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APPENDIX

General methylation procedure with diazomethane.

The reaction must be carried out in the fume cupboard. Dissolve 2-3 g of the halo-acid (Bromo acetic acid, 3-Bromopropionic acid, 4-Chlorobutyric acid, 5-Bromo valeric acid and 6-Bromocaproic acid) in a little anhydrous ether, cool in ice and add the ethereal solution of diazomethane in small portions until gas evolution ceases and the solution acquires a pale yellow colour. The solvent of product was evaporated under reduce pressure.

Synthesis of Methyl-4-Iodobutyrate from Methyl-4-Chlorobutyrate using sodium iodide (S_N2 ; Finkelstein reaction).

A solution of Methyl-4-Chlorobutyrate (0.02 mol, 2.23 g) in 10 ml of anhydrous acetone is added dropwise to a stirred solution of sodium iodide (0.08 mol, 12.22 g) in 50 ml of anhydrous acetone over a period of 30 minutes at room temperature. Stirring is continued for 72 h.

The precipitate which forms is collected by filtration and wash with 50 ml of acetone. The combined filtrate is evaporated and the residue was extracted with ether. The combined extracts were washed with water, dried ($MgSO_4$), filtered and concentrated under reduced pressure. The resulting residue was used without purification for the next reaction.

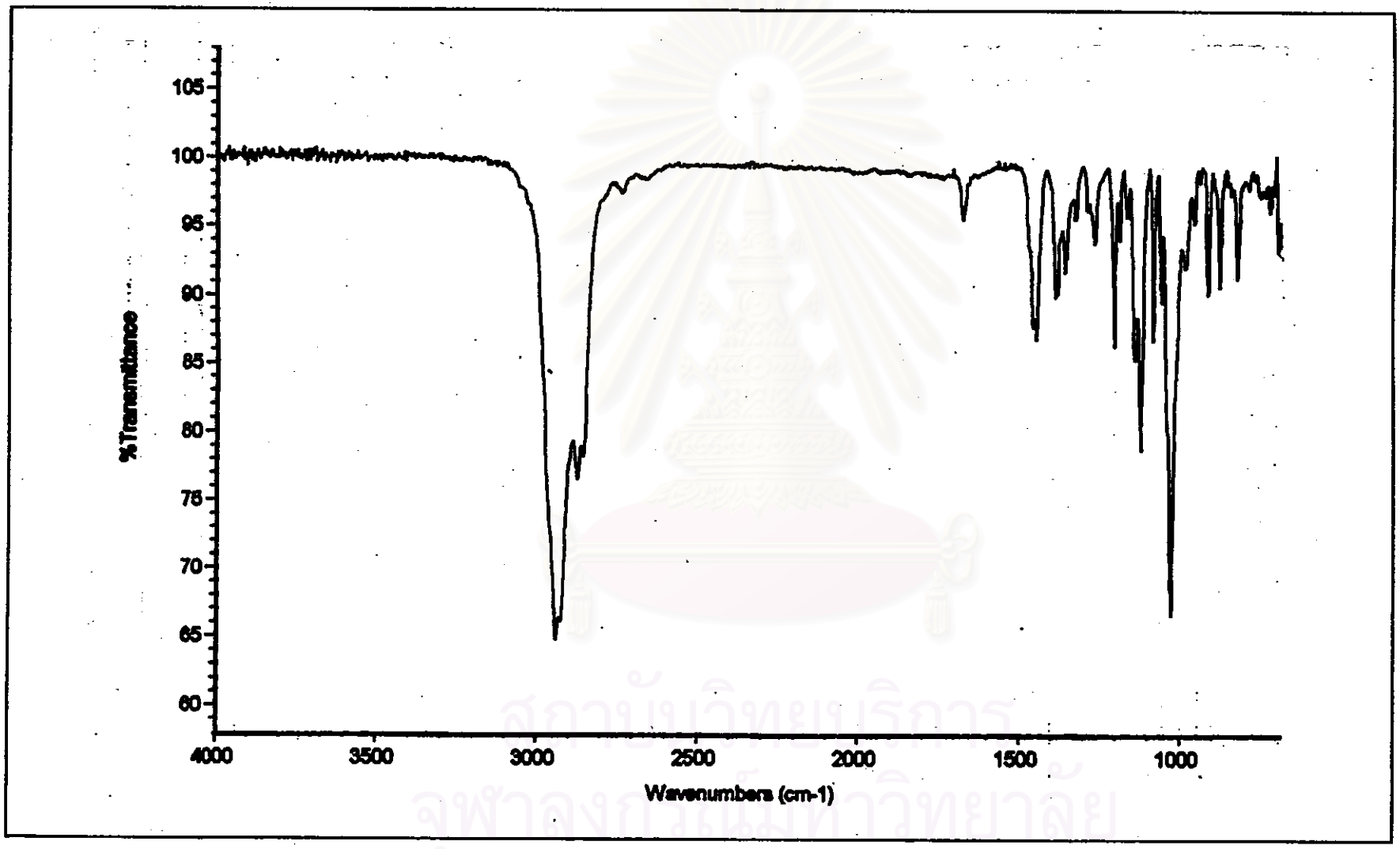

Figure 4 : IR spectrum of 3,7-Dimethyl-2,6-octadienyl tetrahydropyranyl ether (2).

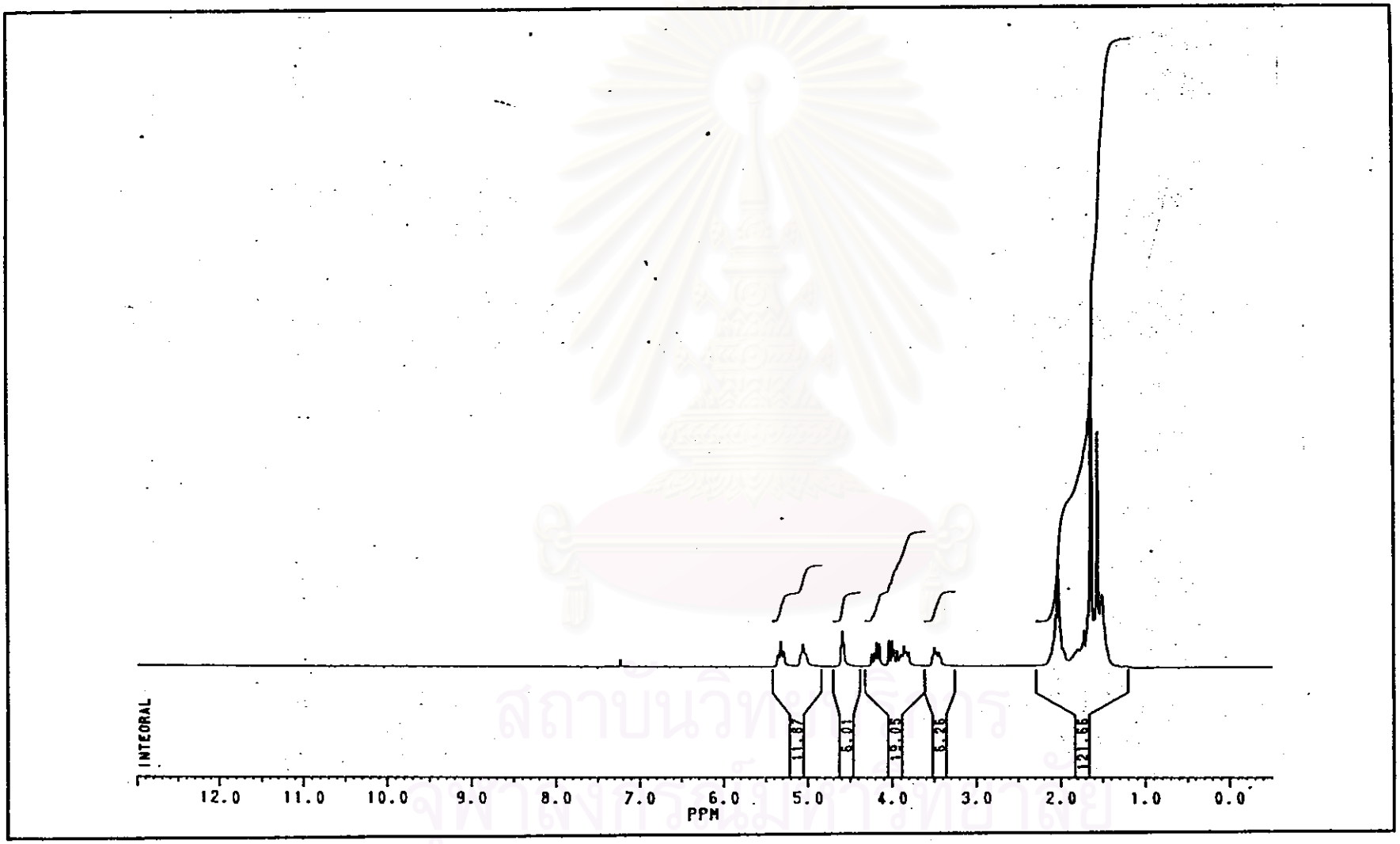

Figure 5 : ^{1}H NMR($CDCl_3$) spectrum of 3,7-Dimethyl-2,6-octadienyl tetrahydropyranyl ether (2).

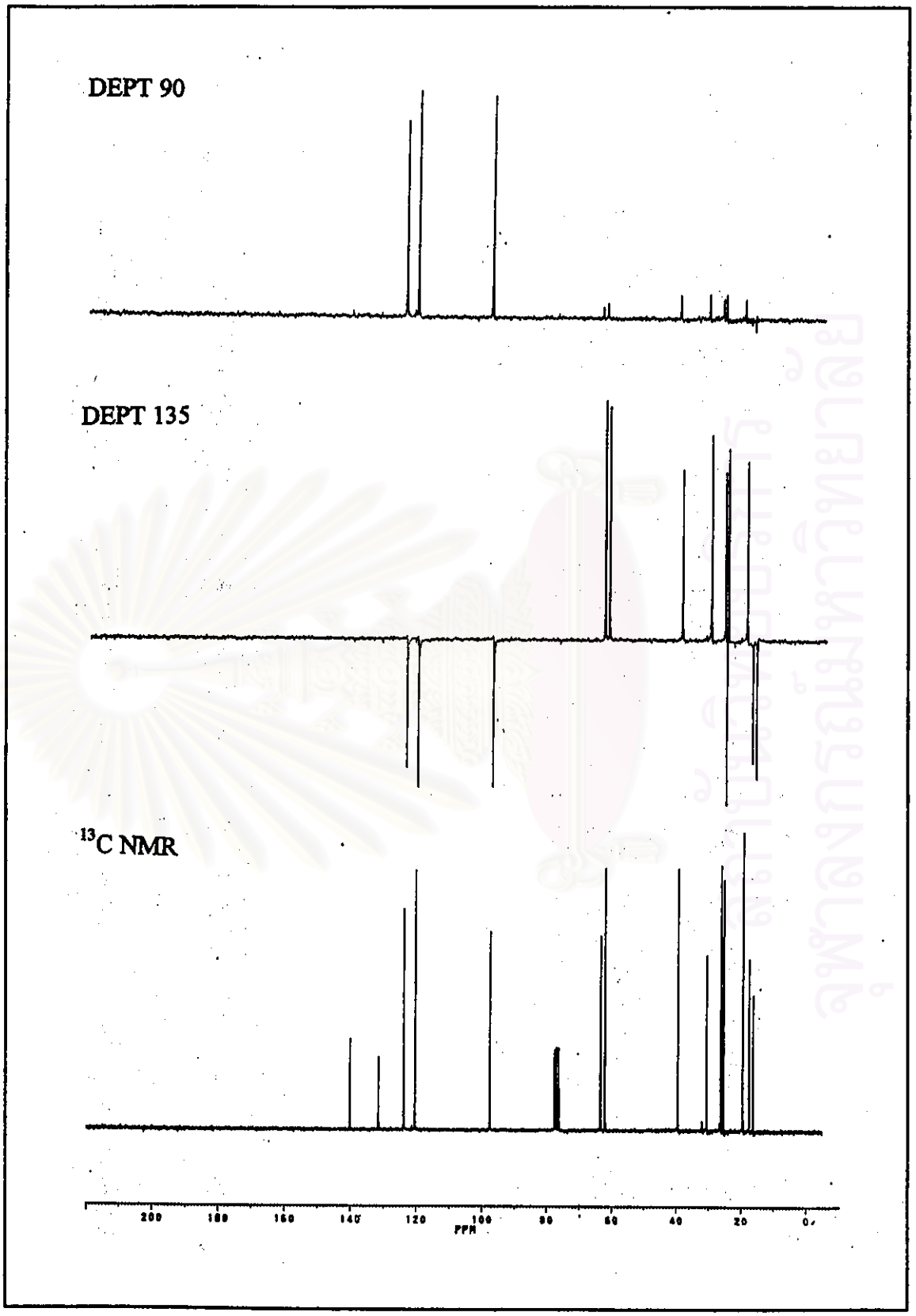

Figure 6 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 3,7-Dimethyl-2,6-octadienyl tetrahydropyranyl ether(2).

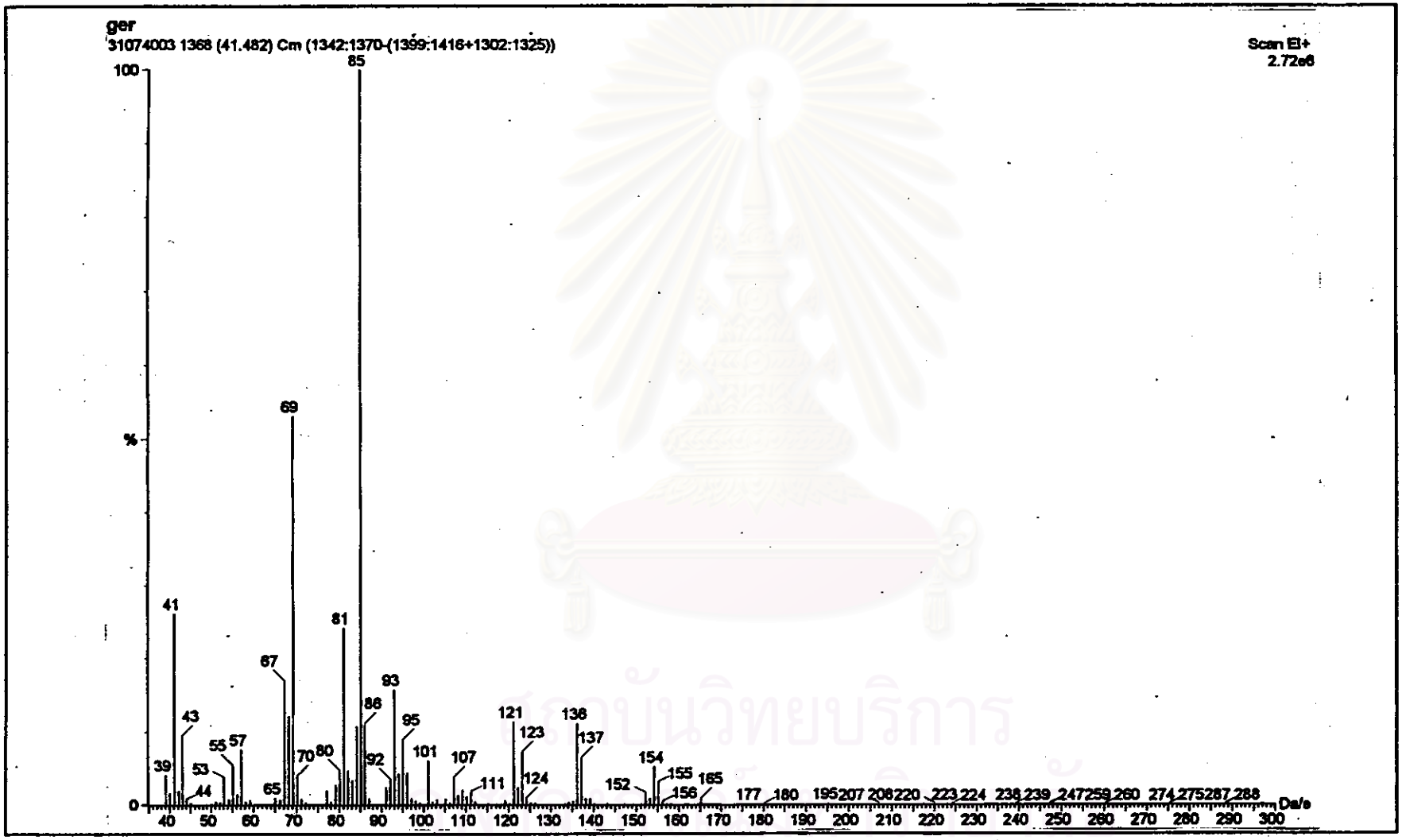

Figure 7 : Mass spectrum of 3,7-Dimethyl-2,6-octadienyl tetrahydropyranyl ether (2).

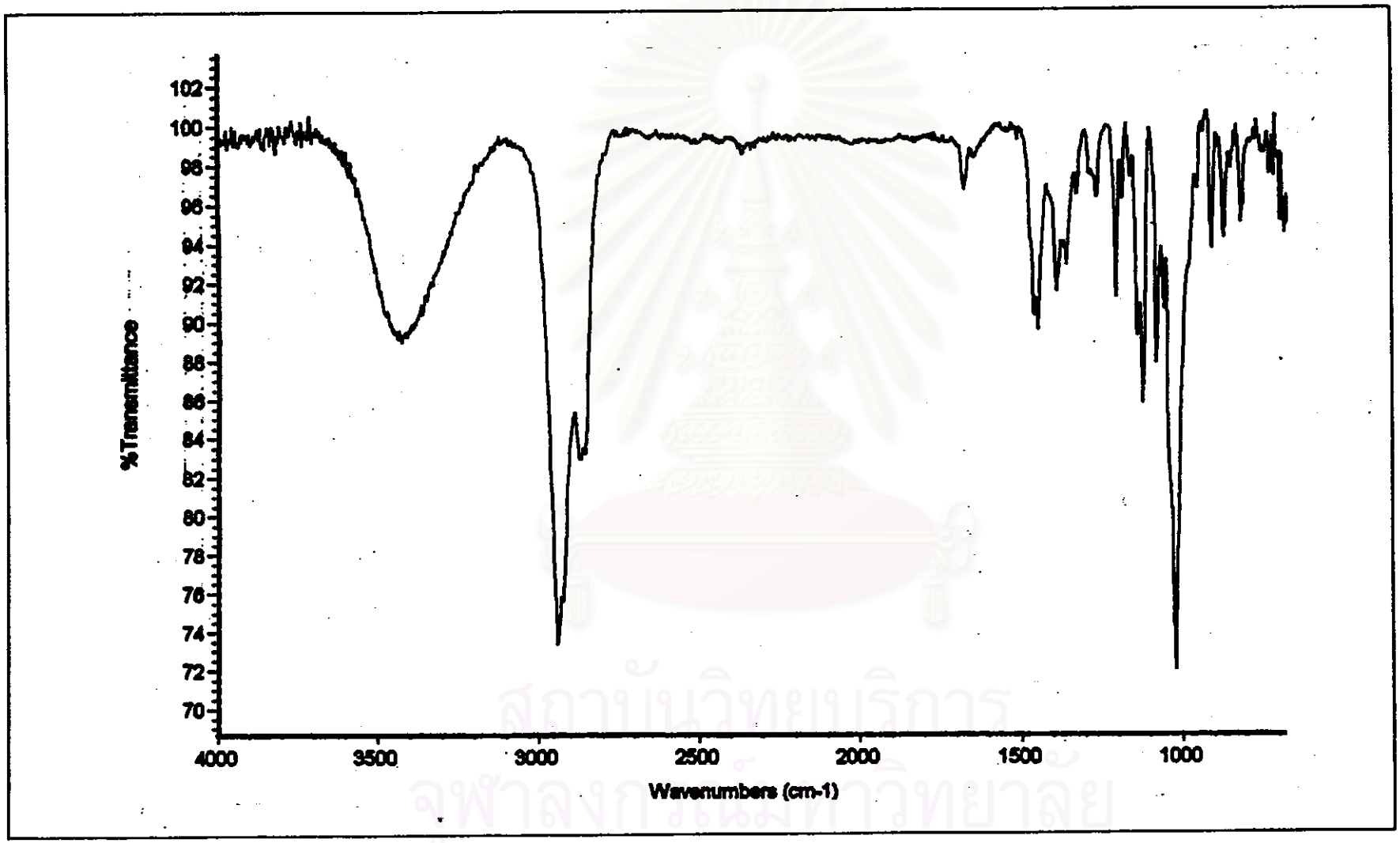

Figure 8 : IR spectrum of 2,6-Dimethyl-8-(2-tetrahydropyranyloxy)-2,6-octadien-1-ol (3).

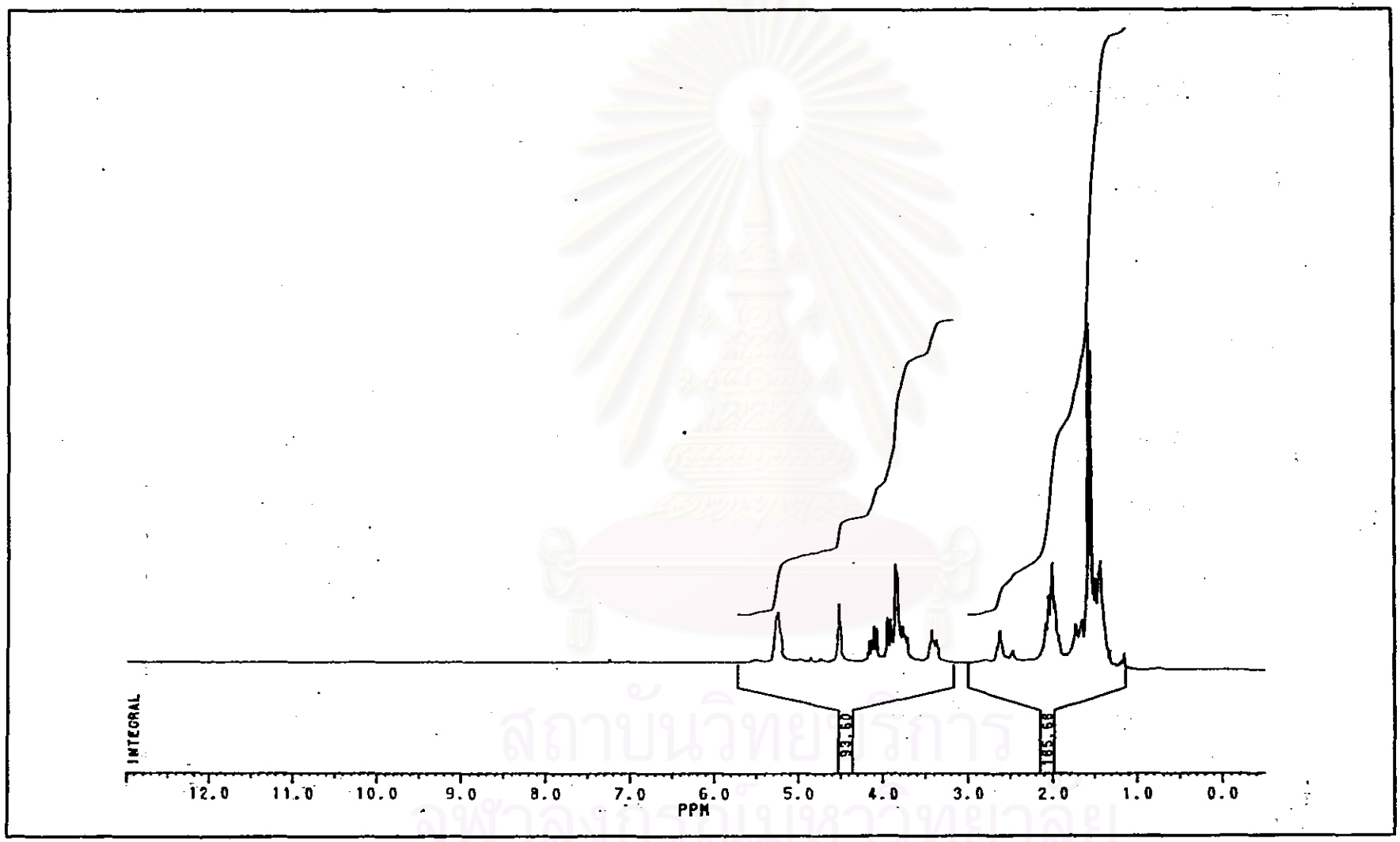

Figure 9 : ^{1}H NMR($CDCl_3$) spectrum of 2,6-Dimethyl-8-(2-tetrahydropyranyloxy)-2,6-octadien-1-ol (3).

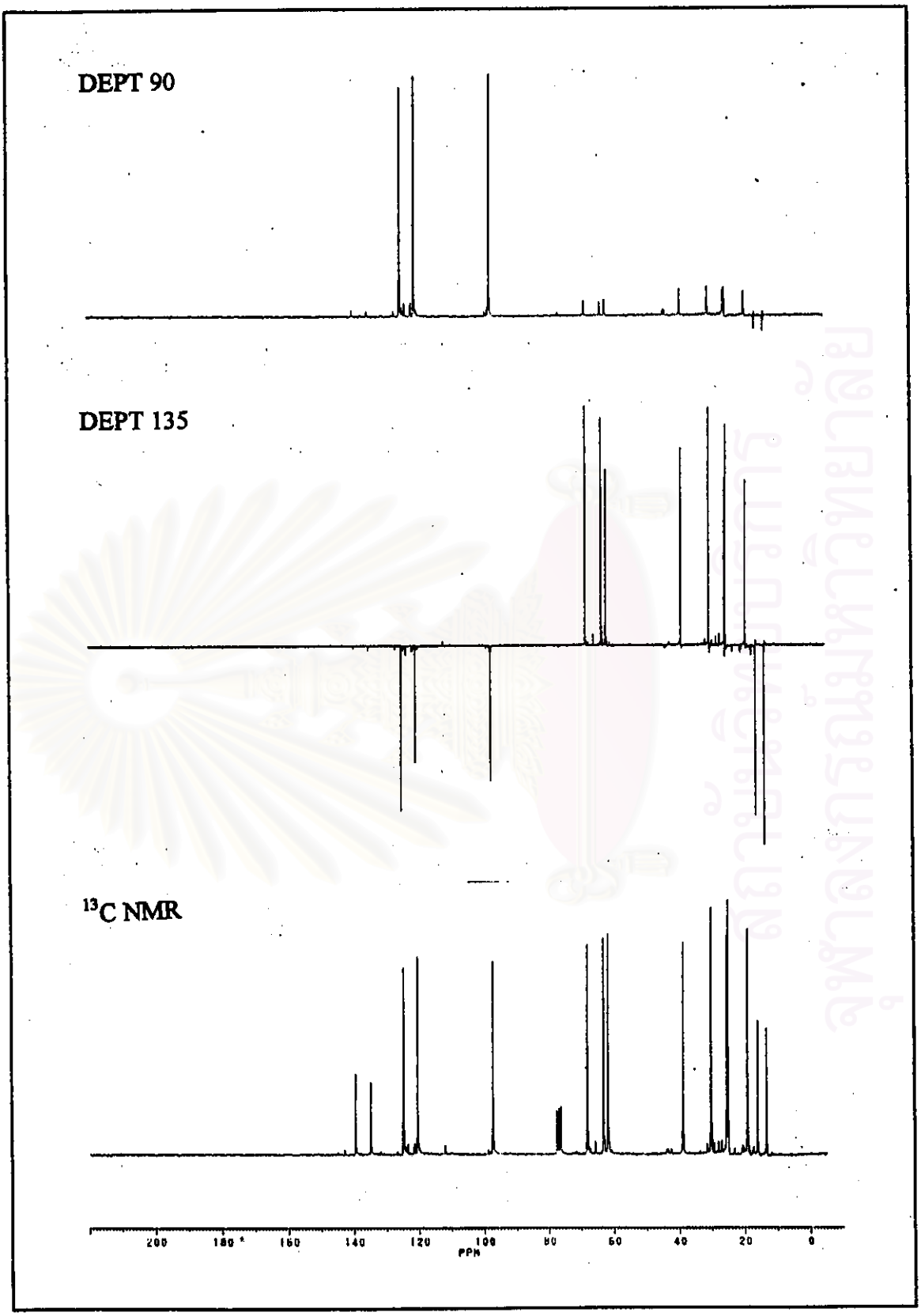

Figure 10 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 2,6-Dimethyl-8-(2-tetrahydropyranyloxy)-2,6-octadien-1-ol(3).

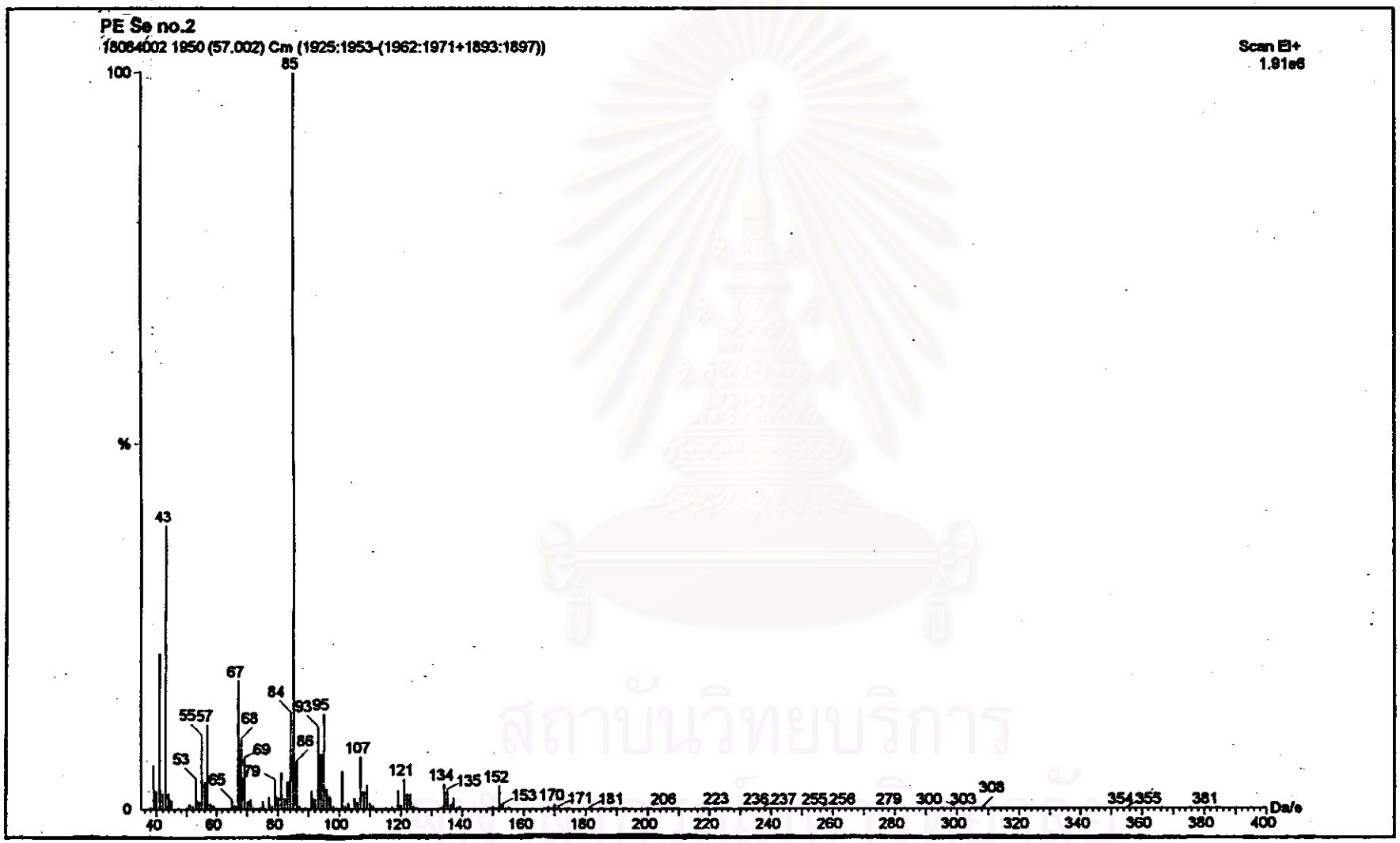

Figure 11 : Mass spectrum of 2,6-Dimethyl-8-(2-tetrahydropyranyloxy)-2,6-octadien-1-ol (3).

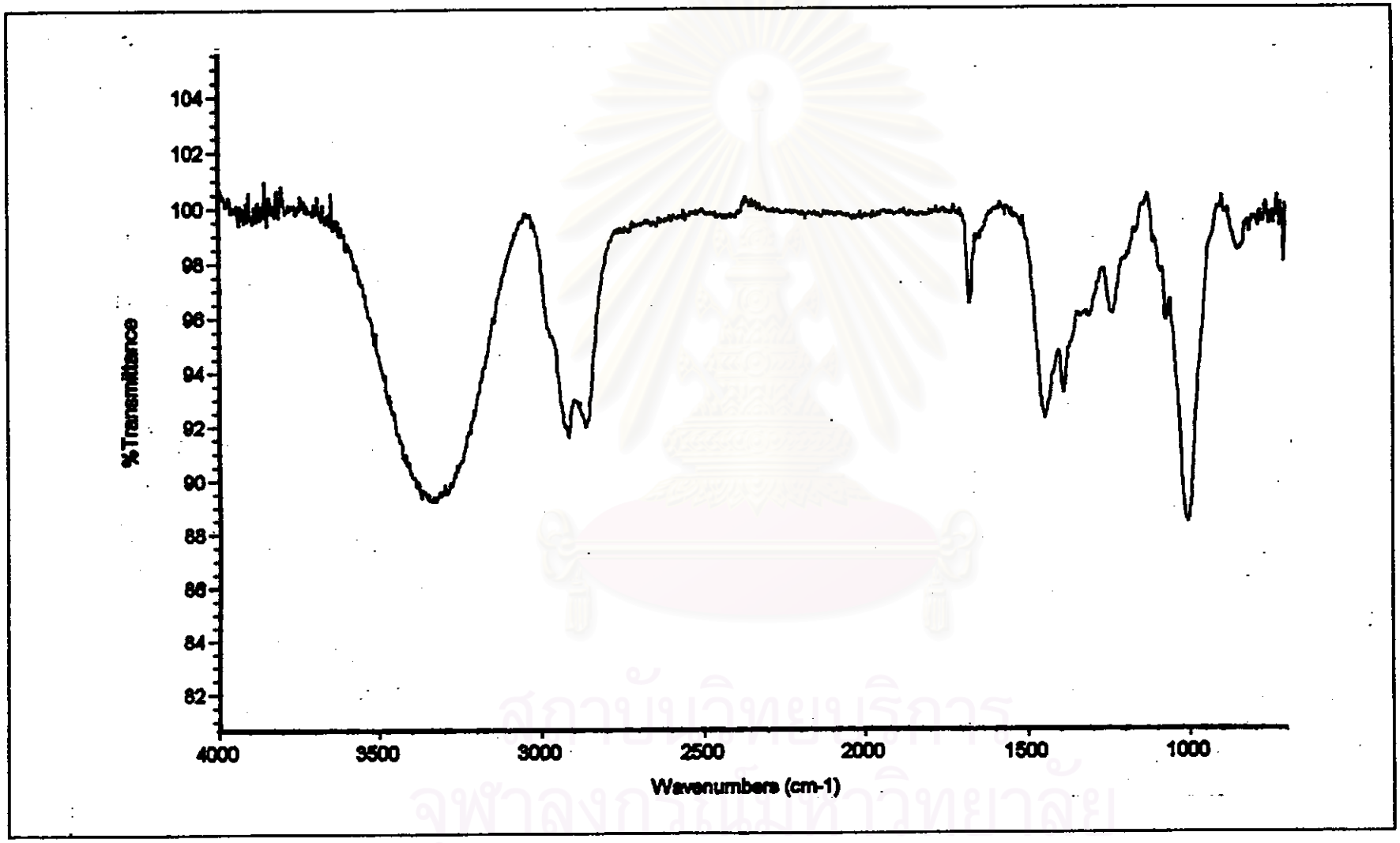

Figure 12 : IR spectrum of 2,6-Dimethyl-2,6-octadien-1,8-diol (4).

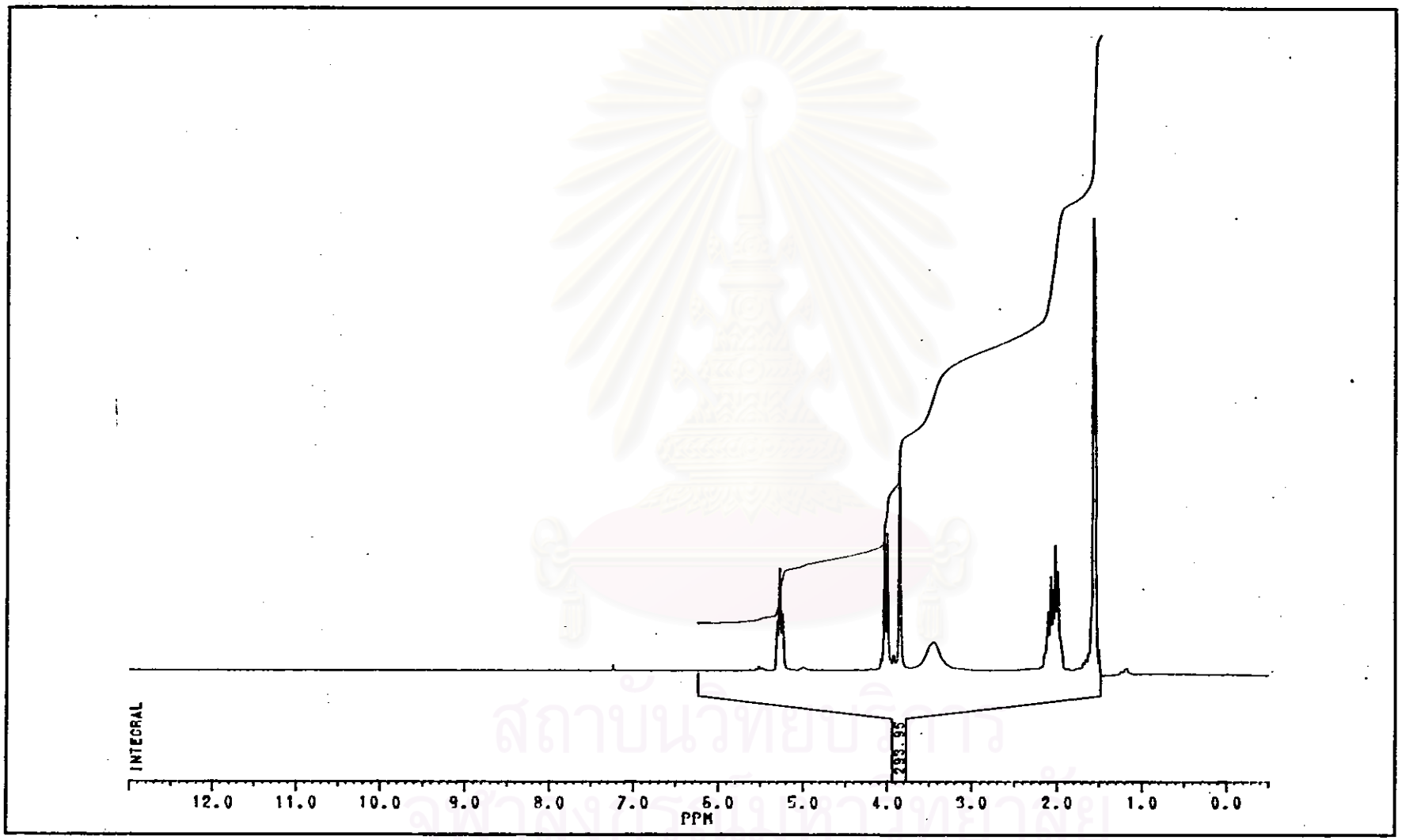

Figure 13 : ^{1}H NMR($CDCl_3$) spectrum of 2,6-Dimethyl-2,6-octadien-1,8-diol (4).

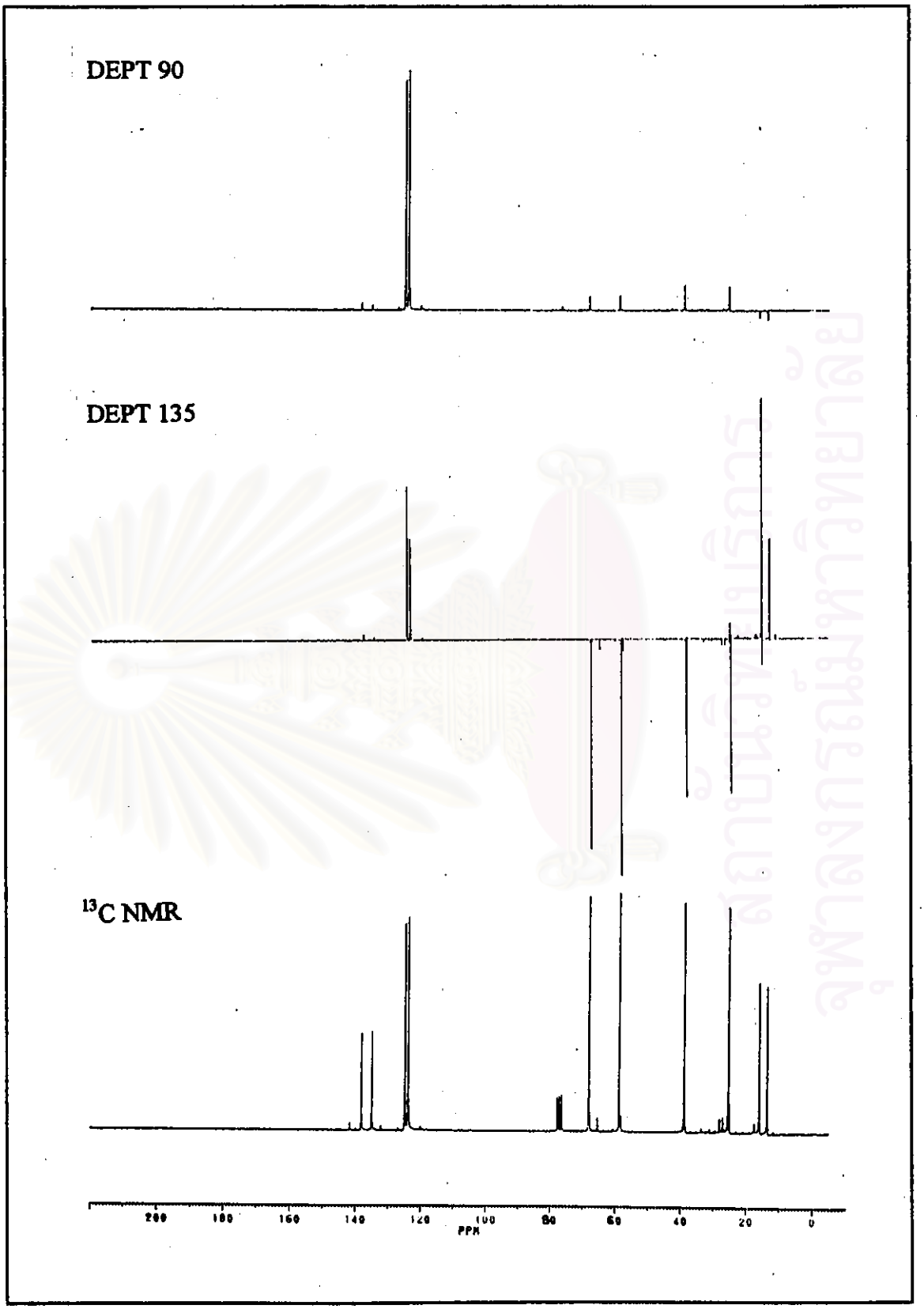

Figure 14 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 2,6-Dimethyl-2,6-octadien-1,8-diol(4).

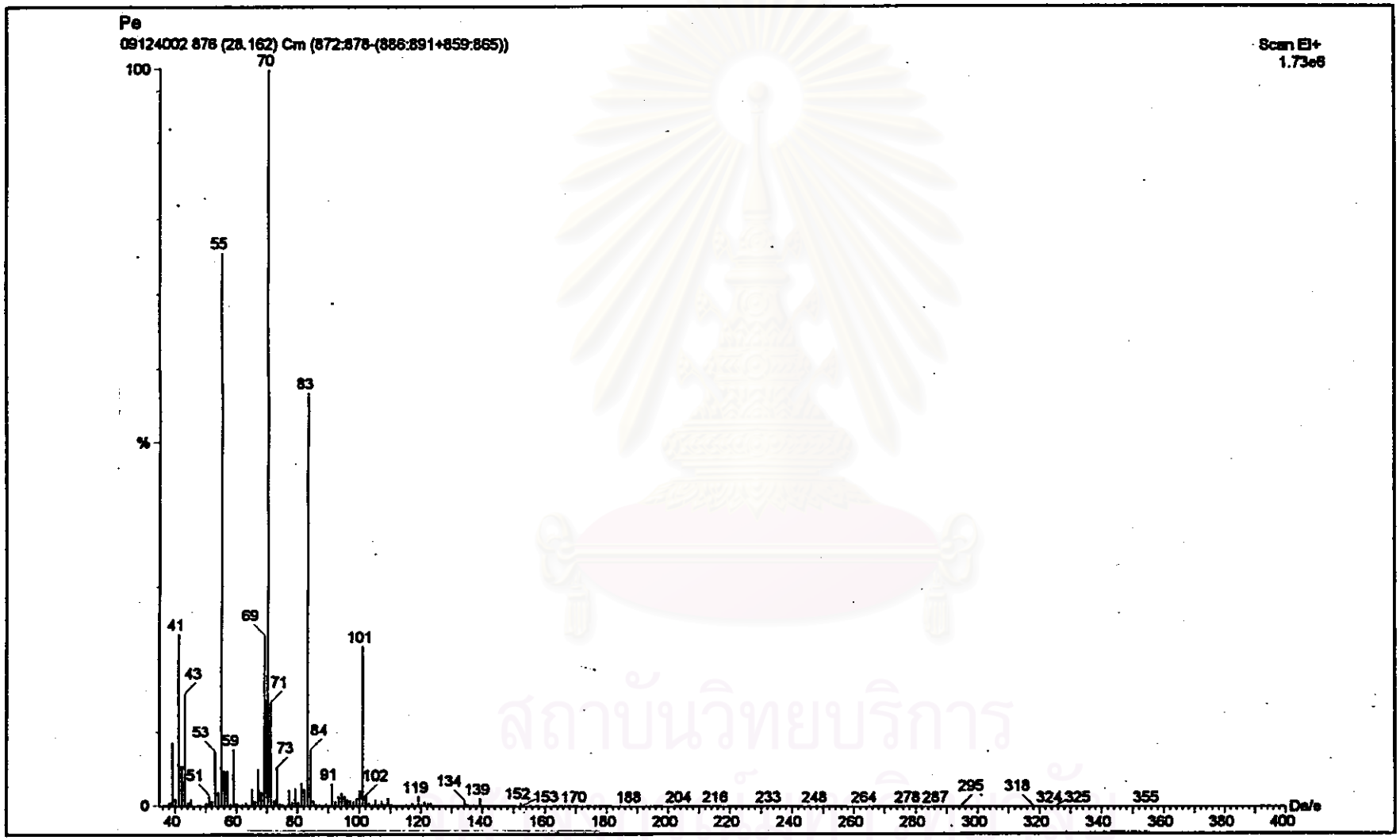

Figure 15 : Mass spectrum of 2,6-Dimethyl-2,6-octadien-1,8-diol (4).

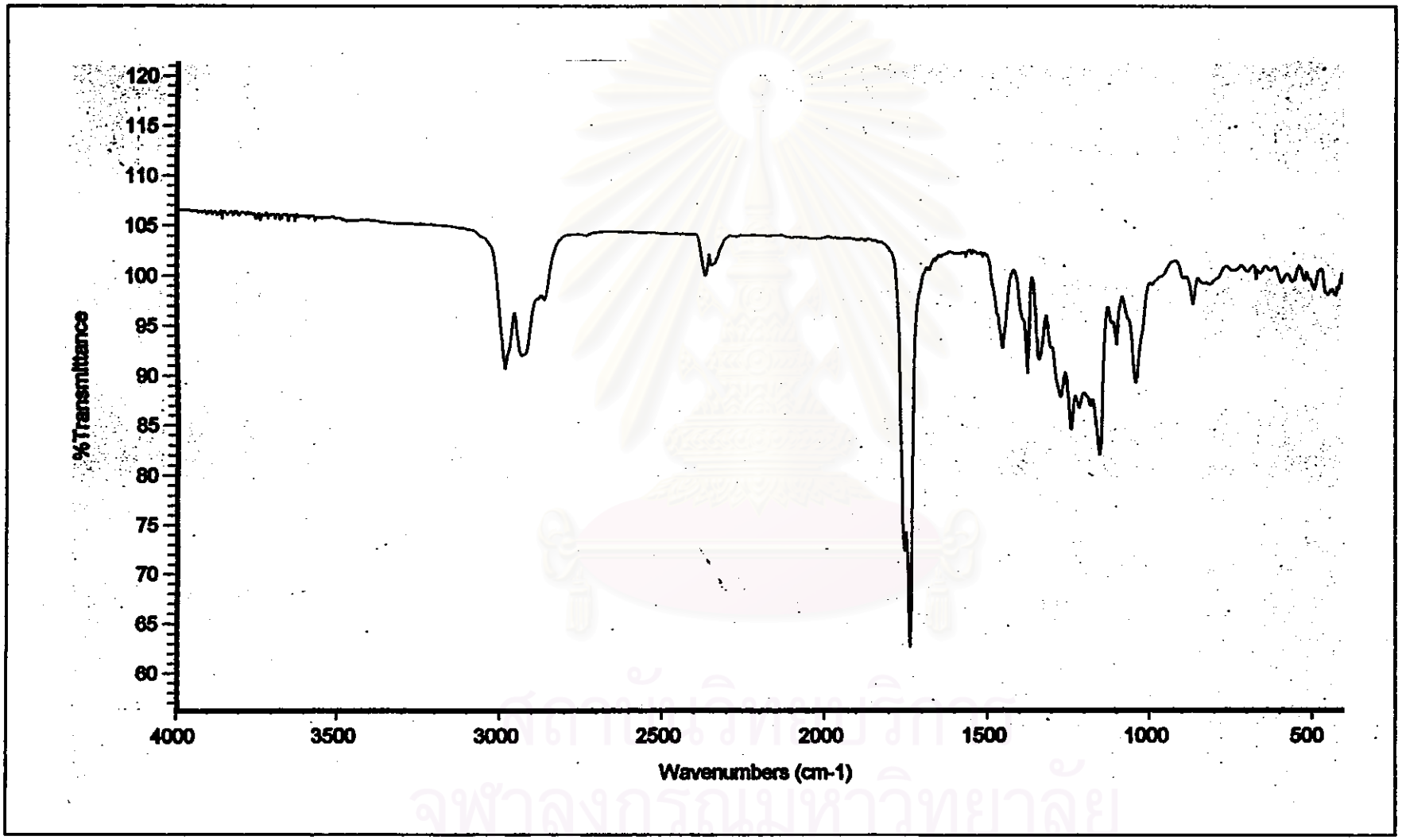

Figure 16 : IR spectrum of Ethyl-2-ethoxycarbonyl-5,9-dimethyldeca-4,8-dienoate (6).

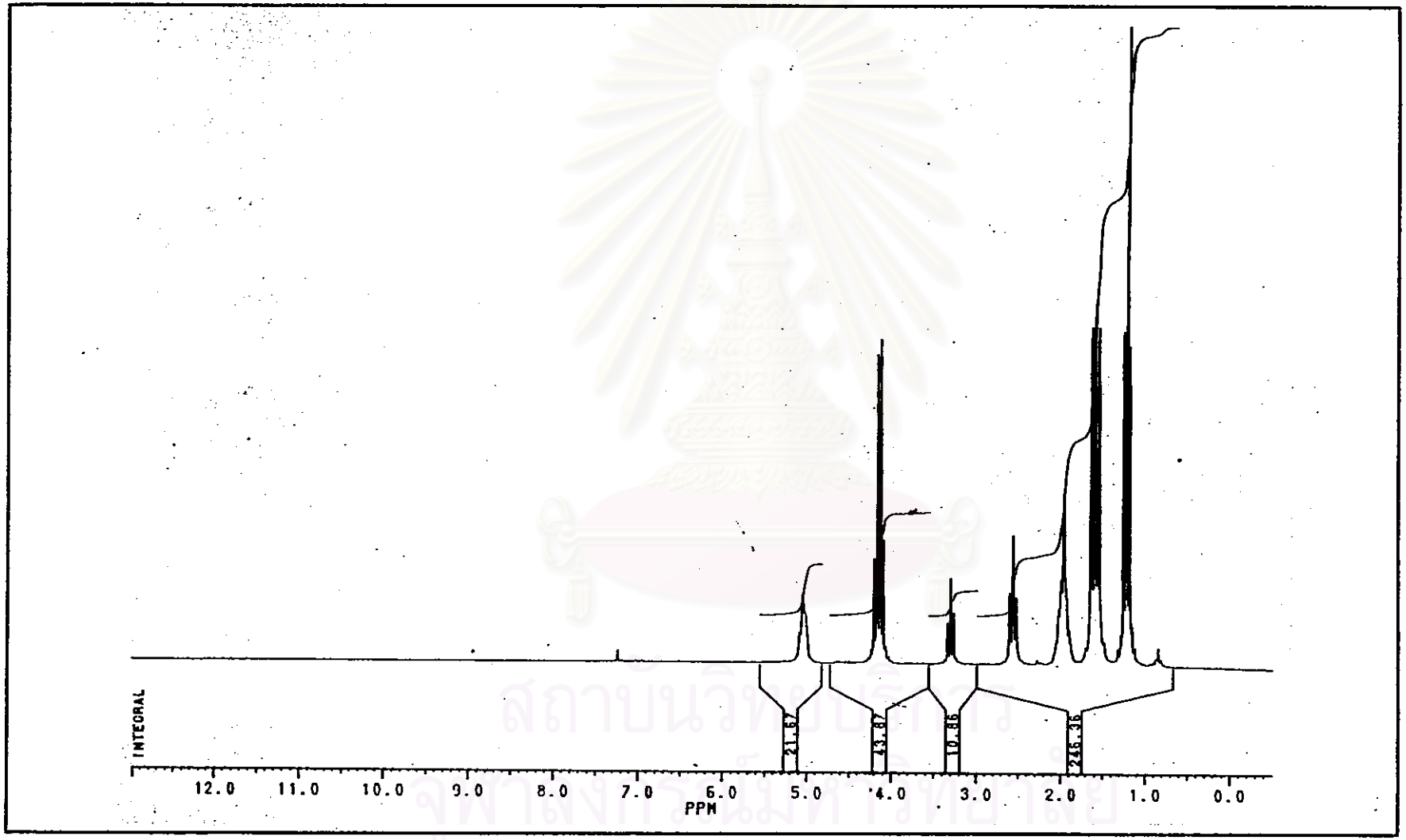

Figure 17 : ^{1}H NMR($CDCl_3$) spectrum of Ethyl-2-ethoxycarbonyl-5,9-dimethyldeca-4,8-dienoate (6).

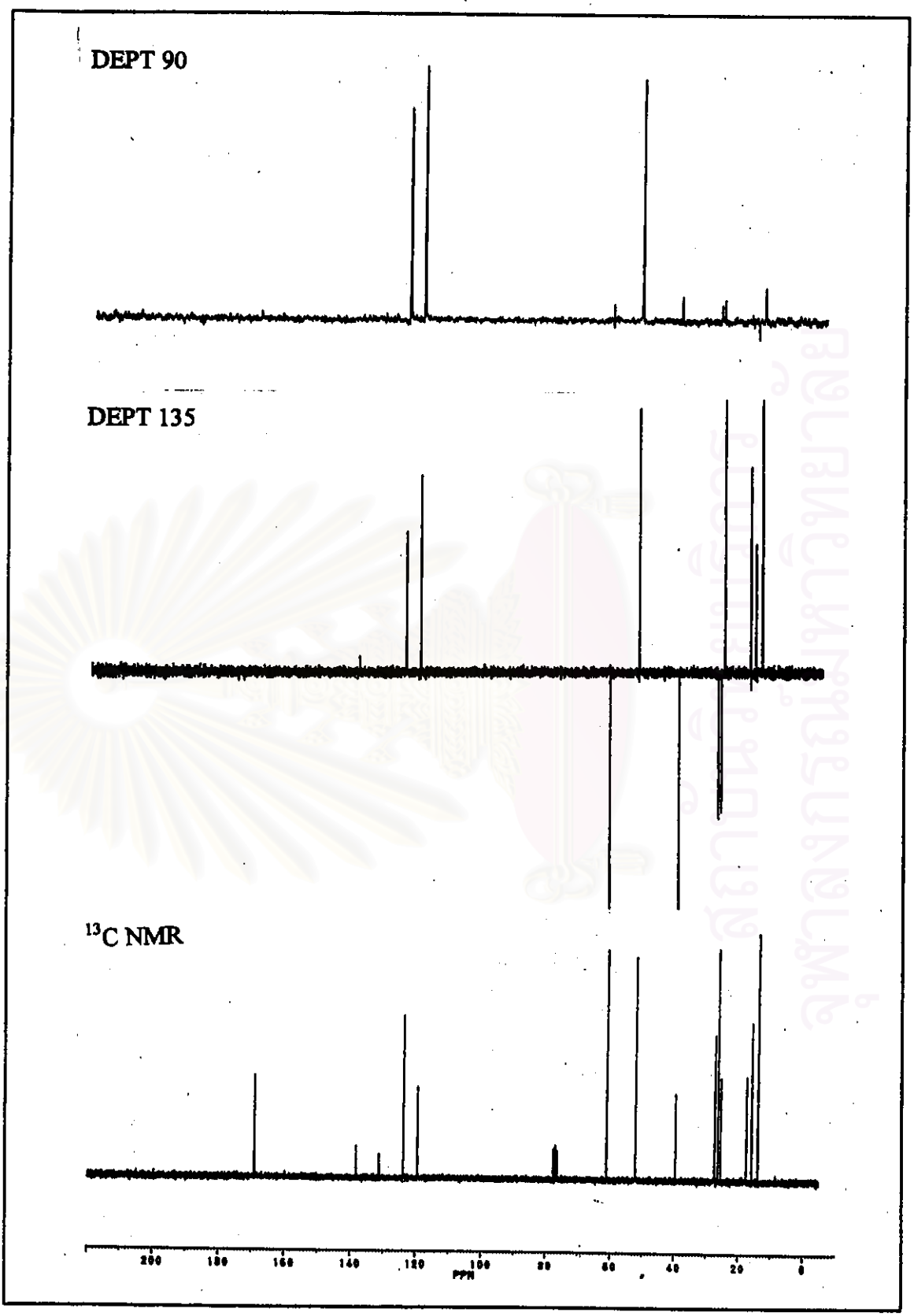

Figure 18 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Ethyl-2-ethoxy carbonyl-5,9-dimethyldeca-4,8-dienoate(6).

