

APPENDIX

Abs

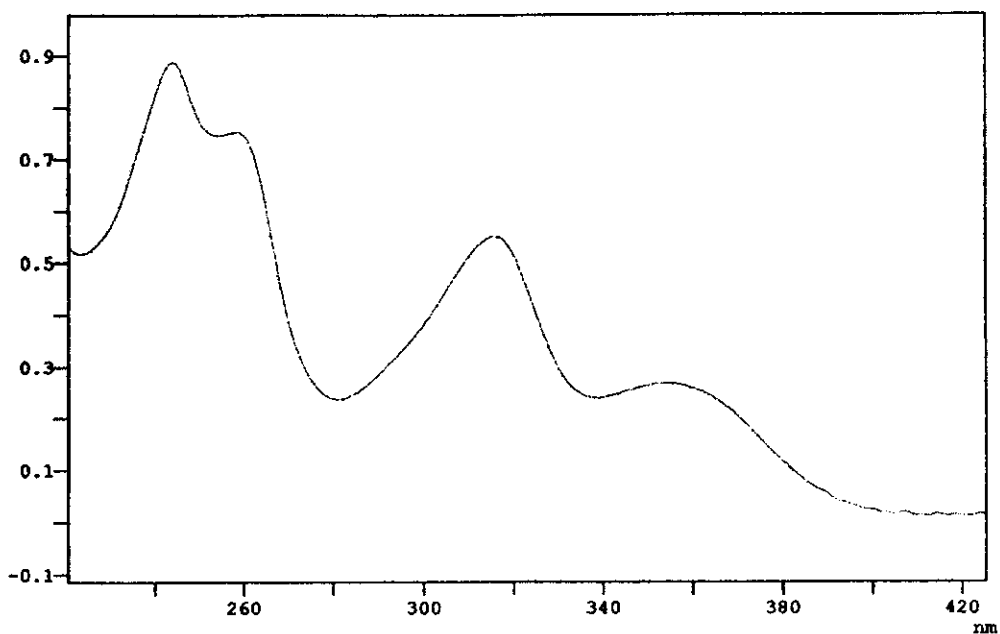


Figure 4 UV (EtOH) spectrum of CCl₄

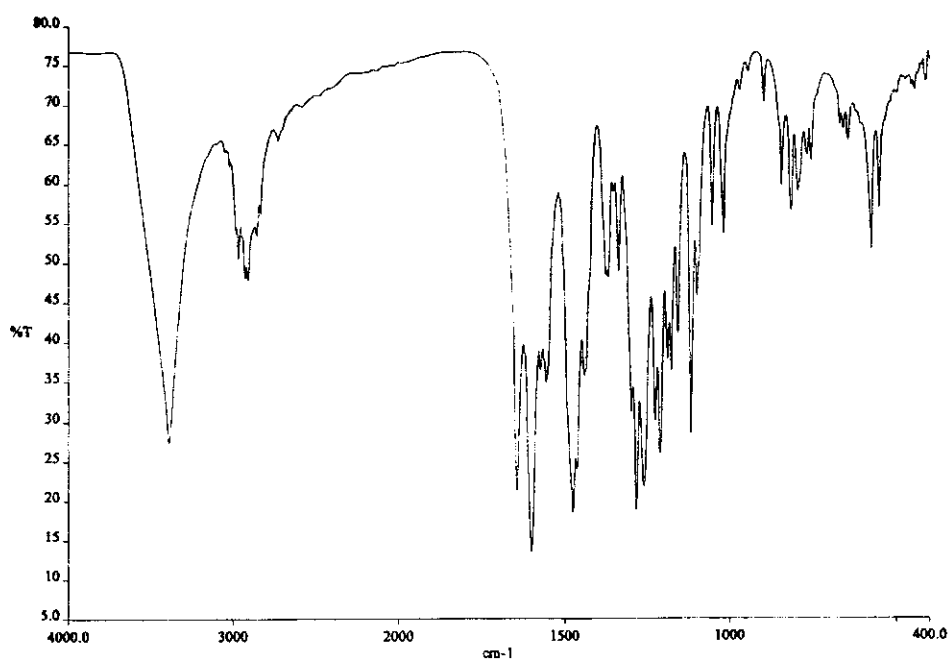


Figure 5 FT-IR (KBr) spectrum of CCl₄

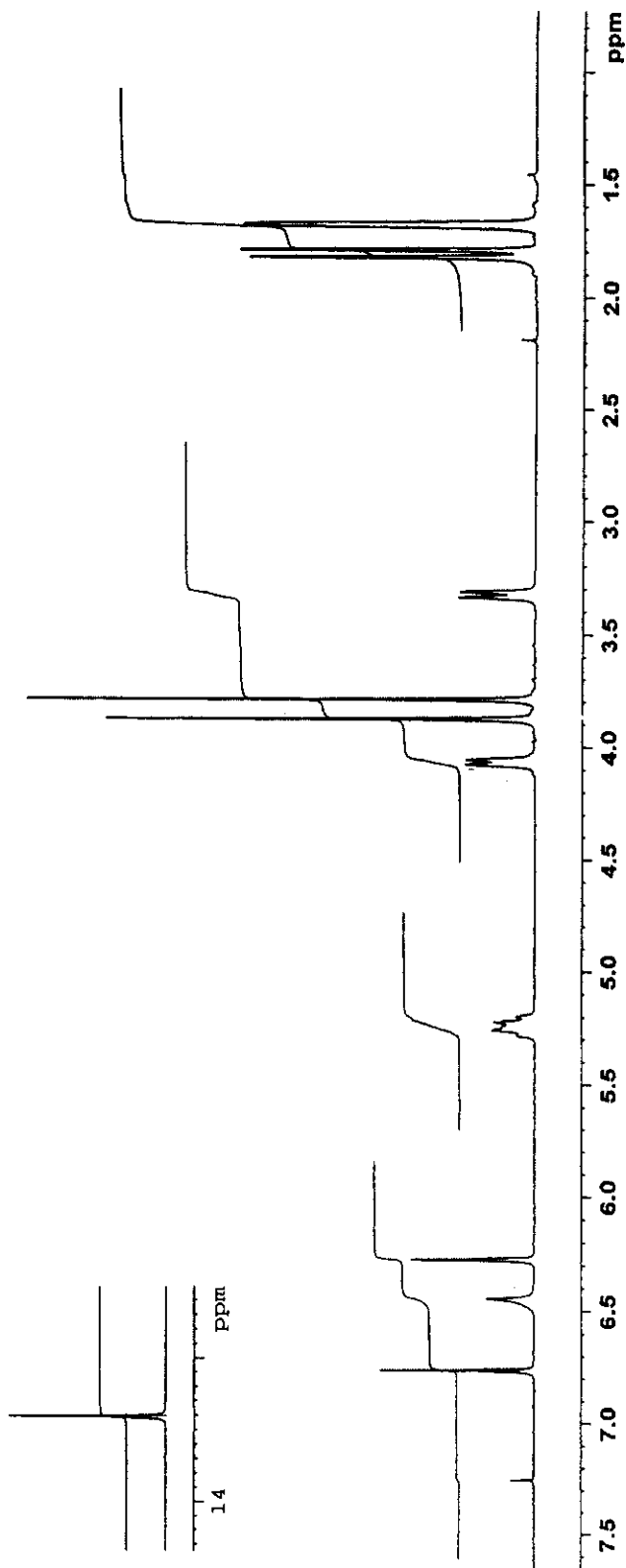
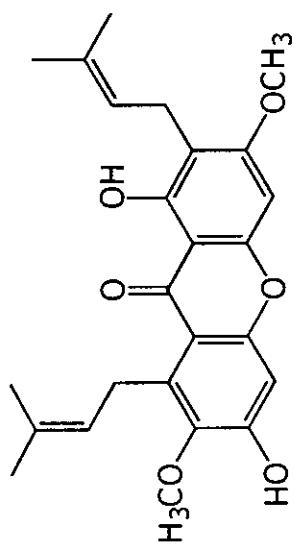


