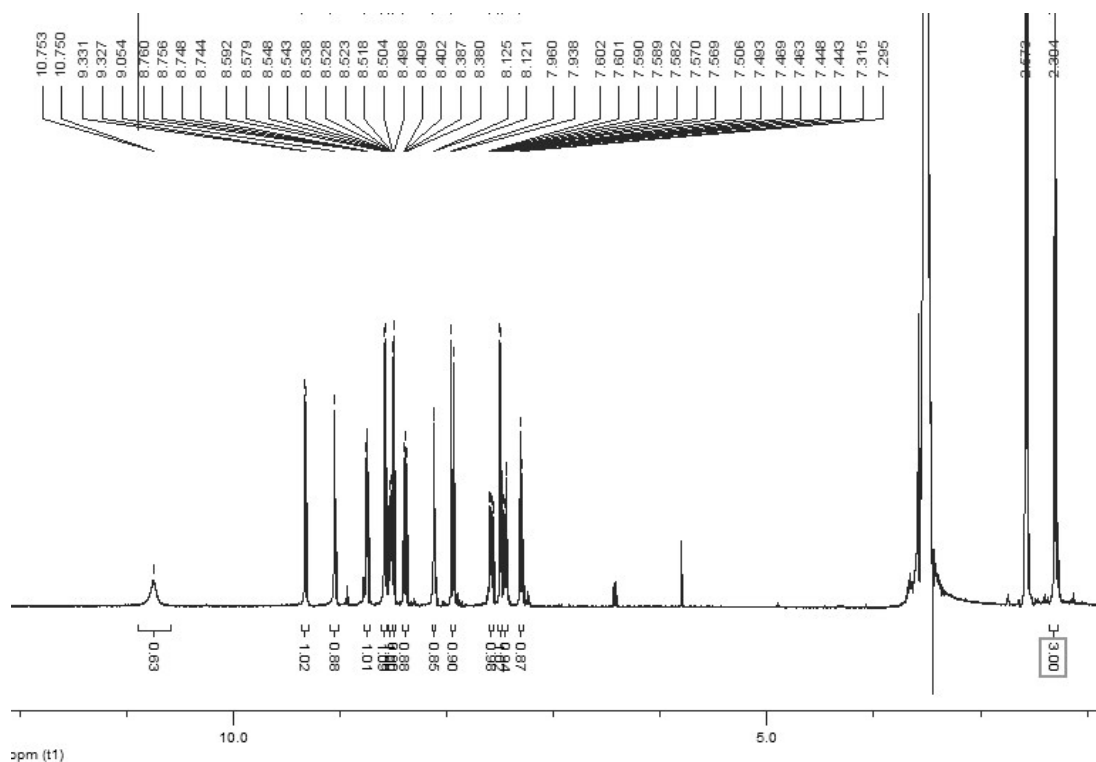


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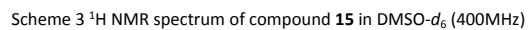
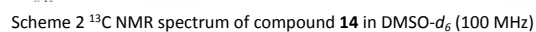
An optimized approach in the synthesis of Imatinib intermediates and its analogues

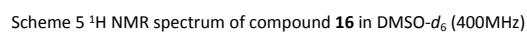
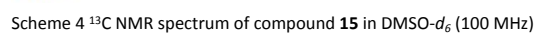
M. Kinigopoulou,^a M. Filippidou,^a M. Gogou,^a A. Giannousi,^a P. Fouka,^a N. Ntemou,^a D. Alivertis,^b C. Georgis,^a A. Brentas,^a V. Polychronidou,^a P. Voulgari,^a V. Theodorou^{*a} and K. Skobridis^{*a}

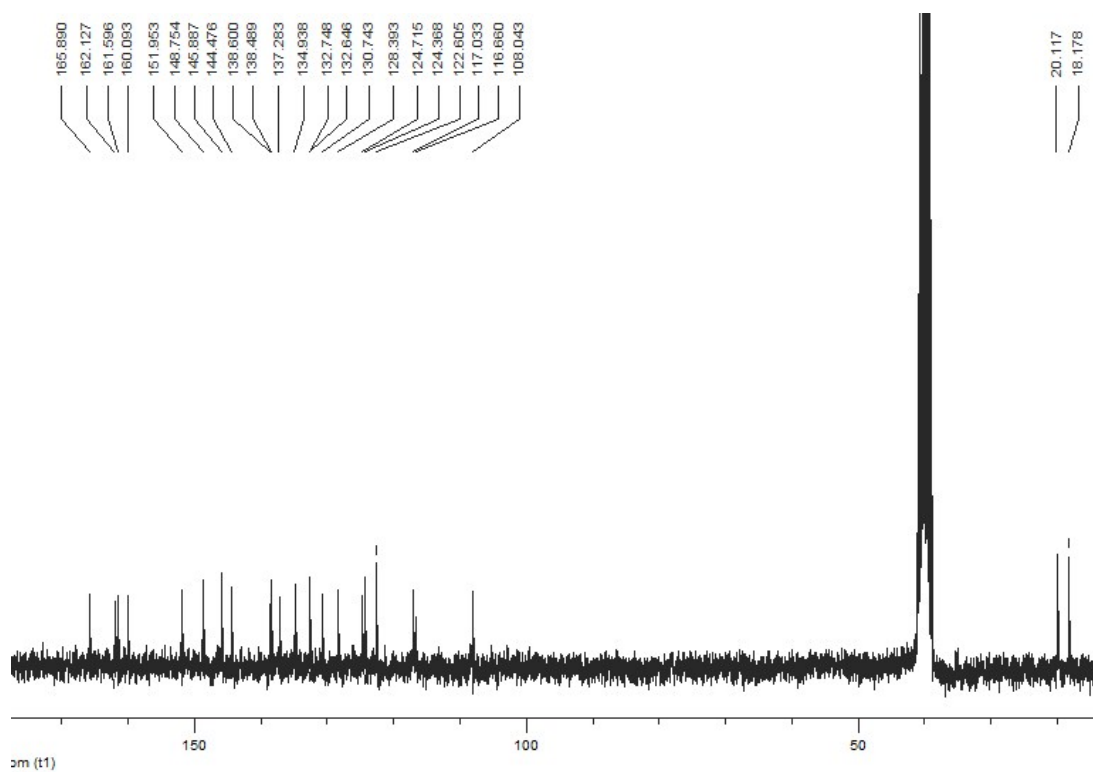
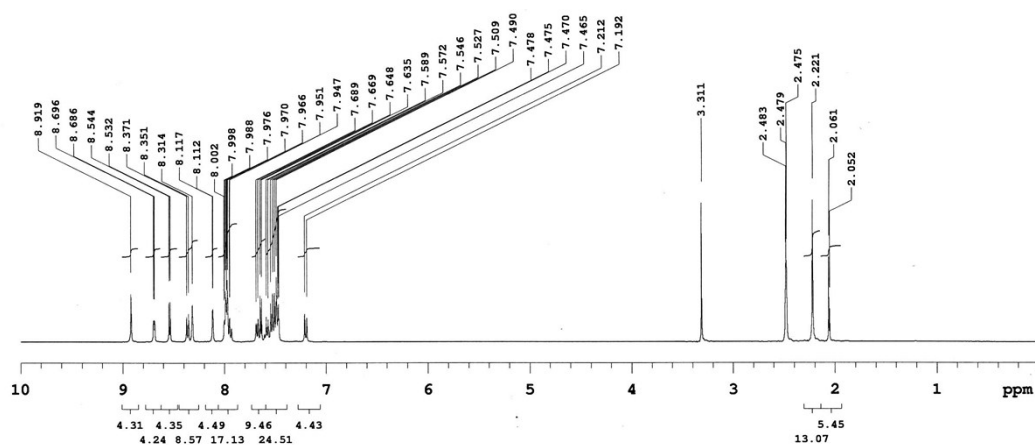
Supplementary Information

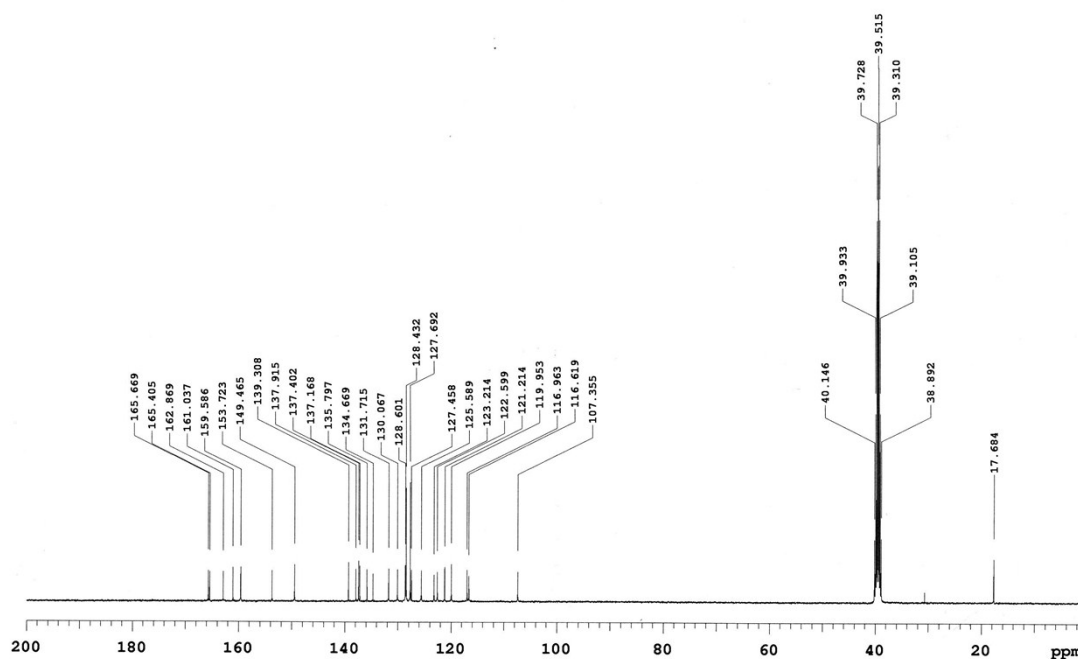
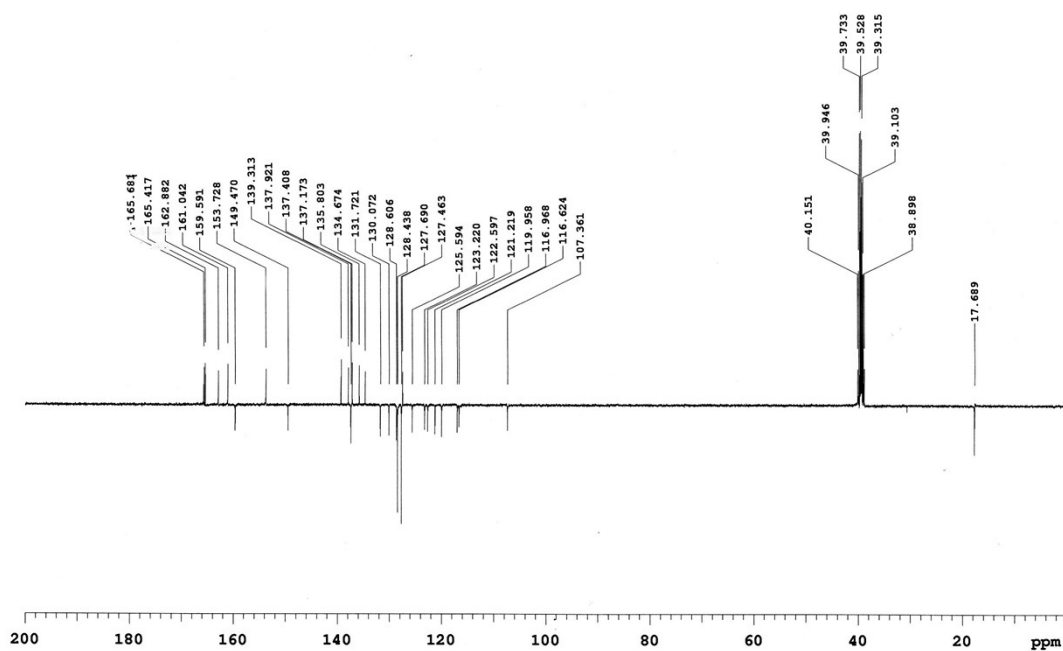


