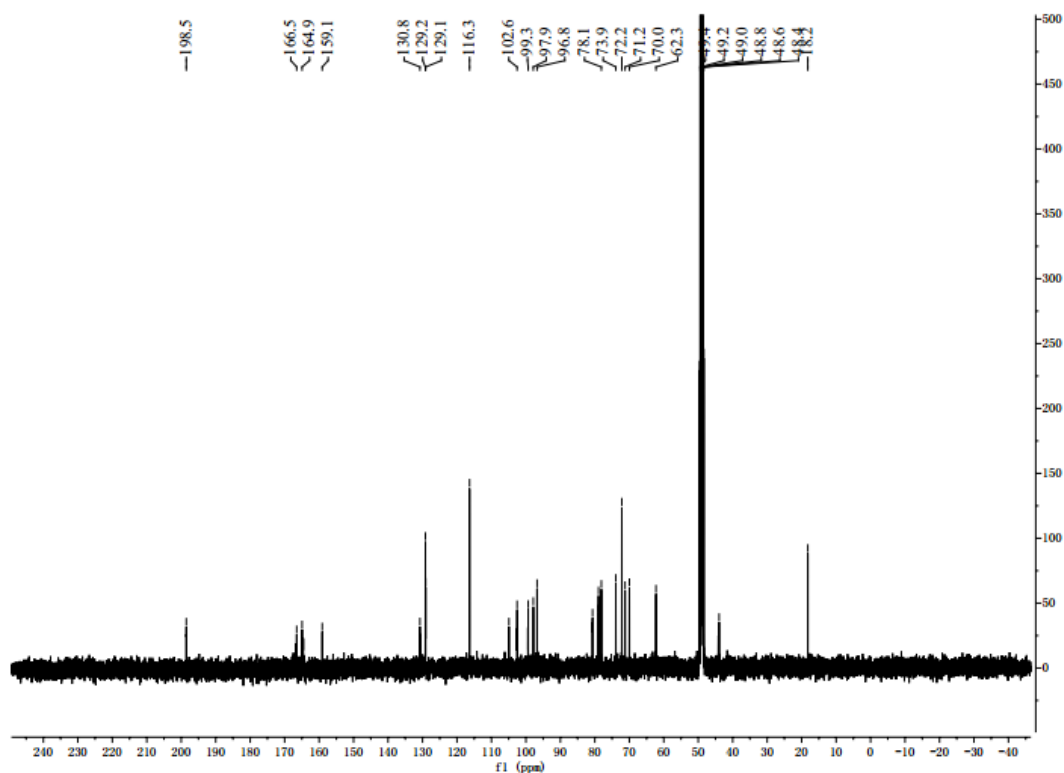


Figure S25. ^{13}C -NMR of Compound 10 (100MHz, CD_3OD)

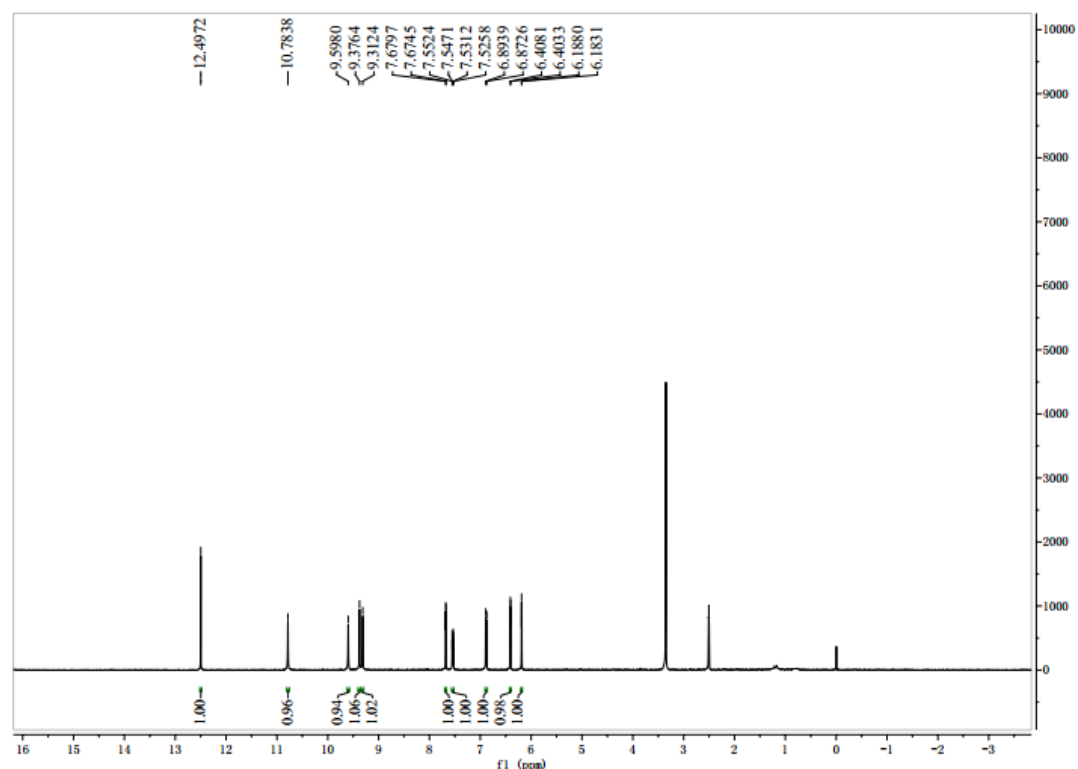


Figure S26. ^1H -NMR of Compound 11 (400MHz, DMSO-d_6)

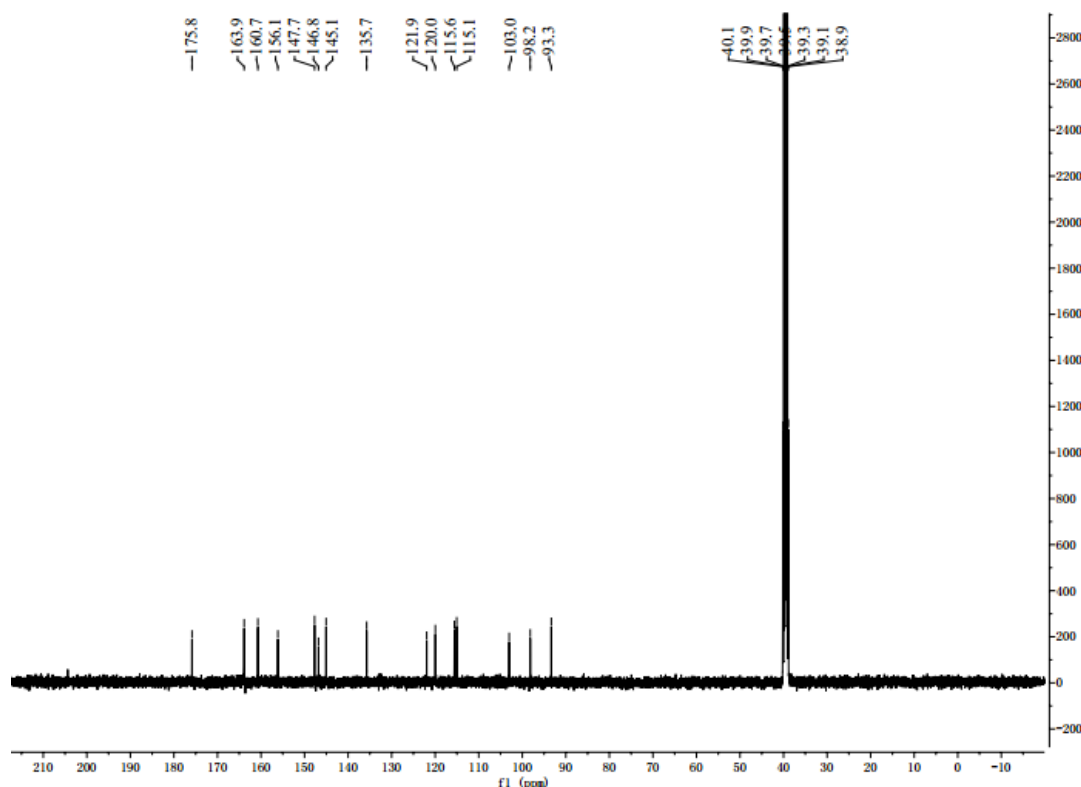


Figure S27. ^{13}C -NMR of Compound 11 (100MHz, DMSO-d_6)

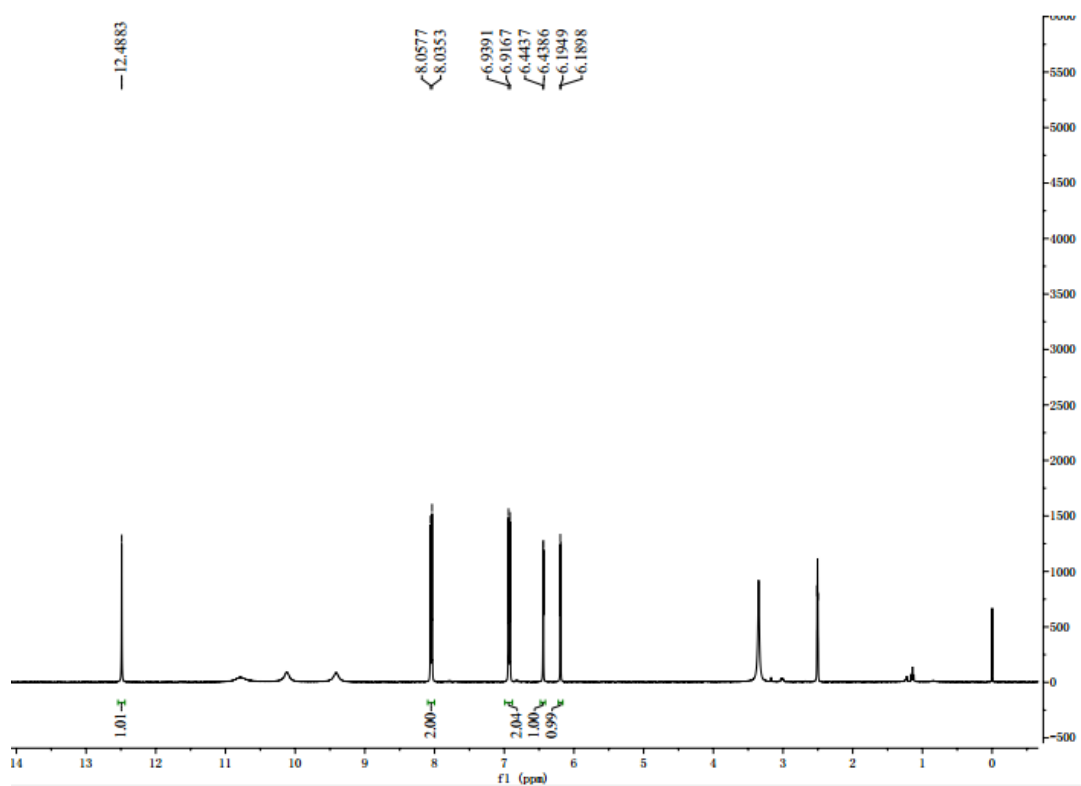


Figure S28. ^1H -NMR of Compound 12 (400MHz, DMSO-d_6)

