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## APPENDIX



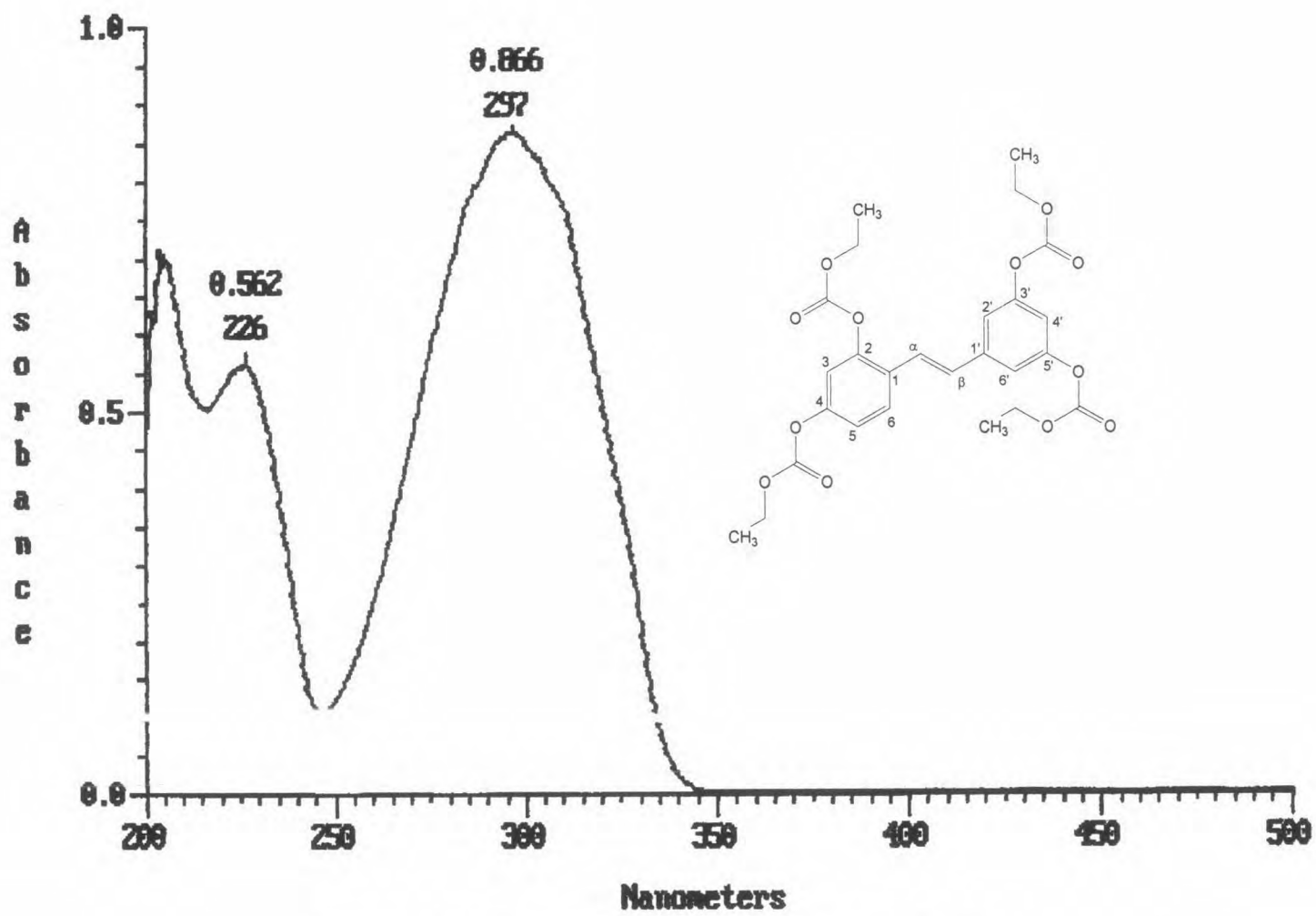


Figure 29: The UV spectrum of compound AS-1 (in MeOH)

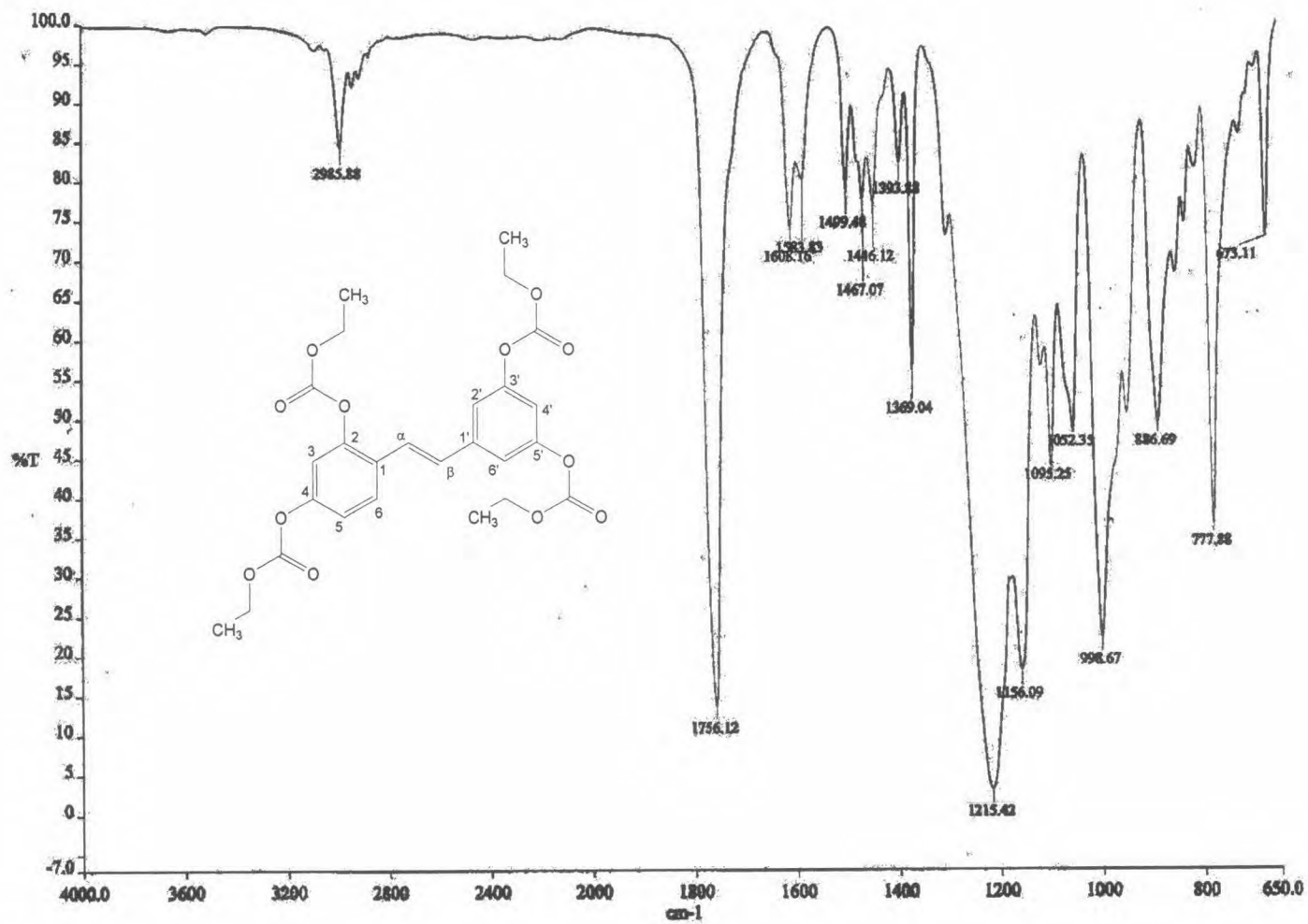


Figure 30: The IR spectrum of compound AS-1 (UATR)

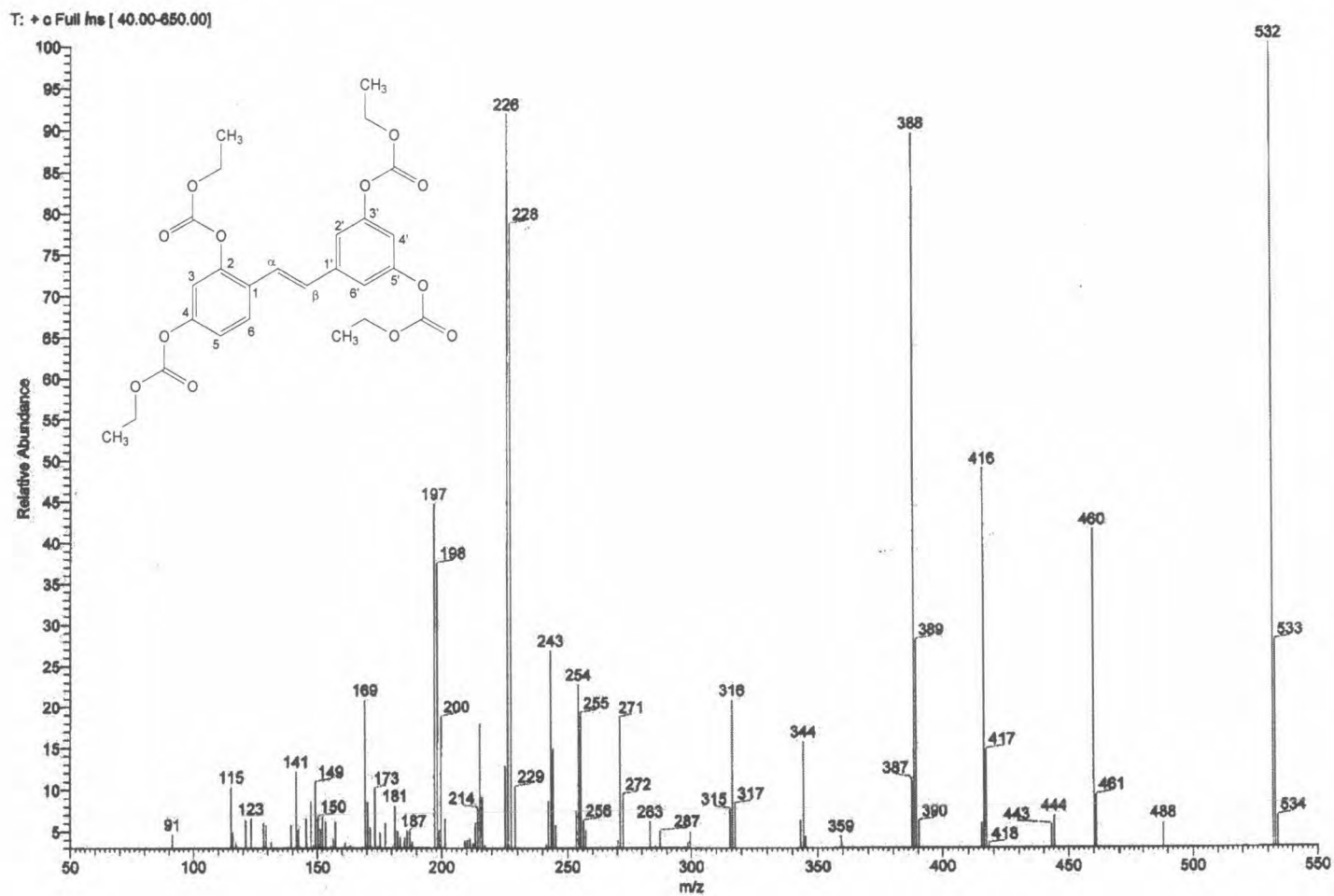


Figure 31: The ESI mass spectrum of compound AS-1

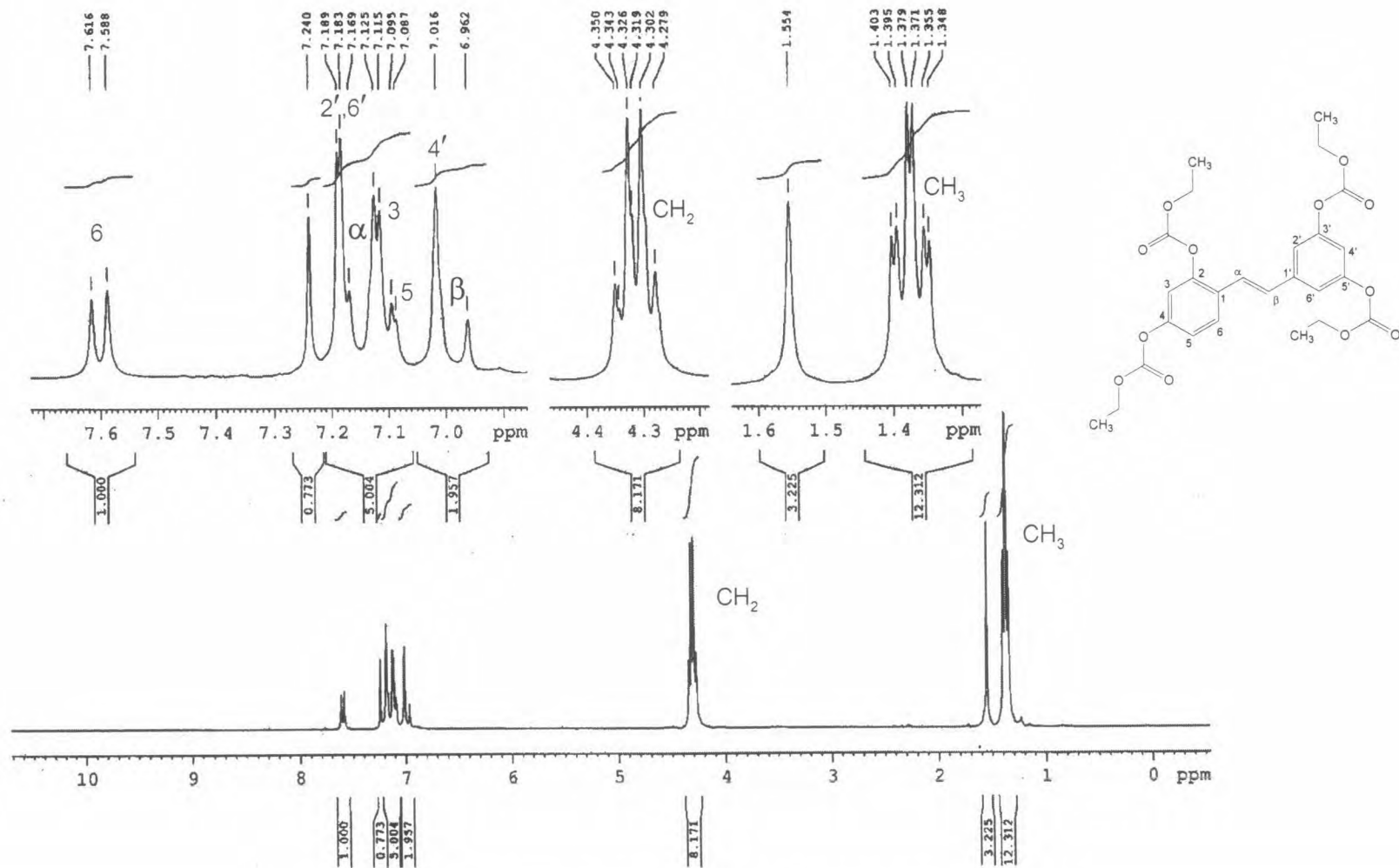


Figure 32: The 300 MHz <sup>1</sup>H-NMR spectrum of compound AS-1 (in CDCl<sub>3</sub>)

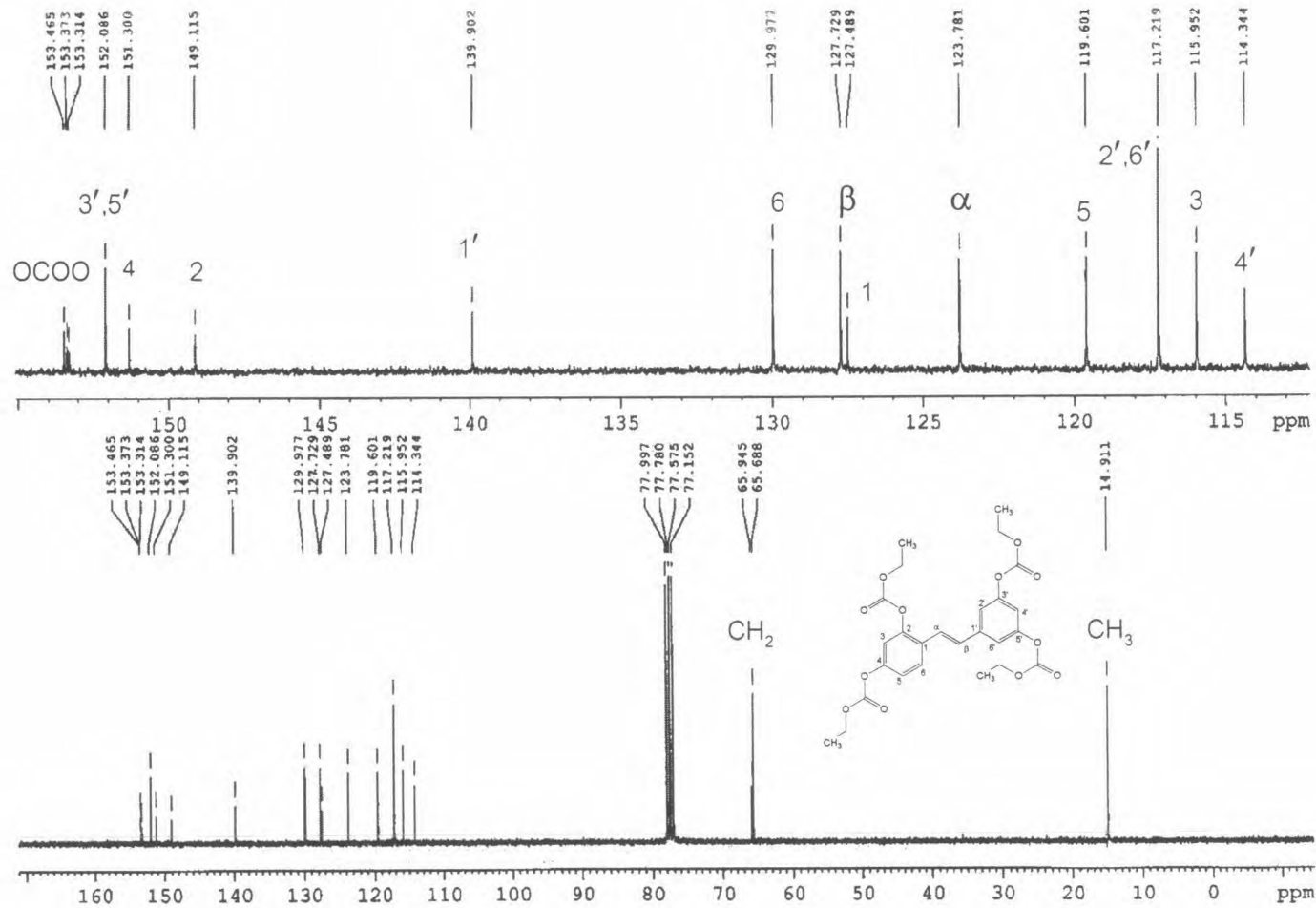


Figure 33: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-1 (in  $\text{CDCl}_3$ )

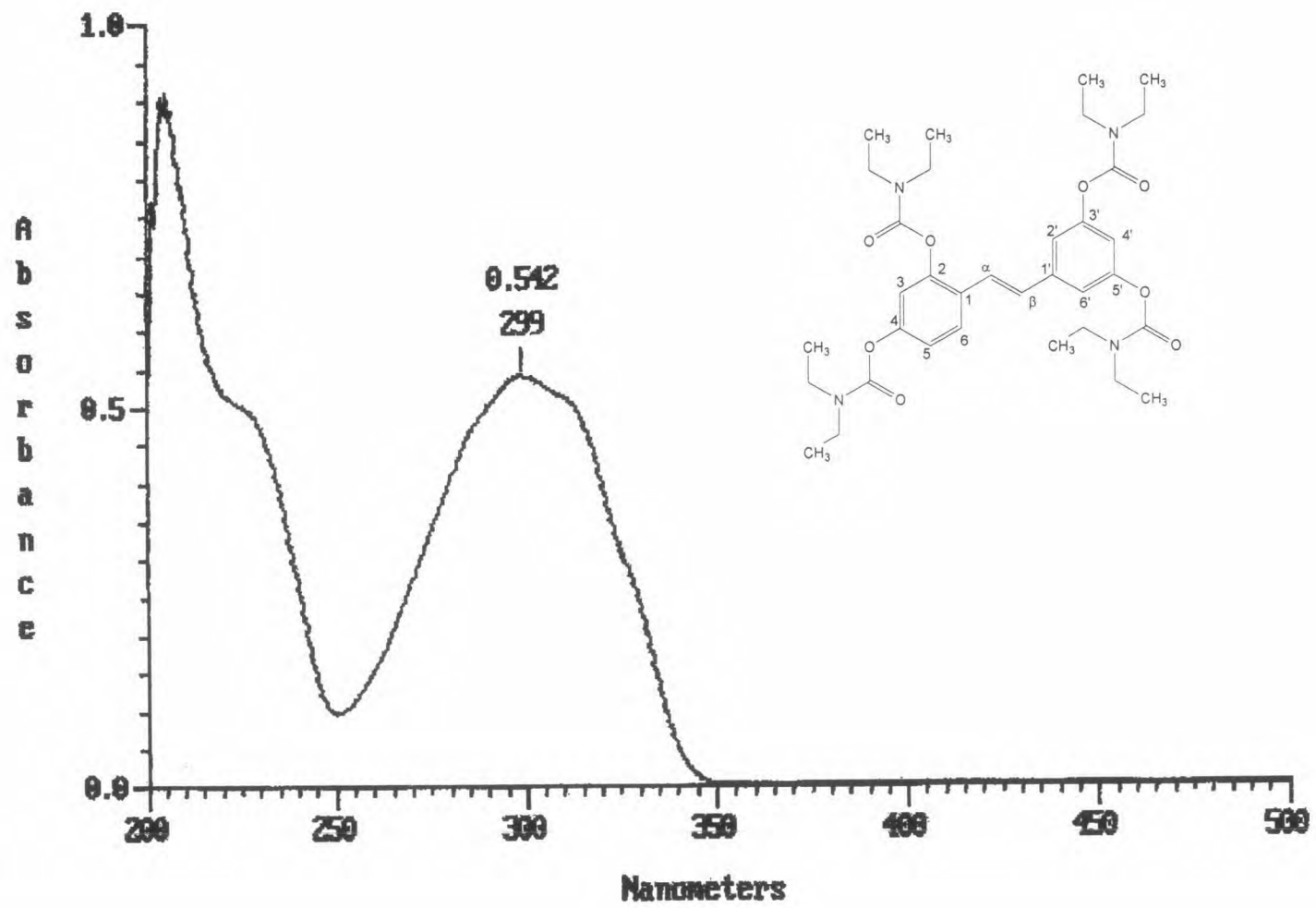


Figure 34: The UV spectrum of compound AS-2 (in MeOH)

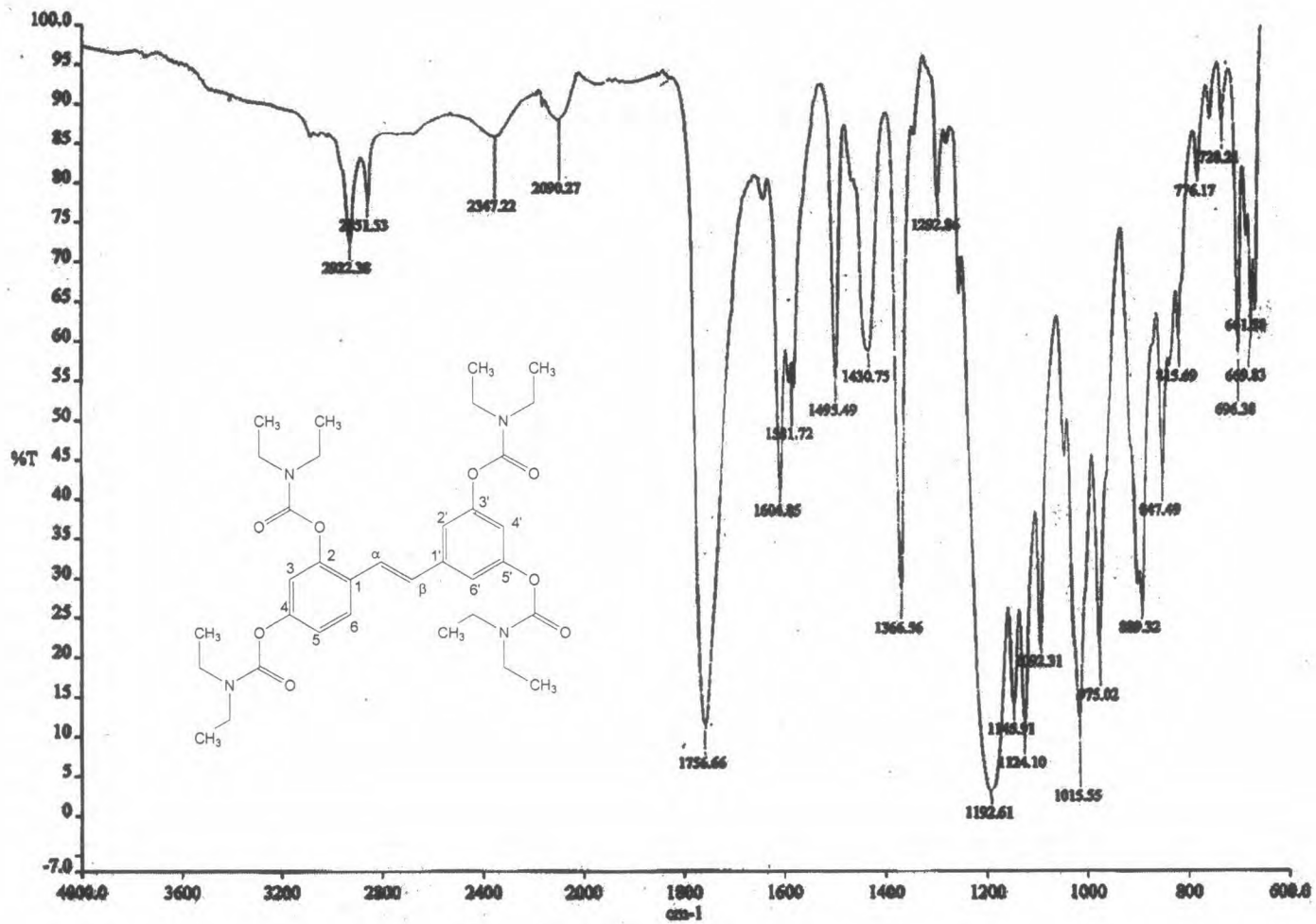


Figure 35: The IR spectrum of compound AS-2 (UATR)

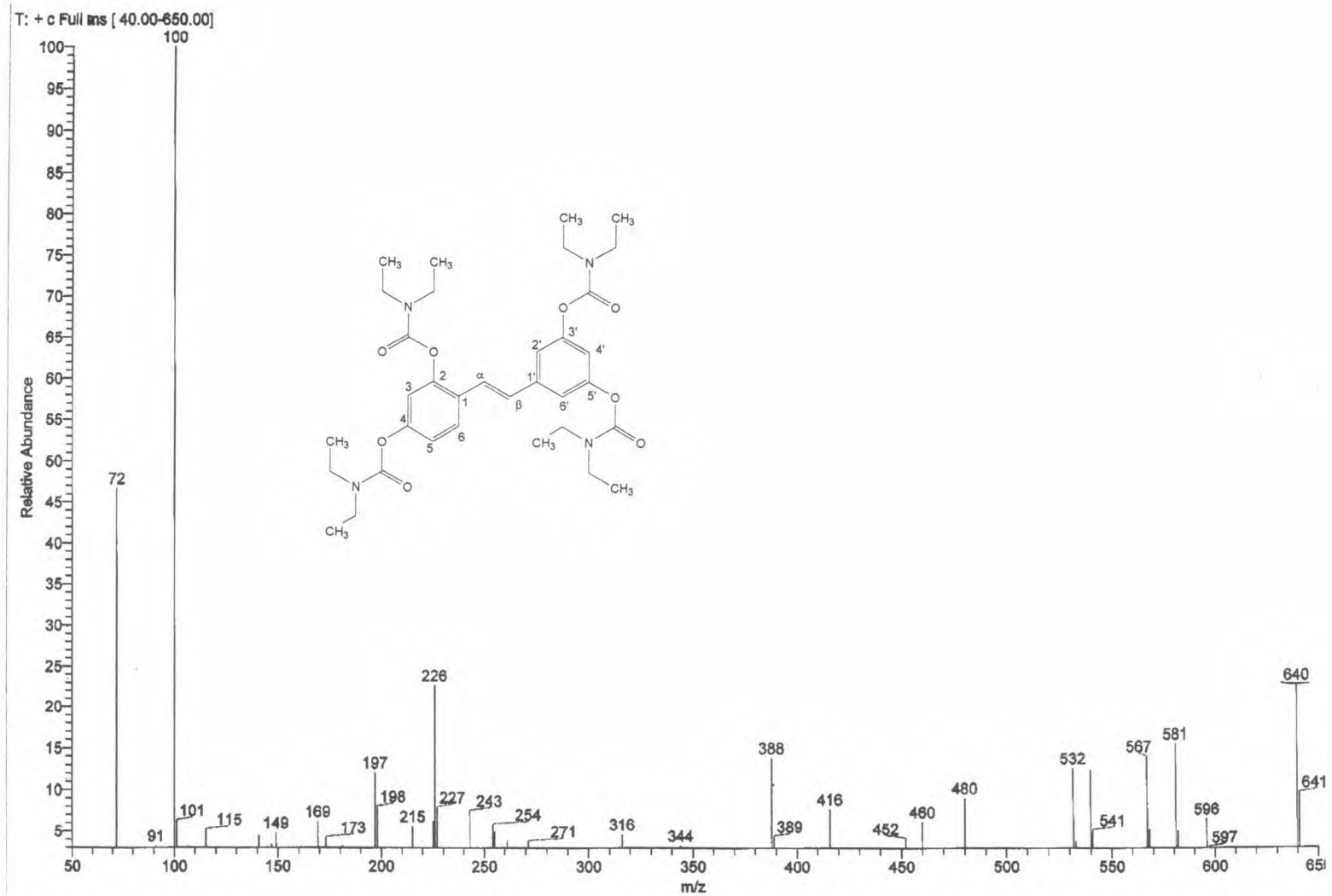


Figure 36: The ESI mass spectrum of compound AS-2



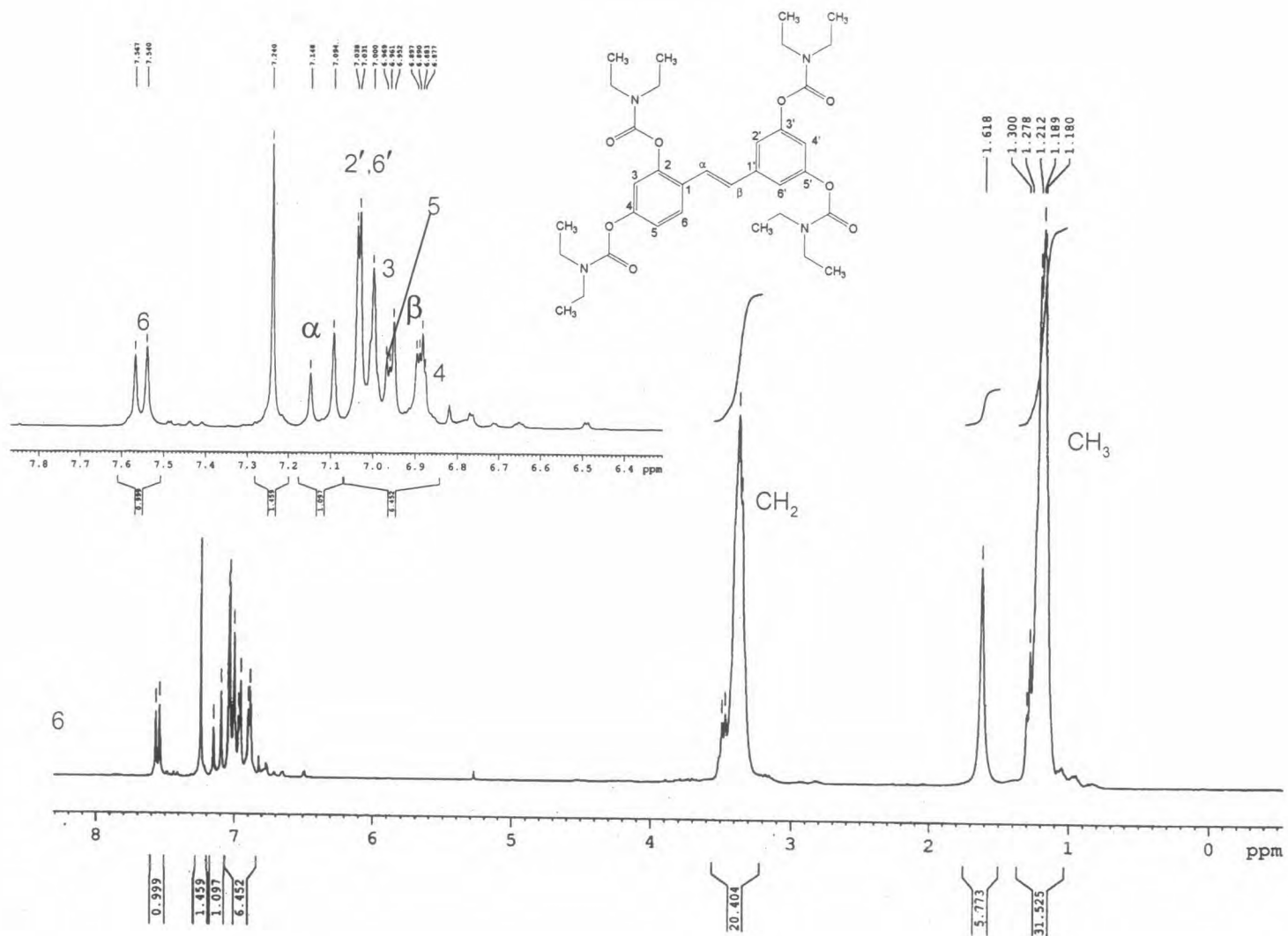


Figure 37: The 300 MHz <sup>1</sup>H-NMR spectrum of compound AS-2 (in CDCl<sub>3</sub>)