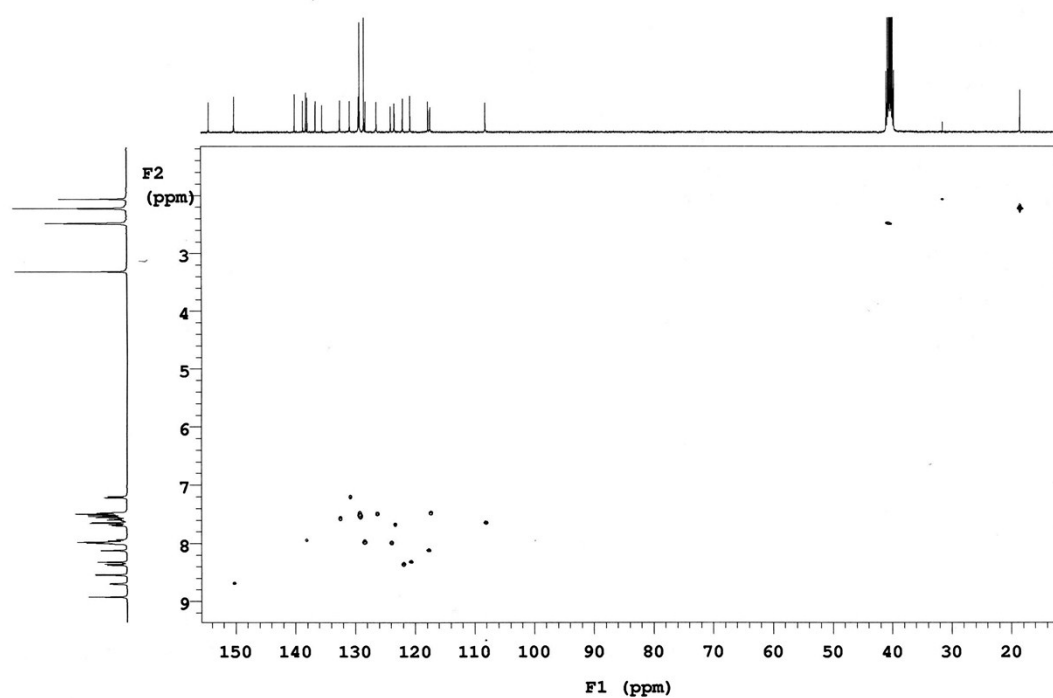
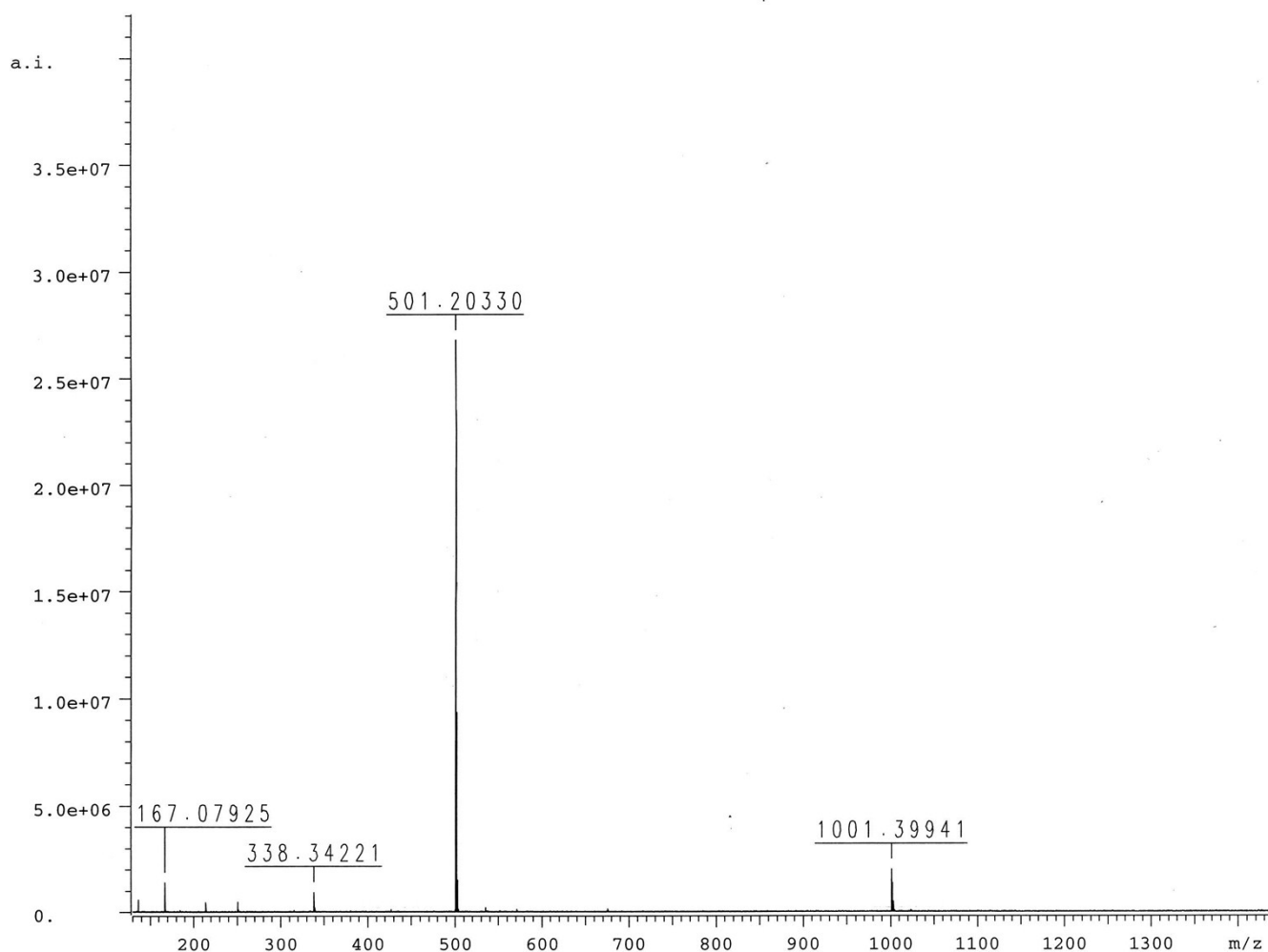
Scheme 1 ^1H NMR spectrum of compound **14** in DMSO- d_6 (400MHz)

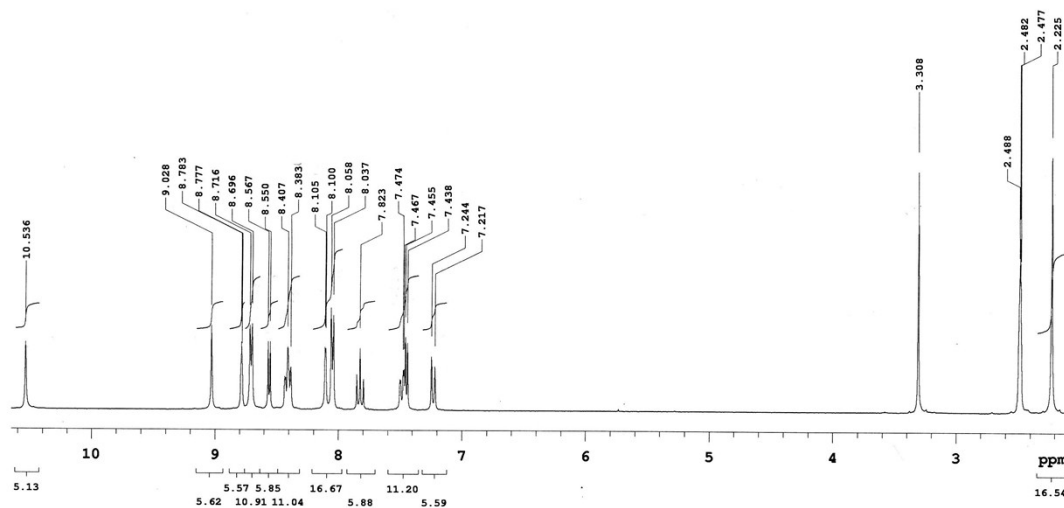
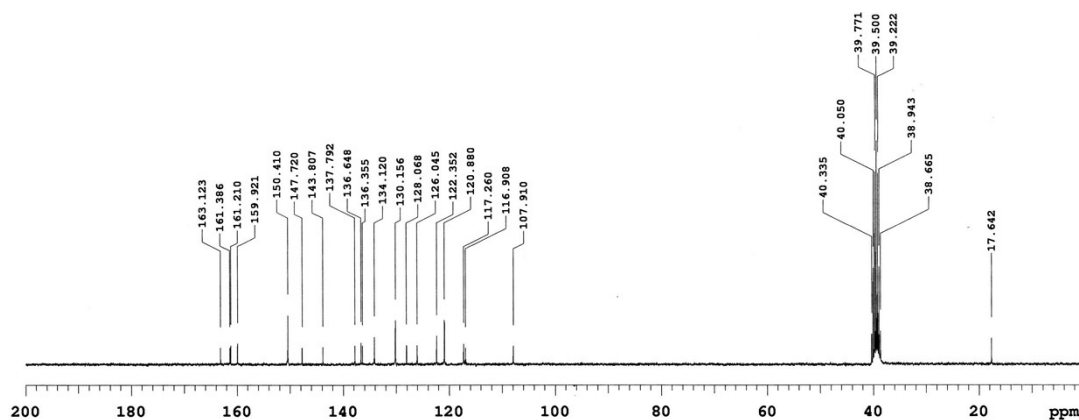
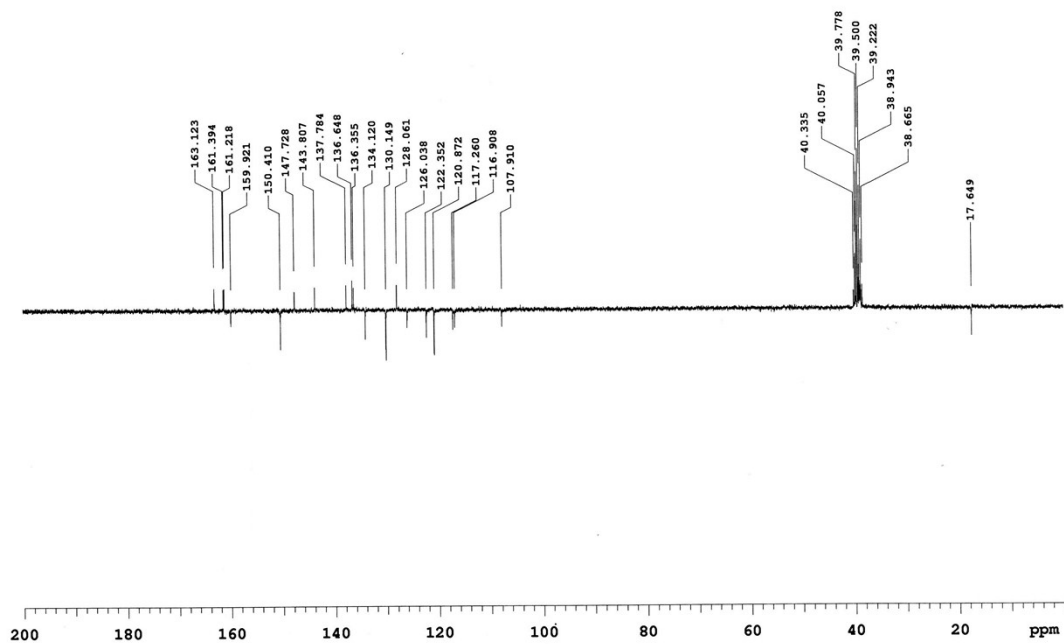


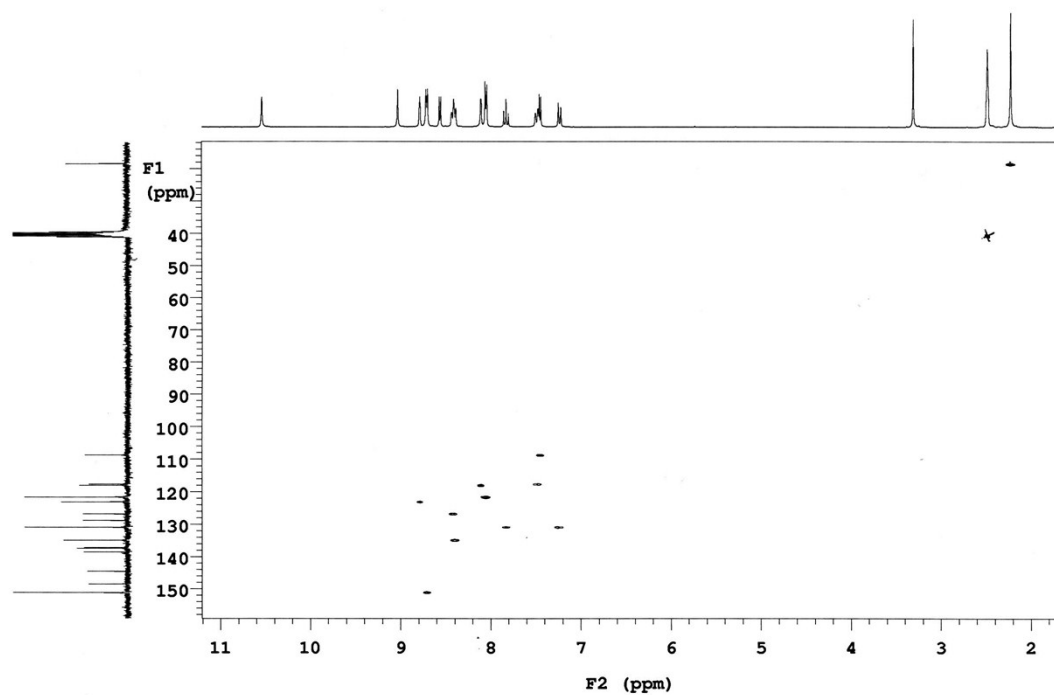
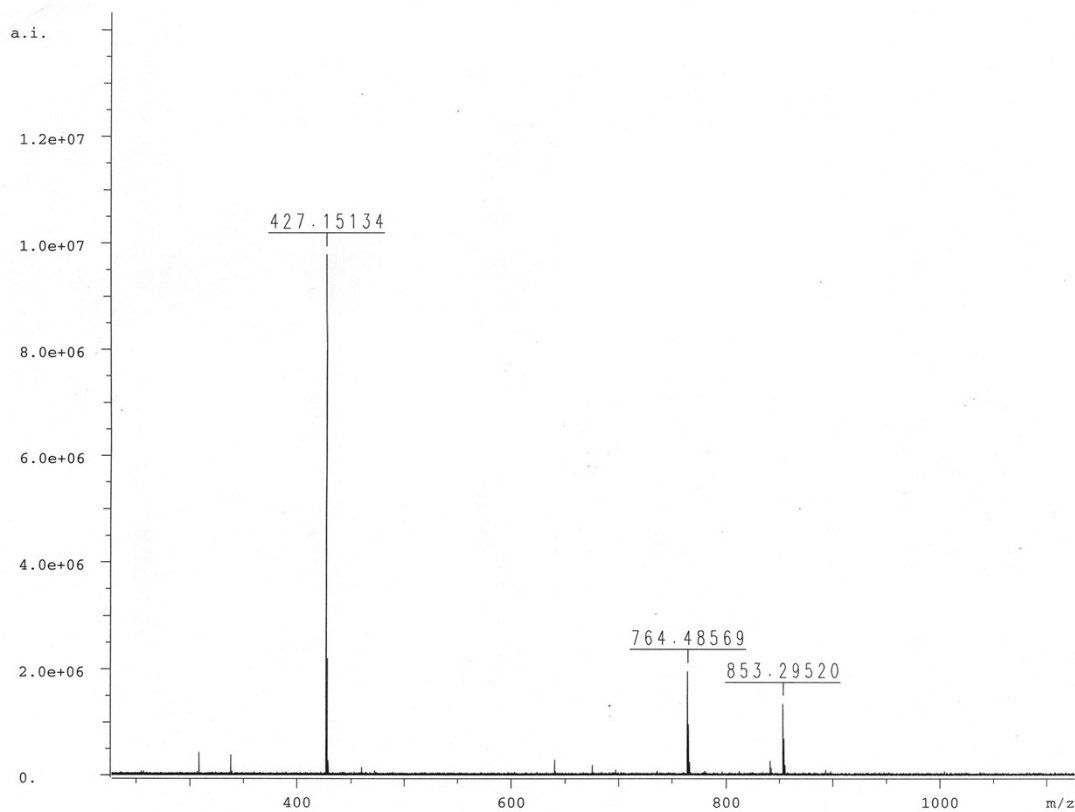