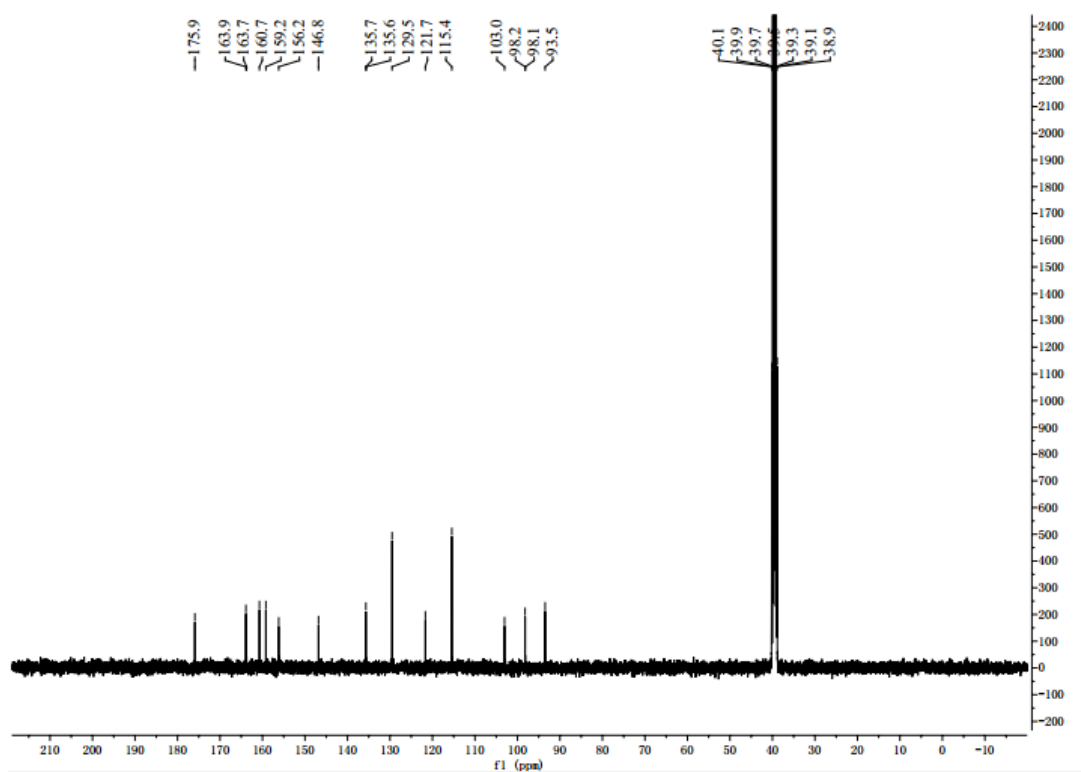


Figure S29. ^{13}C -NMR of Compound 12 (100MHz, DMSO-d_6)

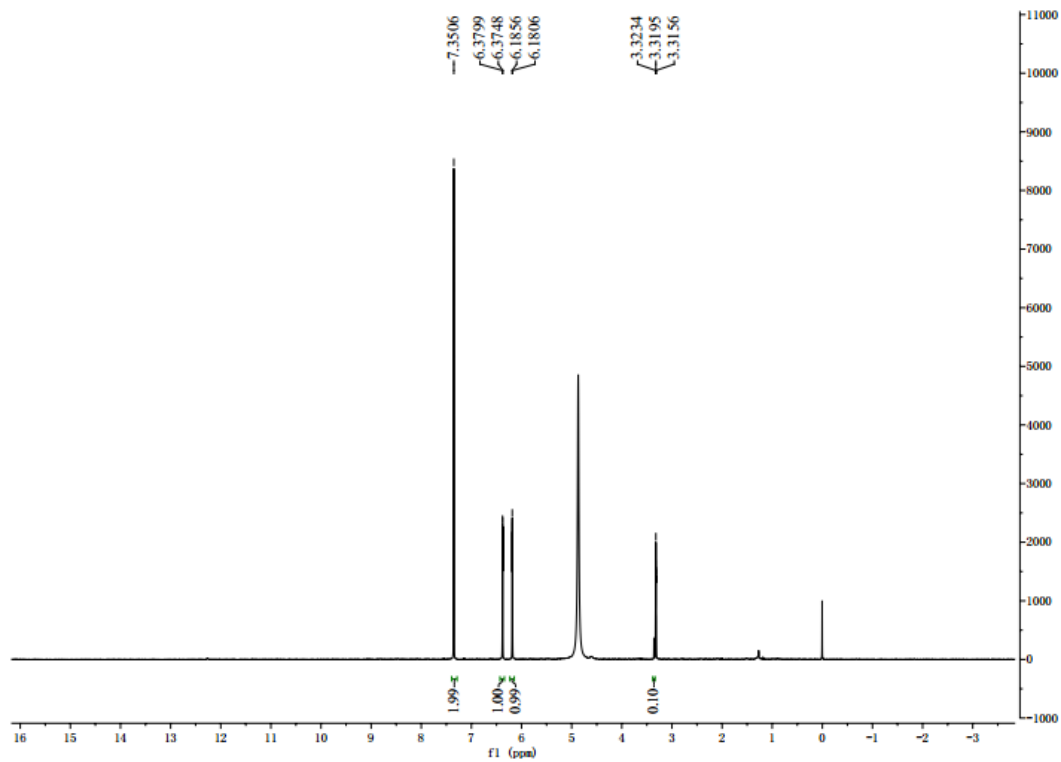


Figure S30. ^1H -NMR of Compound 13 (400MHz, CD_3OD)

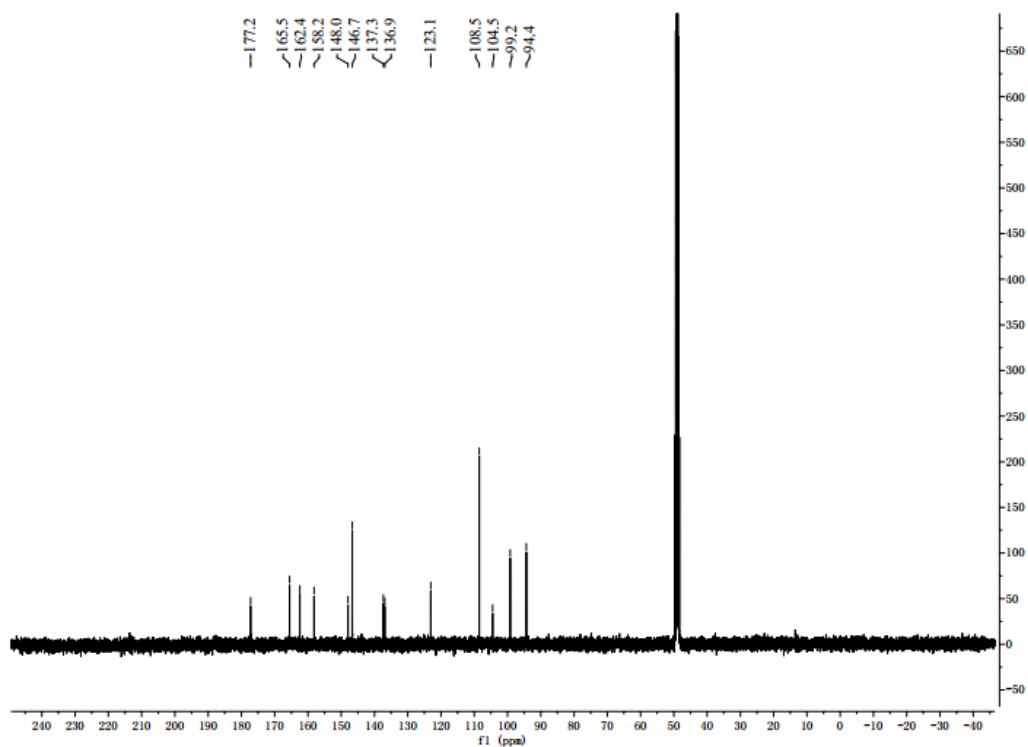


Figure S31. ^{13}C -NMR of Compound 13 (100MHz, CD_3OD)

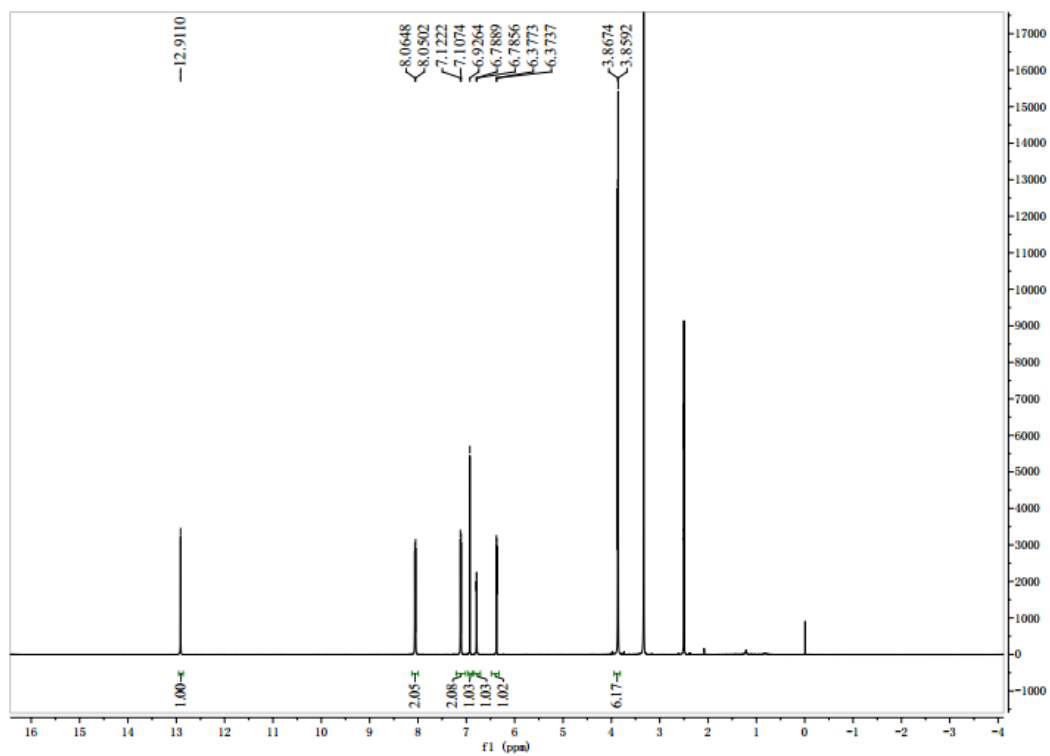


Figure S32. ^1H -NMR of Compound 14 (400MHz, DMSO-d_6)

