

Figure 1: $^1\text{H-NMR}$ Spectrum of Compound (1)

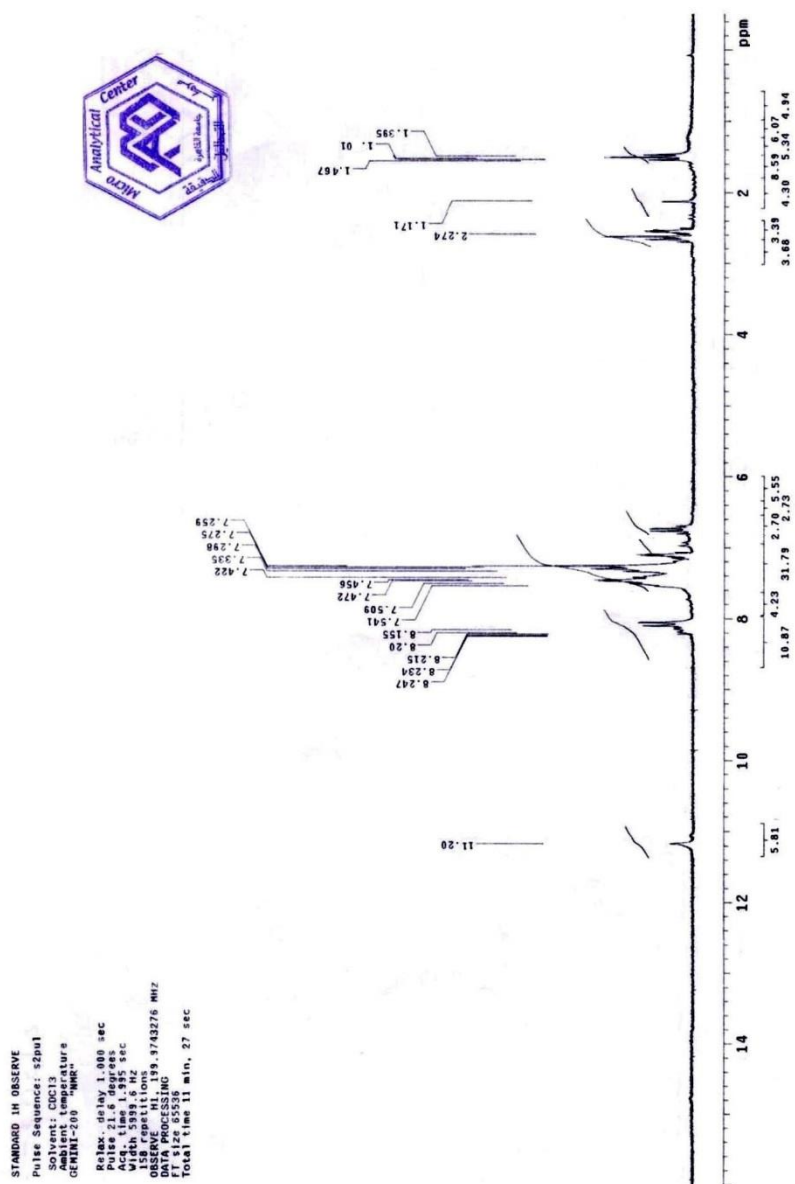


Figure 1: ¹H-NMR Spectrum of Compound (3)

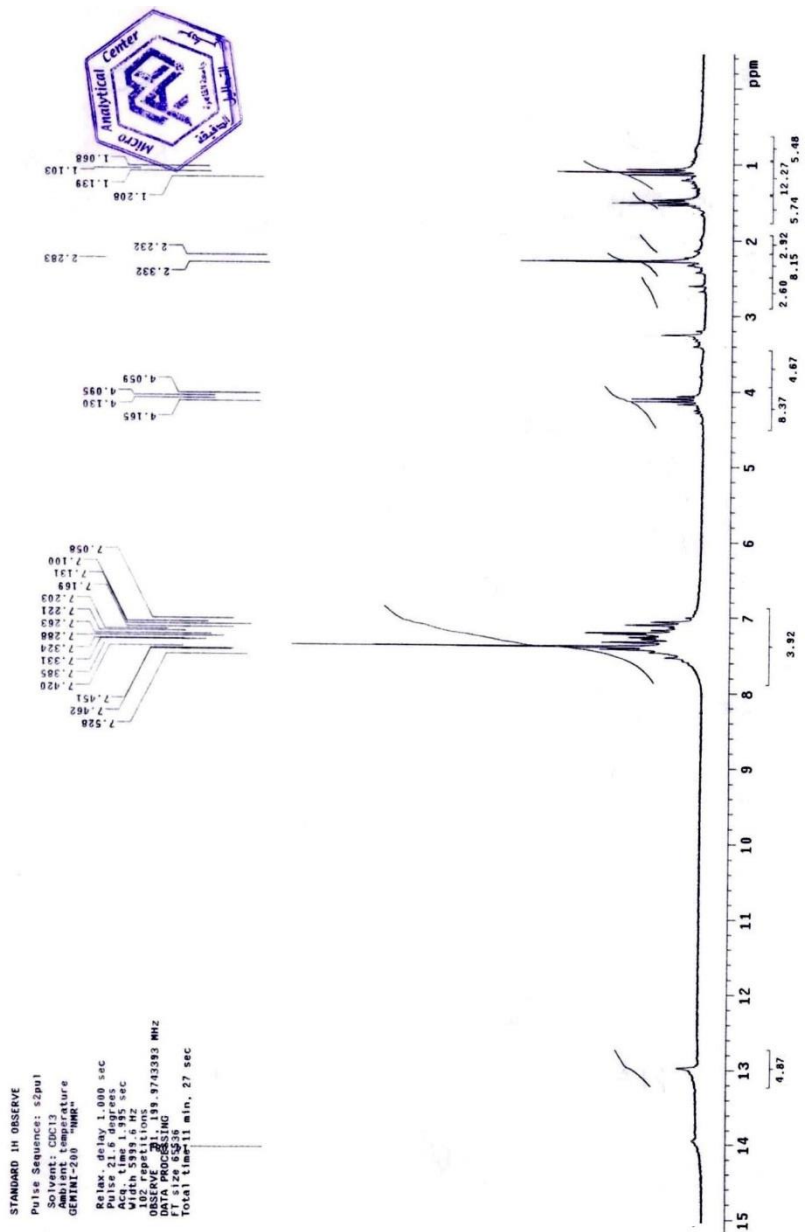


Figure 2: ¹H-NMR Spectrum of Compound (6)

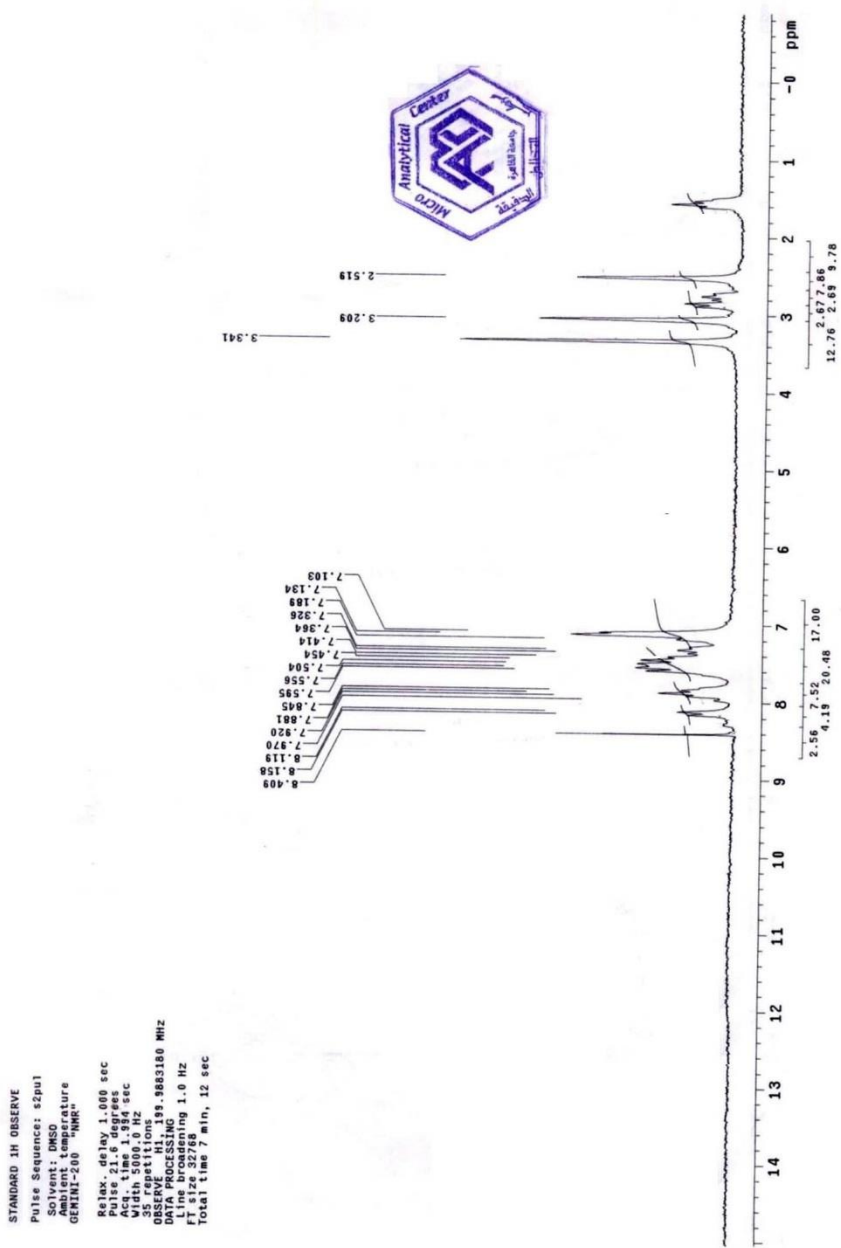


Figure 3: ¹H-NMR Spectrum of Compound (7)

Ahmad Faido -Raa8 - DMSO-H1
 Pulse Sequence: s2pul
 Solvent: DMSO
 Temperature: 300.1 K
 Mercury-3008 / "NMR300"
 Relax. delay: 1.000 sec
 Pulse program: zgpg30
 Pulse time: 14.000 sec
 Width: 8000.0 Hz
 Is: repetitions
 0.00000000.0687860 MHz
 DATA PROCESSING
 FT size: 65536
 Total time: 1 min, 36 sec

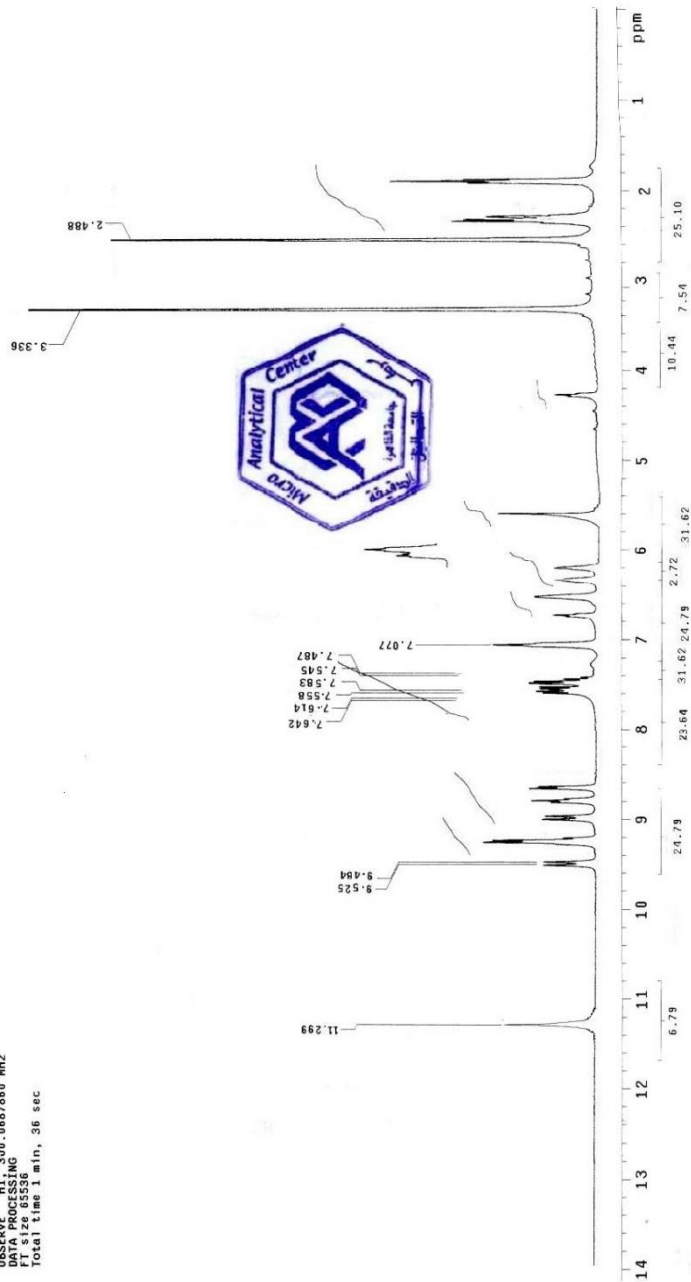


Figure 4: ¹H-NMR Spectrum of Compound (8)