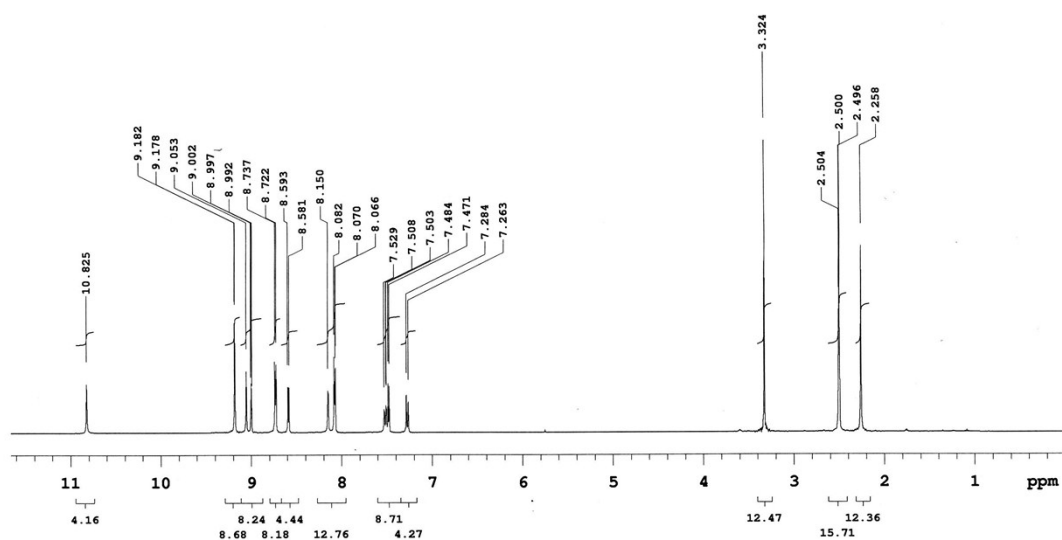
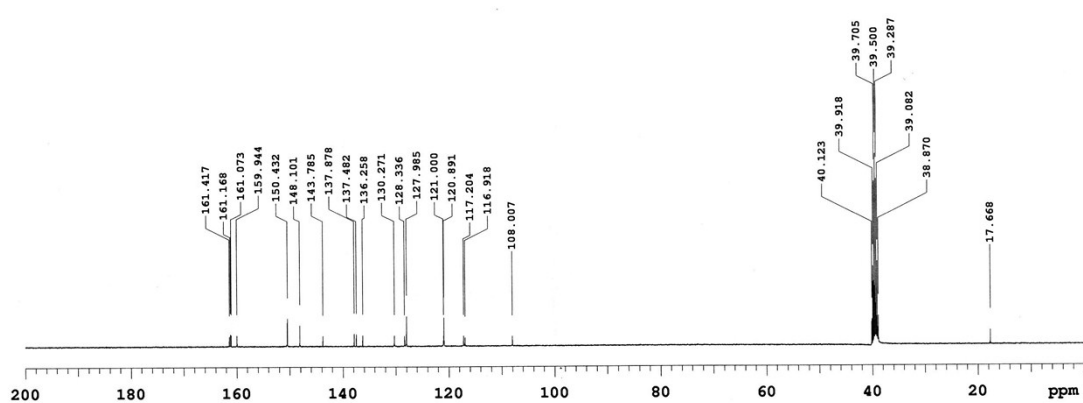
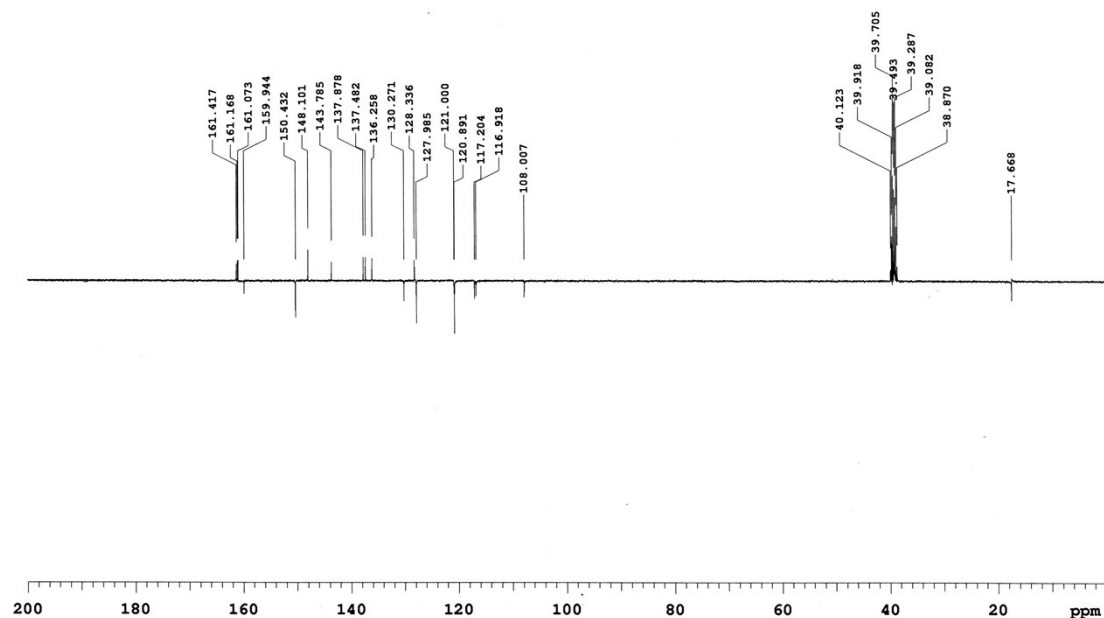
Scheme 6 ¹³C NMR spectrum of compound **16** in DMSO-*d*₆ (100 MHz)Scheme 7 ¹H NMR spectrum of compound **16** in DMSO-*d*₆ (400MHz)

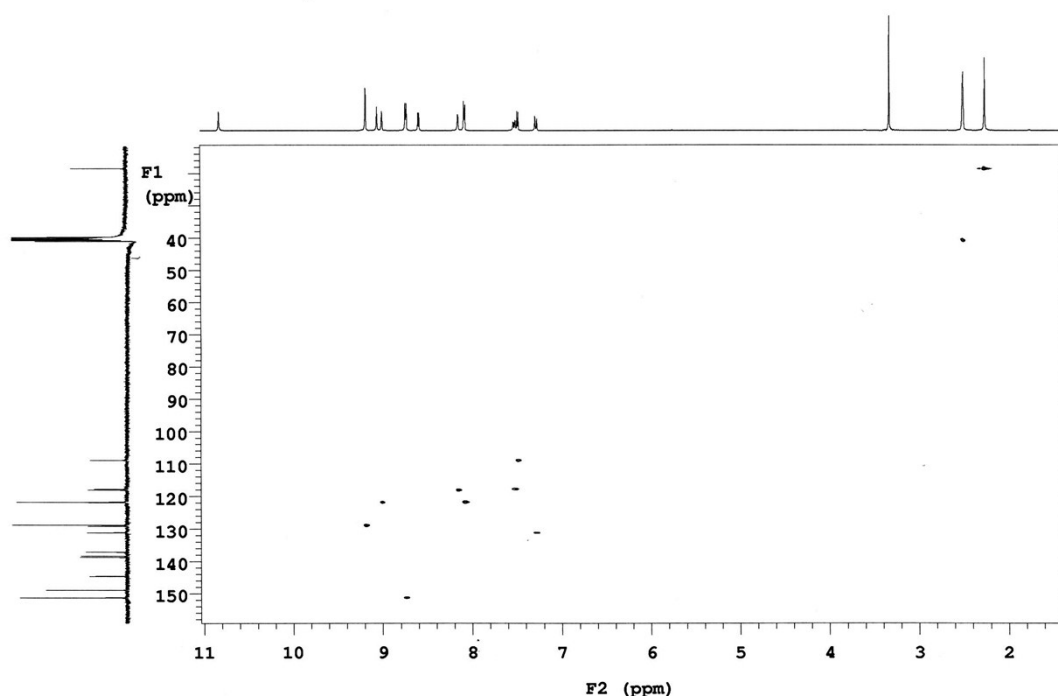
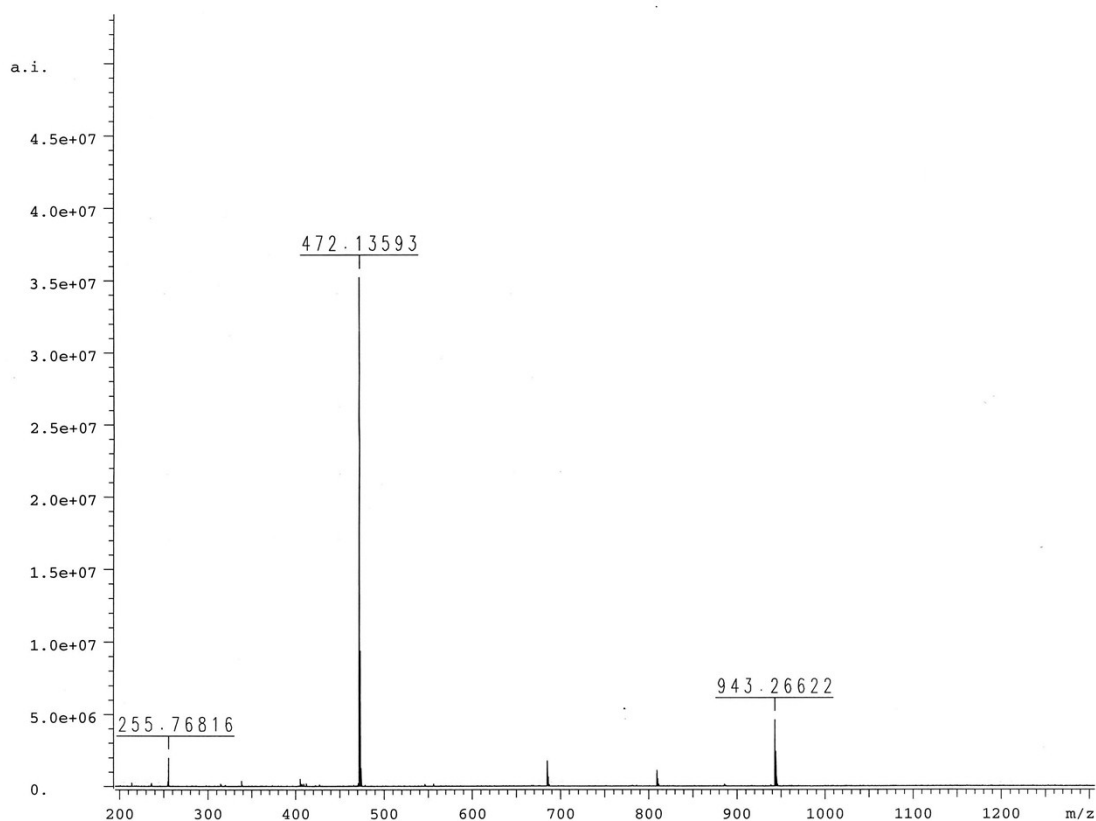
Scheme 8 ¹³C NMR spectrum of compound **17** in DMSO-*d*₆ (100 MHz)Scheme 9 DEPT spectrum of compound **17** in DMSO-*d*₆ (100 MHz)

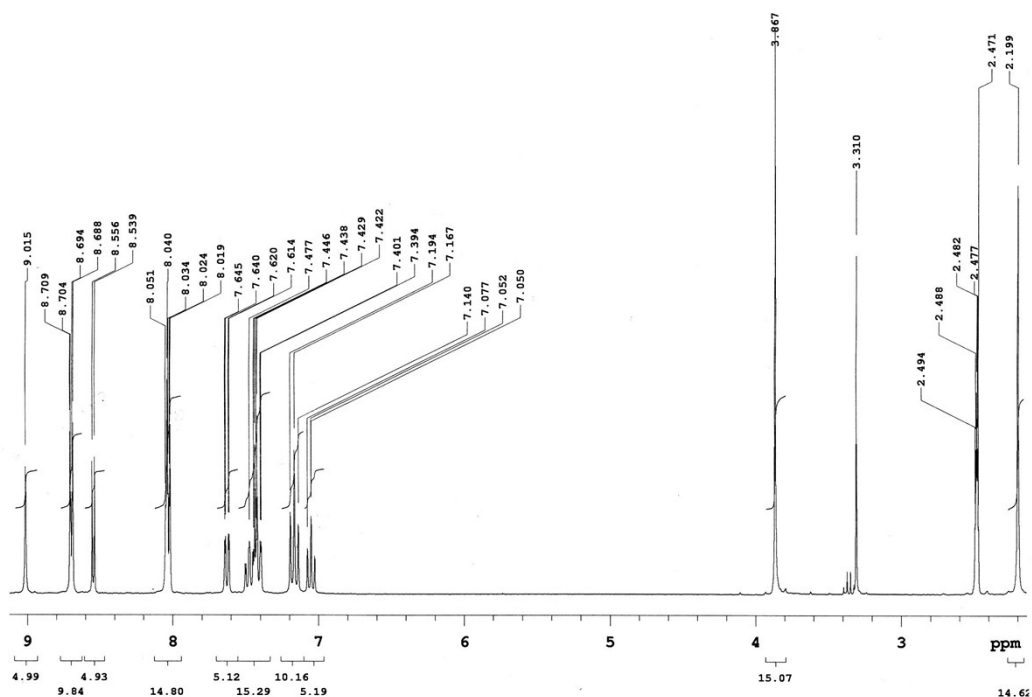
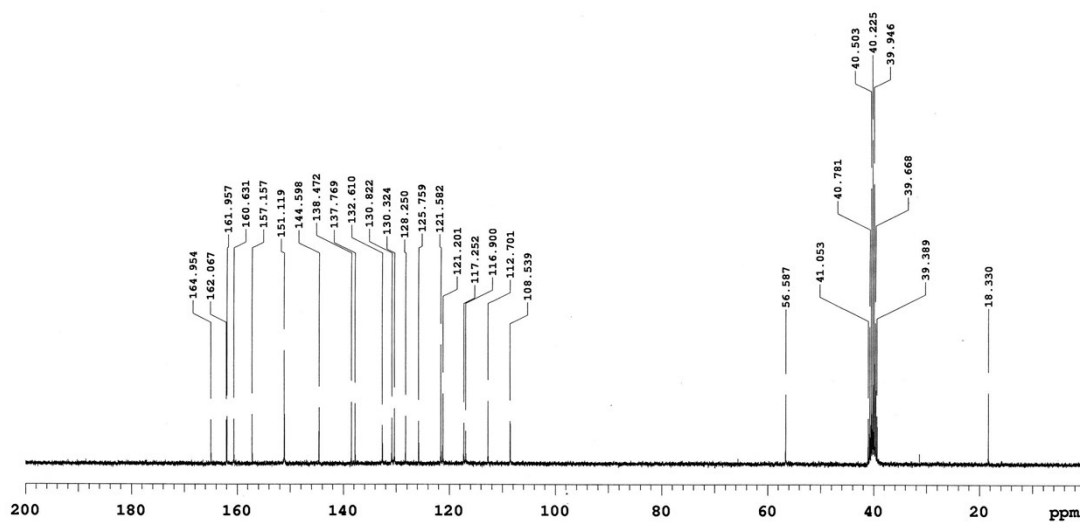
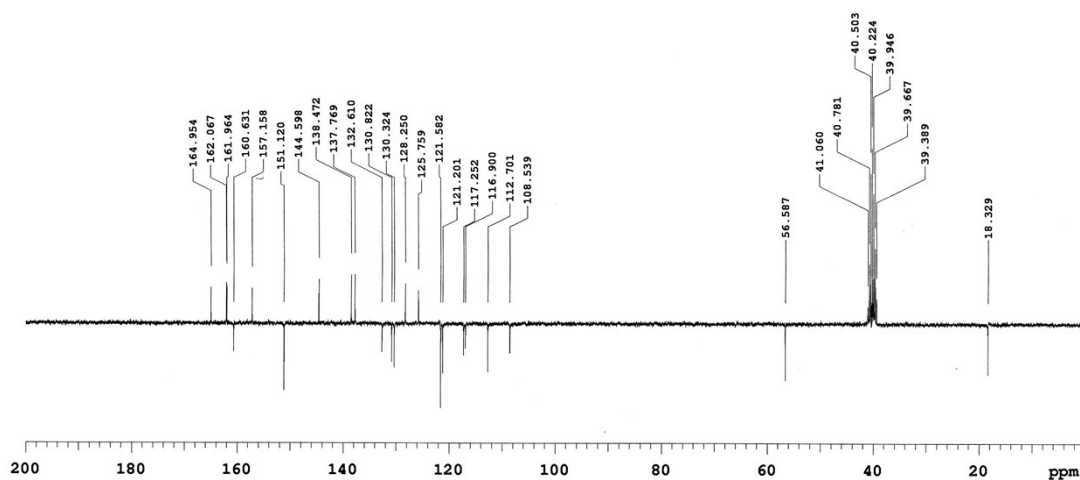
Scheme 10 HMQC spectrum of compound **17** in DMSO- d_6 Scheme 11 HRMS (ESI) spectrum of compound **17**

