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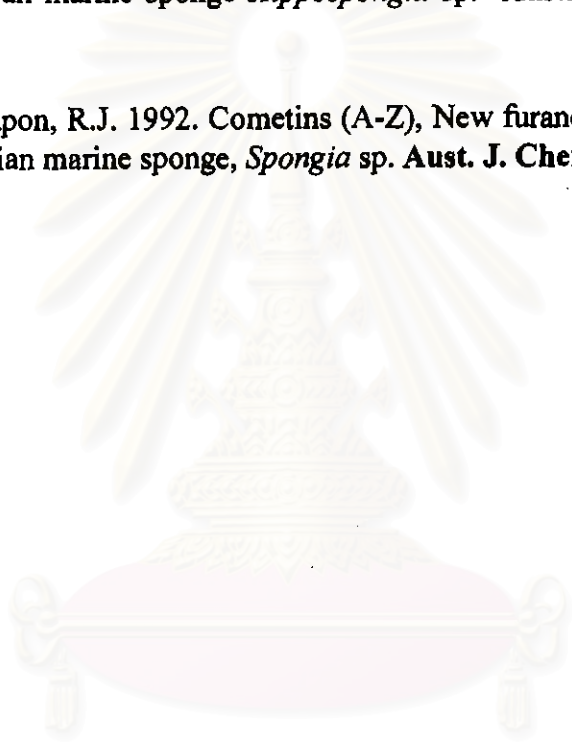
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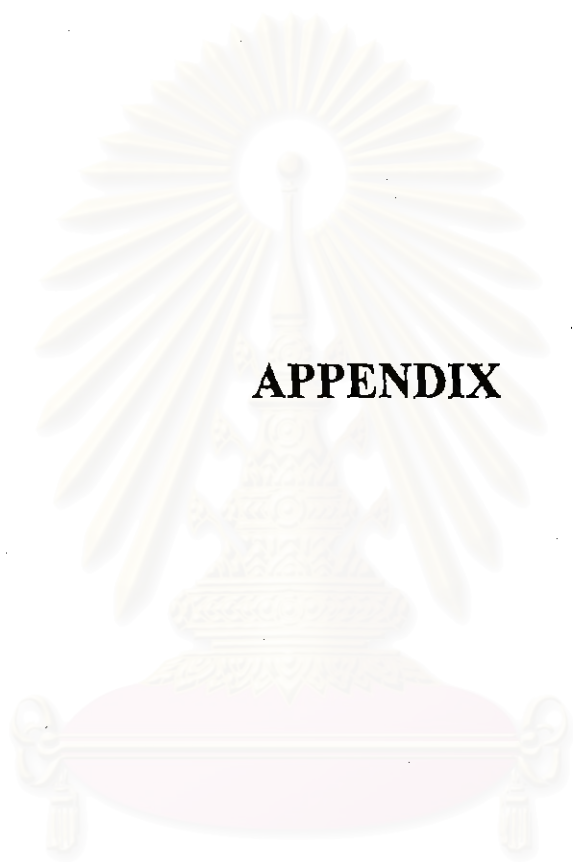
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จุฬาลงกรณ์มหาวิทยาลัย



APPENDIX

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

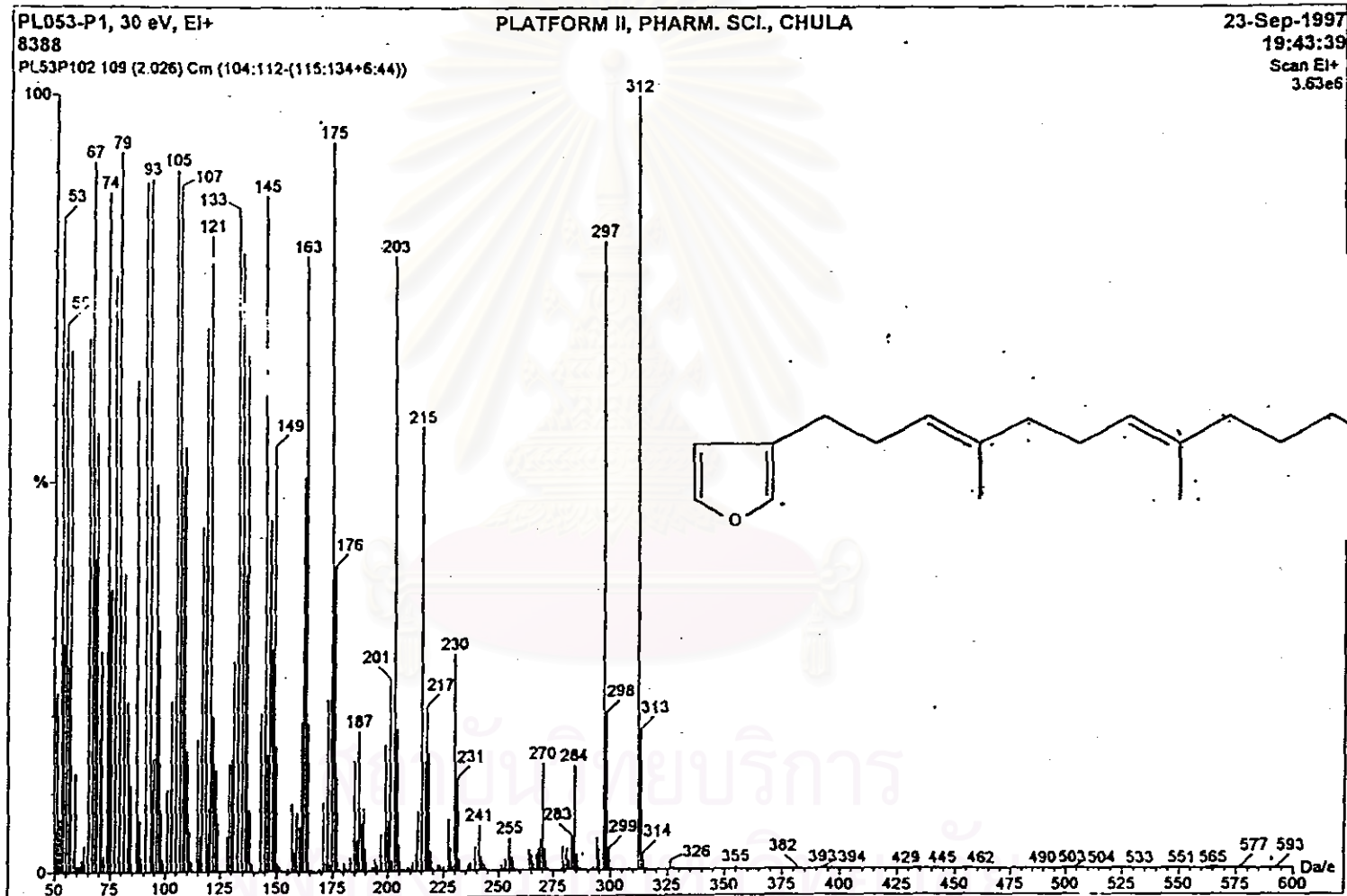
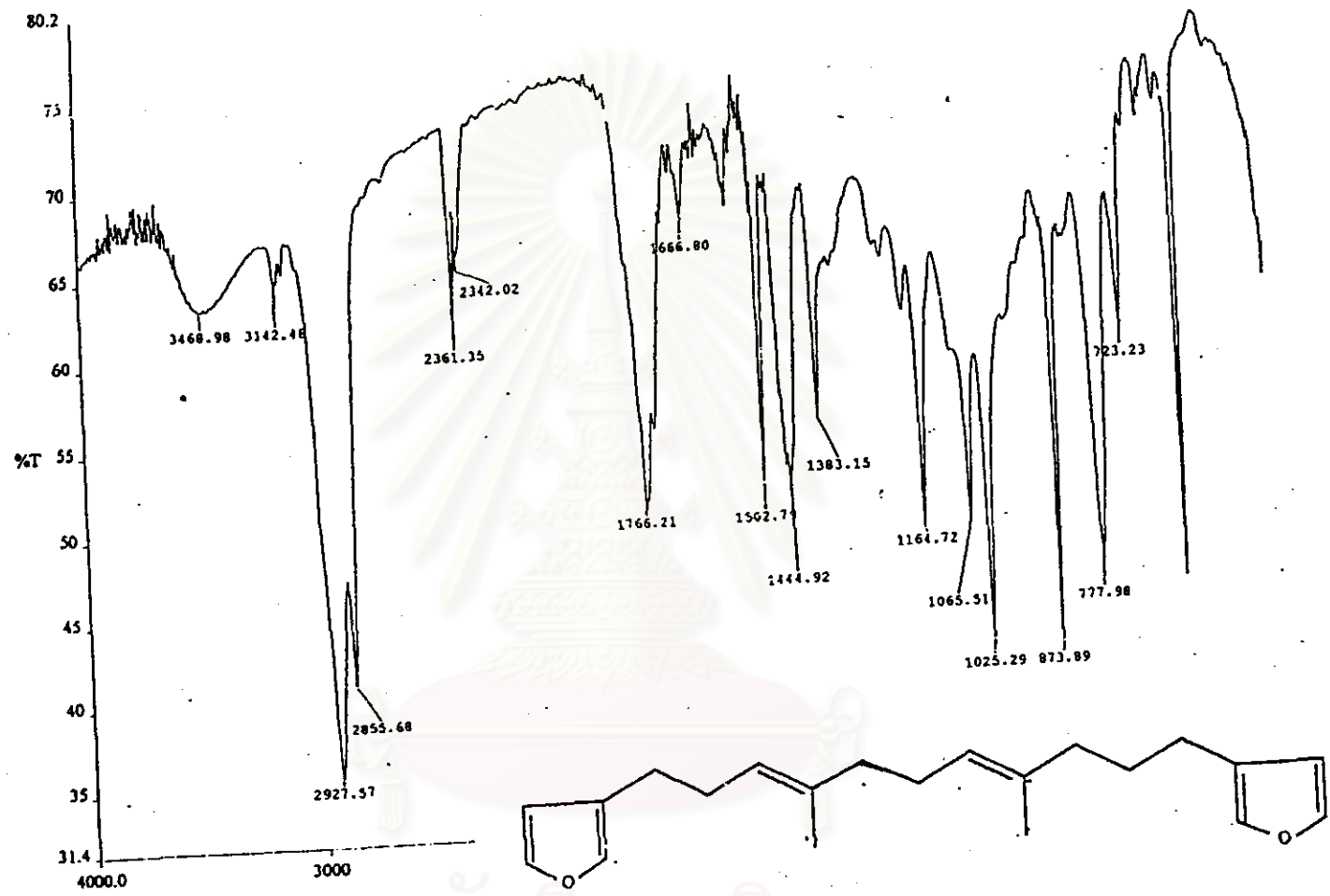


Figure 6 The electron impact mass spectrum of compound P1.



exp: 6537.10
df

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Figure 7 The IR spectrum of compound P1.

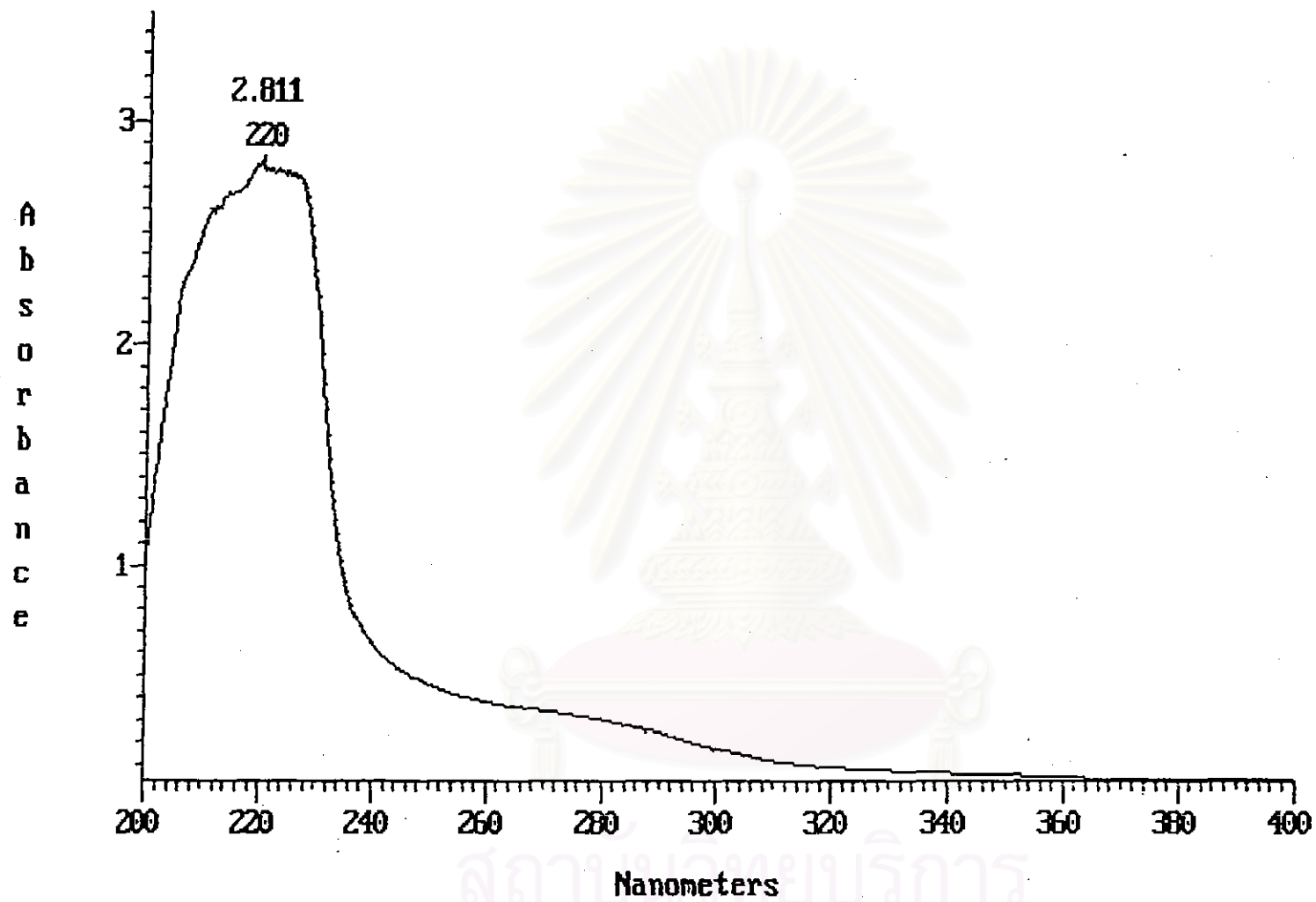


Figure 8. The UV spectrum of compound P1.

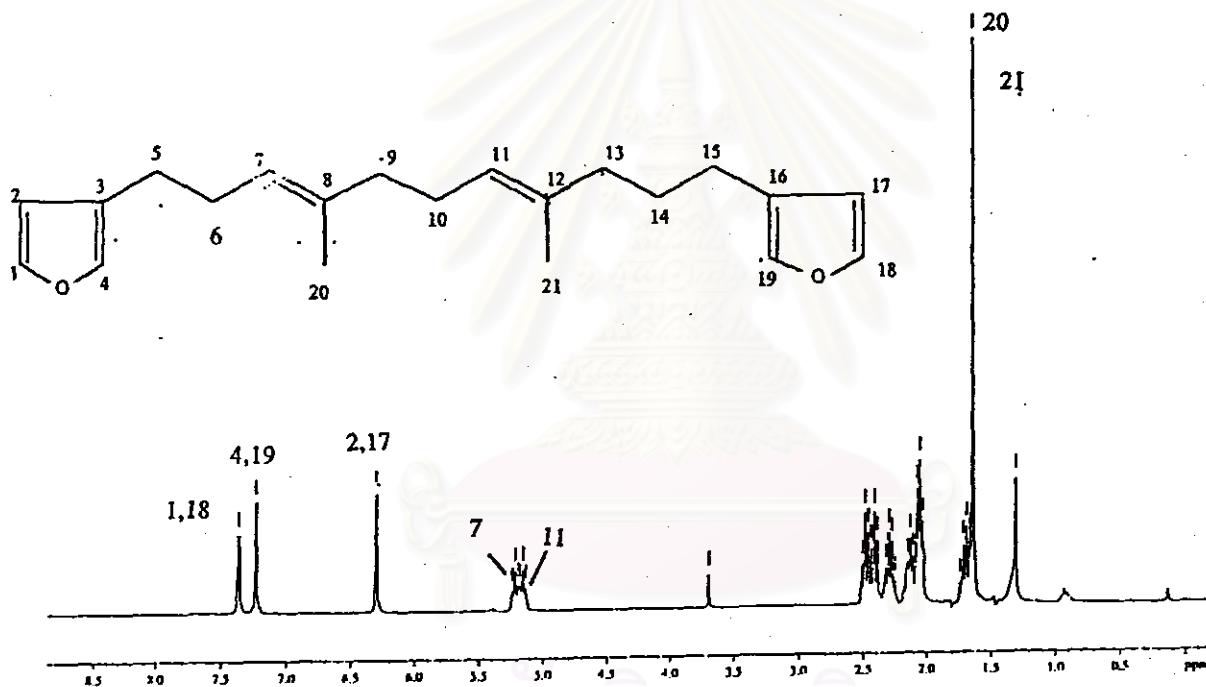


Figure 9. The 300 MHz ¹H nmr spectrum of compound P1 (in CDCl₃)

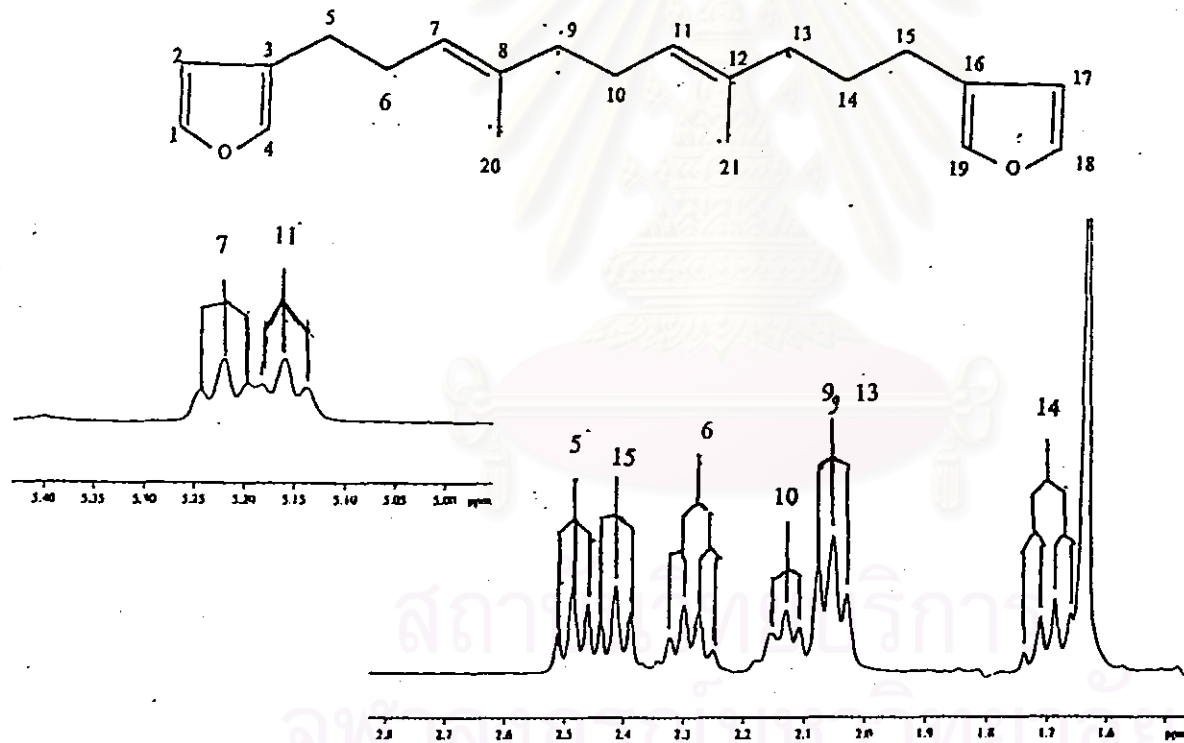


Figure10. The 300 MHz ^1H nmr spectrum of compound P1 (in CDCl_3 ppm).

(expanded from 1.6-2.8).

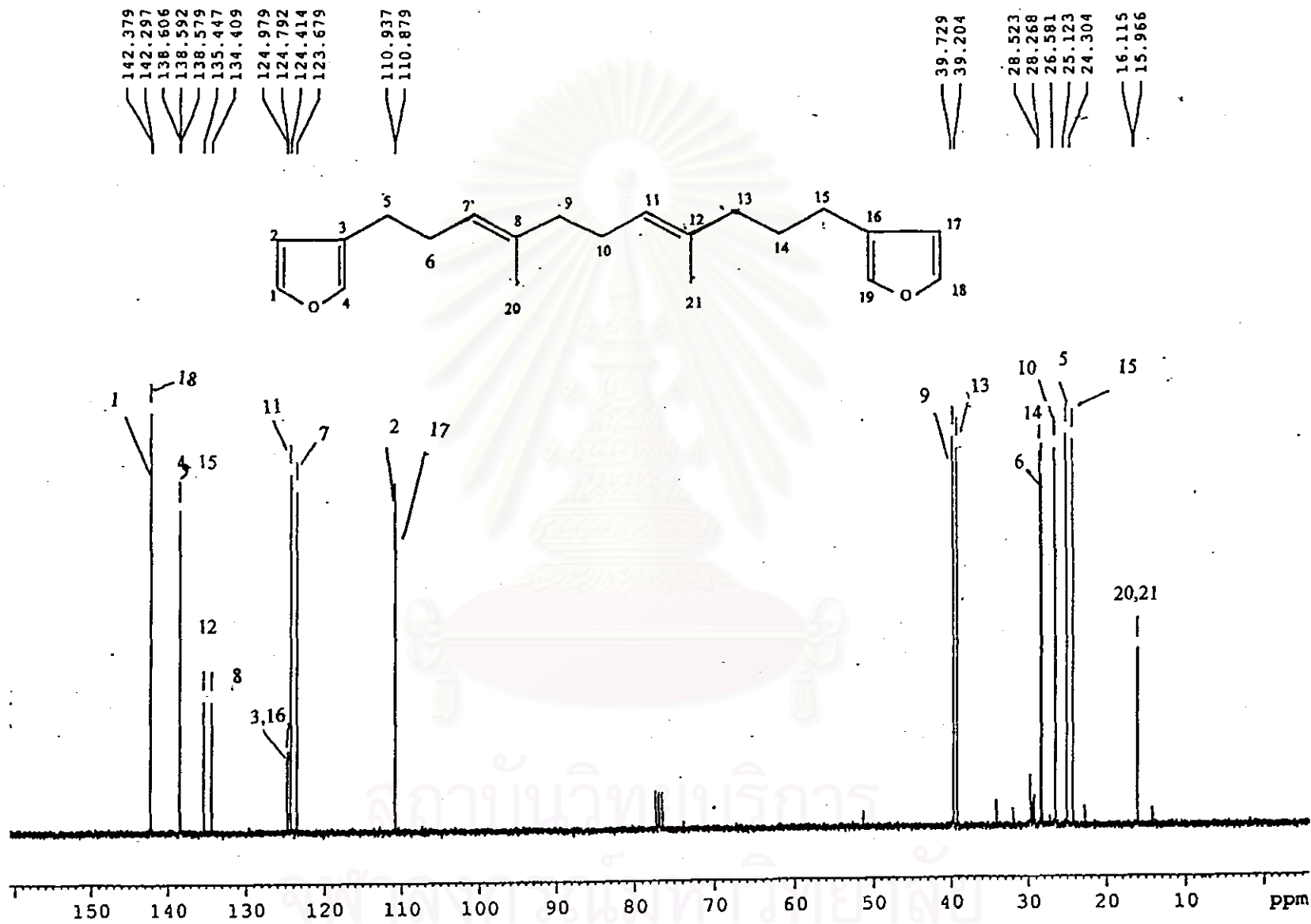


Figure 11. The 75 MHz ^{13}C nmr spectrum of compound P1 (in CDCl_3).

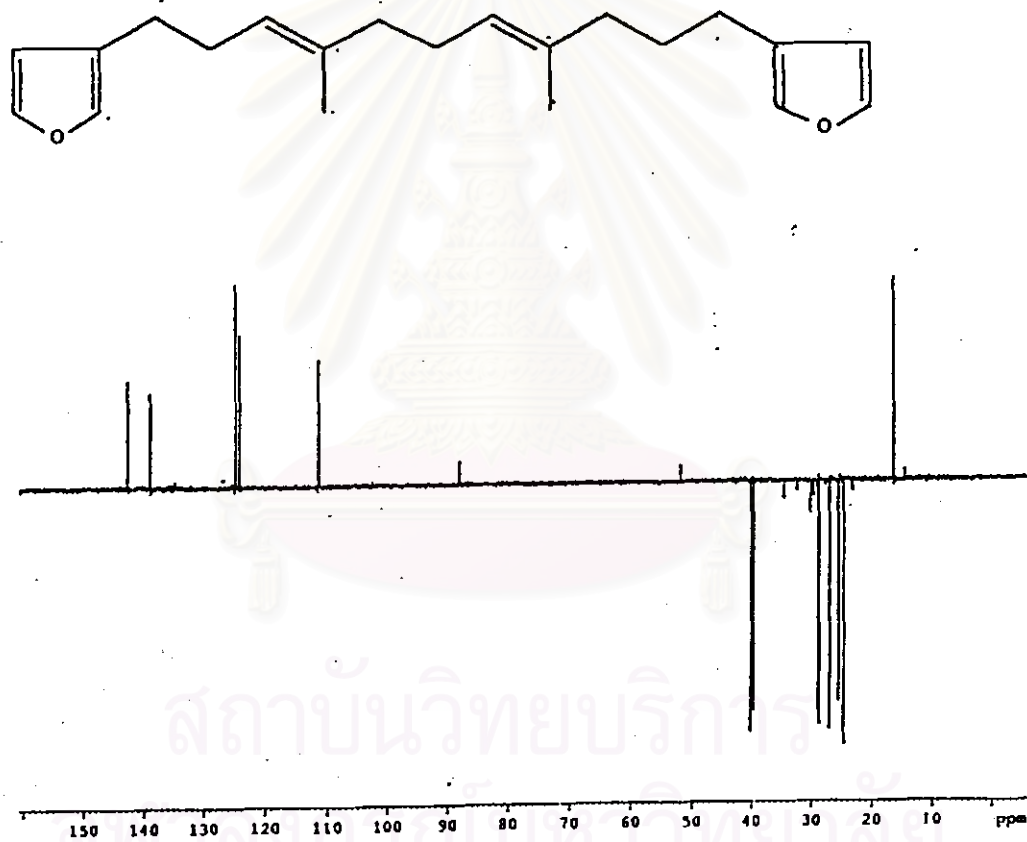


Figure 12. The 75 MHz DEPT 135 spectrum of compound P1 (in CDCl₃).