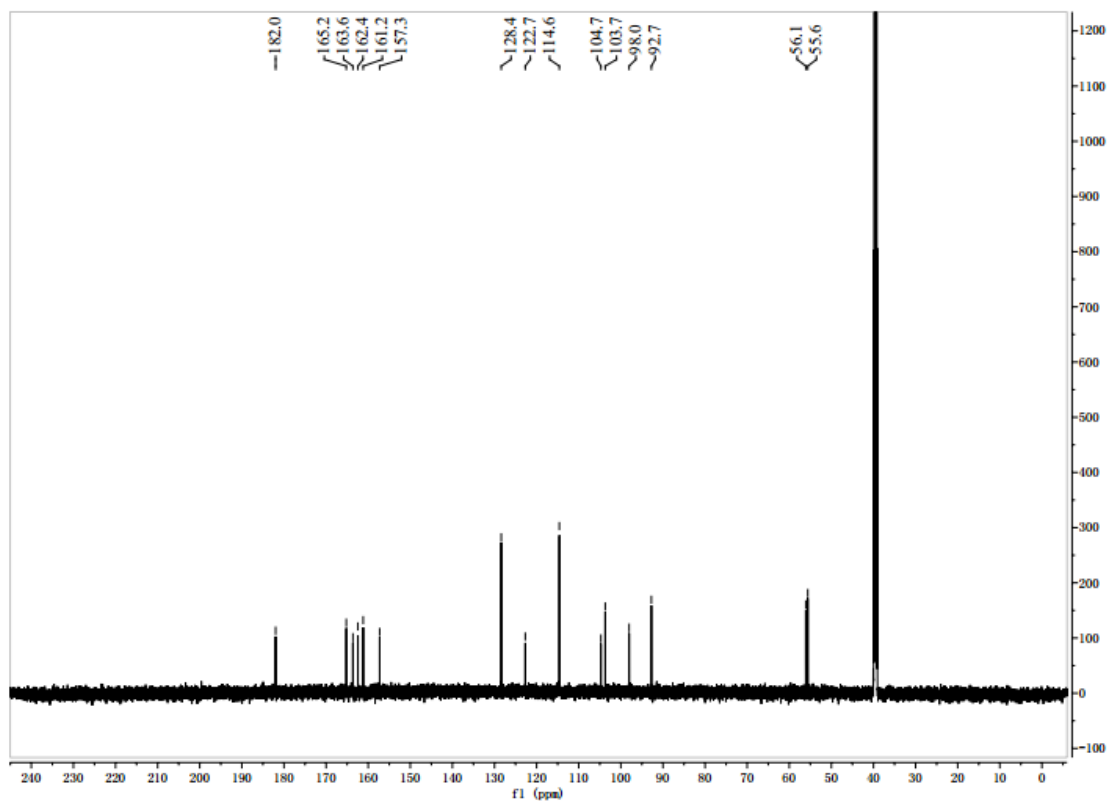


Figure S33. ^{13}C -NMR of Compound 14 (100MHz, DMSO-d_6)

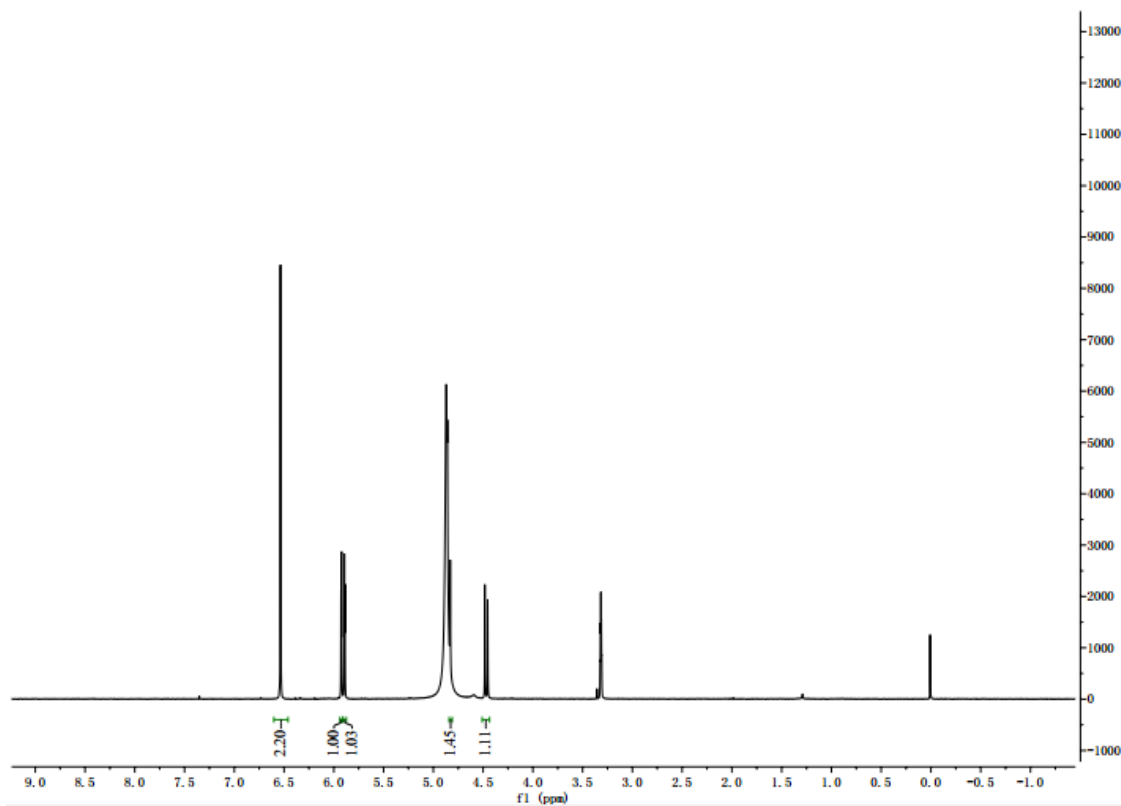


Figure S34. ^1H -NMR of Compound 15 (400MHz, CD_3OD)

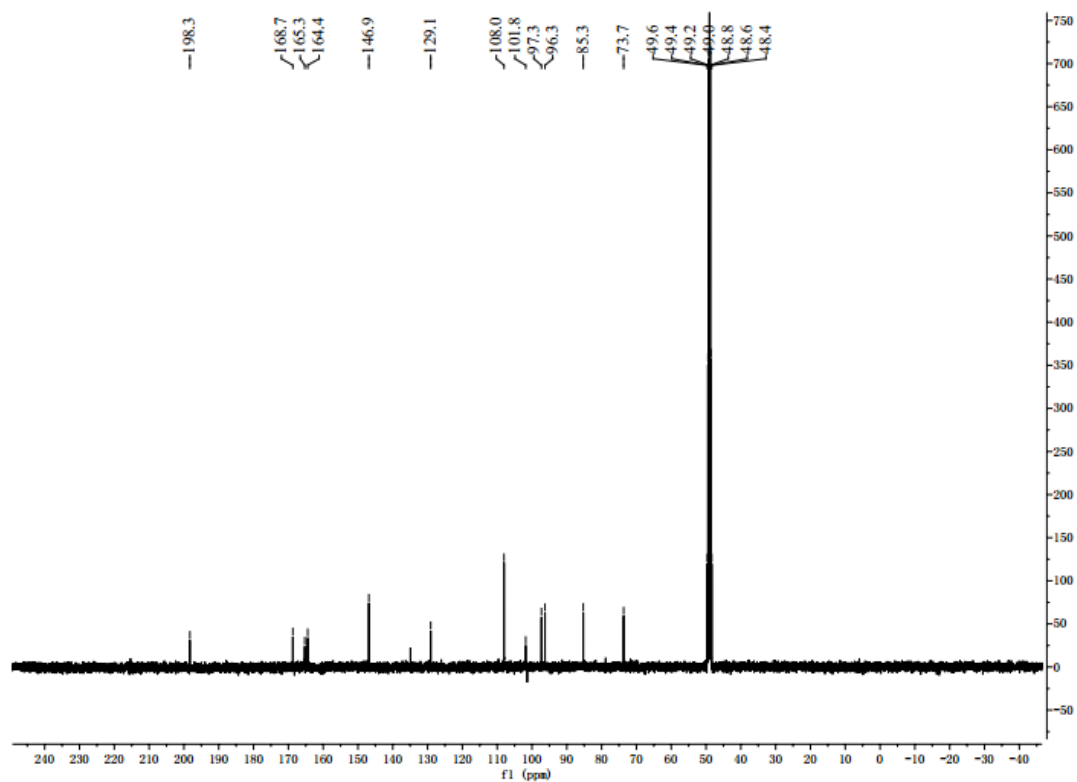


Figure S35. ^{13}C -NMR of Compound 15 (100MHz, CD_3OD)

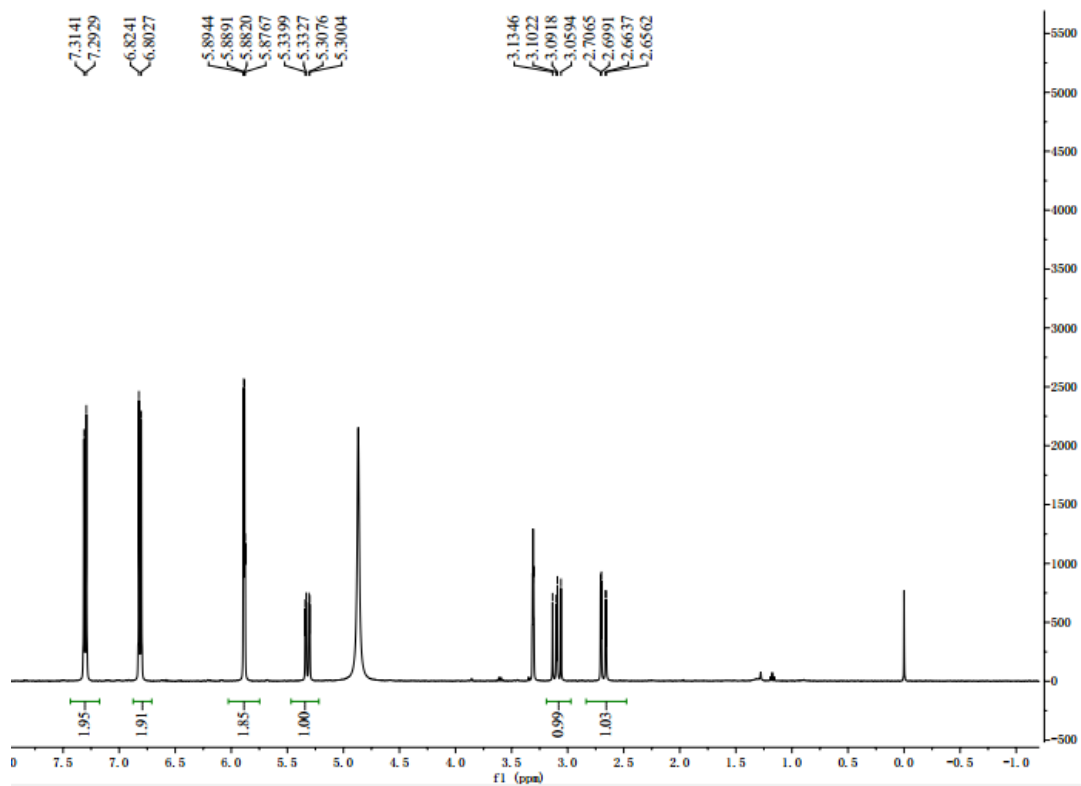


Figure S36. ^1H -NMR of Compound 16 (400MHz, CD_3OD)