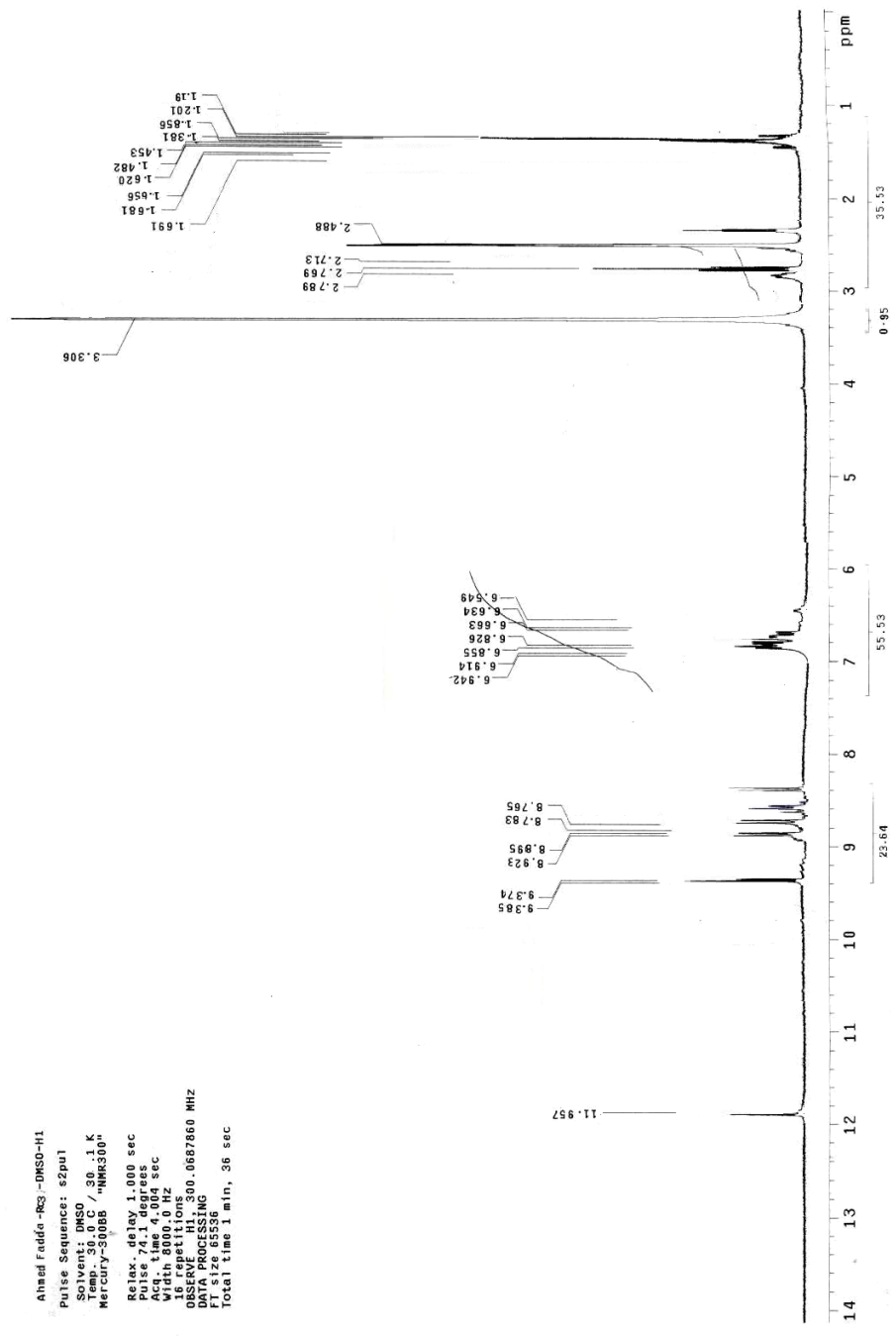


Figure 5: $^1\text{H-NMR}$ Spectrum of Compound (9)

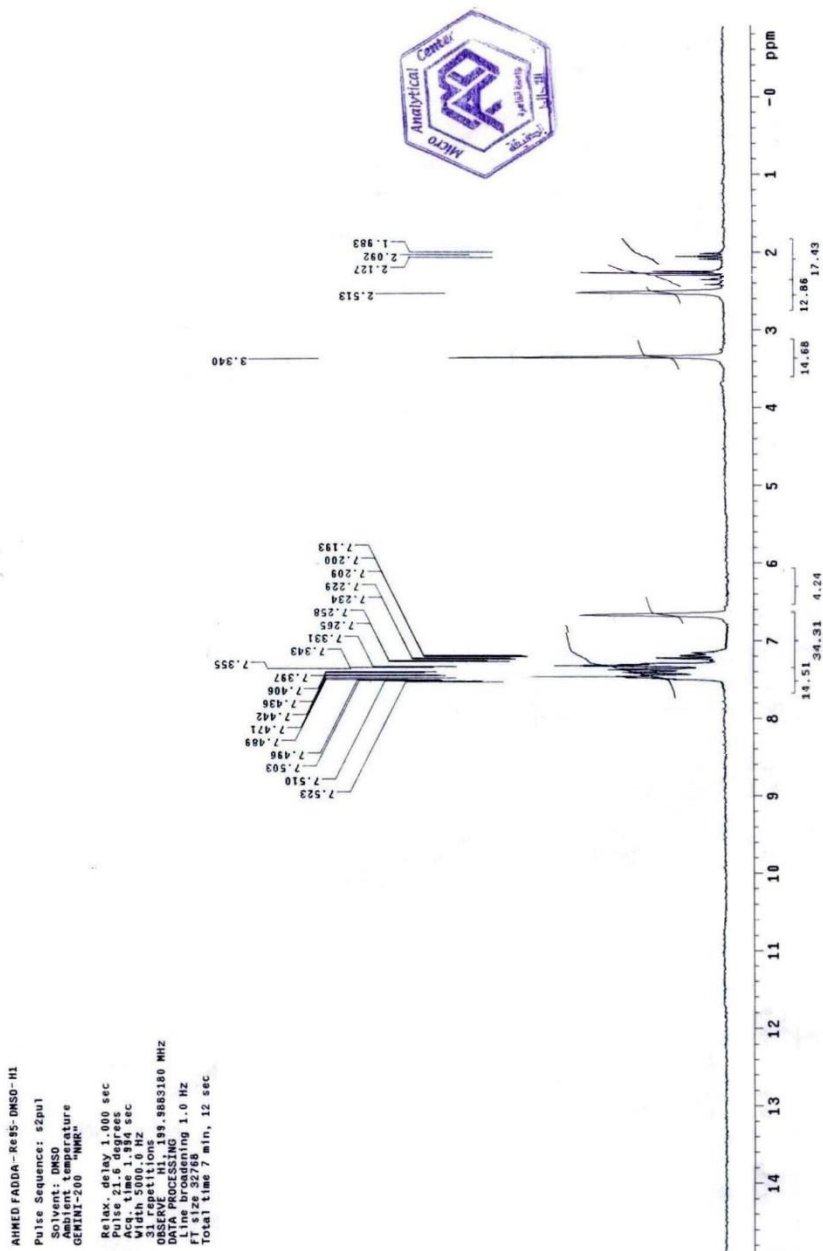


Figure 6: ¹H-NMR Spectrum of Compound (10)

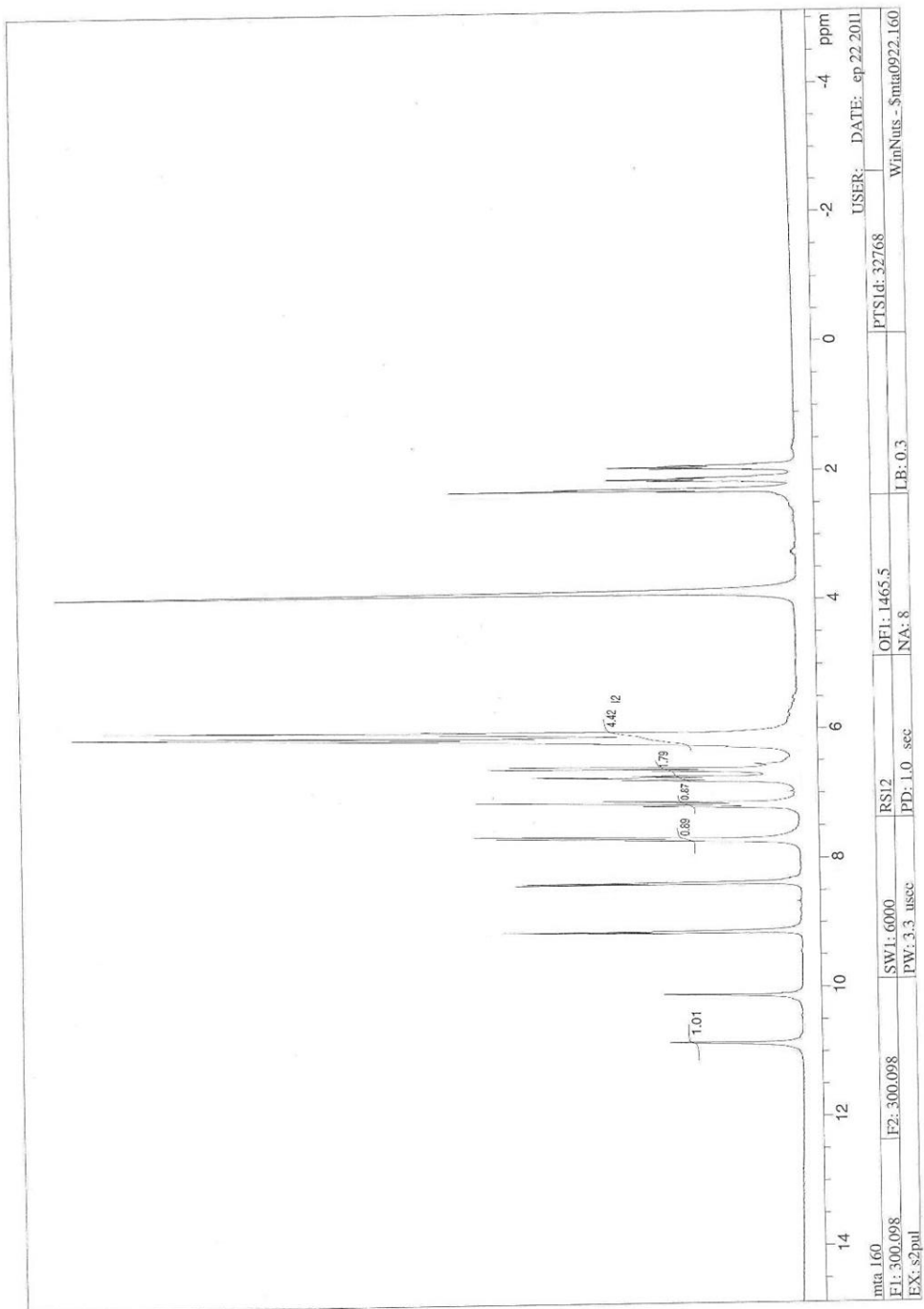


Figure 7: ^1H -NMR Spectrum of Compound (11a)