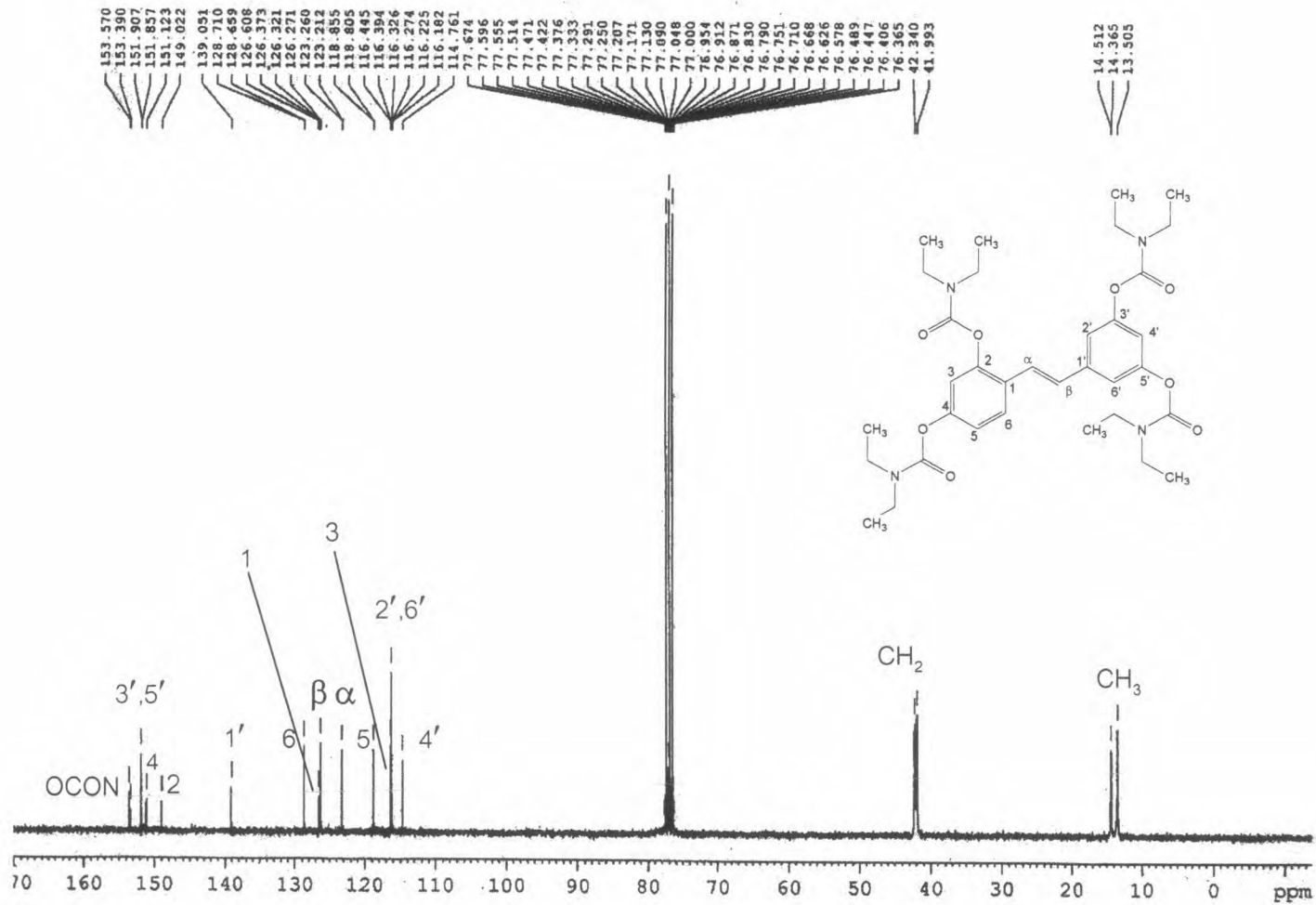


Figure 38: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-2 (in  $\text{CDCl}_3$ )

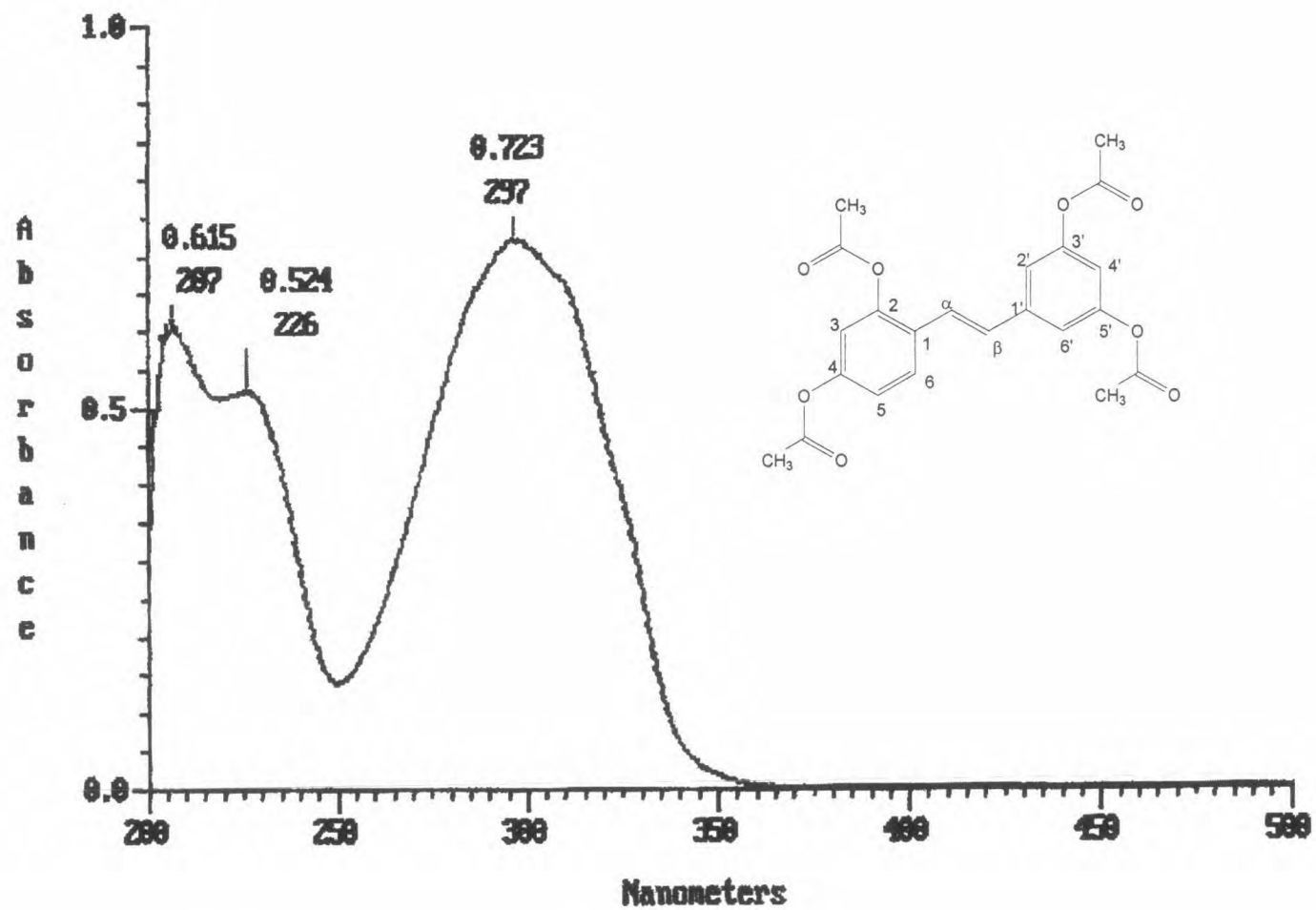


Figure 39: The UV spectrum of compound AS-3 (in MeOH)

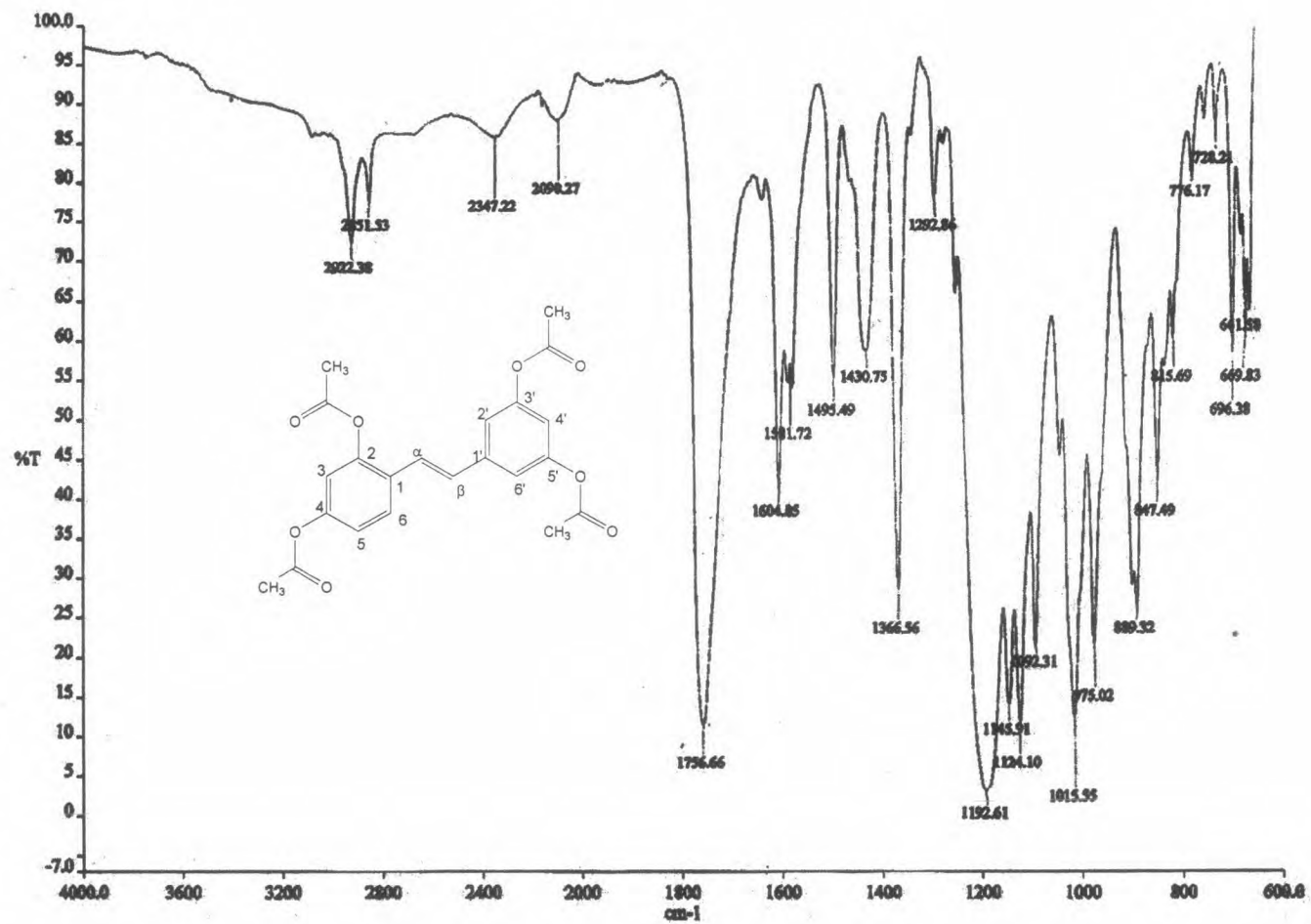


Figure 40: The IR spectrum of compound AS-3 (UATR)

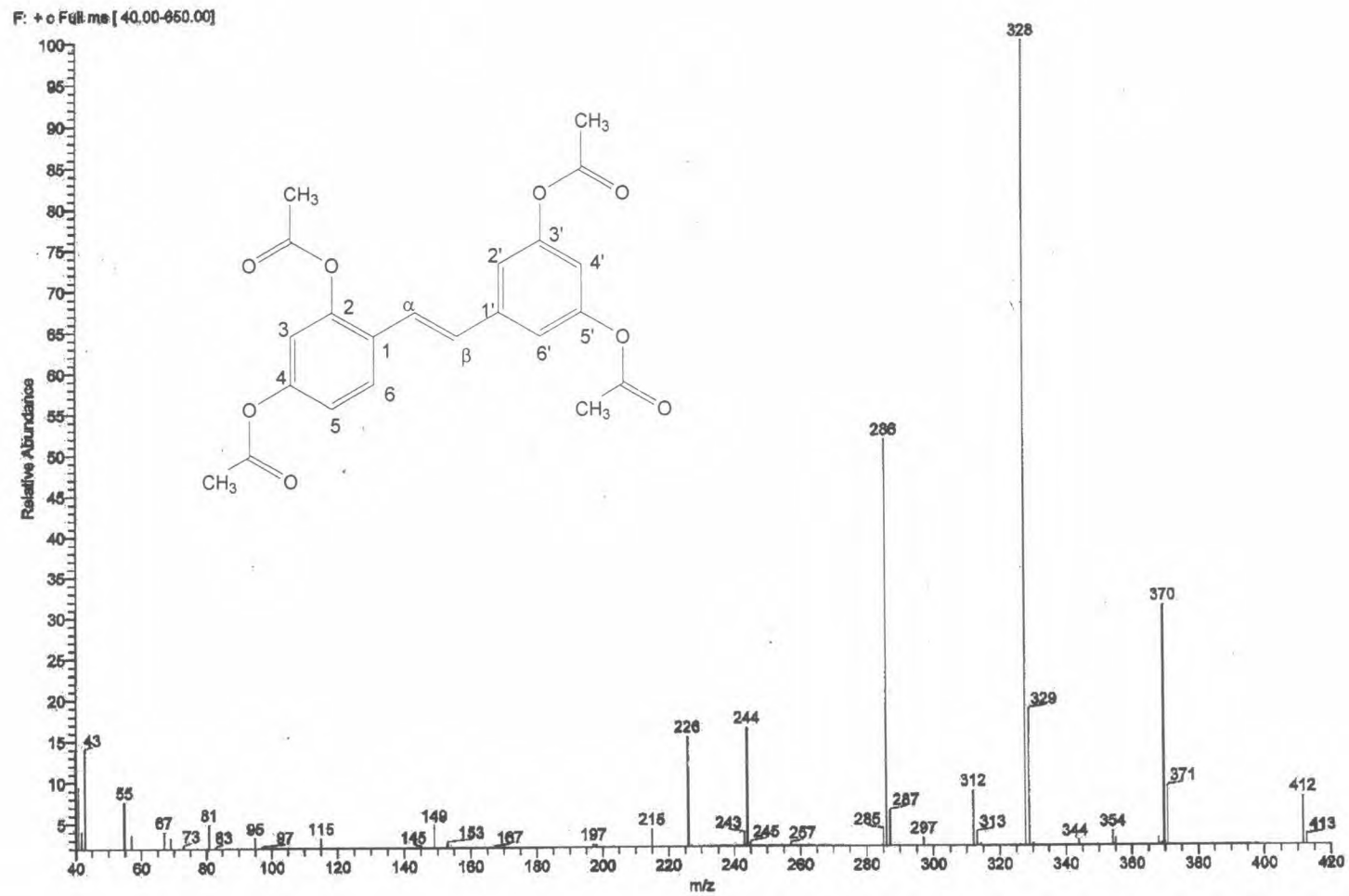


Figure 41: The ESI mass spectrum of compound AS-3

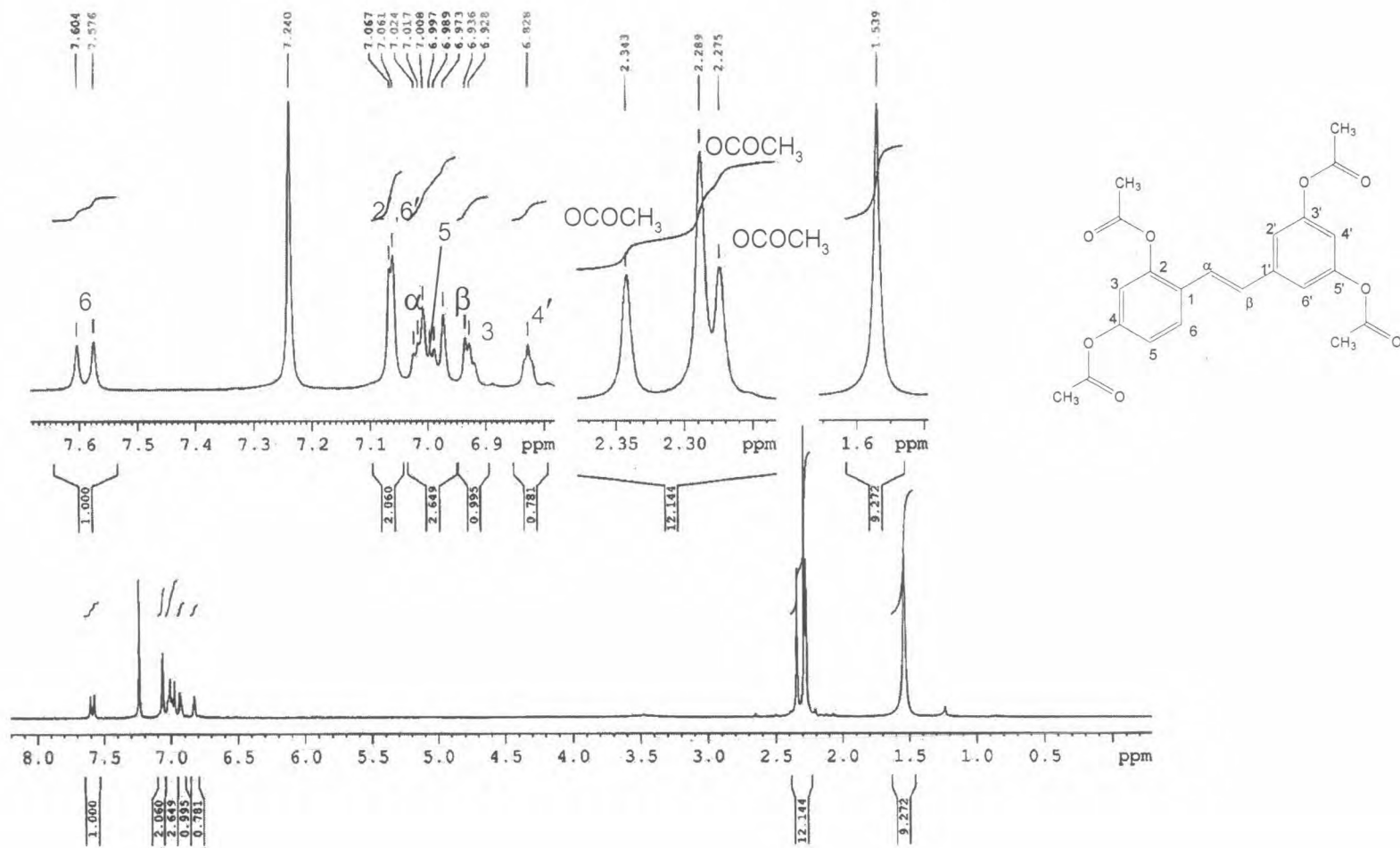


Figure 42: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-3 (in  $\text{CDCl}_3$ )

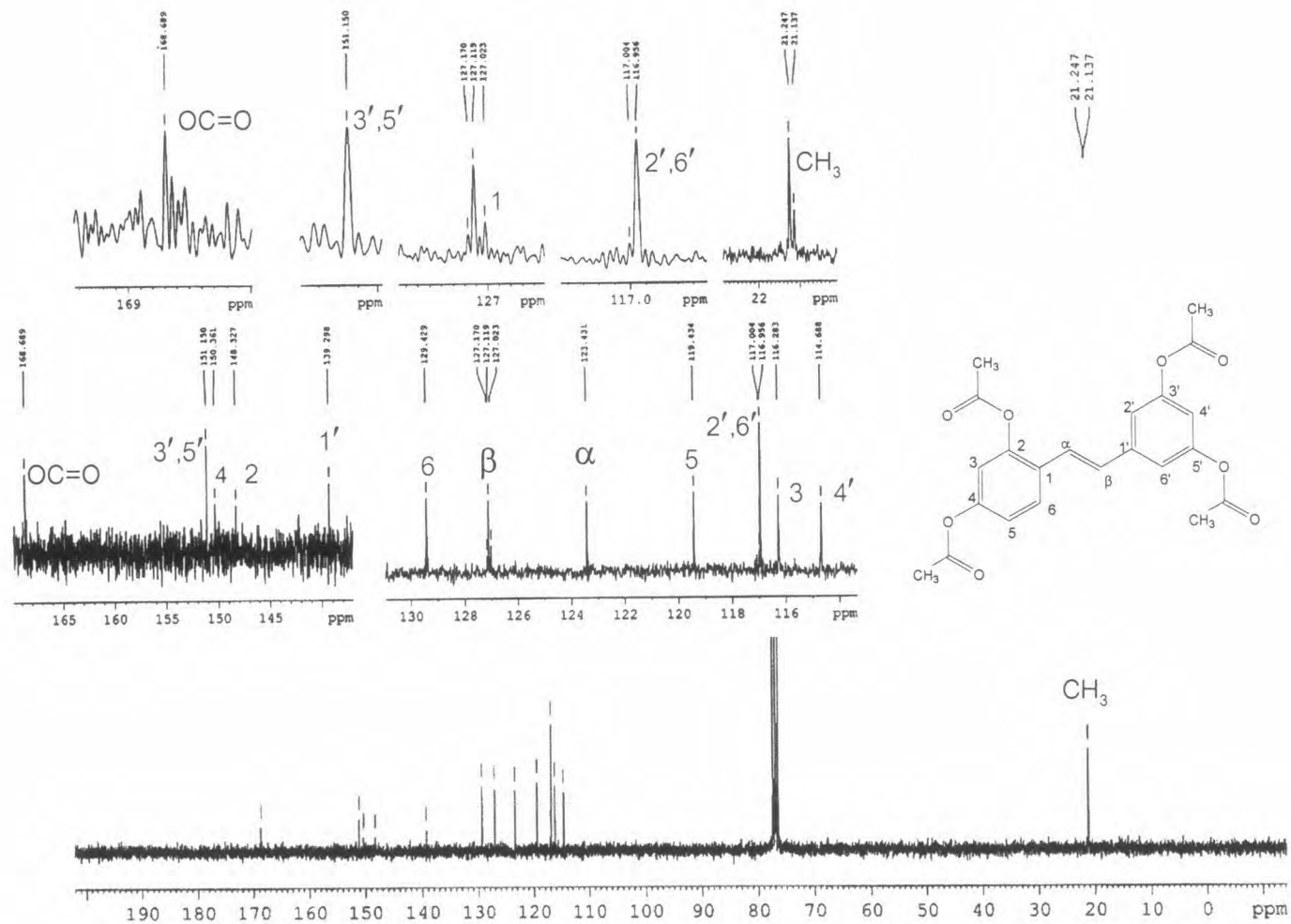


Figure 43: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-3 (in  $\text{CDCl}_3$ )

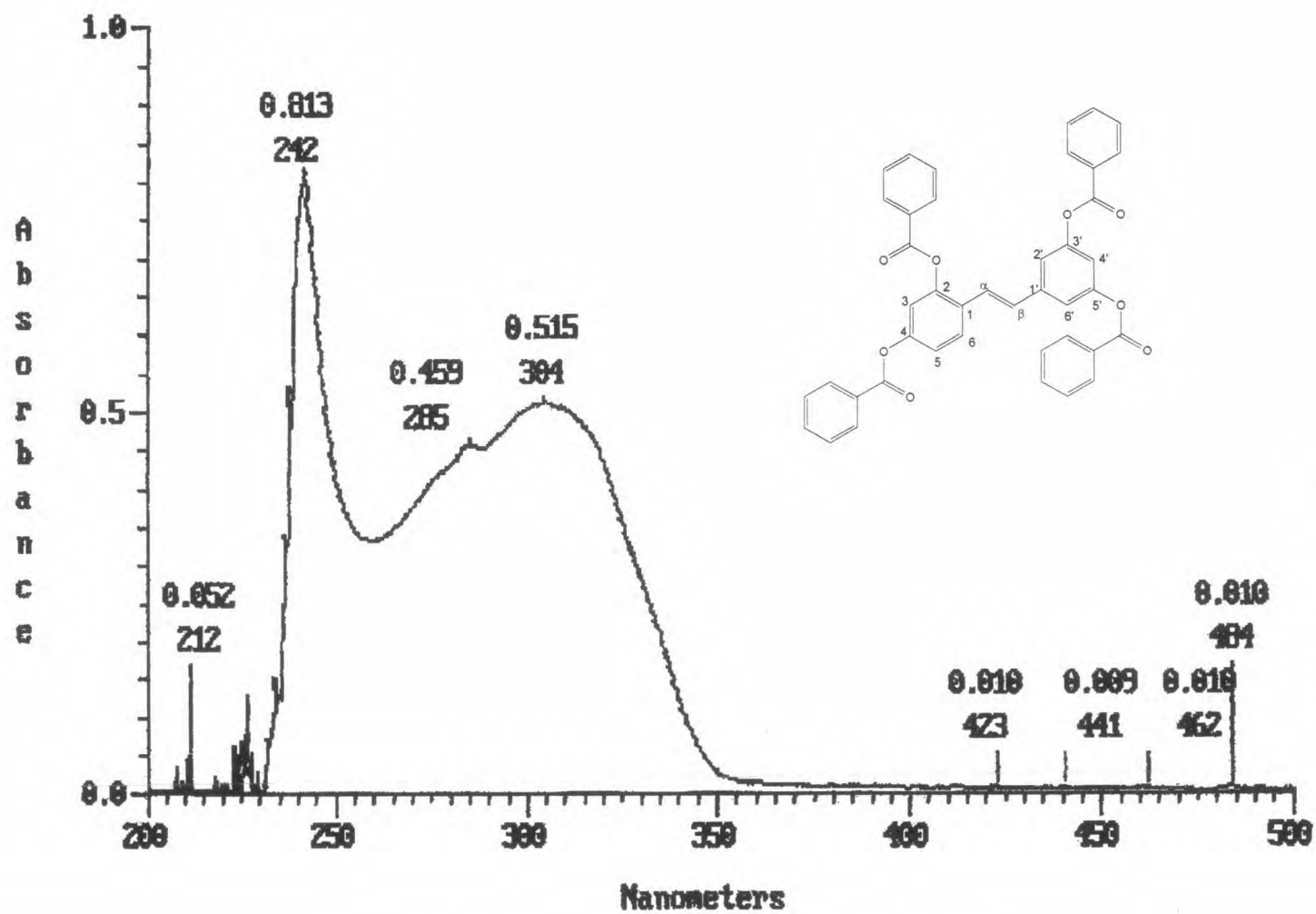


Figure 44: The UV spectrum of compound AS-4 (in  $\text{CHCl}_3$ )



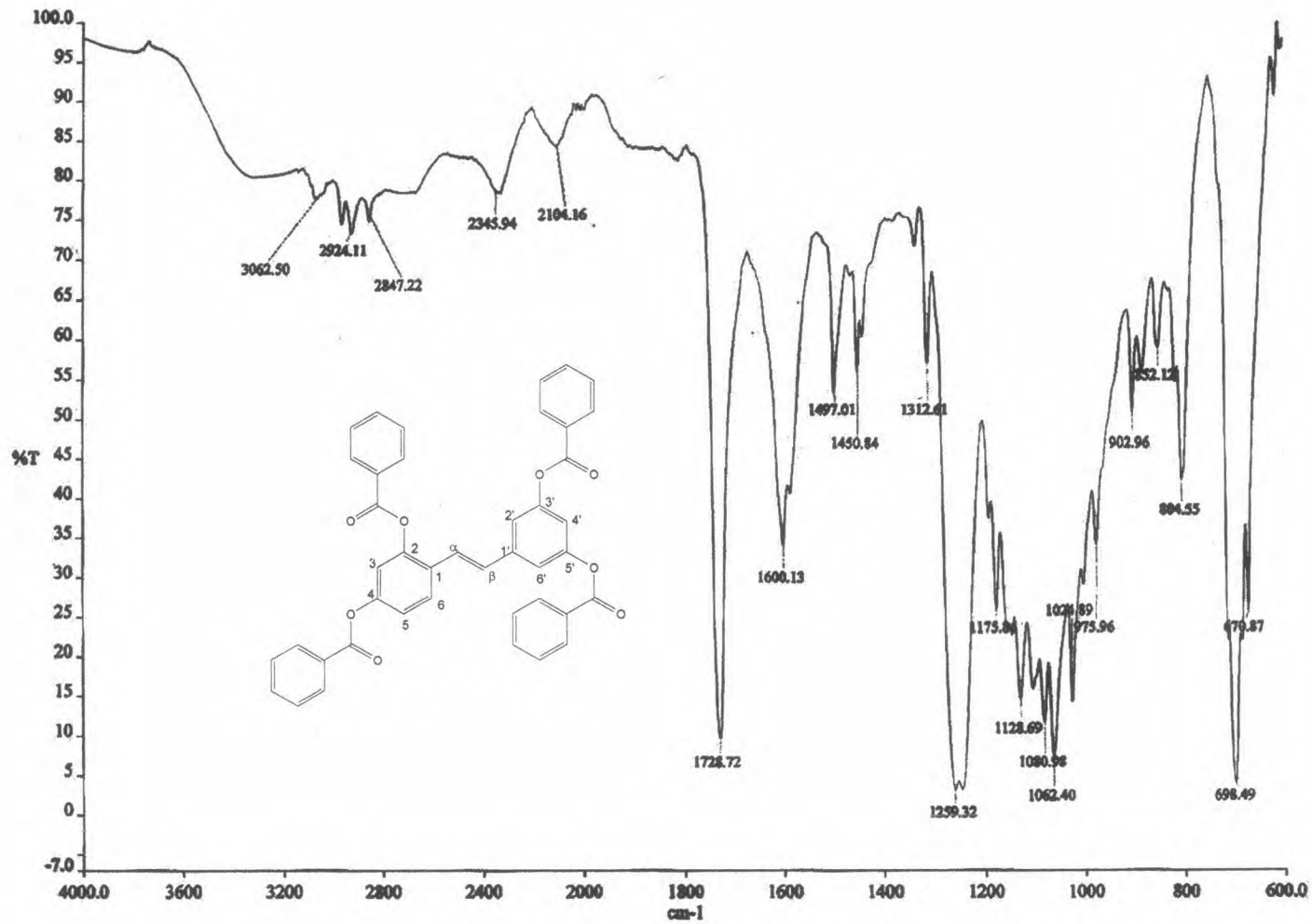


Figure 45: The IR spectrum of compound AS-4 (UATR)