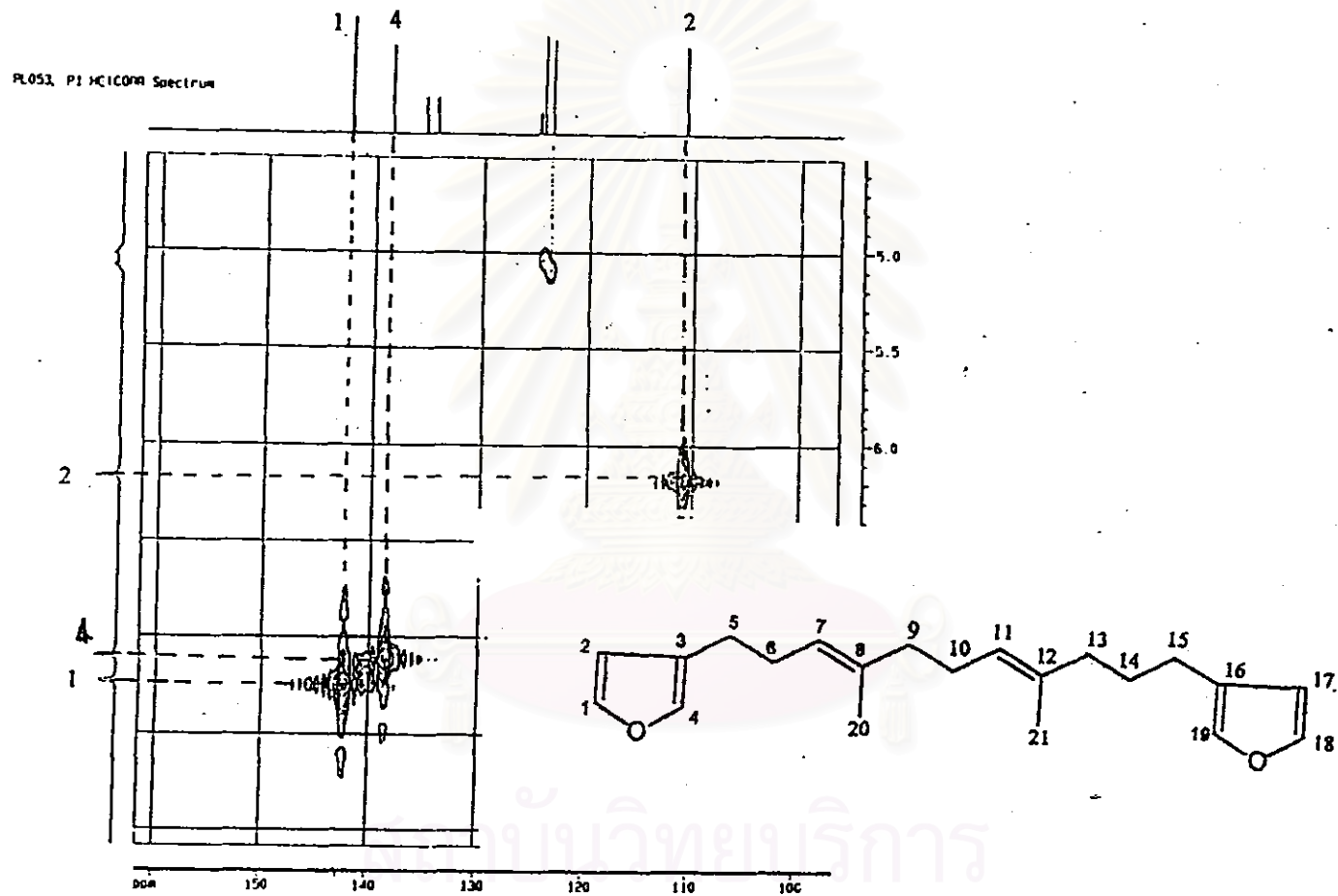


Figure 13. The 300 MHz HETCOR spectrum of compound P1 (in CDCl₃).

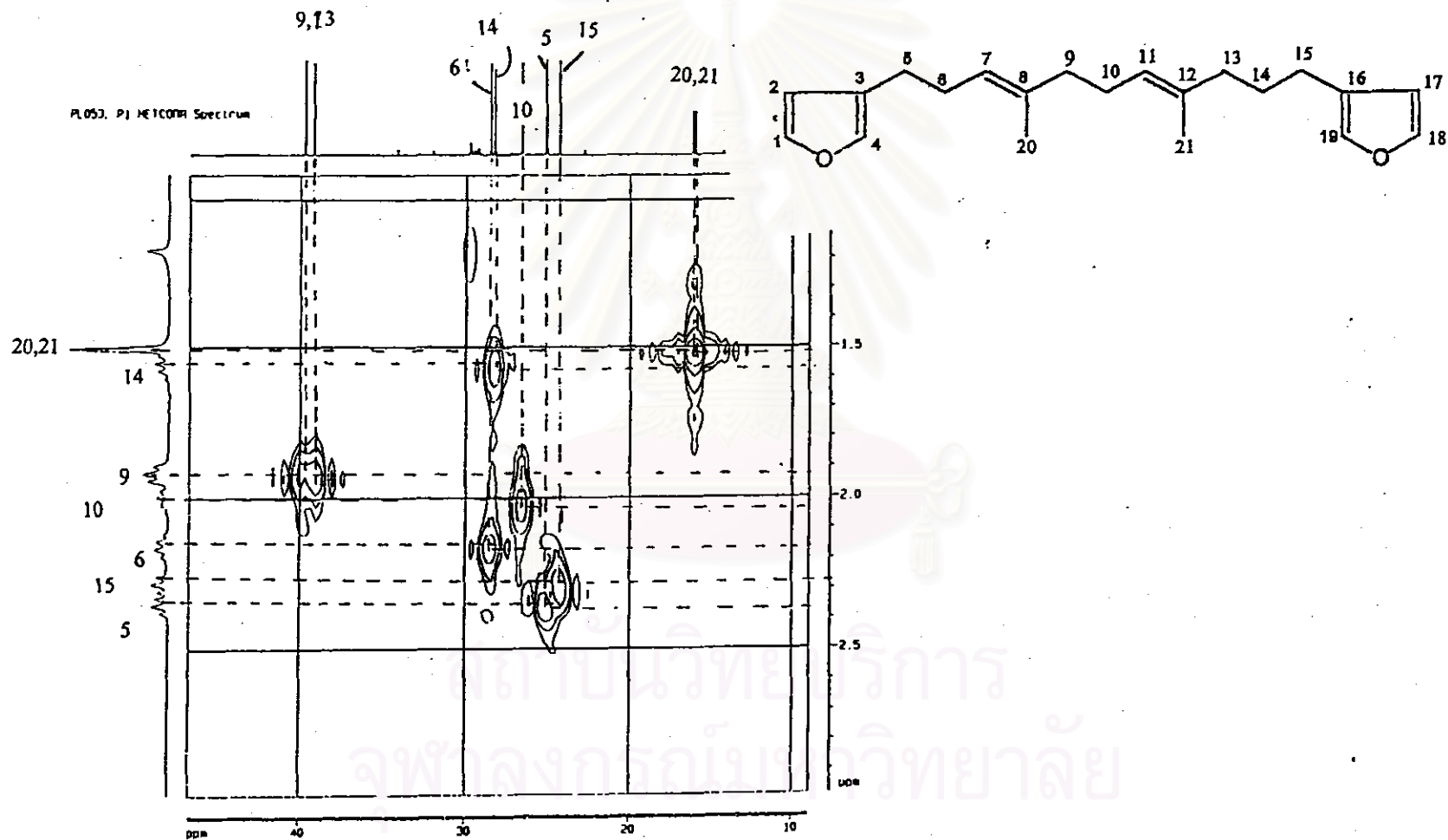


Figure 14. The 300 MHz HETCOR spectrum of compound P1 (in CDCl₃)

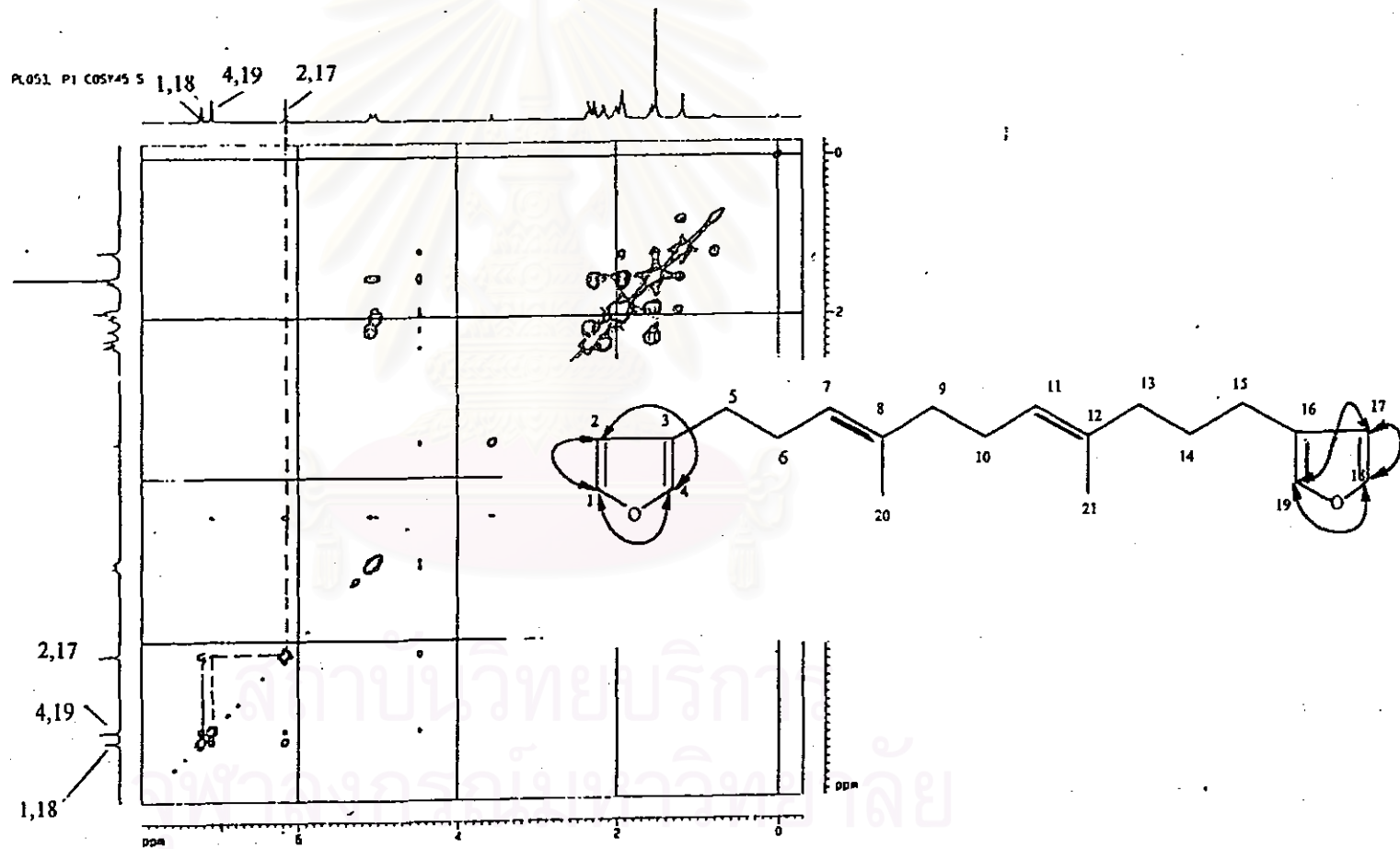


Figure 15. The 300 MHz COSY 45 spectrum of compound P1 (in CDCl₃).

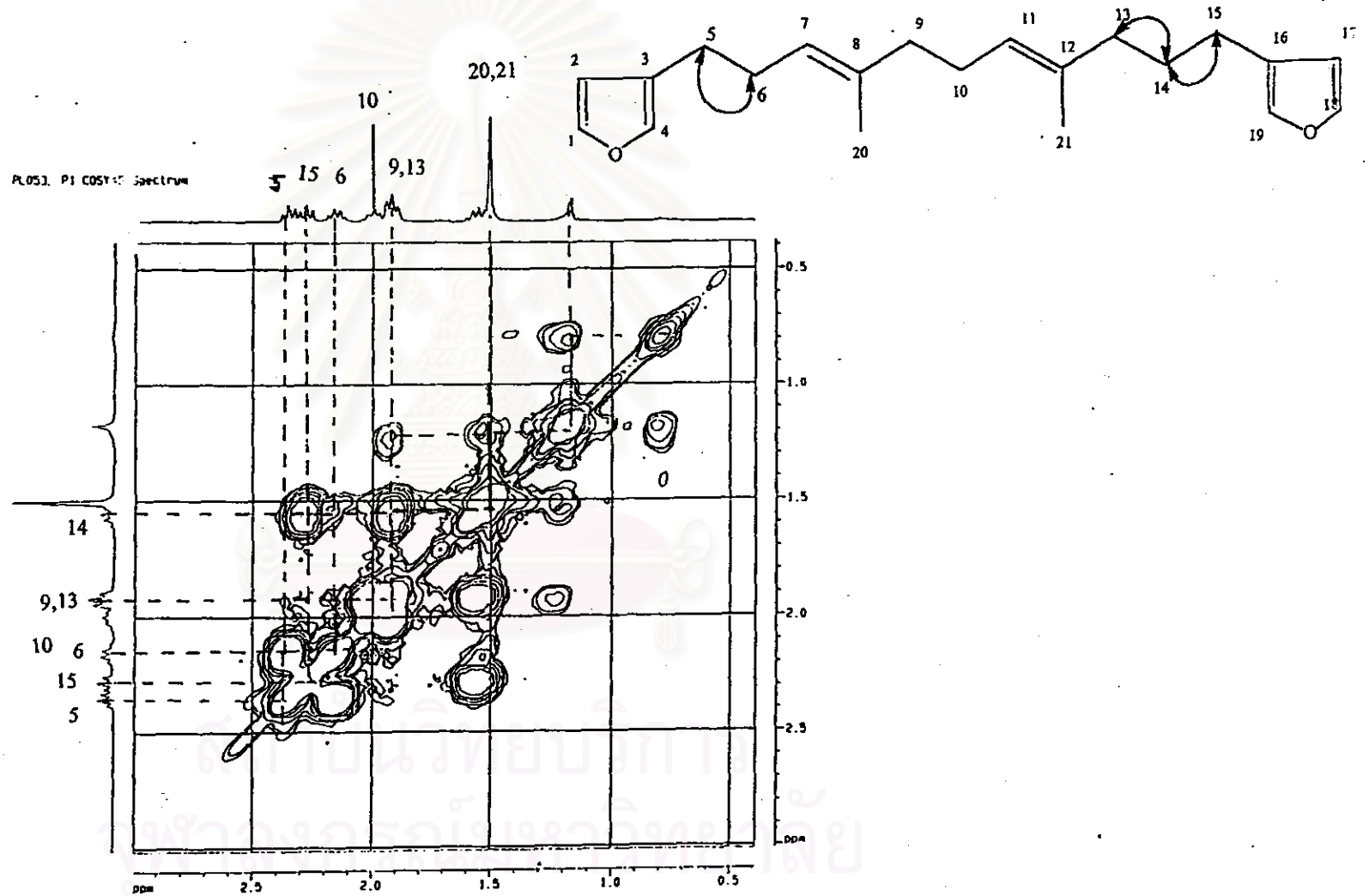


Figure 16. The 300 MHz COSY 45 spectrum of compound P1 (in CDCl₃)

(expanded from 0.5-2.5 ppm)

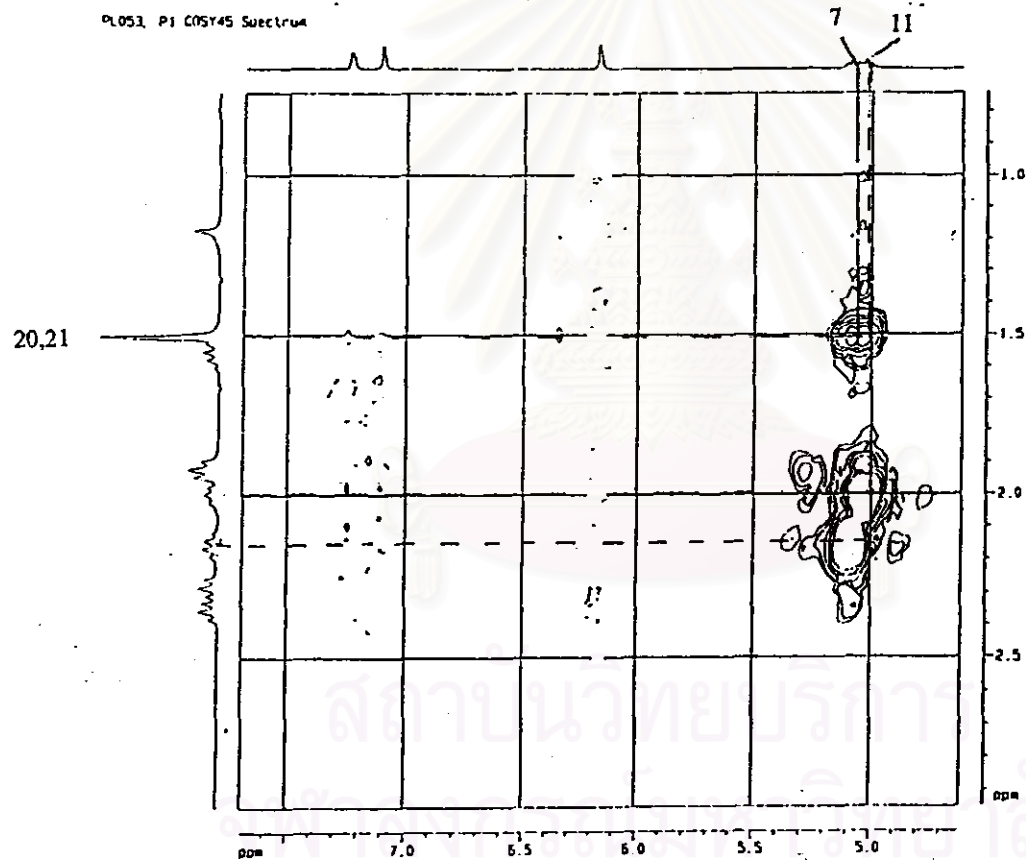
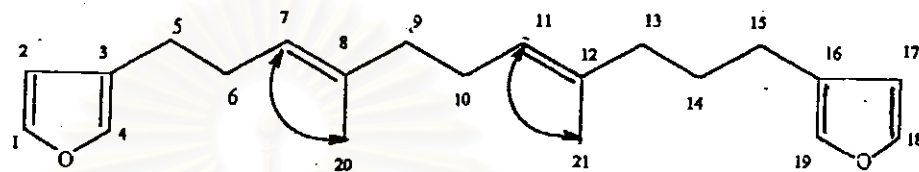


Figure 17. The 300 MHz COSY 45 spectrum of compound P1 (in CDCl_3)

(expanded from 5.0-7.0 ppm).

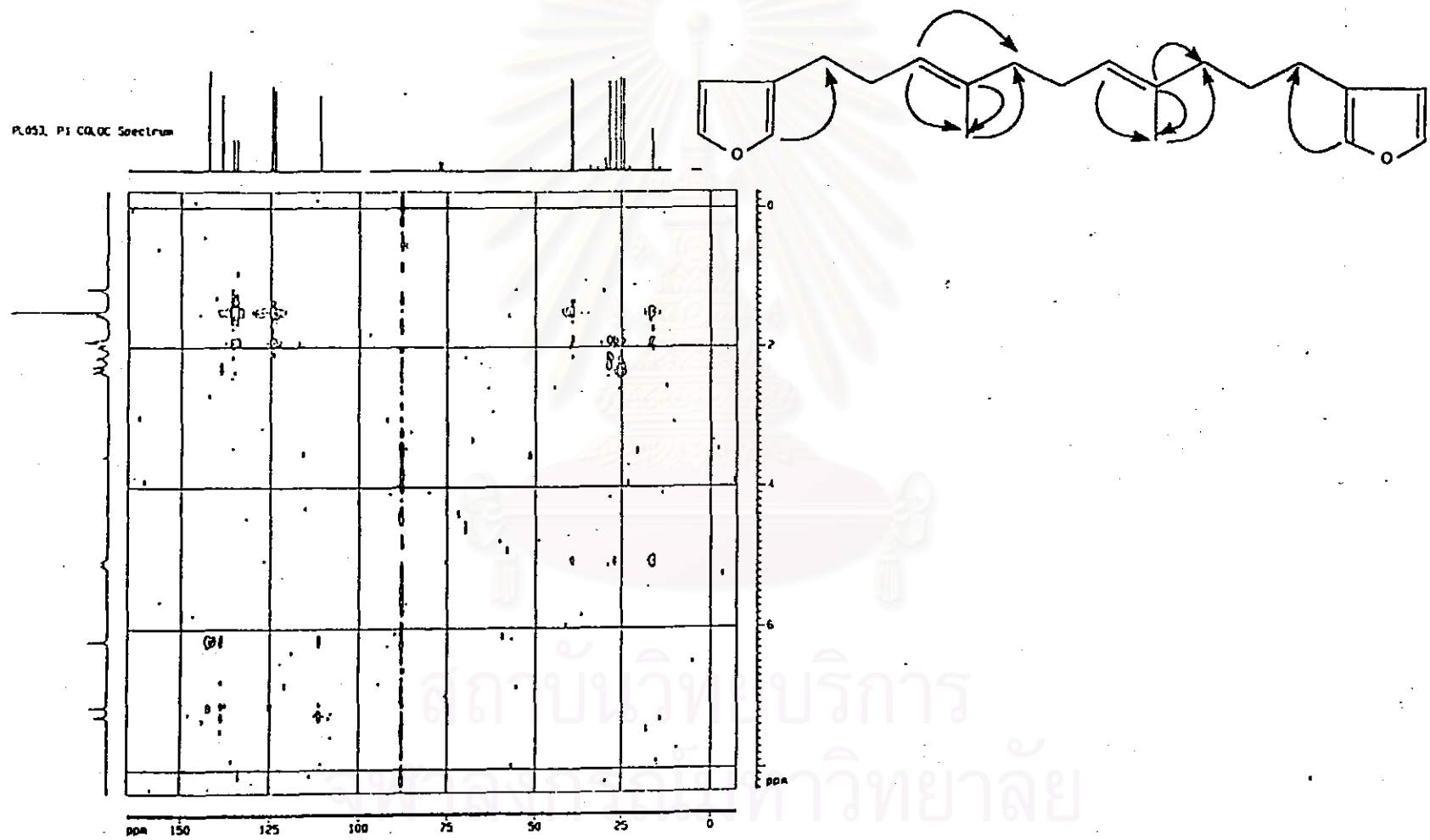


Figure 18. The 300 MHz COLOC spectrum of compound P1 (in CDCl_3).

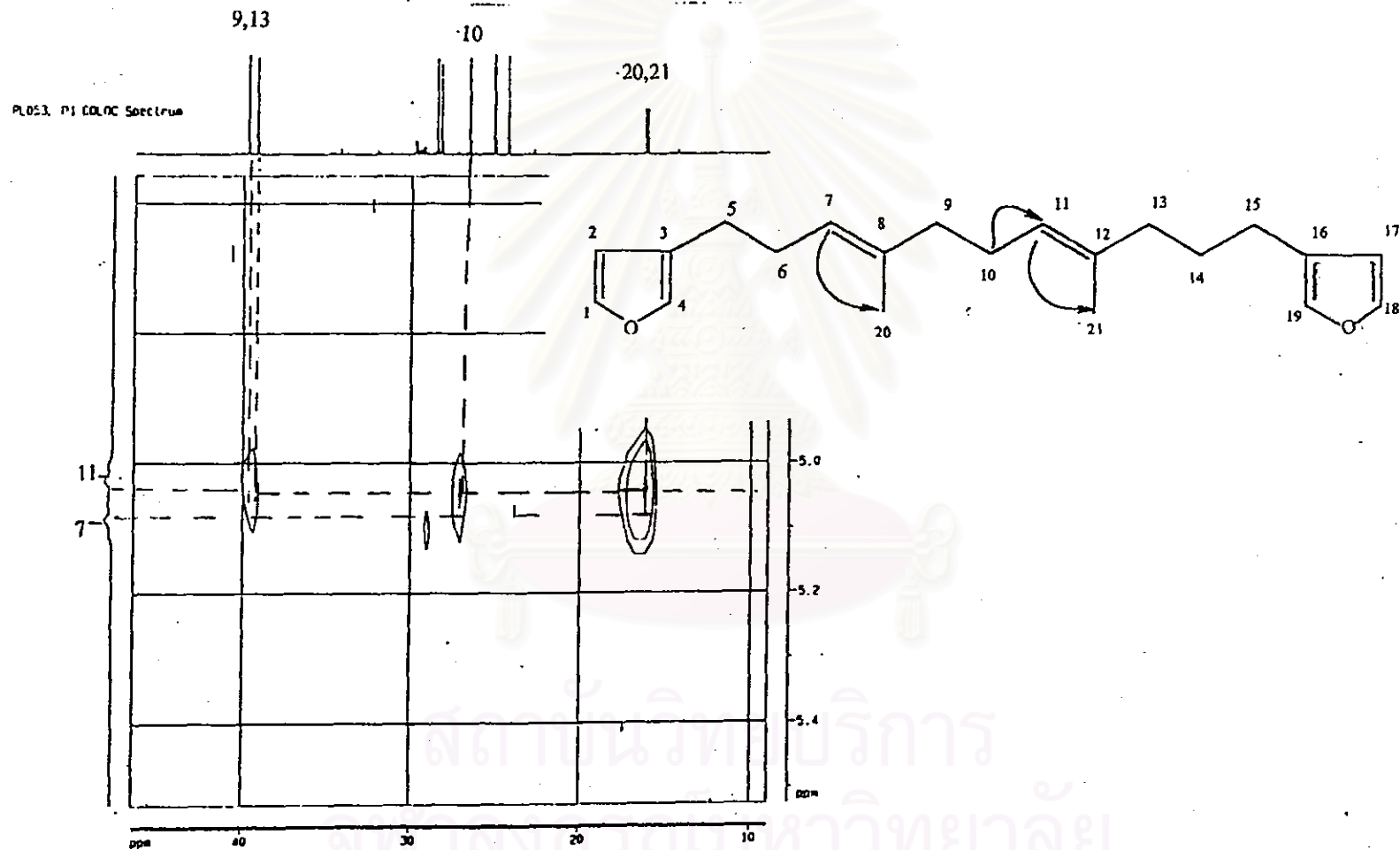


Figure 19. The 300 MHz COLOC spectrum of compound P1 (in CDCl_3)

(expanded from 10-40 ppm).