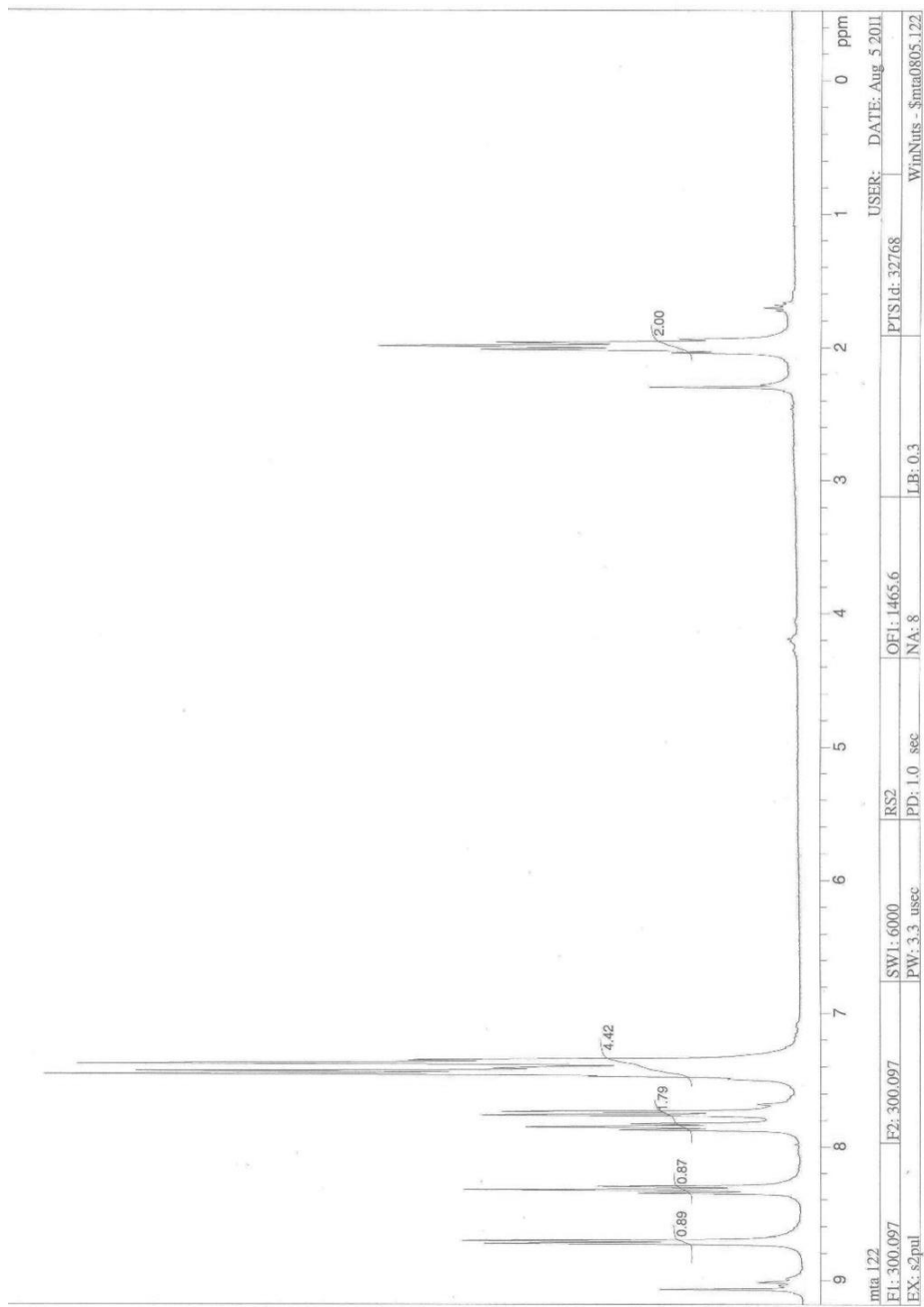


Figure 8: $^1\text{H-NMR}$ Spectrum of Compound (116)

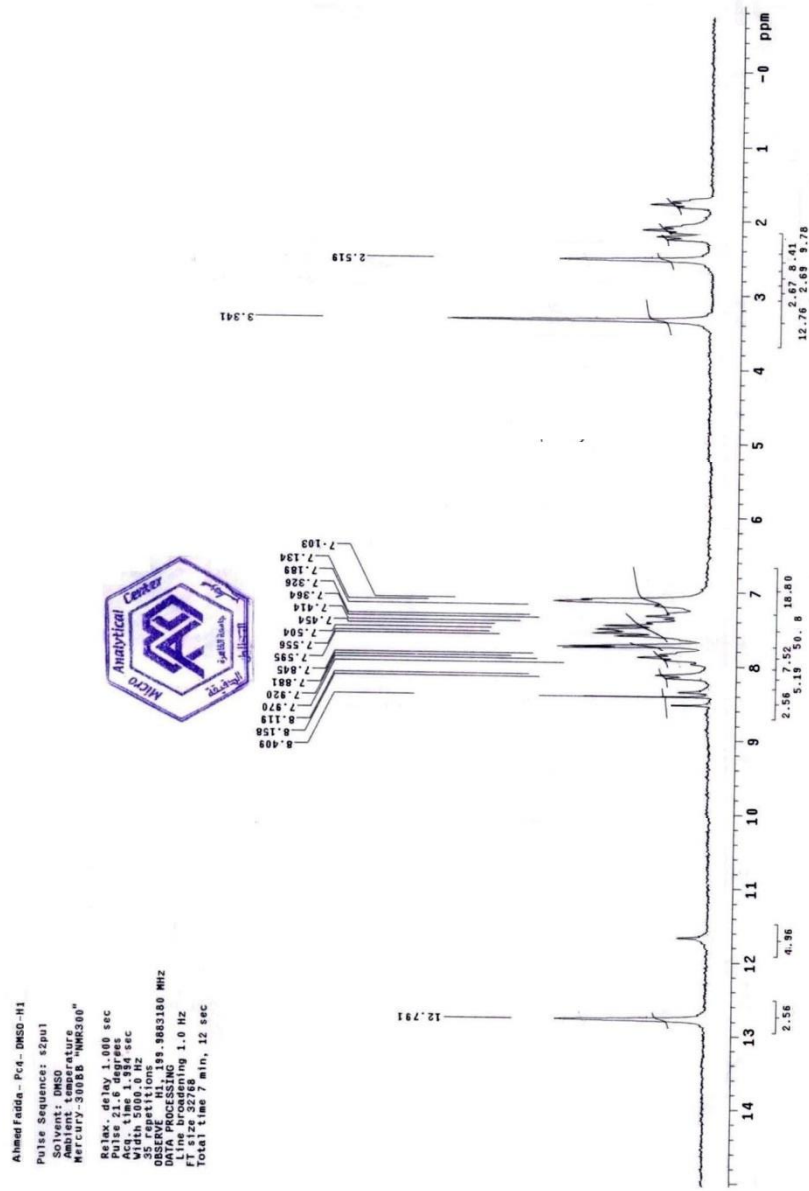


Figure 9: $^1\text{H-NMR}$ Spectrum of Compound (11c)

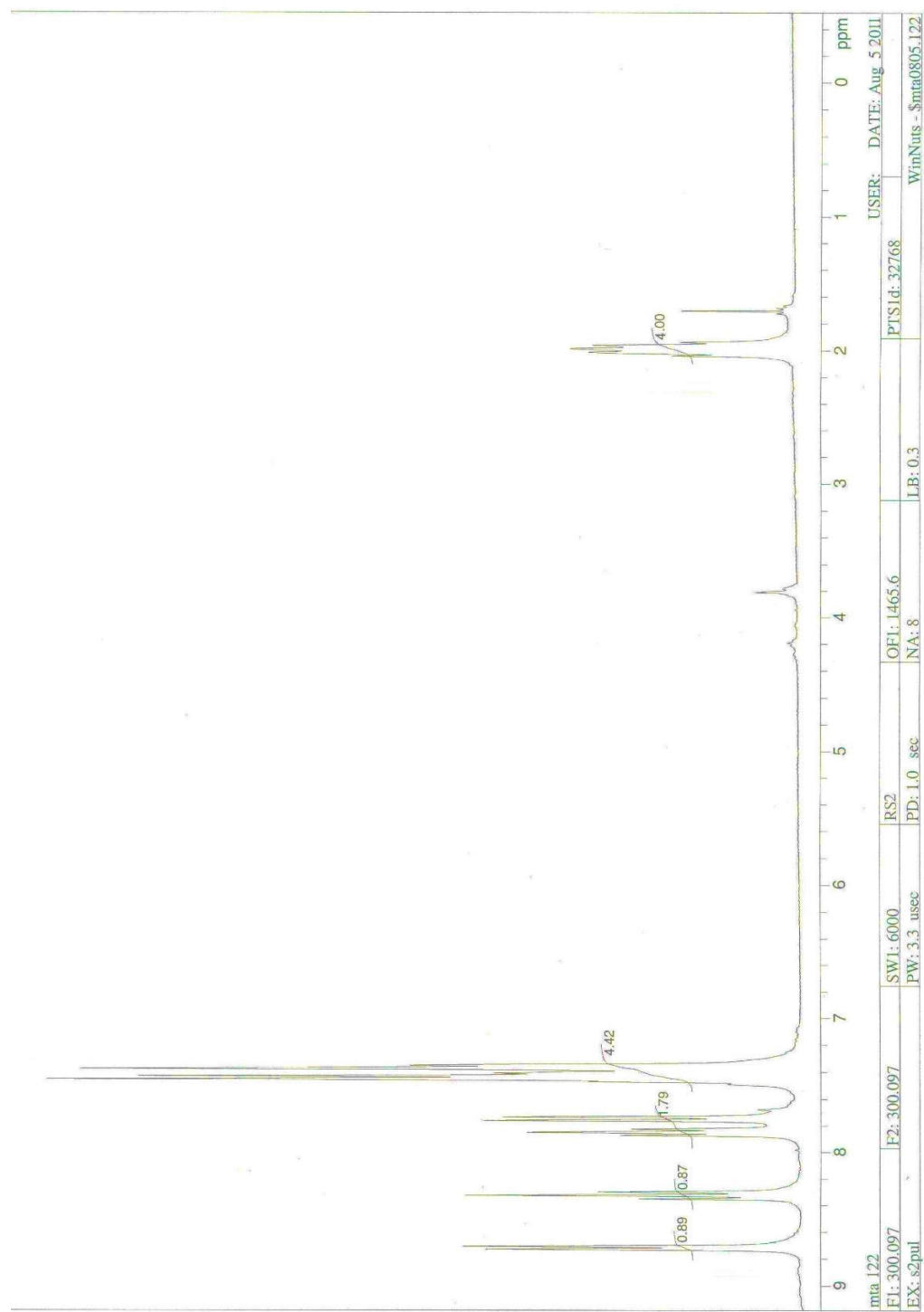


Figure 10: ^1H -NMR Spectrum of Compound (12a)

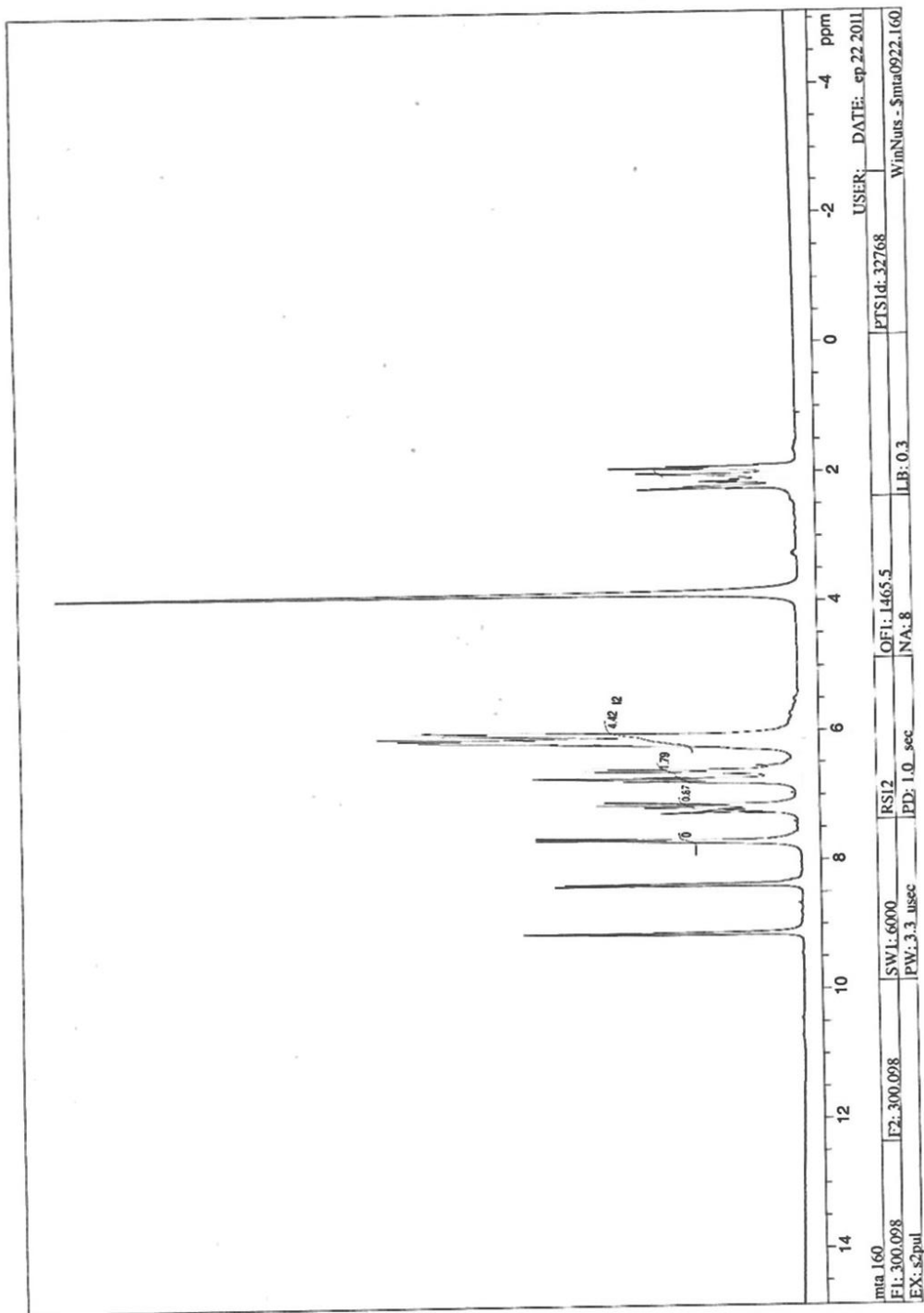


Figure 11: ^1H -NMR Spectrum of Compound (126)