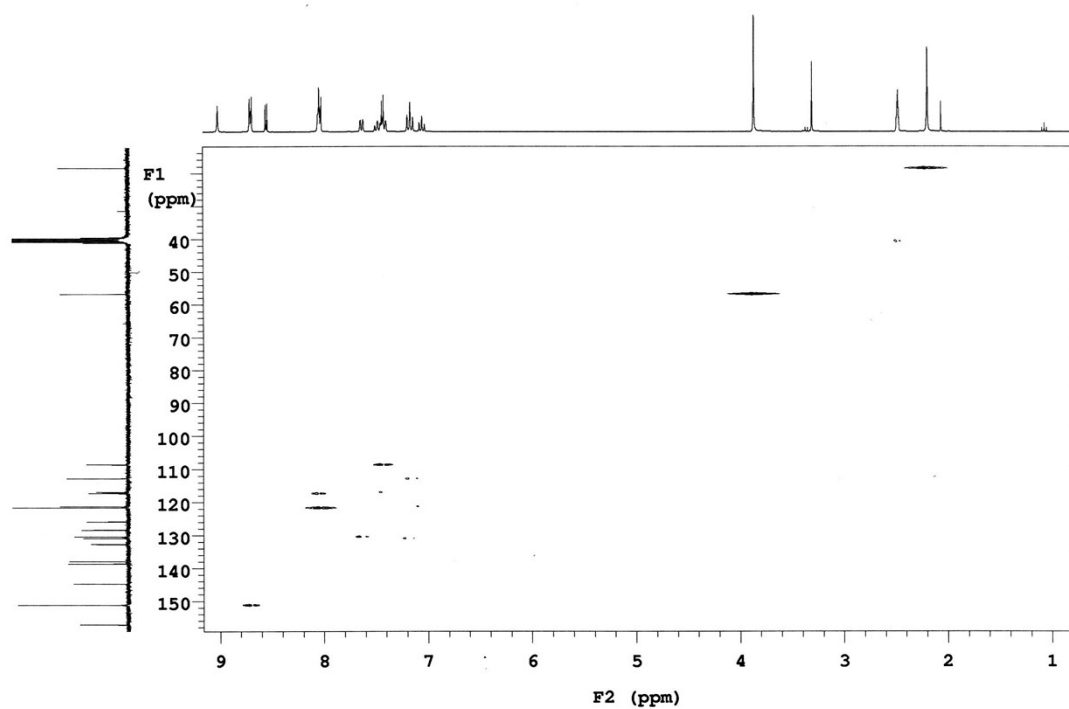
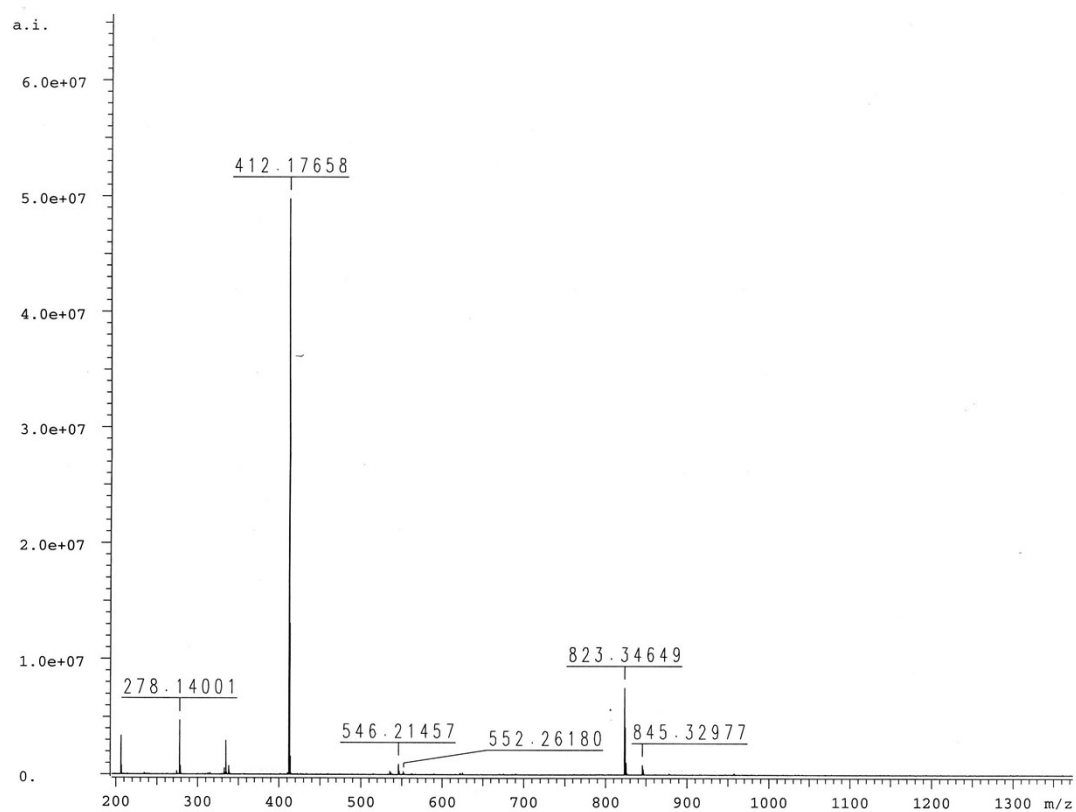
Scheme 12 ¹H NMR spectrum of compound **18** in DMSO-*d*₆ (300MHz)Scheme 13 ¹³C NMR spectrum of compound **18** in DMSO-*d*₆ (75 MHz)Scheme 14 DEPT spectrum of compound **18** in DMSO-*d*₆ (100 MHz)

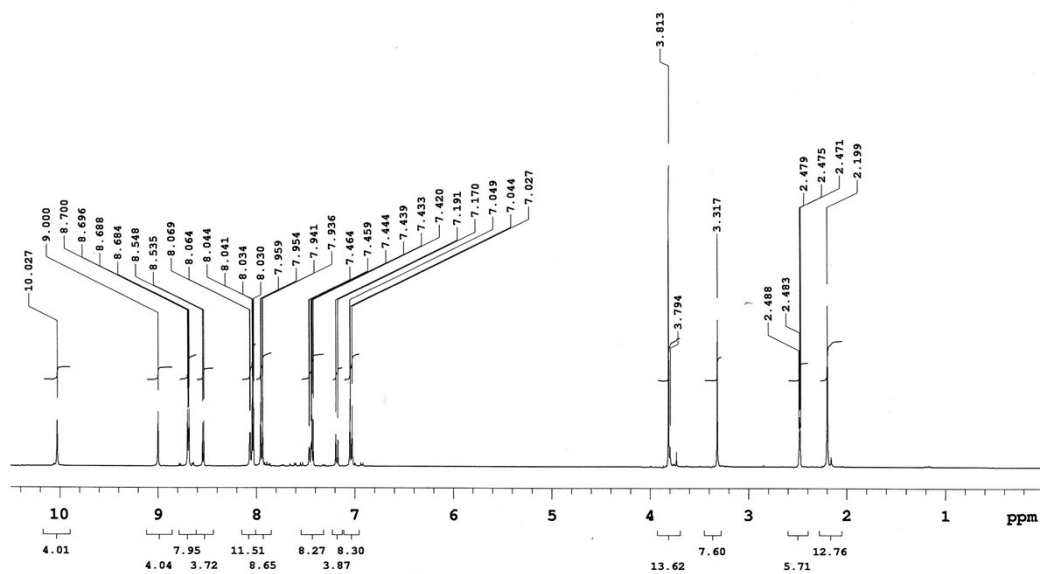
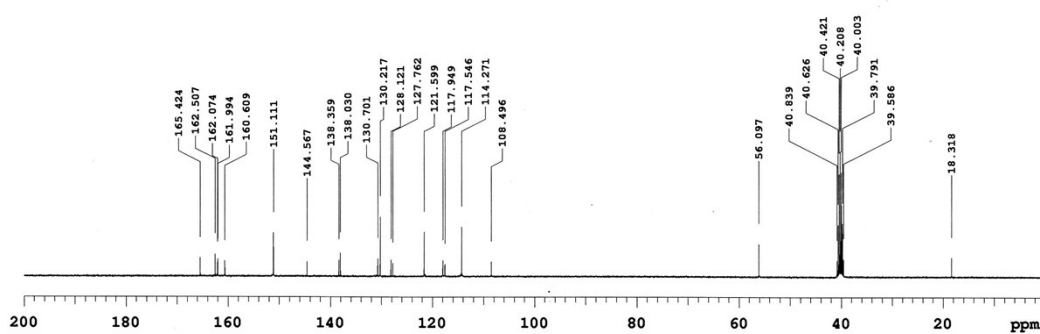
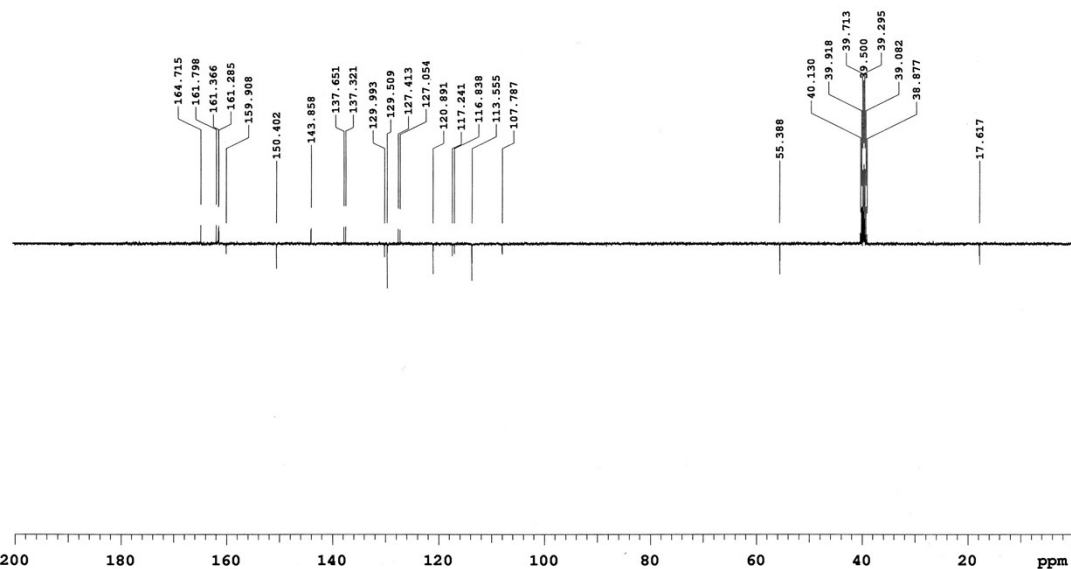
Scheme 15 HMQC spectrum of compound **18** in DMSO- d_6 Scheme 16 HRMS (ESI) spectrum of compound **18**