Figure 6 ^1H NMR (300 MHz) (CDCl_3) spectrum of CCl_4

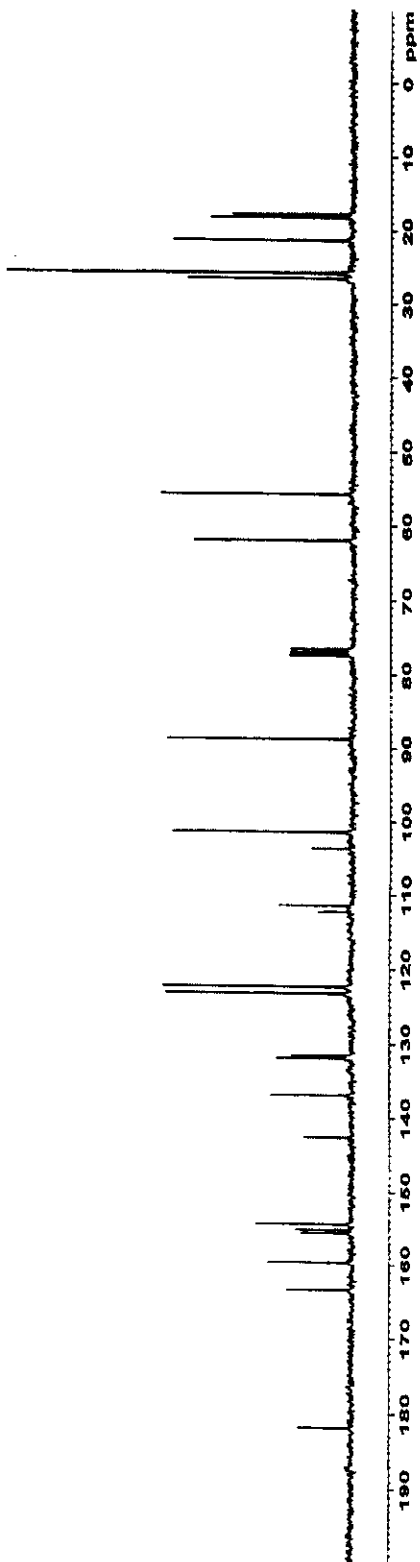


Figure 7 ^{13}C NMR (75 MHz) (CDCl_3) spectrum of CCl_4

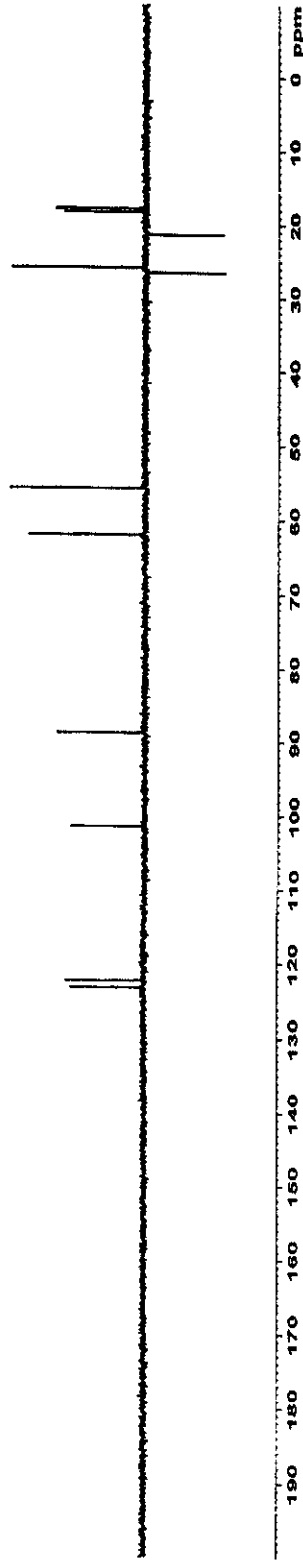


Figure 8 DEPT 135° (CDCl_3) spectrum of CCl_4

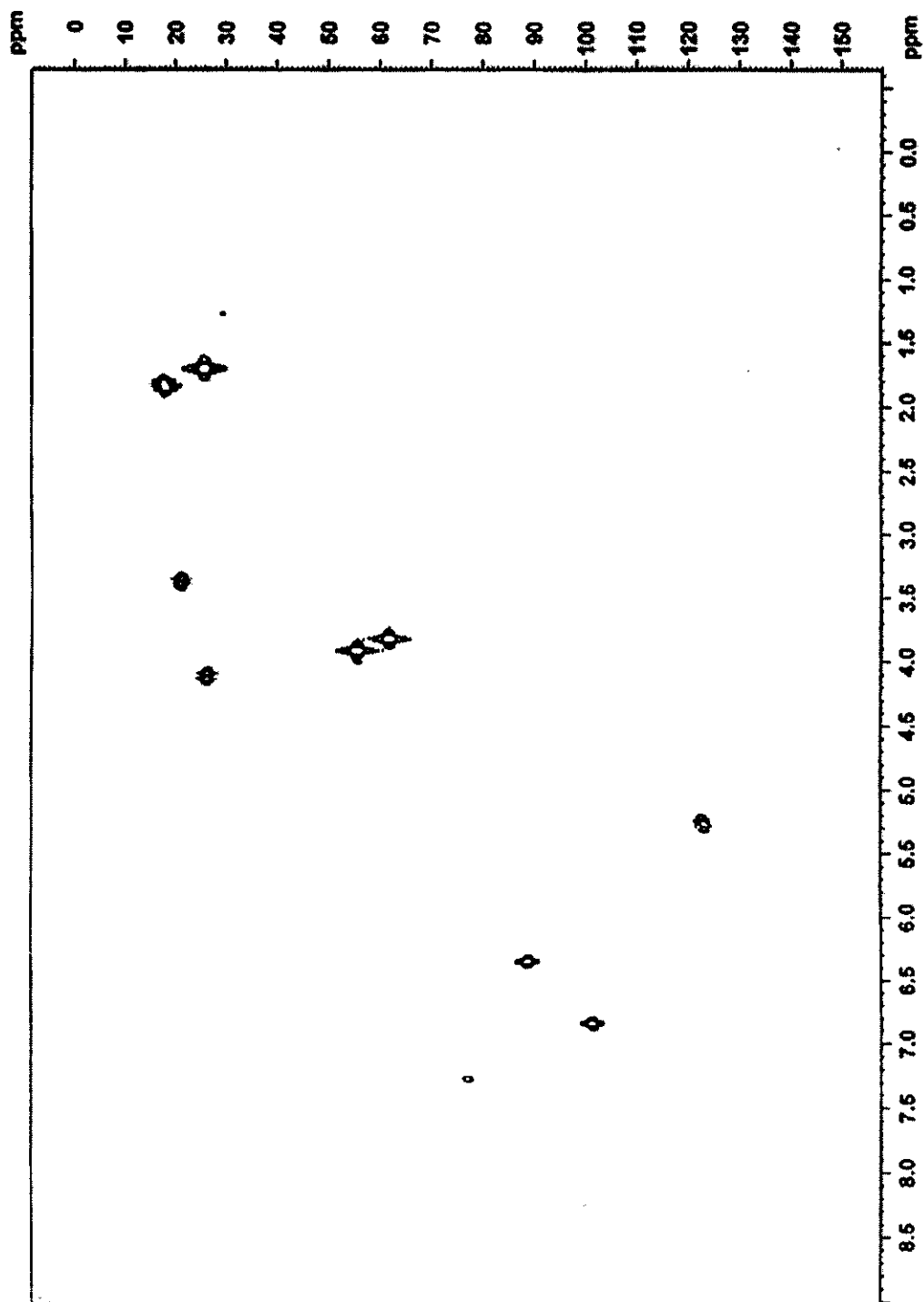


Figure 9 2D HMQC spectrum of CCl1

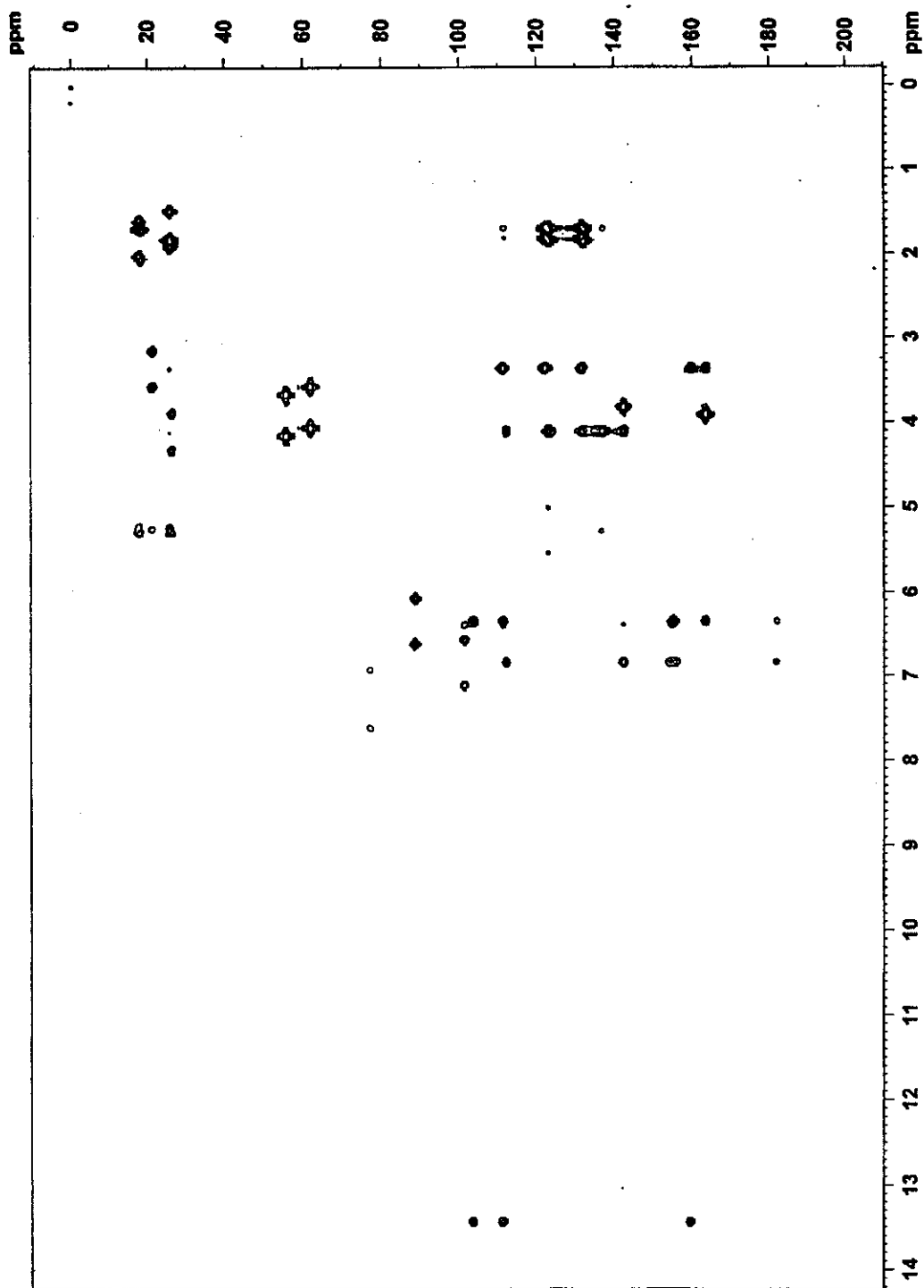


Figure 10 2D HMBC spectrum of CCl₄

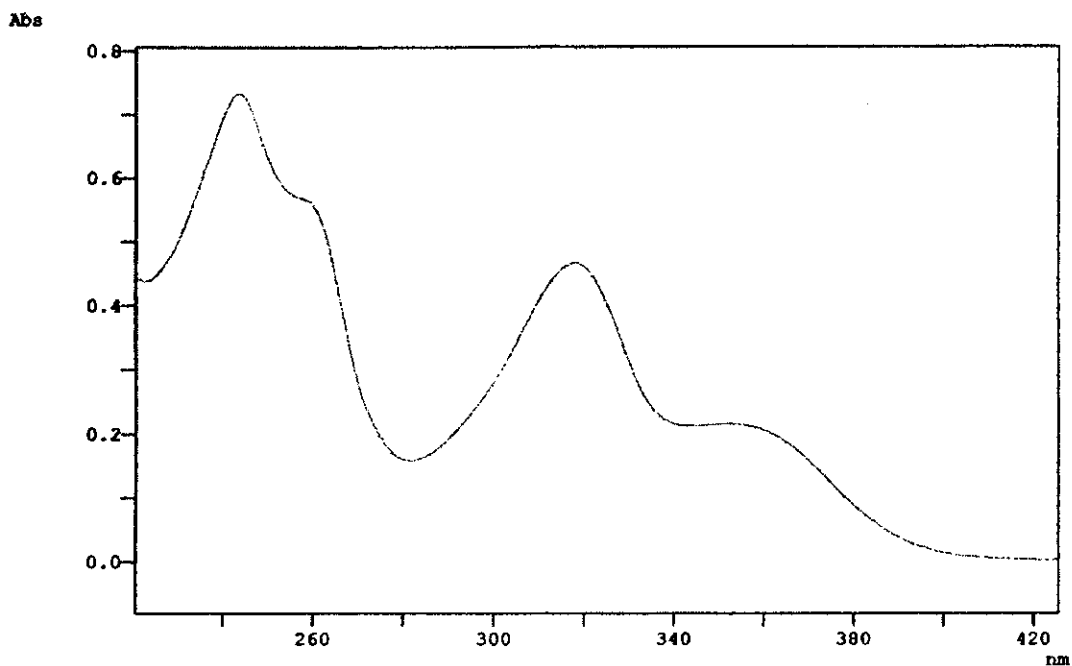


Figure 11 UV (EtOH) spectrum of CC2

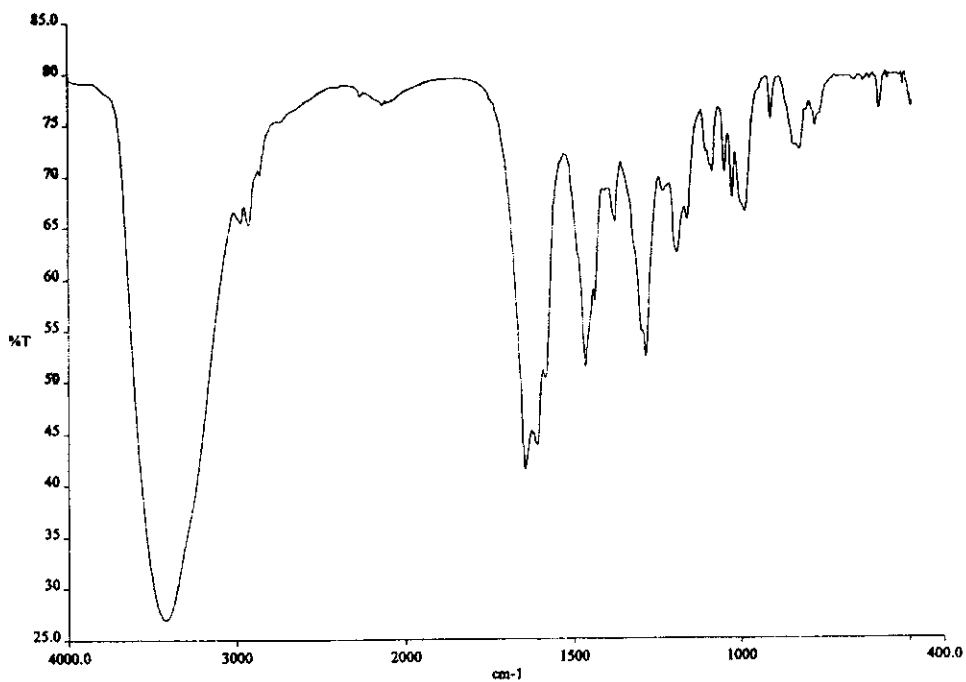


Figure 12 FT-IR (neat) spectrum of CC2

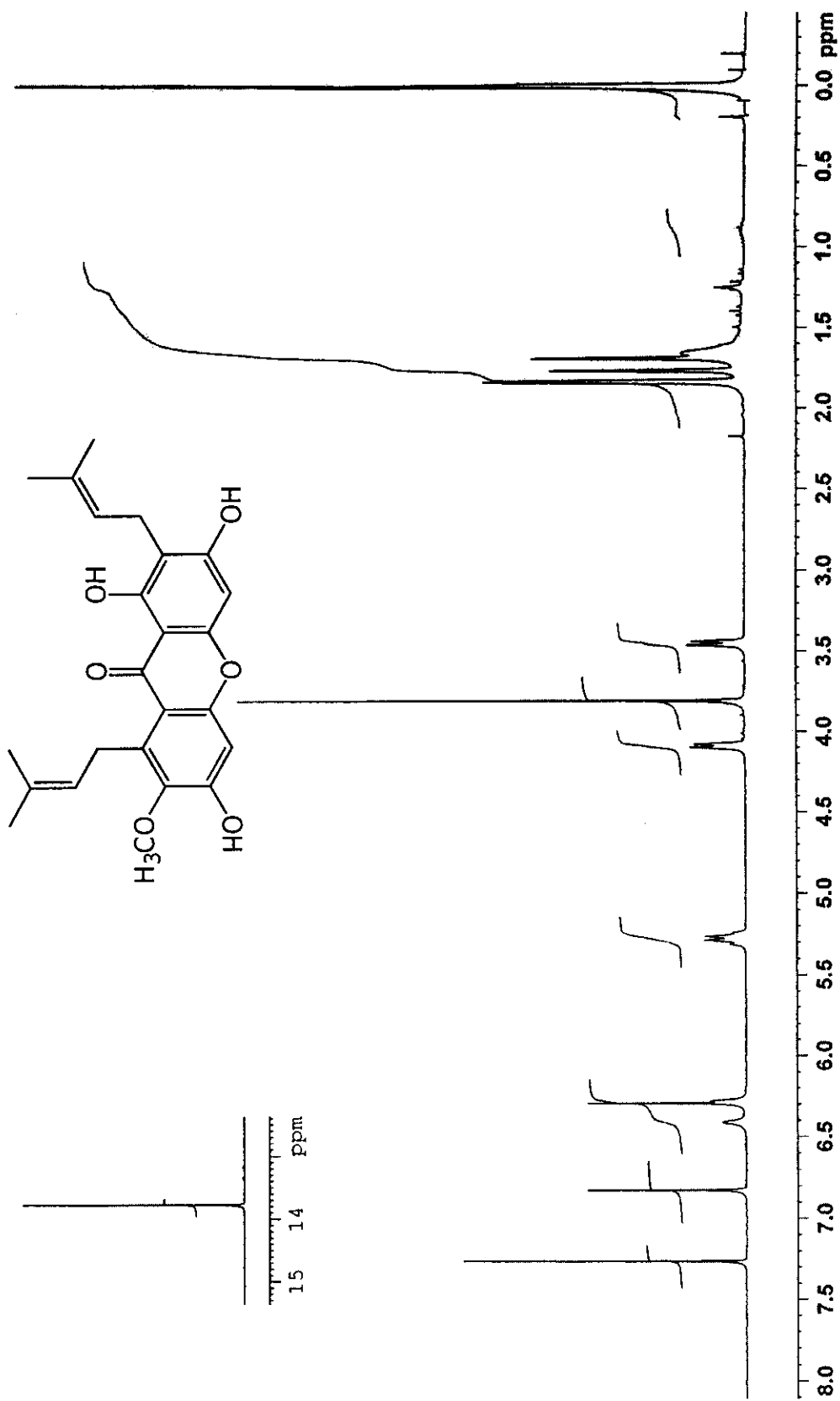


Figure 13 ^1H NMR (300 MHz) (CDCl_3) spectrum of CC2

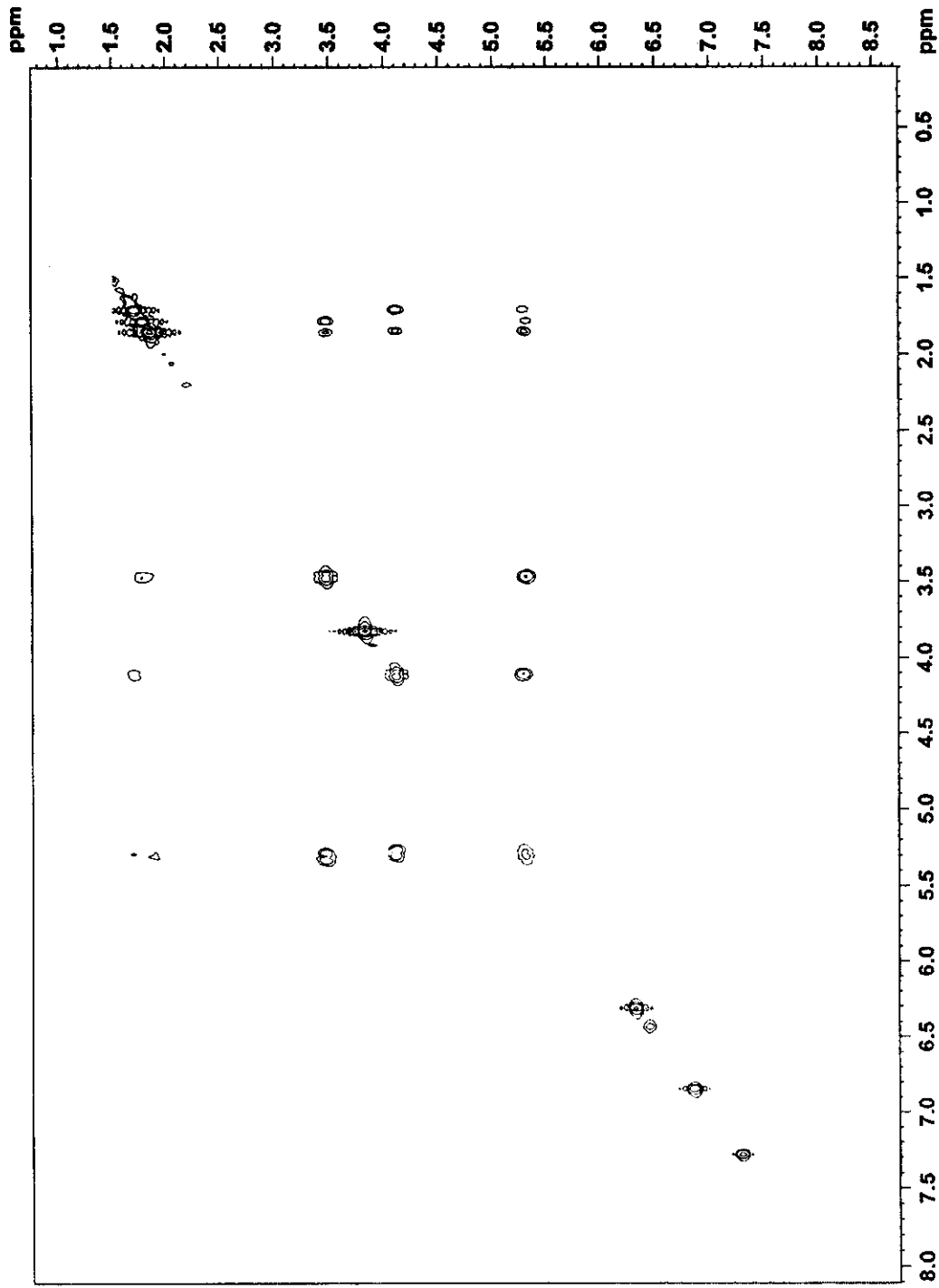


Figure 14 ^1H - ^1H COSY spectrum of CC2

Abs

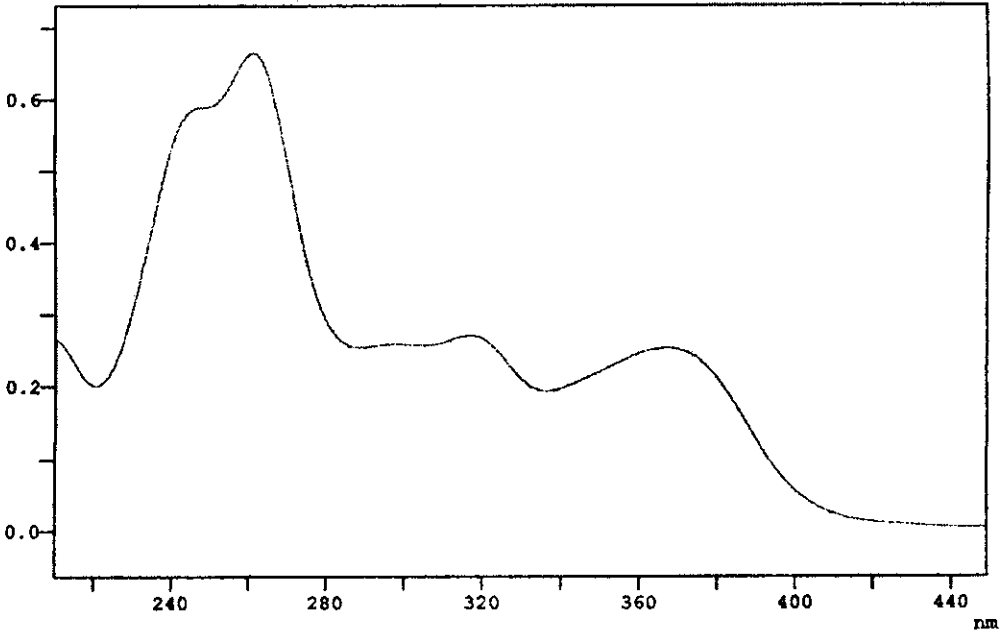


Figure 15 UV (EtOH) spectrum of CC3

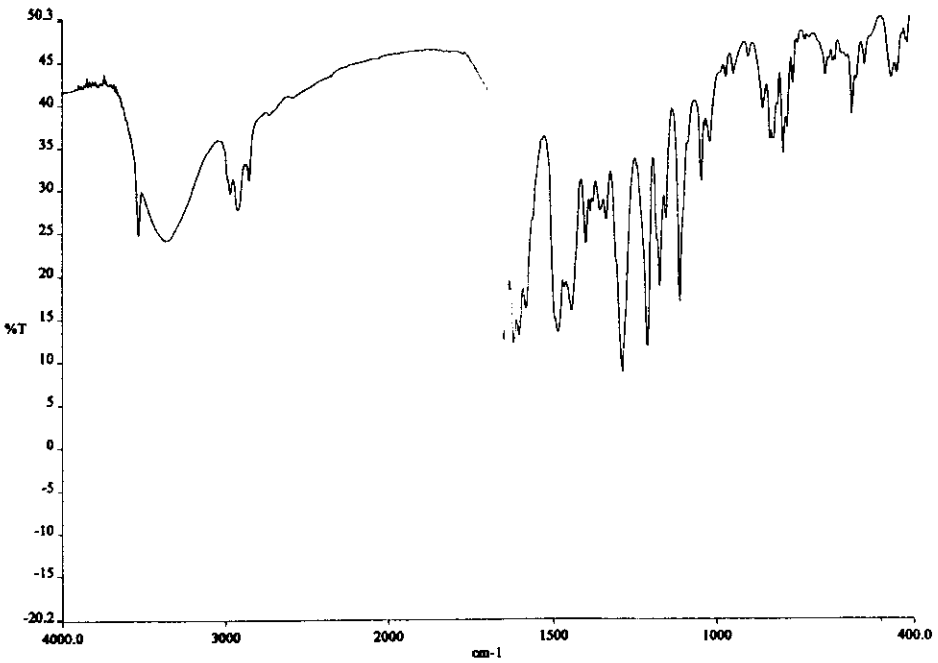


Figure 16 FT-IR (KBr) spectrum of CC3

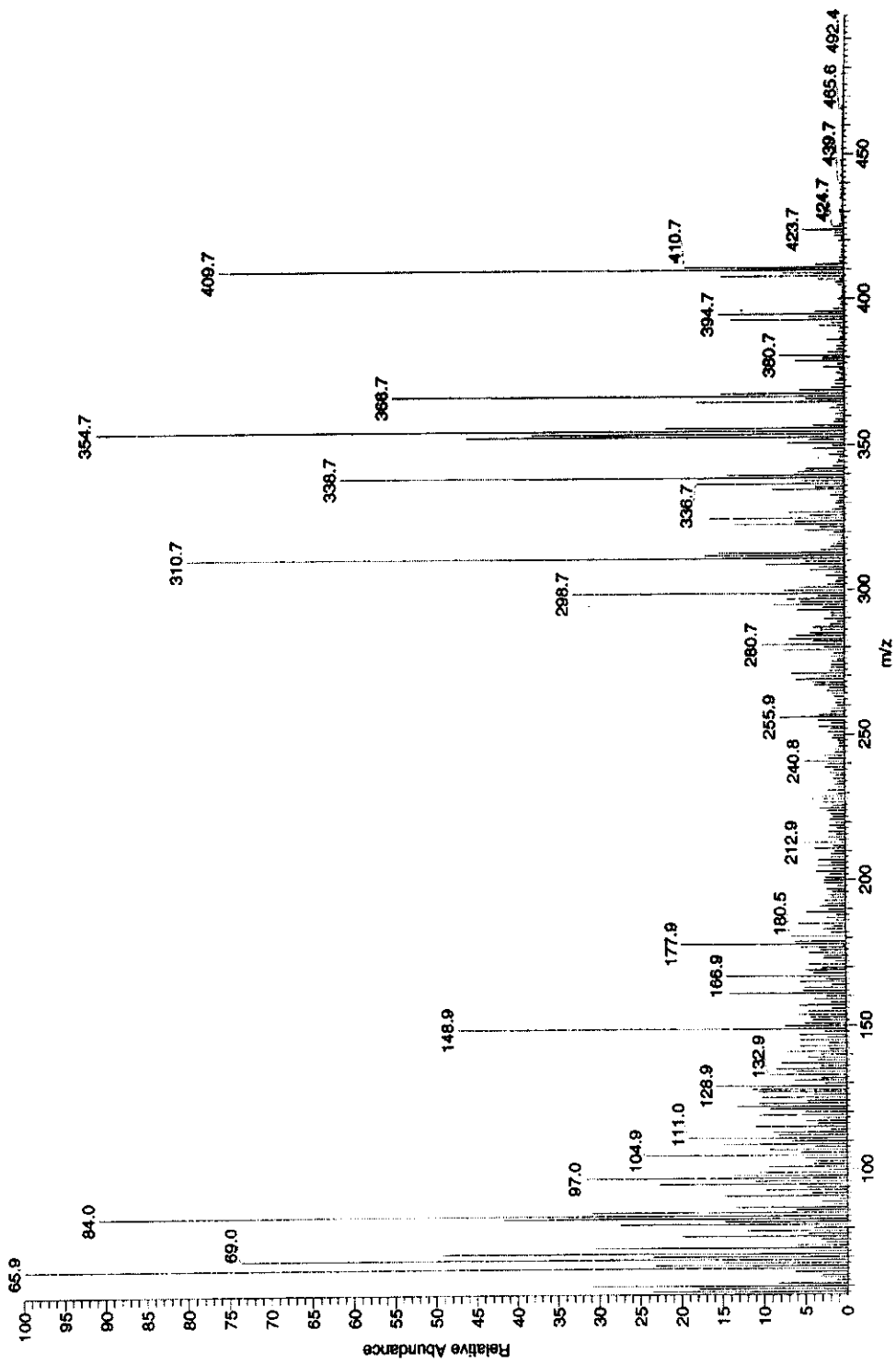


Figure 17 Mass spectrum of CC3

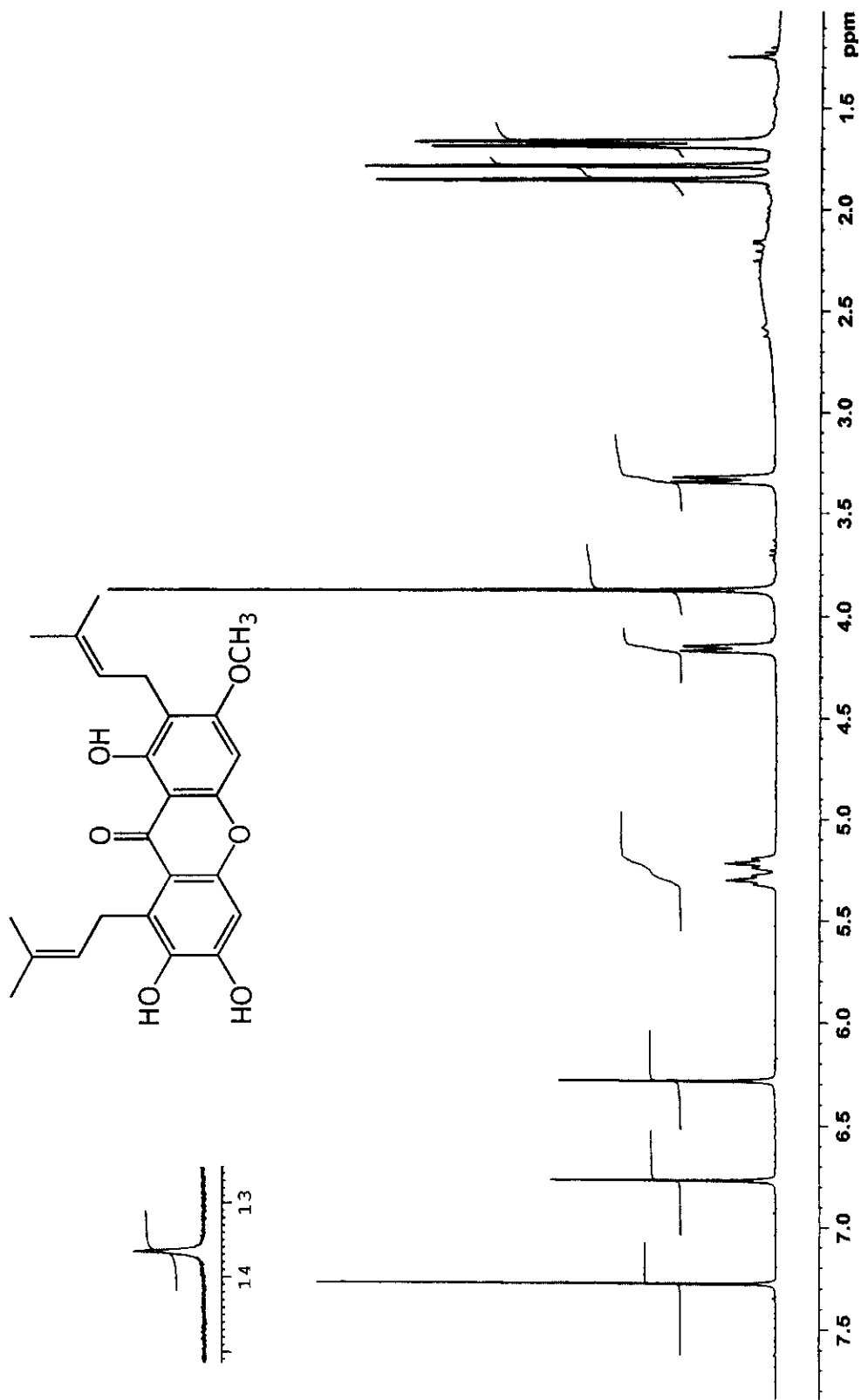


Figure 18 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC3

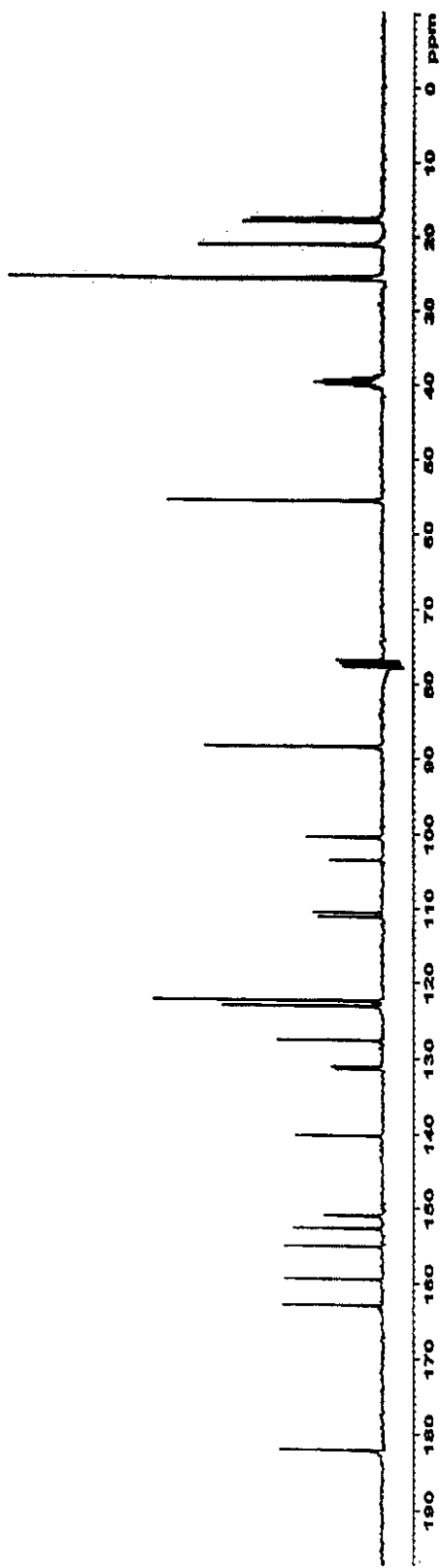


Figure 19 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC3

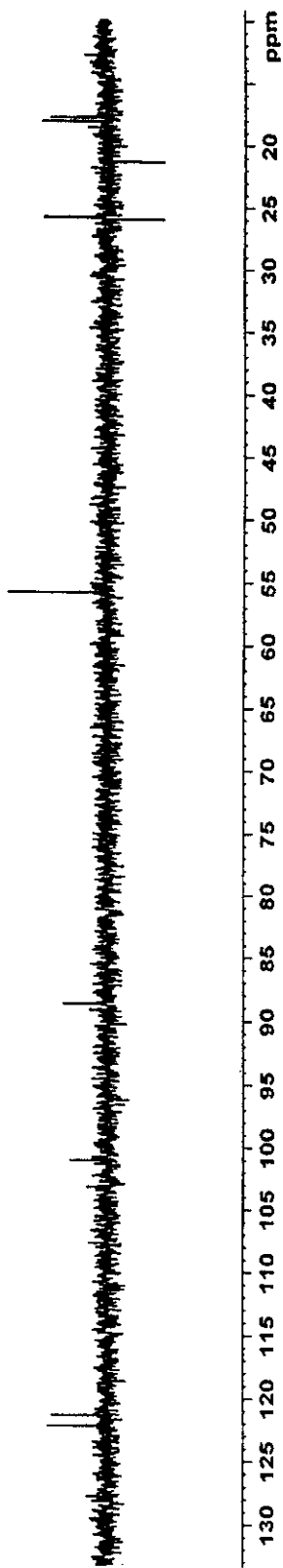


Figure 20 DEPT ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC3

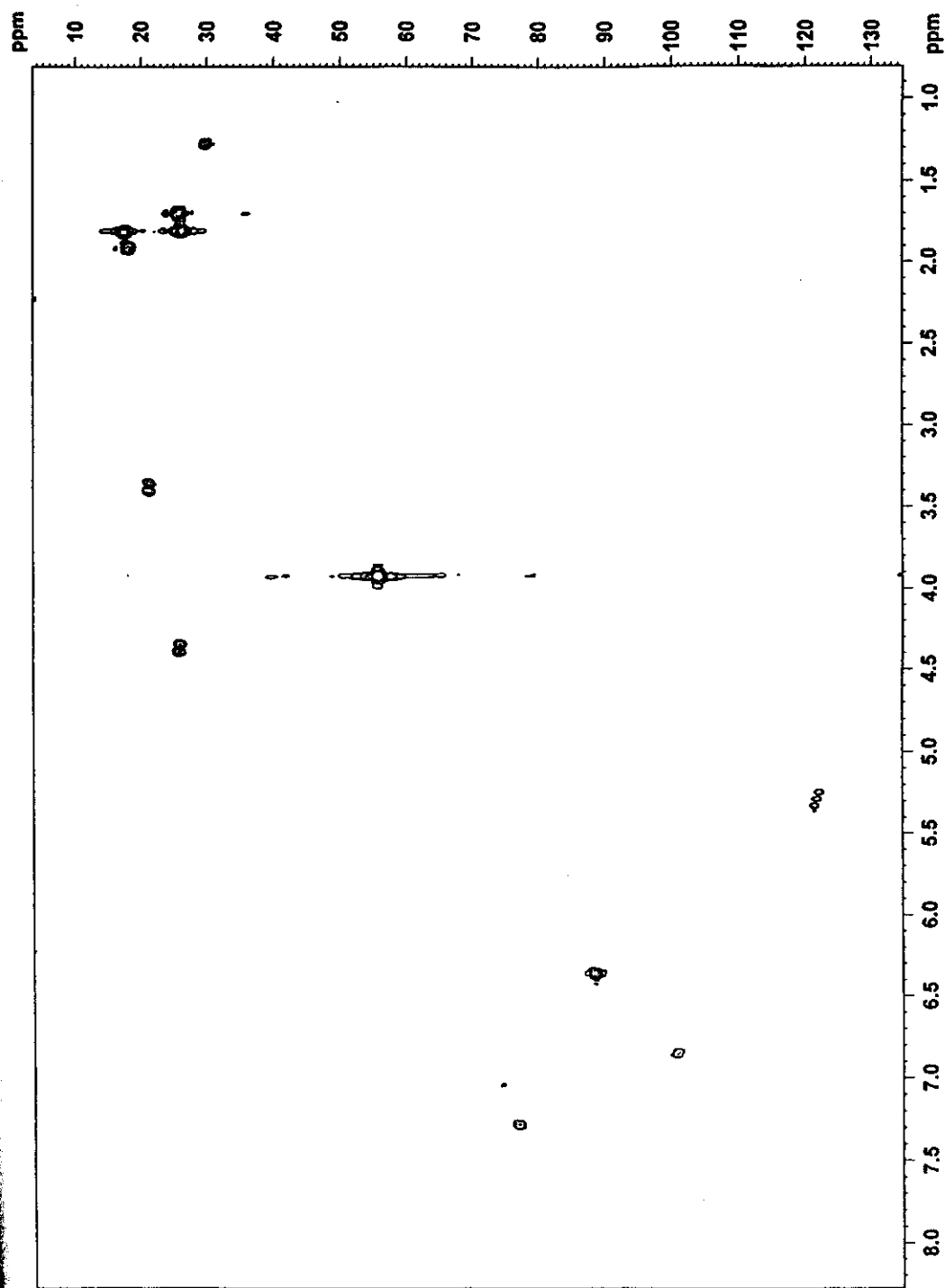


Figure 21 2D HMQC spectrum of CC3

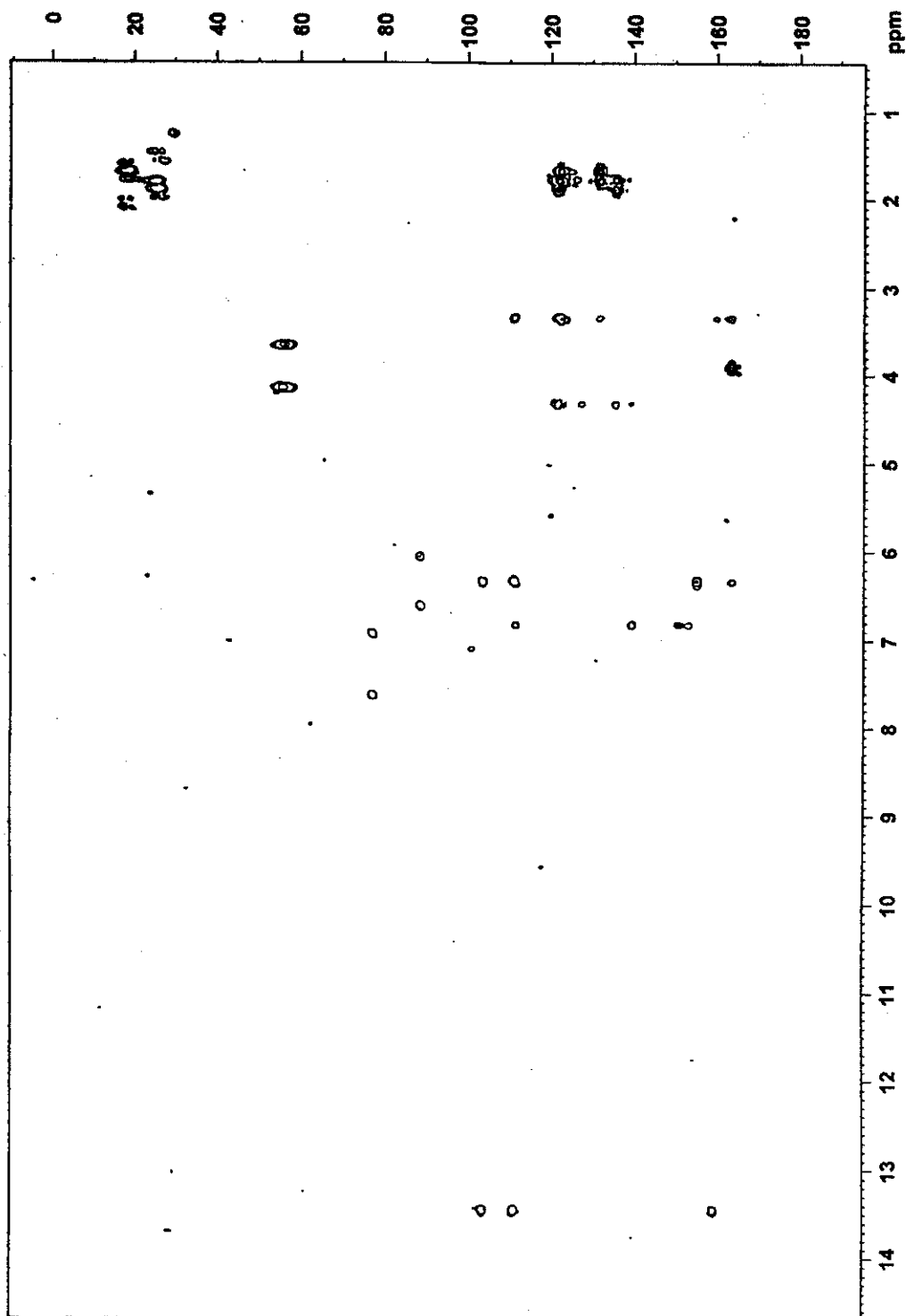


Figure 22 2D HMBC spectrum of CC3

Abs

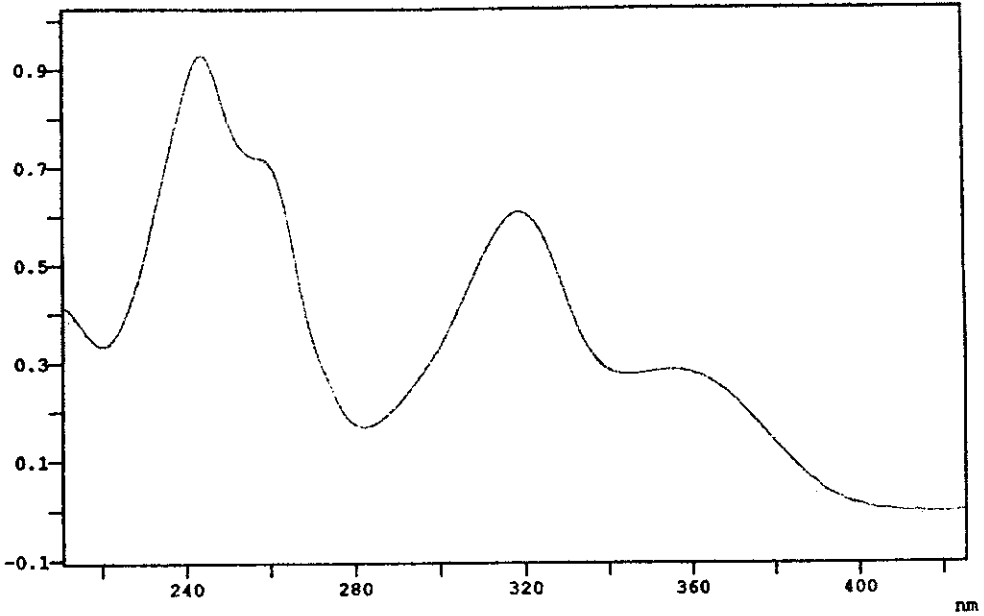


Figure 23 UV (EtOH) spectrum of CC4

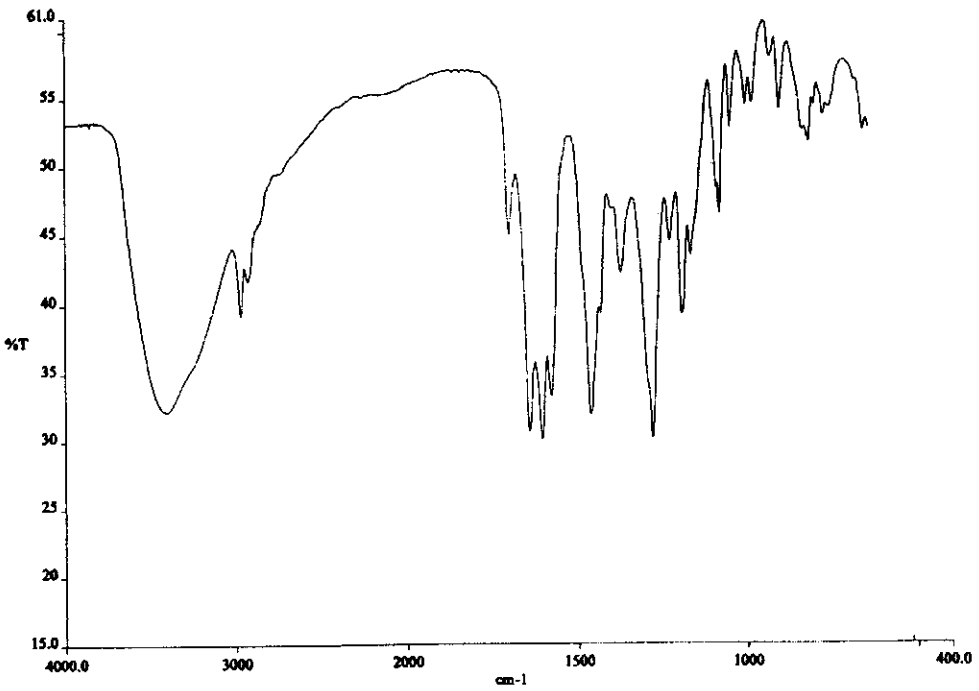


Figure 24 FT-IR (neat) spectrum of CC4

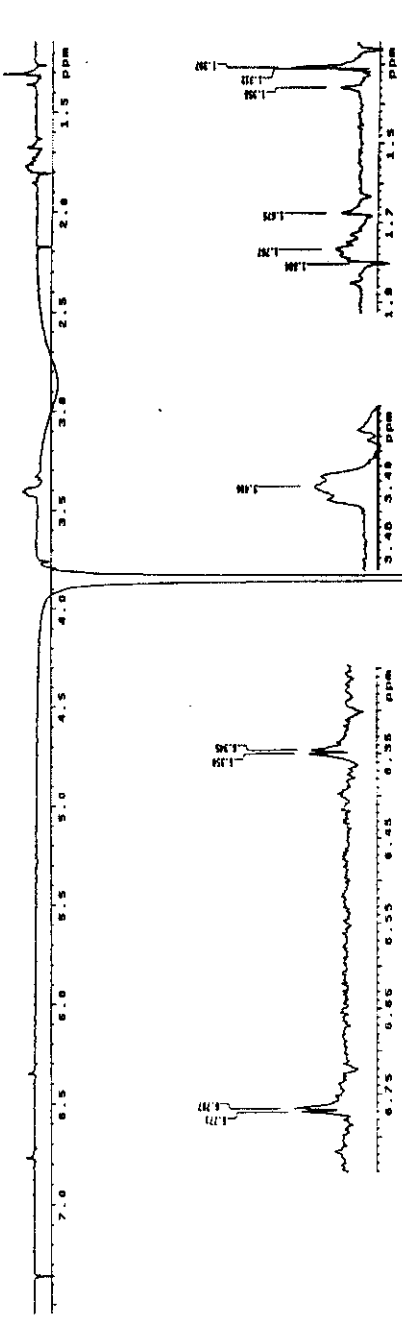


Figure 25 NOEDIFF spectrum of CC4 after irradiation at δ_H 3.76

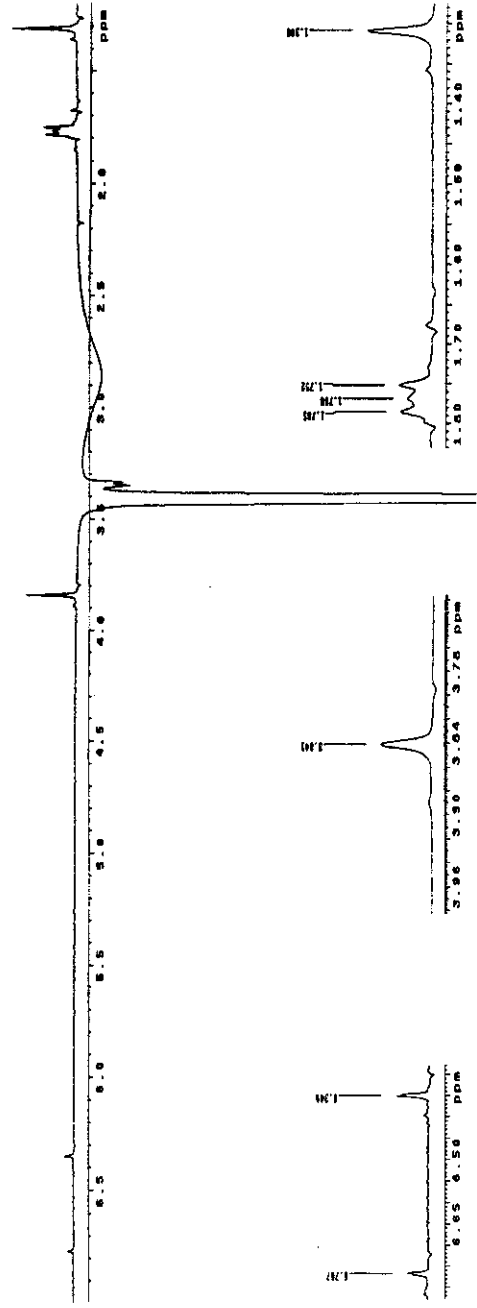


Figure 26 NOEDIFF spectrum of CC4 after irradiation at δ_H 3.42

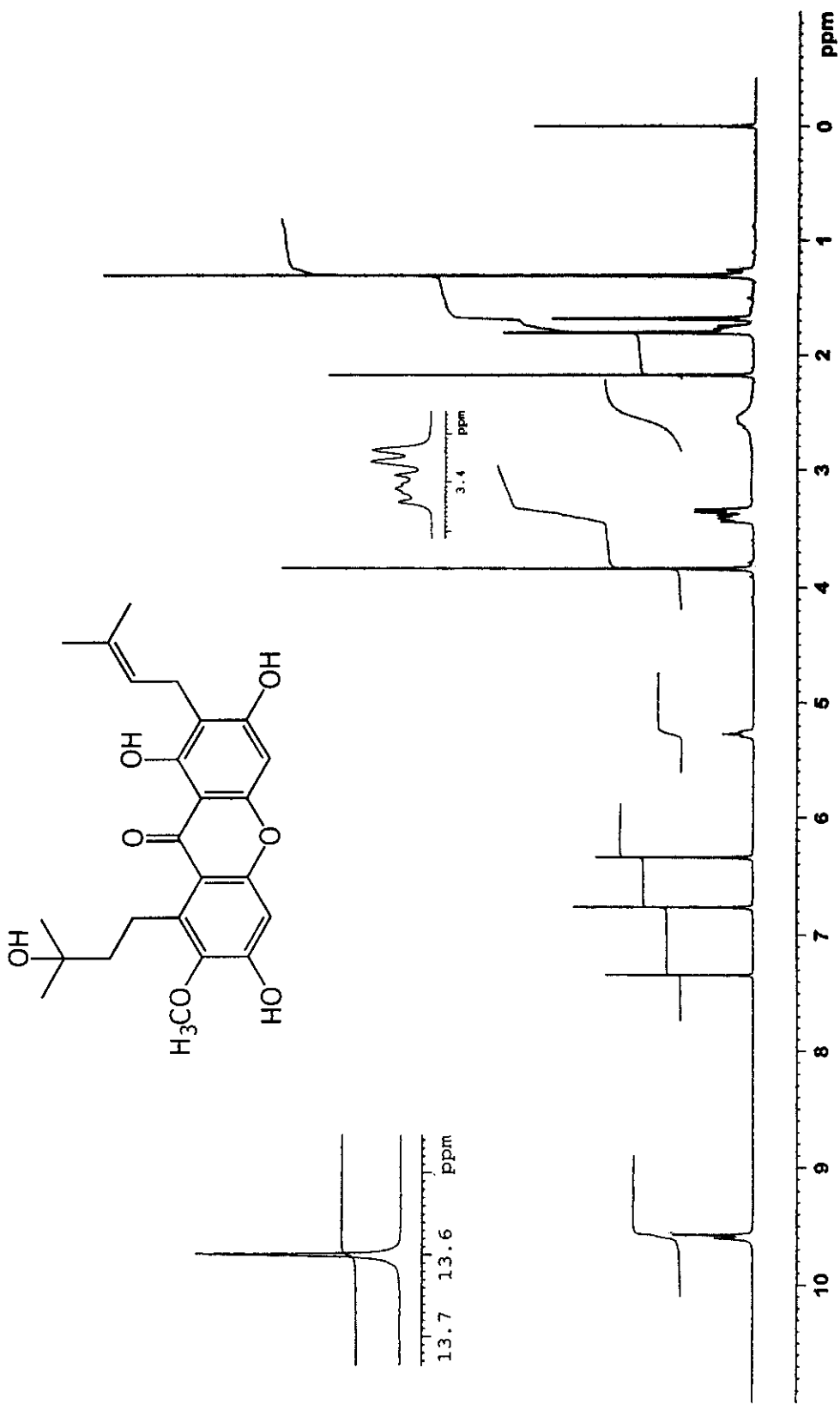


Figure 27 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC4

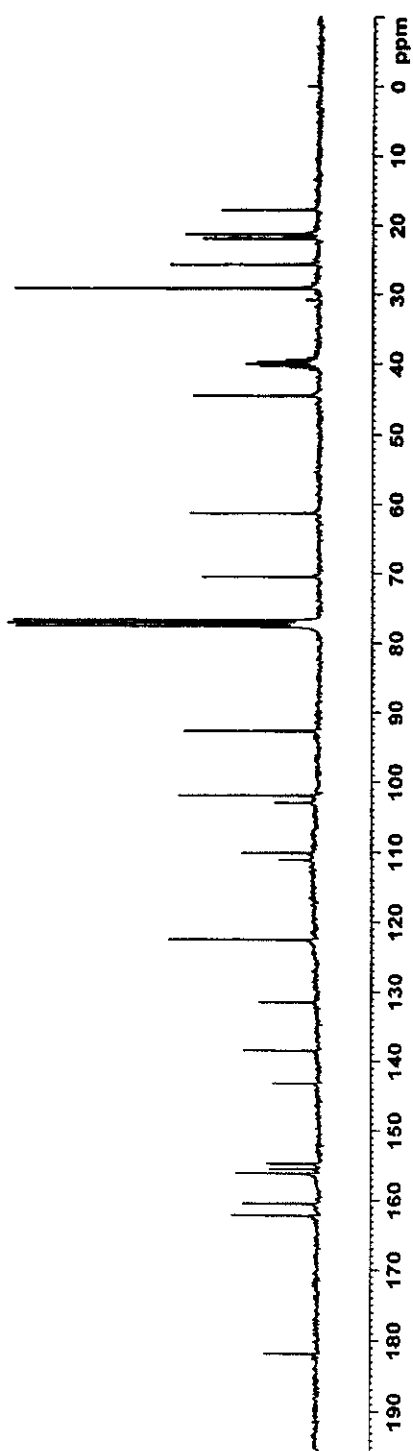


Figure 28 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC_4

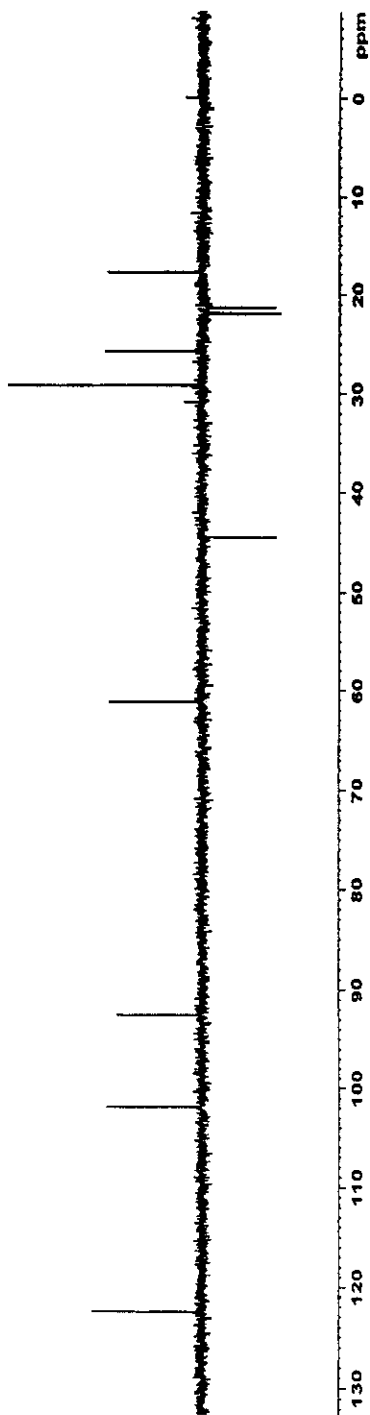


Figure 29 DEPT 135° ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC_4

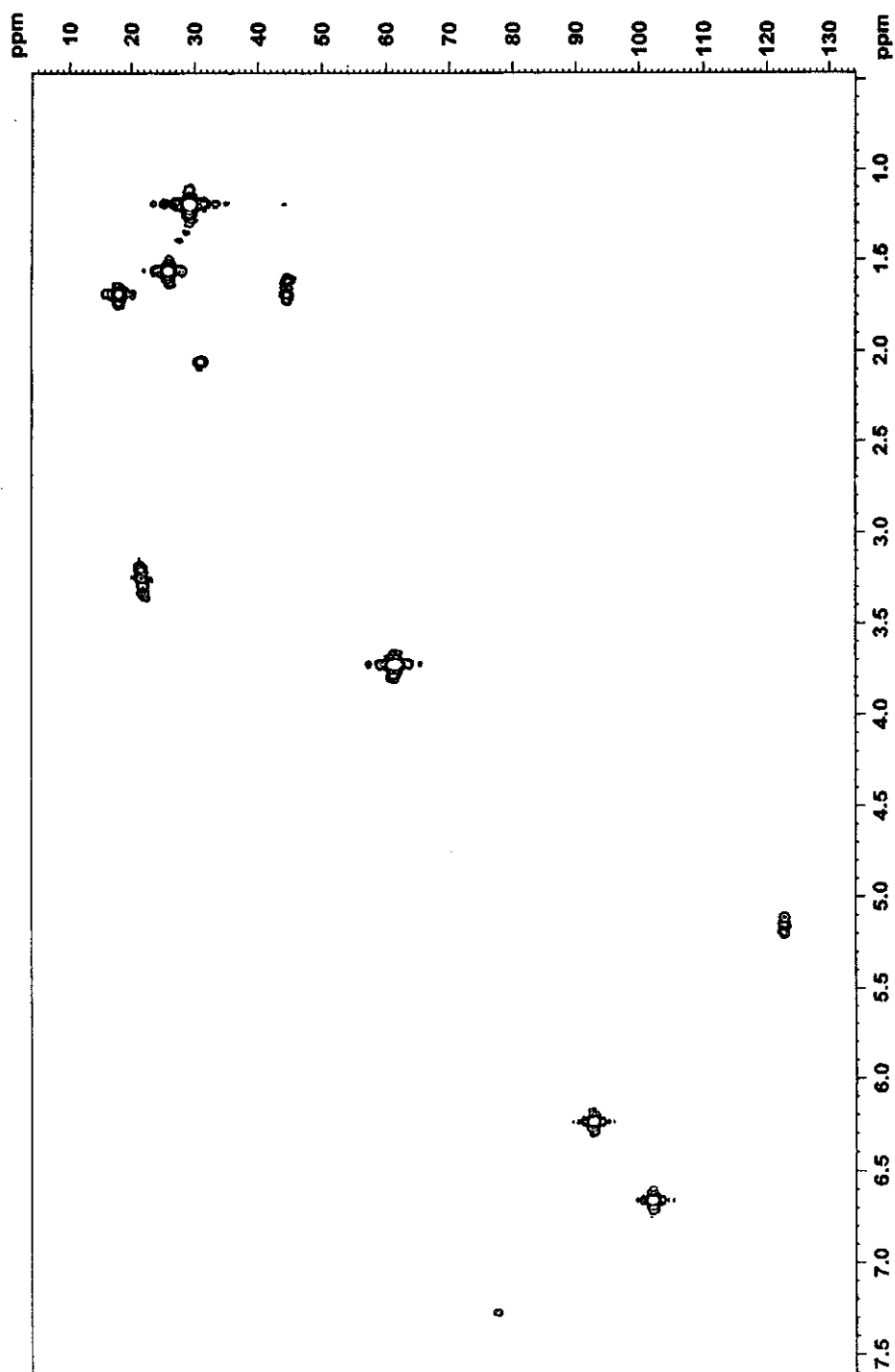


Figure 30 2D HMQC spectrum of CC4

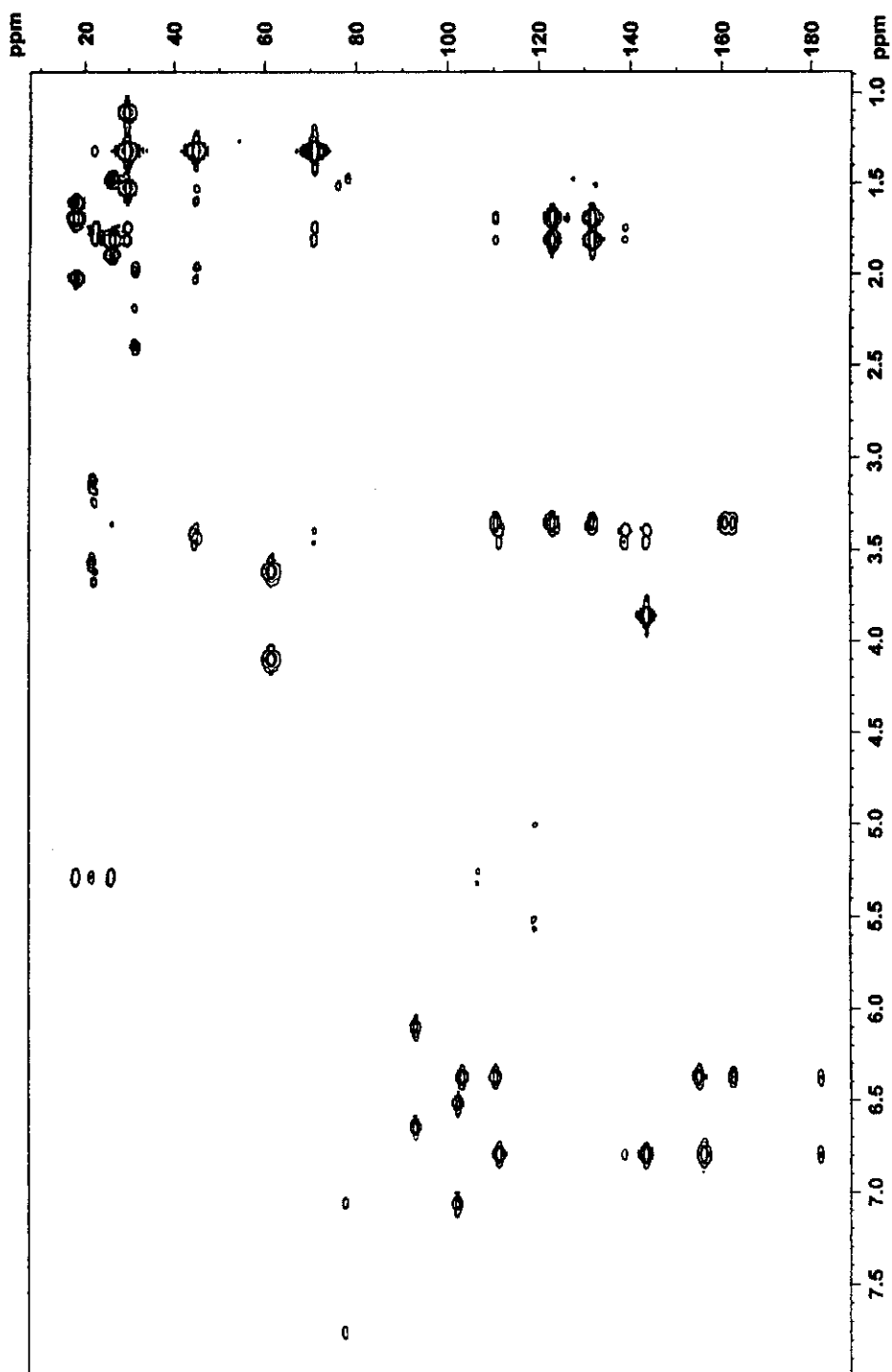
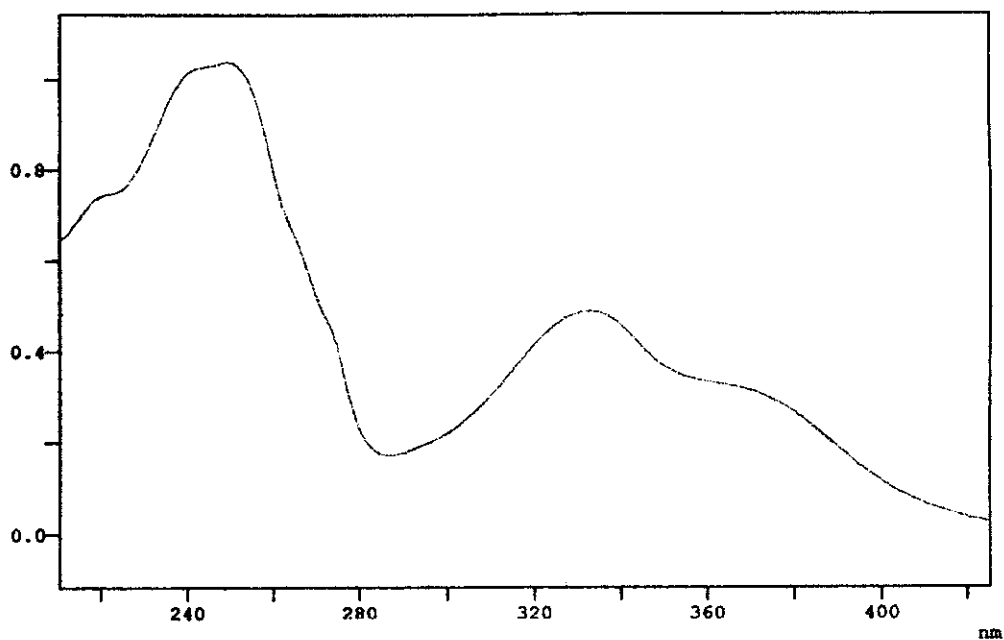
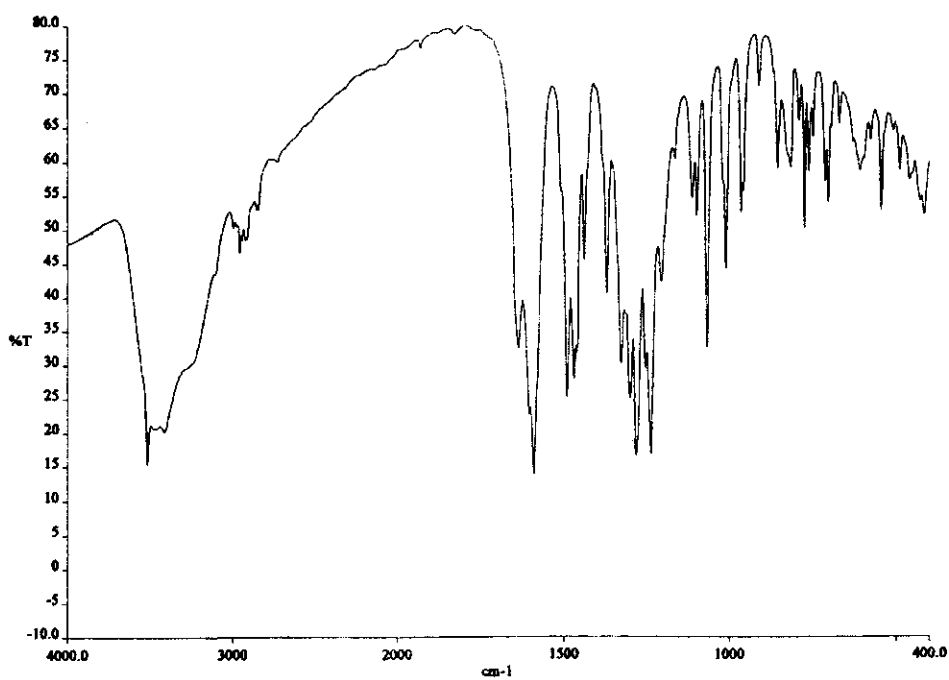