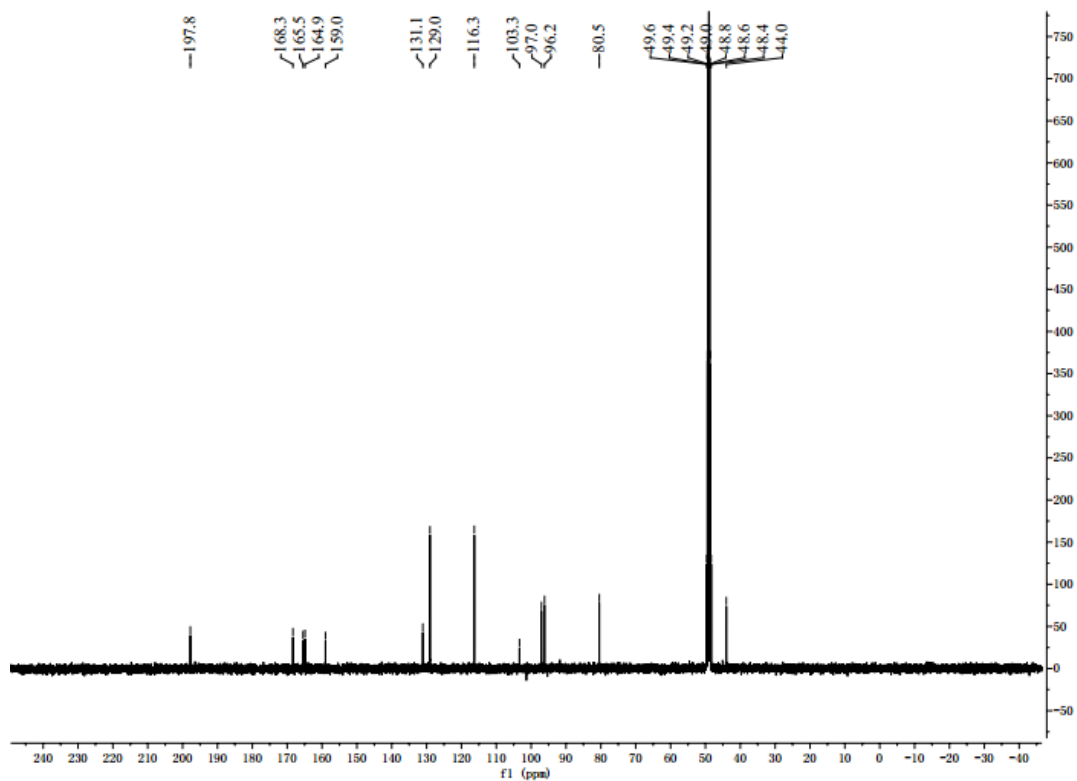


Figure S37. ^{13}C -NMR of Compound 16 (100MHz, CD_3OD)

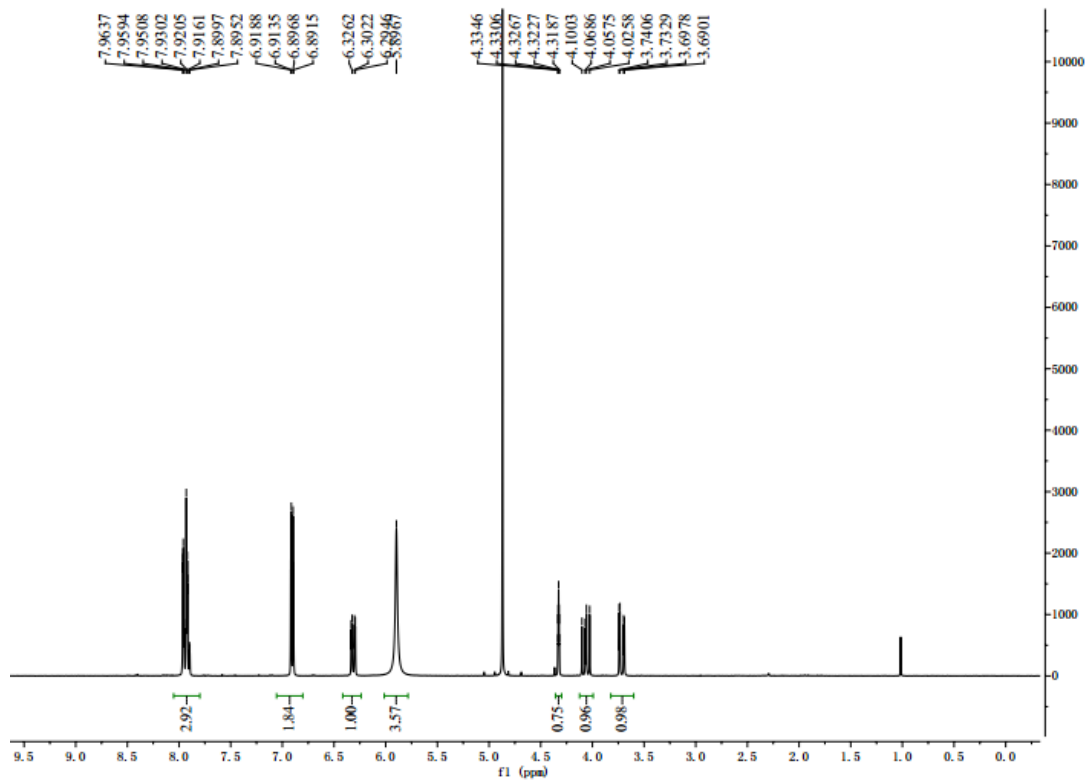


Figure S38. ^1H -NMR of Compound 17 (400MHz, CD_3OD)

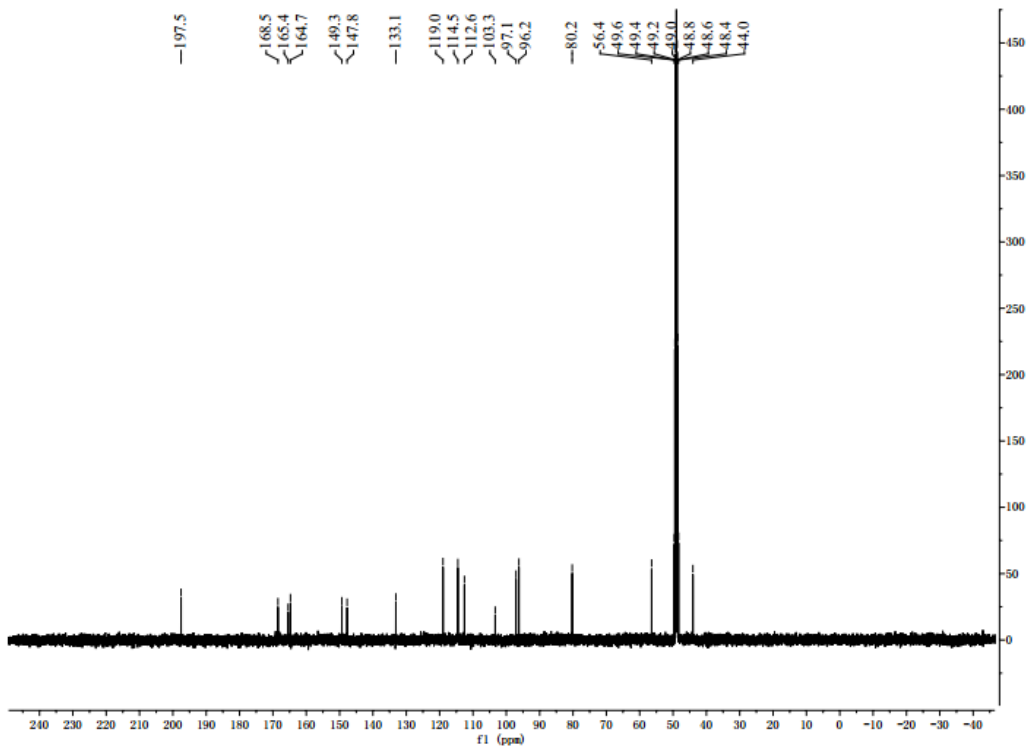


Figure S39. ^{13}C -NMR of Compound 17 (100MHz, CD_3OD)

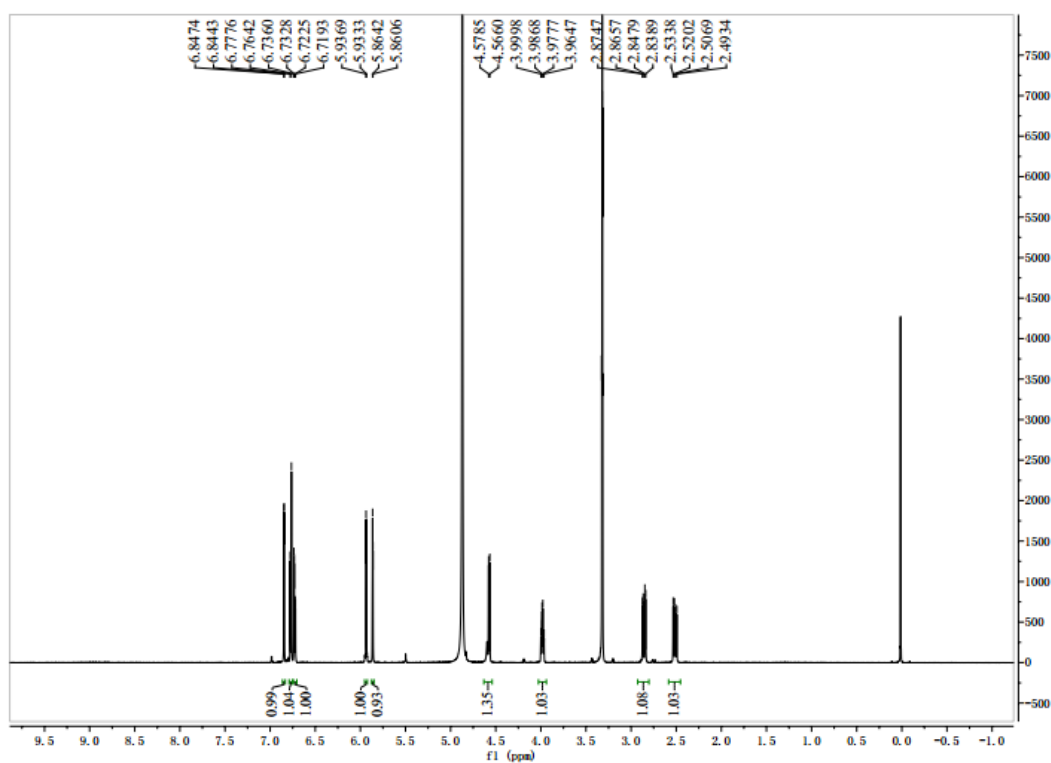


Figure S40. ^1H -NMR of Compound 18 (400MHz, CD_3OD)