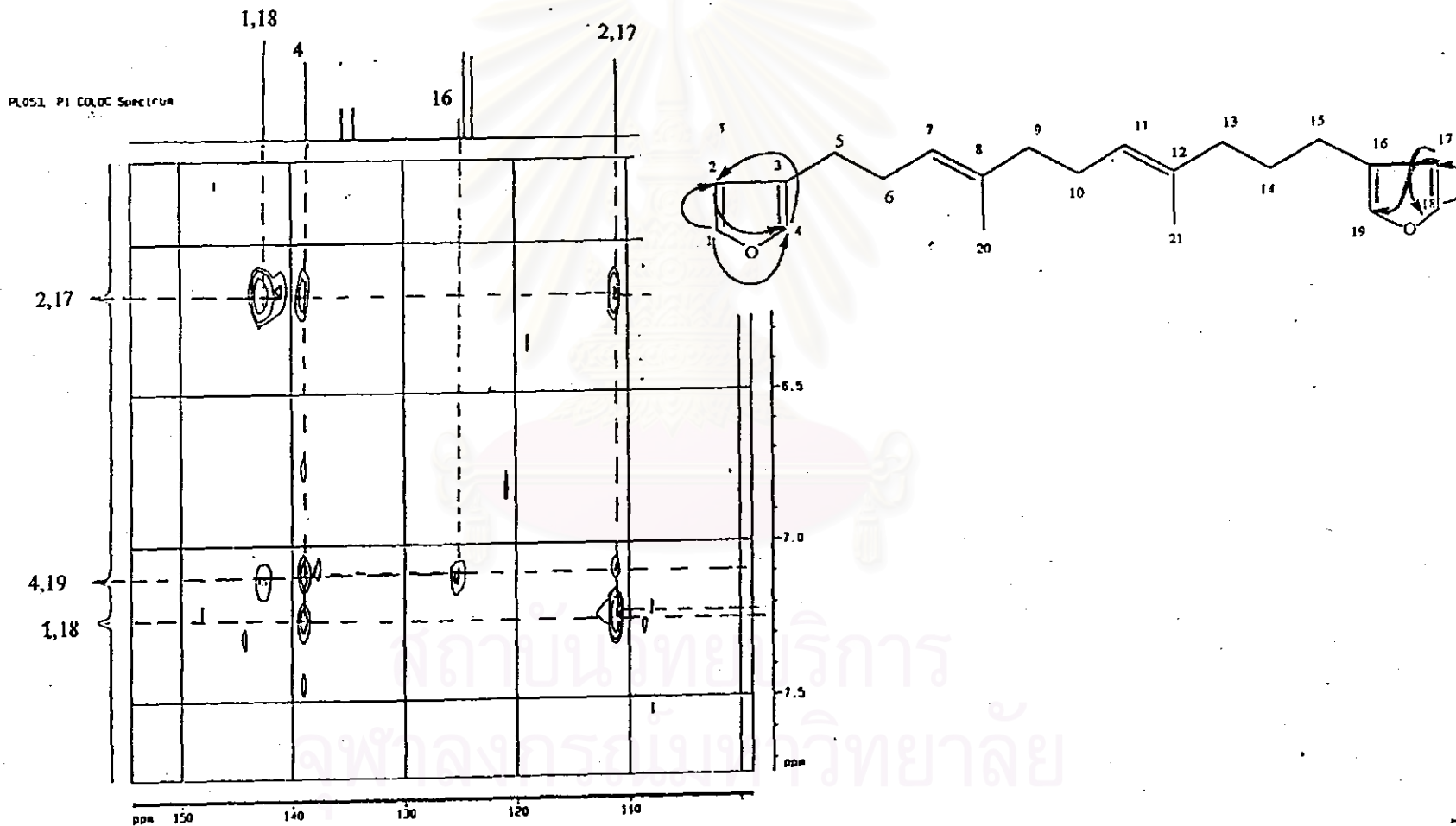


Figure 20. The 300 MHz COLOC spectrum of compound P1 (in CDCl₃)

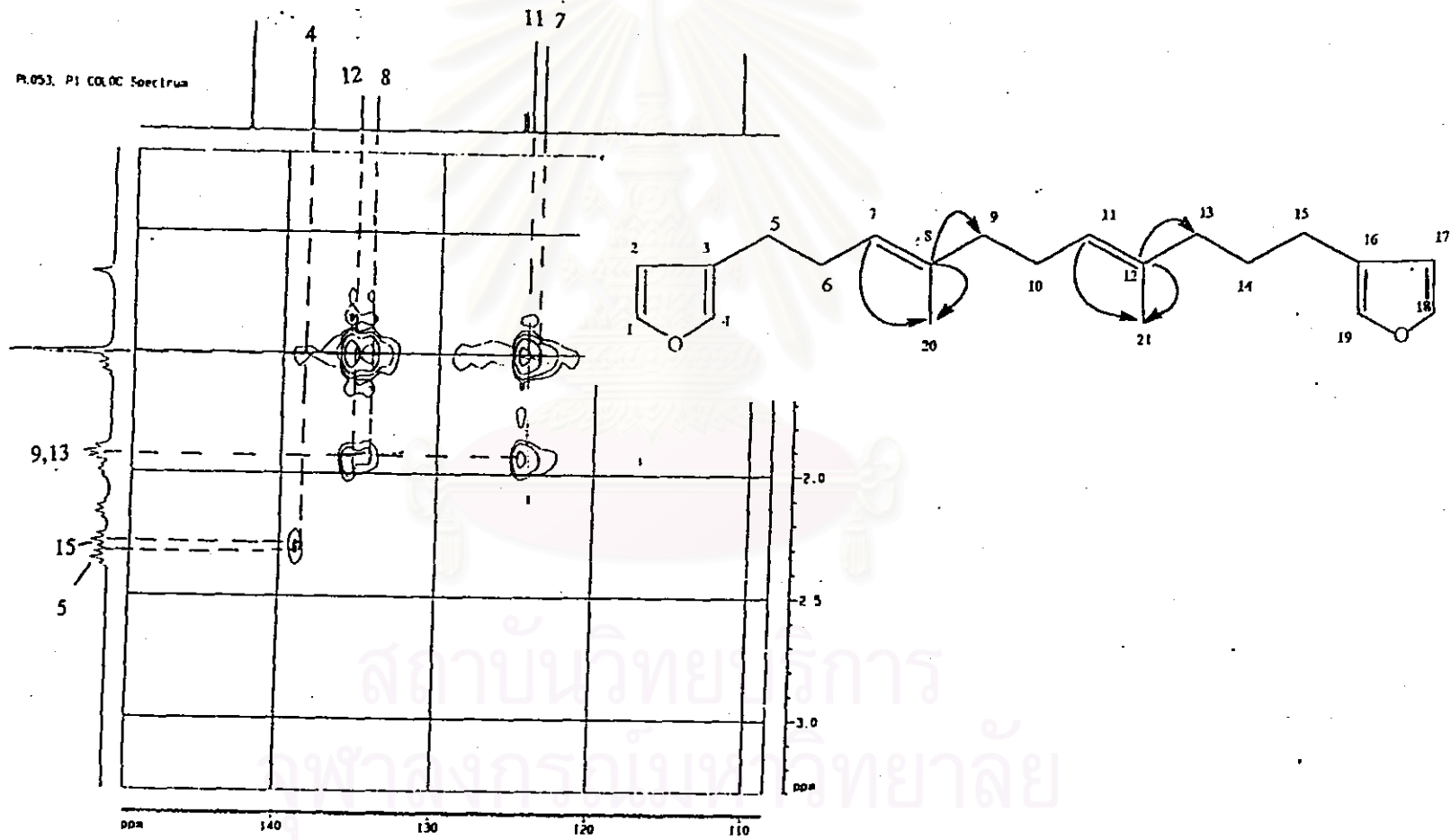


Figure 21. The 300 MHz COLOC spectrum of compound P1 (in CDCl₃)

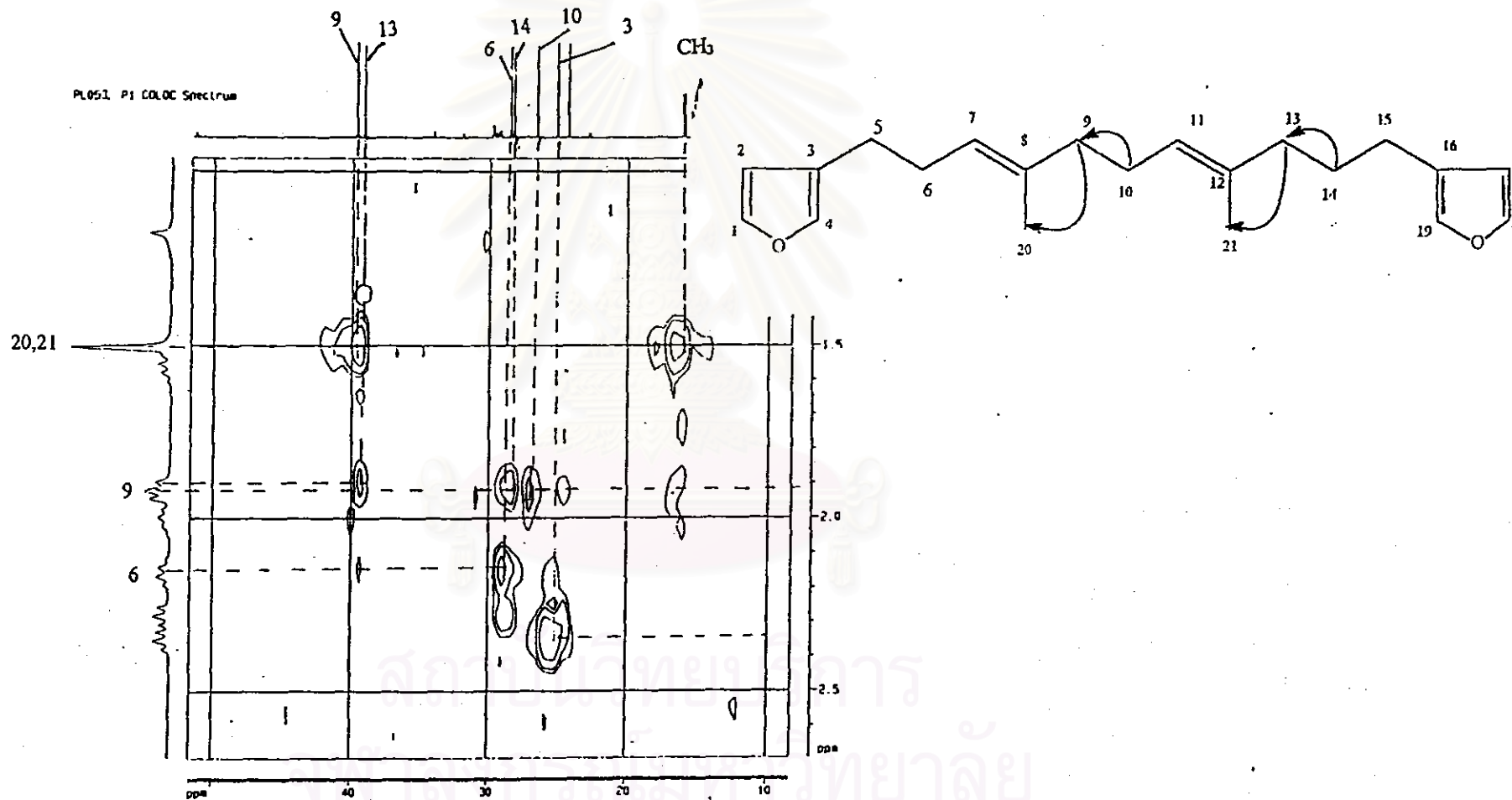


Figure 22. The 300 MHz COLOC spectrum of compound P1 (in CDCl₃)

(expanded from 10-40 ppm)

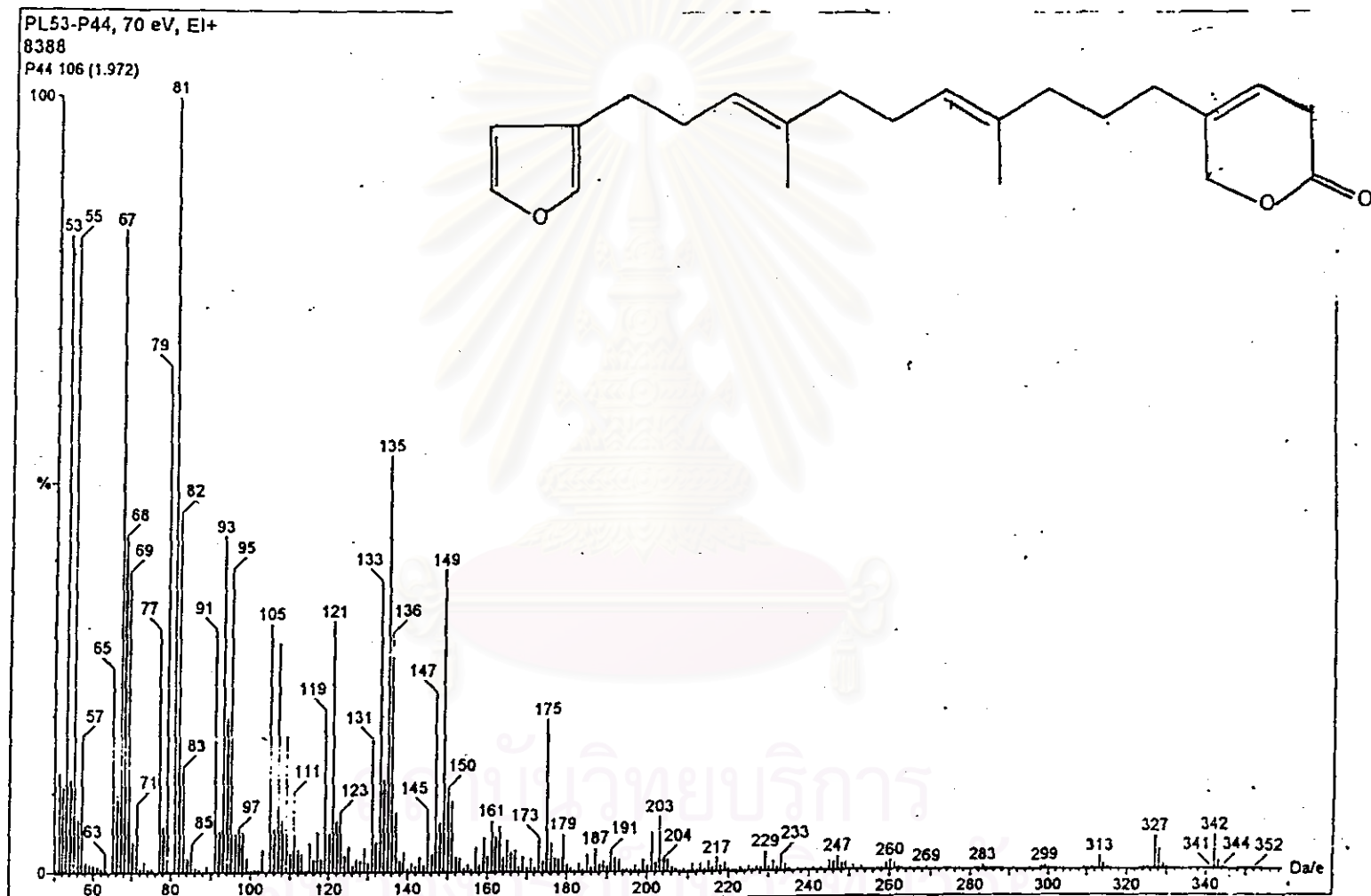


Figure 23. The electron impact mass spectrum of Compound P44.

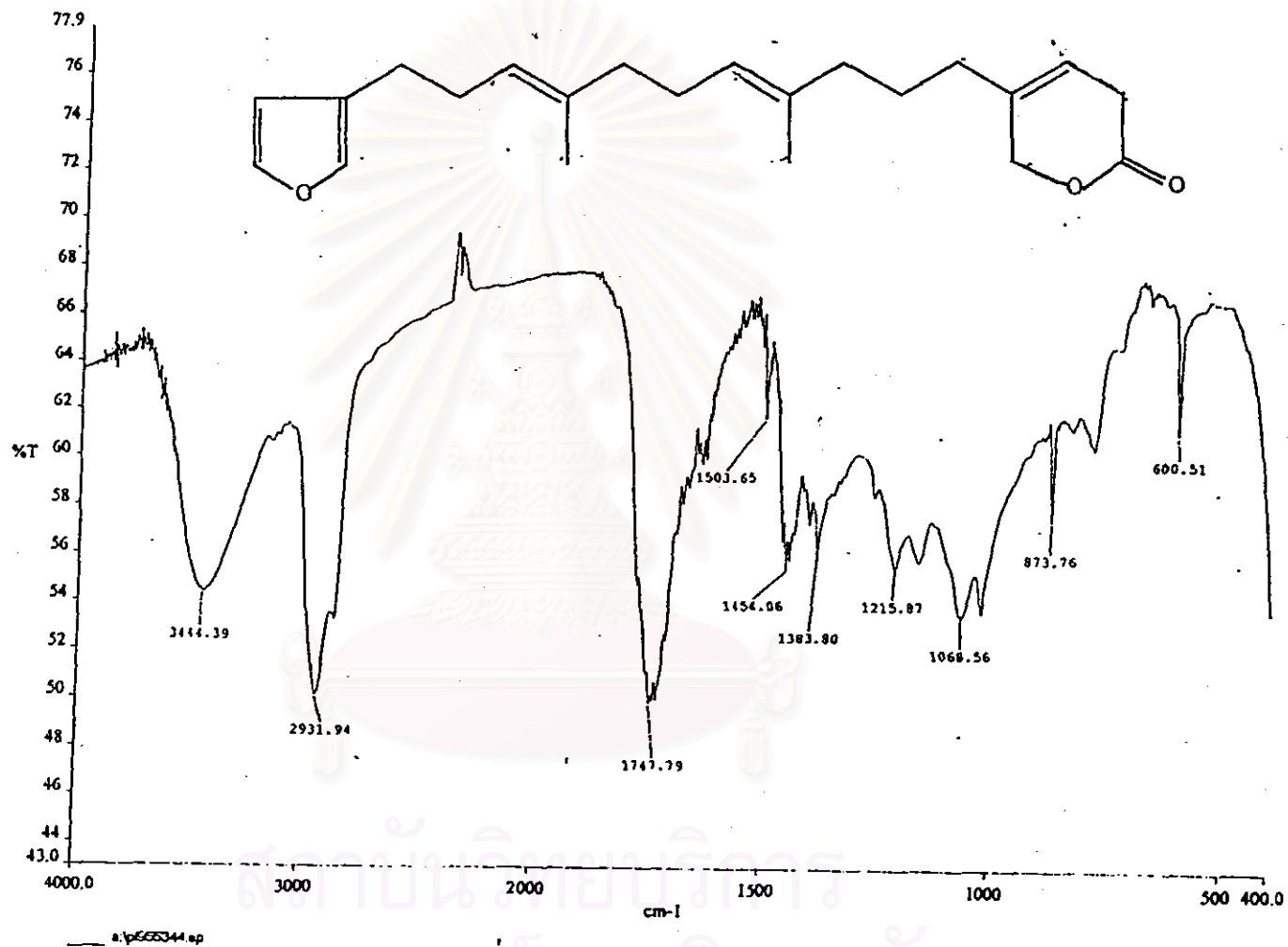


Figure 24. The IR spectrum of compound P44.

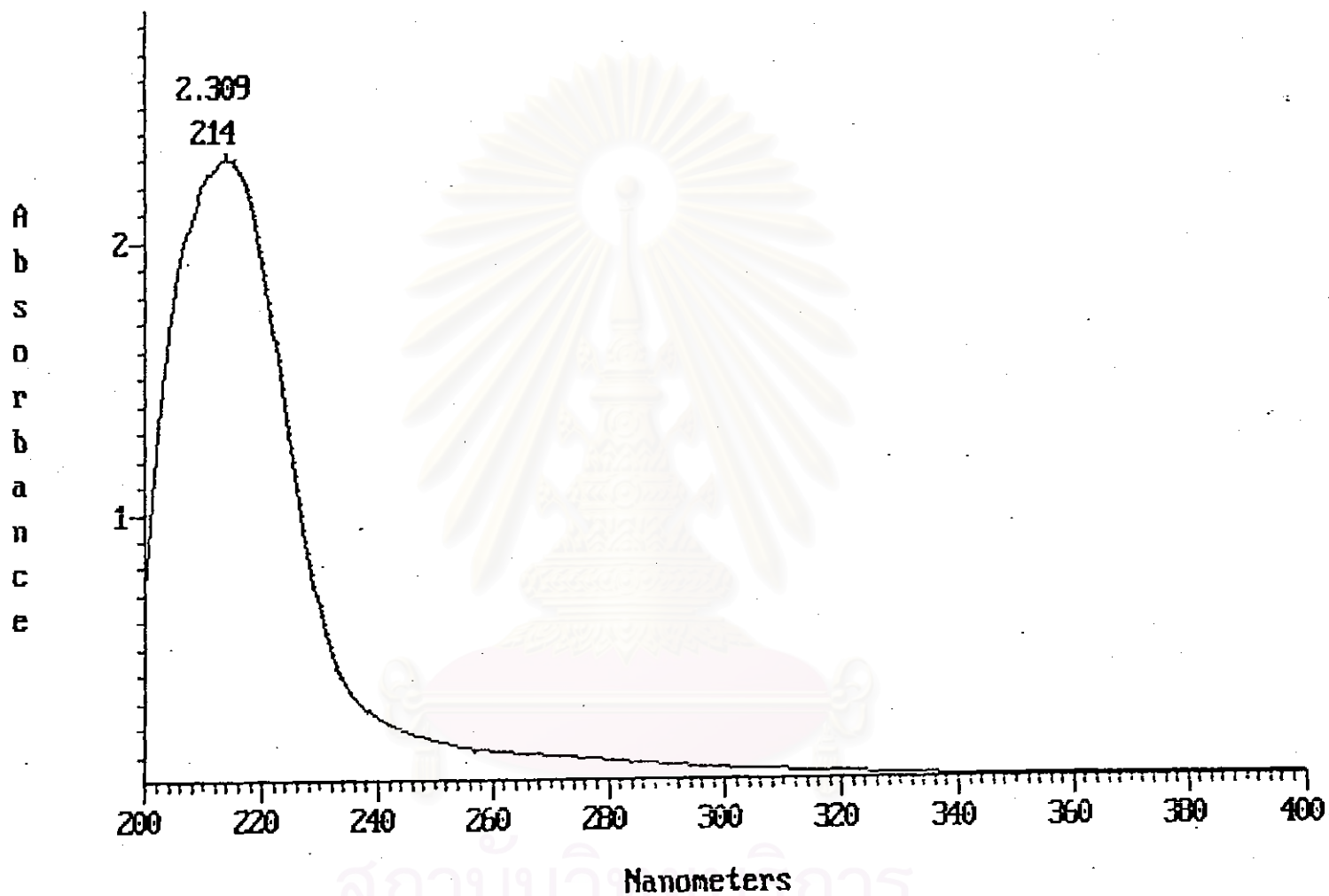


Figure 25. The UV spectrum of compound P44.

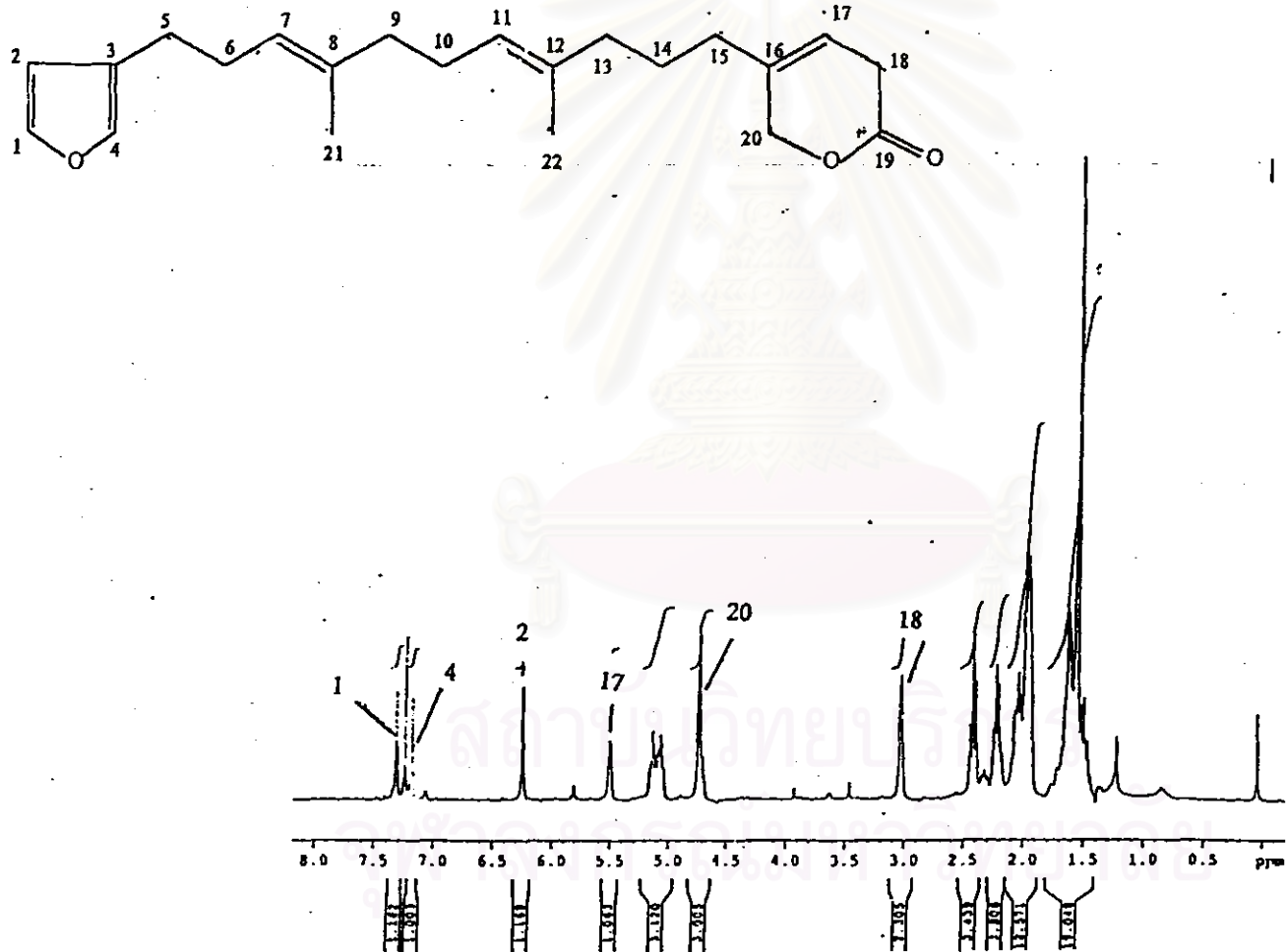


Figure 26. The 300 MHz ^1H nmr spectrum of compound P44 (in CDCl_3).