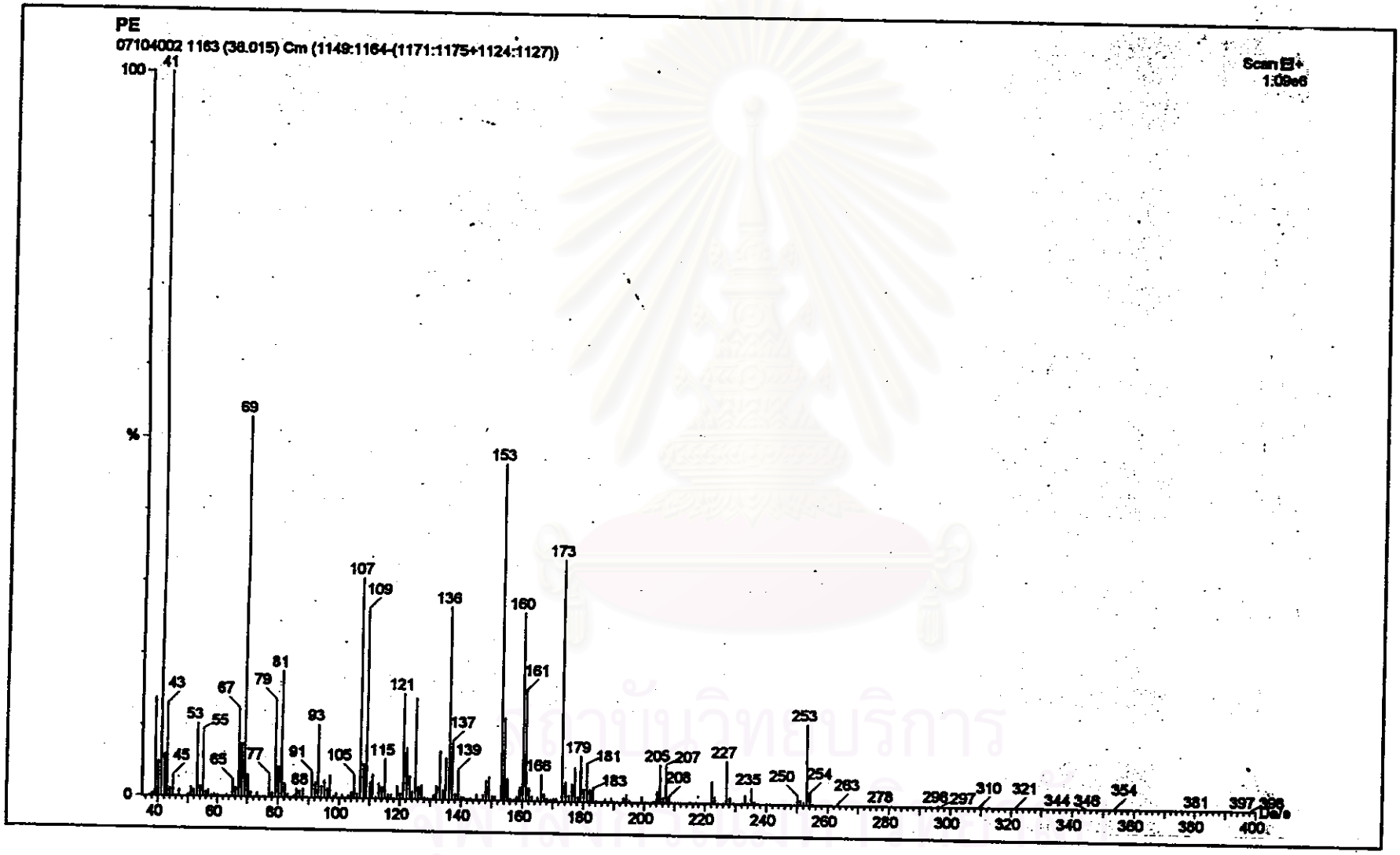

Figure 19 : Mass spectrum of Ethyl-2-ethoxycarbonyl-5,9-dimethyldeca-4,8-dienoate (6).

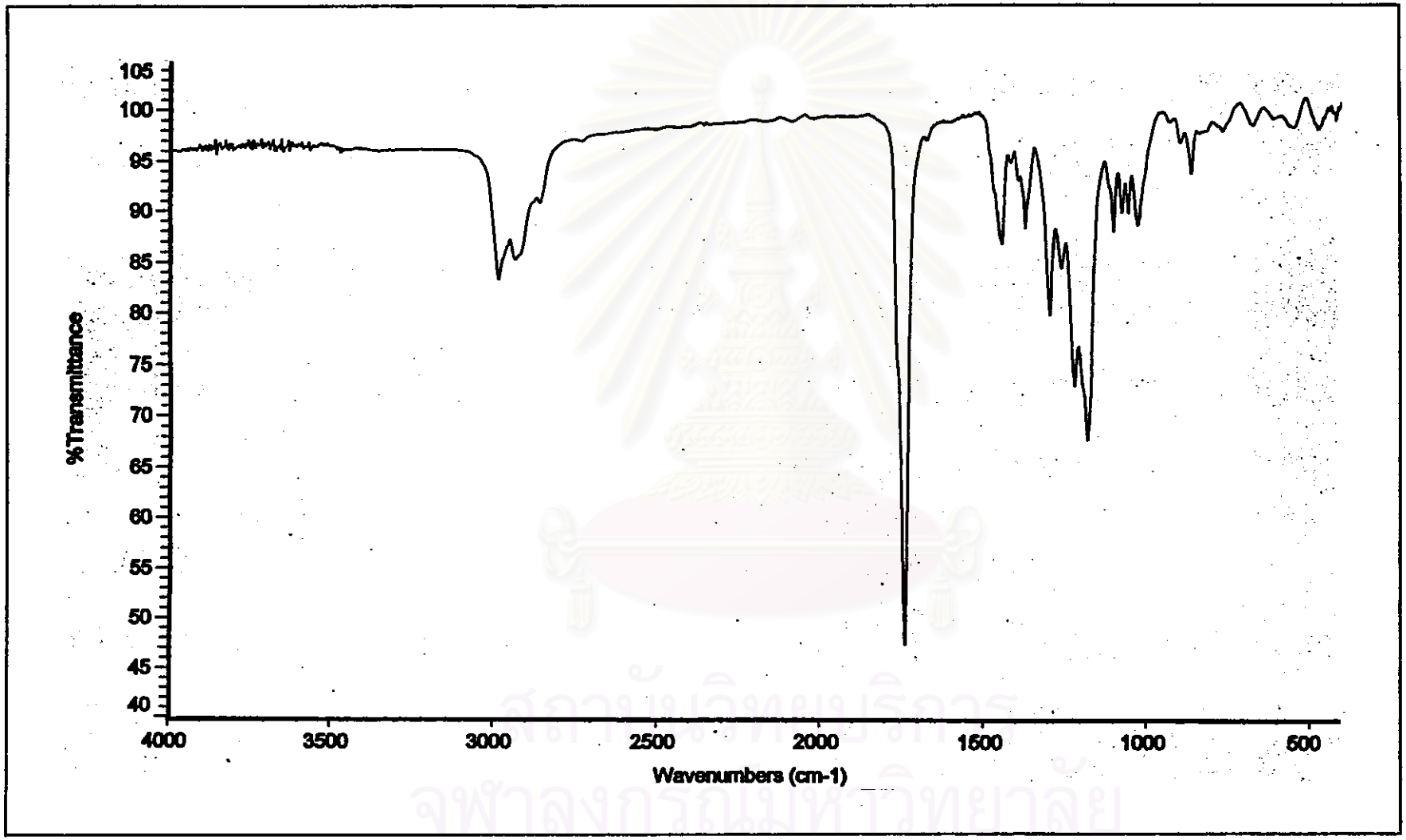

Figure 20 : IR spectrum of Methyl-3,3-Di(ethoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate (7).

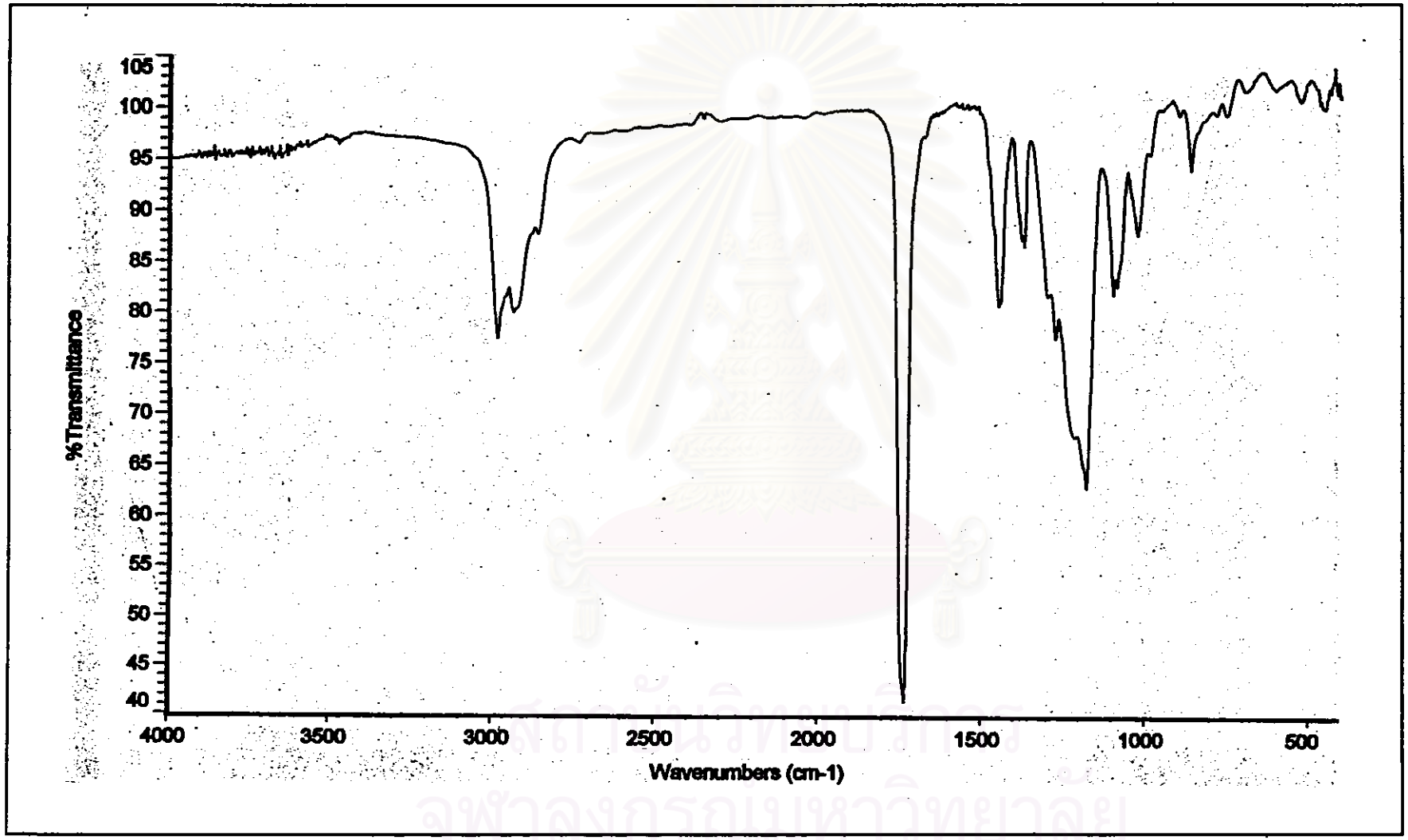

Figure 21 : IR spectrum of Methyl-4,4-Di(ethoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(8).

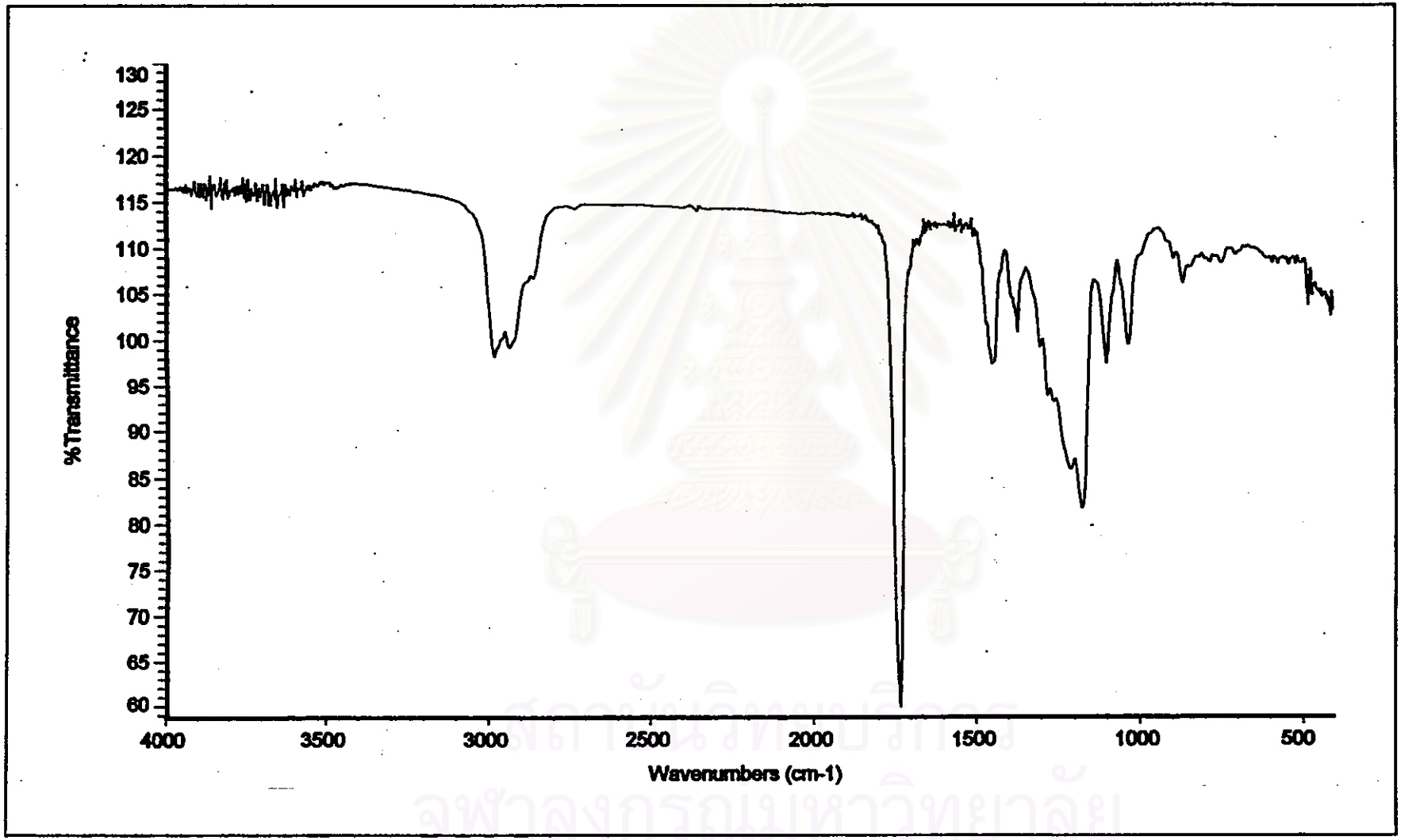

Figure 22 : IR spectrum of Methyl-5,5-Di(ethoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(9).

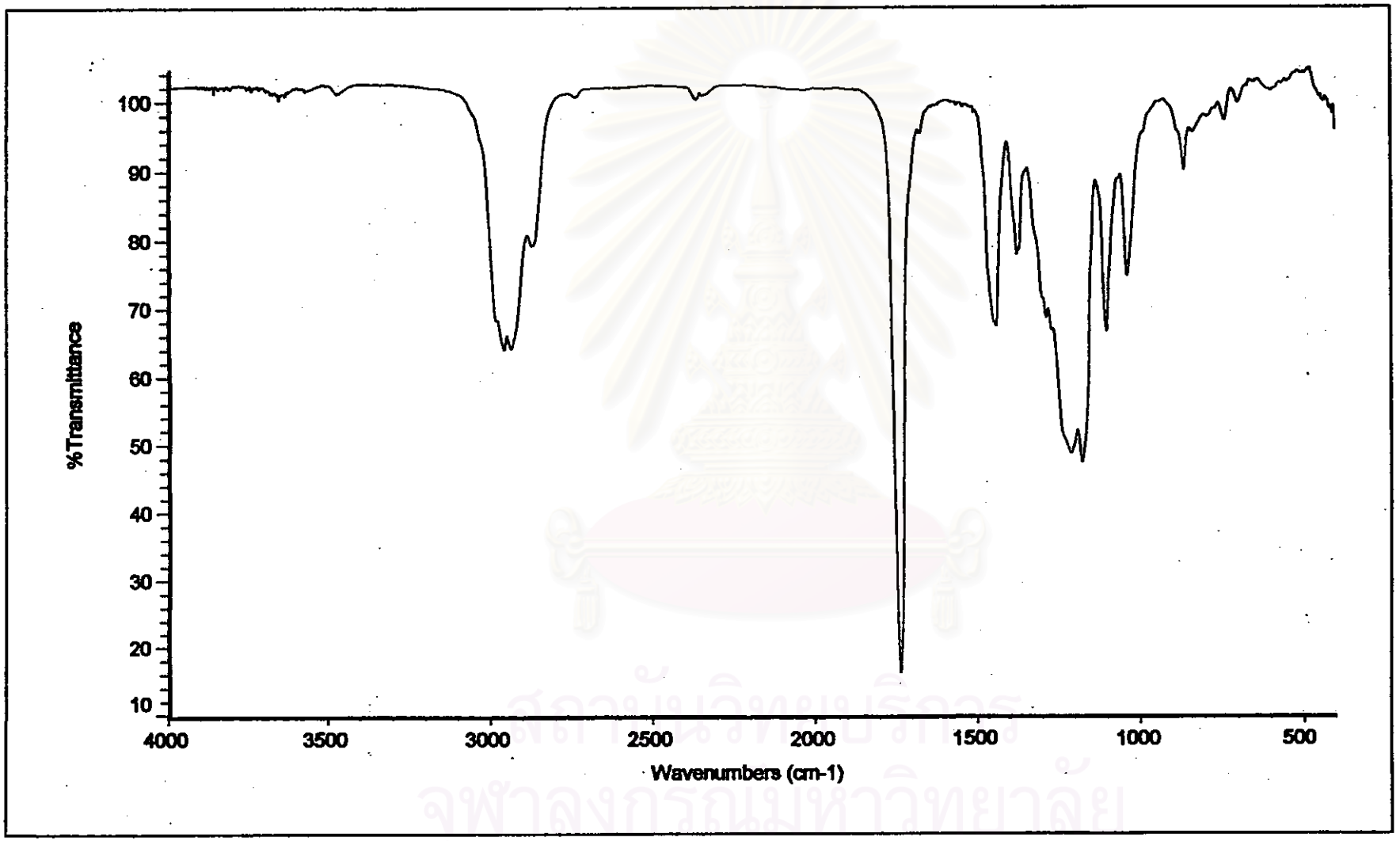

Figure 23 : IR spectrum of Methyl-6,6-Di(ethoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(10).

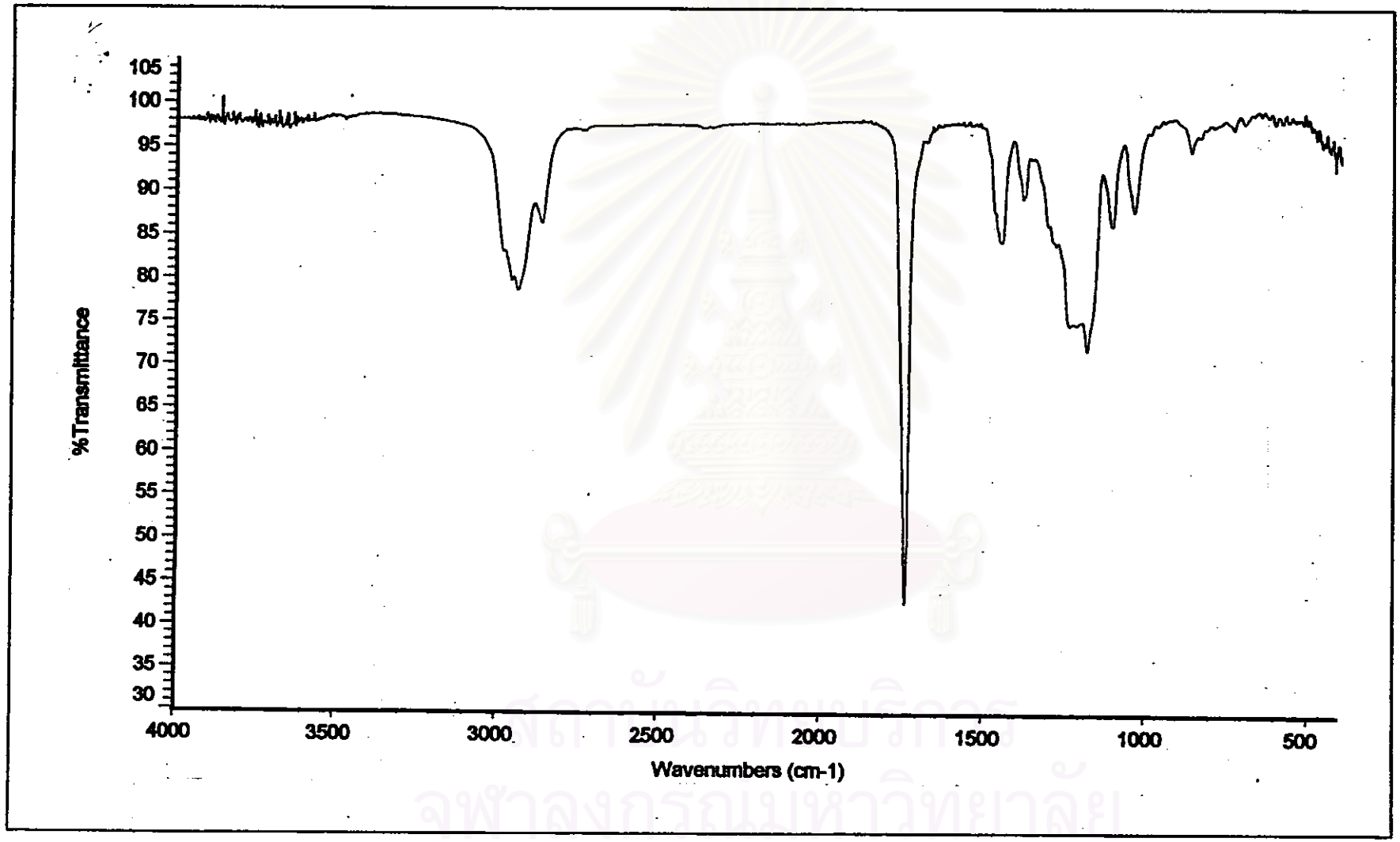

Figure 24 : IR spectrum of Methyl-7,7-Di(ethoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(11).

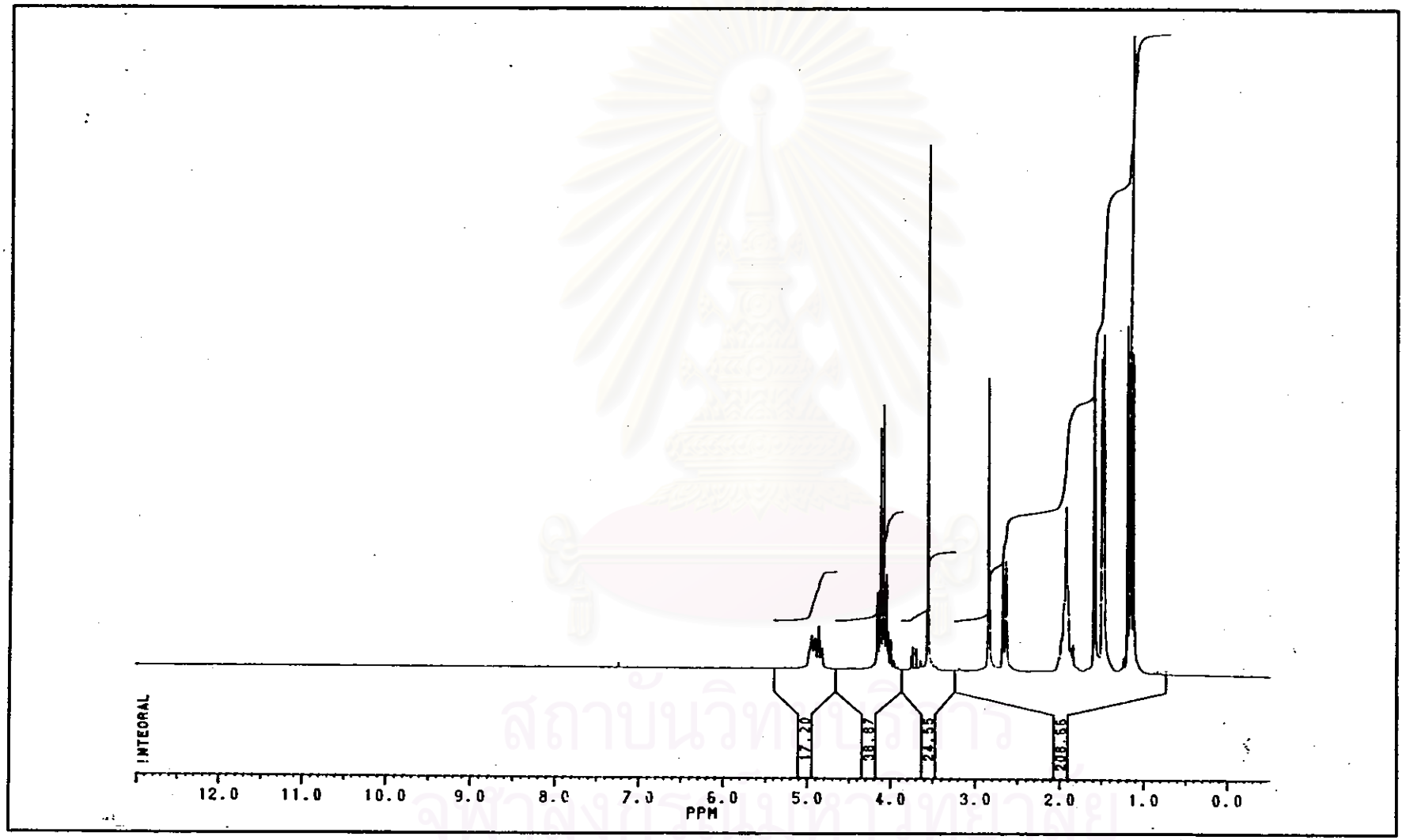

Figure 25 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-3,3-Di(ethoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate (7).

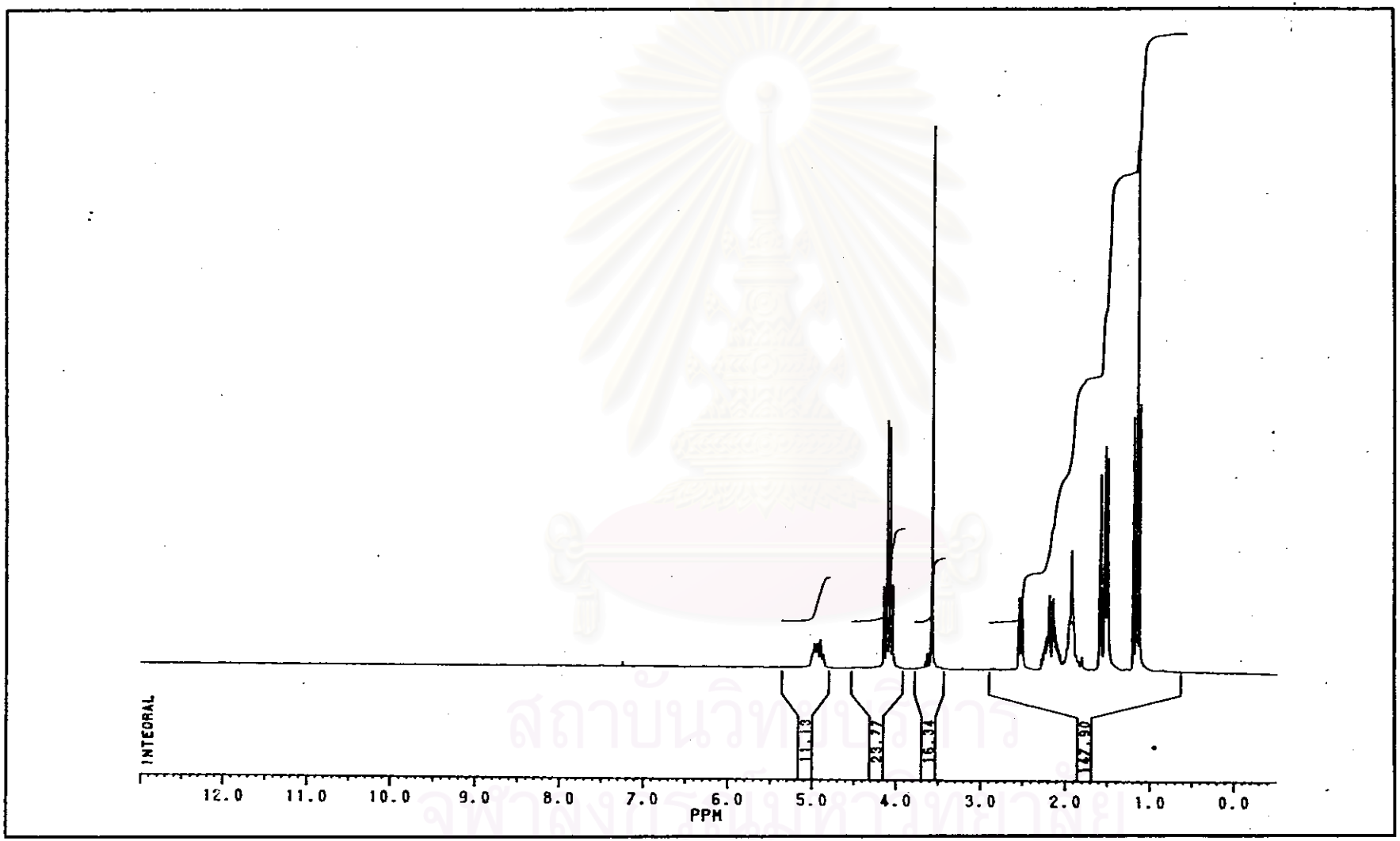

Figure 26 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-4,4-Di(ethoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(8).

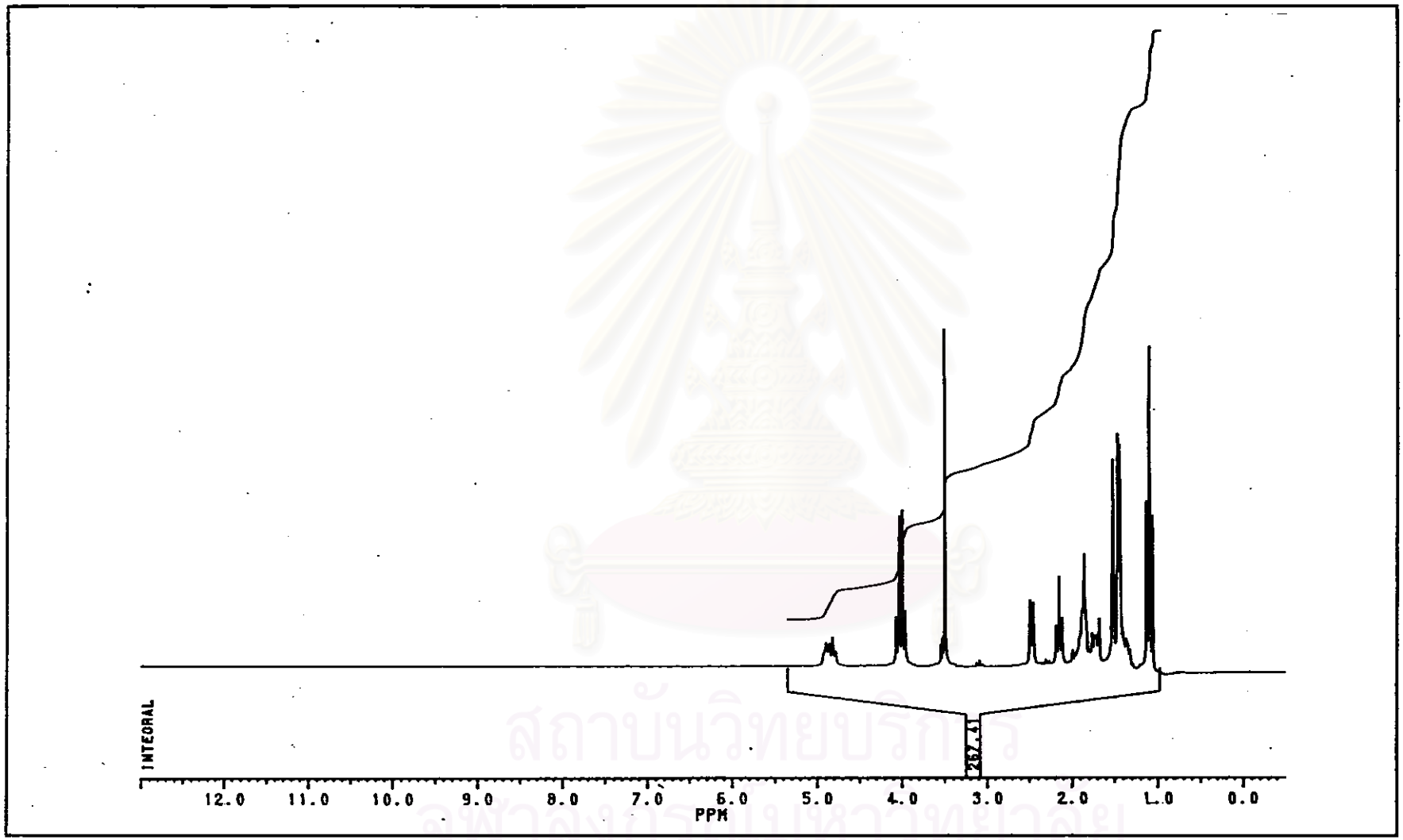

Figure 27 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-5,5-Di(ethoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(9).

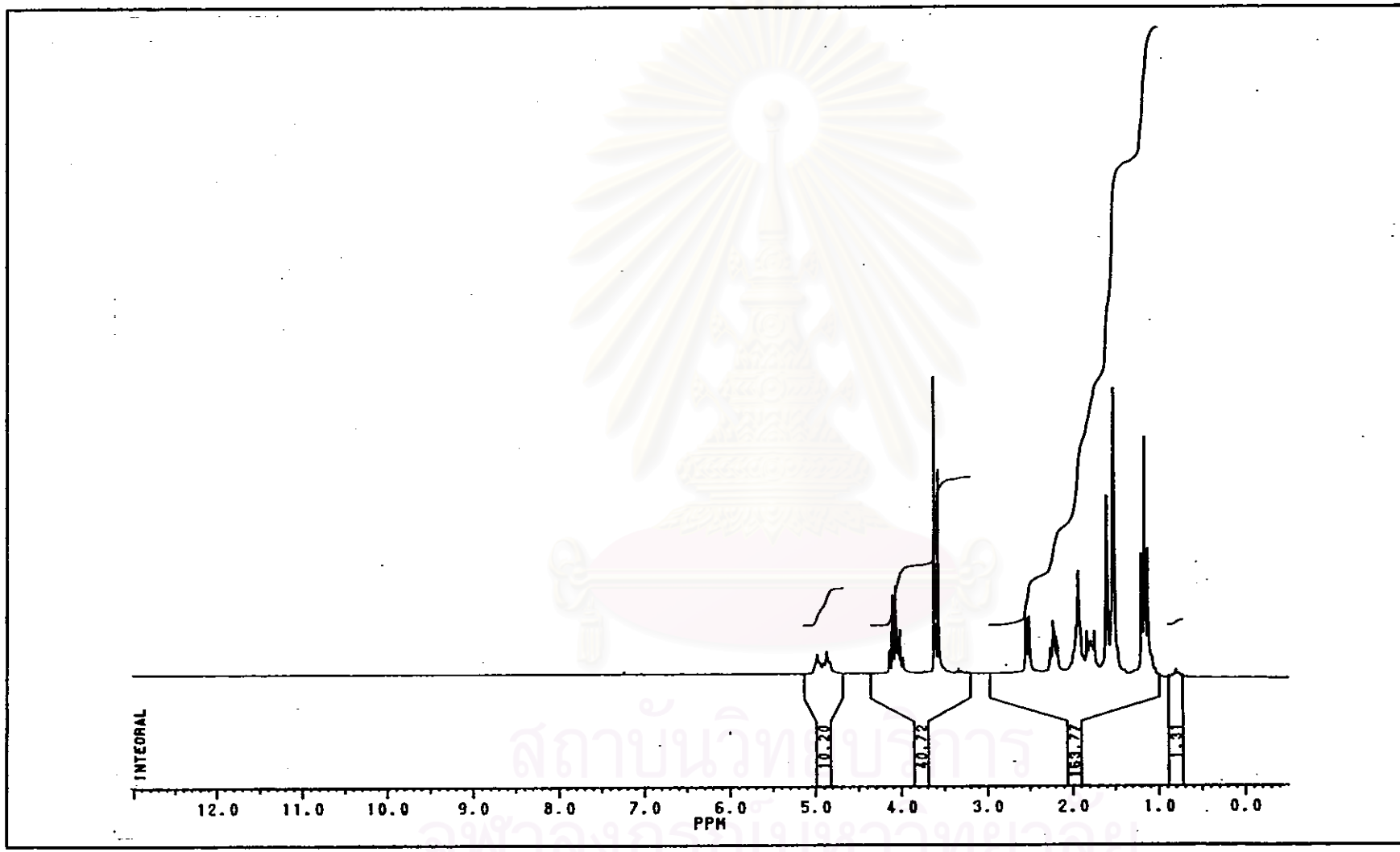

Figure 28 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-6,6-Di(ethoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(10).

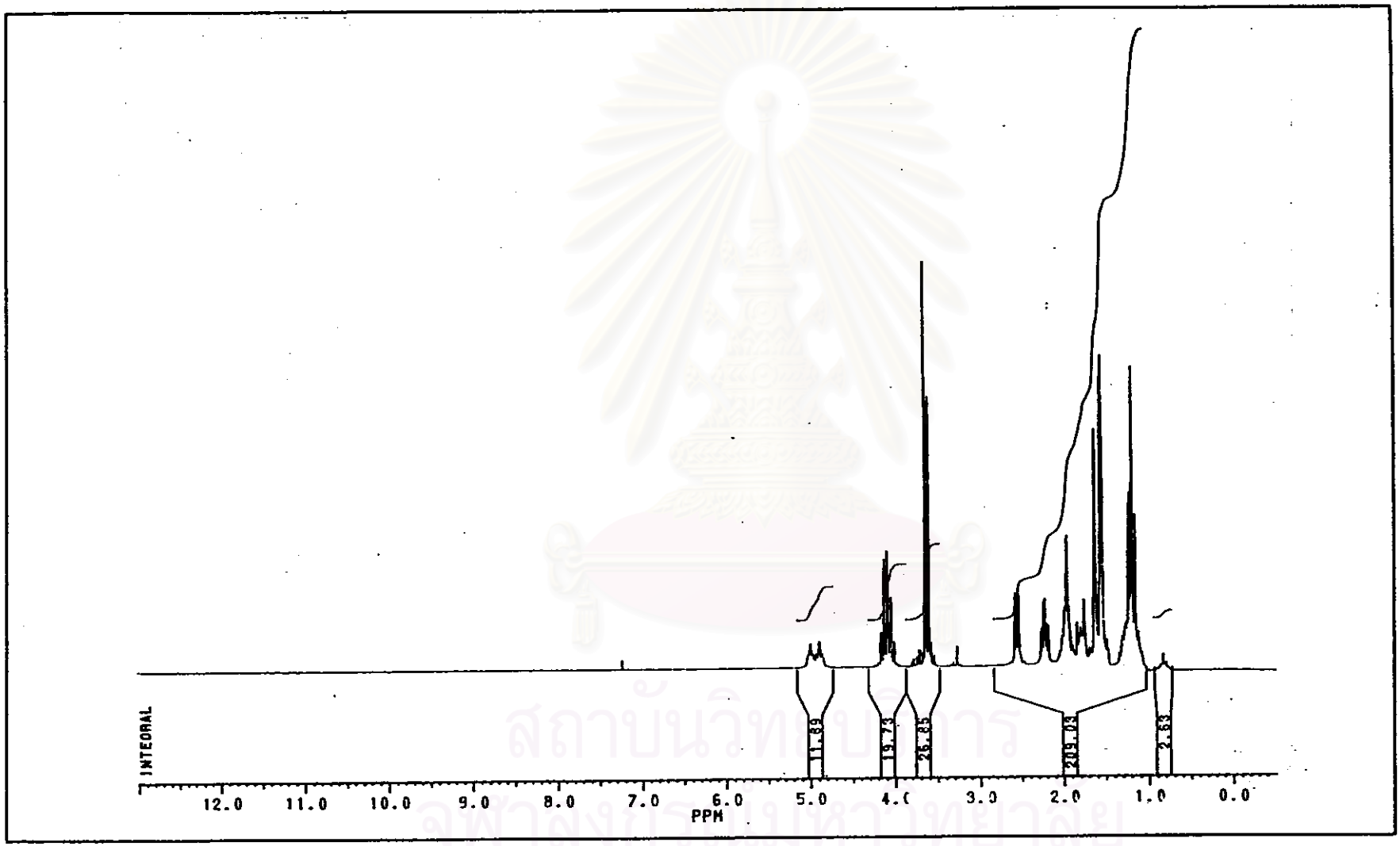

Figure 29 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-7,7-Di(ethoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(11).

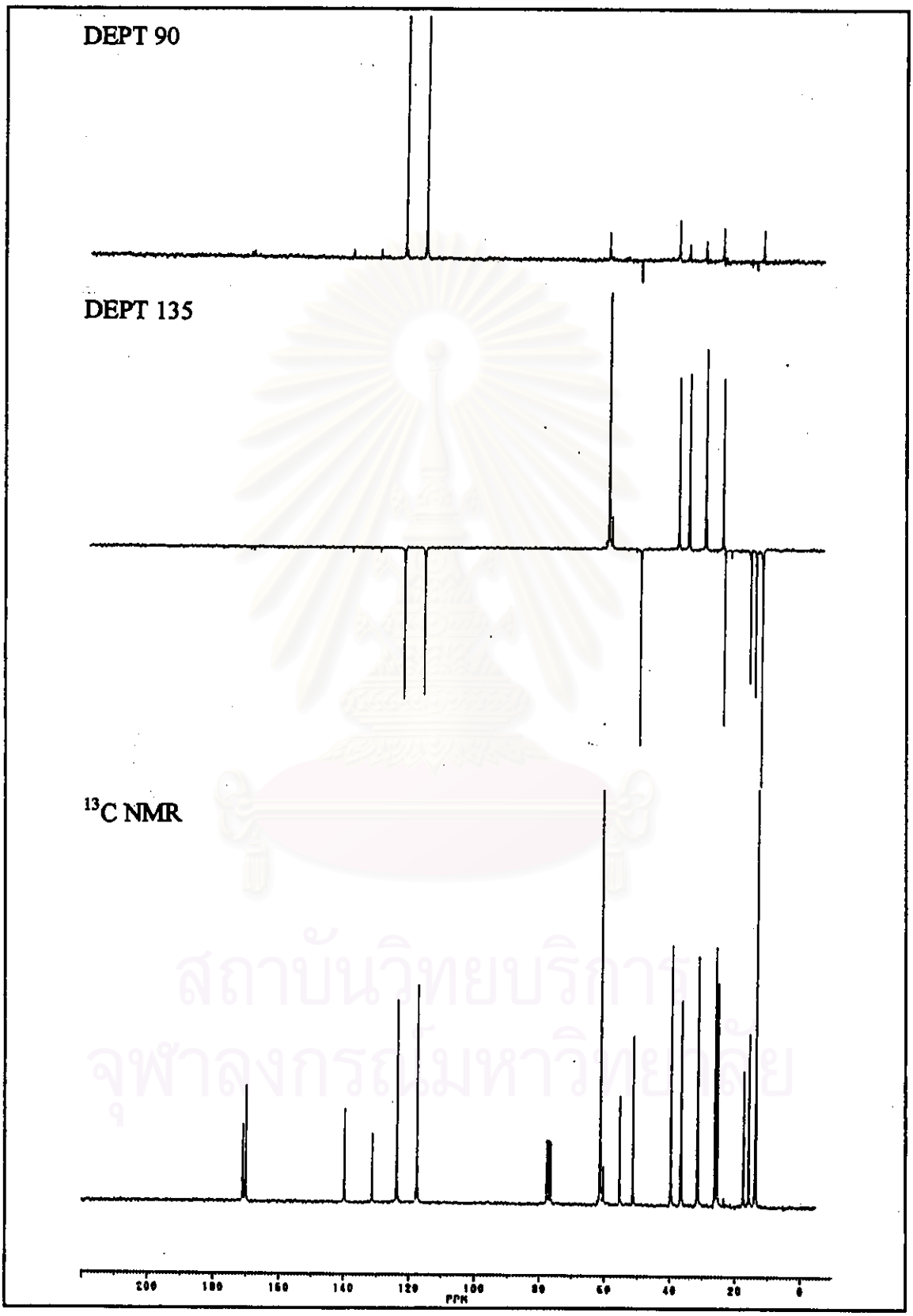

Figure 30 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-3,3-Di (ethoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate(7).

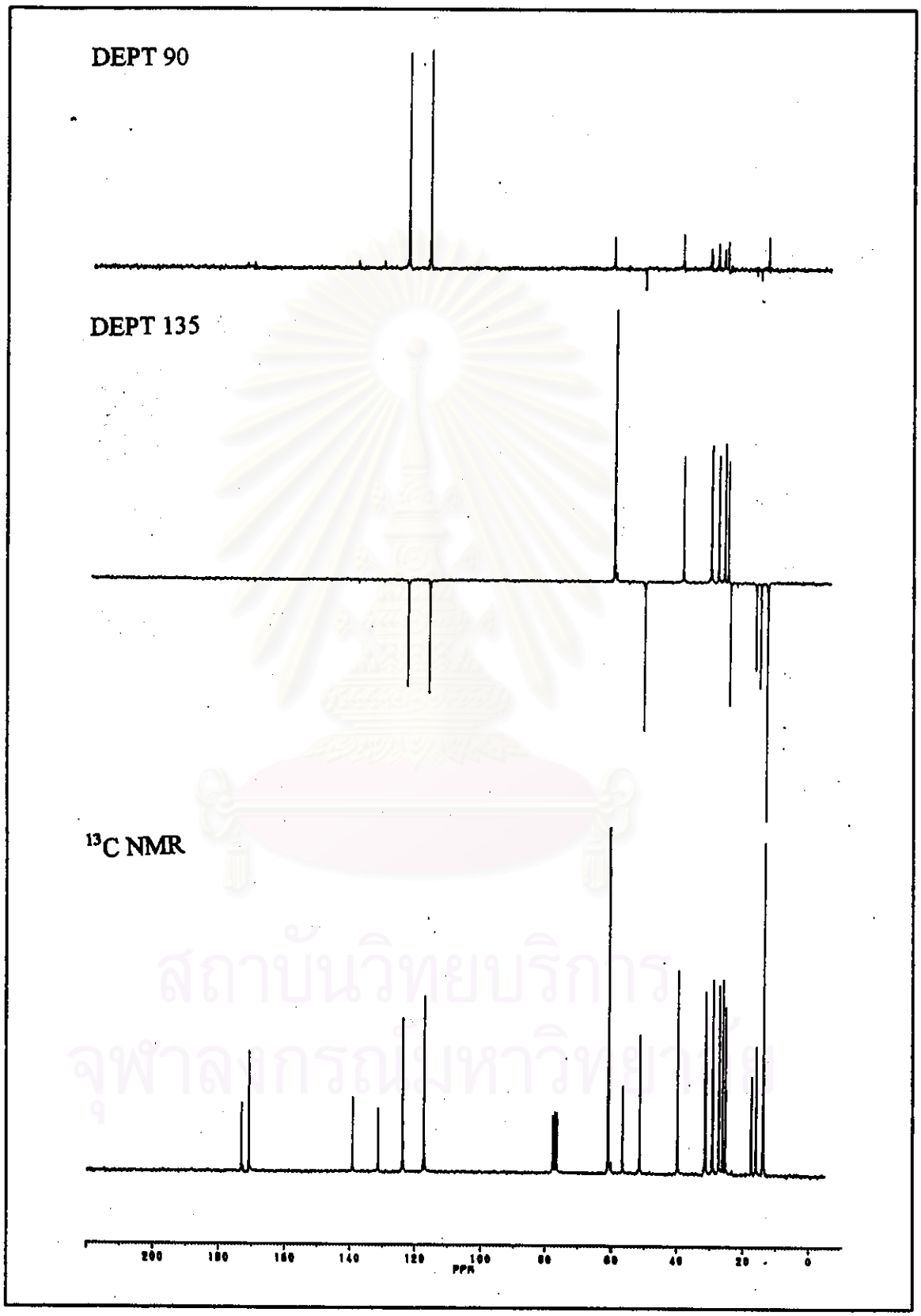

Figure 31 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-4,4-Di (ethoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(8).

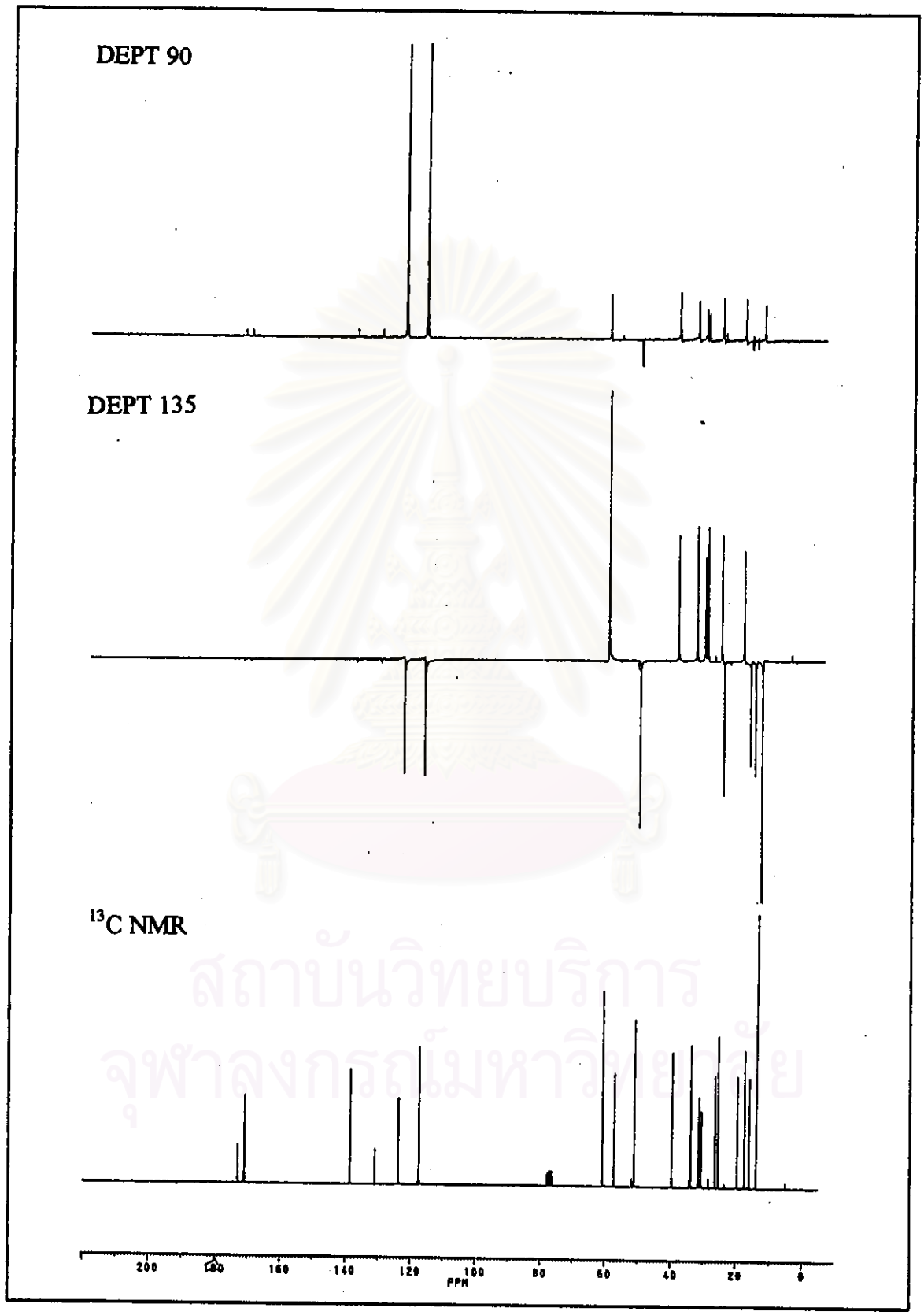

Figure 32 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-5,5-Di (ethoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(9).

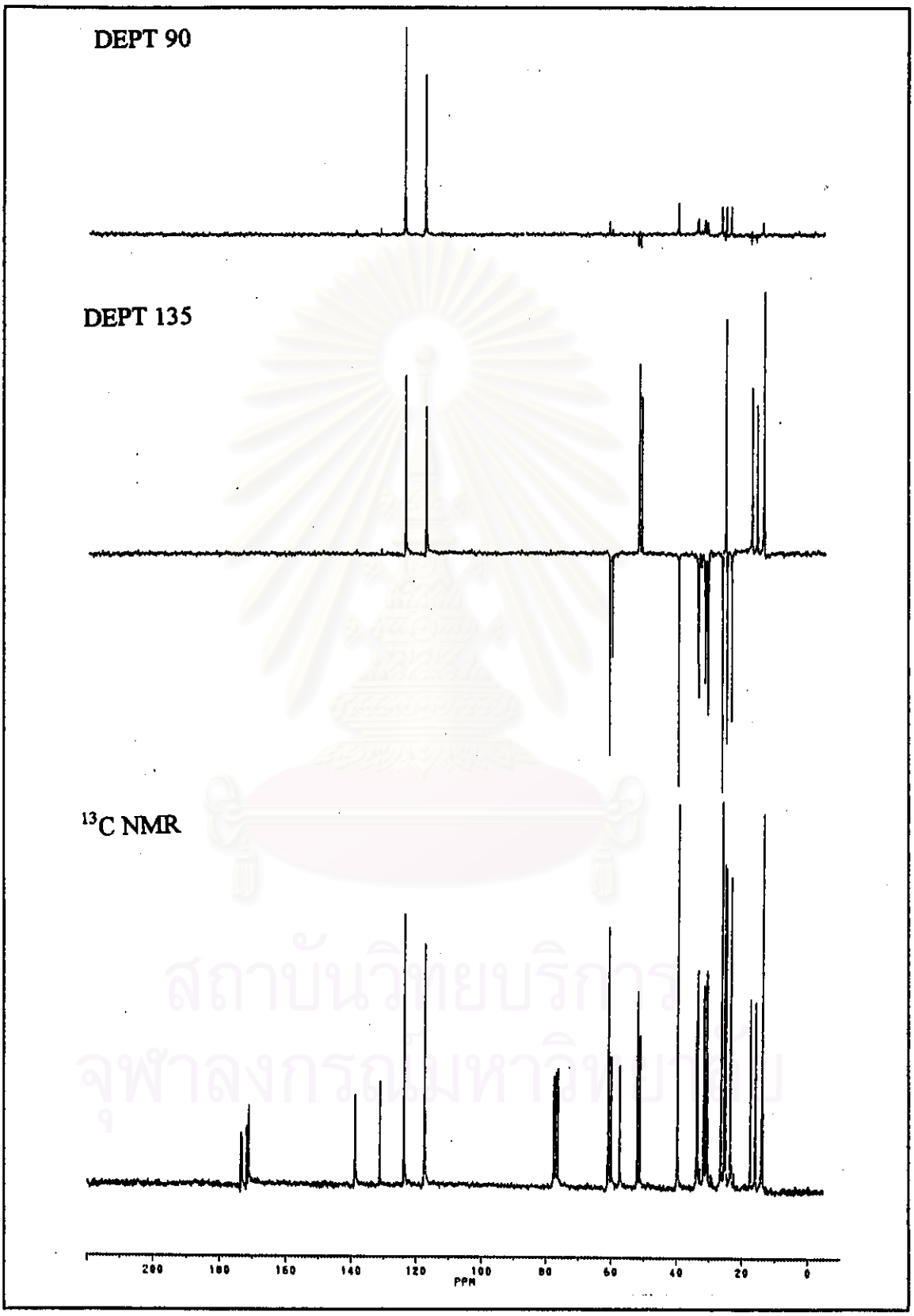

Figure 33 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-6,6-Di (ethoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(10).

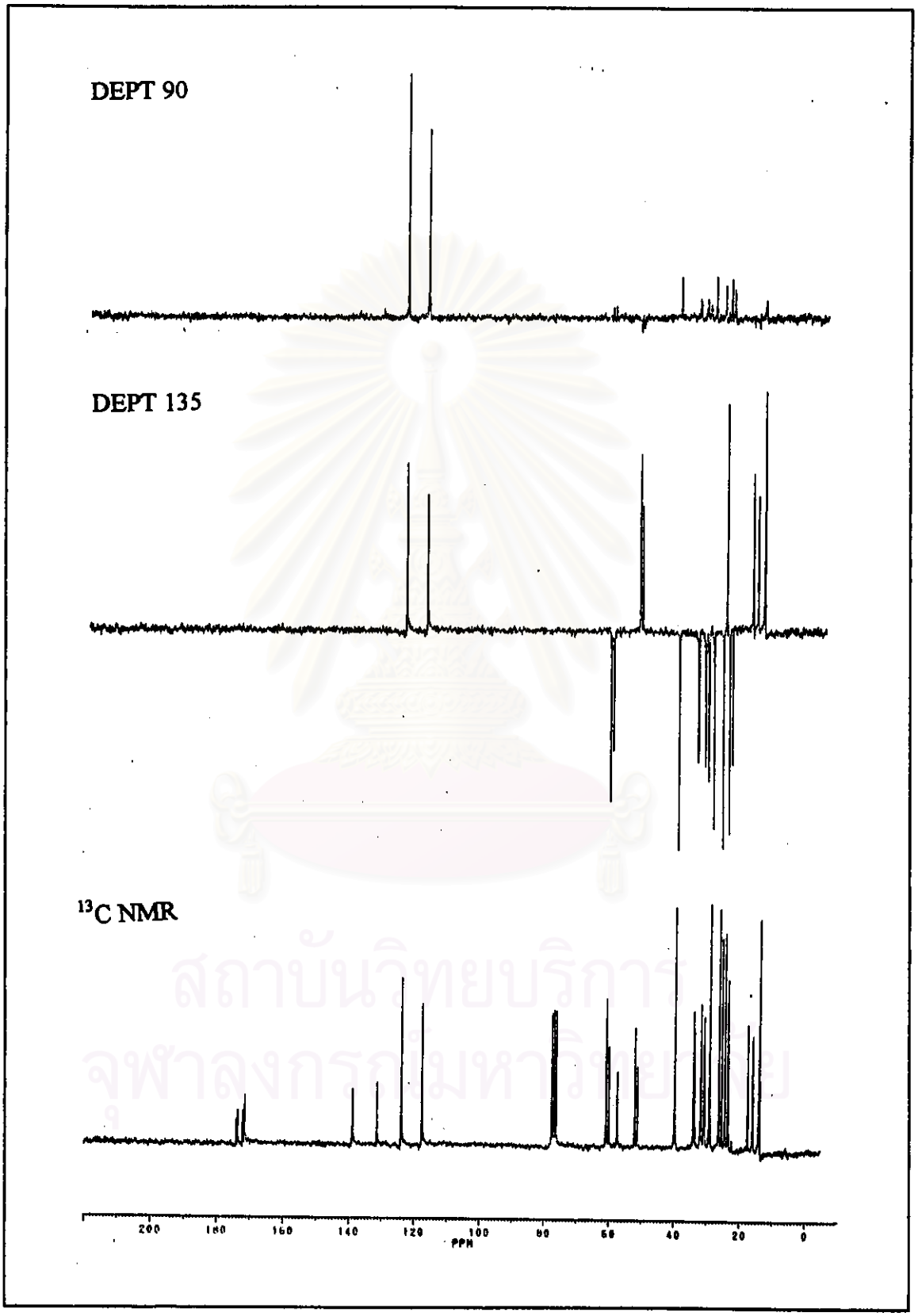

Figure 34 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-7,7-Di (ethoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(11).