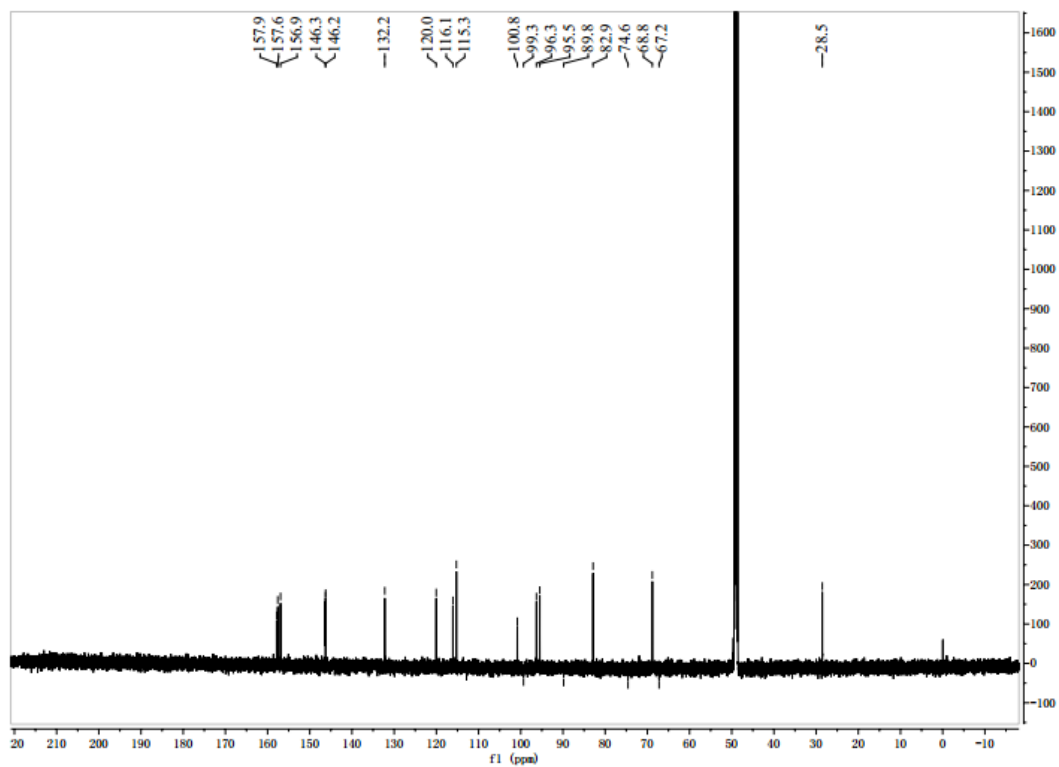


Figure S41. ^{13}C -NMR of Compound 18 (100MHz, CD_3OD)

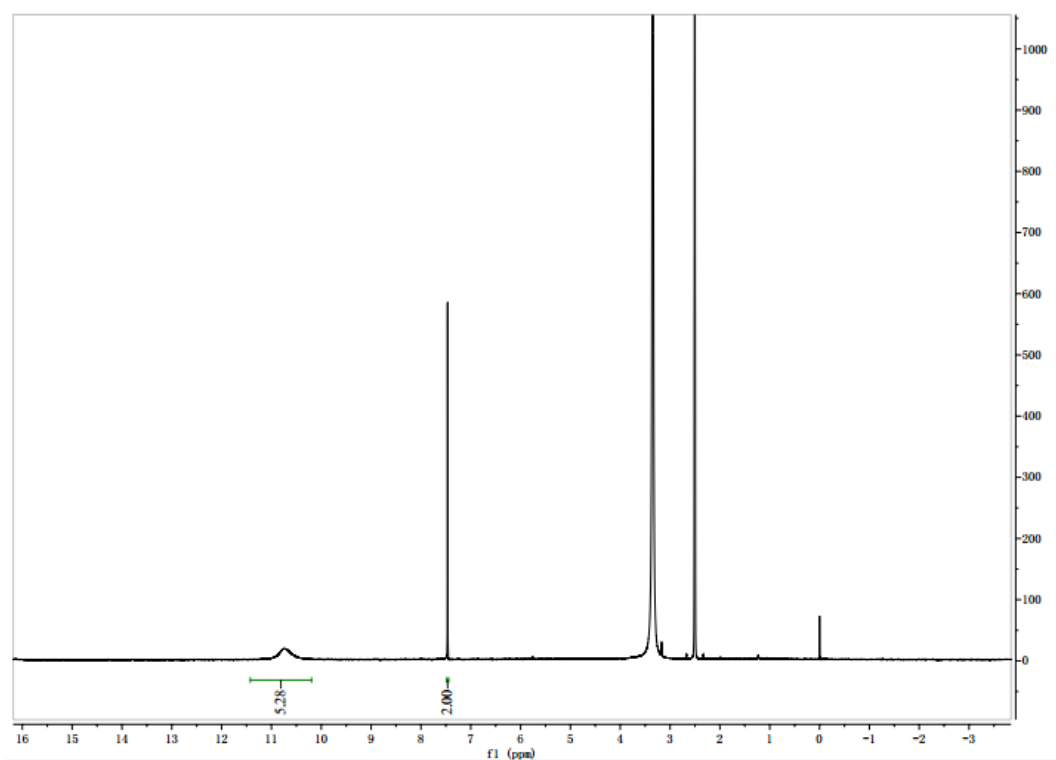


Figure S42. ^1H -NMR of Compound 19 (400MHz, DMSO-d_6)

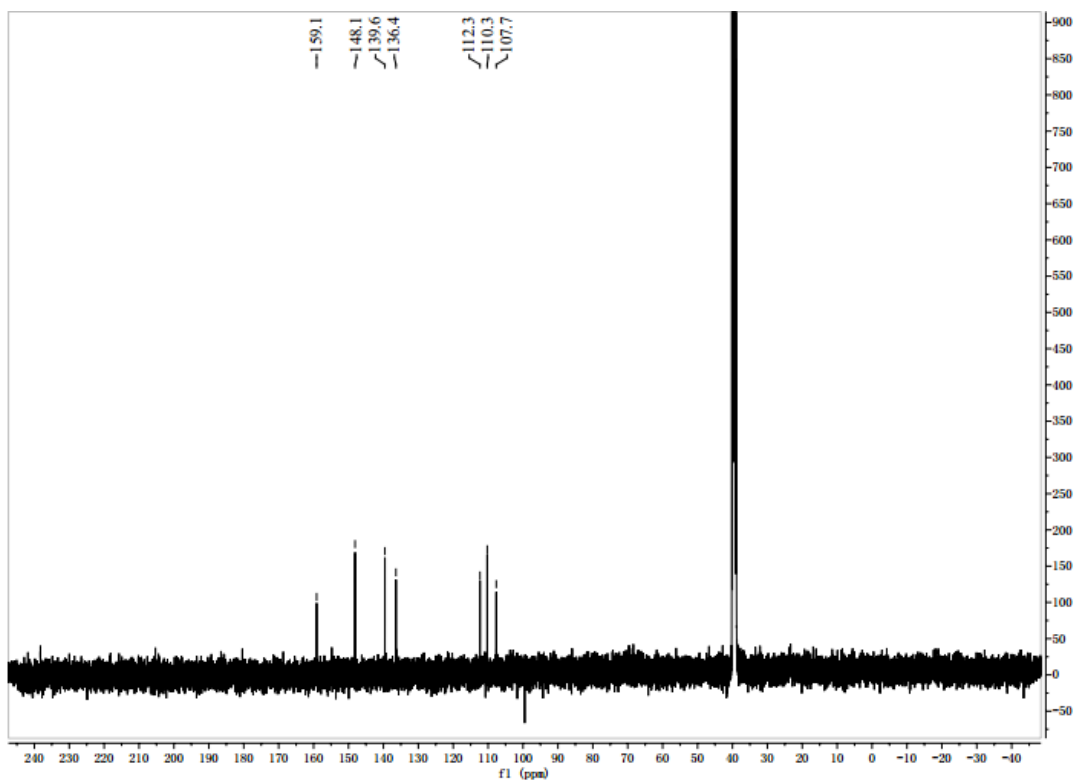


Figure S43. ^{13}C -NMR of Compound 19 (100MHz, DMSO- d_6)

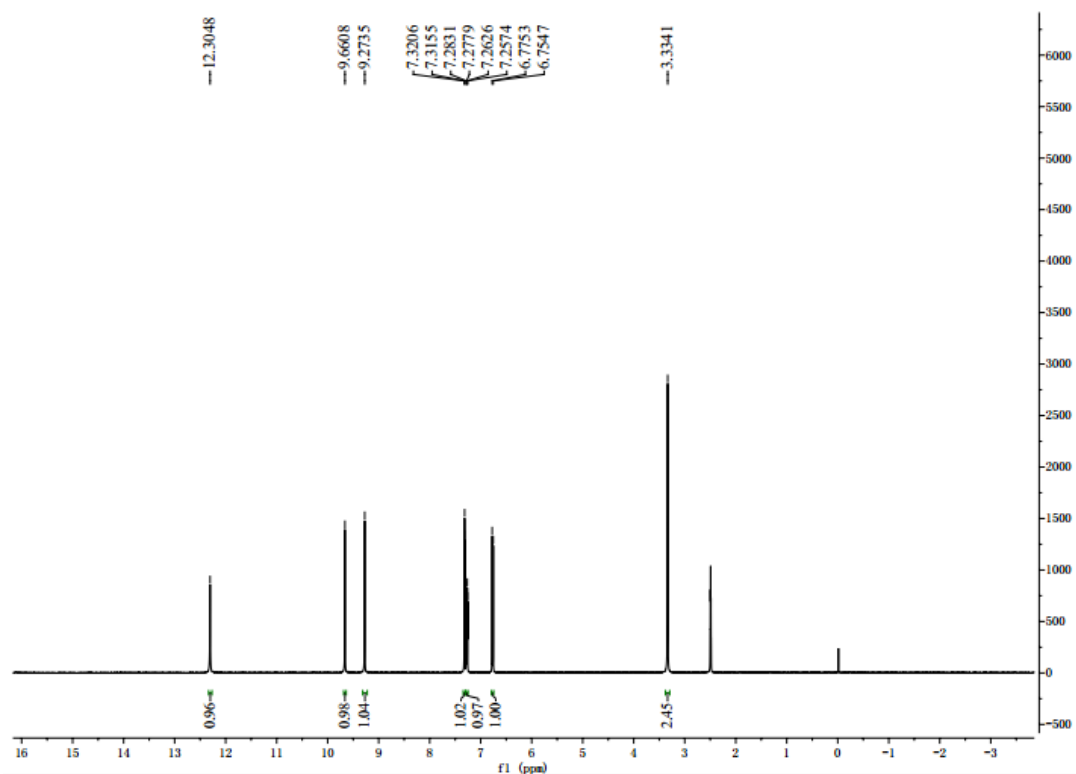


Figure S44. ^1H -NMR of Compound 20 (400MHz, DMSO- d_6)