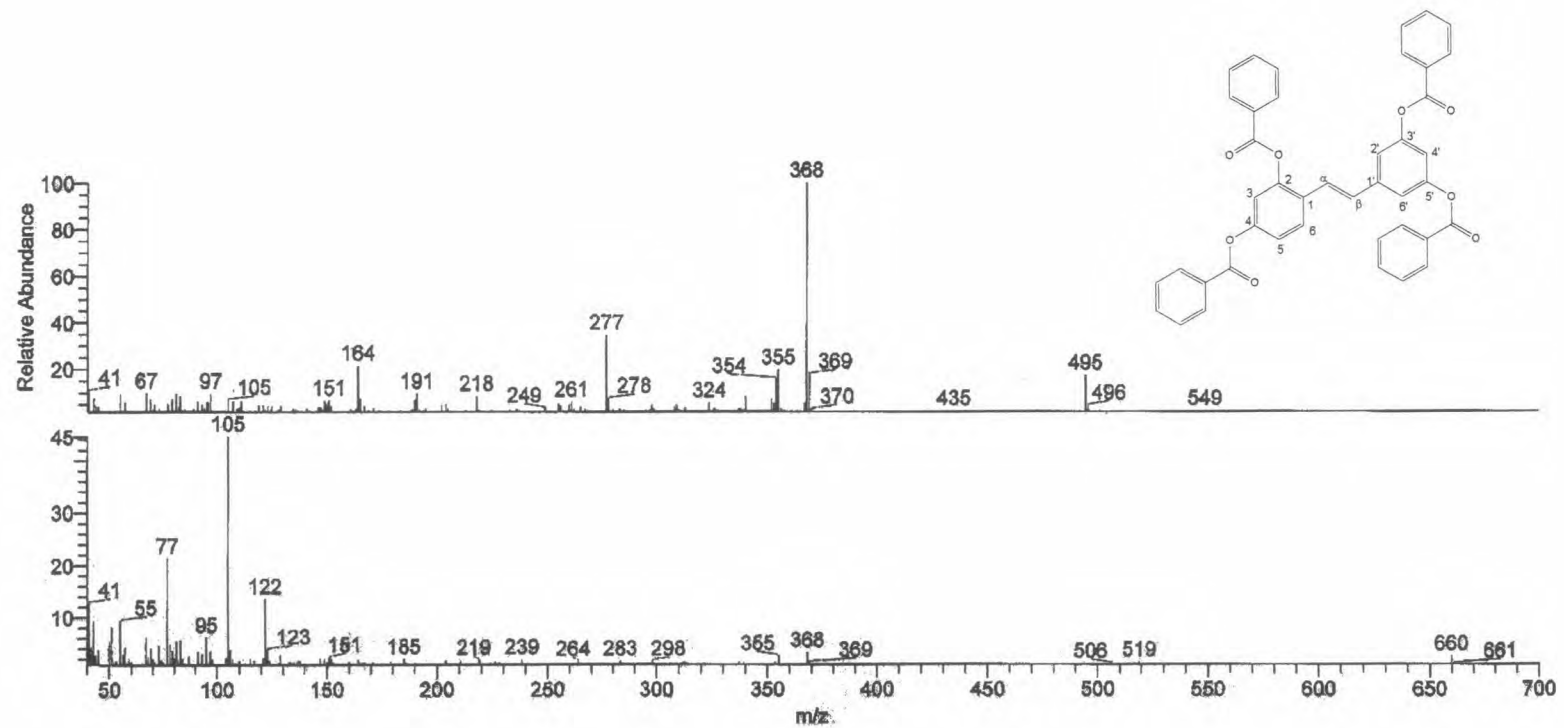


Figure 46: The ESI mass spectrum of compound AS-4

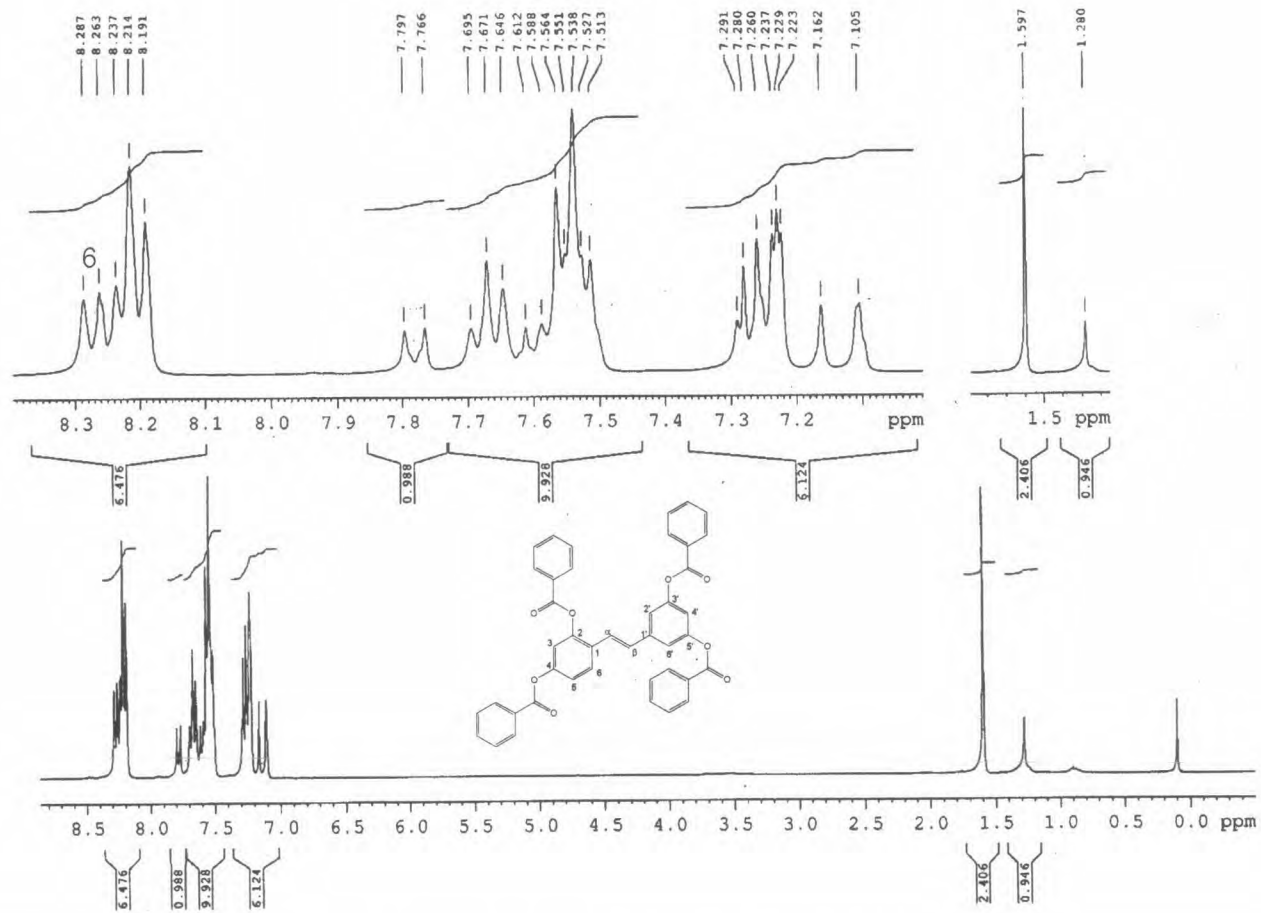


Figure 47: The 300 MHz  $^1\text{H}$ -NMR spectrum of compound AS-4 (in  $\text{CDCl}_3$ )

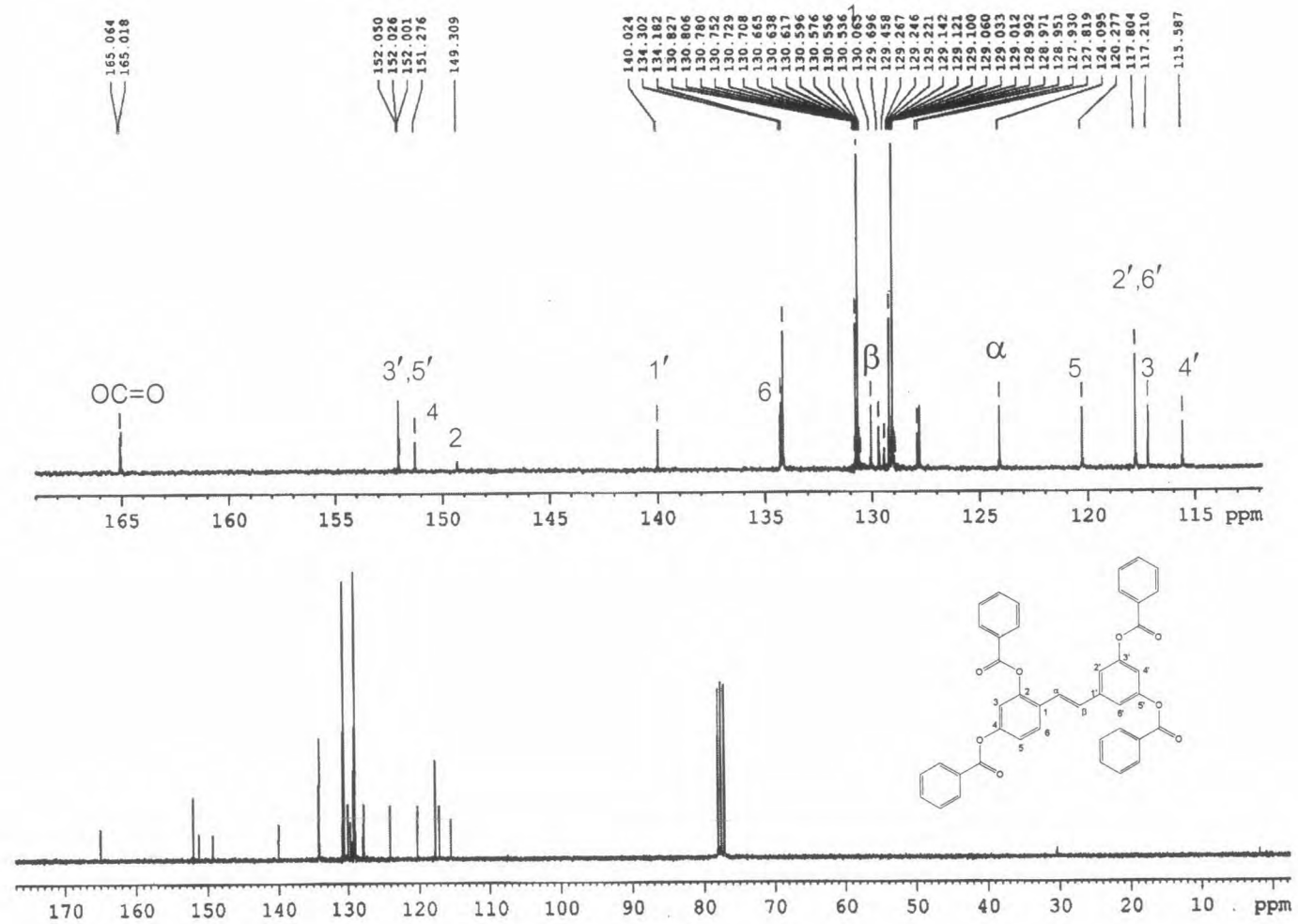


Figure 48: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-4 (in  $\text{CDCl}_3$ )

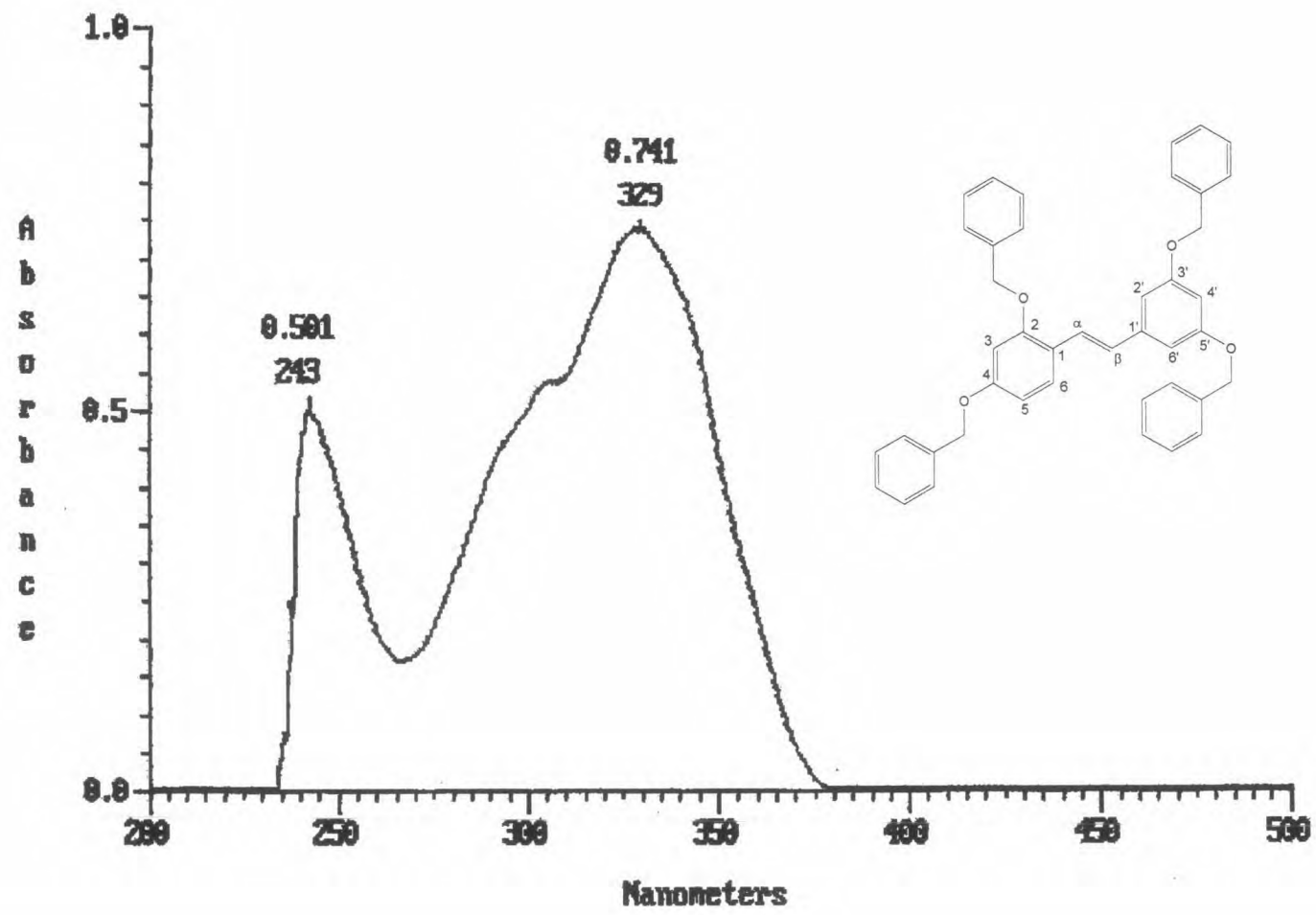


Figure 49: The UV spectrum of compound AS-5 (in  $\text{CHCl}_3$ )

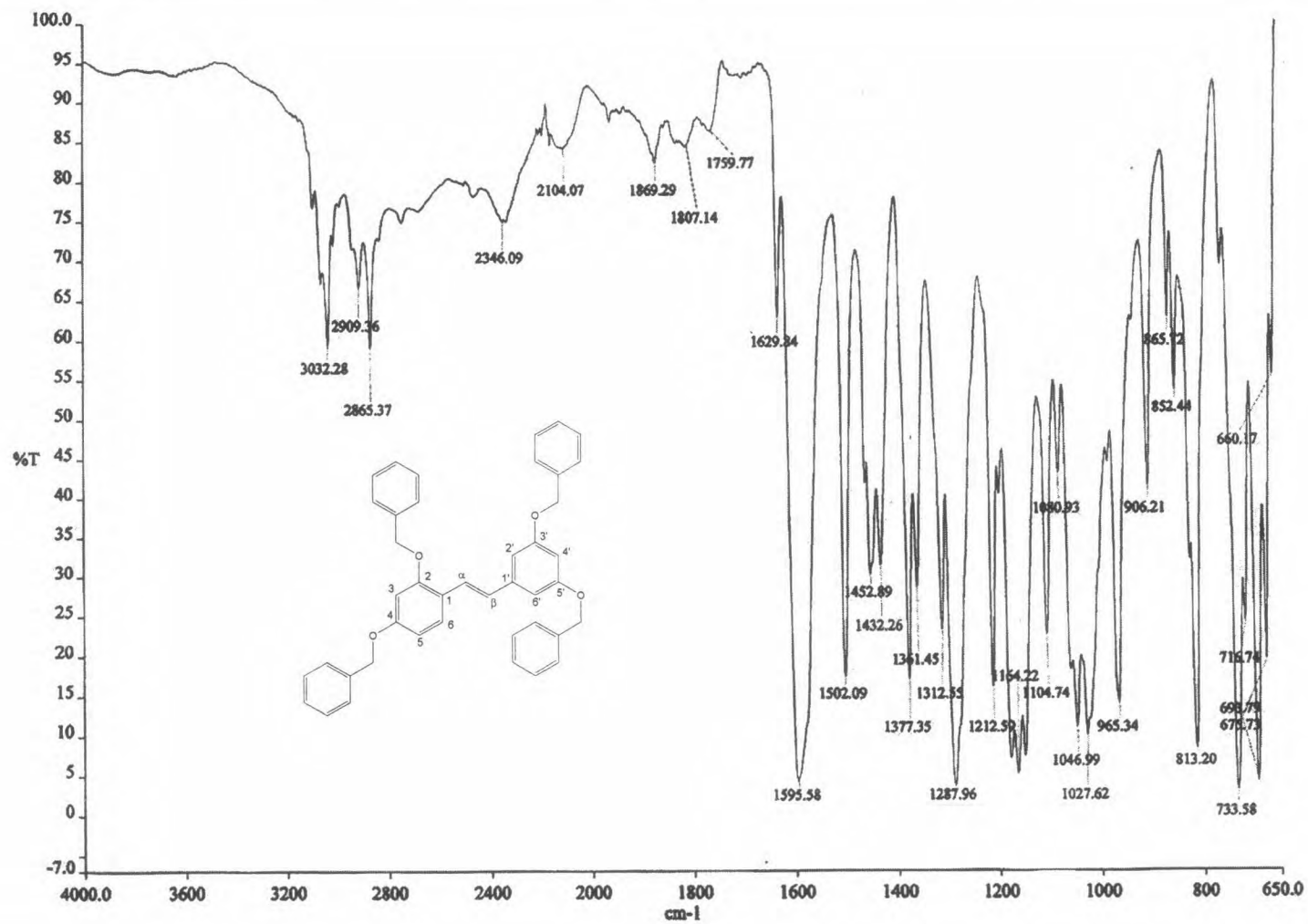


Figure 50: The IR spectrum of compound AS-5 (UATR)

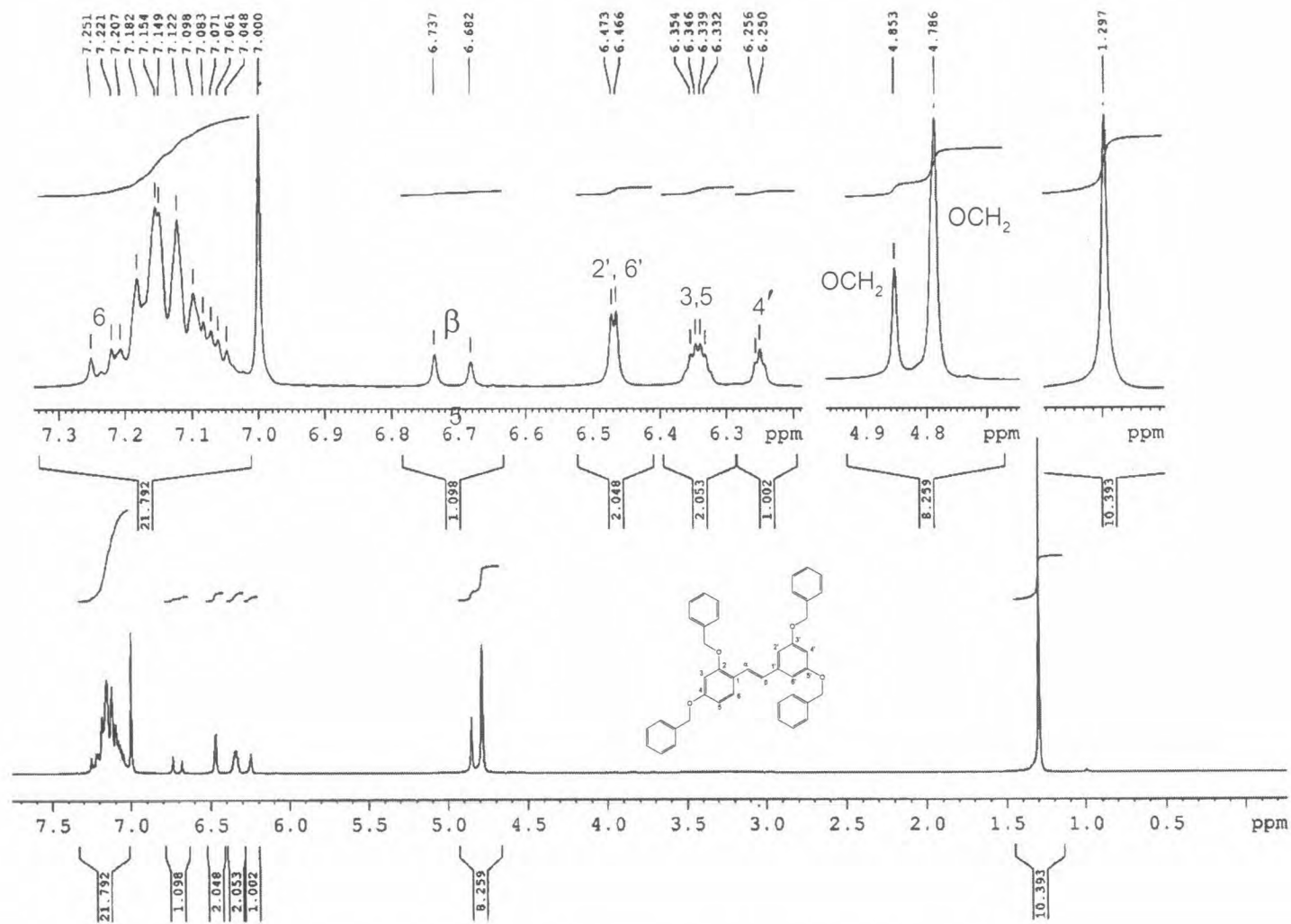


Figure 51: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-5 (in  $\text{CDCl}_3$ )

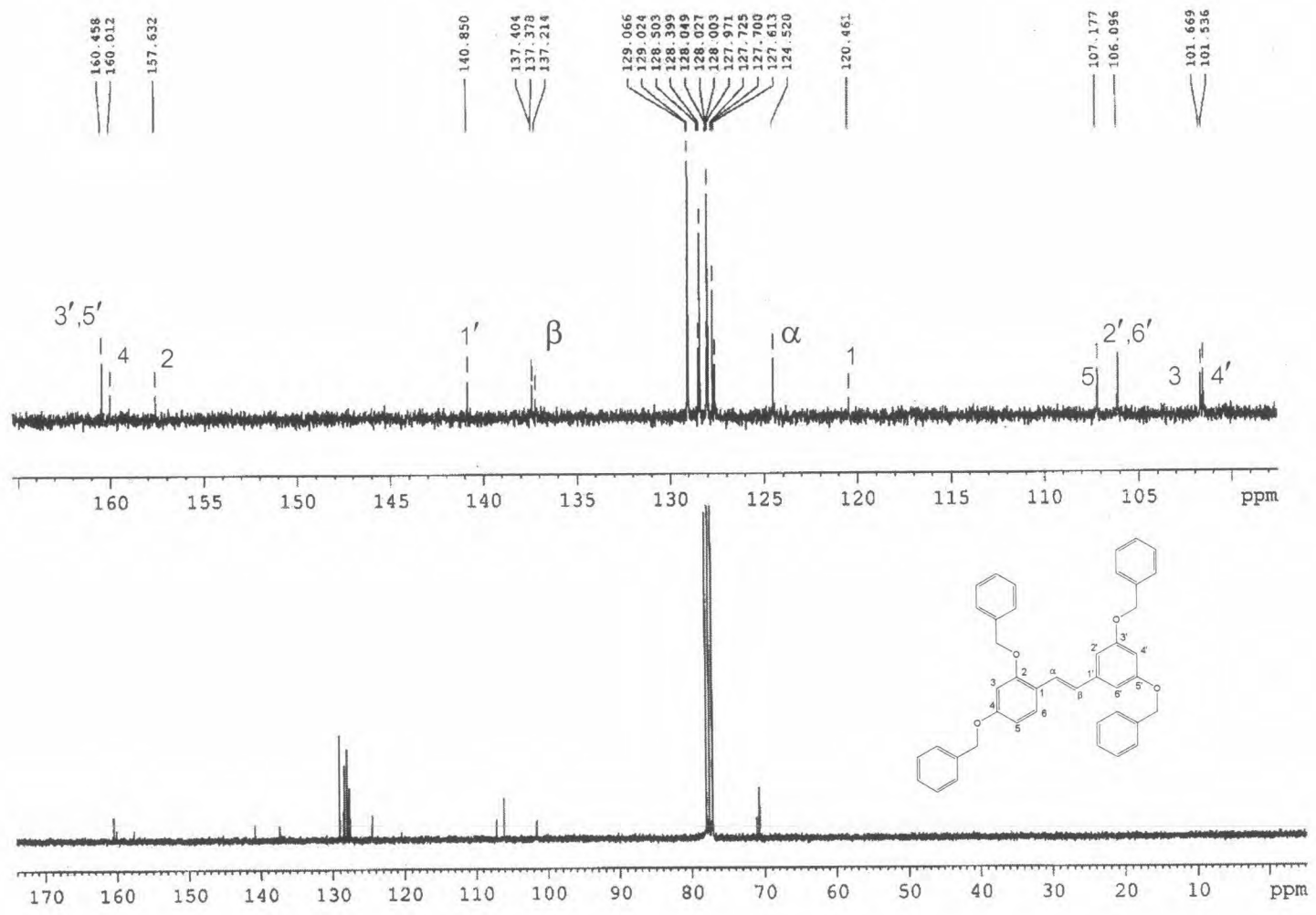


Figure 52: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-5 (in  $\text{CDCl}_3$ )



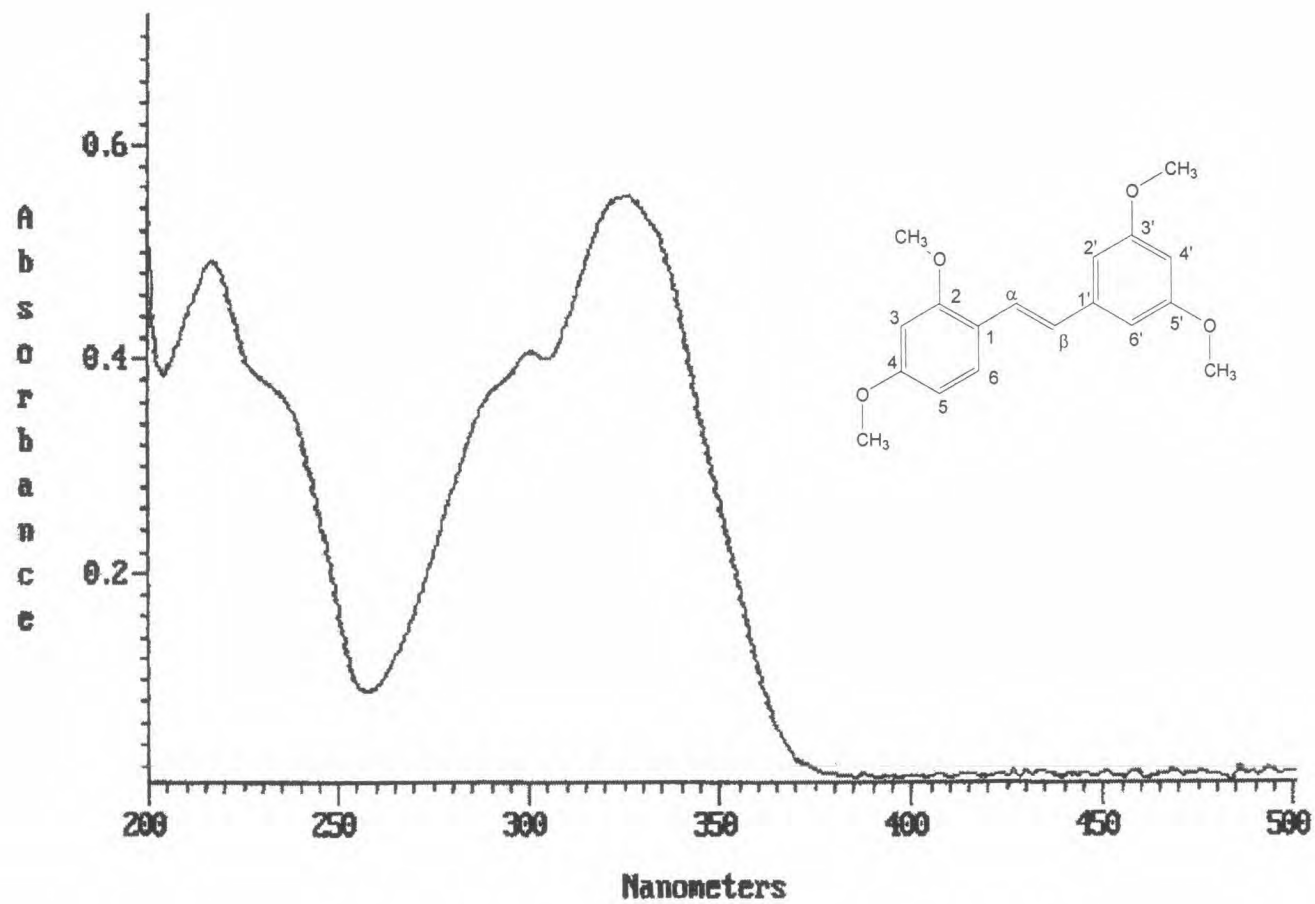


Figure 53: The UV spectrum of compound AS-6 (in MeOH)