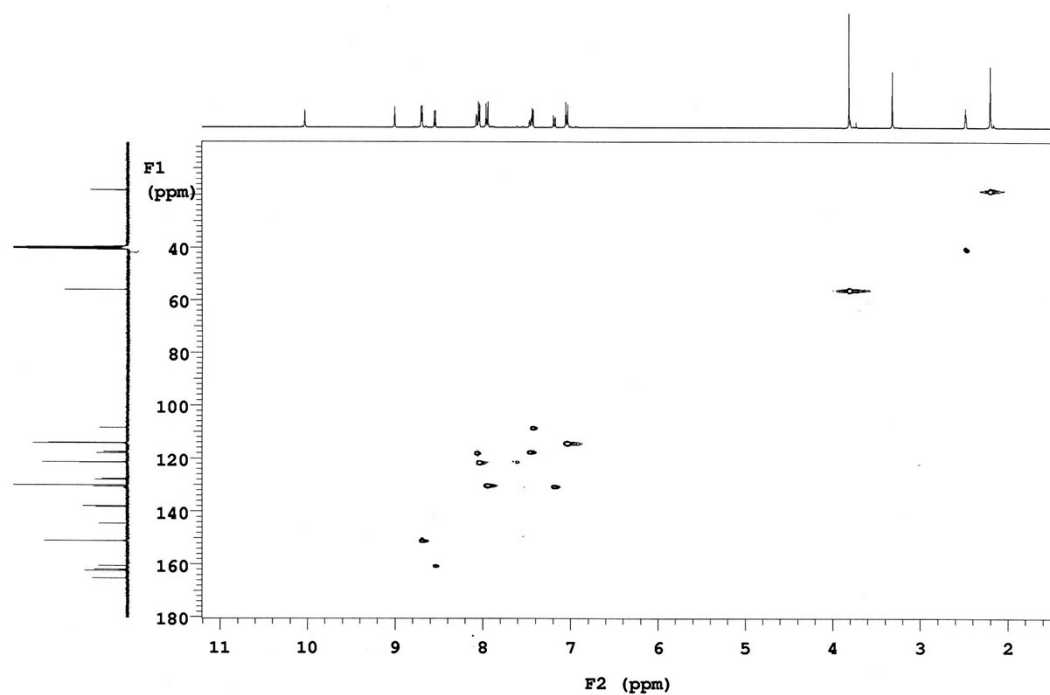
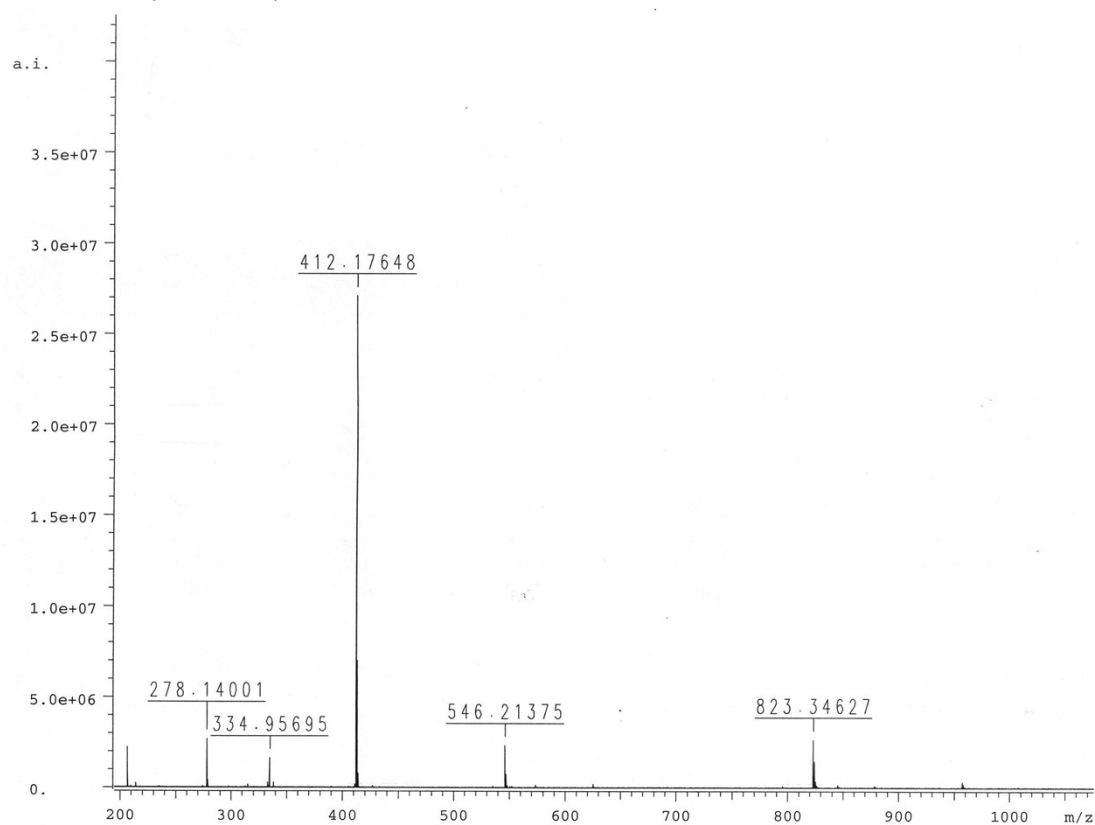
Scheme 17 ¹H NMR spectrum of compound **19** in DMSO-*d*₆ (400MHz)Scheme 18 ¹³C NMR spectrum of compound **19** in DMSO-*d*₆ (100 MHz)Scheme 19 DEPT spectrum of compound **19** in DMSO-*d*₆ (100 MHz)

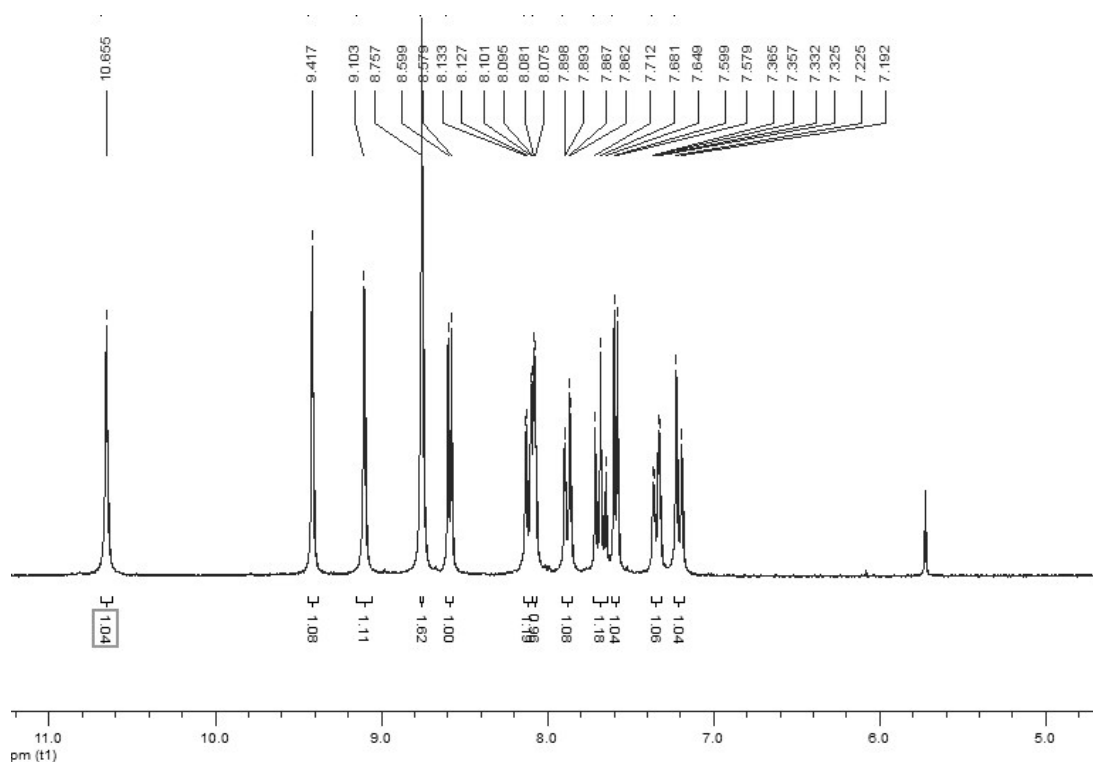
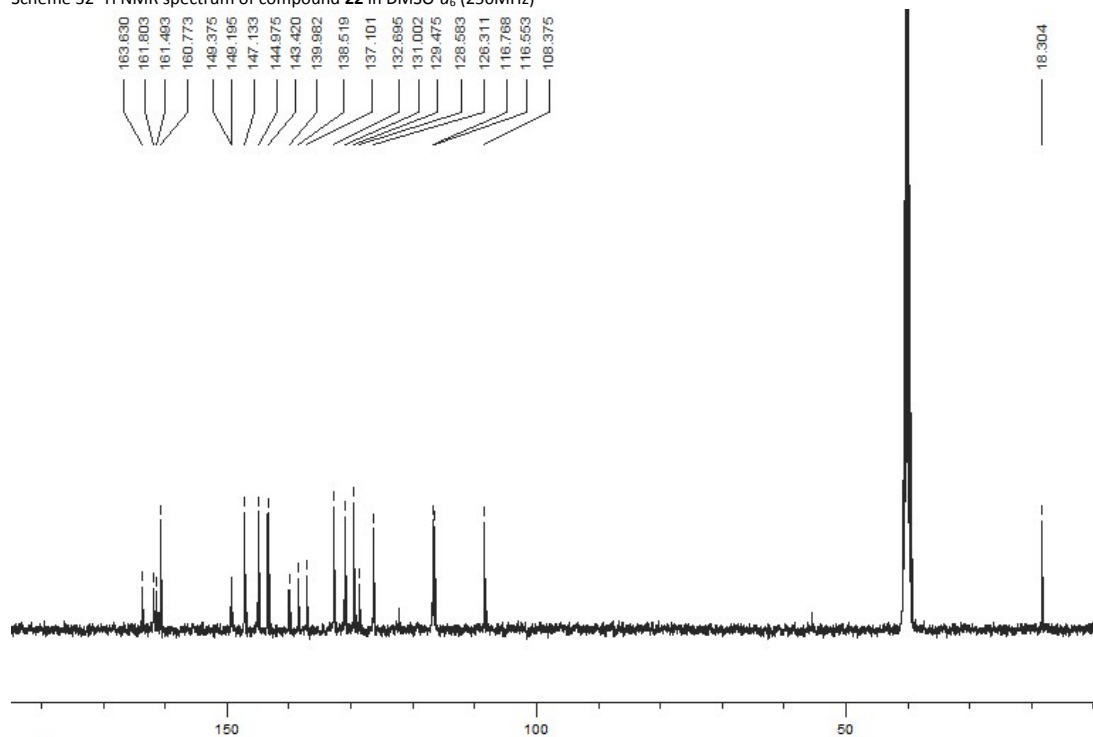
Scheme 20 HMQC spectrum of compound **19** in DMSO- d_6 Scheme 21 HRMS (ESI) spectrum of compound **19**

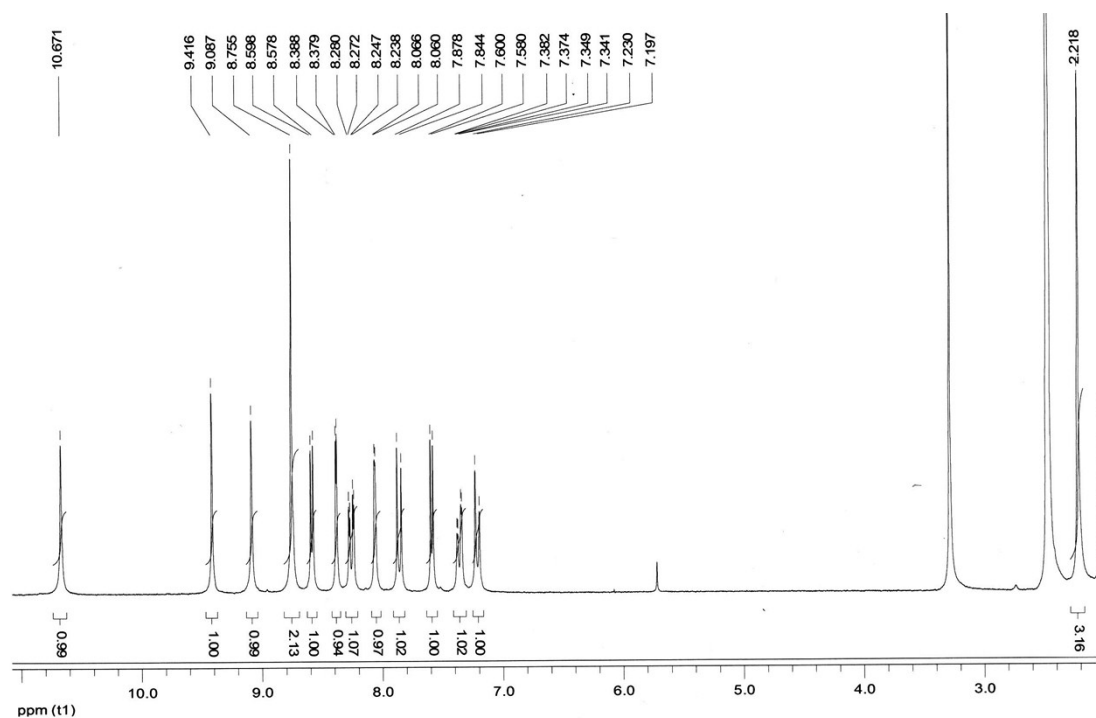
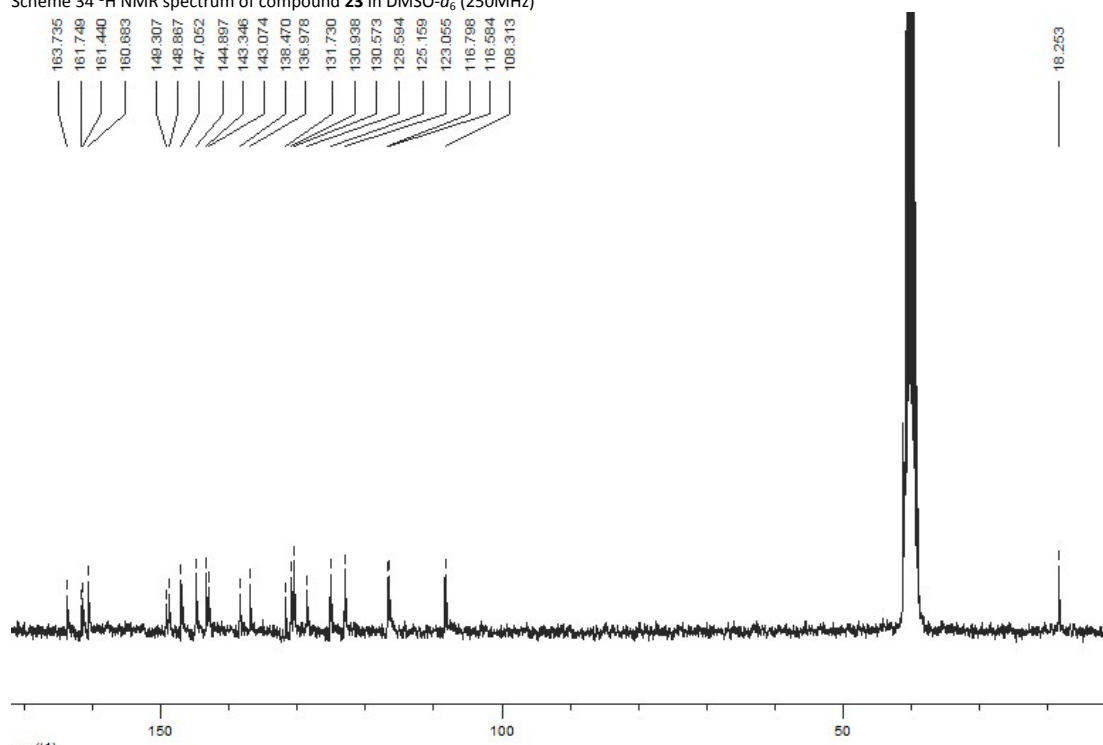
Scheme 22 ¹H NMR spectrum of compound **20** in DMSO-*d*₆ (300MHz)Scheme 23 ¹³C NMR spectrum of compound **20** in DMSO-*d*₆ (75 MHz)Scheme 24 DEPT spectrum of compound **20** in DMSO-*d*₆ (75 MHz)