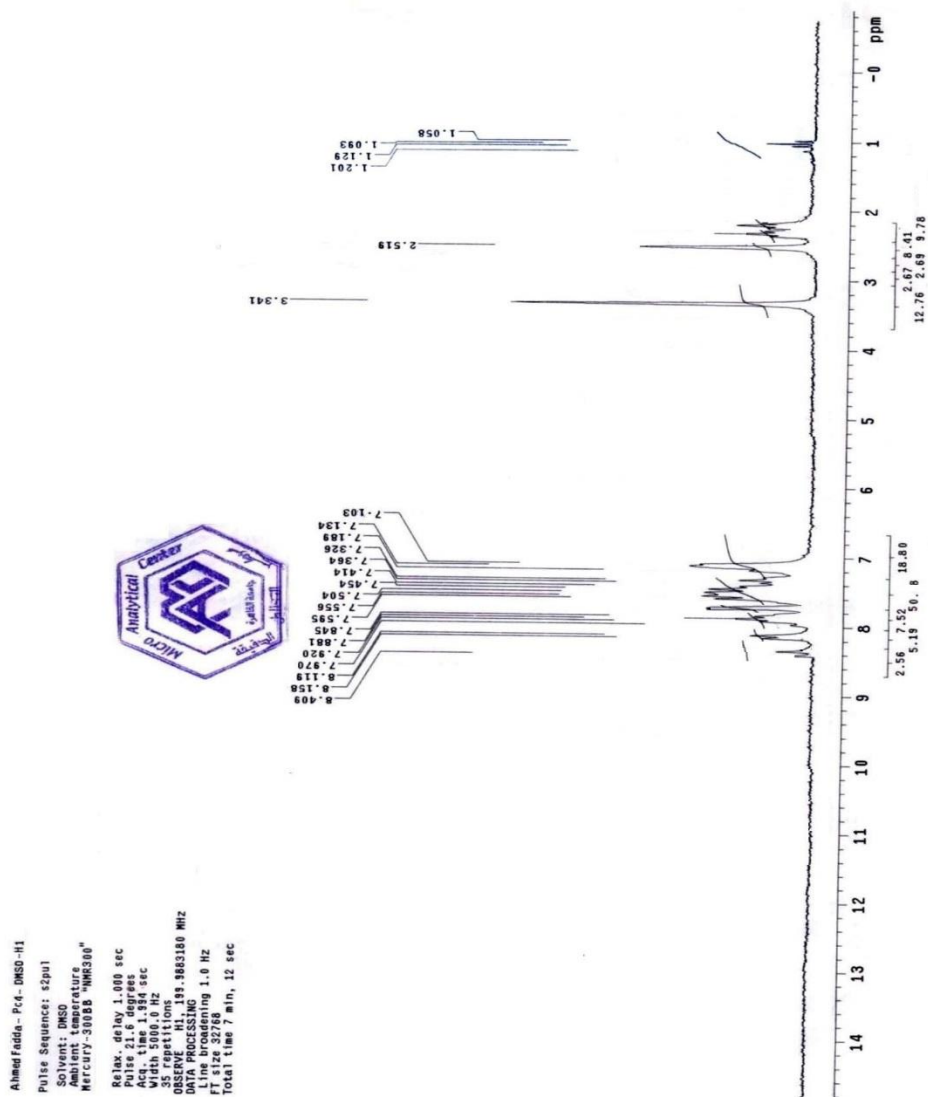


Figure 12: $^1\text{H-NMR}$ Spectrum of Compound (12c)



STANDARD 1H OBSERVE
Pulse Sequence: s2pu1
Solvent: CDCl3
Ambient temperature
GEMINI-200 "NMR"
Relax delay 1.000 sec
Acq. time 1.995 sec
Acq. time 1.995 sec
Width 5999.6 Hz
100 repetitions
Observed 139.3743276 MHz
DATA PROCESSING
FT size 85536
Total time 11 min, 27 sec

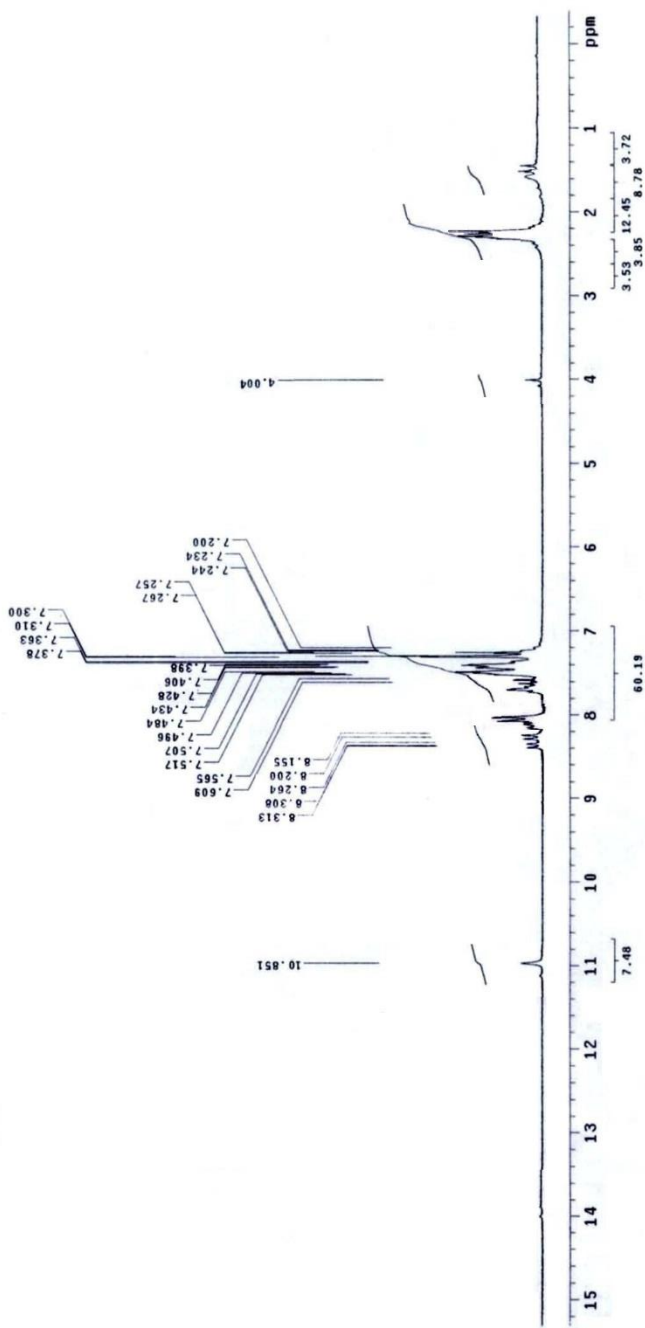


Figure 13: $^1\text{H-NMR}$ Spectrum of Compound(14)

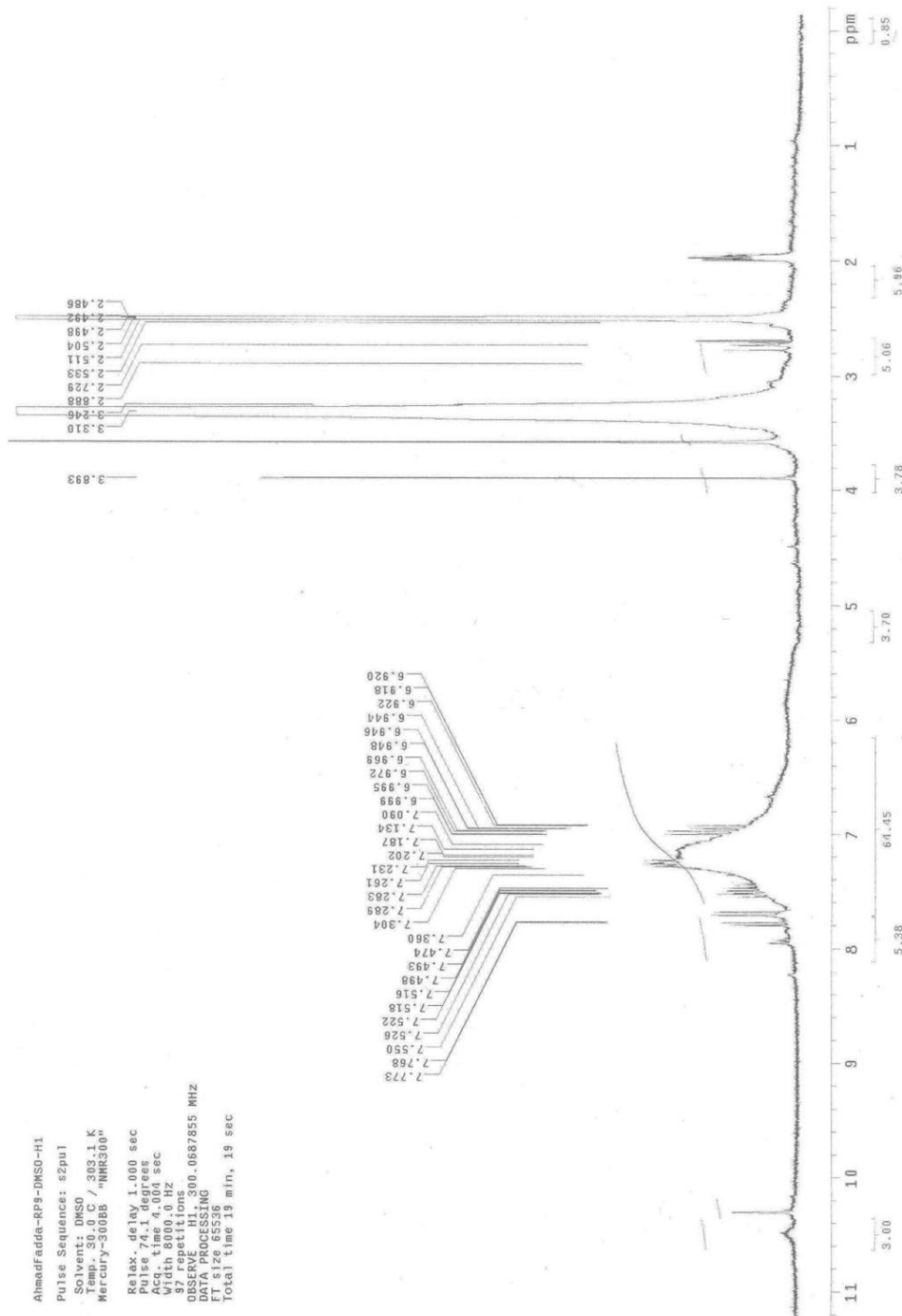


Figure 14: $^1\text{H-NMR}$ Spectrum of Compound(15)

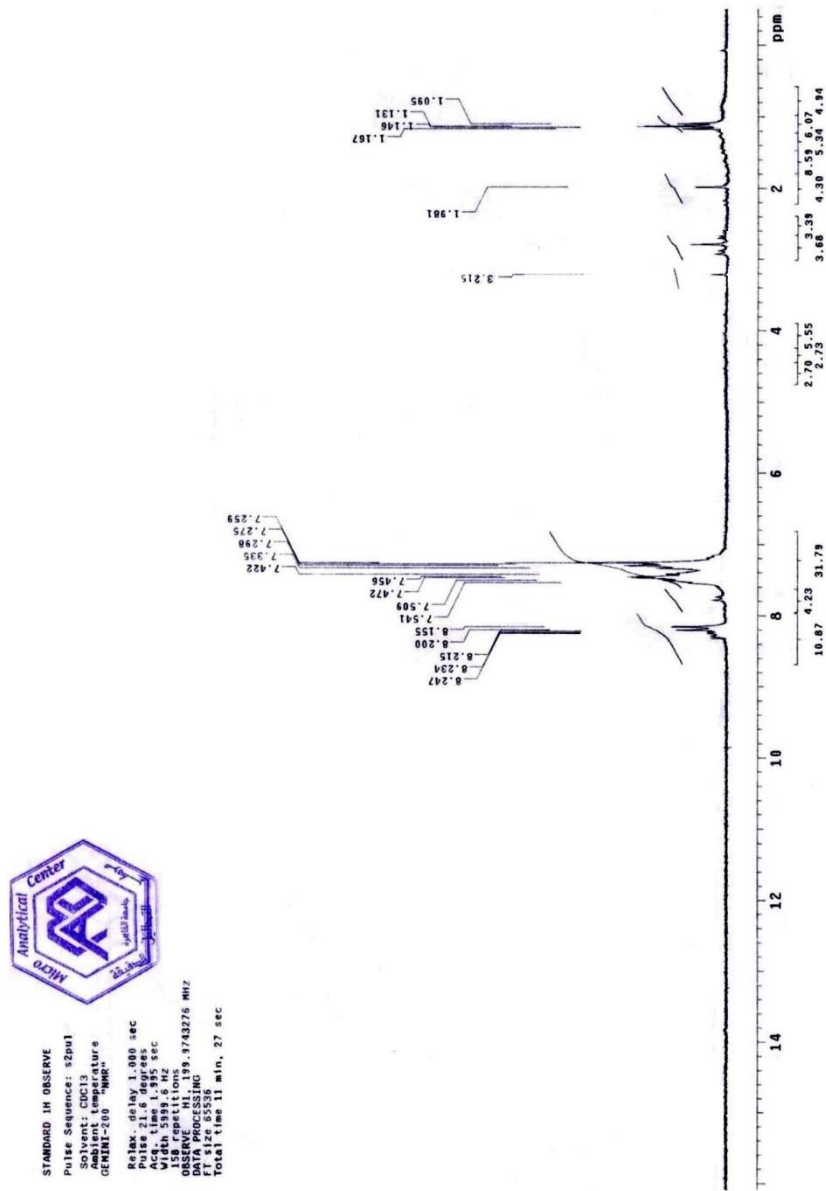


Figure 15: ¹H-NMR Spectrum of Compound(17)