Figure 31 2D HMBC spectrum of CC4

Abs

**Figure 32** UV (EtOH) spectrum of CC5**Figure 33** FT-IR (KBr) spectrum of CC5

Abs

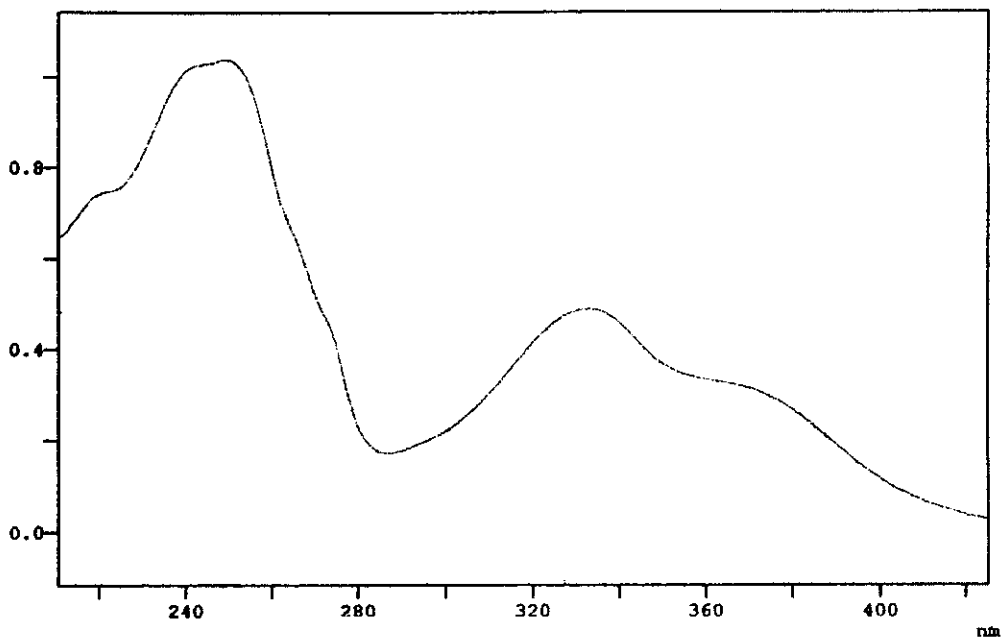


Figure 32 UV (EtOH) spectrum of CC5

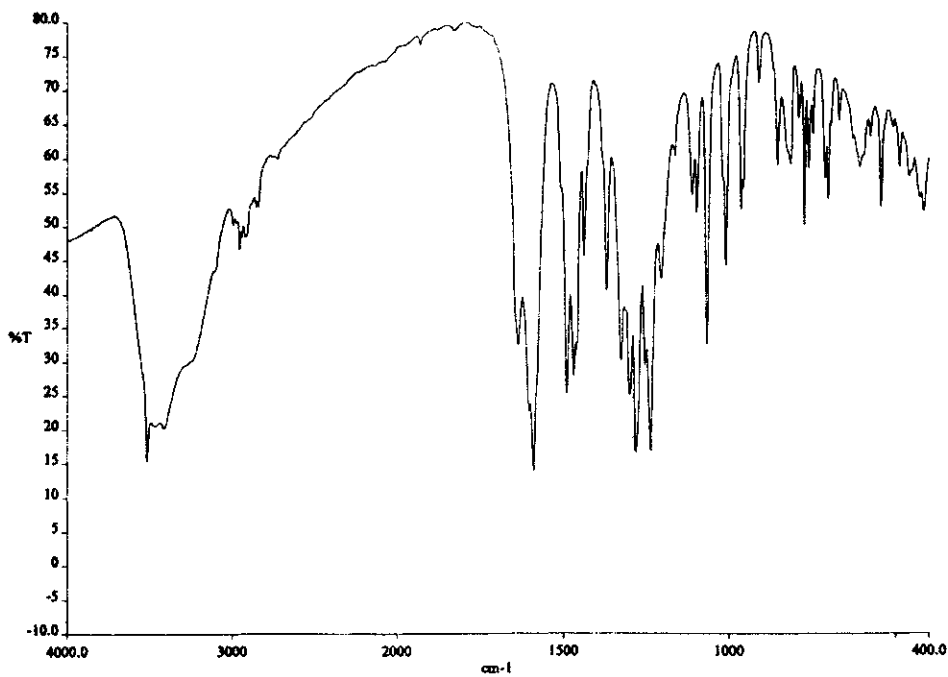


Figure 33 FT-IR (KBr) spectrum of CC5

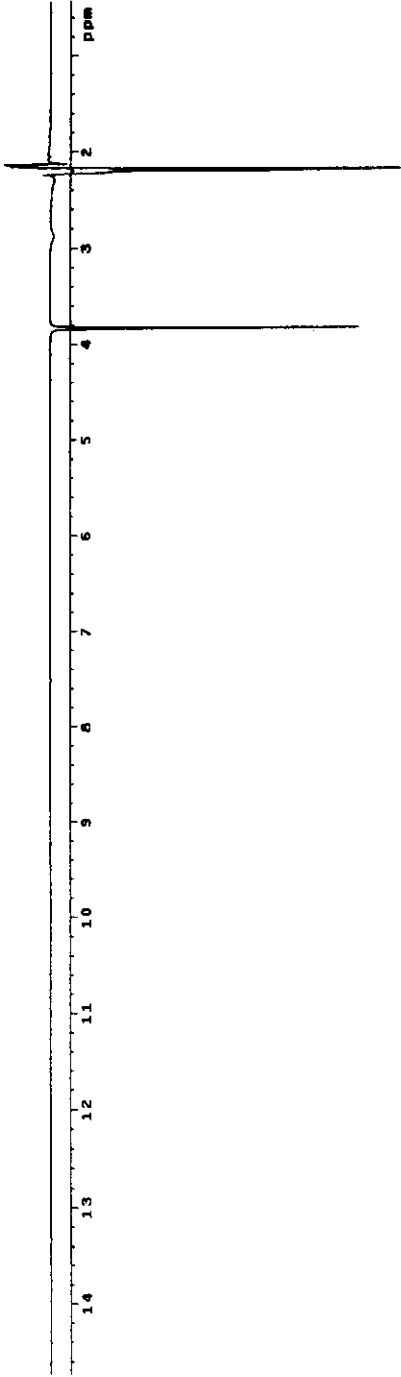


Figure 34 NOEDIFF spectrum of CC5 after irradiation at $\delta_{\text{H}} 3.84$

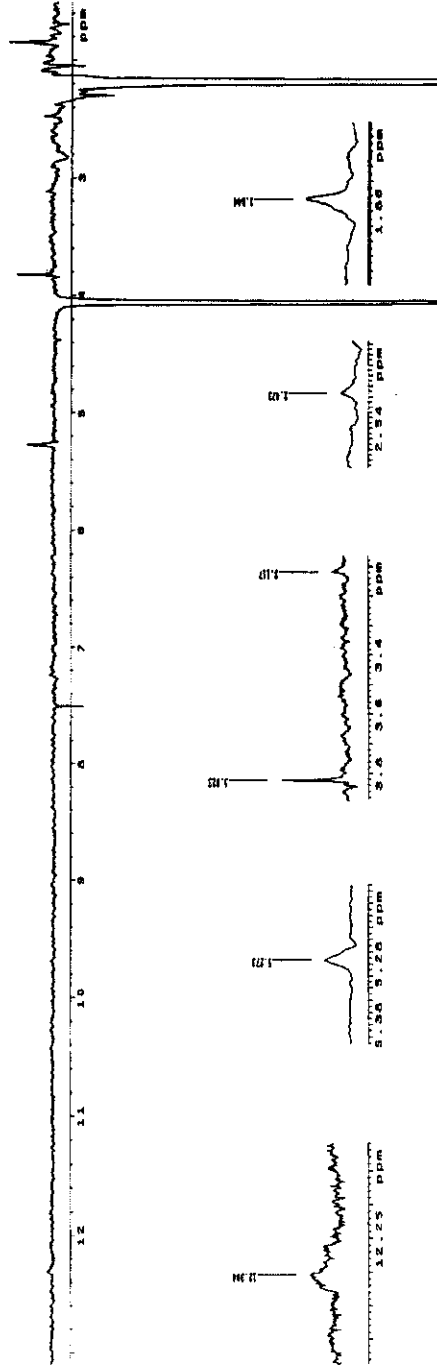


Figure 35 NOEDIFF spectrum of CC5 after irradiation at $\delta_{\text{H}} 4.04$

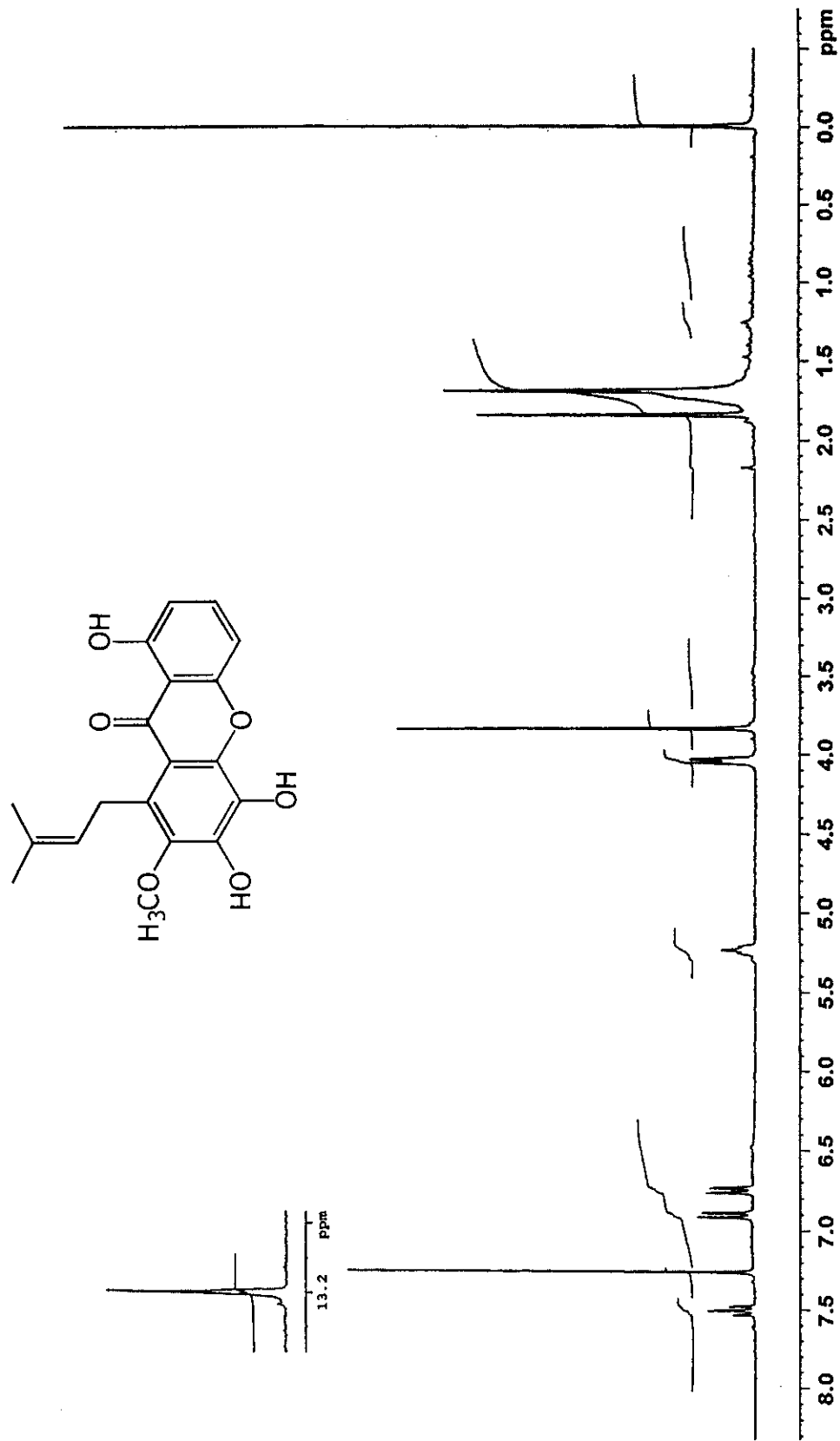


Figure 36 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC5

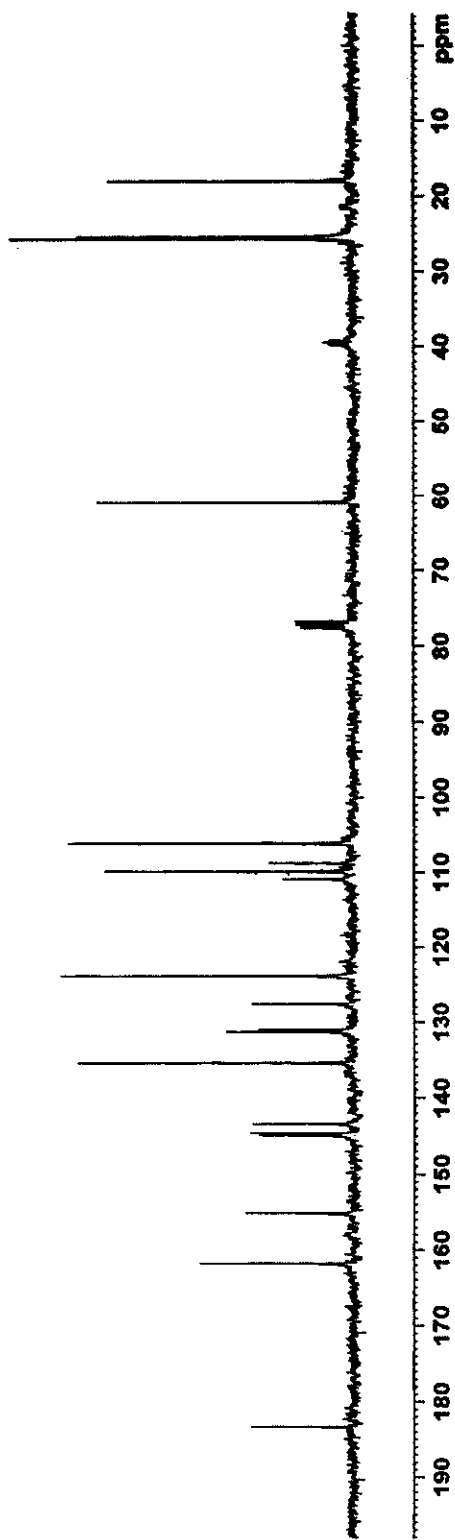


Figure 37 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC5

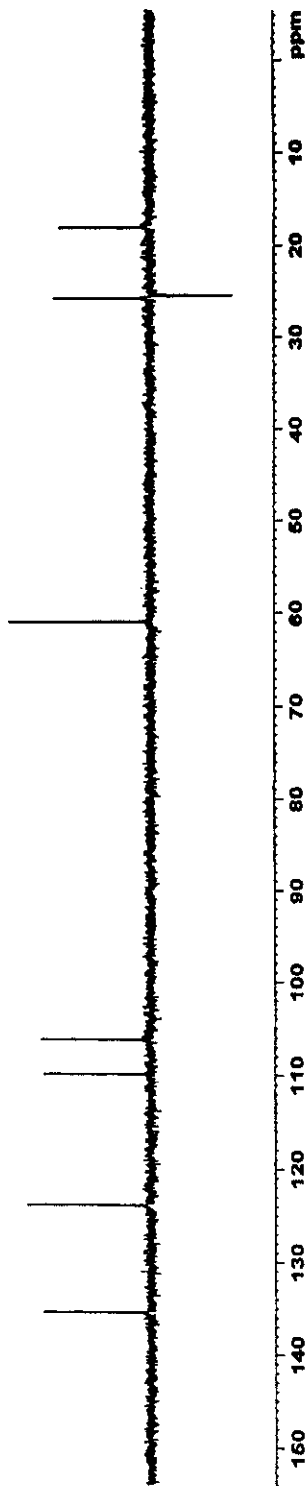
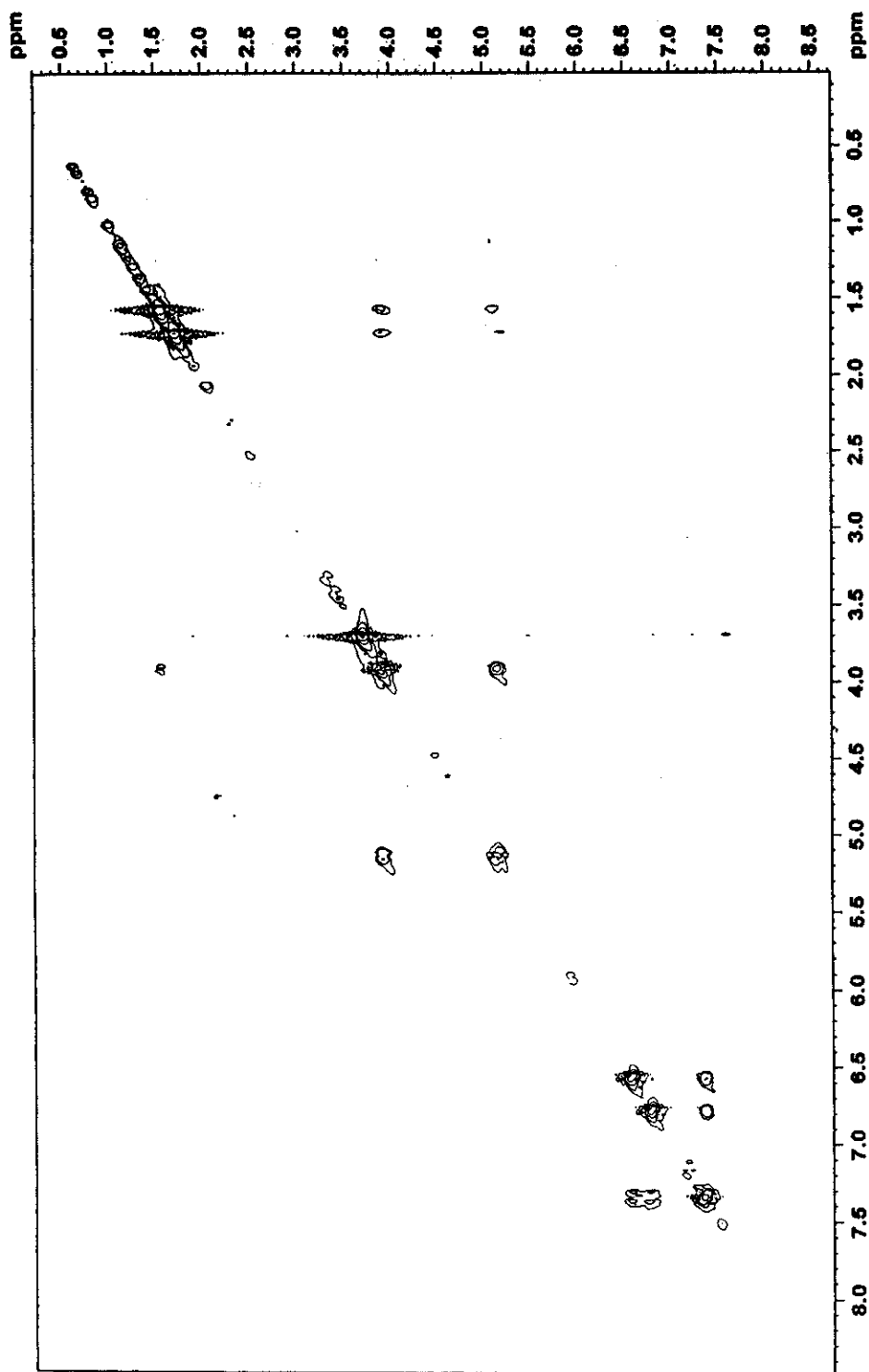