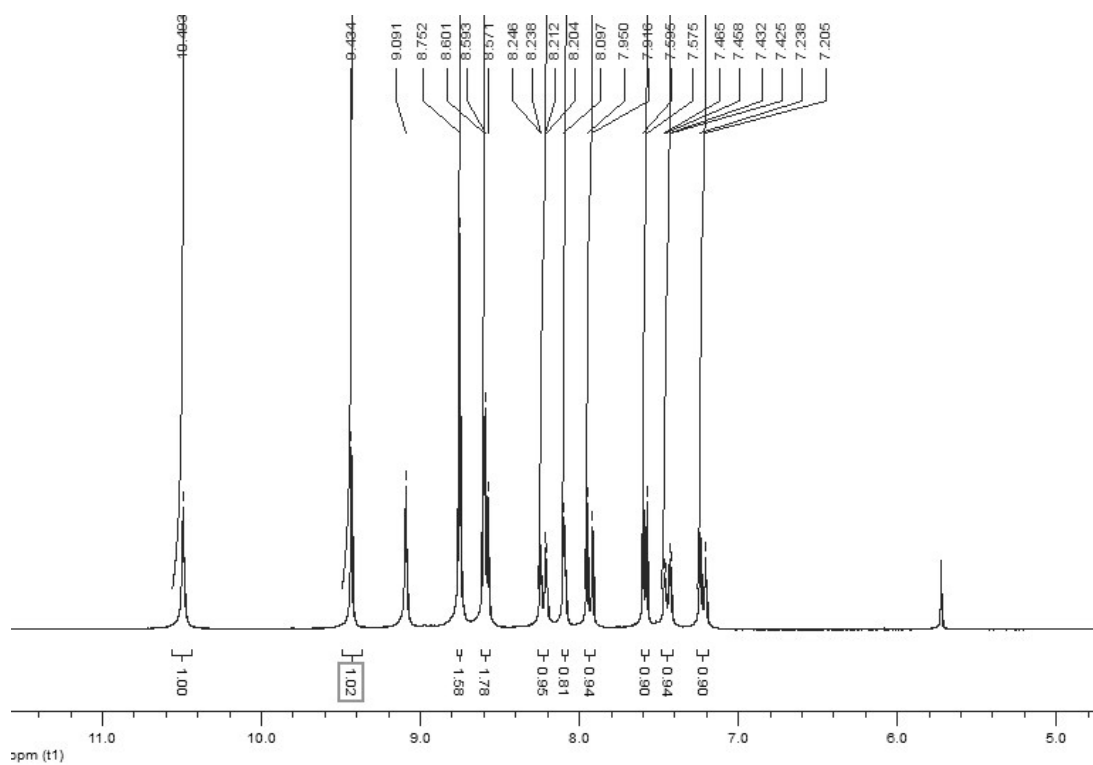
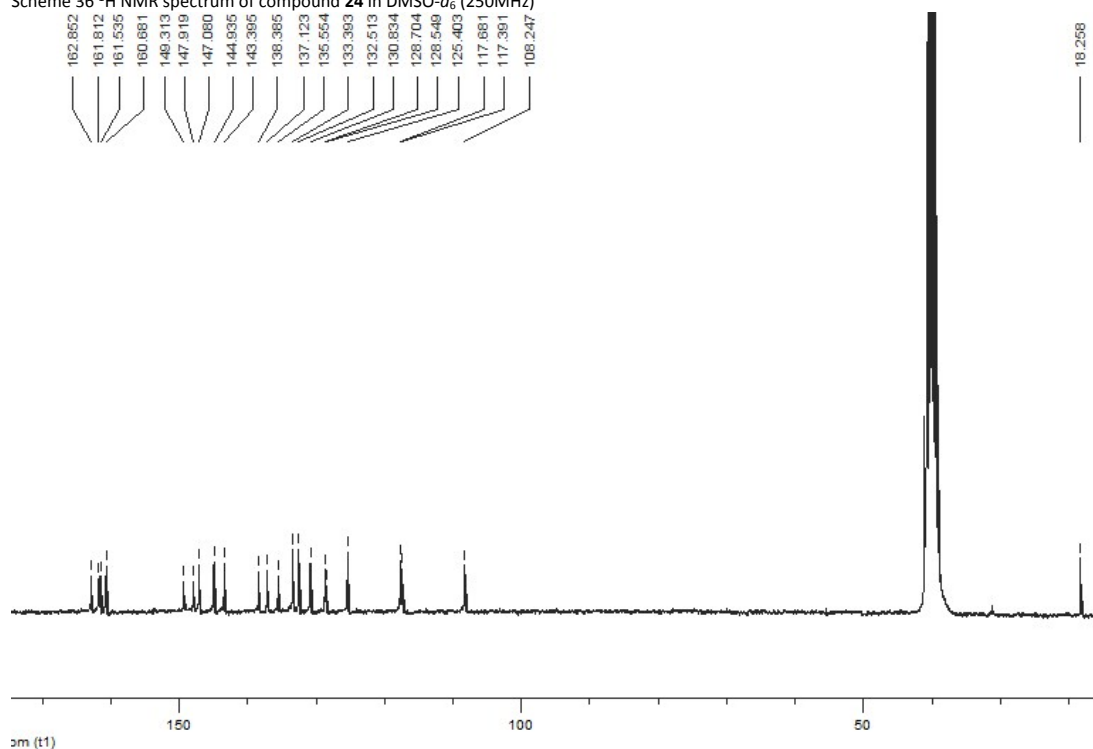
Scheme 25 HMQC spectrum of compound **20** in DMSO-*d*₆Scheme 26 HRMS (ESI) spectrum of compound **20**

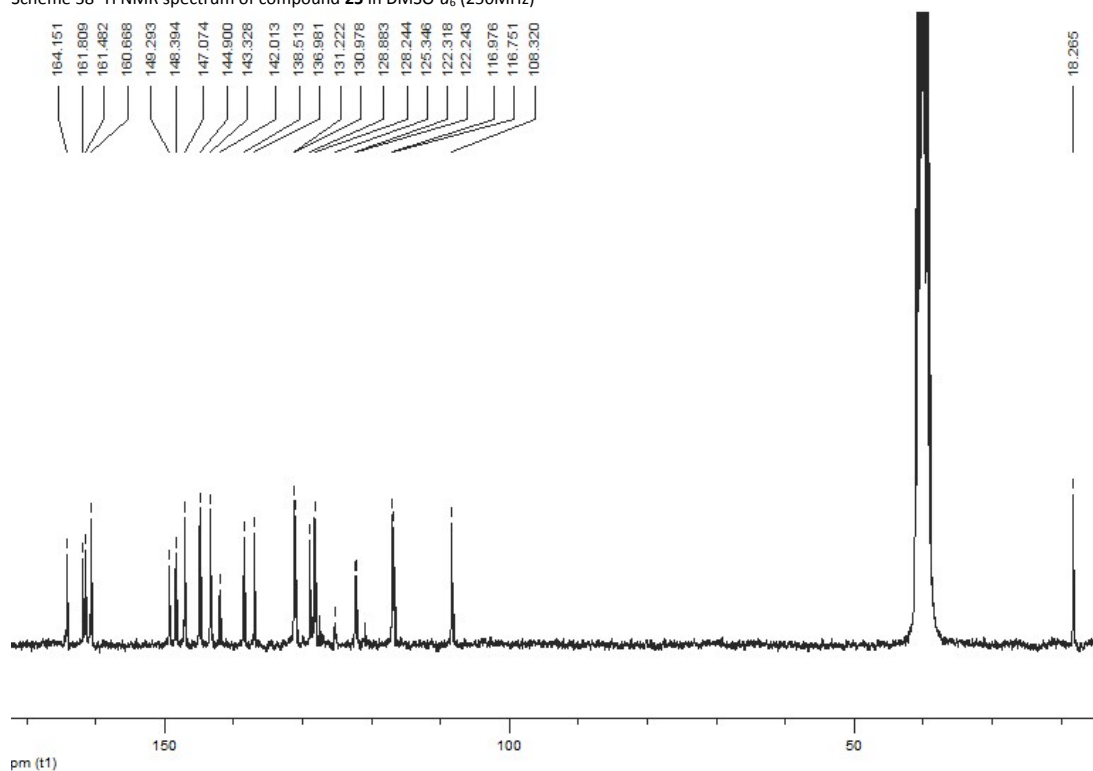
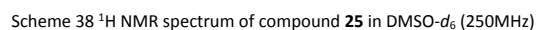
Scheme 27 ¹H NMR spectrum of compound **21** in DMSO-*d*₆ (400MHz)Scheme 28 ¹³C NMR spectrum of compound **21** in DMSO-*d*₆ (100 MHz)Scheme 29 DEPT spectrum of compound **21** in DMSO-*d*₆ (100 MHz)

Scheme 30 HMQC spectrum of compound **21** in DMSO-*d*₆Scheme 31 HRMS (ESI) spectrum of compound **21**

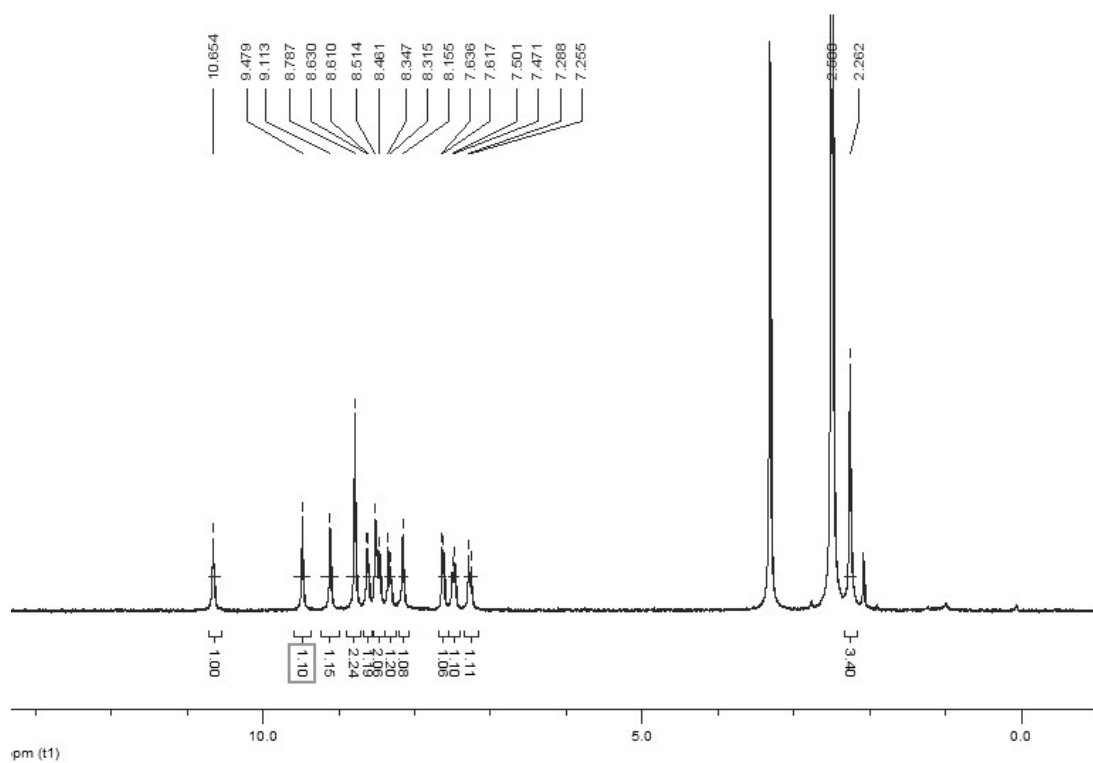
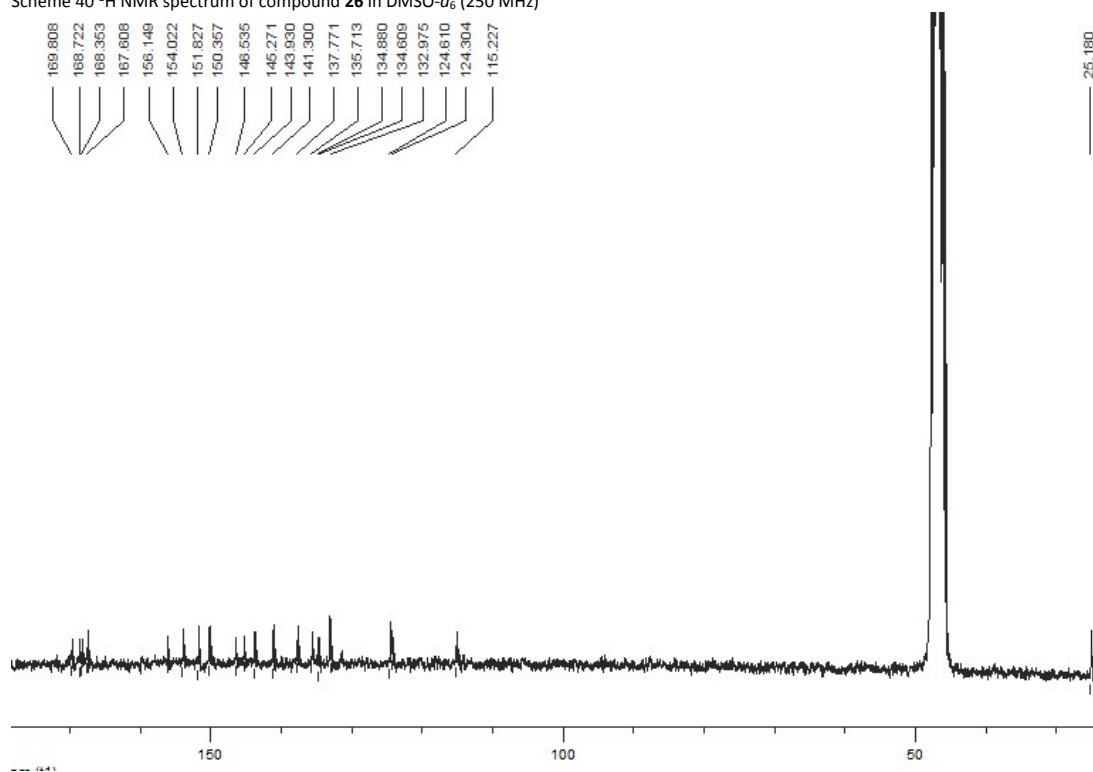
Scheme 32 ¹H NMR spectrum of compound **22** in DMSO-*d*₆ (250MHz)Scheme 33 ¹³C NMR spectrum of compound **22** in DMSO-*d*₆ (63 MHz)