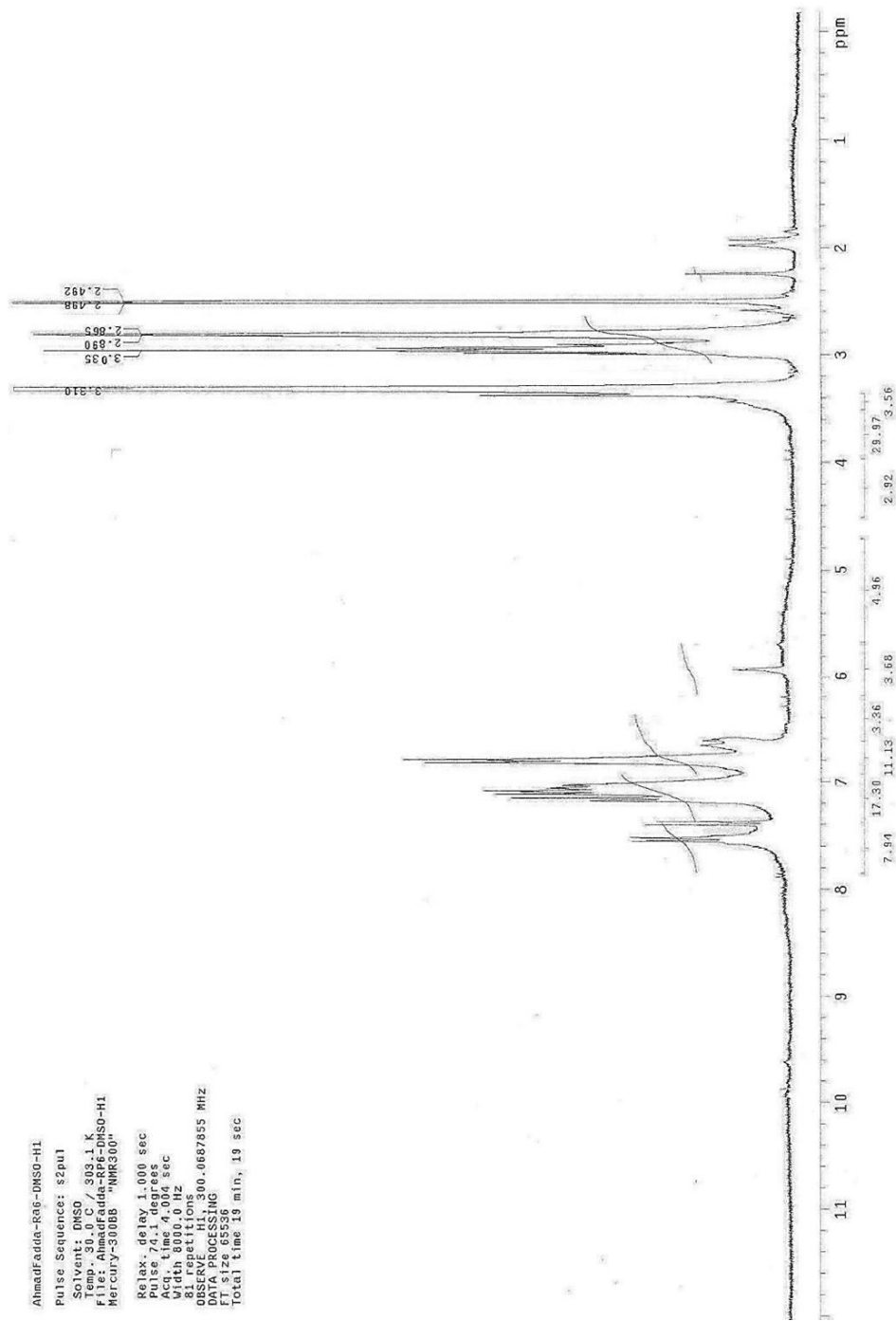


Figure 16: $^1\text{H-NMR}$ Spectrum of Compound(18)

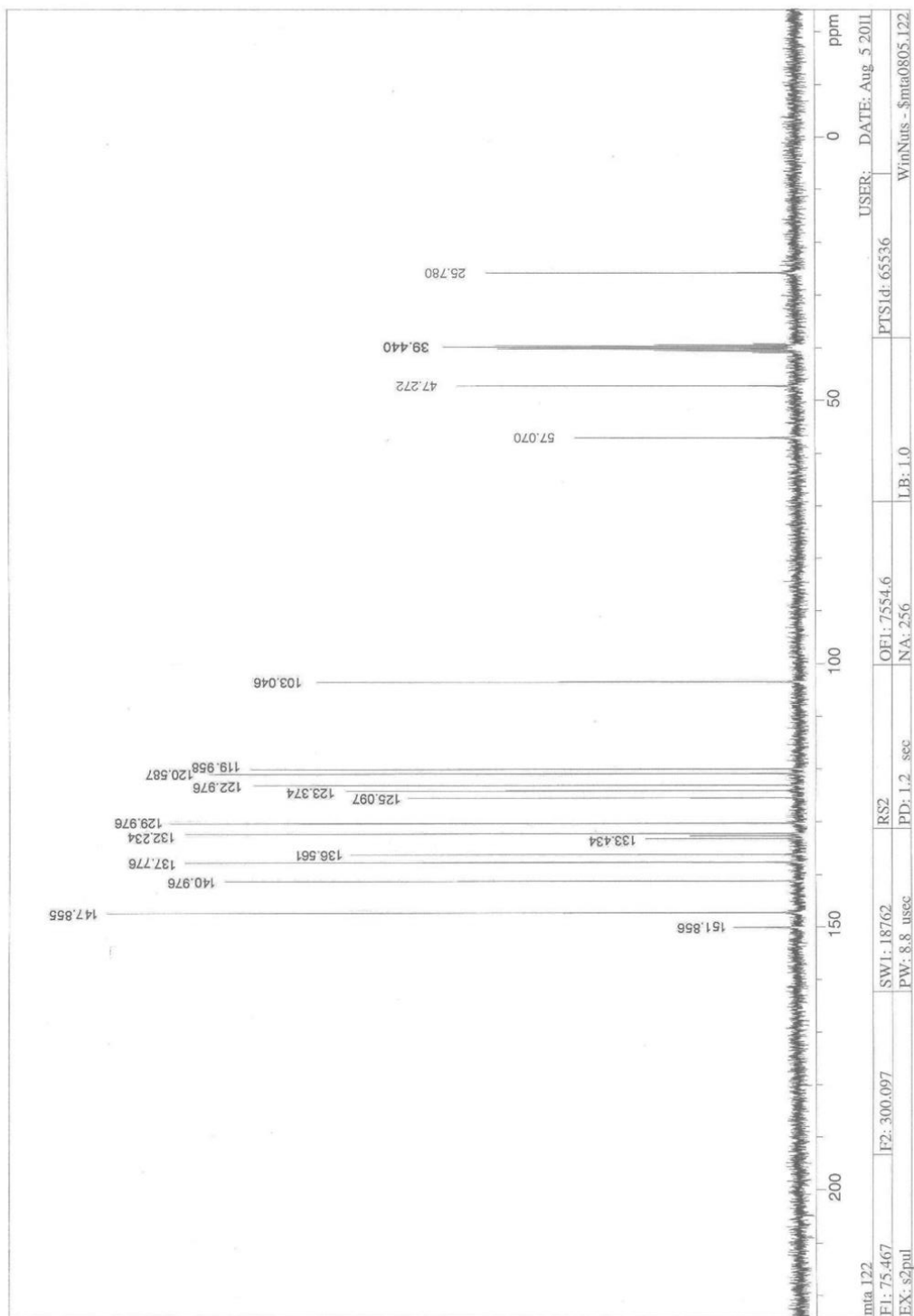


Figure 1: $^{13}\text{C-NMR}$ Spectrum of Compound (1)

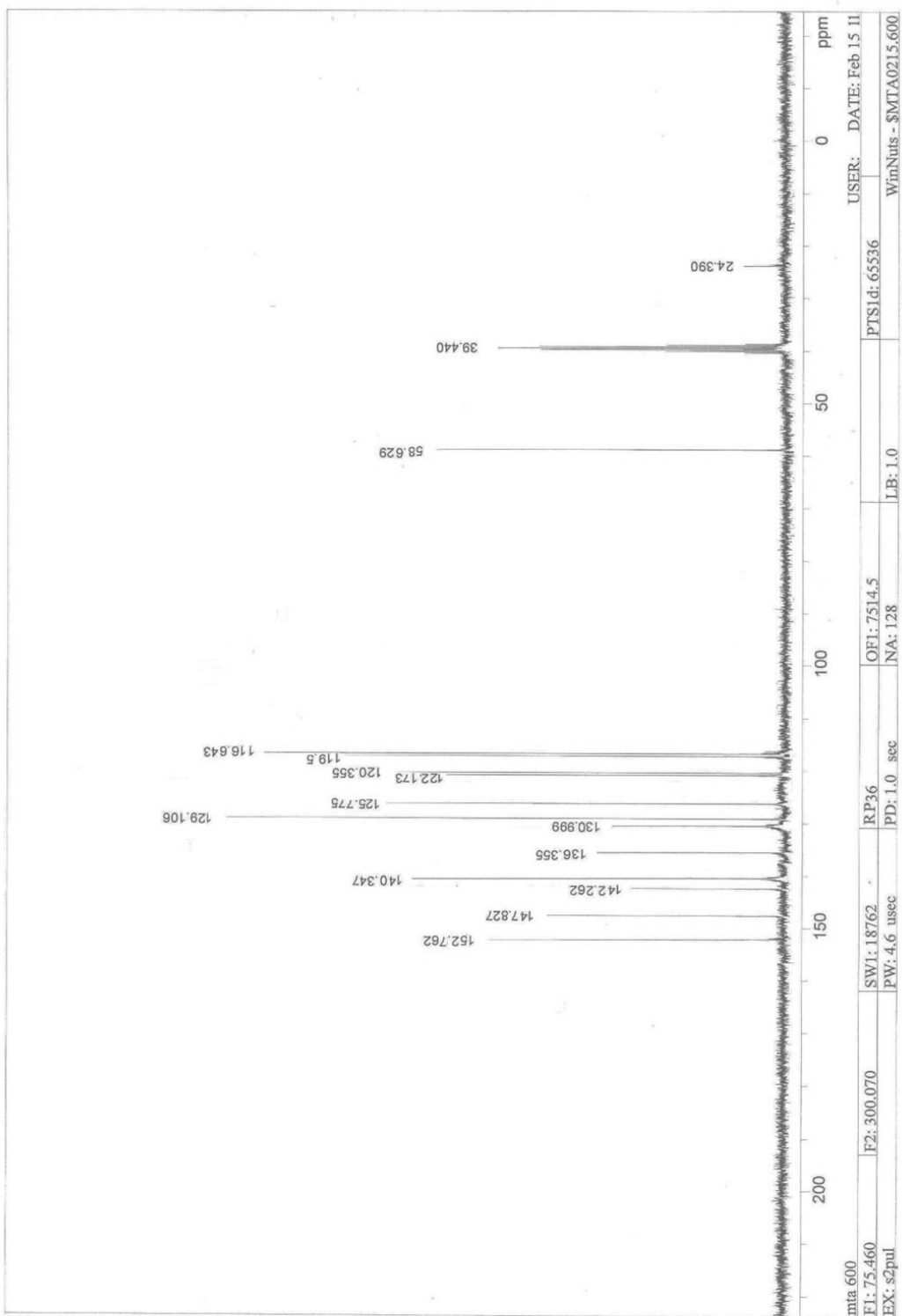


Figure 2: ^{13}C -NMR Spectrum of Compound (3)

