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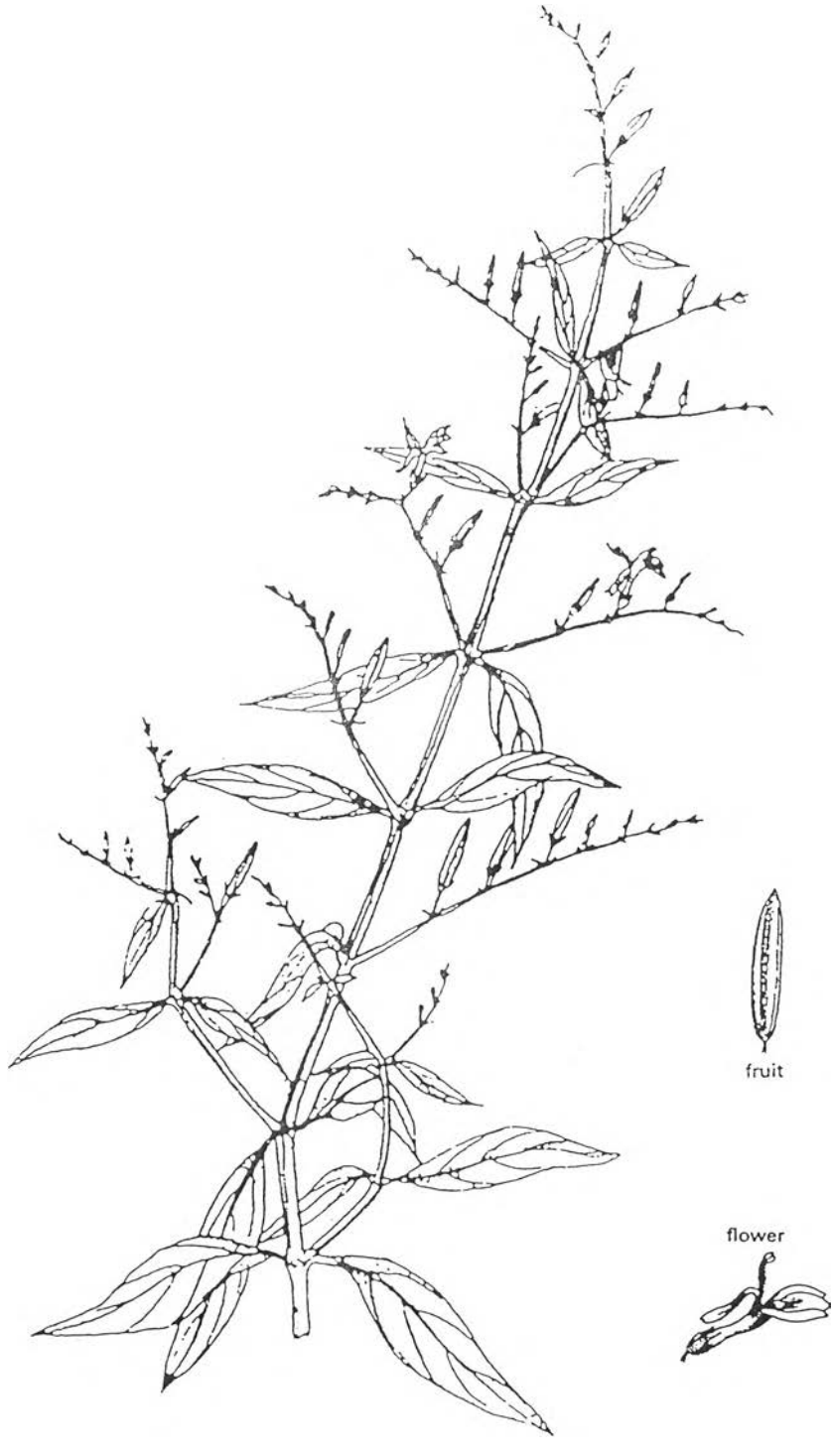


Figure 5. *Andrographis paniculata* Nees.

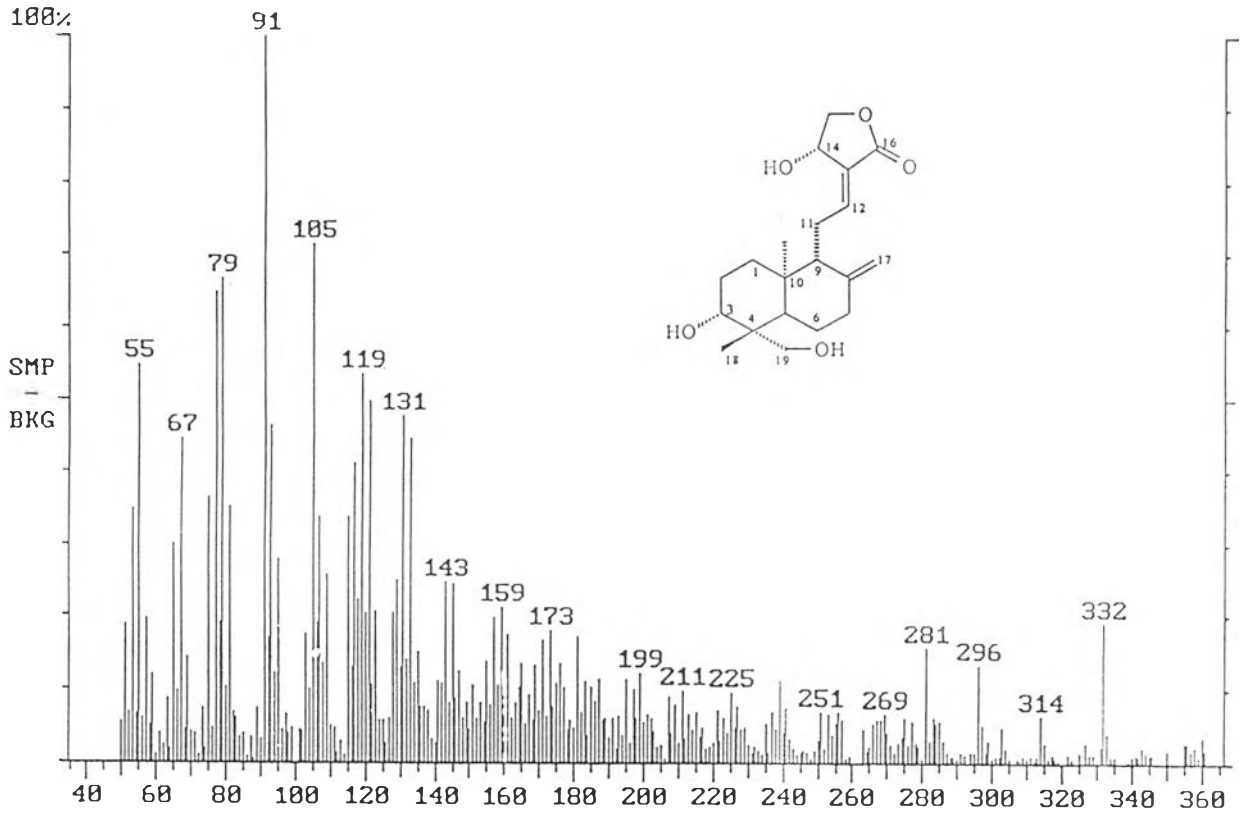


Figure 6. The GC mass spectrum of compound 4

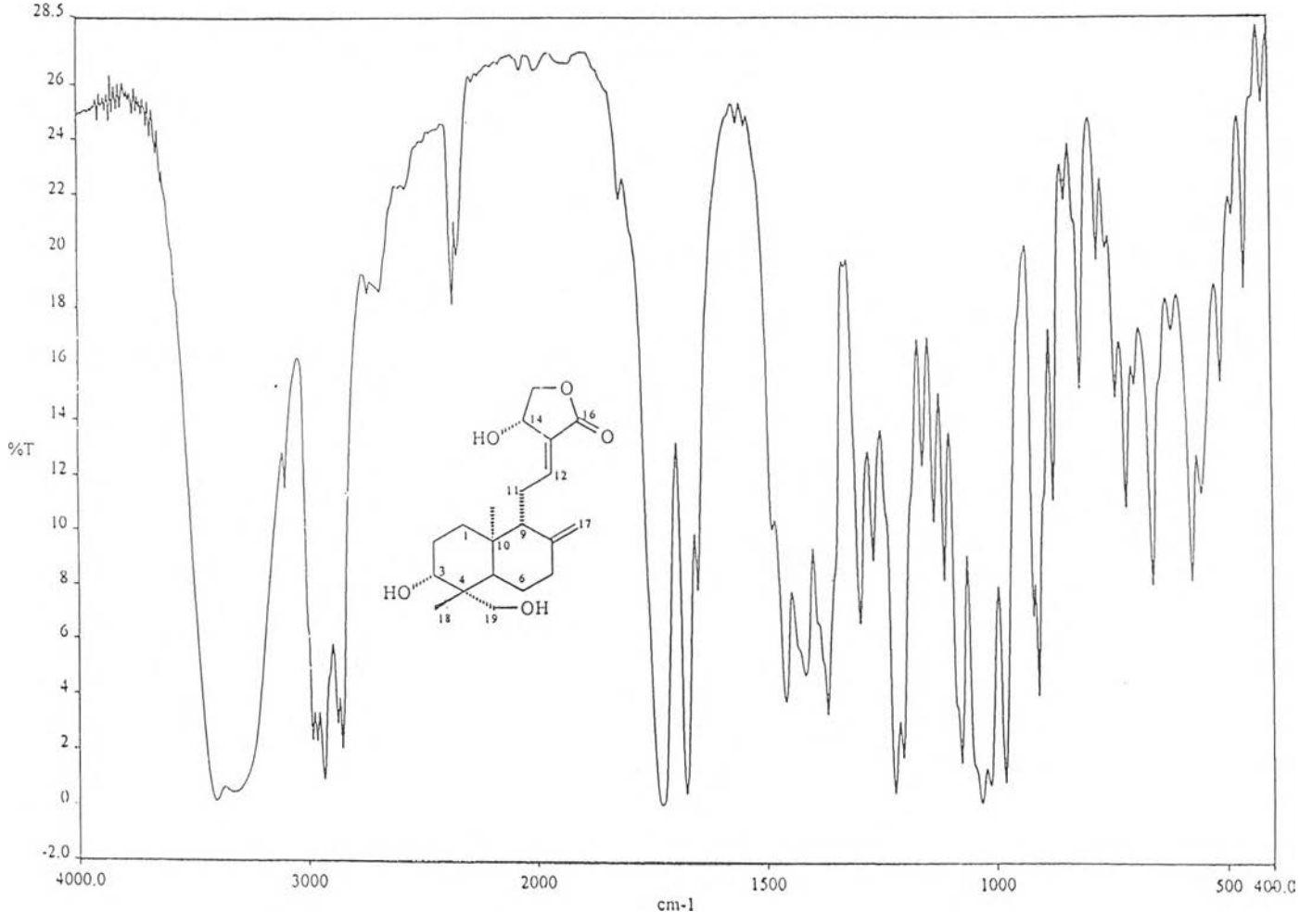


Figure 7. The IR spectrum of compound 4 (in KBr disc)

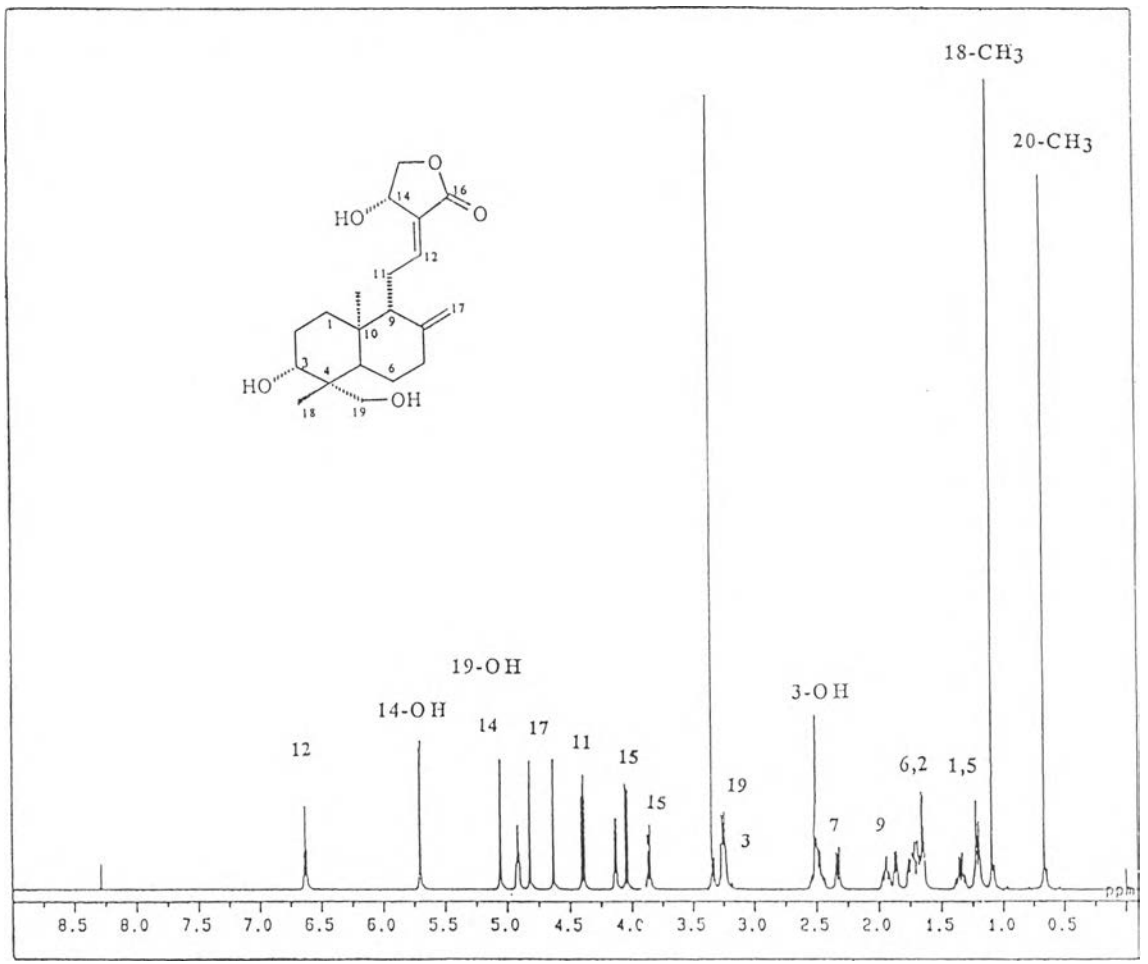


Figure 8. The ^{1}H NMR (500 MHz) spectrum of compound 4 (in DMSO - d_6)

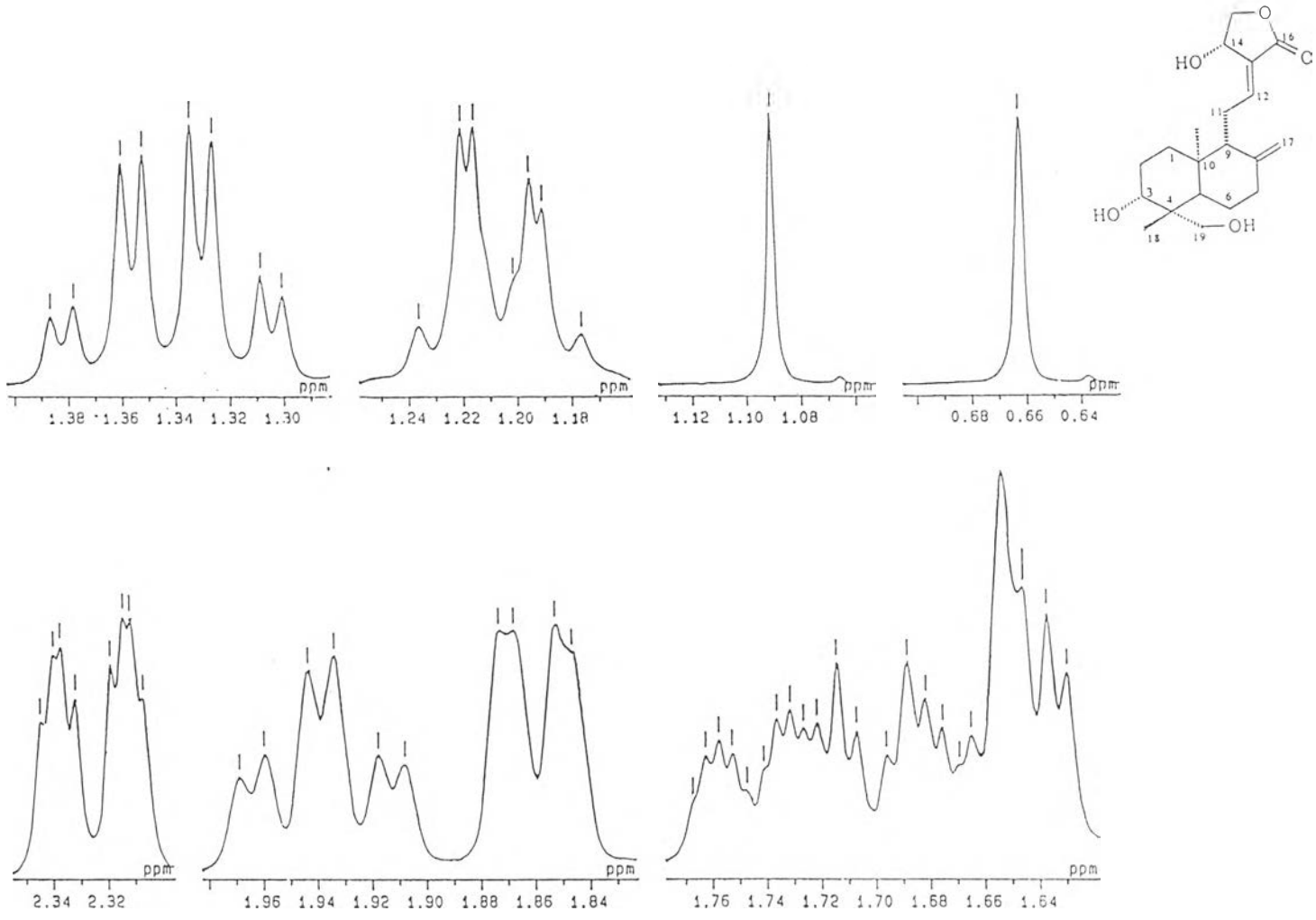


Figure 9. Expansion of ^{1}H NMR (500 MHz) spectrum of compound 4 (in DMSO - d_6)

: δ_H 0.64 - 2.35 ppm

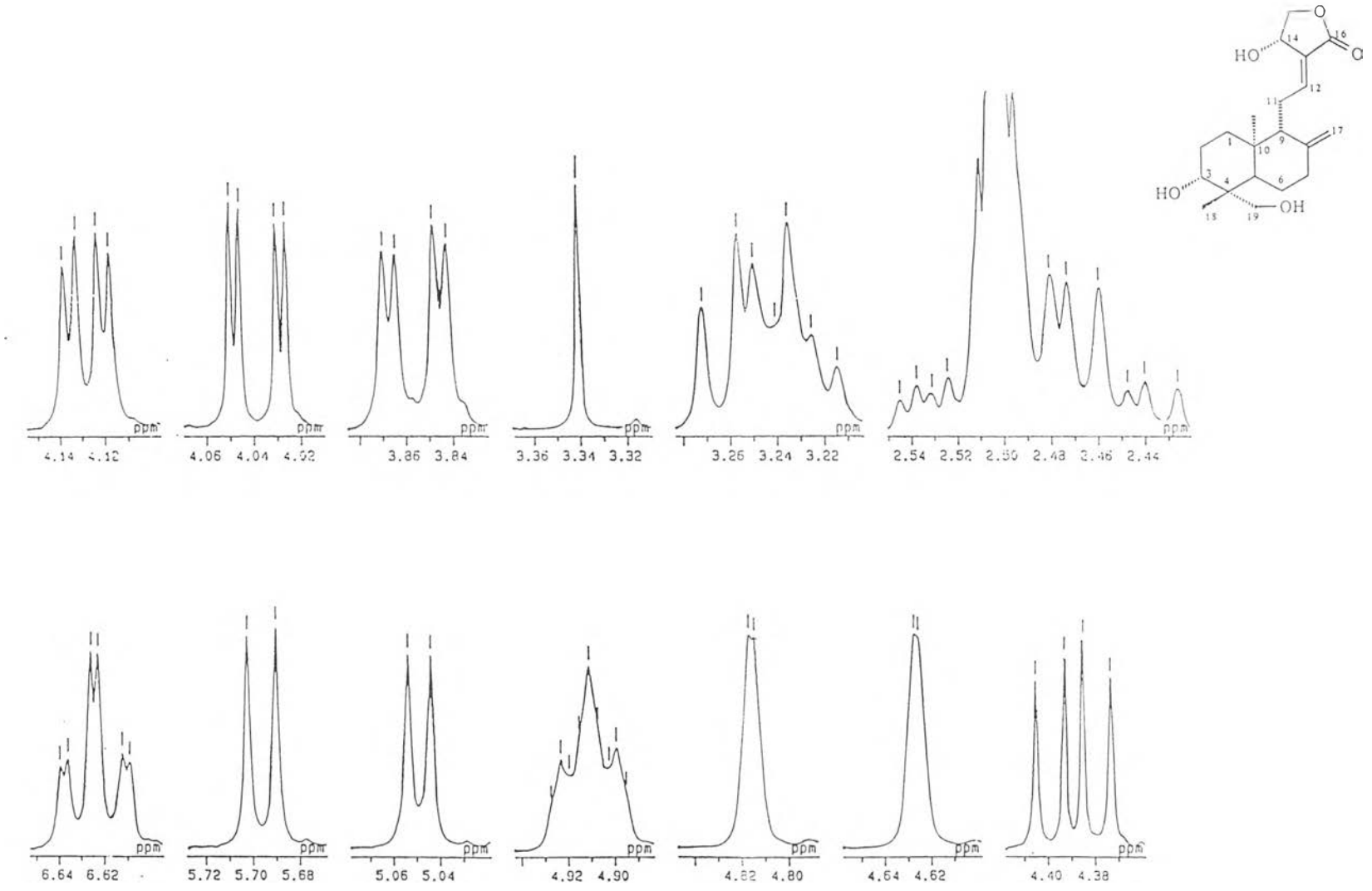


Figure 10. Expansion of ^{1}H NMR (500 MHz) spectrum of compound 4 (in DMSO - d_6)
: δ_H 2.44 - 6.65 ppm

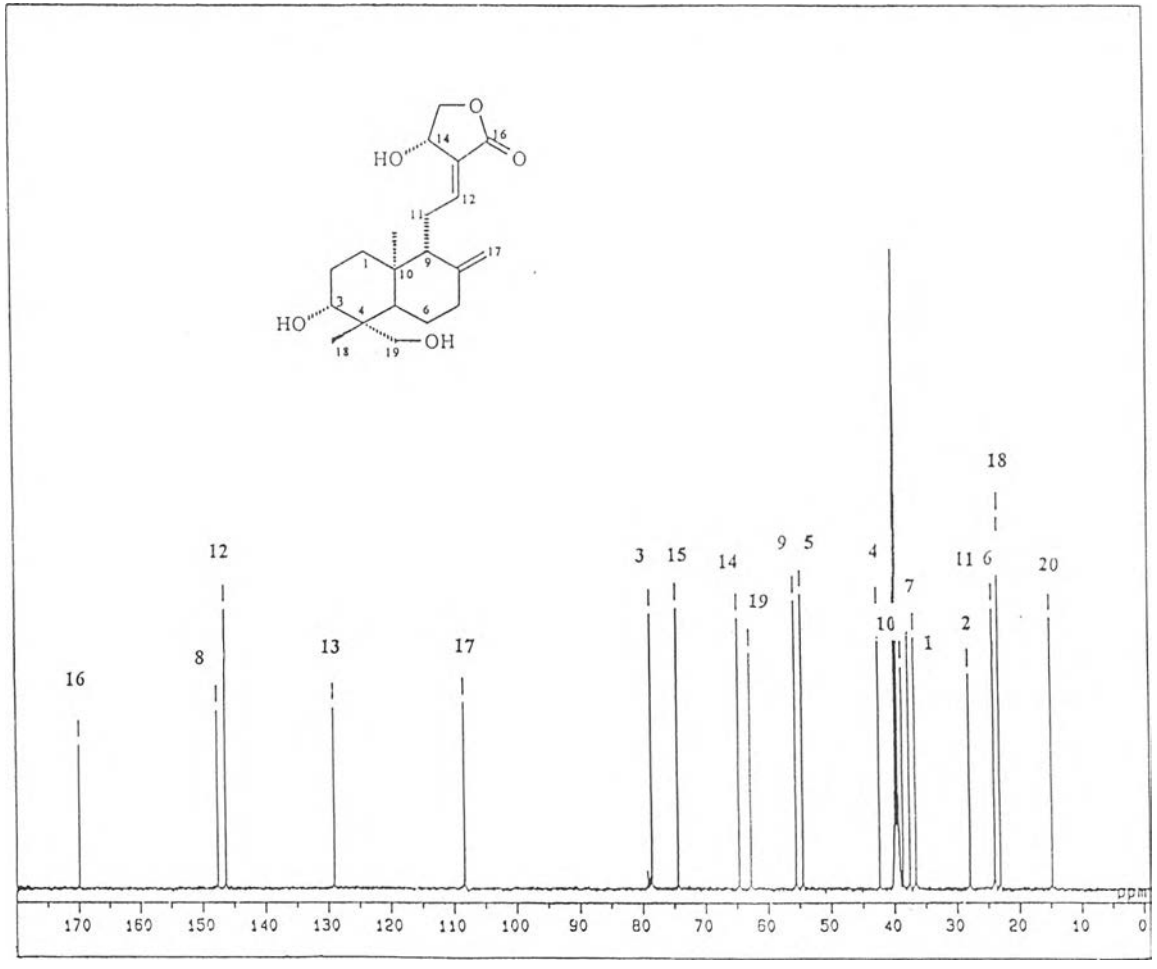


Figure 11. The ^{13}C NMR (125 MHz) spectrum of compound 4 (in DMSO - d_6)

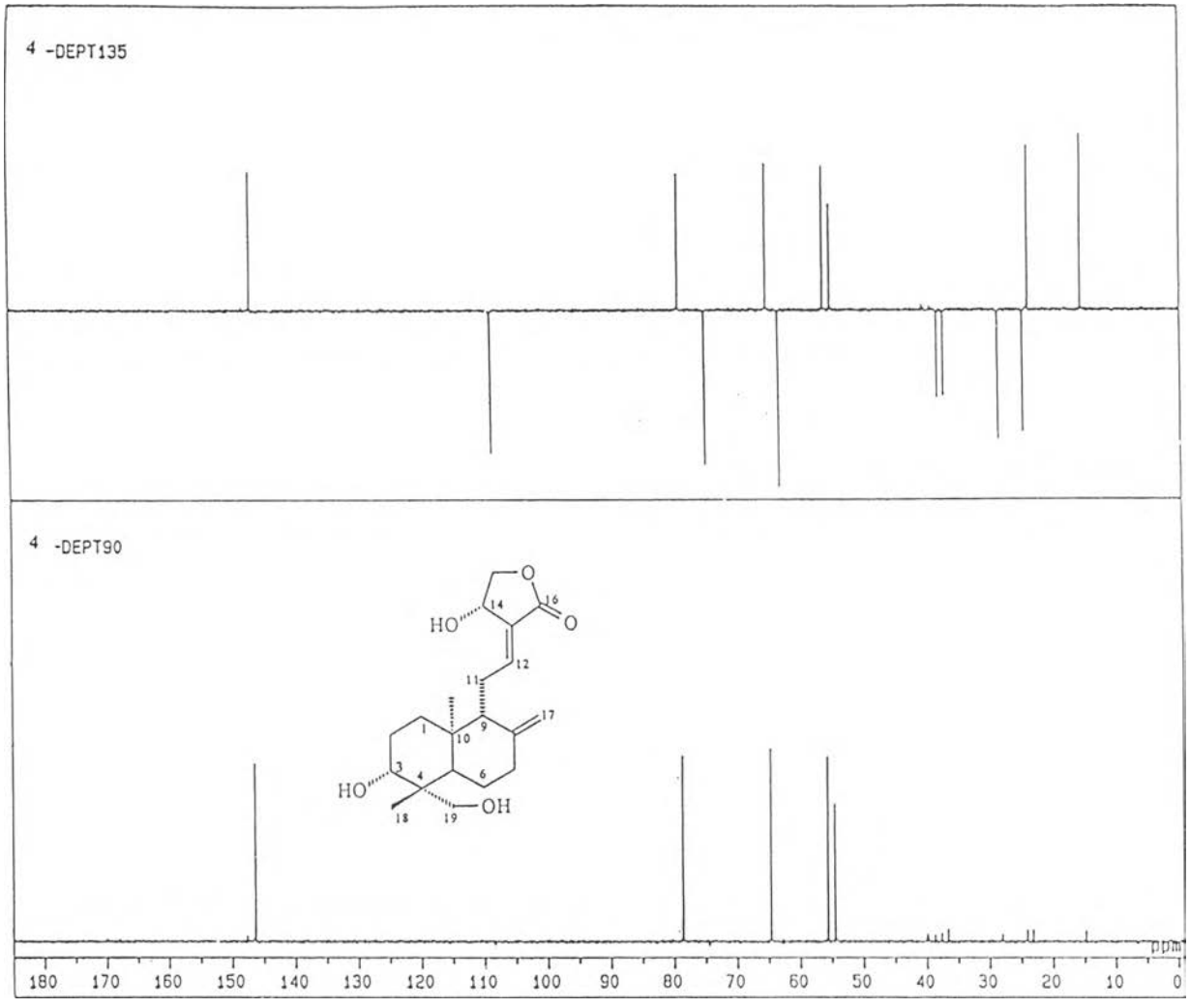


Figure 12. The DEPT (125 MHz) spectrum of compound 4 (in DMSO - d_6)

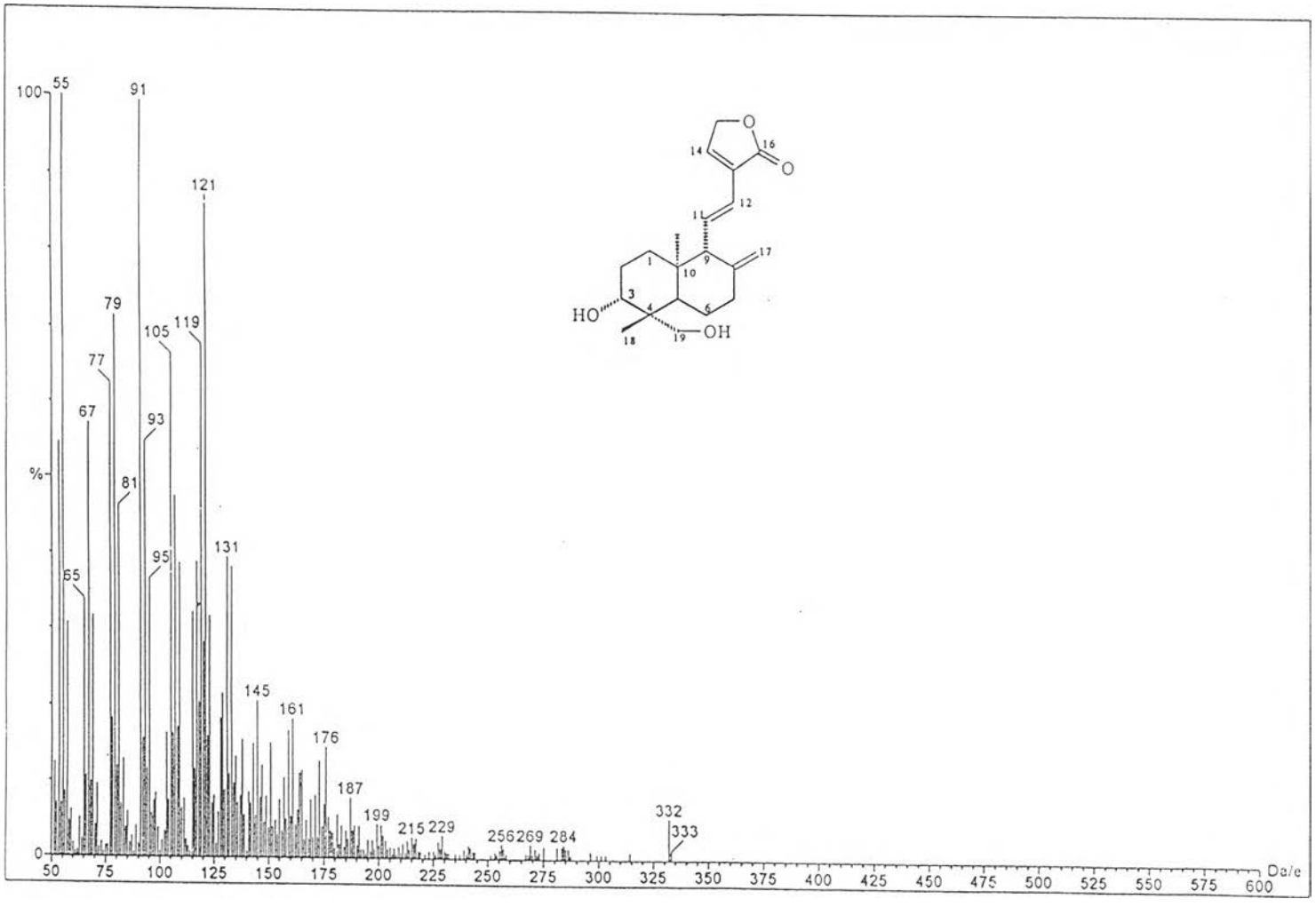


Figure 13. The EI mass spectrum of compound 6

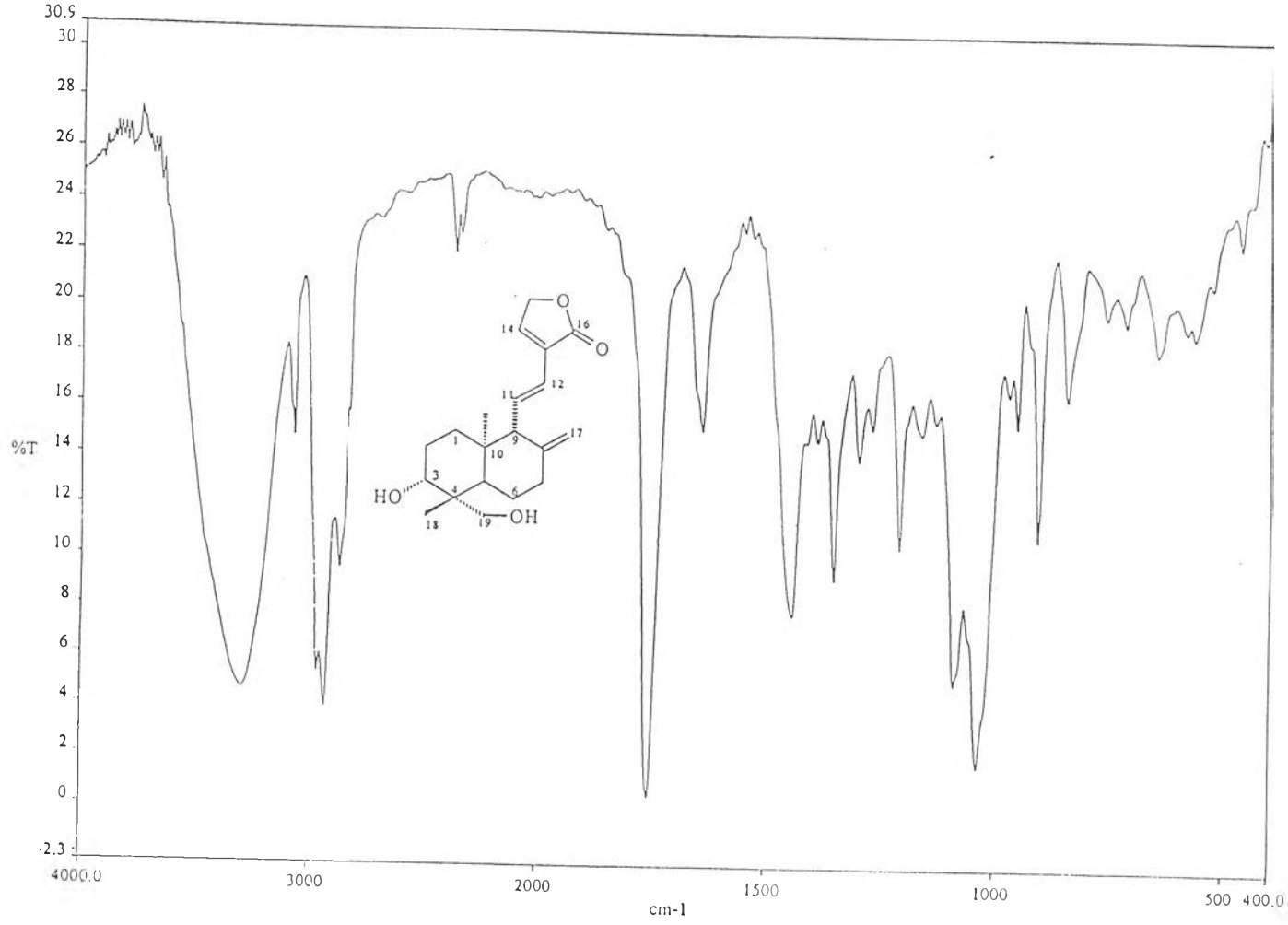


Figure 14. The IR spectrum of compound 6 (in KBr disc)