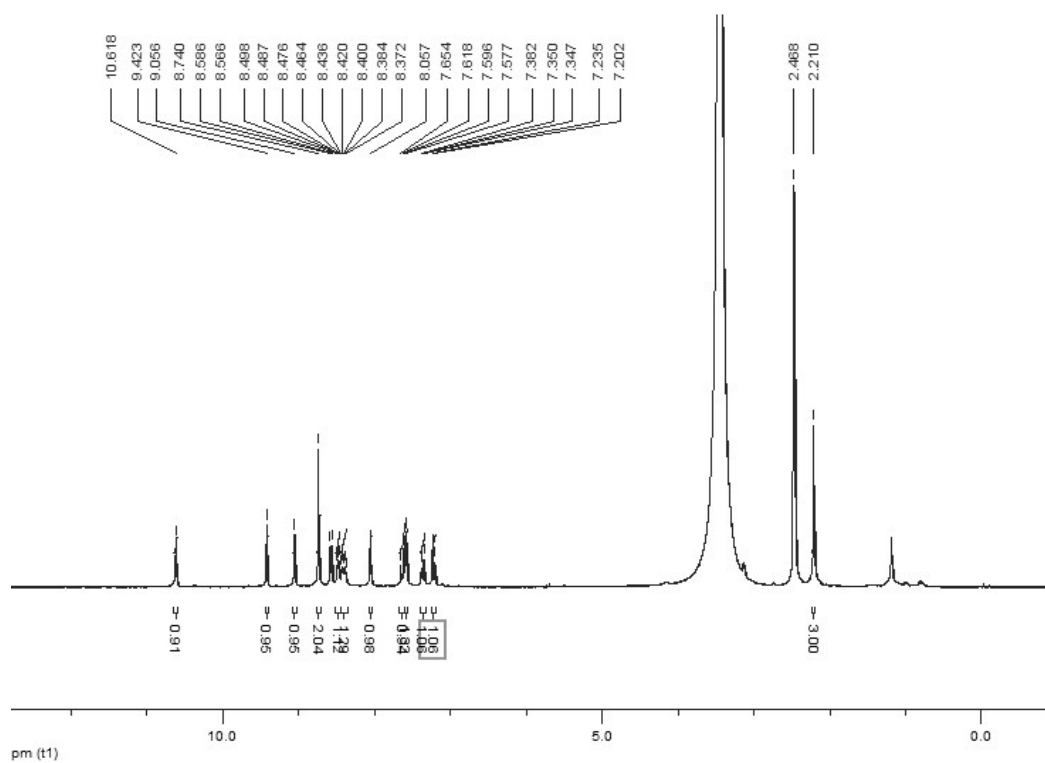
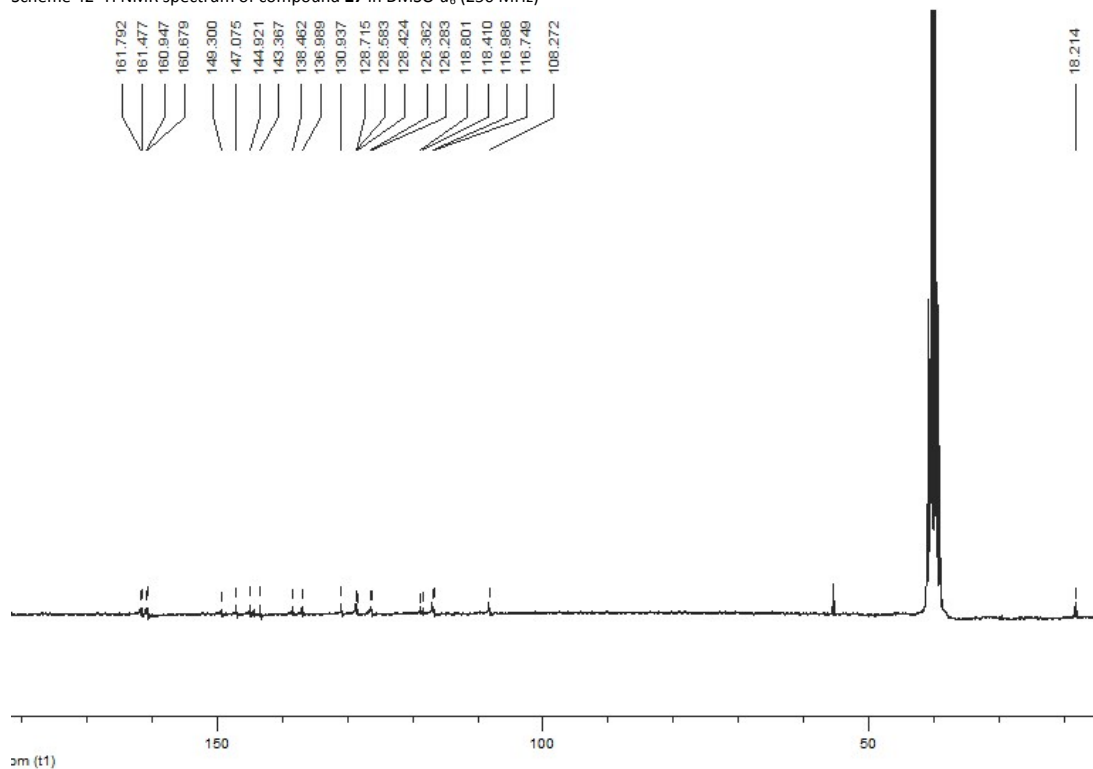
Scheme 34 ¹H NMR spectrum of compound **23** in DMSO-*d*₆ (250MHz)Scheme 35 ¹³C NMR spectrum of compound **23** in DMSO-*d*₆ (63 MHz)

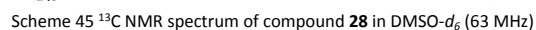
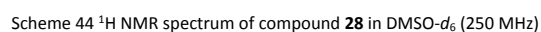
Scheme 36 ¹H NMR spectrum of compound **24** in DMSO-*d*₆ (250 MHz)Scheme 37 ¹³C NMR spectrum of compound **24** in DMSO-*d*₆ (63 MHz)

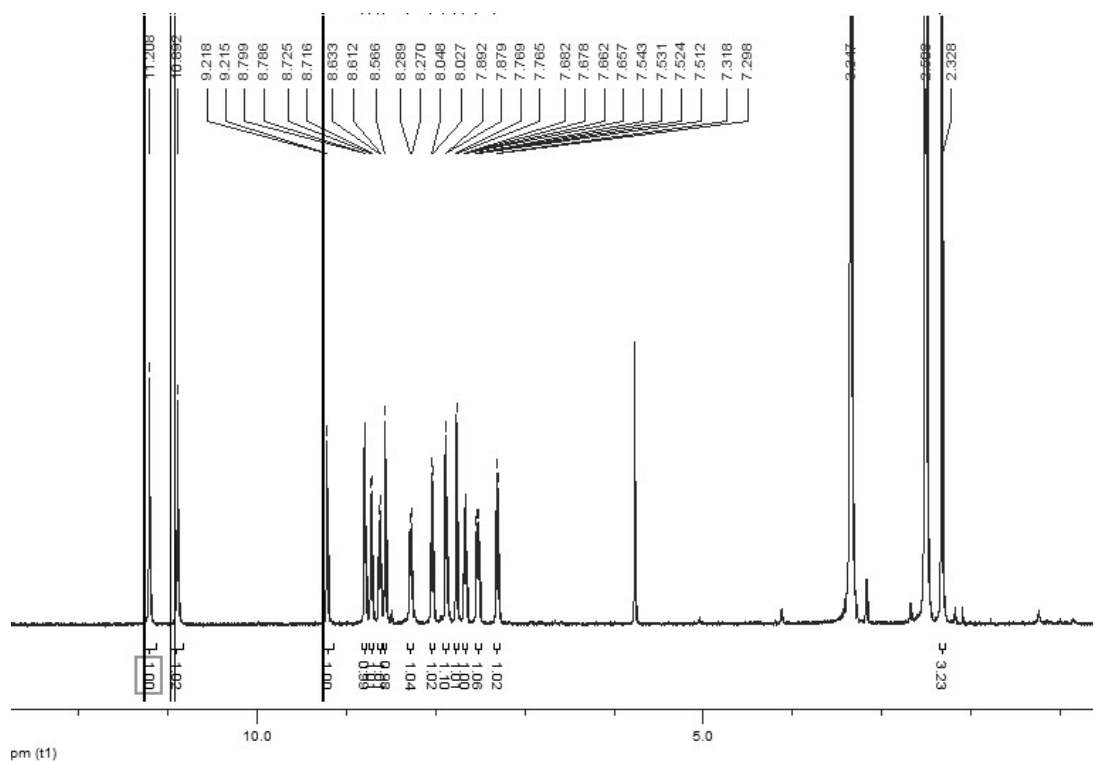
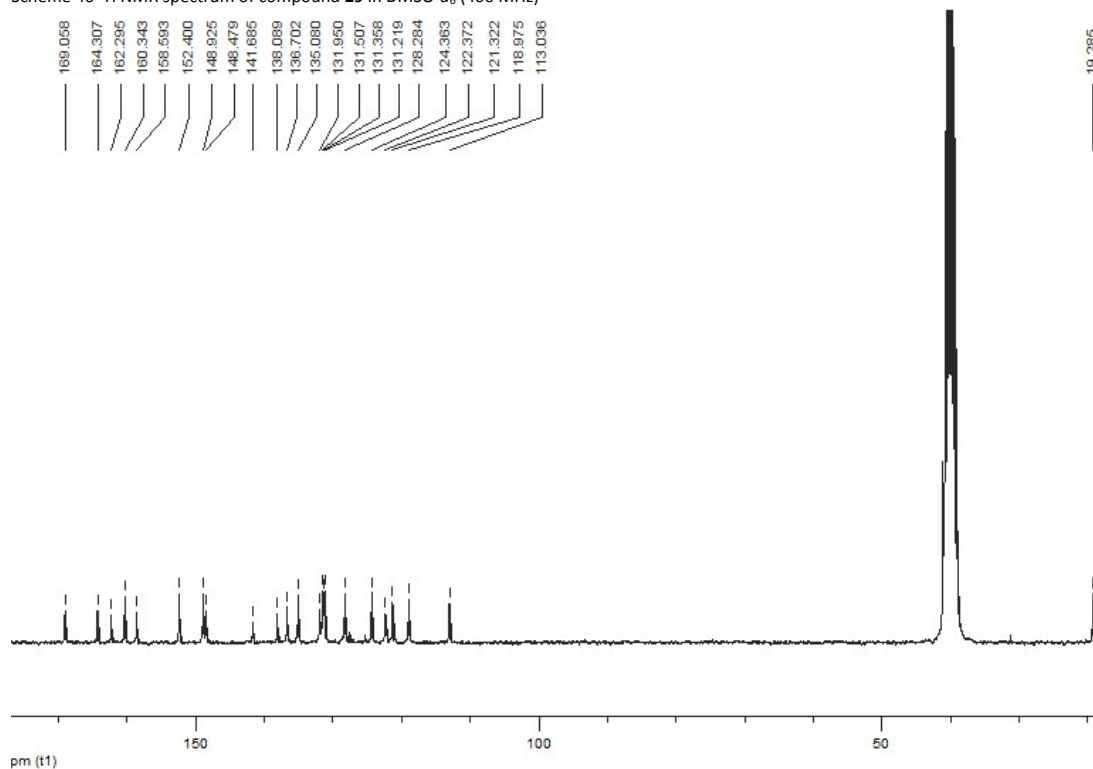


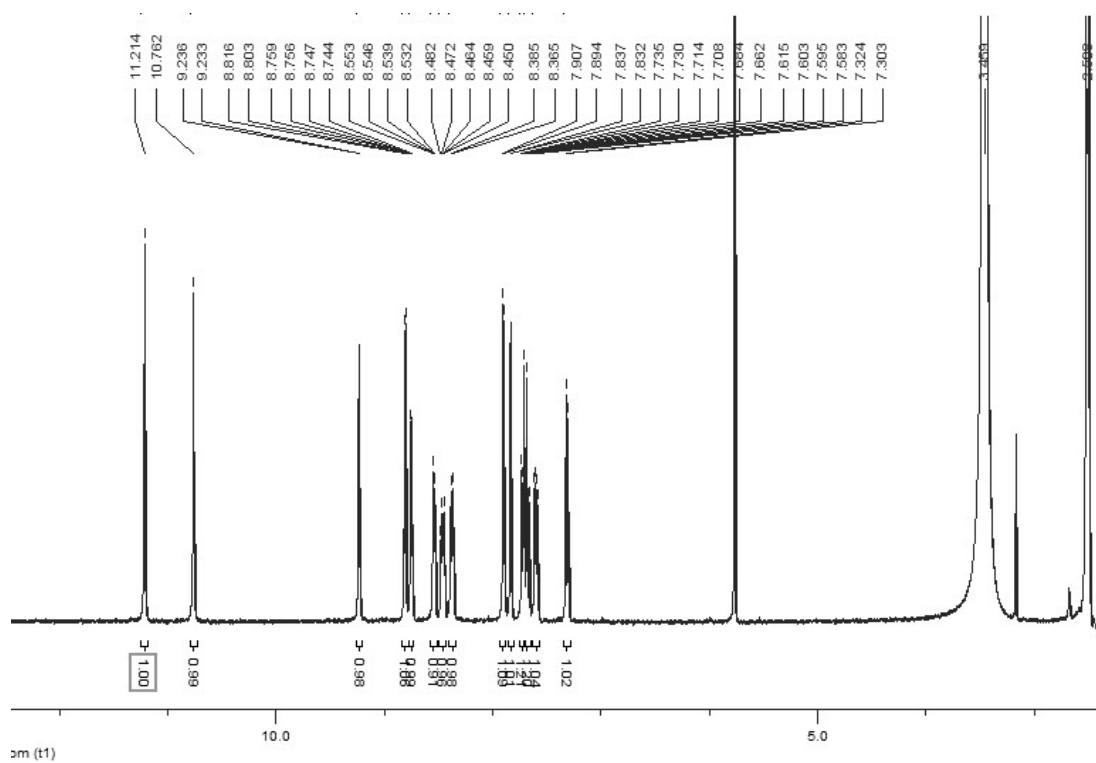
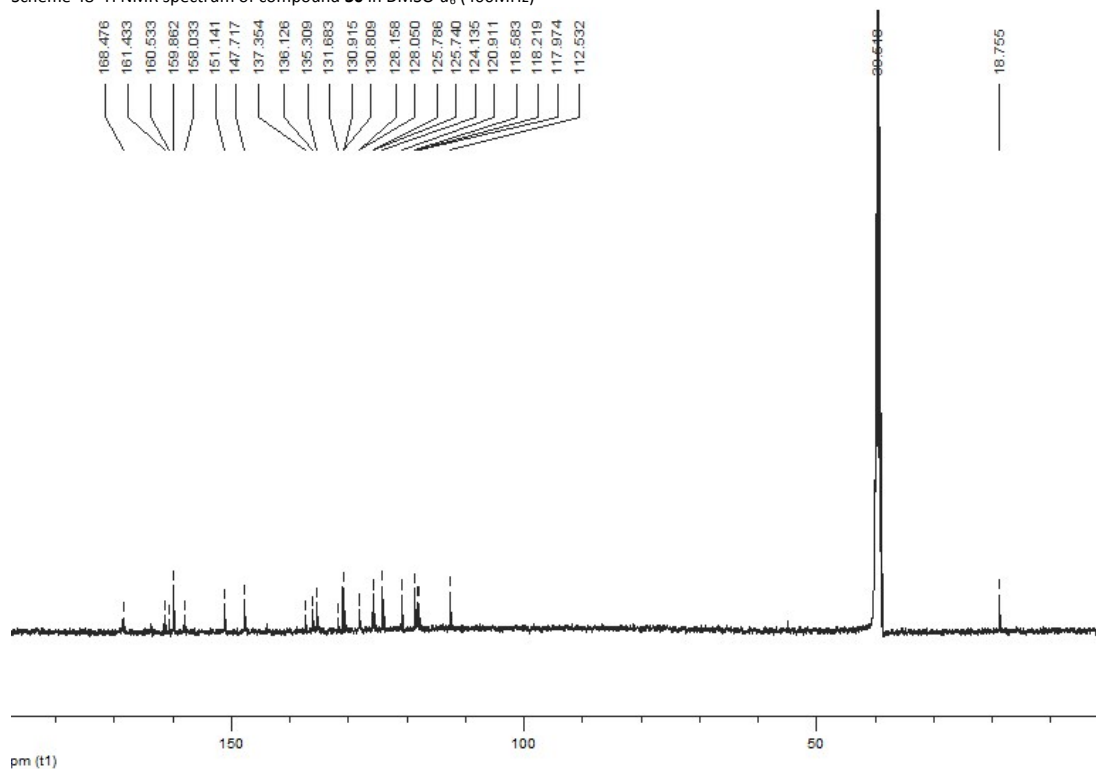
Scheme 39 ^{13}C NMR spectrum of compound **25** in $\text{DMSO}-d_6$ (63 MHz)