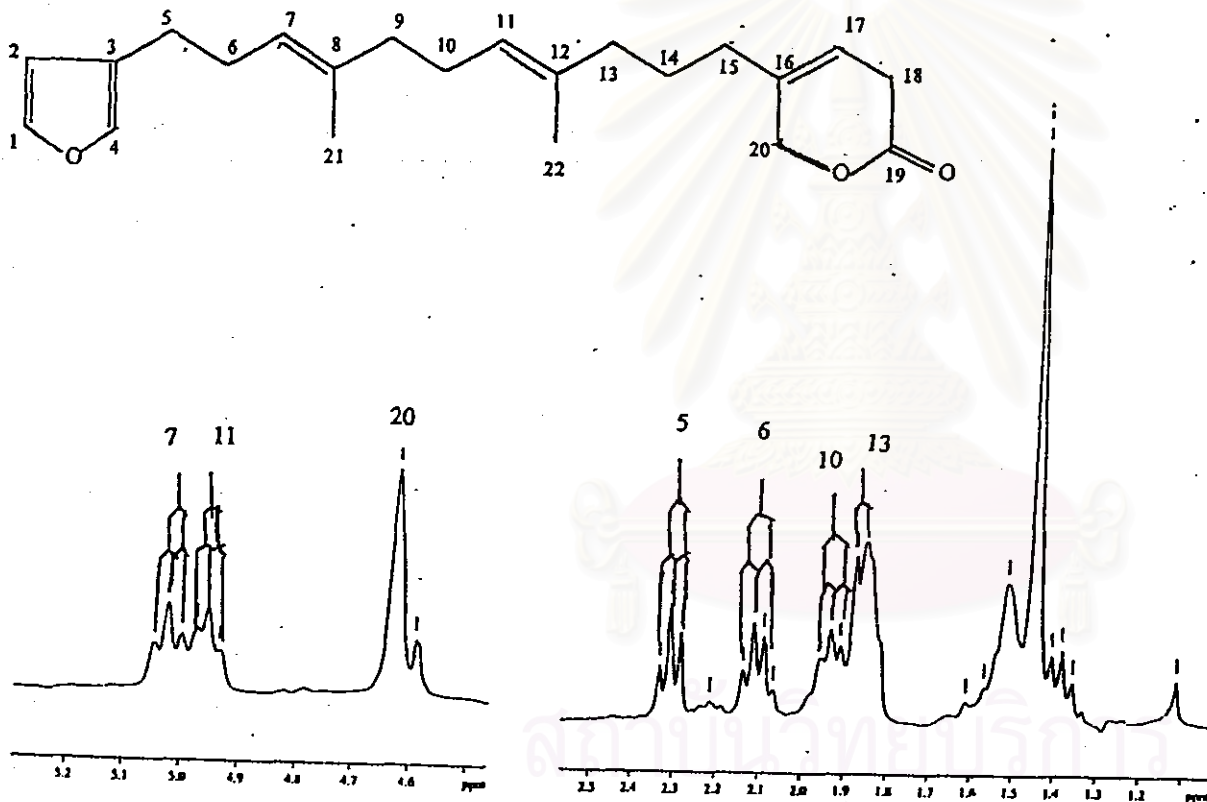


Figure 27. The 300 MHz ^1H nmr spectrum of compound P44 (in CDCl_3).

(expanded from 1.2-2.5 and 4.6-5.2 ppm).

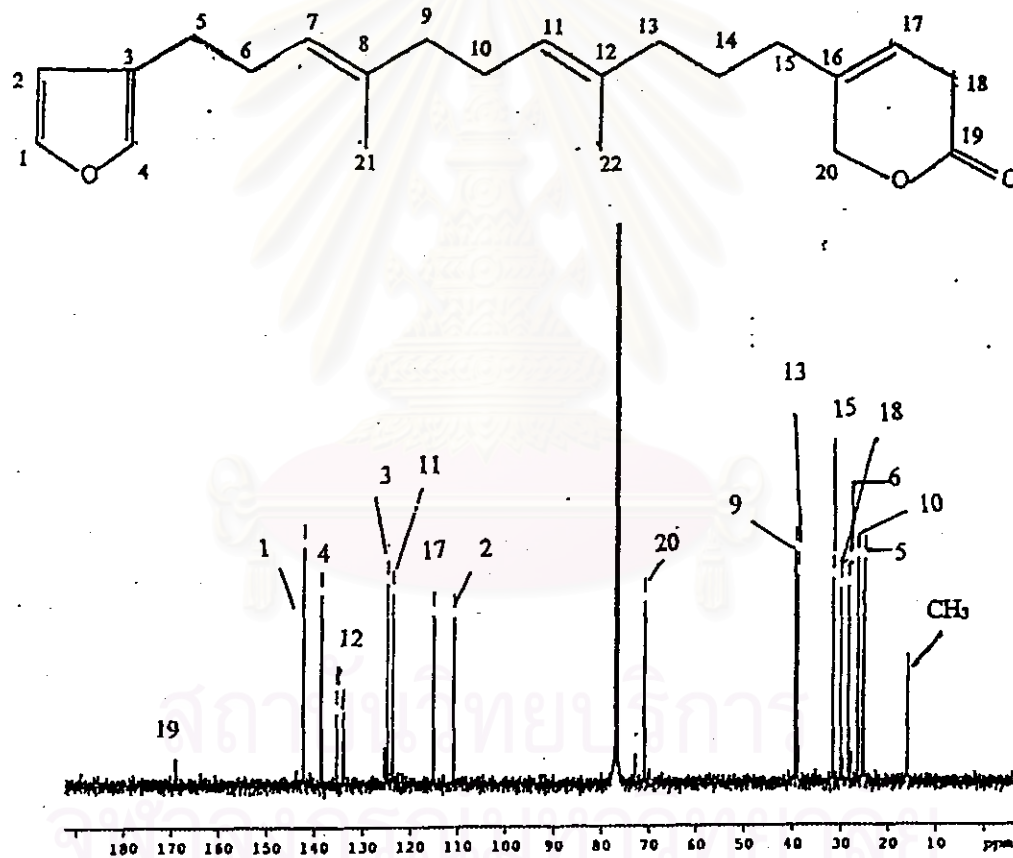
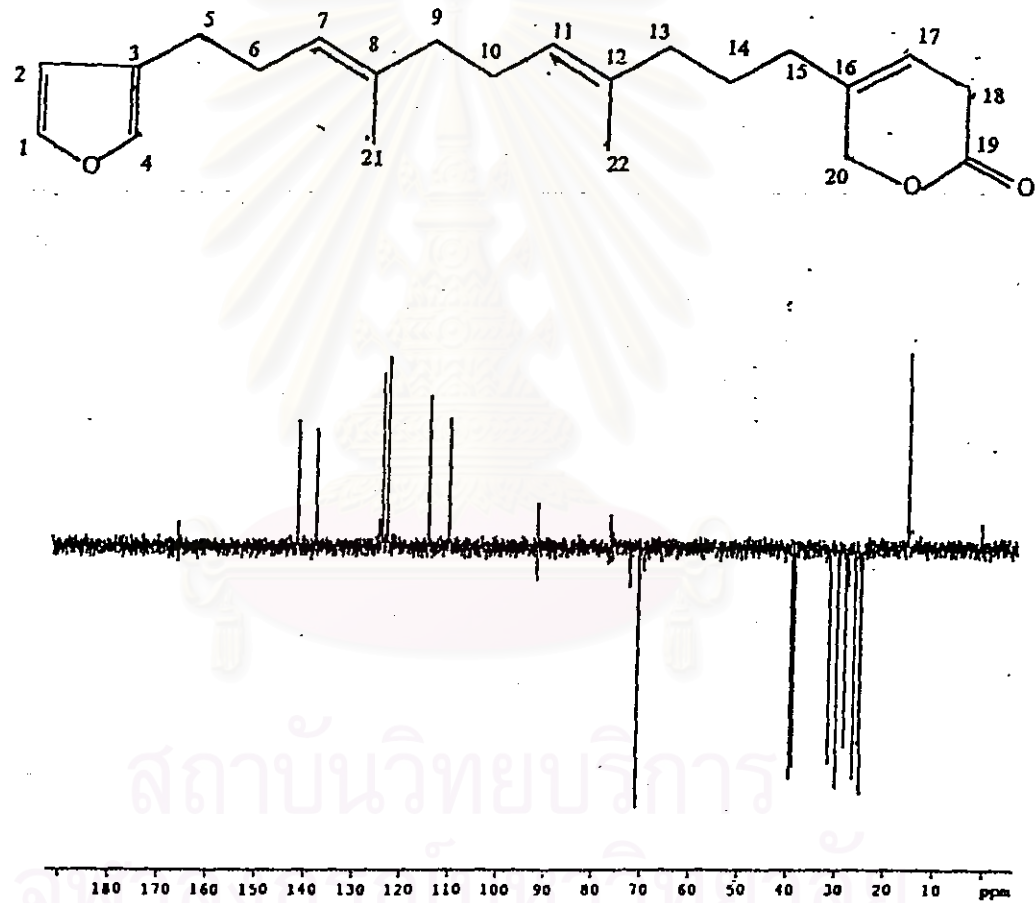


Figure 28. The 75 MHz ^{13}C nmr spectrum of compound P44 (in CDCl_3).



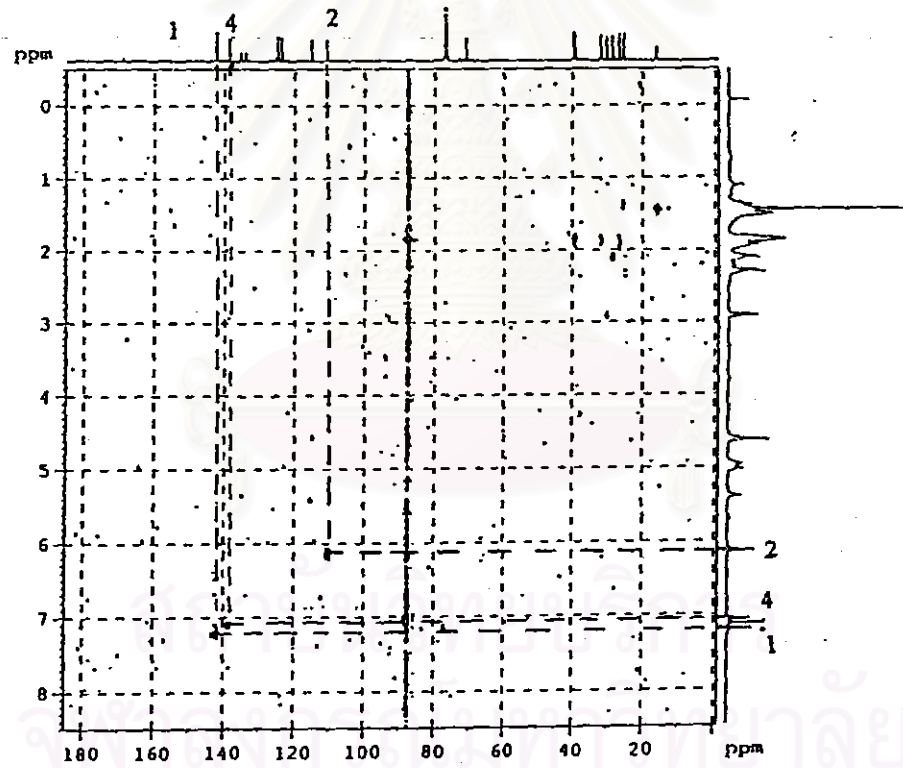
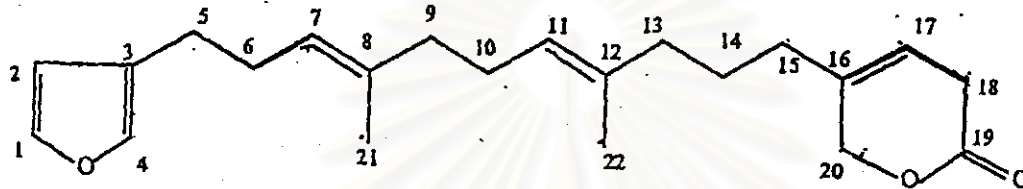


Figure 30. The 300 MHz HETCOR spectrum of compound P44 (in CDCl_3).

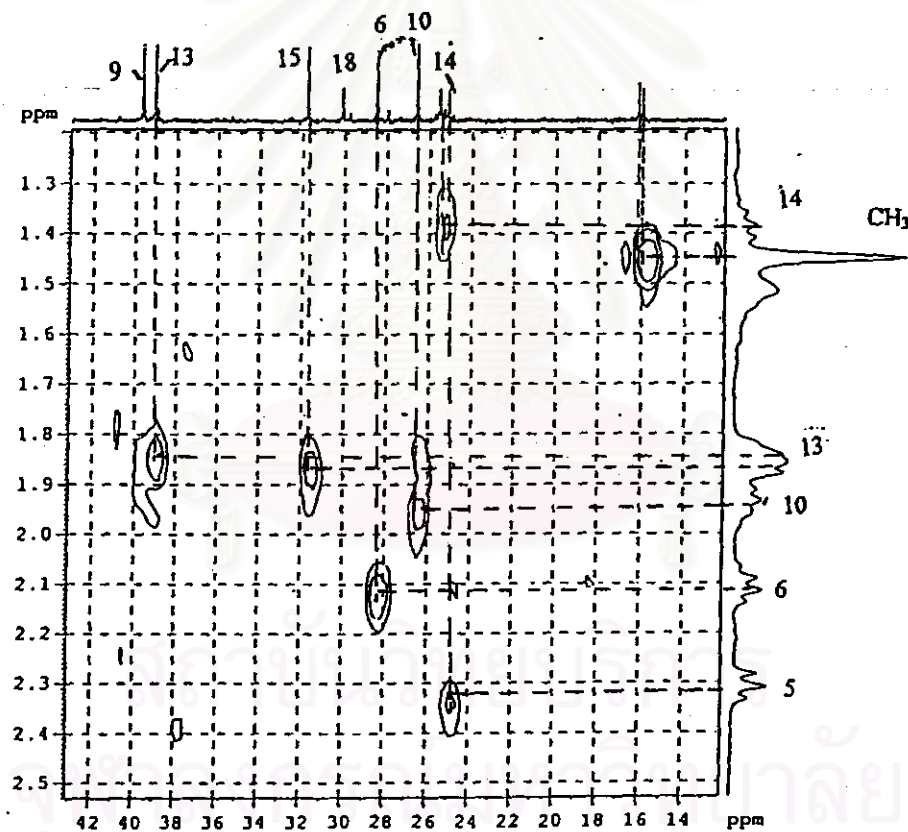
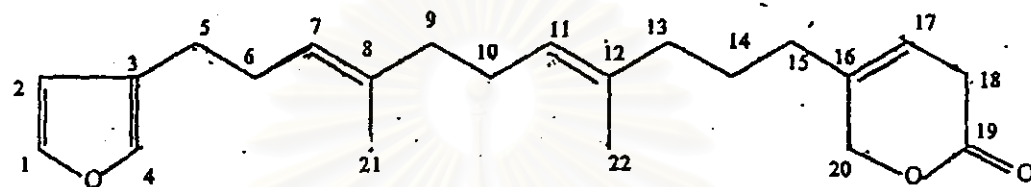


Figure 31. The 300 MHz HETCOR spectrum of compound P44 (in CDCl_3).

(expanded from 14-42 ppm).

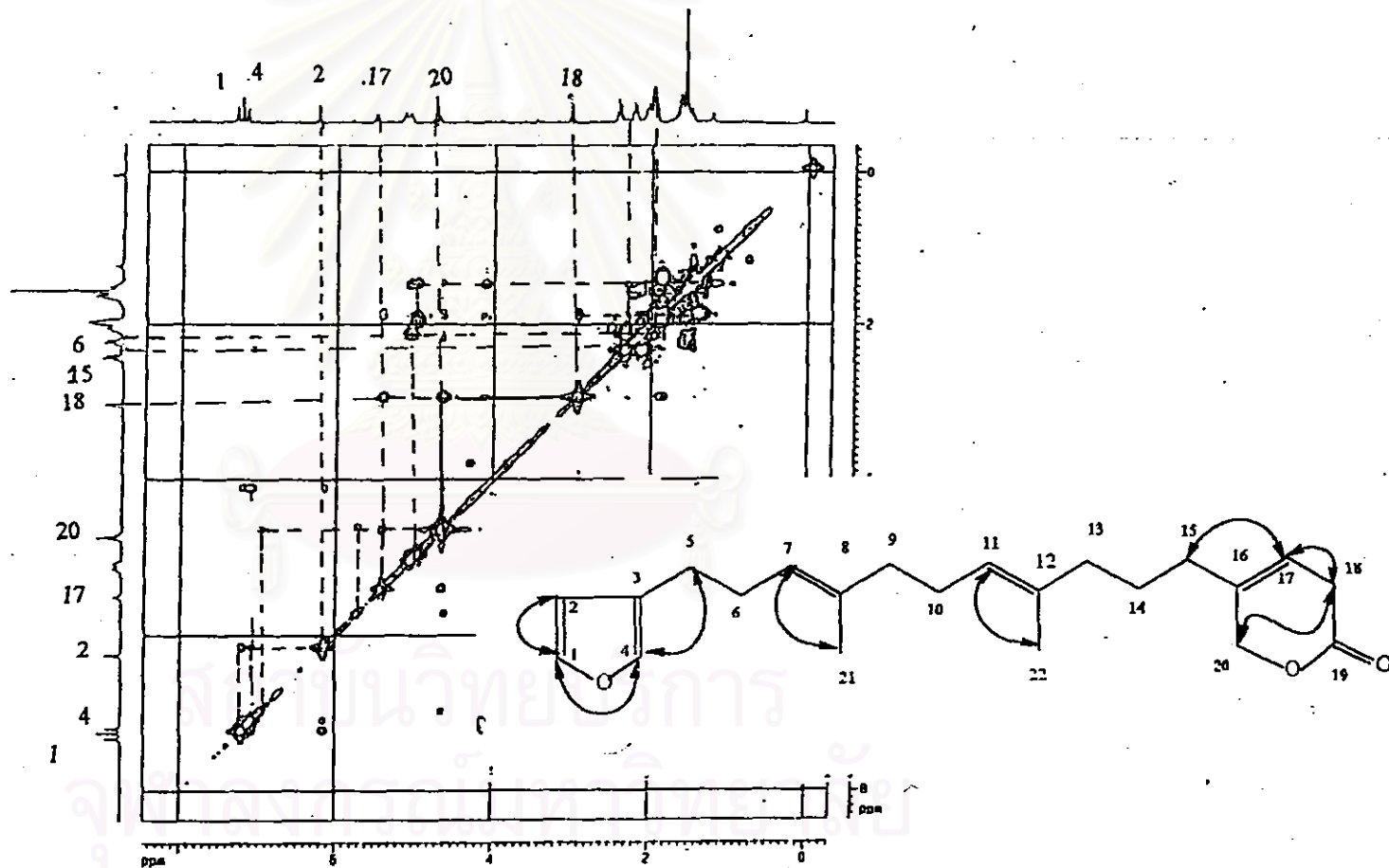


Figure 32. The 300 MHz COSY 45 spectrum of compound P44 (in CDCl_3).

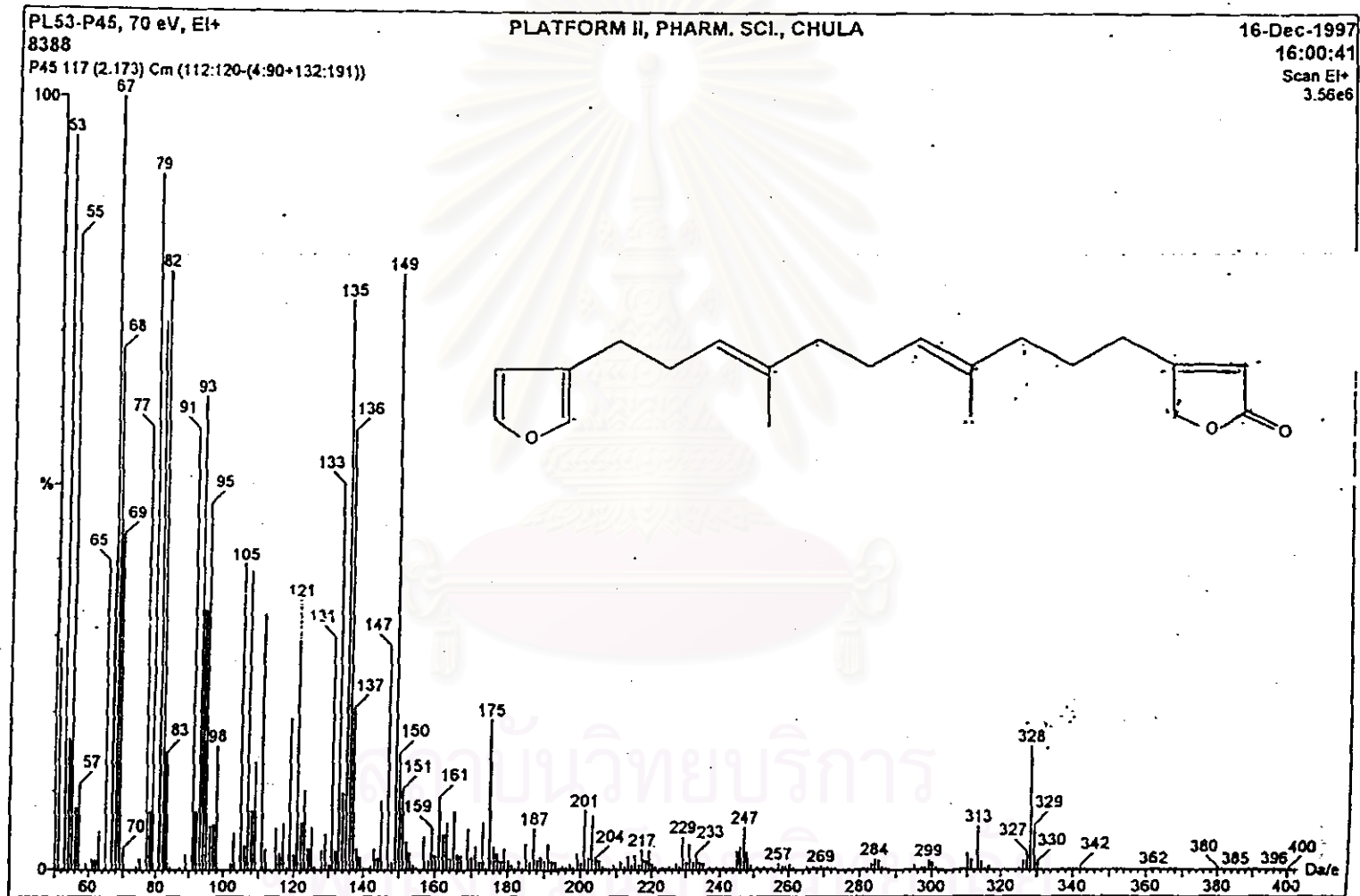


Figure 33. The electron impact mass spectrum of compound P45 (in CDCl₃).

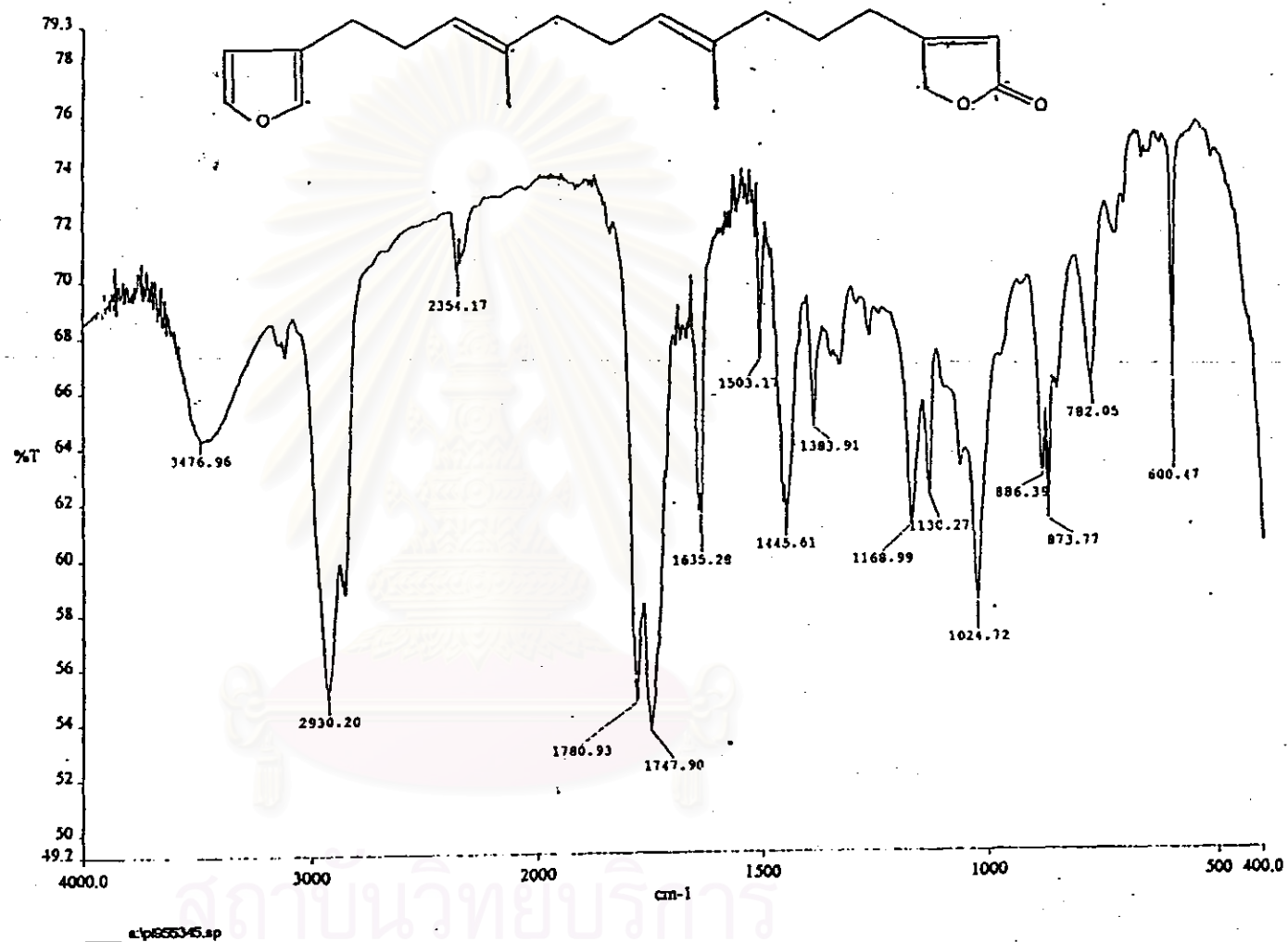


Figure 34. The IR spectrum of compound P45.