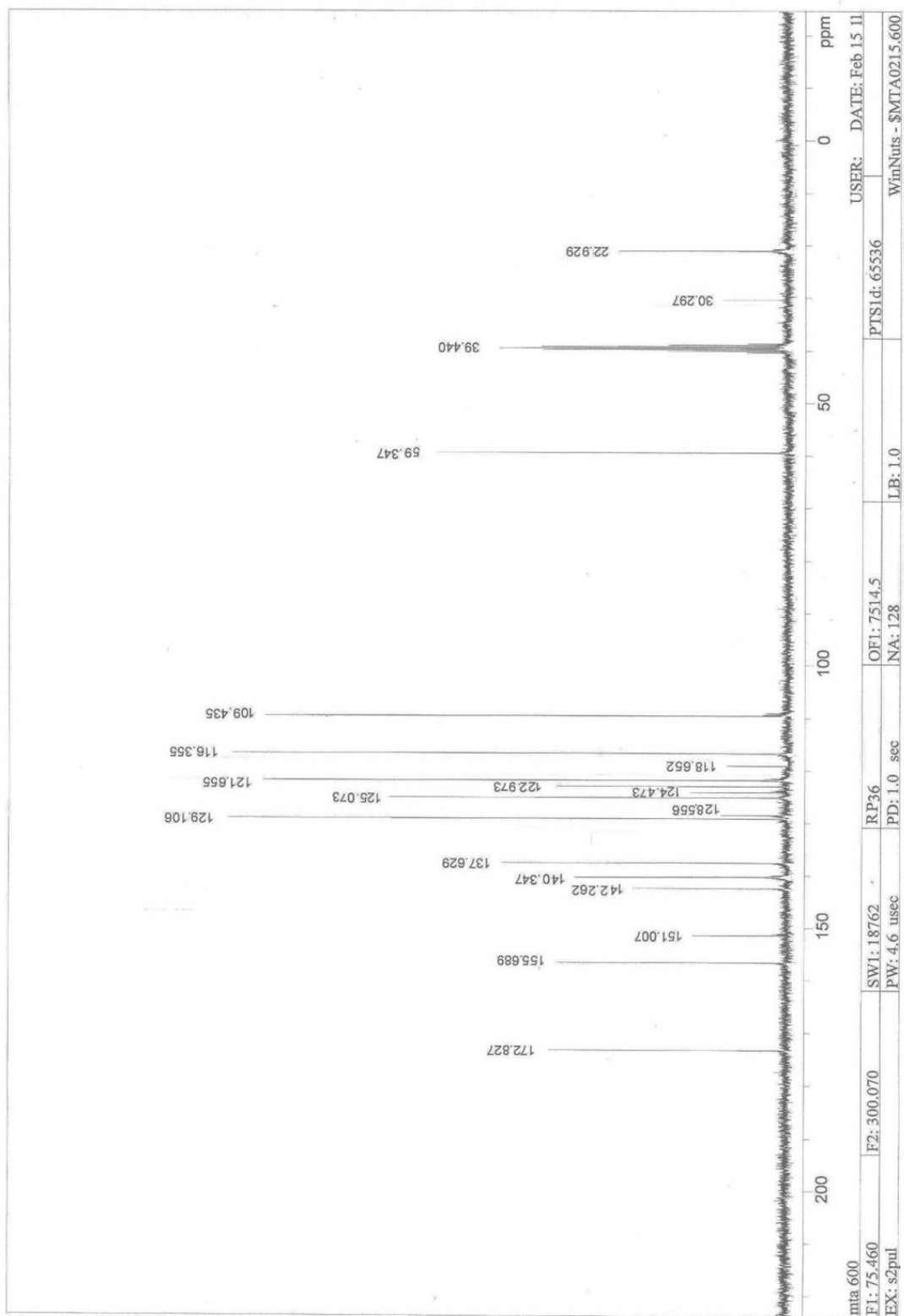


Figure 3: $^{13}\text{C-NMR}$ Spectrum of Compound (7)

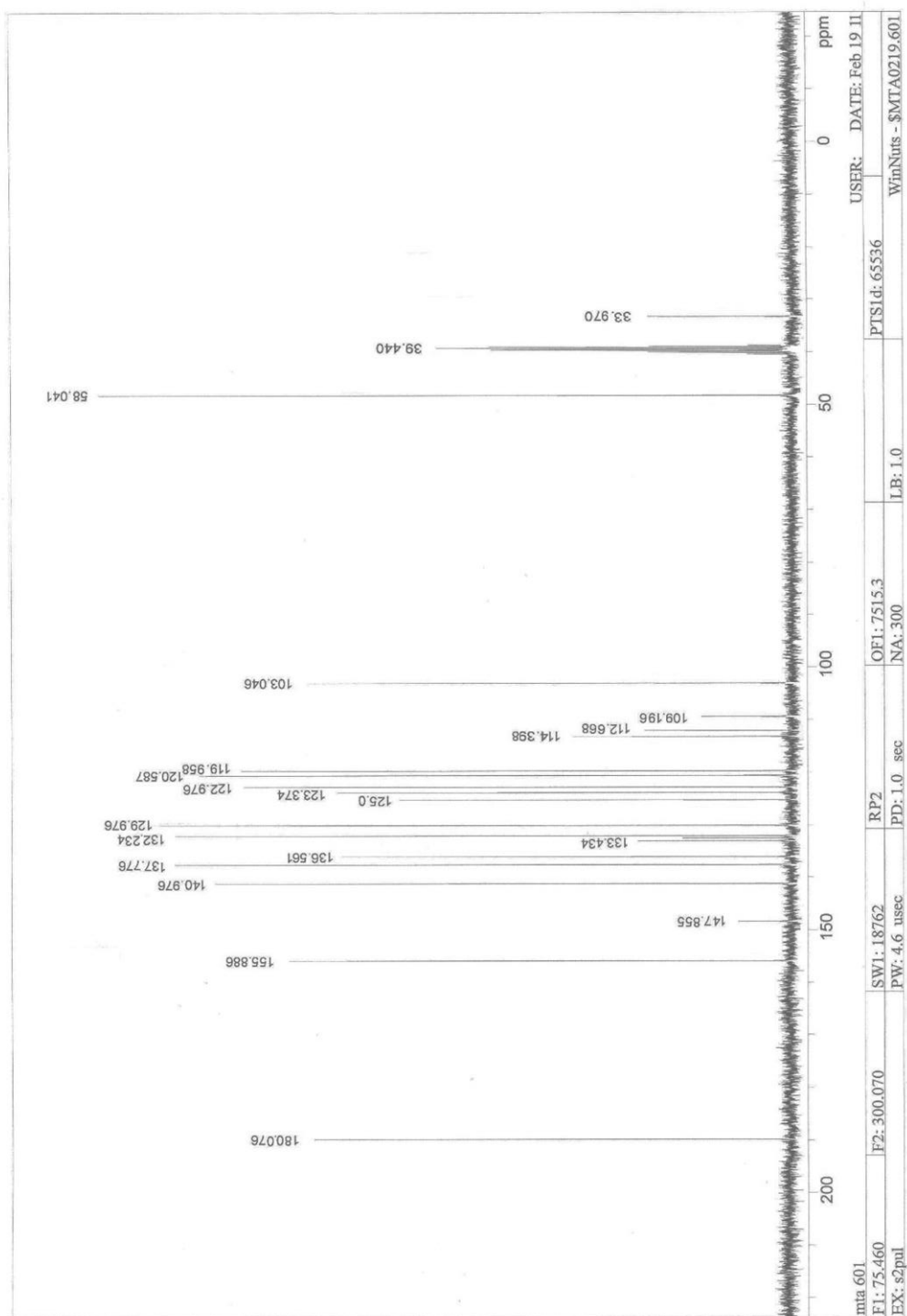


Figure 4: $^{13}\text{C-NMR}$ Spectrum of Compound (8)

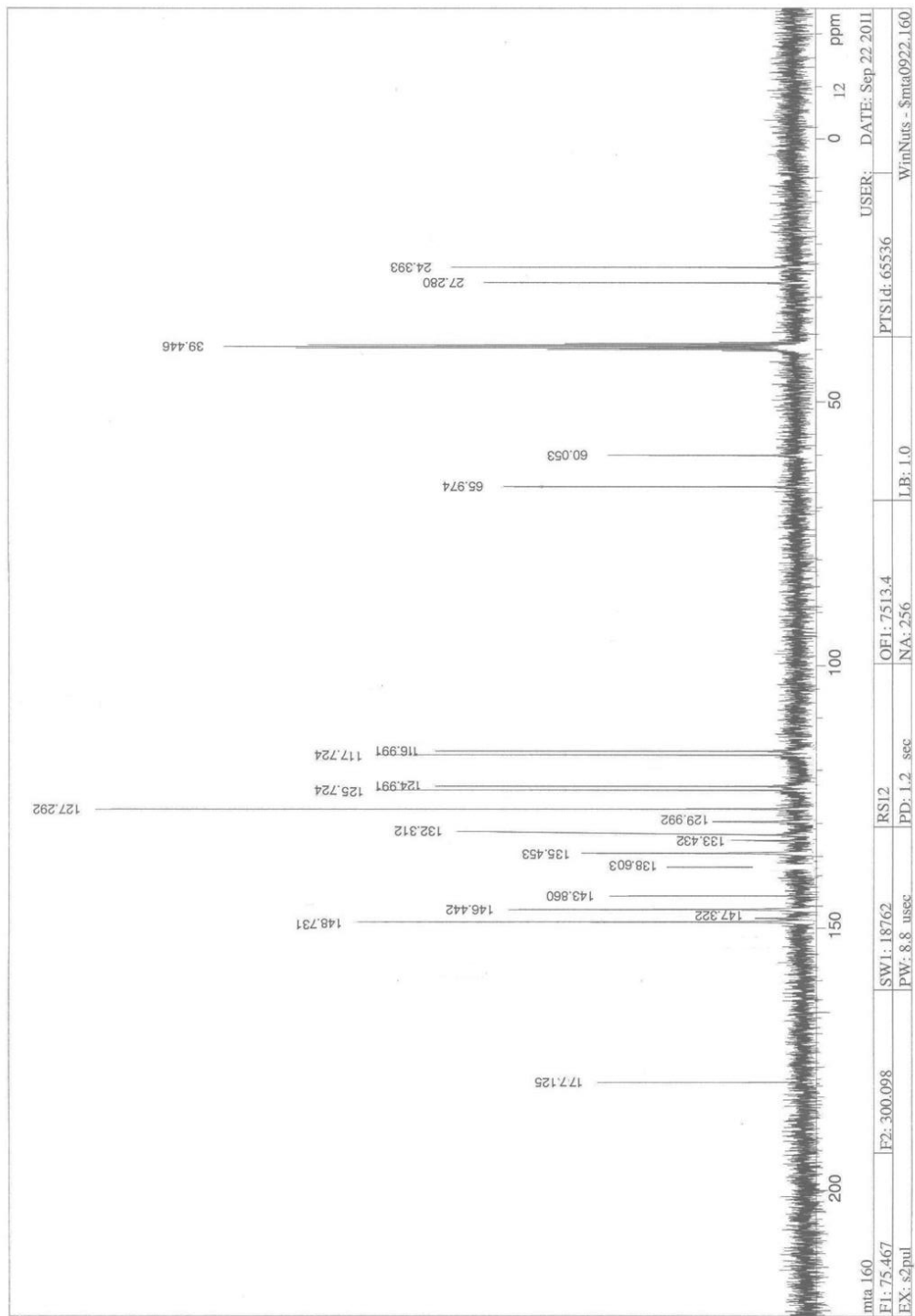


Figure 5: $^{13}\text{C-NMR}$ Spectrum of Compound (9)