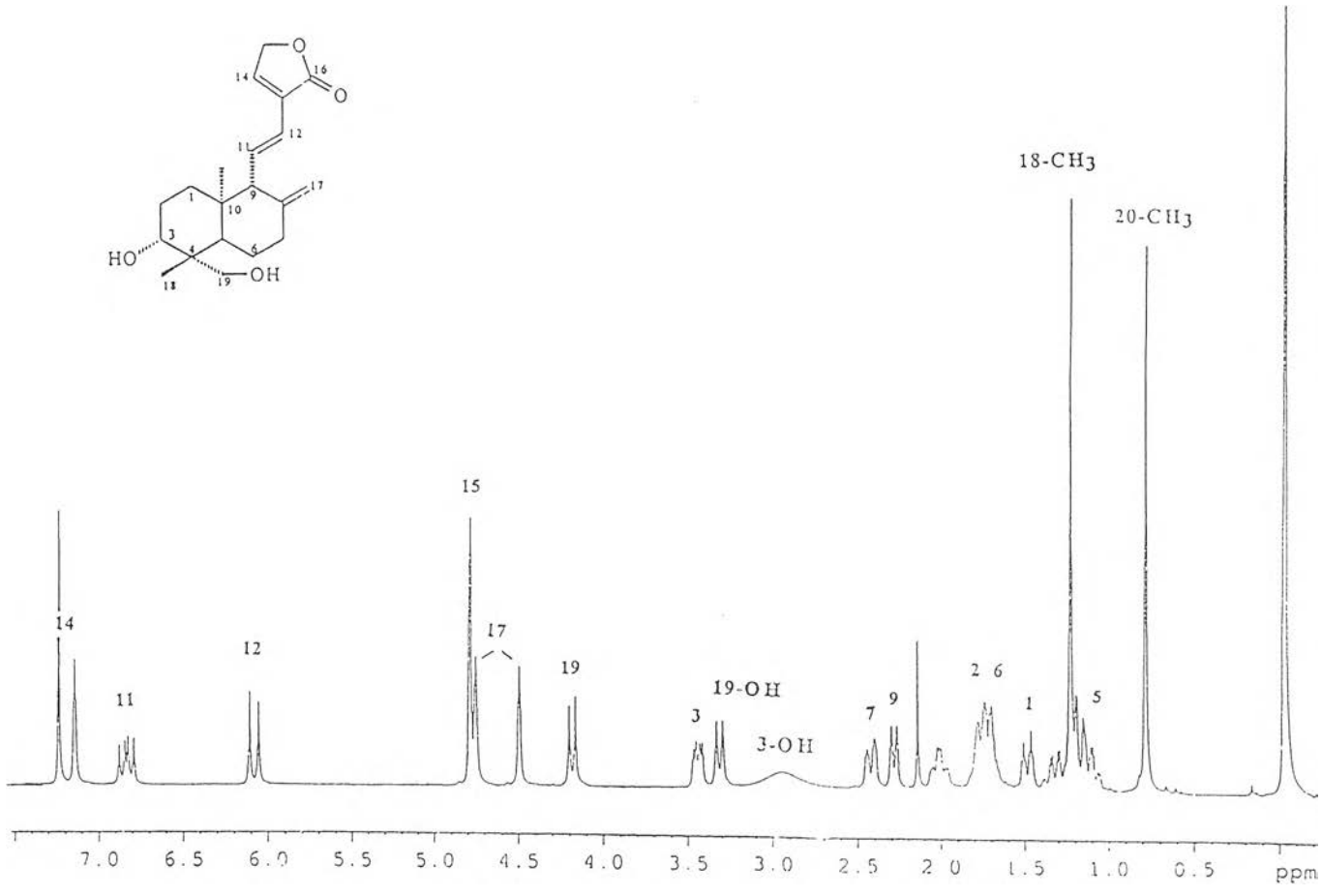


Figure 15. The ^{1}H NMR (300 MHz) spectrum of compound 6 (in $CDCl_3$)

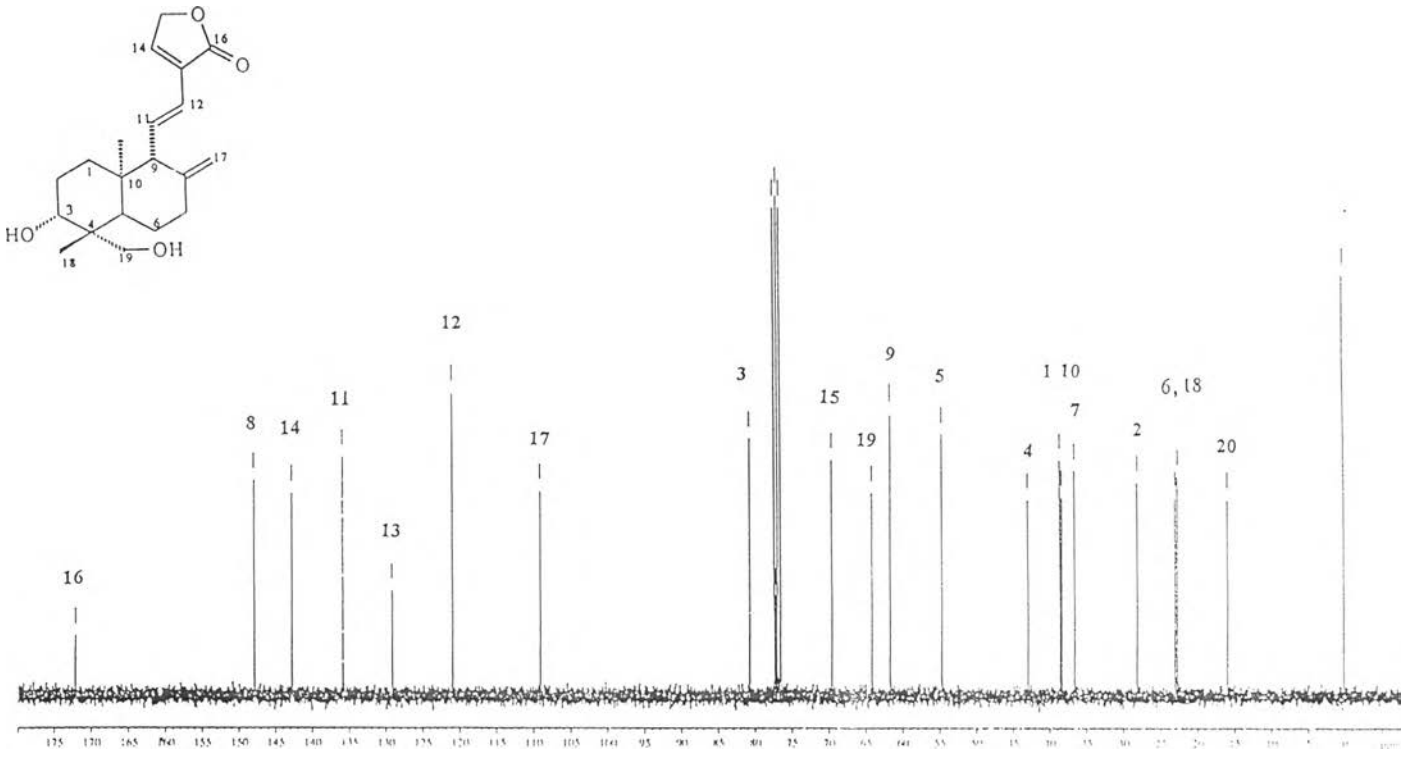


Figure 16. The ^{13}C NMR (75 MHz) spectrum of compound 6 (in $CDCl_3$)

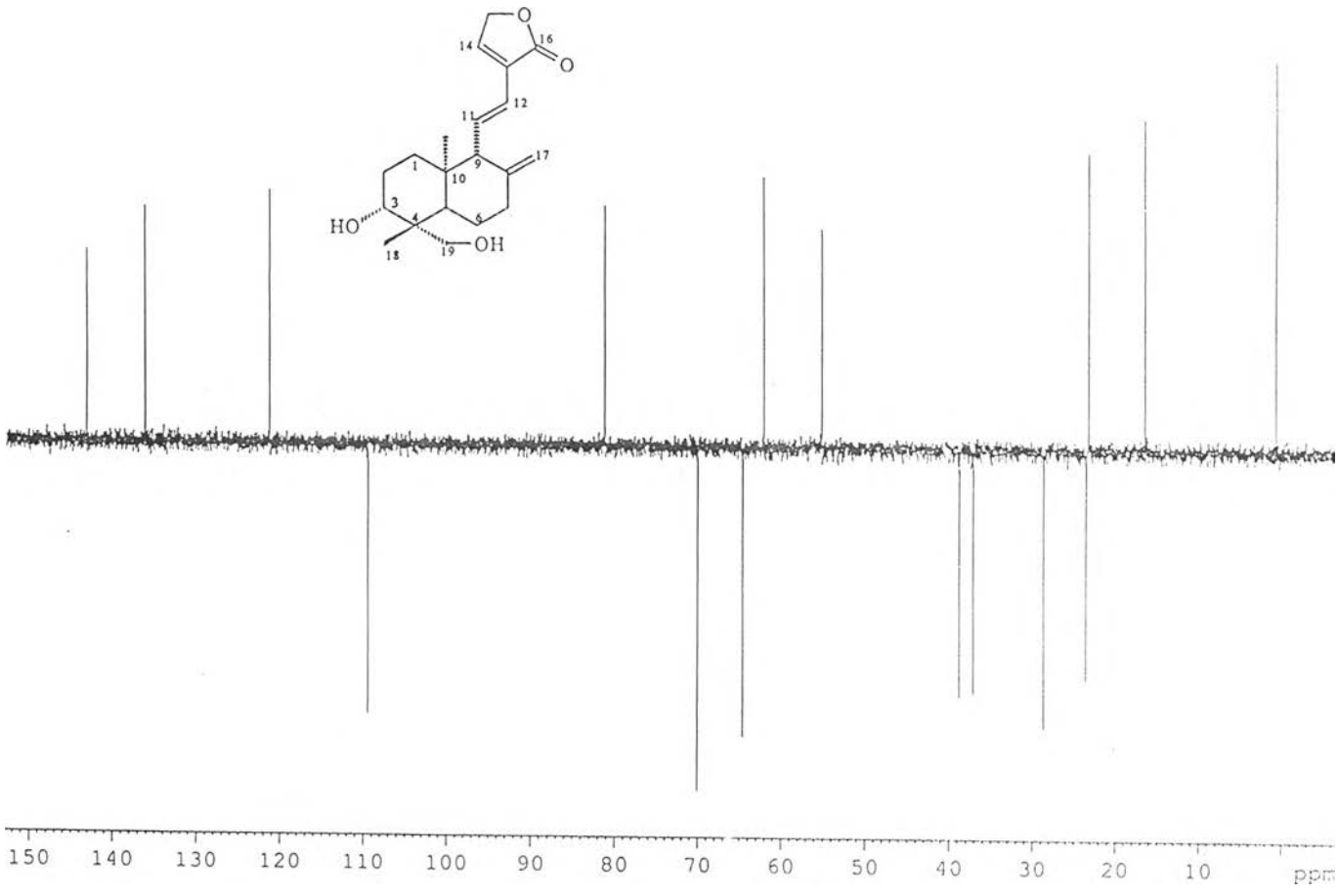


Figure 17. The DEPT 135 (75 MHz) spectrum of compound 6 (in $CDCl_3$)

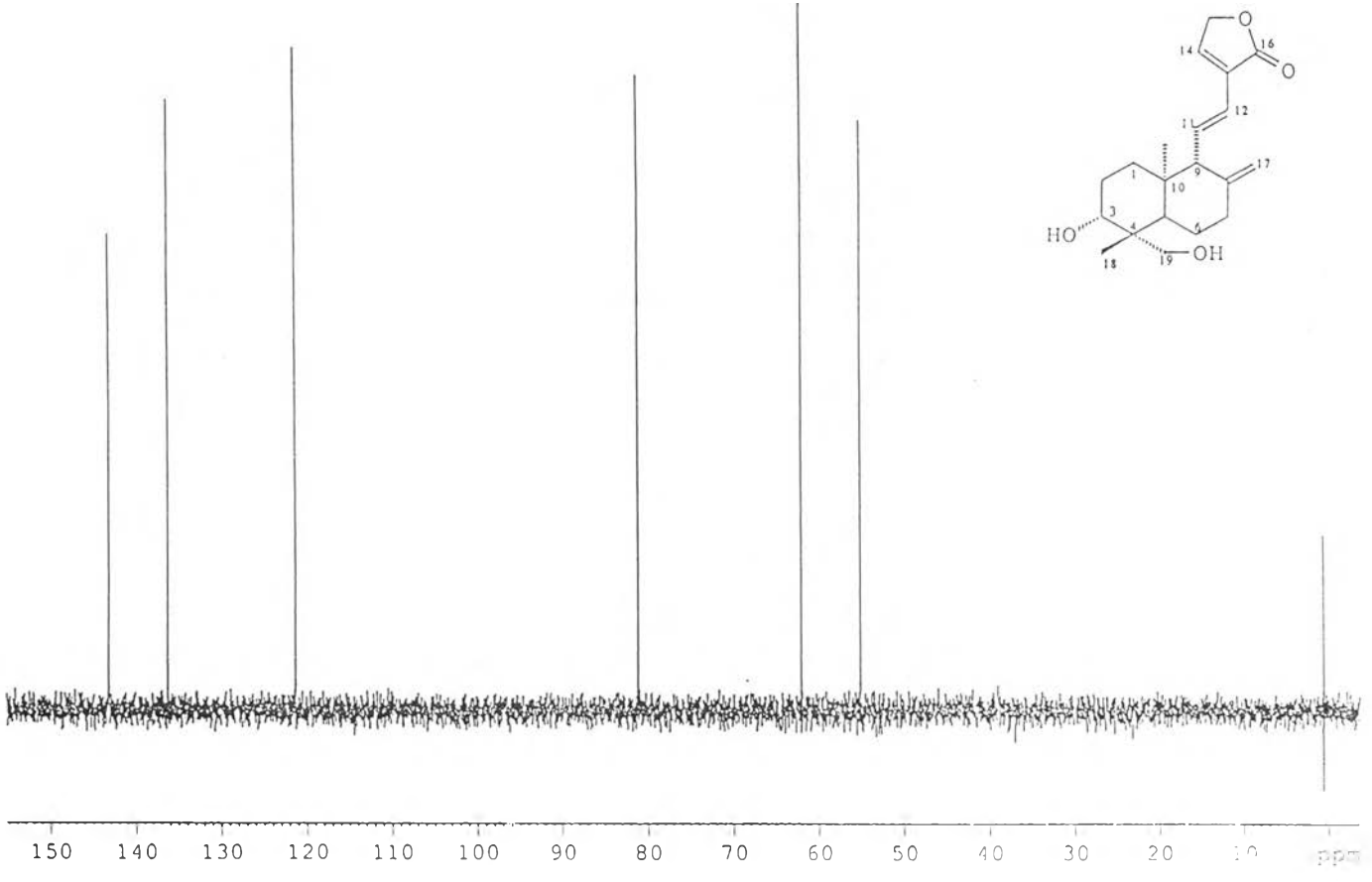


Figure 18. The DEPT 90 (75 MHz) spectrum of compound 6 (in $CDCl_3$)

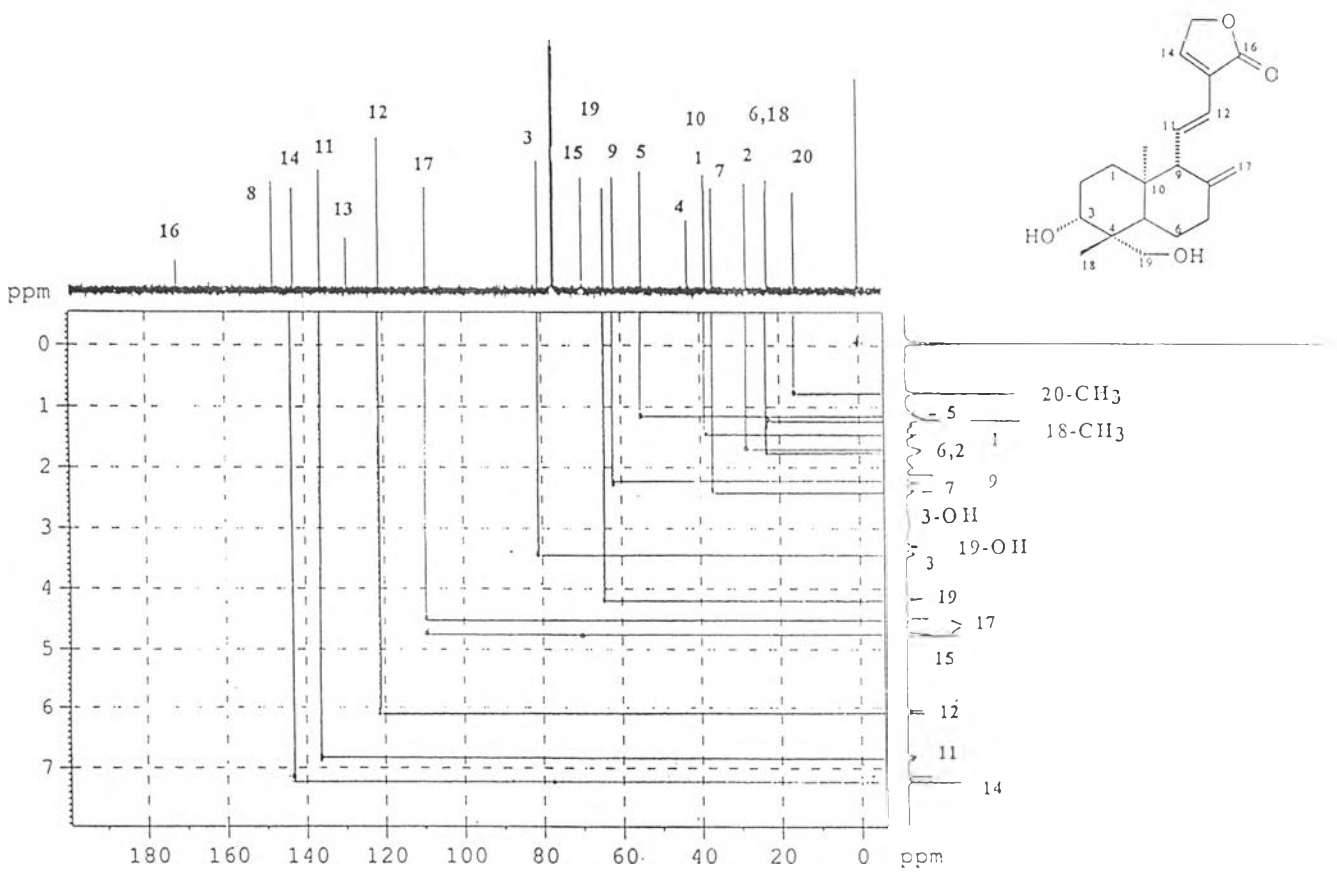


Figure 19. The HETCOR (300 MHz) spectrum of compound 6 (in $CDCl_3$)

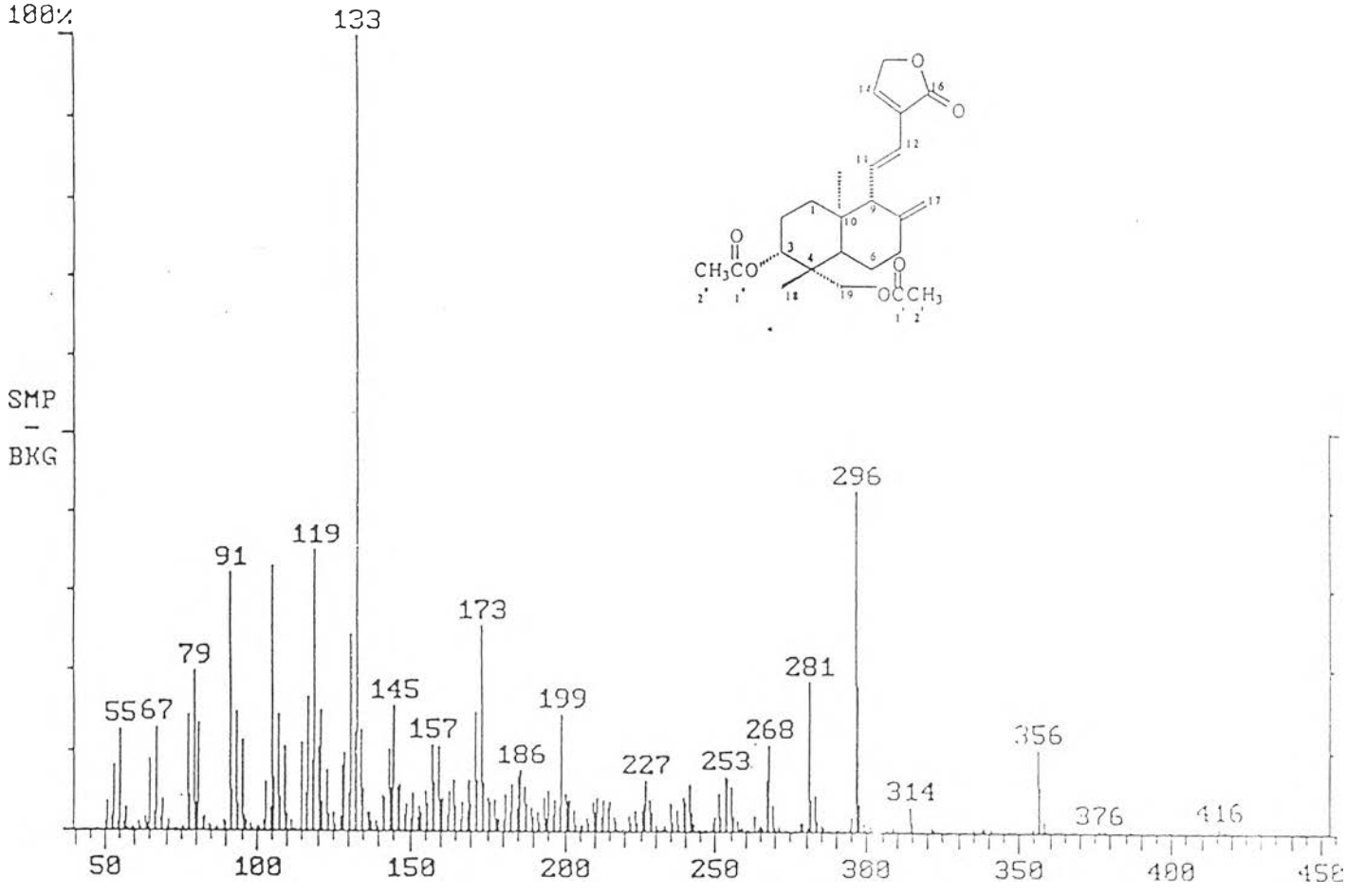


Figure 20. The GC mass spectrum of compound A1

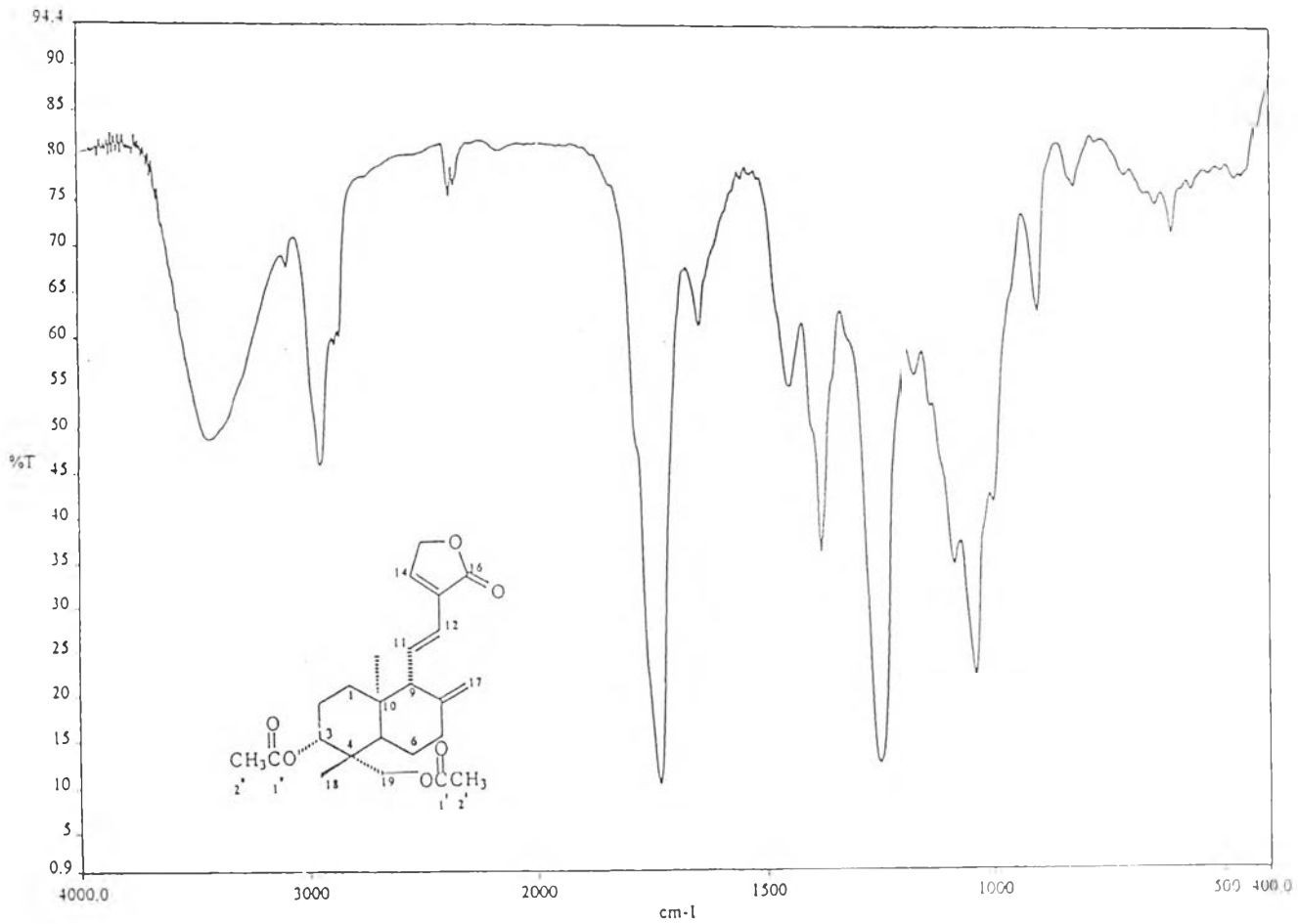


Figure 21. The IR spectrum of compound A1 (in KBr disc)

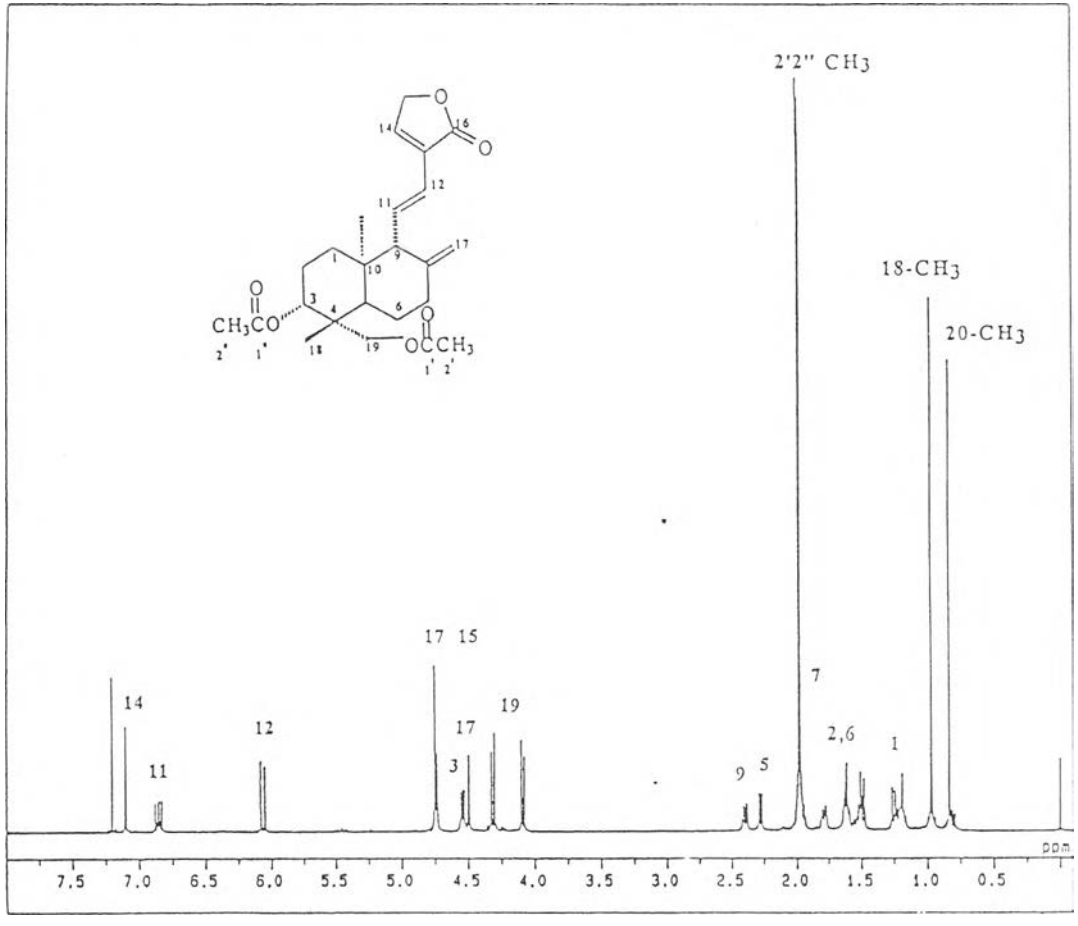


Figure 22. The ^{1}H NMR (500 MHz) spectrum compound A1 (in $CDCl_3$)