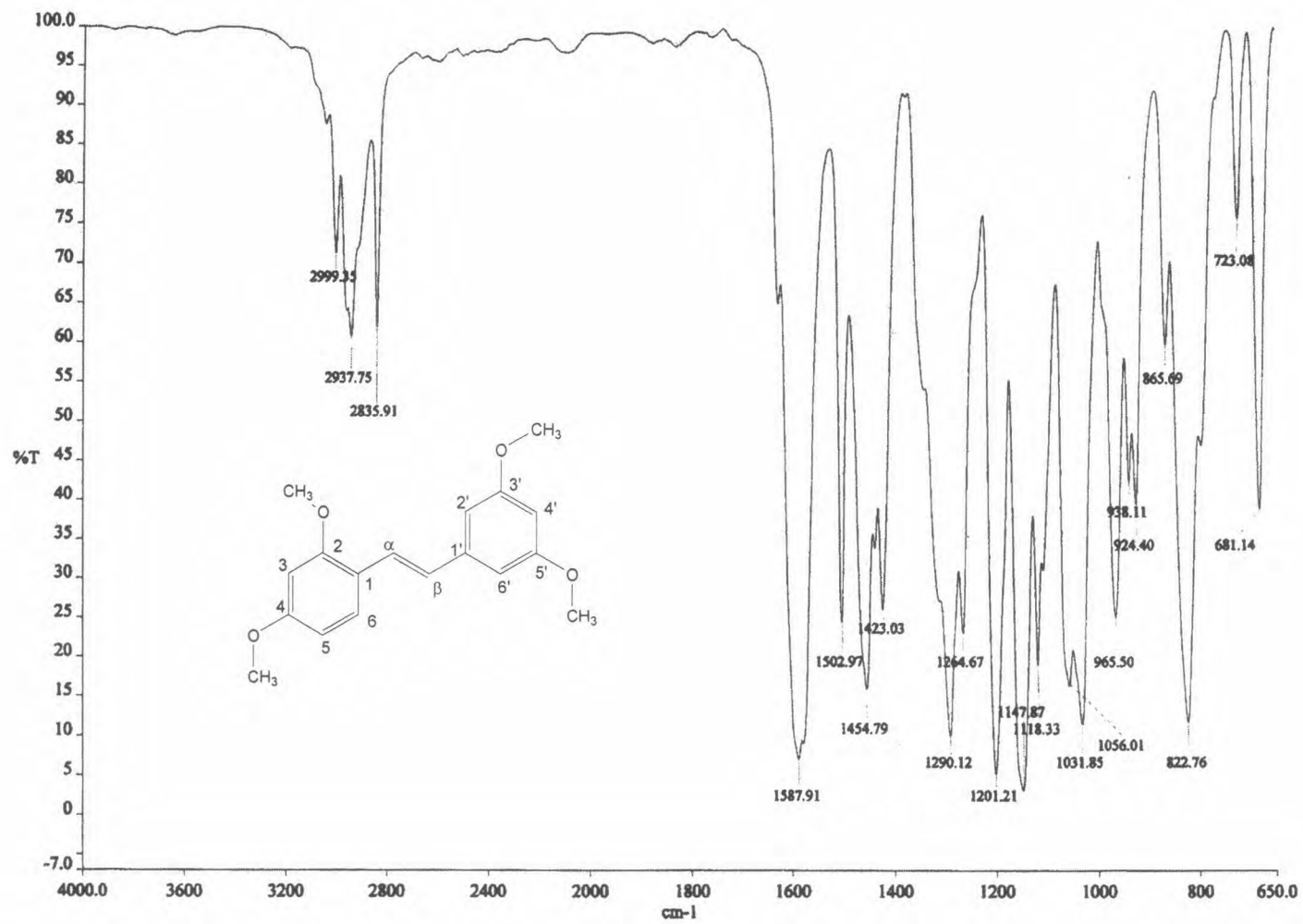


Figure 54: The IR spectrum of compound AS-6 (UATR)

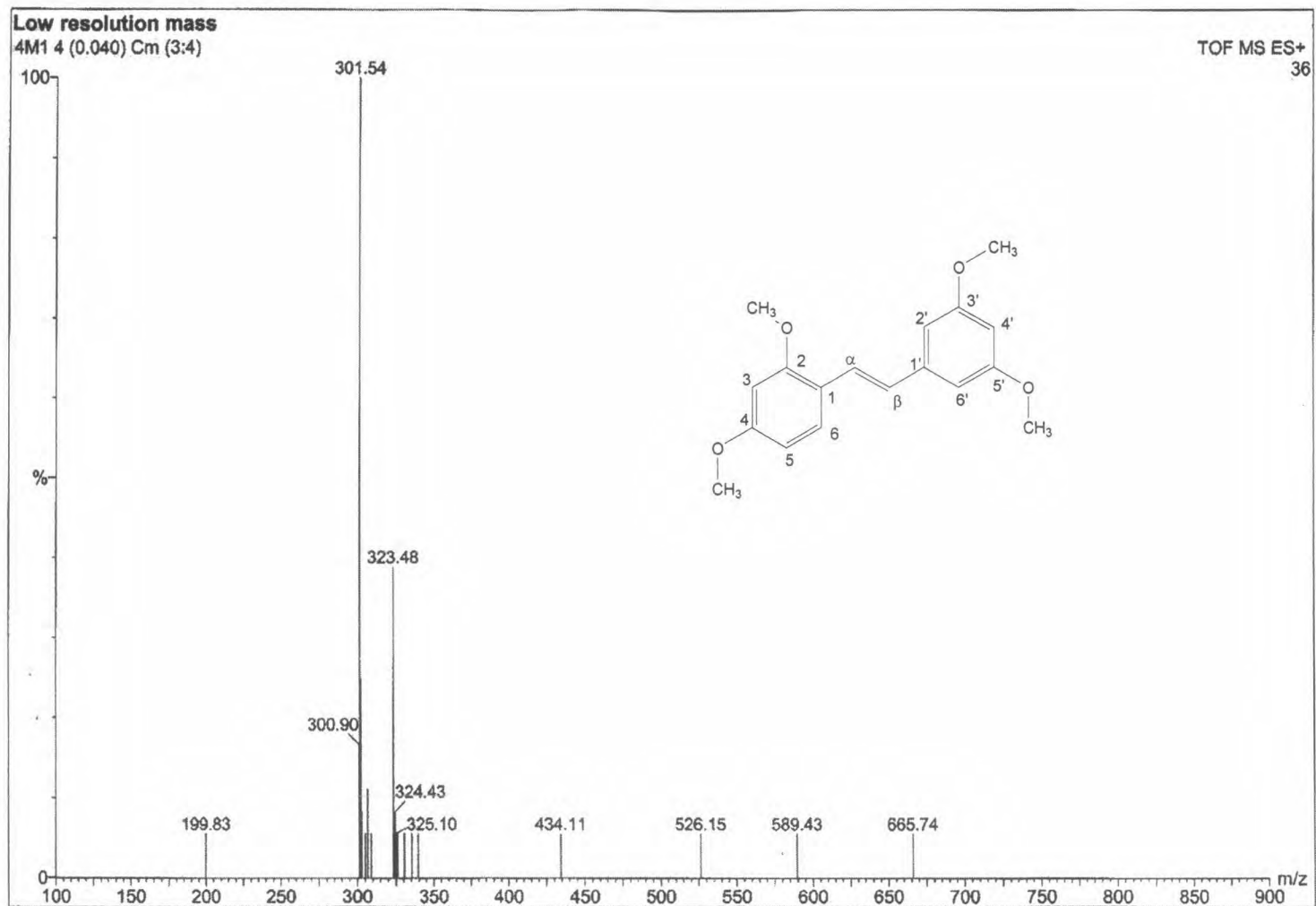


Figure 55: The TOF MS spectrum of compound AS-6

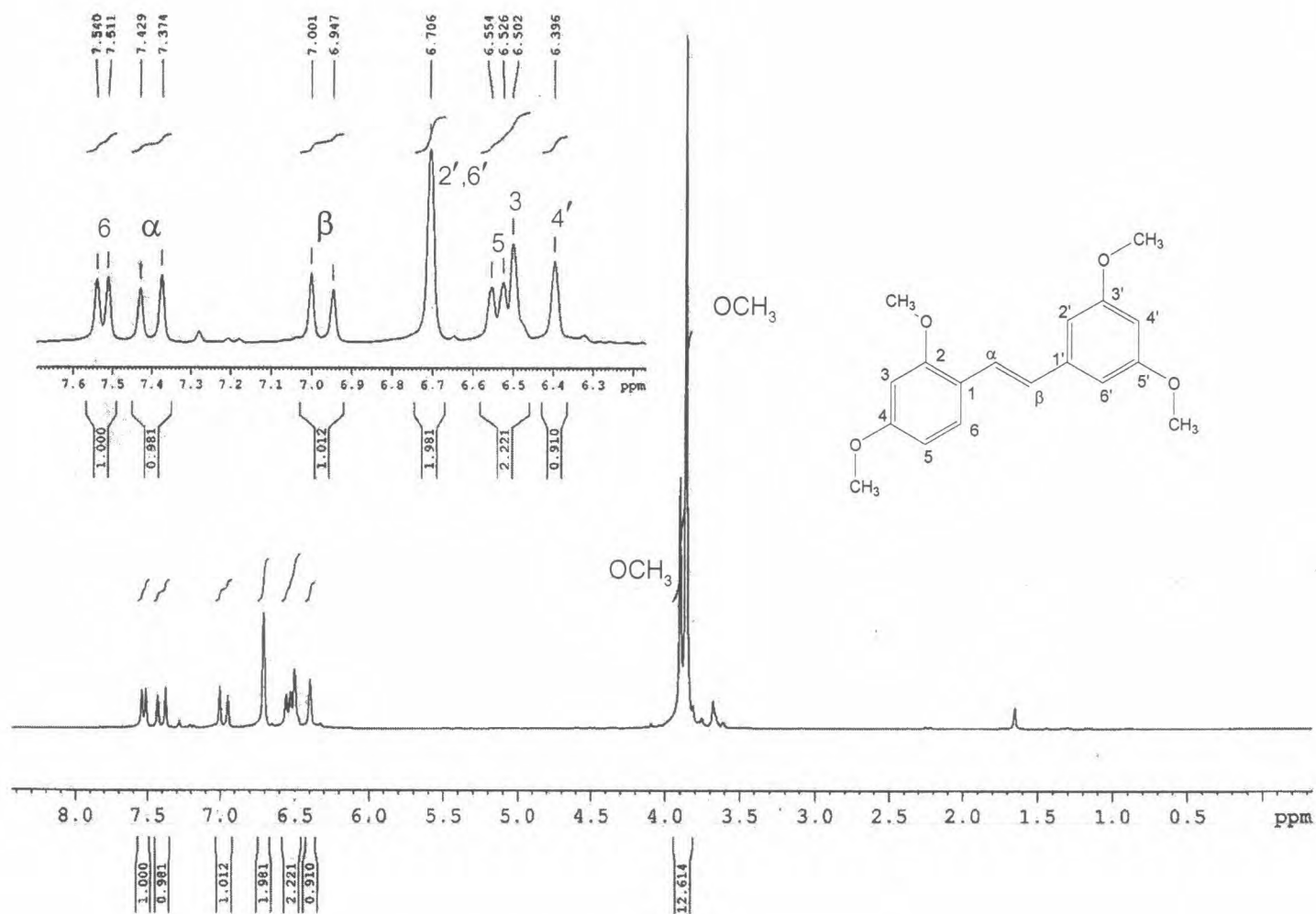


Figure 56: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-6 (in  $\text{CDCl}_3$ )

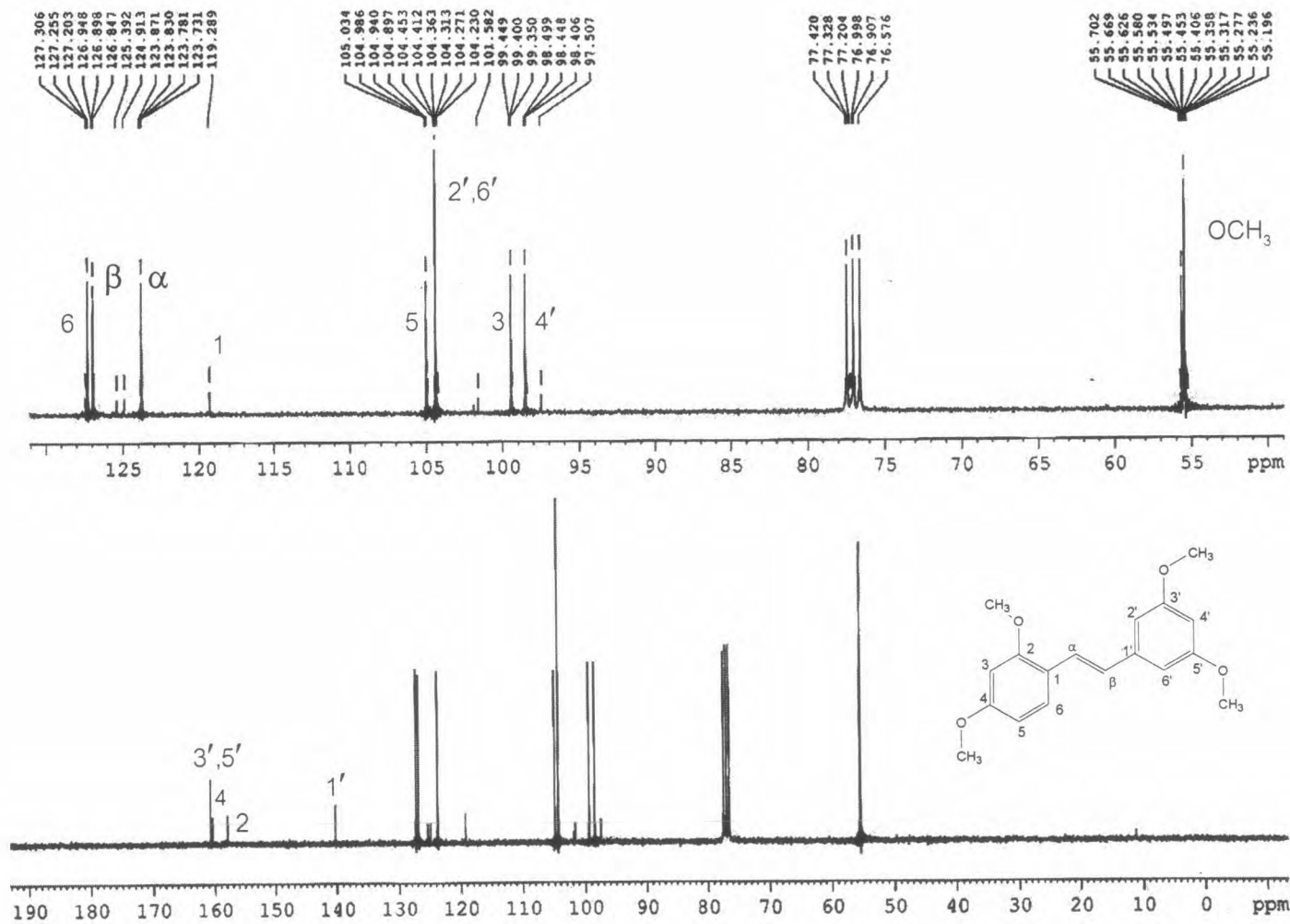


Figure 57: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-6 (in  $\text{CDCl}_3$ )

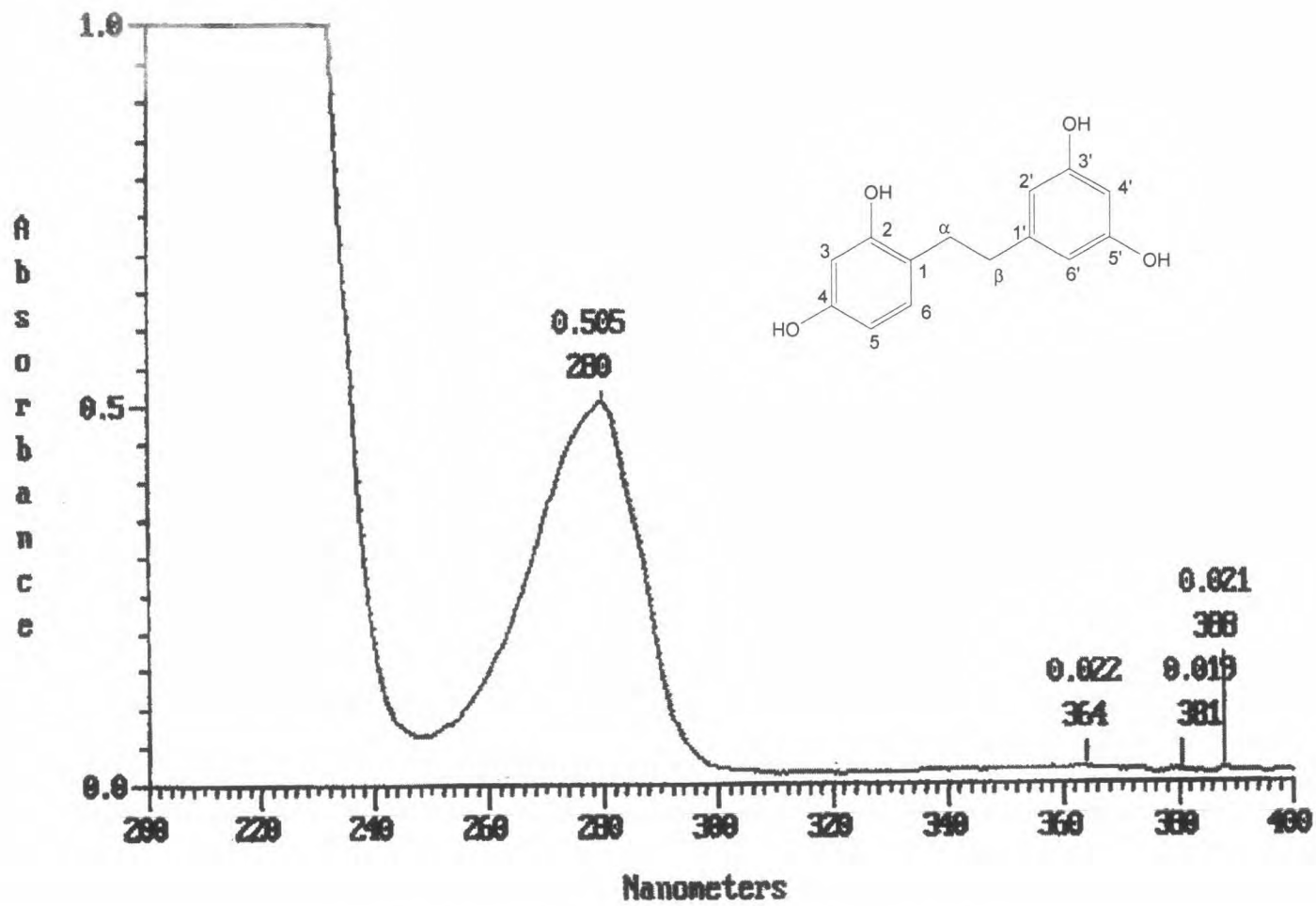


Figure 58: The UV spectrum of compound AS-7 (in MeOH)

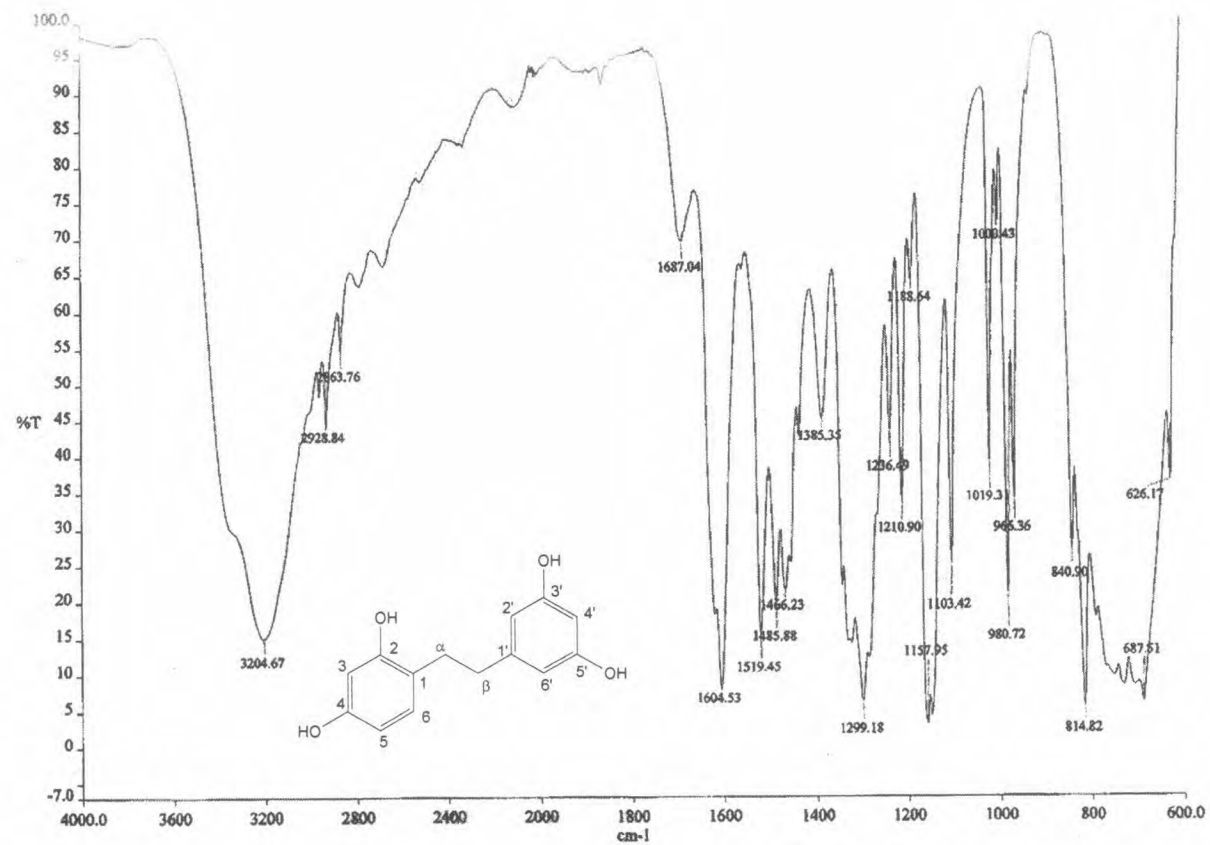


Figure 59: The IR spectrum of compound AS-7 (UATR)

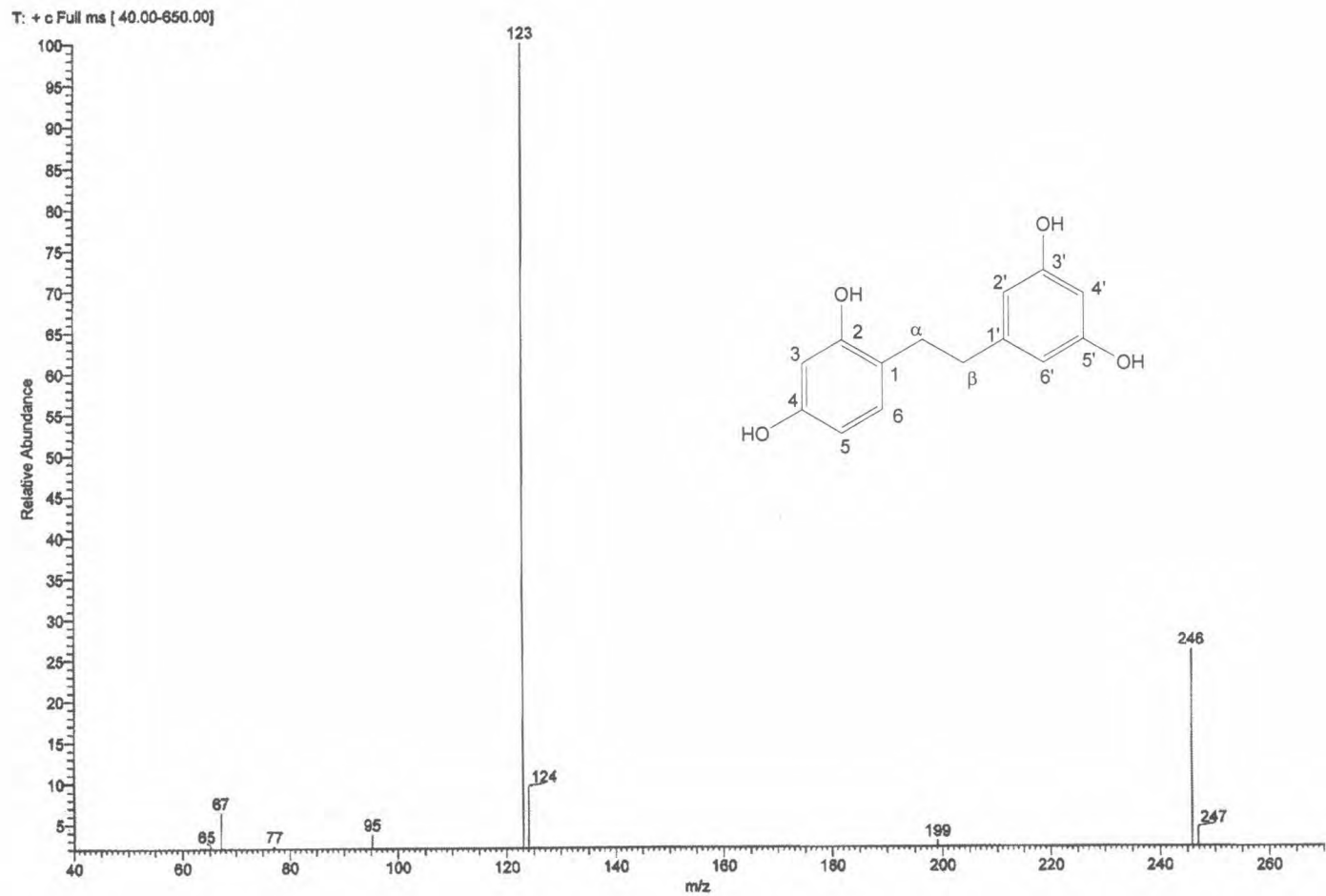


Figure 60: The ESI mass spectrum of compound AS-7



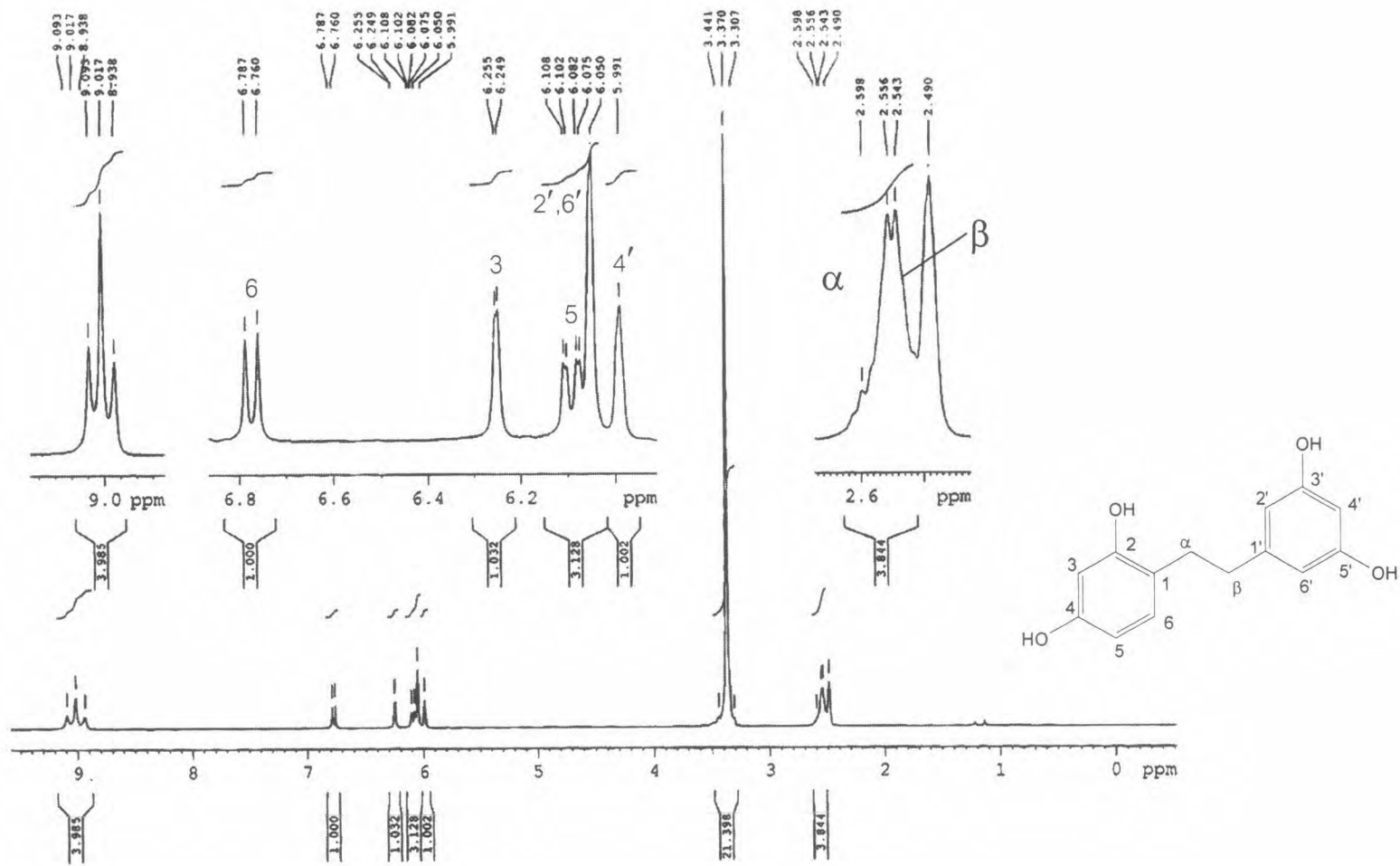


Figure 61: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-7 (in DMSO)

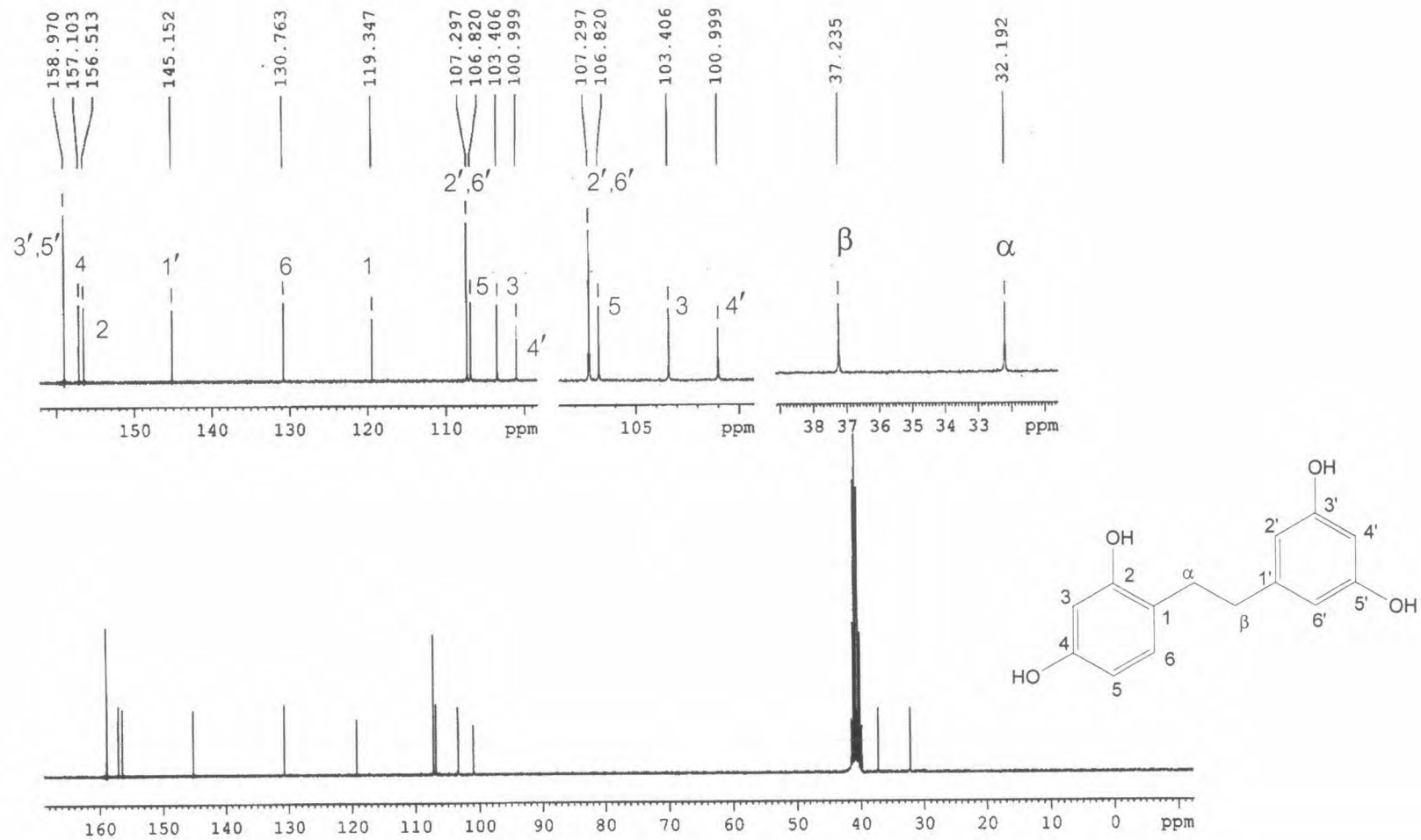


Figure 62: The 75 MHz <sup>13</sup>C-NMR spectrum of compound AS-7 (in DMSO)