Figure 38 DEPT 135° ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC5

Figure 39 ^1H - ^1H COSY spectrum of CC5

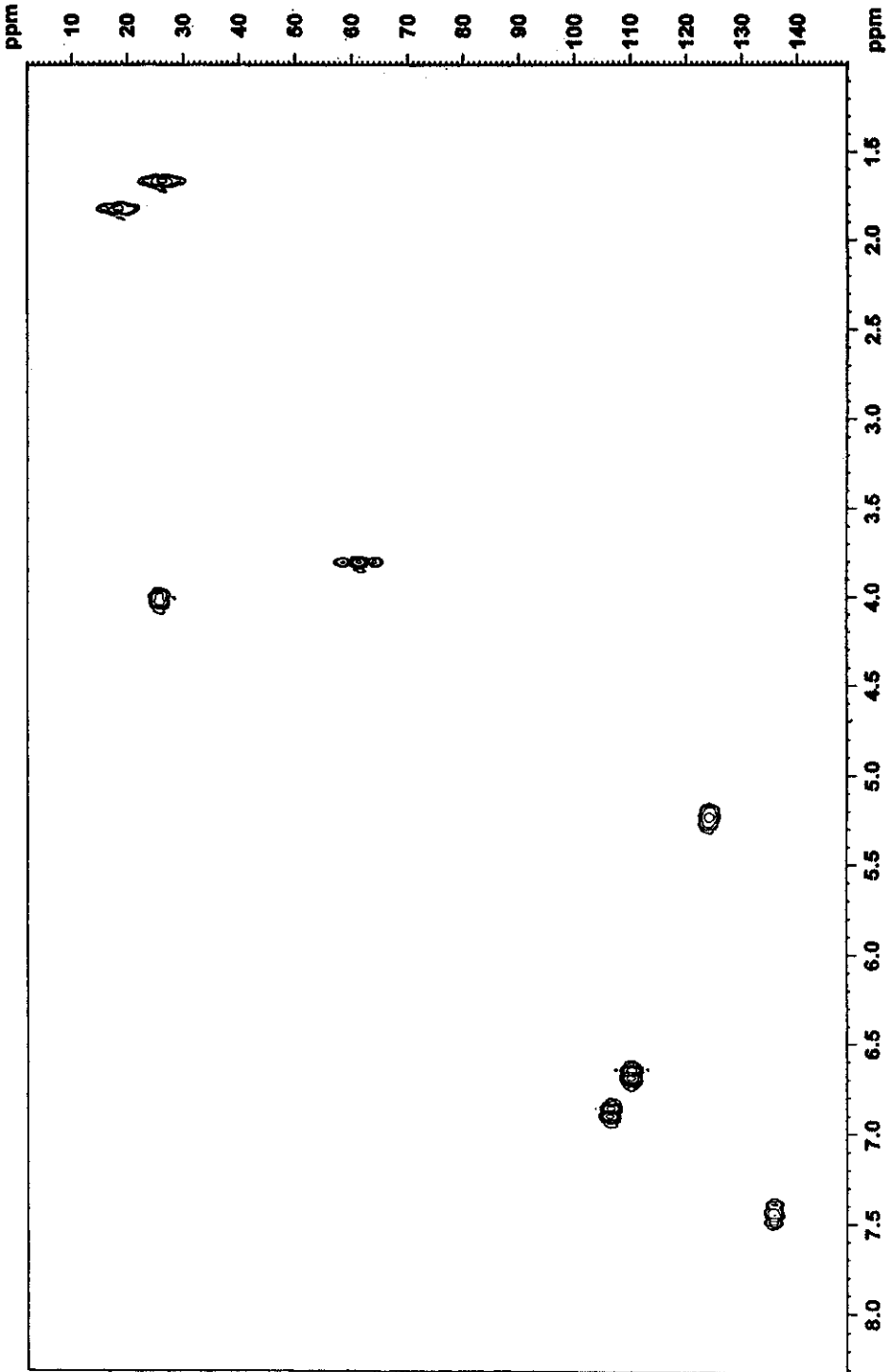


Figure 40 2D HMQC spectrum of CC5

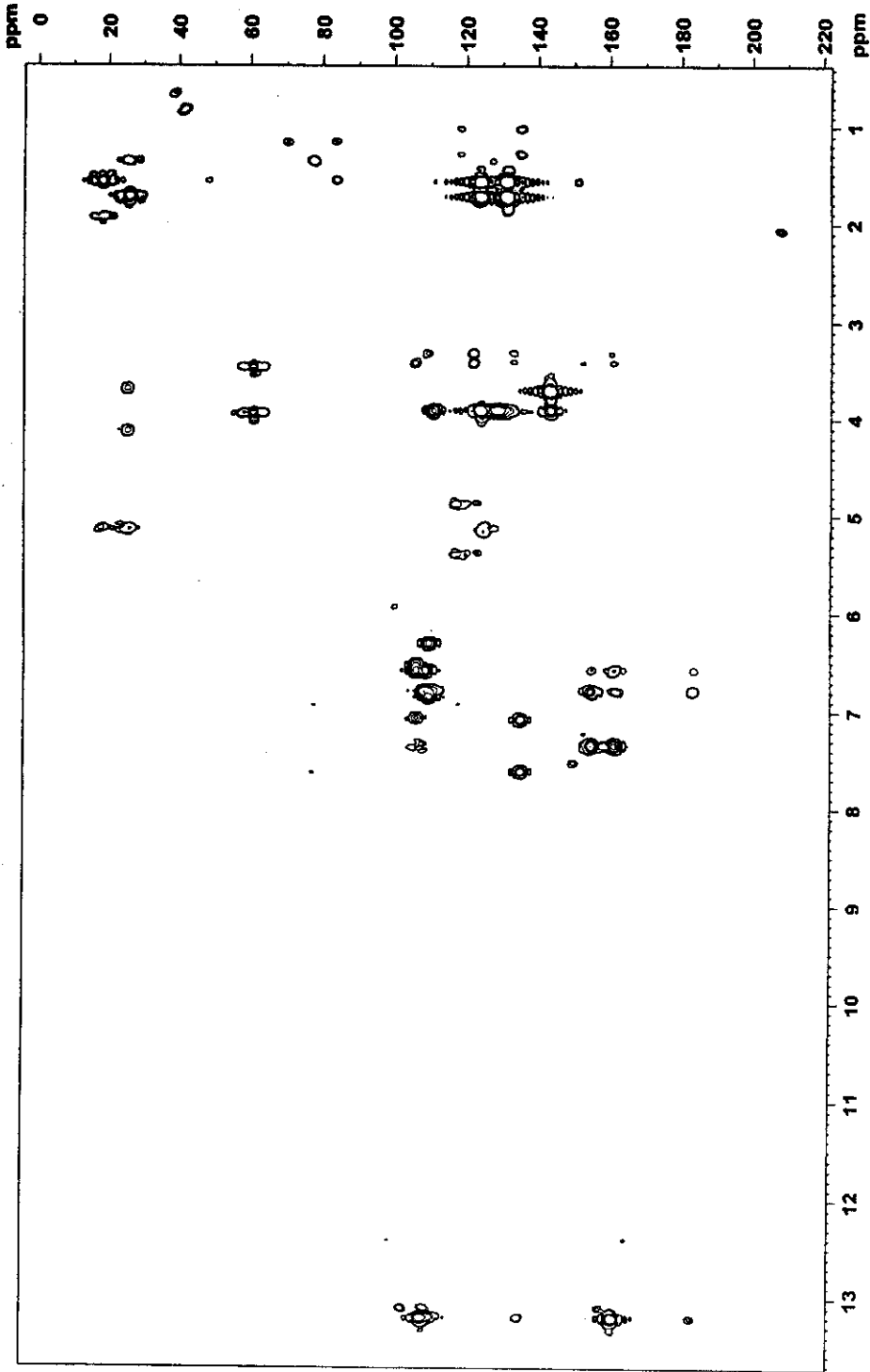


Figure 41 2D HMBC spectrum of CC5

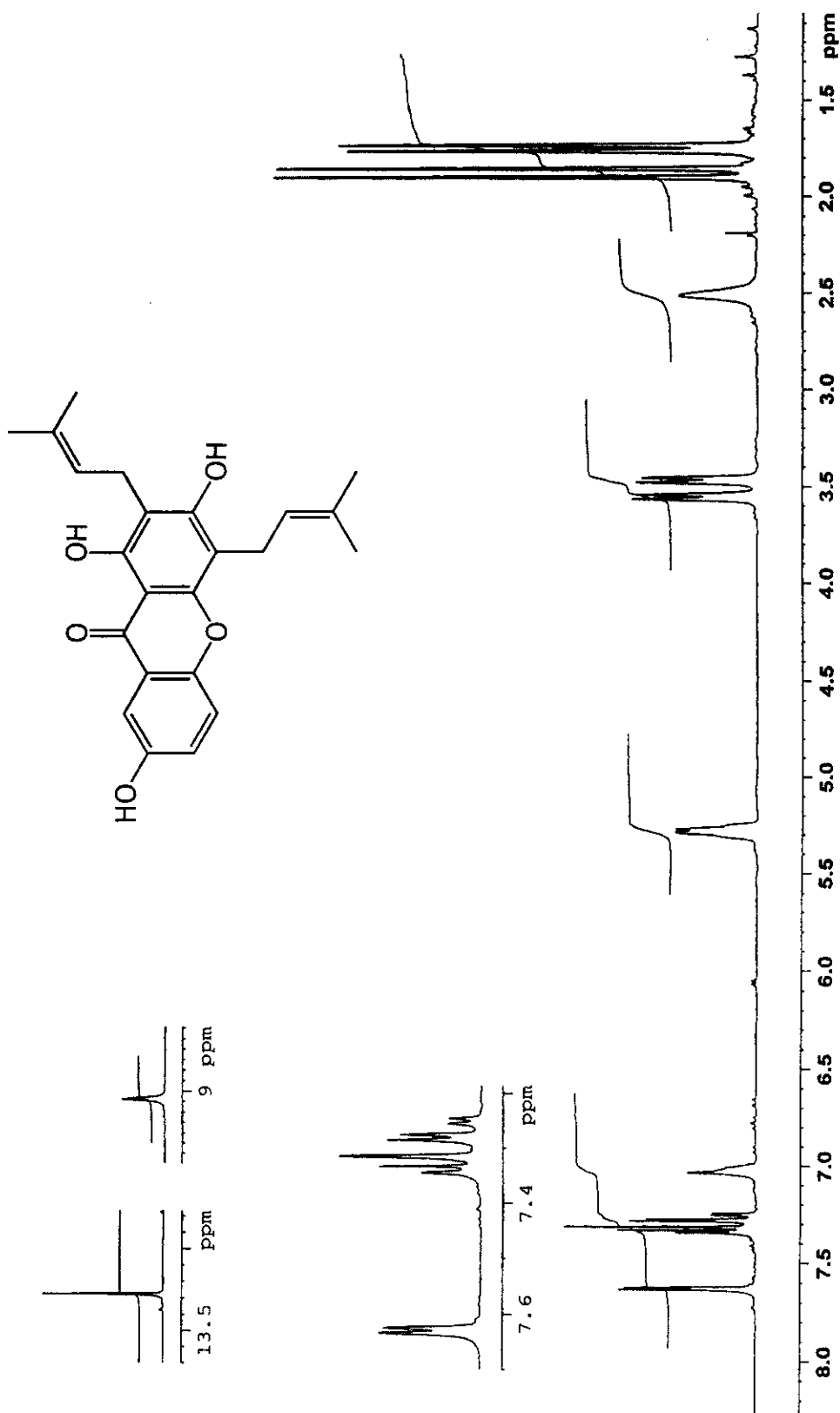


Figure 42 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC6

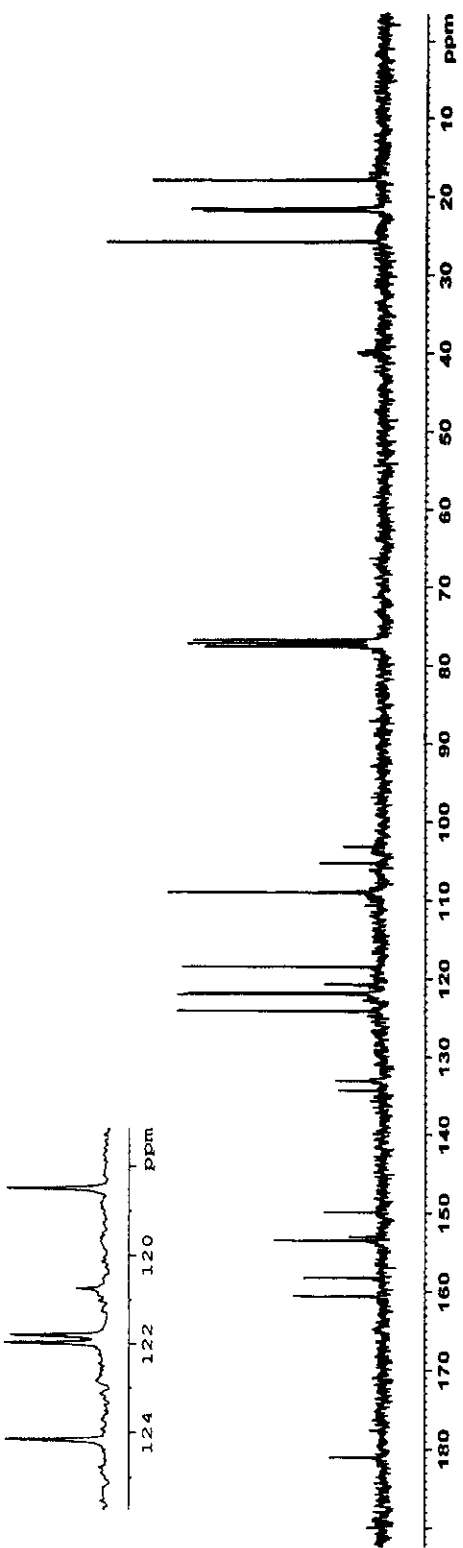


Figure 43 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC6

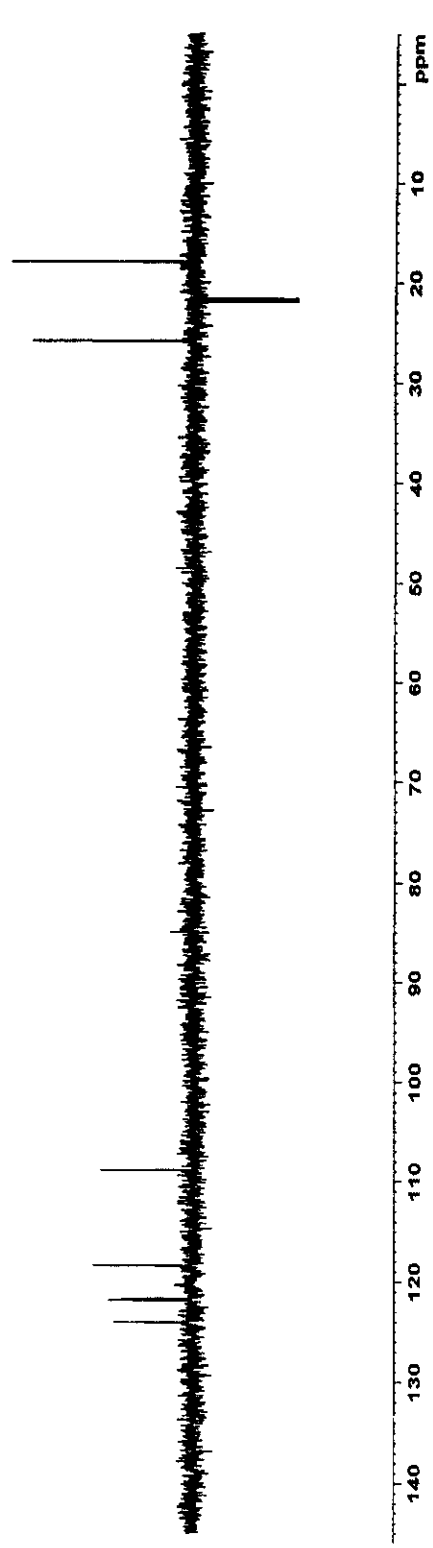
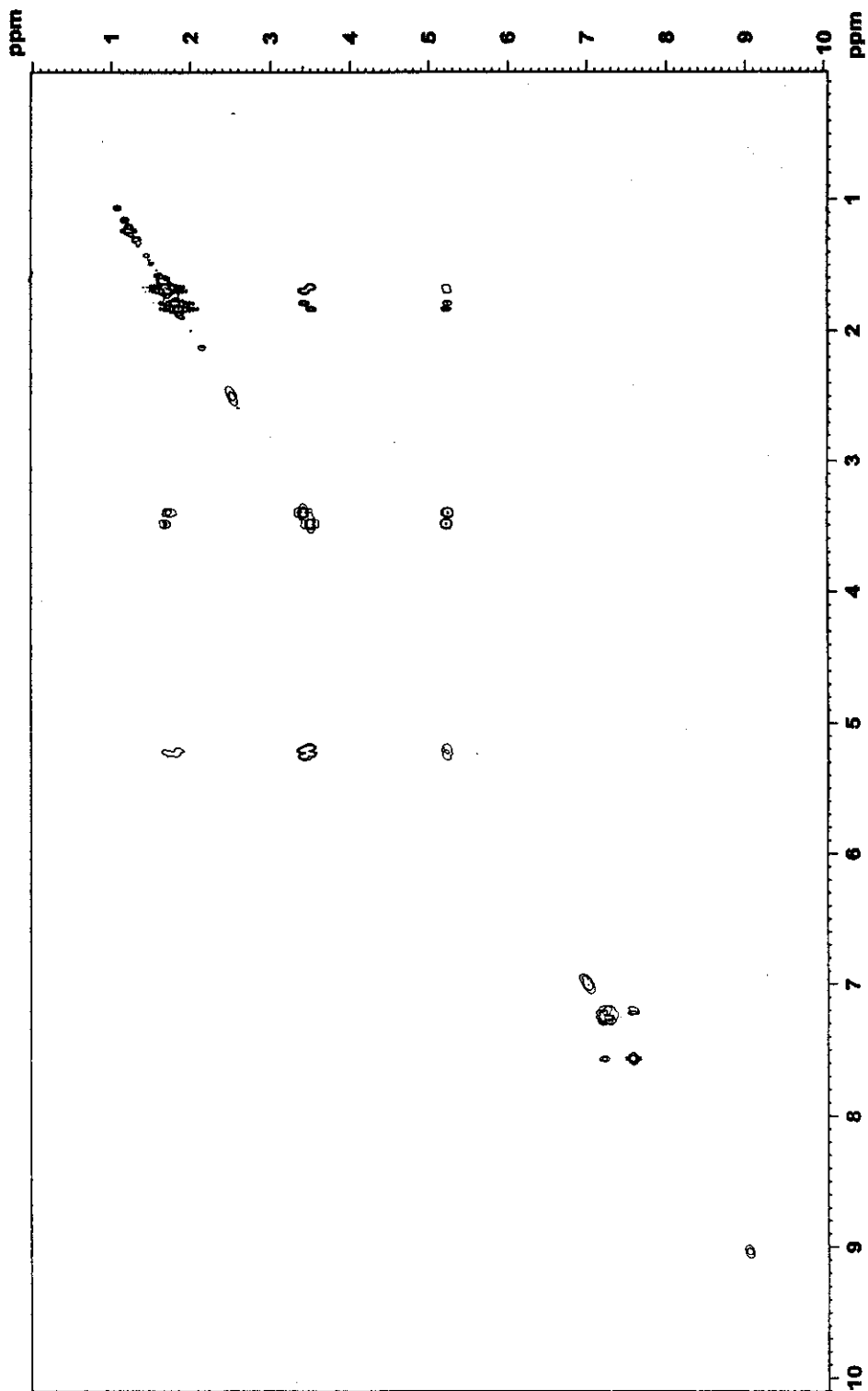


Figure 44 DEPT $^{135^\circ}$ ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC6

Figure 45 ^1H - ^1H COSY spectrum of CC6

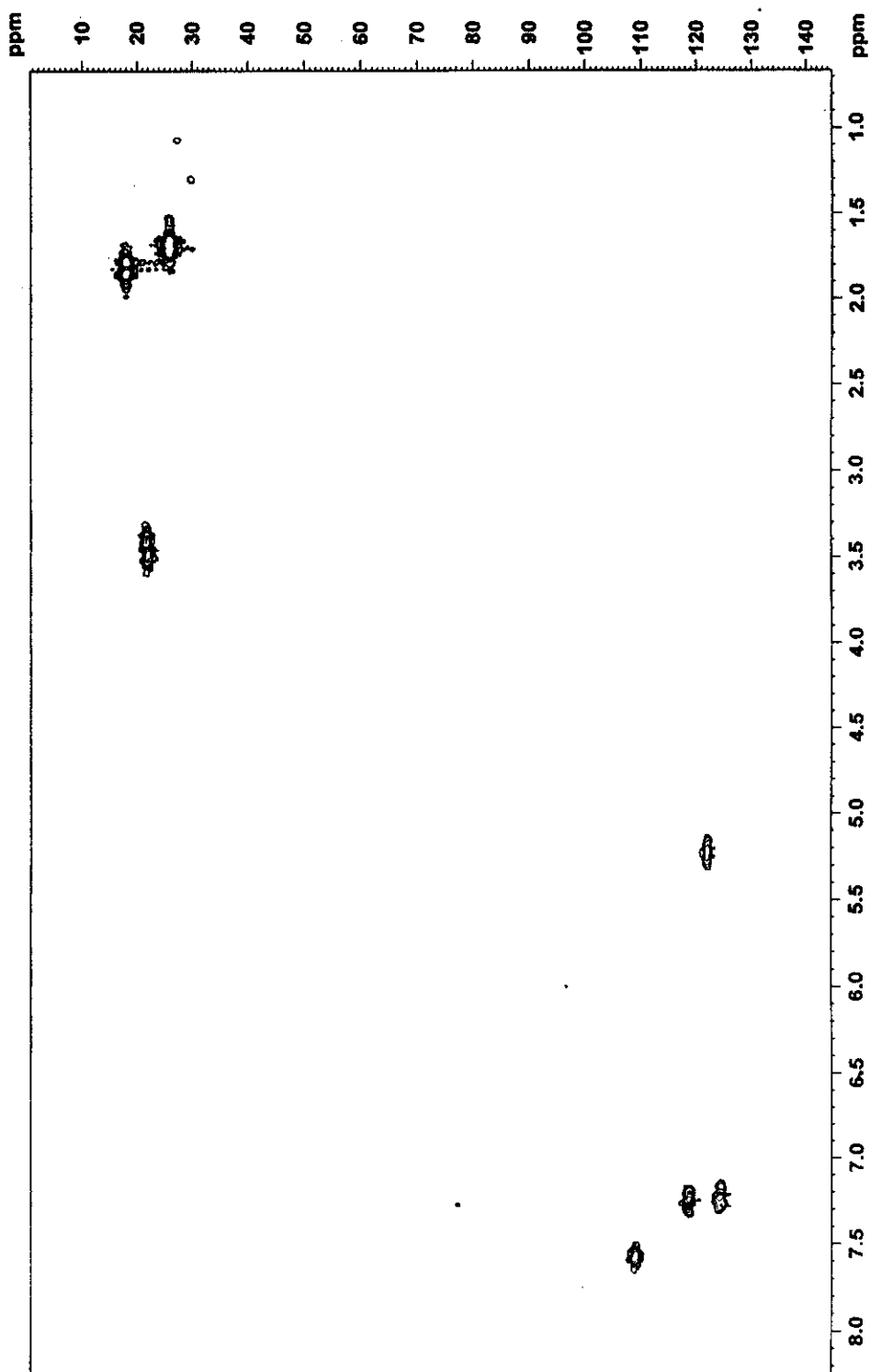


Figure 46 2D HMQC spectrum of CC6

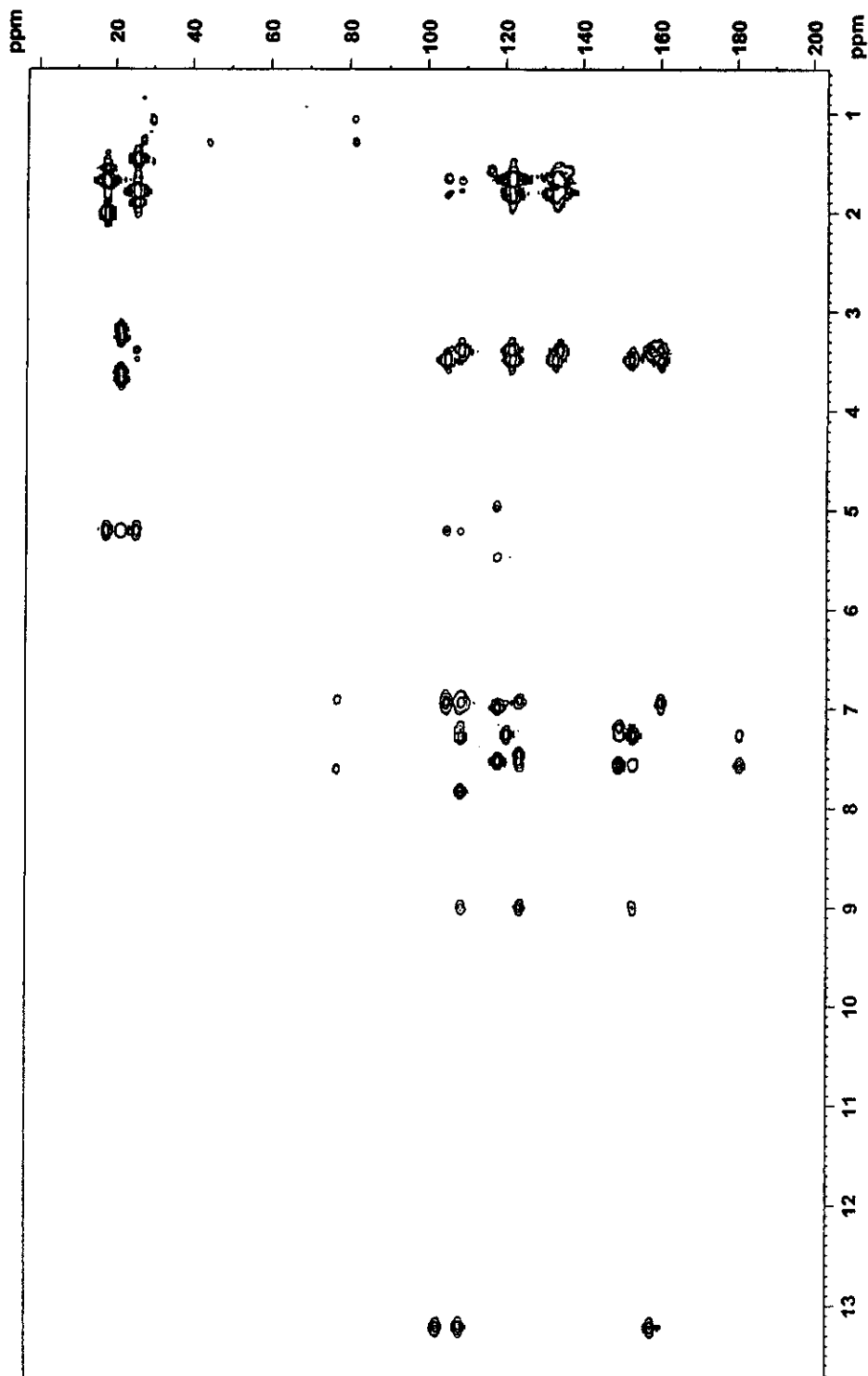
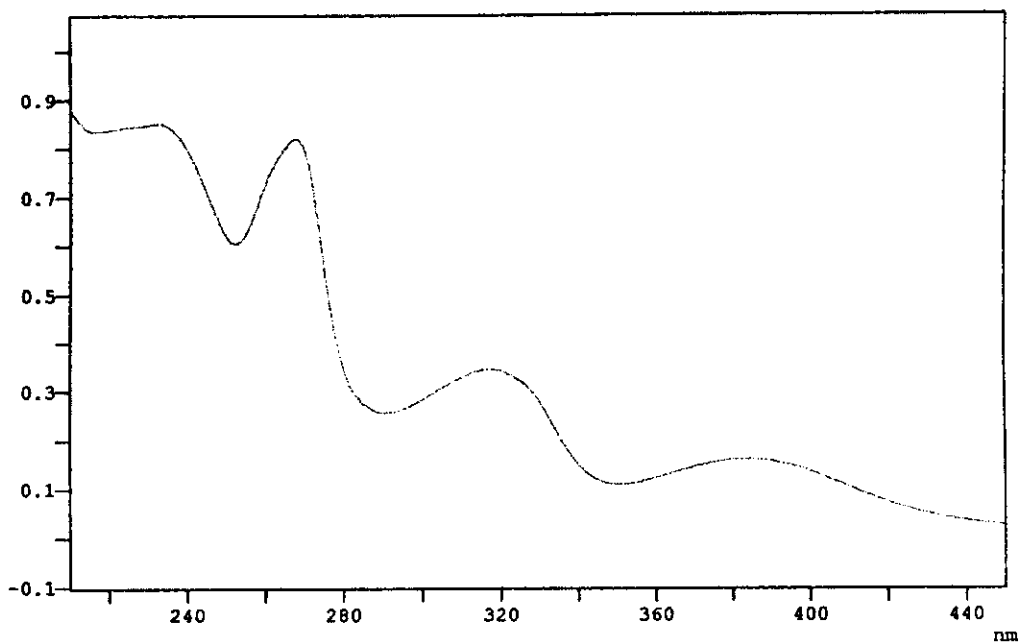
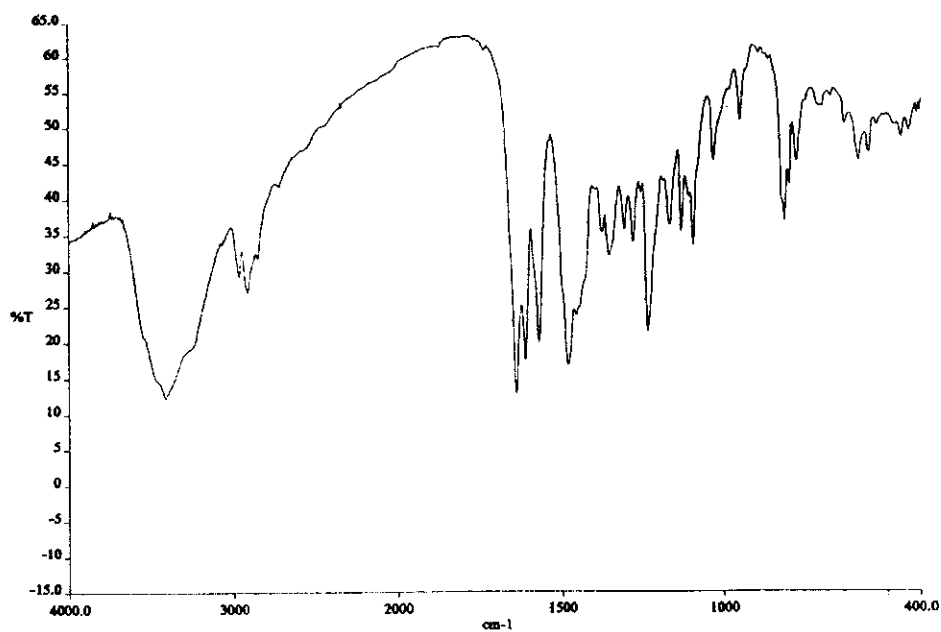


Figure 47 2D HMBC spectrum of CC6

Abs

**Figure 48** UV (EtOH) spectrum of CC7**Figure 49** FT-IR (KBr) spectrum of CC7

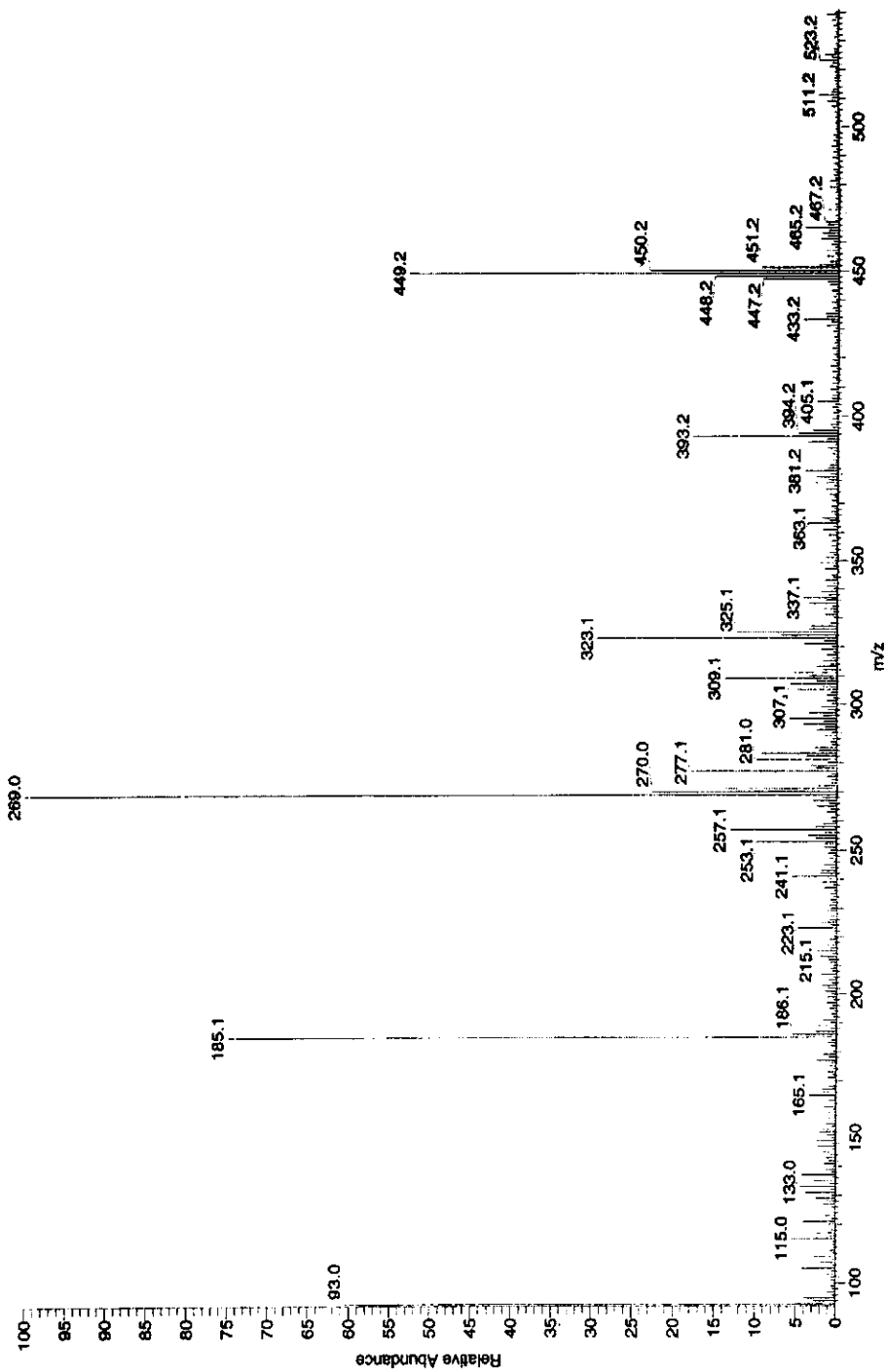


Figure 50 Mass spectrum of CC7

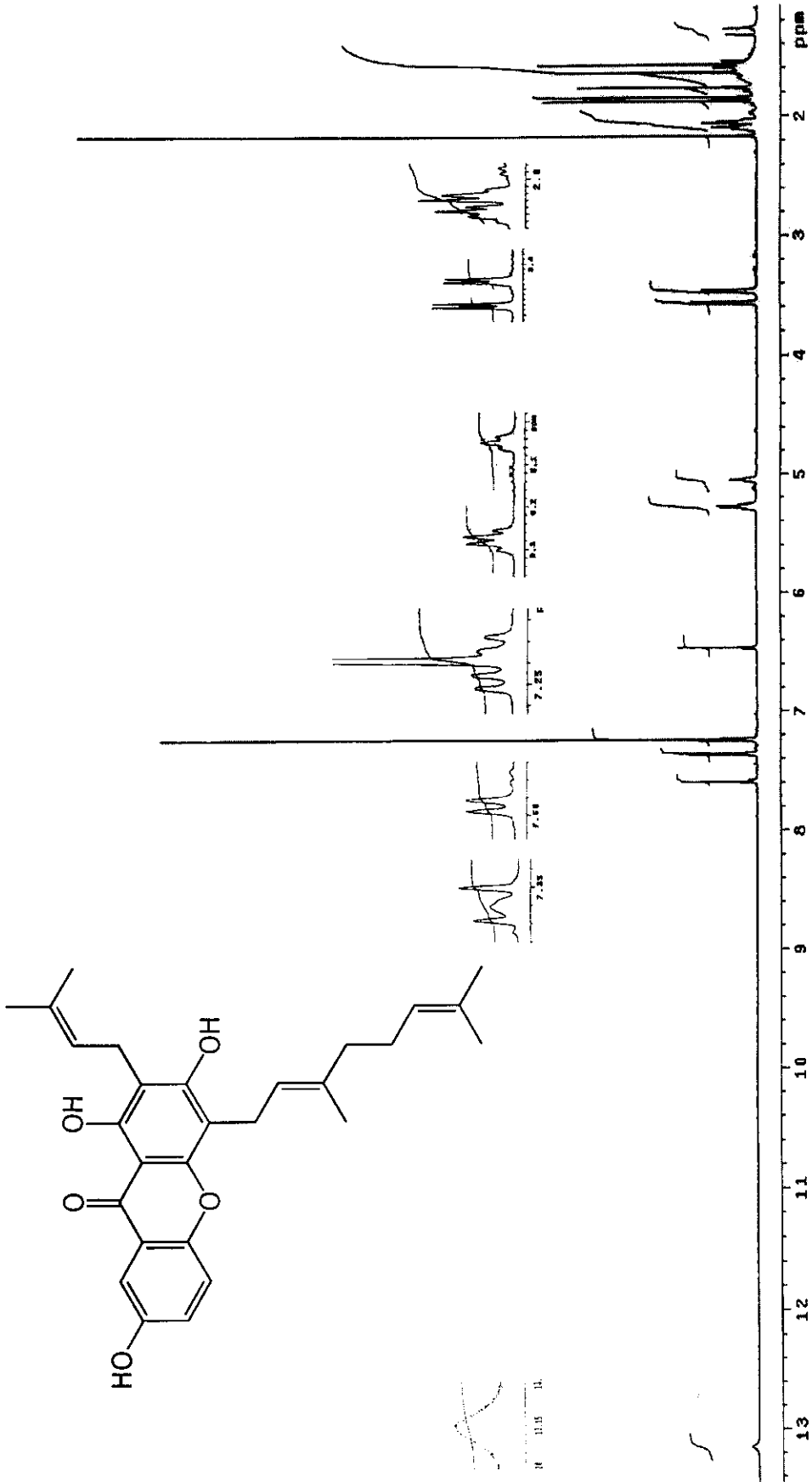


Figure 51 ^1H NMR (500 MHz) ($\text{CDCl}_3 + \text{C}_6\text{D}_6 + \text{DMSO-}d_6$) spectrum of CC7

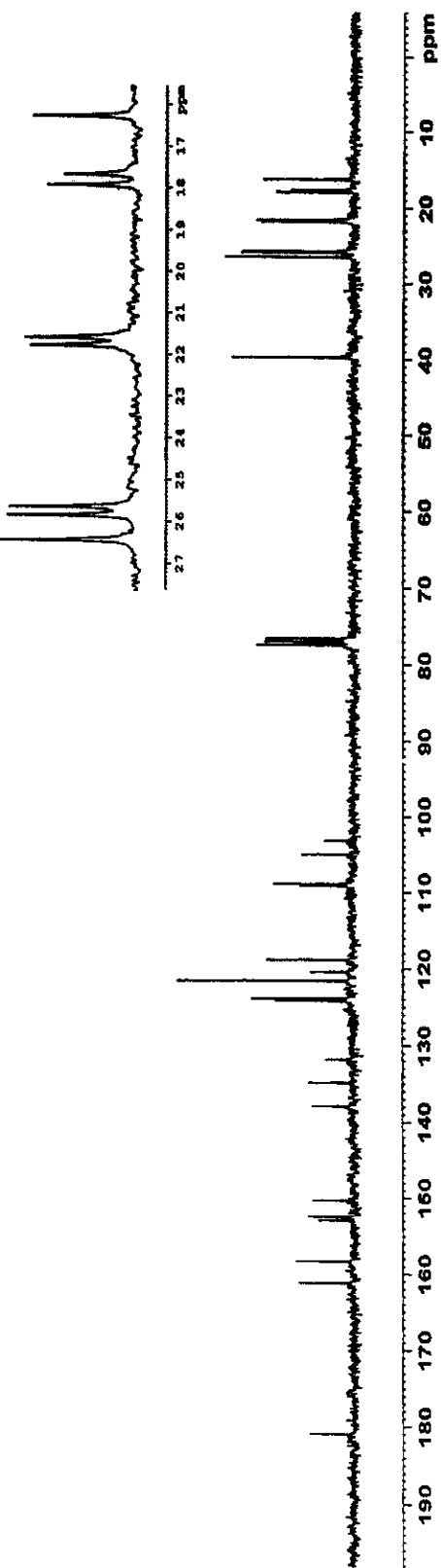


Figure 52 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC7

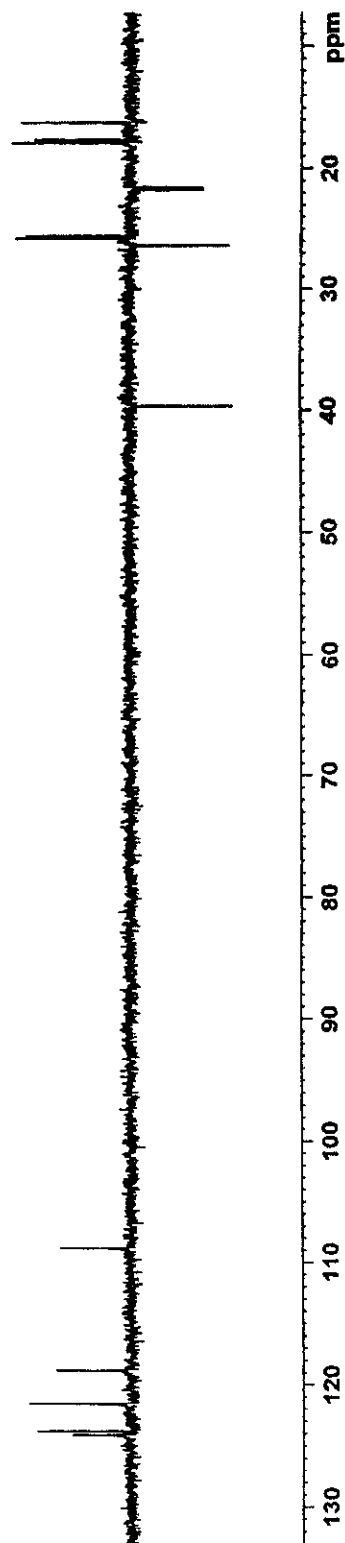
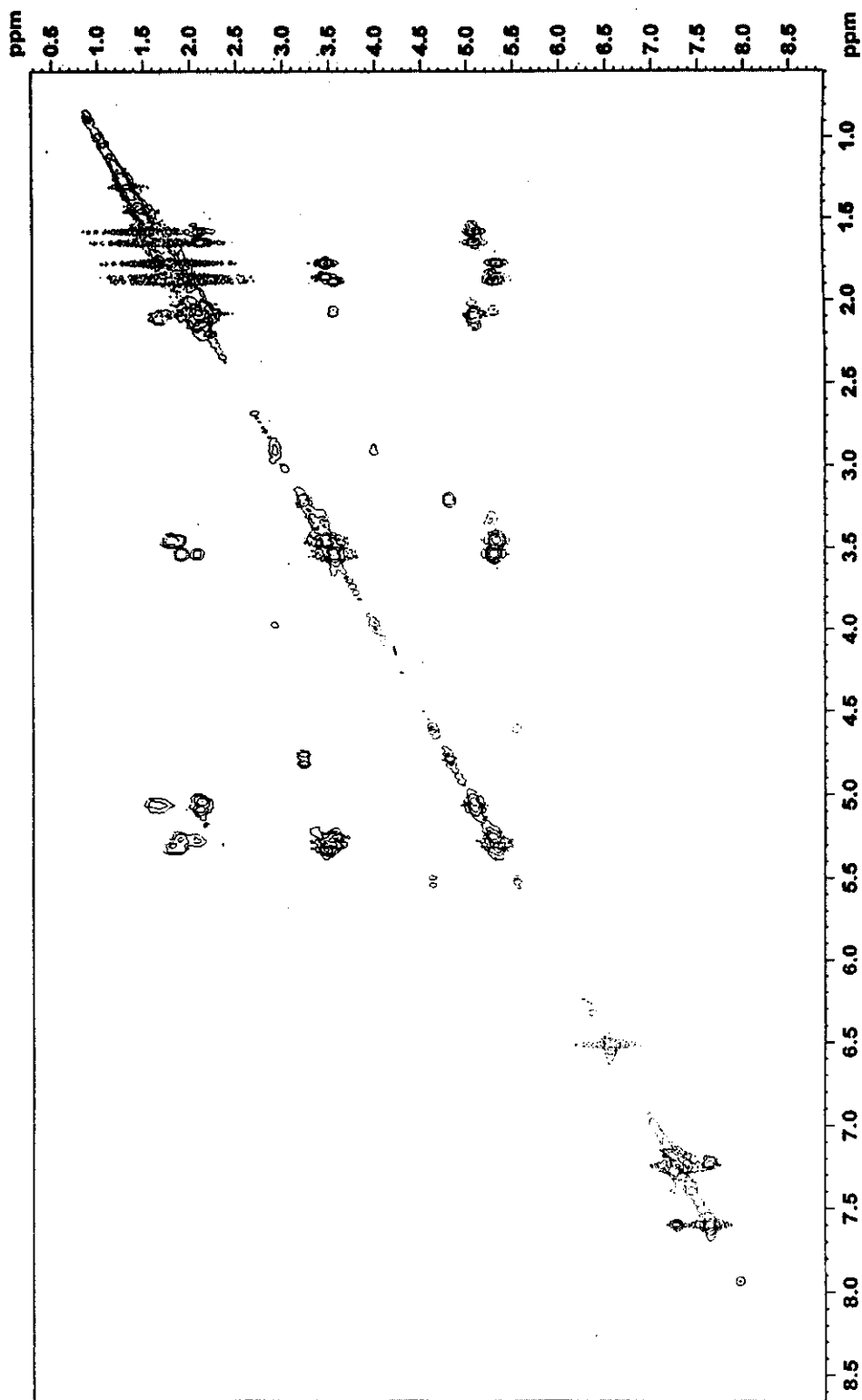


Figure 53 DEPT $^{135^\circ}$ ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC7