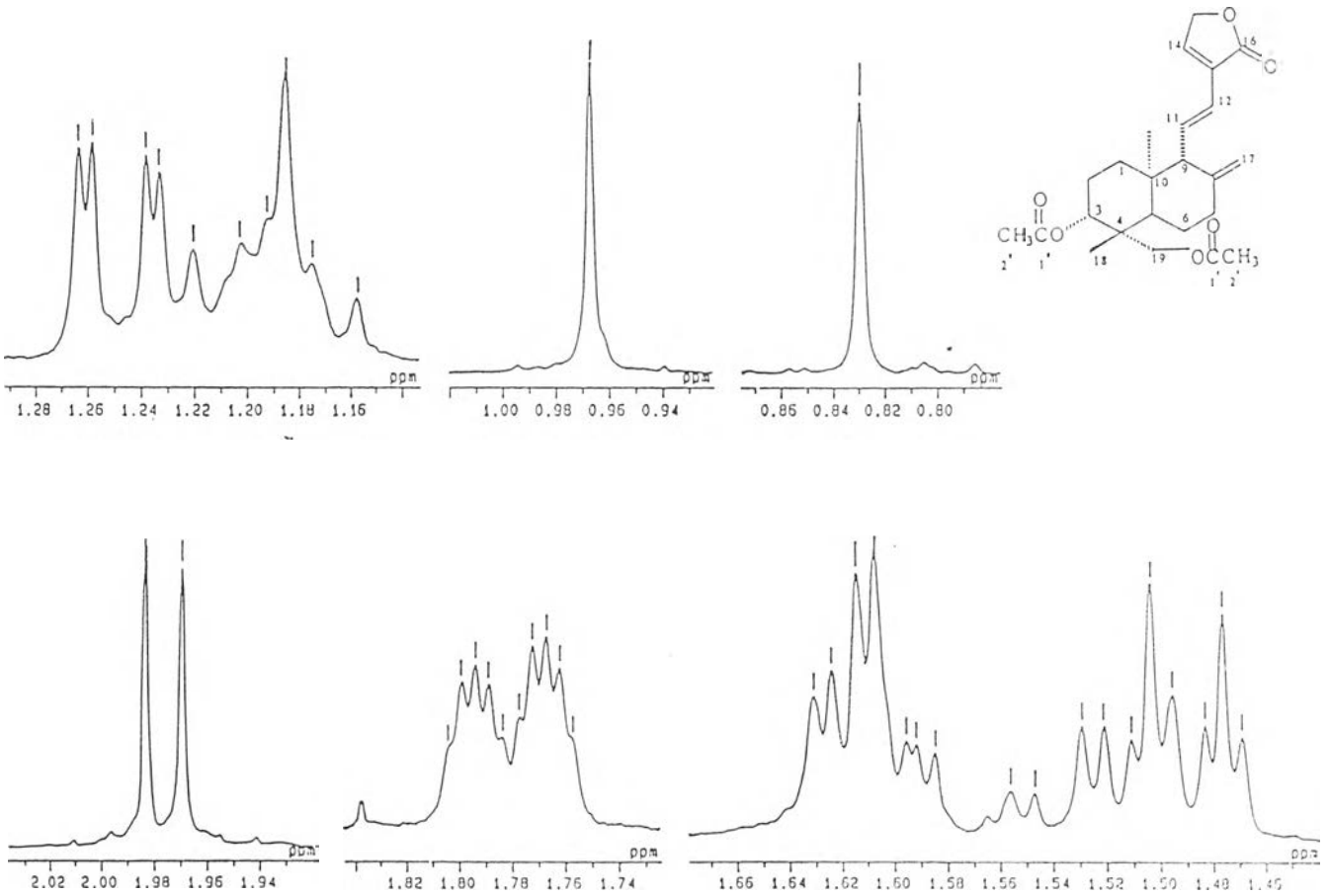


Figure 23. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A1 (in $CDCl_3$) : δ_H 0.80 - 2.03 ppm

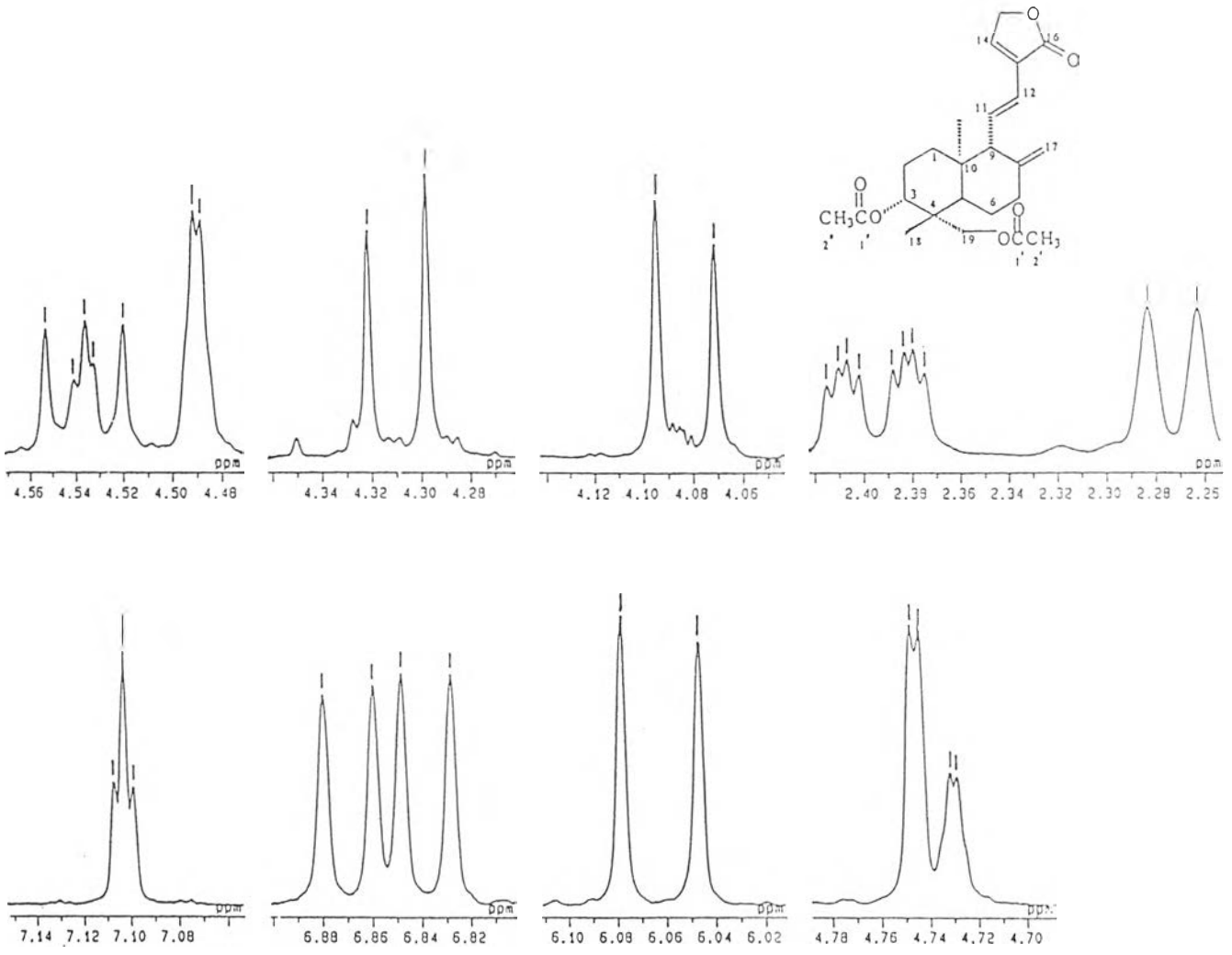
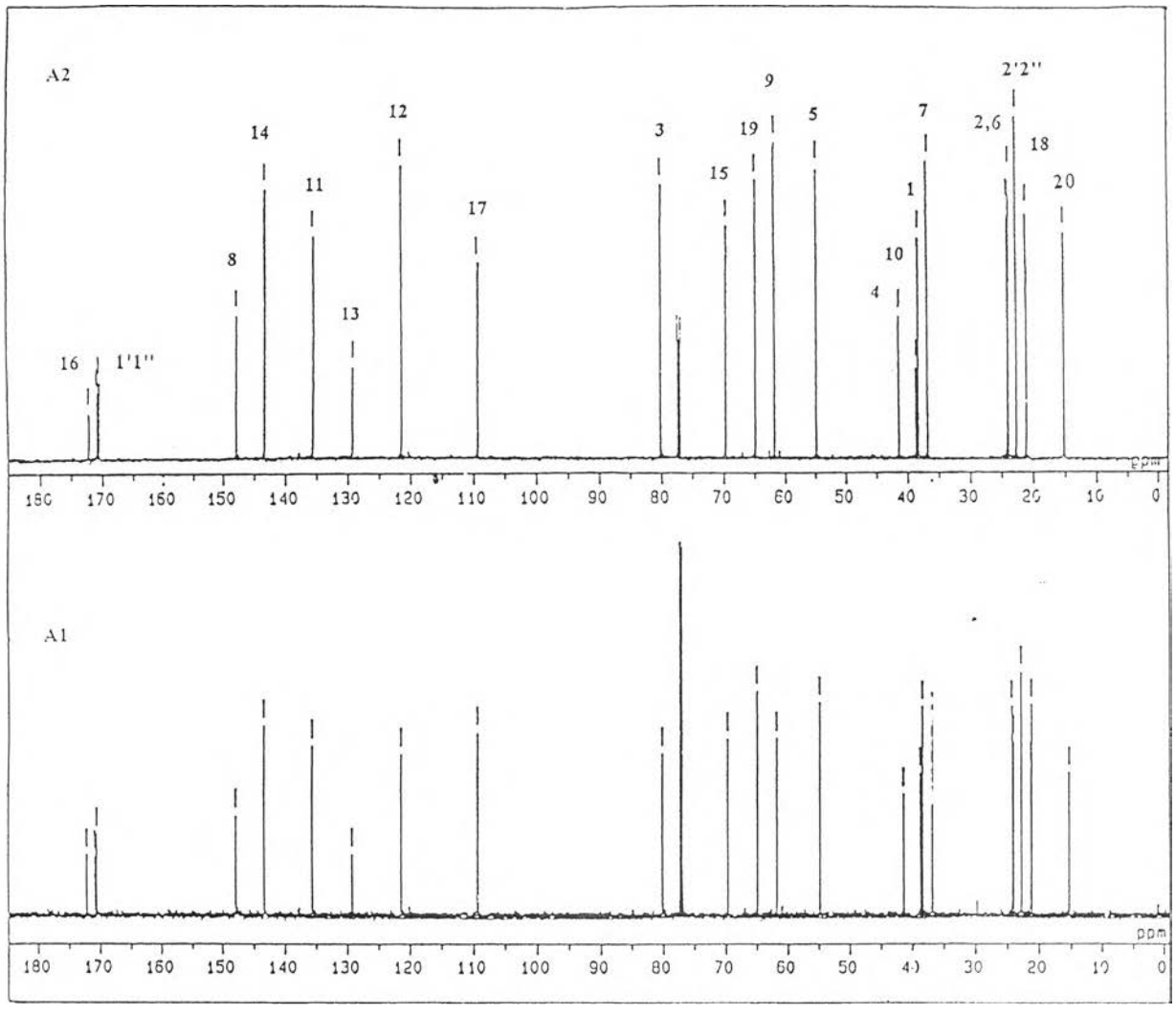


Figure 24. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A1 (in $CDCl_3$) : 2.26 - 7.14 ppm



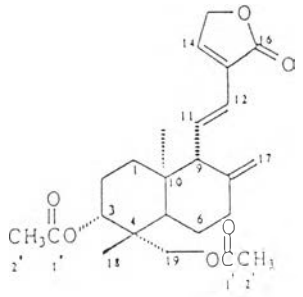


Figure 25. The ^{13}C NMR (125 MHz) of compound A1 and A2 (in $CDCl_3$)

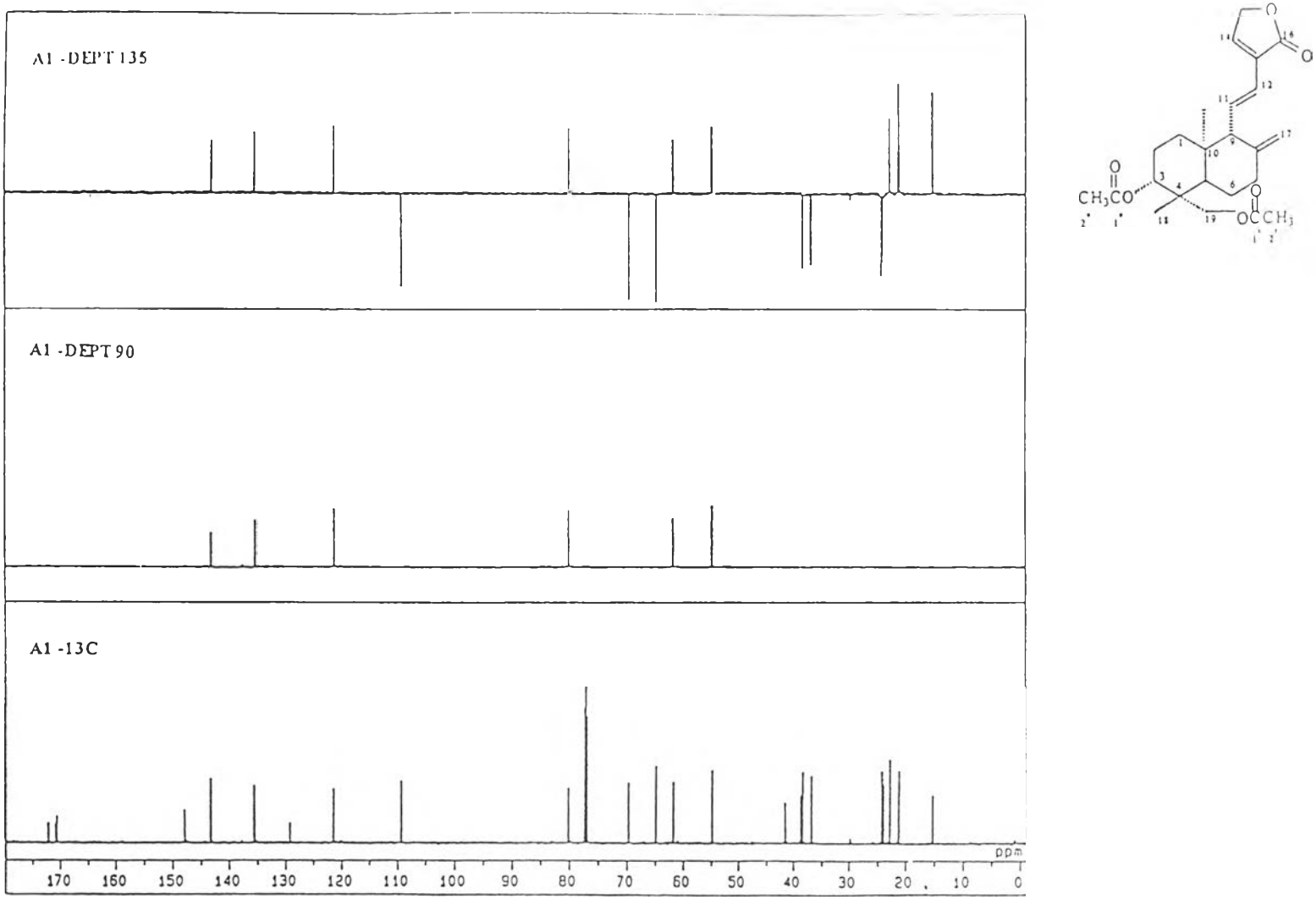


Figure 26. The DEPT (125 MHz) spectrum of compound A1 (in $CDCl_3$)

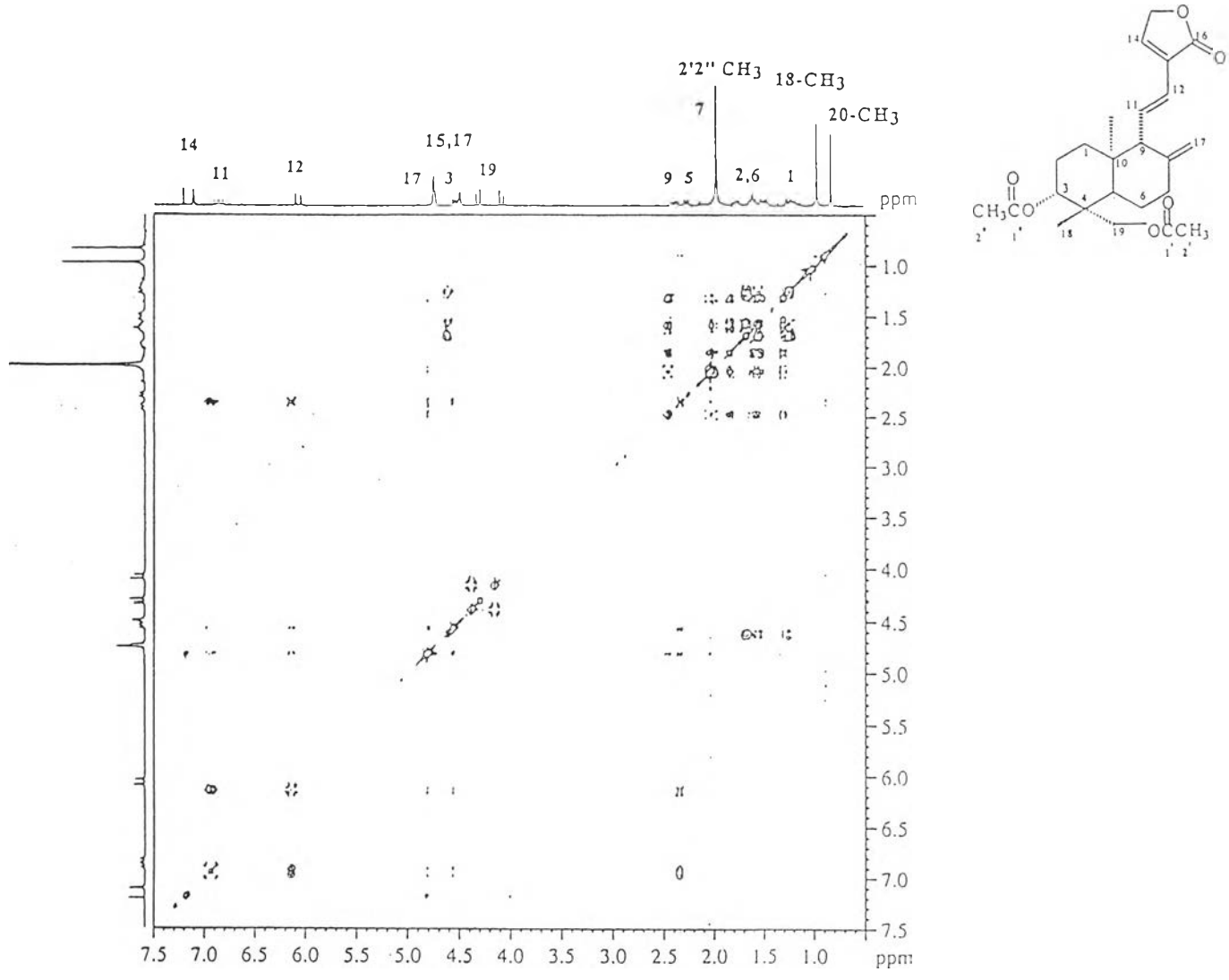


Figure 27. The TOCSY (300 MHz) spectrum of compound A1(in $CDCl_3$)

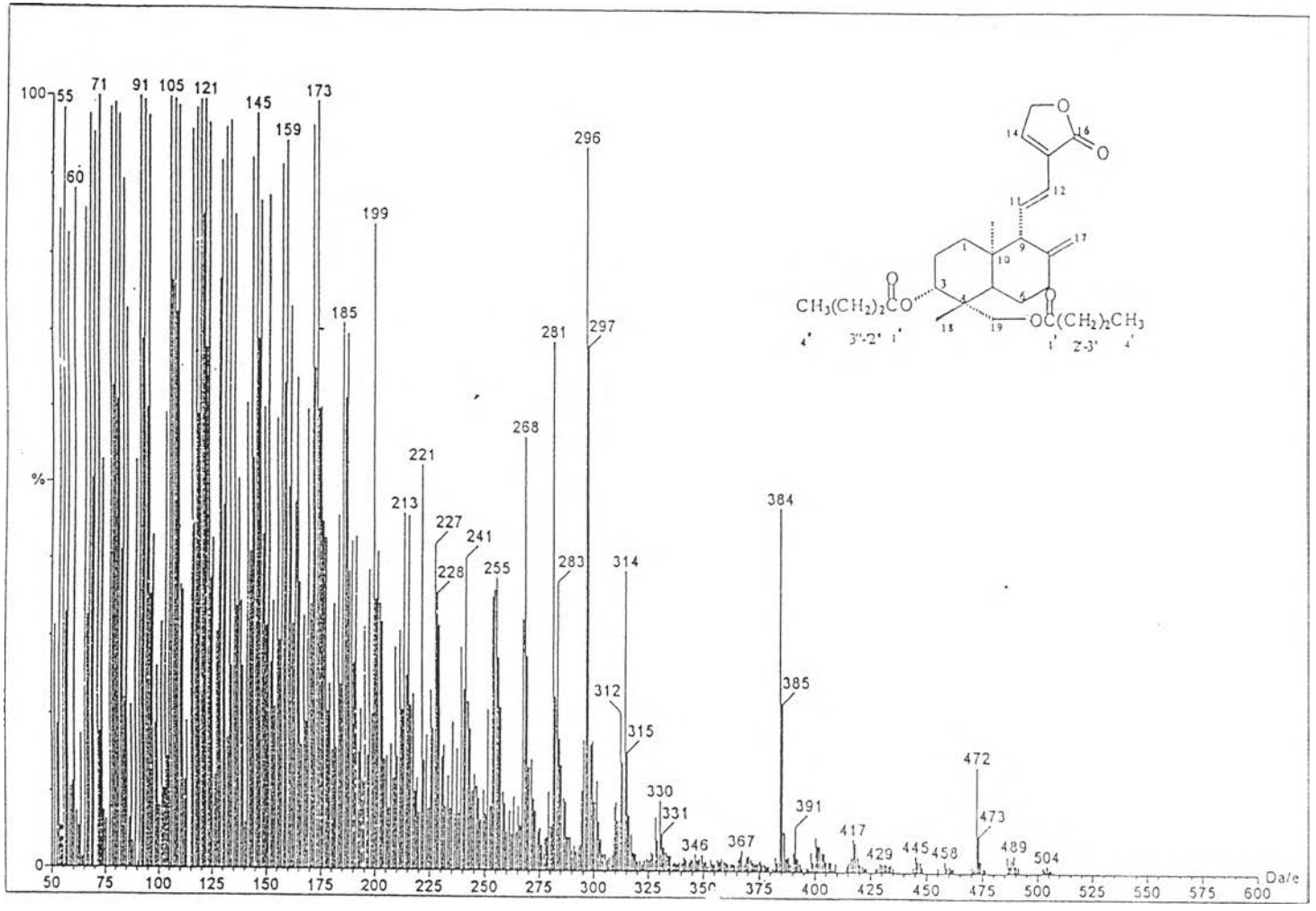


Figure 28. The EI mass spectrum of compound A3

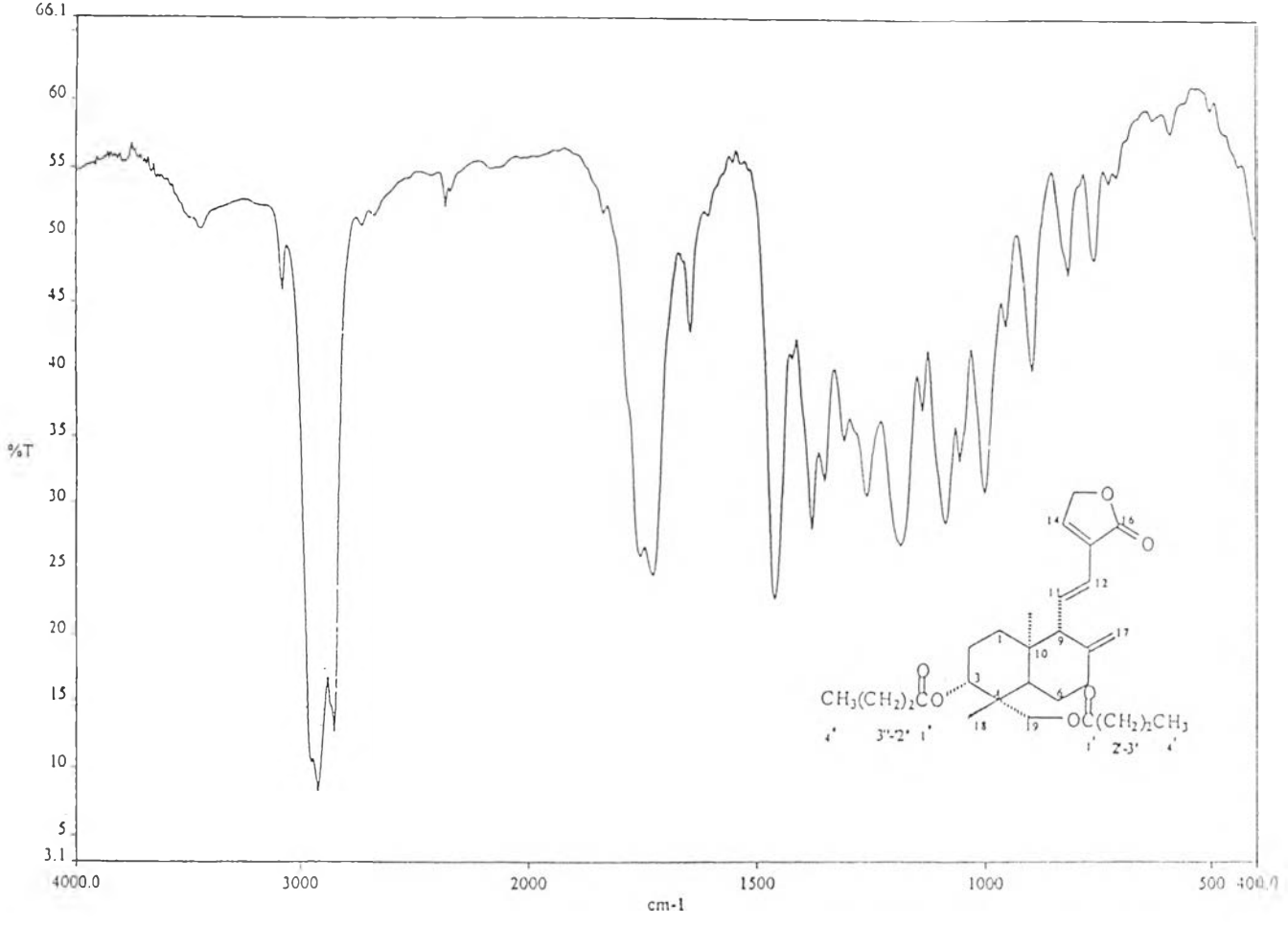


Figure 29. The IR spectrum of compound A3 (in film)

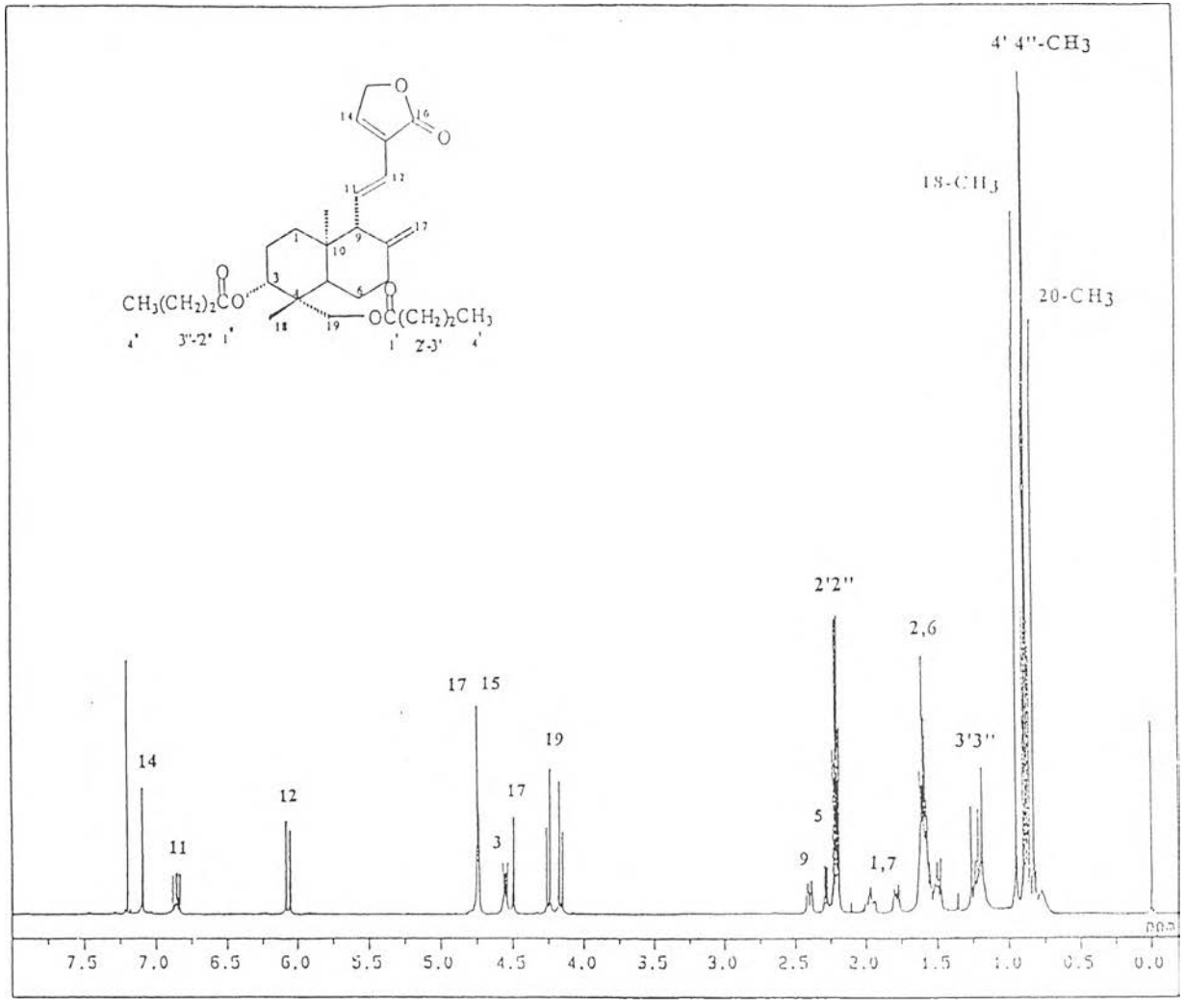


Figure 30. The ^{1}H NMR (500 MHz) spectrum compound A3 (in $CDCl_3$)

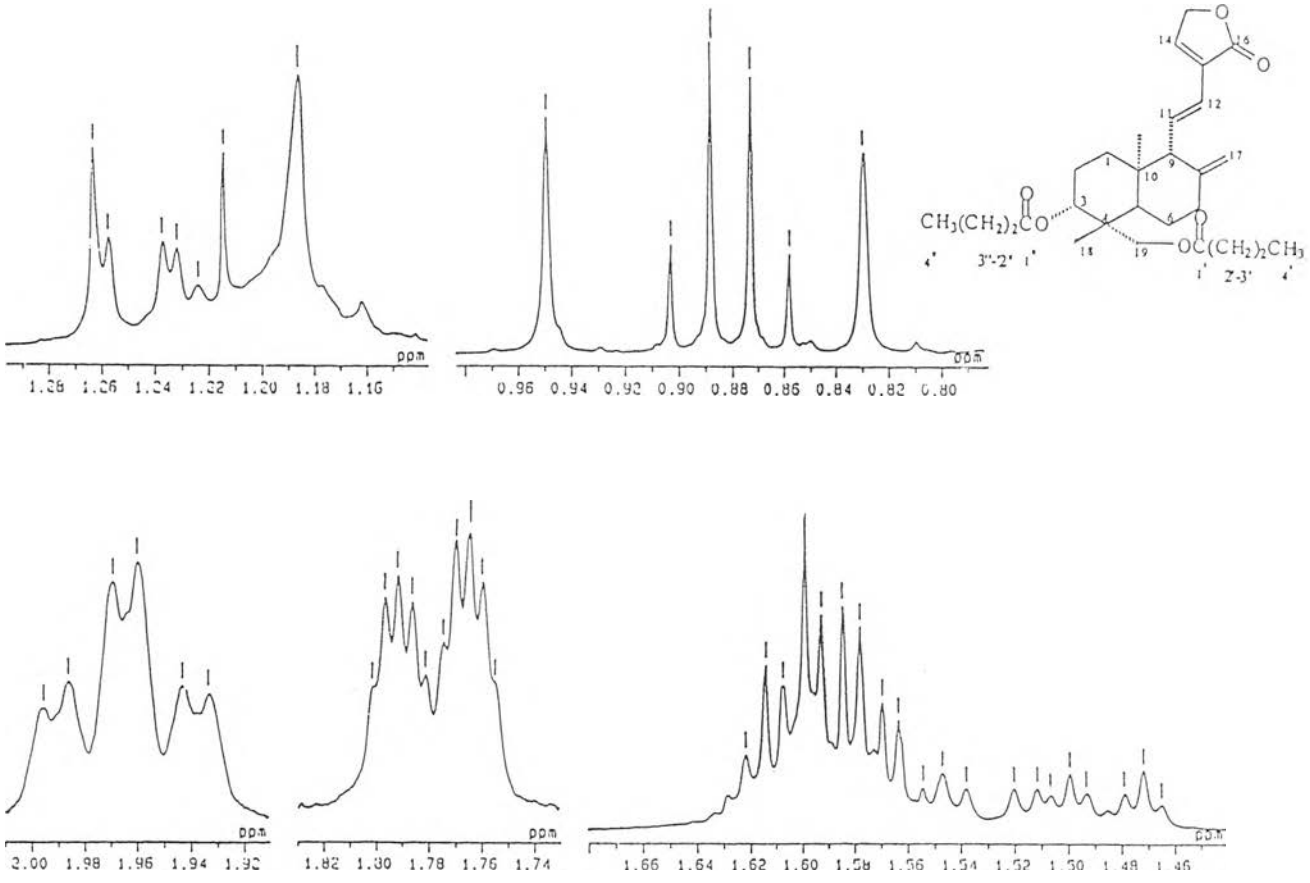


Figure 31. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A3 (in $CDCl_3$)
: δ_H 0.80 - 2.01 ppm