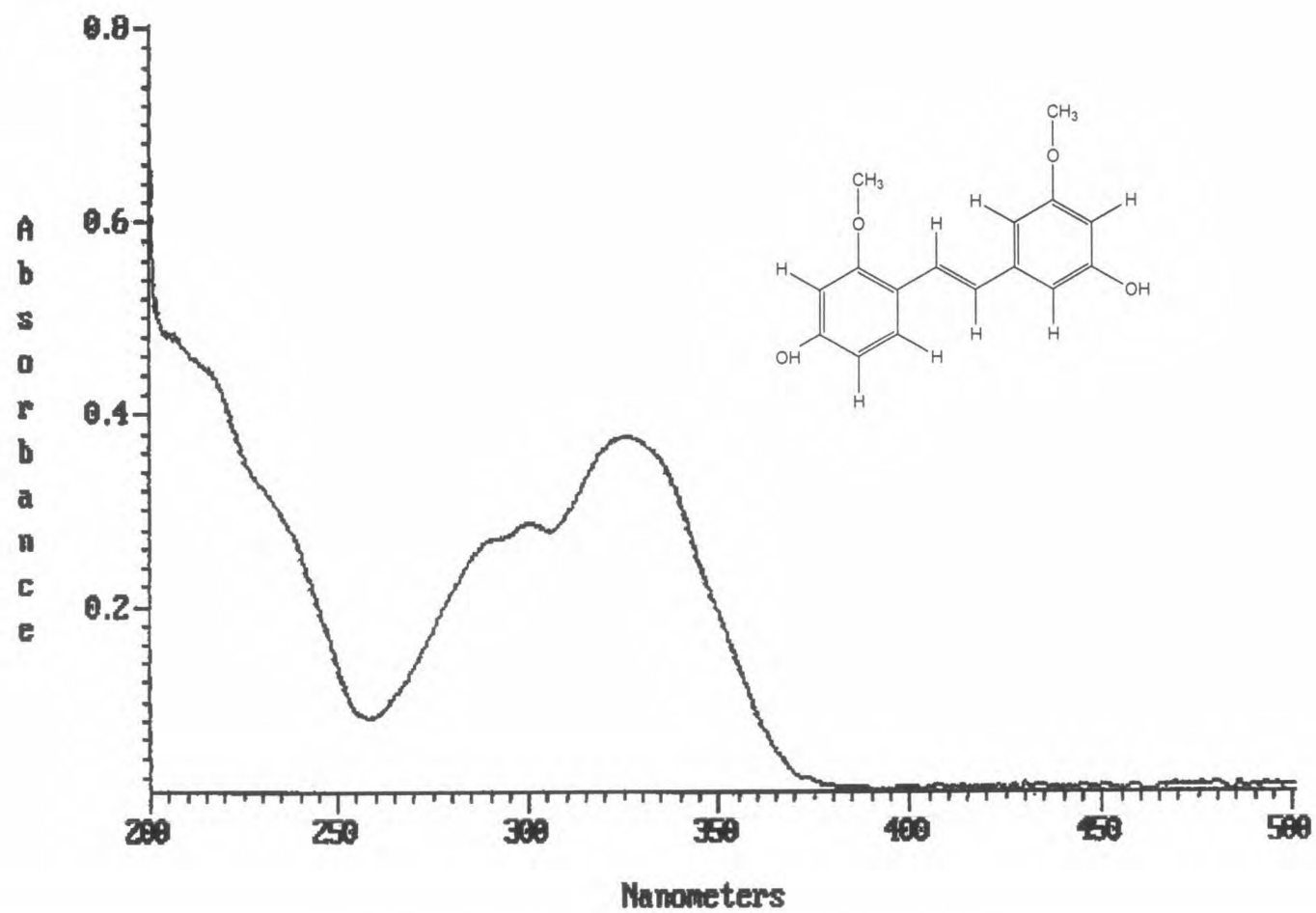


Figure 63: The UV spectrum of compound AS-8 (in MeOH)

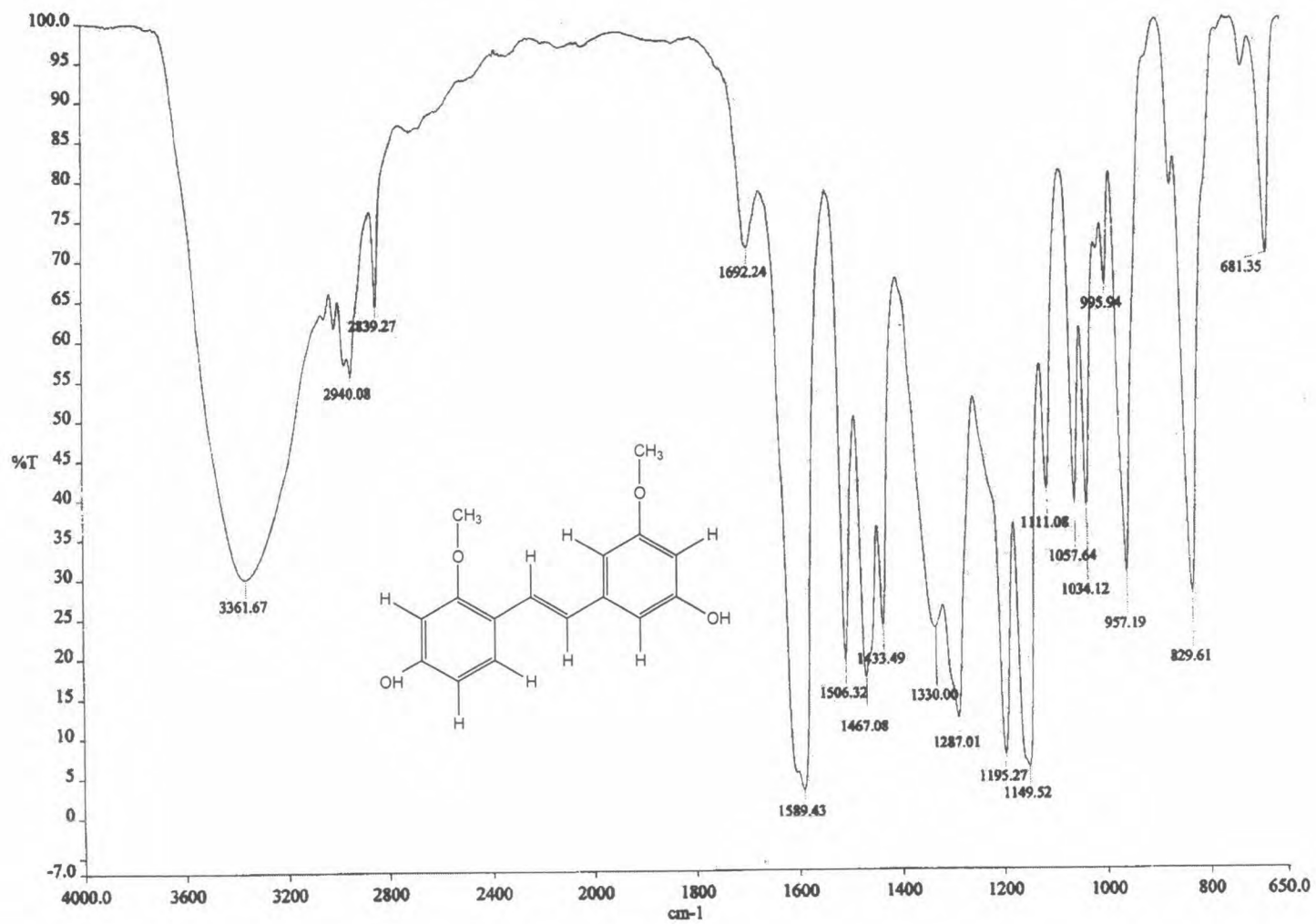


Figure 64: The IR spectrum of compound AS-8 (UATR)

T: + c Full ms [ 40.00-350.00]

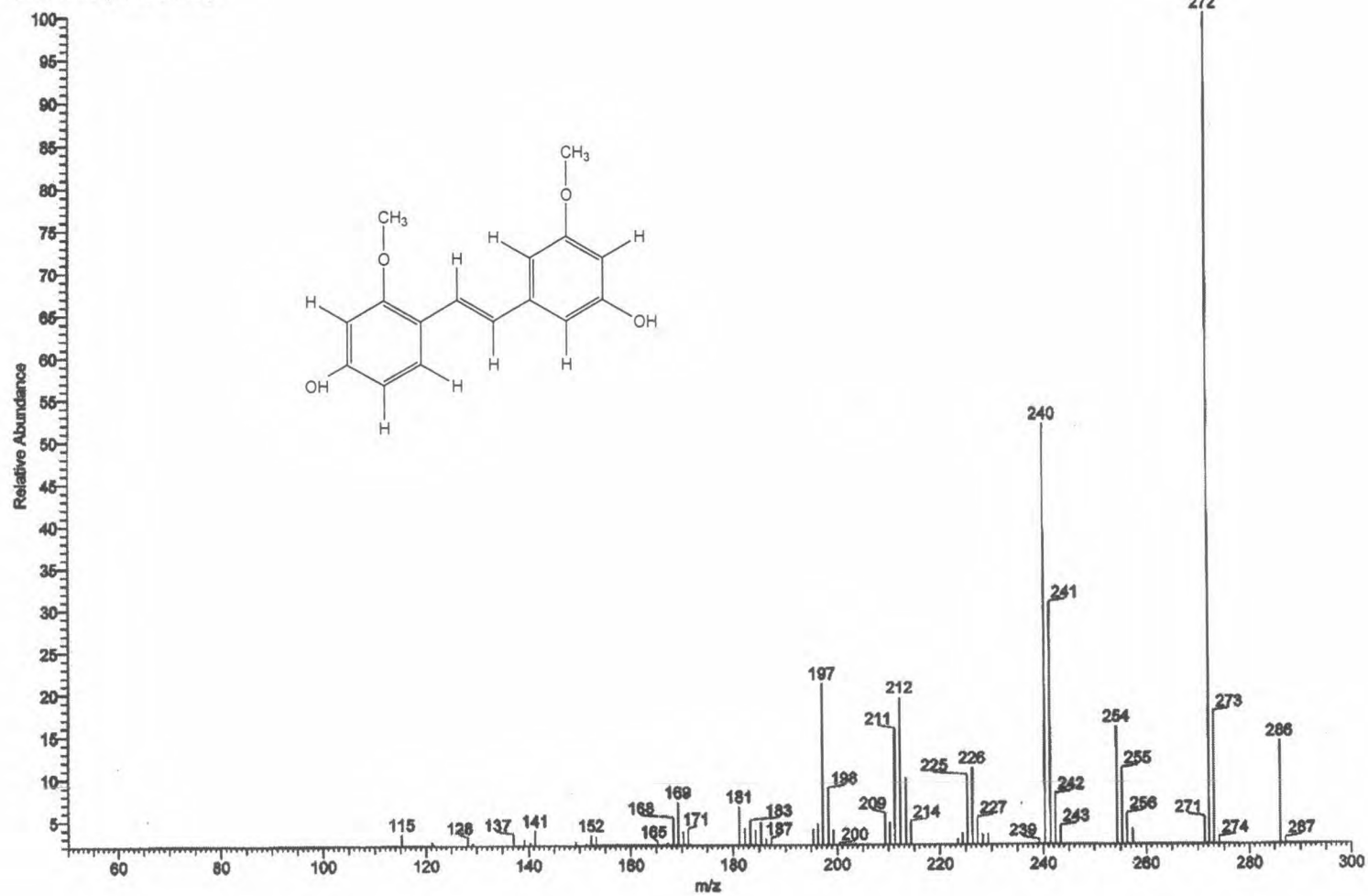


Figure 65: The ESI mass spectrum of compound AS-8

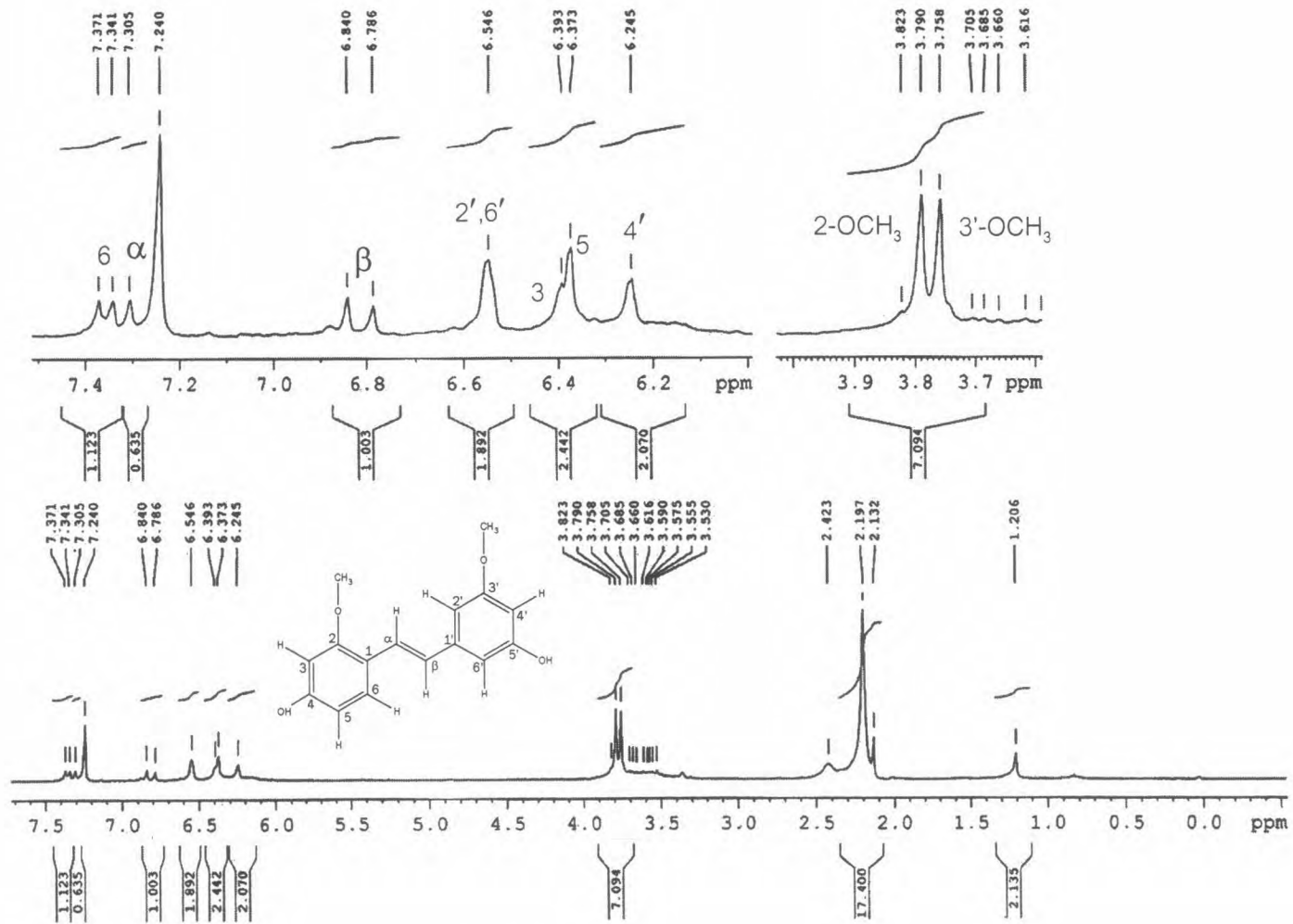


Figure 66: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-8 (in  $\text{CDCl}_3$ )

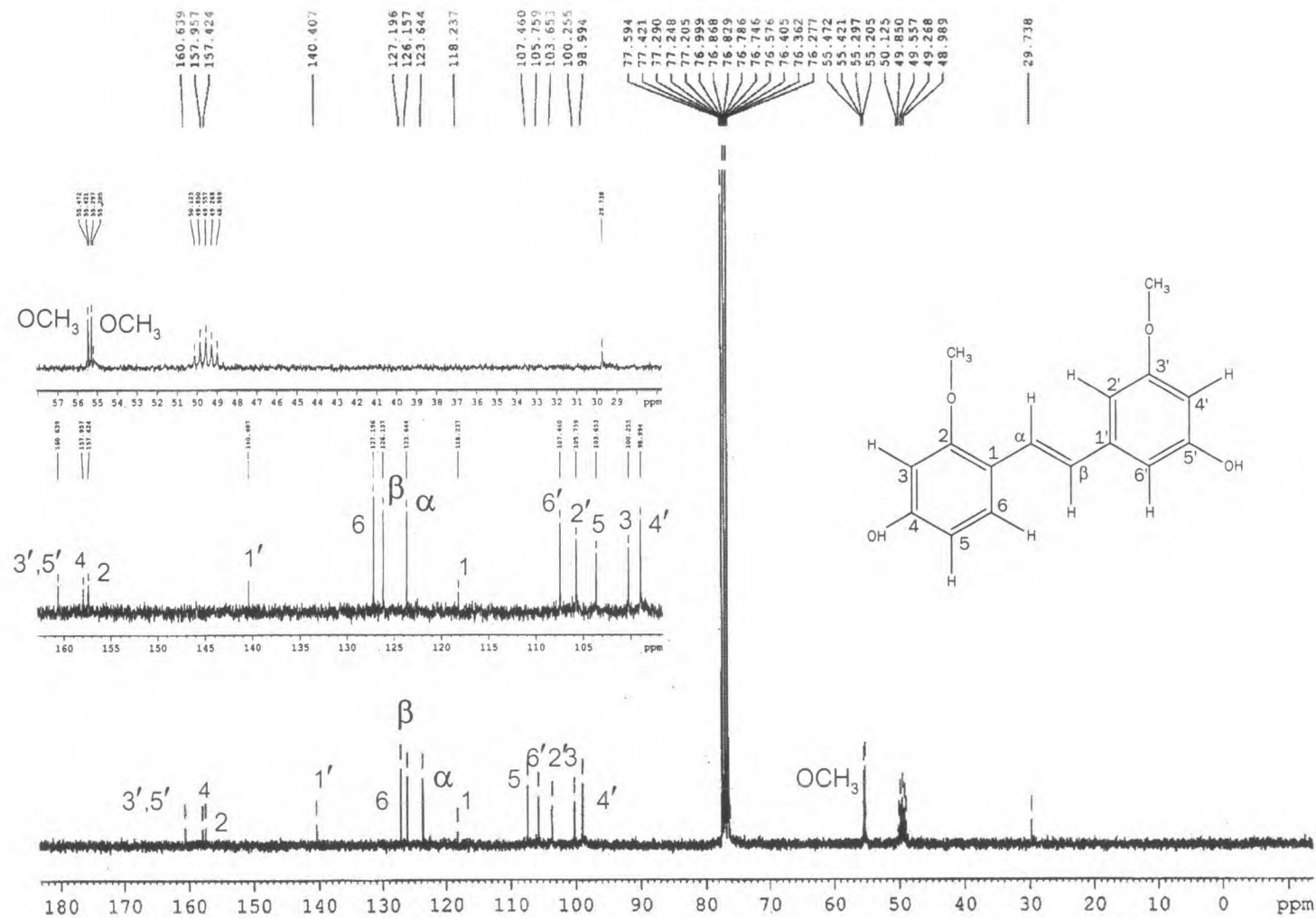


Figure 67: The 75 MHz <sup>13</sup>C-NMR spectrum of compound AS-8 (in CDCl<sub>3</sub>)

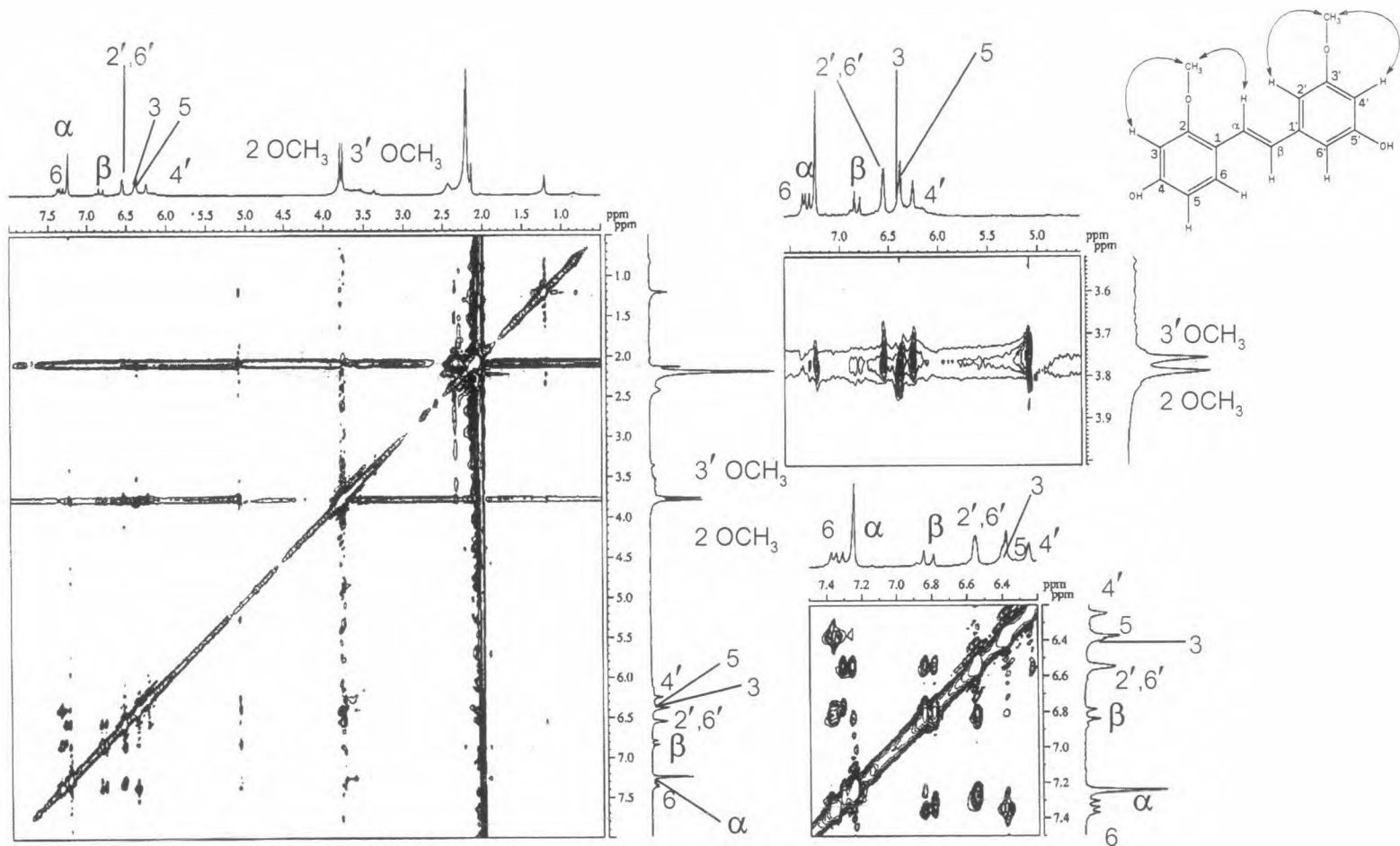


Figure 68: The 300 MHz NOESY spectrum of compound AS-8 (in CDCl<sub>3</sub>)



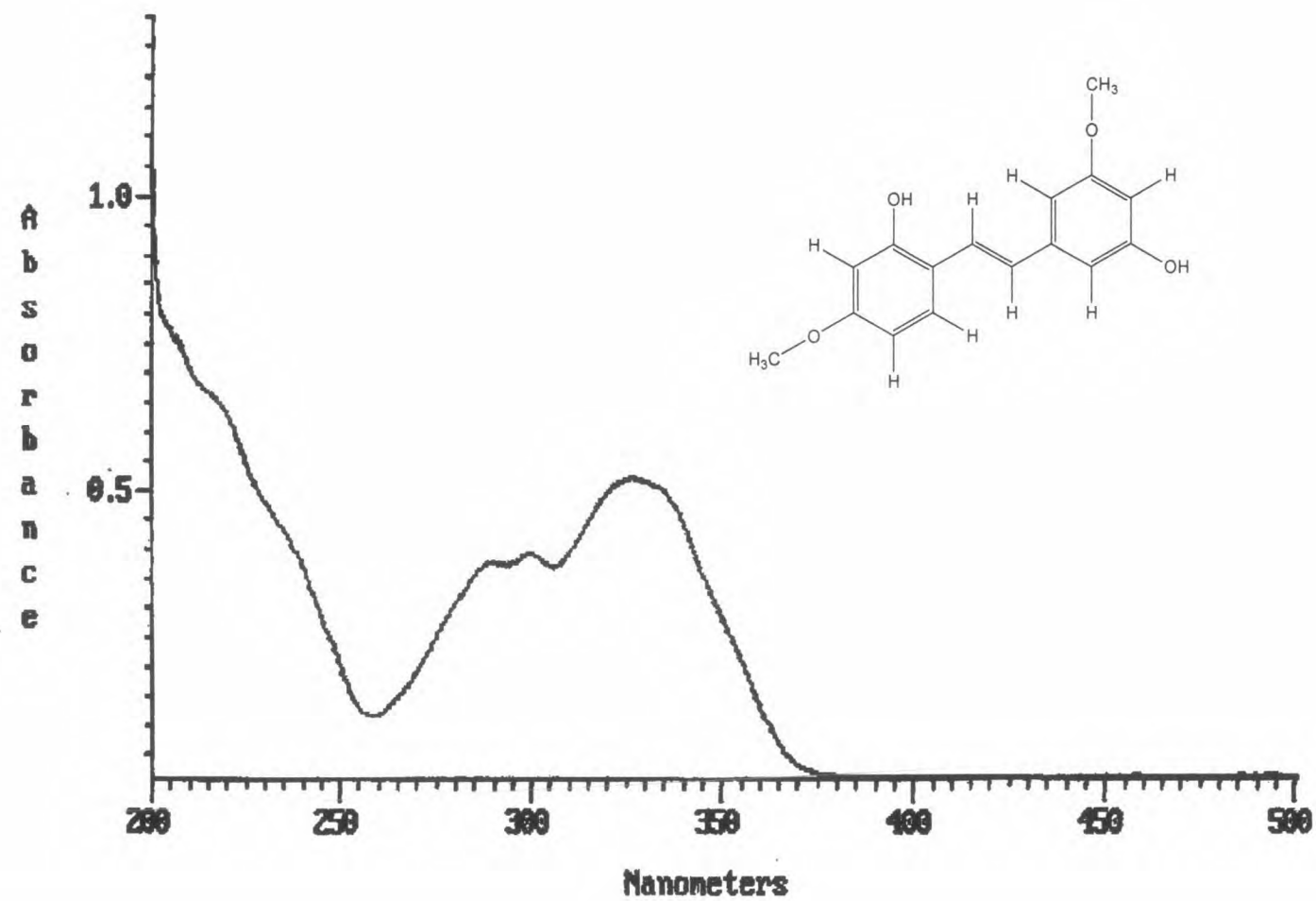


Figure 69: The UV spectrum of compound AS-9 (in MeOH)

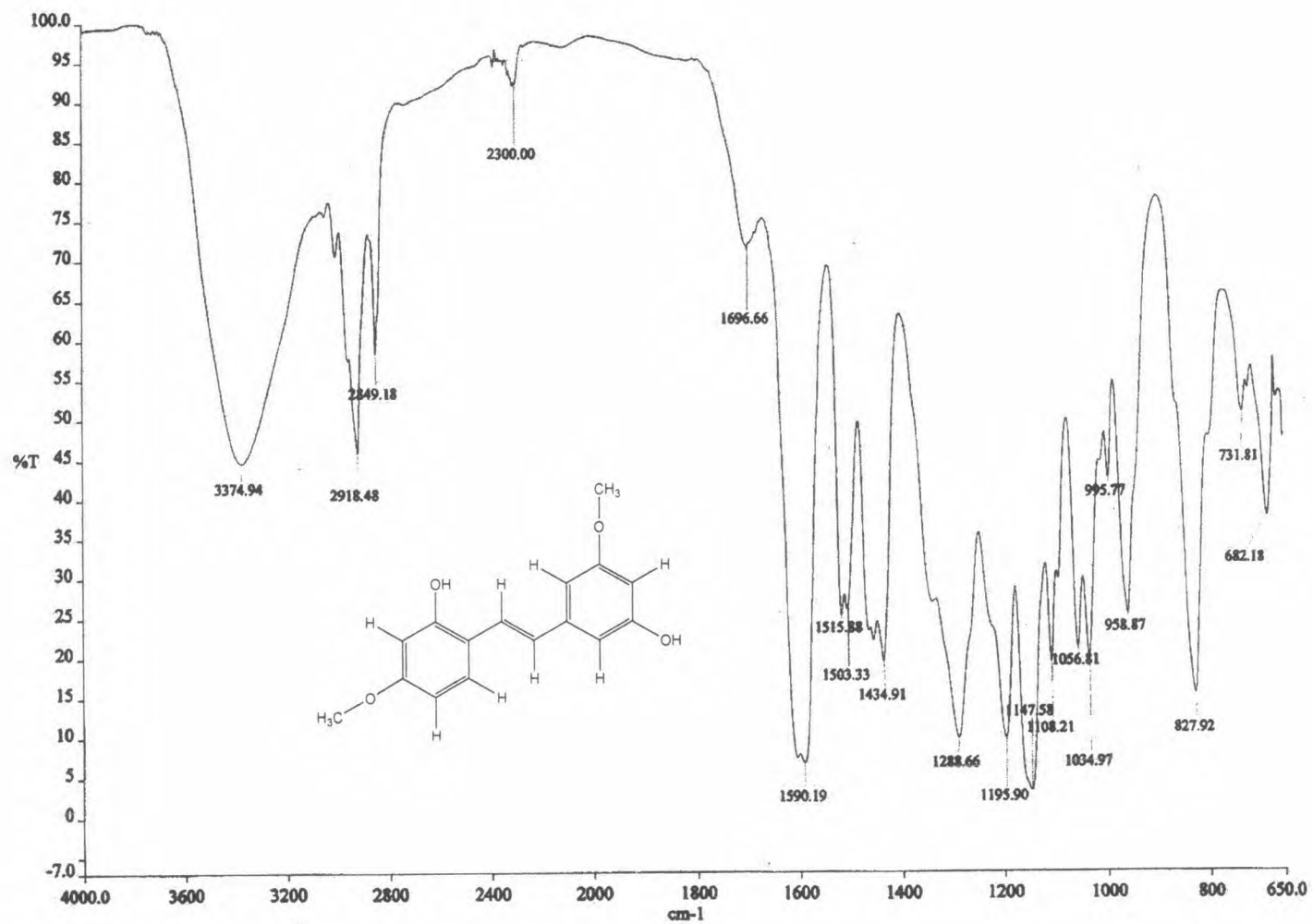


Figure 70: The IR spectrum of compound AS-9 (UATR)

T: + c Full MS [40.00-650.00]