Figure 54 ^1H - ^1H COSY spectrum of CC7

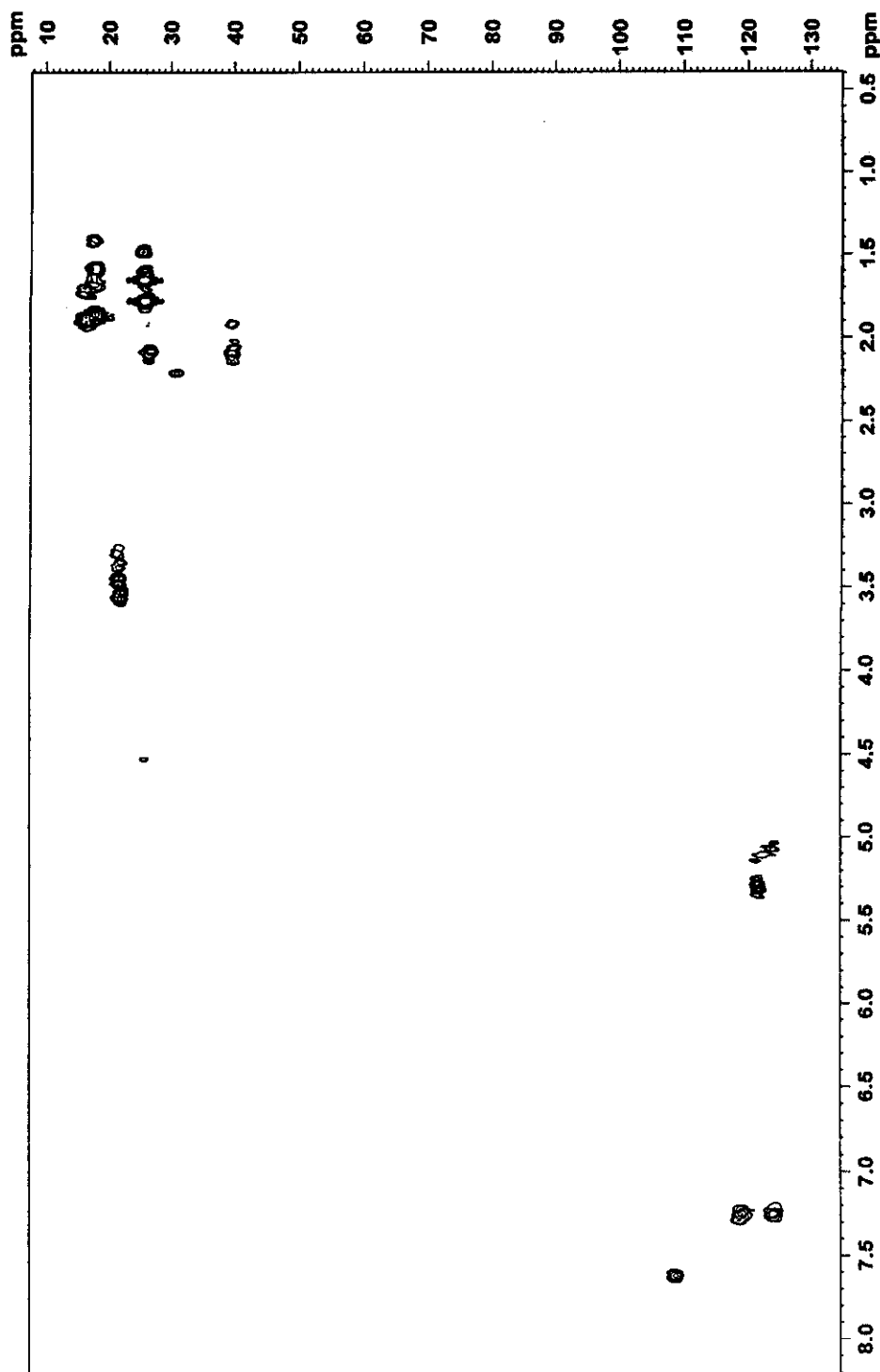


Figure S5 2D HMQC spectrum of CC7

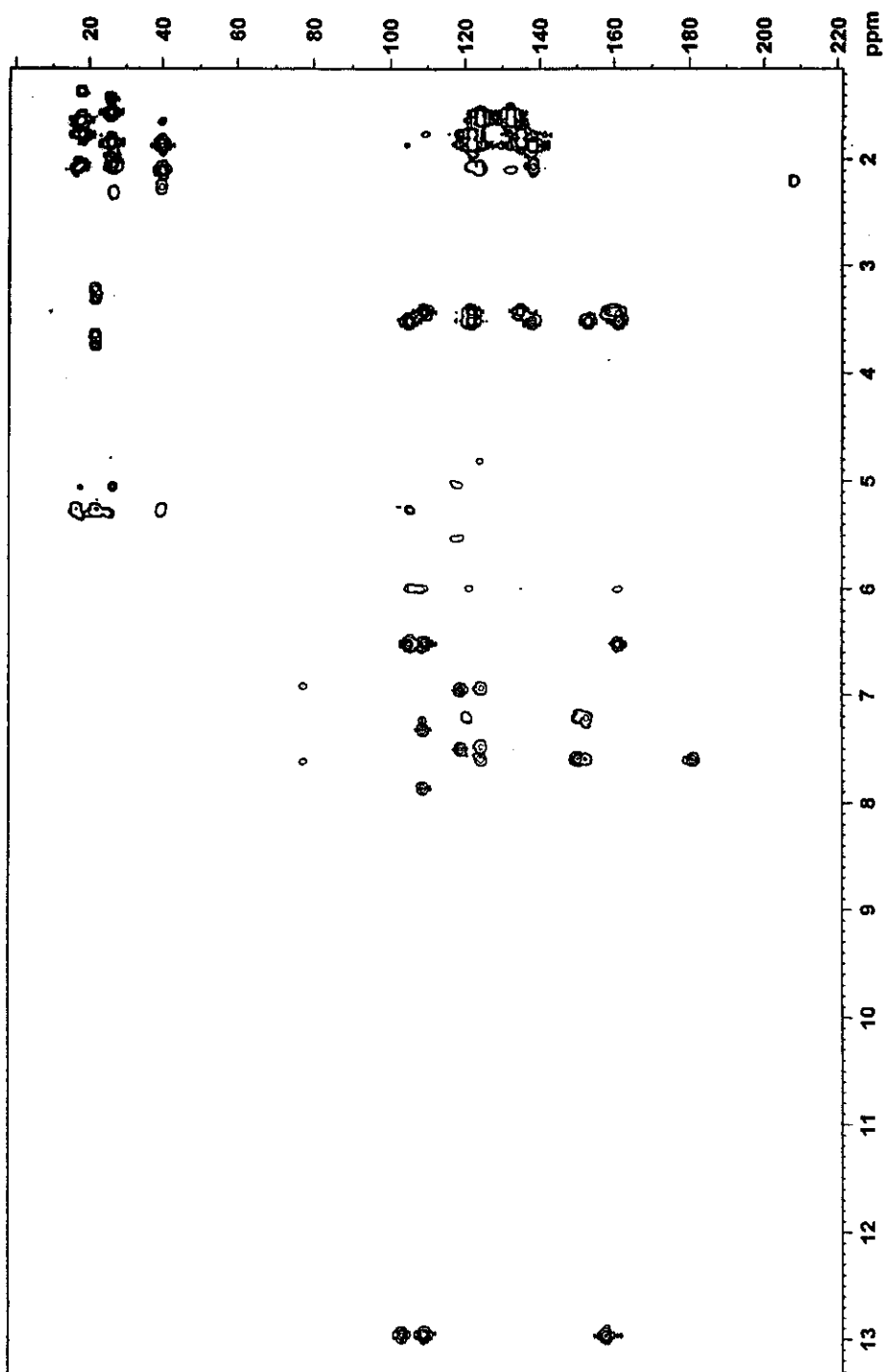


Figure 56 2D HMBC spectrum of CC7

Abs

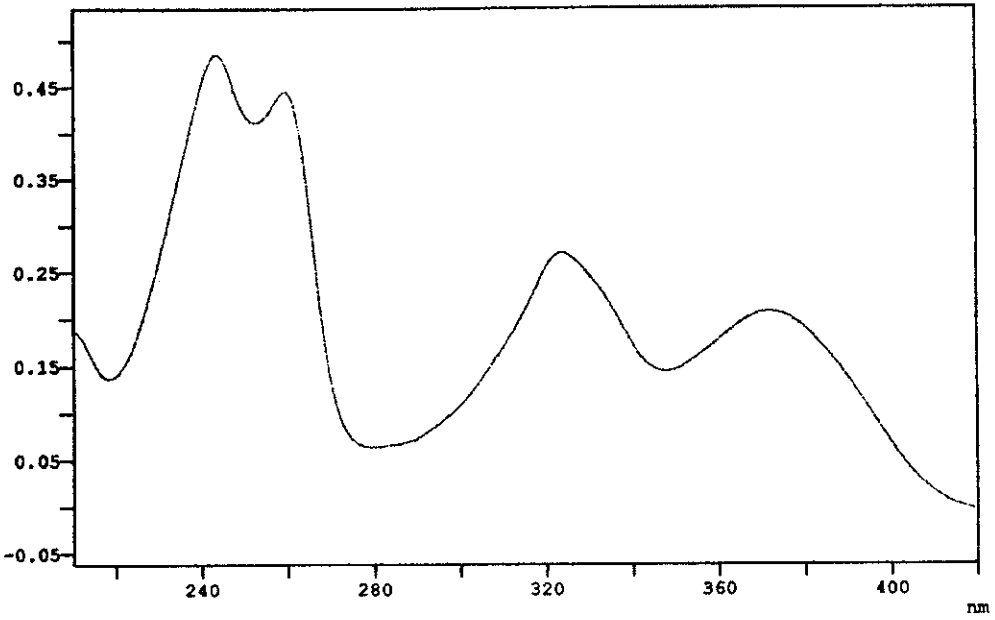


Figure 57 UV (EtOH) spectrum of CC8

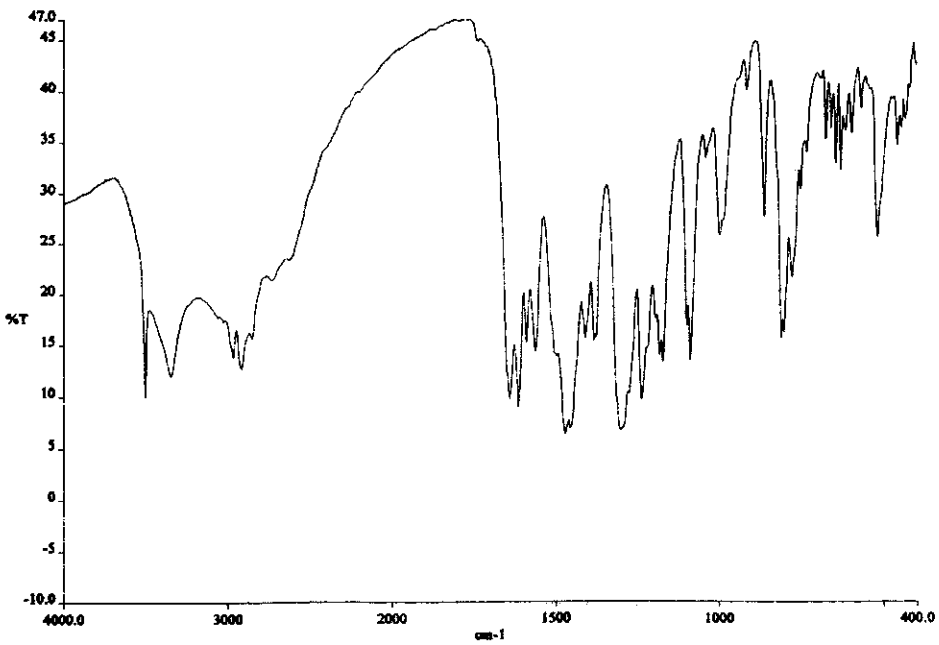


Figure 58 FT-IR (KBr) spectrum of CC8

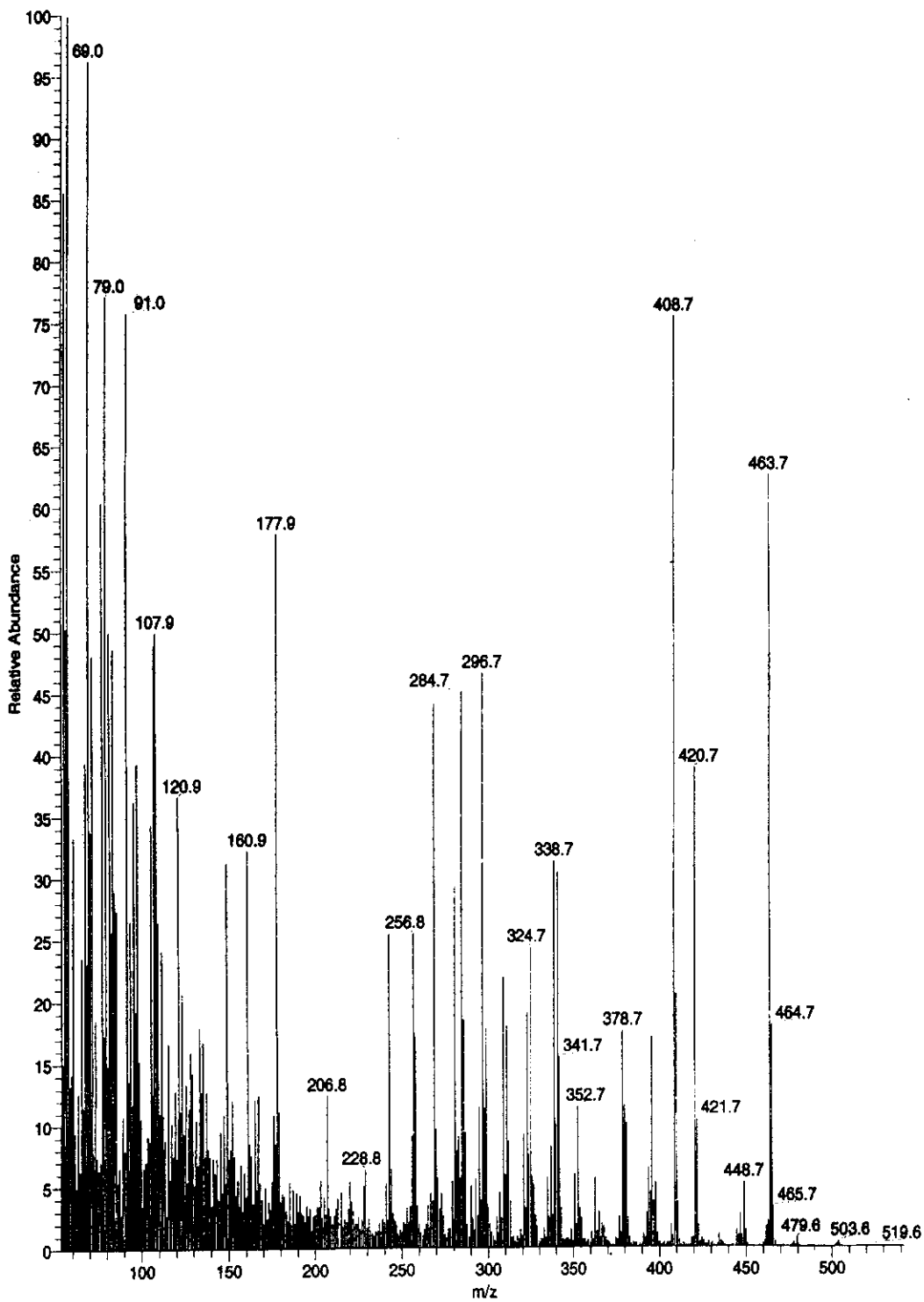


Figure 59 Mass spectrum of CC8

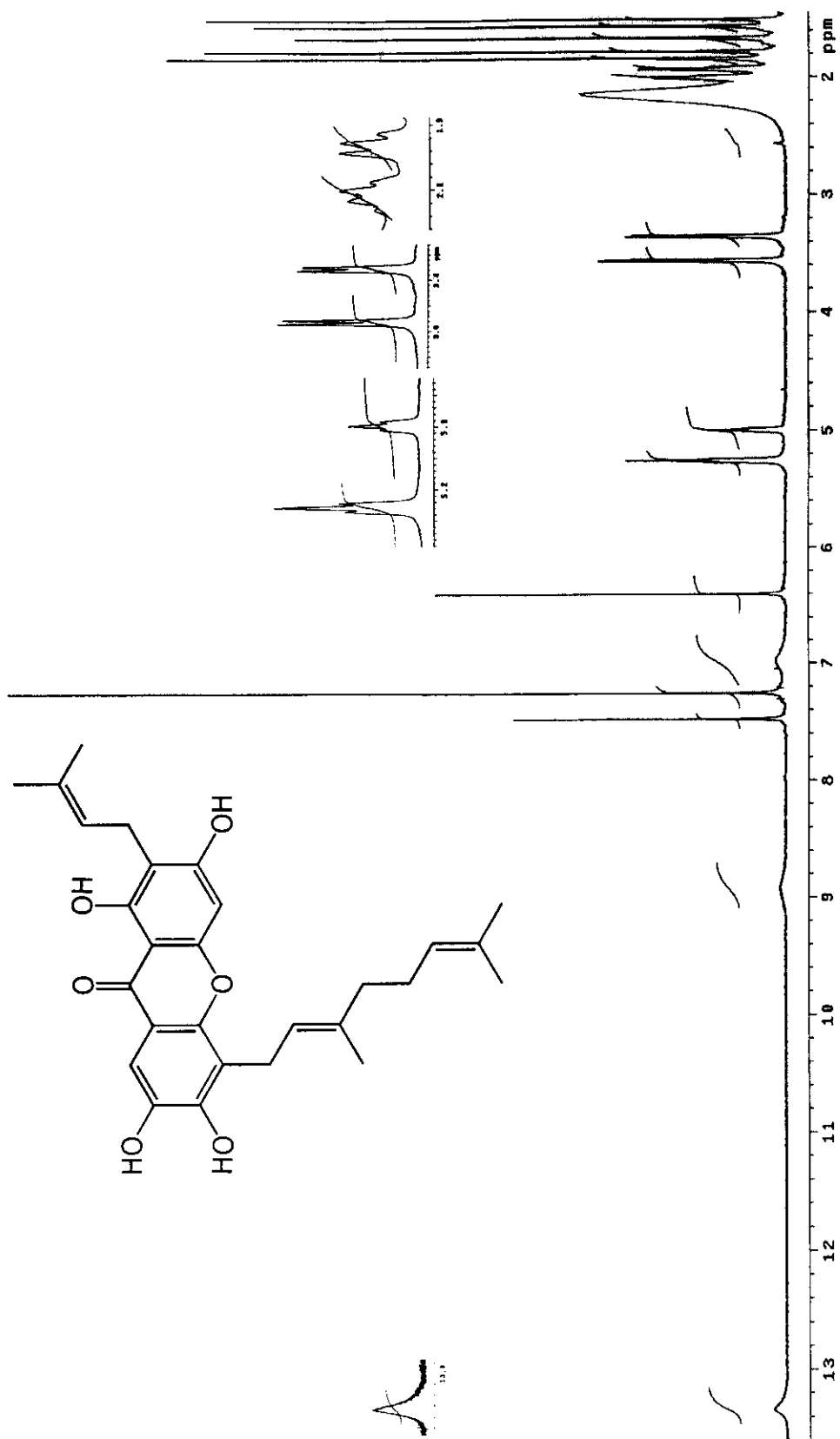


Figure 60 ^1H NMR (500 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC8

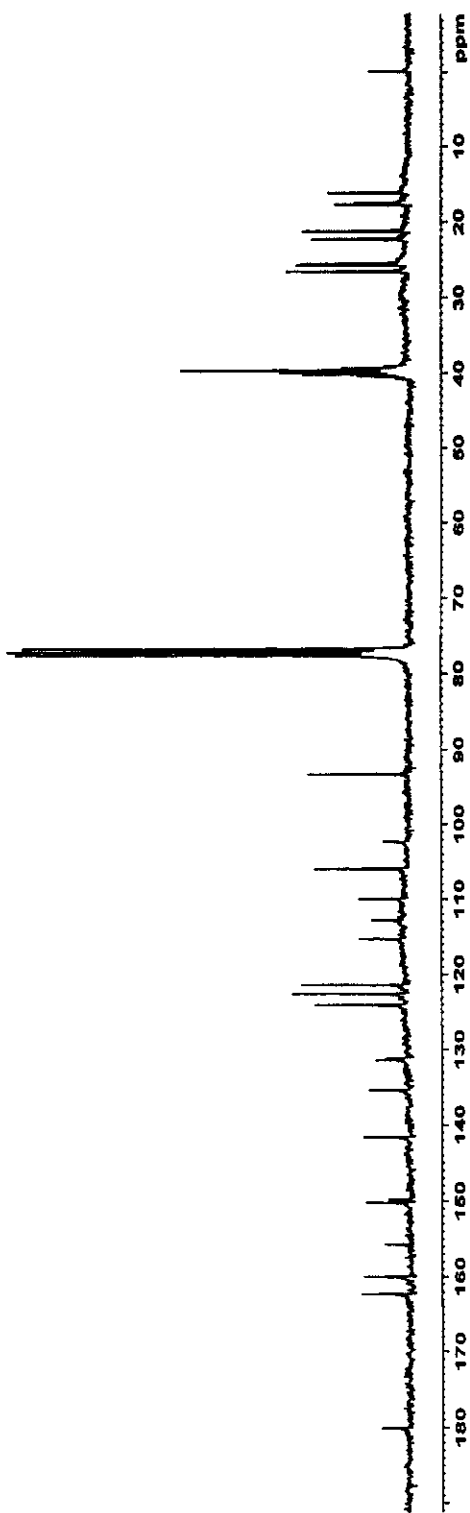


Figure 61 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC8

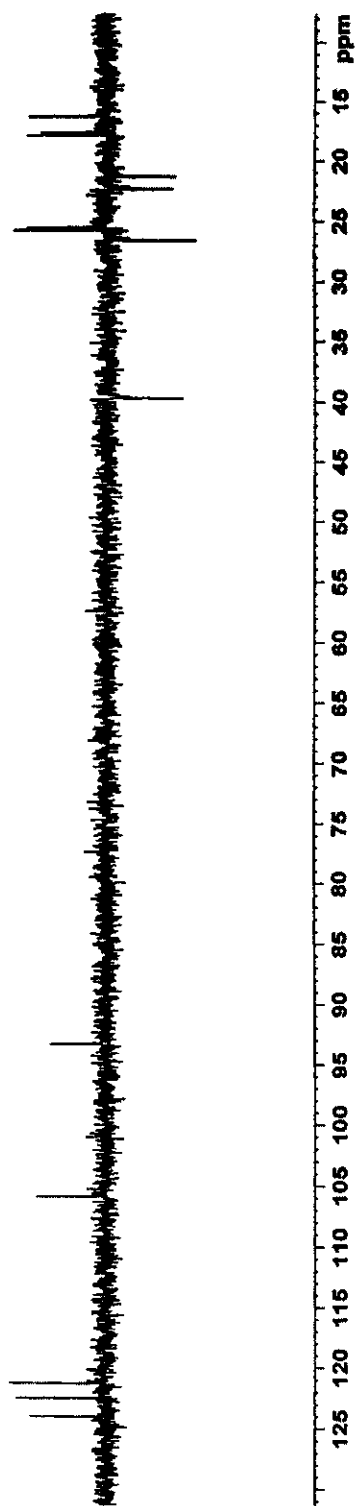


Figure 62 DEPT 135° ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC8

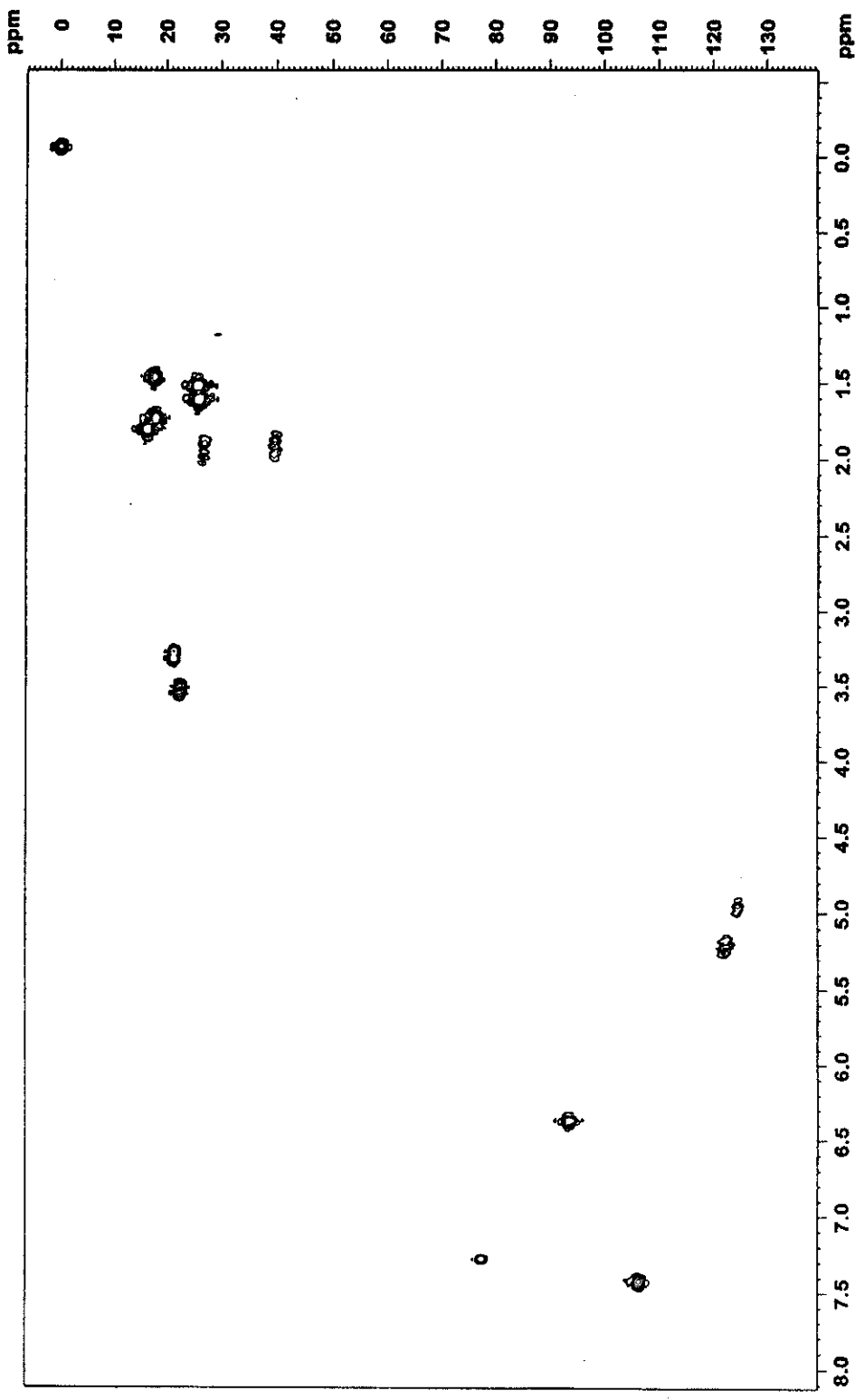


Figure 63 2D HMQC spectrum of CC8

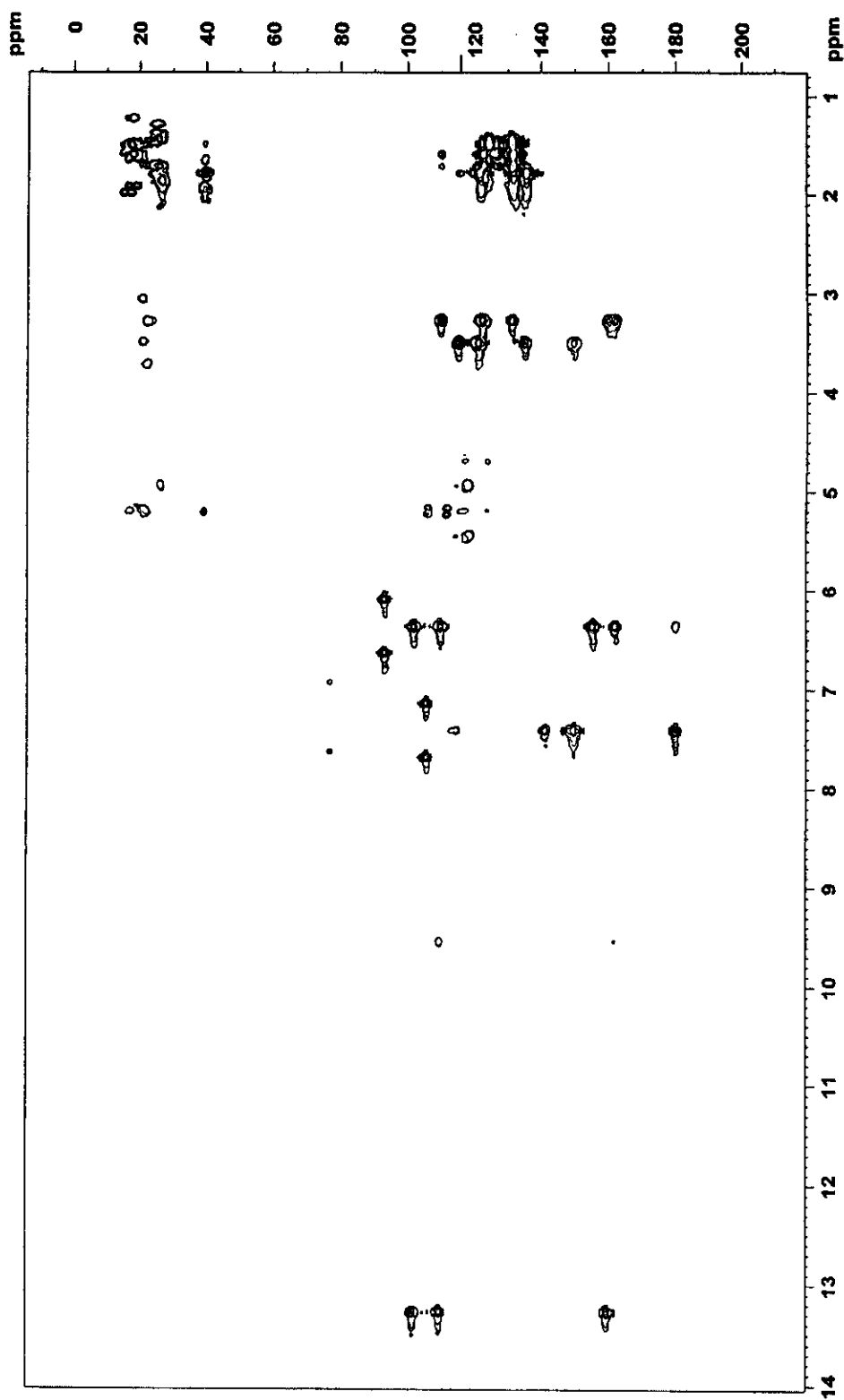


Figure 64 2D HMBC spectrum of CC8

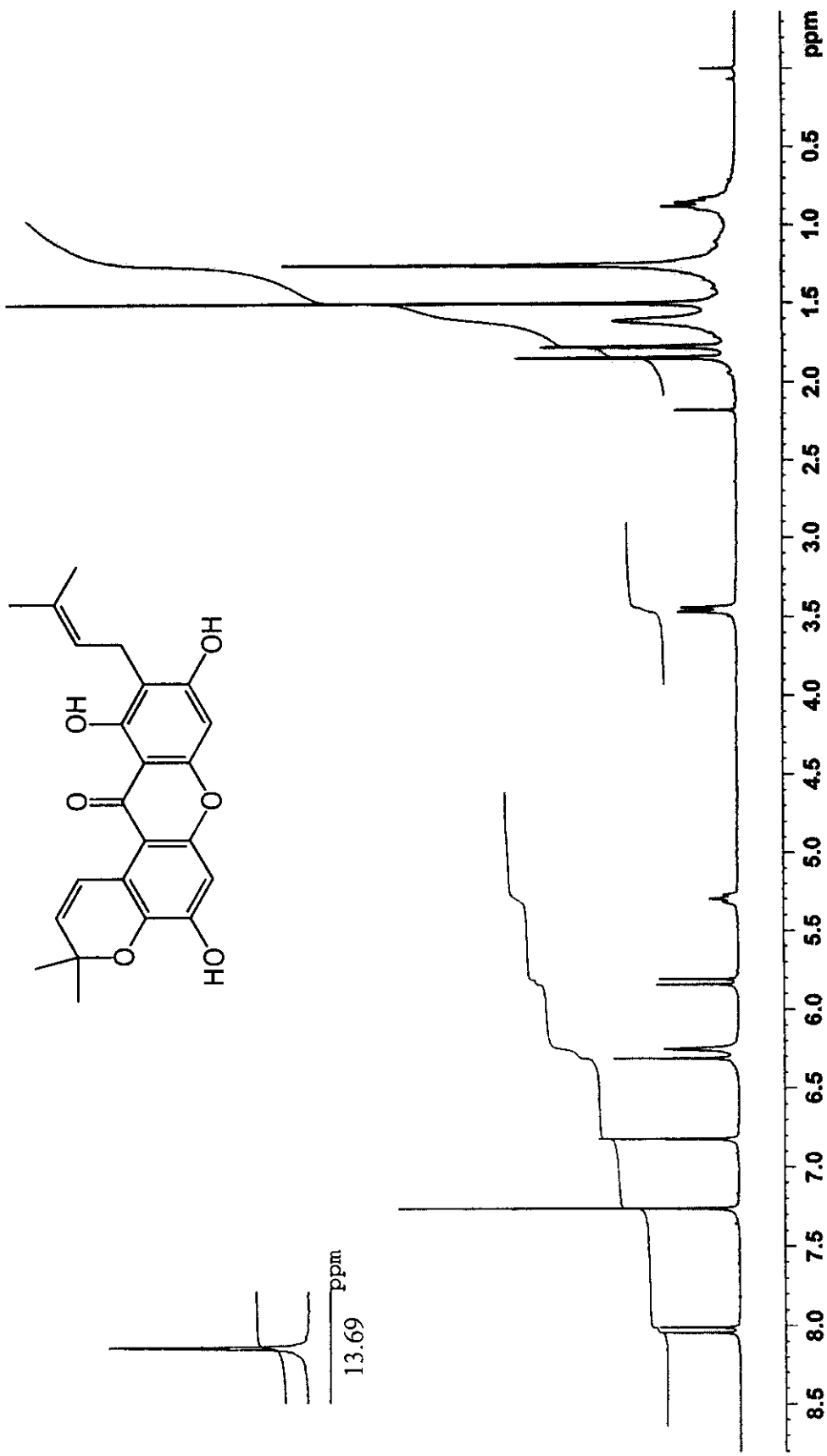


Figure 65 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC9

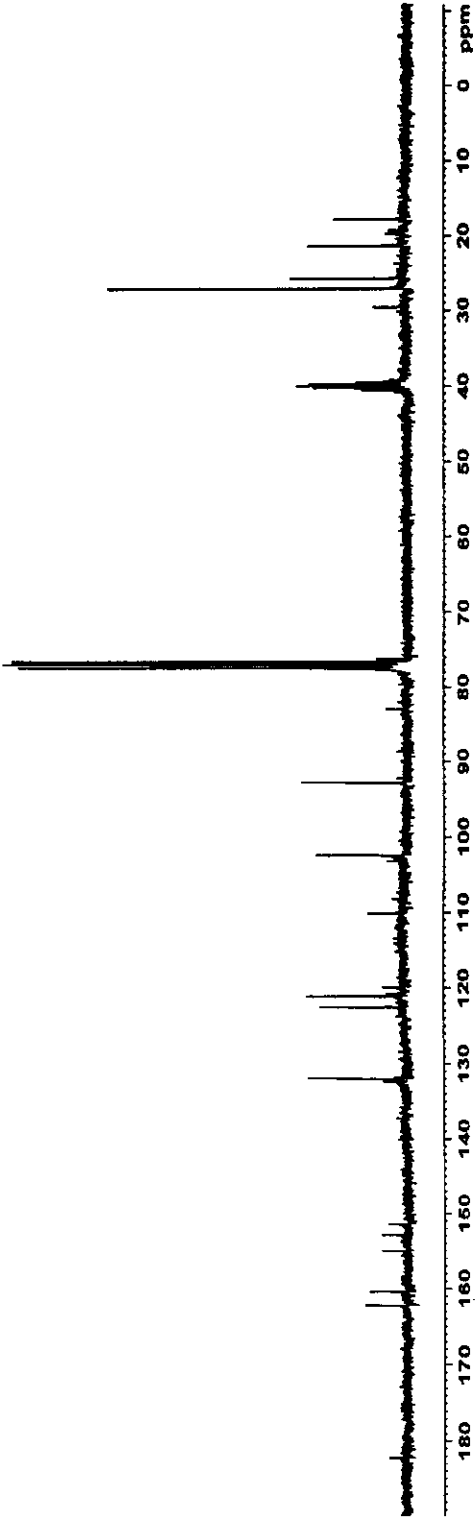


Figure 66 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC9

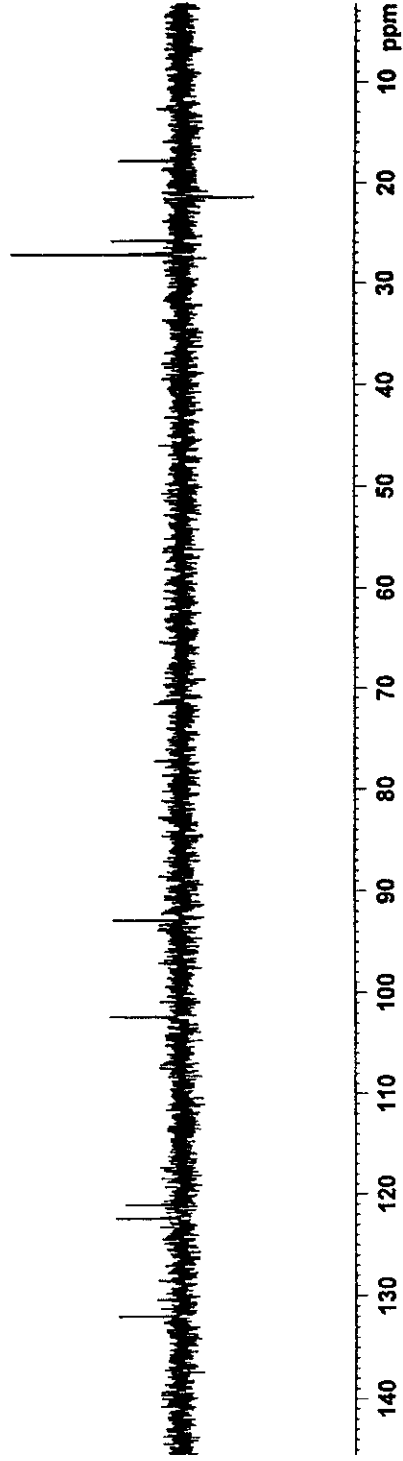
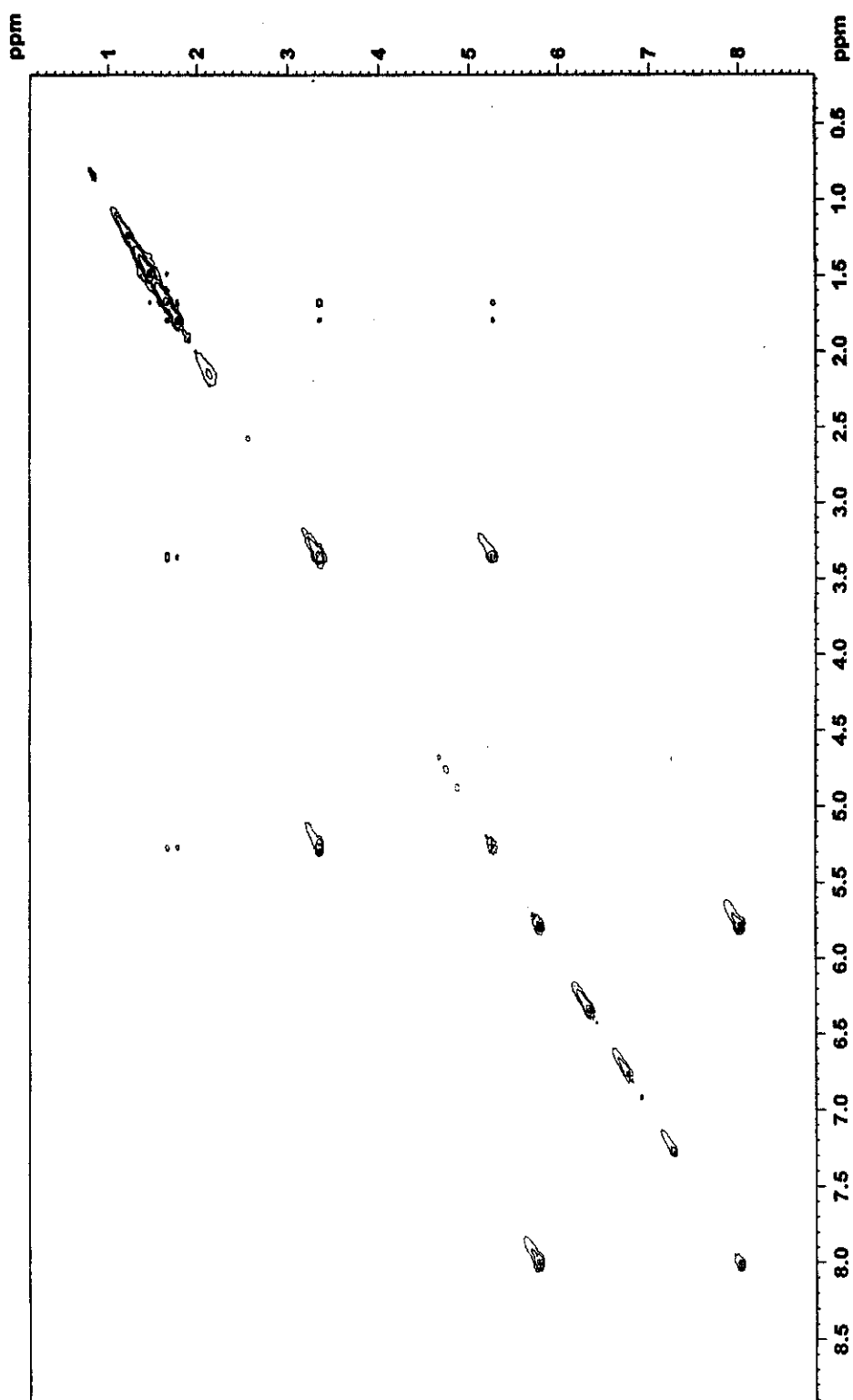


Figure 67 DEPT 135 ^{13}C NMR ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC9