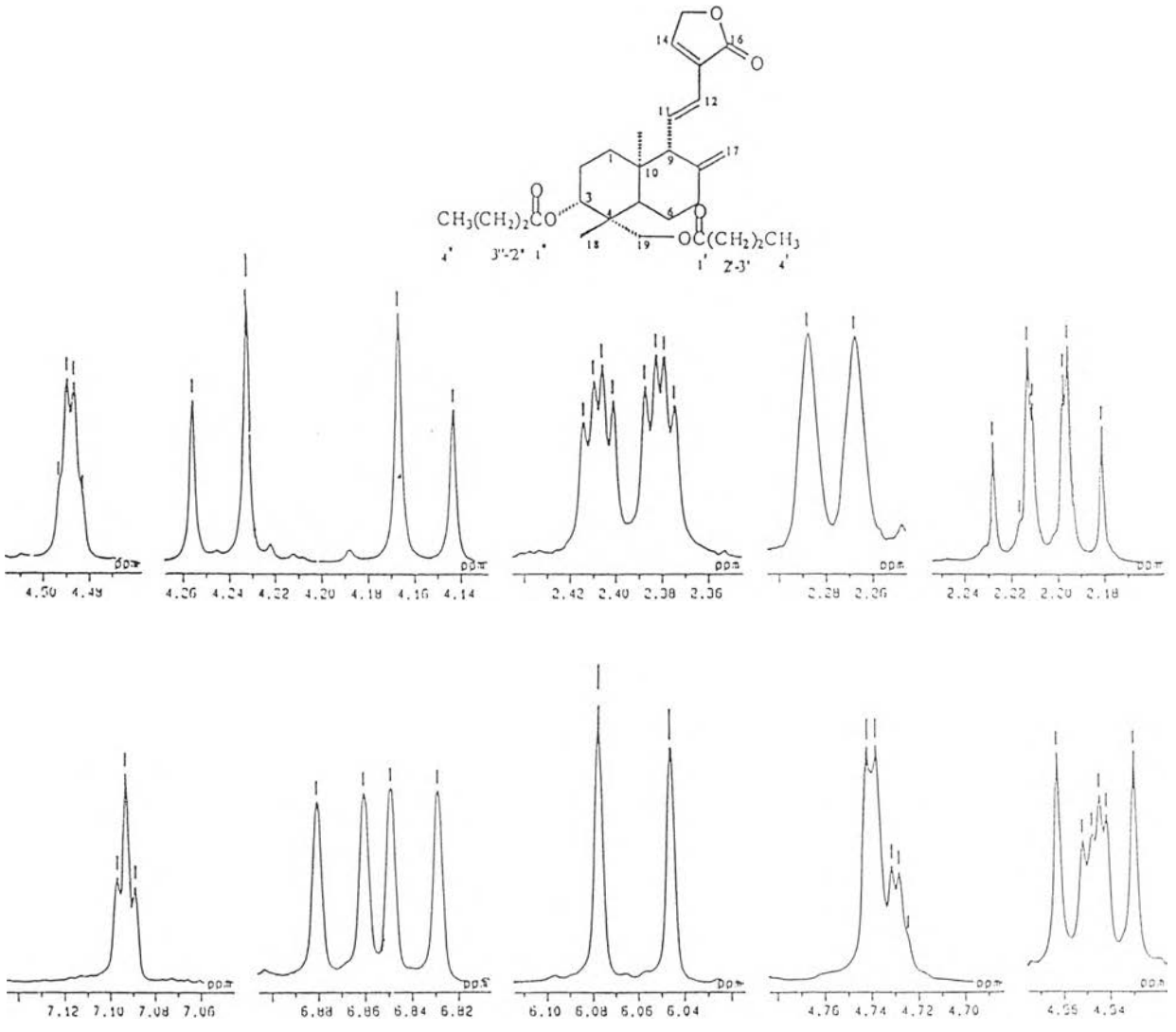
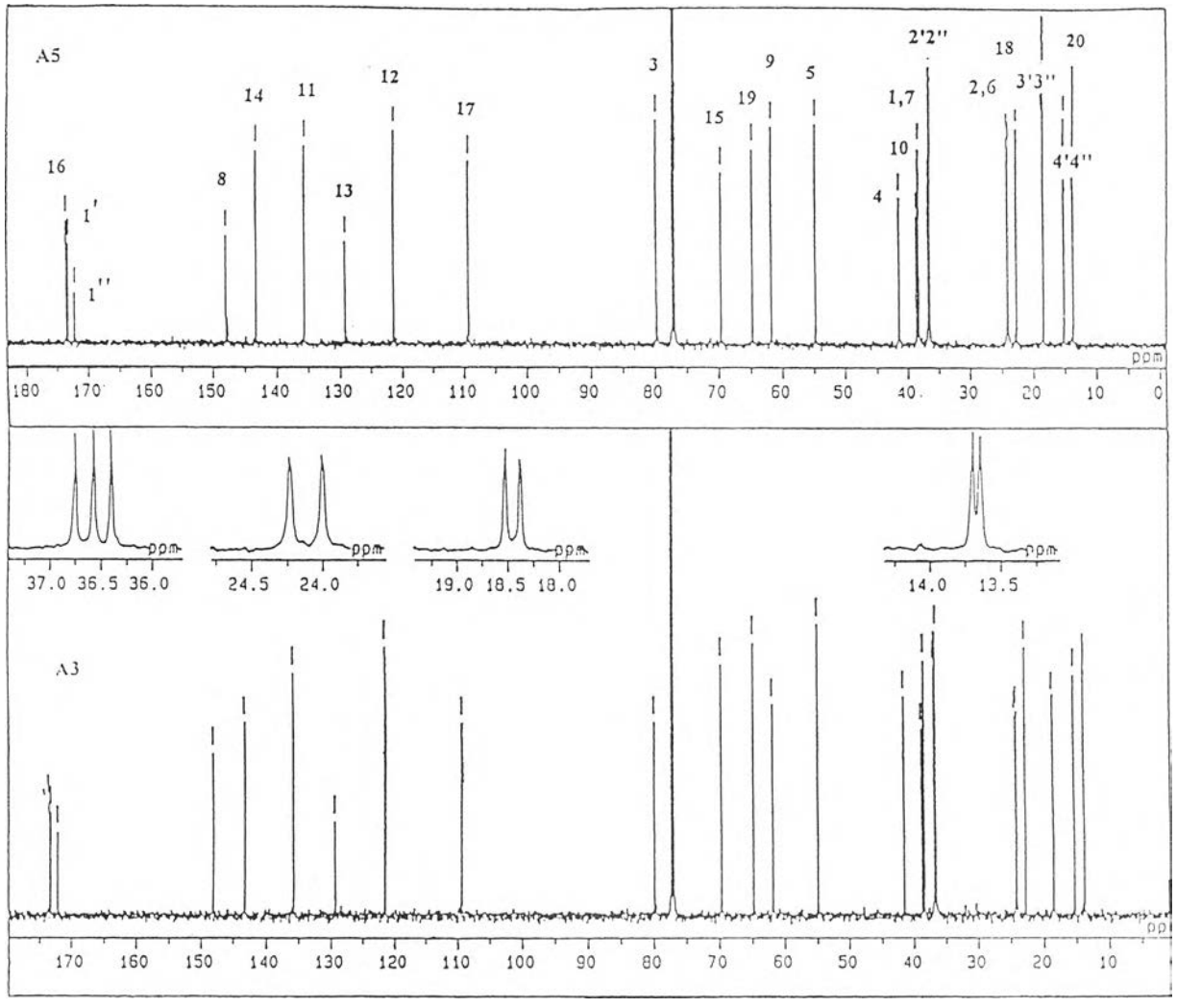


Figure 32. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A3 (in $CDCl_3$) : δ_H 2.18 - 7.14 ppm



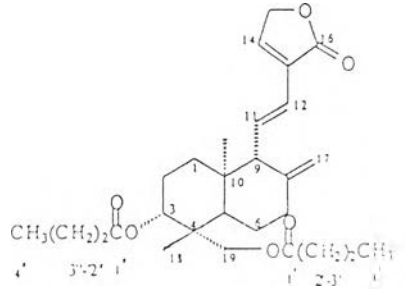
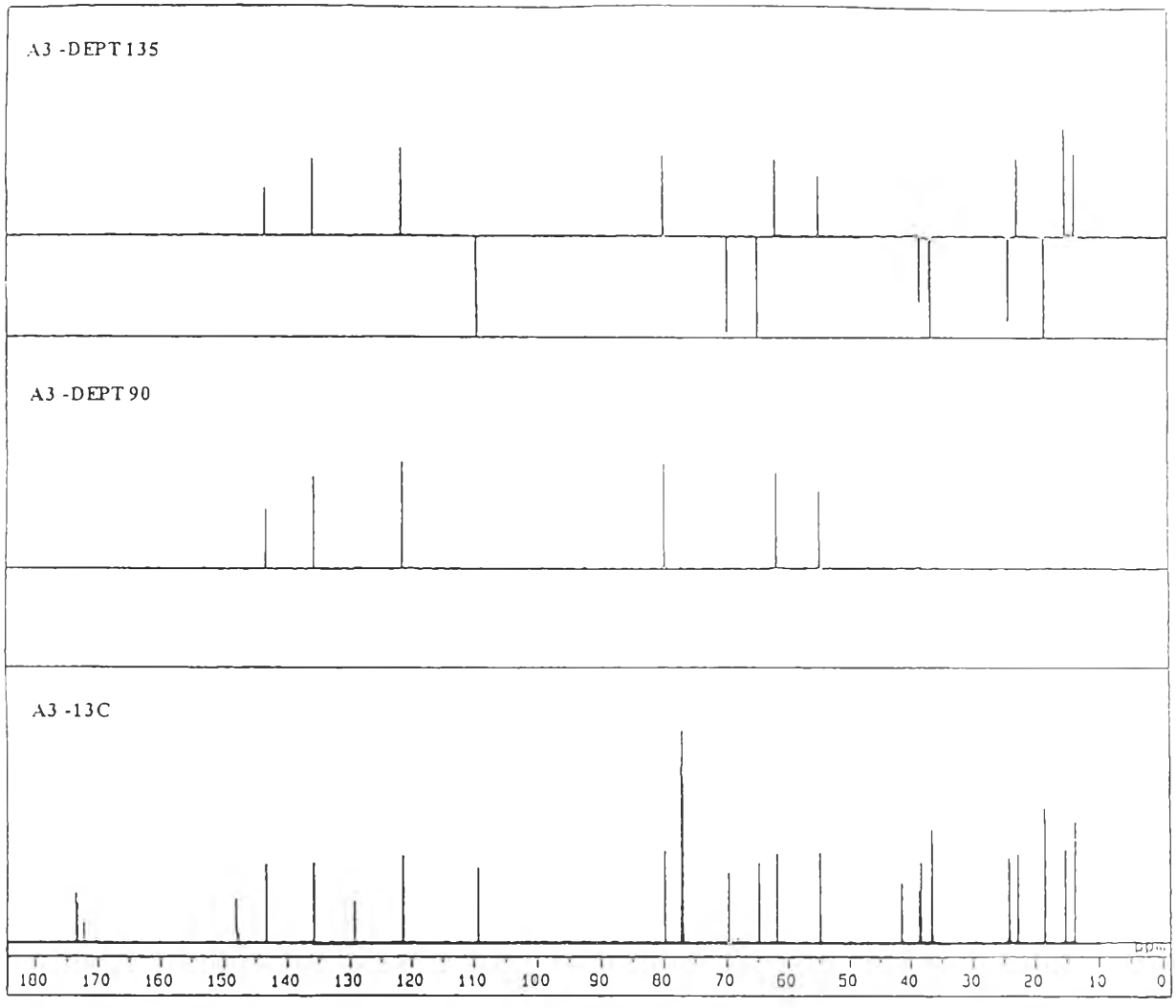


Figure 33. The ^{13}C NMR (125 MHz) of compound A3 and A5 (in $CDCl_3$)



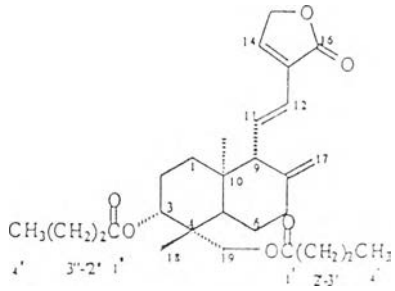


Figure 34. The DEPT (125 MHz) spectrum of compound A3 (in $CDCl_3$)

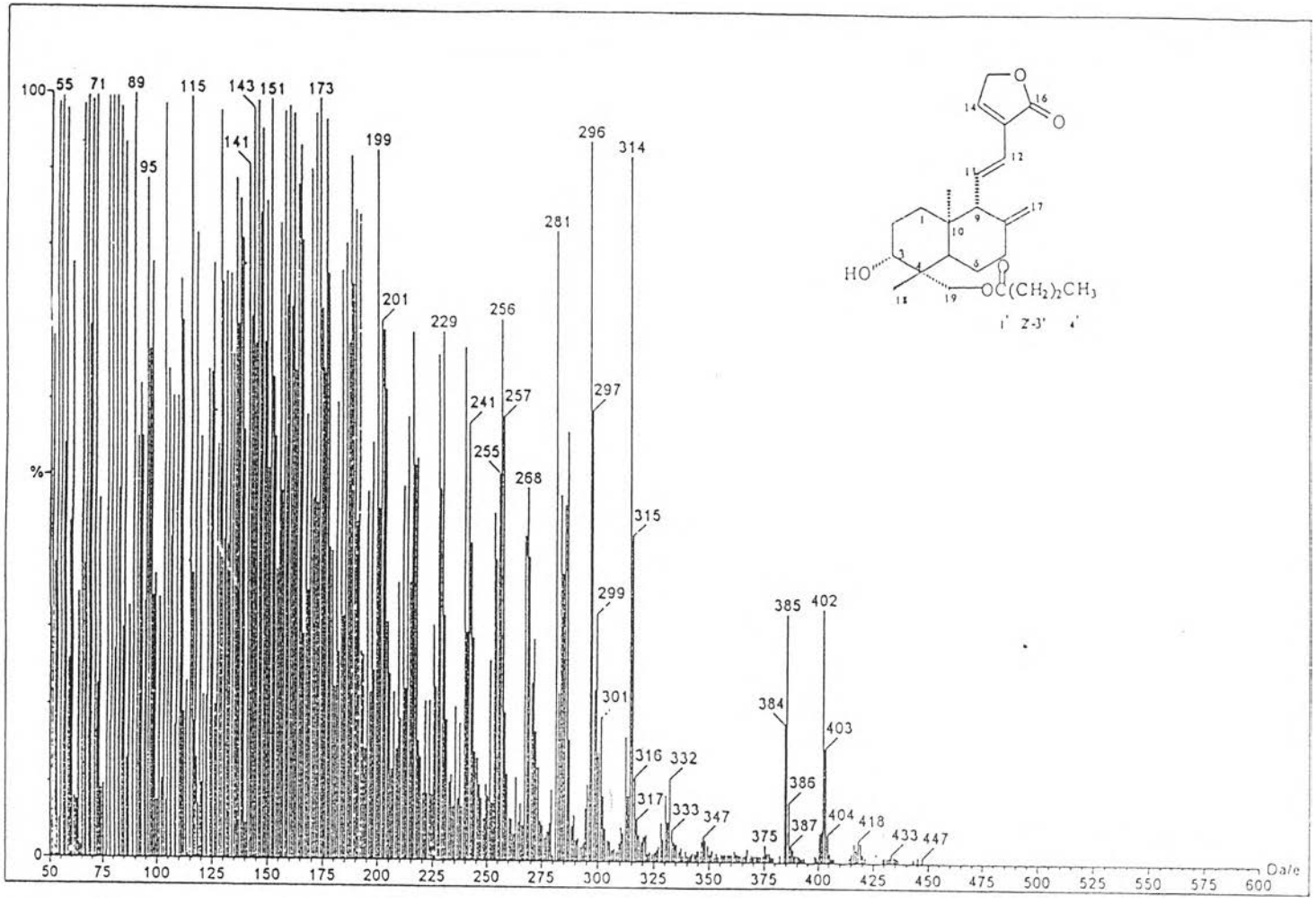


Figure 35. The EI mass spectrum of compound A4

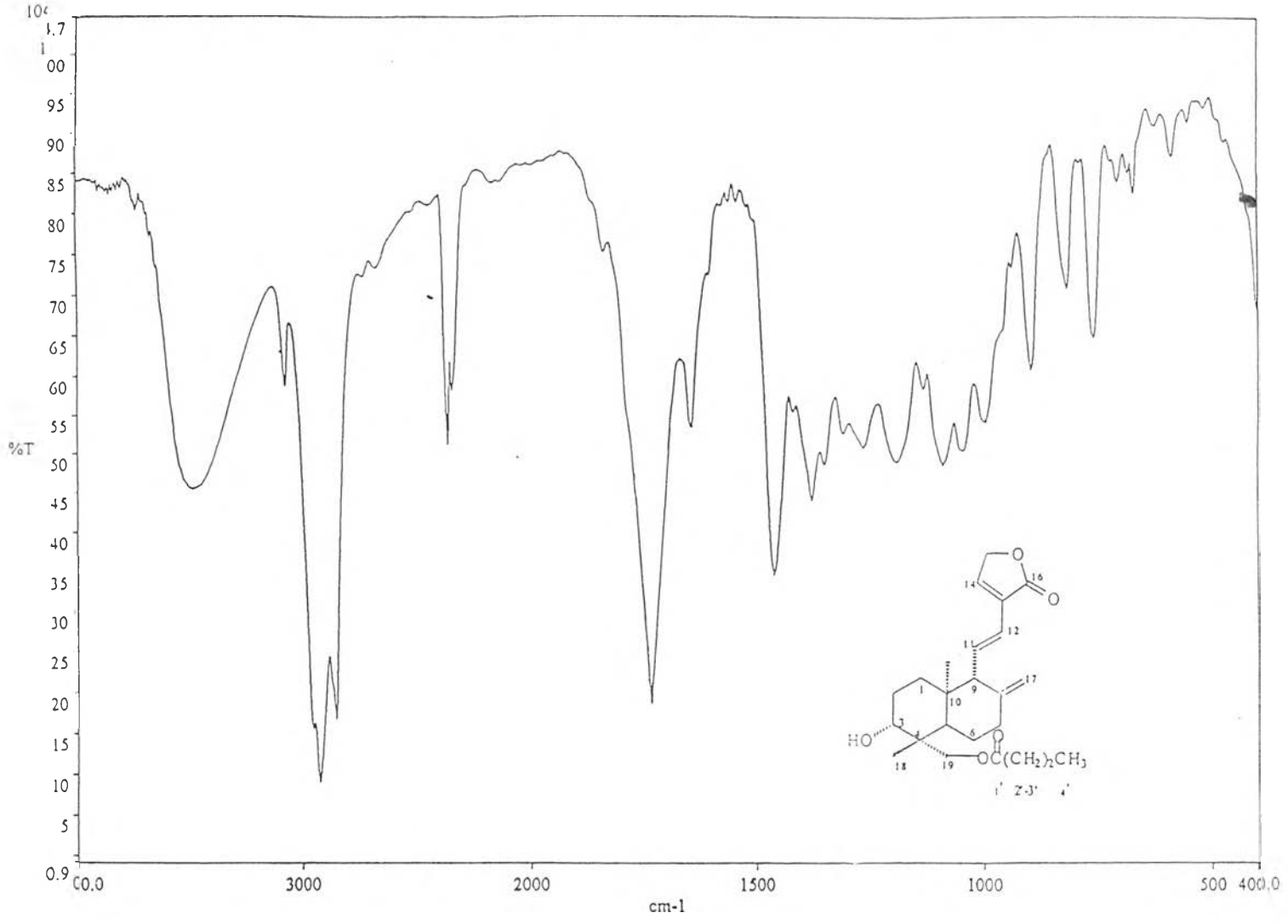


Figure 36. The IR spectrum of compound A4 (in film)

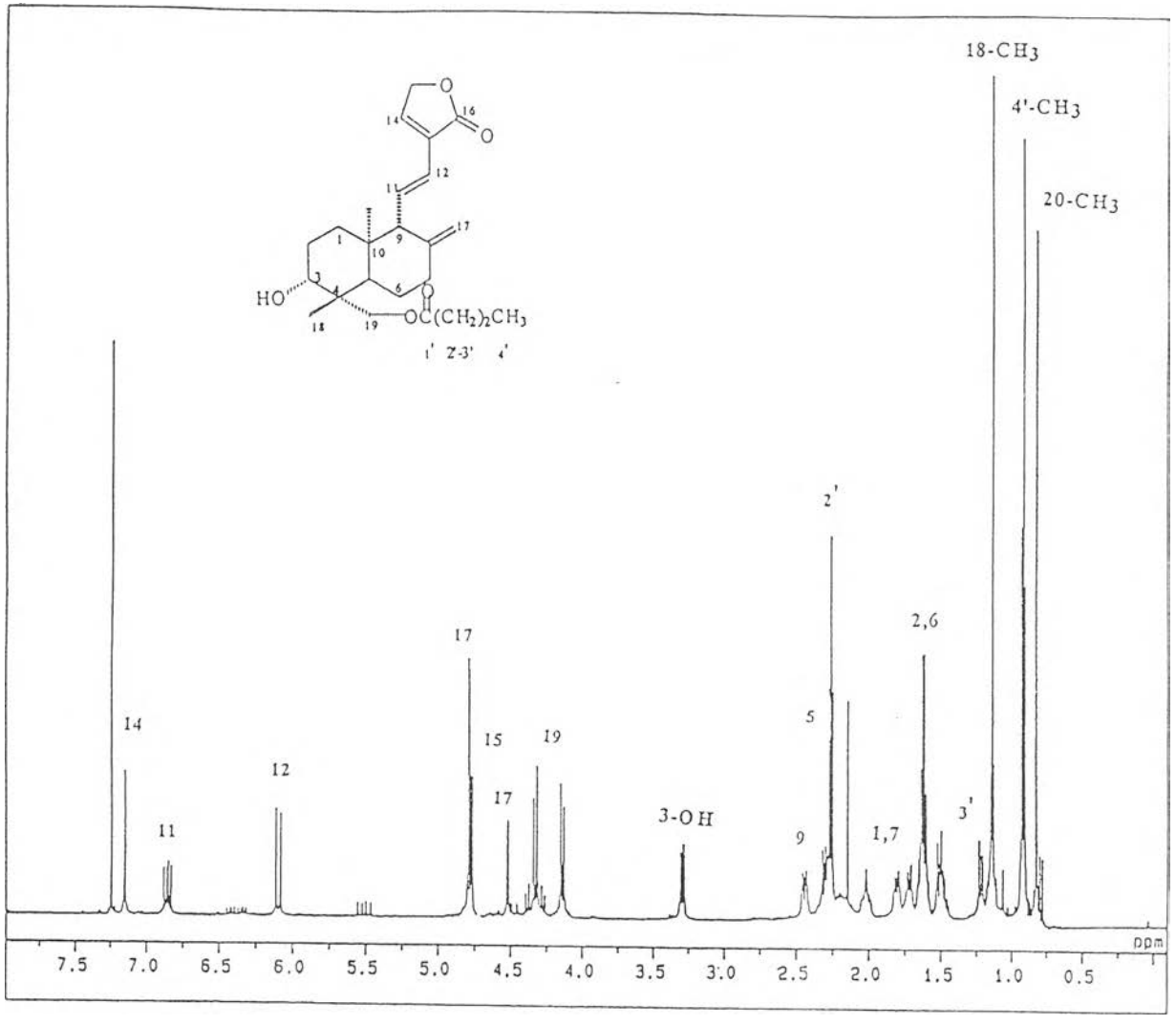


Figure 37. The ^{1}H NMR (500 MHz) spectrum of compound A4 (in $CDCl_3$)

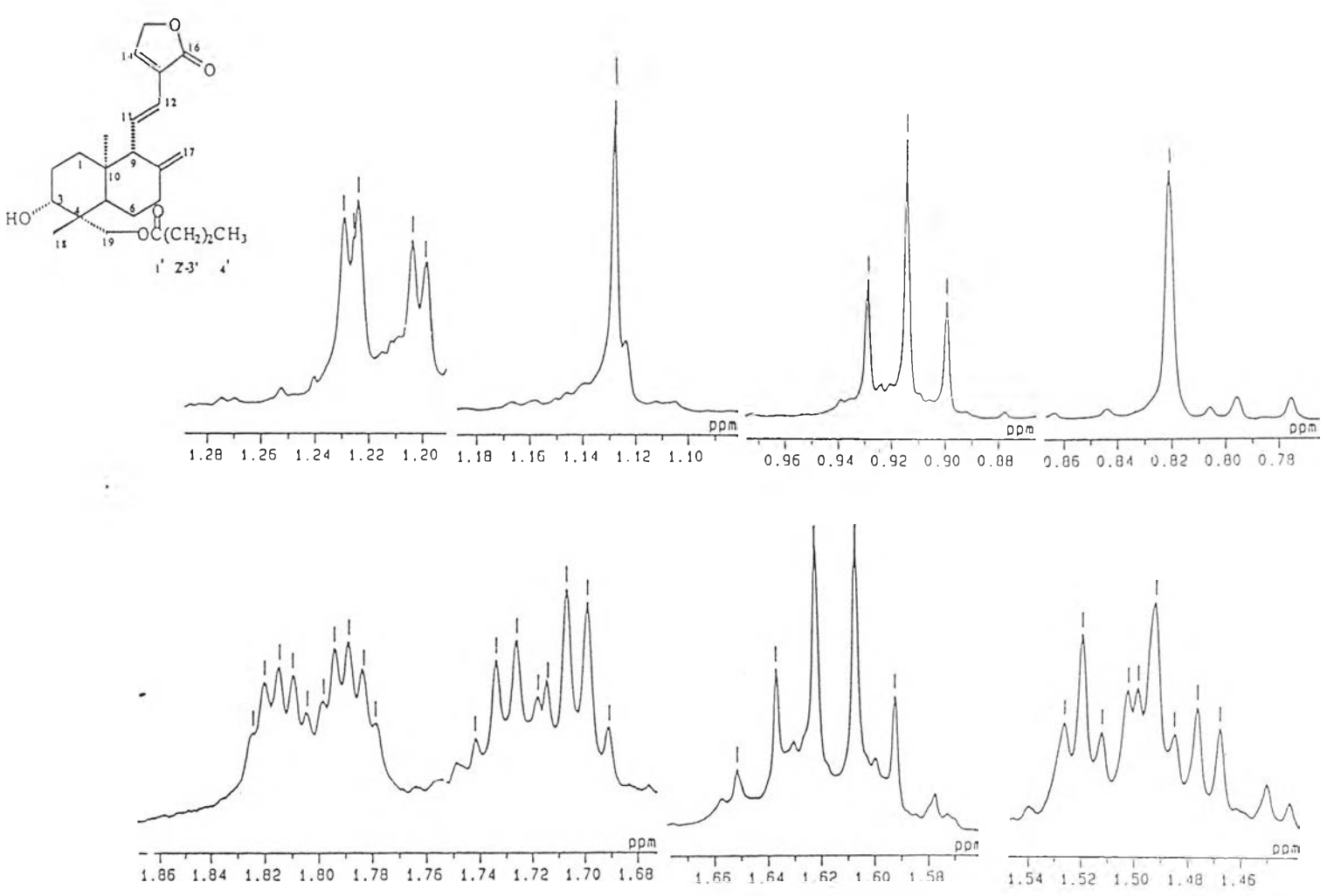


Figure 38. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A4 (in $CDCl_3$) : δ_H 0.78 - 1.86 ppm

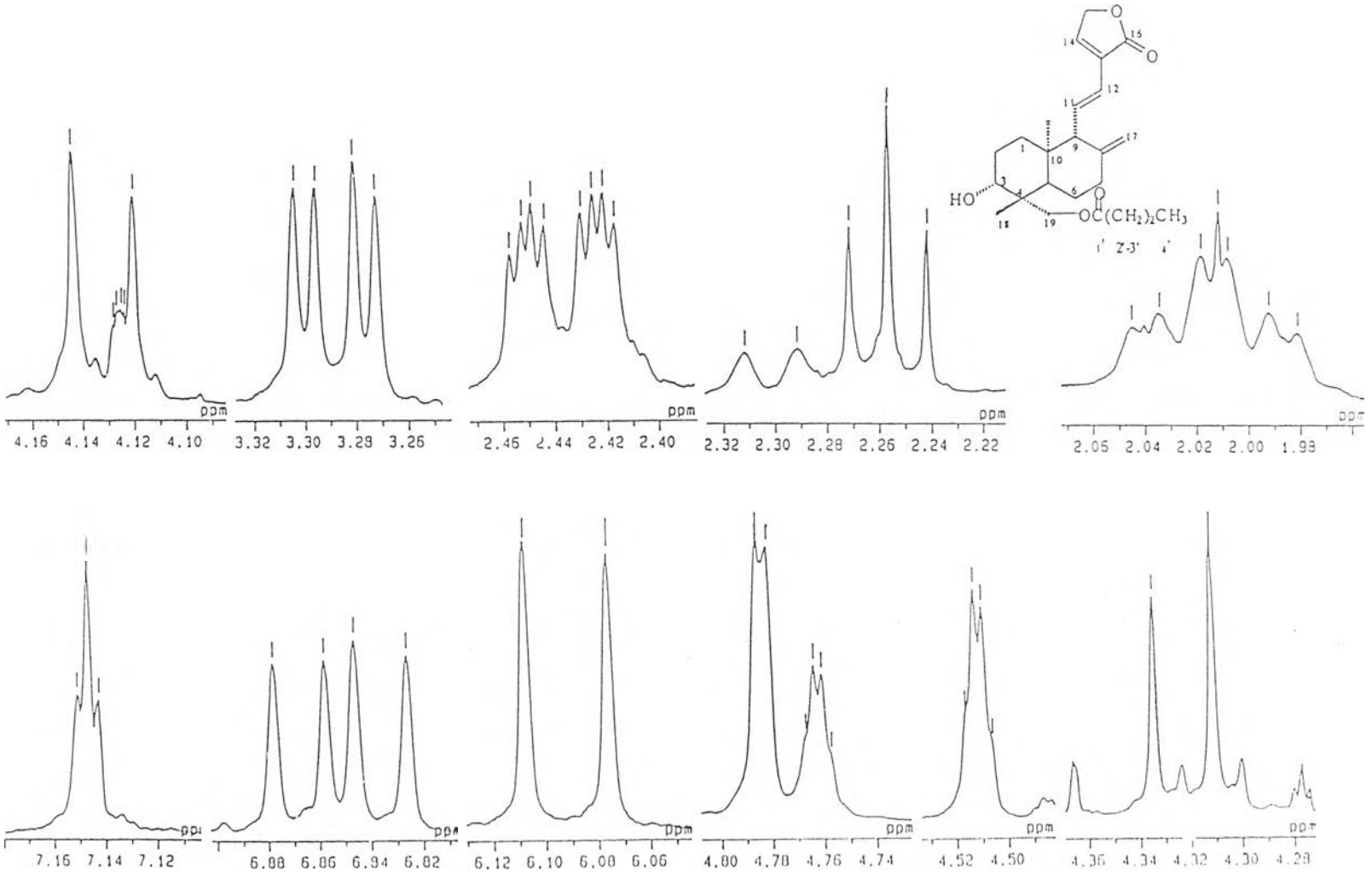


Figure 39. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A4 (in $CDCl_3$) : δ_H 1.96 - 7.18 ppm