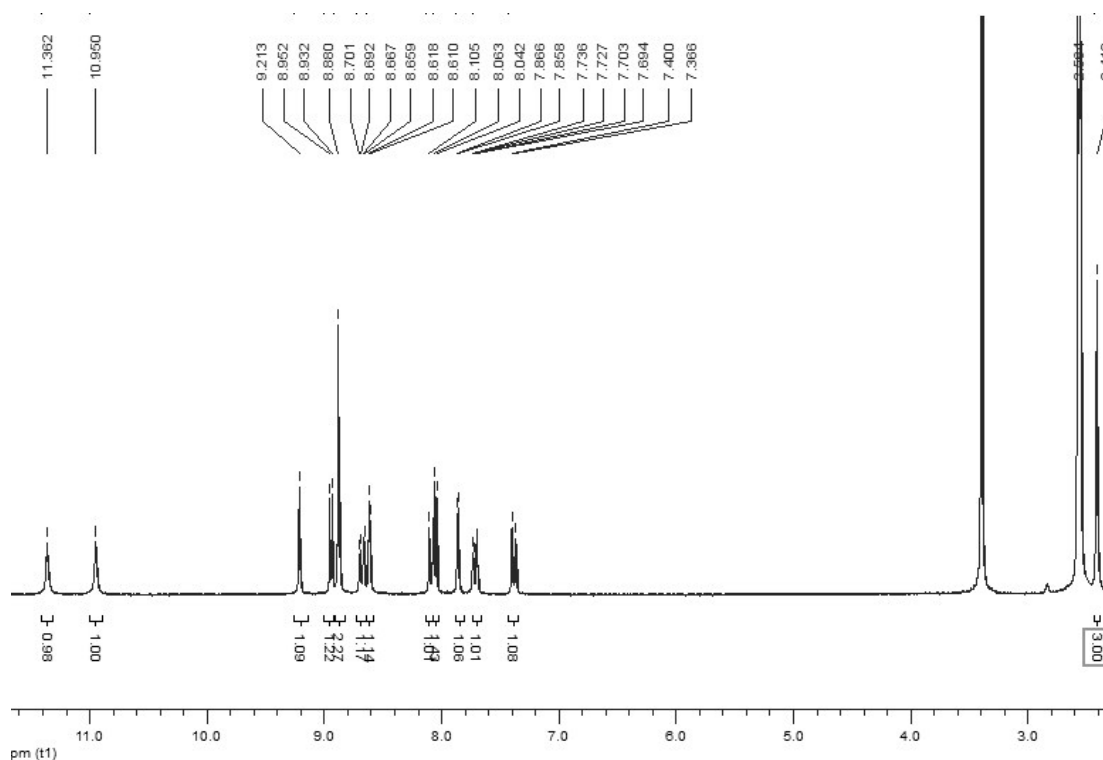
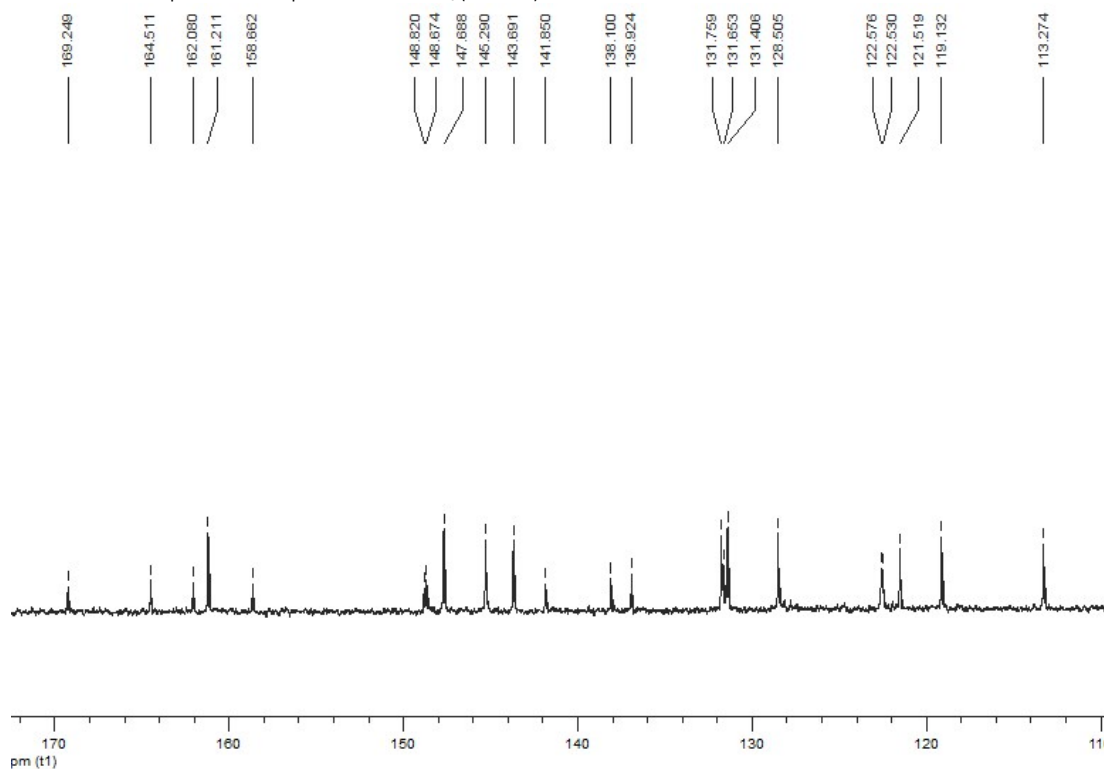
Scheme 40 ¹H NMR spectrum of compound **26** in DMSO-*d*₆ (250 MHz)Scheme 41 ¹³C NMR spectrum of compound **26** in DMSO-*d*₆ (63 MHz)

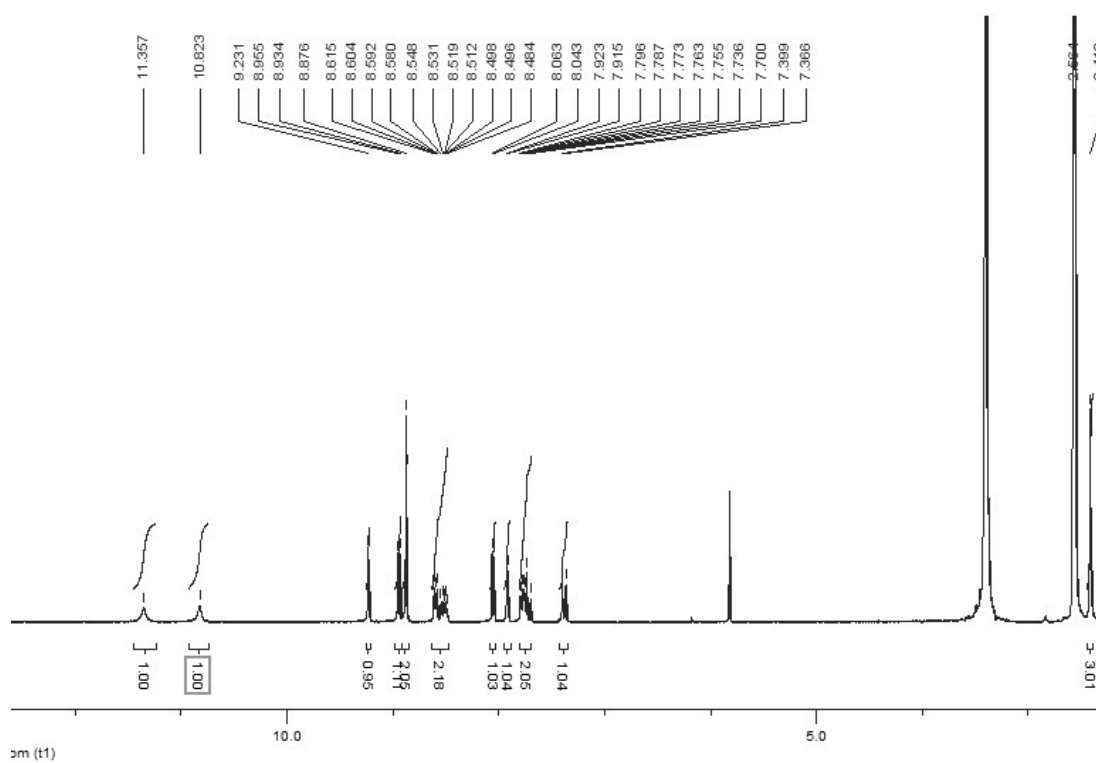
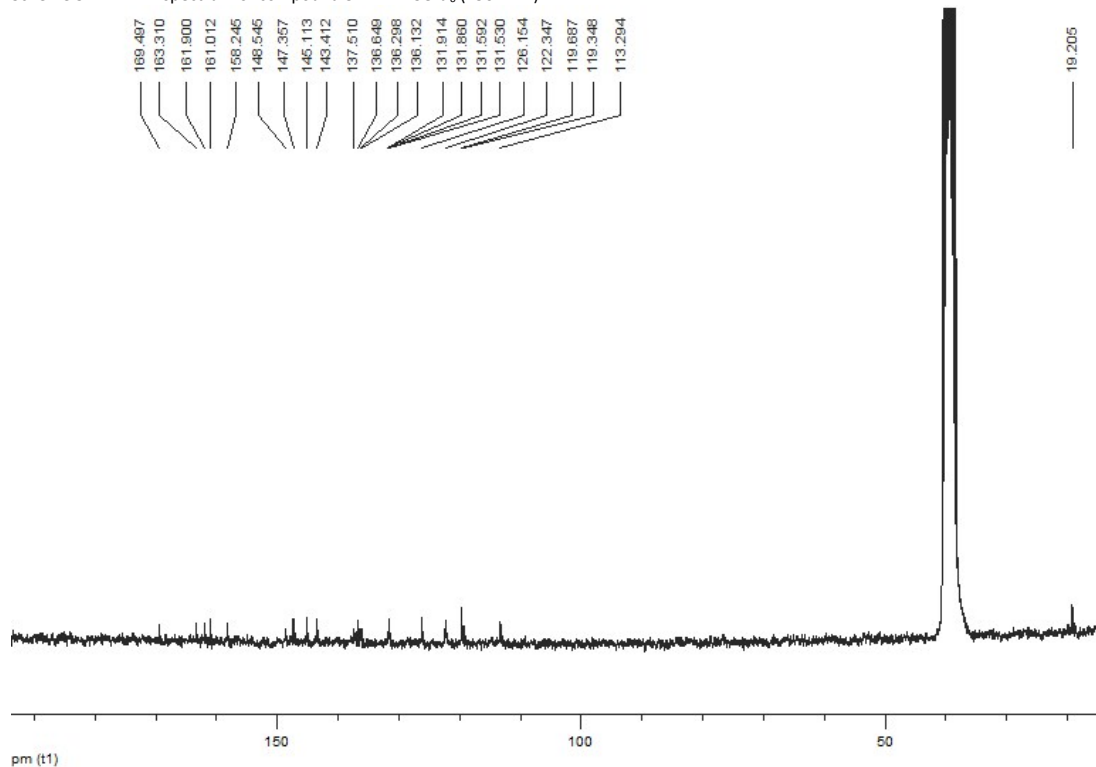
Scheme 42 ¹H NMR spectrum of compound **27** in DMSO-*d*₆ (250 MHz)Scheme 43 ¹³C NMR spectrum of compound **27** in DMSO-*d*₆ (63 MHz)



Scheme 46 ¹H NMR spectrum of compound **29** in DMSO-*d*₆ (400 MHz)Scheme 47 ¹³C NMR spectrum of compound **29** in DMSO-*d*₆ (100 MHz)

Scheme 48 ¹H NMR spectrum of compound **30** in DMSO-*d*₆ (400MHz)Scheme 49 ¹³C NMR spectrum of compound **30** in DMSO-*d*₆ (100 MHz)

Scheme 50 ¹H NMR spectrum of compound **31** in DMSO-*d*₆ (250 MHz)Scheme 51 ¹³C NMR spectrum of compound **31** in DMSO-*d*₆ (63 MHz)

Scheme 52 ¹H NMR spectrum of compound **32** in DMSO-*d*₆ (250 MHz)Scheme 53 ¹³C NMR spectrum of compound **32** in DMSO-*d*₆ (63 MHz)