Figure 68 ^1H - ^1H COSY spectrum of CC9

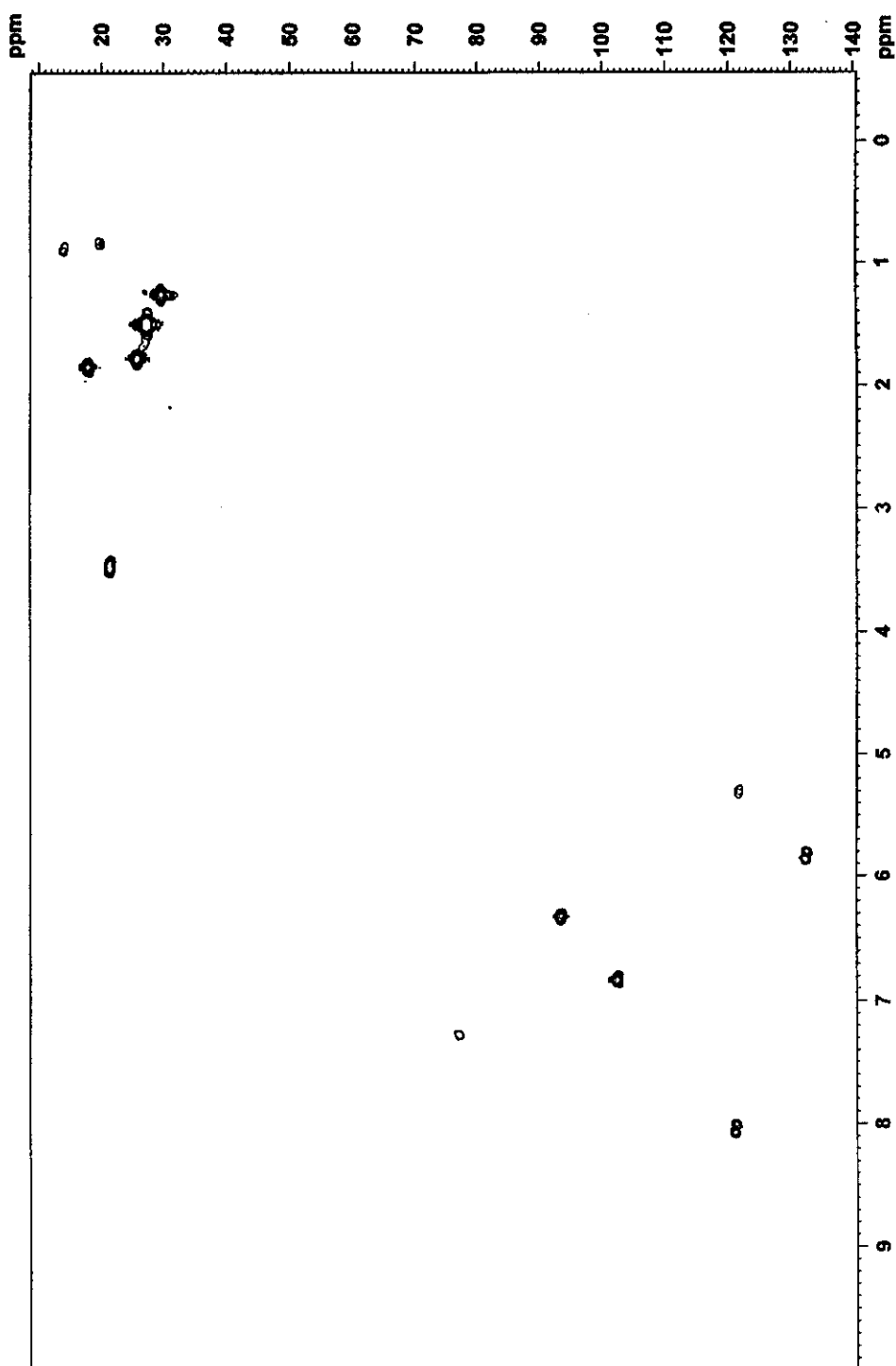


Figure 69 2D HMQC spectrum of CC9

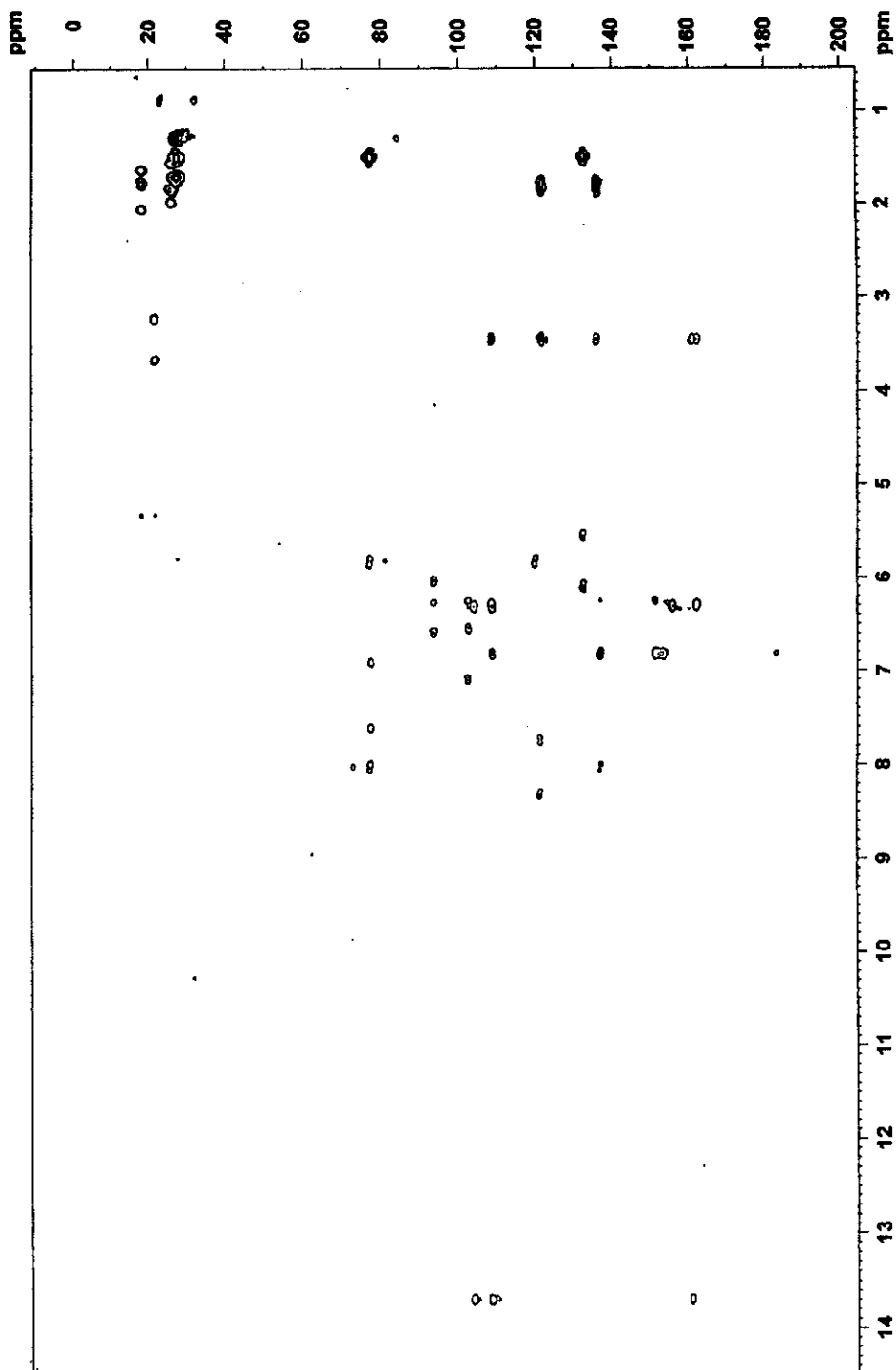


Figure 70 2D HMBC spectrum of CC9

Abs

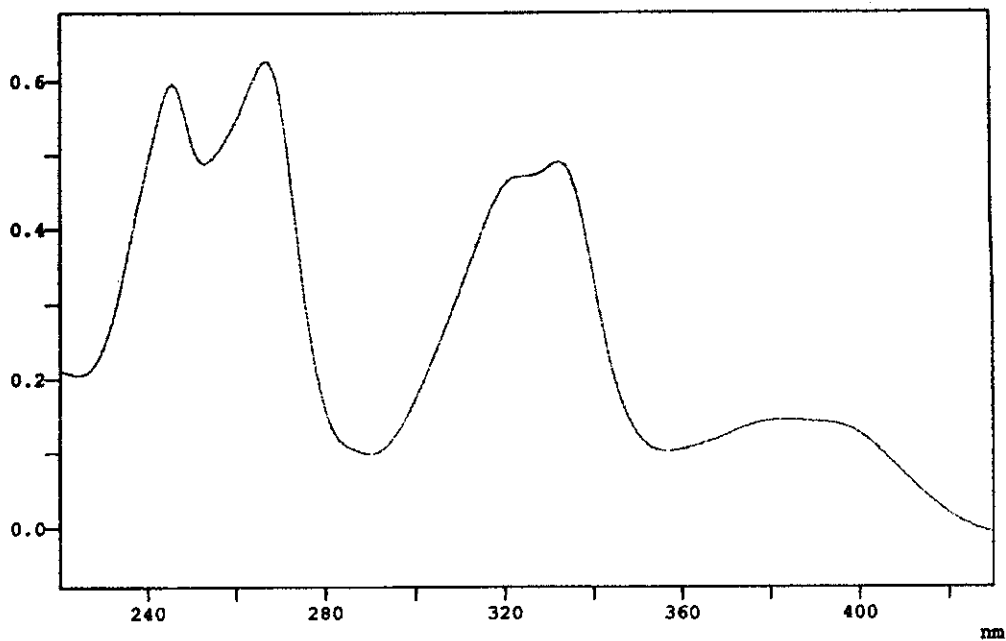


Figure 71 UV (EtOH) spectrum of CC10

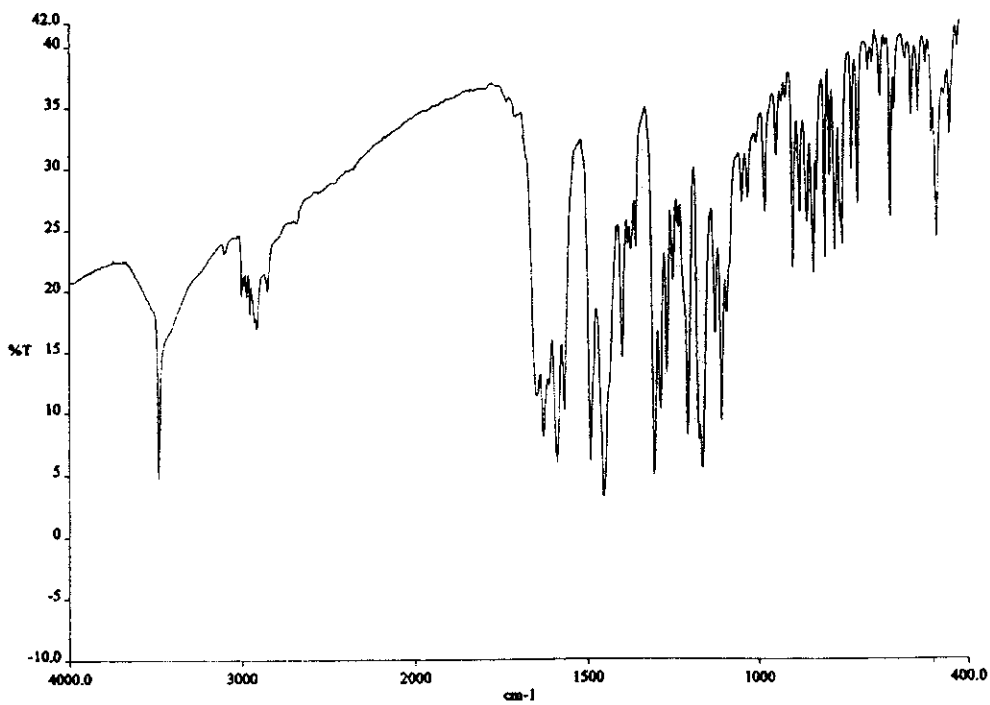


Figure 72 FT-IR (KBr) spectrum of CC10

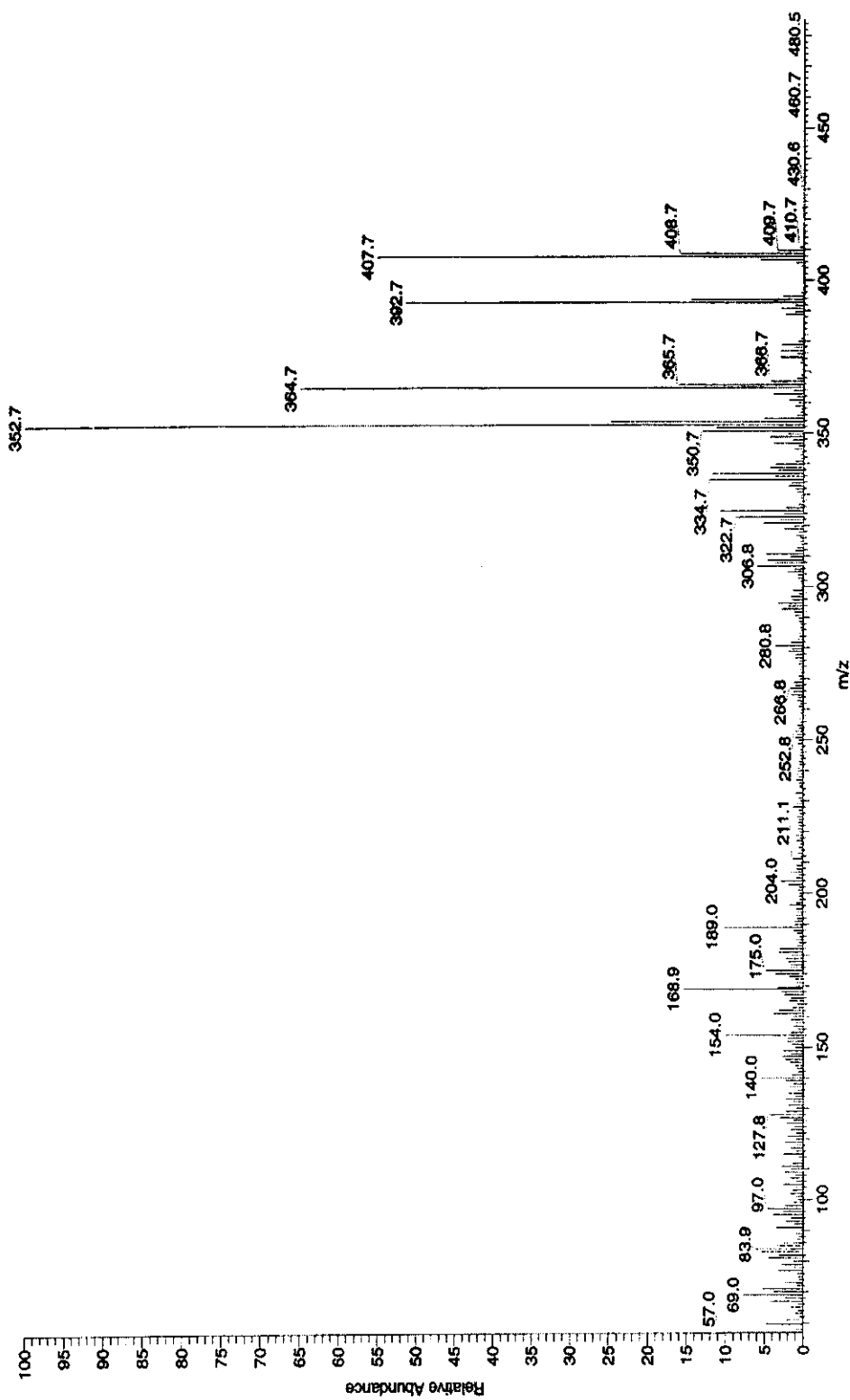
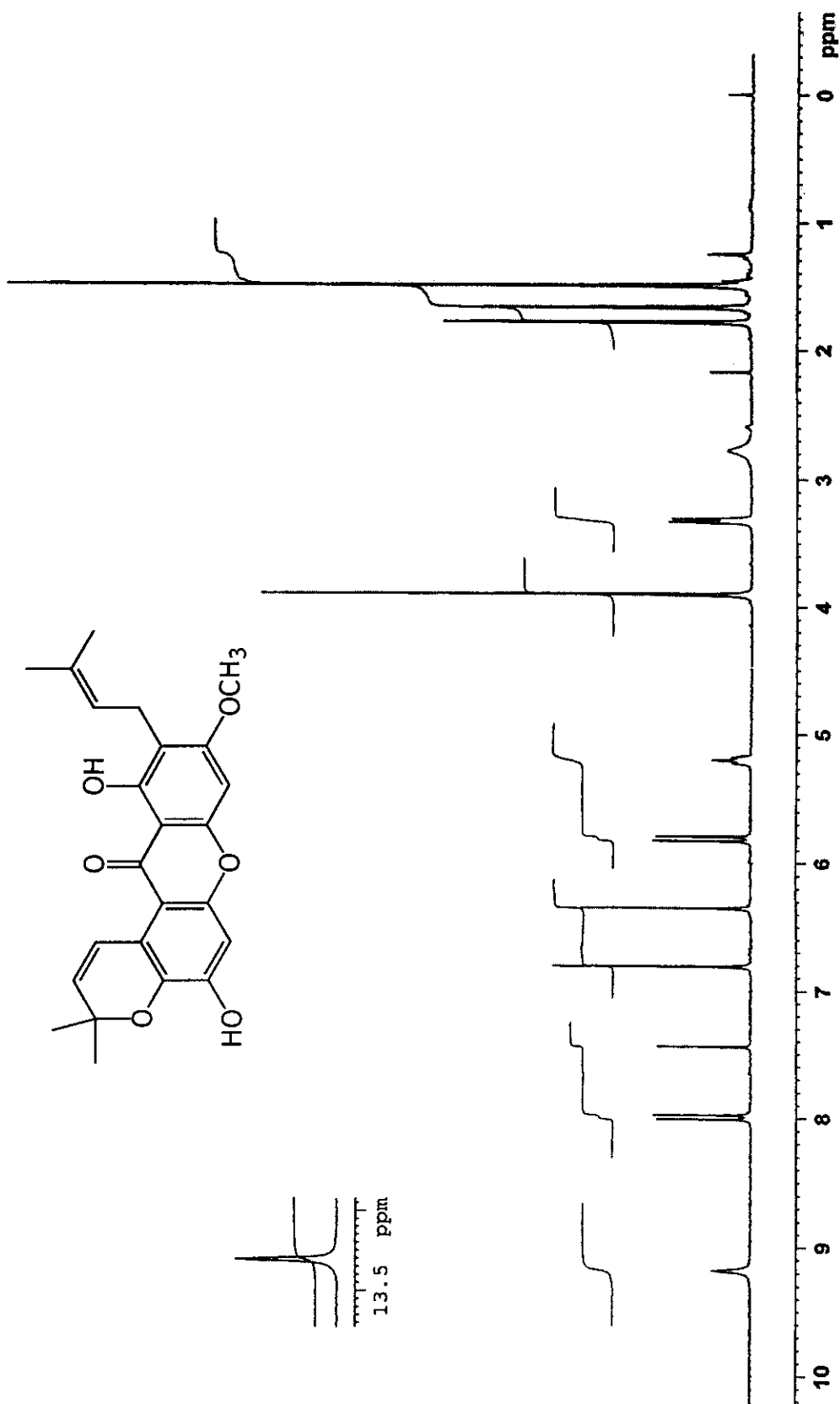


Figure 73 Mass spectrum of CC10

Figure 74 ^1H NMR (300 MHz) (CDCl_3) spectrum of CC10

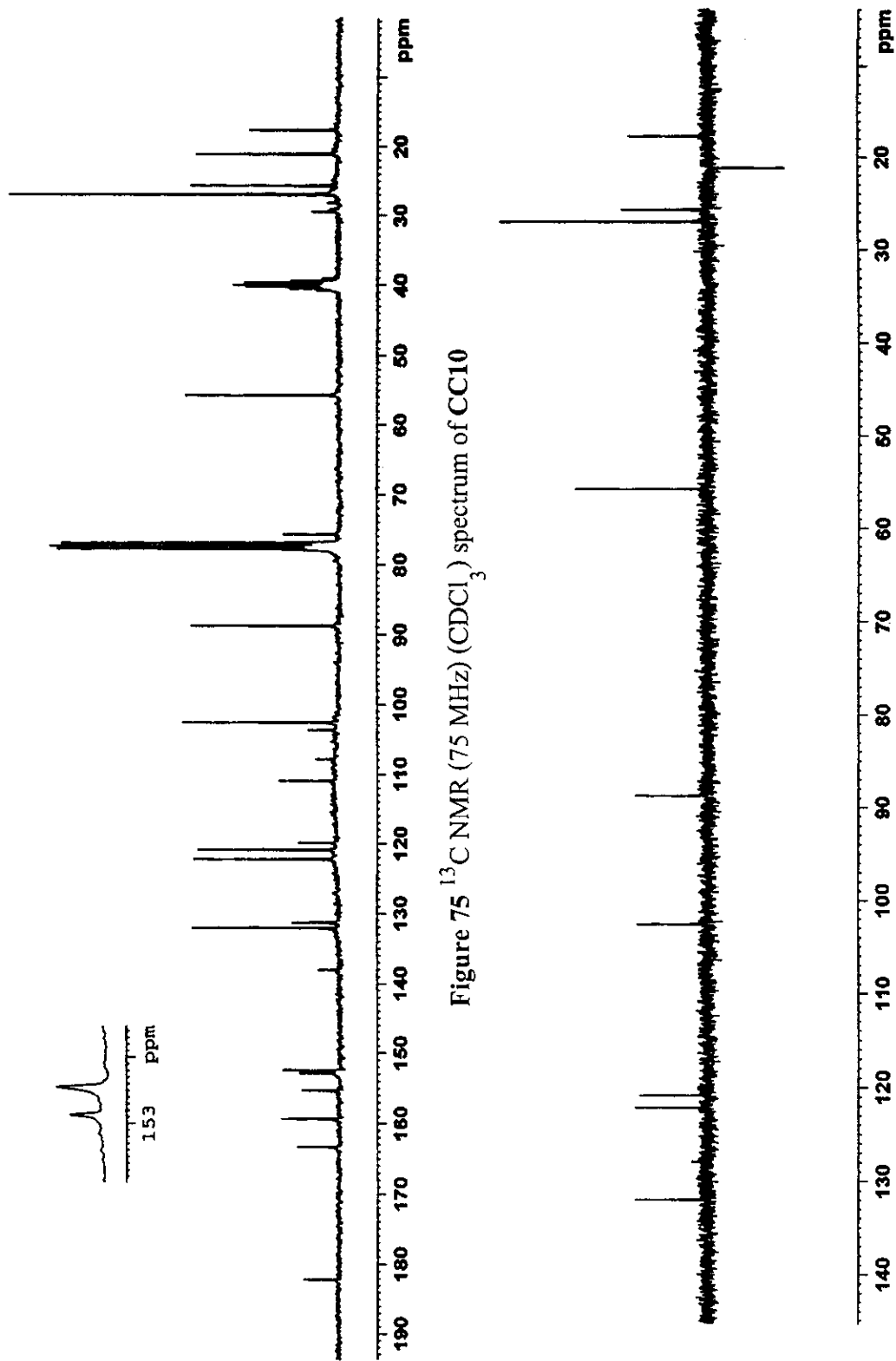


Figure 75 ^{13}C NMR (75 MHz) (CDCl_3) spectrum of CCl_{10}

Figure 76 DEPT $^{135^\circ}$ (CDCl_3) spectrum of CCl_{10}

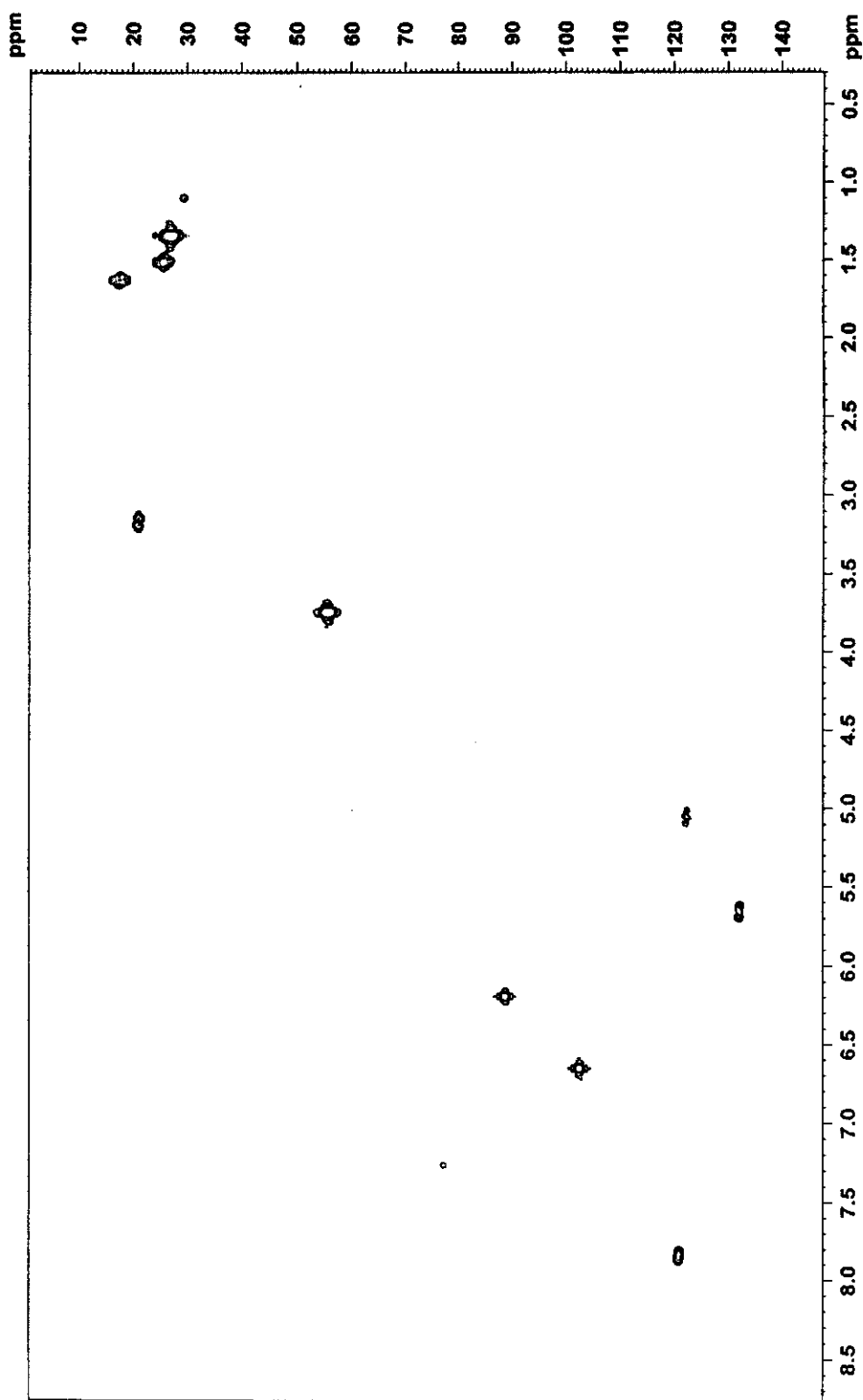


Figure 77 2D HMQC spectrum of CCl10

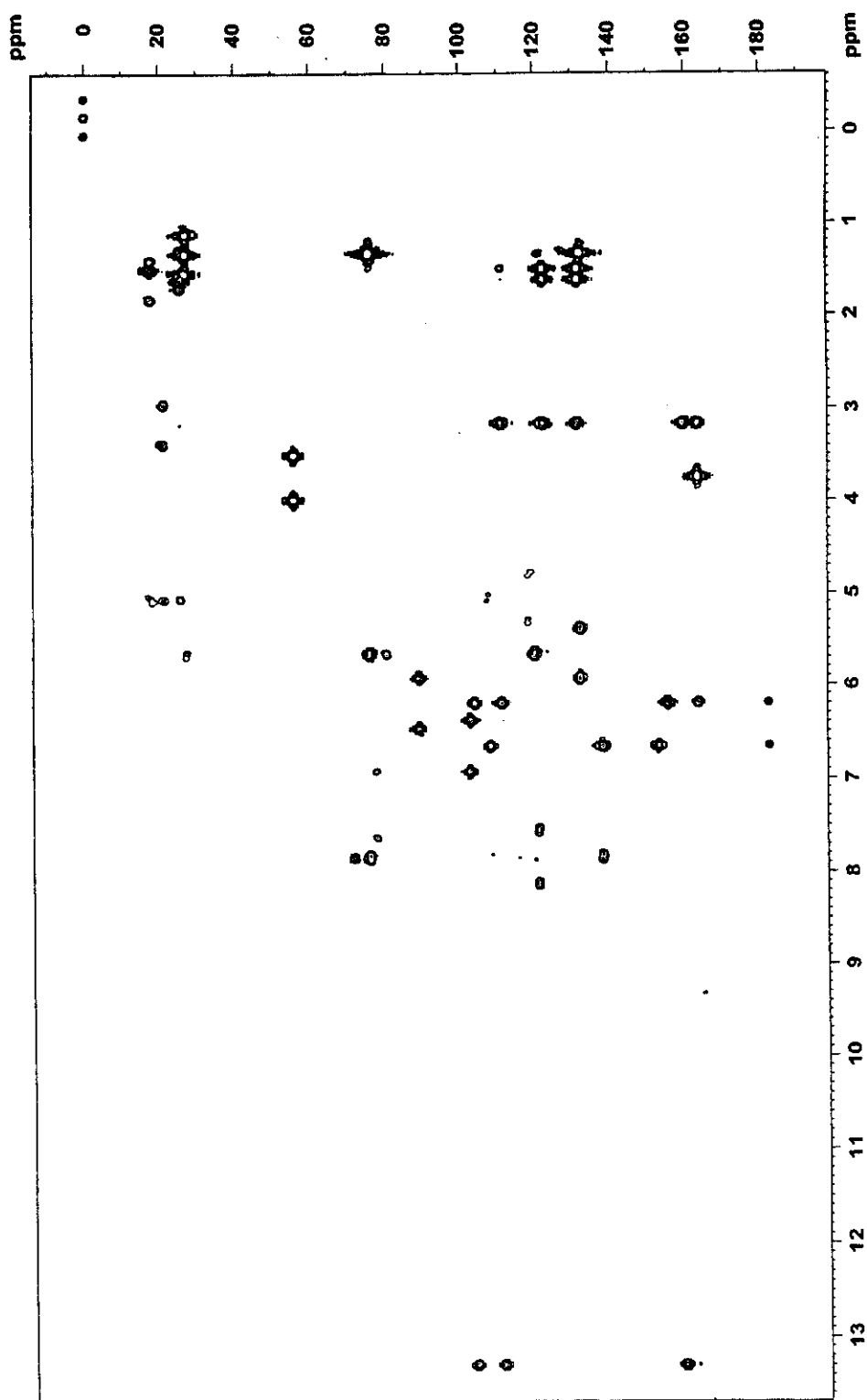
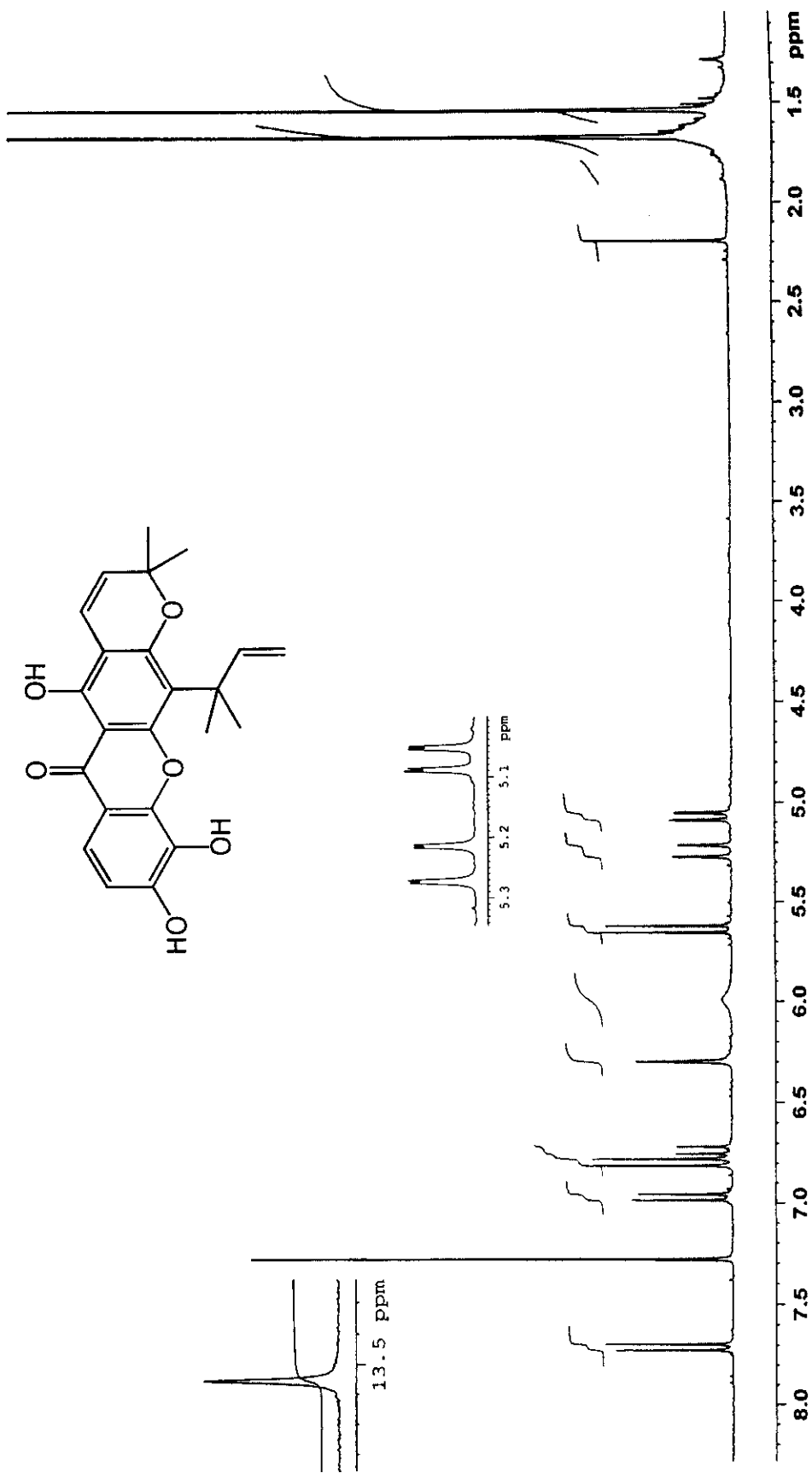