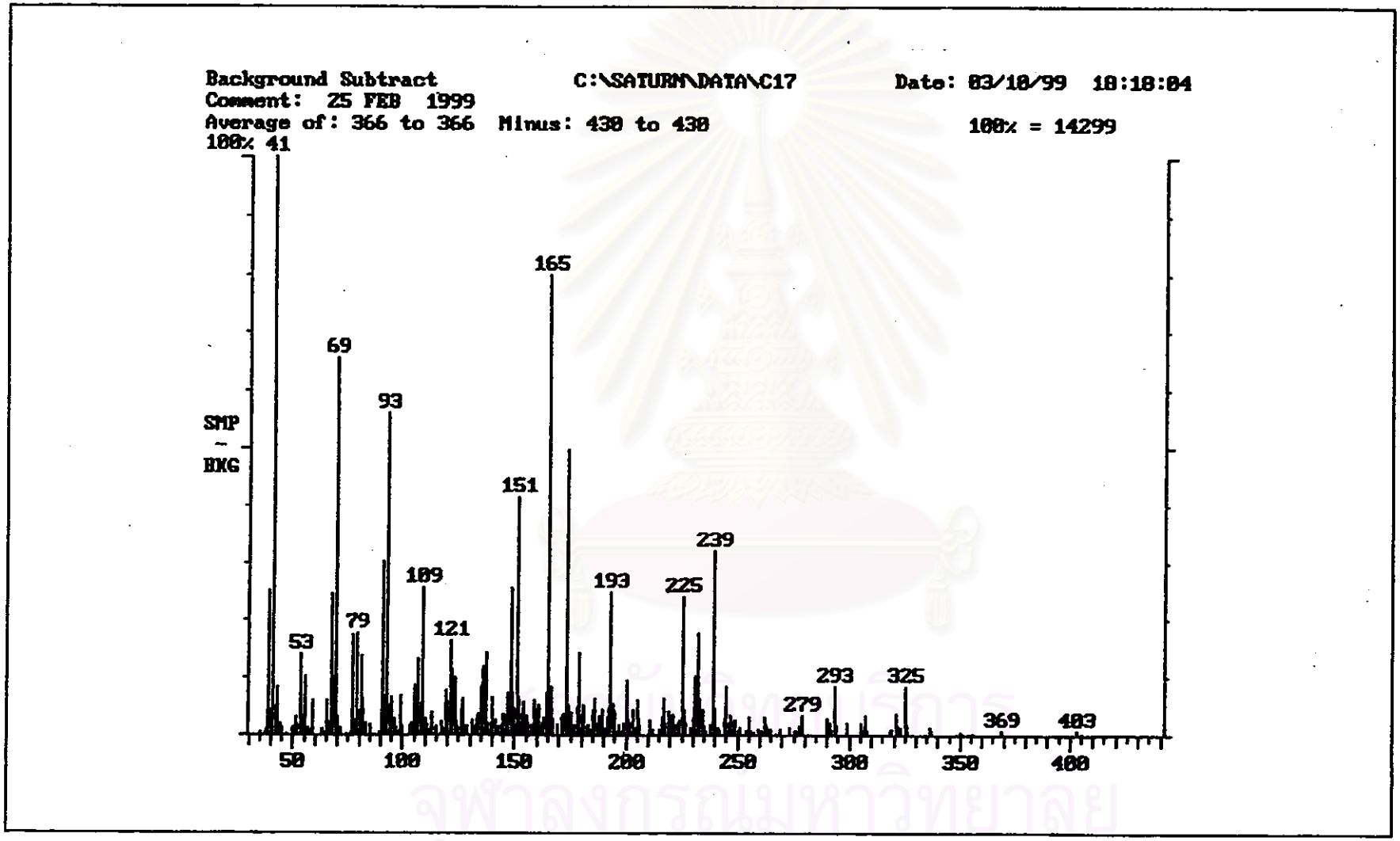

Figure 35 : Mass spectrum of Methyl-3,3-Di(ethoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate (7).

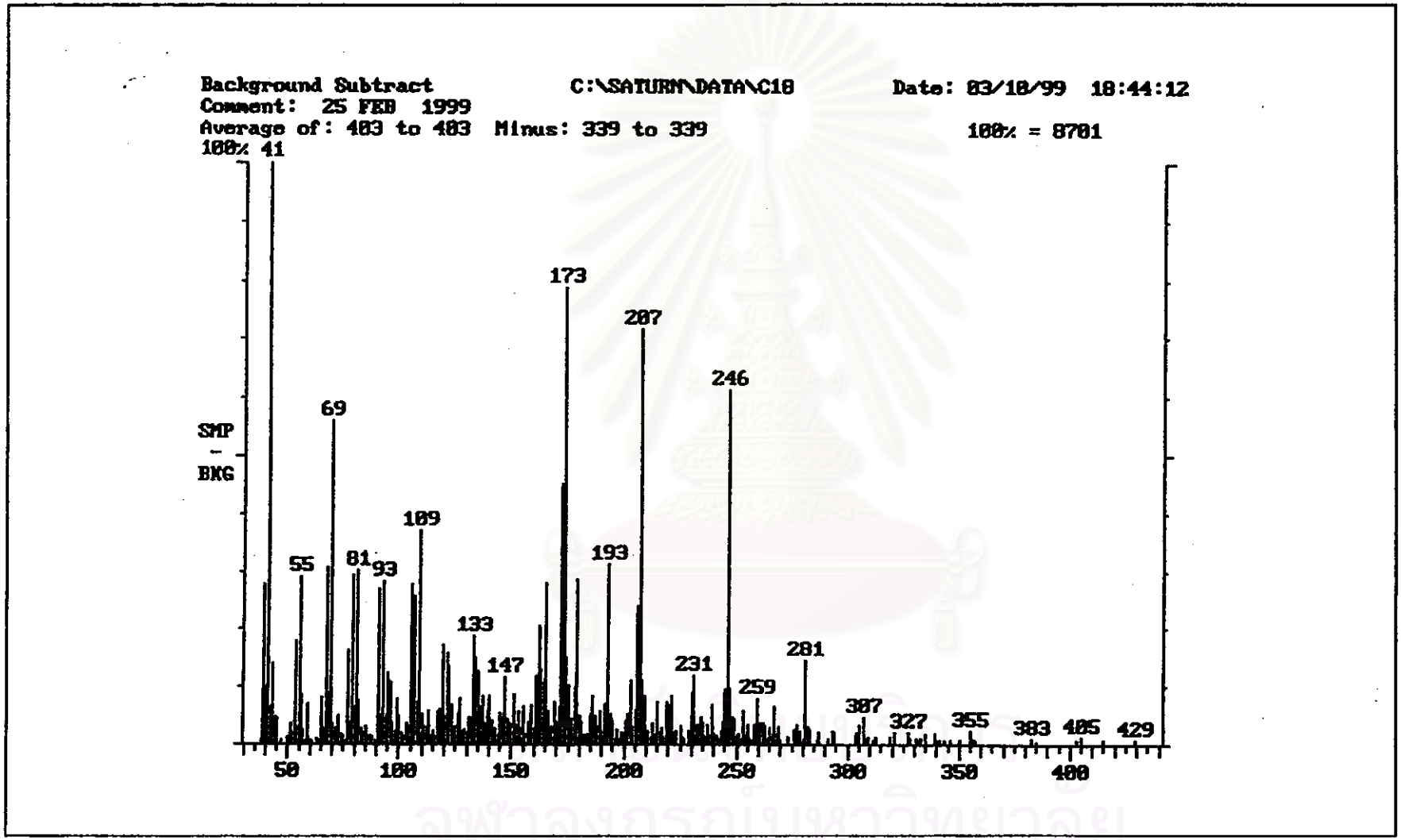

Figure 36 : Mass spectrum of Methyl-4,4-Di(ethoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(8).

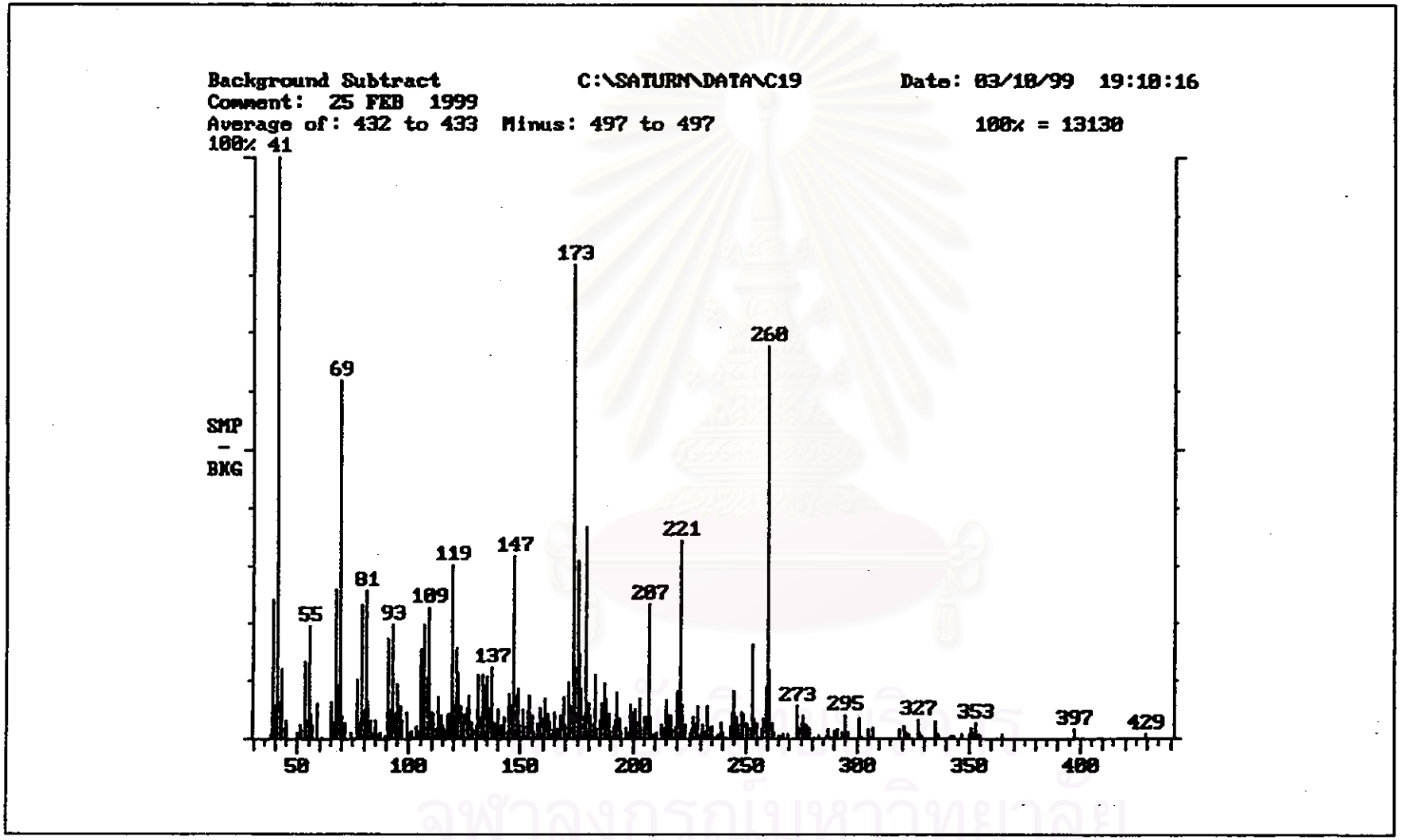

Figure 37 : Mass spectrum of Methyl-5,5-Di(ethoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(9).

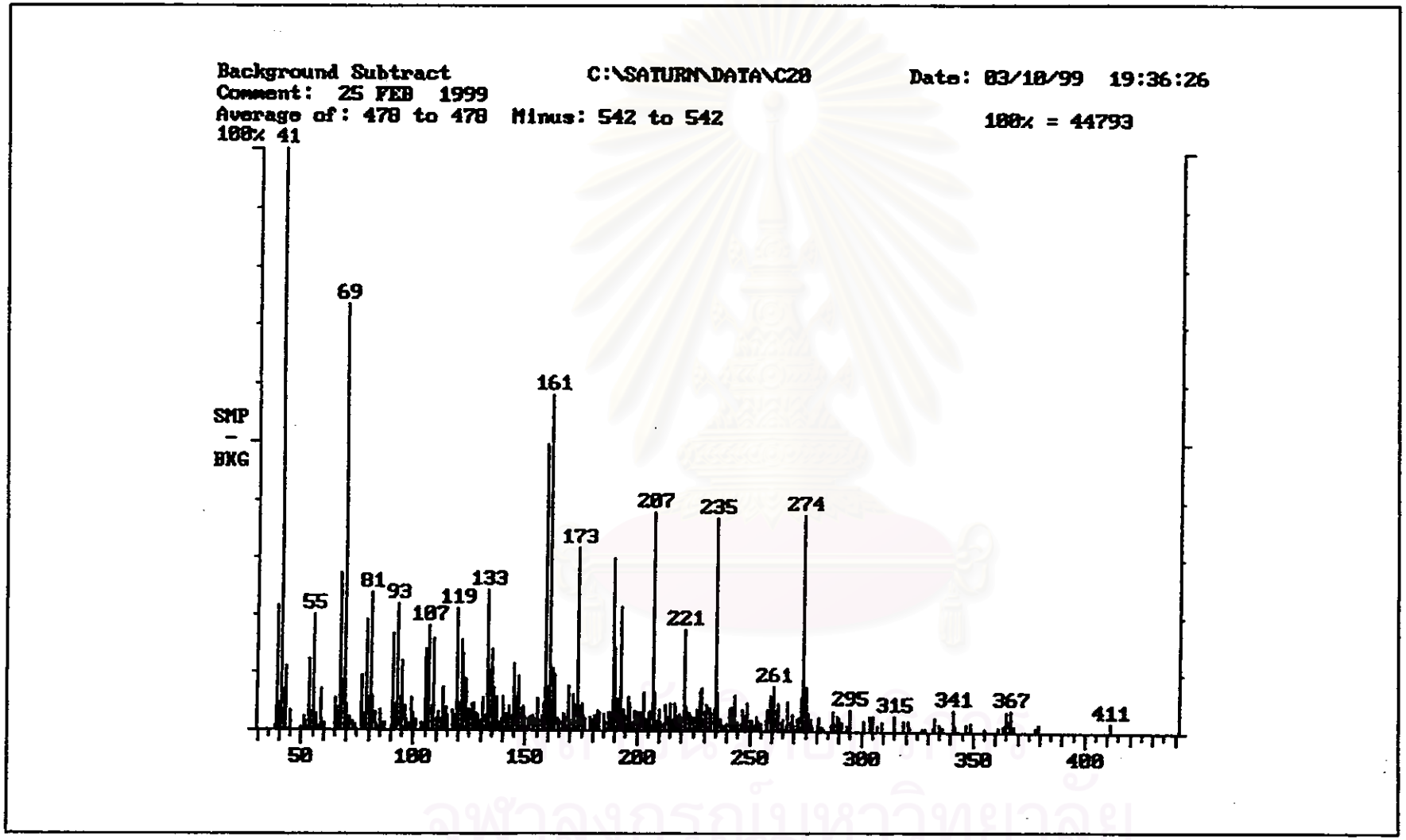

Figure 38 : Mass spectrum of Methyl-6,6-Di(ethoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(10).

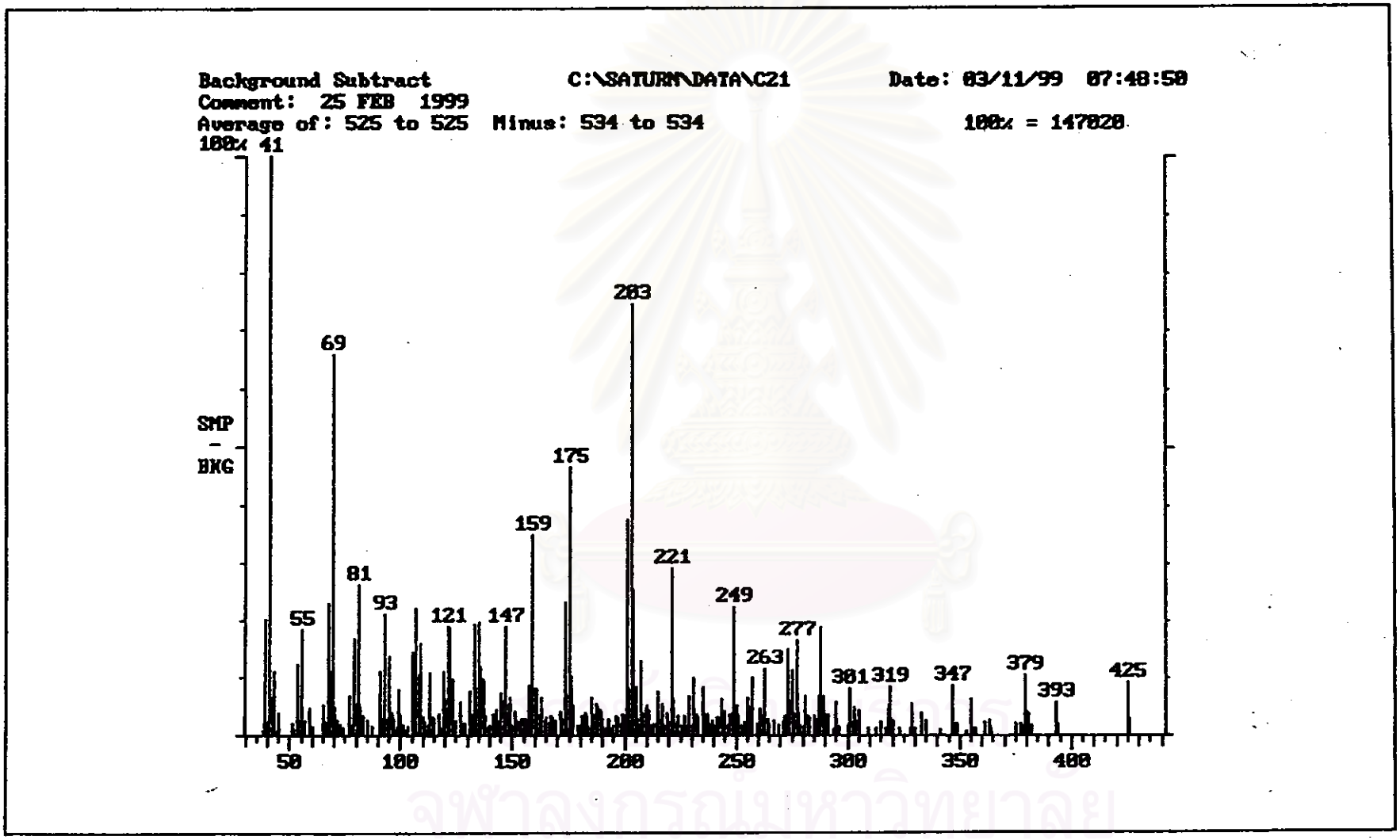

Figure 39 : Mass spectrum of Methyl-7,7-Di(ethoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(11).

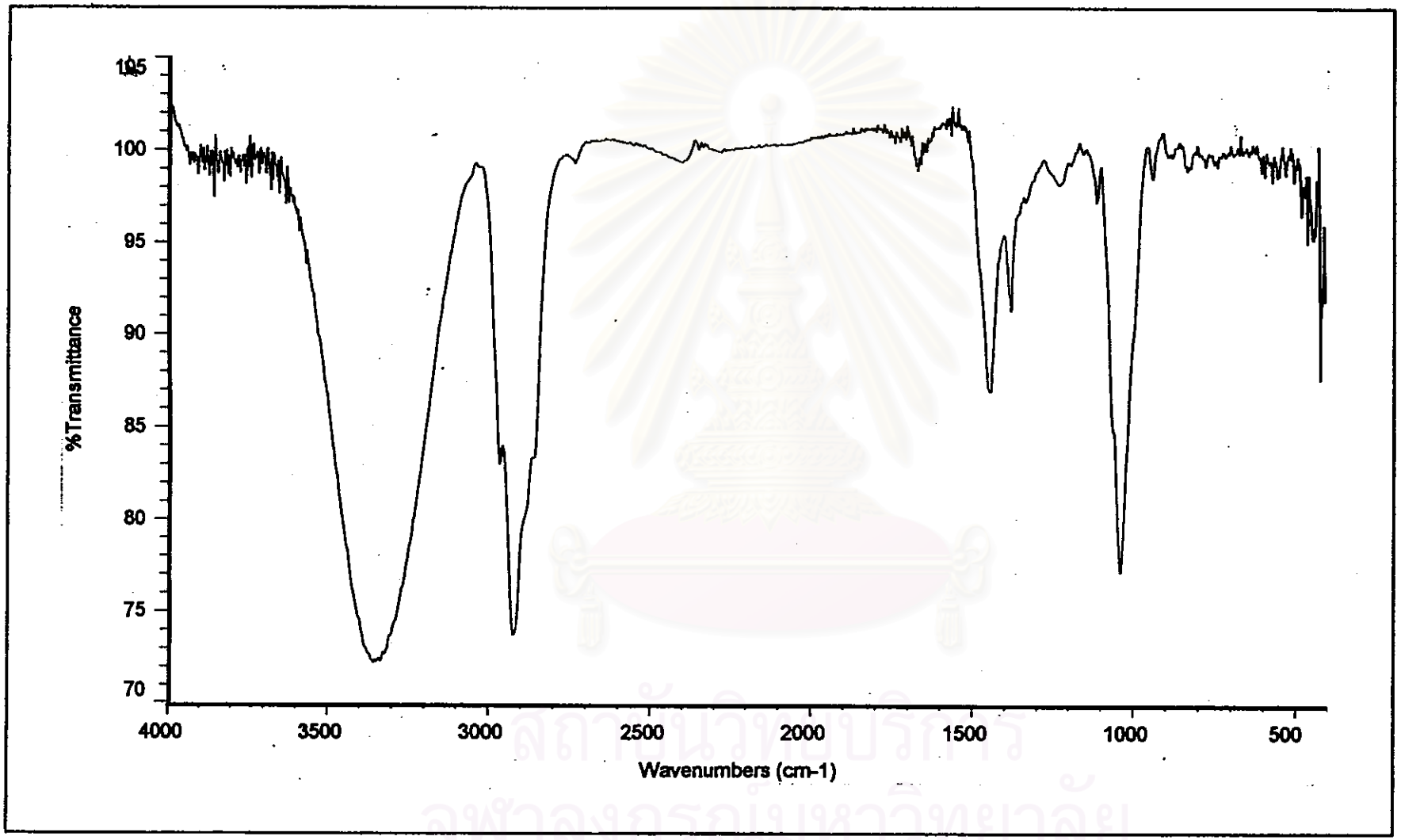

Figure 40 : IR spectrum of 3,3-Di(hydroxymethyl)-6,10-dimethylundeca-5,9-dien-1-ol(12).

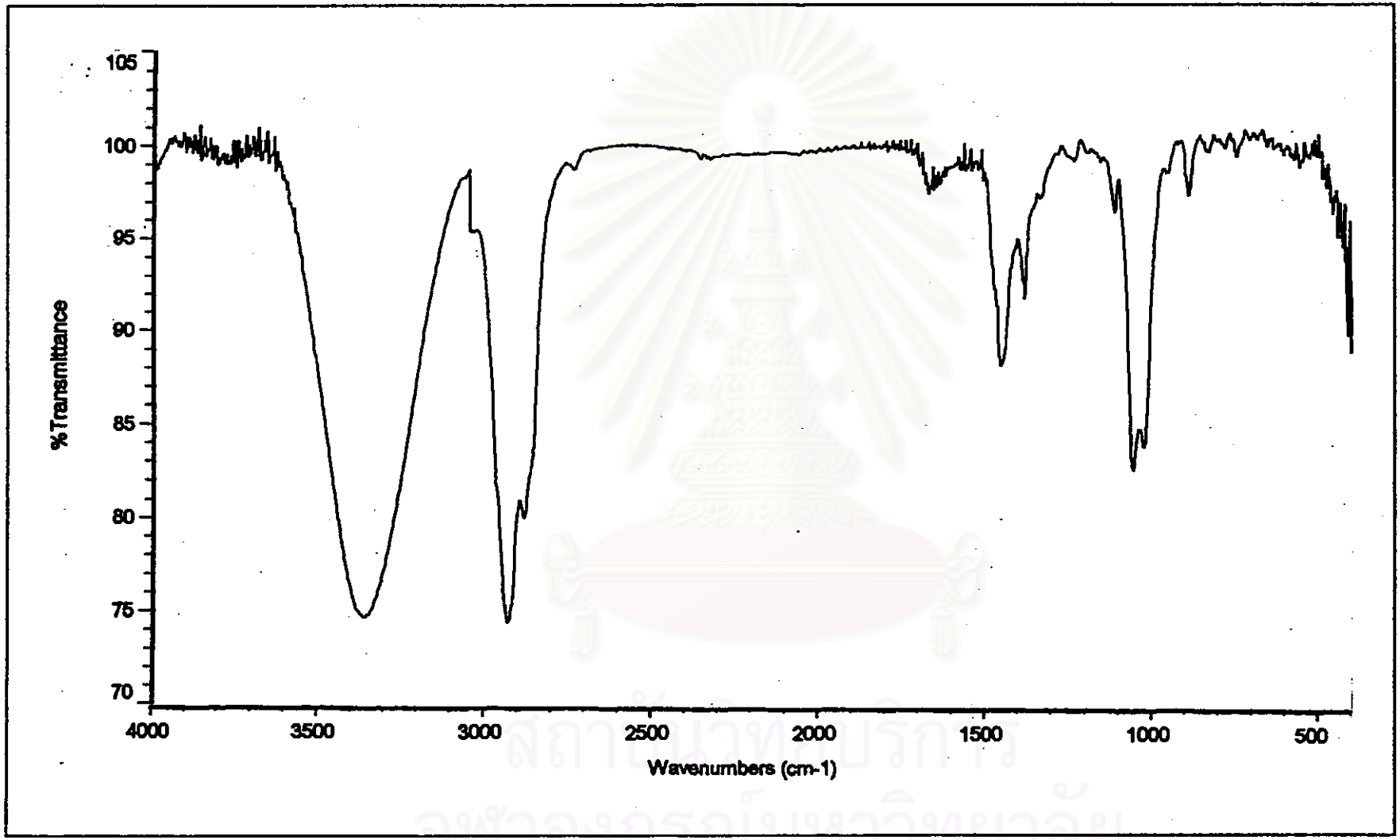

Figure 41 : IR spectrum of 4,4-Di(hydroxymethyl)-7,11-dimethyldodeca-6,10-dien-1-ol(13).

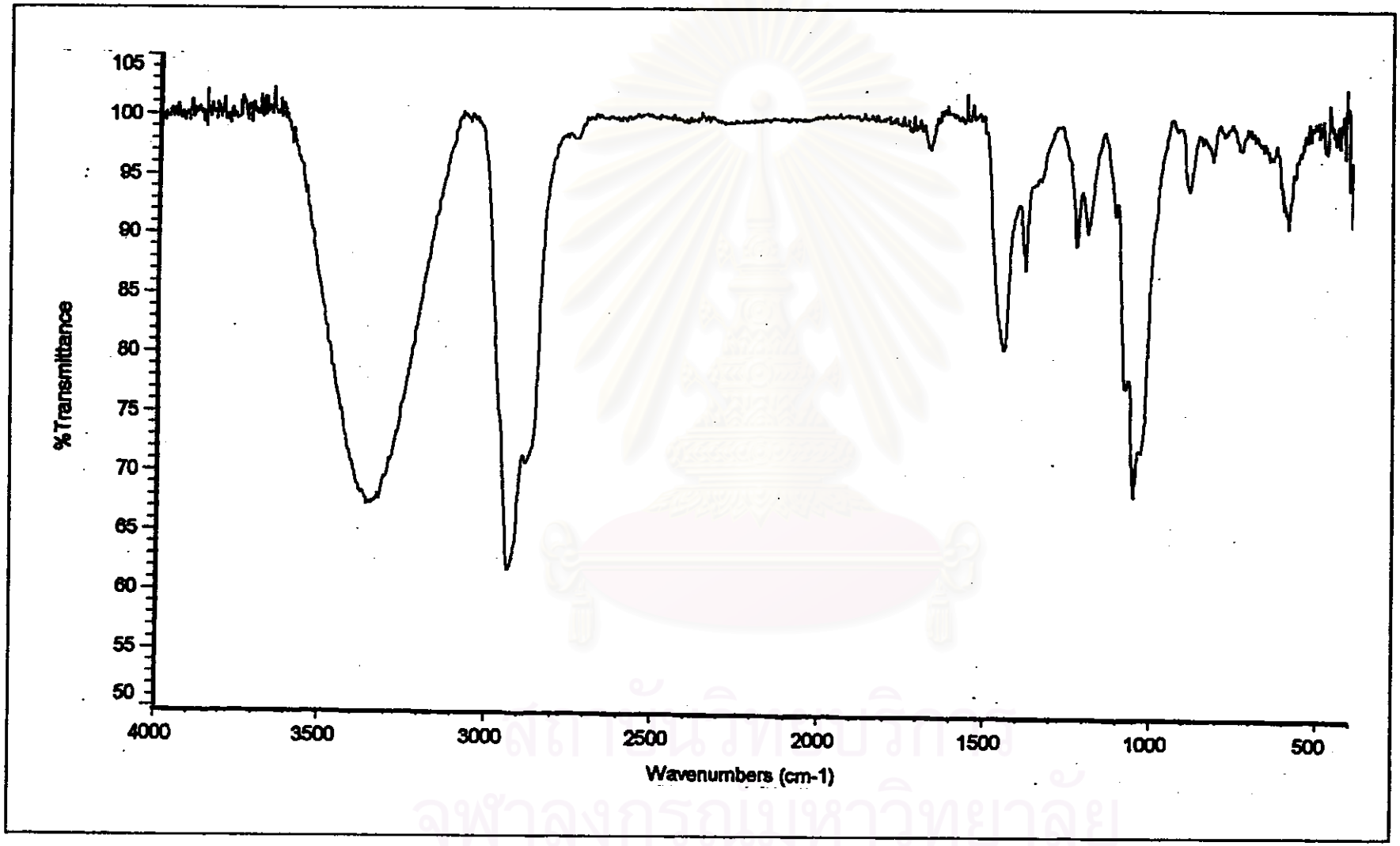

Figure 42 : IR spectrum of 5,5-Di(hydroxymethyl)-8,12-dimethyltrideca-7,11-dien-1-ol(14).

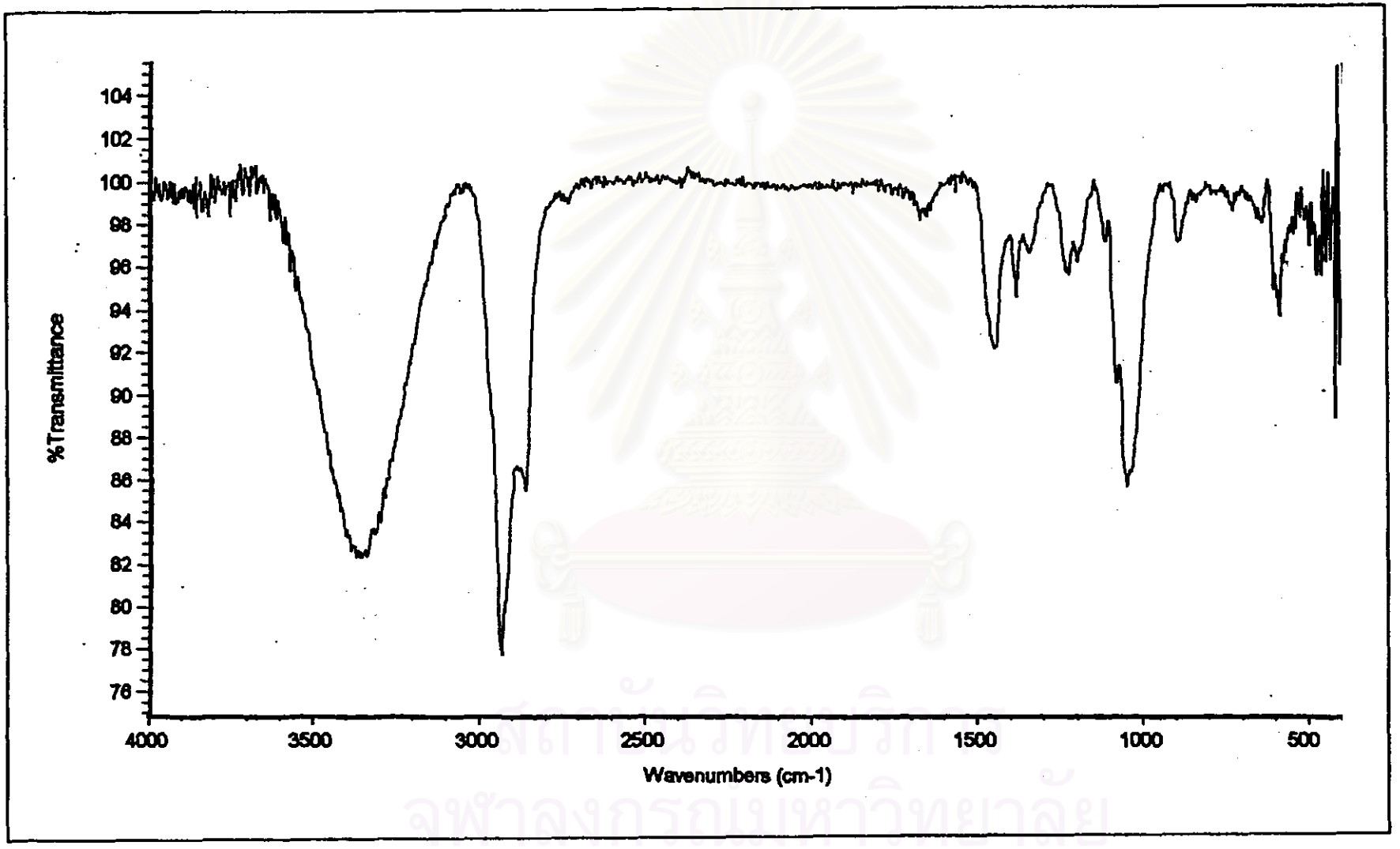

Figure 43 : IR spectrum of 6,6-Di(hydroxymethyl)-9,13-dimethyltetradeca-8,12-dien-1-ol(15).

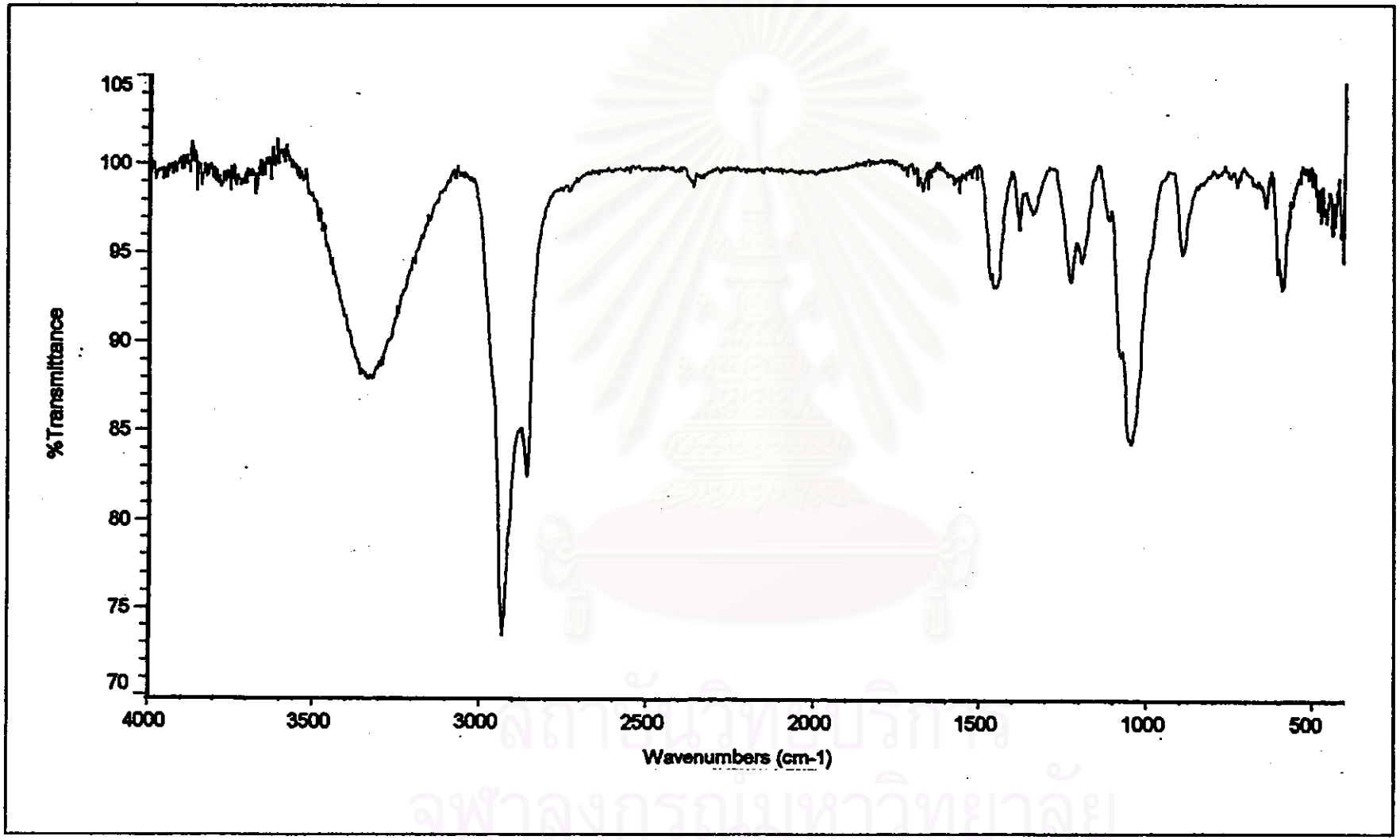

Figure 44 : IR spectrum of 7,7-Di(hydroxymethyl)-10,14-dimethylpentadeca-9,13-dien-1-ol(16).

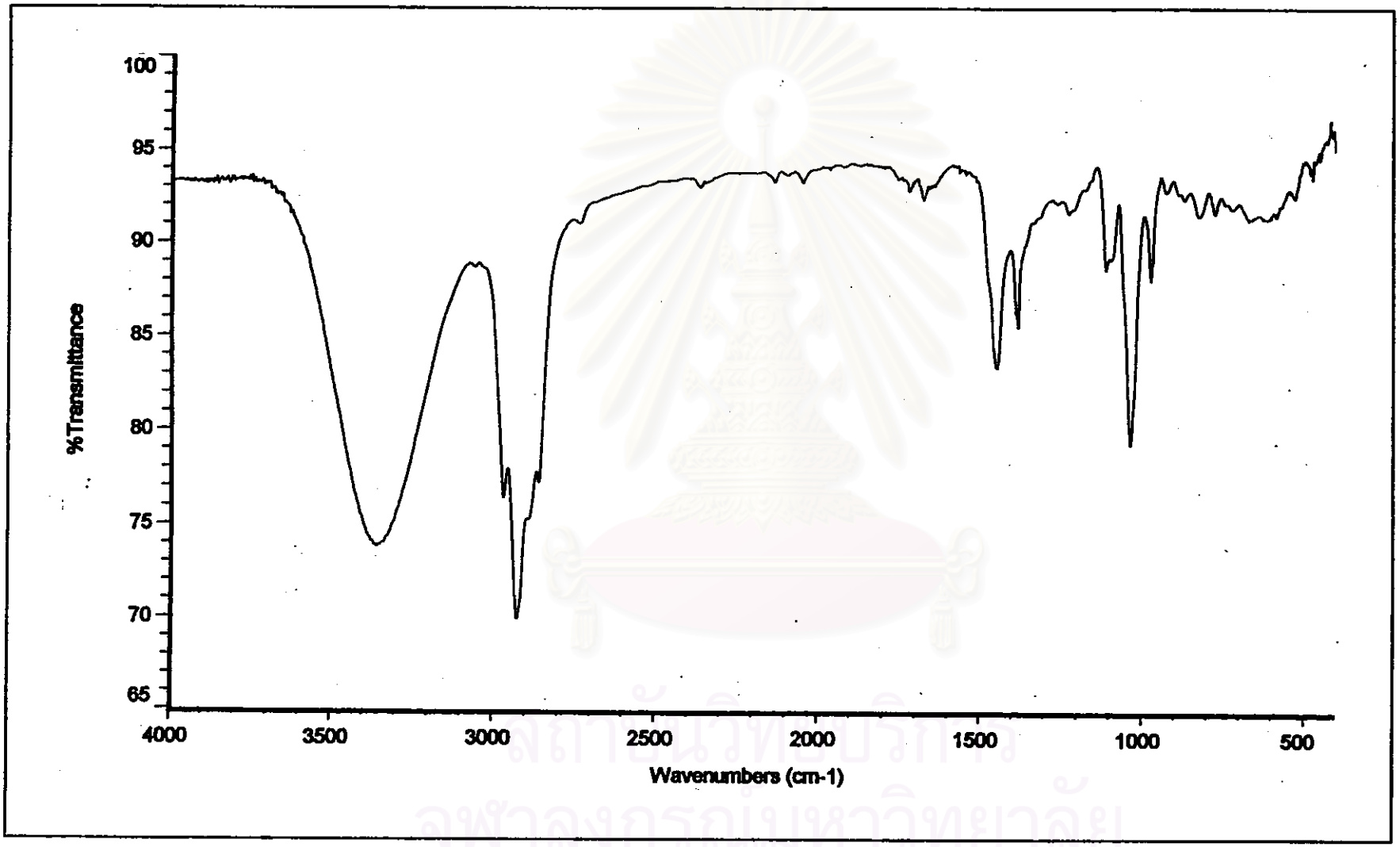

Figure 45 : IR spectrum of 2-hydroxymethyl-5,9-dimethyldeca-4,8-dien-1-ol(17).

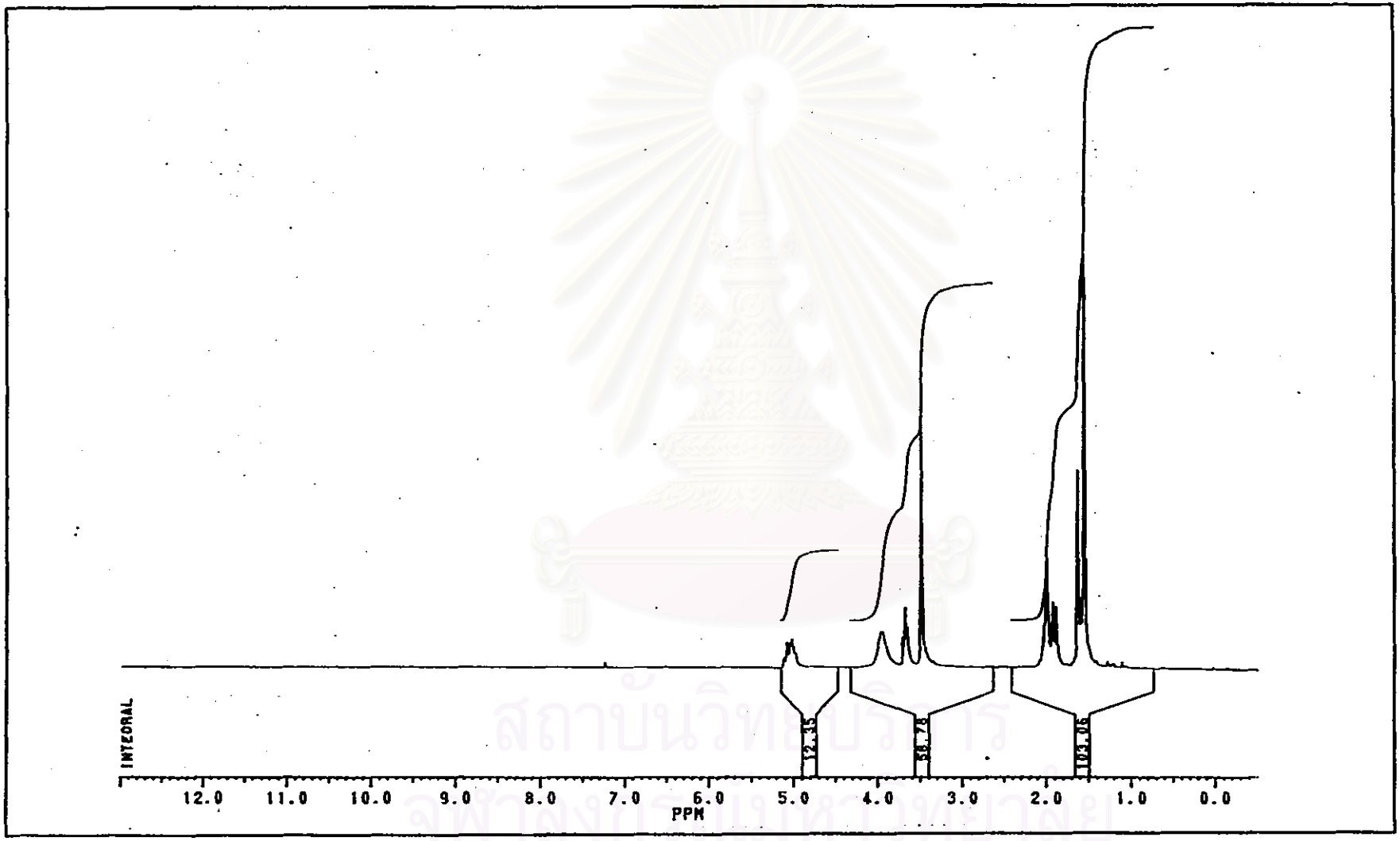

Figure 46 : ^{1}H NMR($CDCl_3$) spectrum of 3,3-Di(hydroxymethyl)-6,10-dimethylundeca-5,9-dien-1-ol(12).

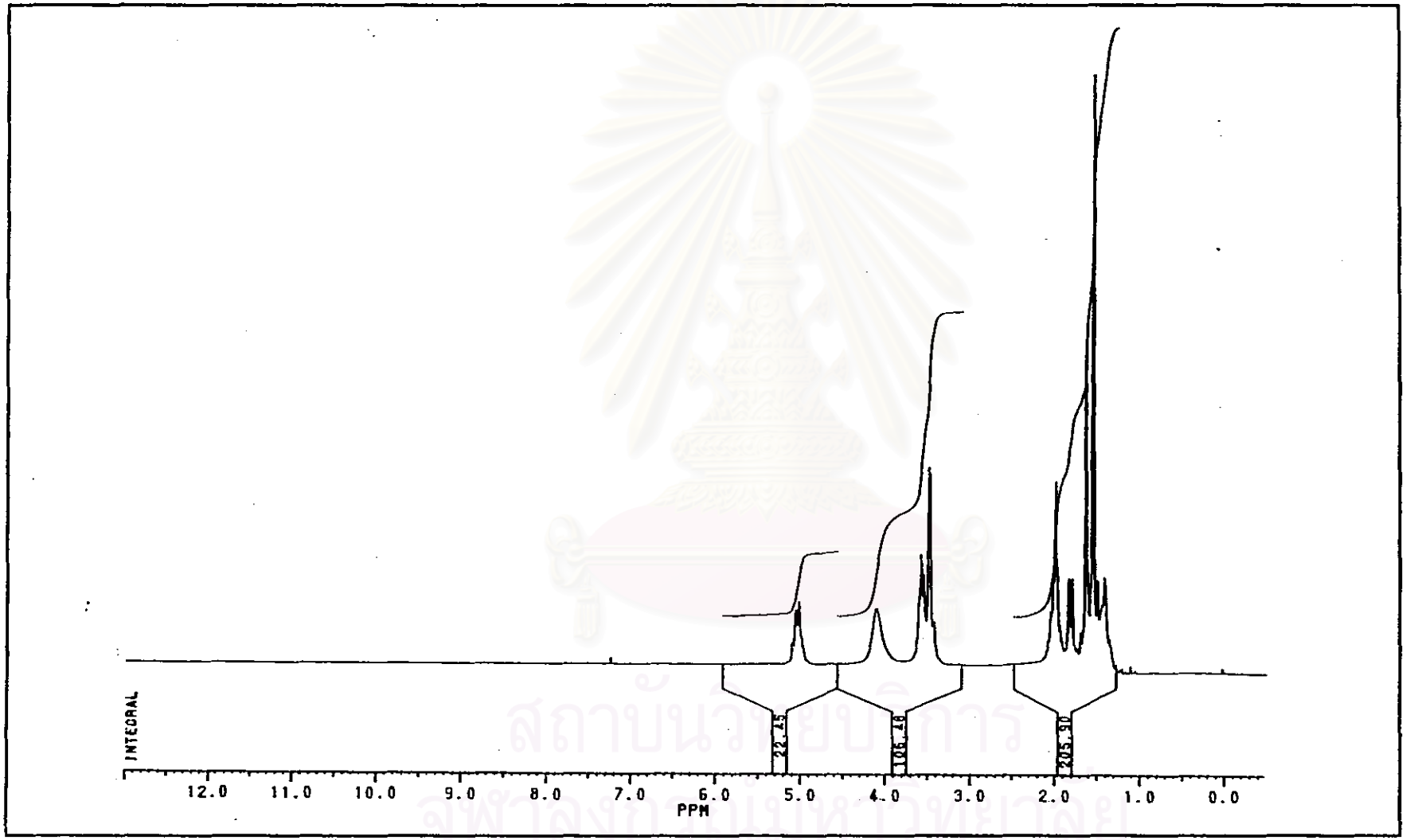

Figure 47 : ^{1}H NMR($CDCl_3$) spectrum of 4,4-Di(hydroxymethyl)-7,11-dimethyldodeca-6,10-dien-1-ol(13).

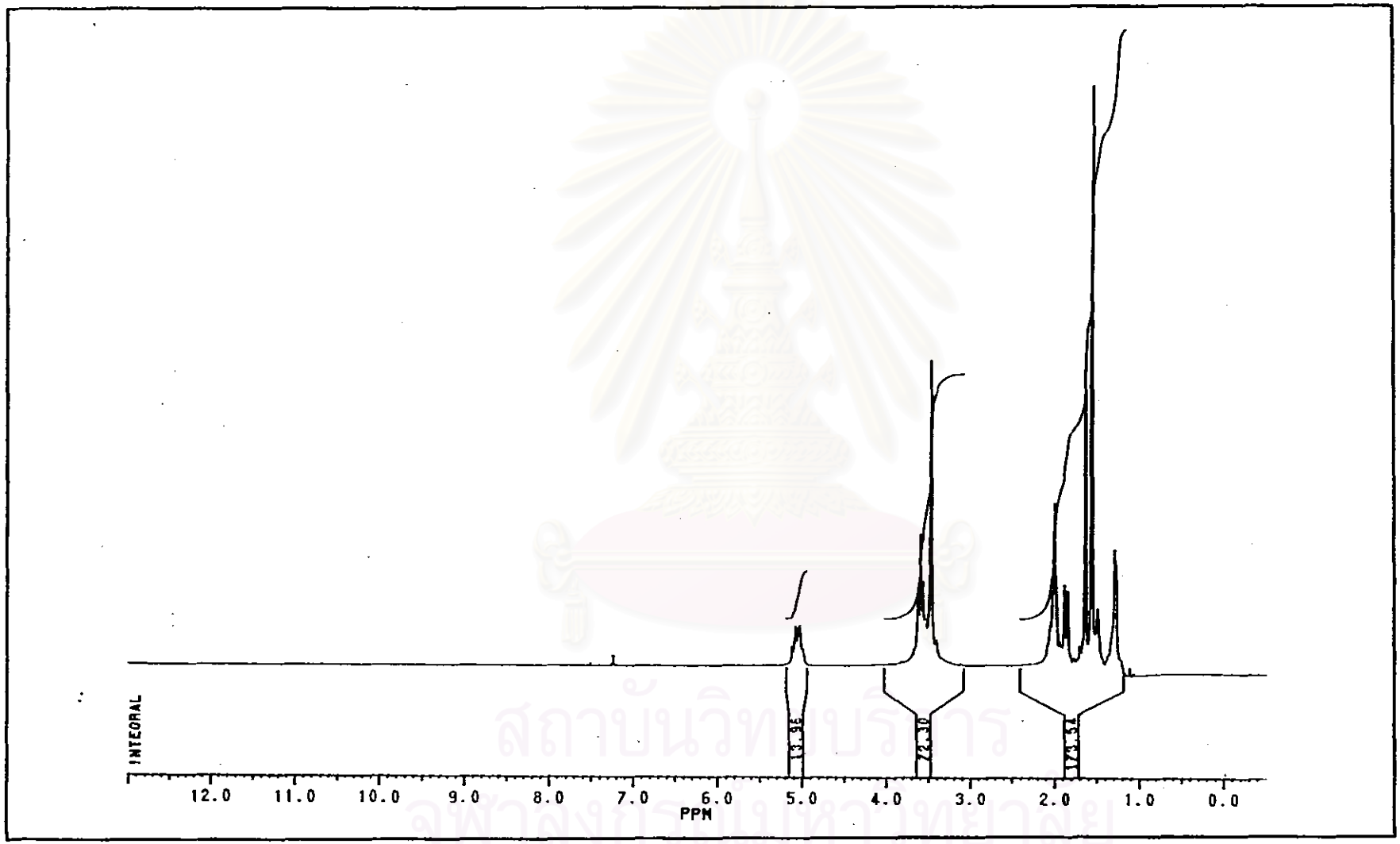

Figure 48 : ^{1}H NMR($CDCl_3$) spectrum of 5,5-Di(hydroxymethyl)-8,12-dimethyltrideca-7,11-dien-1-ol(14).

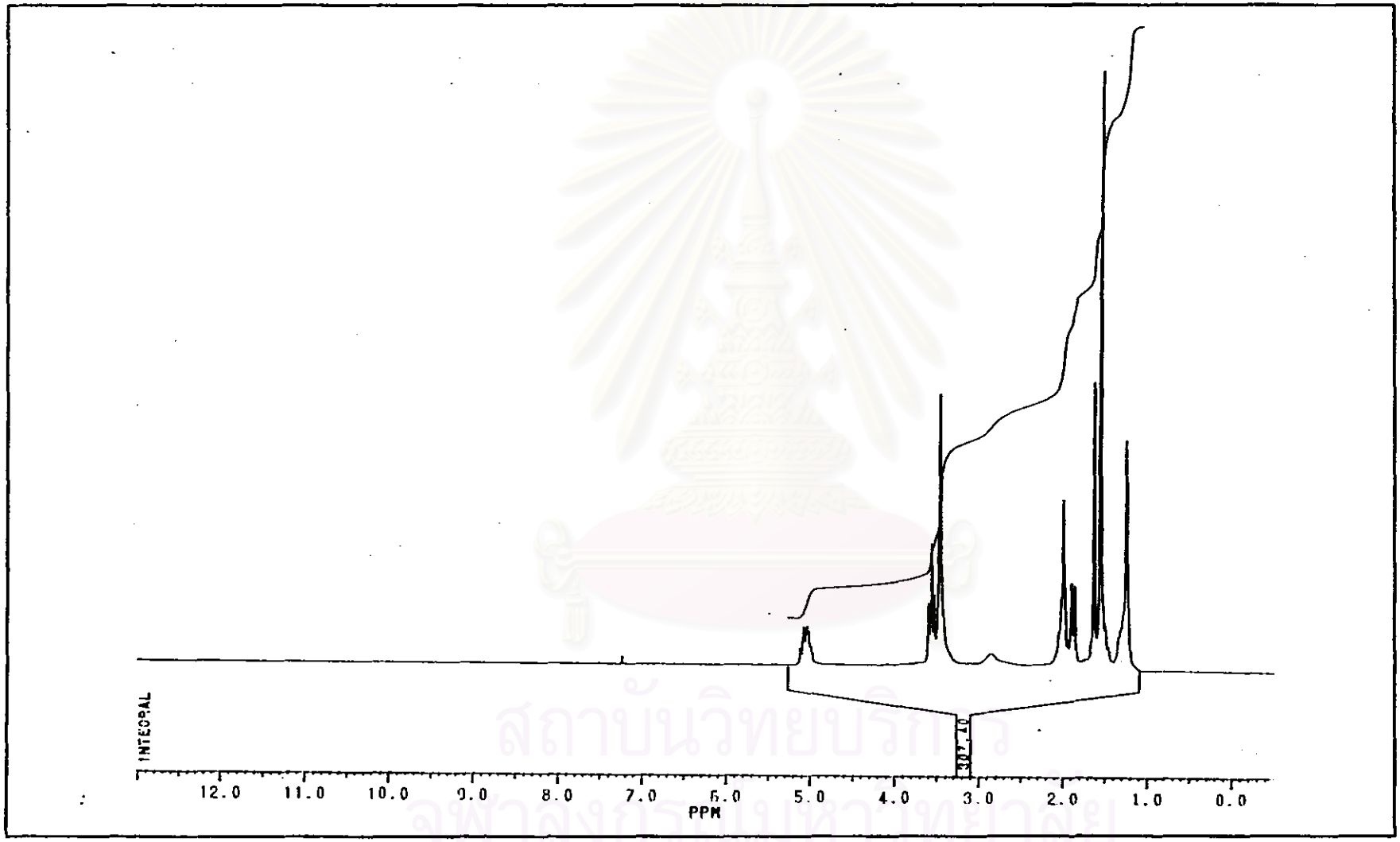

Figure 49 : ^{1}H NMR($CDCl_3$) spectrum of 6,6-Di(hydroxymethyl)-9,13-dimethyltetradeca-8,12-dien-1-ol(15).