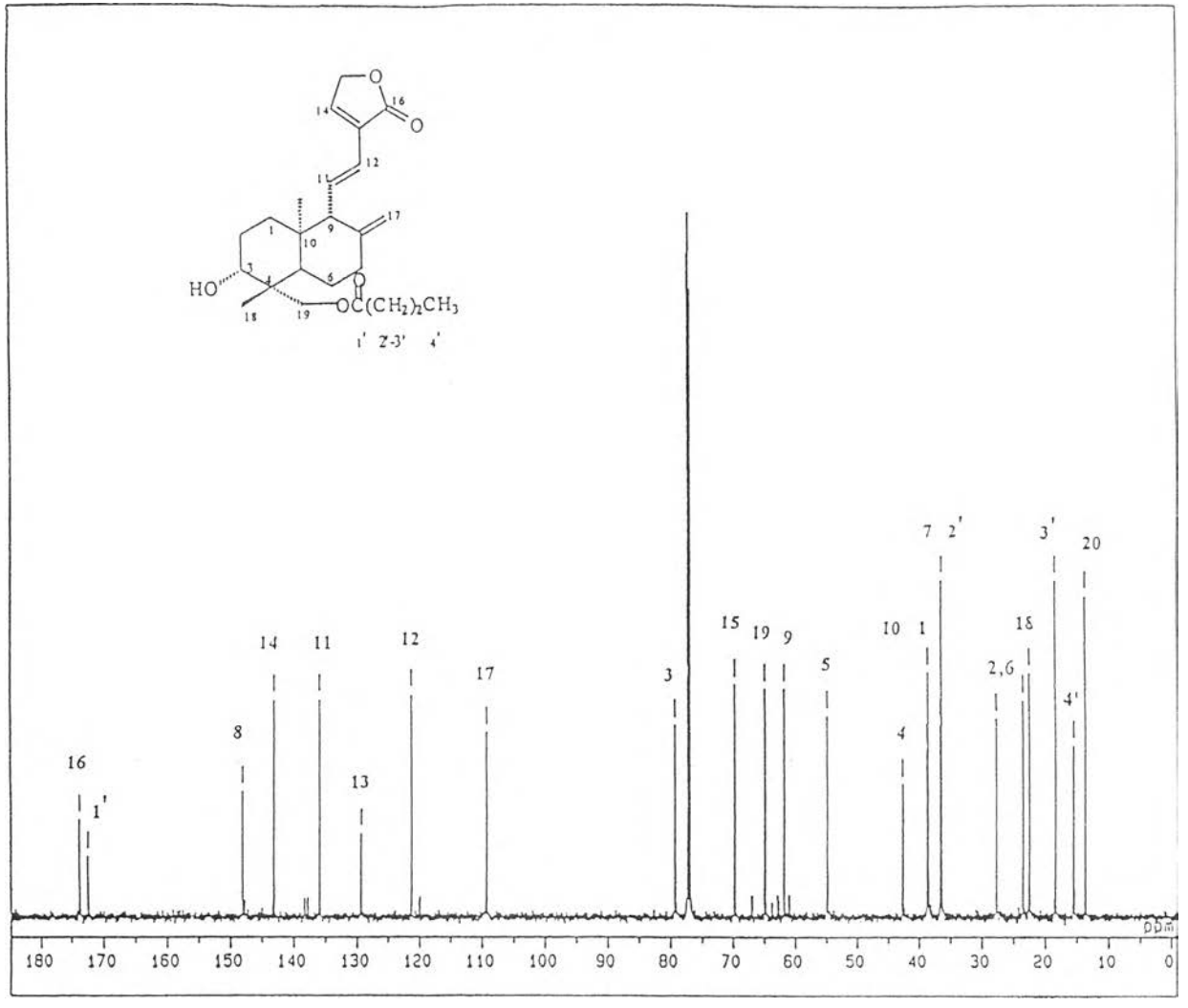
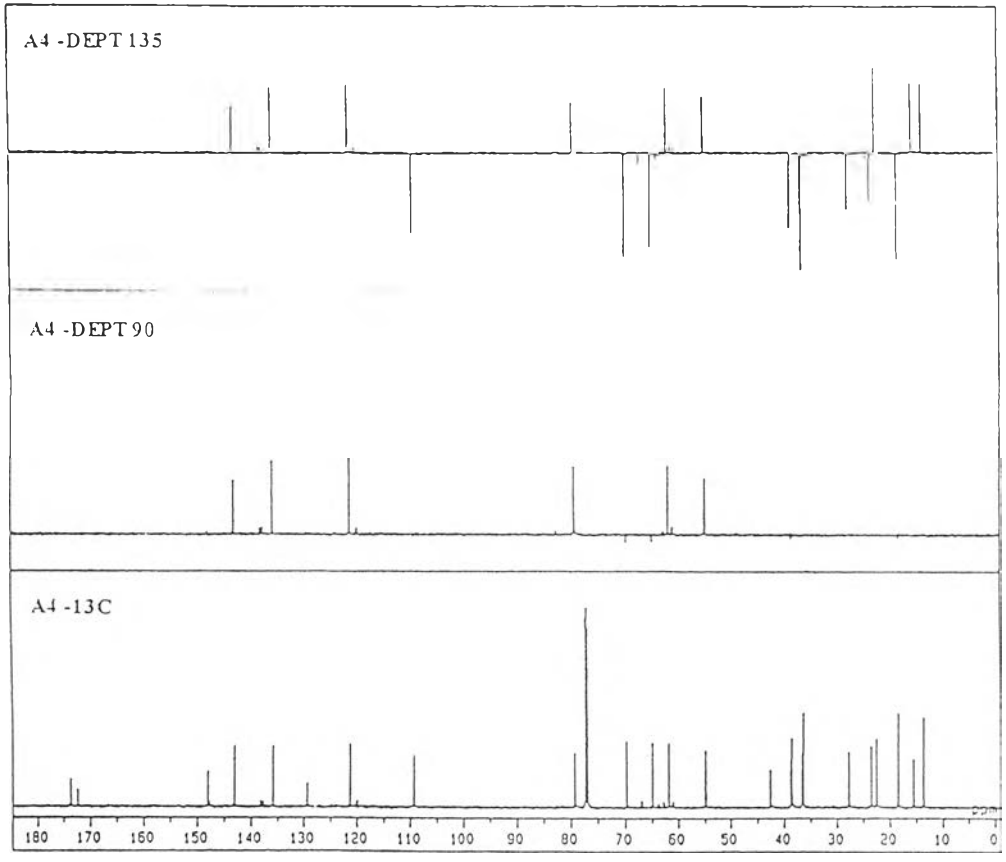


Figure 40. The ^{13}C NMR (125 MHz) spectrum of compound A4 (in $CDCl_3$)



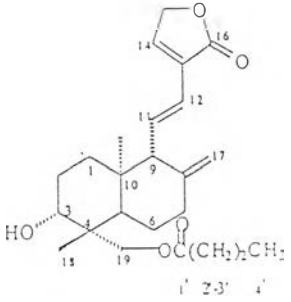


Figure 41. The DEPT (125 MHz) spectrum of compound A4 (in $CDCl_3$)

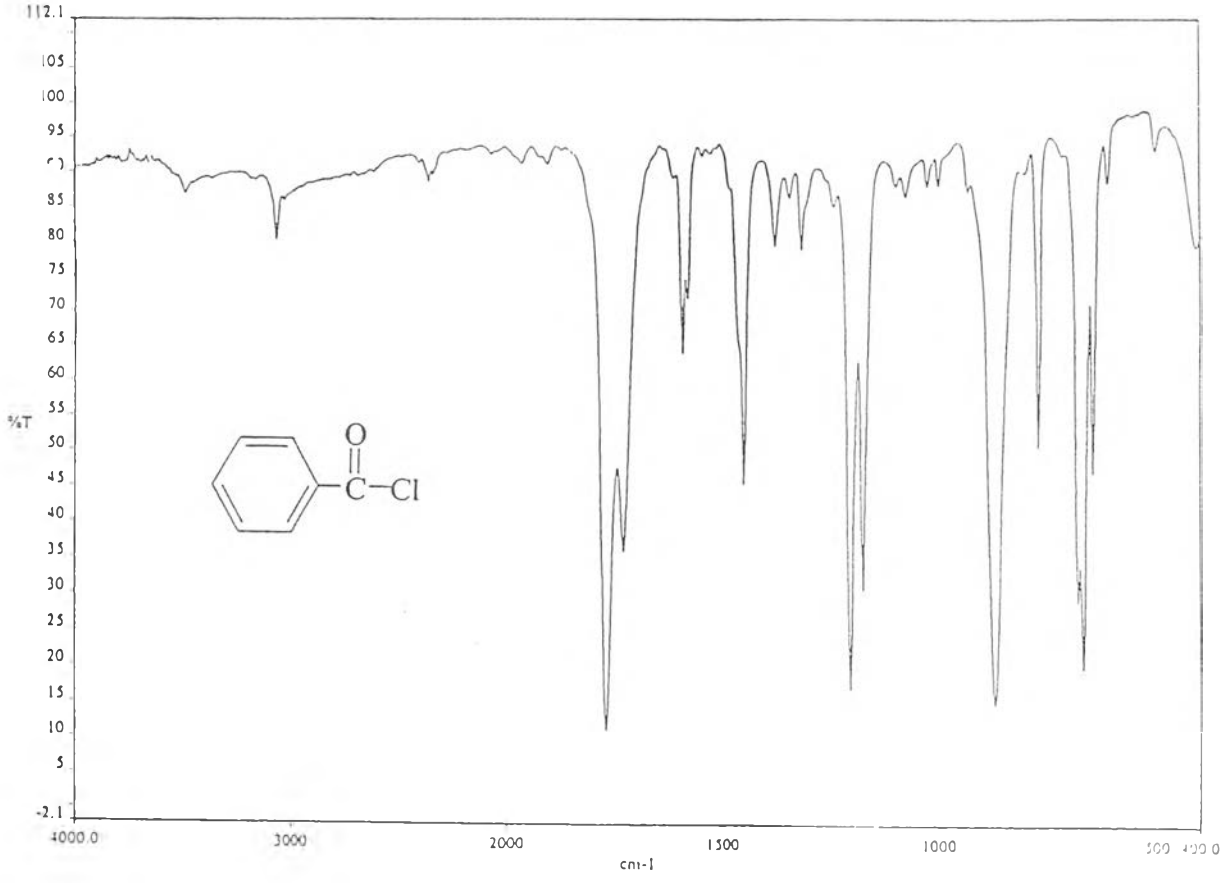


Figure 42. The IR spectrum of Benzoyl chloride (in film)

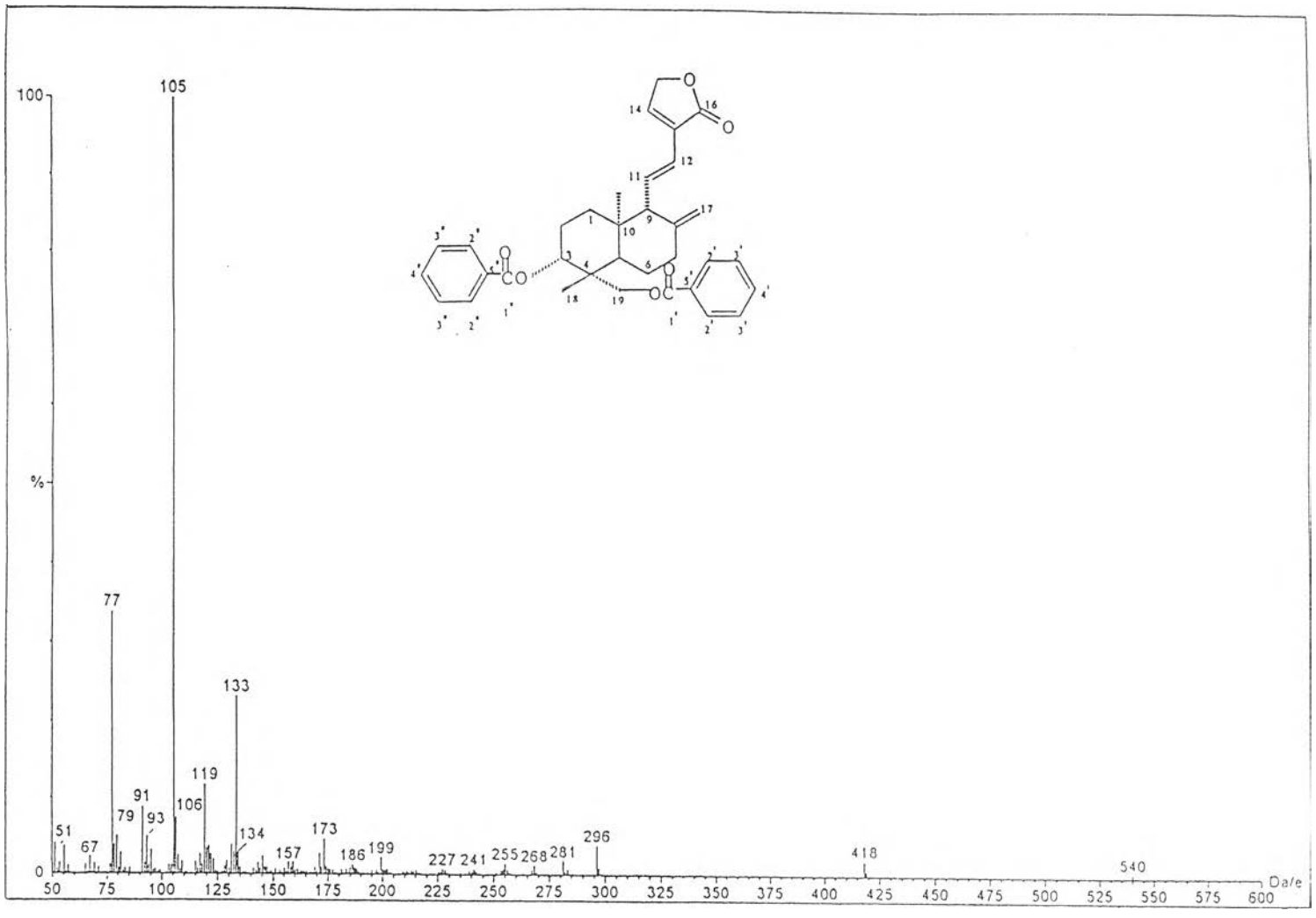


Figure 43. The EI mass spectrum of compound A6

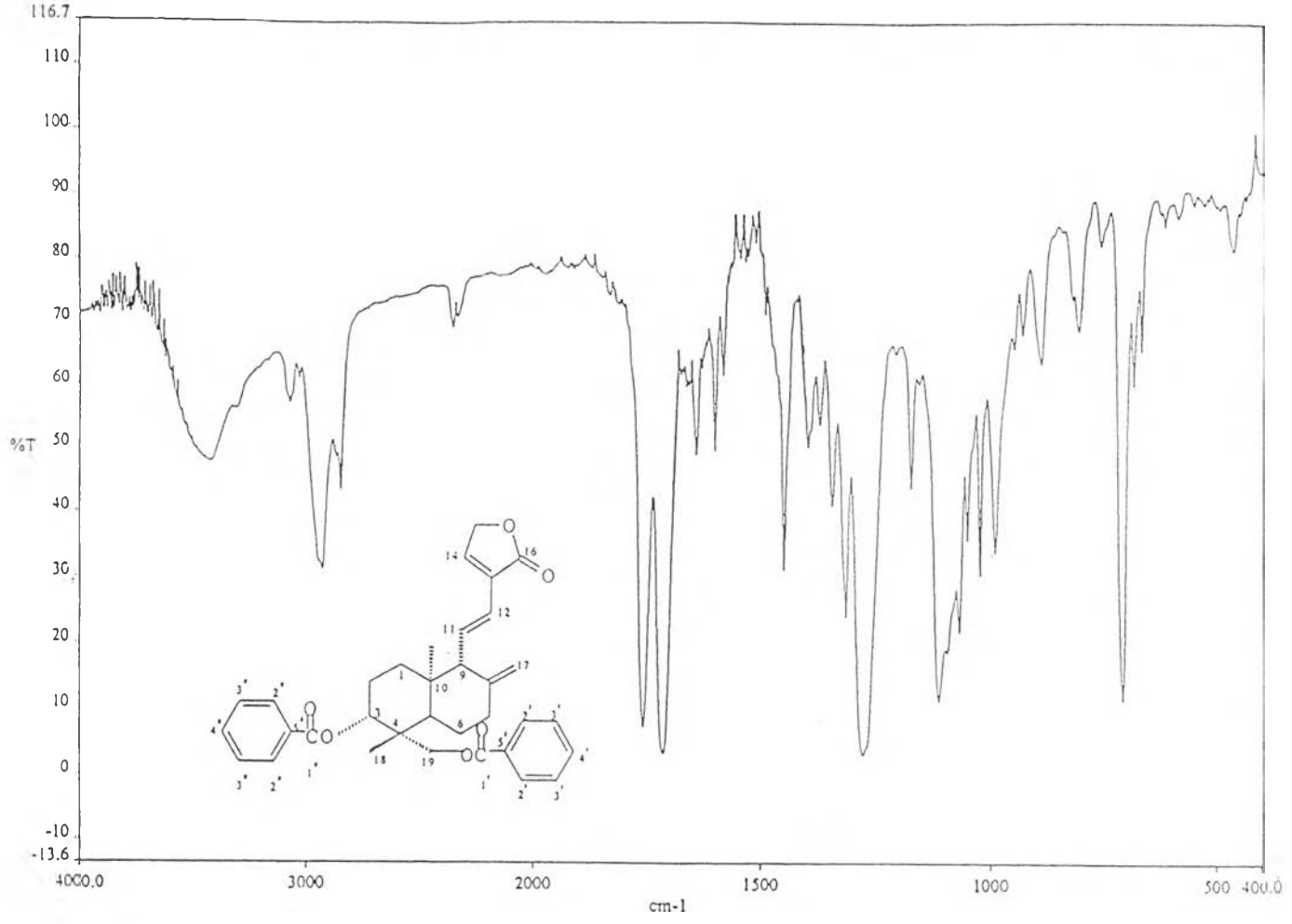


Figure 44. The IR spectrum of compound A6 (in KBr disc)

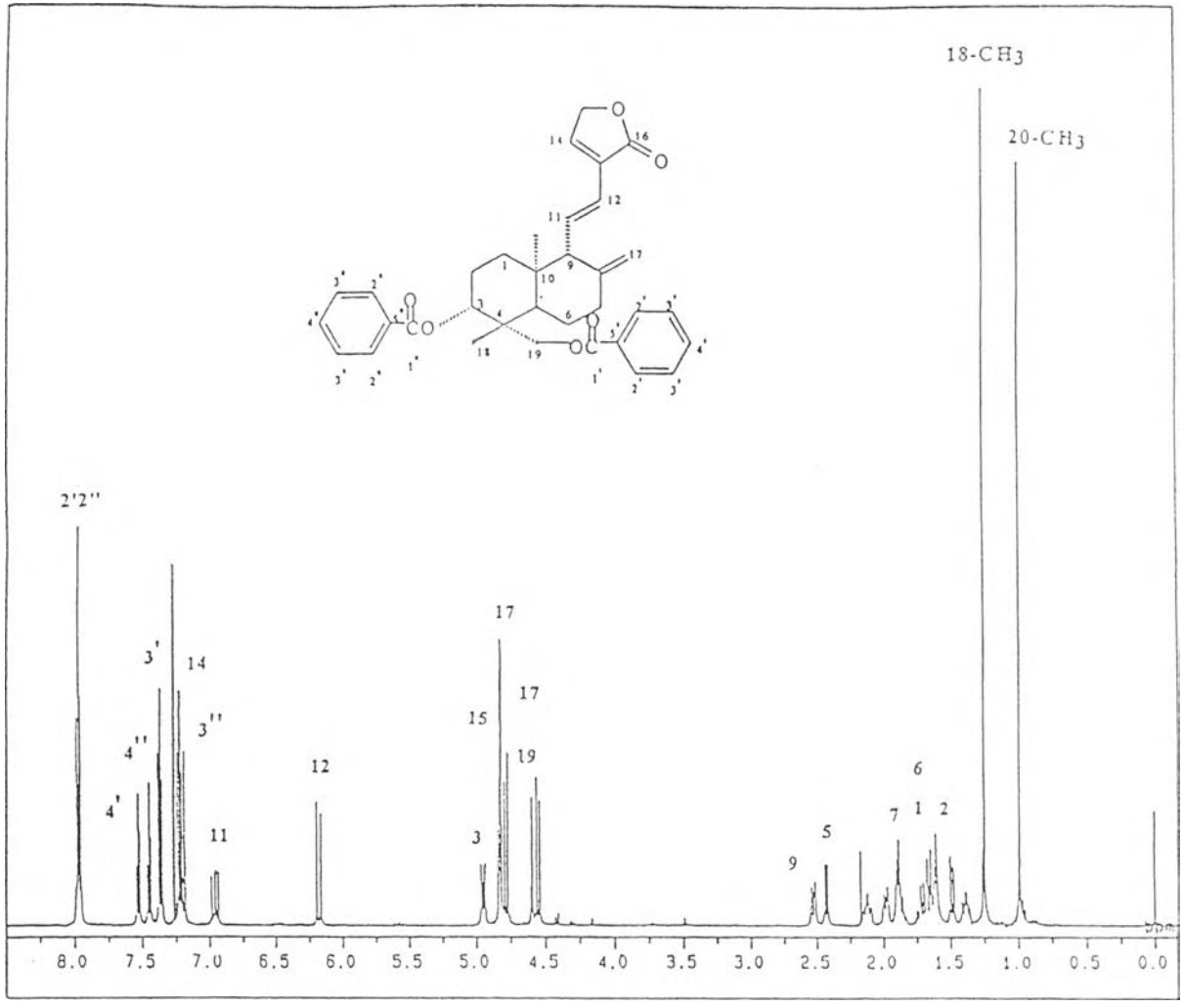


Figure 45. The ^{1}H NMR (500 MHz) spectrum of compound A6 (in $CDCl_3$)

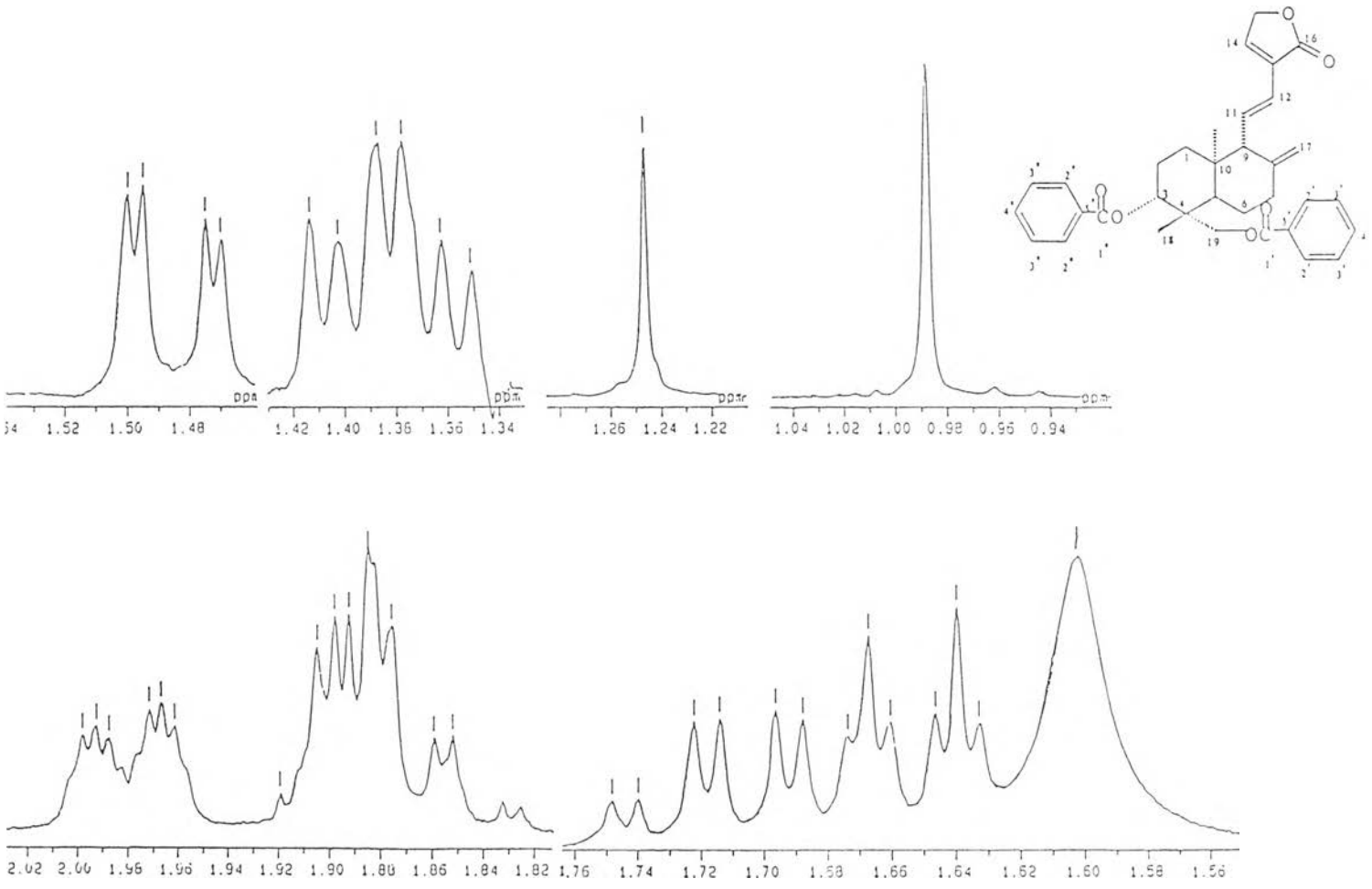


Figure 46. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A6 (in $CDCl_3$) : δ_H 0.94 - 2.02 ppm

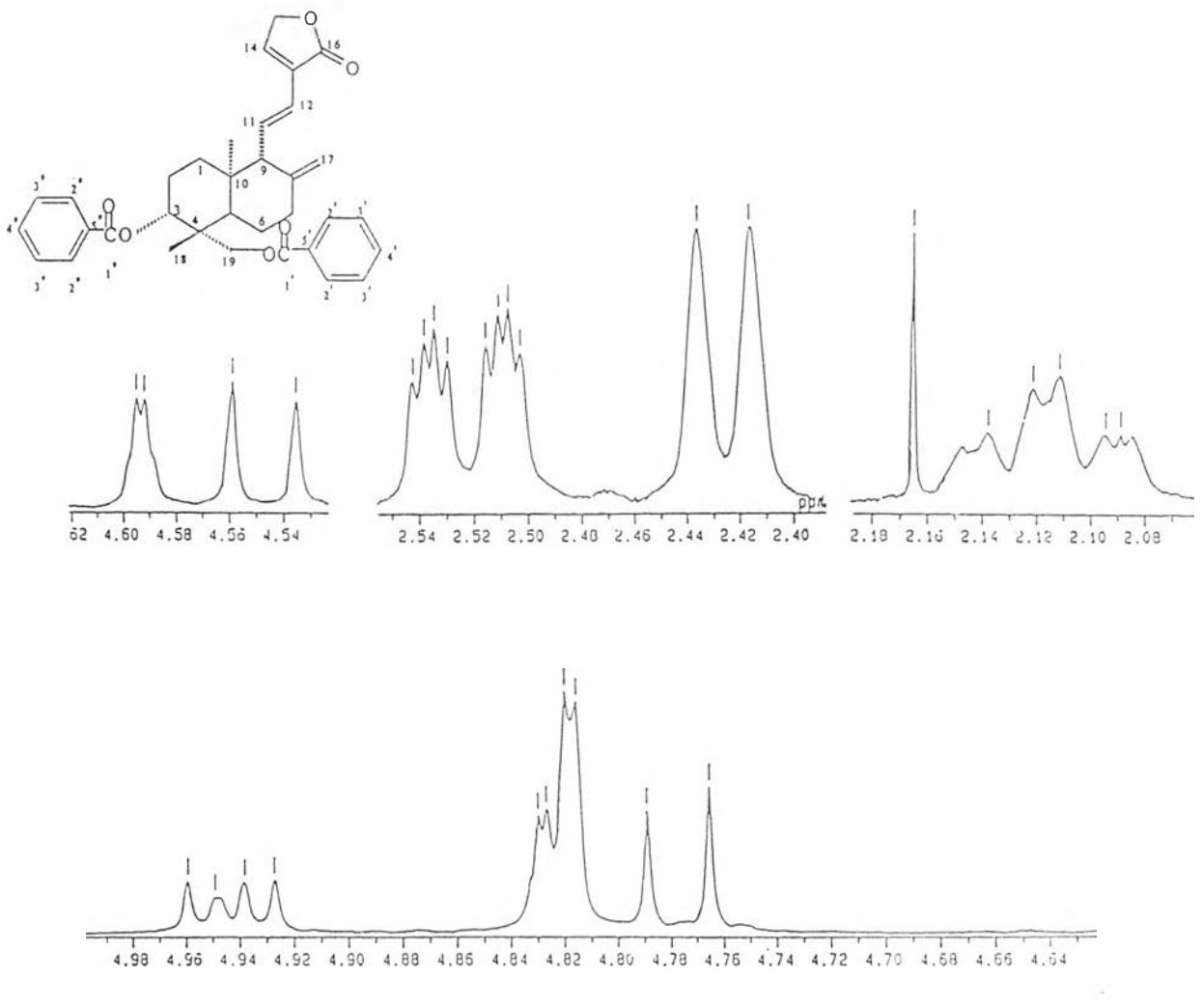


Figure 47. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A6 (in $CDCl_3$) : δ_H 2.08 - 4.99 ppm

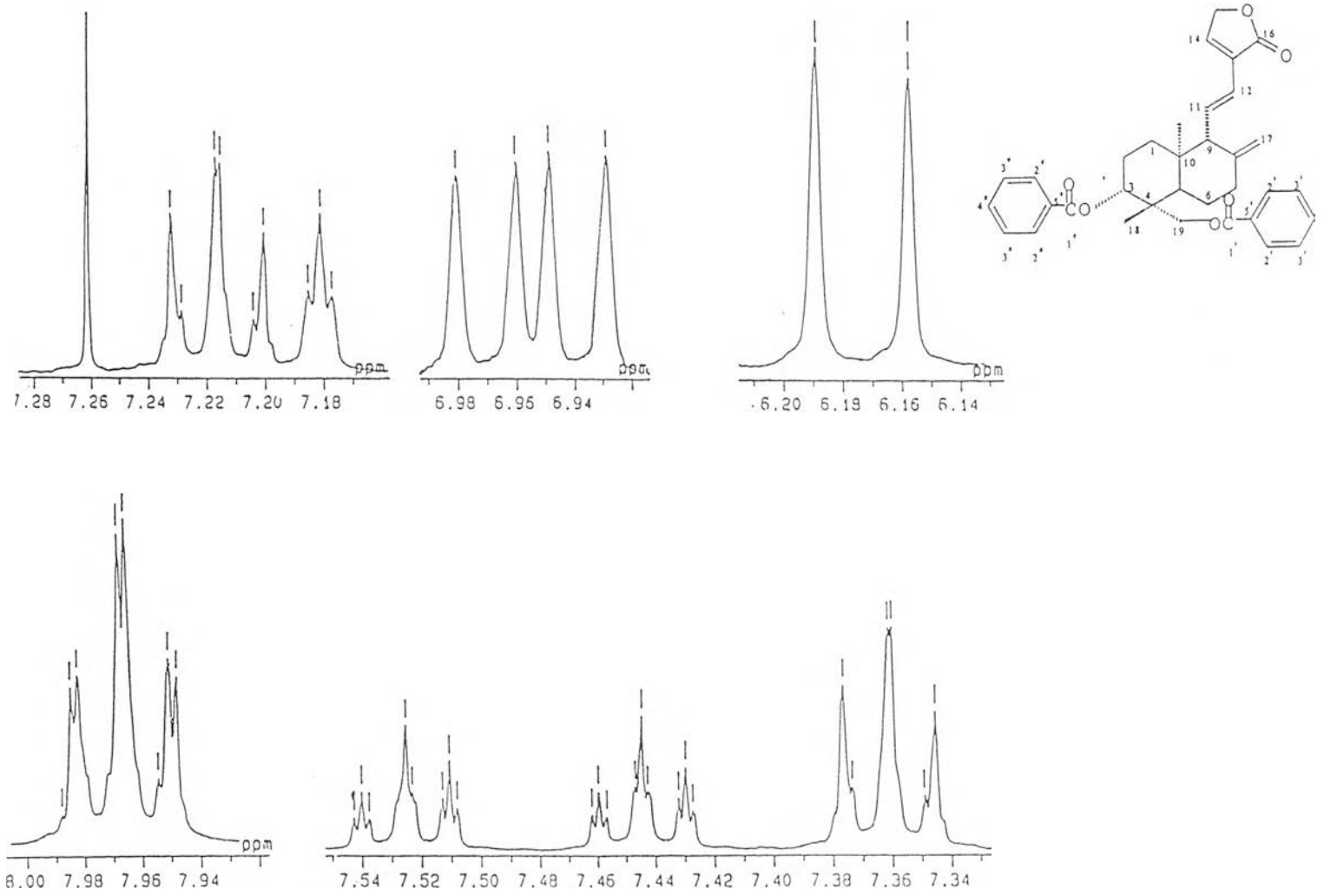


Figure 48. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A6 (in $CDCl_3$) : δ_H 6.14 - 8.00 ppm