Figure 78 2D HMBC spectrum of CC10

Figure 79 ^1H NMR (300 MHz) (CDCl_3) spectrum of CCl11

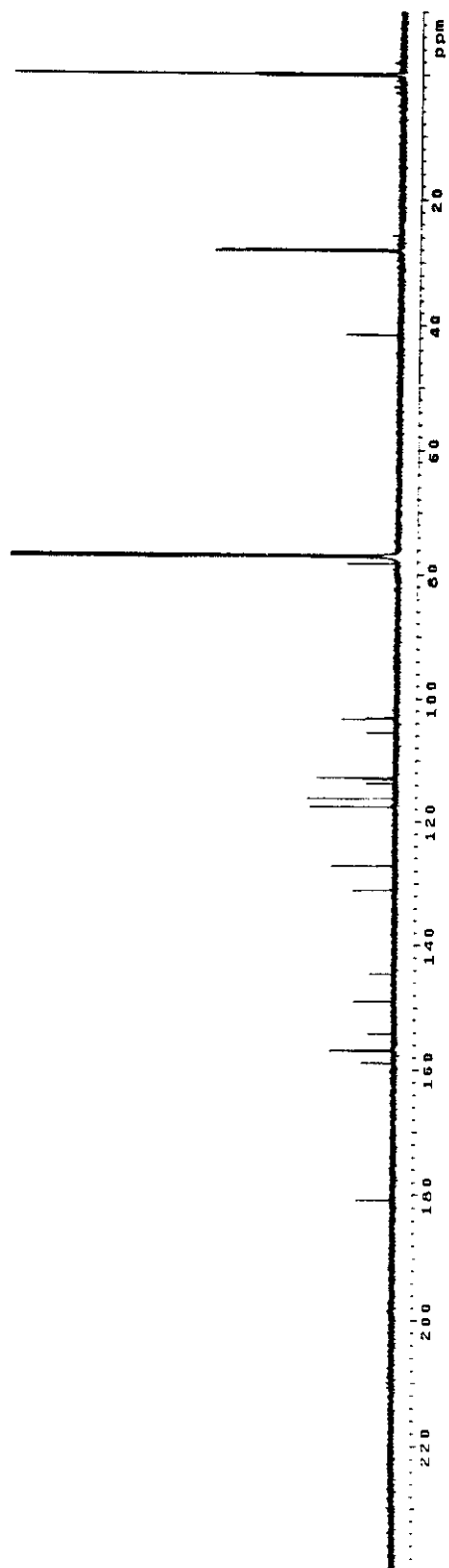


Figure 80 ^{13}C NMR (125 MHz) (CDCl_3) spectrum of CCl_{11}

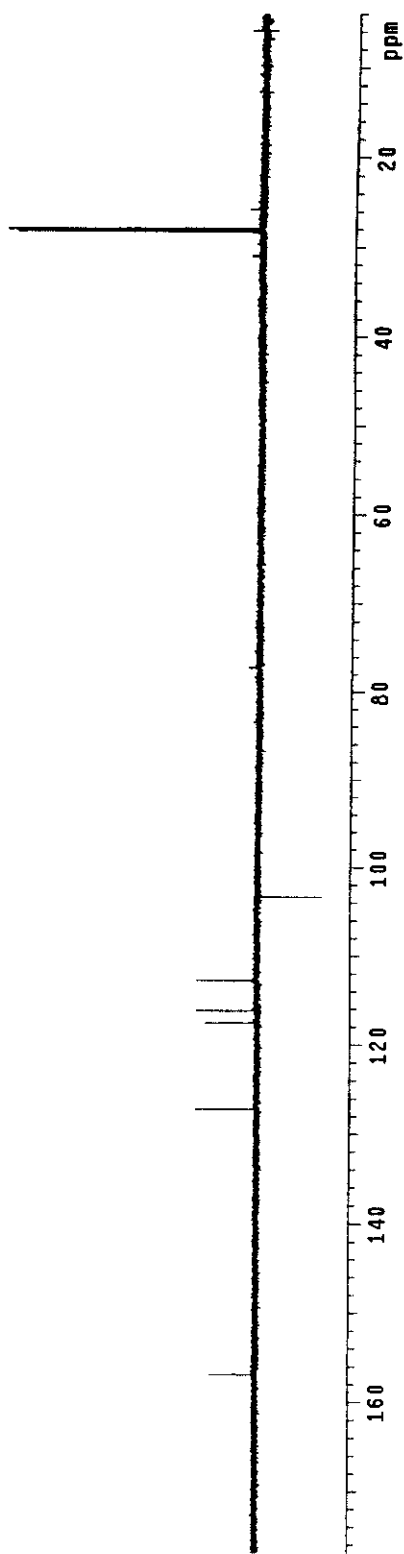
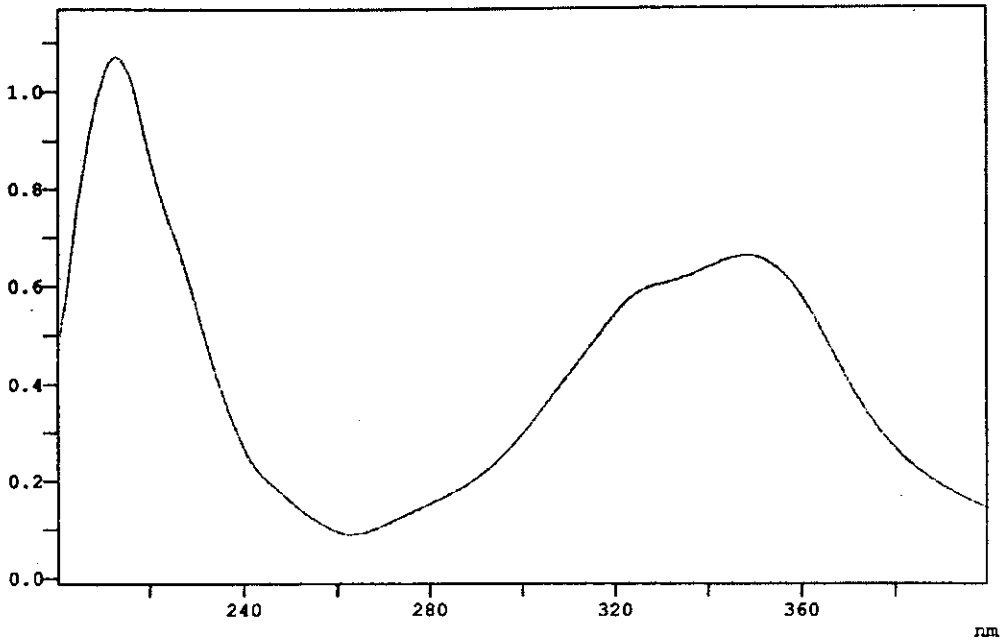
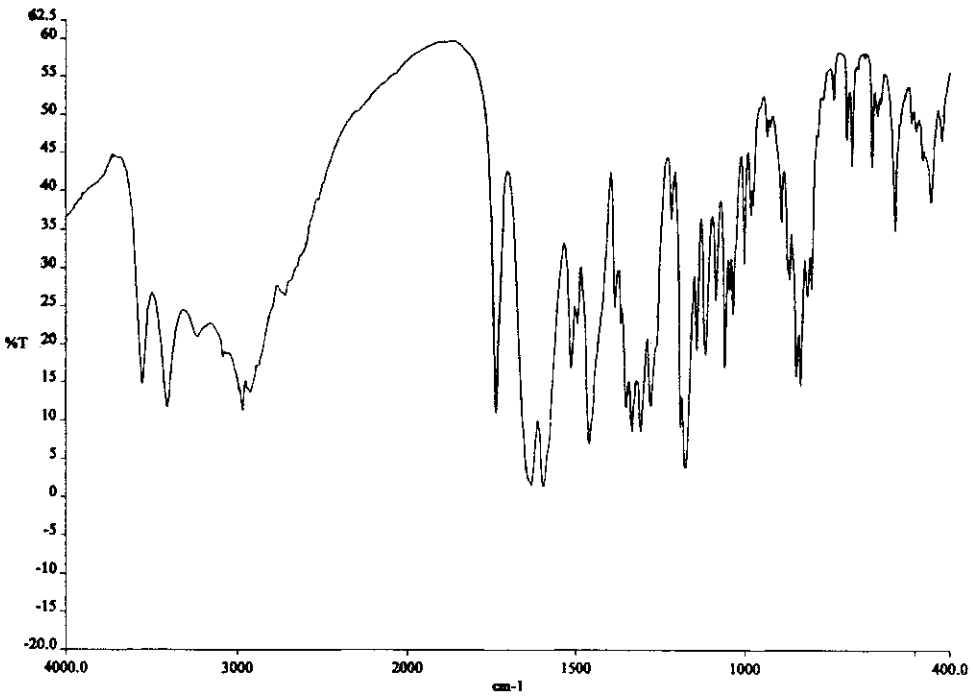


Figure 81 DEPT 135° (CDCl_3) spectrum of CCl_{11}

Abs

**Figure 82 UV (EtOH) spectrum of CC12****Figure 83 FT-IR (KBr) spectrum of CC12**

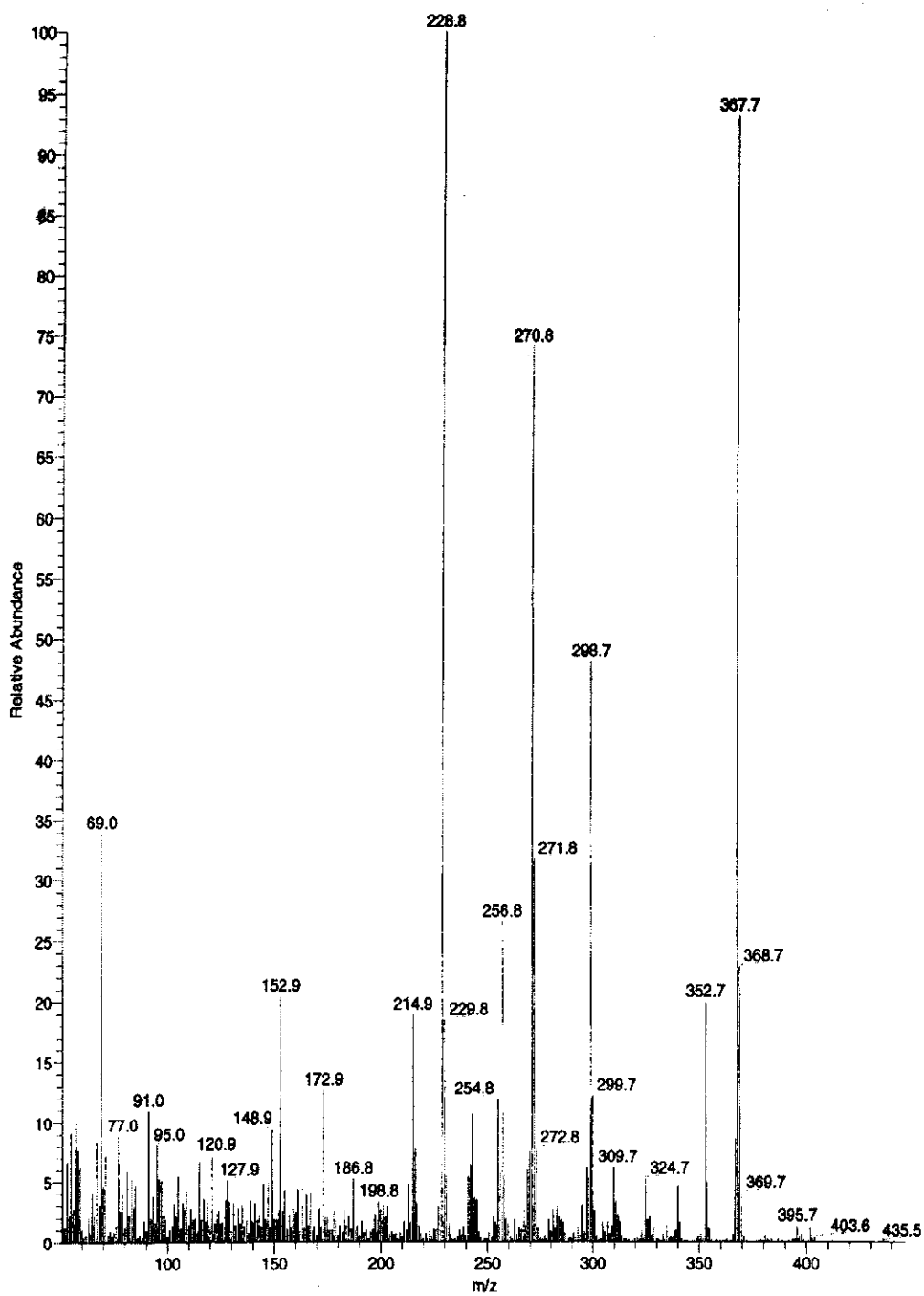


Figure 84 Mass spectrum of CC12

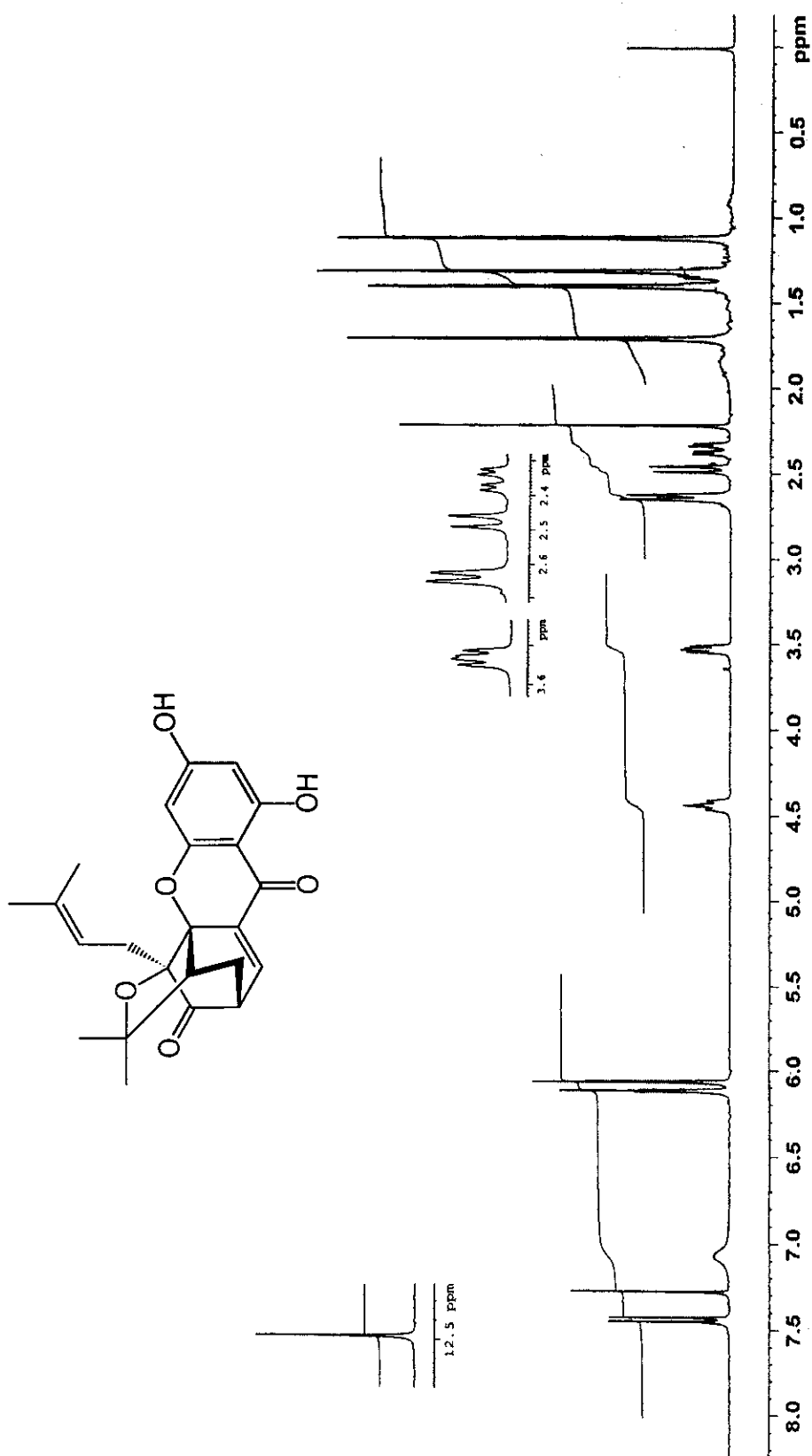


Figure 85 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC12

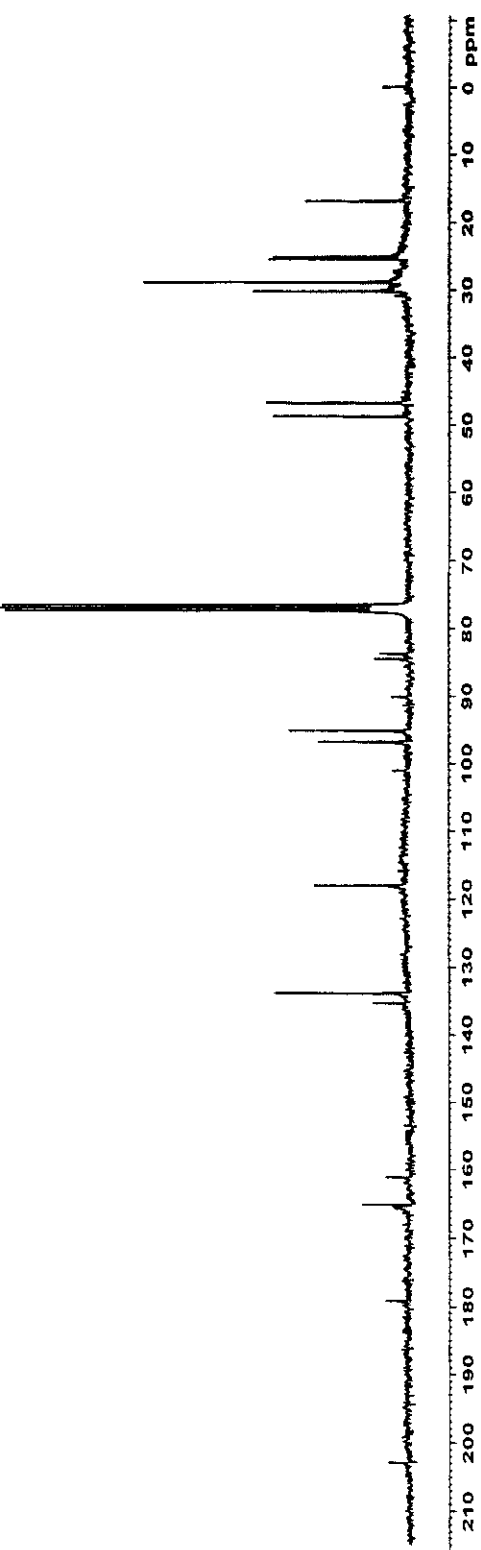


Figure 86 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CCl_2

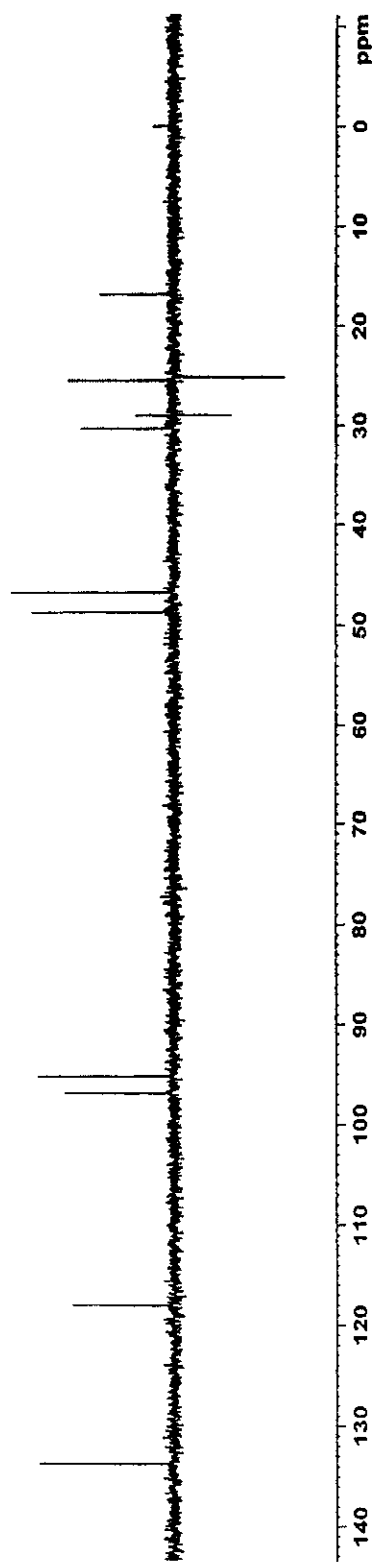
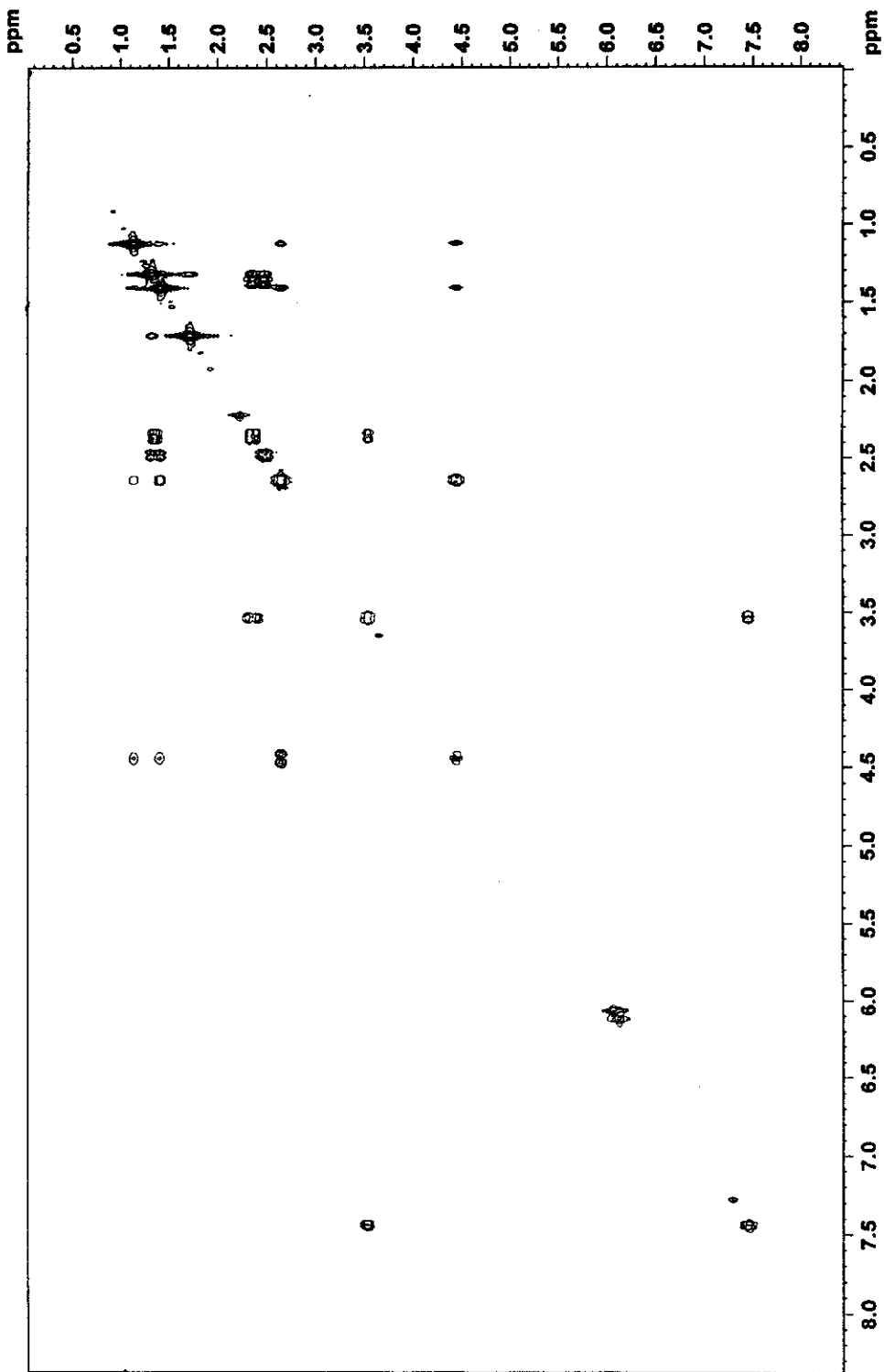
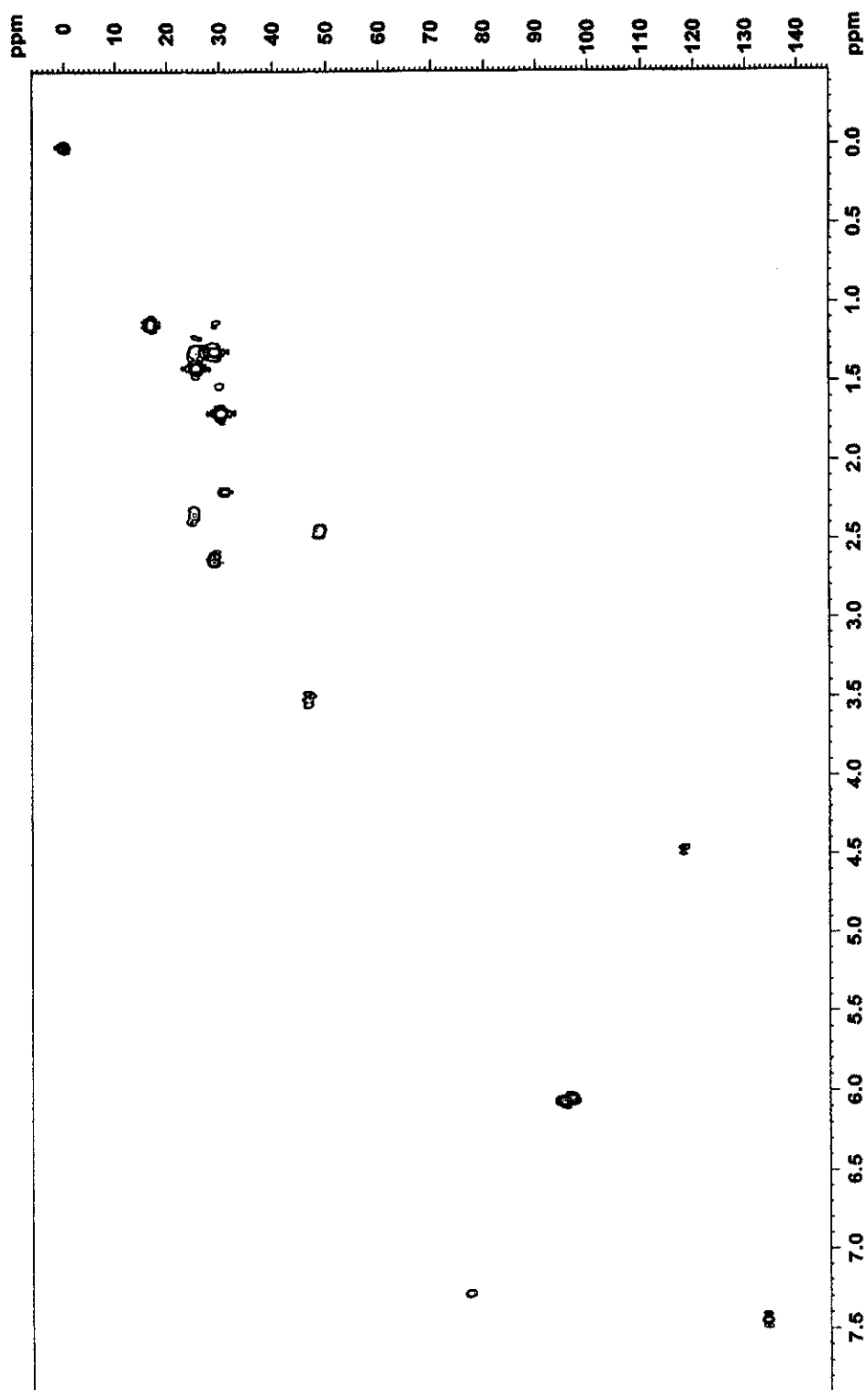


Figure 87 DEPT 135 ^{13}C NMR ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CCl_2