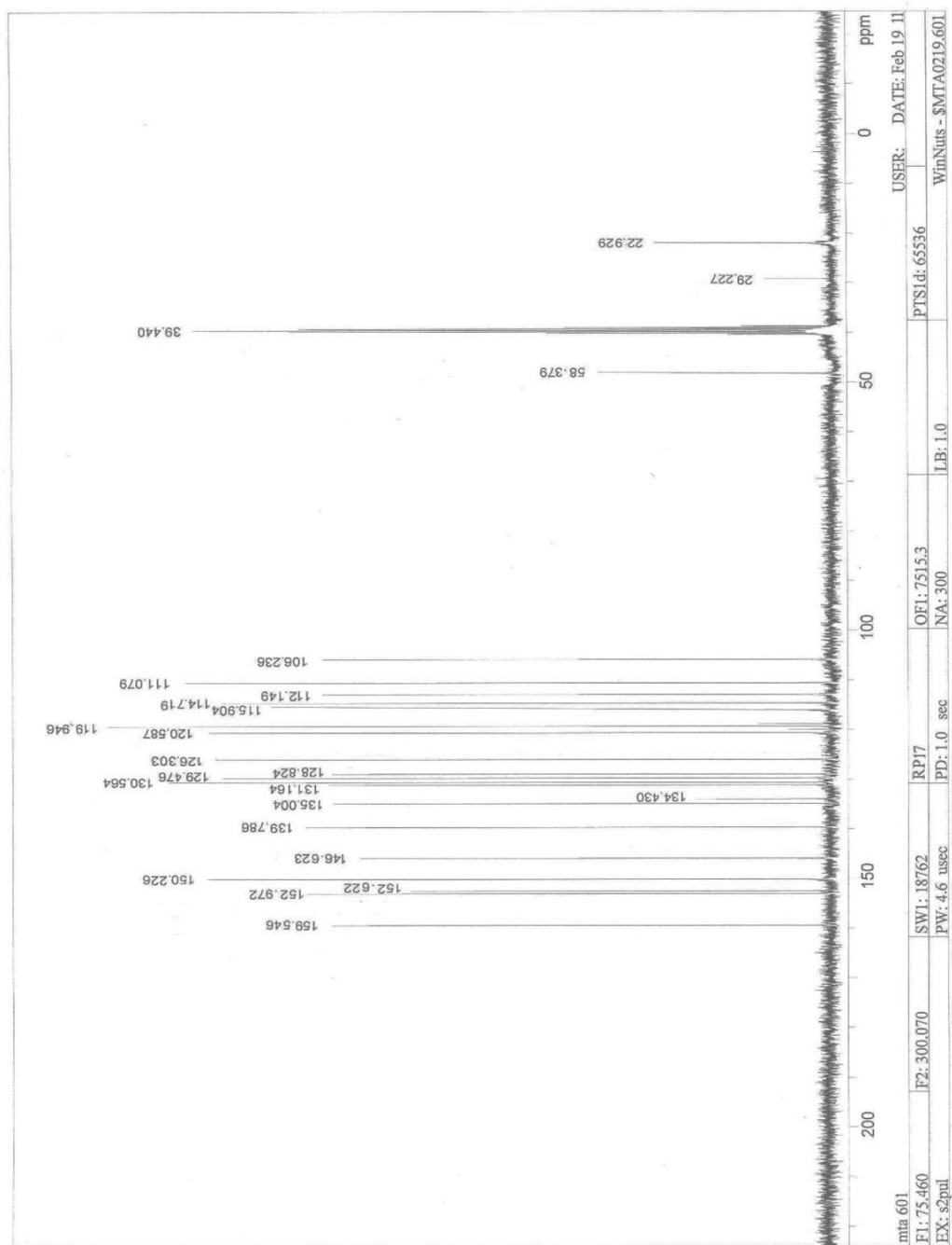


Figure 6: ^{13}C -NMR Spectrum of Compound (10)

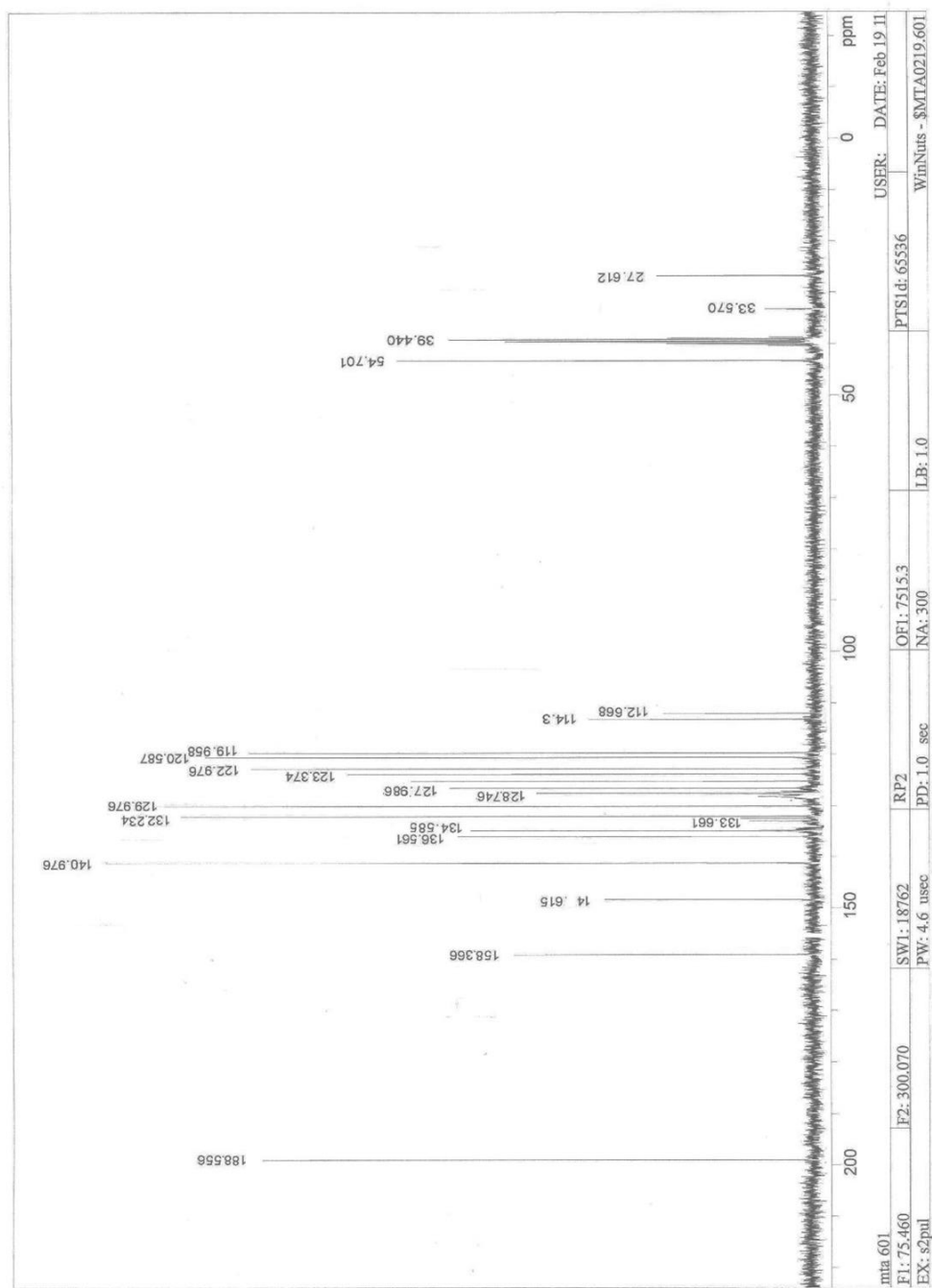


Figure 7: ^{13}C -NMR Spectrum of Compound (11a)

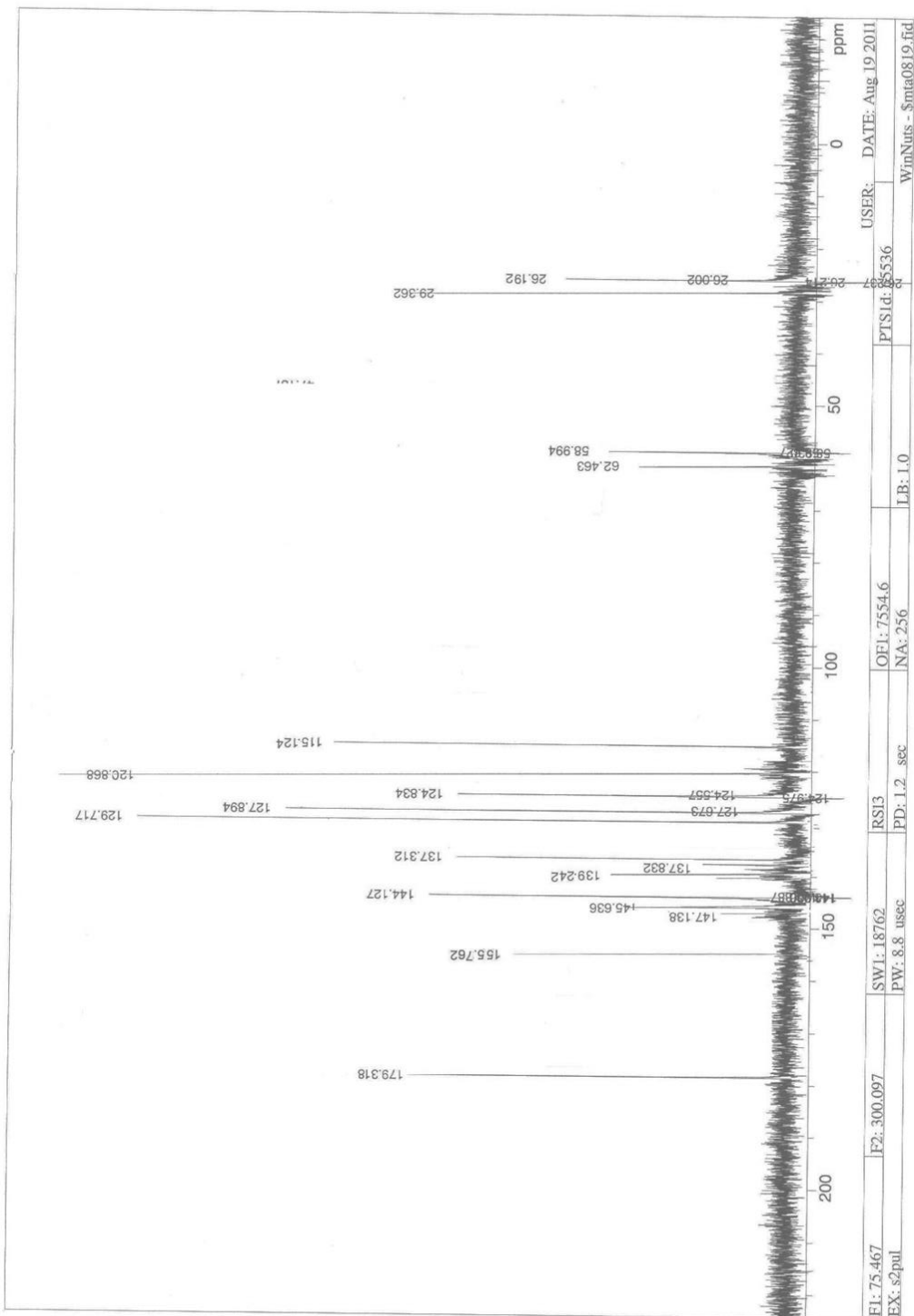


Figure 8: ^{13}C -NMR Spectrum of Compound (12a)

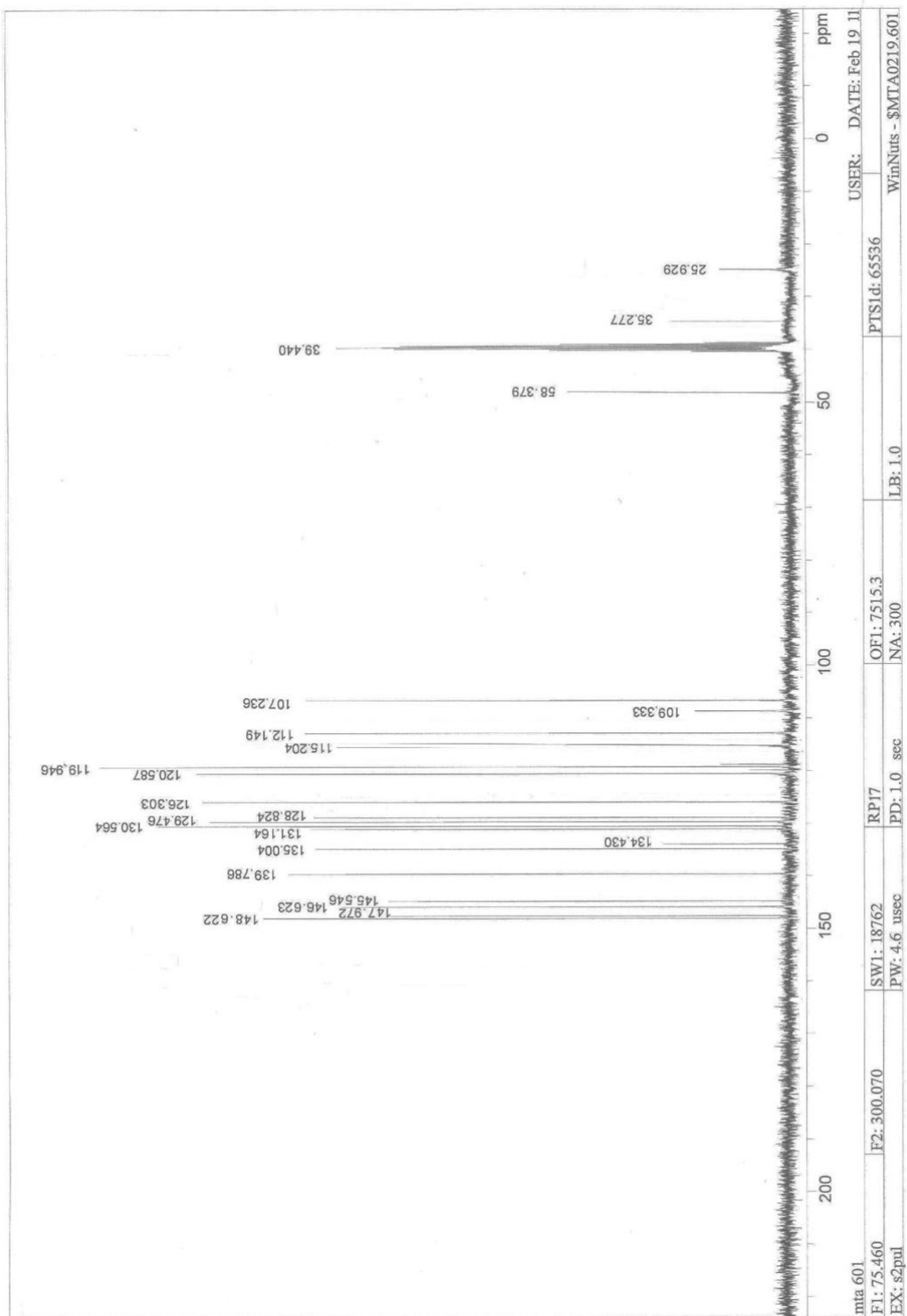


Figure 9: ^{13}C -NMR Spectrum of Compound (14)