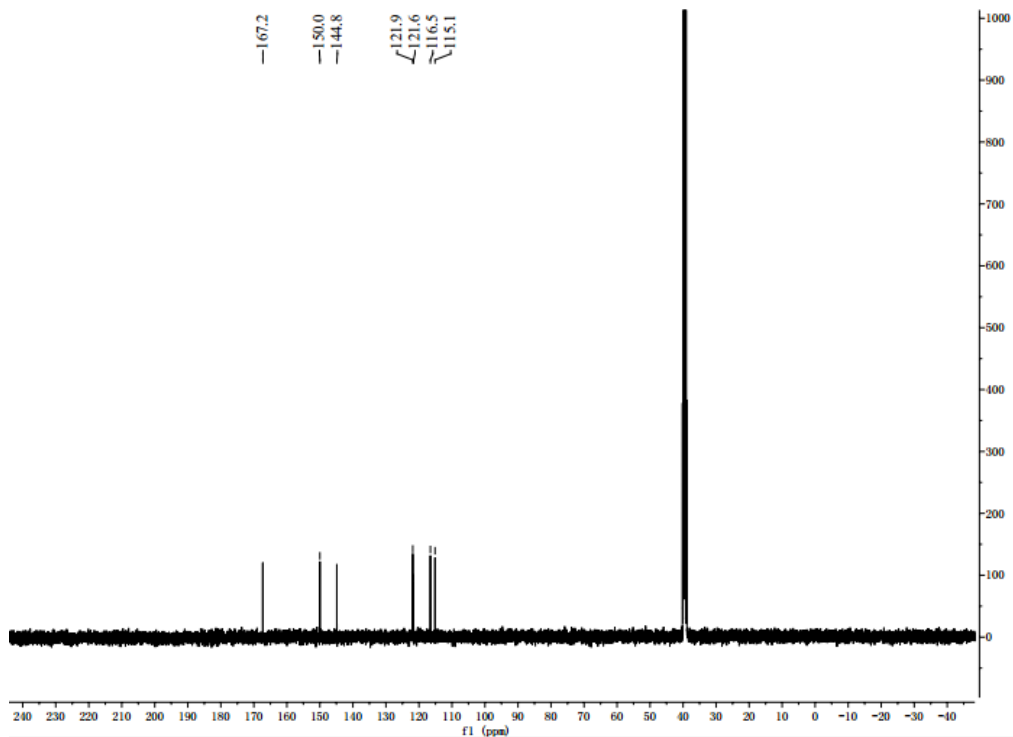


Figure S45. ¹³C-NMR of Compound 20 (100MHz, DMSO-d₆)

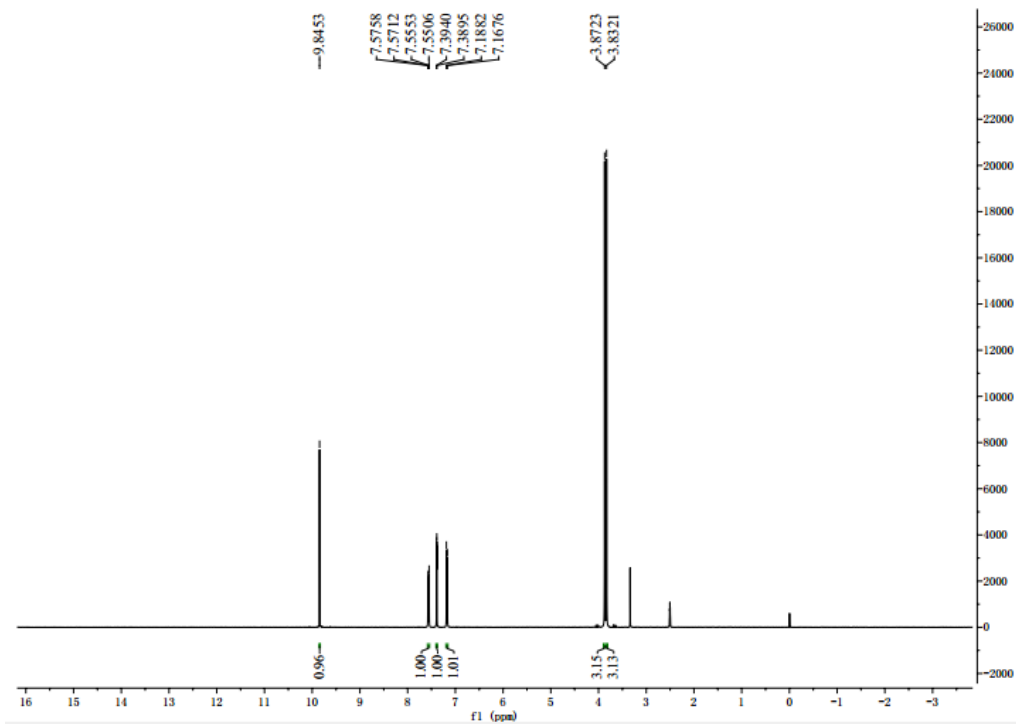


Figure S46. ¹H-NMR of Compound 21 (400MHz, DMSO-d₆)

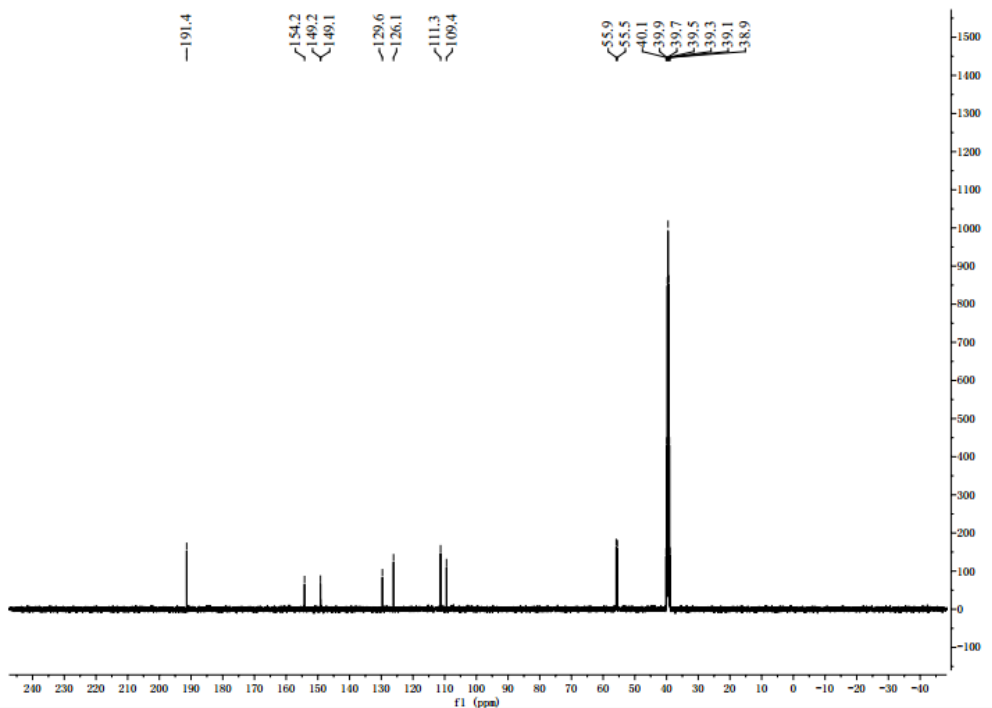


Figure S47. ¹³C-NMR of Compound 21 (100MHz, DMSO-d₆)

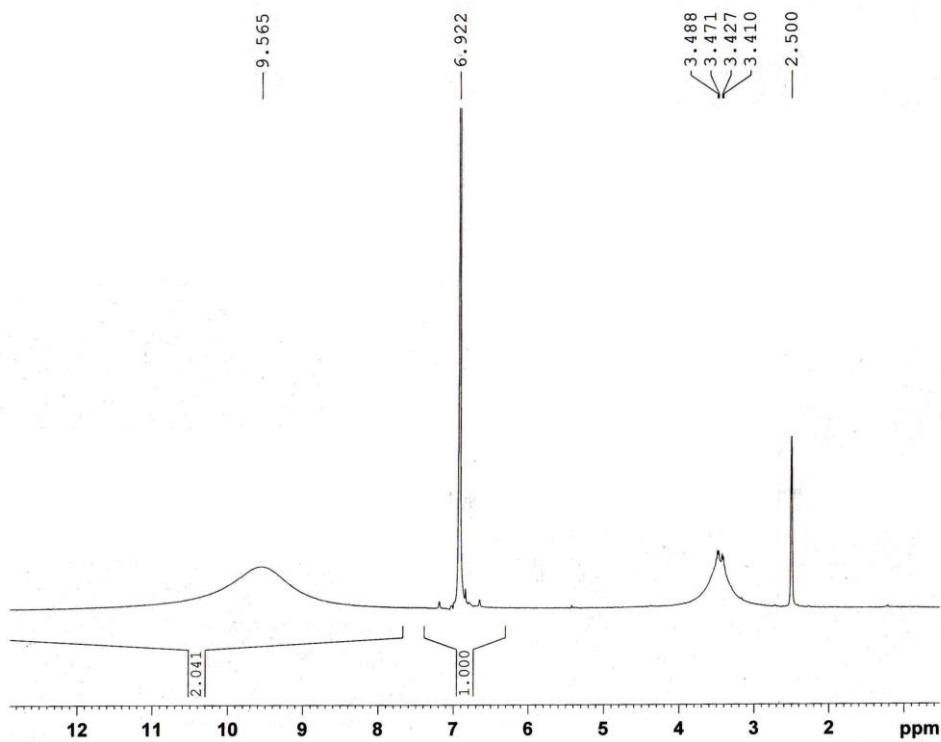


Figure S48. ¹H-NMR of Compound 22 (400MHz, DMSO-d₆)