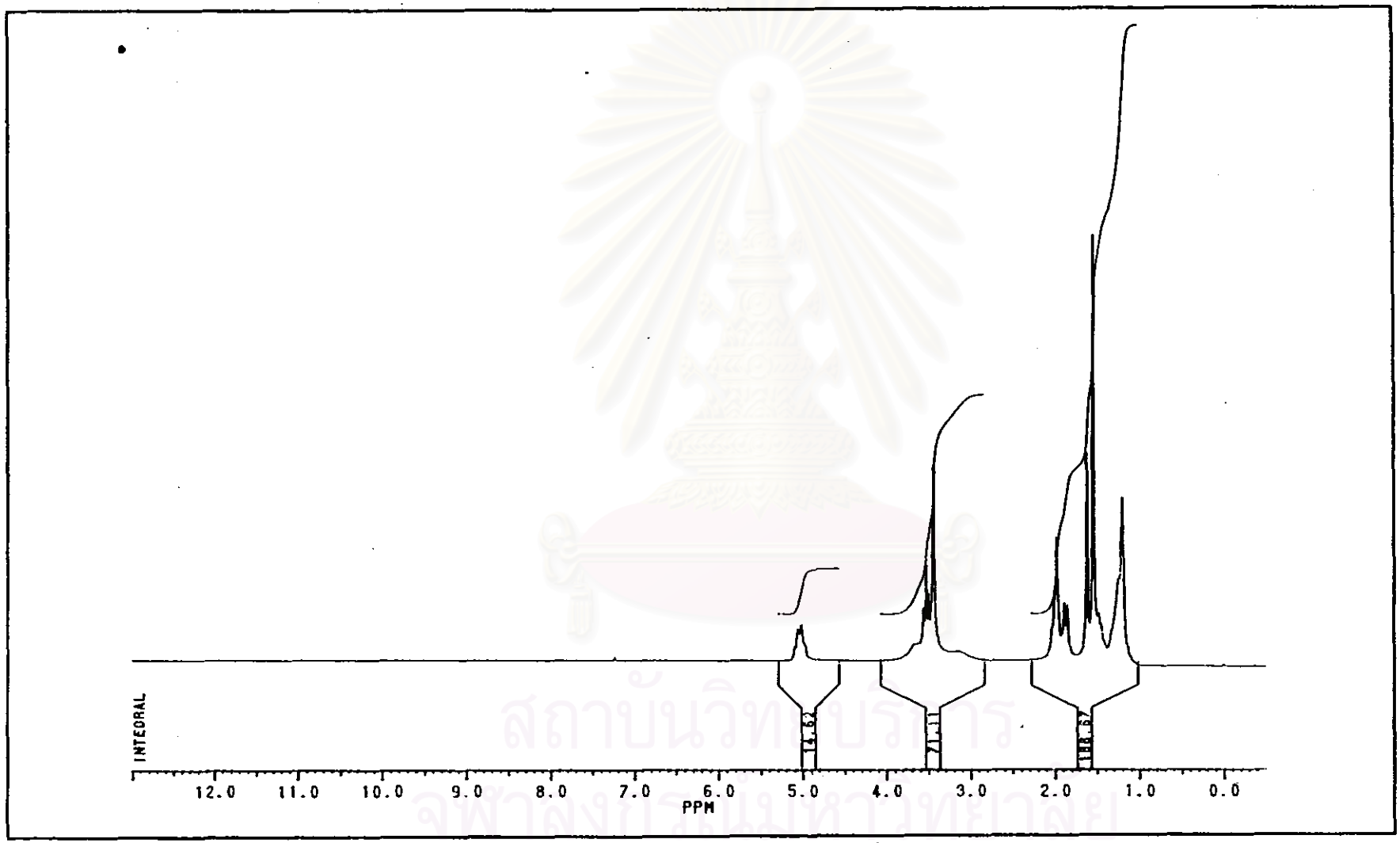

Figure 50 : ^{1}H NMR($CDCl_3$) spectrum of 7,7-Di(hydroxymethyl)-10,14-dimethylpentadeca-9,13-dien-1-ol(16).

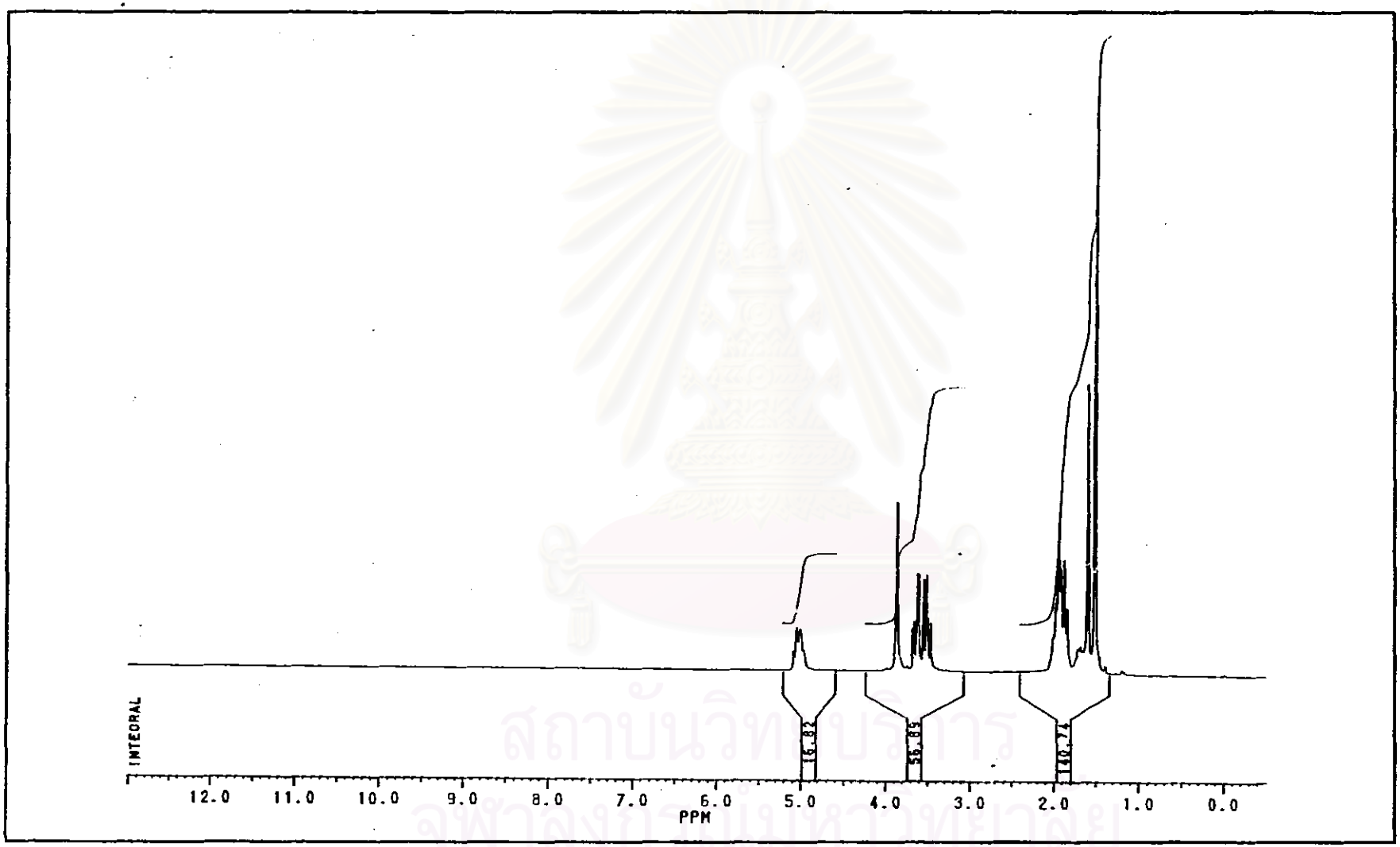

Figure 51 : ^{1}H NMR($CDCl_3$) spectrum of 2-hydroxymethyl-5,9-dimethyldeca-4,8-dien-1-ol(17).

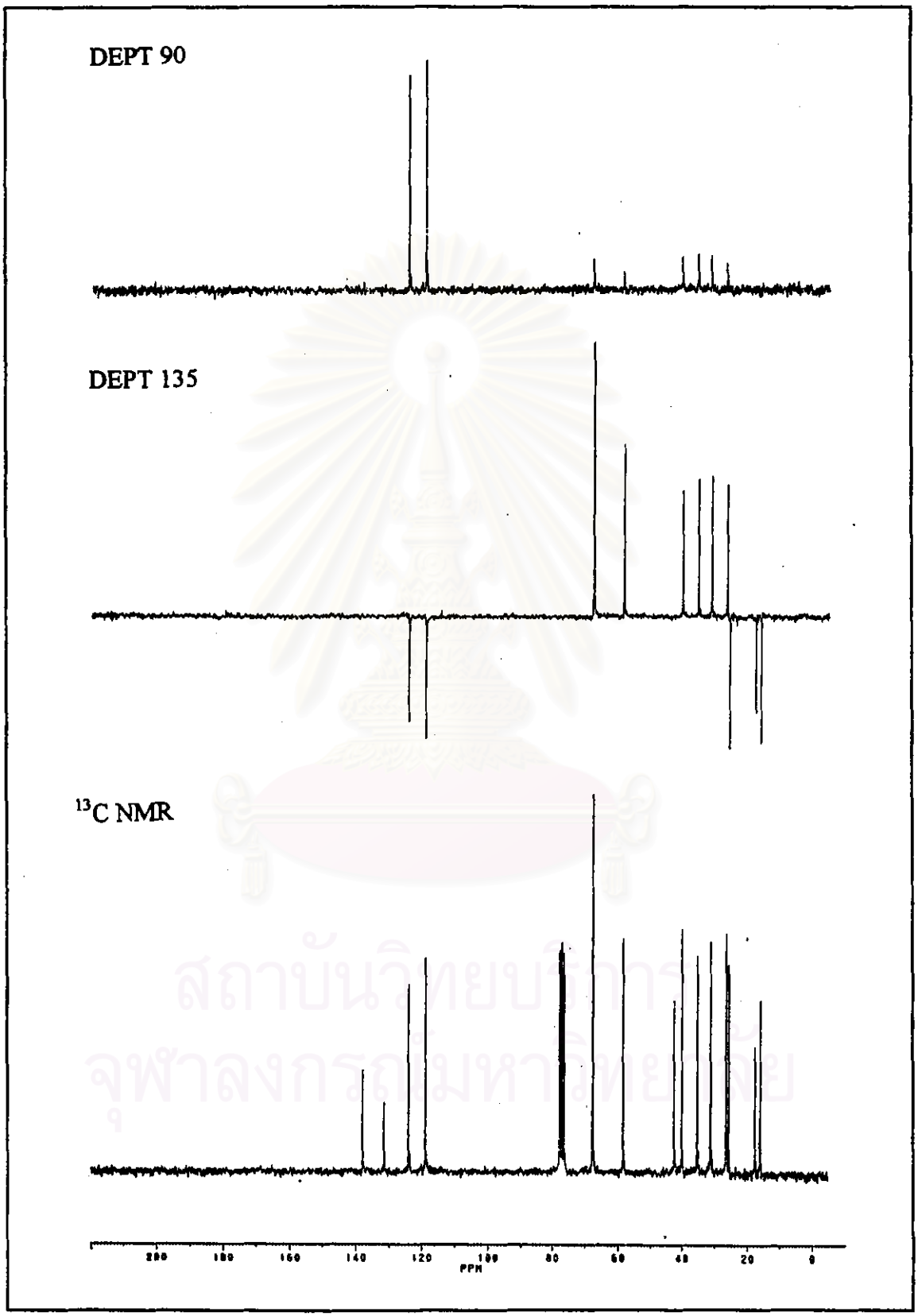

Figure 52 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 3,3-Di (hydroxymethyl)-6,10-dimethylundeca-5,9-dien-1-ol(12).

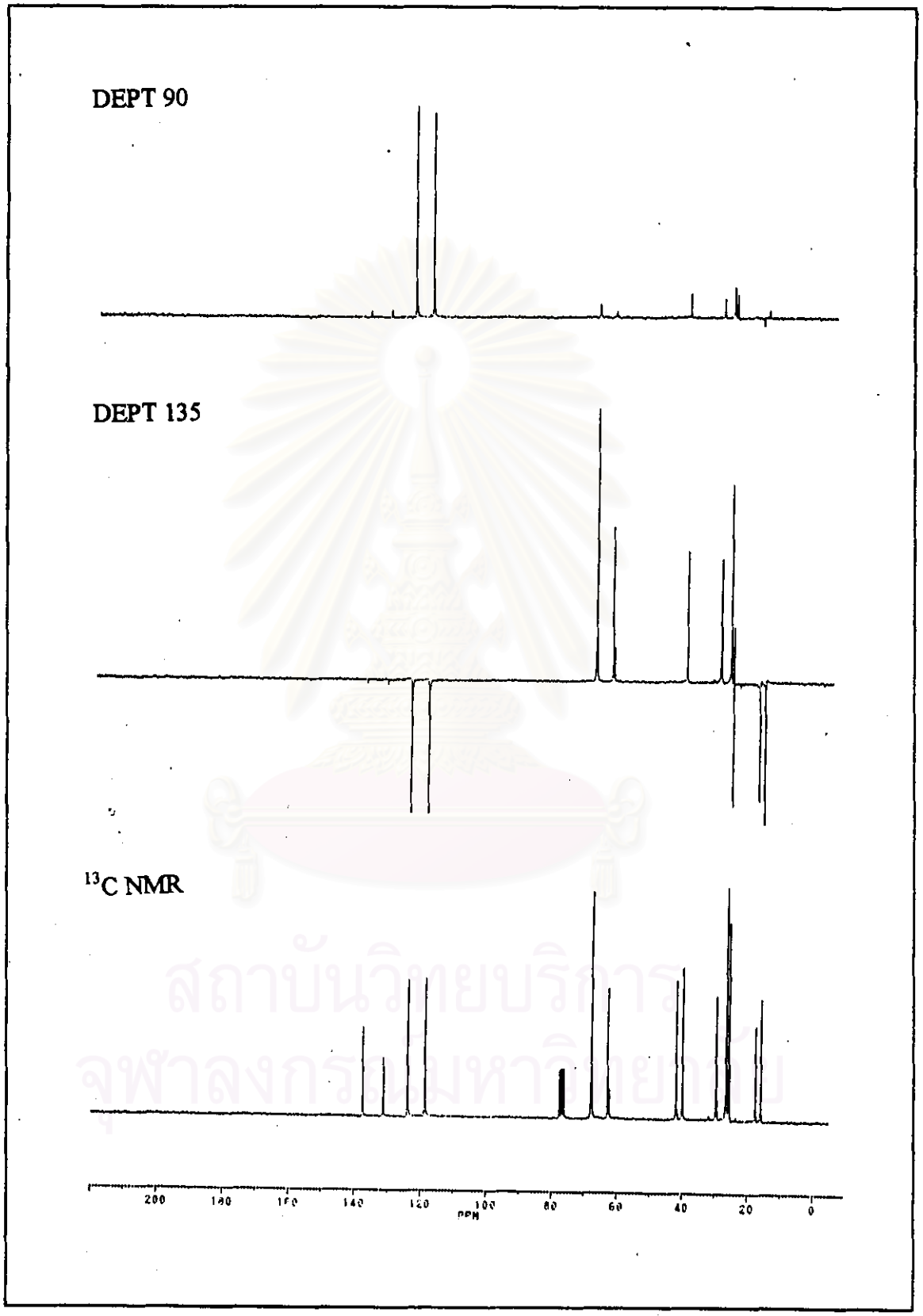

Figure 53 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 4,4-Di (hydroxymethyl)-7,11-dimethyldodeca-6,10-dien-1-ol(13).

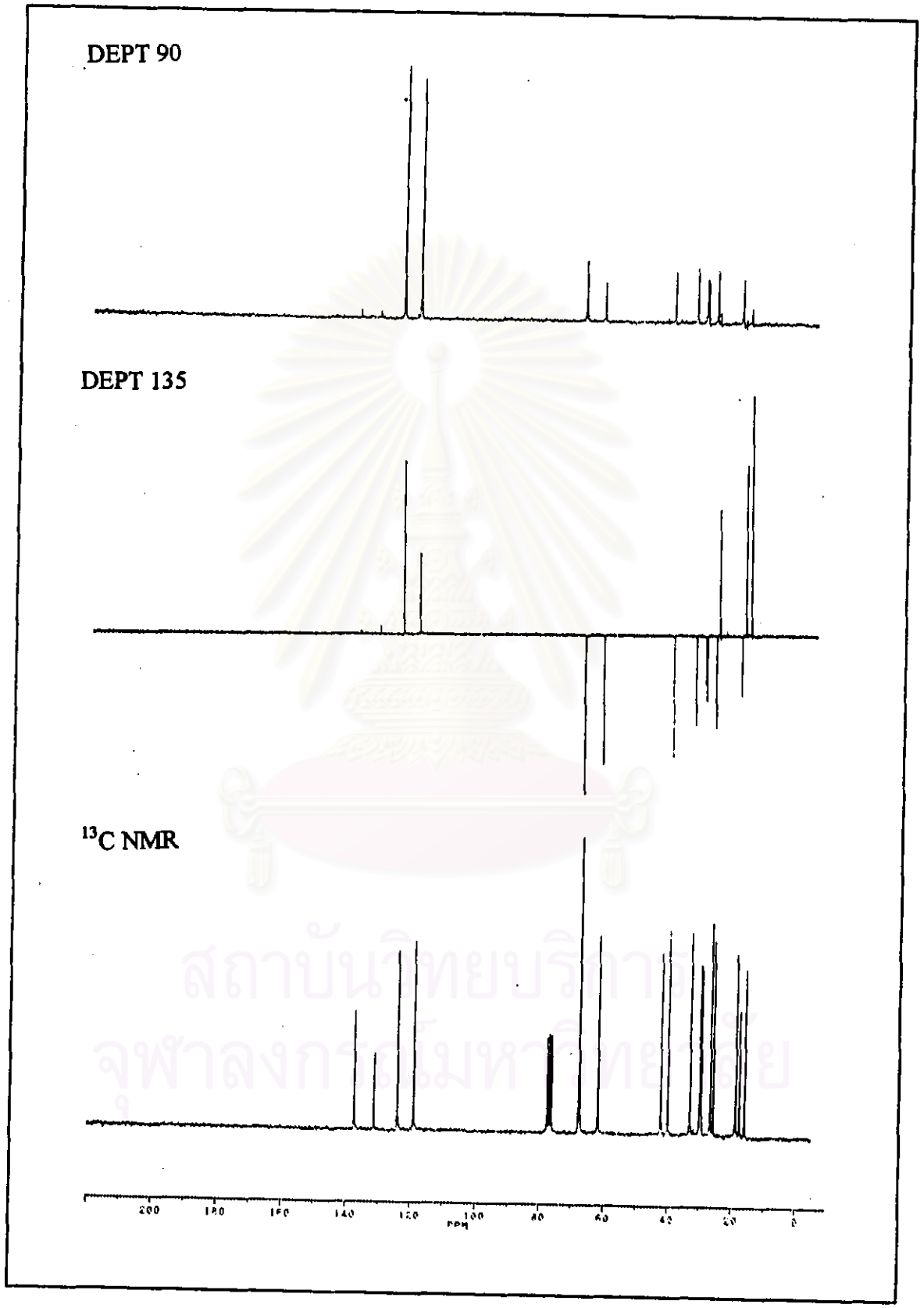

Figure 54 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 5,5-Di (hydroxymethyl)-8,12-dimethyltrideca-7,11-dien-1-ol(14).

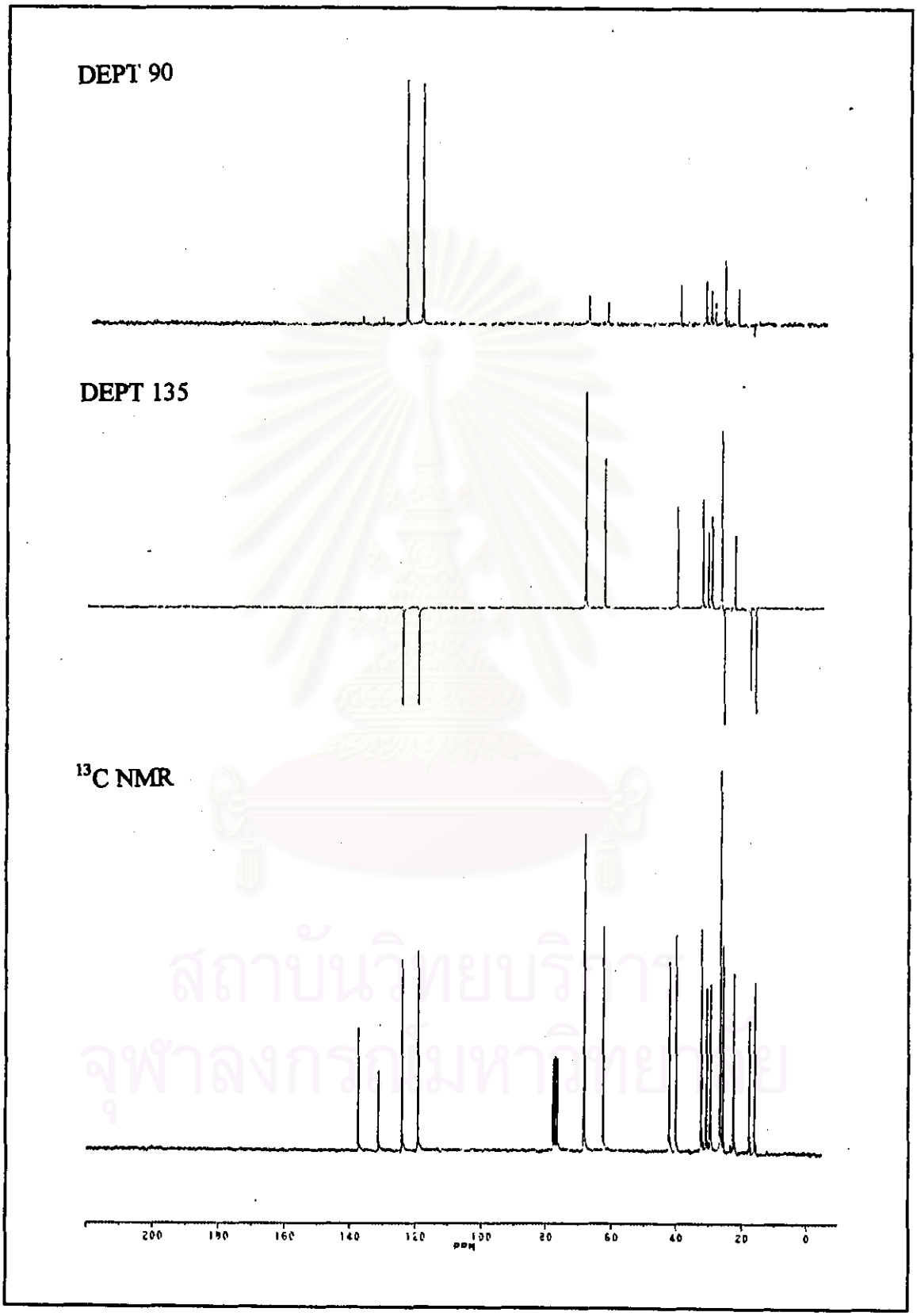

Figure 55 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 6,6-Di (hydroxymethyl)-9,13-dimethyltetradeca-8,12-dien-1-ol(15).

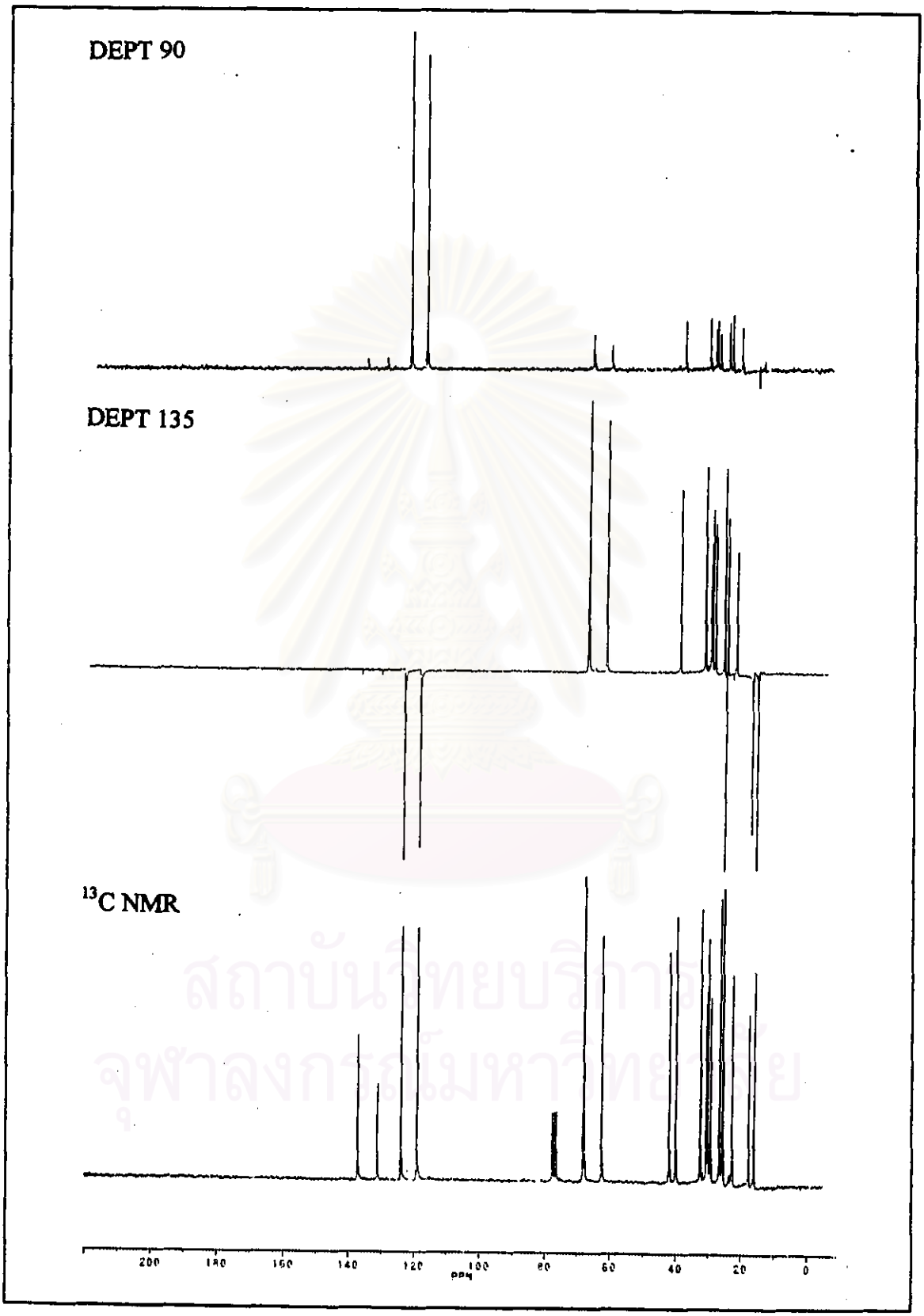

Figure 56 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 7,7-Di (hydroxymethyl)-10,14-dimethylpentadeca-9,13-dien-1-ol(16).

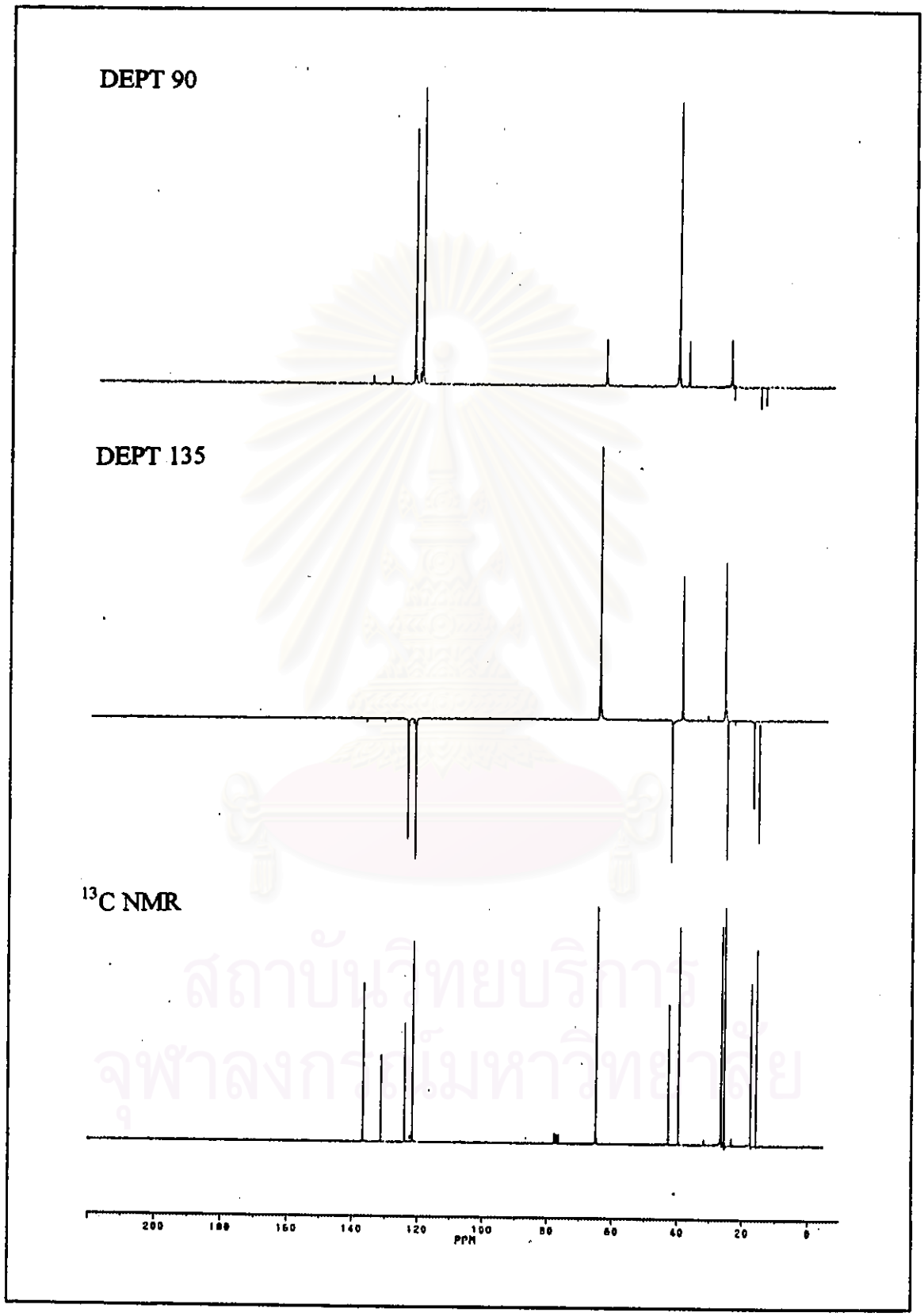

Figure 57 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 2- hydroxymethyl -5,9-dimethyldeca-4,8-dien-1-ol(17).

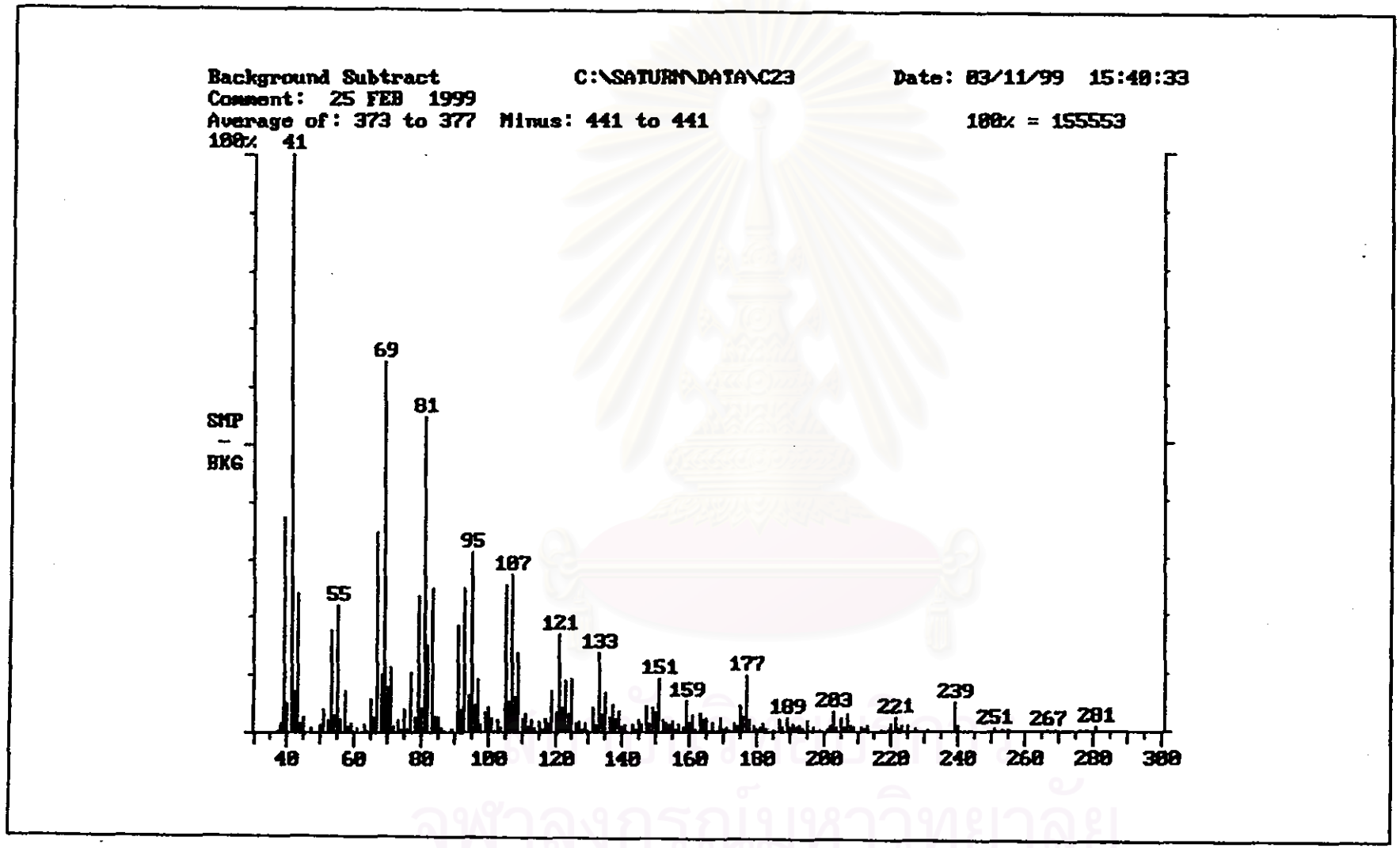

Figure 58 : Mass spectrum of 3,3-Di(hydroxymethyl)-6,10-dimethylundeca-5,9-dien-1-ol(12).

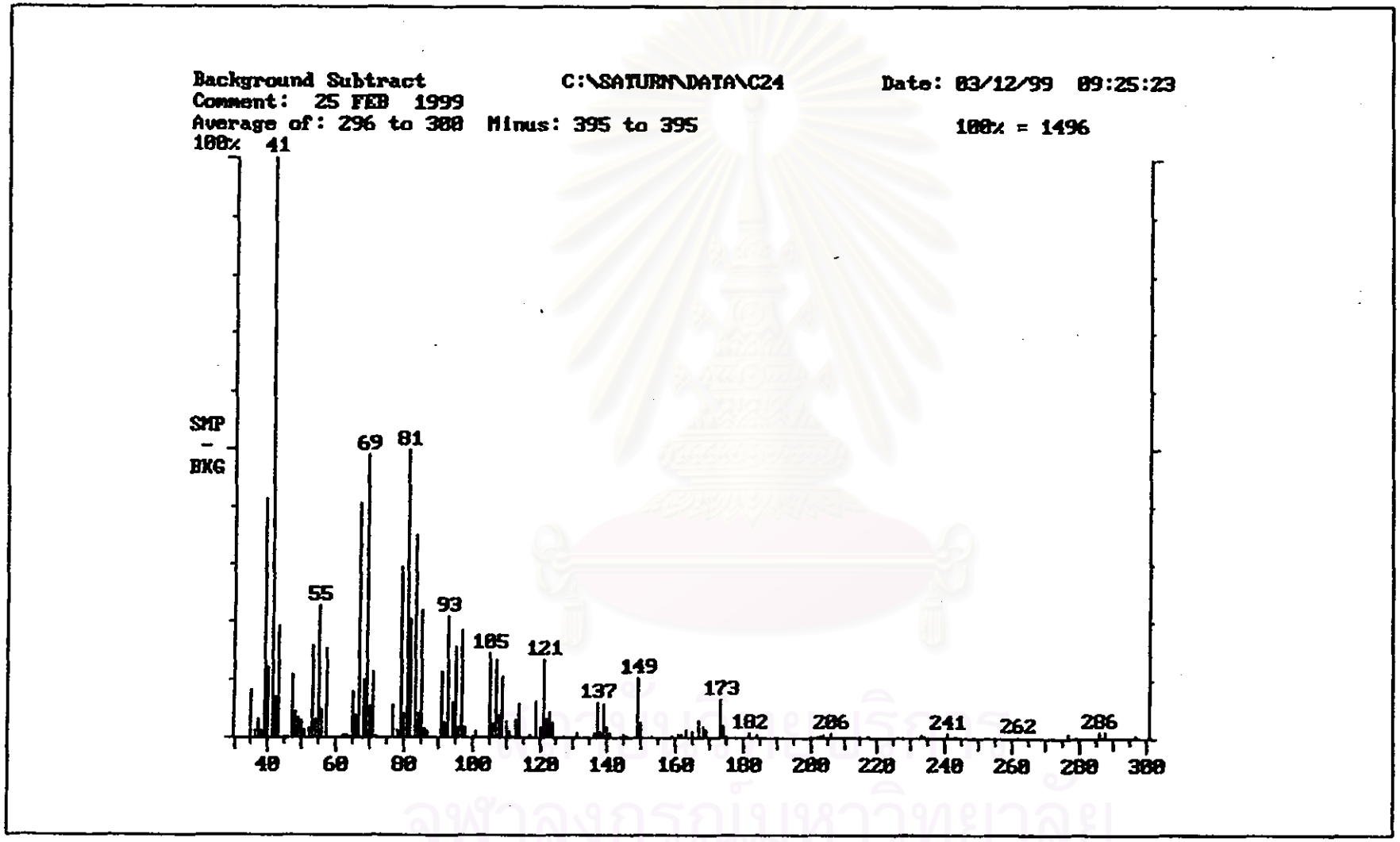

Figure 59 : Mass spectrum of 4,4-Di(hydroxymethyl)-7,11-dimethyldodeca-6,10-dien-1-ol(13).

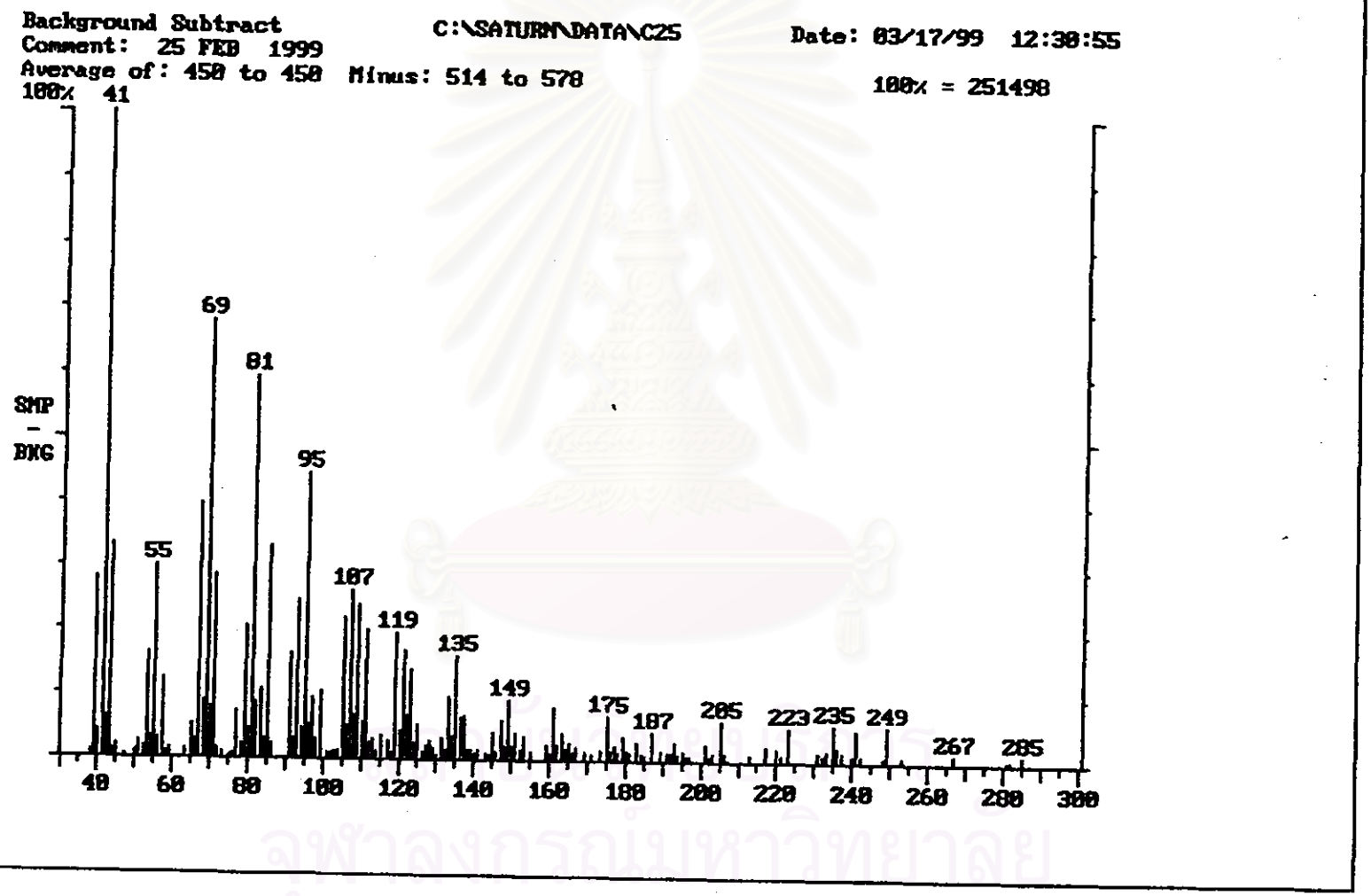

Figure 60 : Mass spectrum of 5,5-Di(hydroxymethyl)-8,12-dimethyltrideca-7,11-dien-1-ol(14).

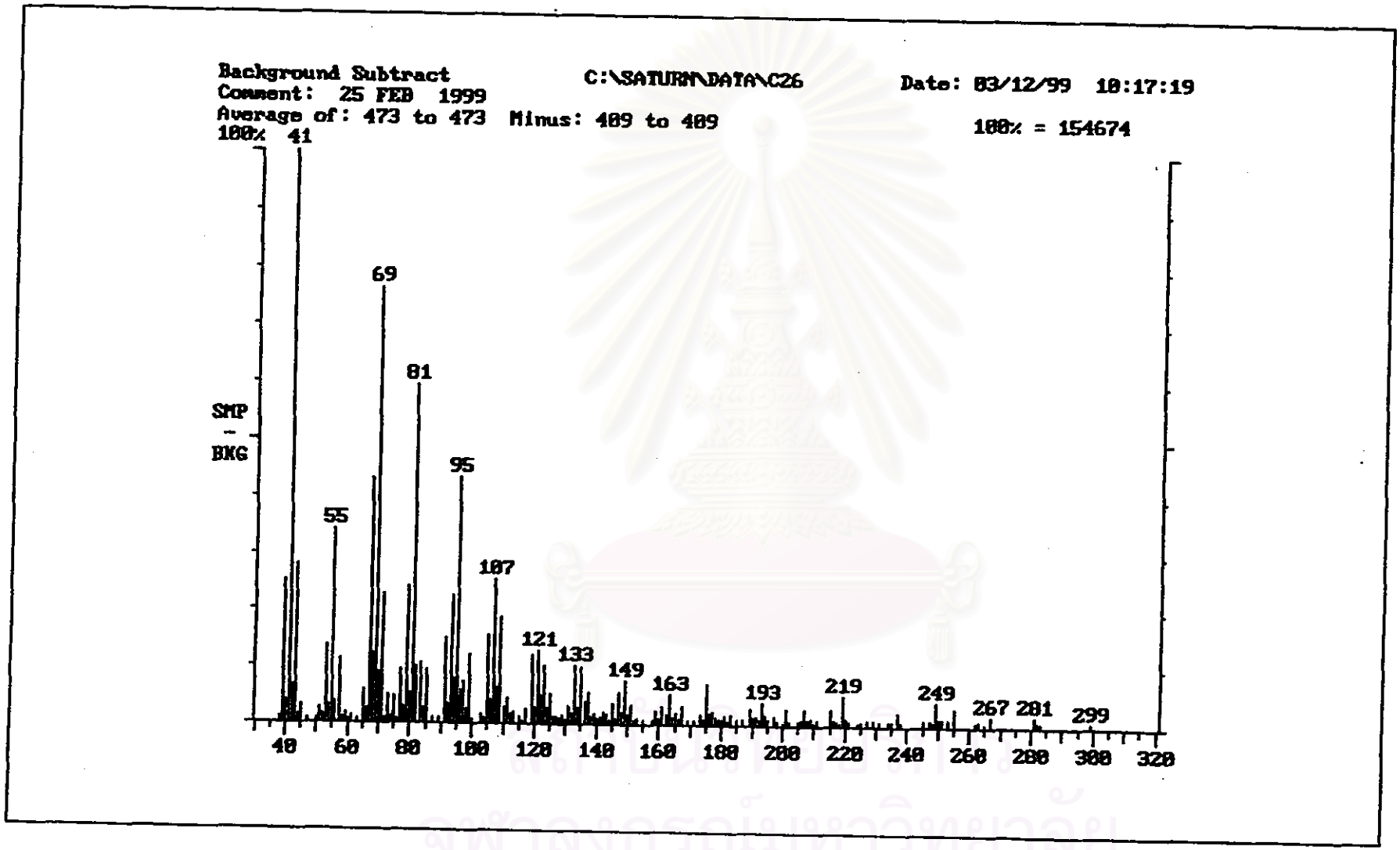

Figure 61 : Mass spectrum of 6,6-Di(hydroxymethyl)-9,13-dimethyltetradeca-8,12-dien-1-ol(15).

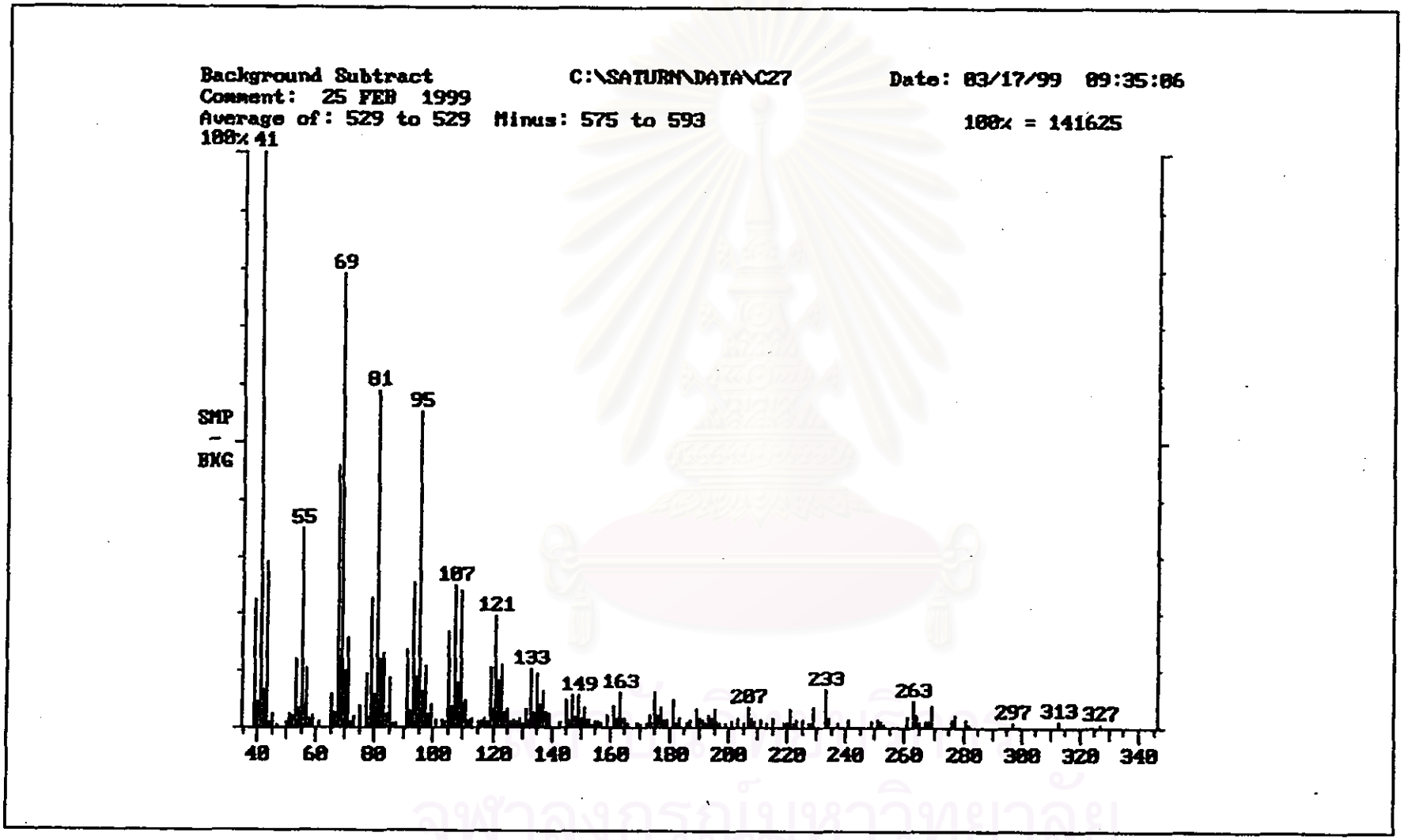

Figure 62 : Mass spectrum of 7,7-Di(hydroxymethyl)-10,14-dimethylpentadeca-9,13-dien-1-ol(16).

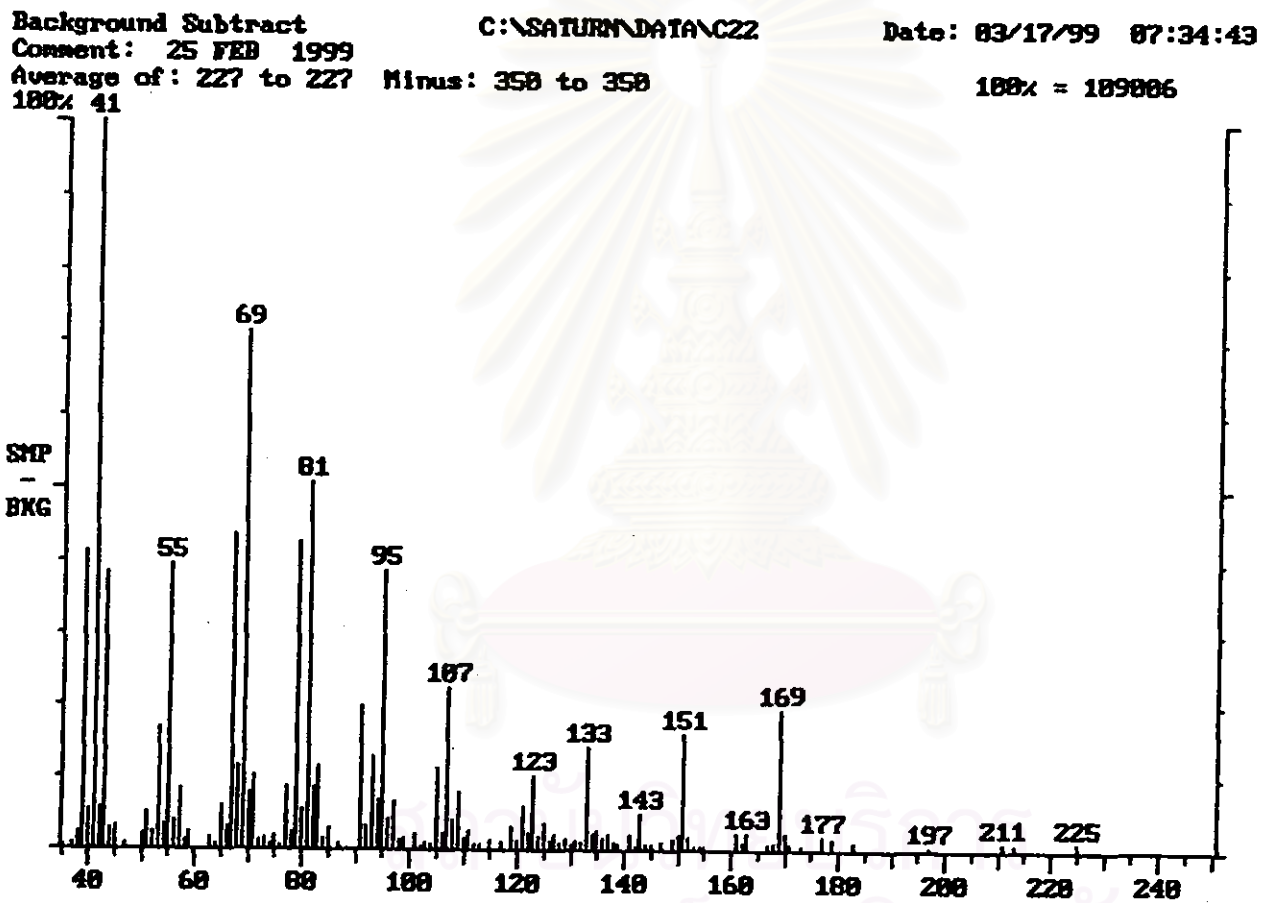

Figure 63 : Mass spectrum of 2-hydroxymethyl-5,9-dimethyldeca-4,8-dien-1-ol(17).

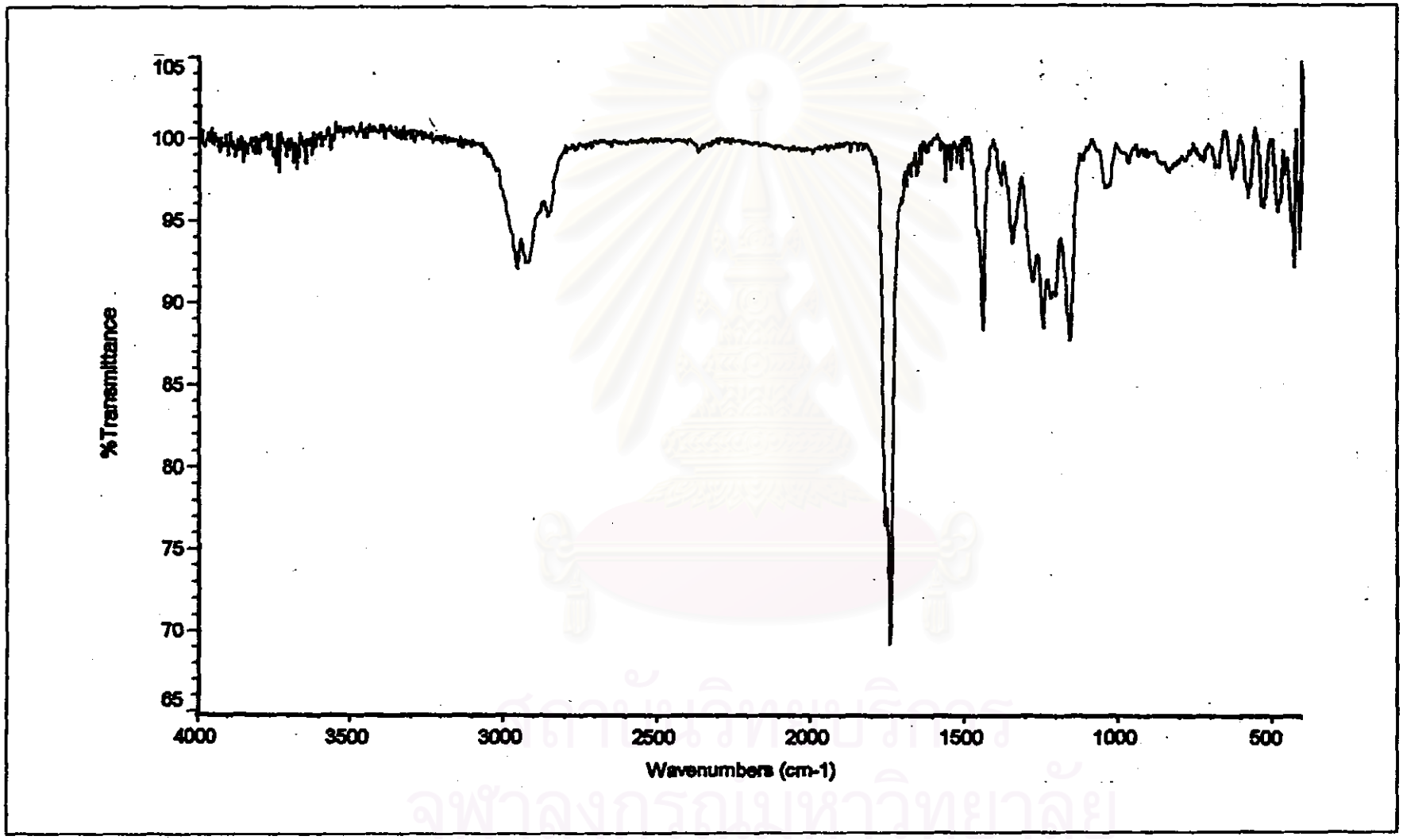

Figure 64 : IR spectrum of Methyl-2-methoxycarbonyl-5,9-dimethyldeca-4,8-dienoate(18).

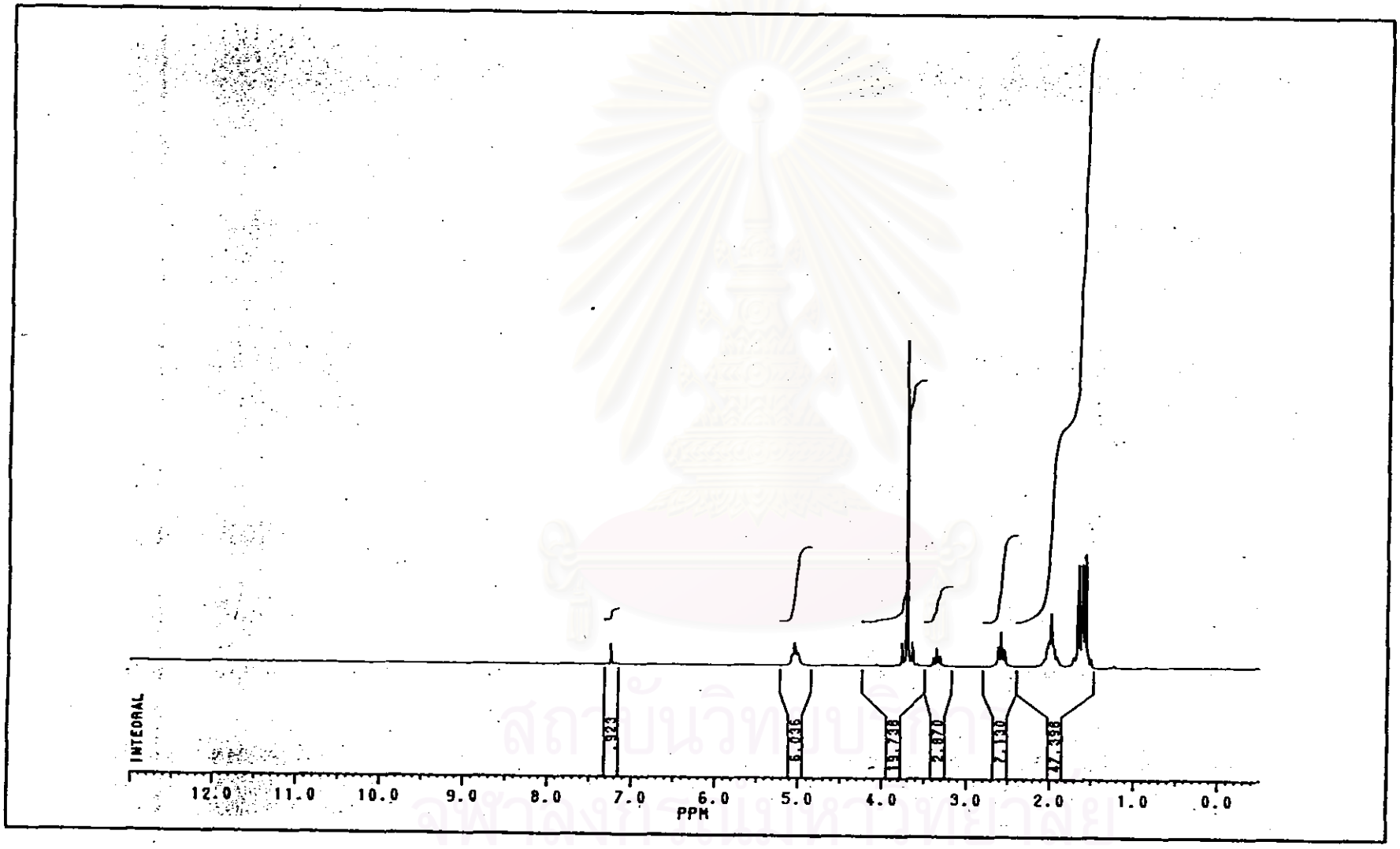

Figure 65 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-2-methoxycarbonyl-5,9-dimethyldeca-4,8-dienoate(18).