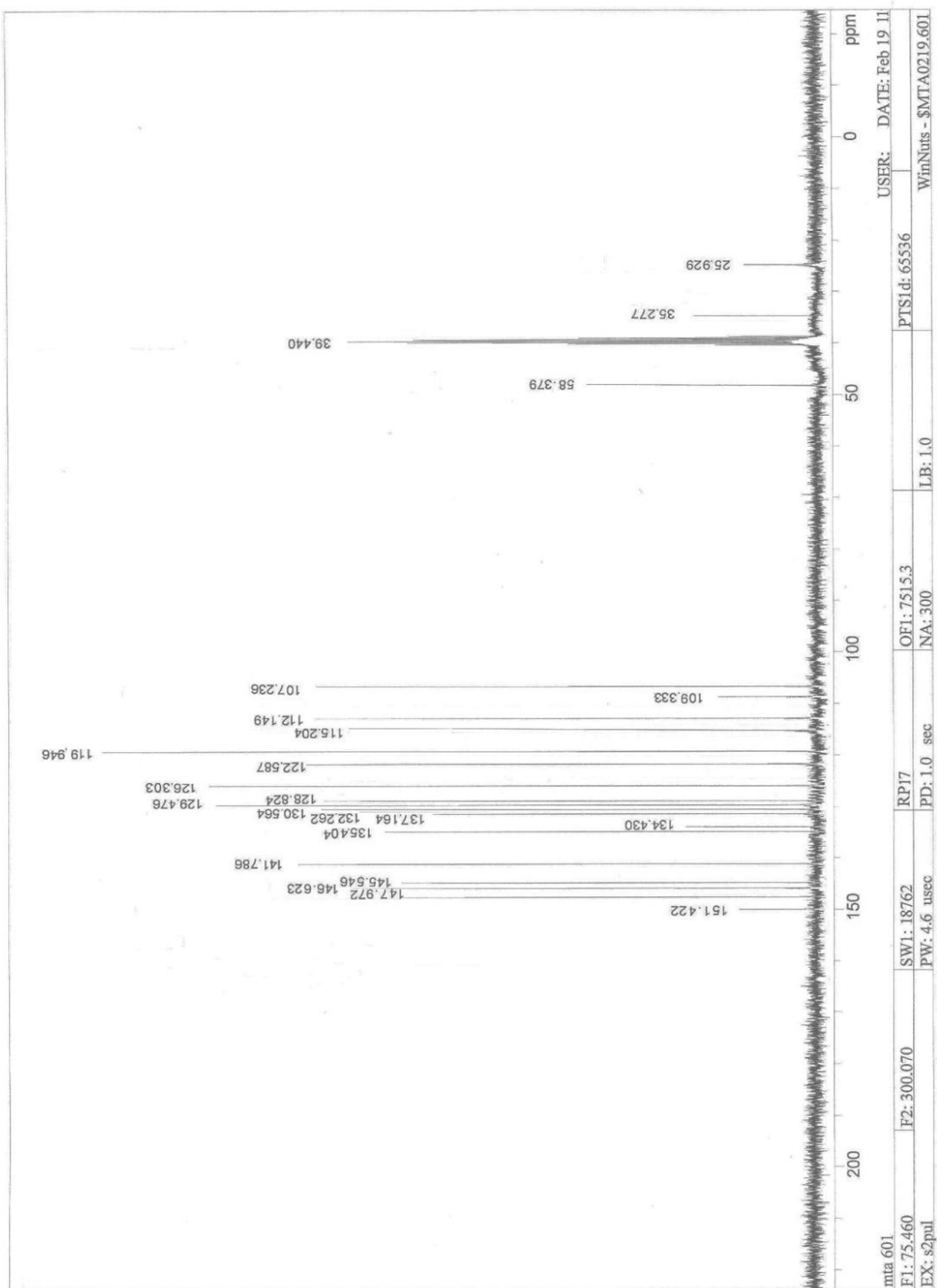


Figure 10: $^{13}\text{C-NMR}$ Spectrum of Compound (15)

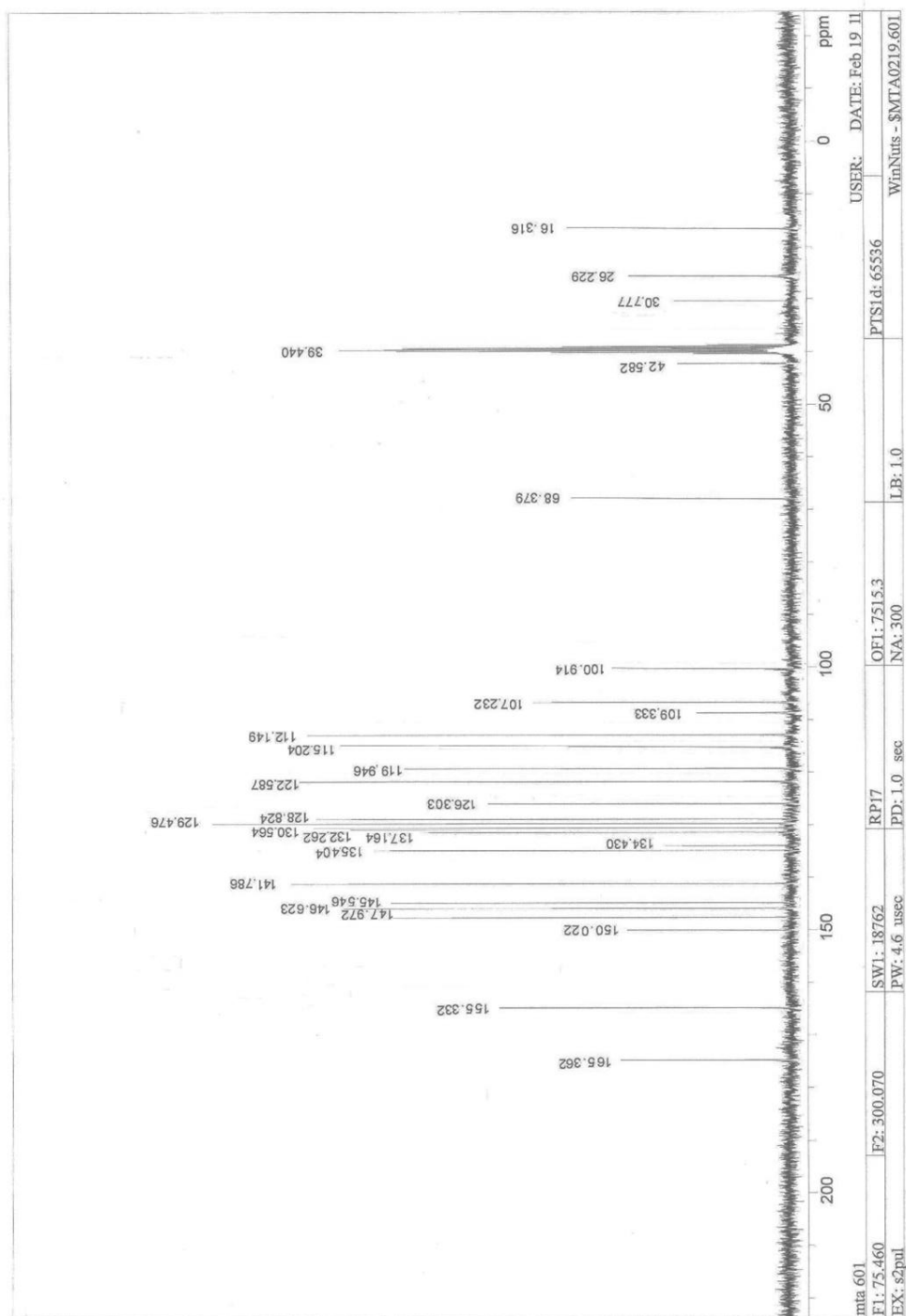


Figure 11: $^{13}\text{C-NMR}$ Spectrum of Compound (17)

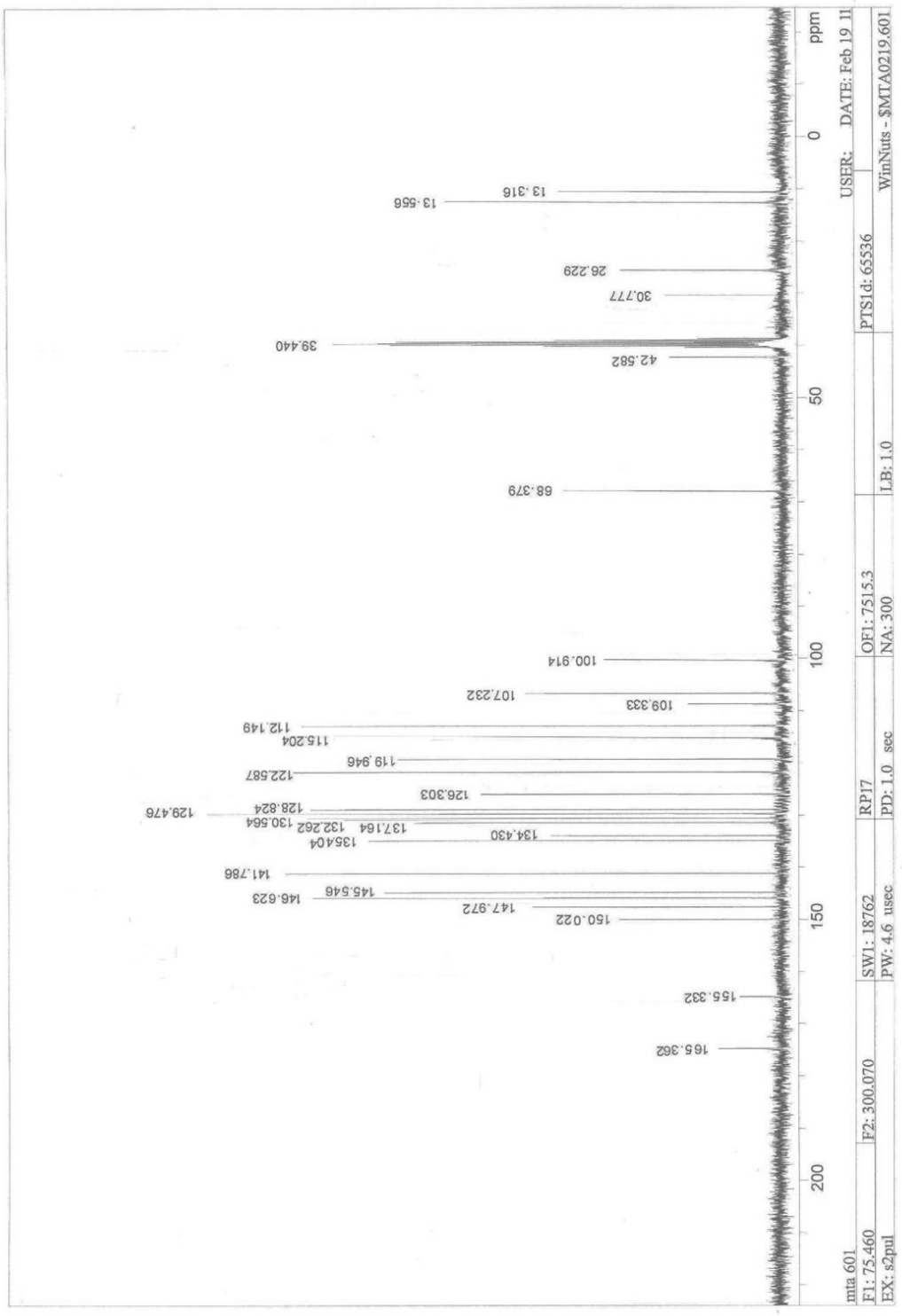


Figure 12: $^{13}\text{C-NMR}$ Spectrum of Compound (18)