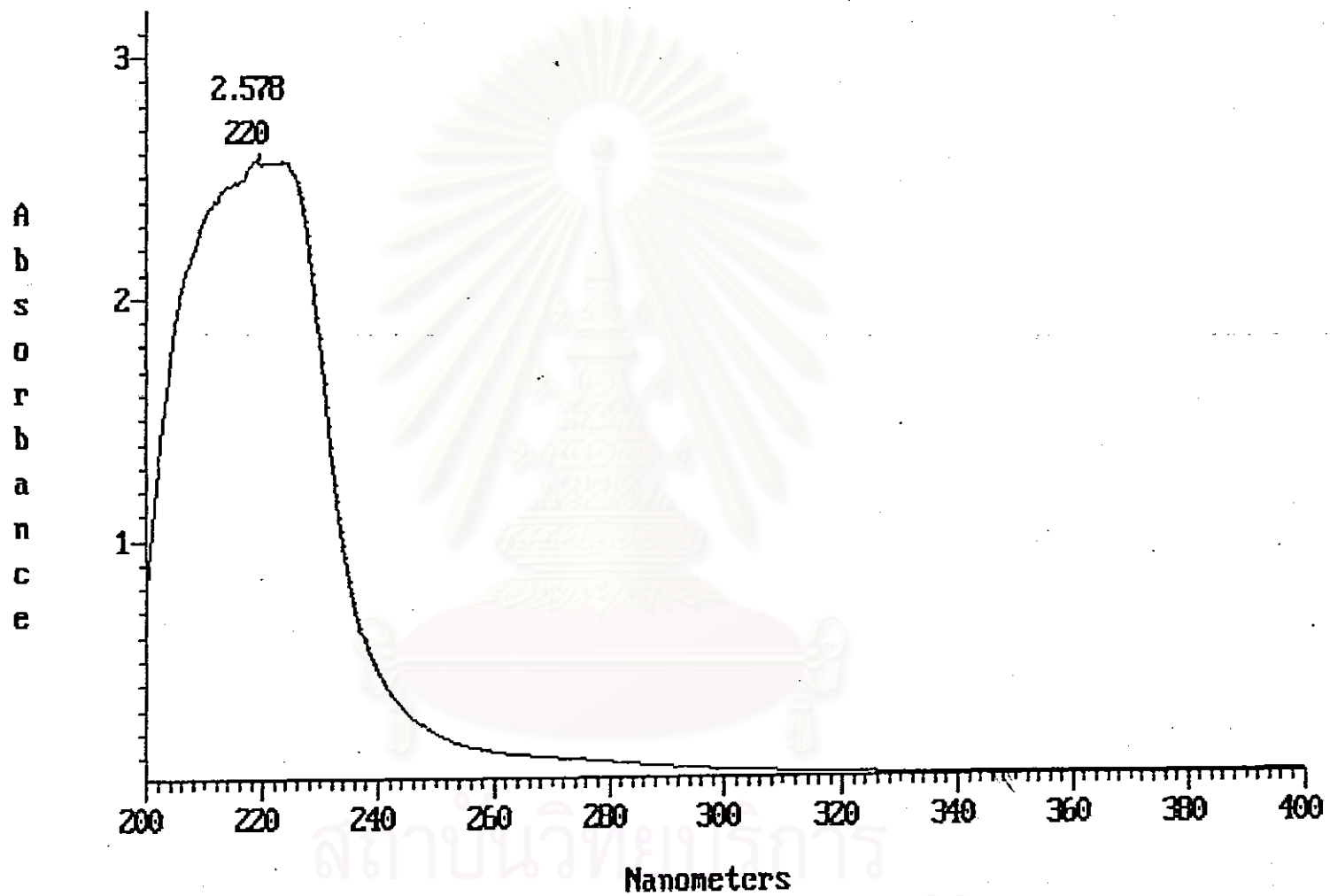


Figure 35. The UV spectrum of compound P45.



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Figure 36. The 300 MHz ^1H nmr spectrum of compound P45 (in CDCl_3).

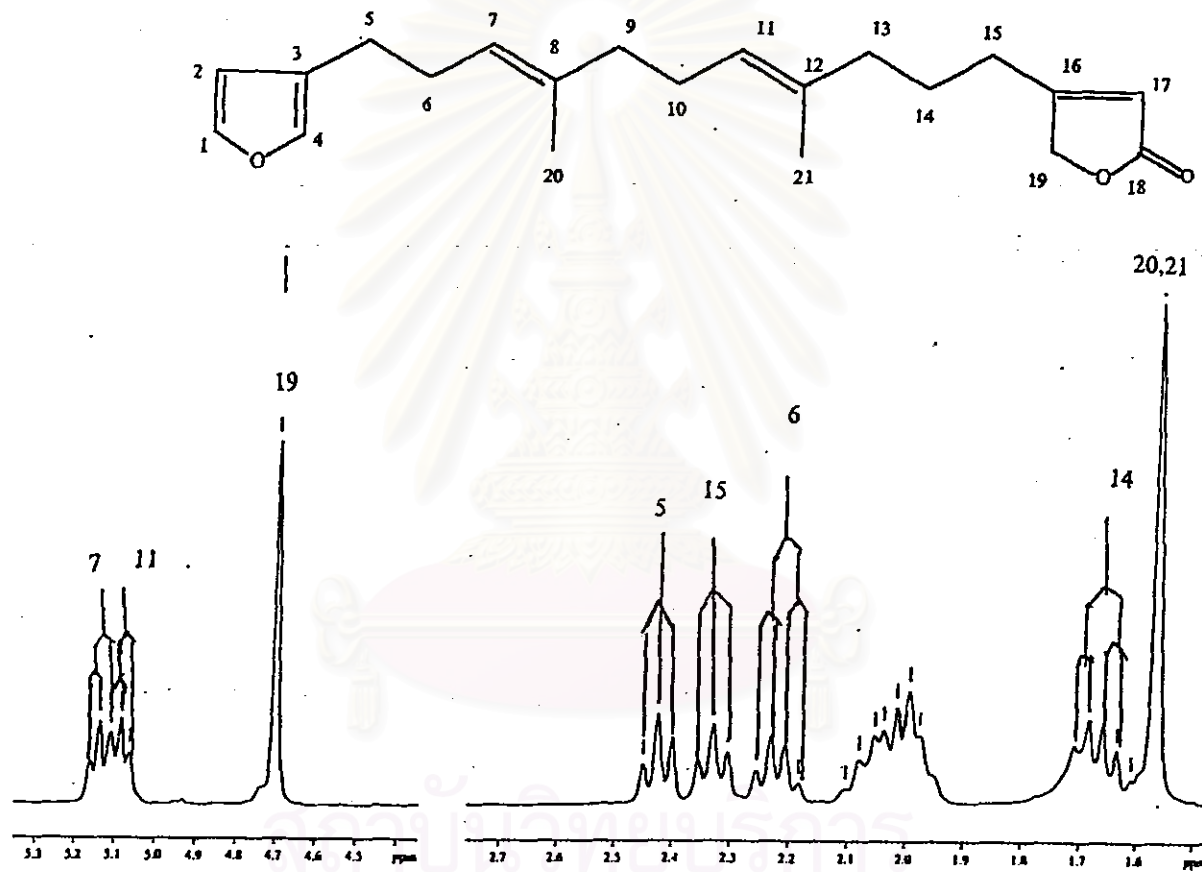


Figure 37. The 300 MHz ^1H nmr spectrum of compound P45 (in CDCl_3)

(expanded from 1.6-2.7 and 4.5-5.3 ppm)

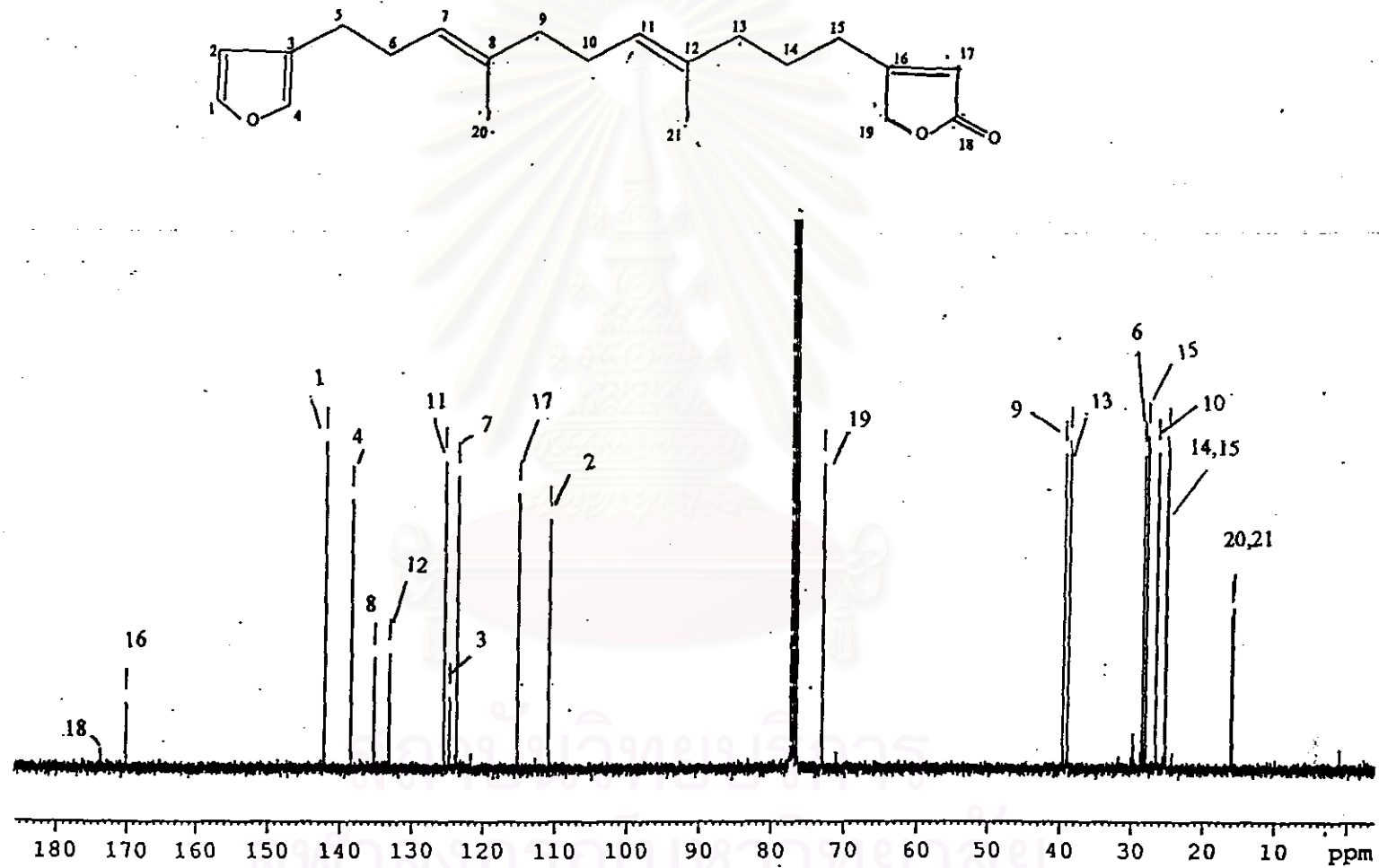


Figure 38. The 75 MHz ^{13}C nmr spectrum of compound 45 (in CDCl_3).

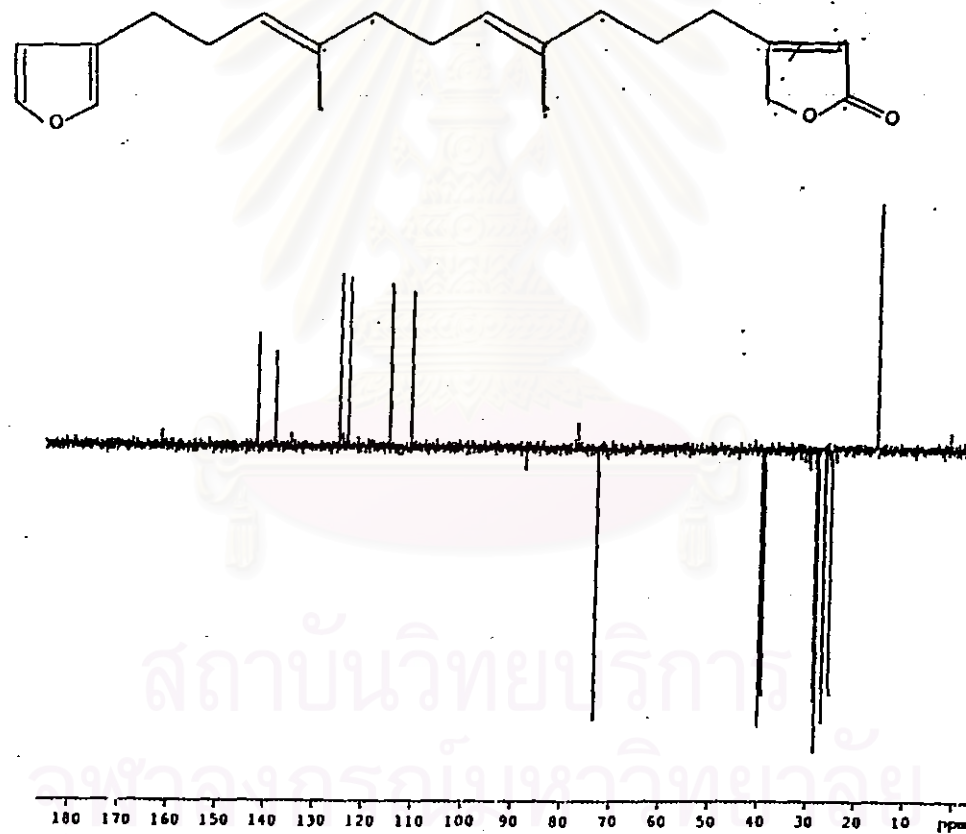


Figure 39. The 75 MHz DEPT spectrum of compound P45 (in CDCl₃).

PL-95-053, P45 HETCOR Spectrum

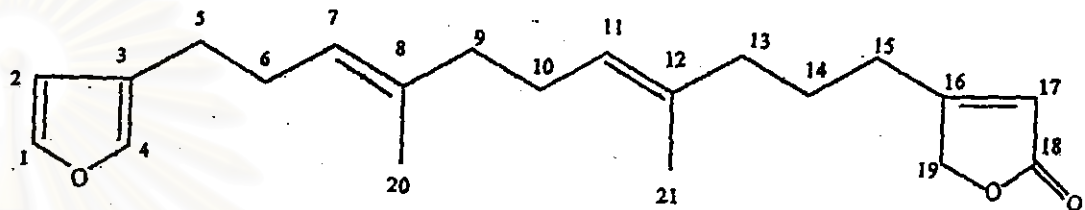
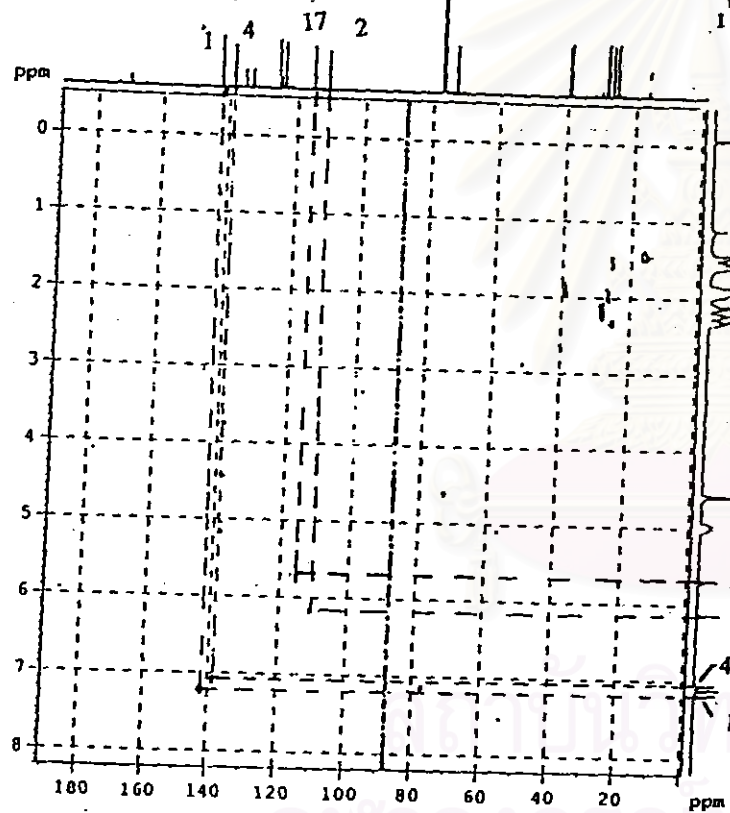


Figure 40. The 300 MHz HETCOR spectrum of compound P45 (in CDCl₃).

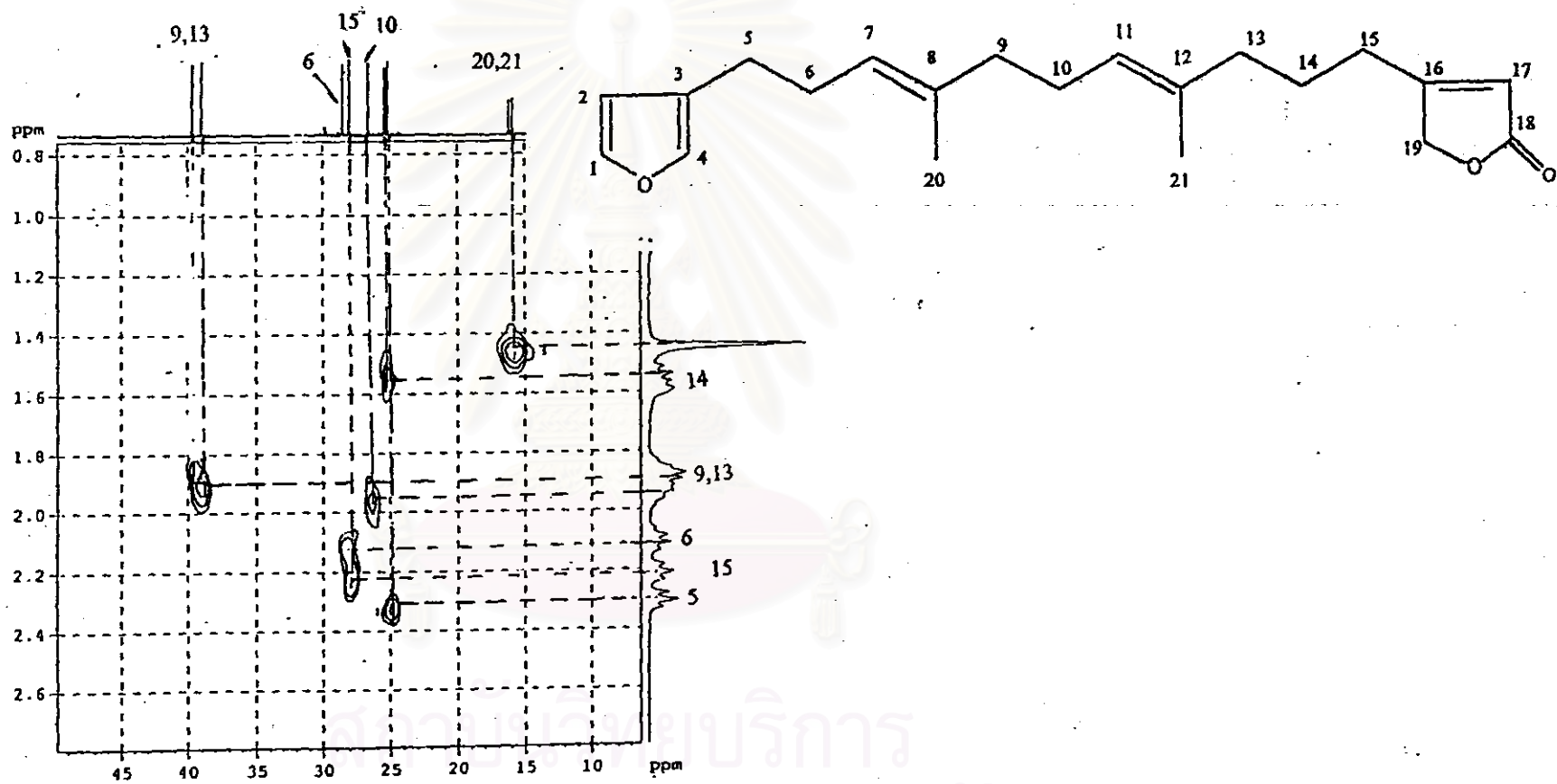


Figure 41. The 300 MHz HETCOR spectrum of compound P45 (in CDCl_3).

(expanded from 10–45 ppm).

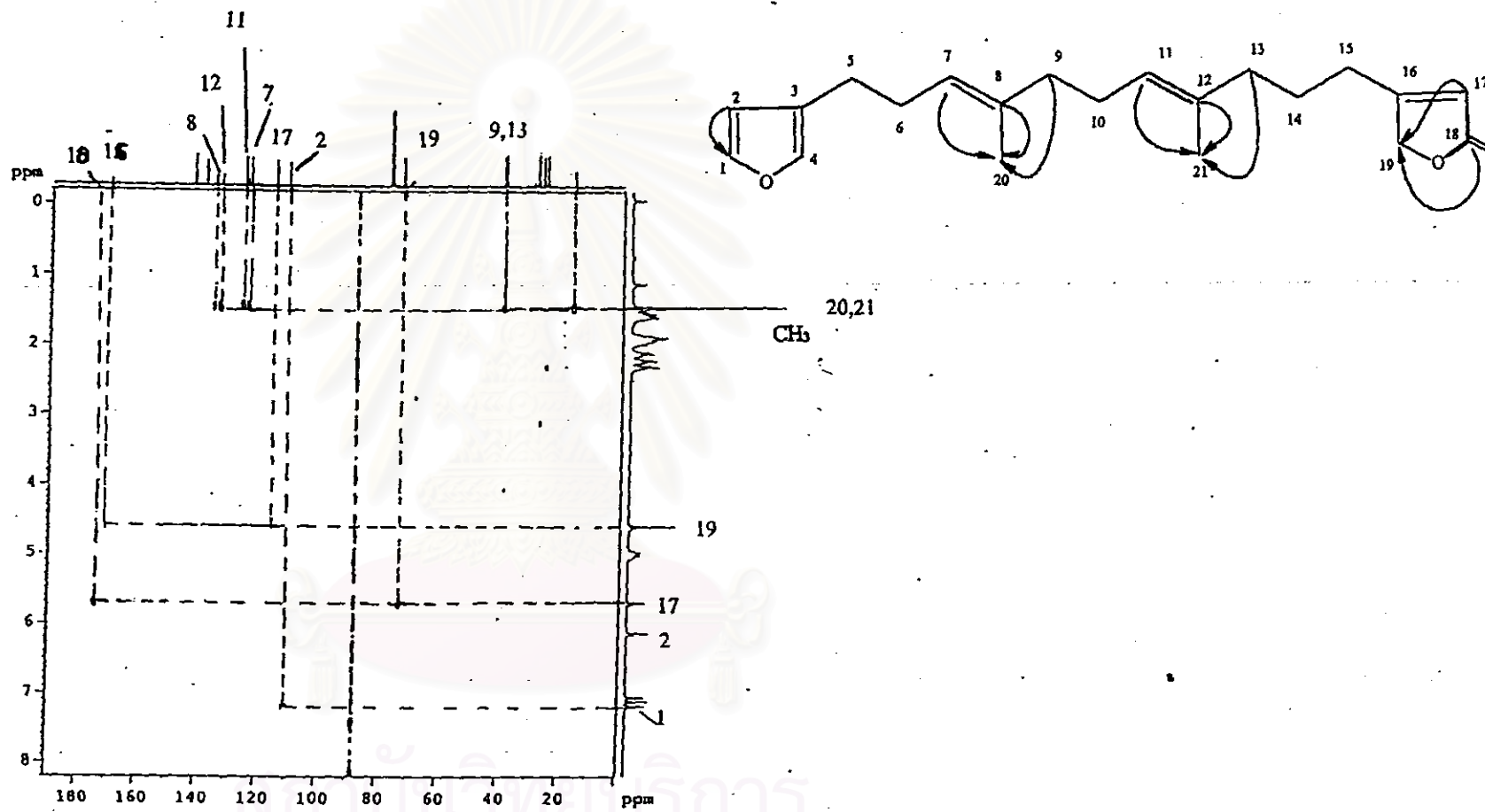


Figure 42. The 300 MHz COLOC spectrum of compound P45 (in CDCl_3).

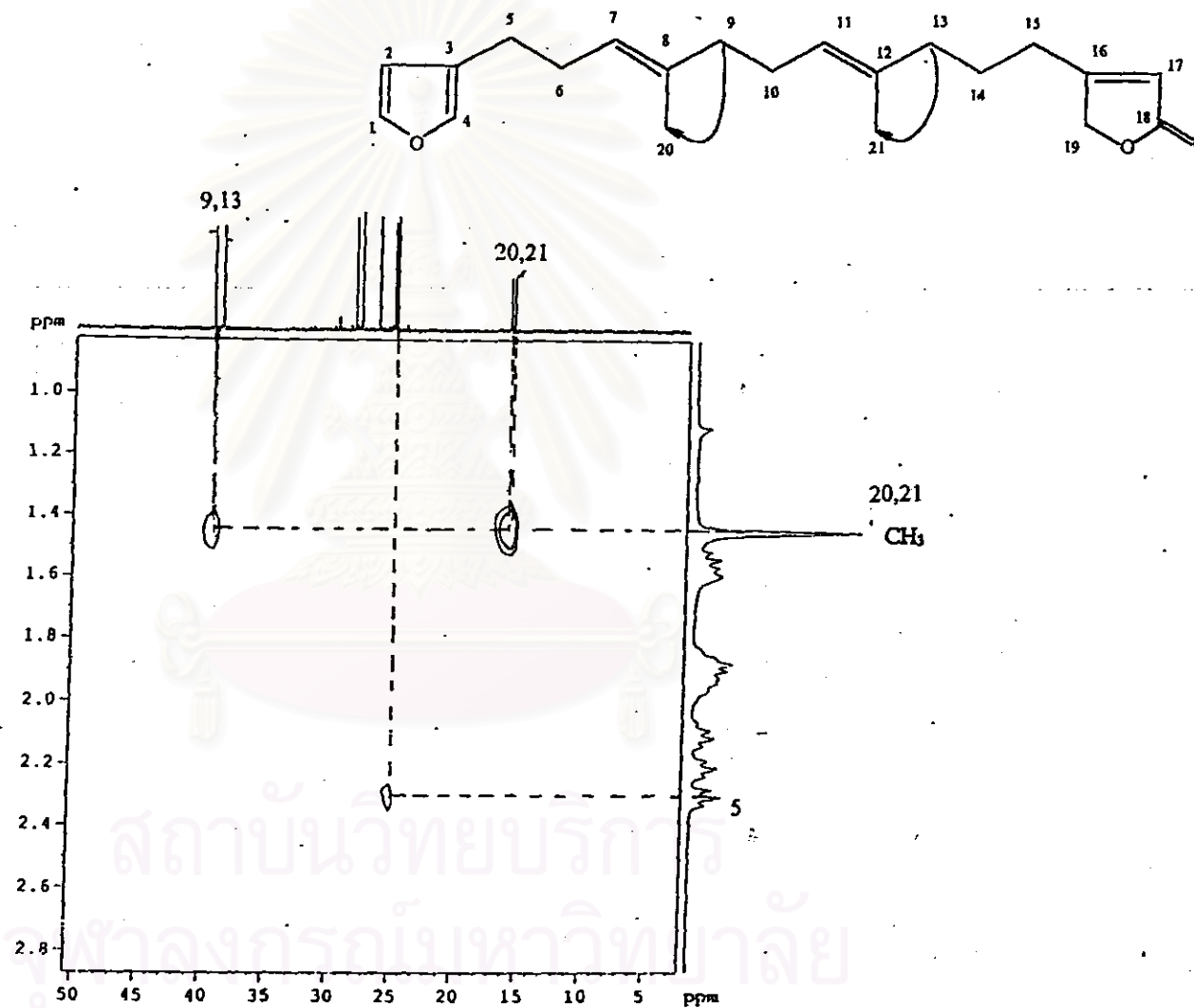


Figure 43. The 300 MHz COLOC spectrum of compound P45 (in CDCl₃).