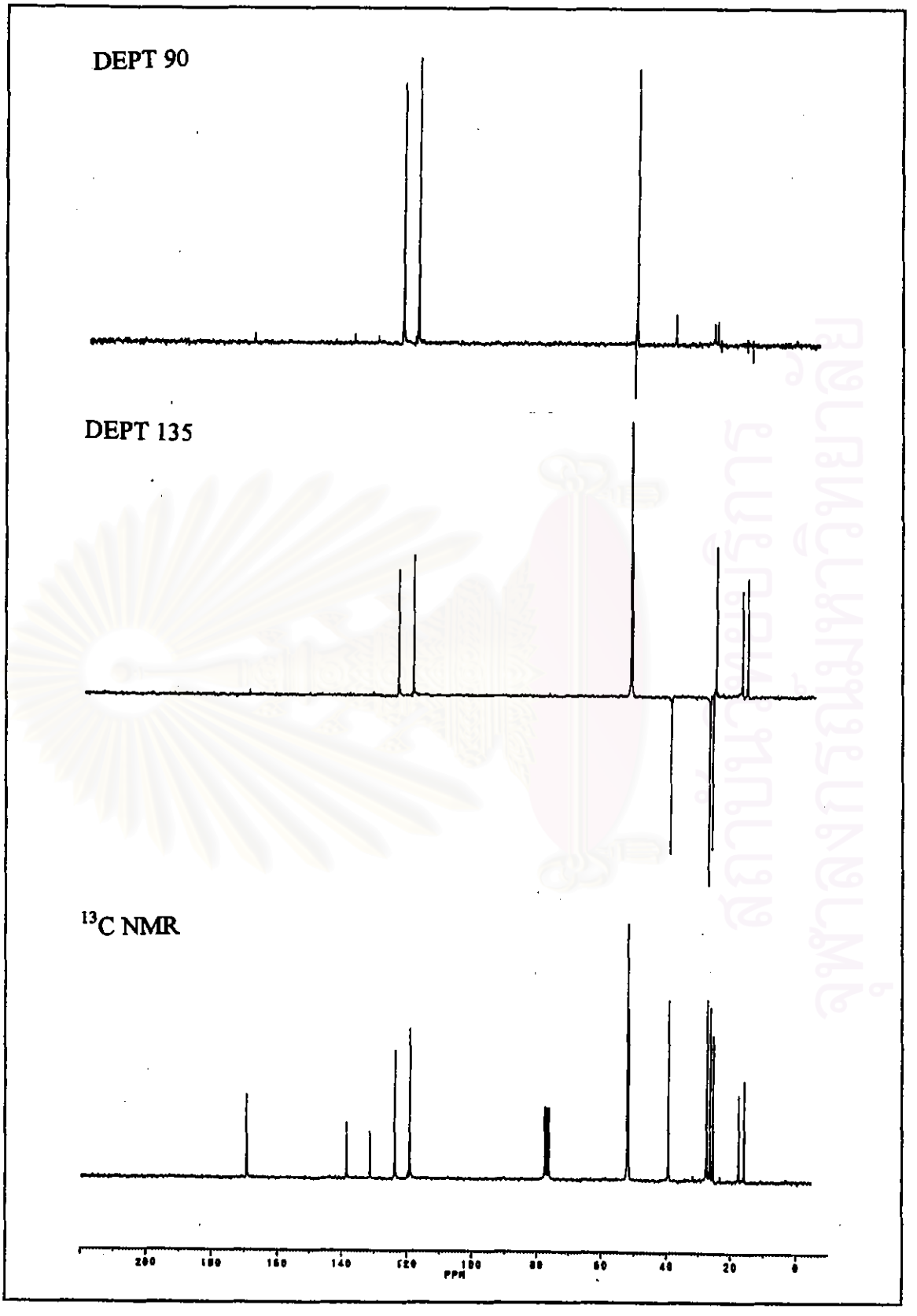

Figure 66 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-2-methoxycarbonyl-5,9-dimethyldeca-4,8-dienoate(18).

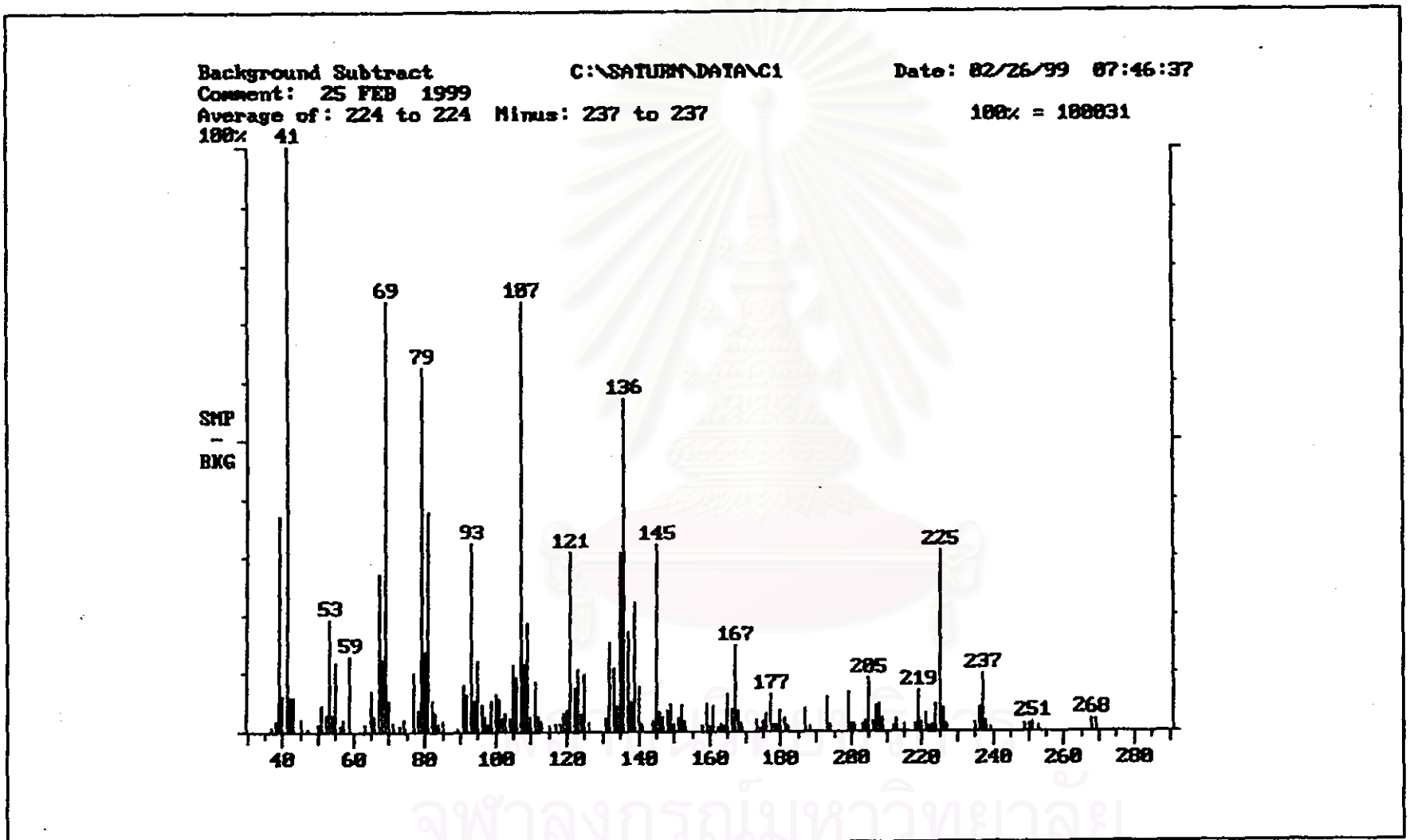

Figure 67 : Mass spectrum of Methyl-2-methoxycarbonyl-5,9-dimethyldeca-4,8-dienoate(18).

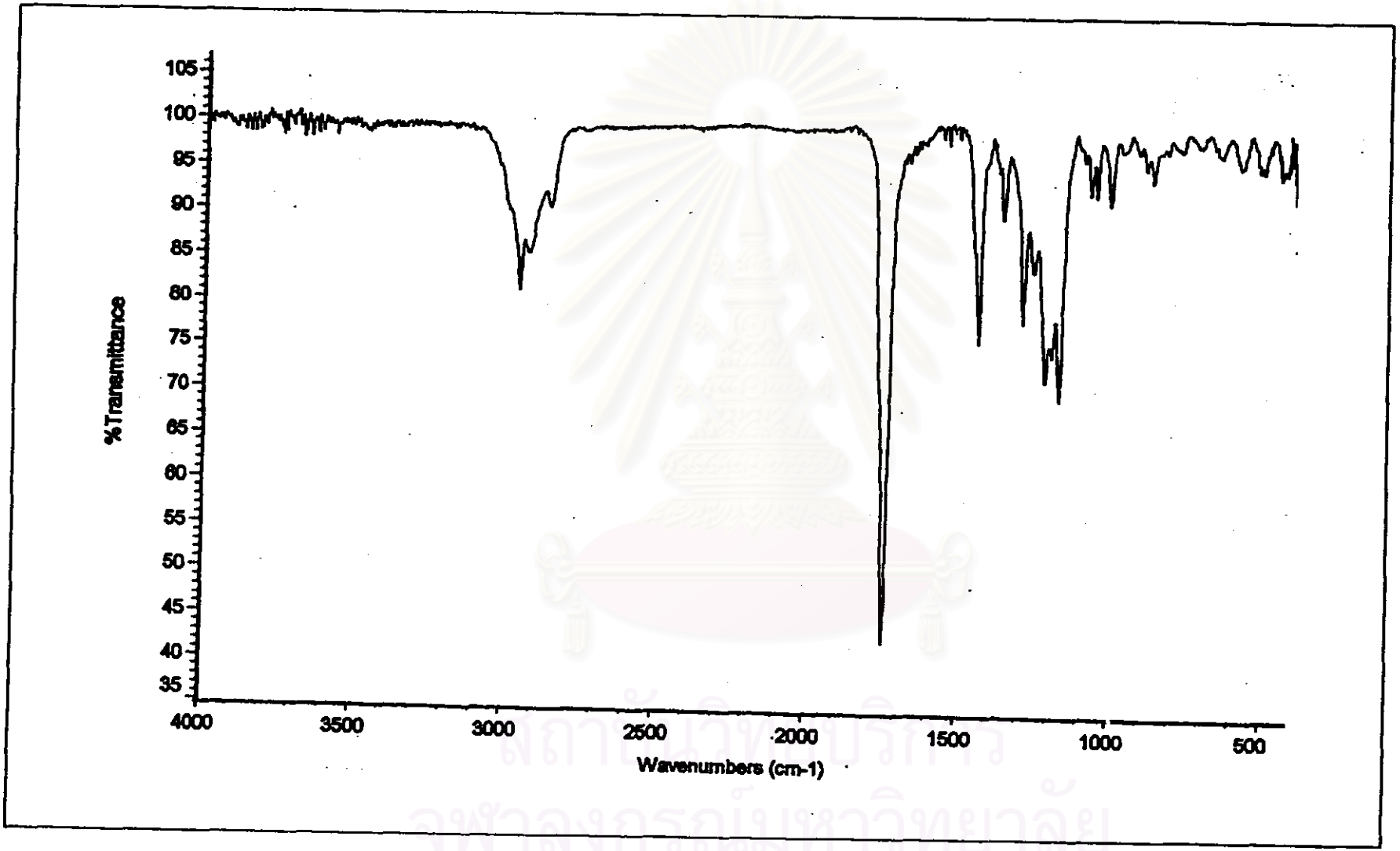

Figure 68 : IR spectrum of Methyl-3,3-Di(methoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate(19).

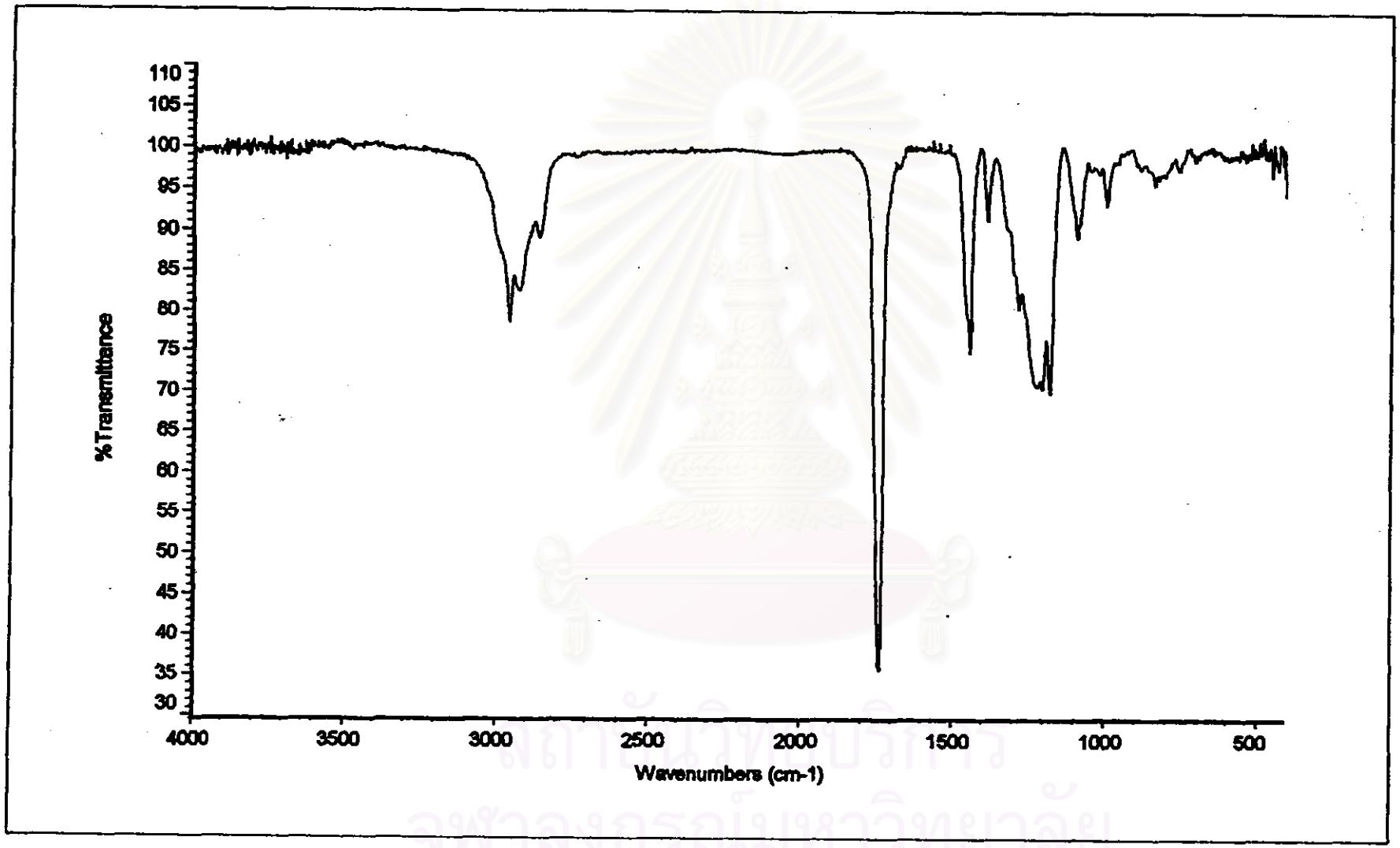

Figure 69 : IR spectrum of Methyl-4,4-Di(methoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(20).

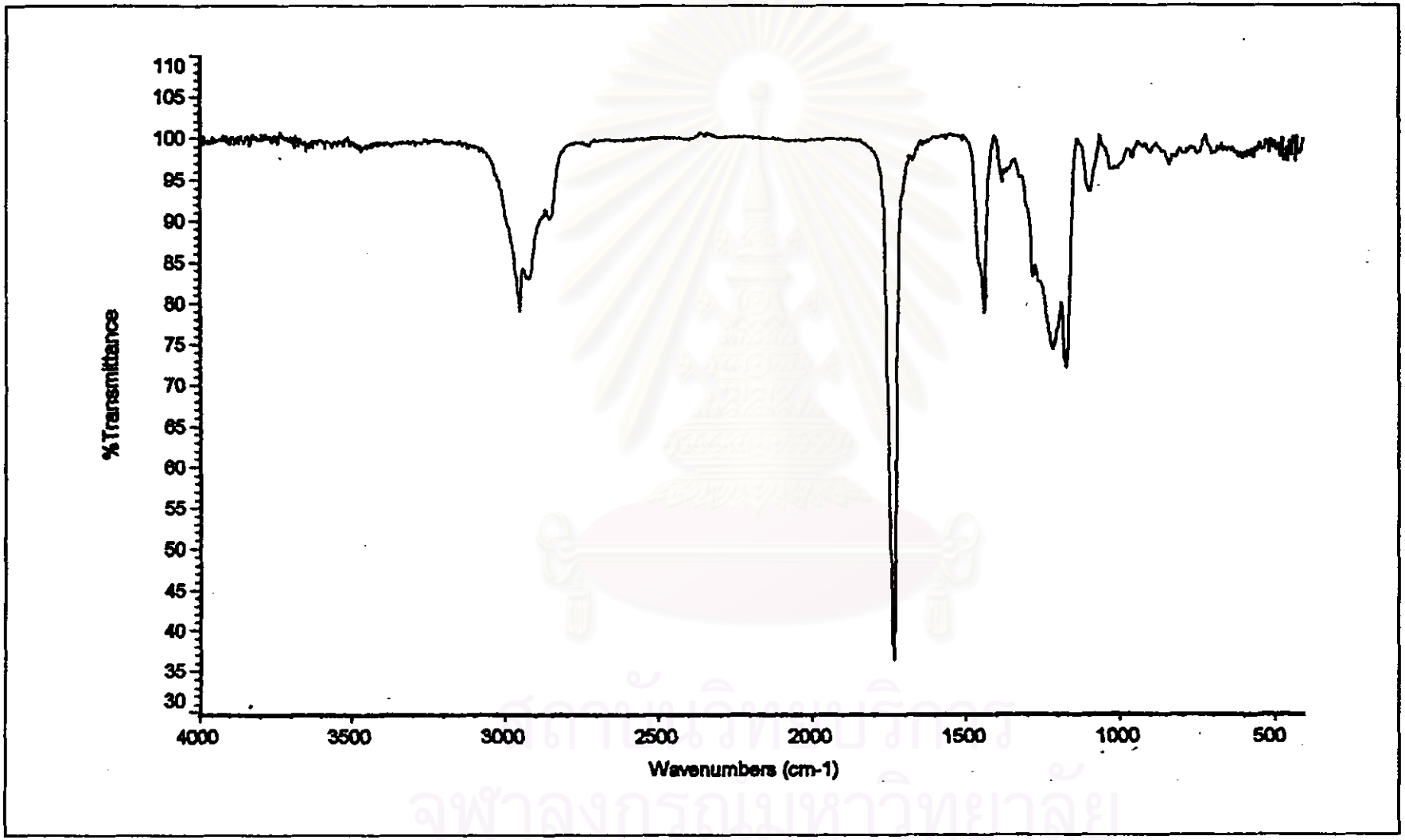

Figure 70 : IR spectrum of Methyl-5,5-Di(methoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(21).

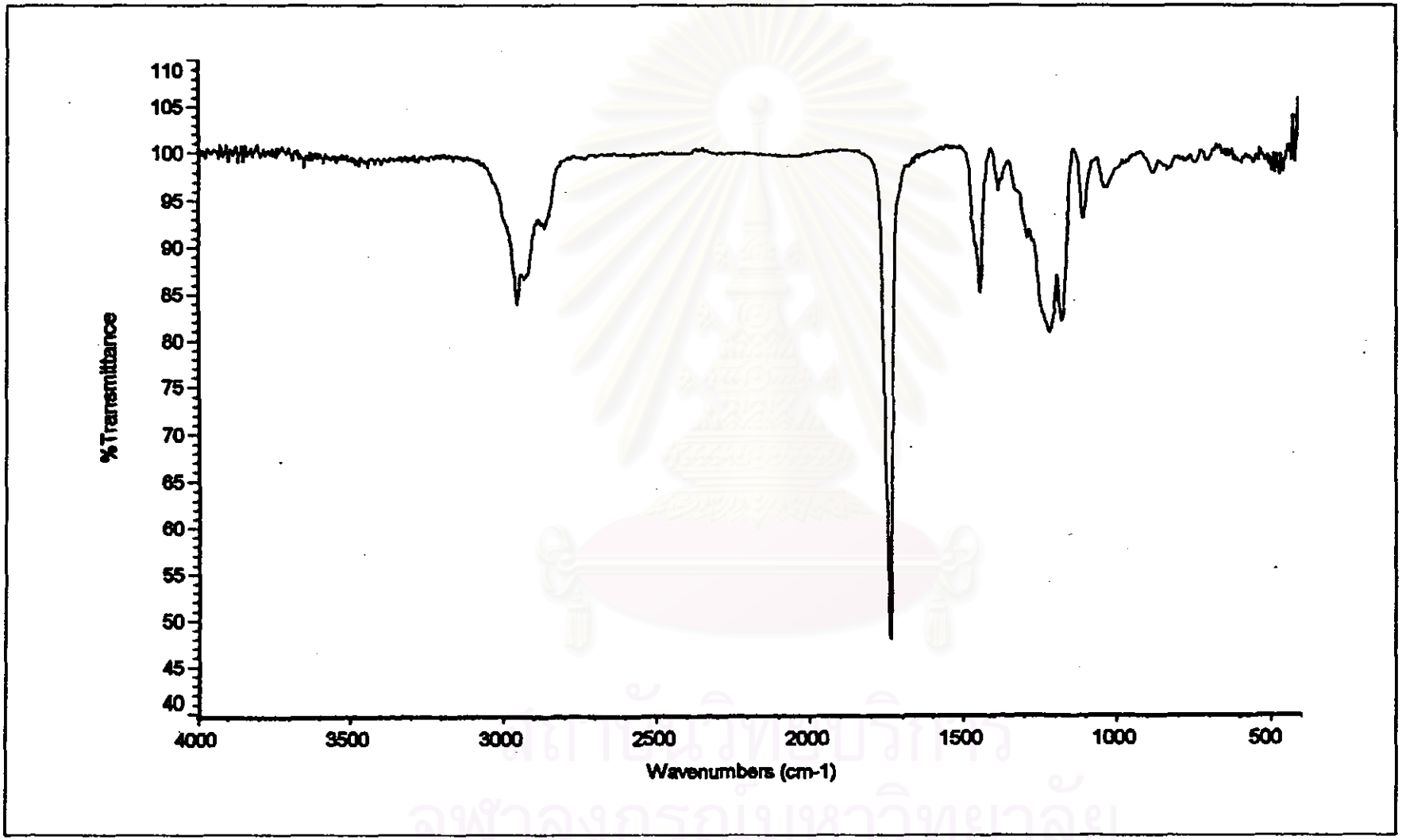

Figure 71 : IR spectrum of Methyl-6,6-Di(methoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(22).

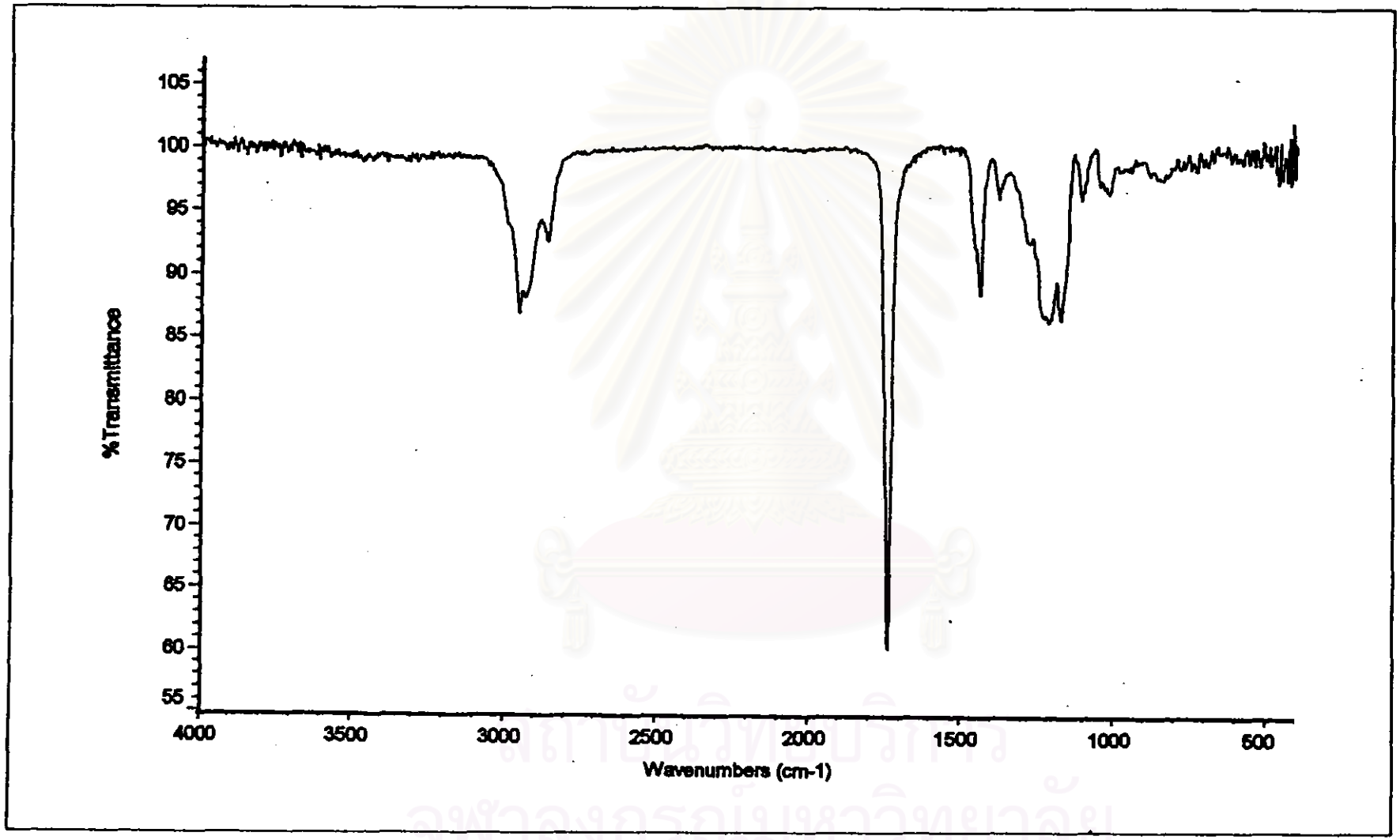

Figure 72 : IR spectrum of Methyl-7,7-Di(methoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(23).

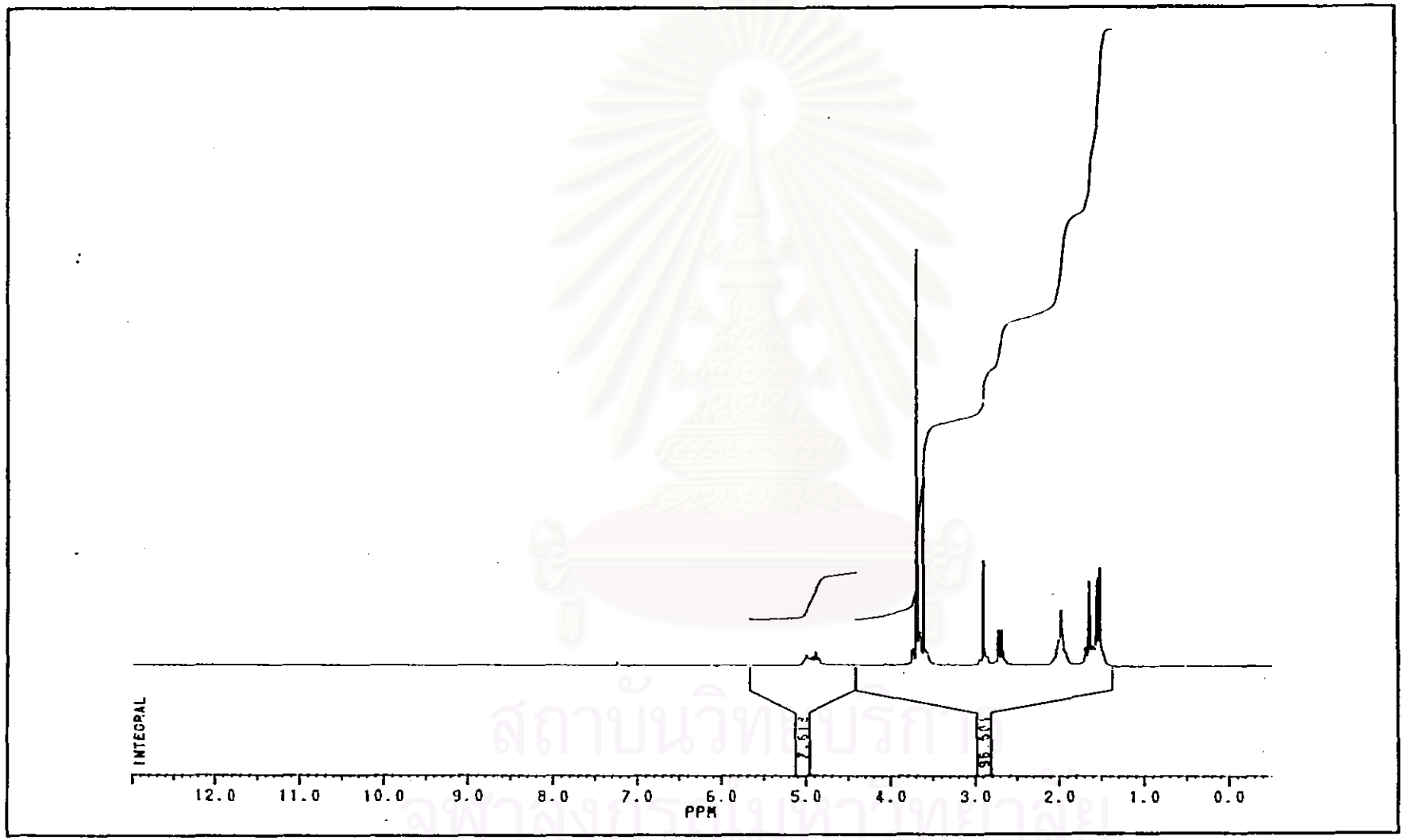

Figure 73 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-3,3-Di(methoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate(19).

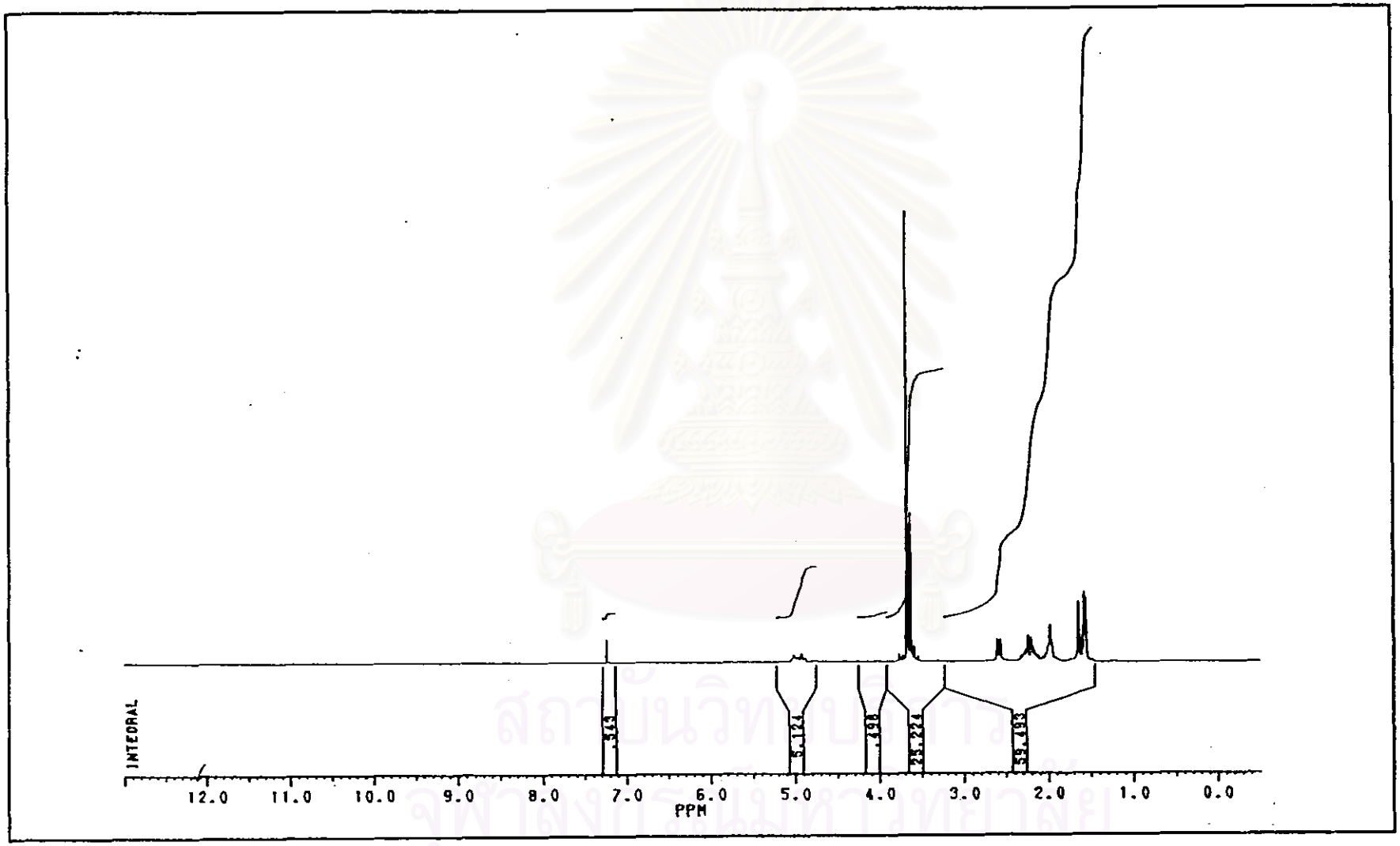

Figure 74 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-4,4-Di(methoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(20).

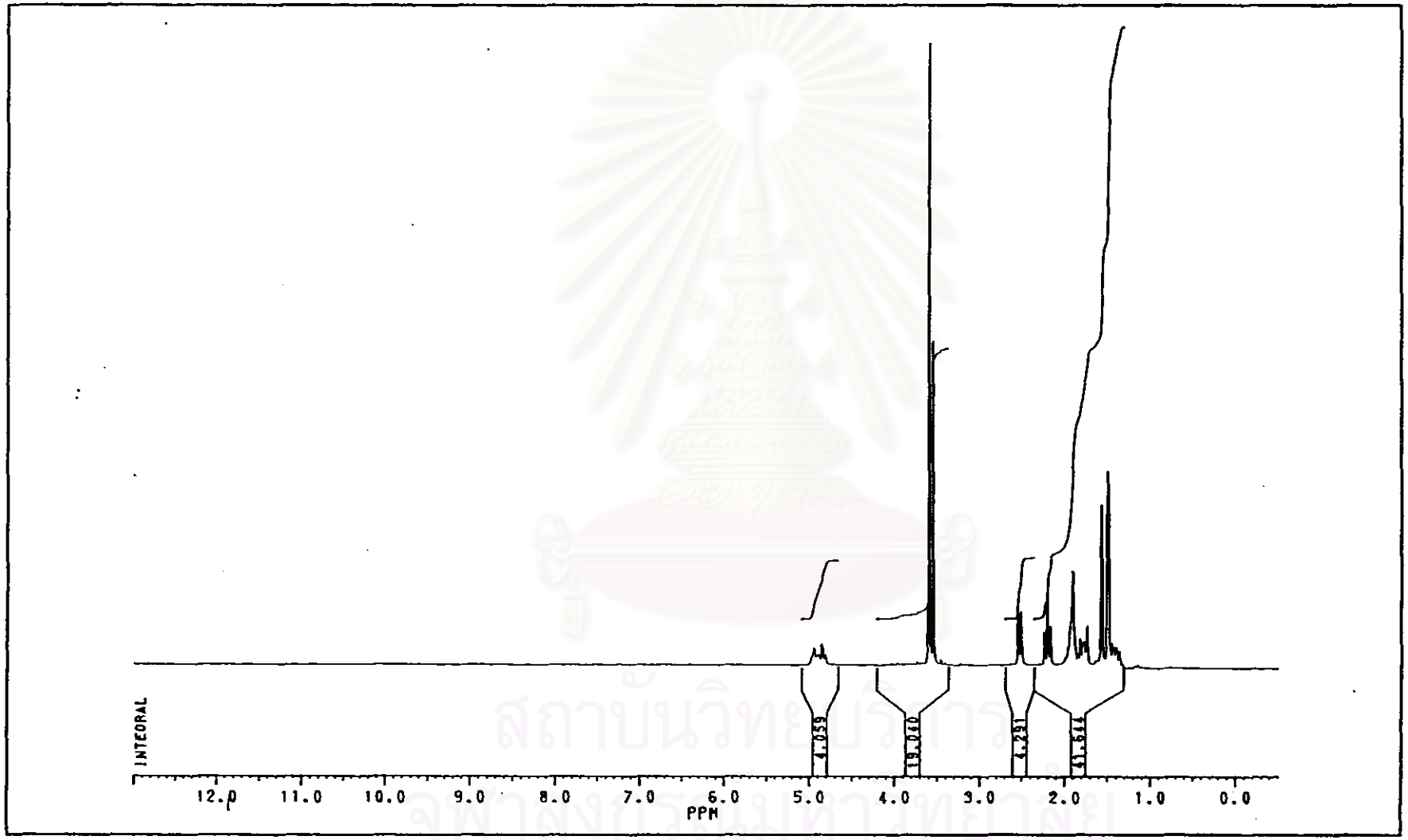

Figure 75 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-5,5-Di(methoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(21).

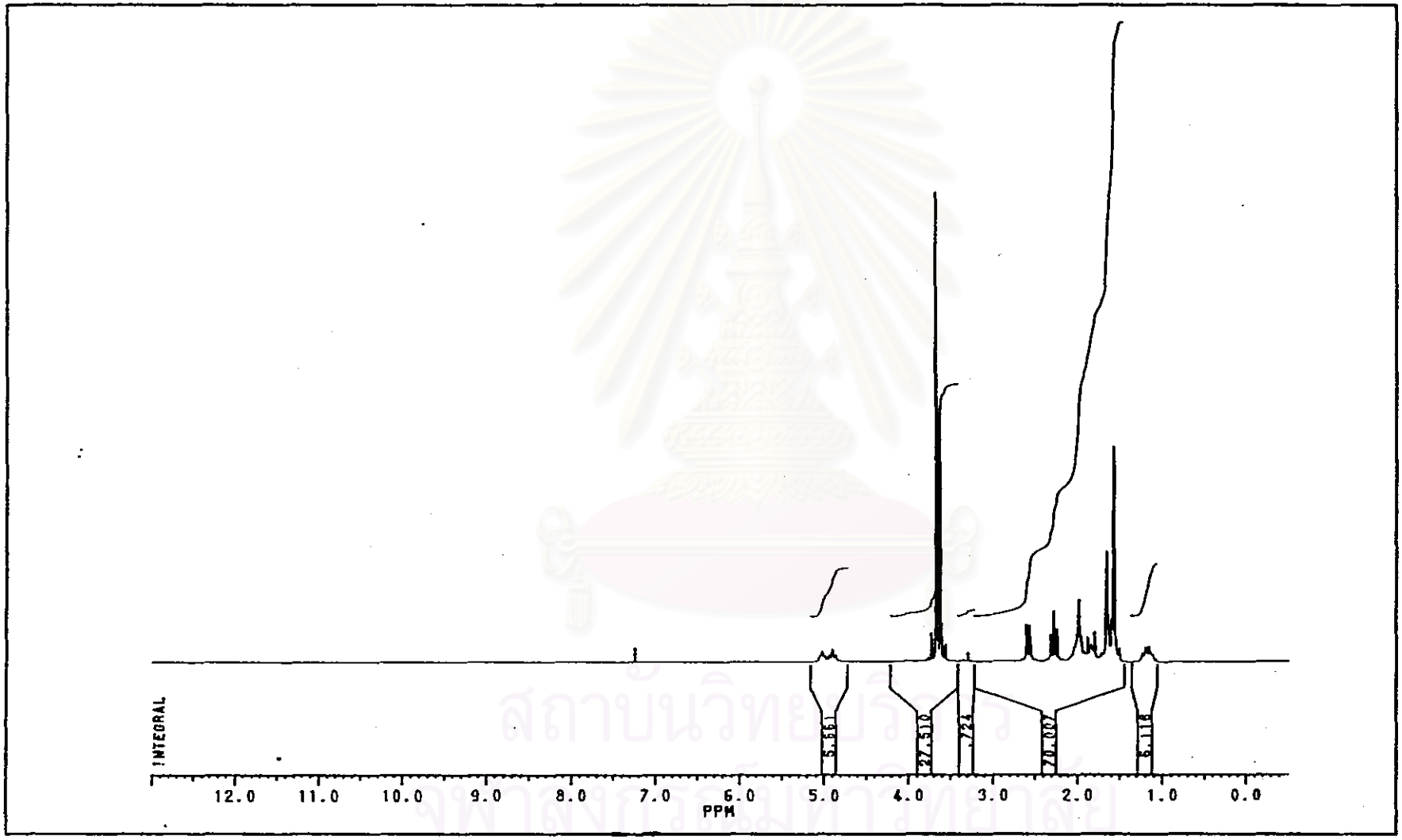

Figure 76 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-6,6-Di(methoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(22).

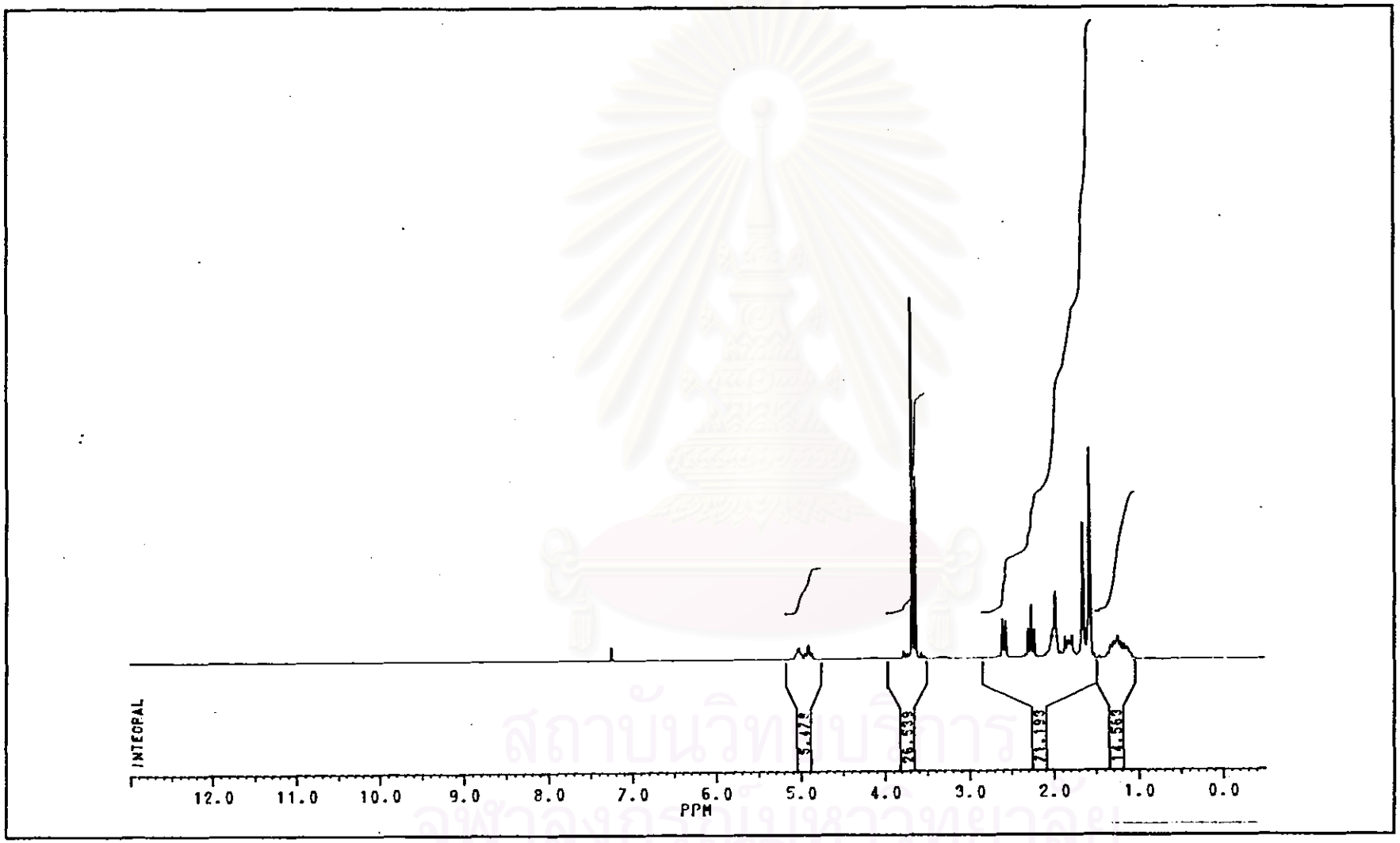

Figure 77 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-7,7-Di(methoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(23).

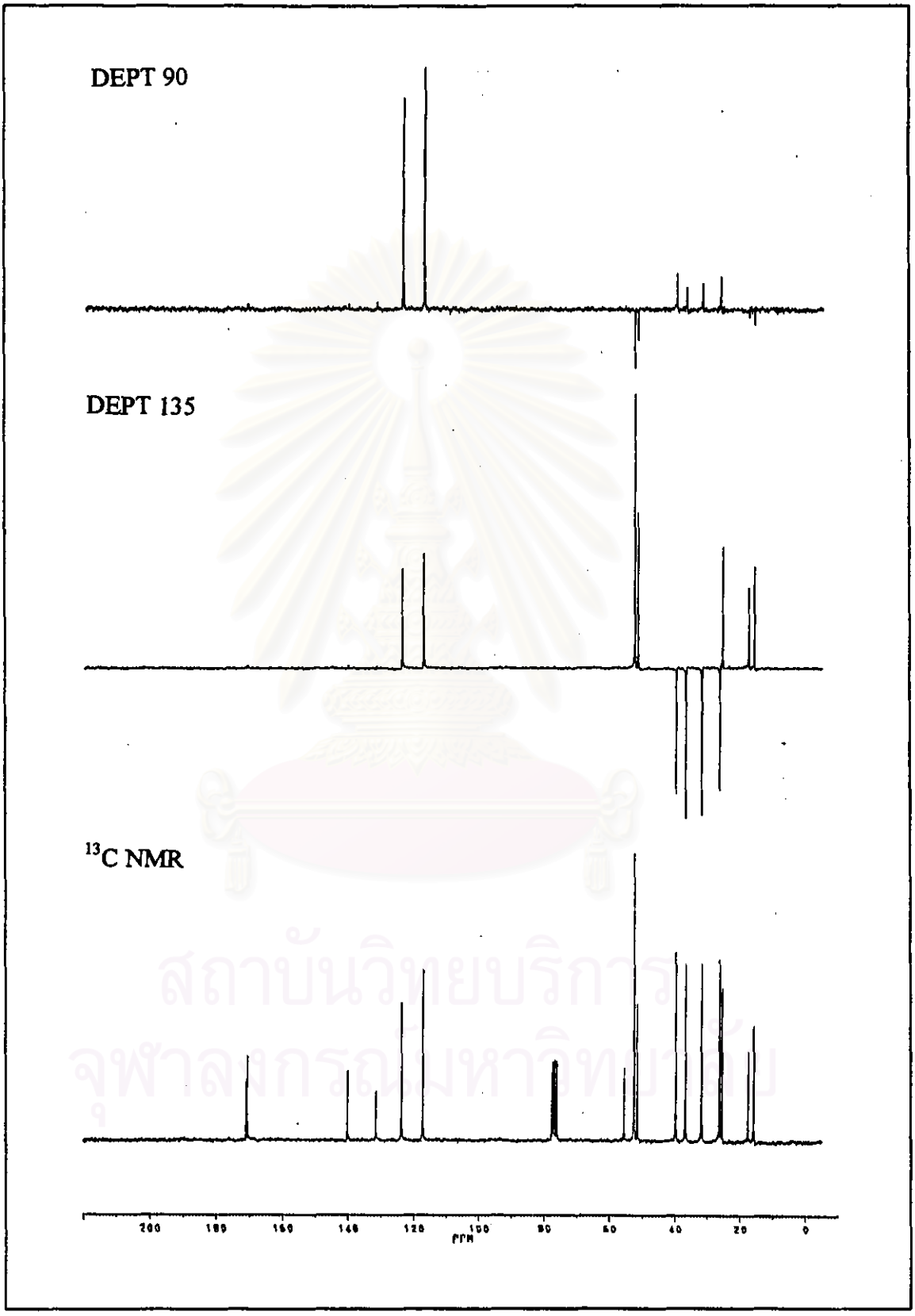

Figure 78 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-3,3-Di(methoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate(19).

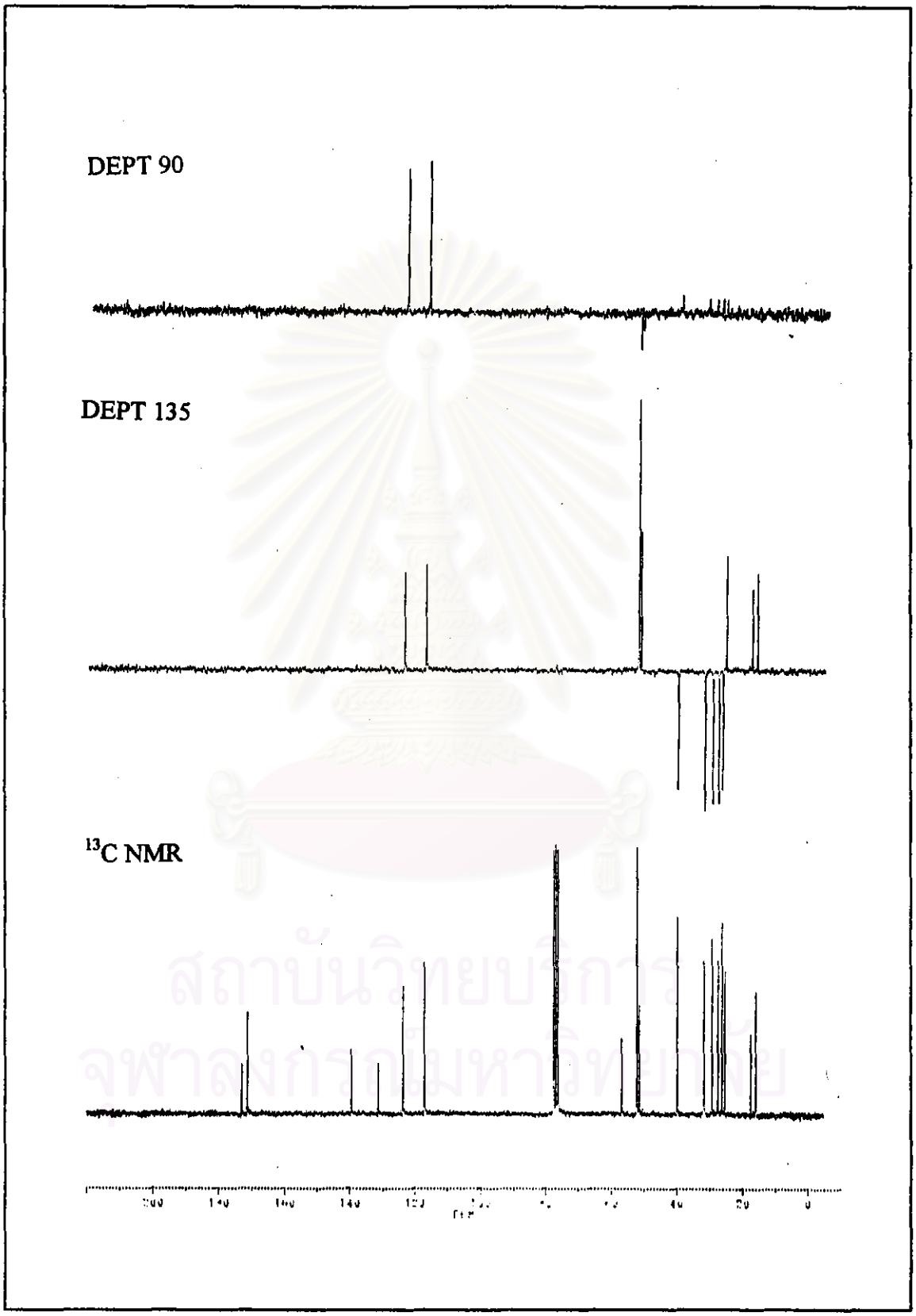

Figure 79 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-4,4-Di(methoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(20).

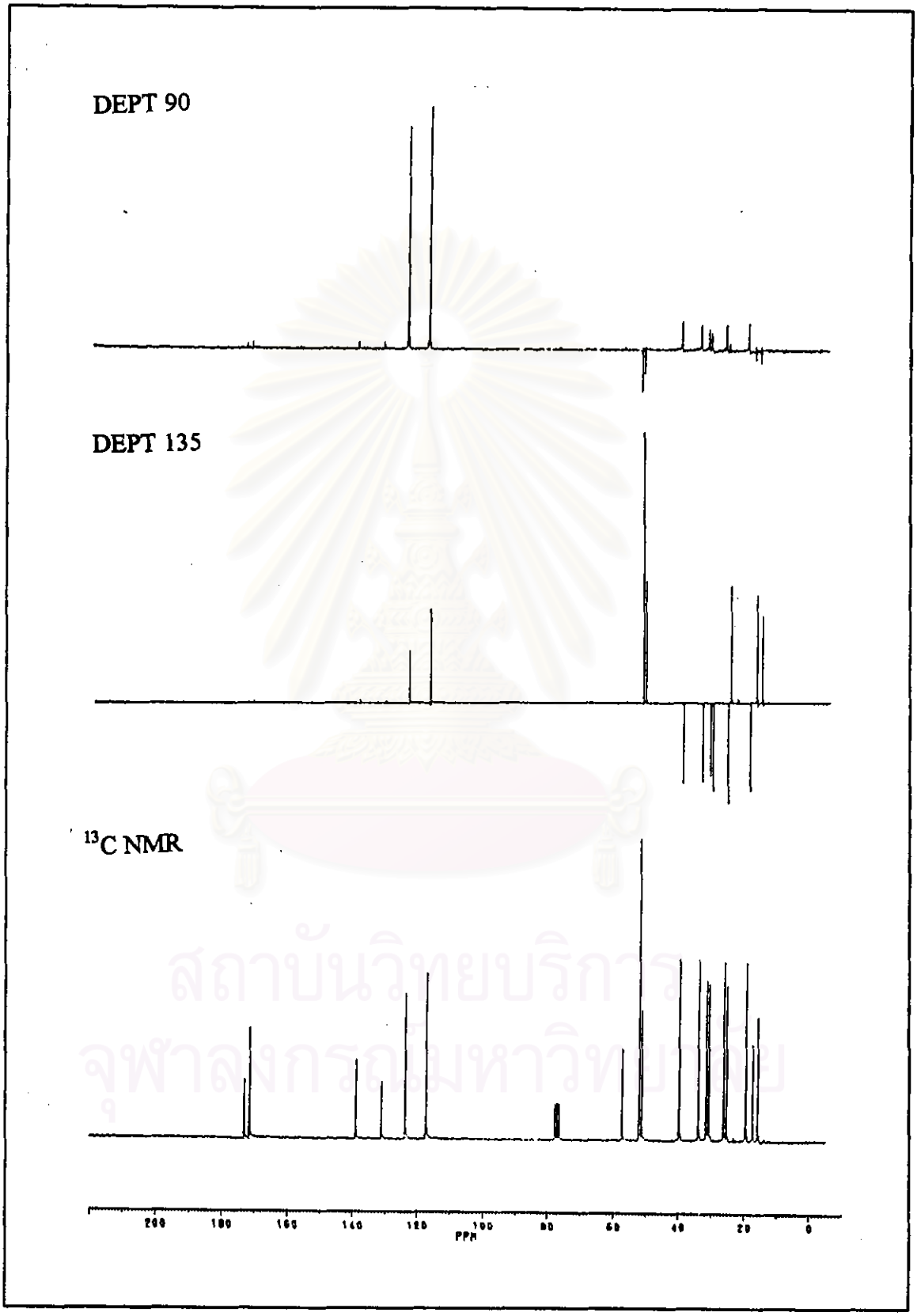

Figure 80 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-5,5-Di(methoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(21).

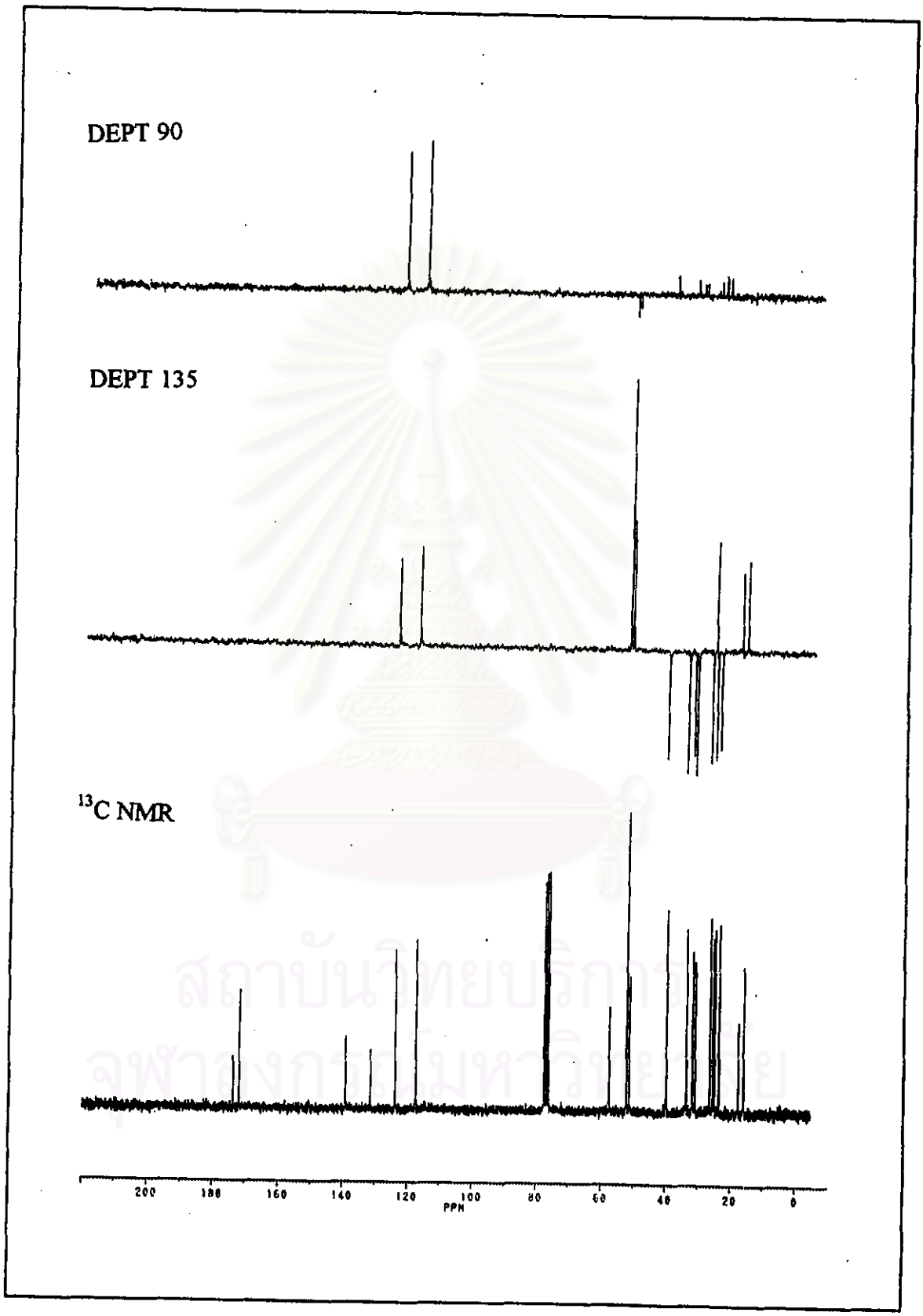

Figure 81 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-6,6-Di(methoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(22).