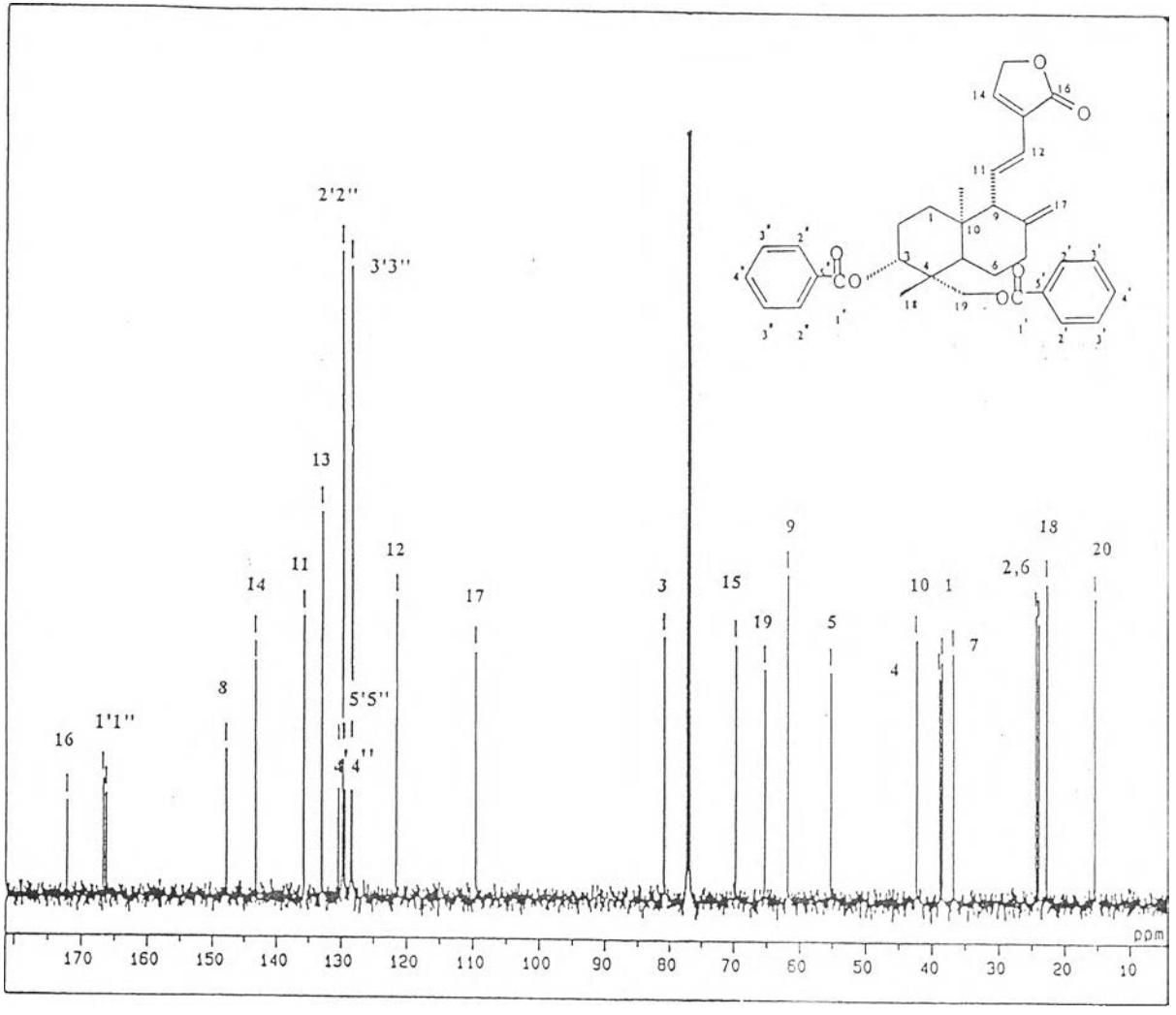
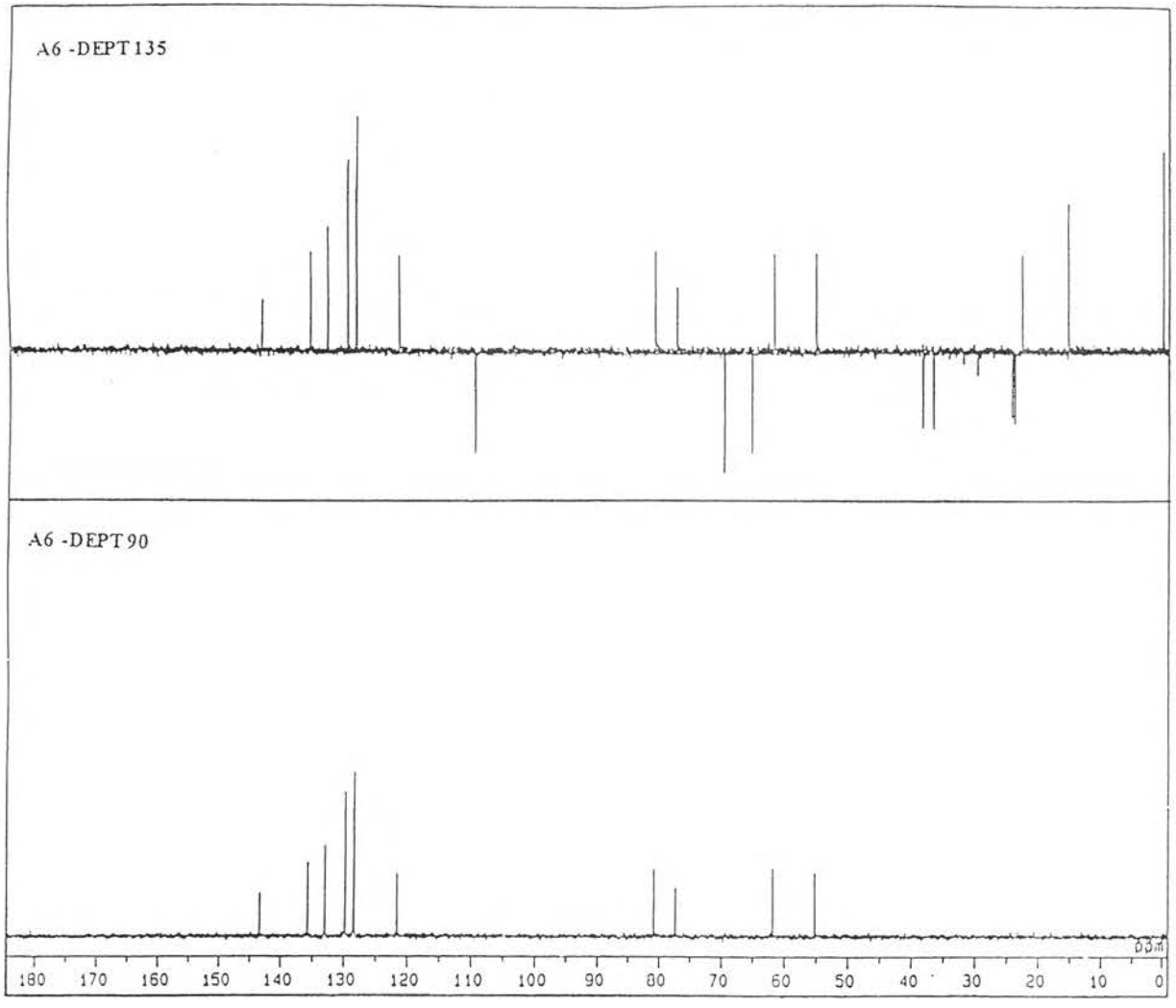


Figure 49. The ^{13}C NMR (125 MHz) spectrum of compound A6 (in $CDCl_3$)



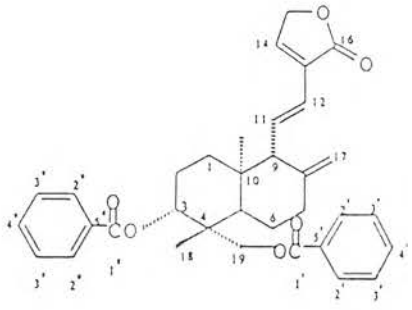


Figure 50. The DEPT (125 MHz) spectrum of compound A6 (in $CDCl_3$)

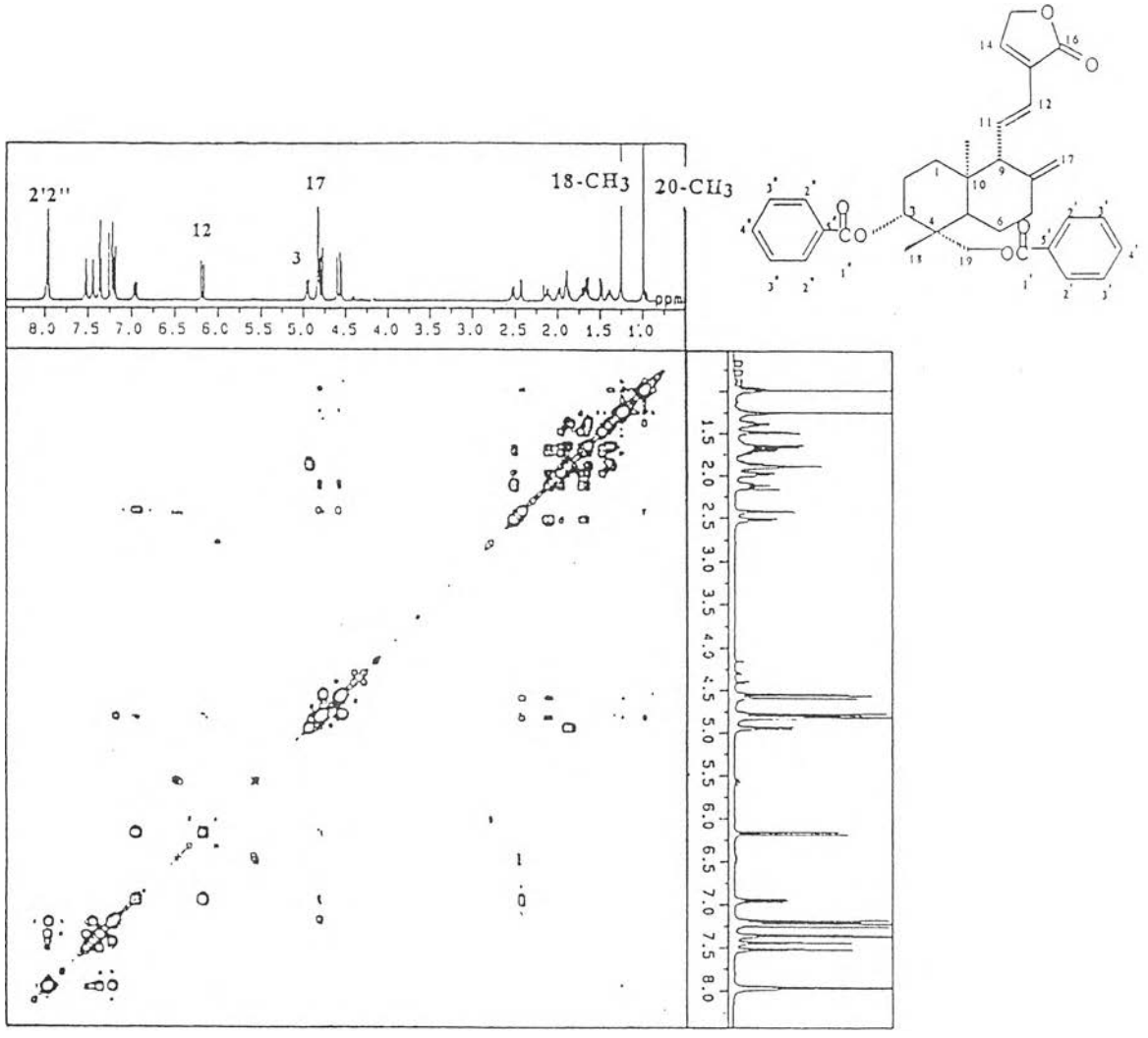


Figure 51. The ^{1}H-^{1}H COSY (500 MHz) spectrum of compound A6 (in $CDCl_3$)

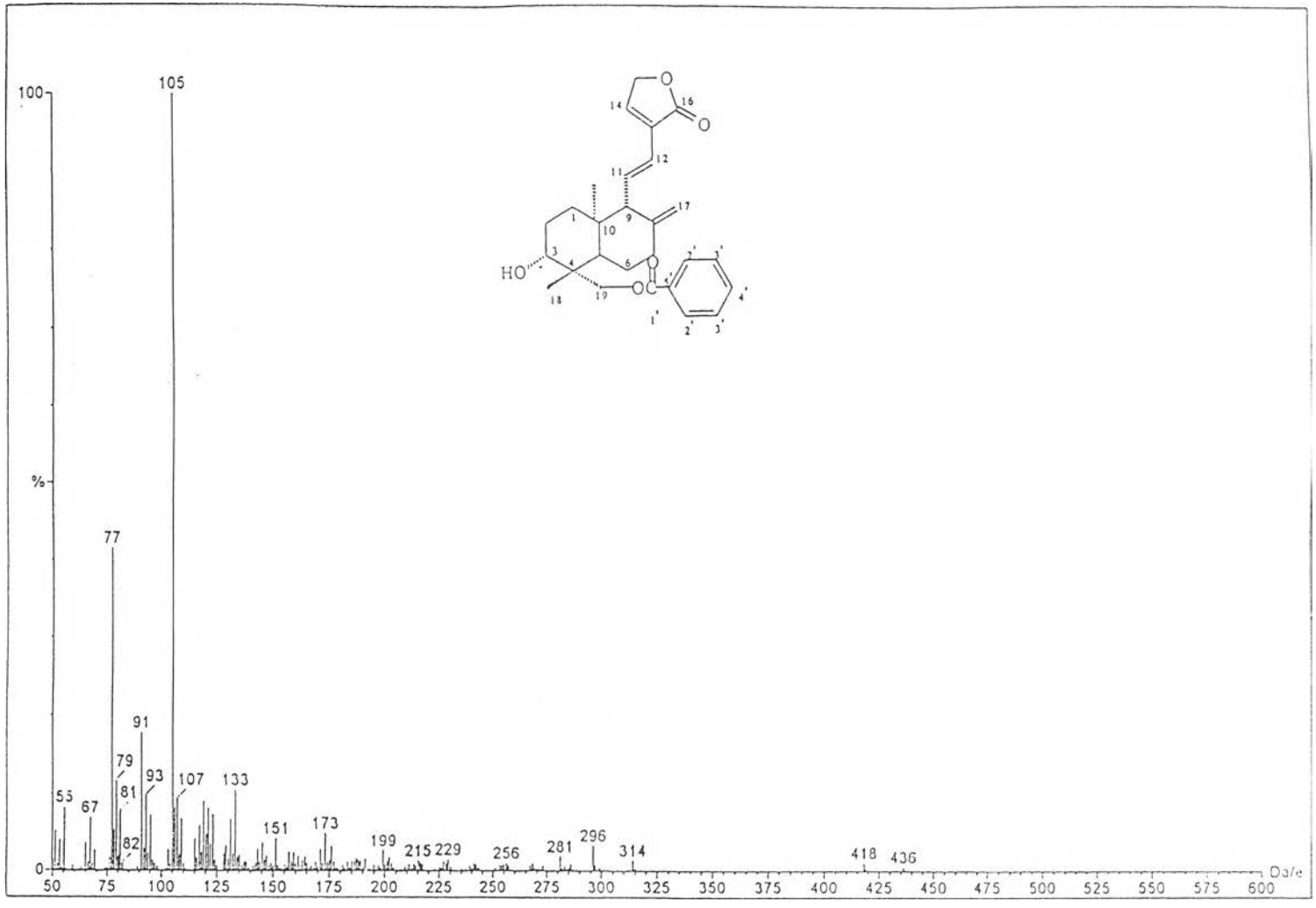


Figure 52. The EI mass spectrum of compound A7

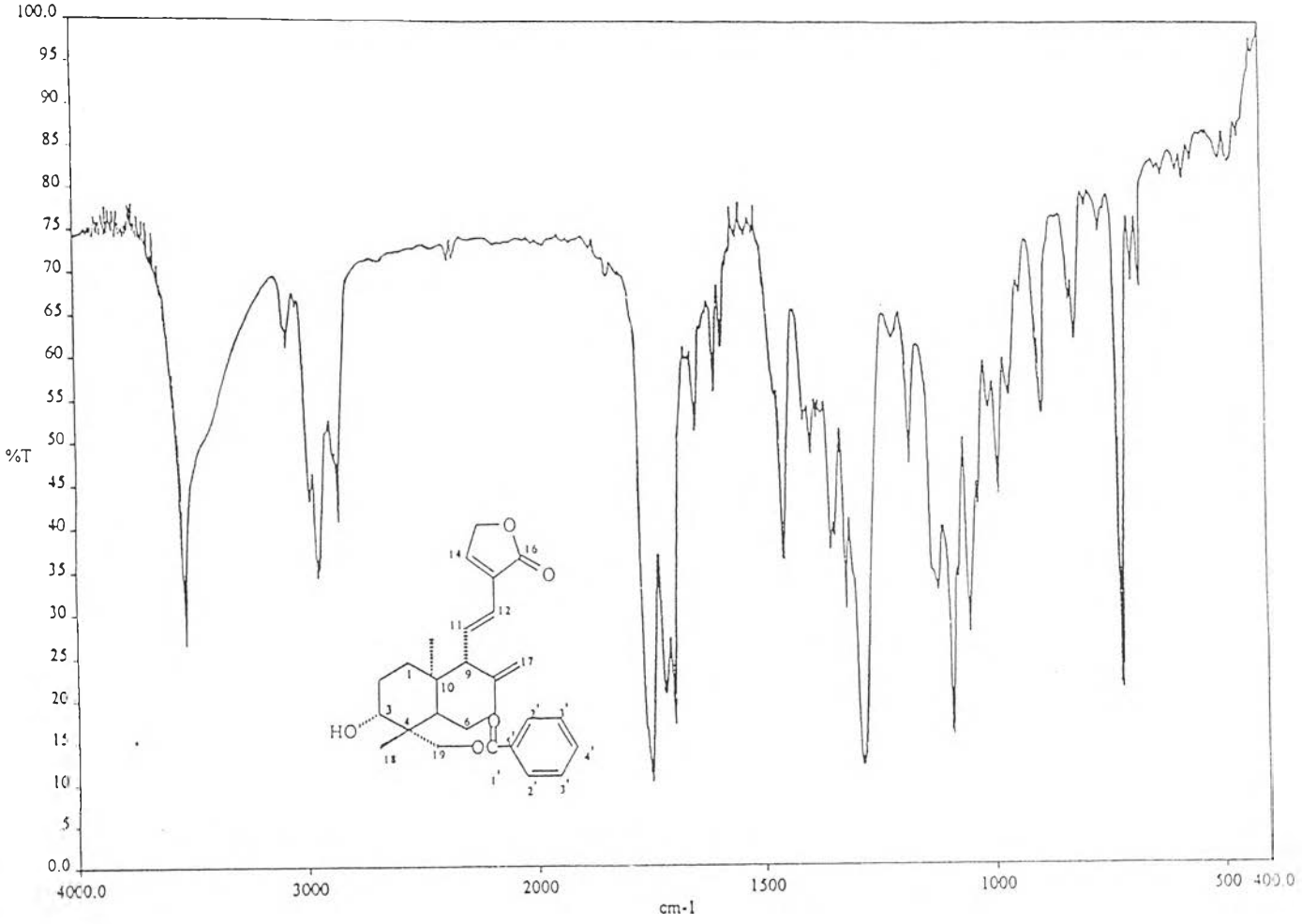


Figure 53. The IR spectrum of compound A7 (in KBr disc)

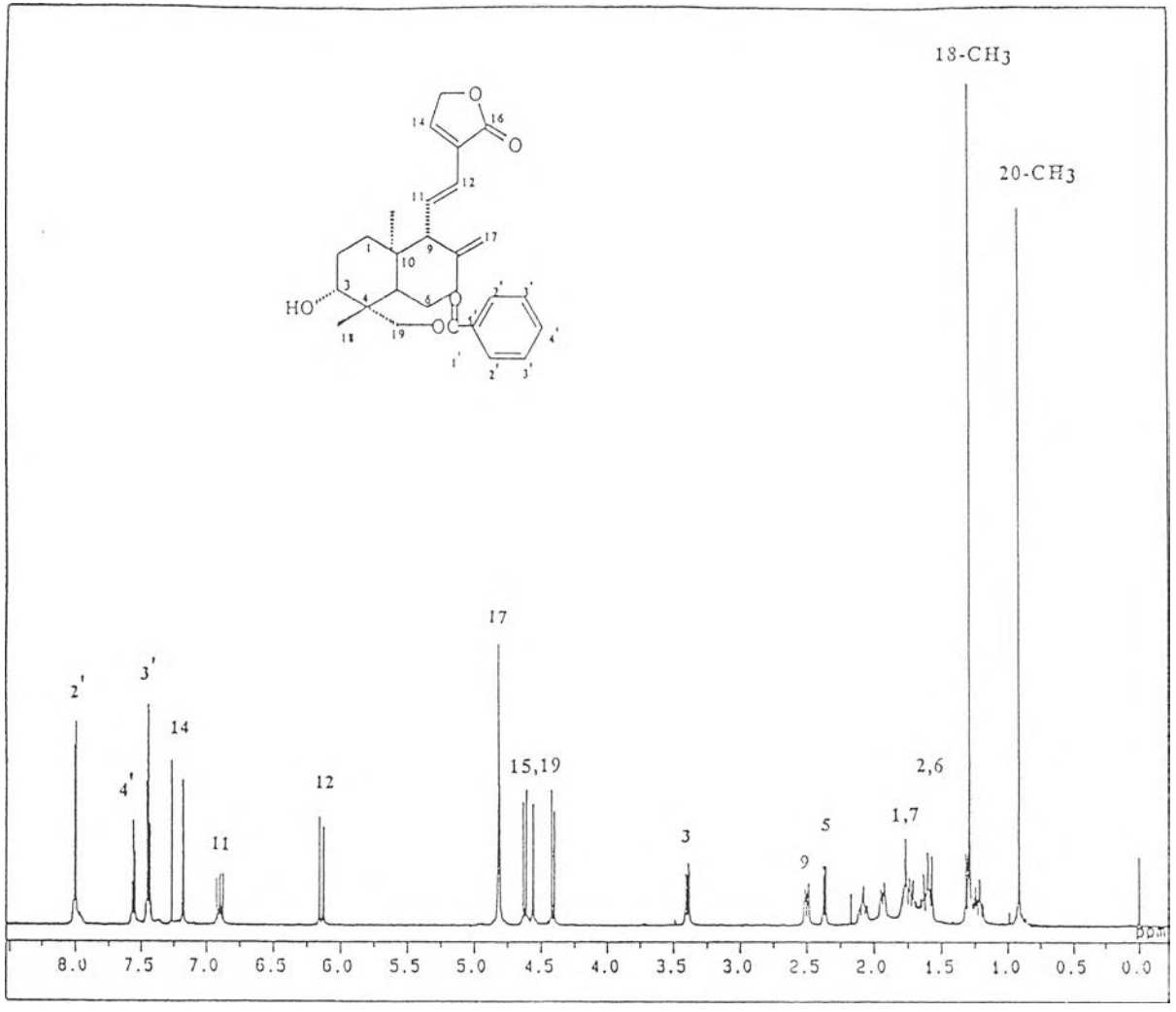


Figure 54. The ^{1}H NMR (500 MHz) spectrum of compound A7 (in $CDCl_3$)

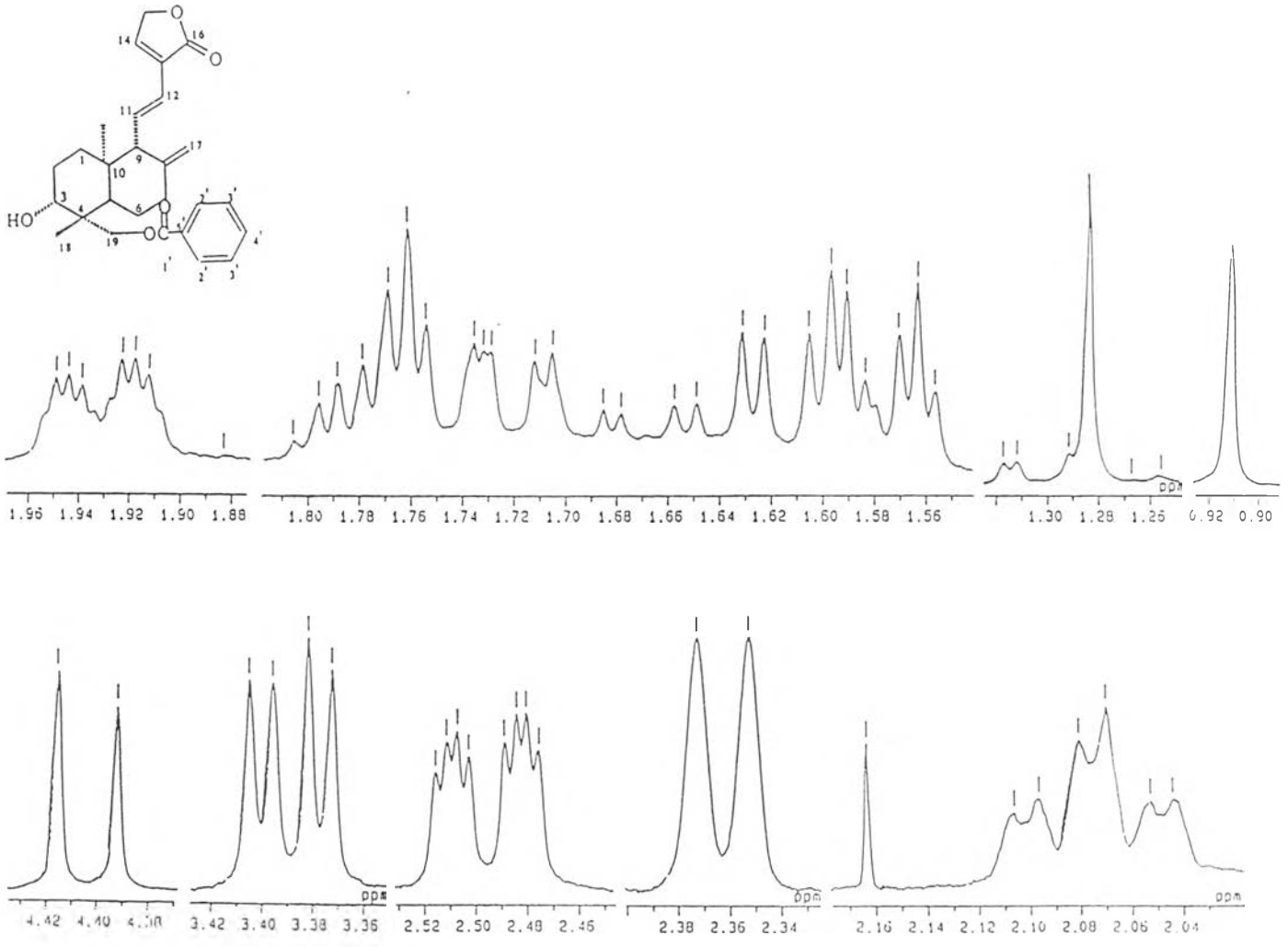


Figure 55. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A7 (in $CDCl_3$) : δ_H 0.90 - 4.43 ppm

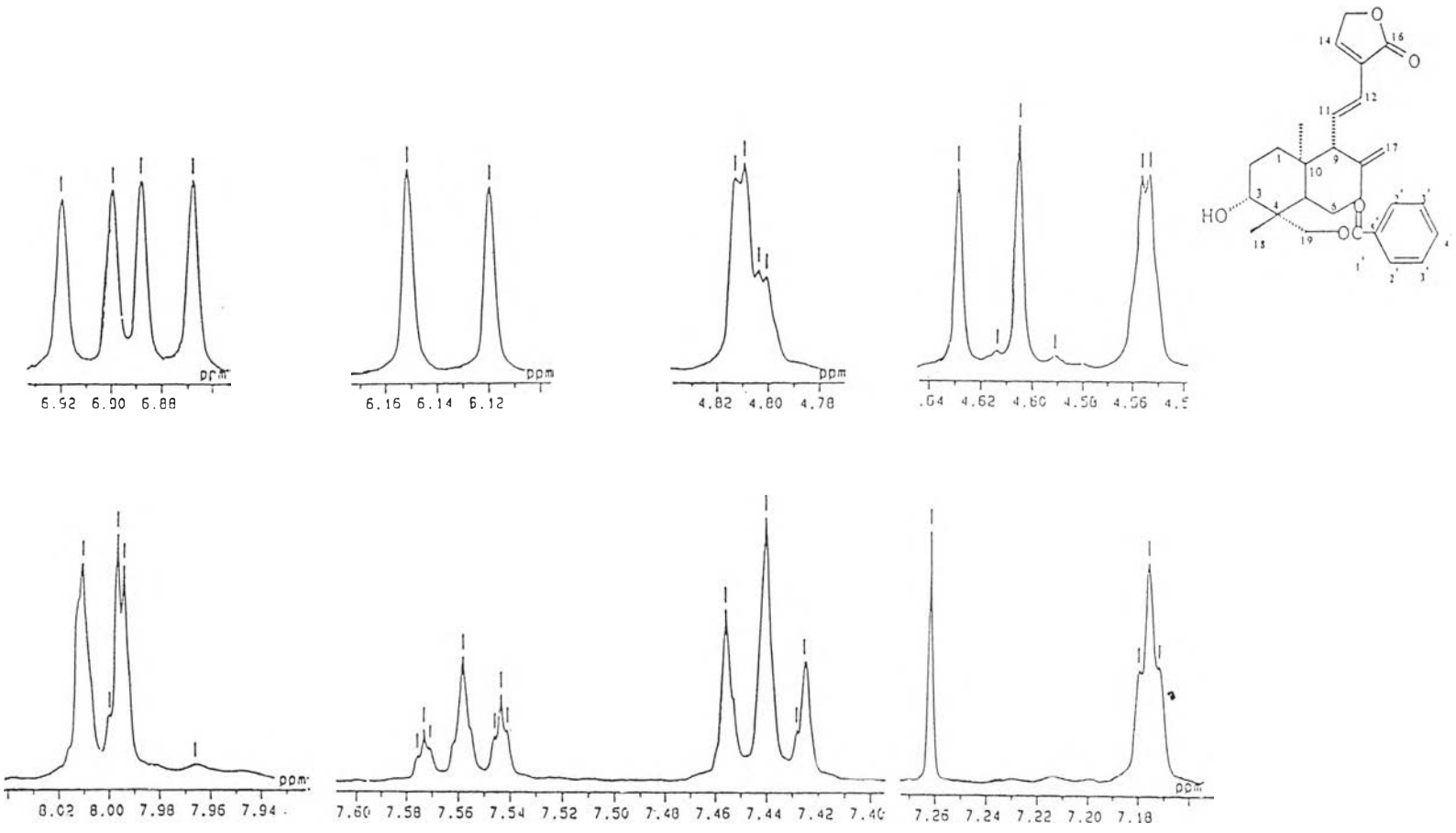


Figure 56. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A7 (in $CDCl_3$) : δ_H 4.54 - 8.04 ppm

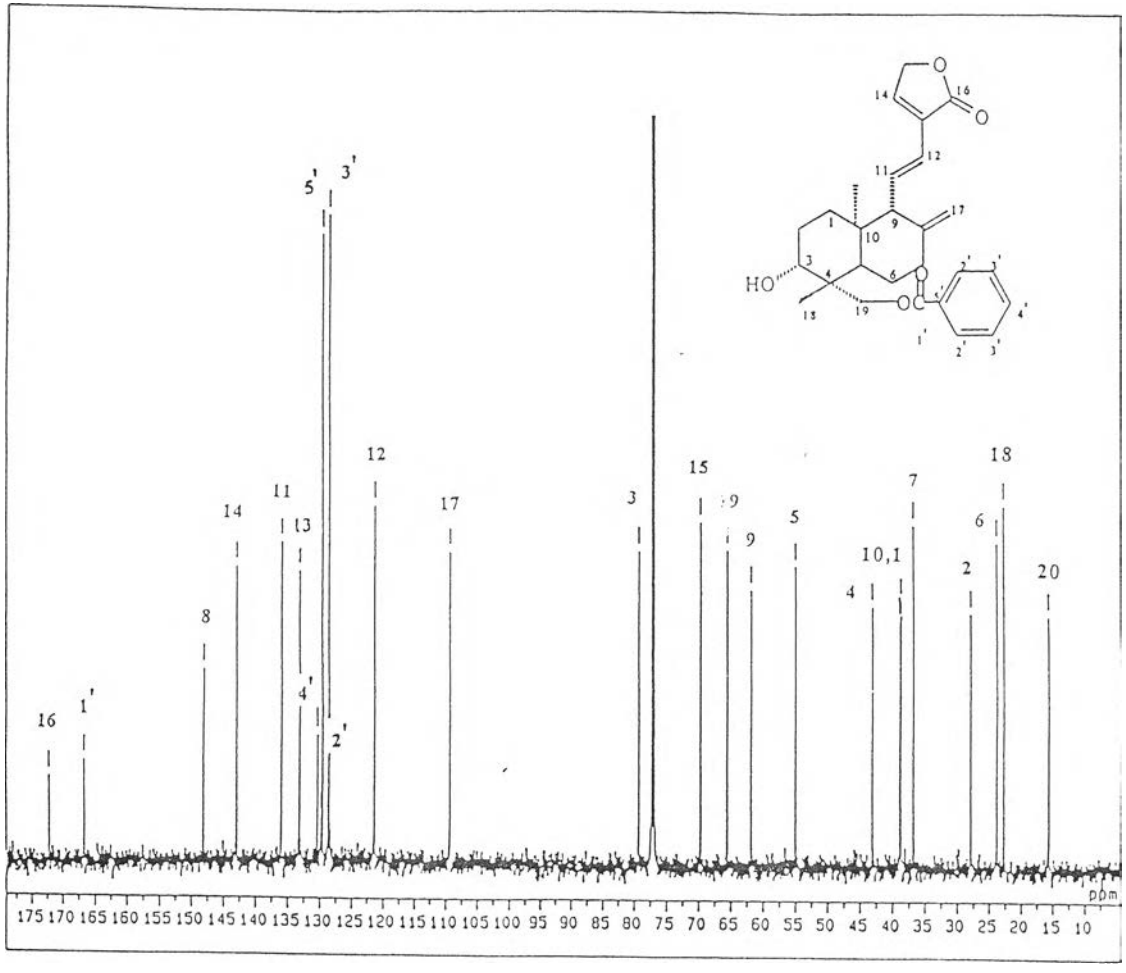
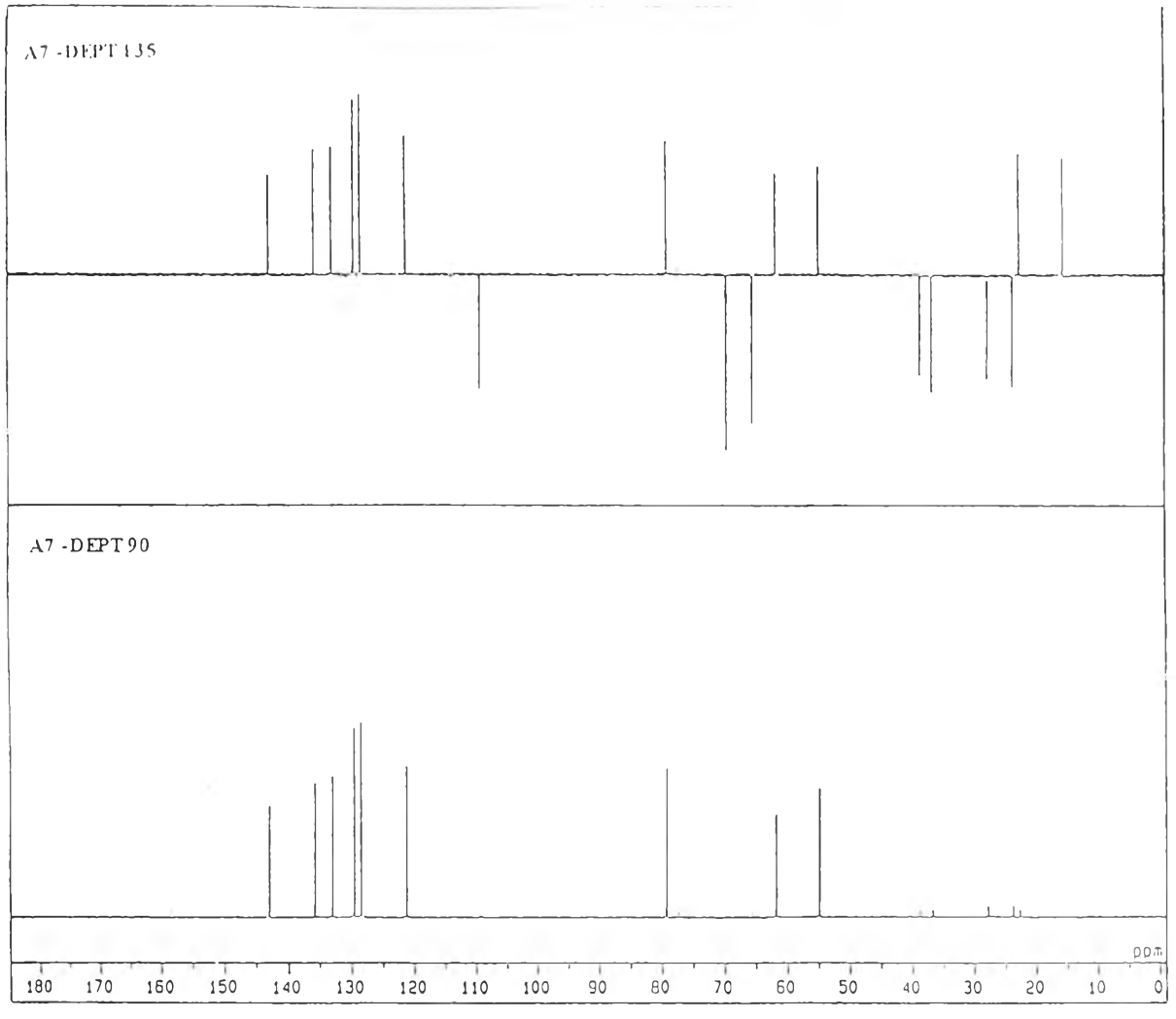