(expanded from 5-50 ppm).

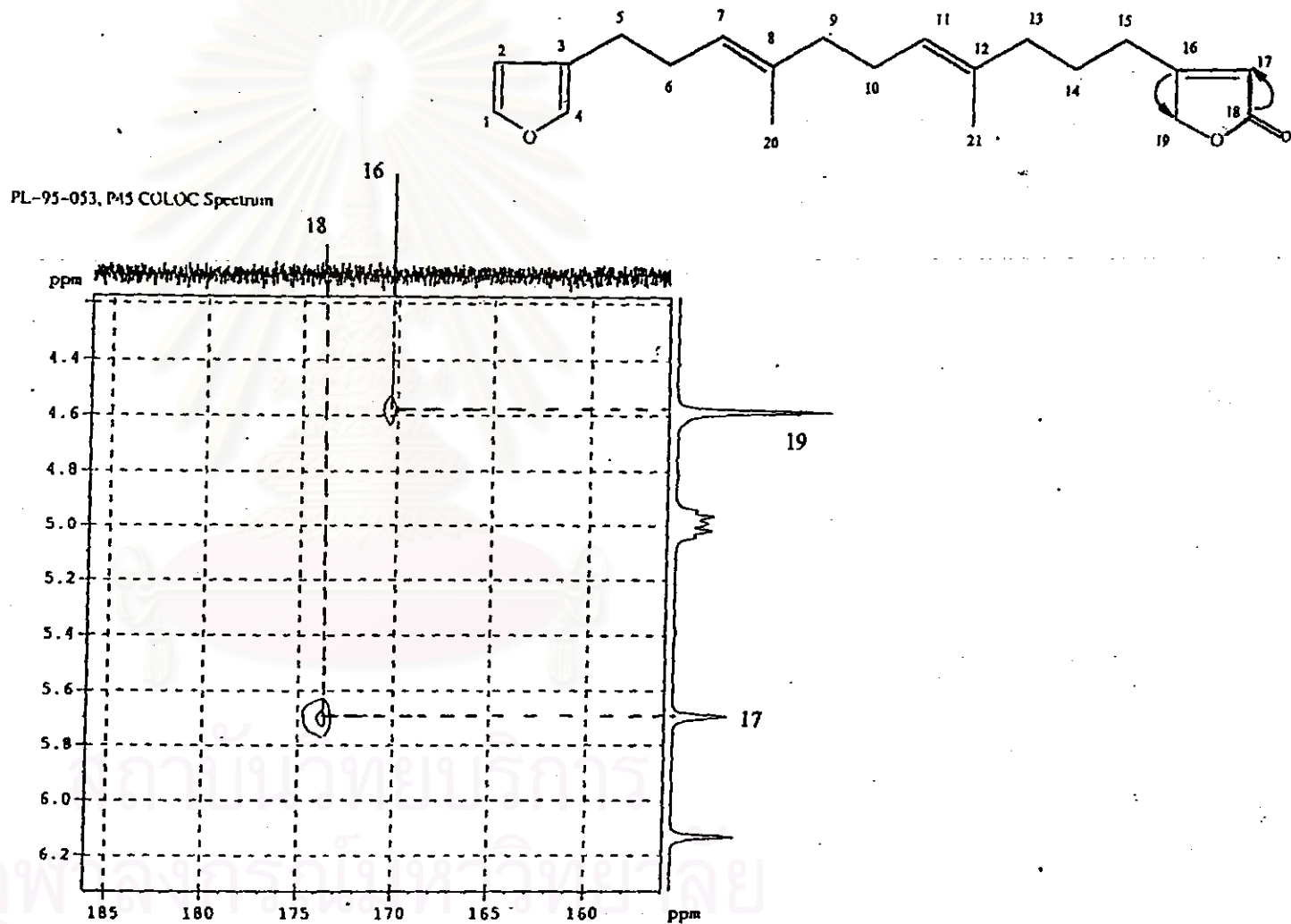


Figure 44. The 300 MHz COLOC spectrum of compound P45 (in CDCl_3)

(expanded from 160-185 ppm).

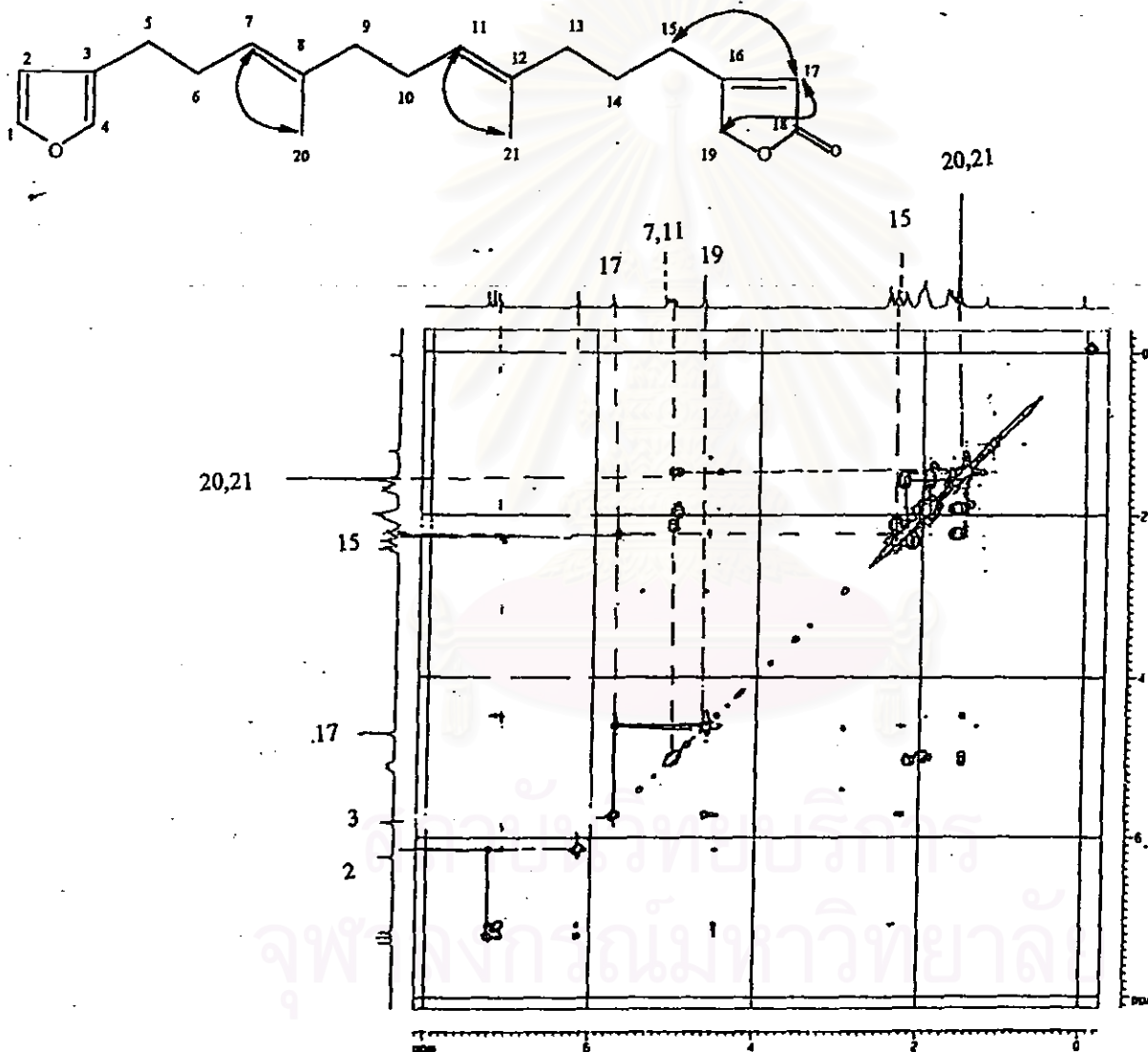


Figure 45. The 300 MHz COSY 45 spectrum of compound P45 (in CDCl₃).

PL53-KP9, 70 eV, EI+ PLATFORM B, PHARM. SCI., CHULA

16-Dec-1997

8388
KP9 161 (2.986) C₂₈H₄₂O₅ (157.162, 103.137, 160.217)

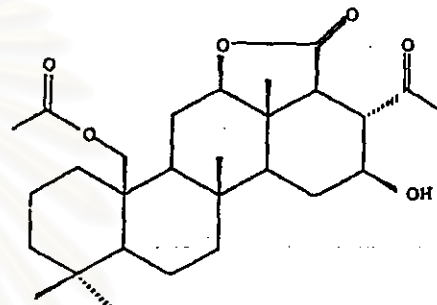
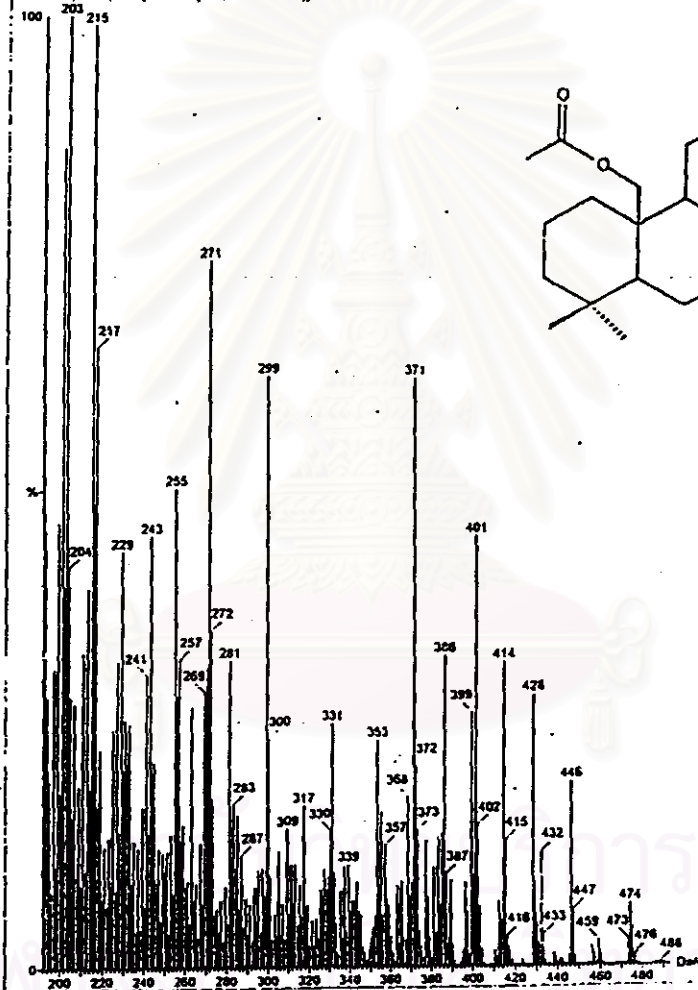


Figure 46. The electron impact mass spectrum of compound KP9.

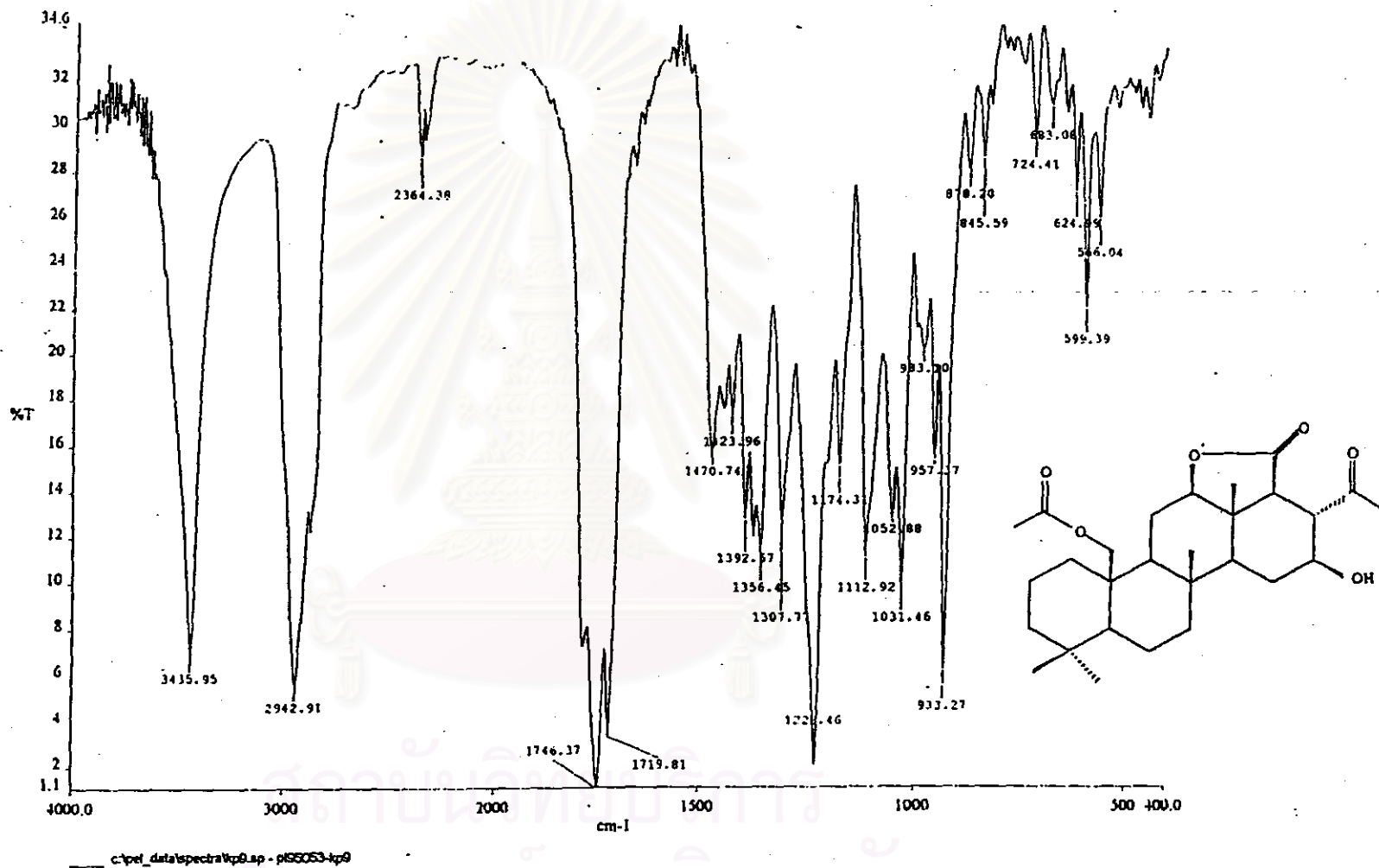


Figure 47. The IR spectrum of compound KP9.

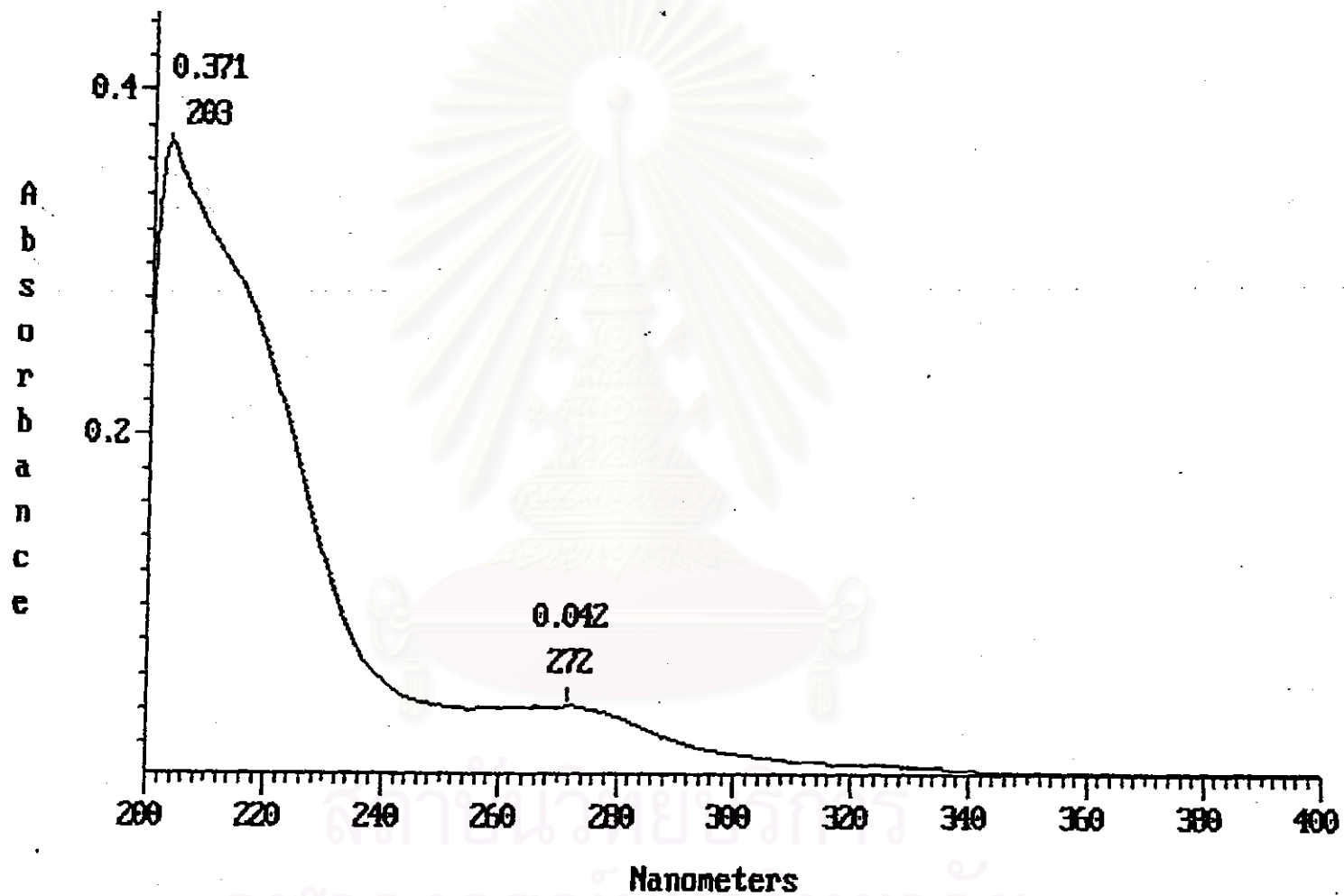


Figure 48. The UV spectrum of compound KP9.

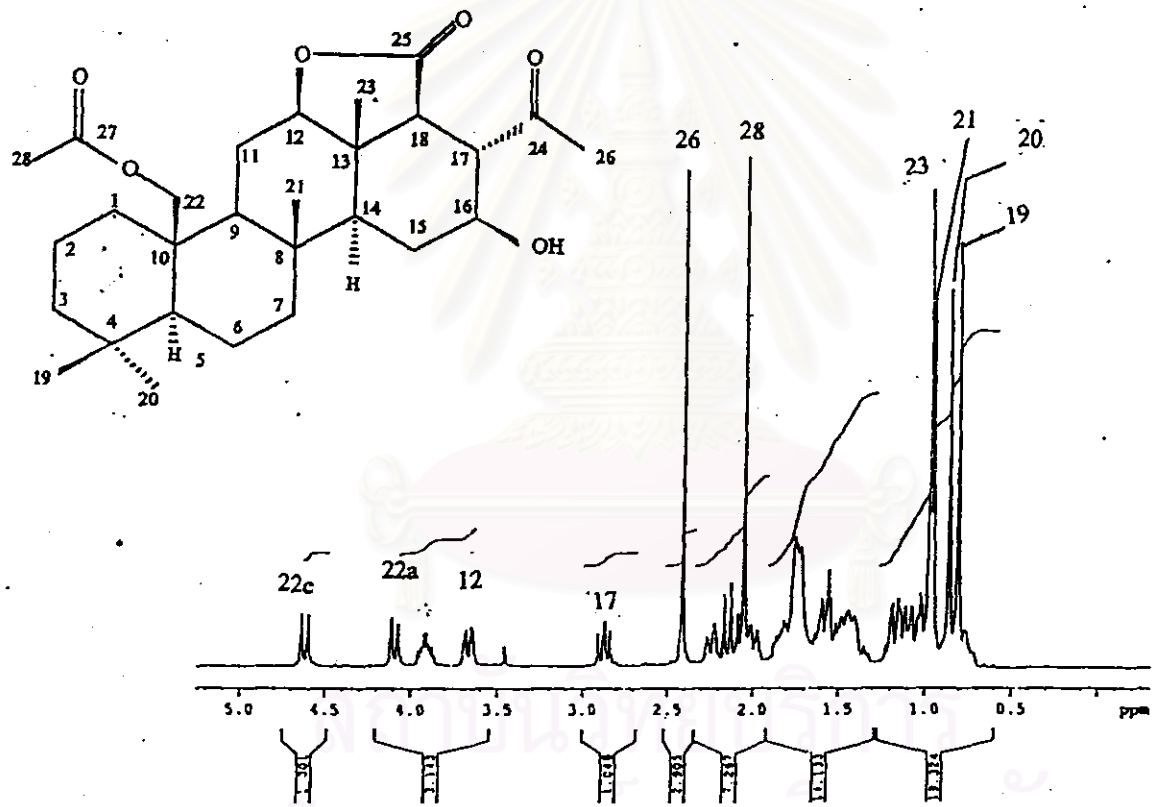


Figure 49. The 300 MHz ^1H nmr spectrum of compound KP9 (in CDCl_3).

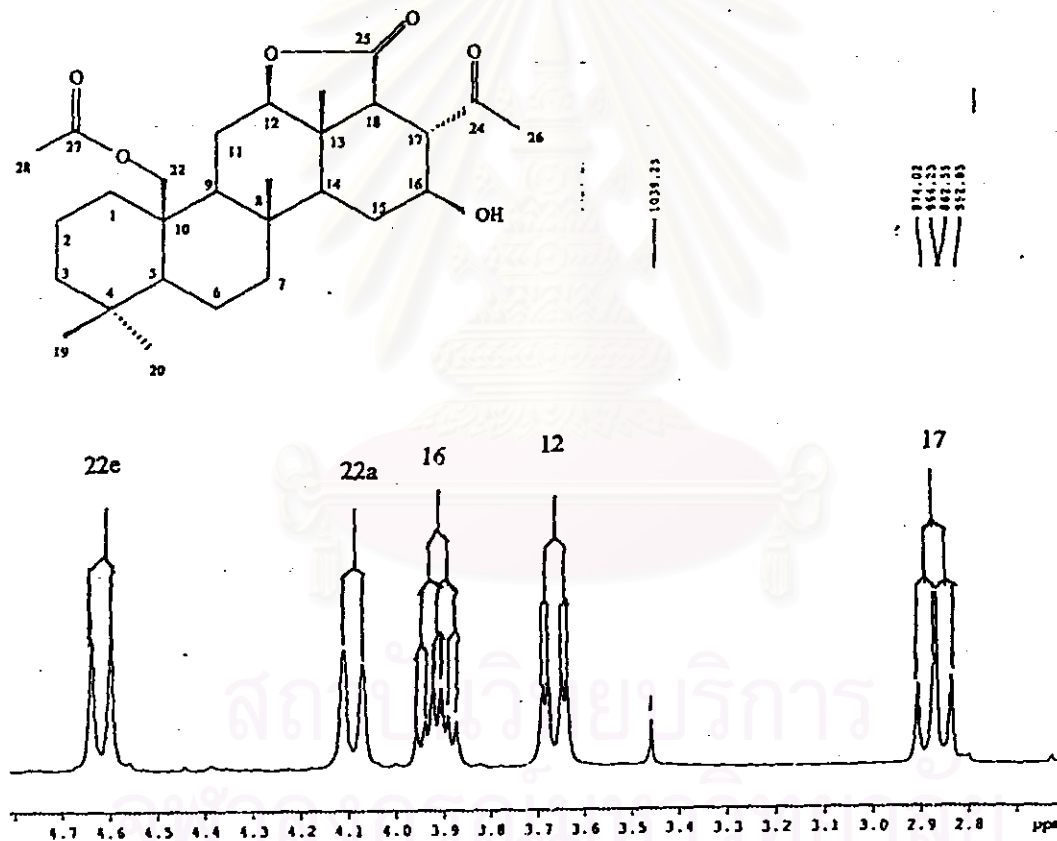


Figure 50. The 300 MHz ^1H nmr spectrum of compound KP9 (in CDCl_3).

(expanded from 2.8–4.7 ppm).