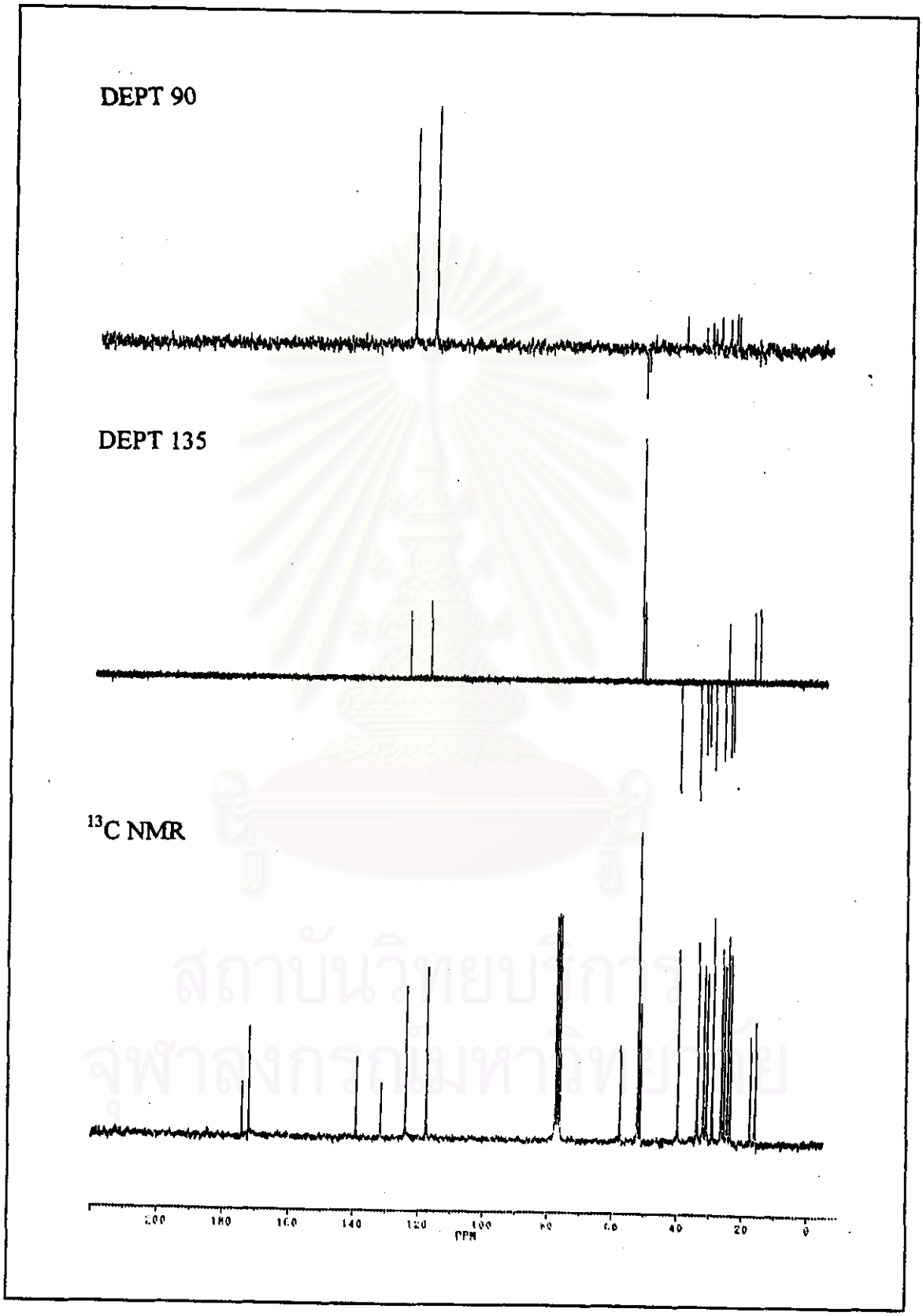

Figure 82 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-7,7-Di(methoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(23).

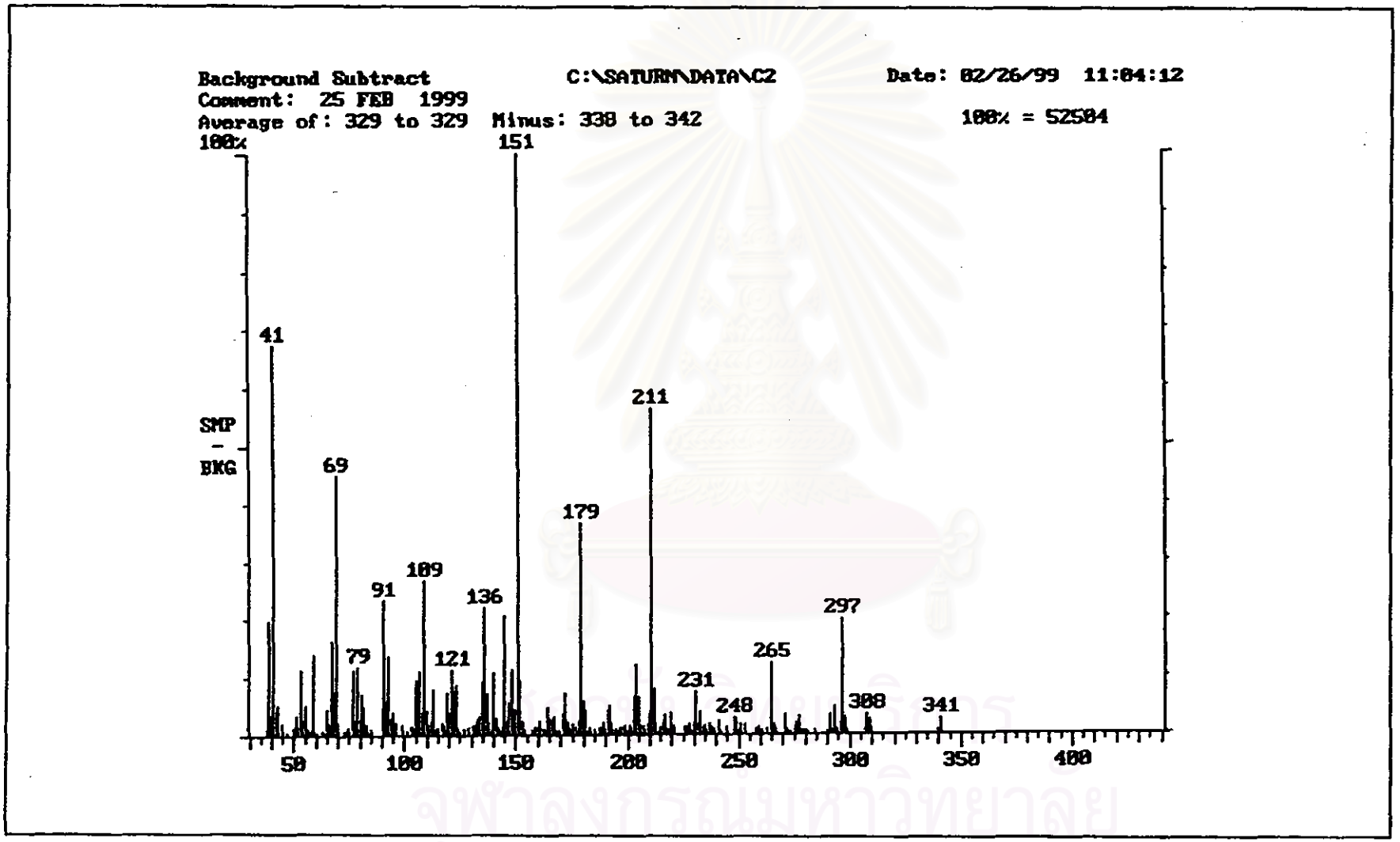

Figure 83 : Mass spectrum of Methyl-3,3-Di(methoxycarbonyl)-6,10-dimethylundeca-5,9-dienoate(19).

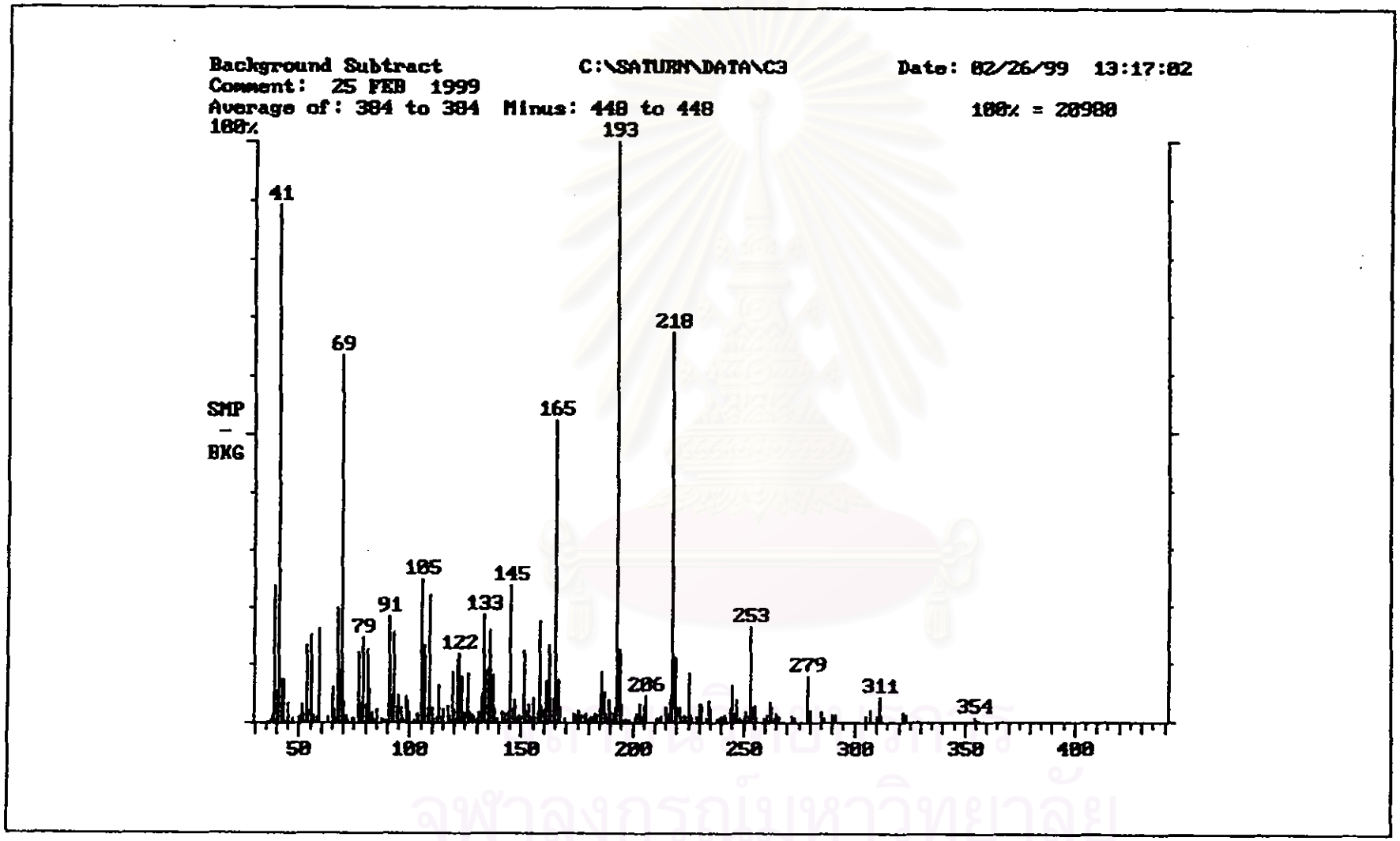

Figure 84 : Mass spectrum of Methyl-4,4-Di(methoxycarbonyl)-7,11-dimethyldodeca-6,10-dienoate(20).

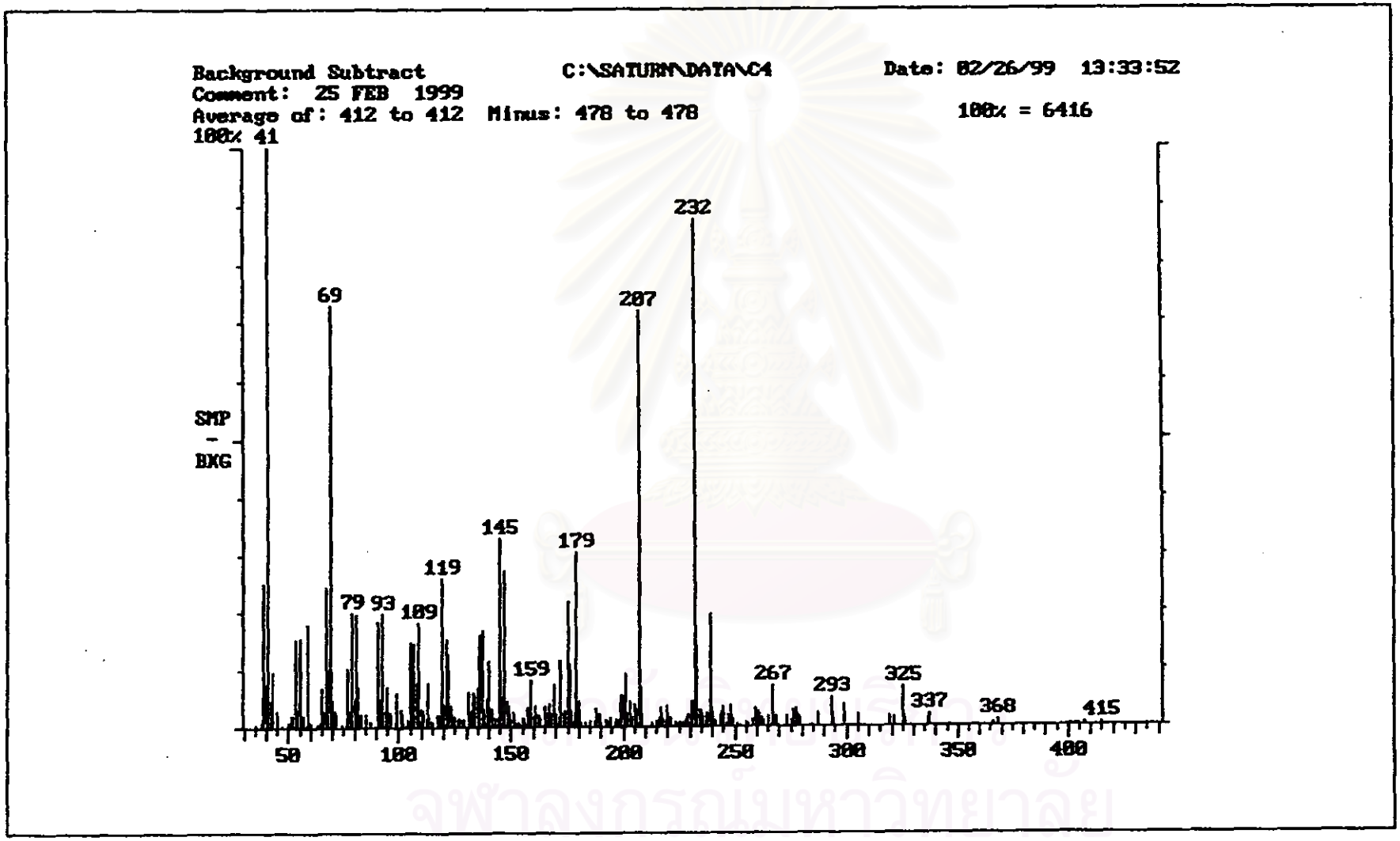

Figure 85 : Mass spectrum of Methyl-5,5-Di(methoxycarbonyl)-8,12-dimethyltrideca-7,11-dienoate(21).

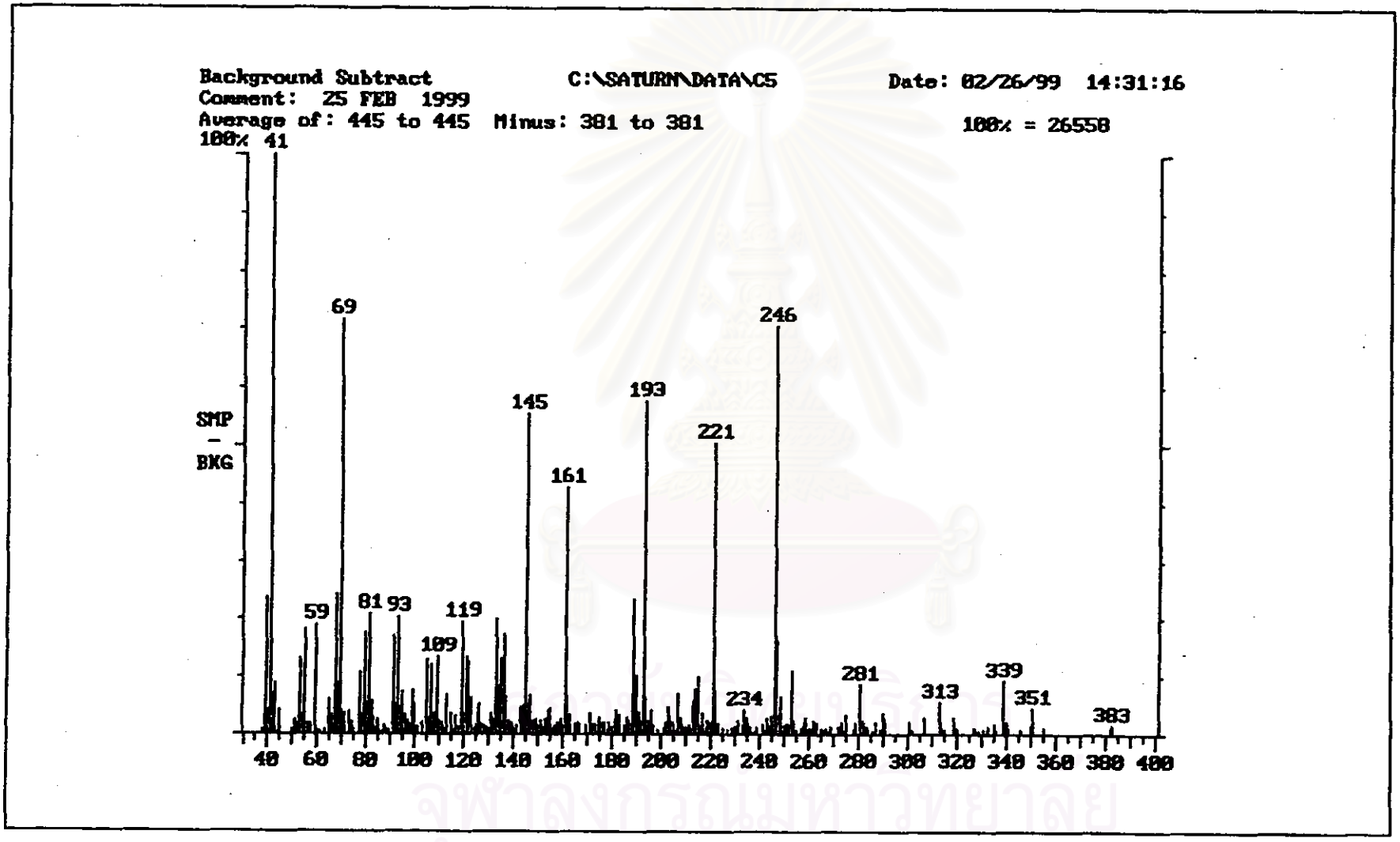

Figure 86 : Mass spectrum of Methyl-6,6-Di(methoxycarbonyl)-9,13-dimethyltetradeca-8,12-dienoate(22).

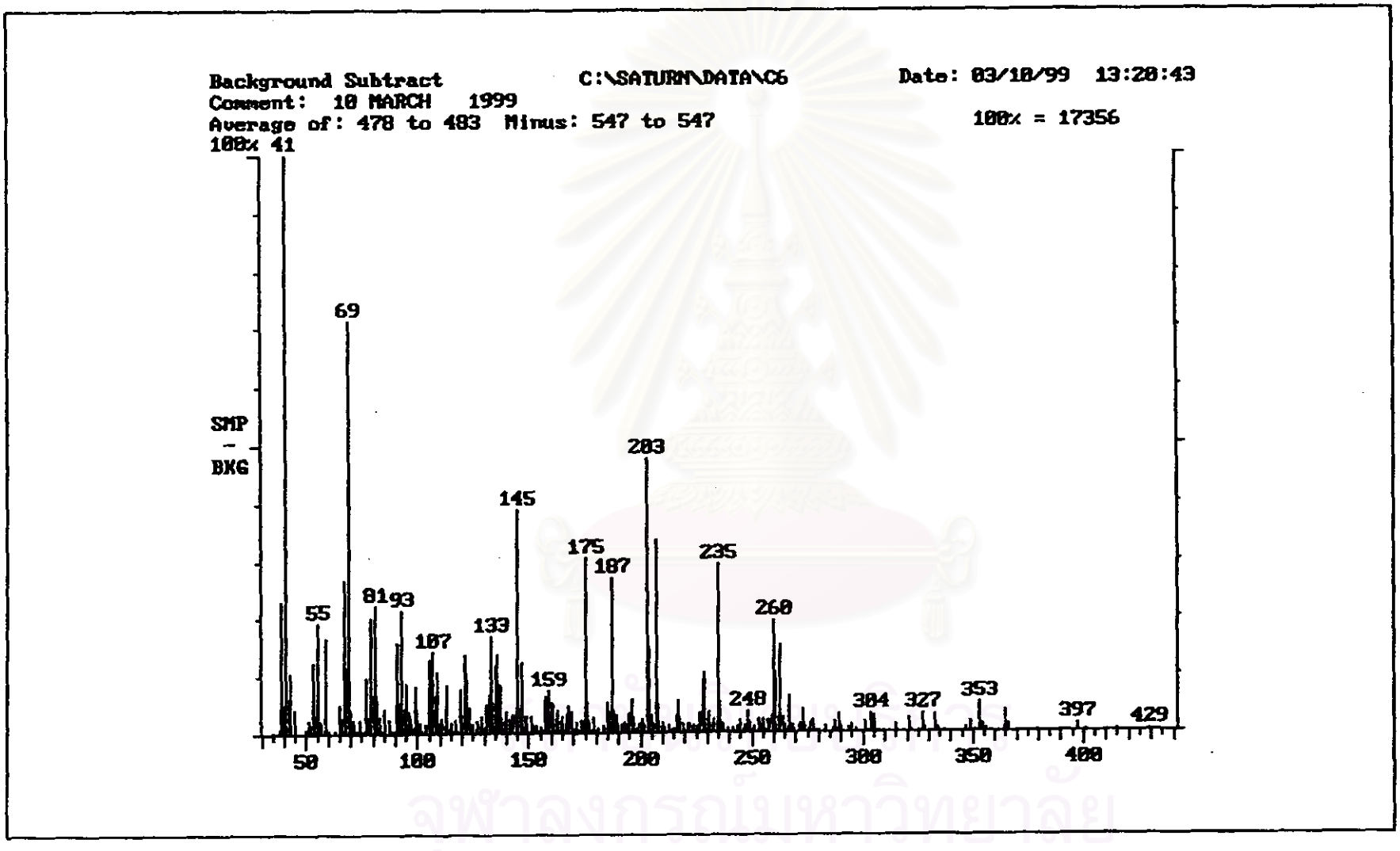

Figure 87 : Mass spectrum of Methyl-7,7-Di(methoxycarbonyl)-10,14-dimethylpentadeca-9,13-dienoate(23).

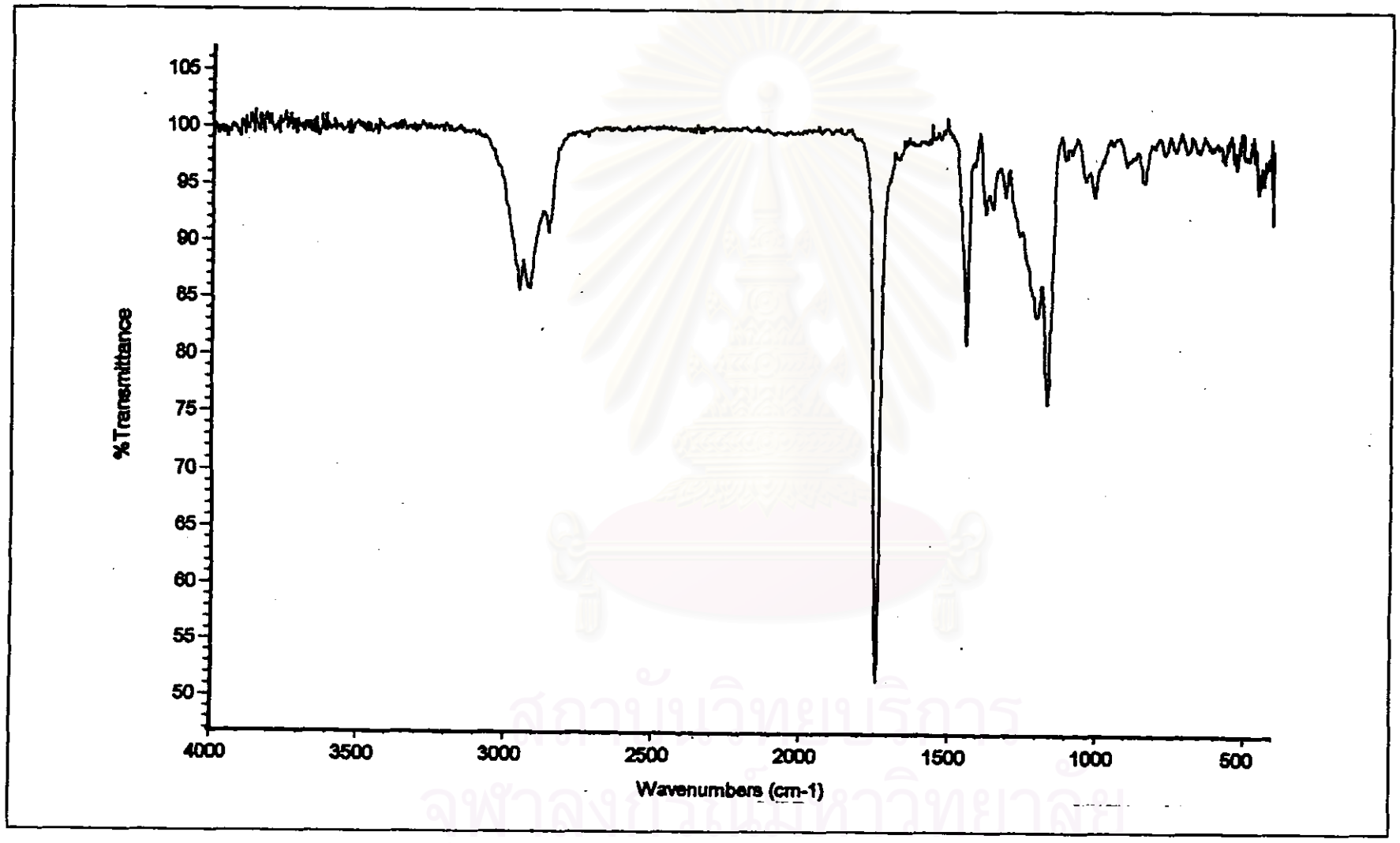

Figure 88 : IR spectrum of Methyl-3-methoxycarbonyl-6,10-dimethylundeca-5,9-dienoate(24).

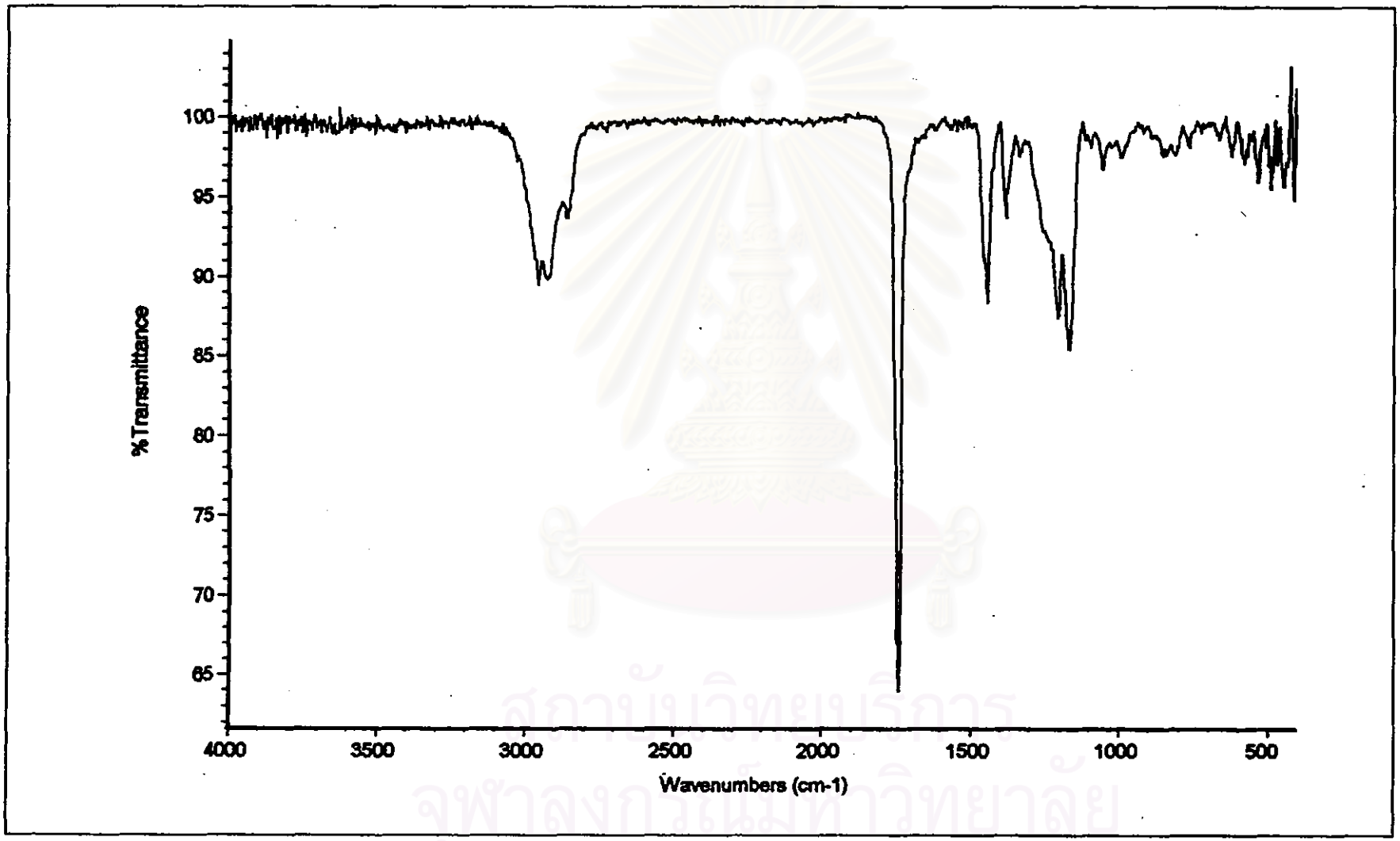

Figure 89 : IR spectrum of Methyl-4-methoxycarbonyl-7,11-dimethyldodeca-6,10-dienoate(25).

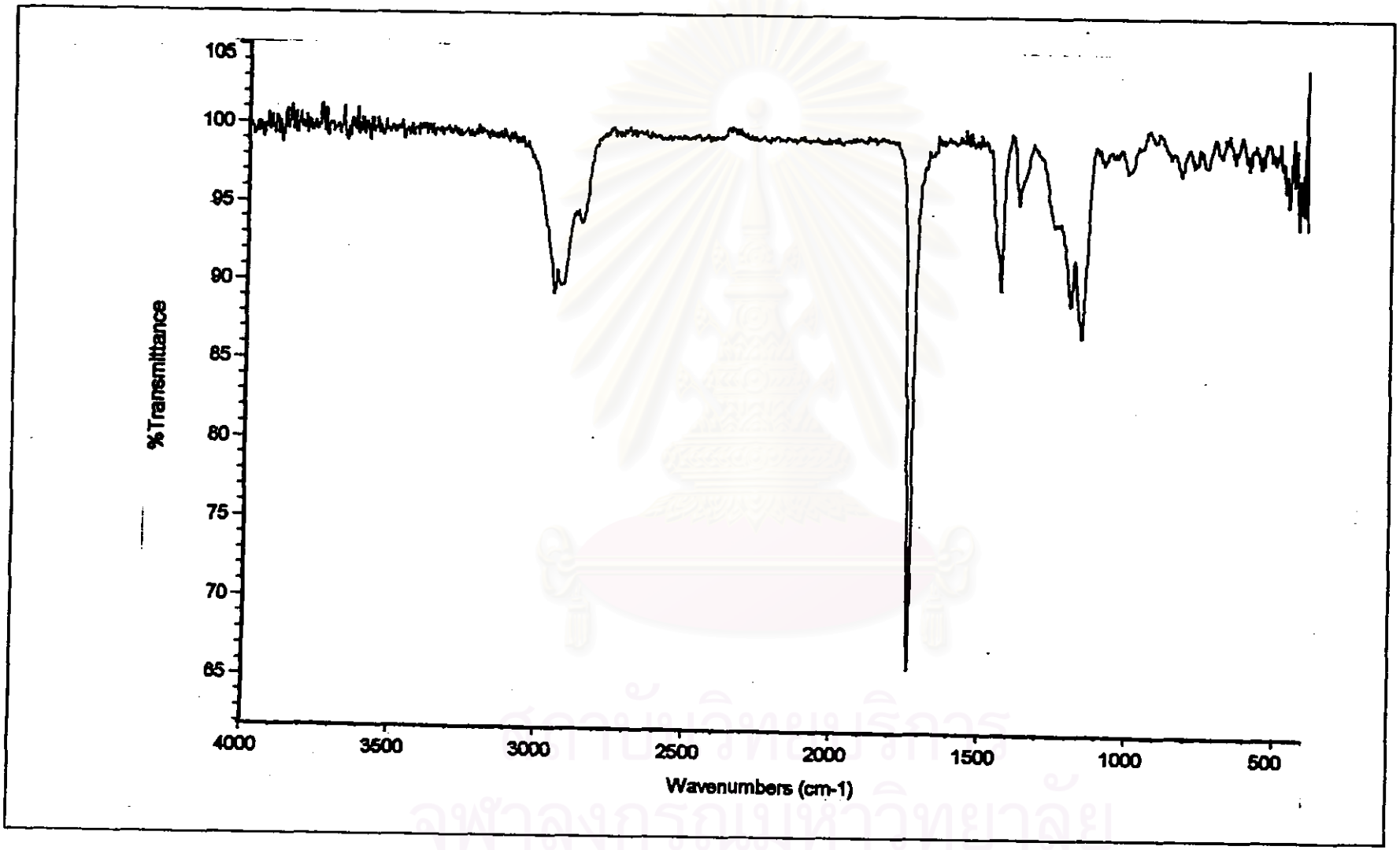

Figure 90 : IR spectrum of Methyl-5-methoxycarbonyl-8,12-dimethyltrideca-7,11-dienoate(26).

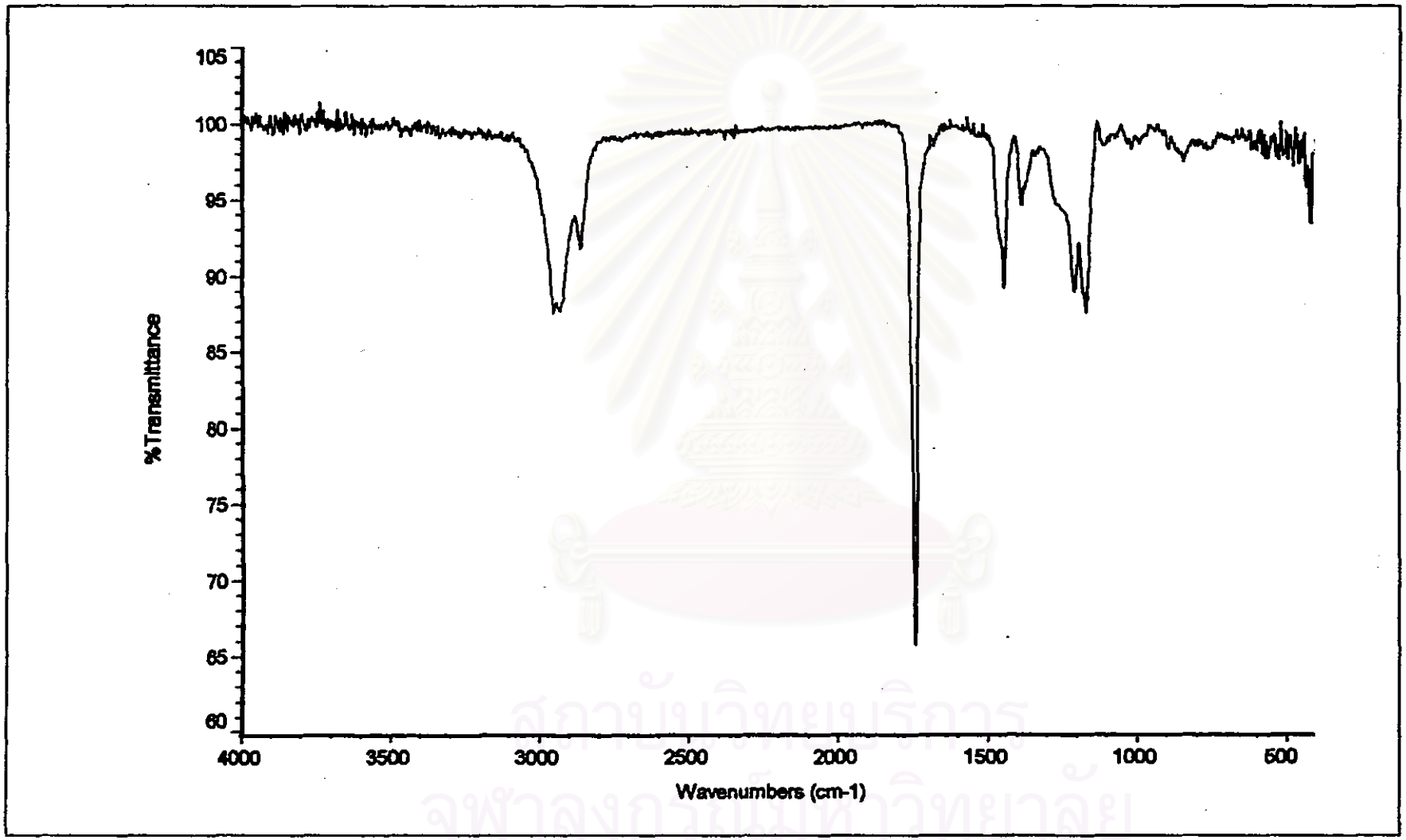

Figure 91 : IR spectrum of Methyl-6-methoxycarbonyl-9,13-dimethyltetradeca-8,12-dienoate(27).

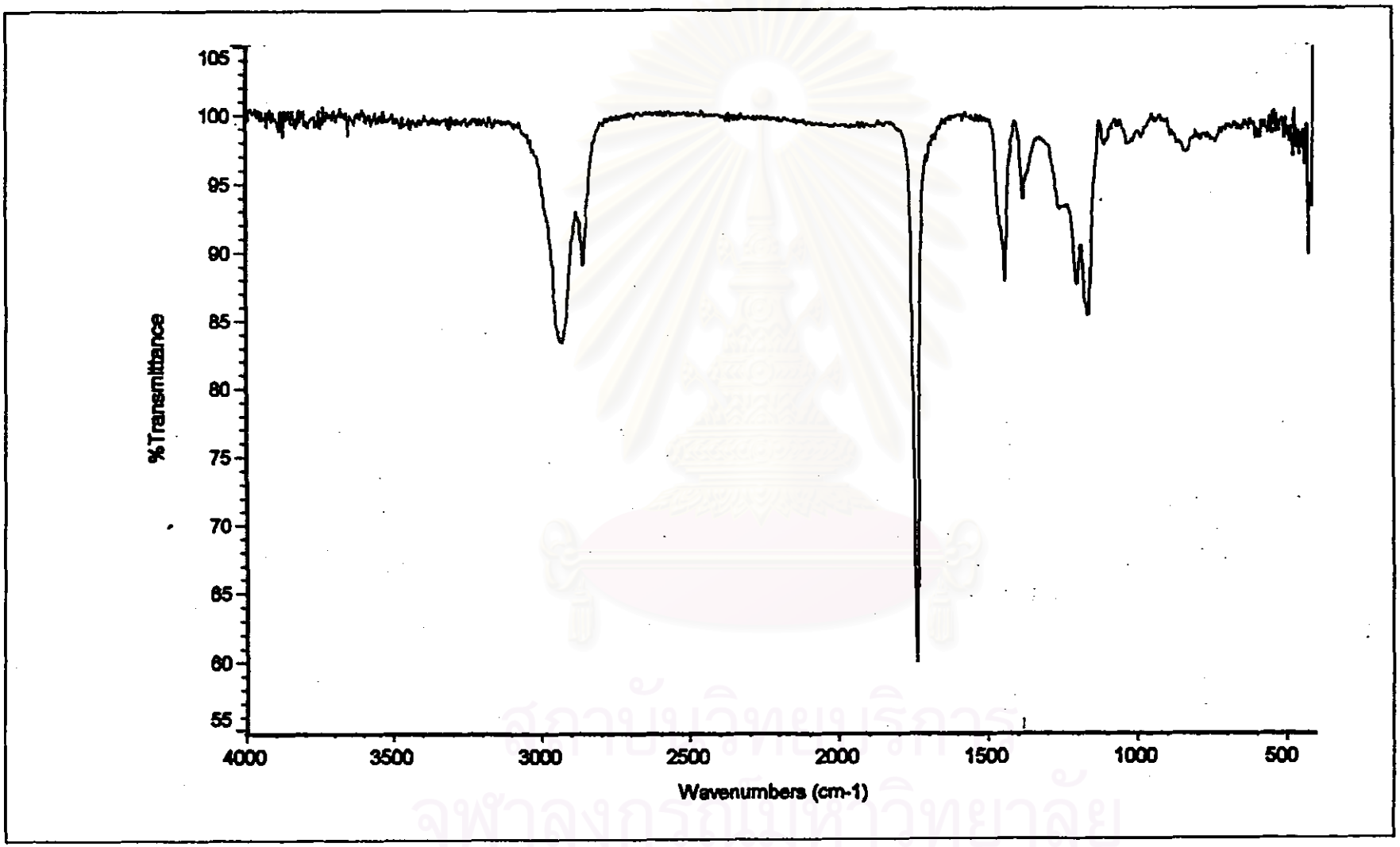

Figure 92 : IR spectrum of Methyl-7-methoxycarbonyl-10,14-dimethylpentadeca-9,13-dienoate(28).

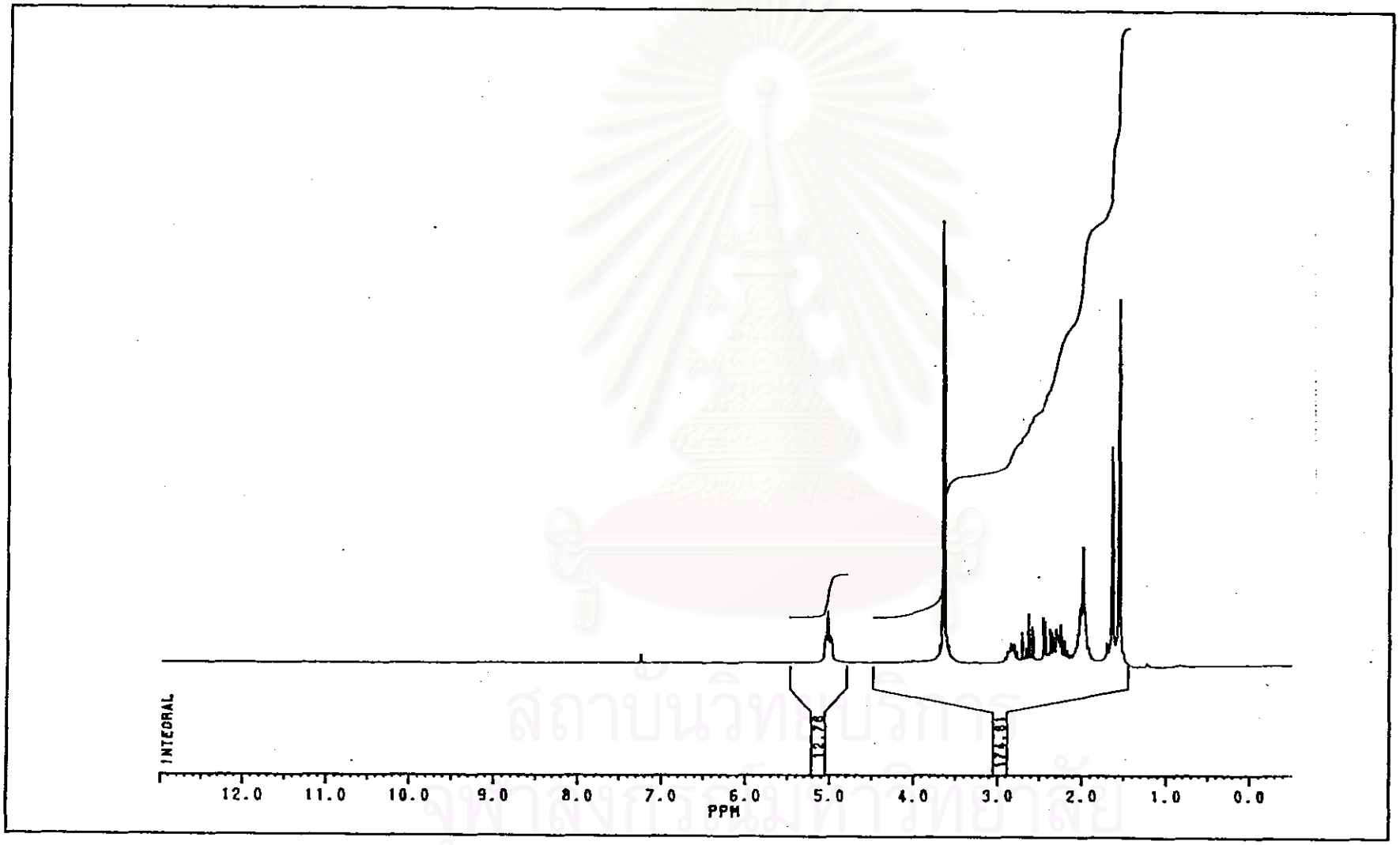

Figure 93 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-3-methoxycarbonyl-6,10-dimethylundeca-5,9-dienoate(24).

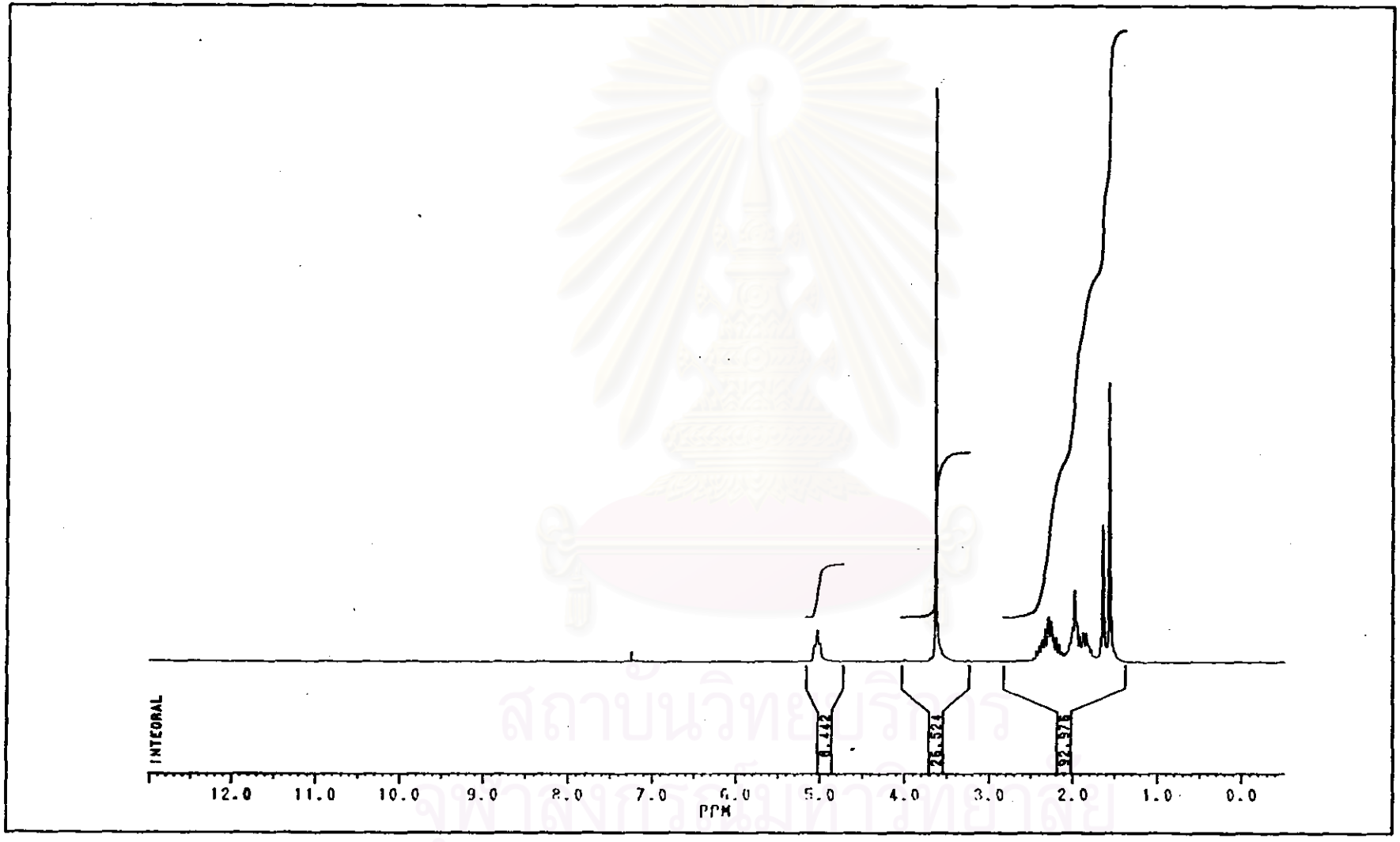

Figure 94 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-4-methoxycarbonyl-7,11-dimethyldodeca-6,10-dienoate(25).

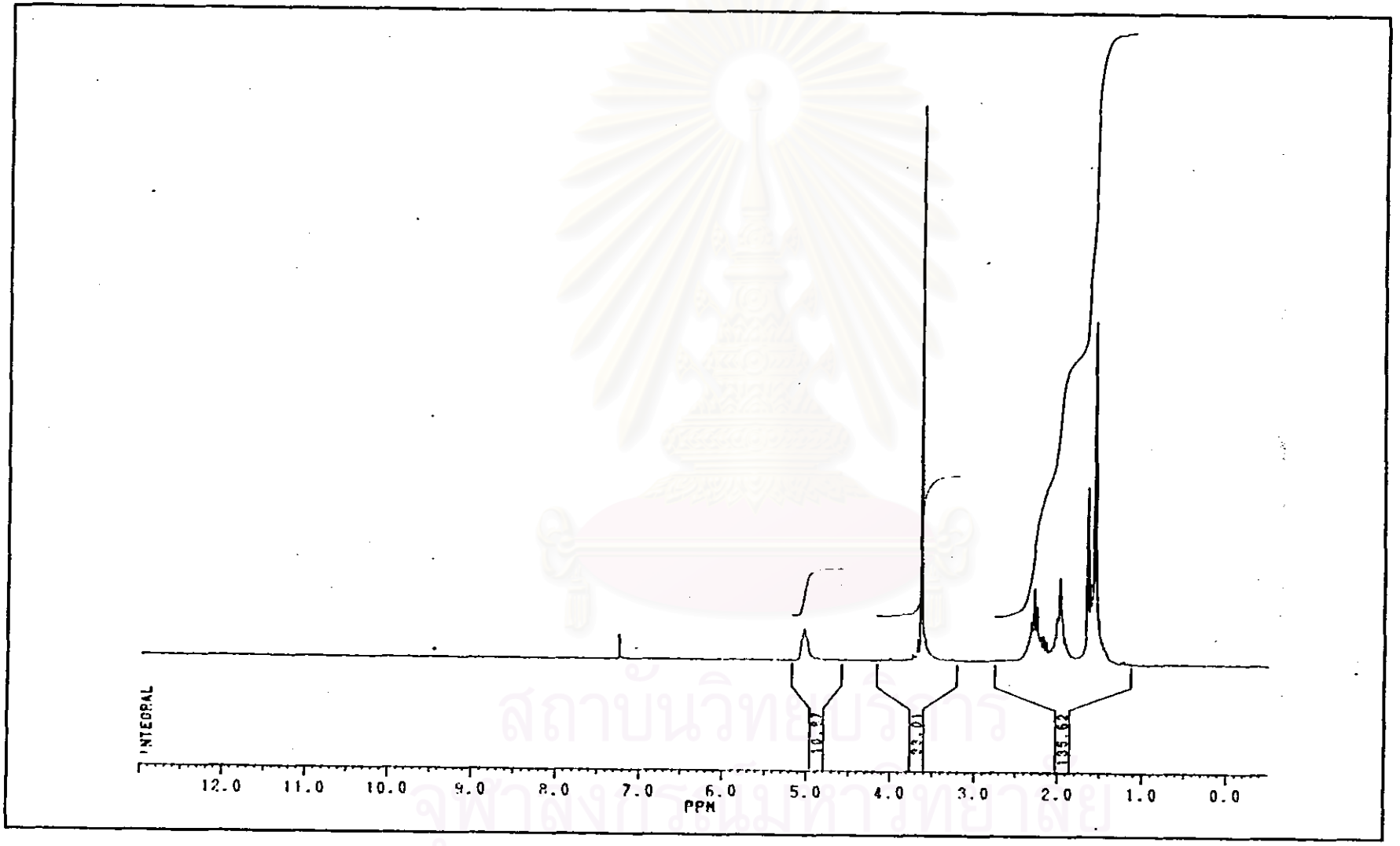

Figure 95 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-5-methoxycarbonyl-8,12-dimethyltrideca-7,11-dienoate(26).

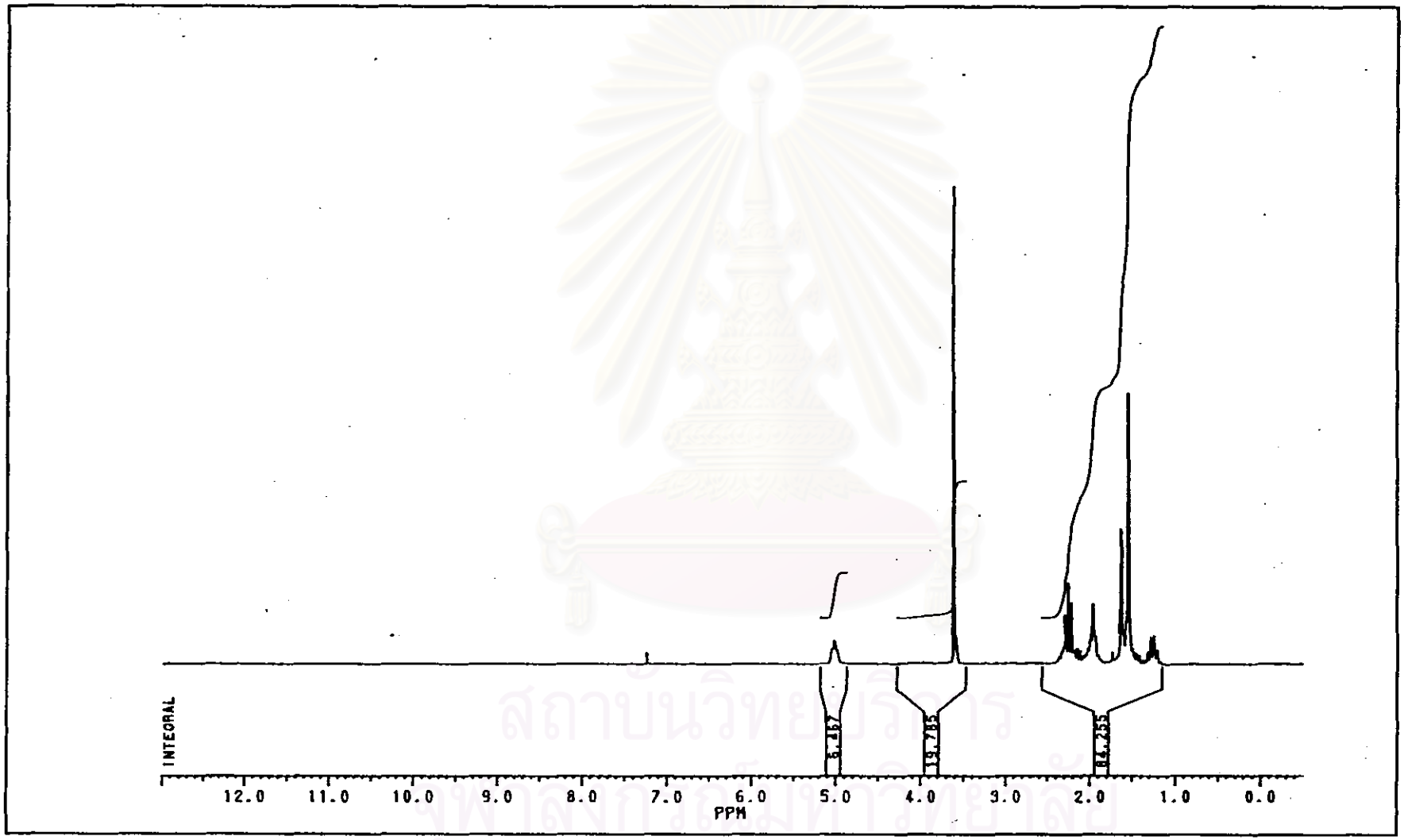

Figure 96 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-6-methoxycarbonyl-9,13-dimethyltetradeca-8,12-dienoate(27).