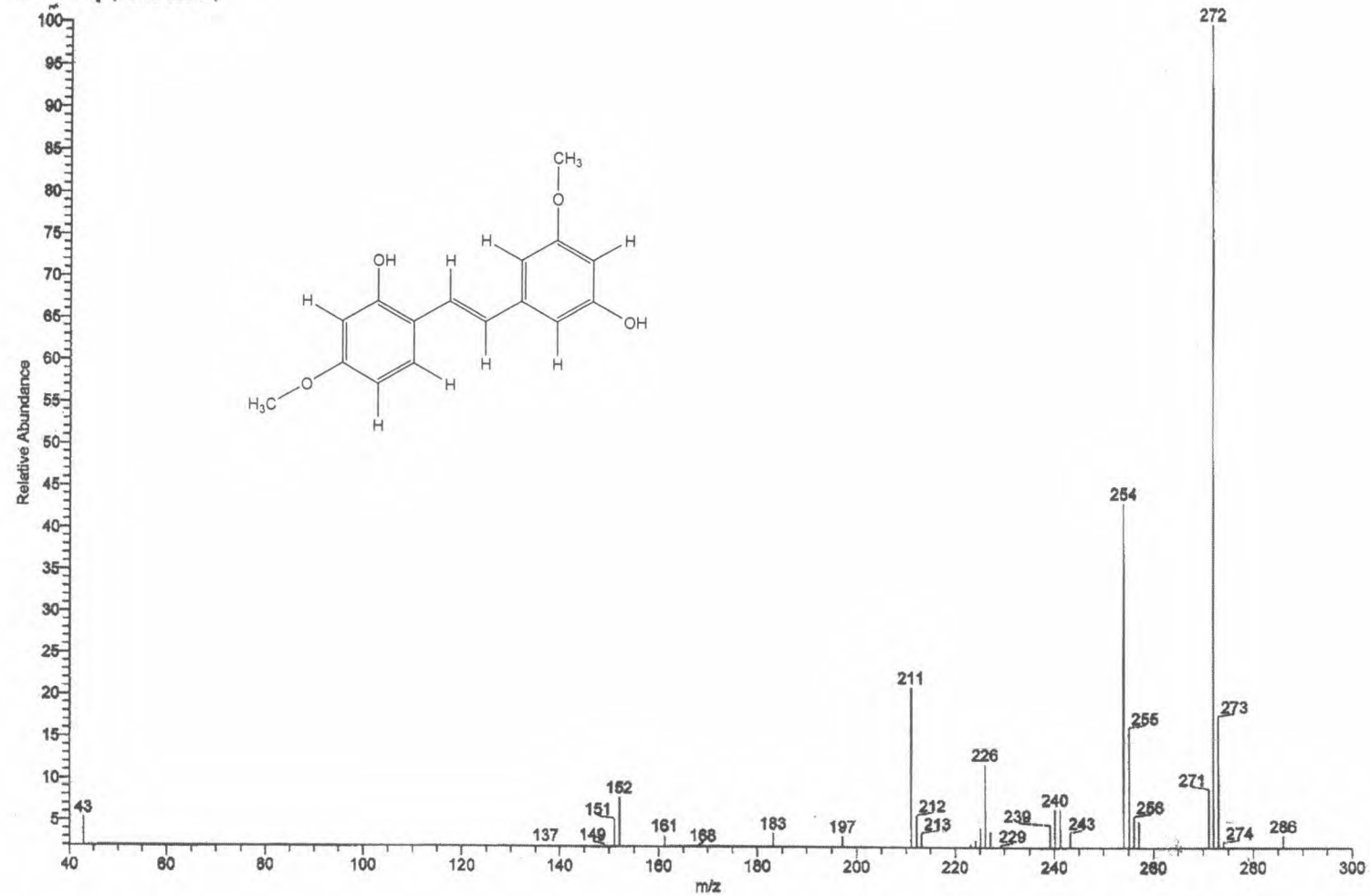


Figure 71: The ESI mass spectrum of compound AS-9

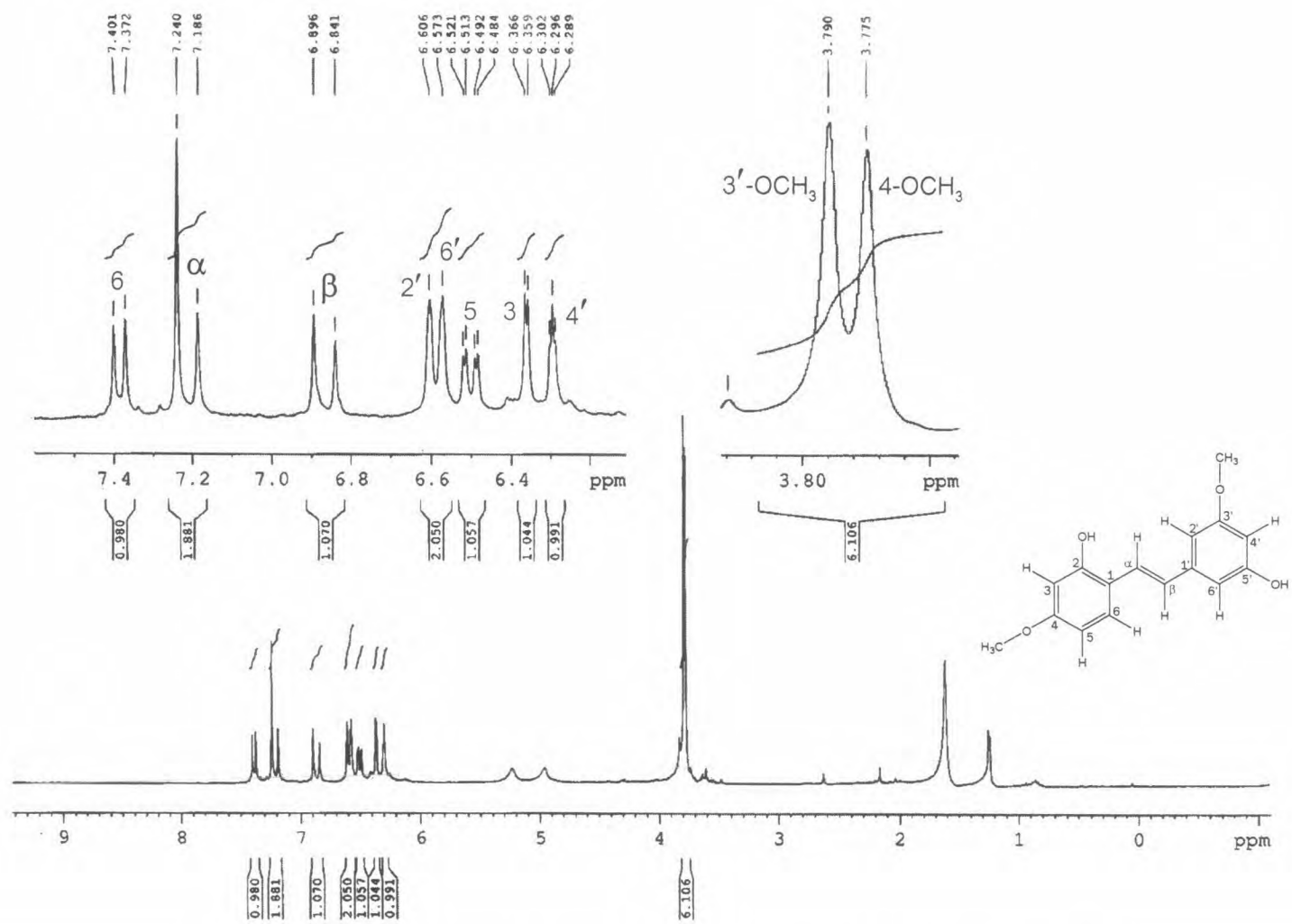


Figure 72: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-9 (in  $\text{CDCl}_3$ )

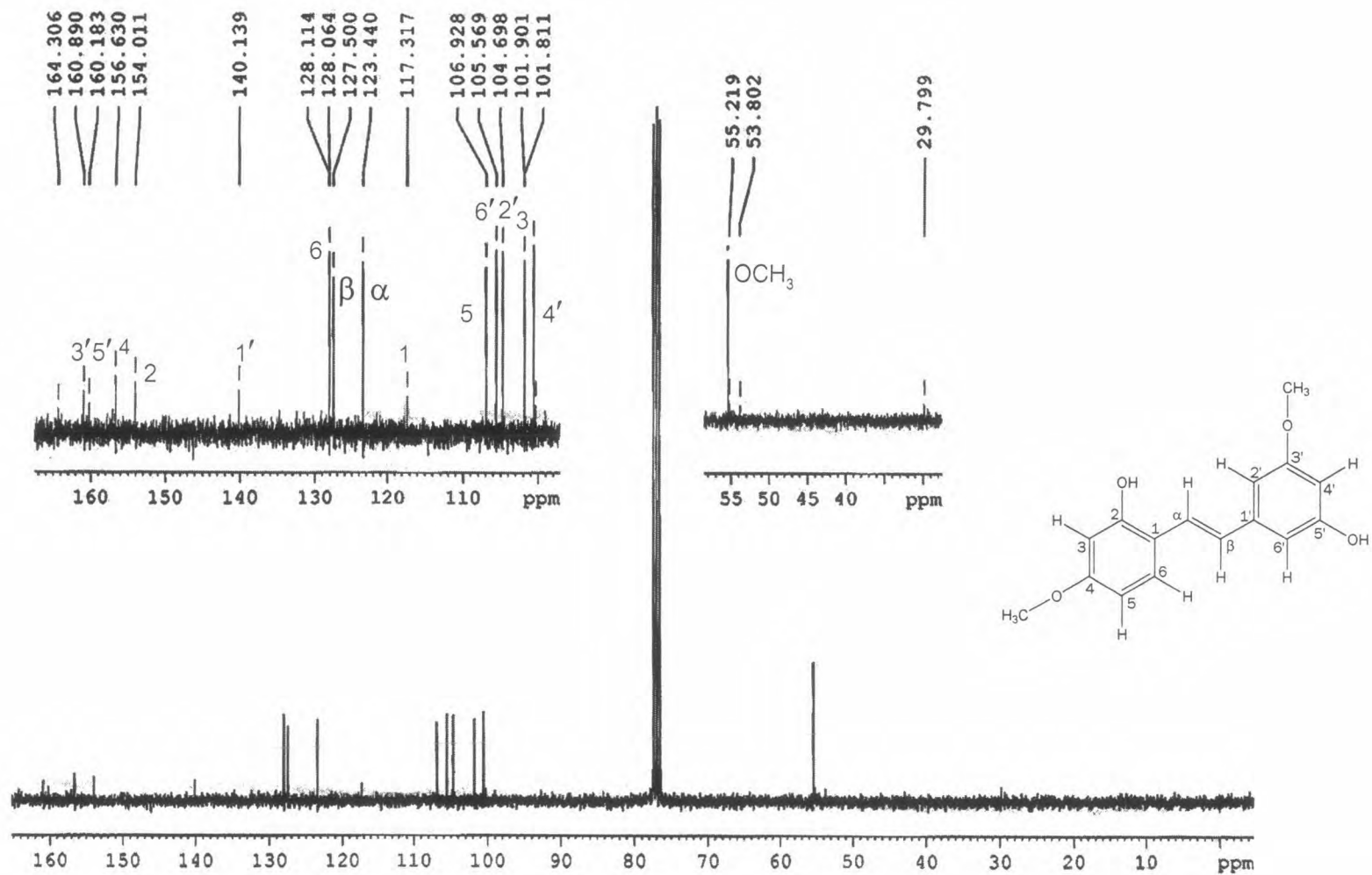


Figure 73: The 75 MHz <sup>13</sup>C-NMR spectrum of compound AS-9 (in CDCl<sub>3</sub>)

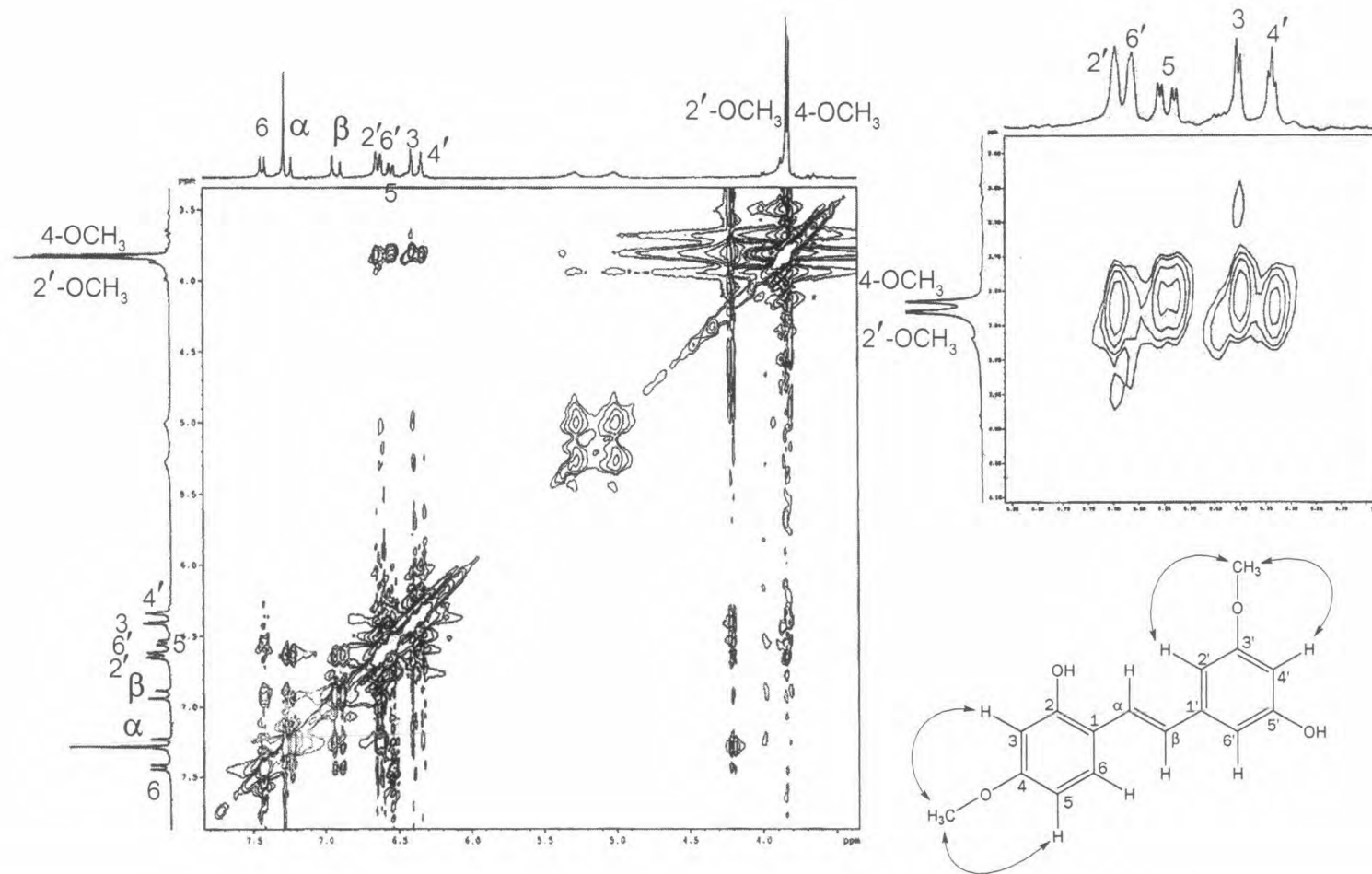


Figure 74: The 300 MHz NOESY spectrum of compound AS-9 (in CDCl<sub>3</sub>)

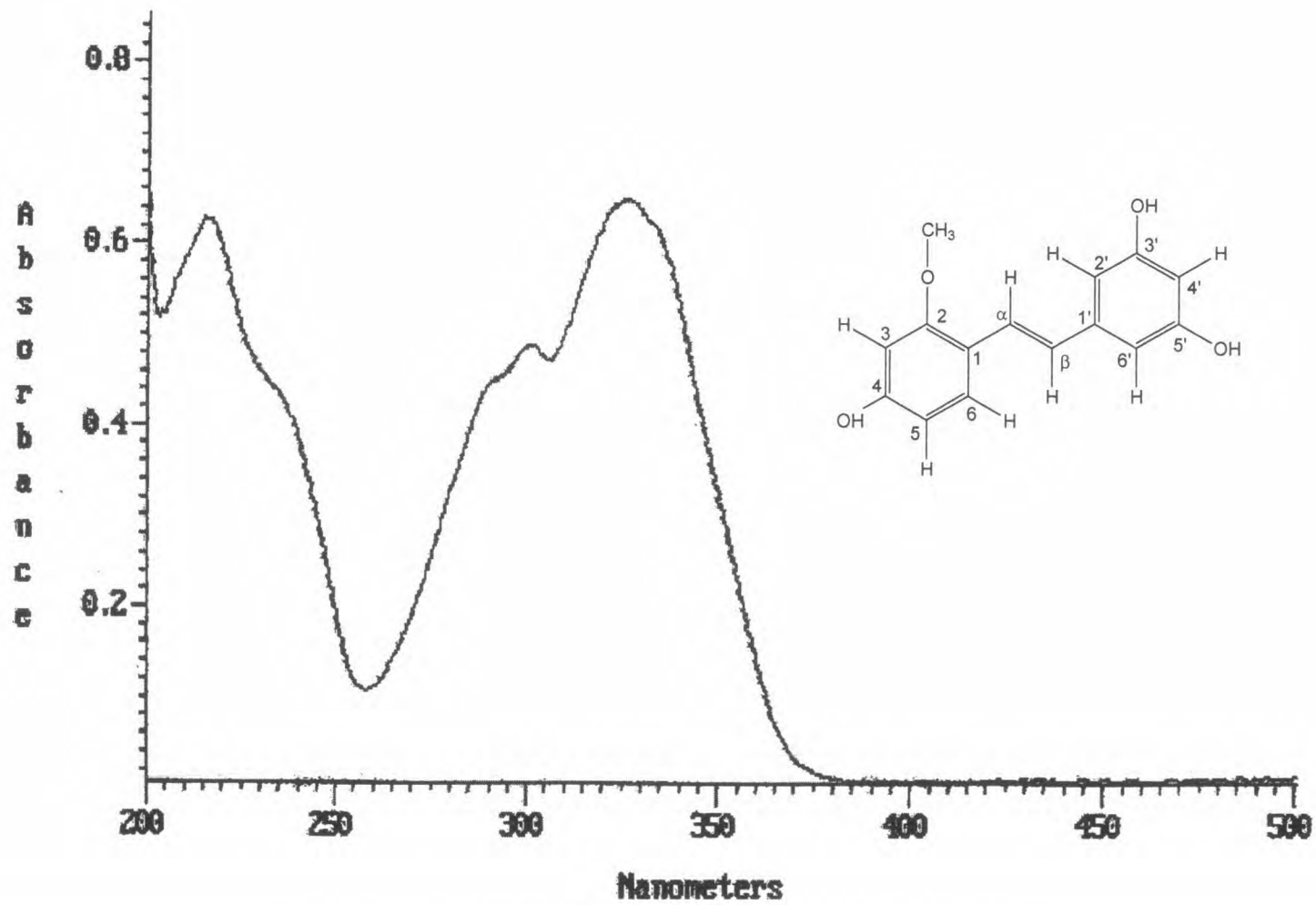


Figure 75: The UV spectrum of compound AS-10 (in MeOH)

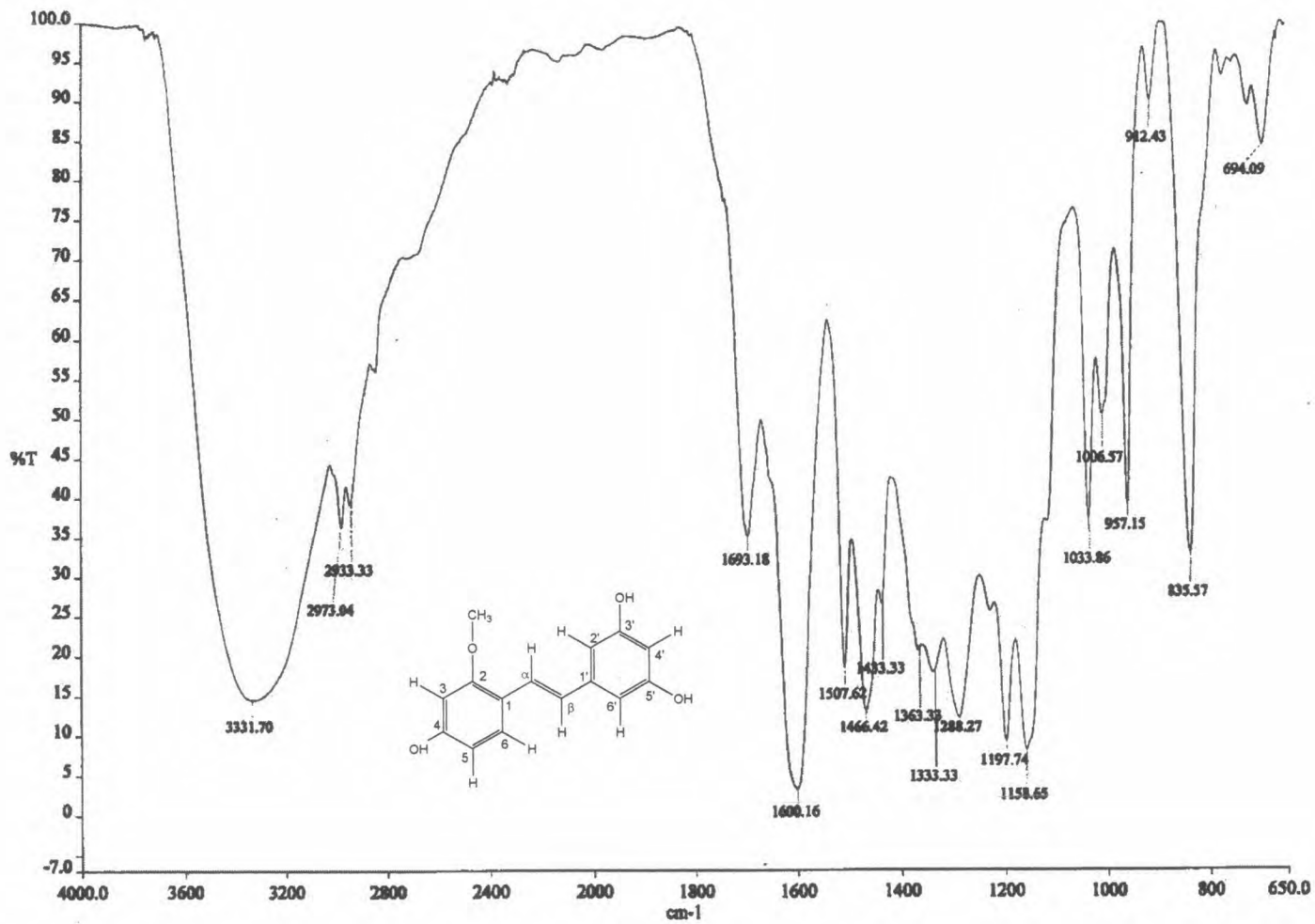


Figure 76: The IR spectrum of compound AS-10 (UATR)



T: + e.Full.ms [40.00-850.00]

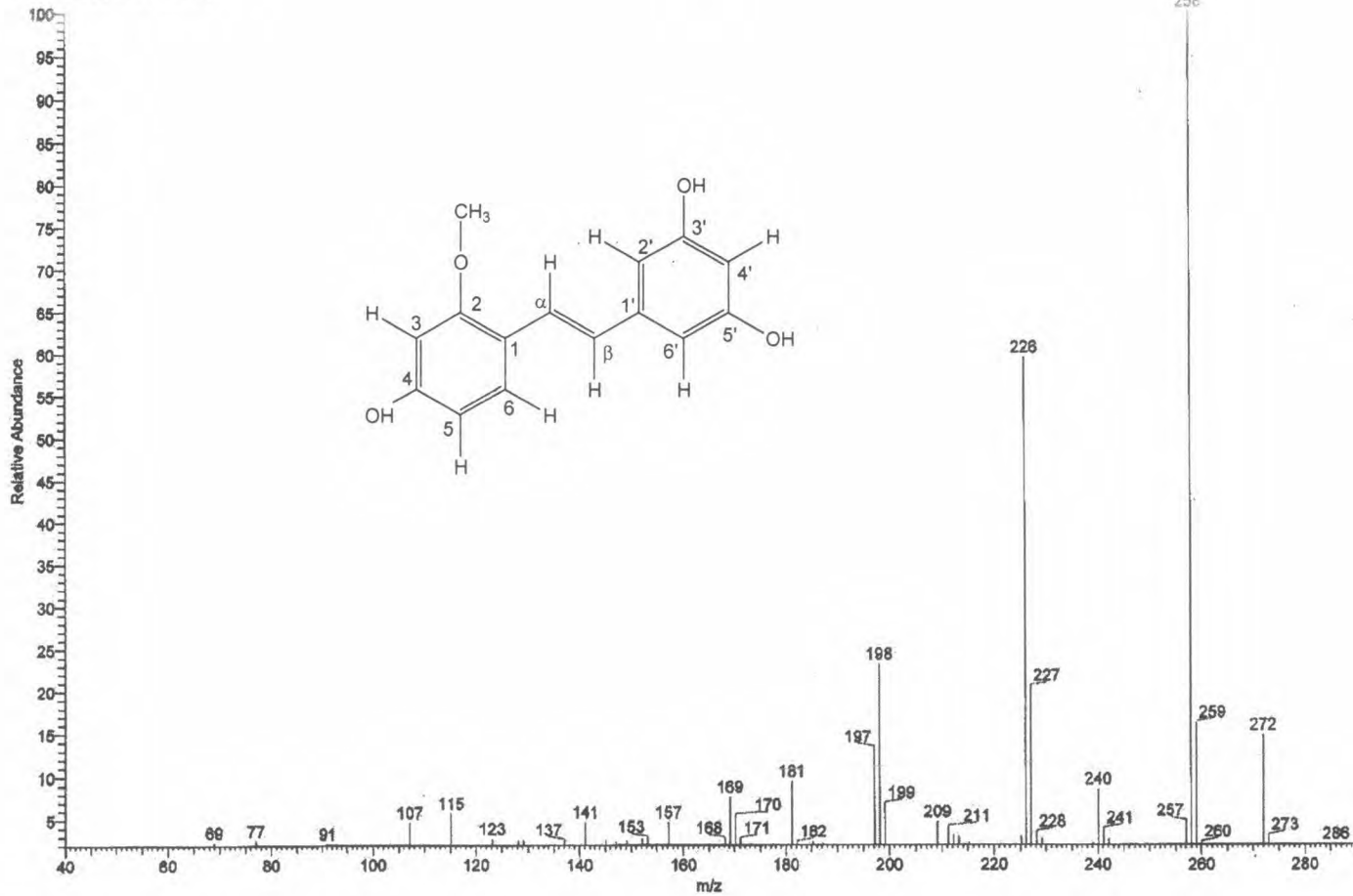


Figure 77: The ESI mass spectrum of compound AS-10

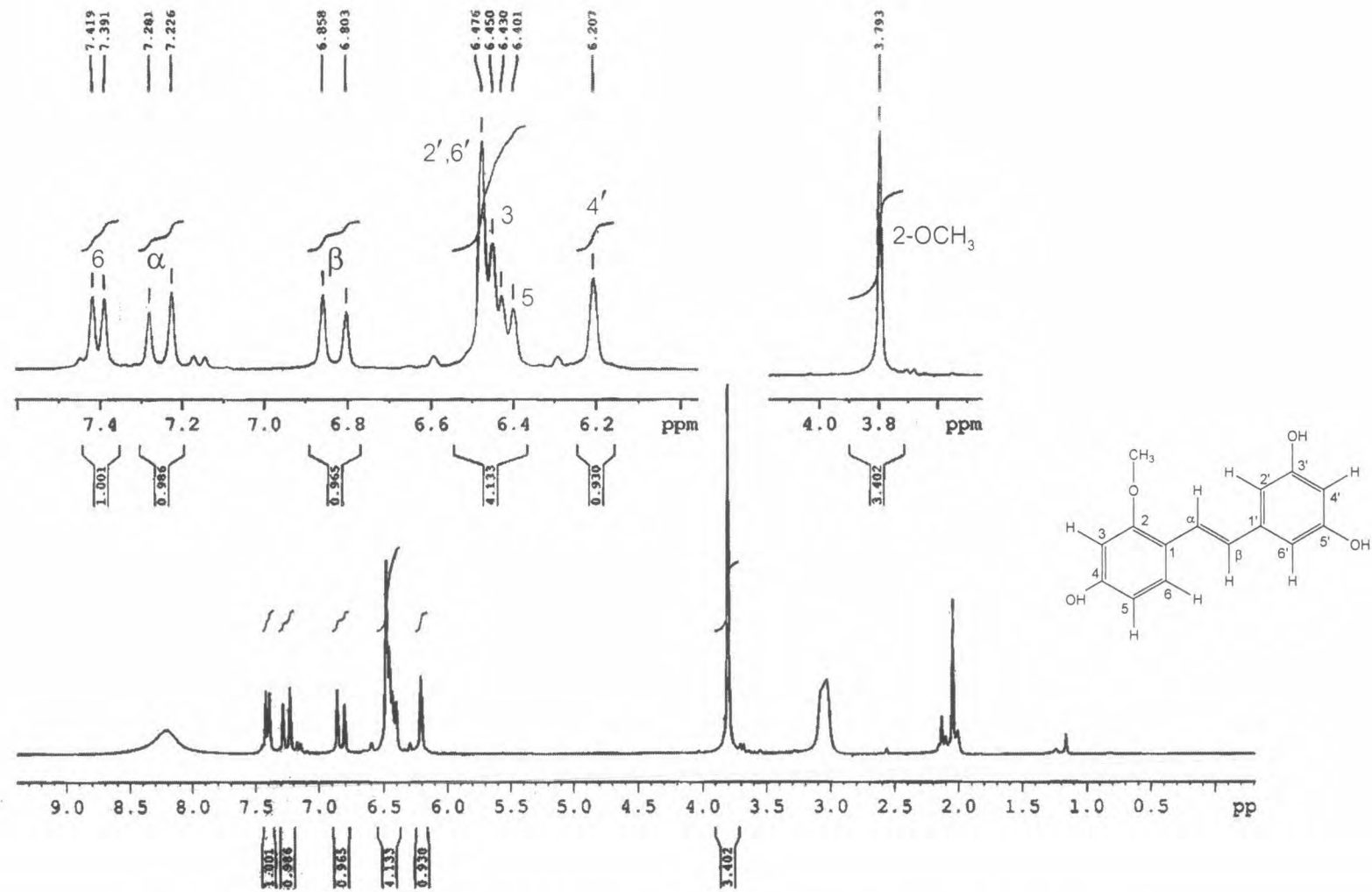


Figure 78: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-10 (in Acetone-d)

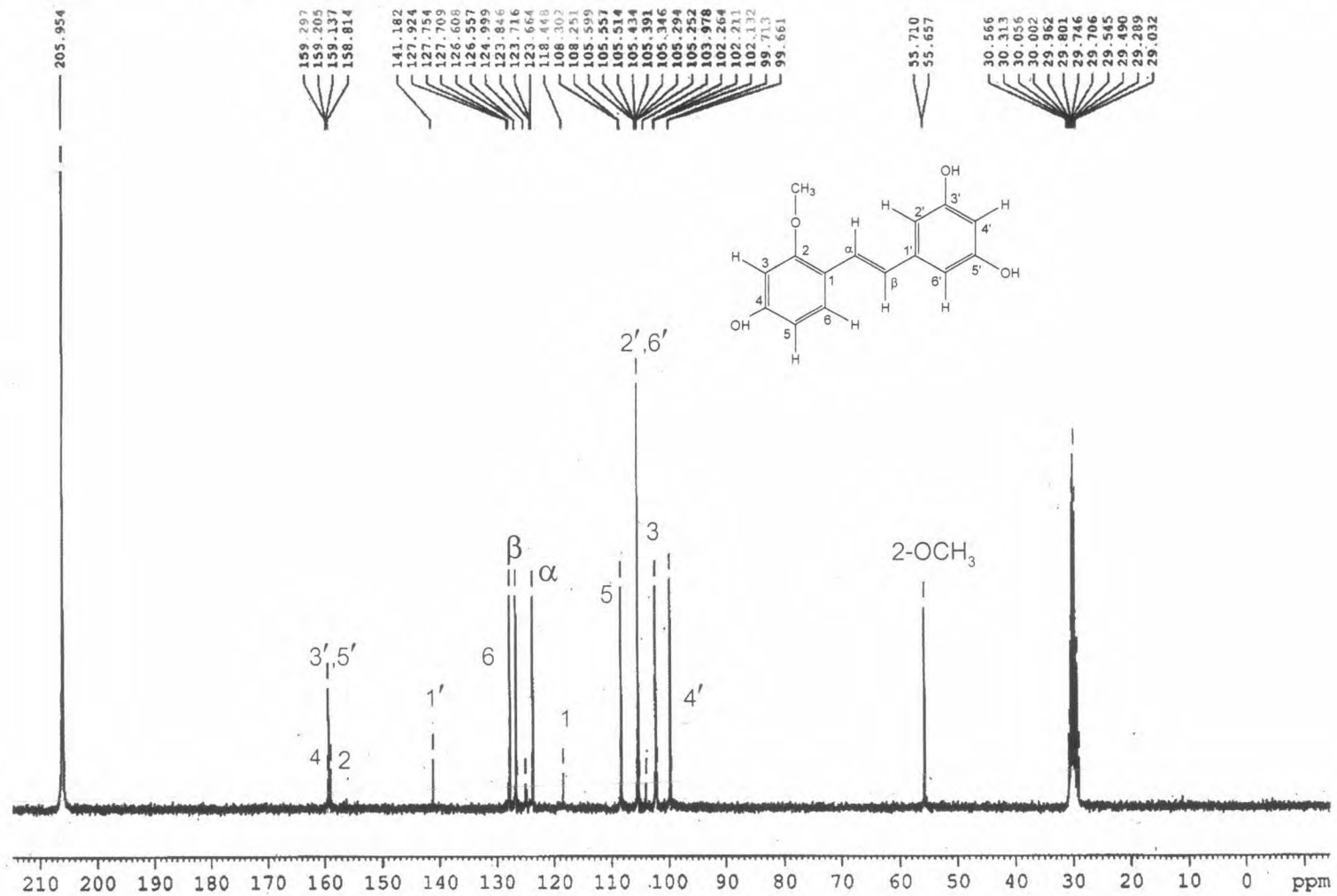


Figure 79: The 75 MHz <sup>13</sup>C-NMR spectrum of compound AS-10 (in Acetone-d<sub>6</sub>)