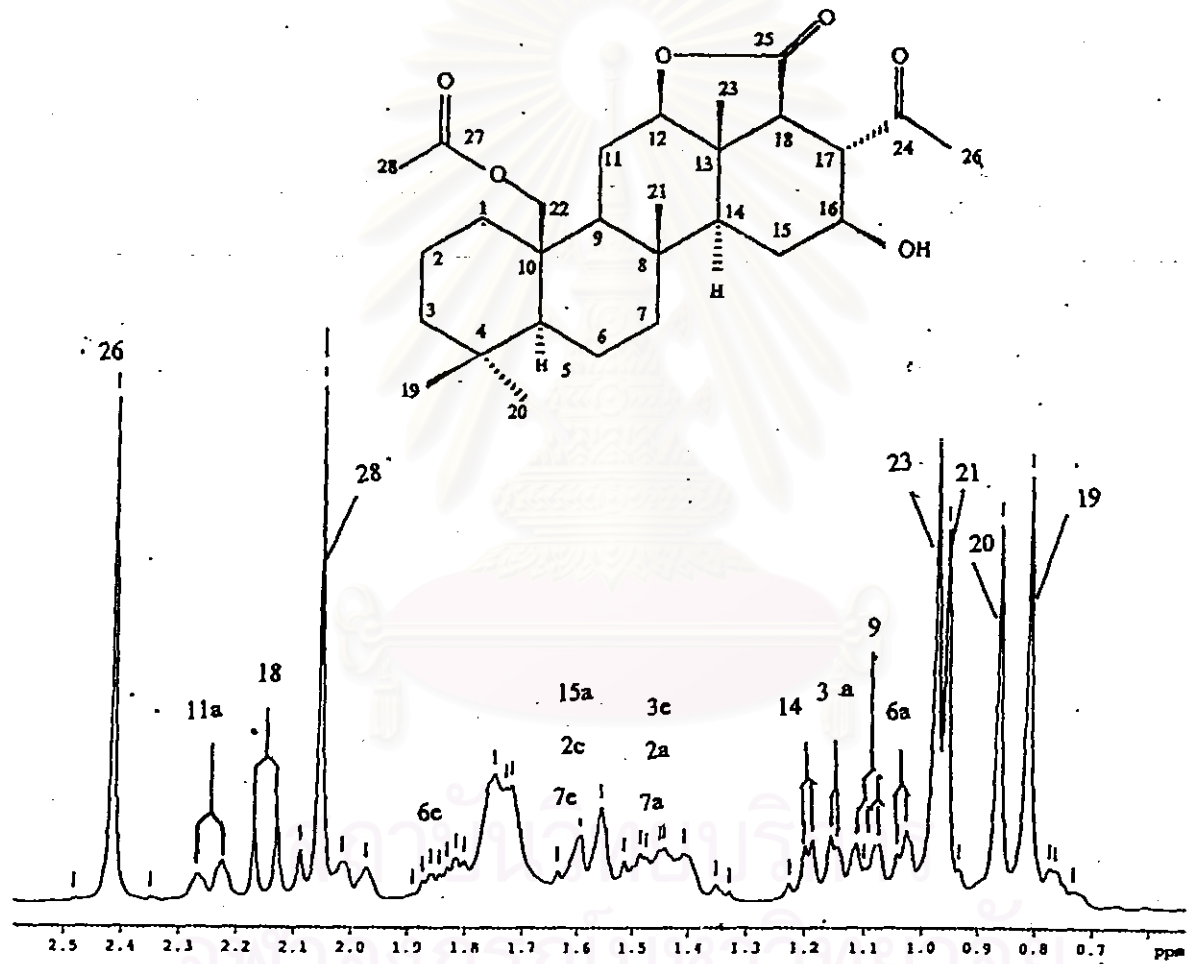


Figure 51. The 300 MHz ¹H nmr spectrum of compound KP9 (in CDCl₃)

(expanded from 0.7-2.5 ppm)

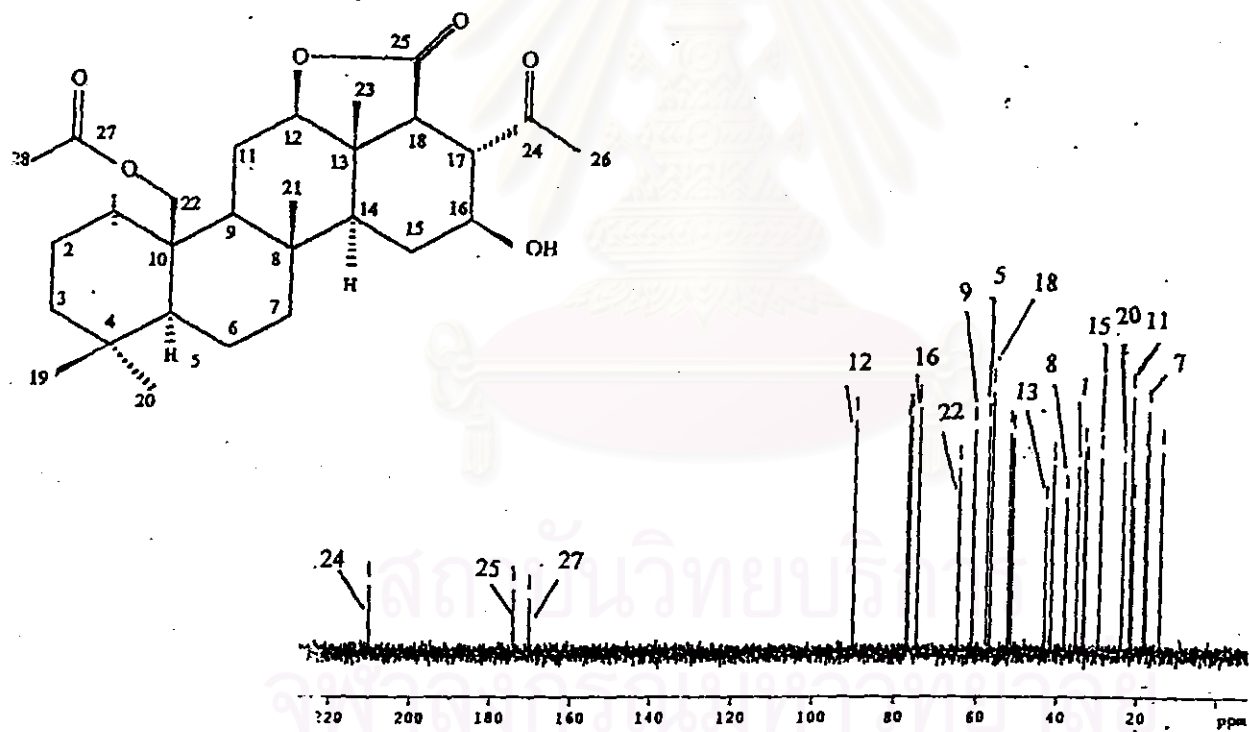


Figure 52. The 75 MHz ^{13}C nmr spectrum of compound KP9 (in CDCl_3).

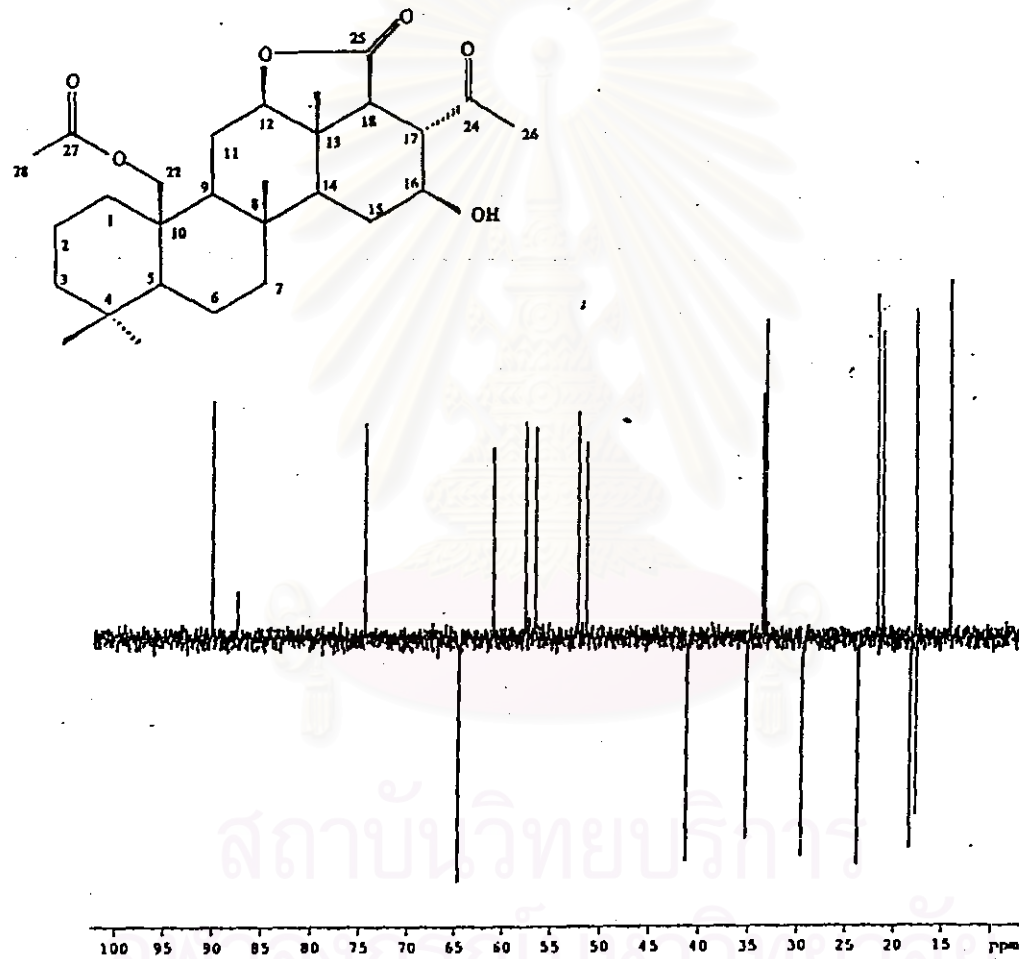


Figure 53. The 75 MHz DEPT 135 spectrum of compound KP9 (in CDCl₃).

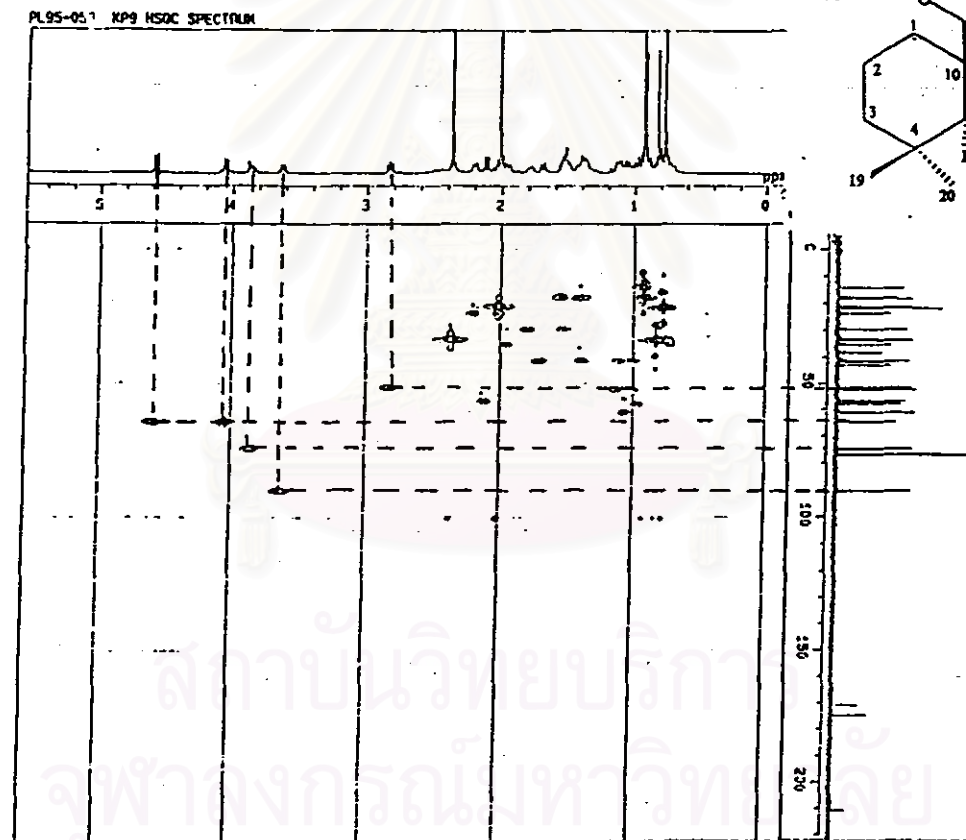


Figure 54. The 500 MHz HSQC spectrum of compound KP9 (in CDCl₃).

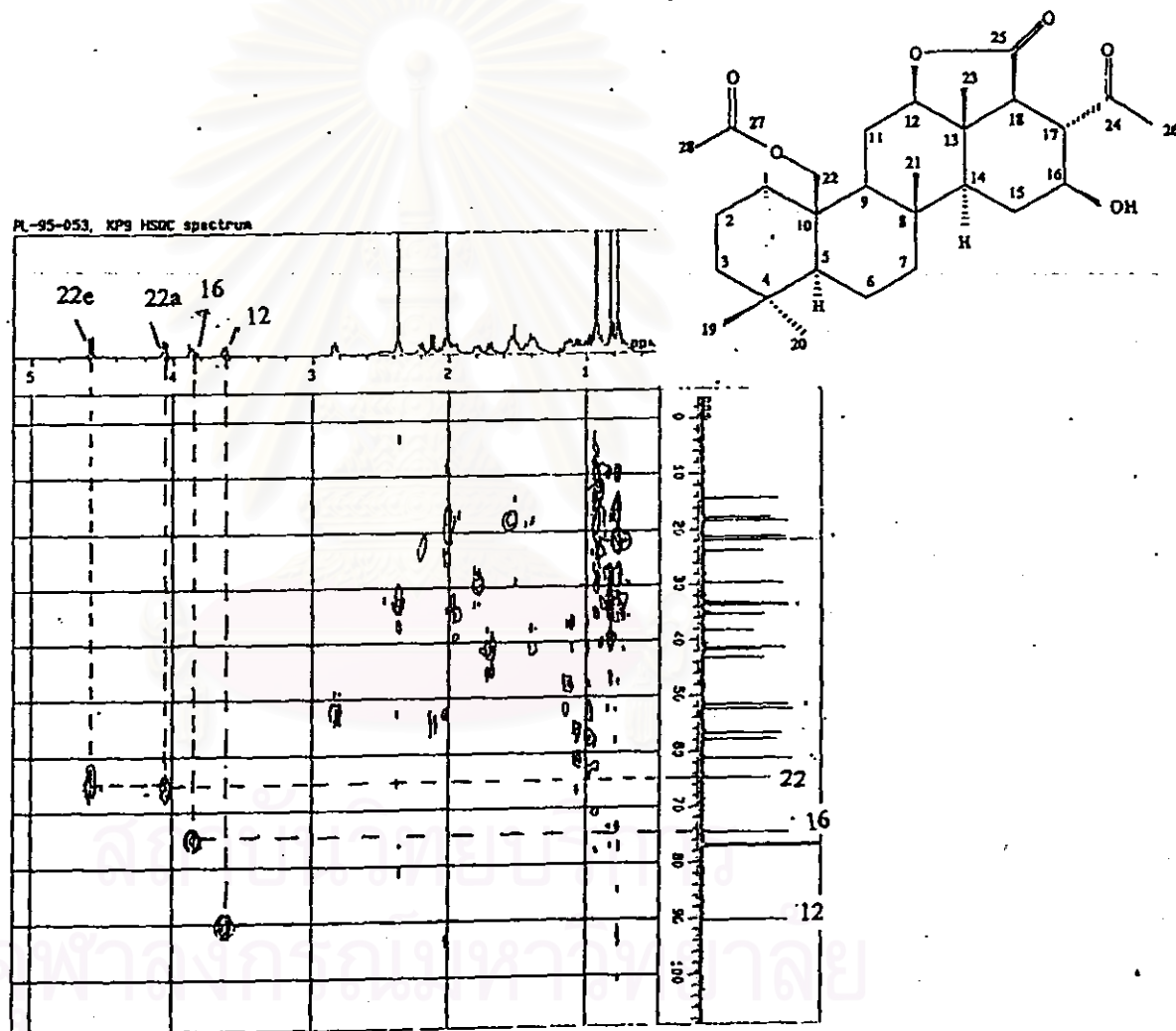


Figure 55. The 500 MHz HSQC spectrum of compound KP9 (in CDCl₃).

(expanded from 10-100 ppm).

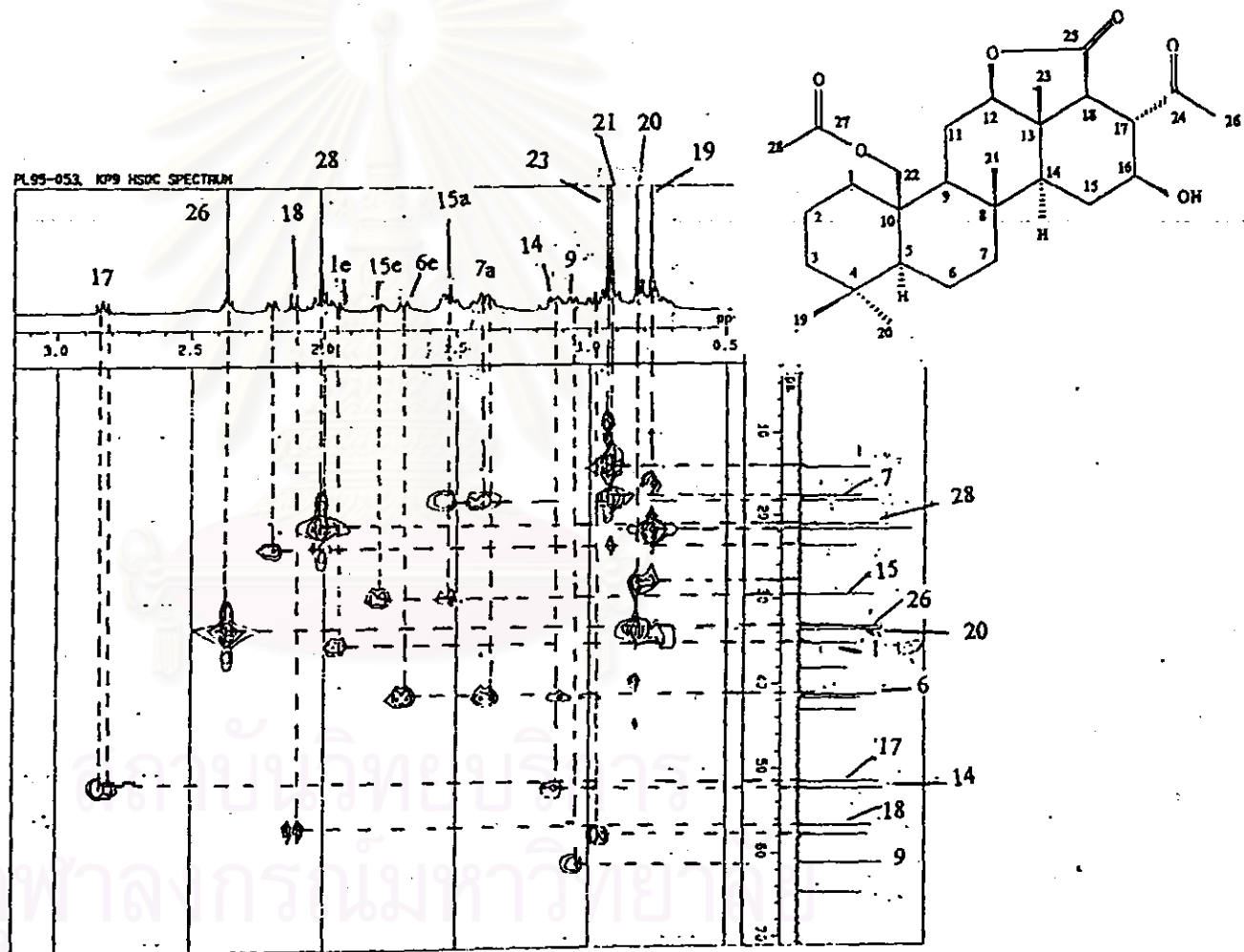


Figure 56. The 500 MHz HSQC spectrum of compound KP9 (in CDCl₃)

(expanded from 10-70 ppm).

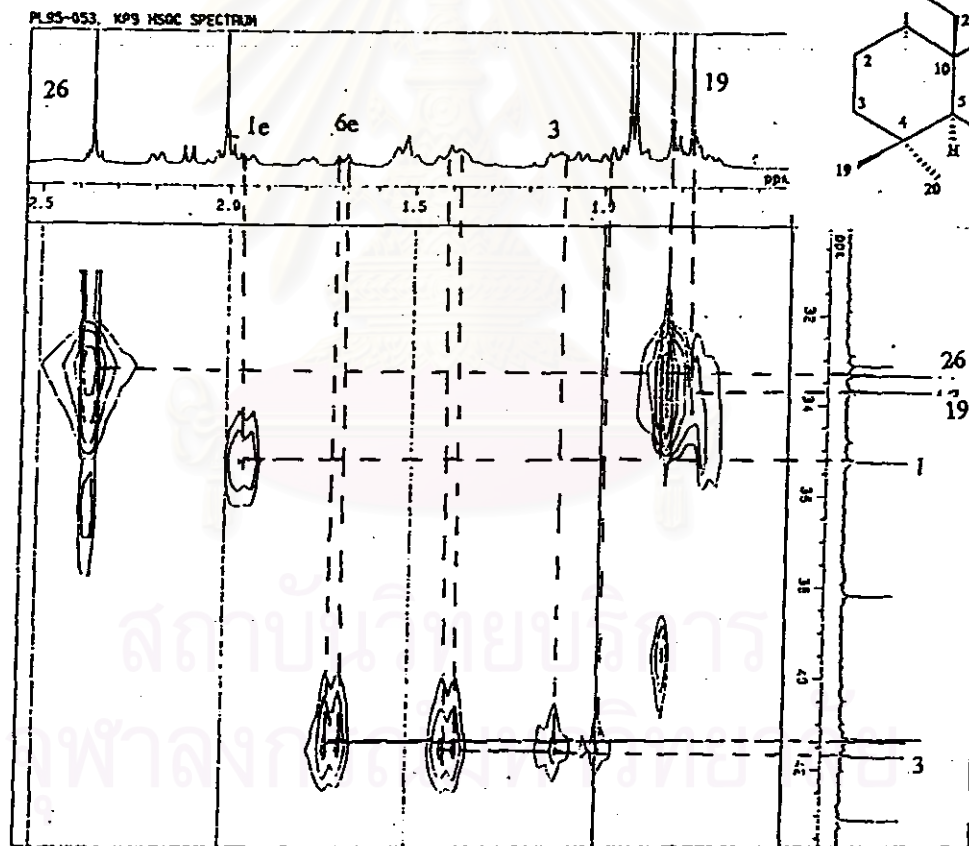


Figure 57. The 500 MHz HSQC spectrum of compound KP9 (in CDCl₃)

(expanded from 32-42 ppm)

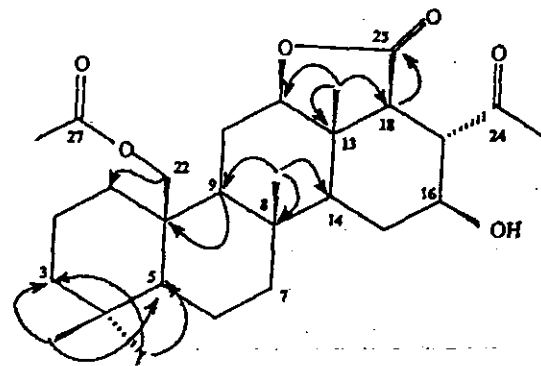
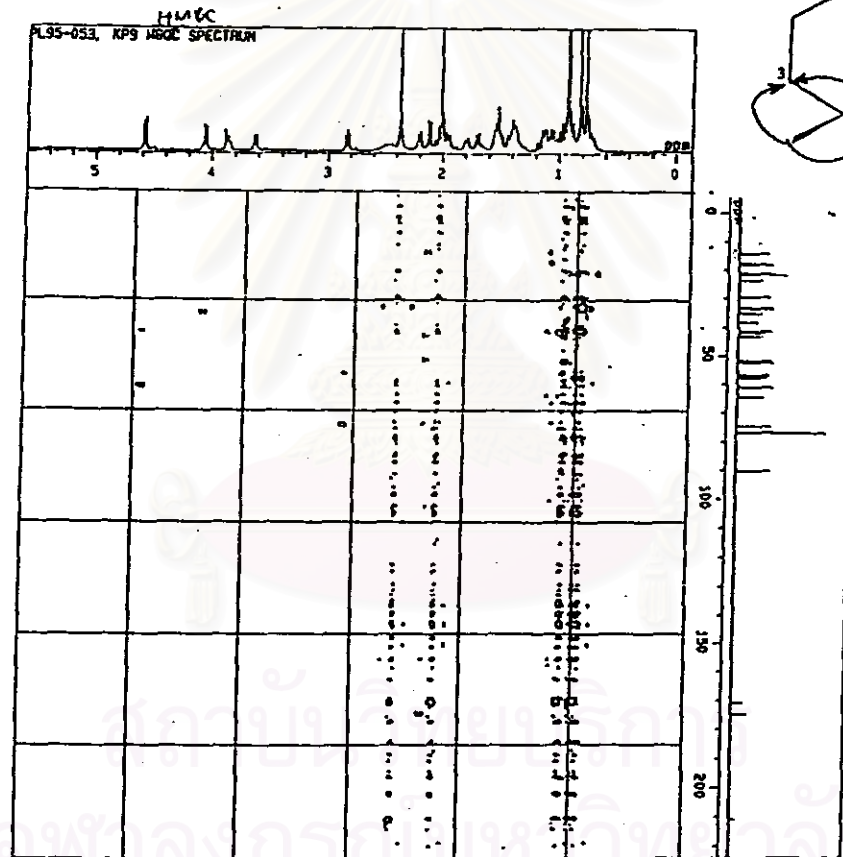


Figure 58. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in CDCl_3).