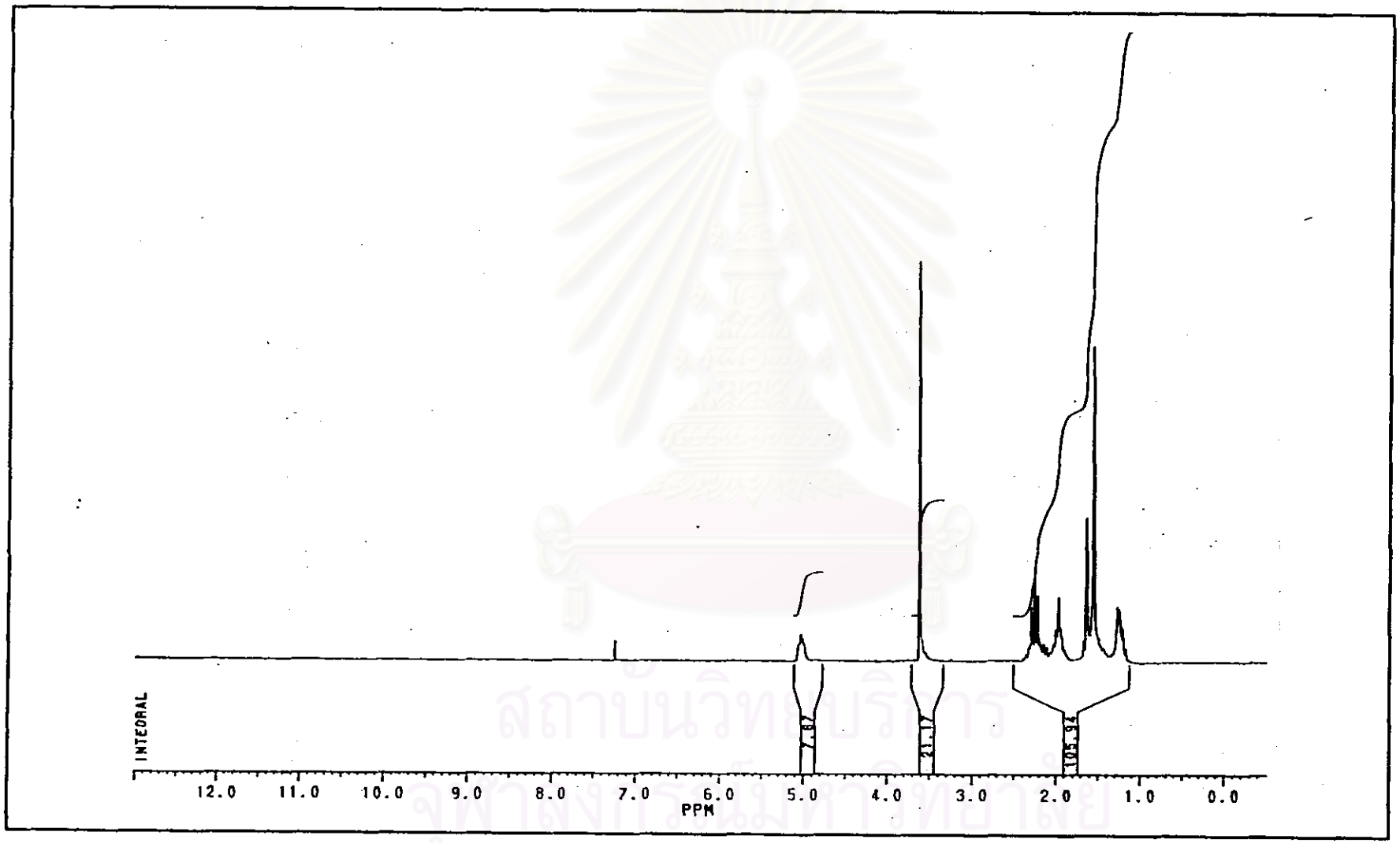

Figure 97 : ^{1}H NMR($CDCl_3$) spectrum of Methyl-7-methoxycarbonyl-10,14-dimethylpentadeca-9,13-dienoate(28).

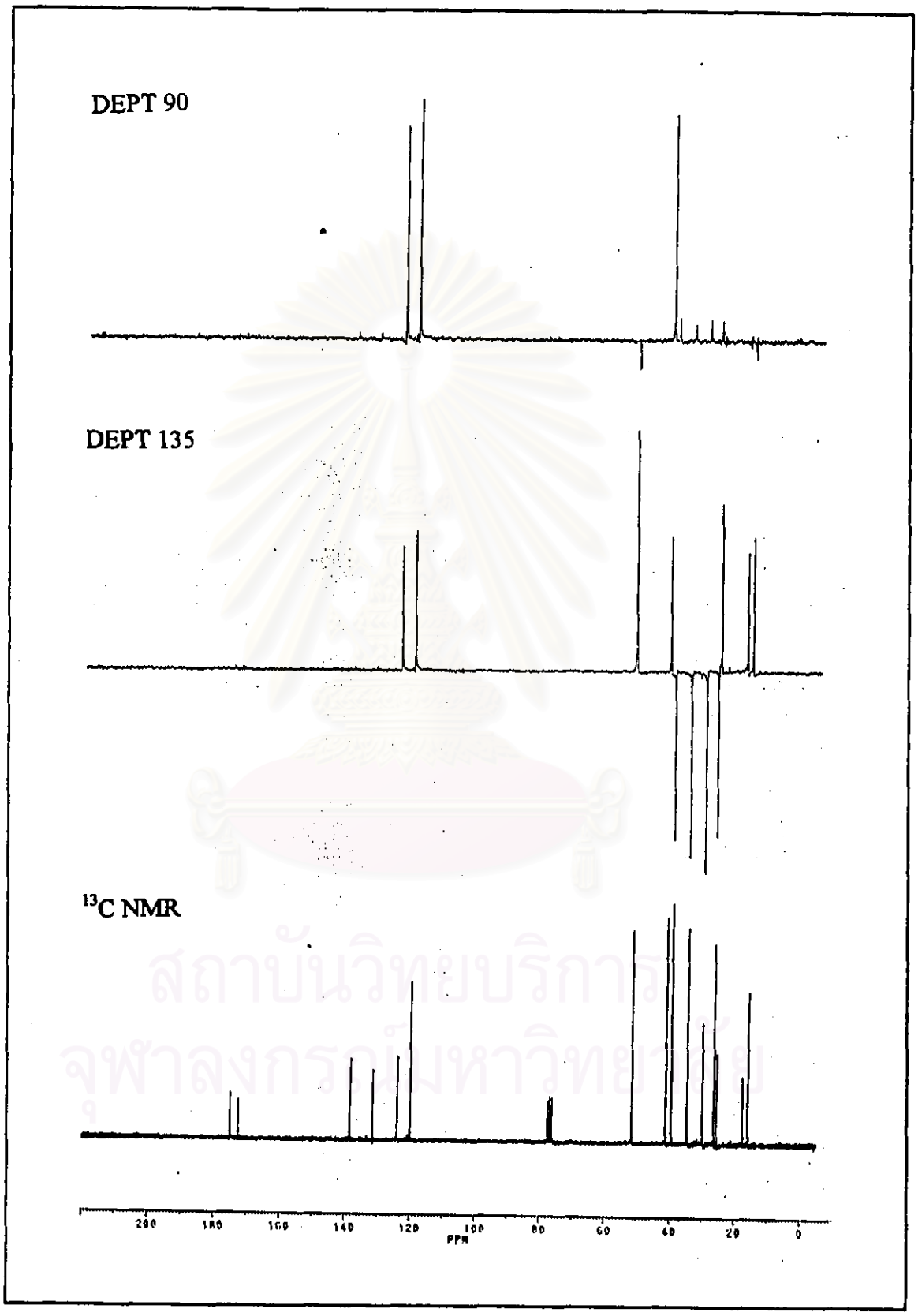

Figure 98 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-3-methoxycarbonyl-6,10-dimethylundeca-5,9-dienoate(24).

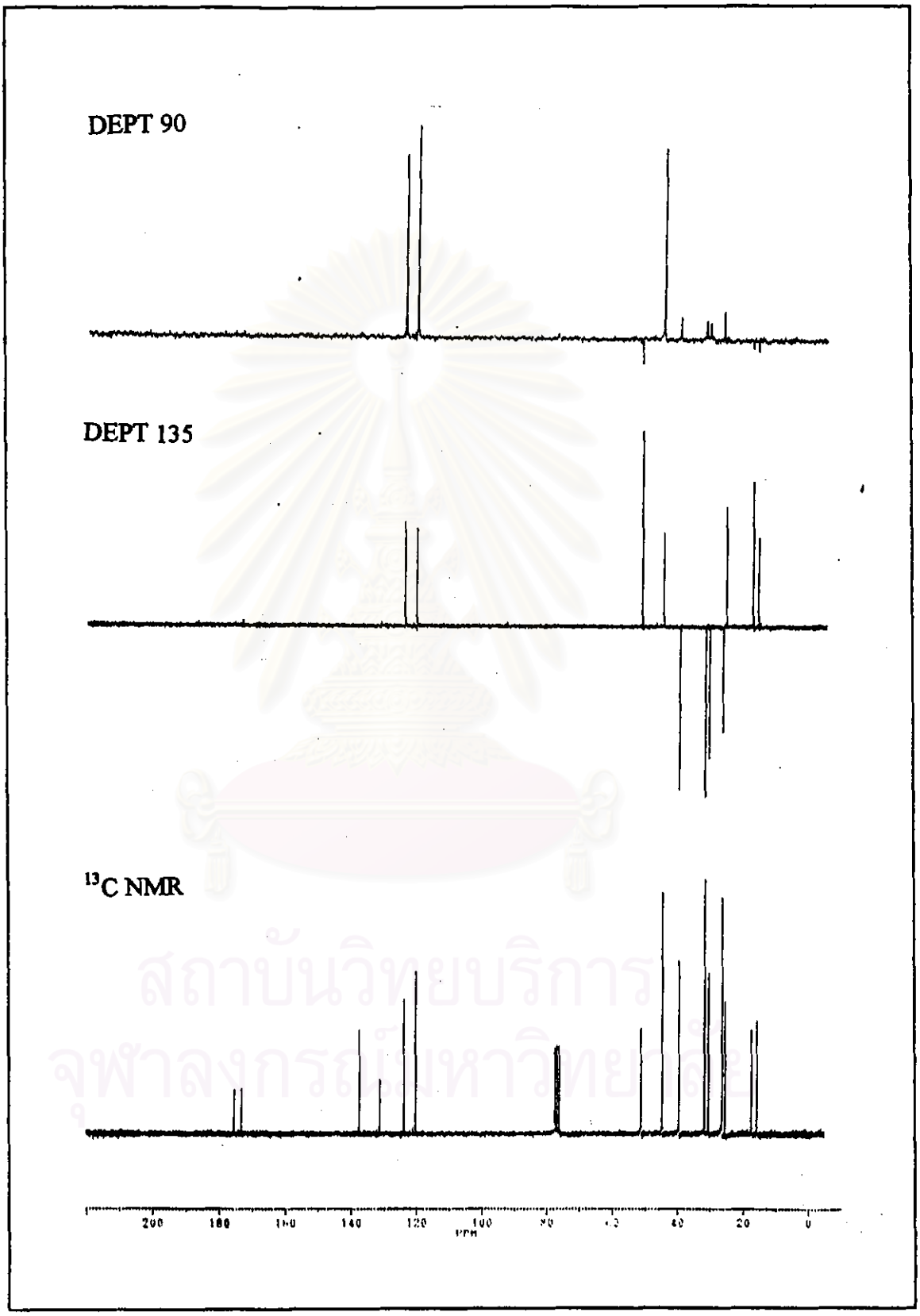

Figure 99 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-4-methoxycarbonyl-7,11-dimethyldodeca-6,10-dienoate(25).

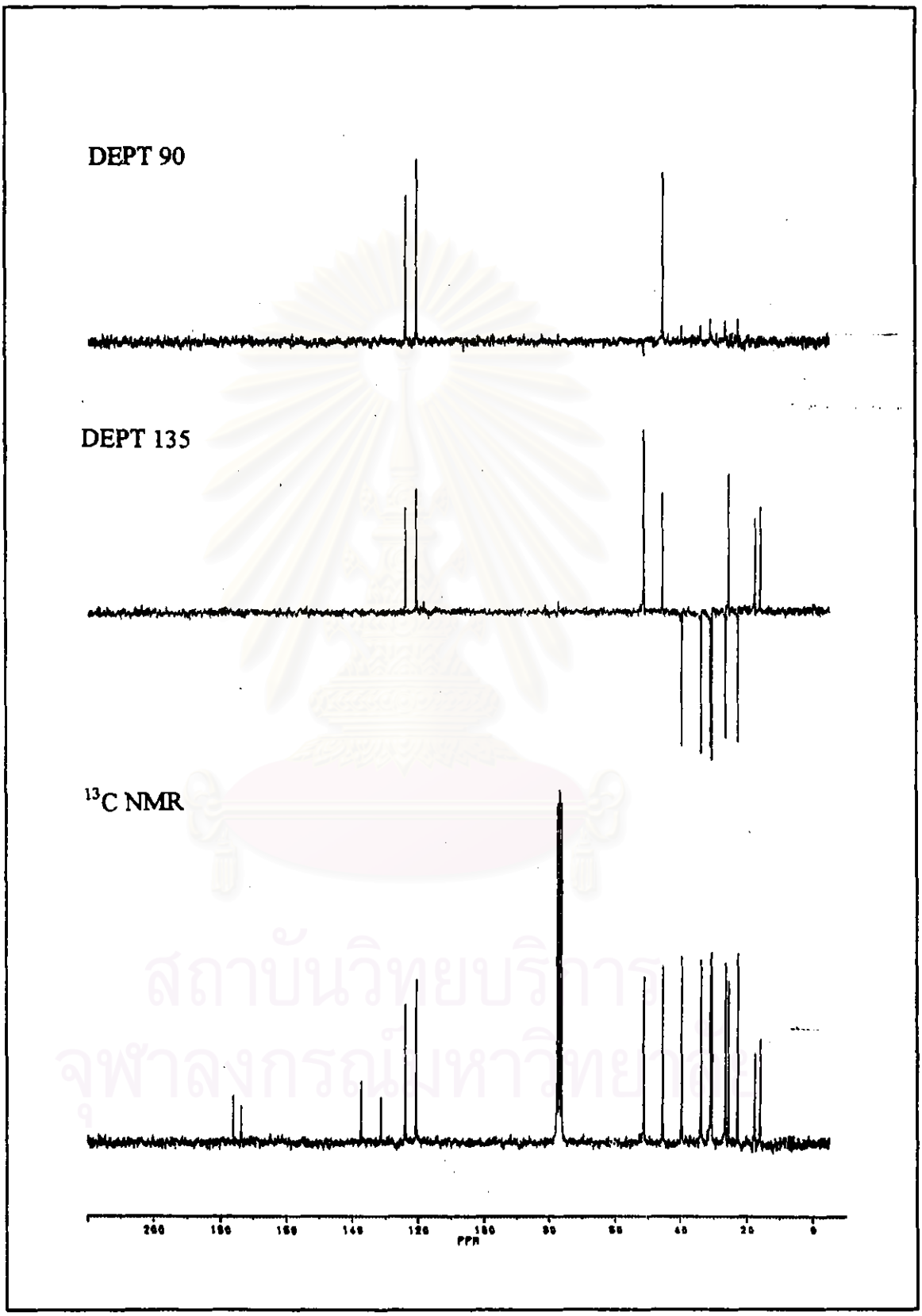

Figure 100 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-5-methoxycarbonyl-8,12-dimethyltrideca-7,11-dienoate(26).

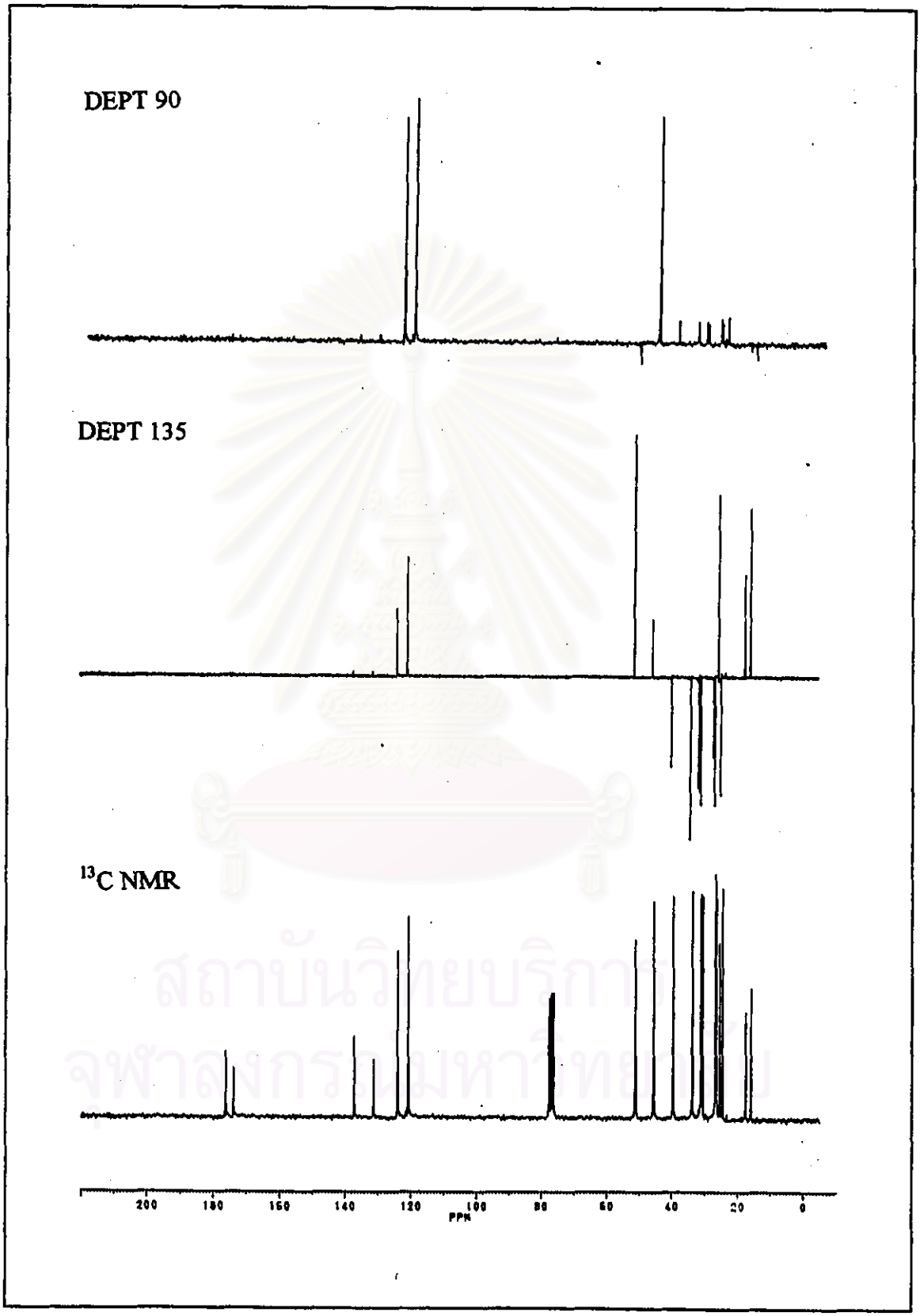

Figure 101 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-6-methoxycarbonyl-9,13-dimethyltetradeca-8,12-dienoate(27).

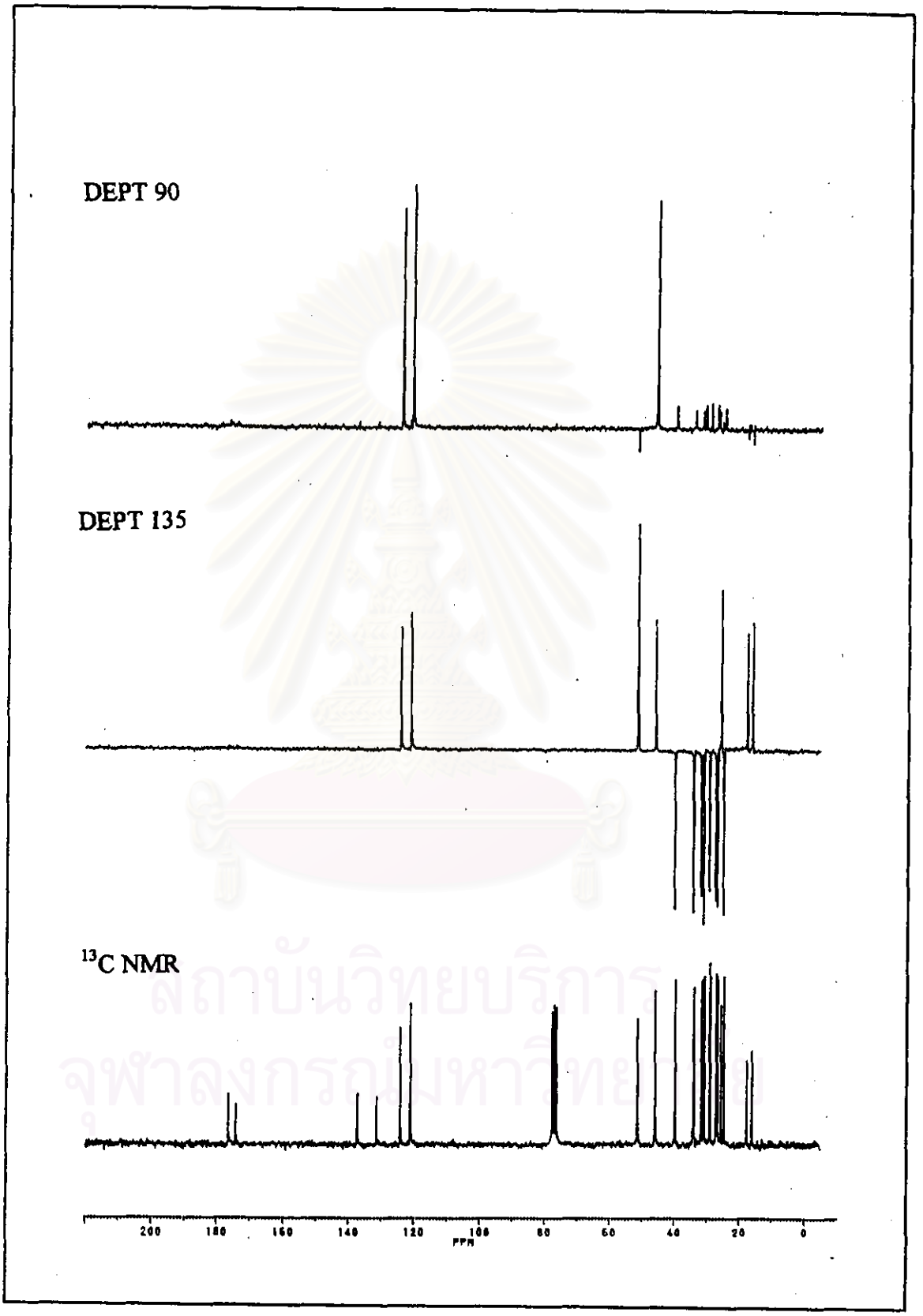

Figure 102 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of Methyl-7-methoxycarbonyl-10,14-dimethylpentadeca-9,13-dienoate(28).

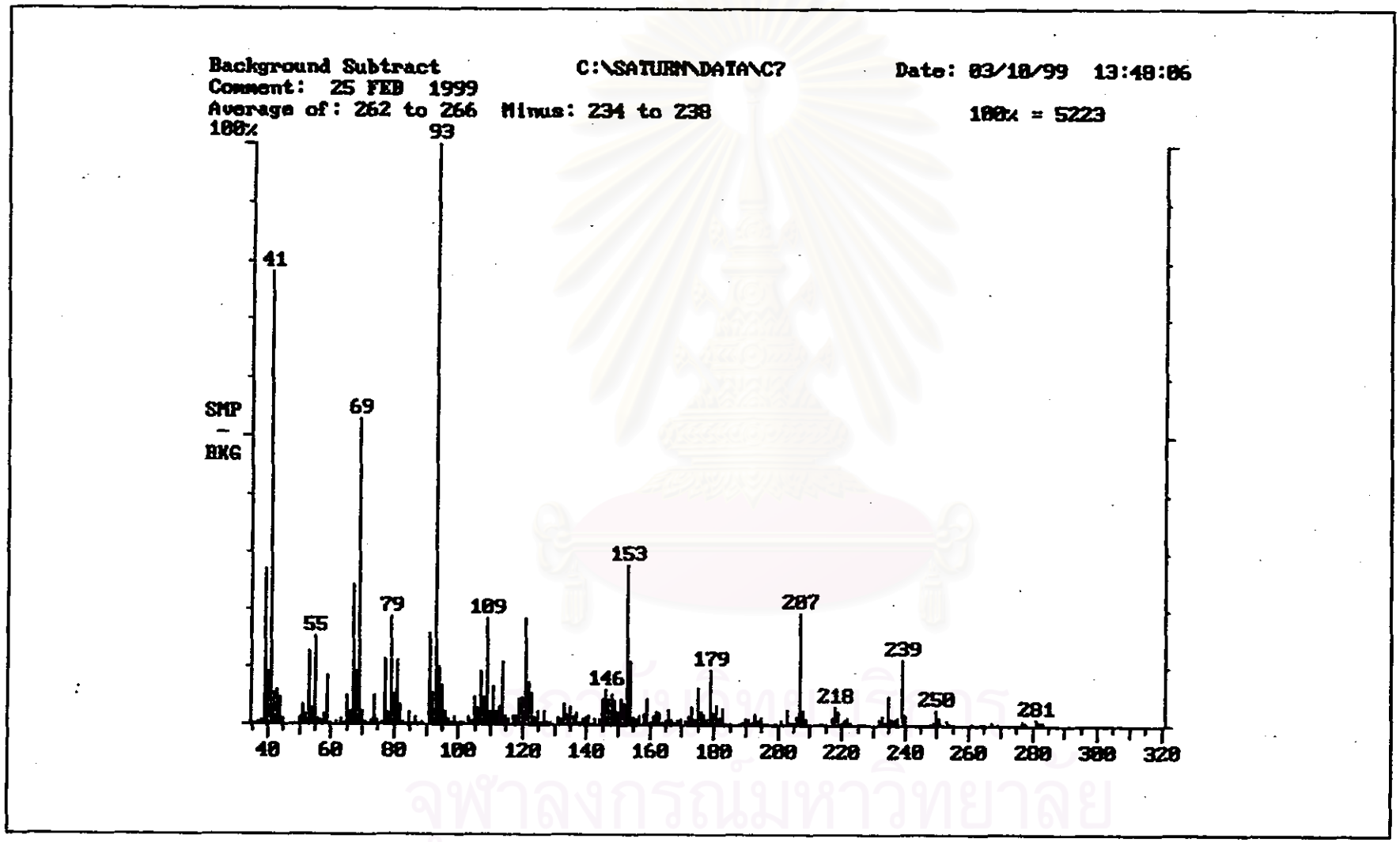

Figure 103 : Mass spectrum of Methyl-3-methoxycarbonyl-6,10-dimethylundeca-5,9-dienoate(24).

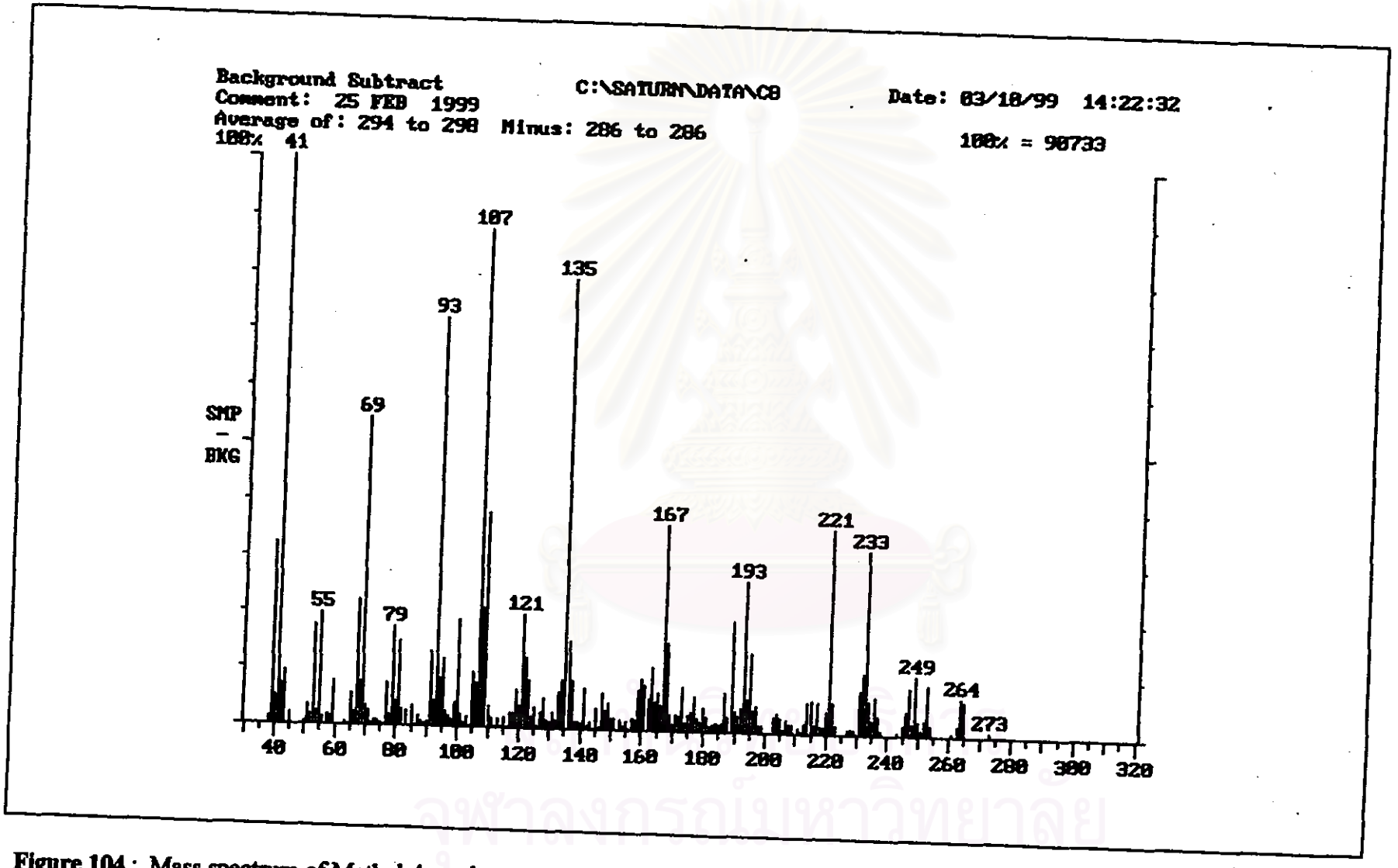

Figure 104 : Mass spectrum of Methyl-4-methoxycarbonyl-7,11-dimethyldodeca-6,10-dienoate(25).

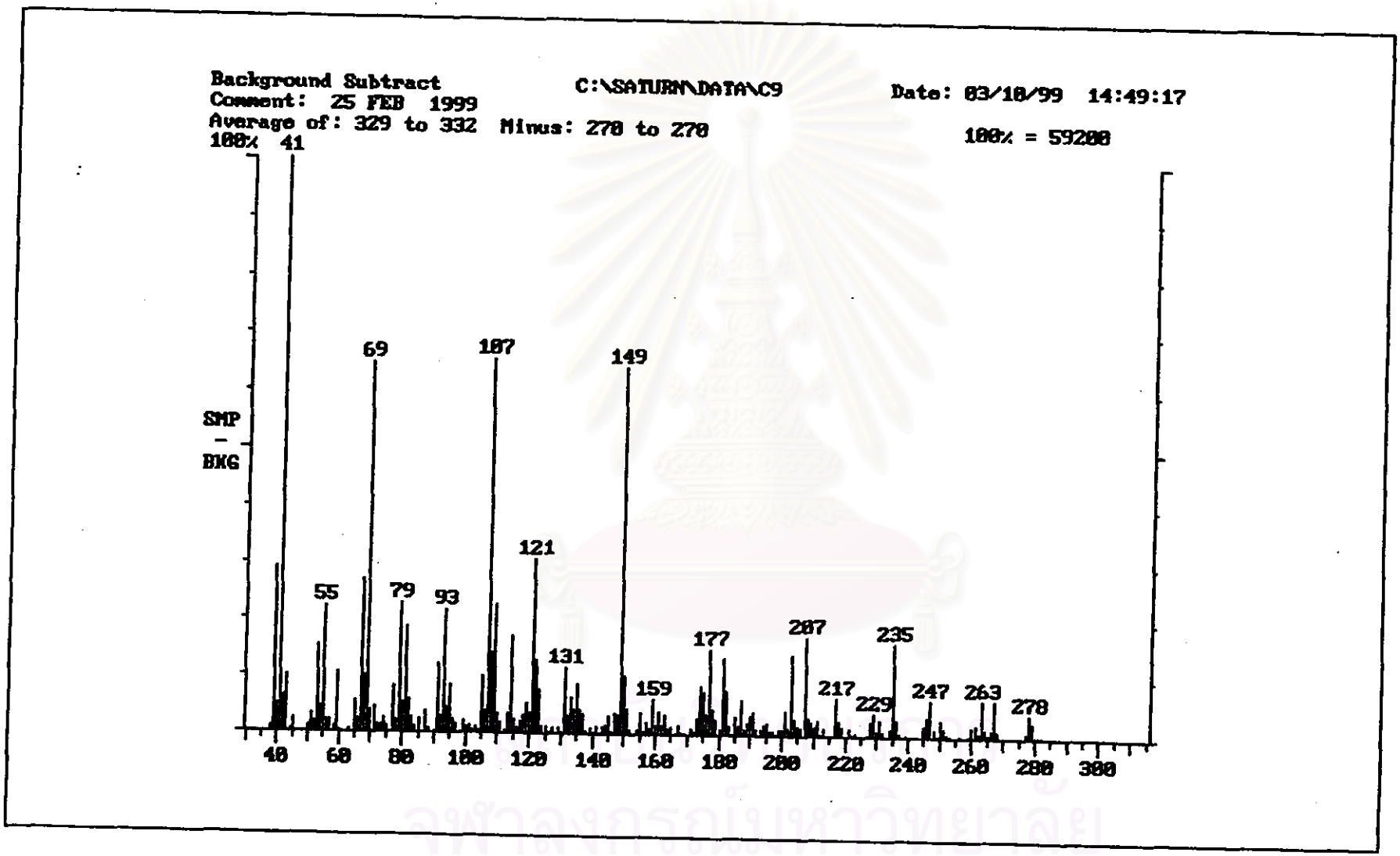

Figure 105 : Mass spectrum of Methyl-5-methoxycarbonyl-8,12-dimethyltrideca-7,11-dienoate(26).

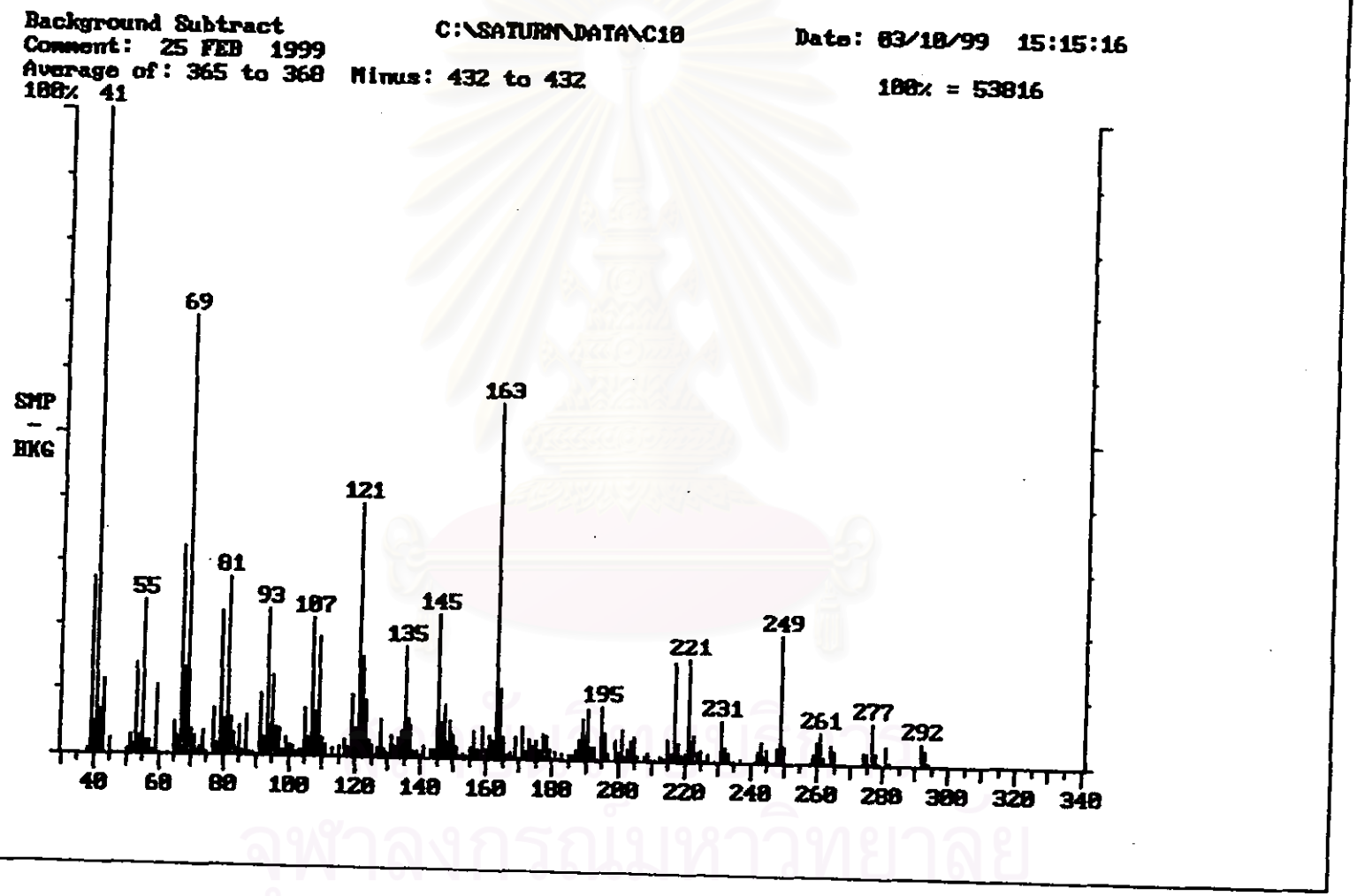

Figure 106 : Mass spectrum of Methyl-6-methoxycarbonyl-9,13-dimethyltetradeca-8,12-dienoate(27).

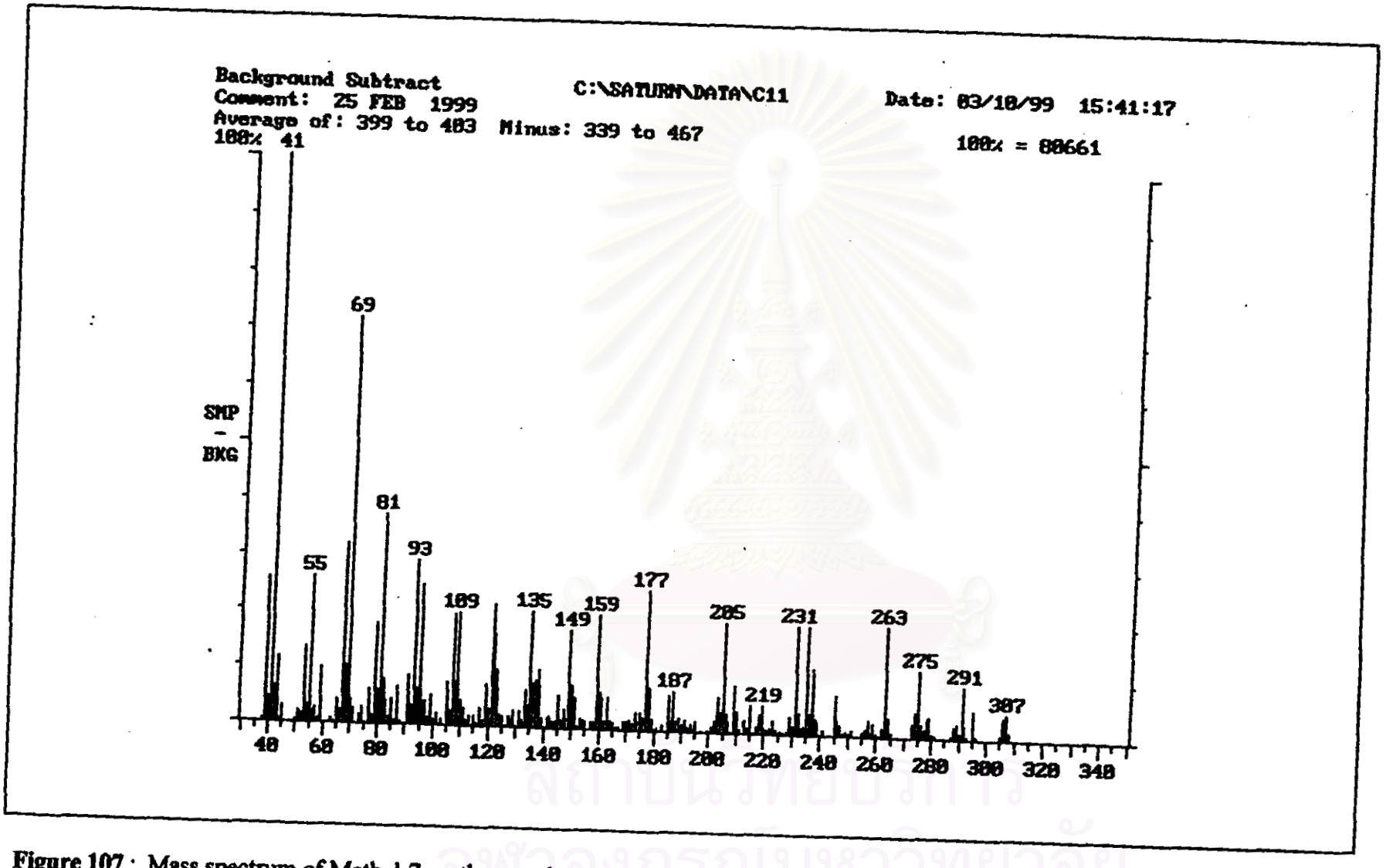

Figure 107 : Mass spectrum of Methyl-7-methoxycarbonyl-10,14-dimethylpentadeca-9,13-dienoate(28).

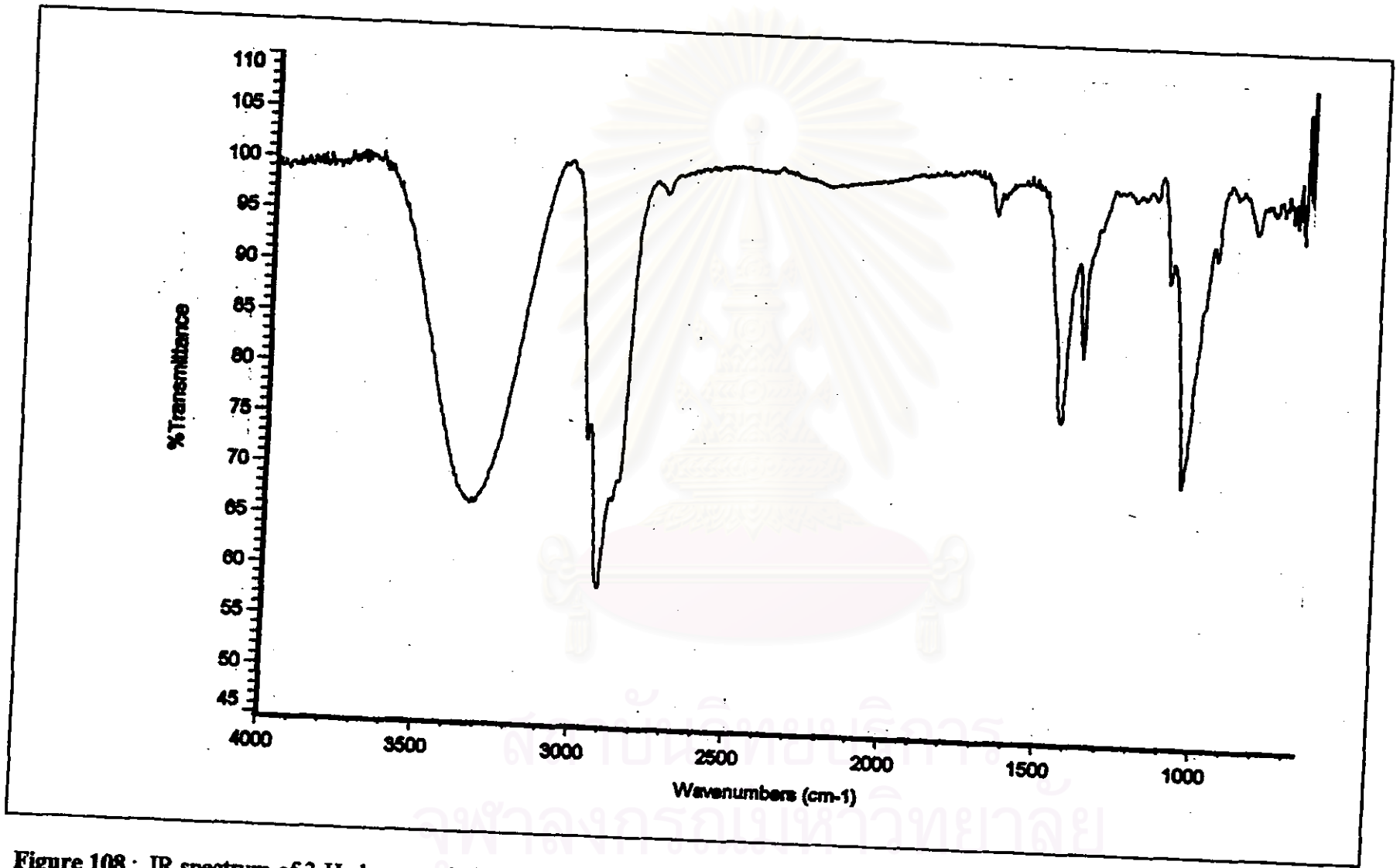

Figure 108 : IR spectrum of 3-Hydroxymethyl-6,10-dimethylundeca-5,9-dien-1-ol(29).

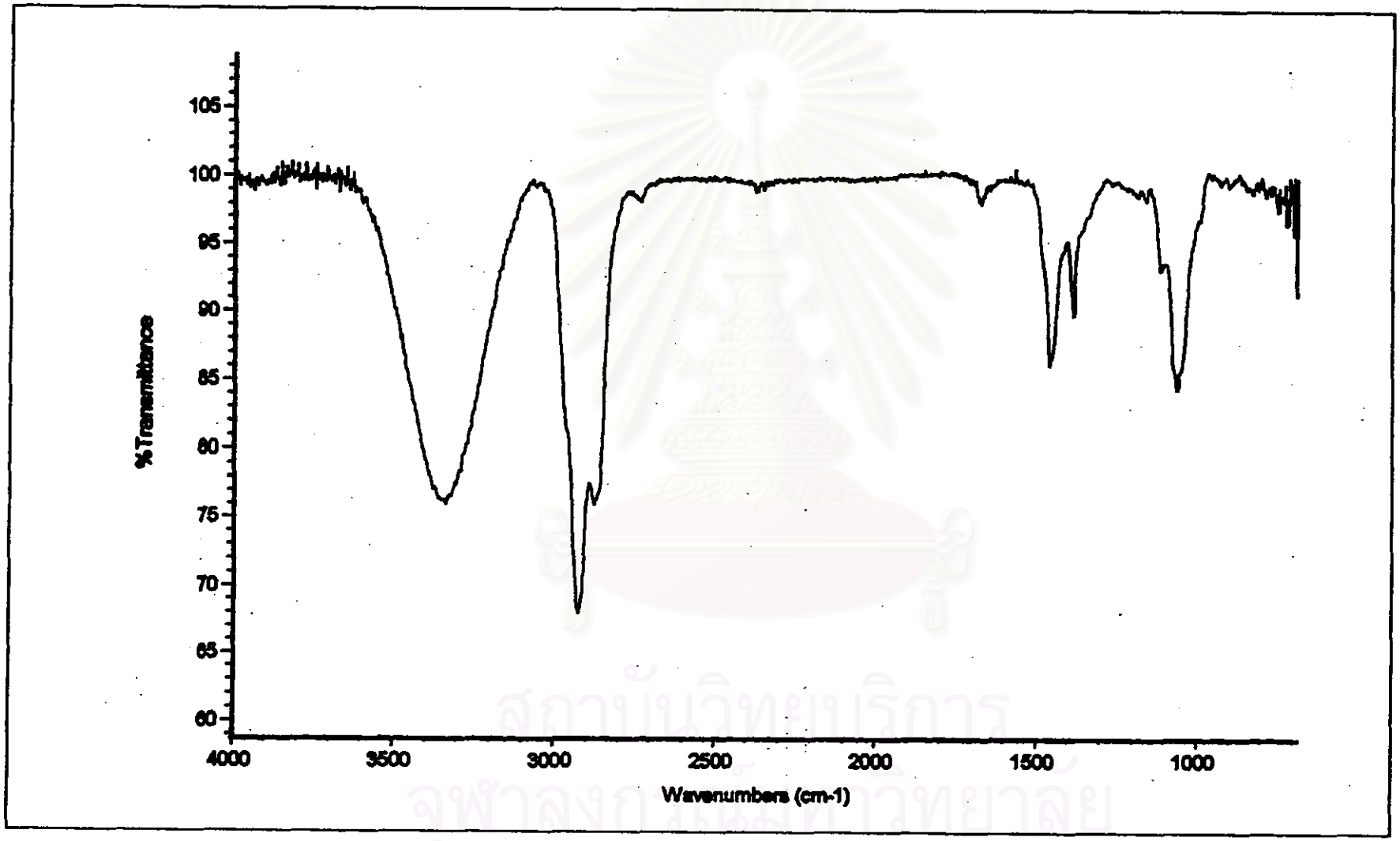

Figure 109 : IR spectrum of 4-Hydroxymethyl-7,11-dimethyldodeca-6,10-dien-1-ol(30).

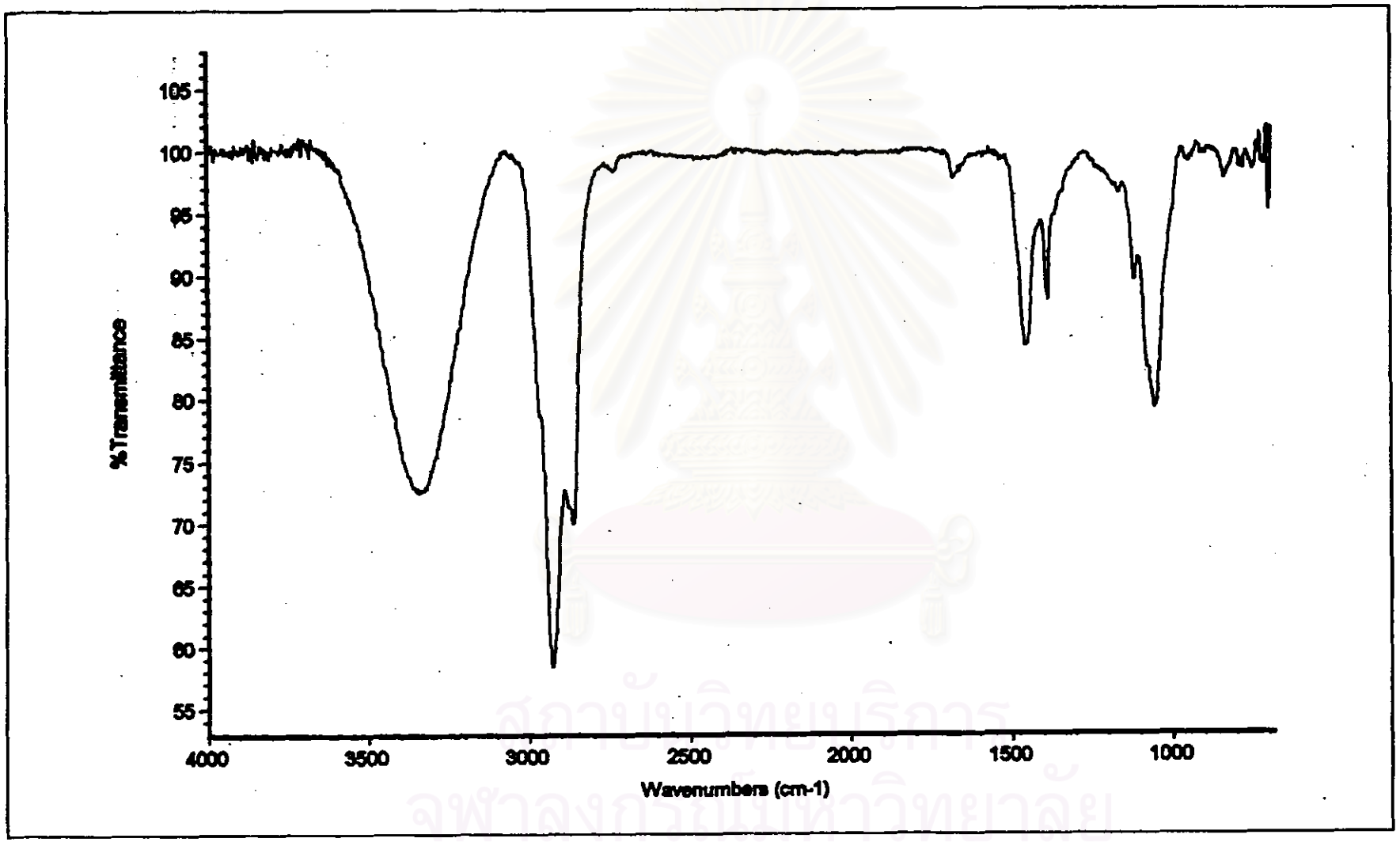

Figure 110 : IR spectrum of 5-Hydroxymethyl-8,12-dimethyltrideca-7,11-dien-1-ol(31).

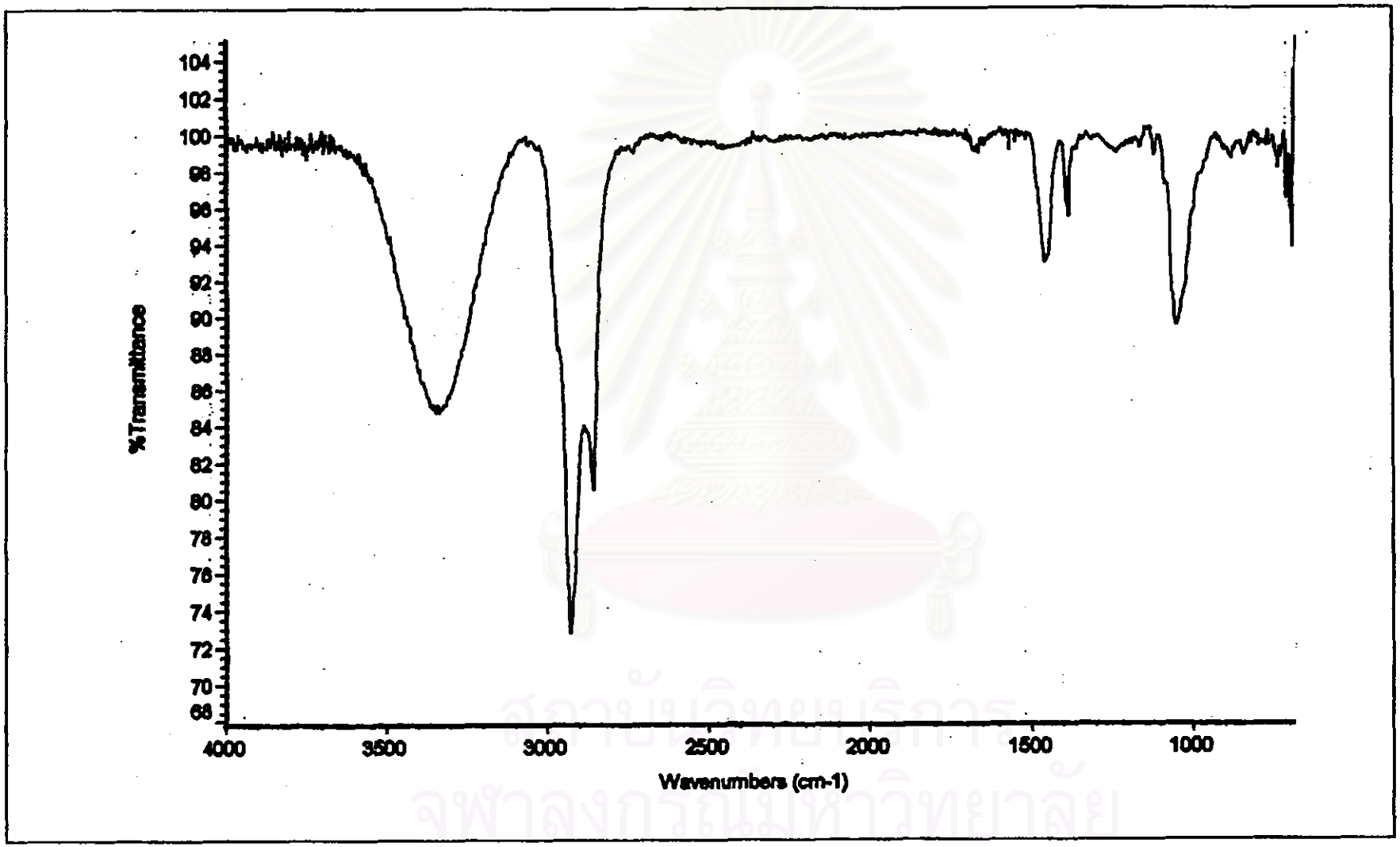

Figure 111 : IR spectrum of 6-Hydroxymethyl-9,13-dimethyltetradeca-8,12-dien-1-ol(32).

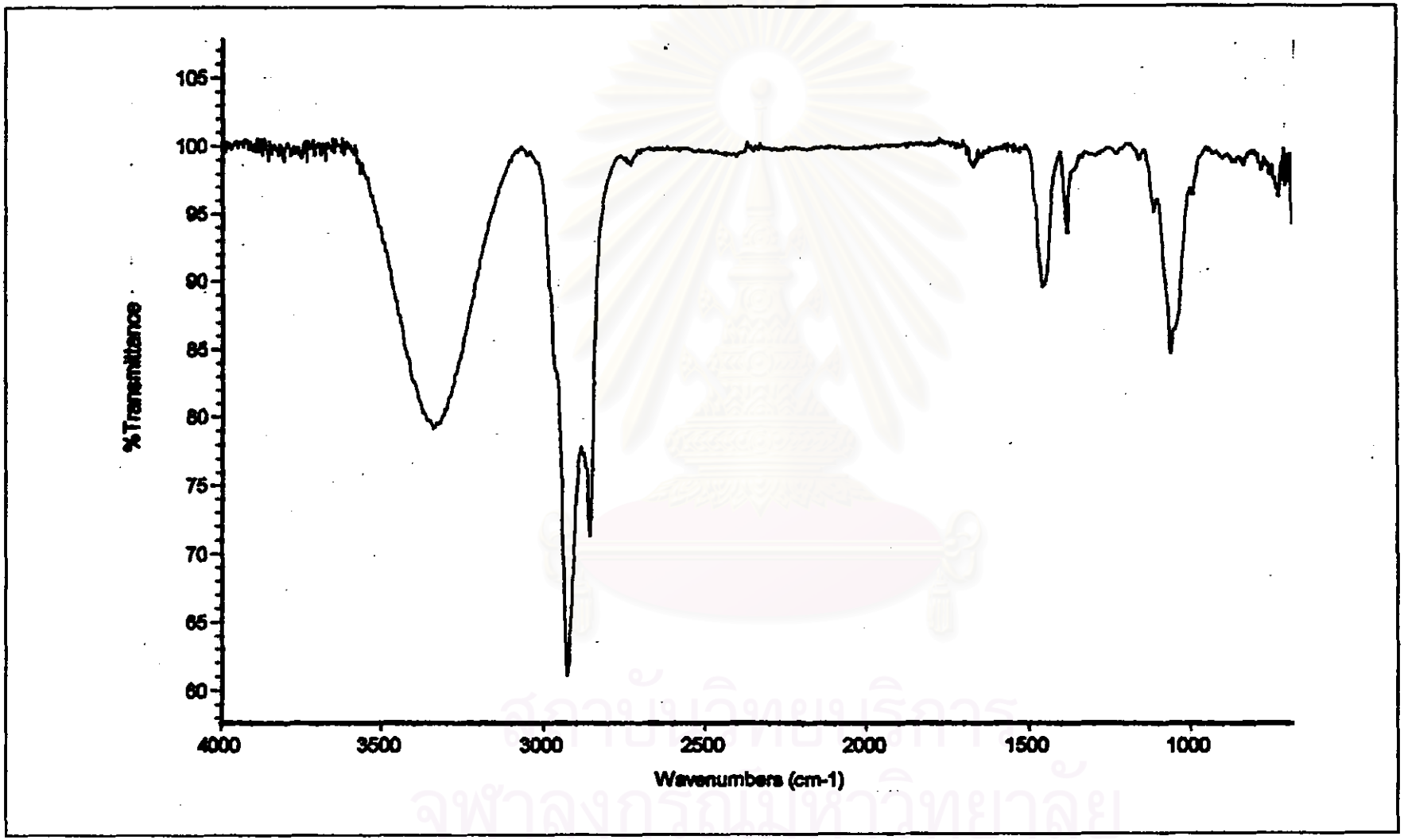

Figure 112 : IR spectrum of 7-Hydroxymethyl-10,14-dimethylpentadeca-9,13-dien-1-ol(33).