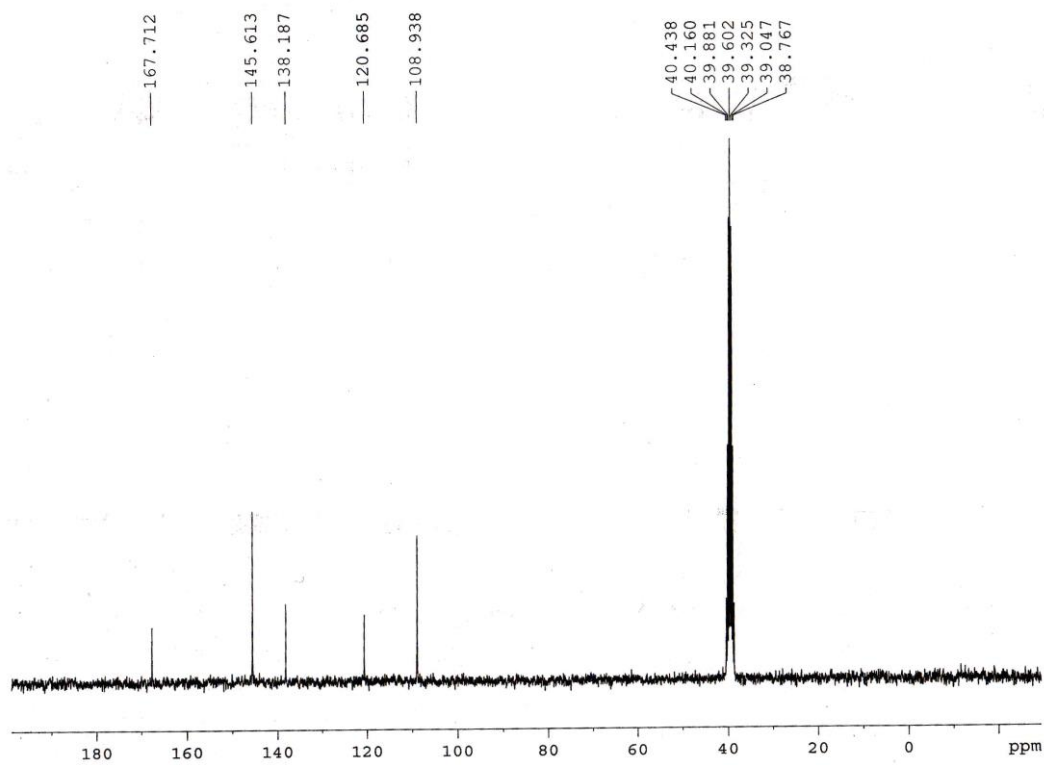


Figure S49. ¹³C-NMR of Compound 22 (100MHz, DMSO-d₆)

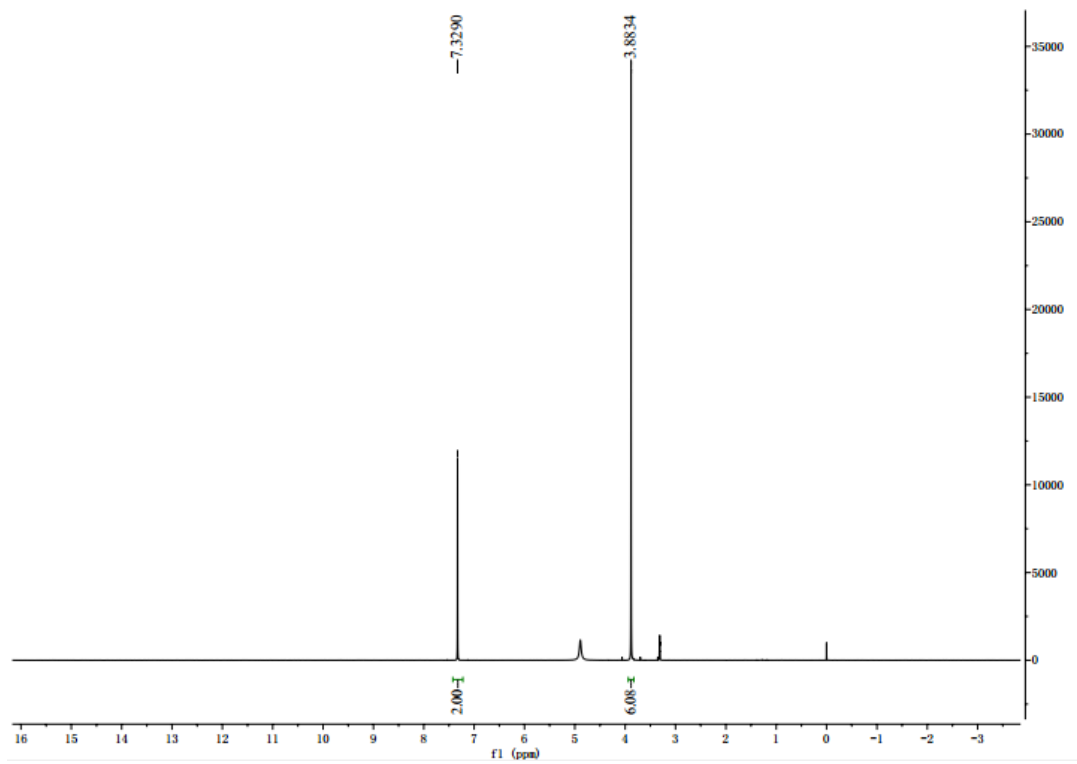


Figure S50. ¹H-NMR of Compound 23 (400MHz, CD₃OD)

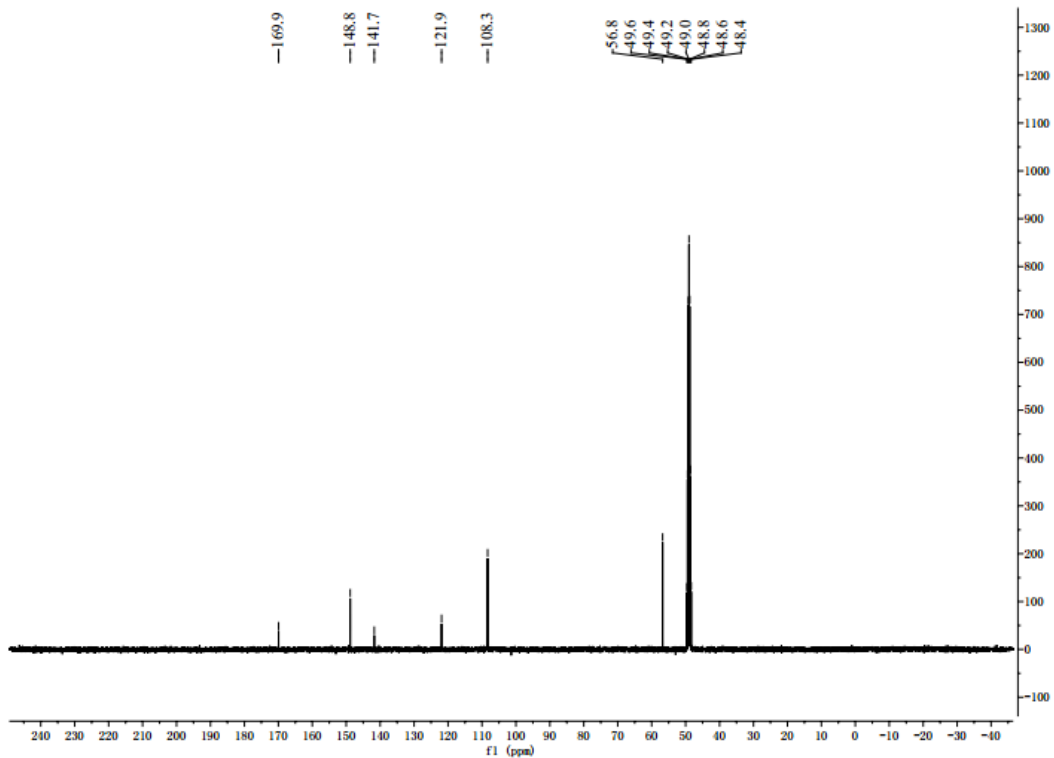


Figure S51. ¹³C-NMR of Compound 23 (100MHz, CD₃OD)

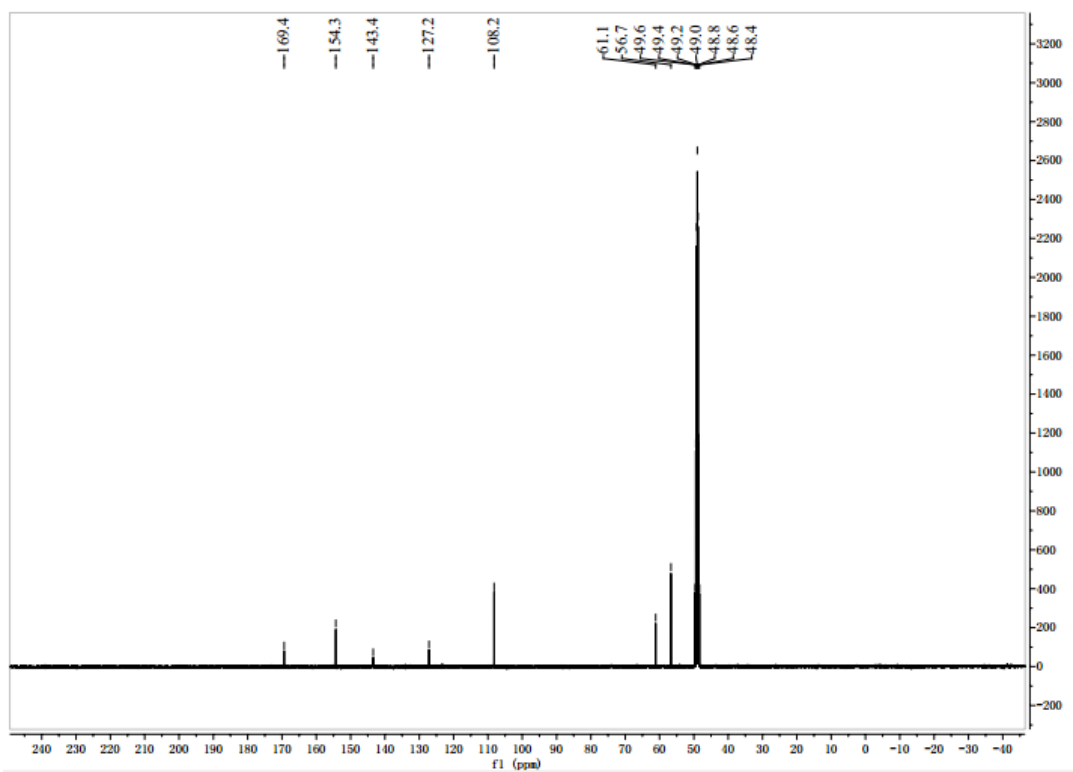


Figure S52. ¹³C-NMR of Compound 24 (100MHz, CD₃OD)