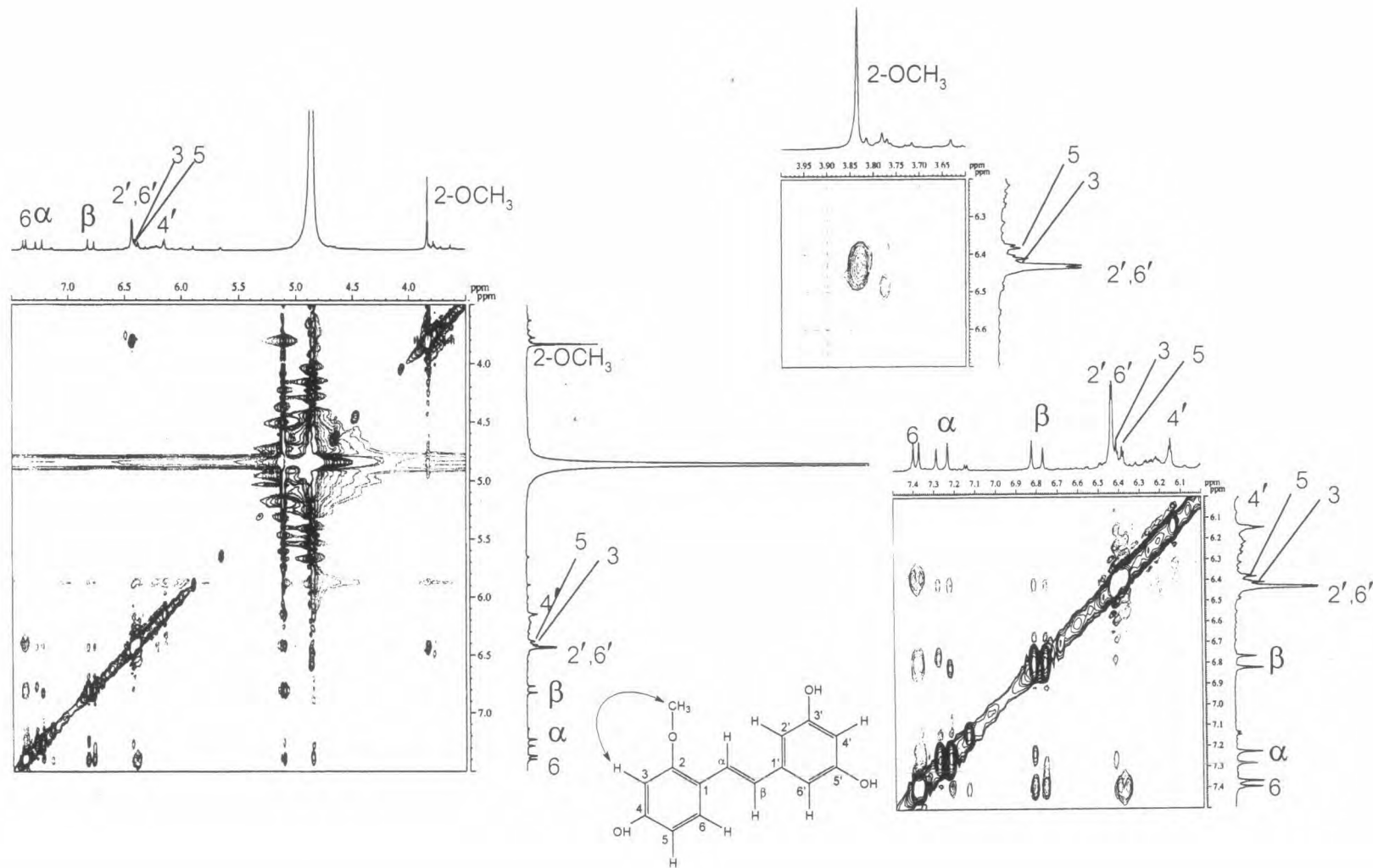


Figure 80: The 300 MHz NOESY spectrum of compound AS-10 (in CD<sub>3</sub>OD)

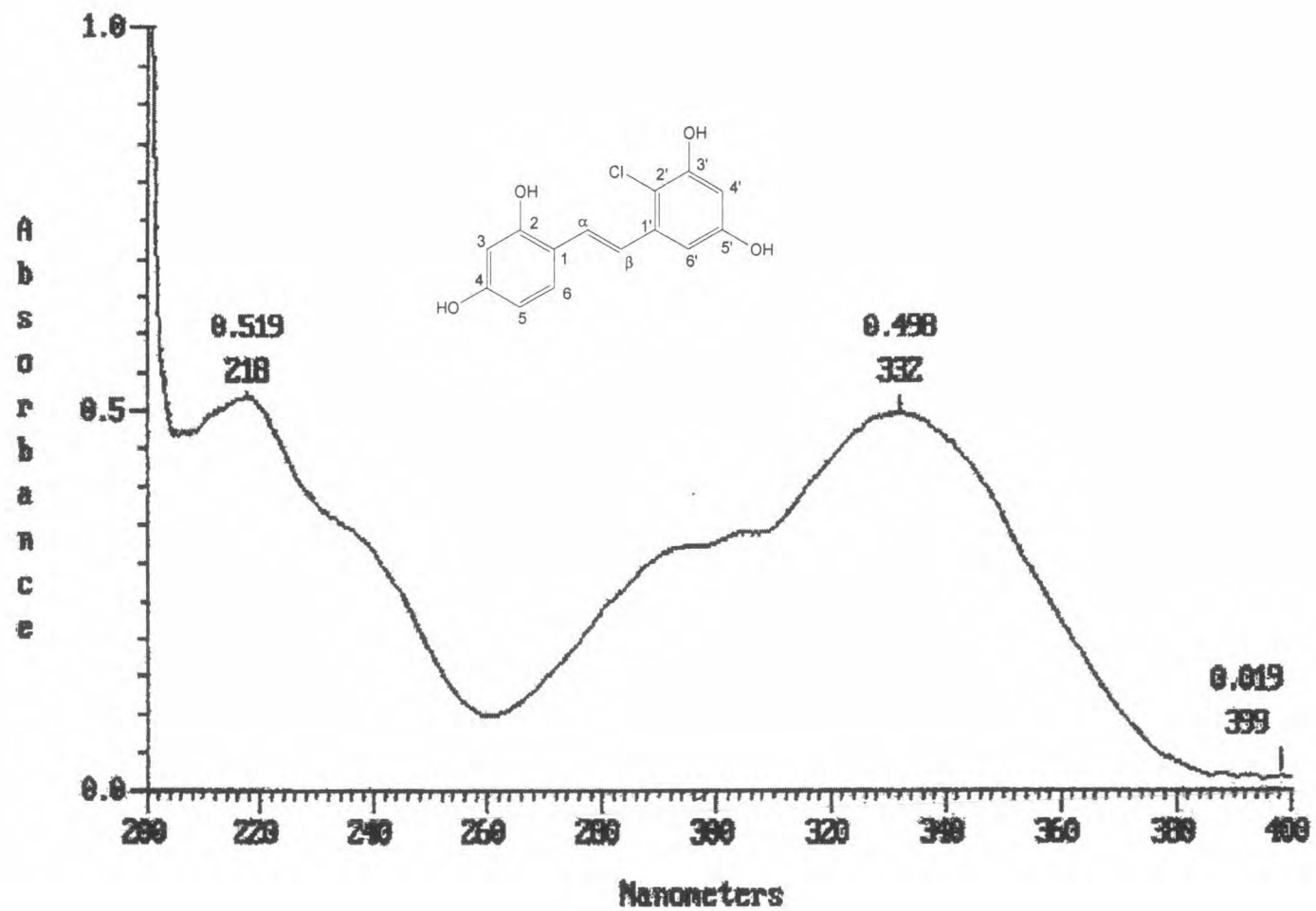


Figure 81: The UV spectrum of compound AS-11 (in MeOH)

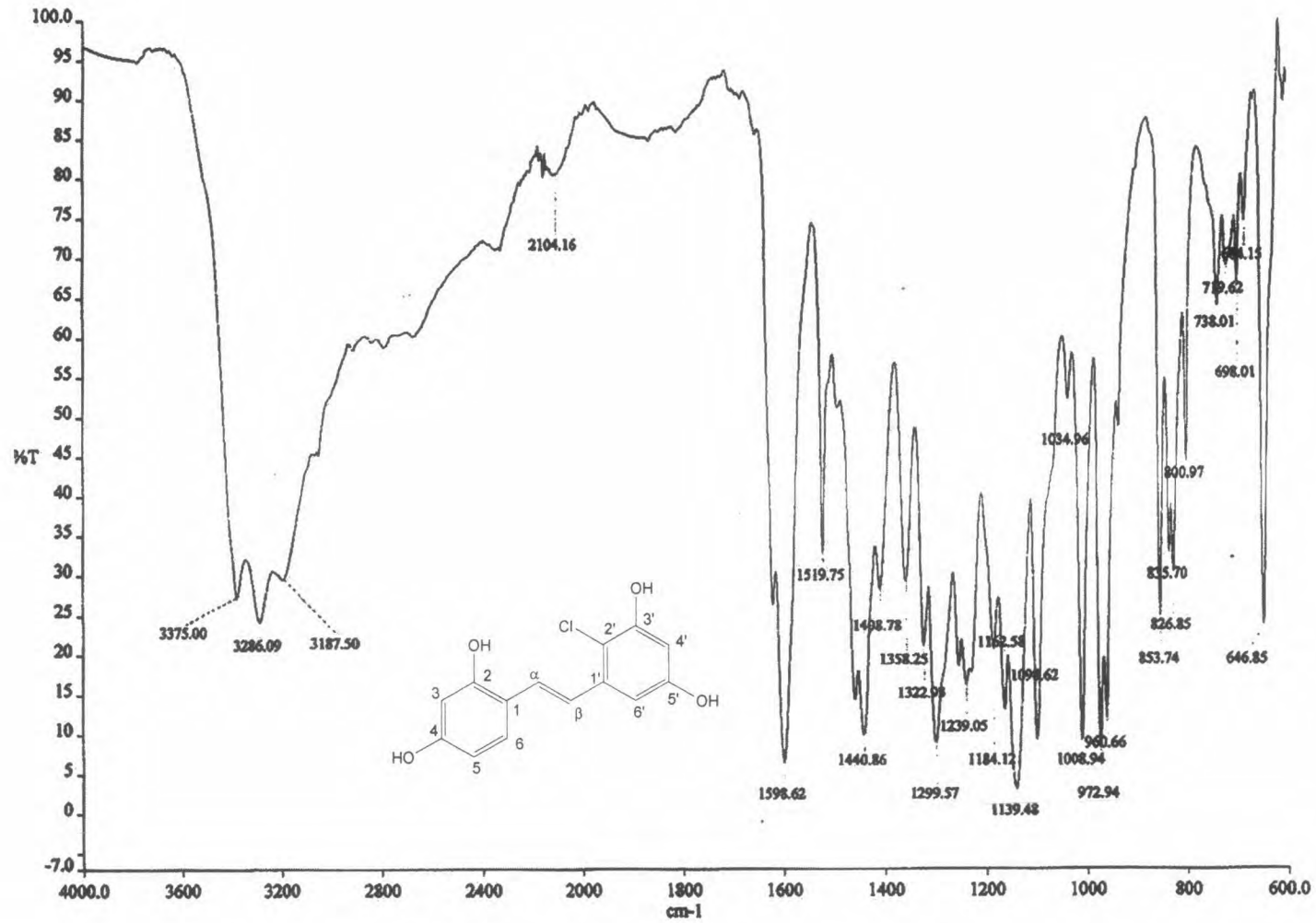


Figure 82: The IR spectrum of compound AS-11 (UATR)

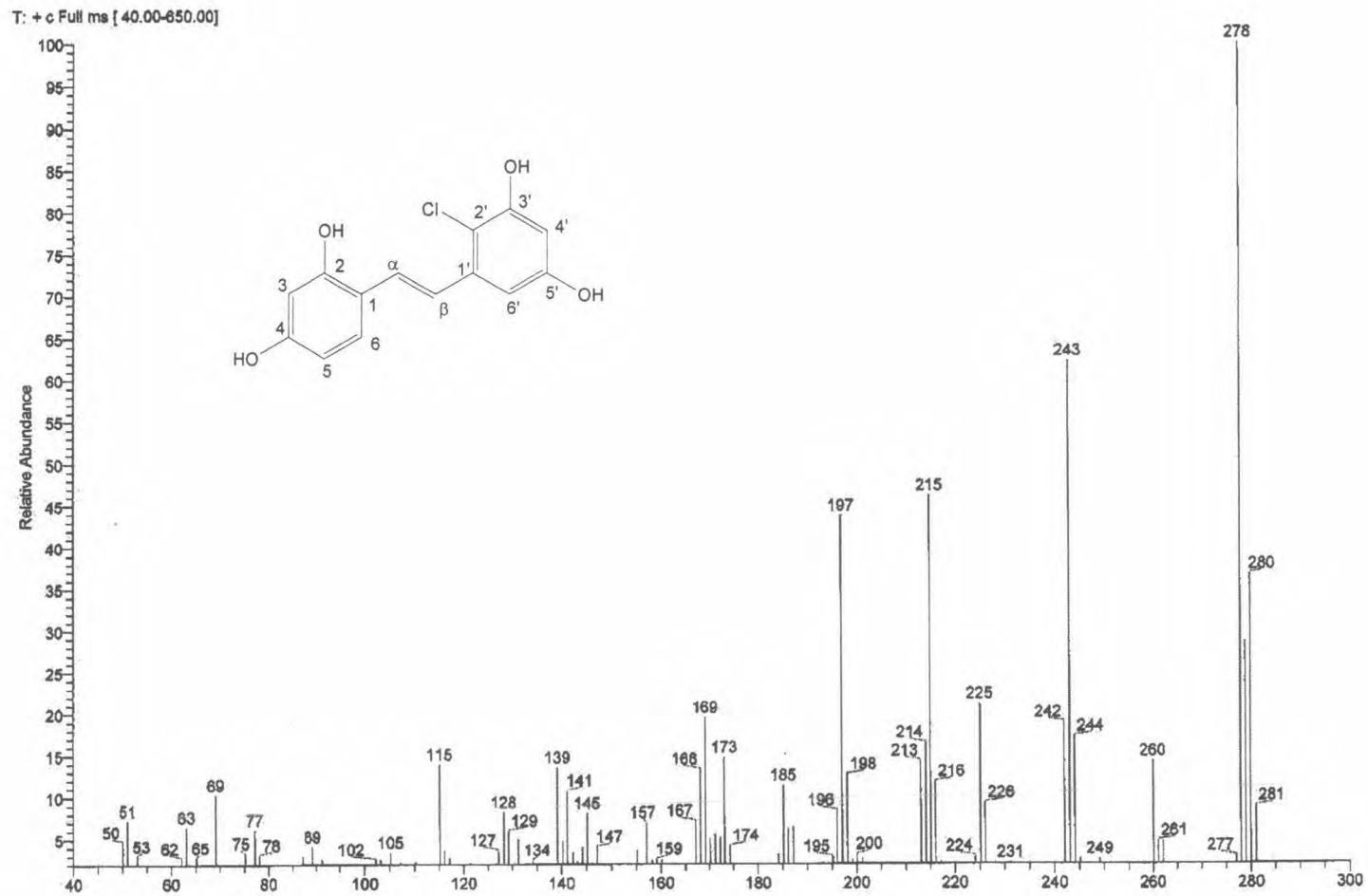


Figure 83: The ESI mass spectrum of compound AS-11

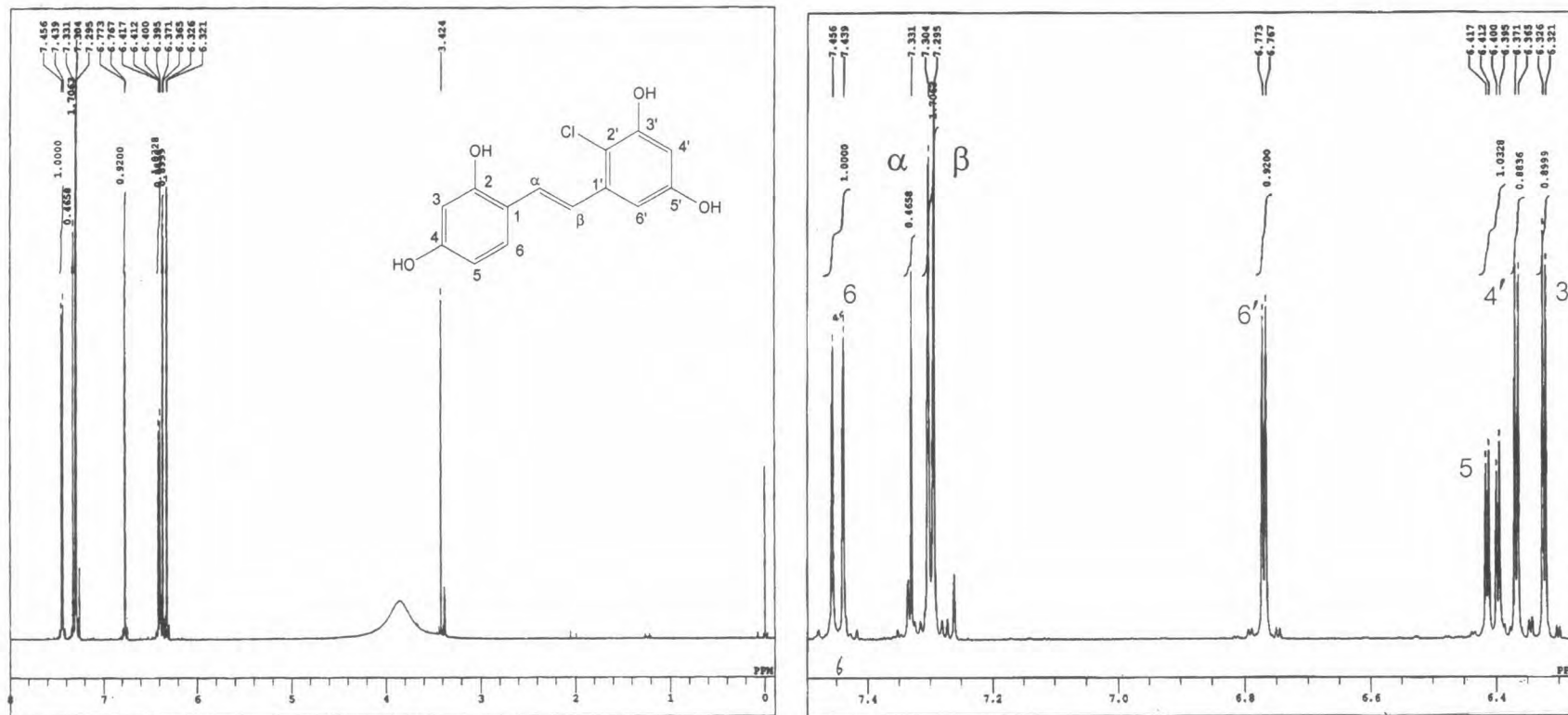


Figure 84: The 500 MHz  $^1\text{H-NMR}$  spectrum of compound AS-11 (in  $\text{CDCl}_3 + \text{CD}_3\text{OD}$ )



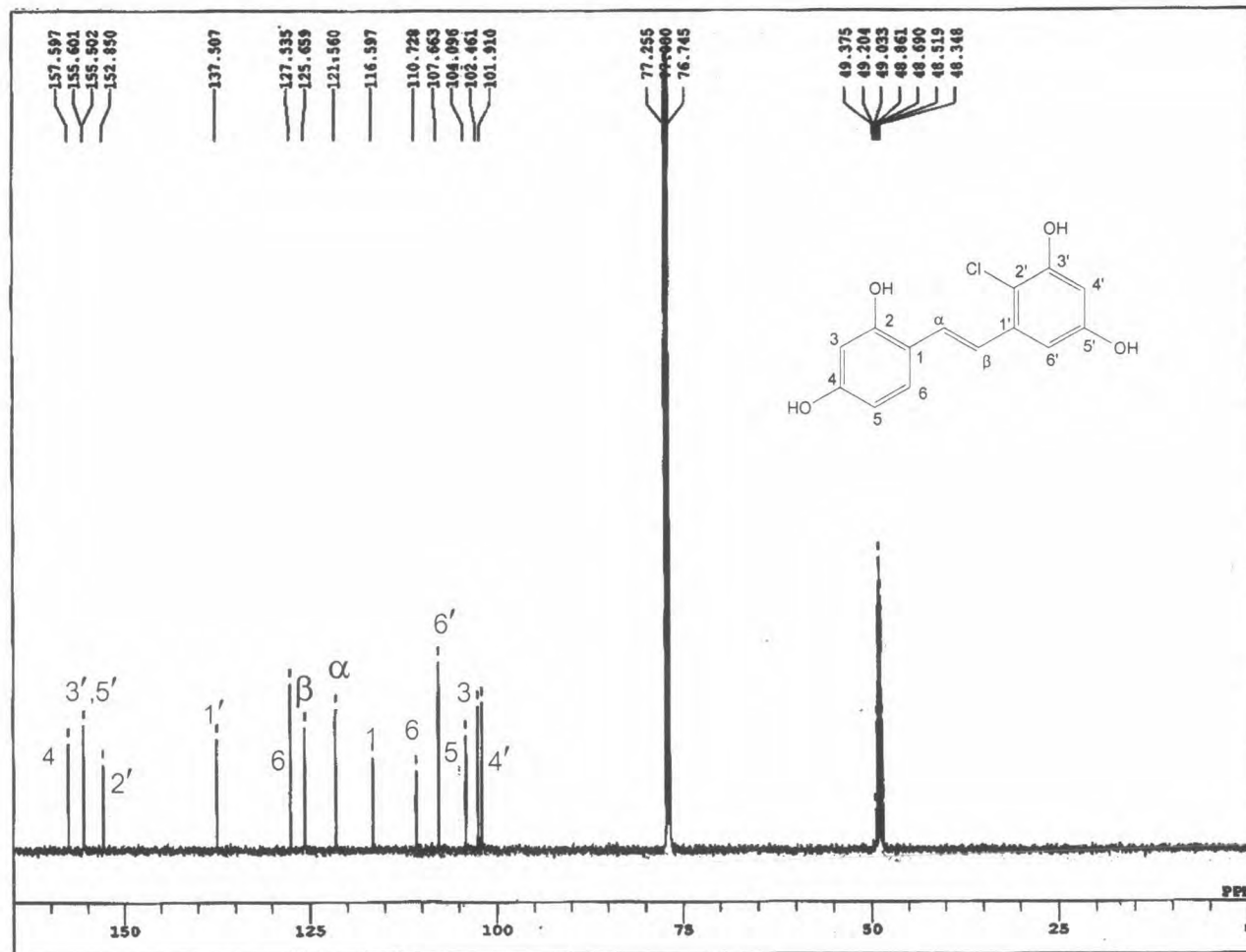


Figure 85: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of compound AS-11 (in  $\text{CDCl}_3 + \text{CD}_3\text{OD}$ )

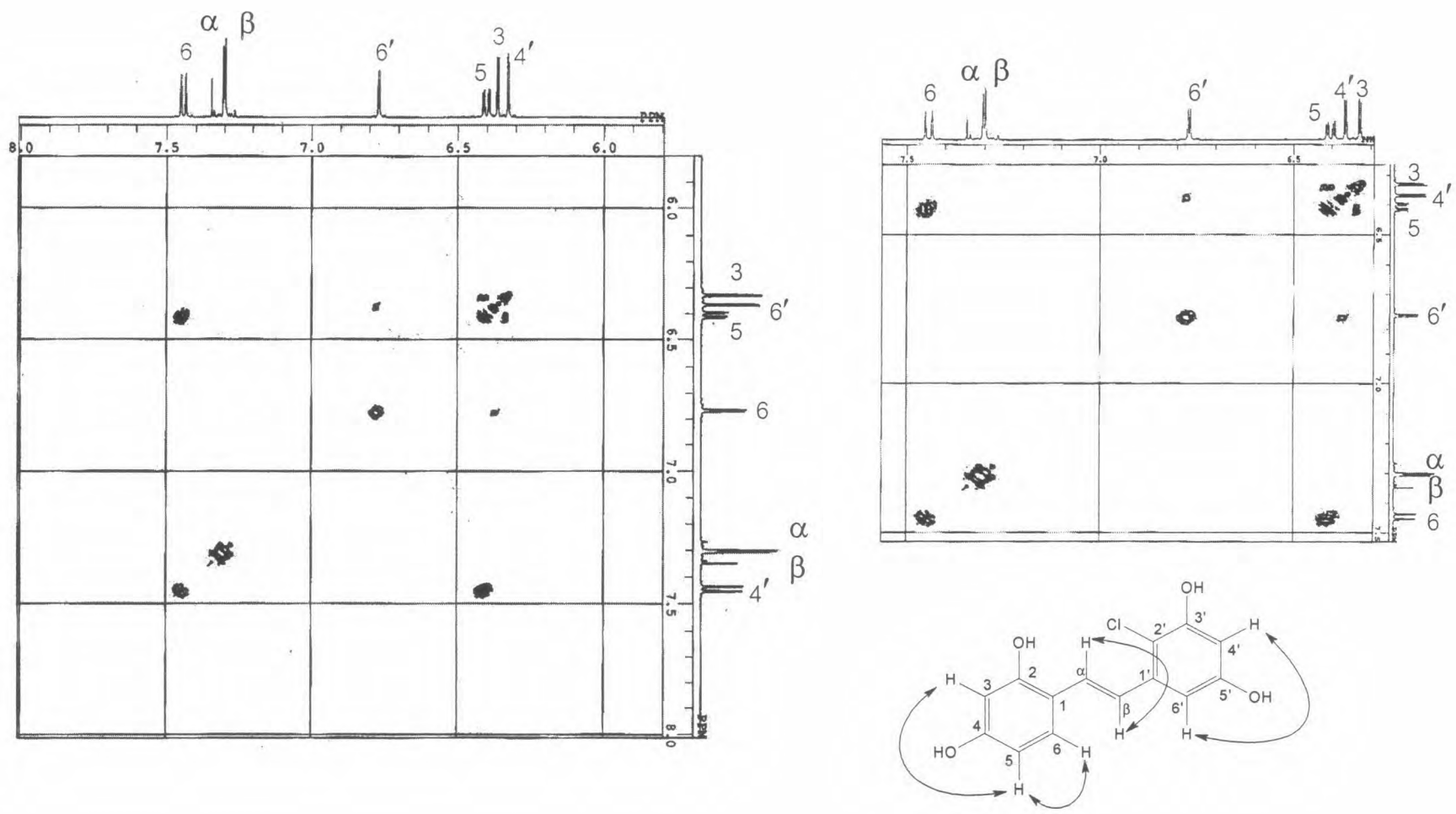


Figure 86: The 500 MHz COSY spectrum of compound AS-11 (in  $\text{CDCl}_3 + \text{CD}_3\text{OD}$ )

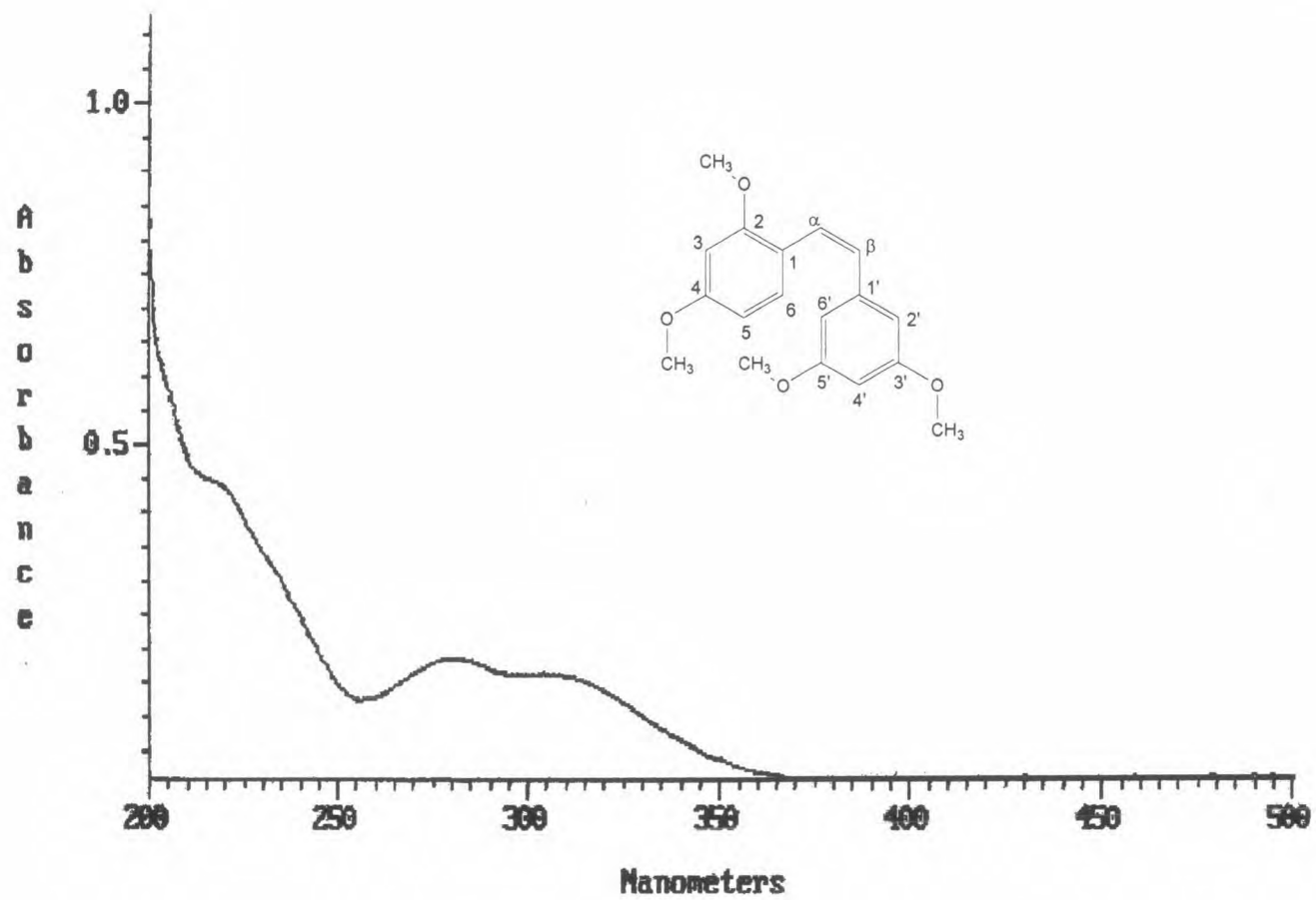


Figure 87: The UV spectrum of compound AS-12 (in MeOH)