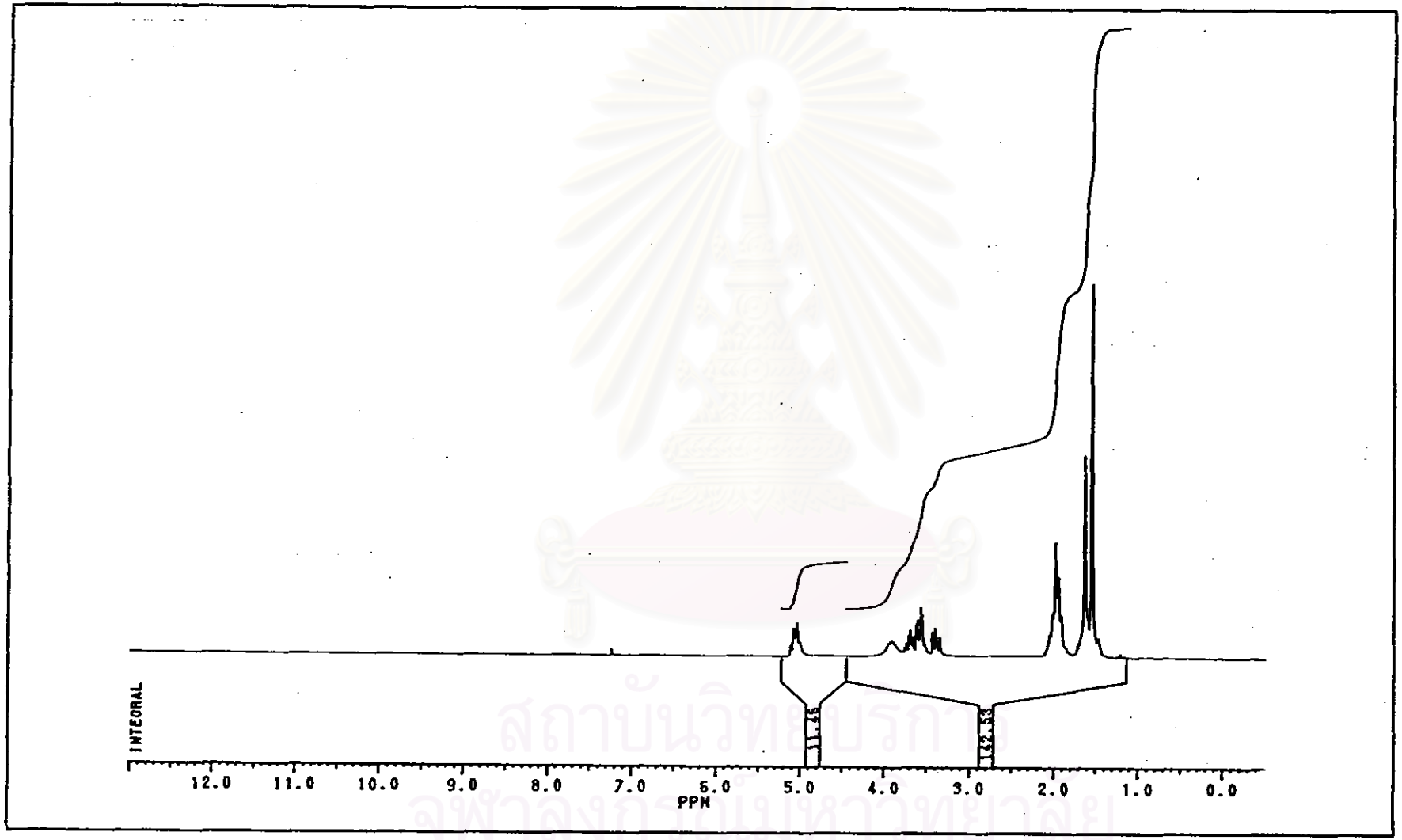

Figure 113 : ^{1}H NMR($CDCl_3$) spectrum of 3-Hydroxymethyl-6,10-dimethylundeca-5,9-dien-1-ol(29).

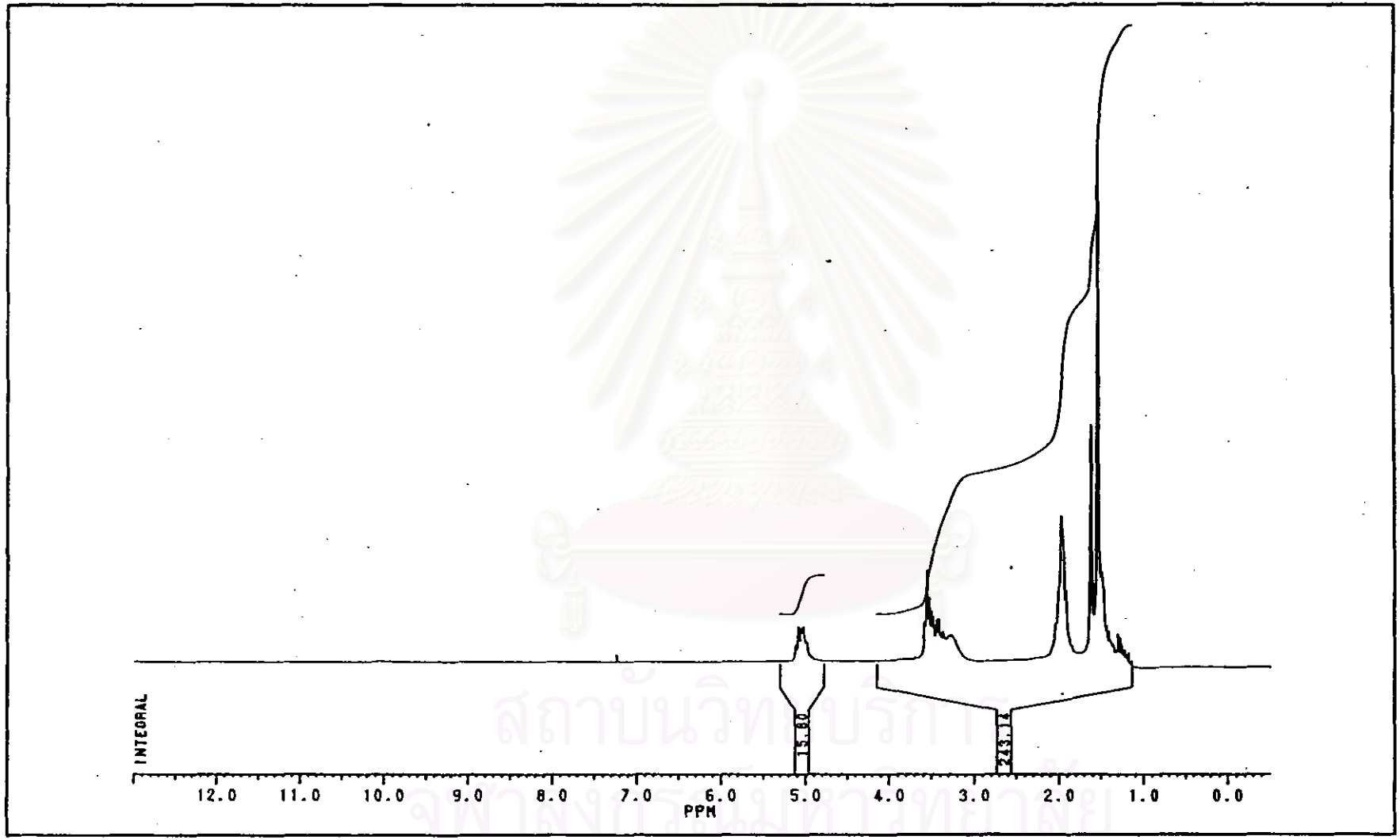

Figure 114 : ^{1}H NMR($CDCl_3$) spectrum of 4-Hydroxymethyl-7,11-dimethyldodeca-6,10-dien-1-ol(30).

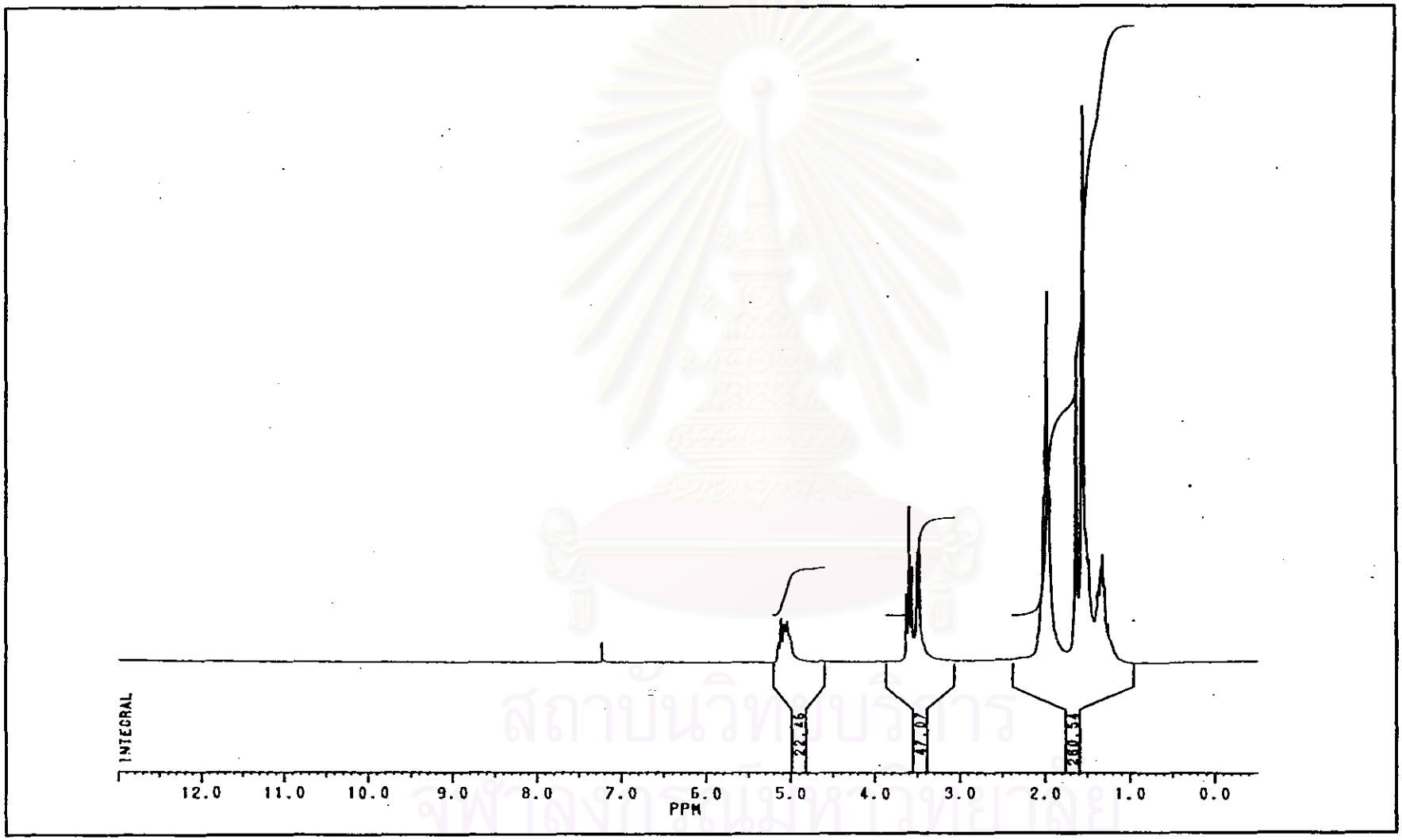

Figure 115 : ^{1}H NMR($CDCl_3$) spectrum of 5-Hydroxymethyl-8,12-dimethyltrideca-7,11-dien-1-ol(31).

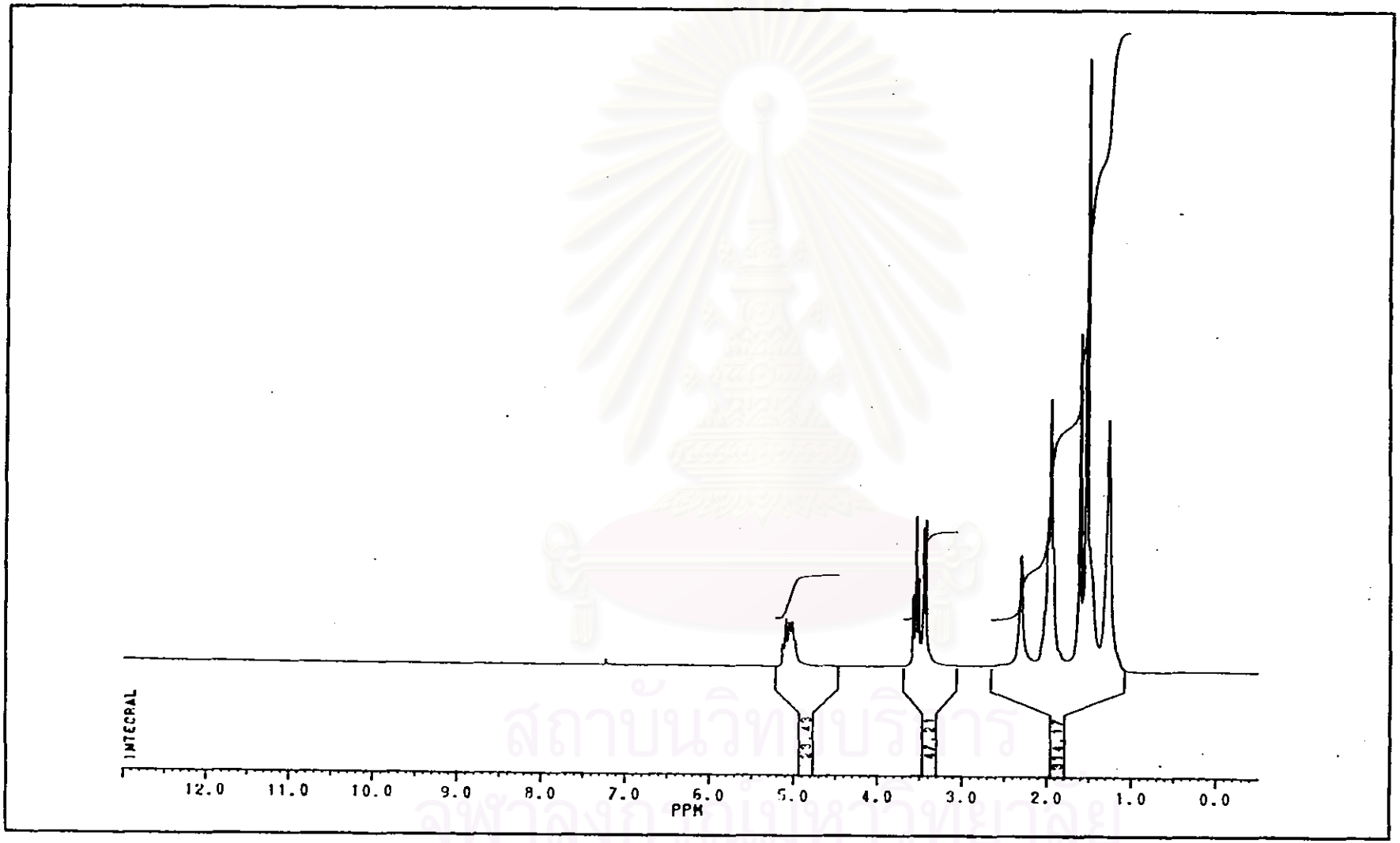

Figure 116 : ^{1}H NMR($CDCl_3$) spectrum of 6-Hydroxymethyl-9,13-dimethyltetradeca-8,12-dien-1-ol(32).

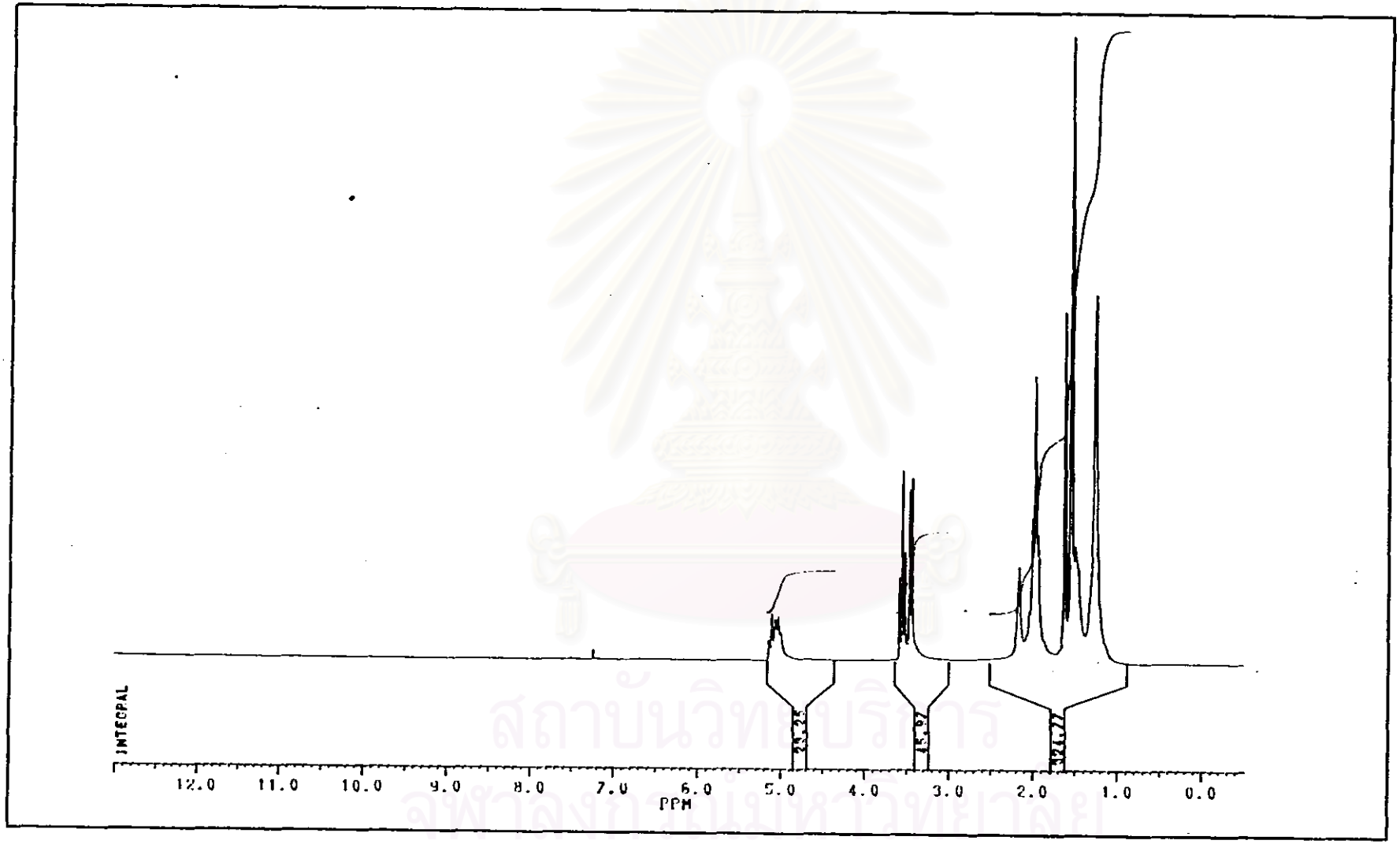

Figure 117 : ^{1}H NMR($CDCl_3$) spectrum of 7-Hydroxymethyl-10,14-dimethylpentadeca-9,13-dien-1-ol(33).

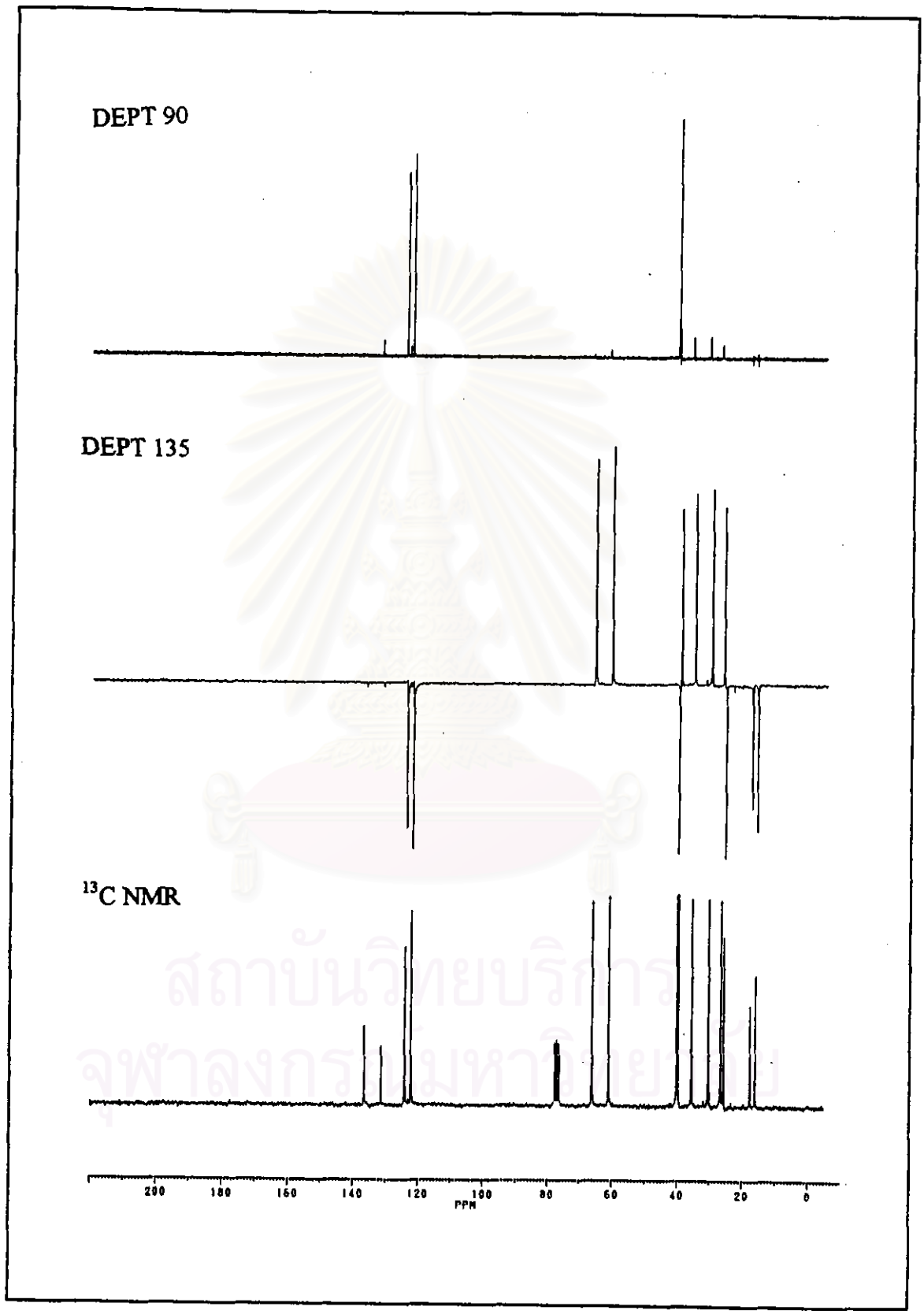

Figure 118 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 3-Hydroxy methyl-6,10-dimethylundeca-5,9-dien-1-ol(29).

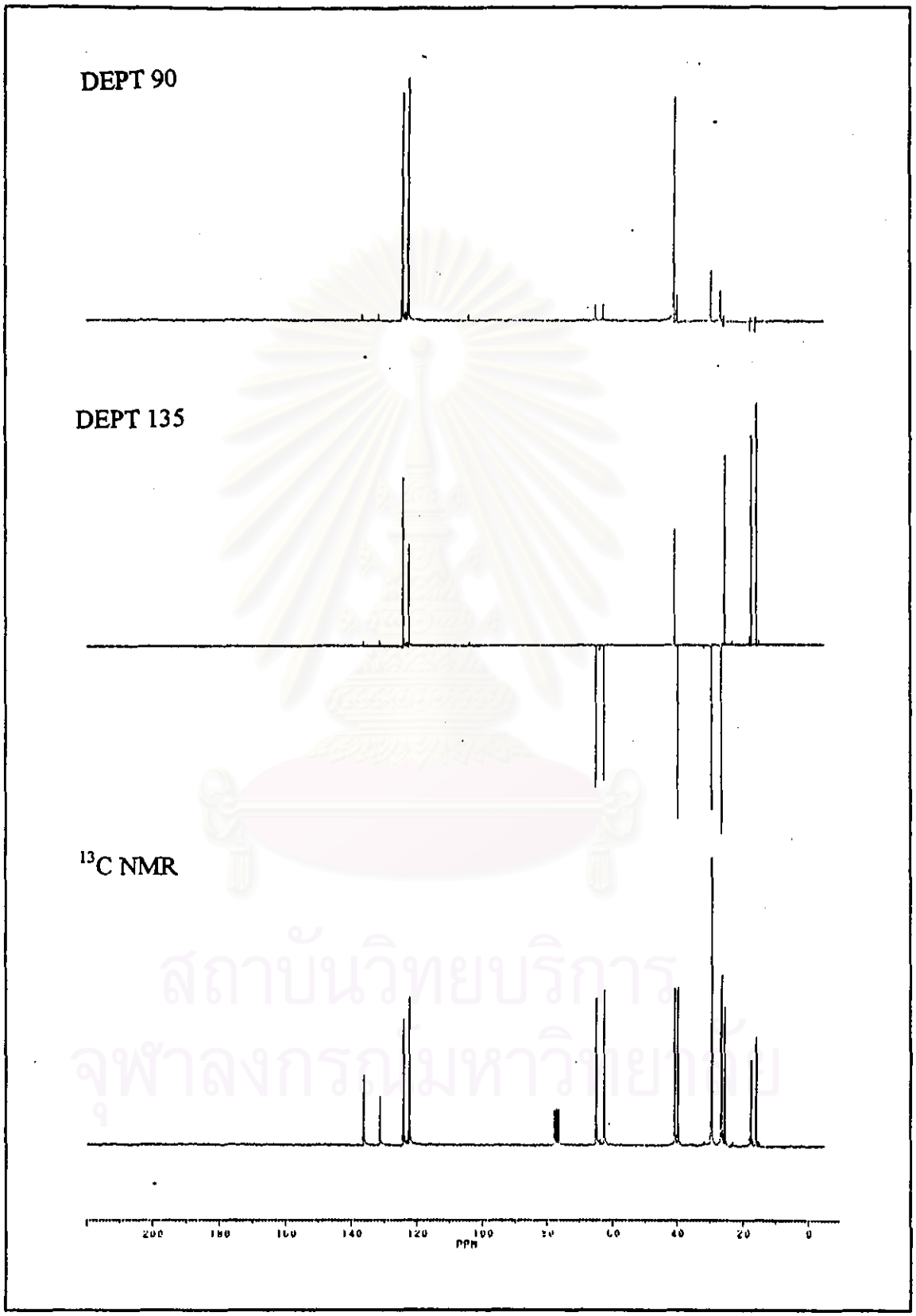

Figure 119 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 4-Hydroxy methyl-7,11-dimethyldodeca-6,10-dien-1-ol(30).

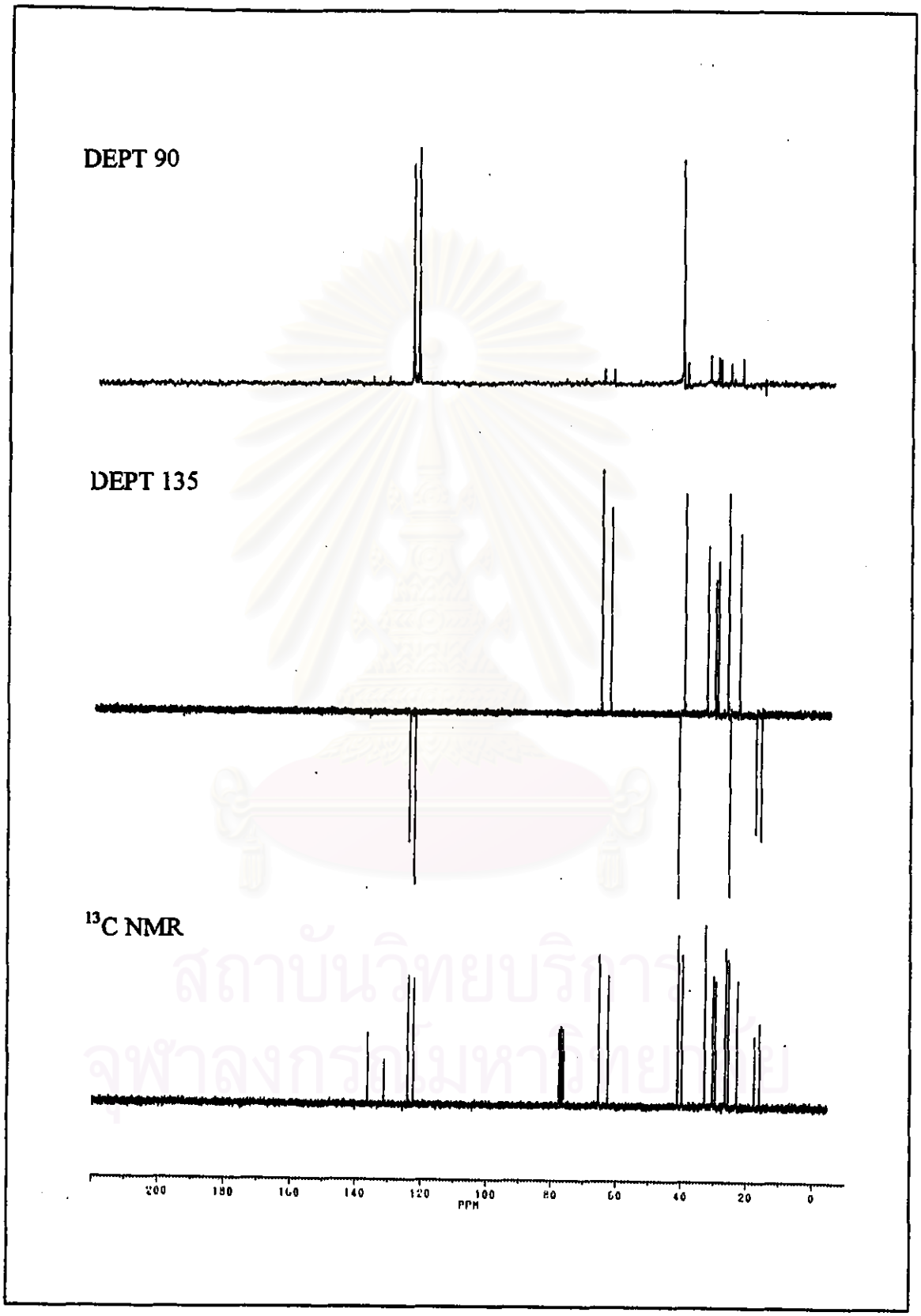

Figure 120 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 5-Hydroxy methyl-8,12-dimethyltrideca-7,11-dien-1-ol(31).

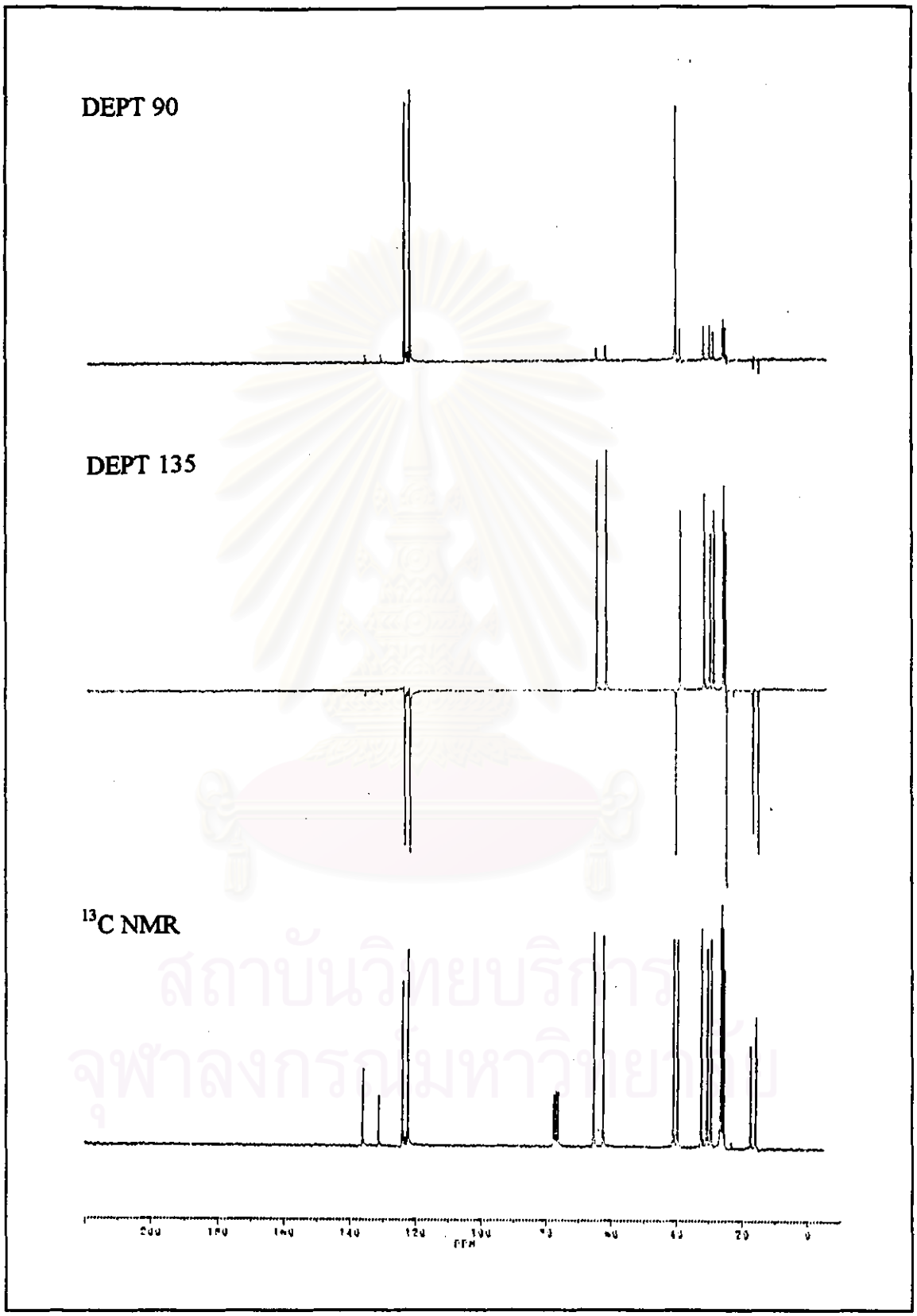

Figure 121 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 6-Hydroxy methyl-9,13-dimethyltetradeca-8,12-dien-1-ol(32).

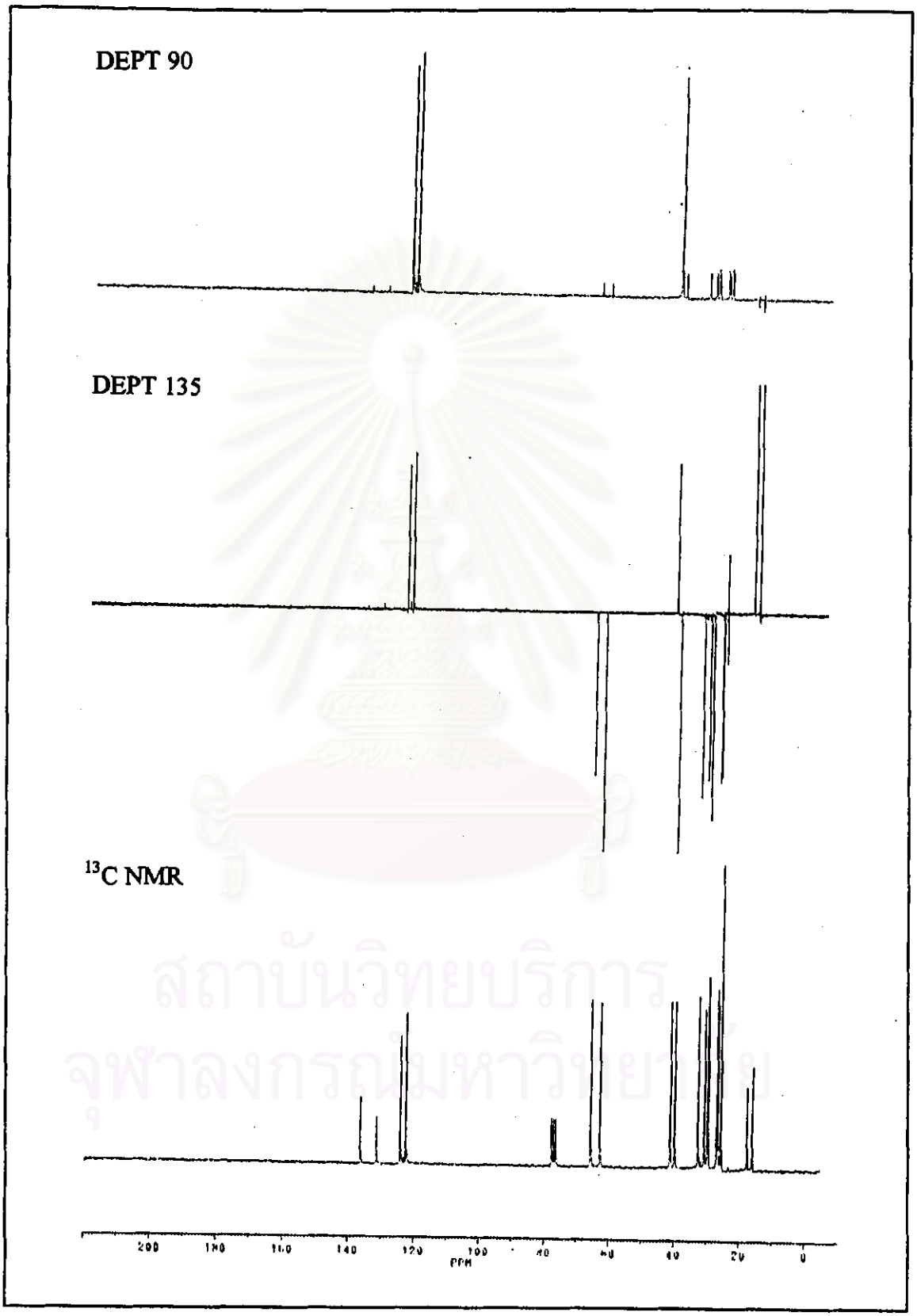

Figure 122 : ^{13}C NMR($CDCl_3$) spectrum and DEPT experiments of 7-Hydroxy methyl-10,14-dimethylpentadeca-9,13-dien-1-ol(33).

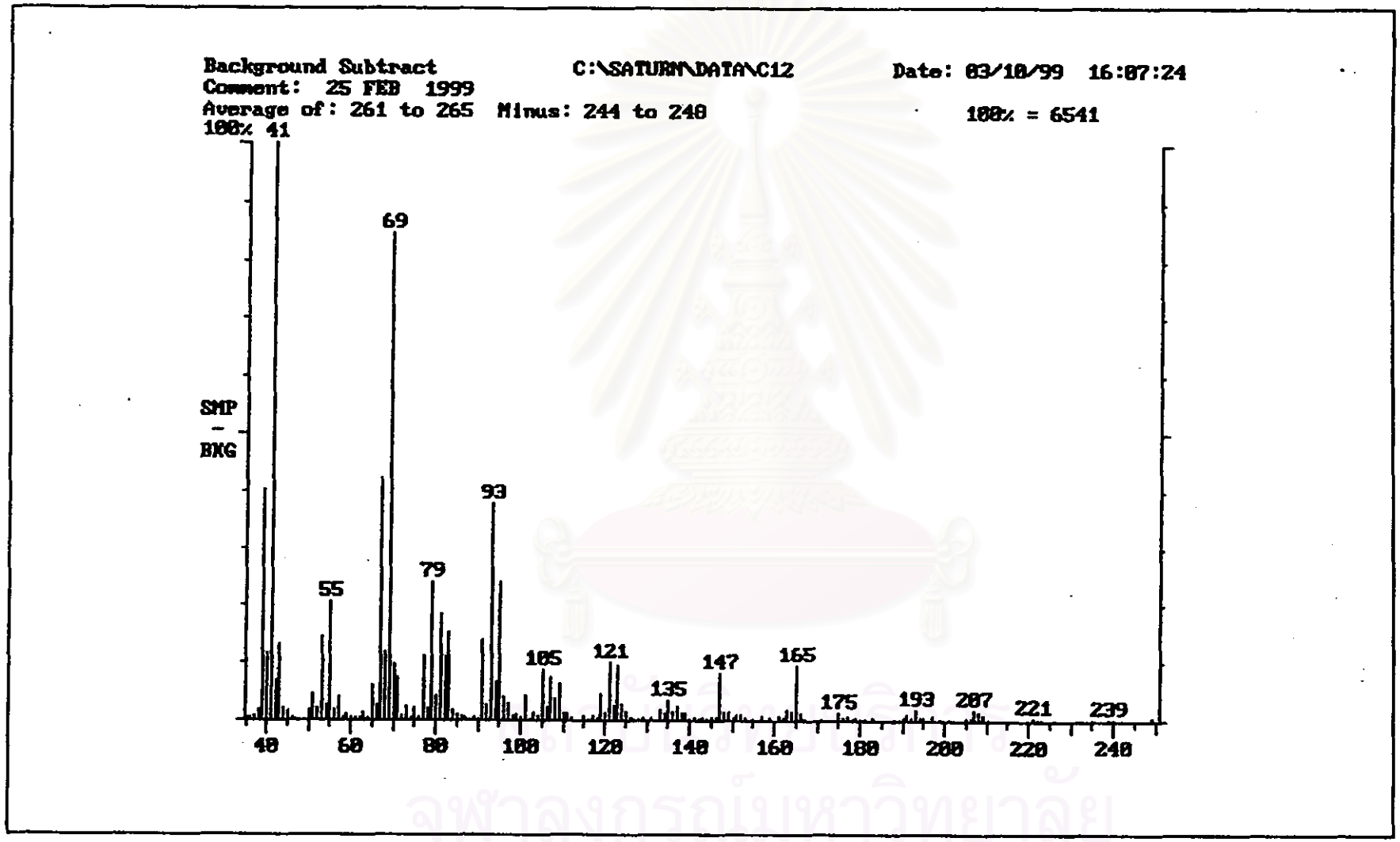

Figure 123 : Mass spectrum of 3-Hydroxymethyl-6,10-dimethylundeca-5,9-dien-1-ol(29).

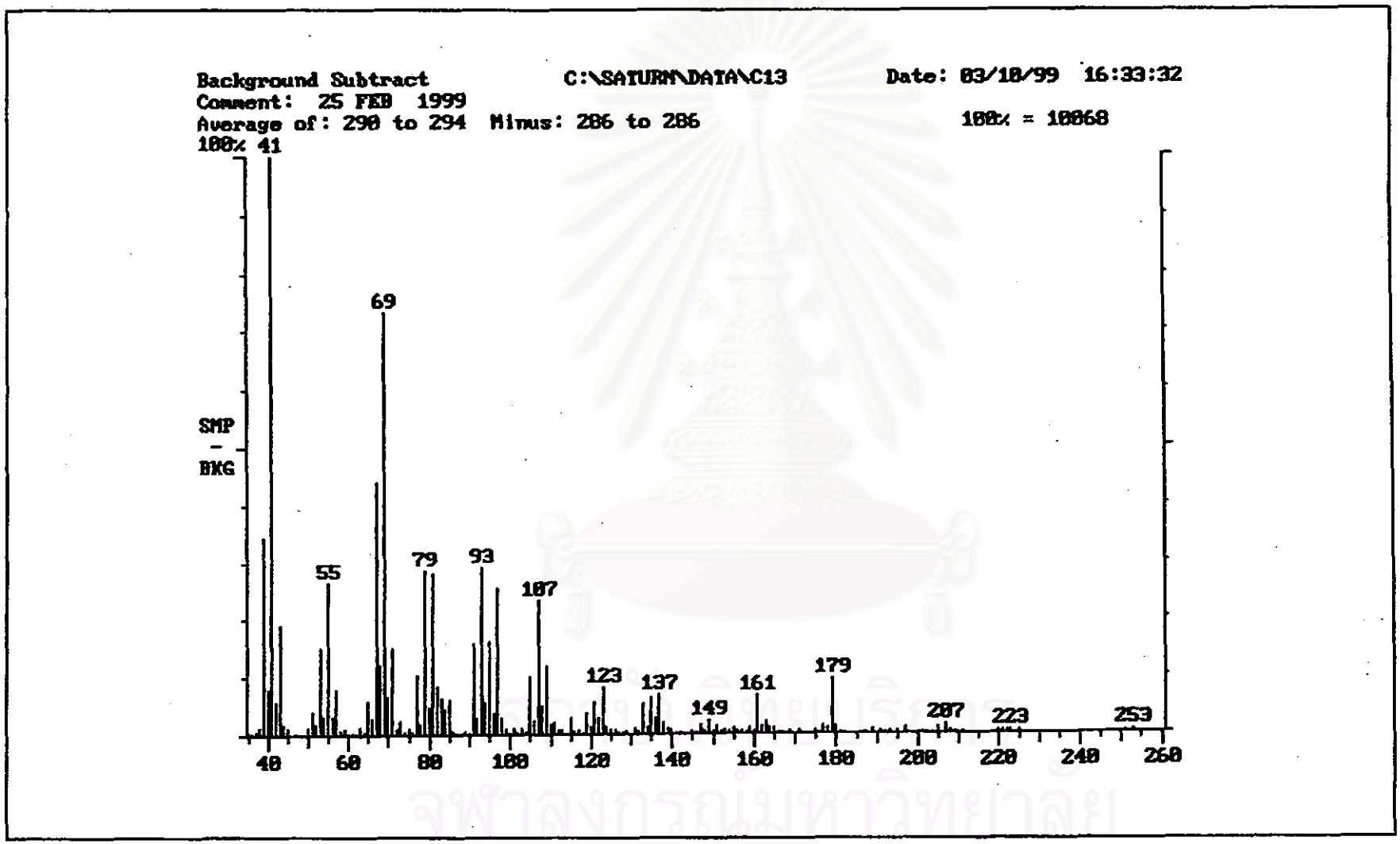

Figure 124 : Mass spectrum of 4-Hydroxymethyl-7,11-dimethyldodeca-6,10-dien-1-ol(30).

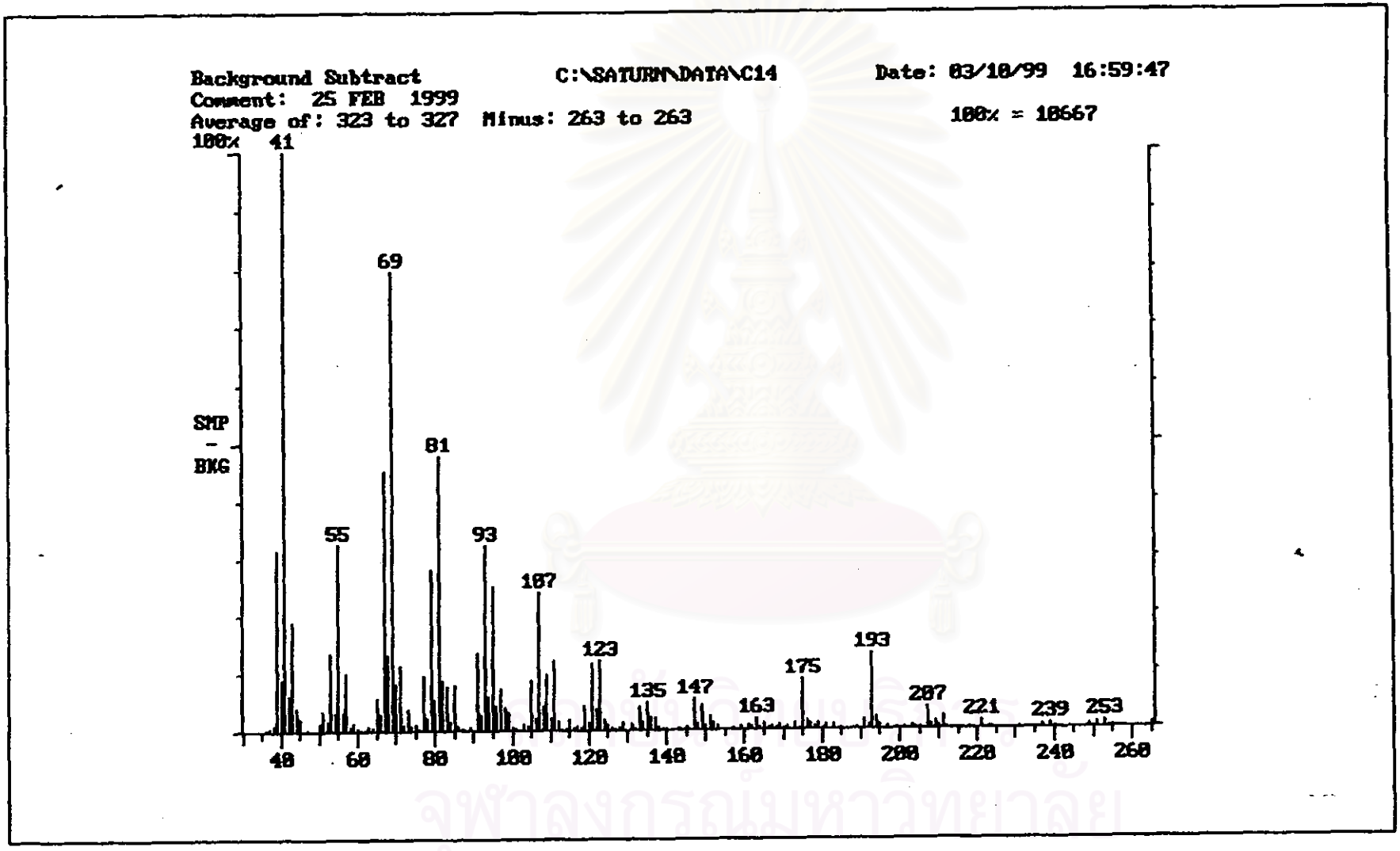

Figure 125 : Mass spectrum of 5-Hydroxymethyl-8,12-dimethyltrideca-7,11-dien-1-ol(31).

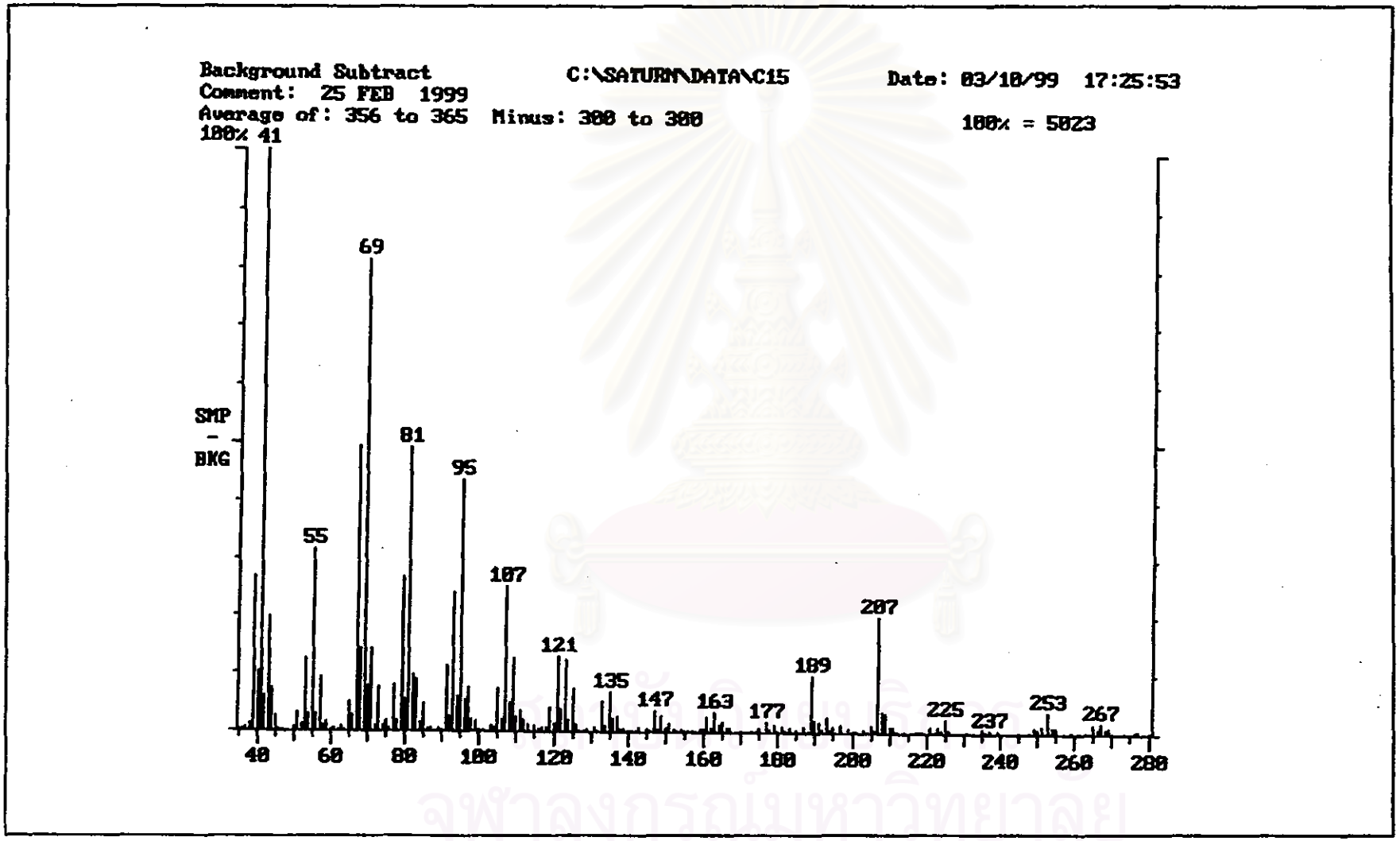

Figure 126 : Mass spectrum of 6-Hydroxymethyl-9,13-dimethyltetradeca-8,12-dien-1-ol(32).

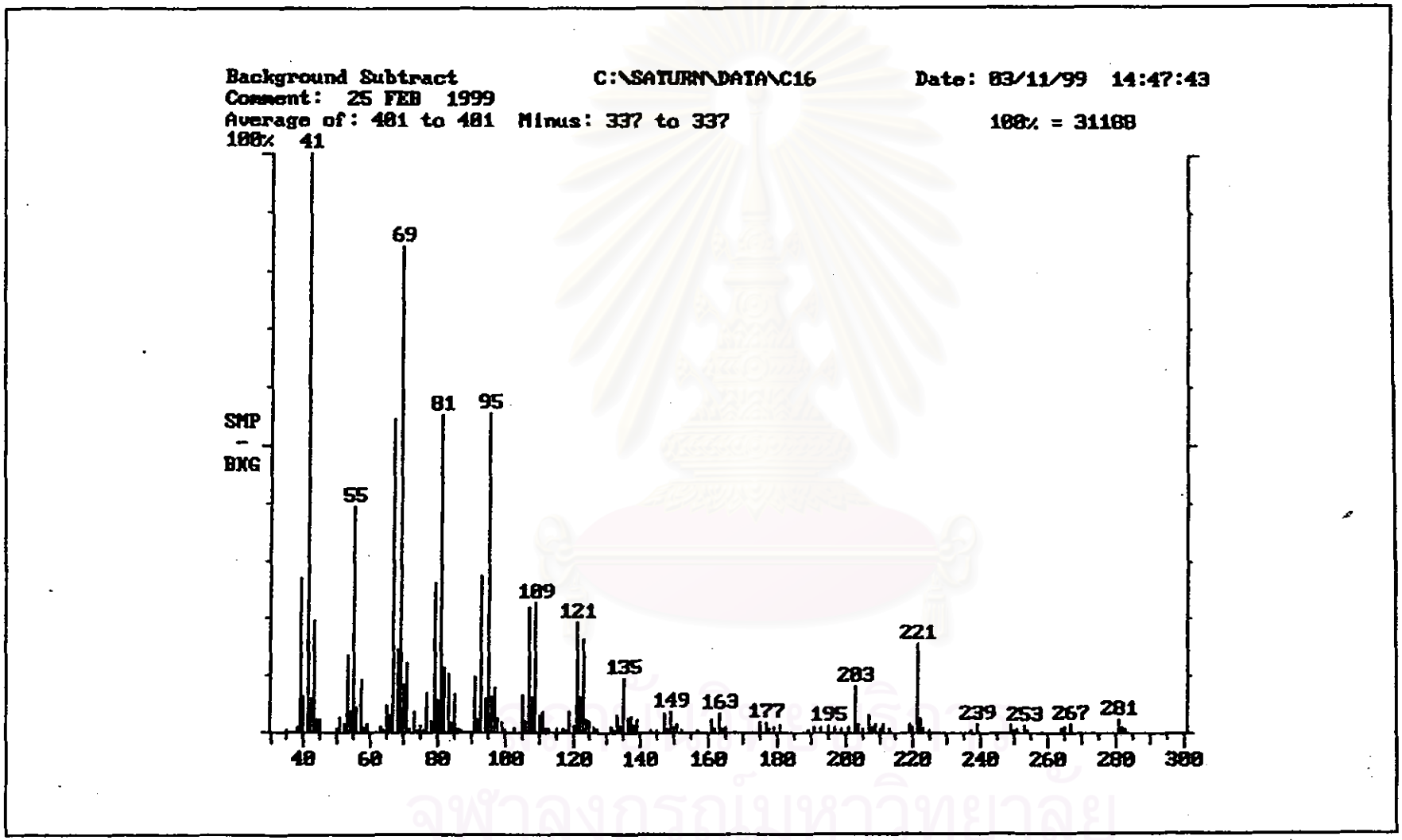

Figure 127 : Mass spectrum of 7-Hydroxymethyl-10,14-dimethylpentadeca-9,13-dien-1-ol(33).

VITA

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