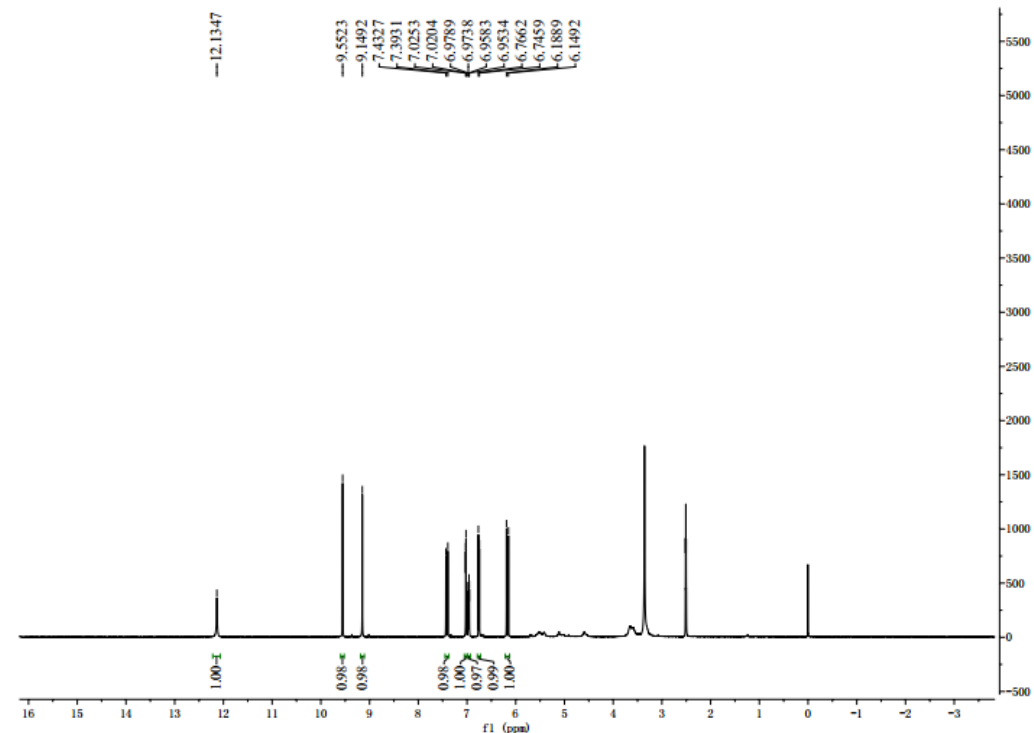


Figure S53. $^1\text{H-NMR}$ of Compound 25 (400MHz, DMSO-d_6)

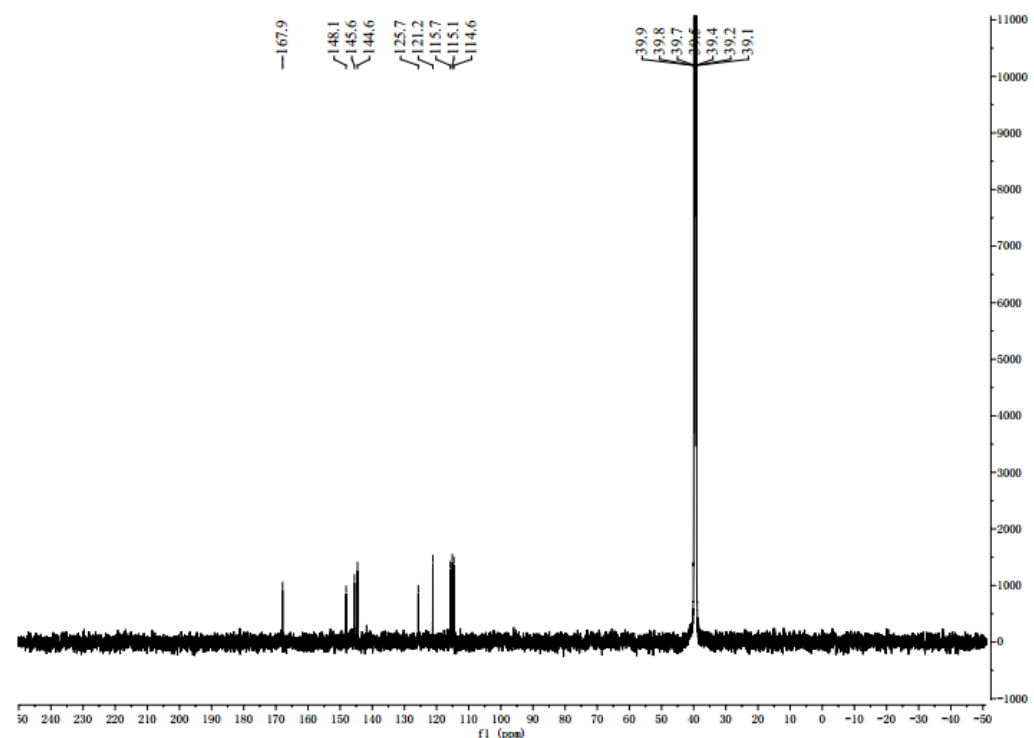


Figure S54. $^{13}\text{C-NMR}$ of Compound 25 (100MHz, DMSO-d_6)

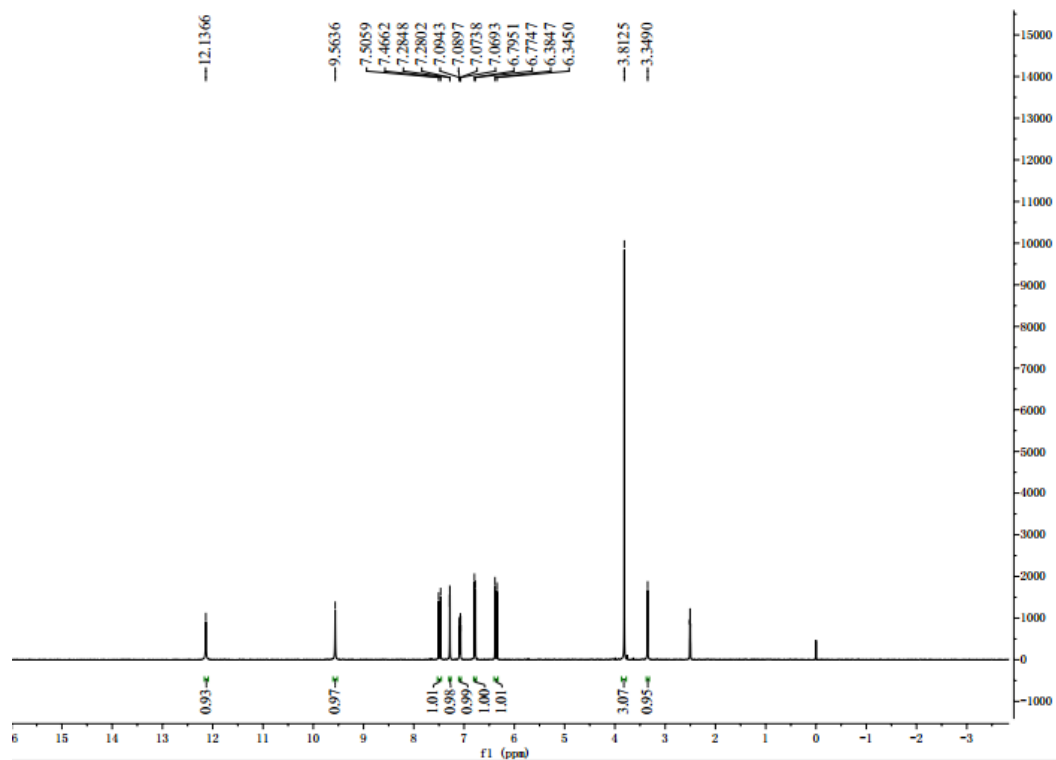


Figure S55. $^1\text{H-NMR}$ of Compound 26 (400MHz, DMSO-d_6)

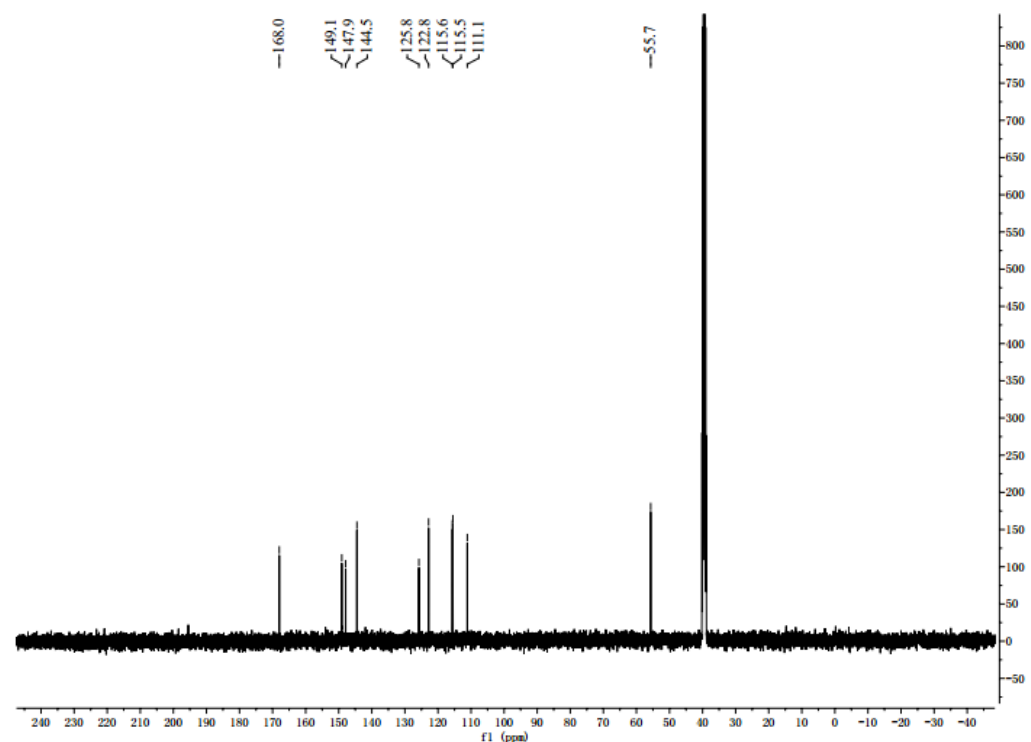


Figure S56. $^{13}\text{C-NMR}$ of Compound 26 (100MHz, DMSO-d_6)