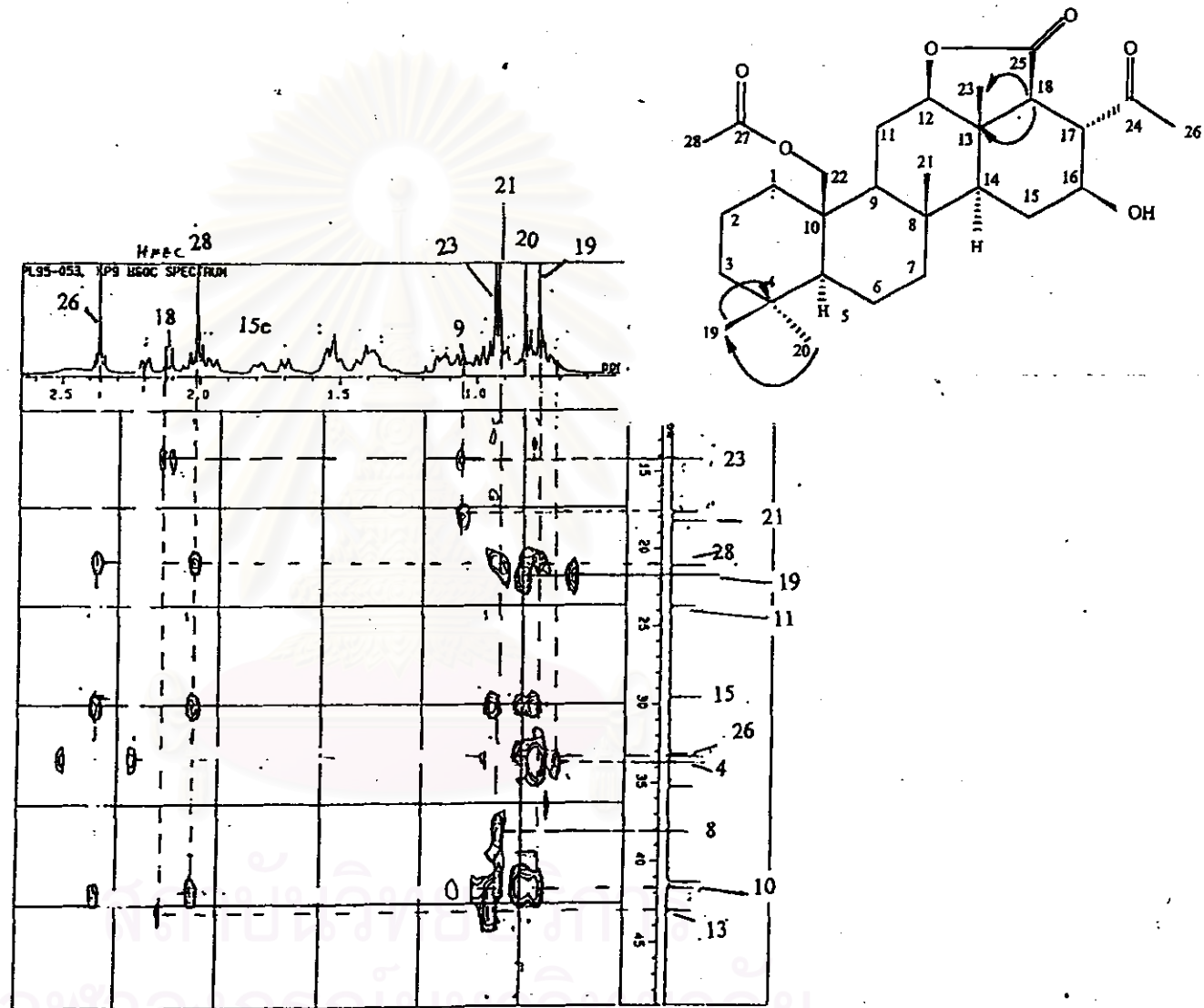


Figure 59. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in CDCl₃)

(expanded from 15-45 ppm).

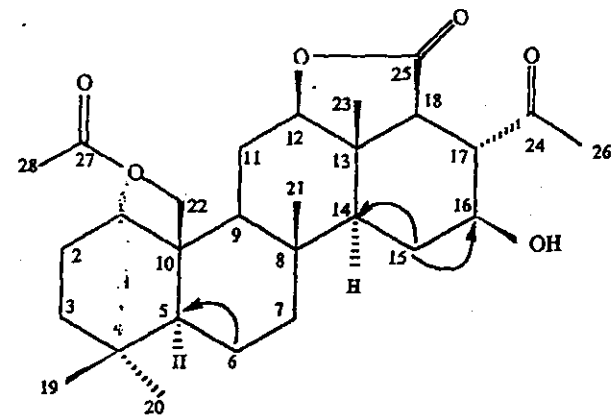
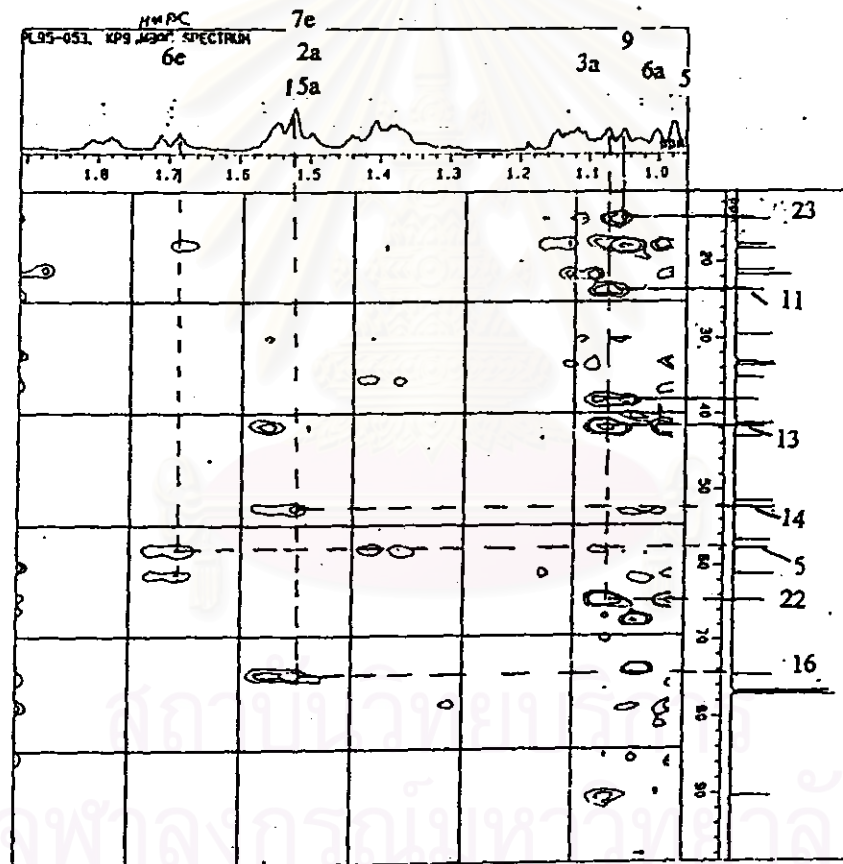


Figure 60. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in CDCl_3)

(expanded from 20-90 ppm).

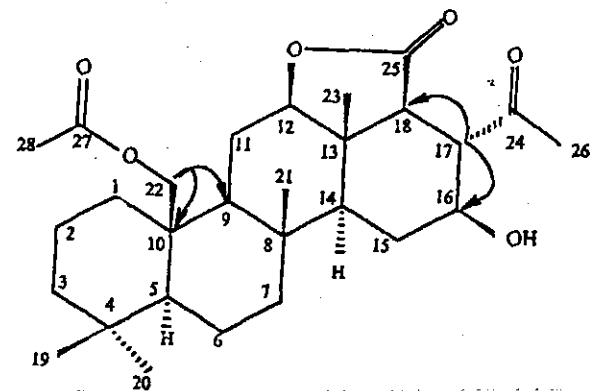
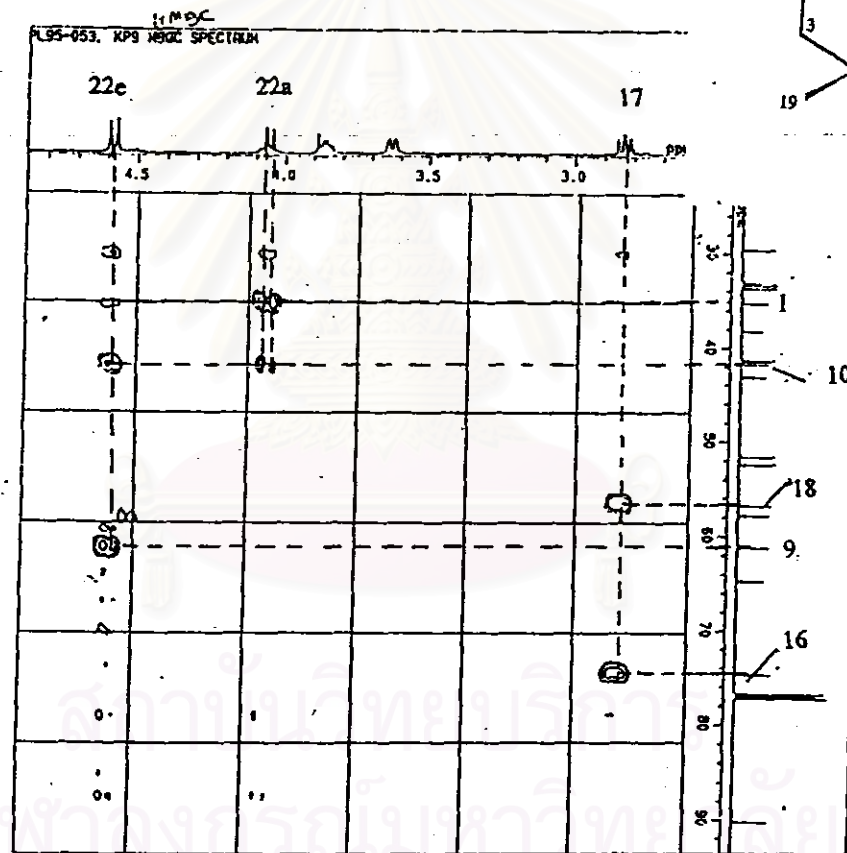


Figure 61. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in $CDCl_3$)

(expanded from 30-90 ppm)

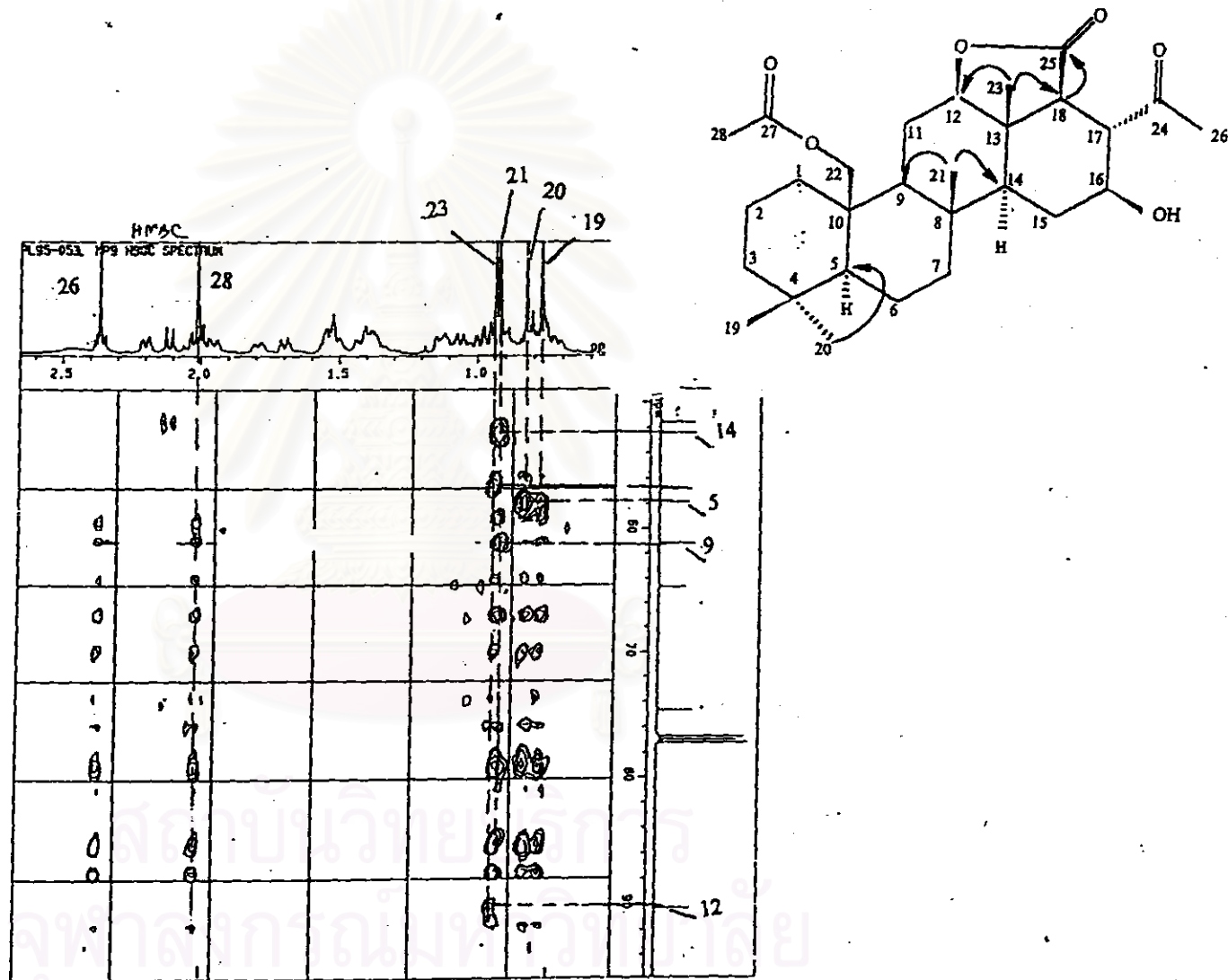


Figure 62. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in CDCl₃).

(expanded from 60-90 ppm).

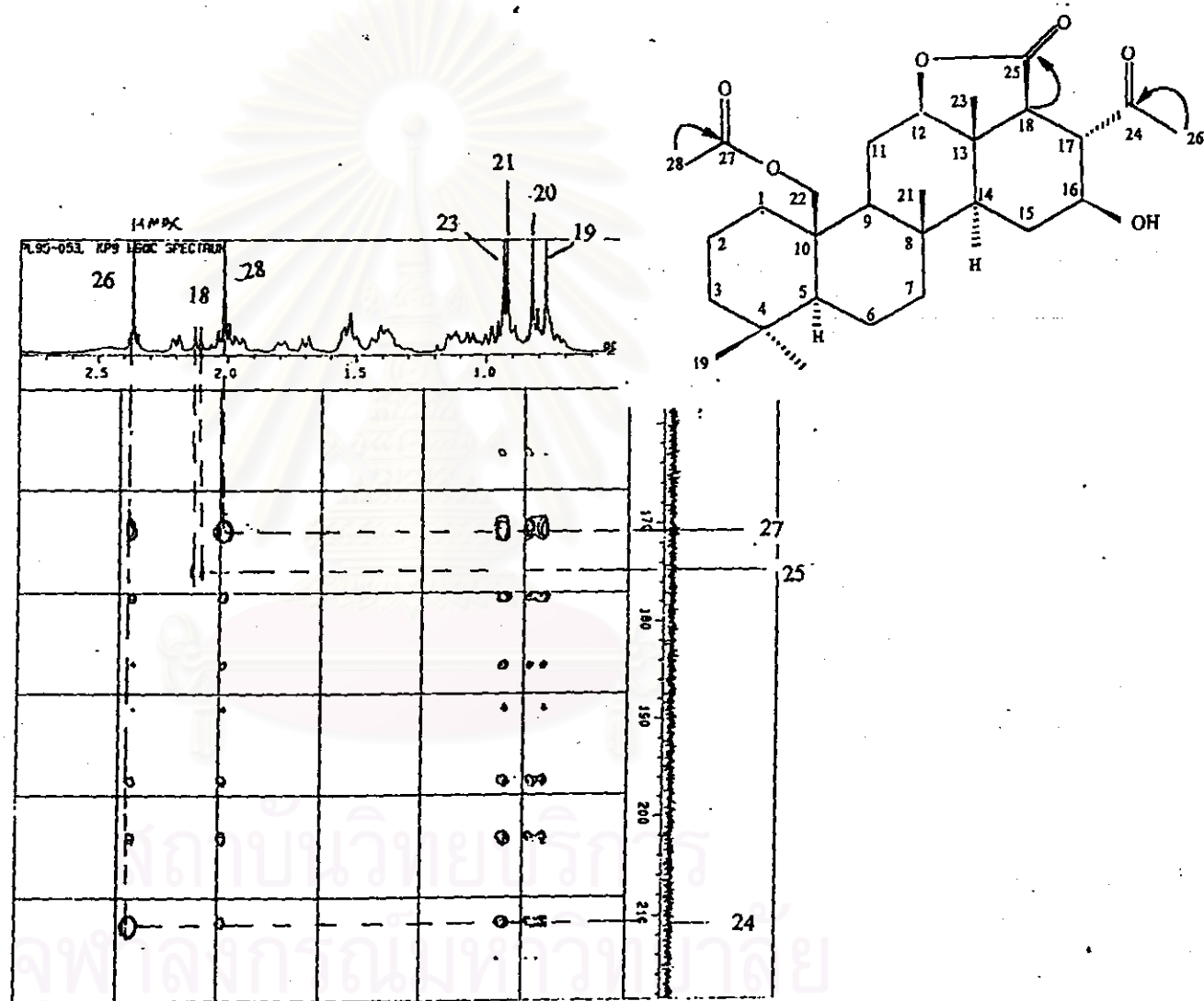


Figure 63. The 500 MHz HMBC ($J = 8$ Hz) of compound KP9 (in CDCl₃)

(expanded from expanded 170-210 ppm).

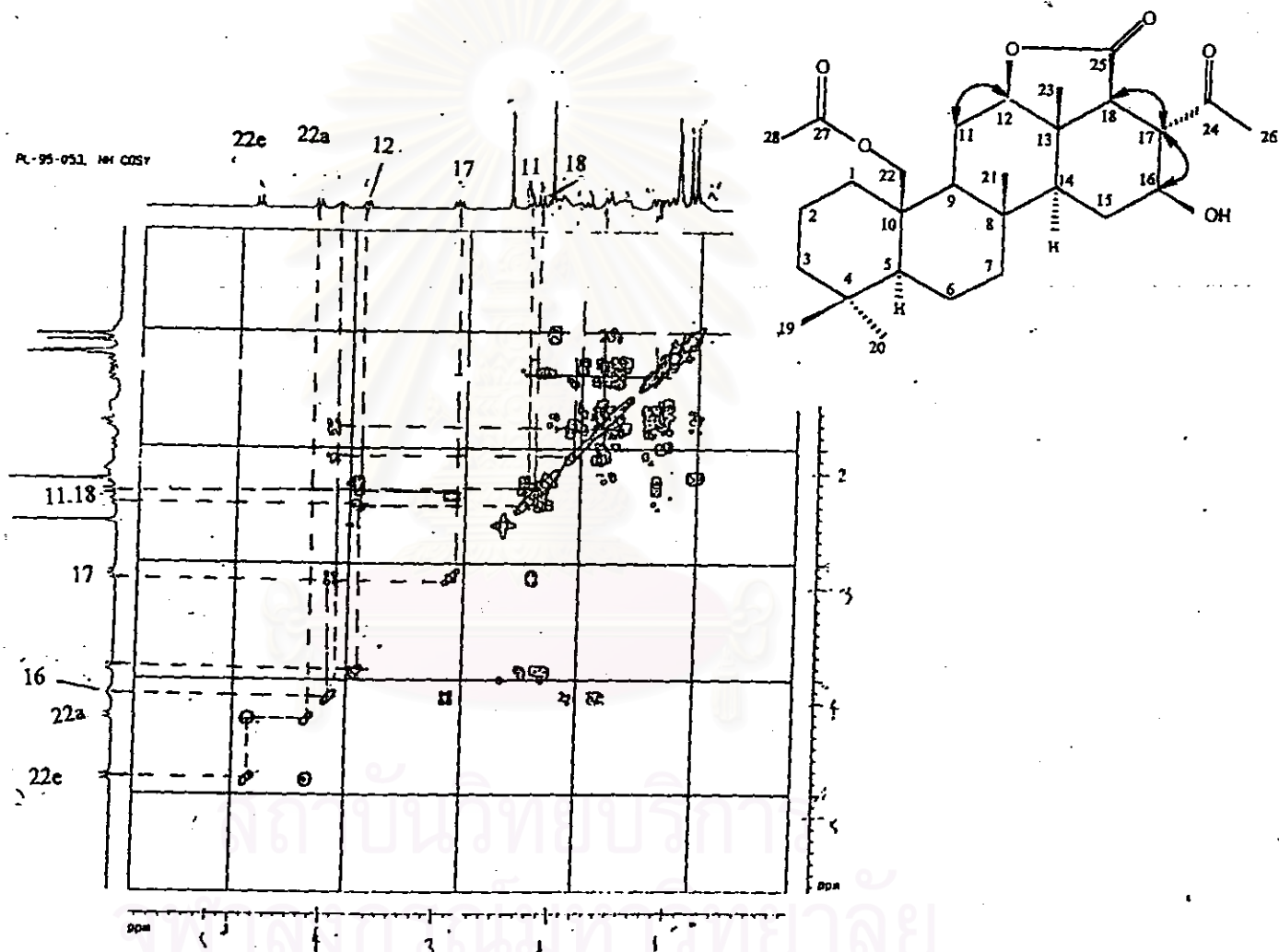


Figure 64. The COSY 45 spectrum of compound KP9.

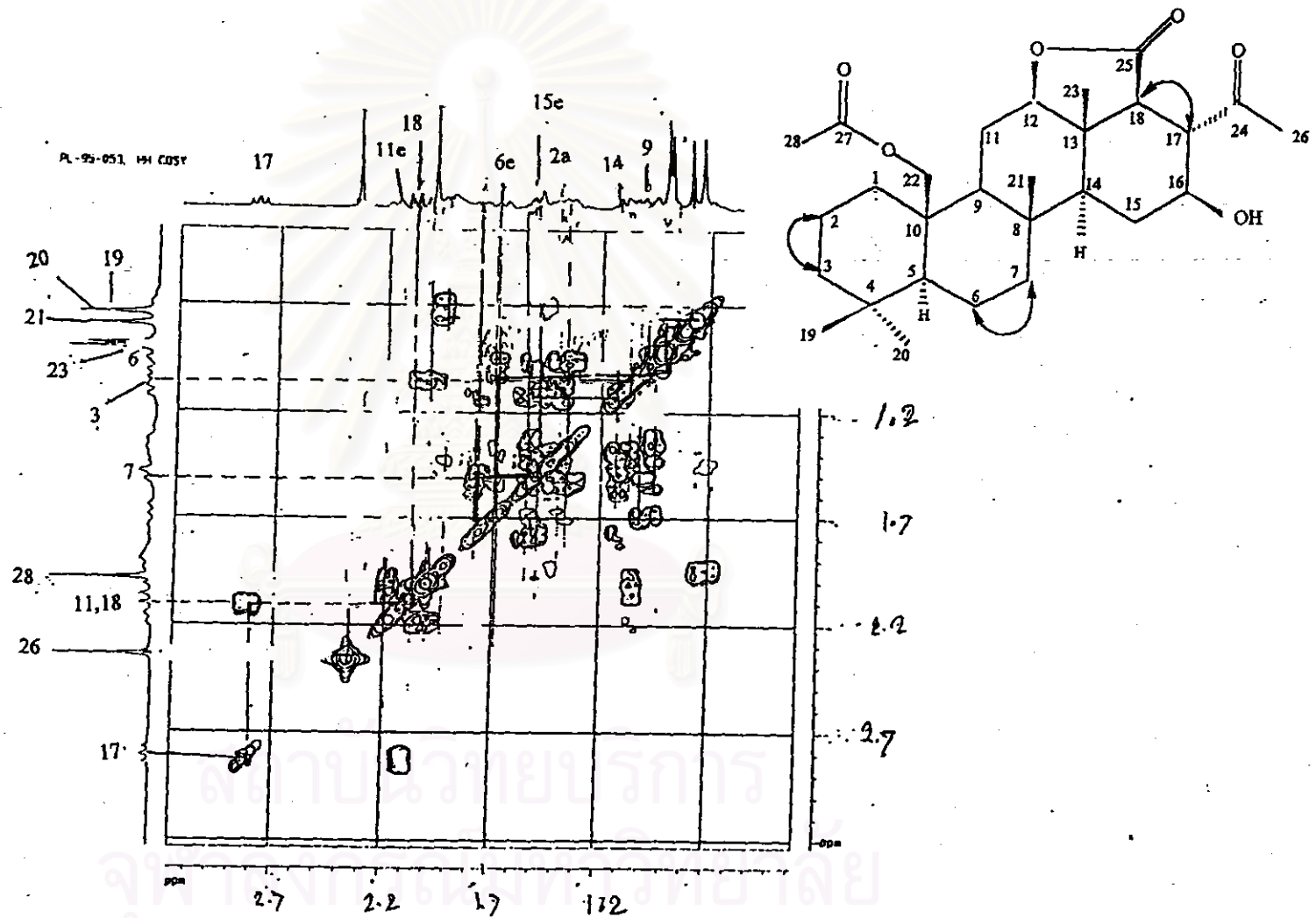


Figure65. The COSY 45 spectrum of compound KP9 (expanded from 1.2-2.7ppm)

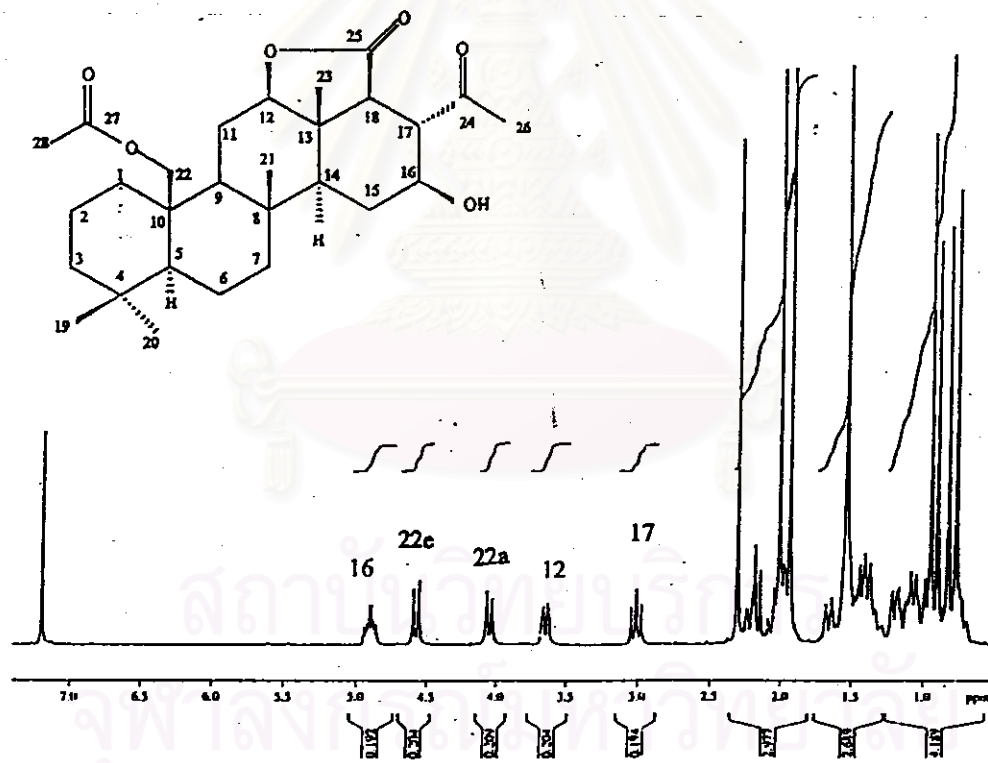


Figure 66. The 300 MHz ¹H nmr spectrum of acetylation product of

VITA

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