Figure 88 ^1H - ^1H COSY spectrum of CC12

Figure 89 2D HMQC spectrum of CCl₂

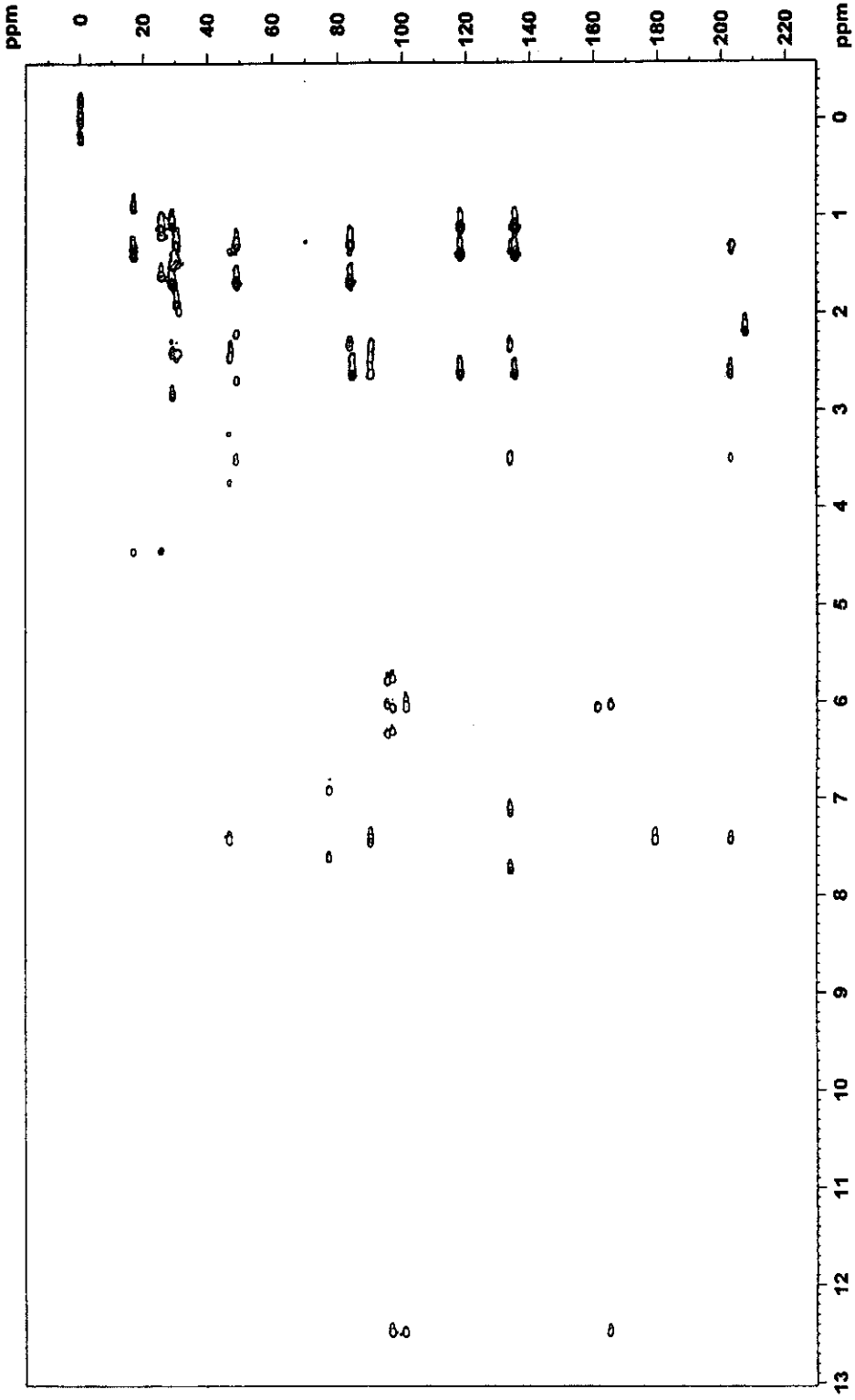


Figure 90 2D HMB spectrum of CCl₂

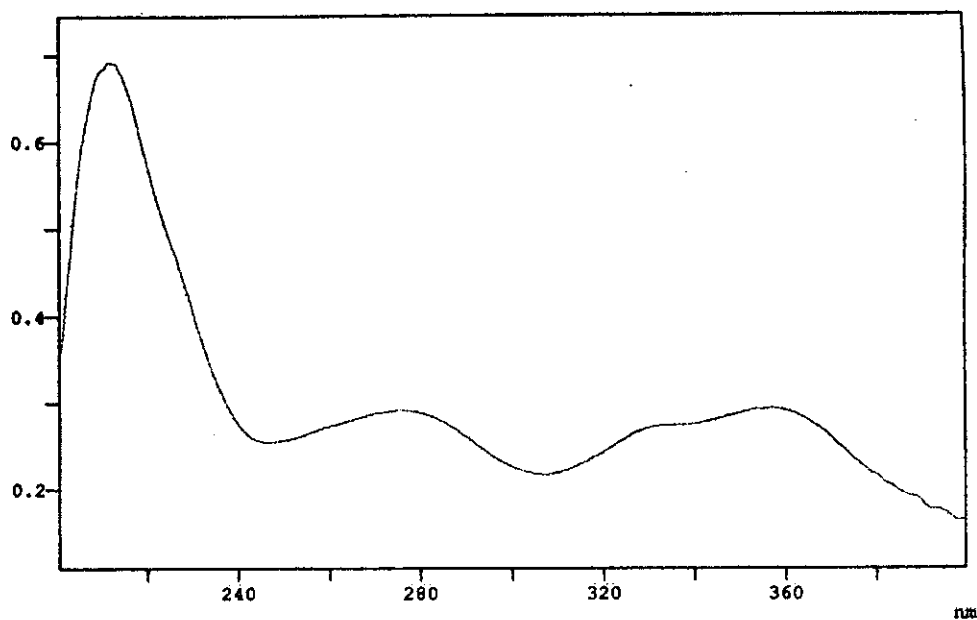


Figure 91 UV (EtOH) spectrum of CC13

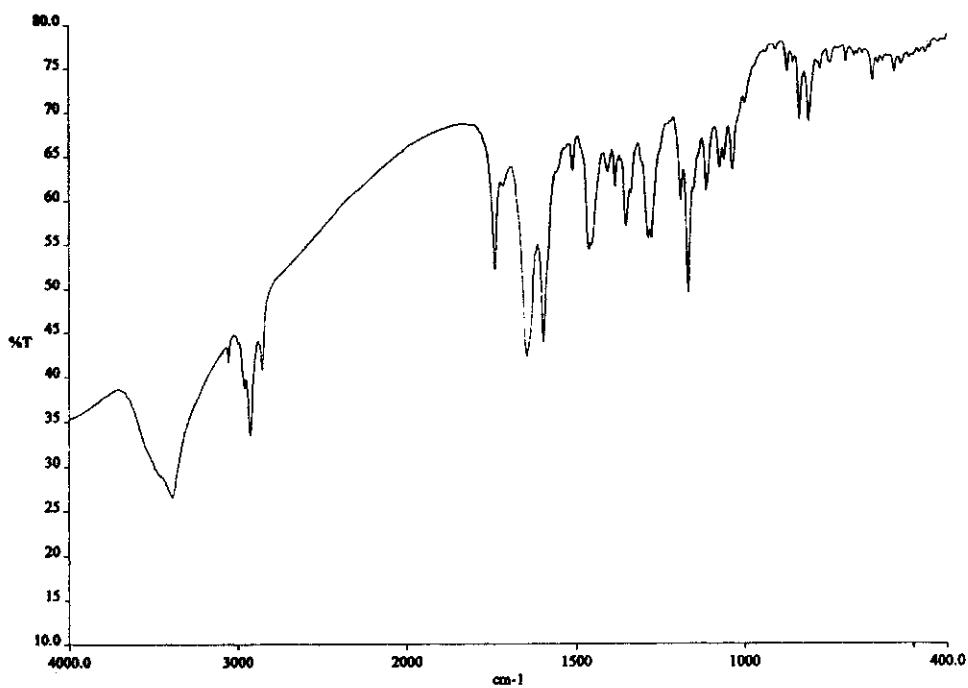


Figure 92 FT-IR (KBr) spectrum of CC13

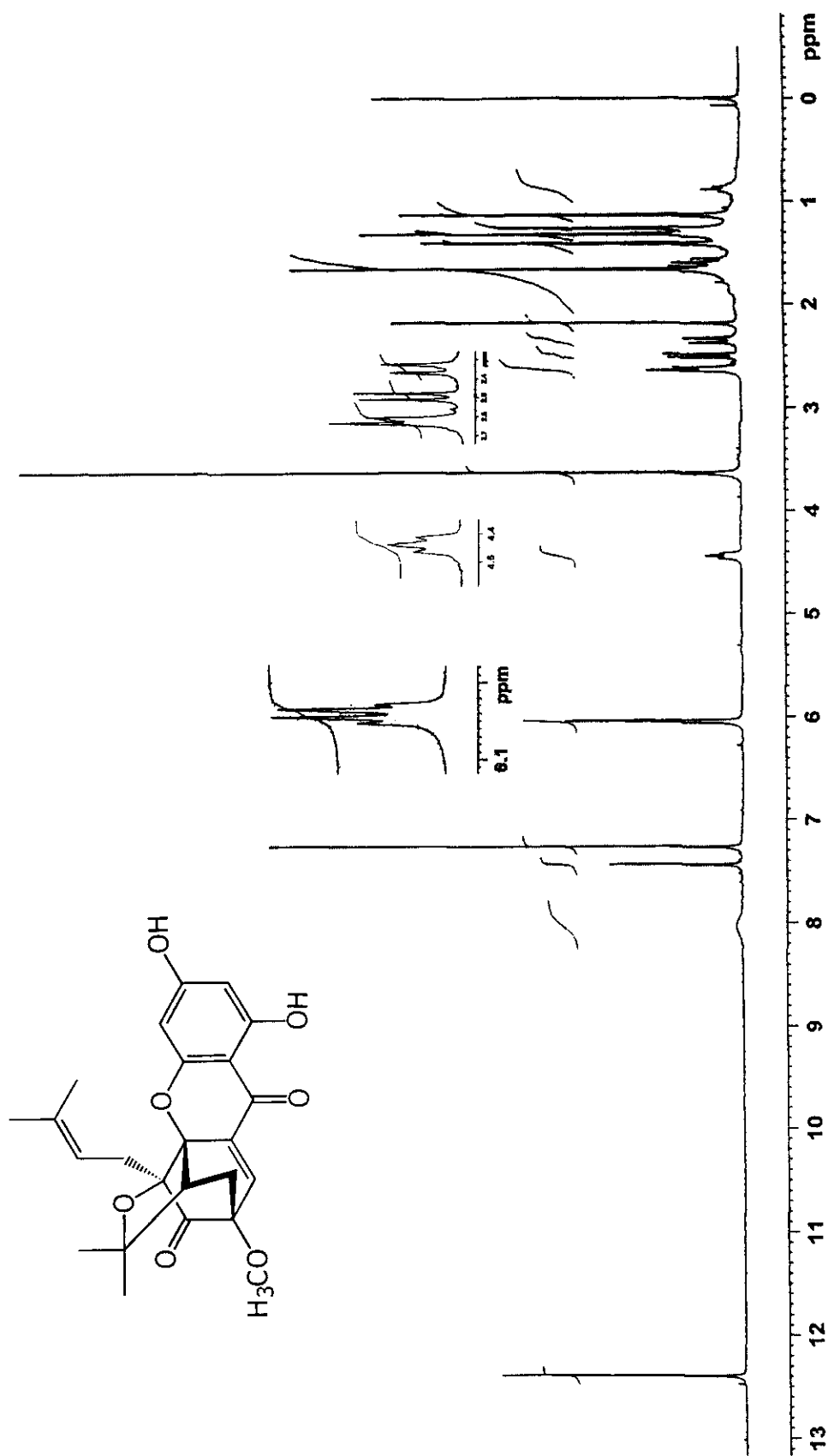


Figure 93 ^1H NMR (300 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CC13

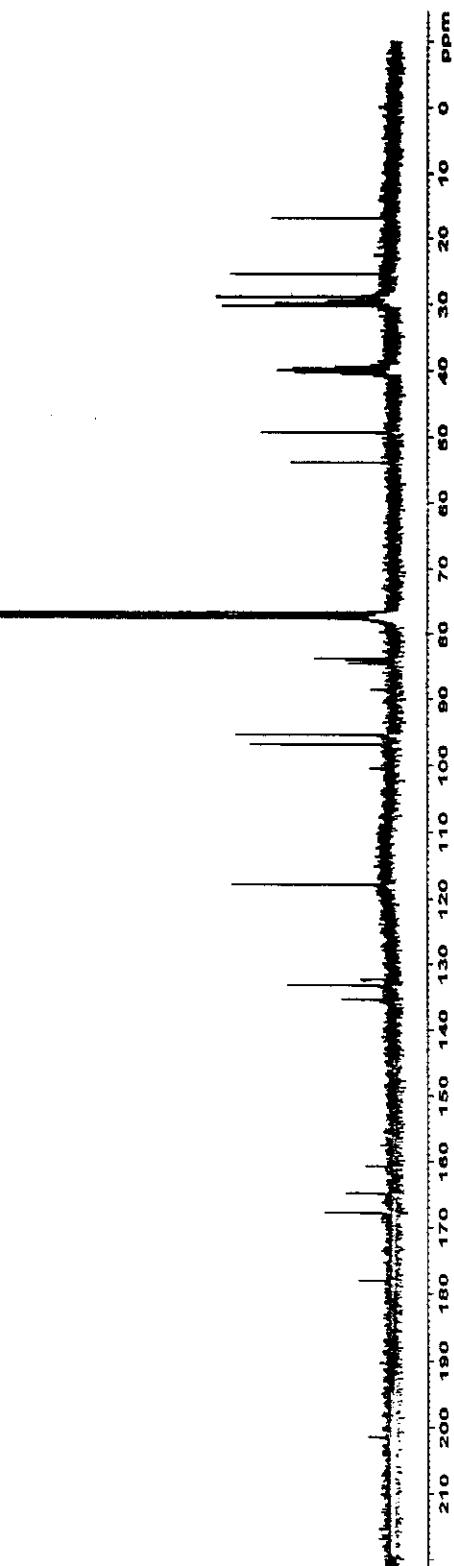


Figure 94 ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CCl_3

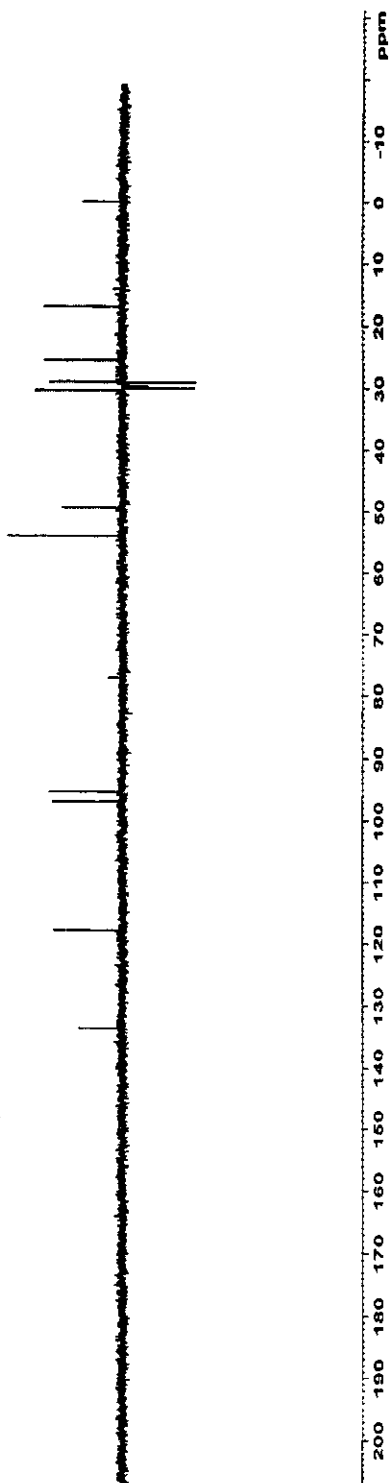
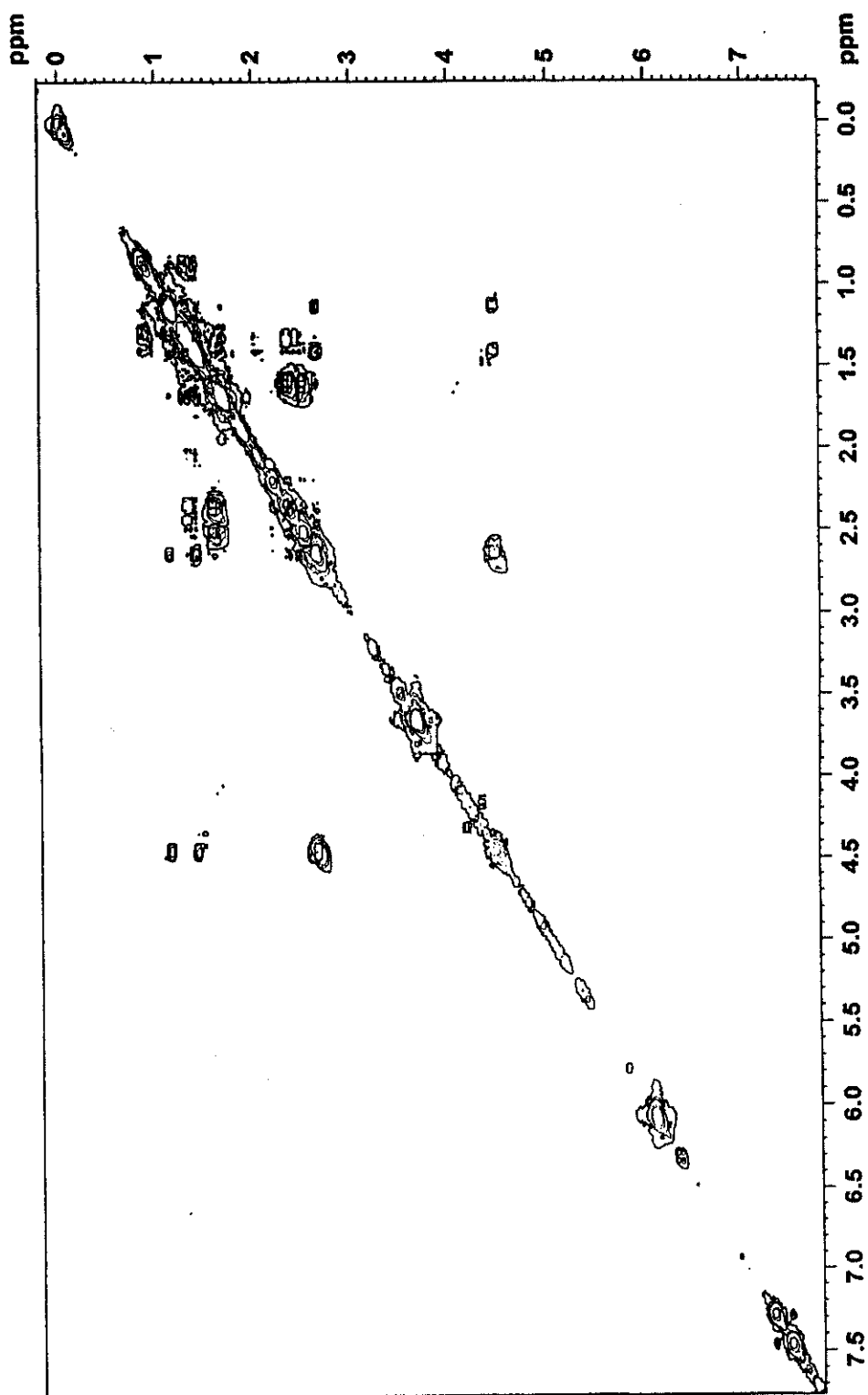
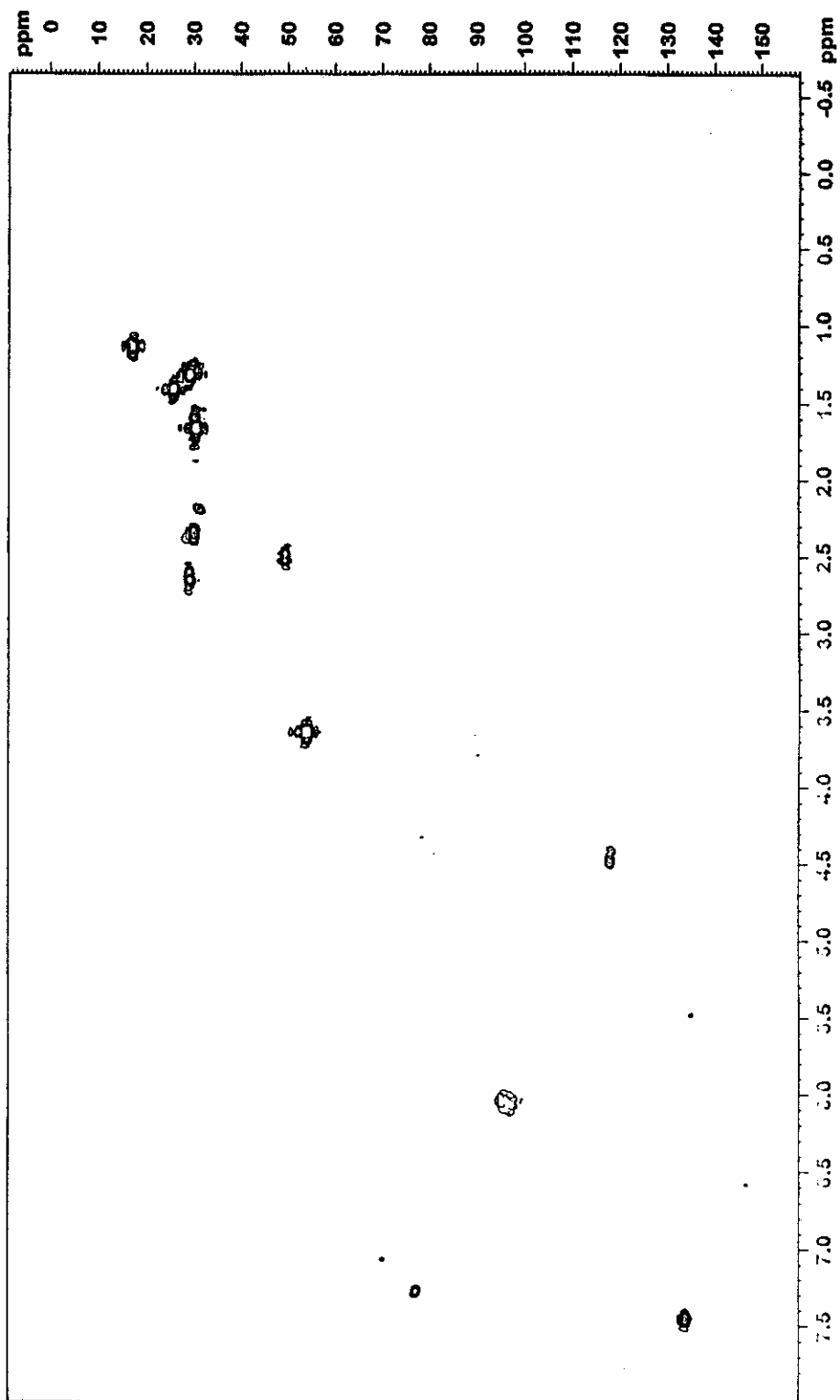


Figure 95 DEPT ^{13}C NMR (75 MHz) ($\text{CDCl}_3 + \text{DMSO-}d_6$) spectrum of CCl_3

Figure 96 ¹H-¹H COSY spectrum of CCl₃

Figure 97 2D HMQC spectrum of CCl₃

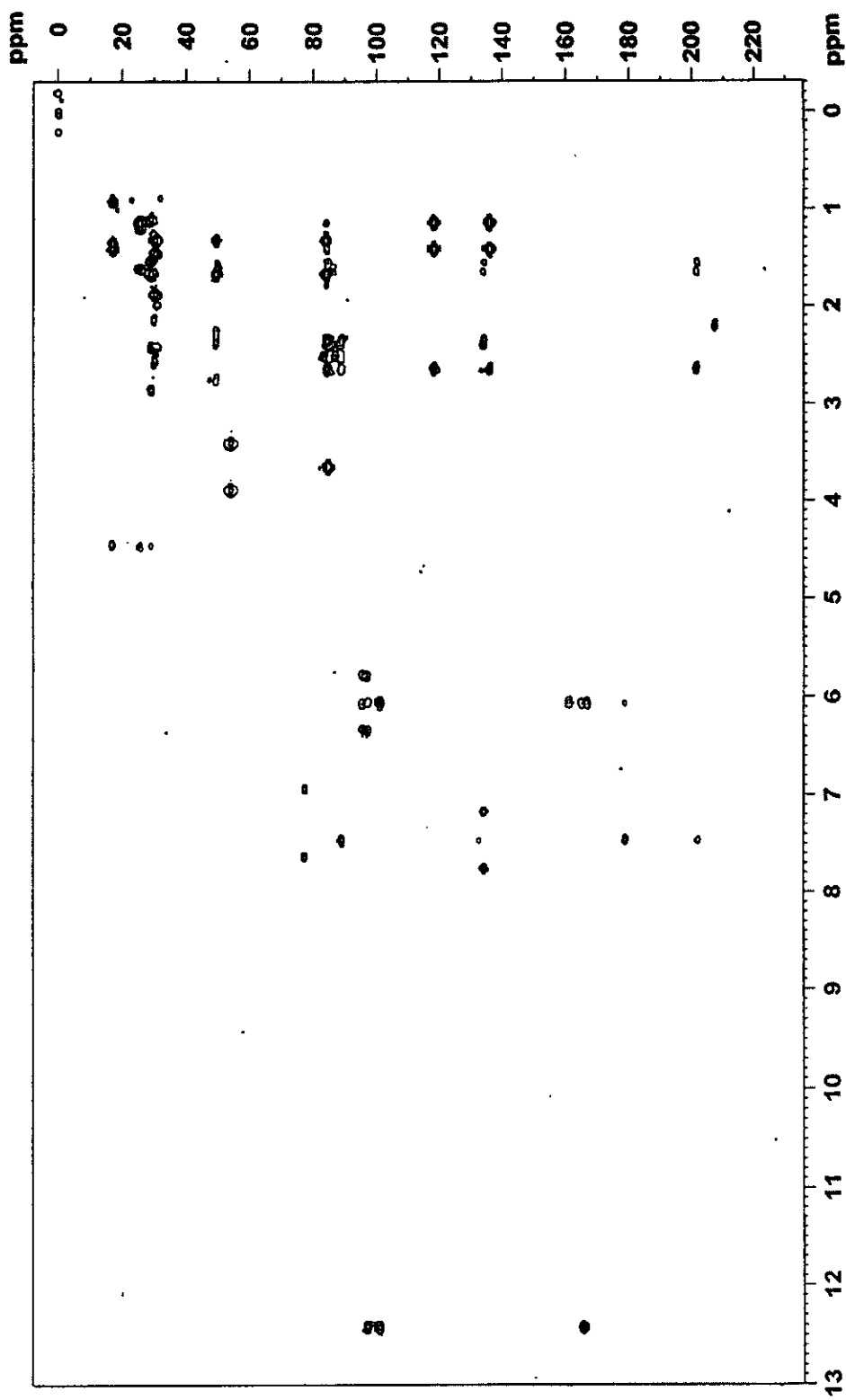


Figure 98 2D HMBC spectrum of CC13

Abs

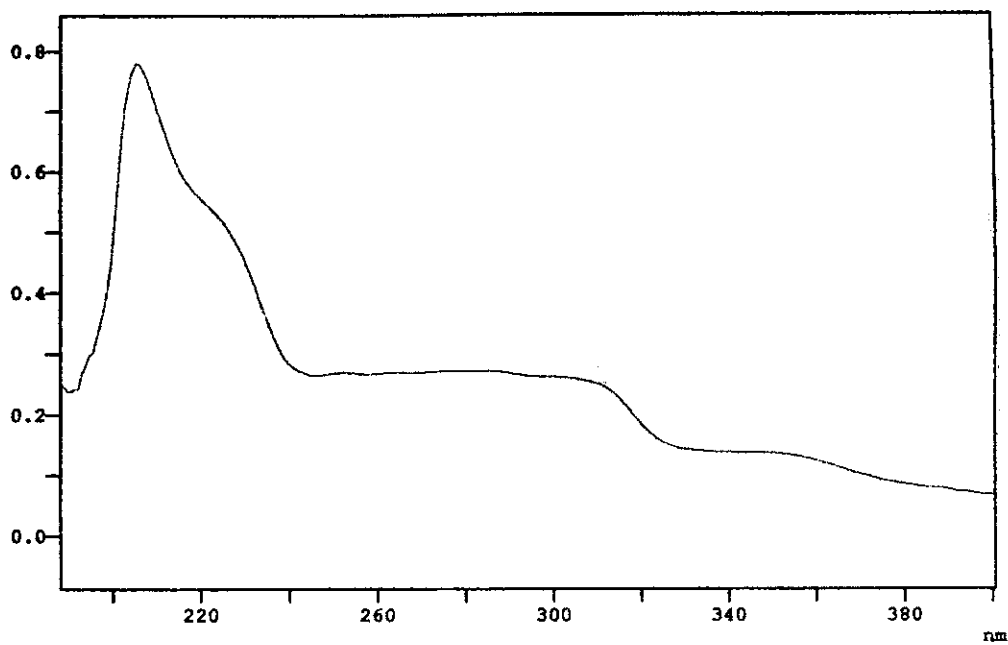


Figure 99 UV (EtOH) spectrum of CC14

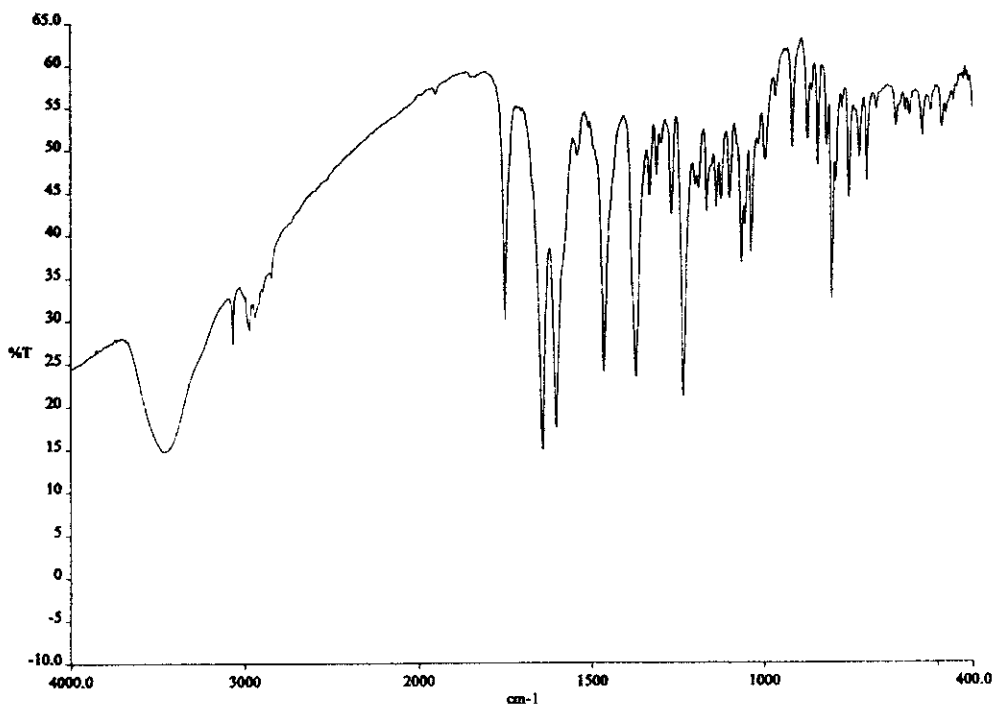
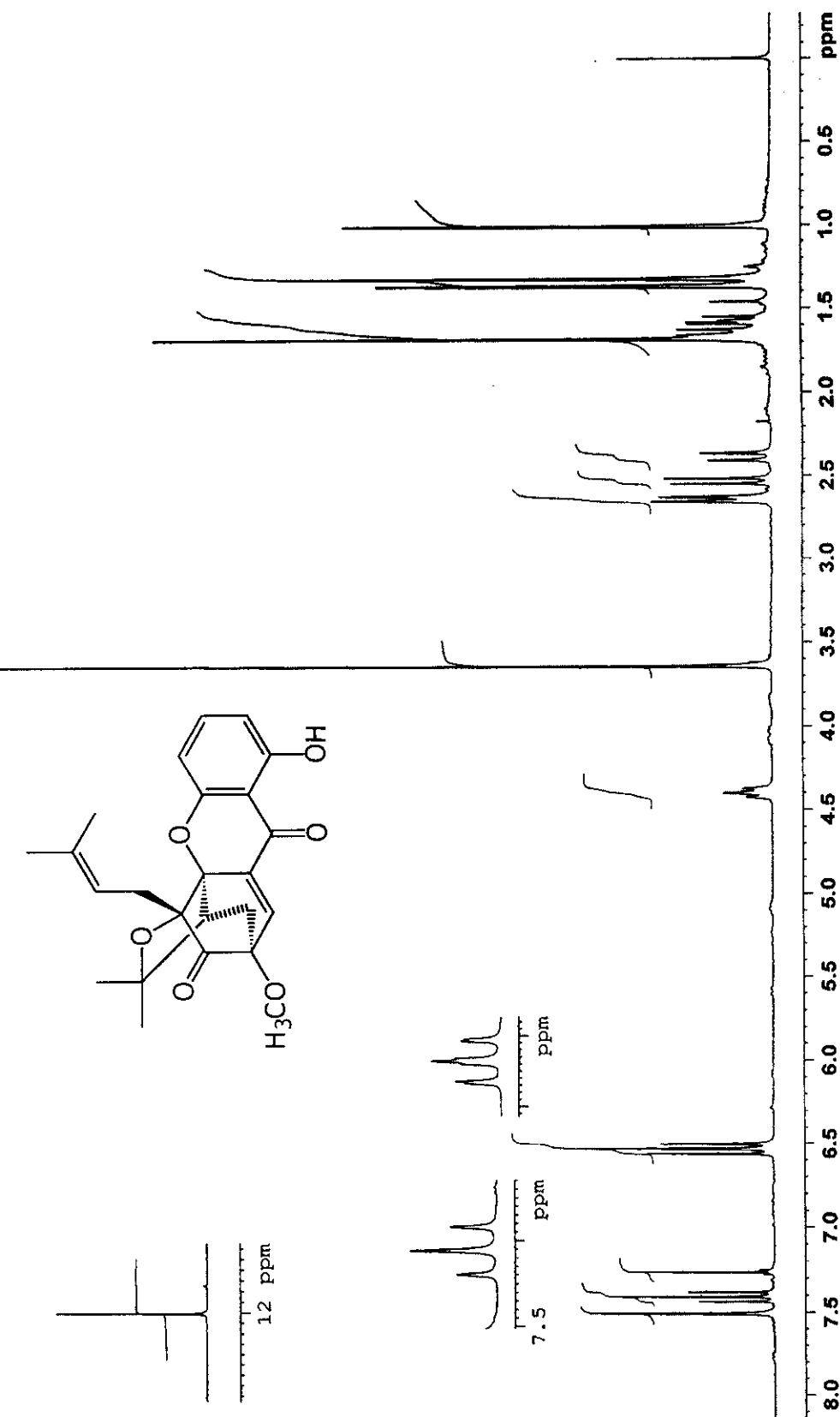


Figure 100 FT-IR (KBr) spectrum of CC14

Figure I01 ^1H NMR (300 MHz) (CDCl_3) spectrum of CC14

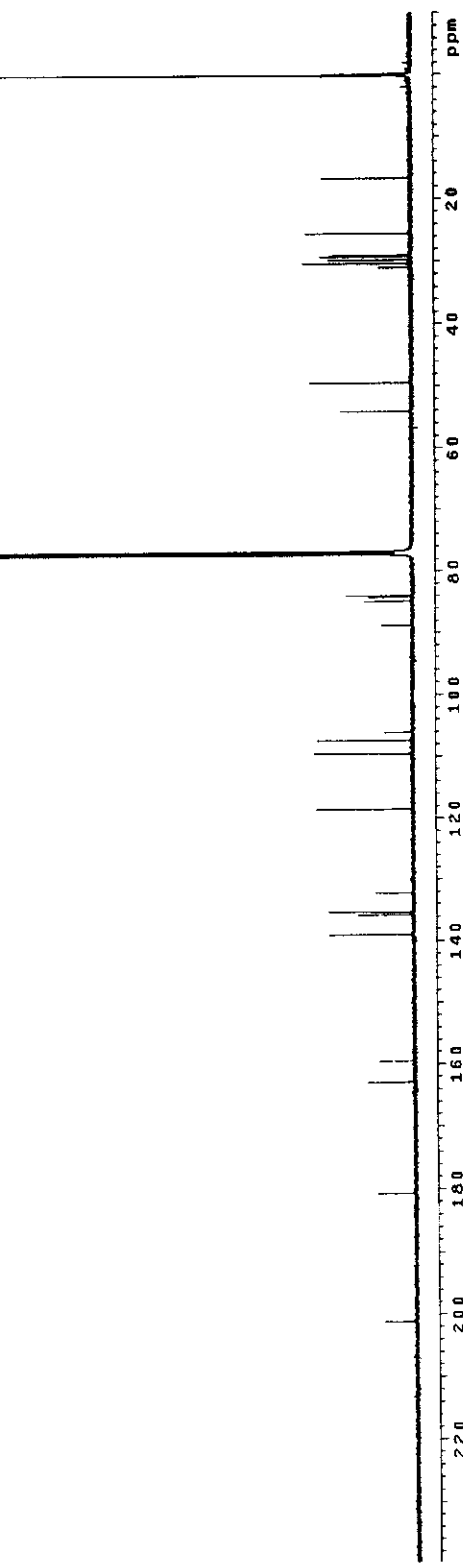


Figure 102 ^{13}C NMR (125 MHz) (CDCl_3) spectrum of CCl_4

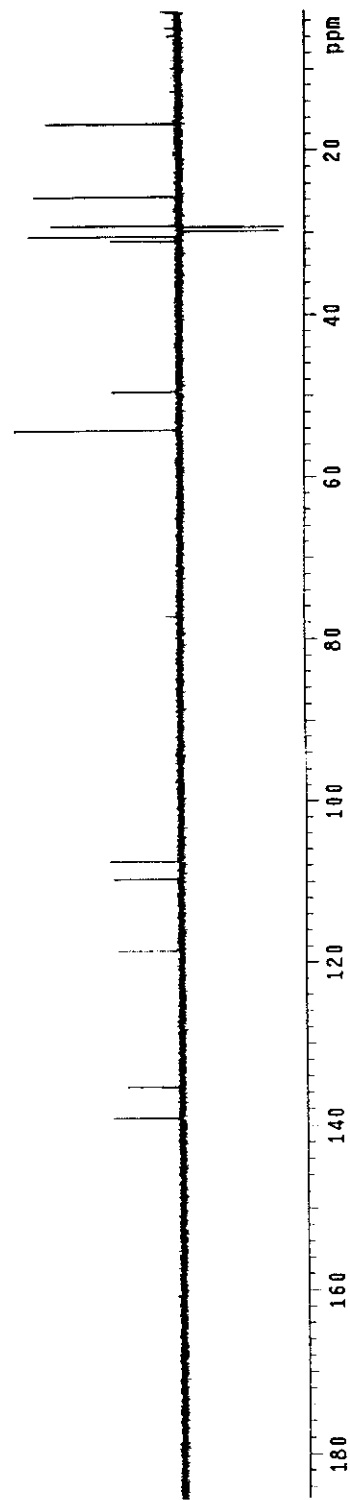
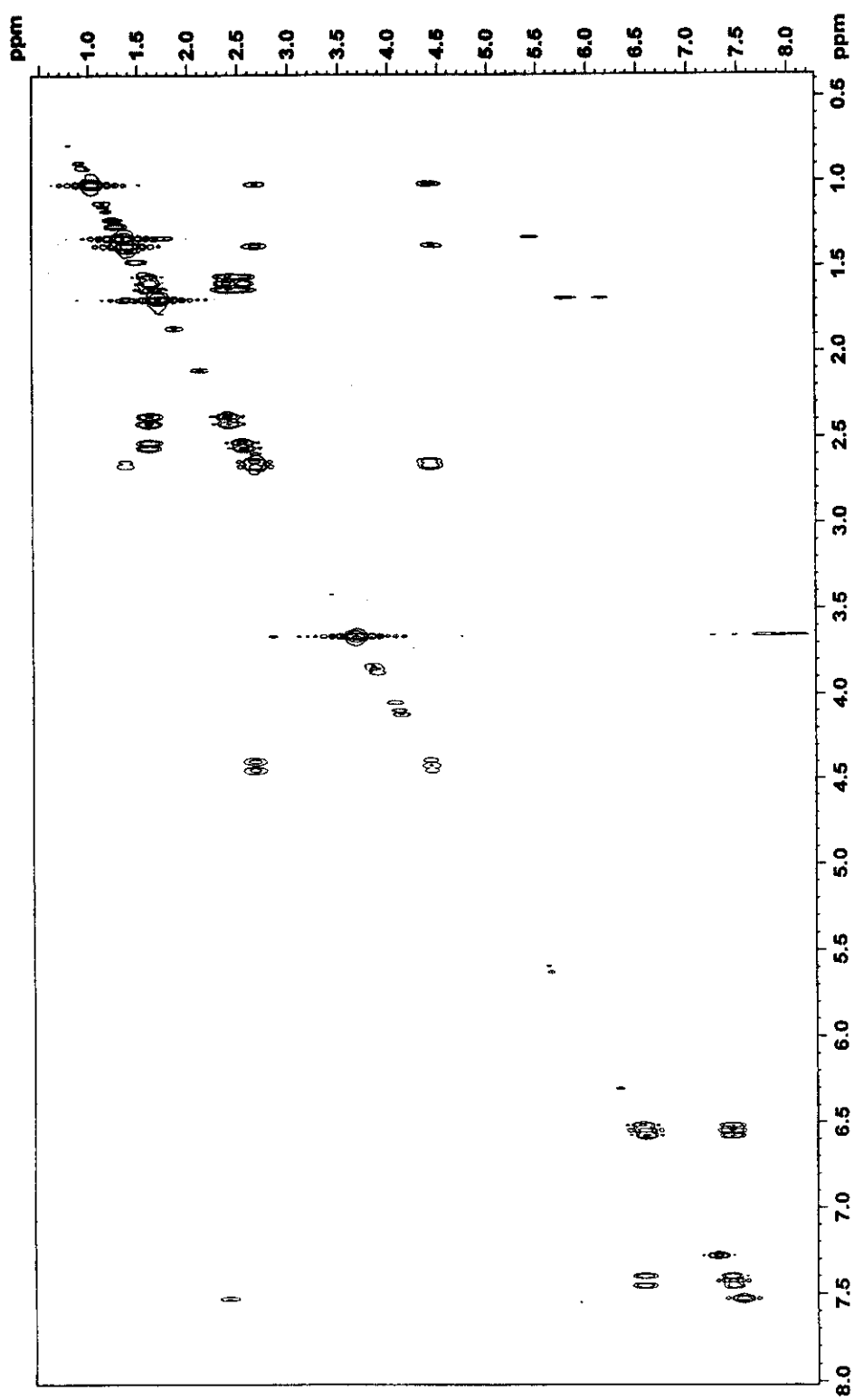
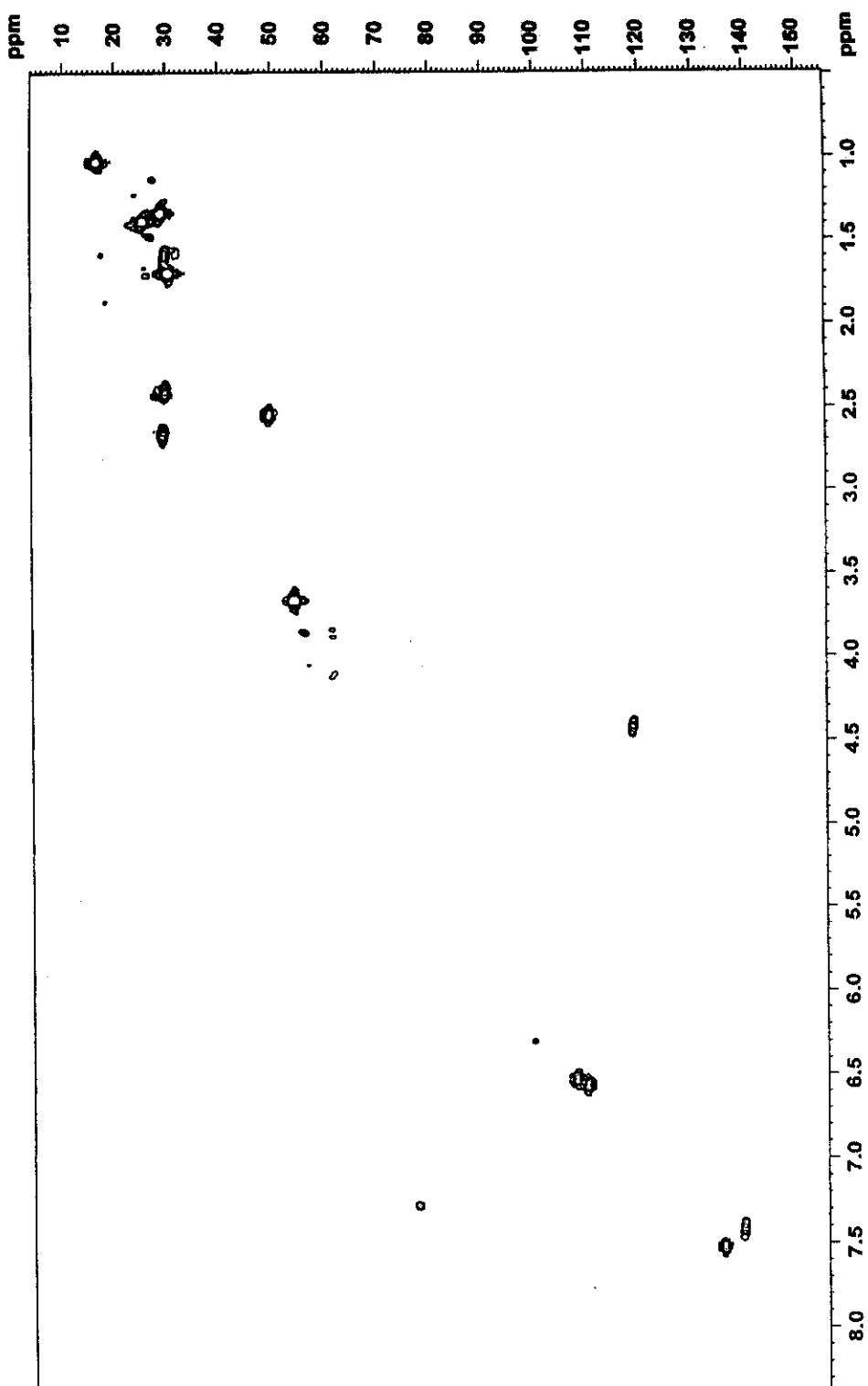
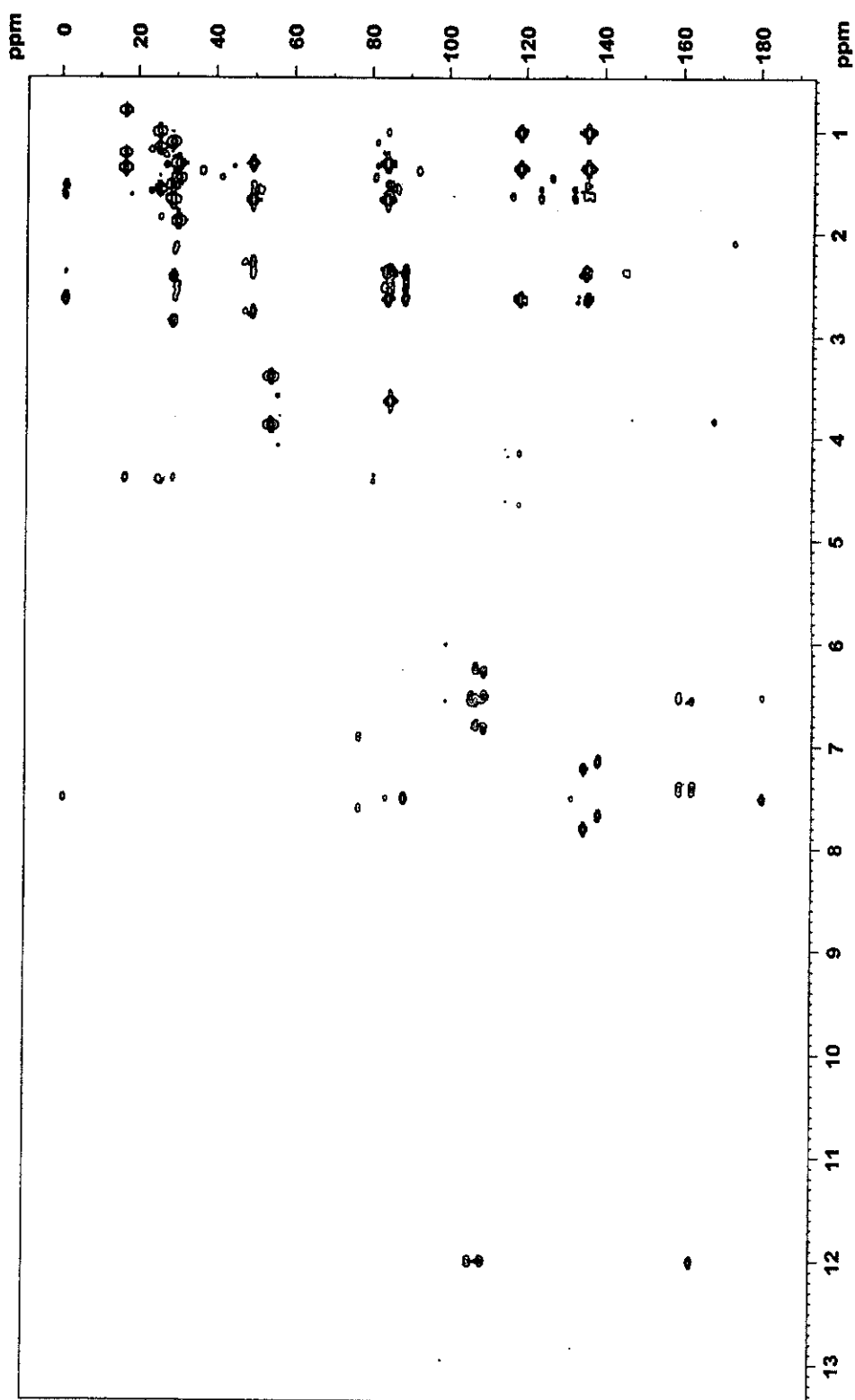


Figure 103 DEPT 135° (CDCl_3) spectrum of CCl_4

Figure 104 ^1H - ^1H COSY spectrum of CC14

Figure 105 2D HMQC spectrum of CCl₄

Figure 106 2D HMBC spectrum of CCl₄