Figure 57. The ^{13}C NMR (125 MHz) spectrum of compound A7(in $CDCl_3$)



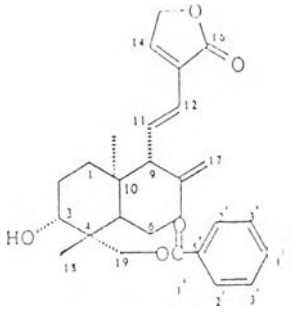


Figure 58. The DEPT (125 MHz) spectrum of compound A7(in $CDCl_3$)

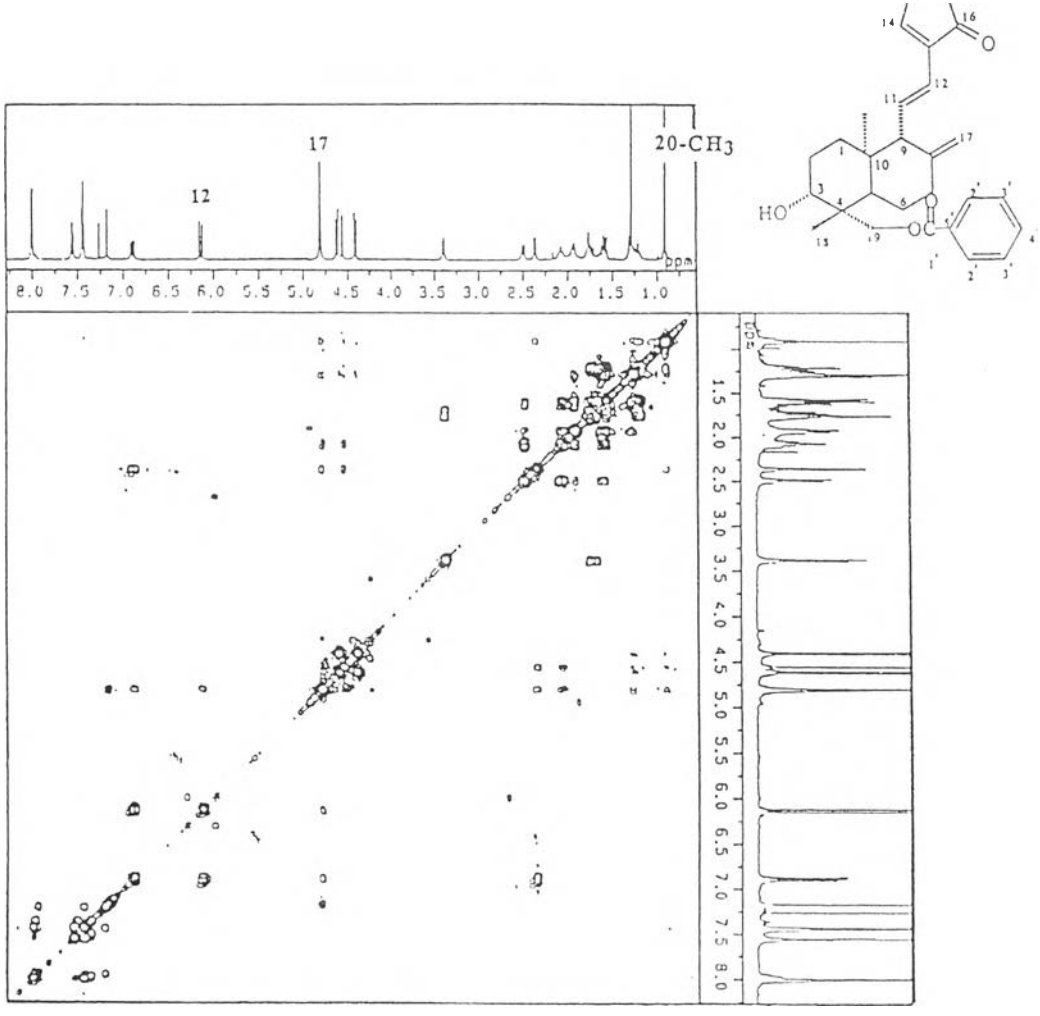


Figure 59. The ^{1}H-^{1}H COSY (500 MHz) spectrum of compound A7(in $CDCl_3$)

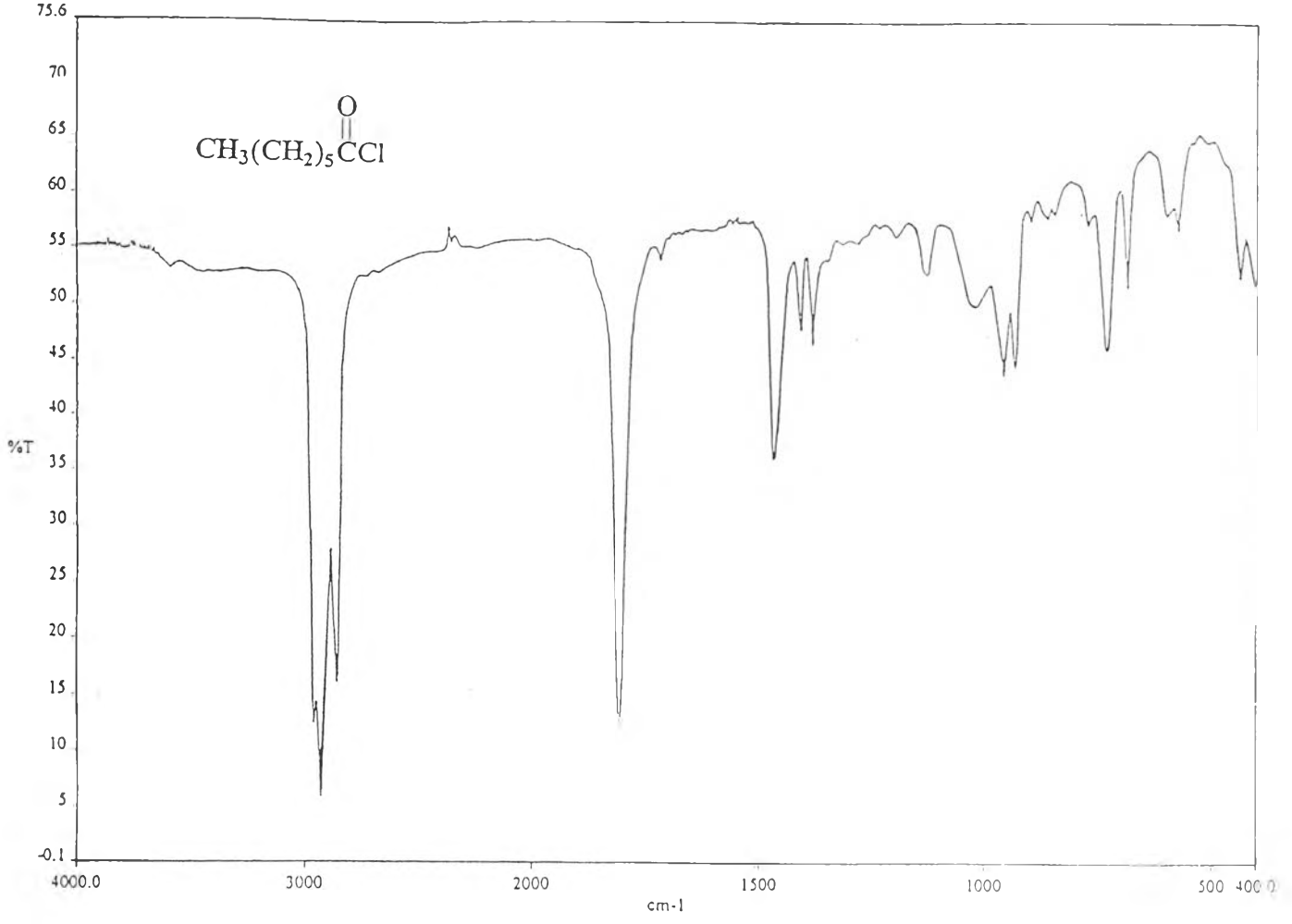


Figure 60. The IR spectrum of Heptanoyl chloride (in film)

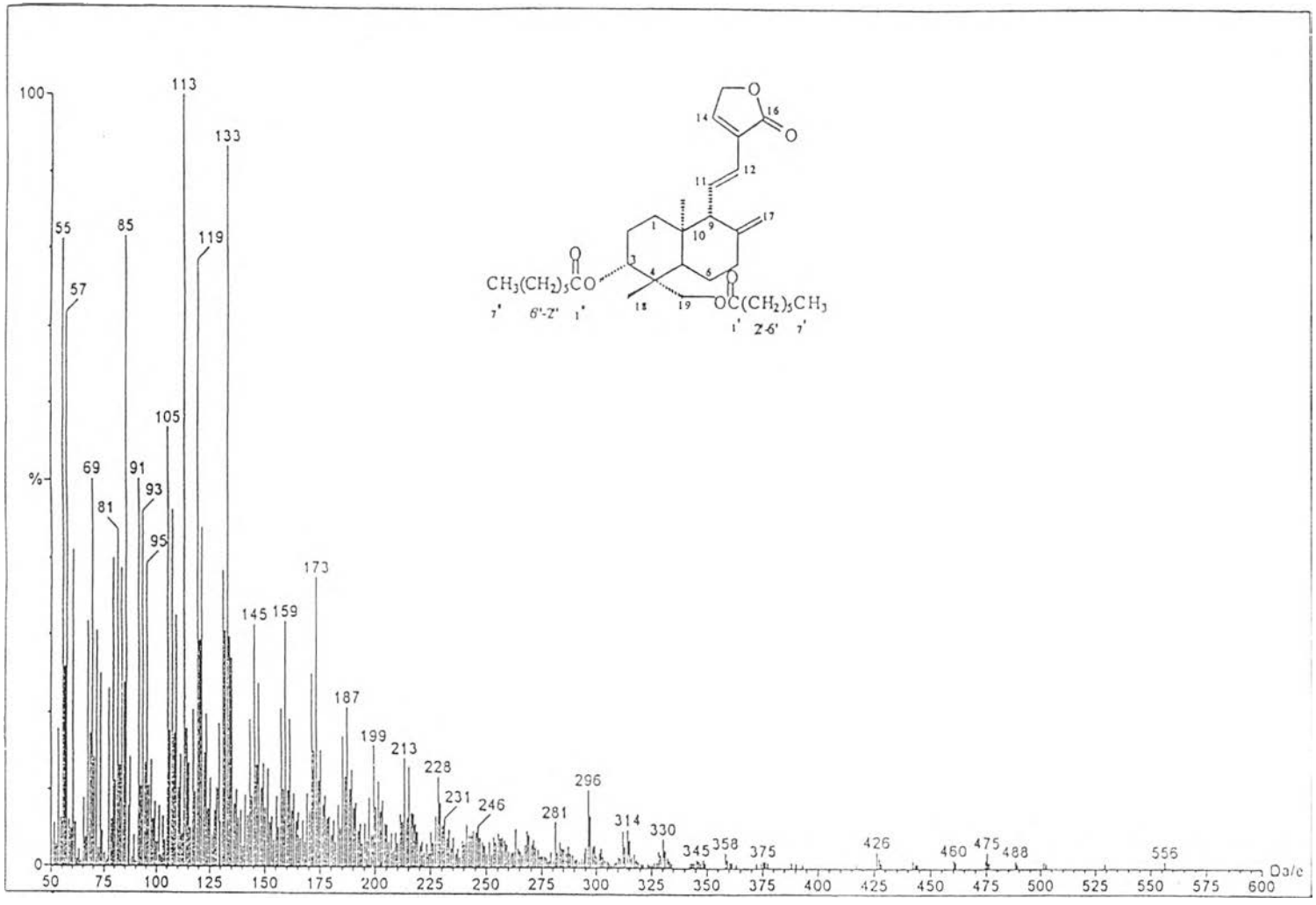


Figure 61. The EI mass spectrum of compound A9

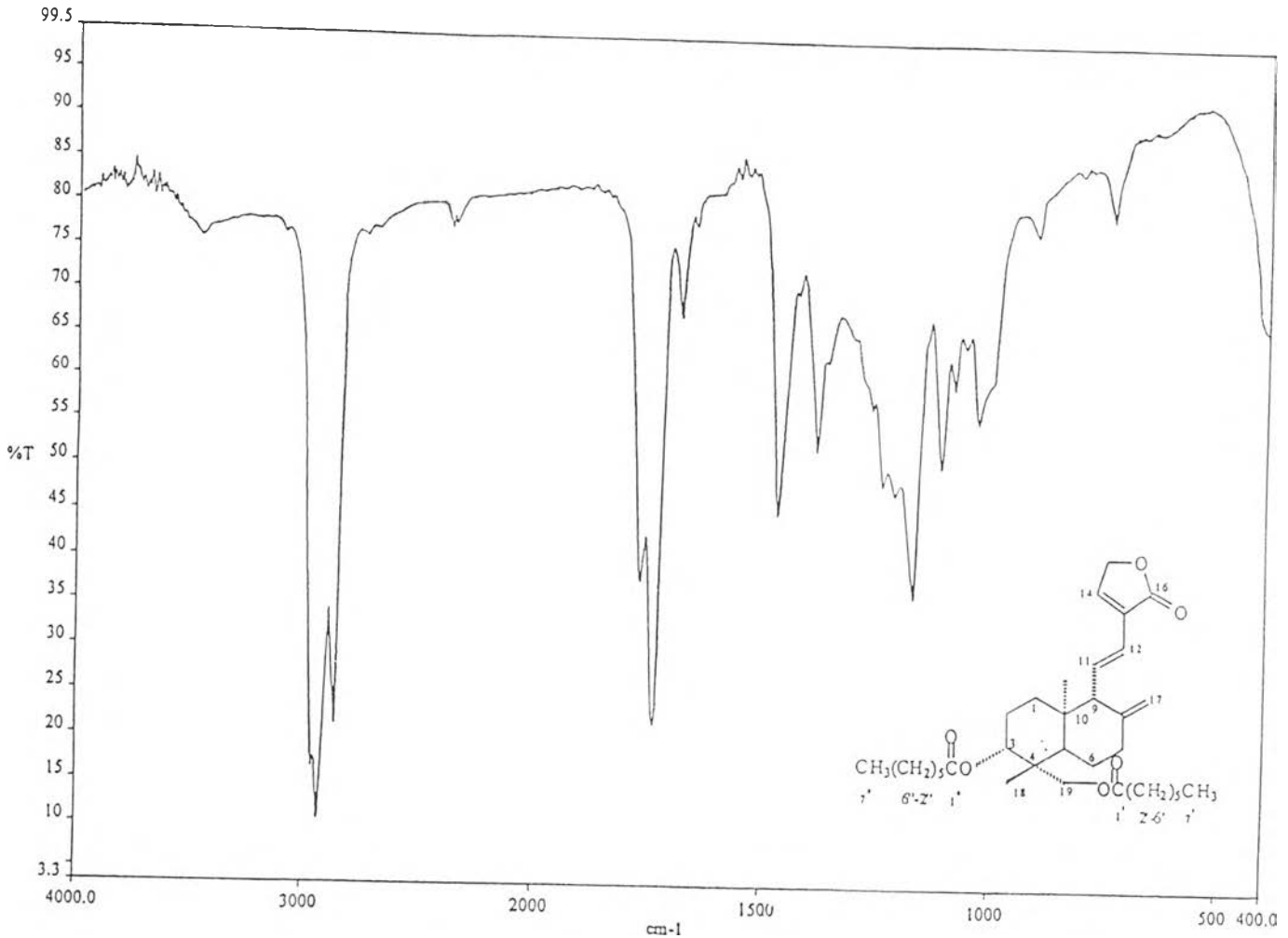


Figure 62. The IR spectrum of compound A9 (in film)

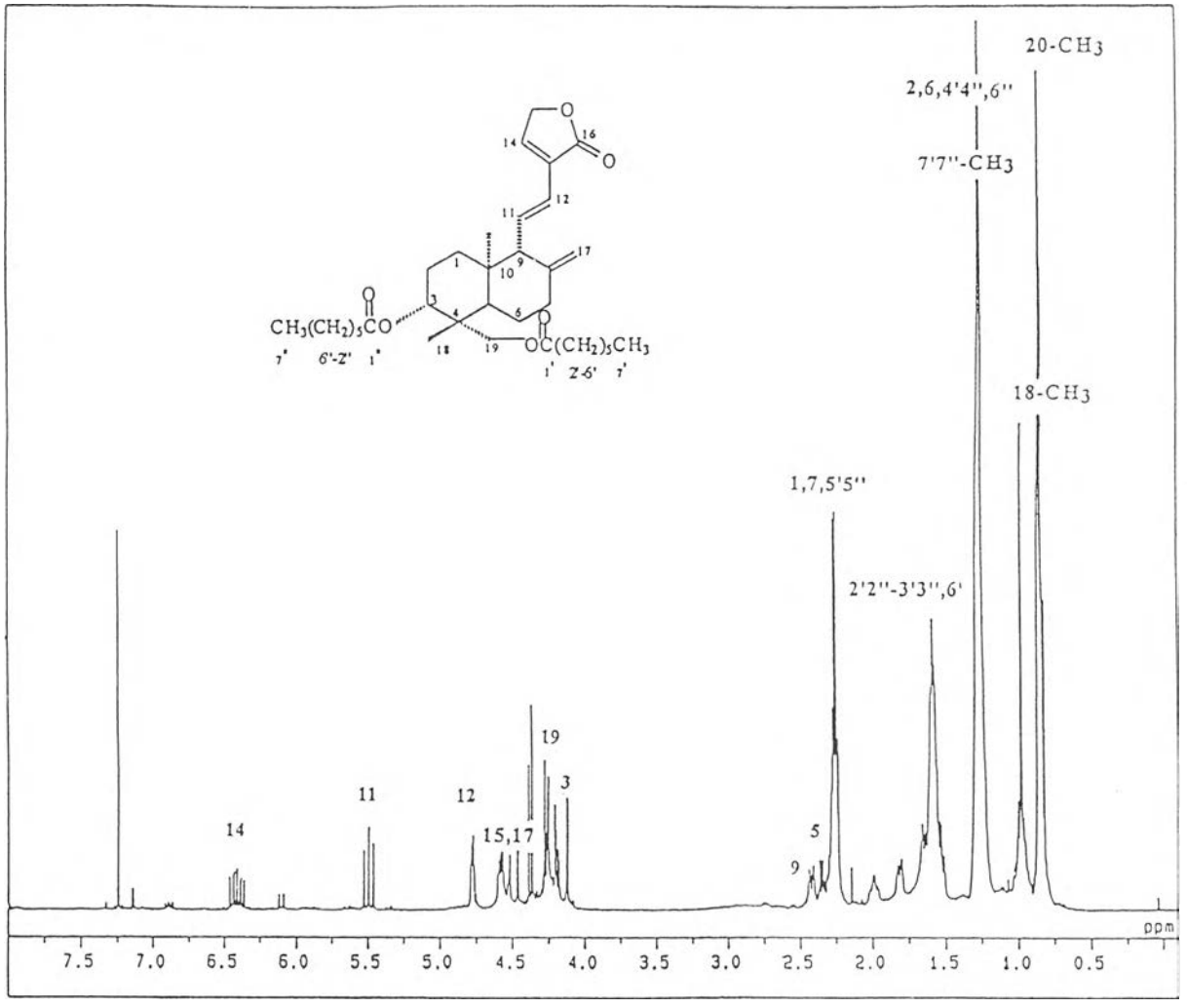


Figure 63. The ^{1}H NMR (500 MHz) spectrum of compound A9 (in $CDCl_3$)

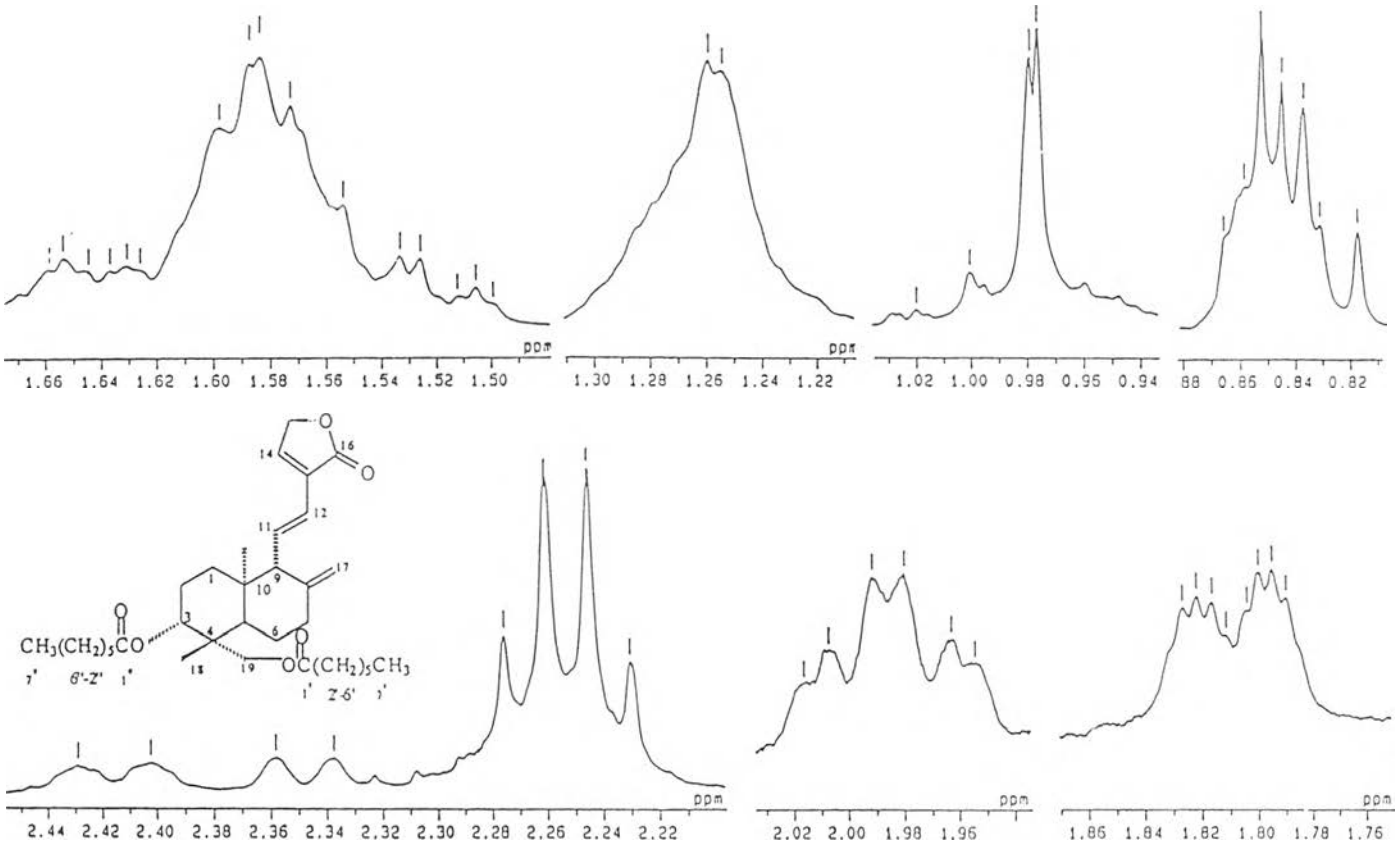


Figure 64. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A9 (in $CDCl_3$) : δ_H 4.12 - 6.49 ppm

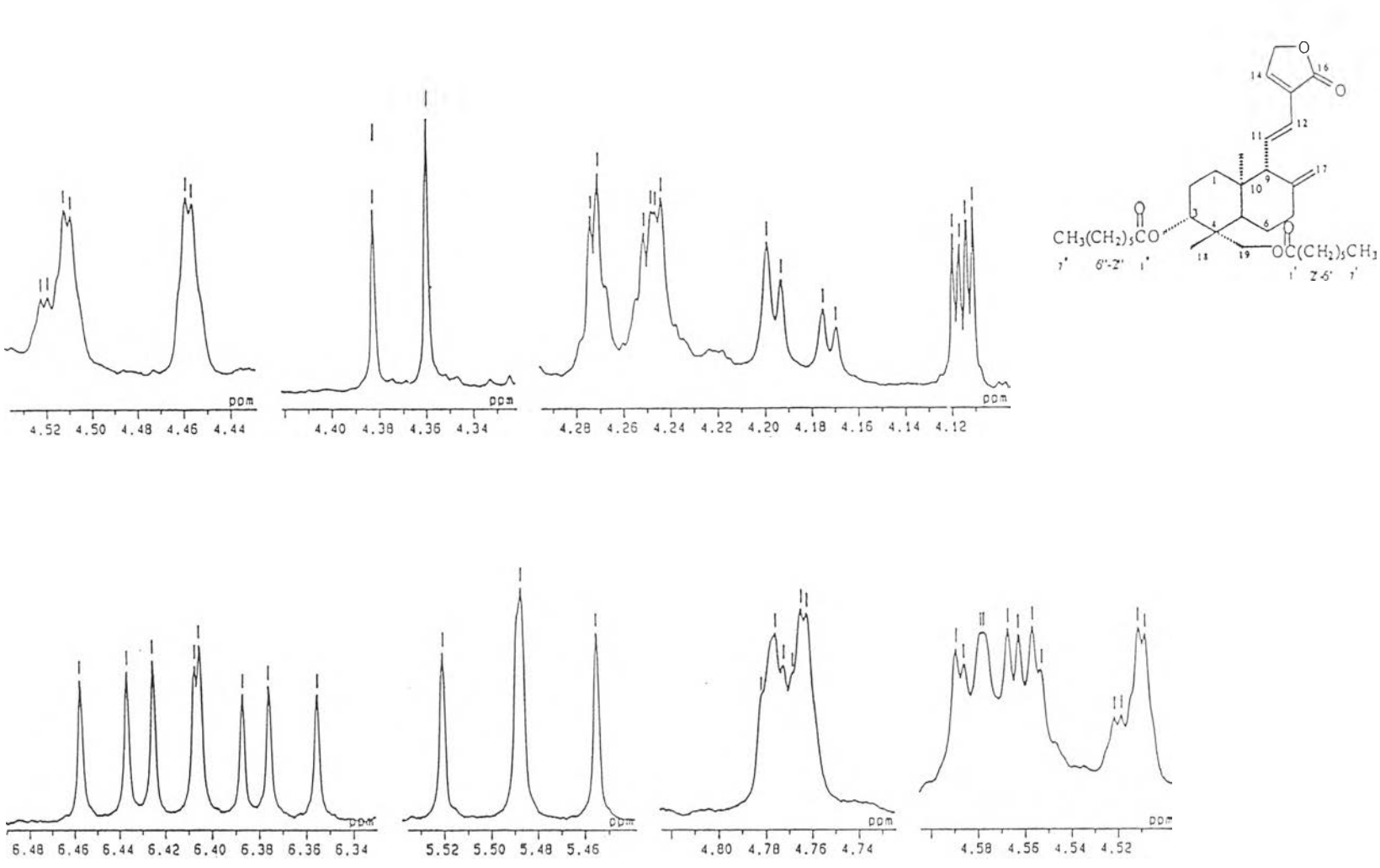


Figure 65. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A9 (in $CDCl_3$) : δ_H 4.12 - 6.49 ppm

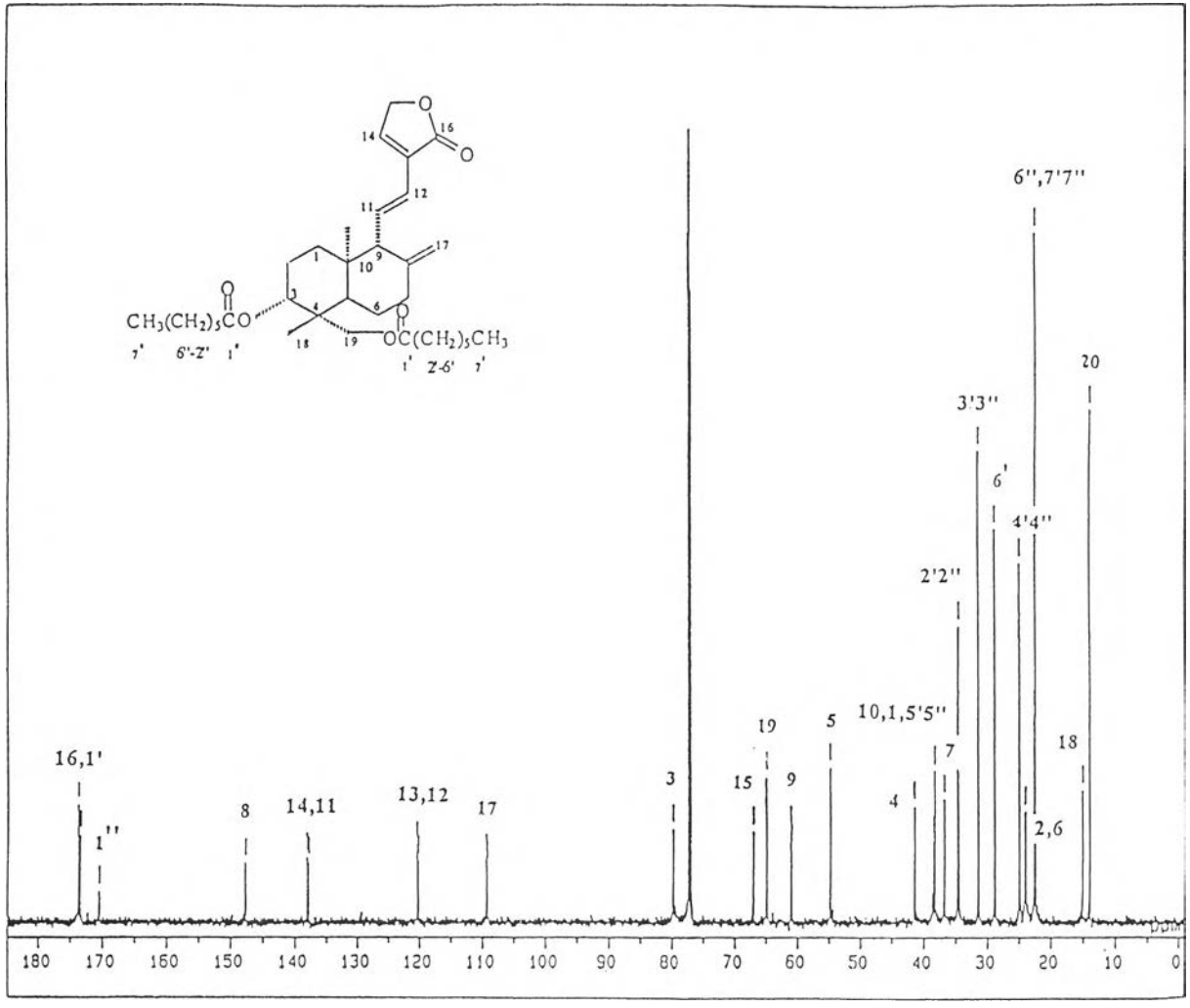
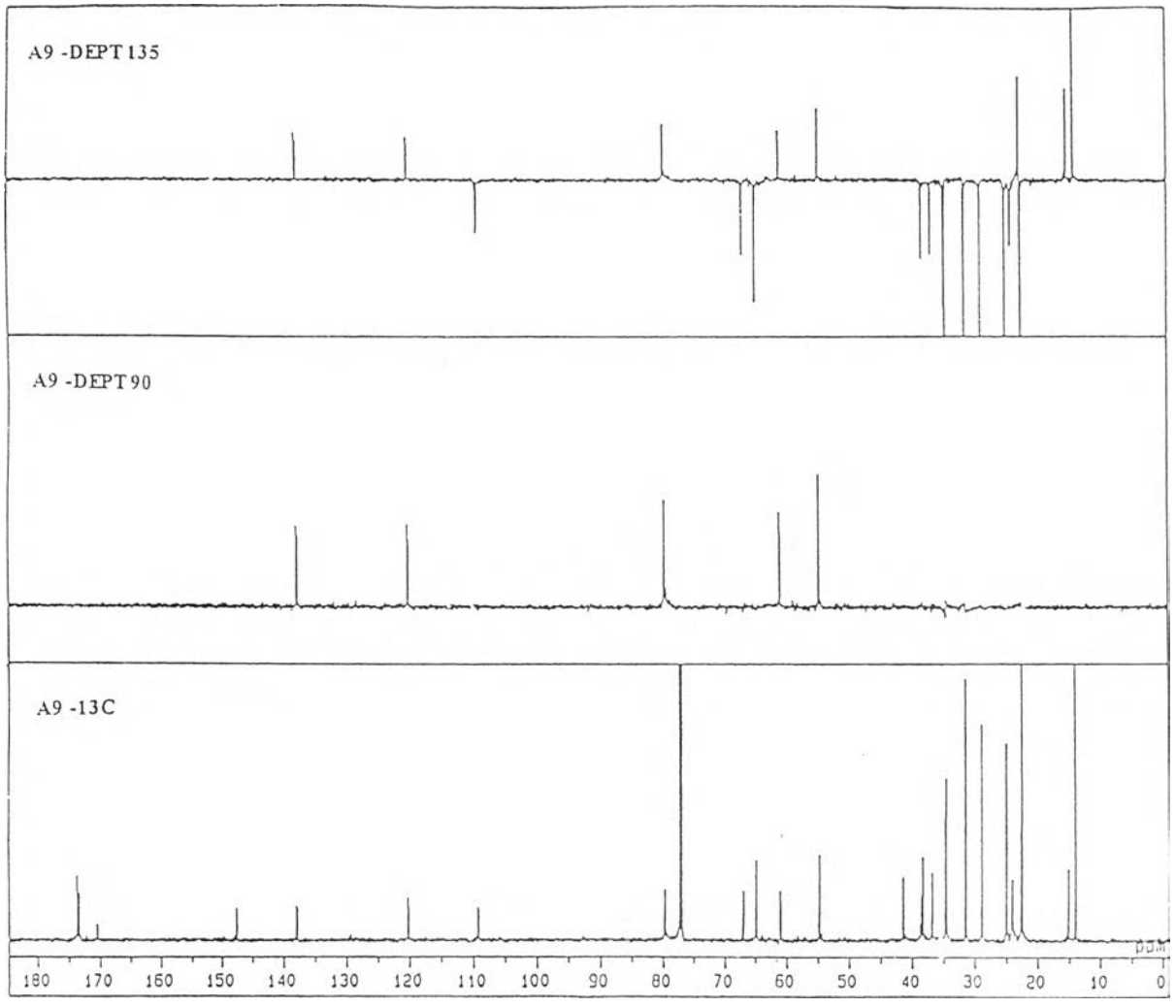


Figure 66. The ^{13}C NMR (125 MHz) spectrum of compound A9 (in $CDCl_3$)



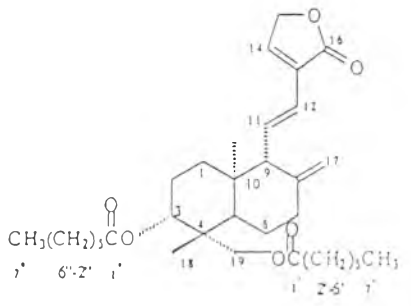


Figure 67. The DEPT (125 MHz) spectrum of compound A9 (in $CDCl_3$)

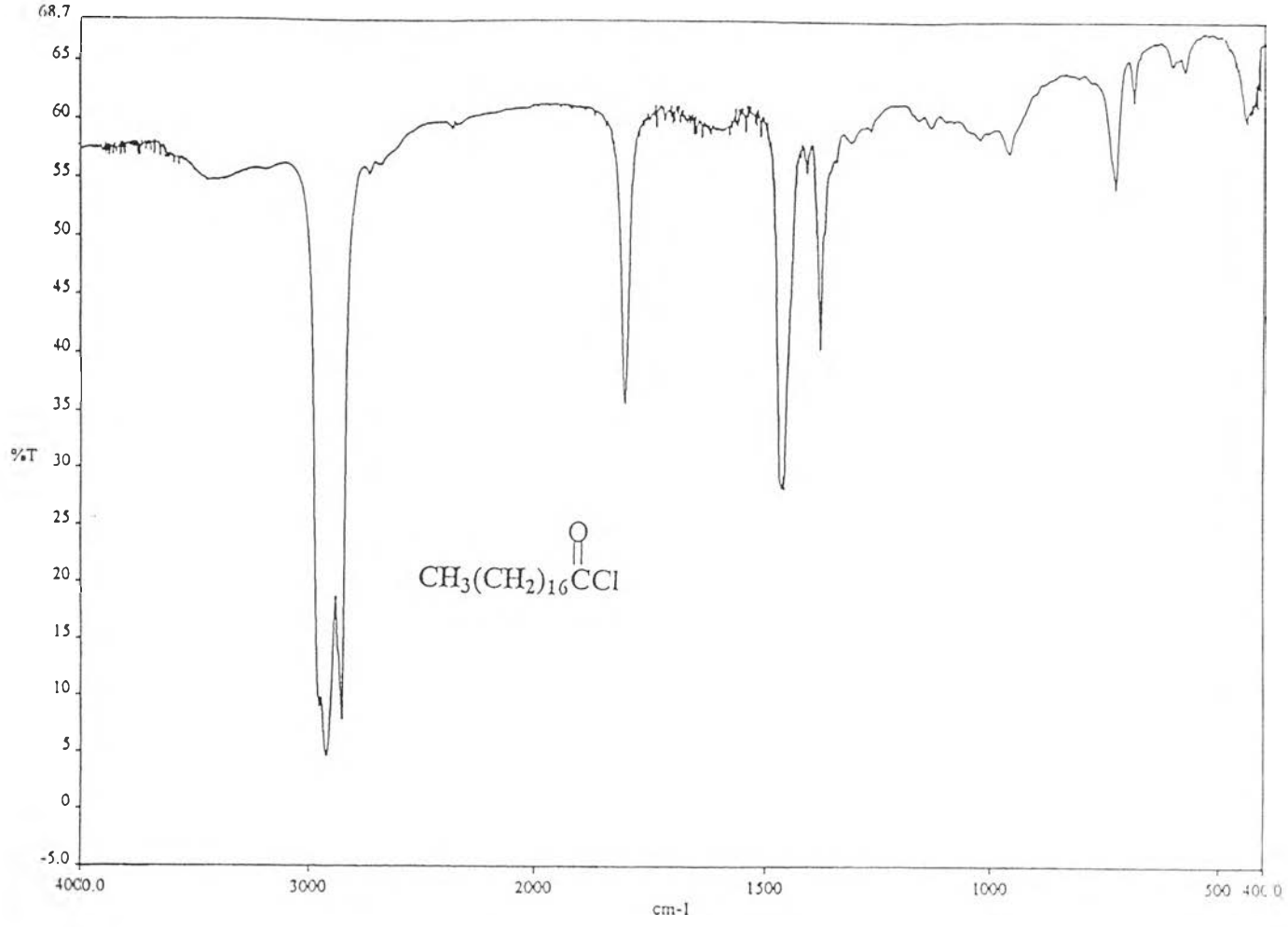


Figure 68. The IR spectrum of Stearoyl chloride (in film)

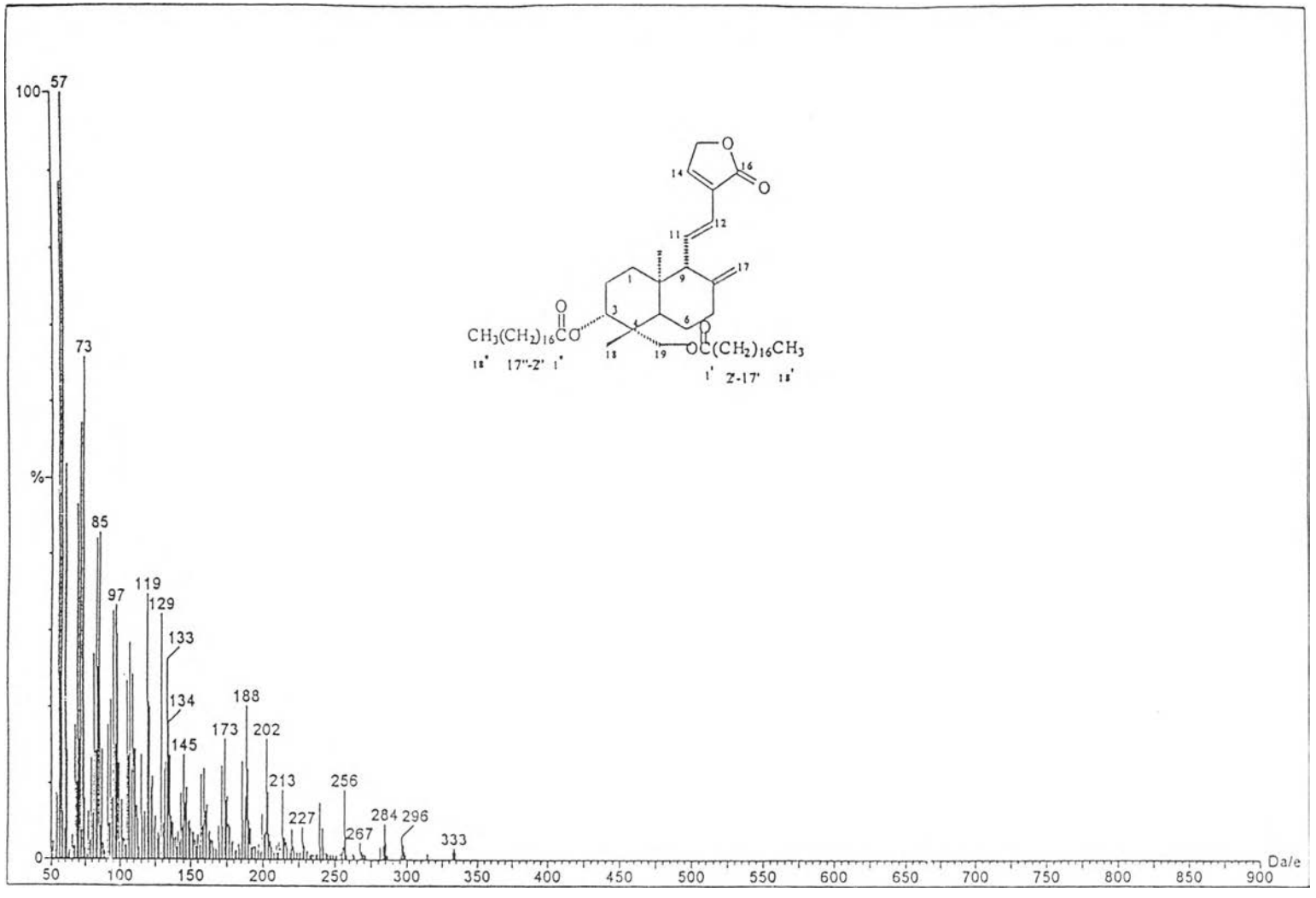


Figure 69. The EI mass spectrum of compound A11

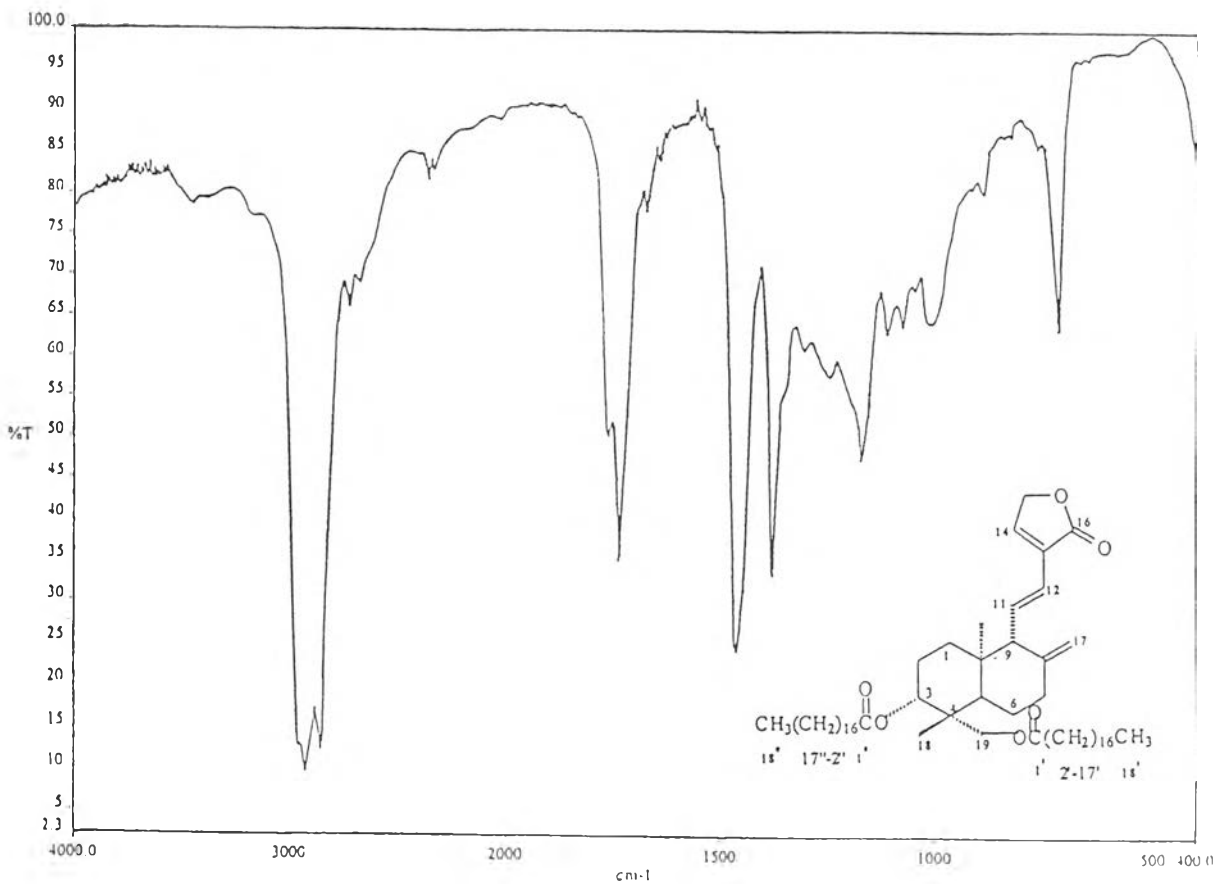


Figure 70. The IR spectrum of compound A11 (in film)

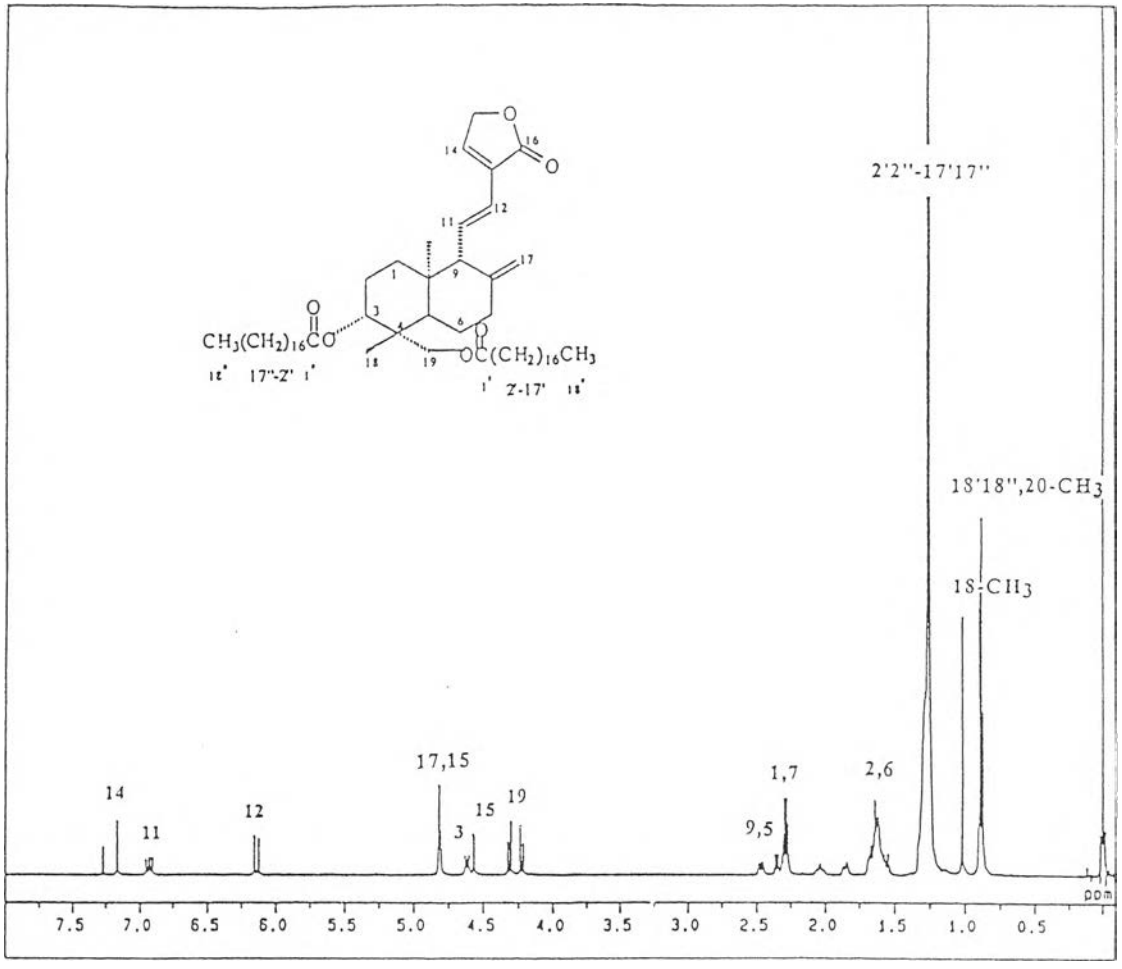


Figure 71. The ^{1}H NMR (500 MHz) spectrum of compound A11(in $CDCl_3$)

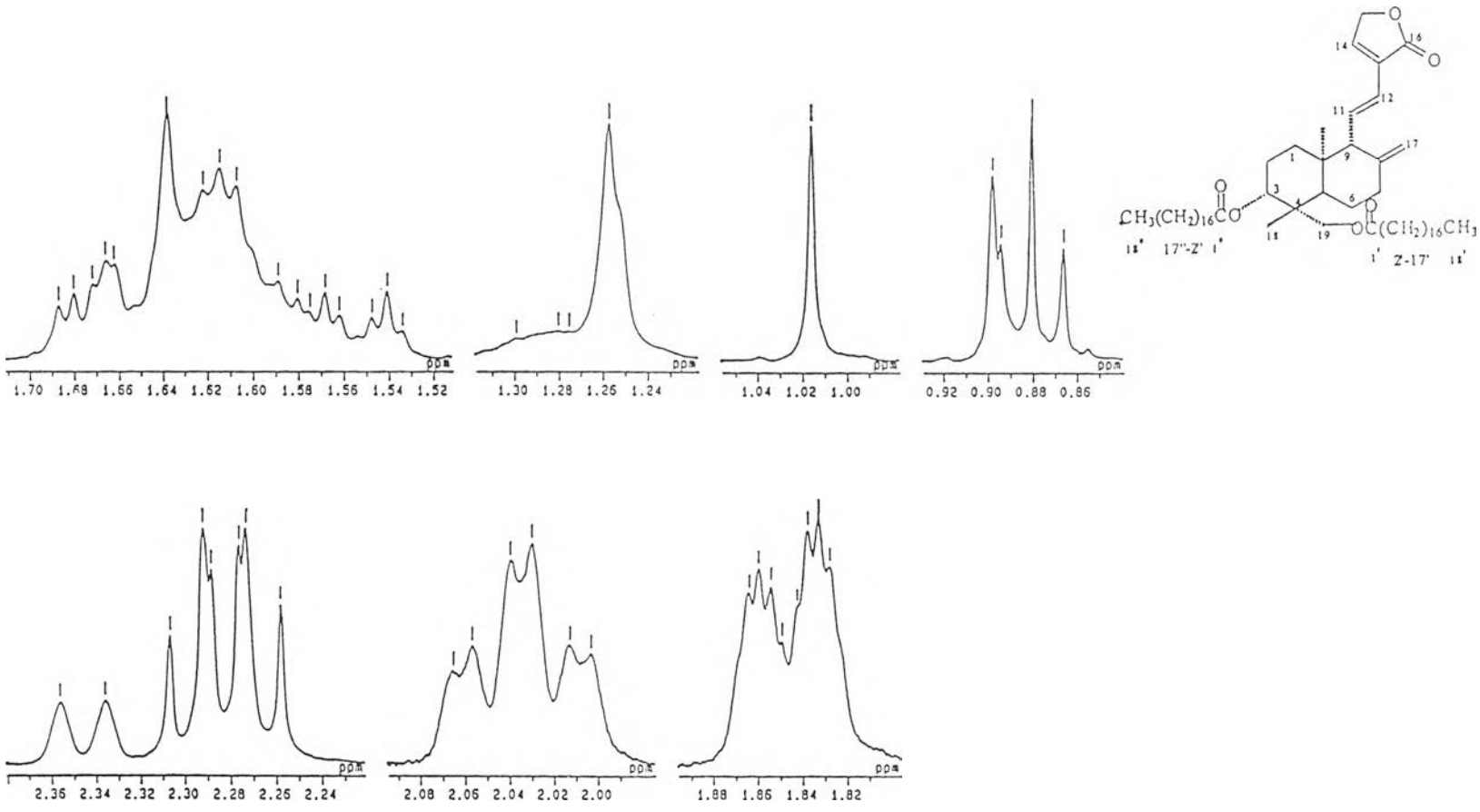


Figure 72. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A11 (in $CDCl_3$) : δ_H 0.86 - 2.36 ppm

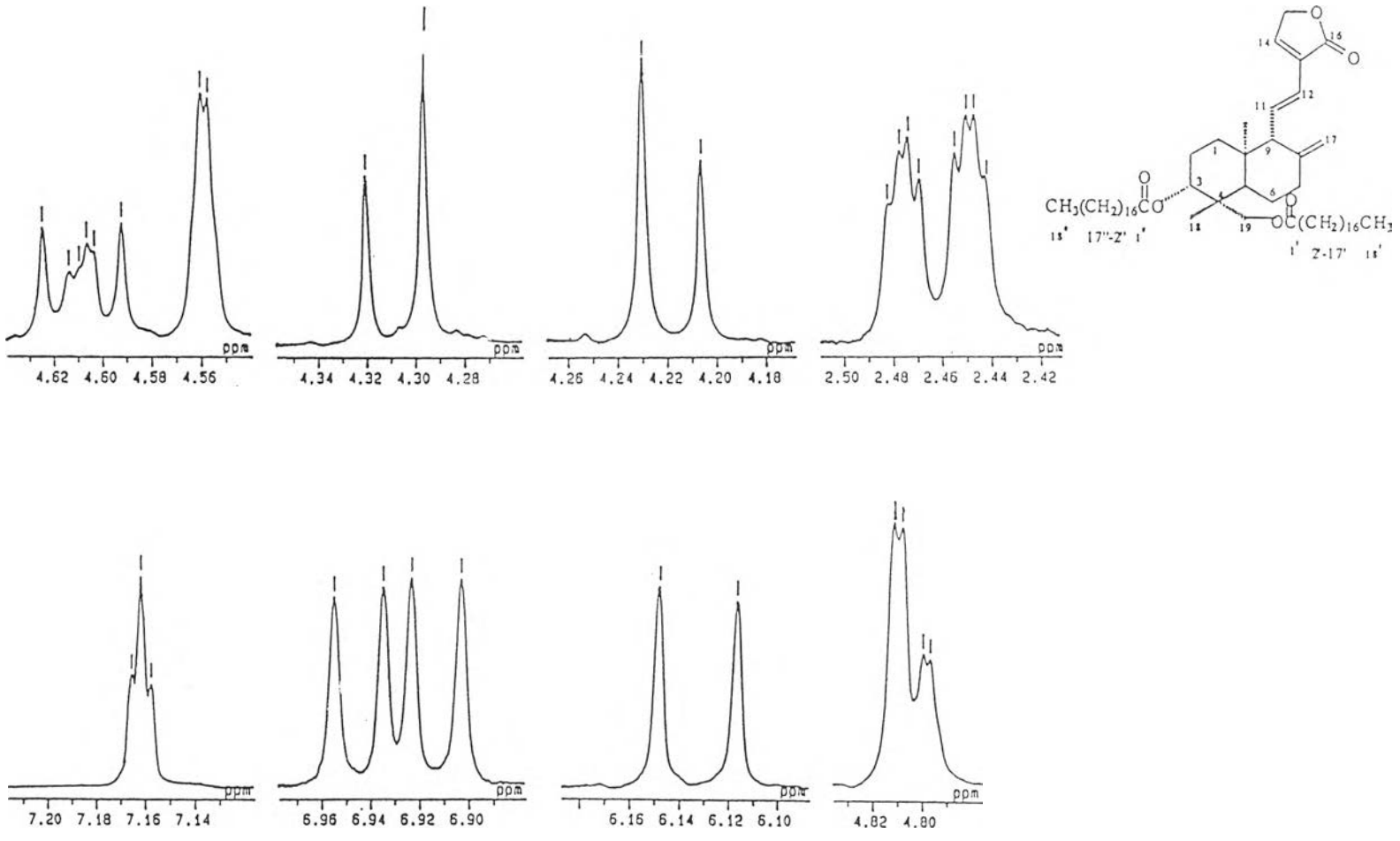
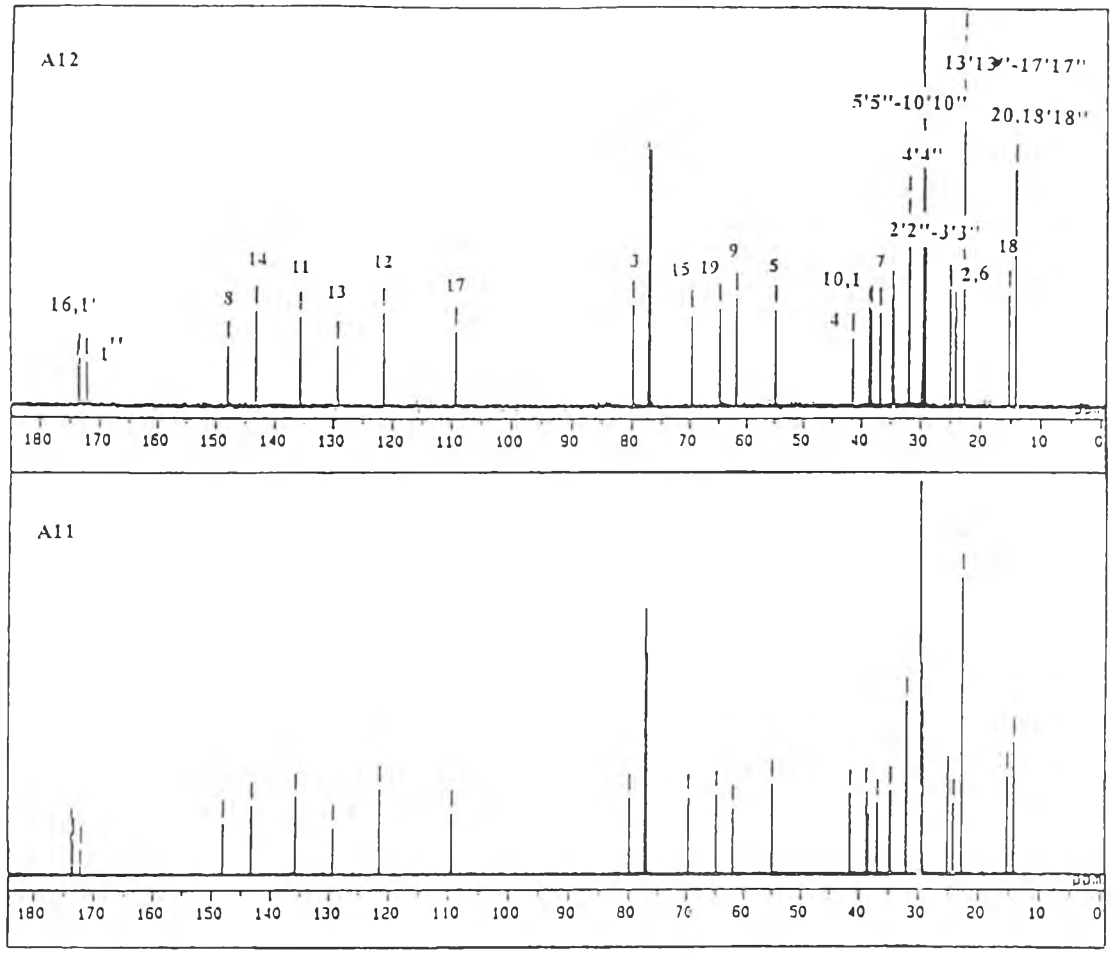


Figure 73. Expansion of the ^{1}H NMR (500 MHz) spectrum of compound A11 (in $CDCl_3$) : δ_H 2.42-7.21 ppm



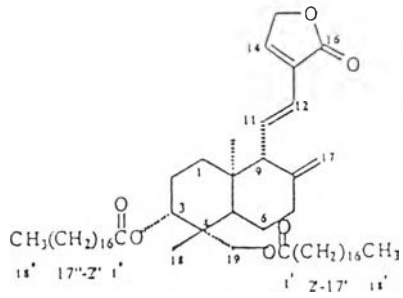
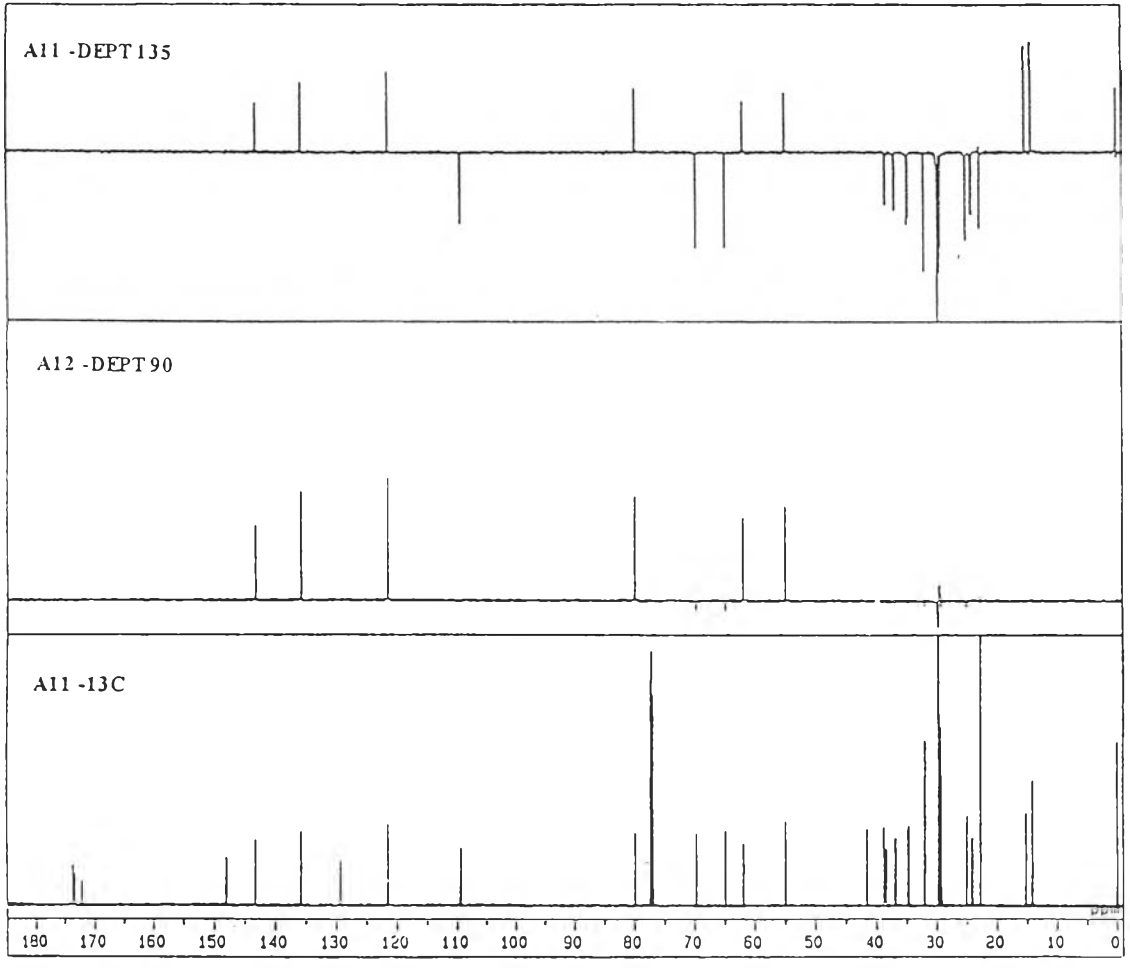


Figure 74. The ^{13}C NMR(125 MHz)spectrum of compound A11 and A12 (in $CDCl_3$)



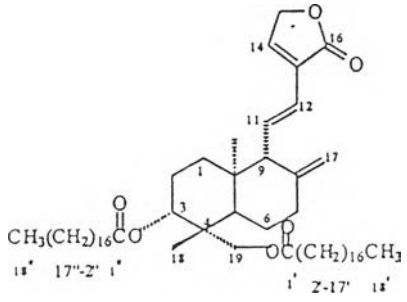


Figure 75. The DEPT (125 MHz) spectrum of compound A11 (in $CDCl_3$)

VITA

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