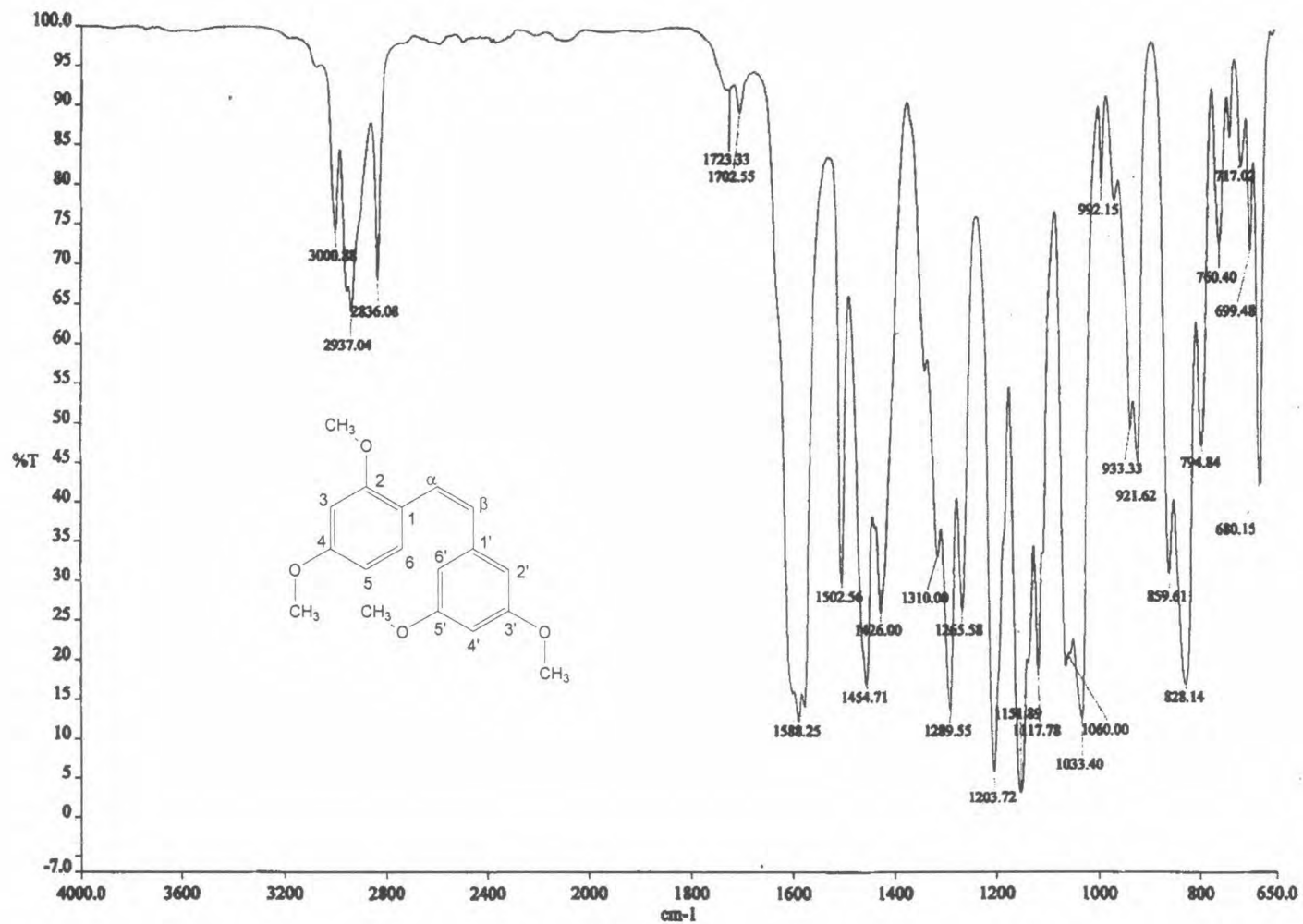


Figure 88: The IR spectrum of compound AS-12 (UATR)

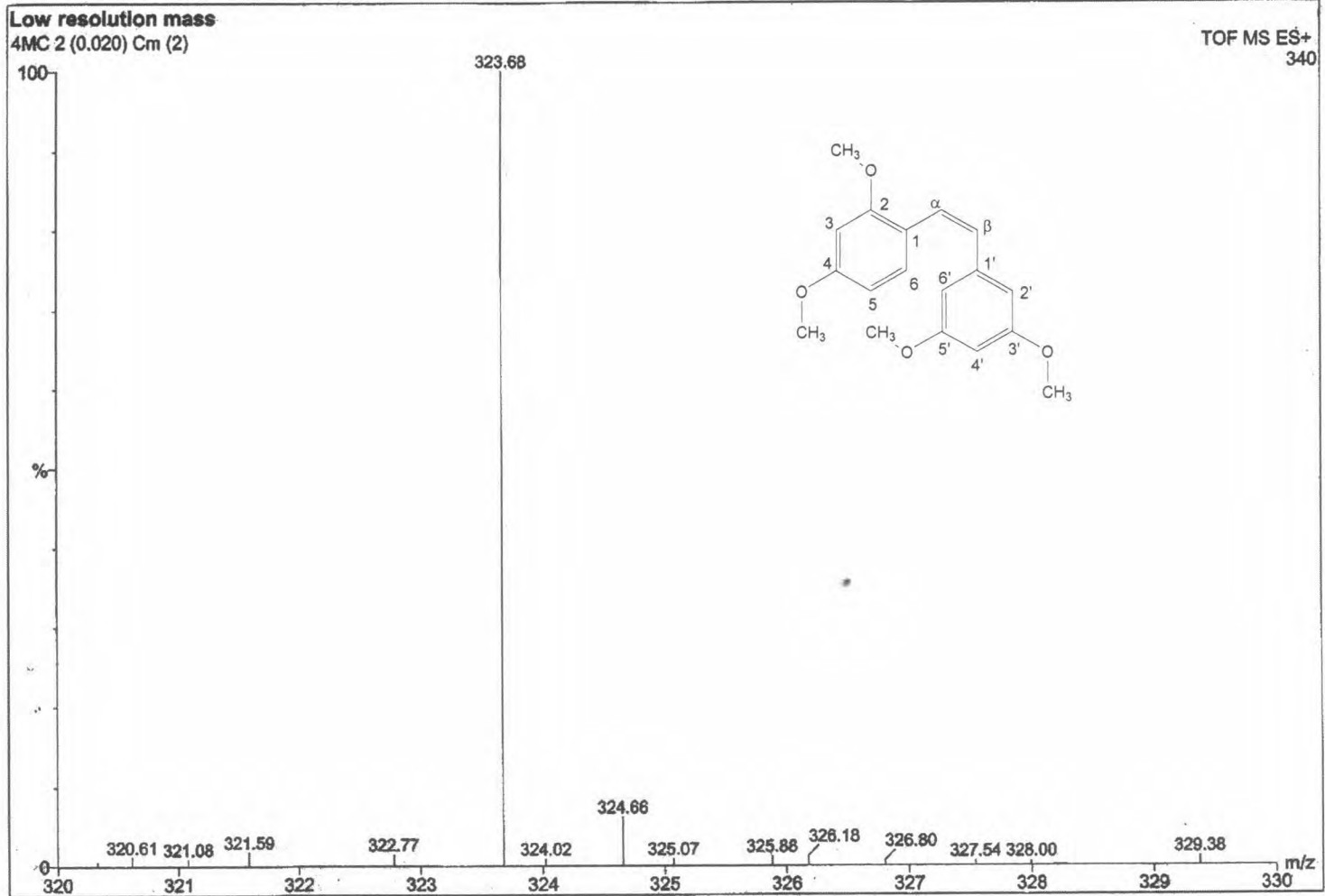


Figure 89: The TOF MS spectrum of compound AS-12

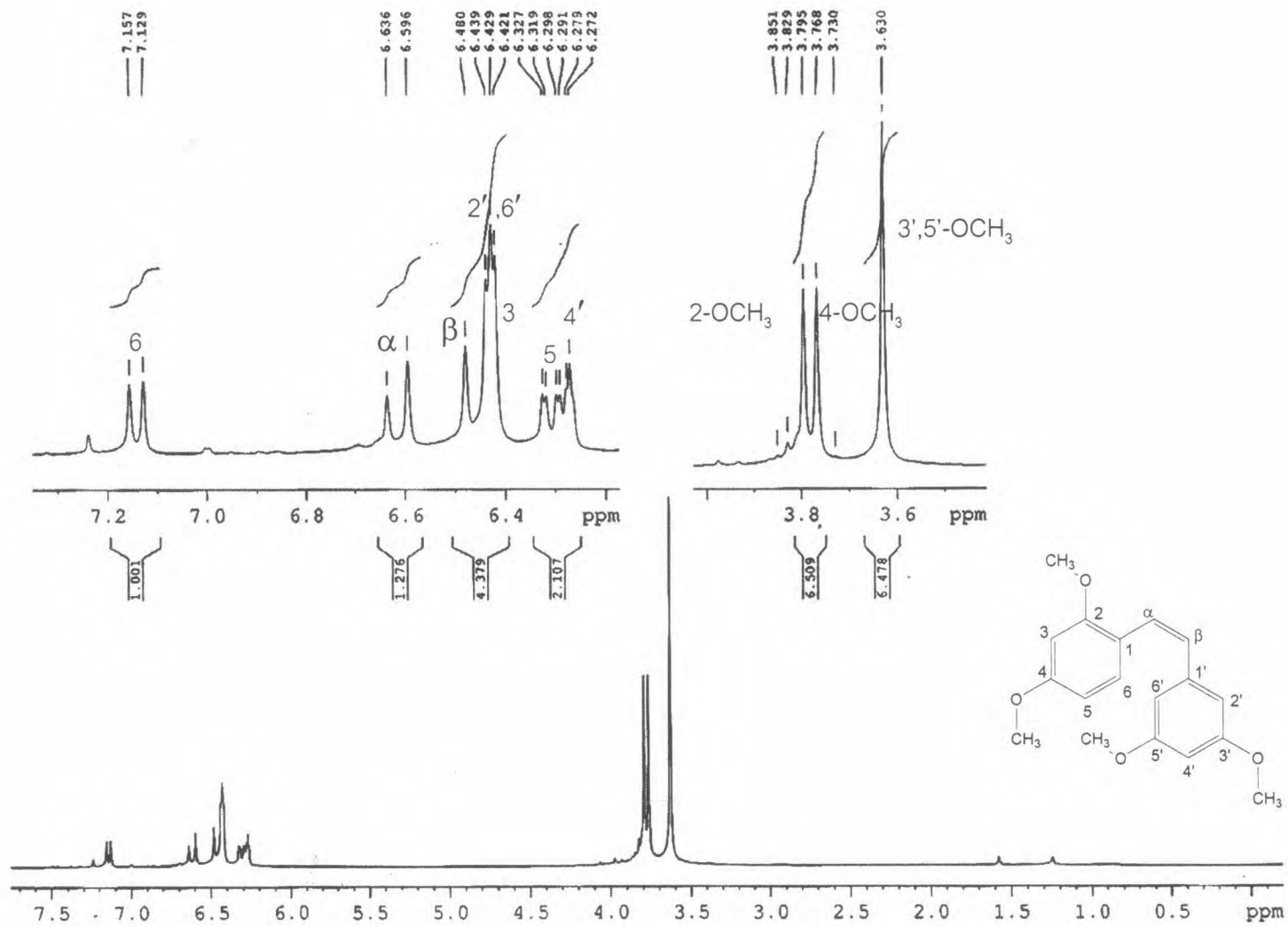


Figure 90: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-12 (in  $\text{CDCl}_3$ )

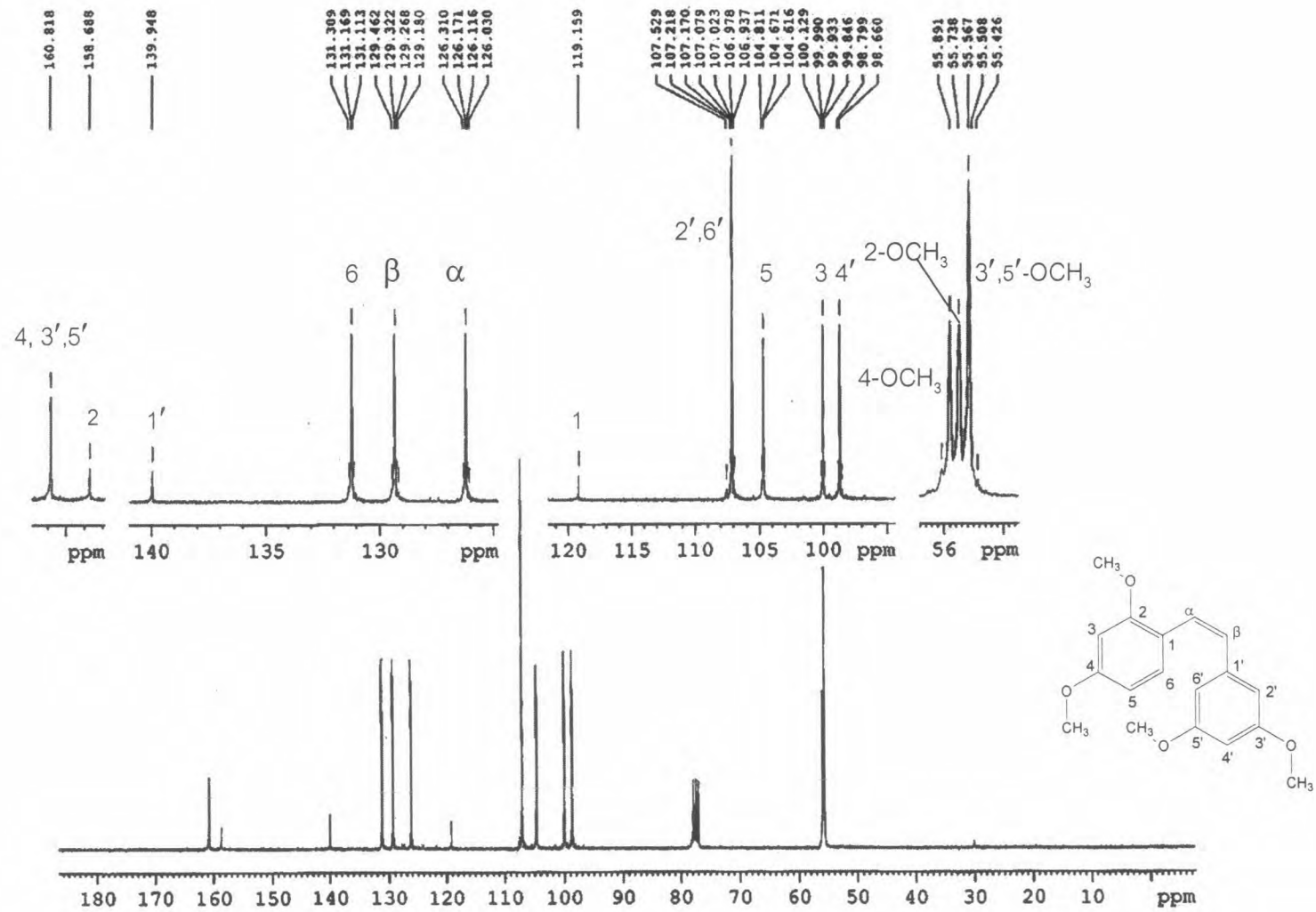


Figure 91: The 75 MHz <sup>13</sup>C-NMR spectrum of compound AS-12 (in CDCl<sub>3</sub>)

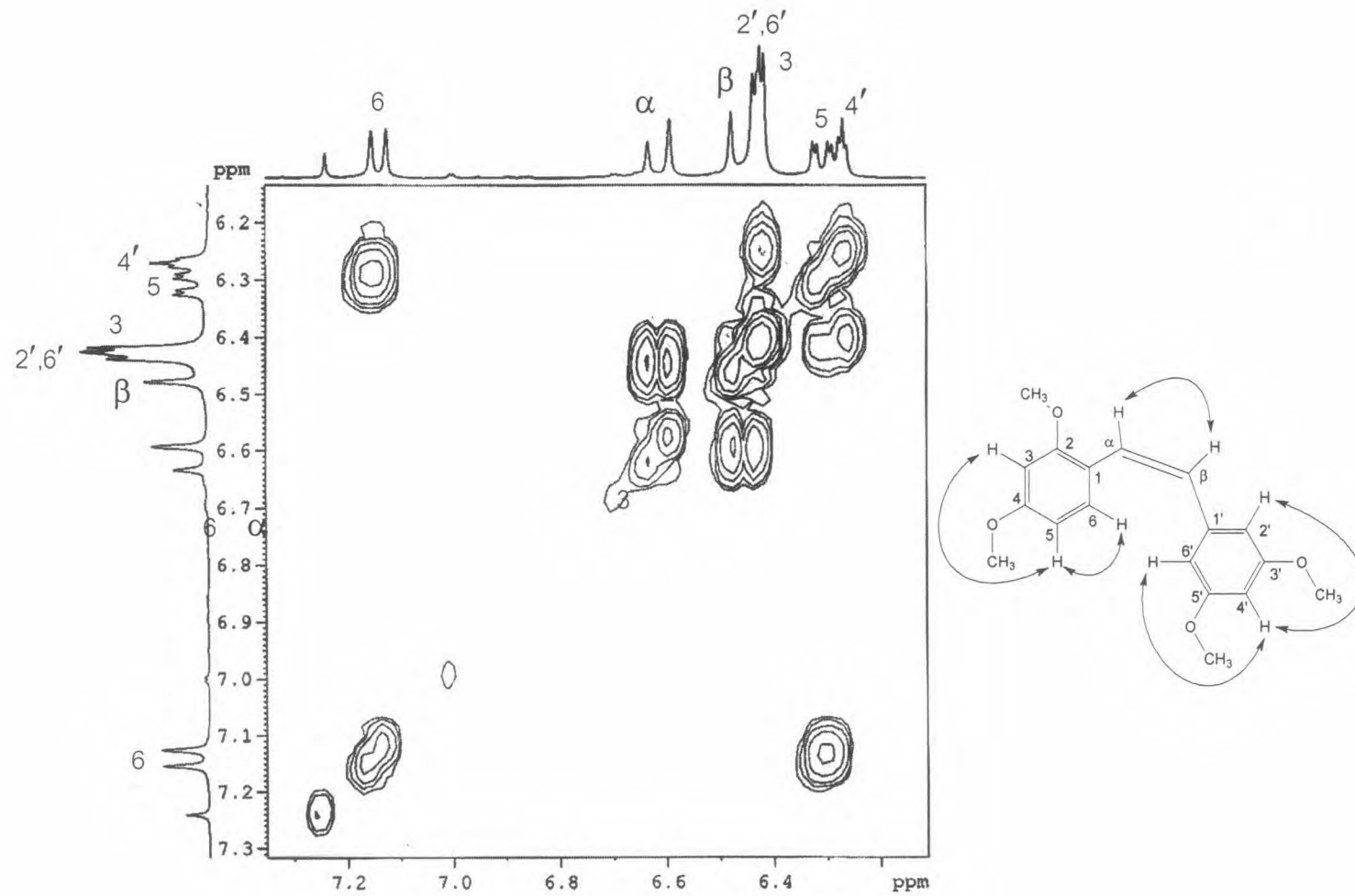


Figure 92: The 300 MHz  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound AS-12 (in  $\text{CDCl}_3$ )



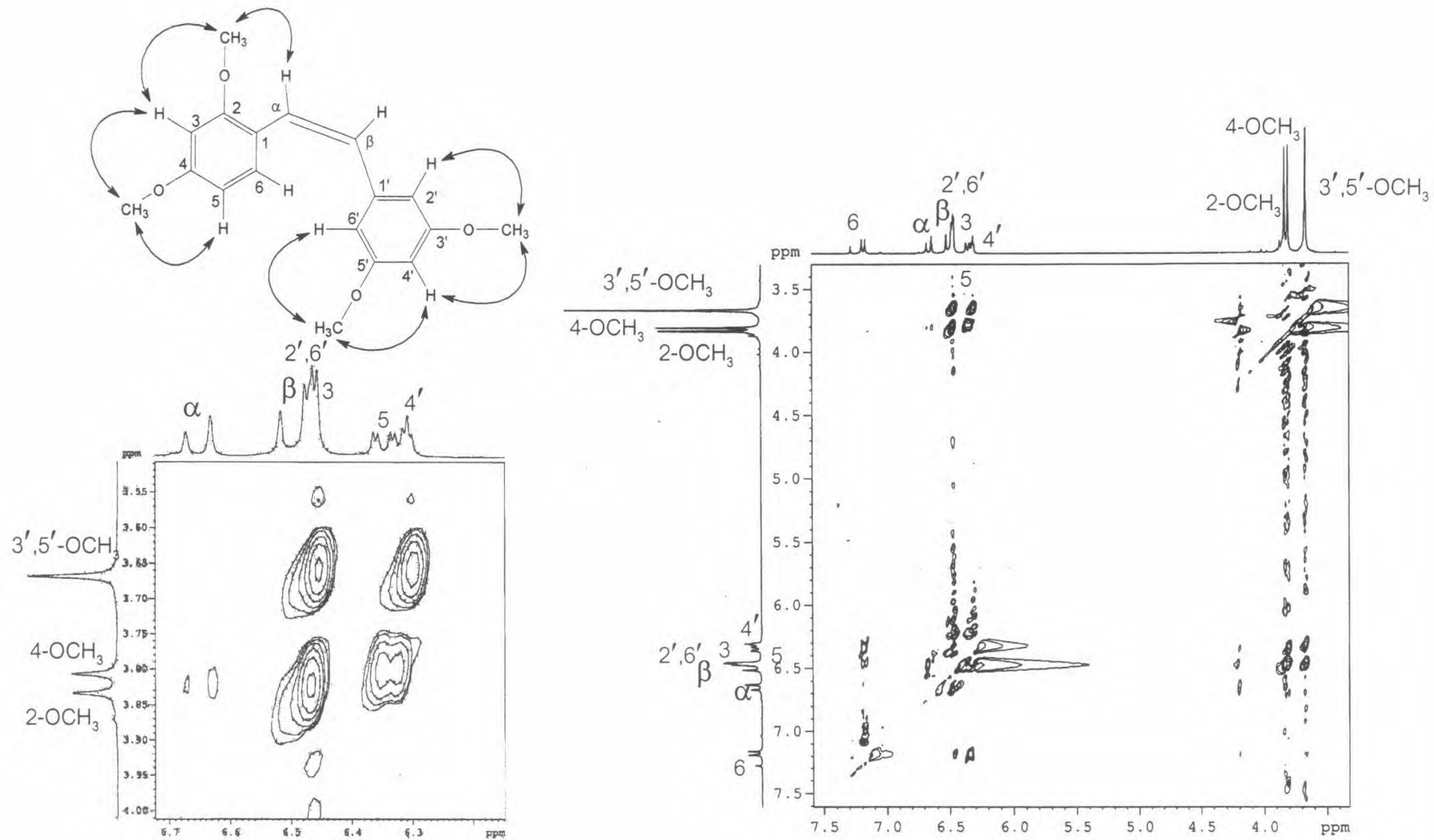


Figure 93: The 300 MHz NOESY spectrum of compound AS-12 (in CDCl<sub>3</sub>)

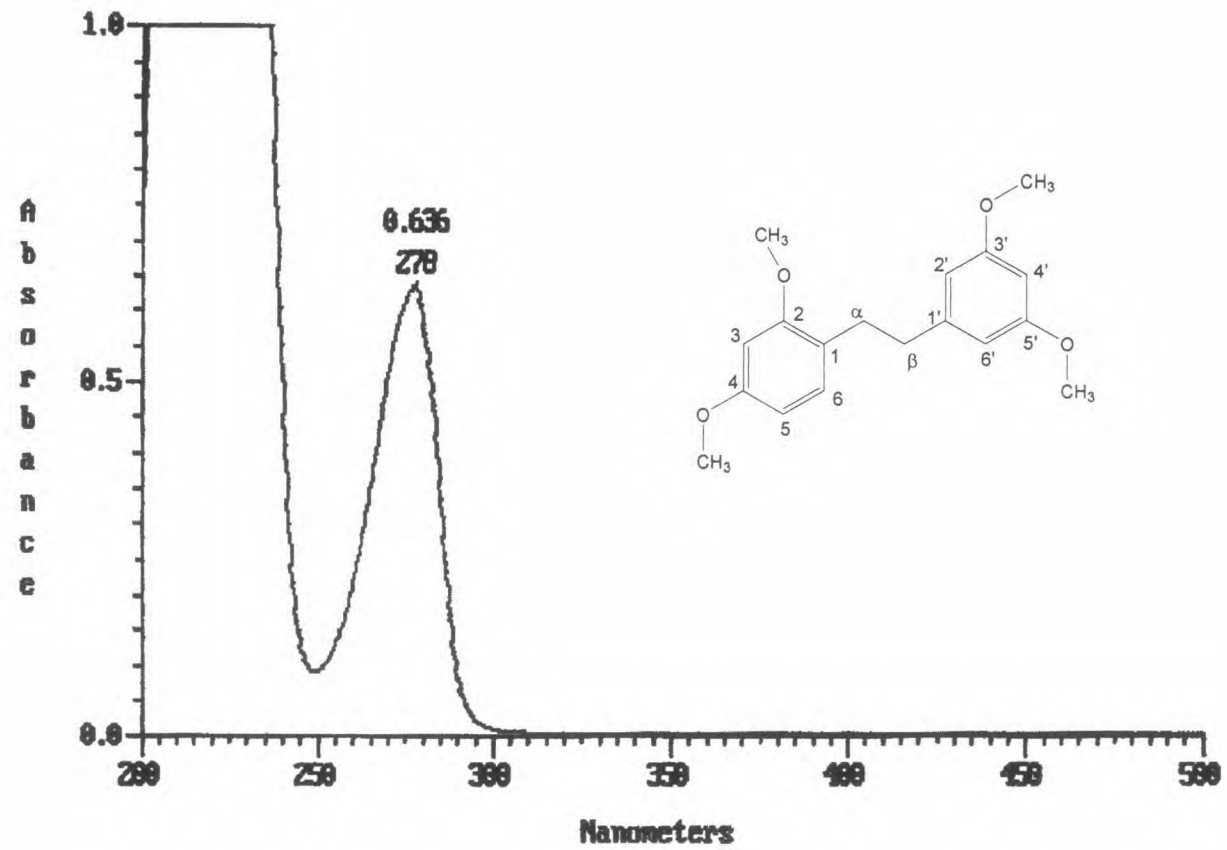


Figure 94: The UV spectrum of compound AS-13 (in MeOH)

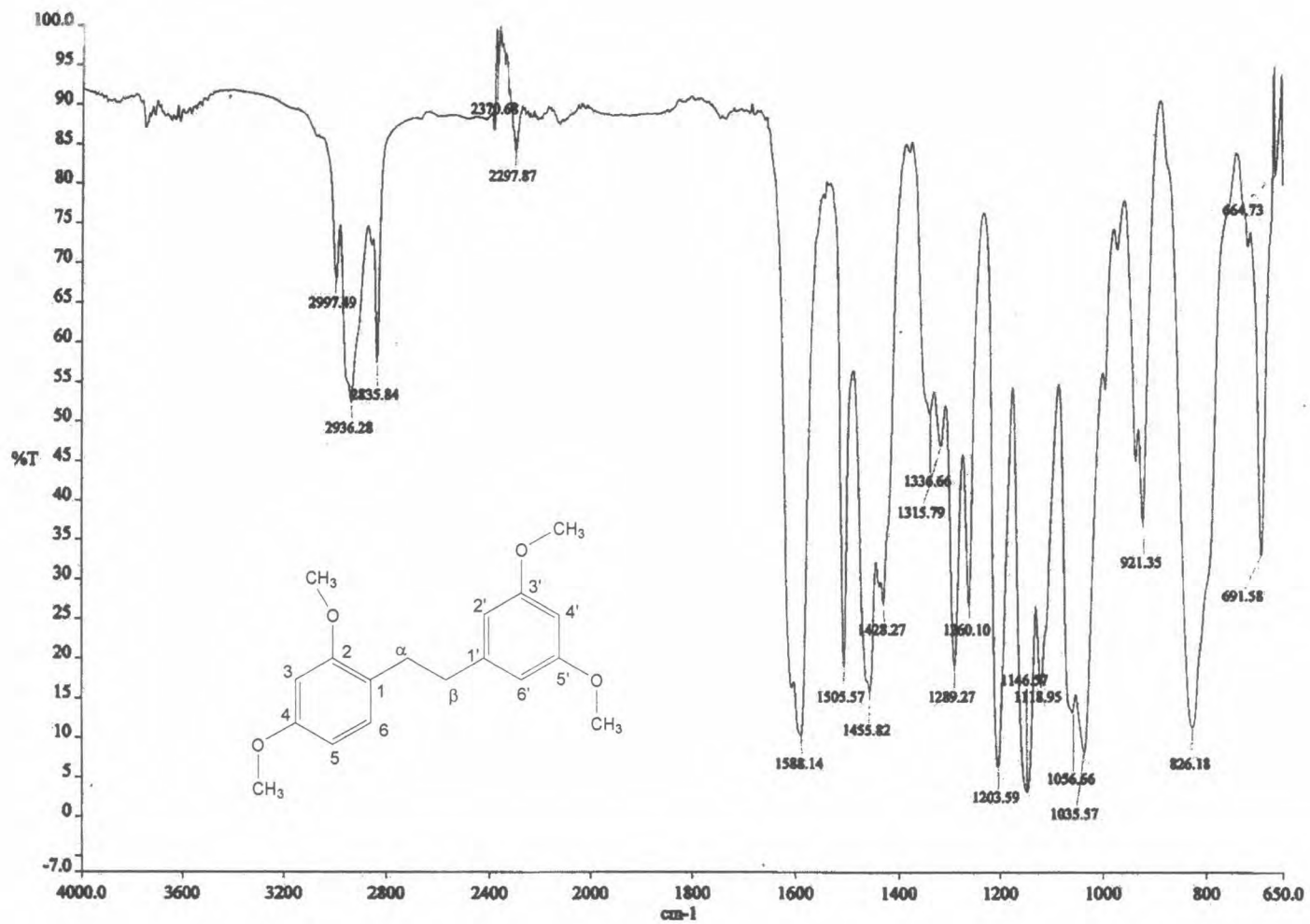


Figure 95: The IR spectrum of compound AS-11 (in CDCl<sub>3</sub>)

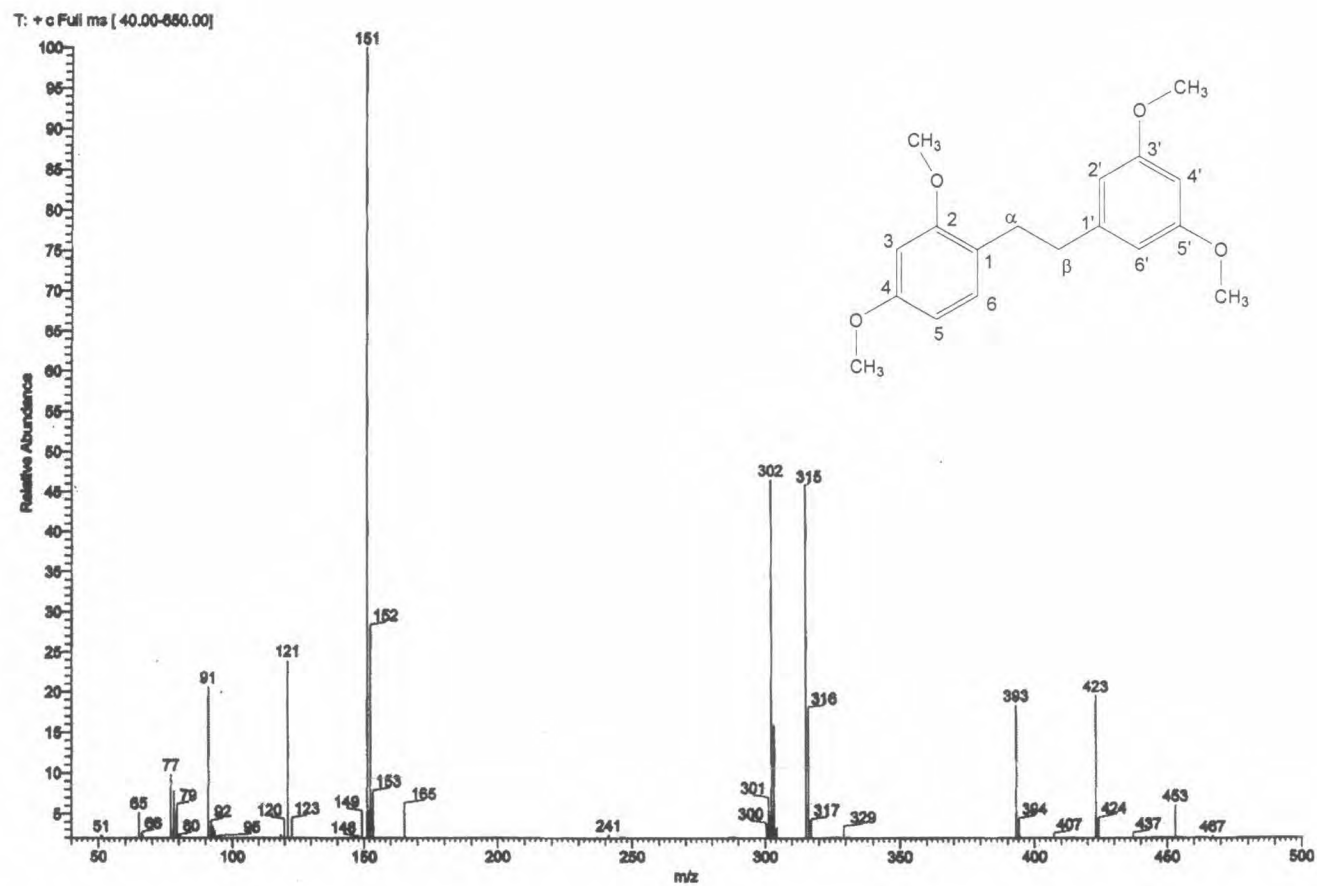


Figure 96: The ESI mass spectrum of compound AS-13

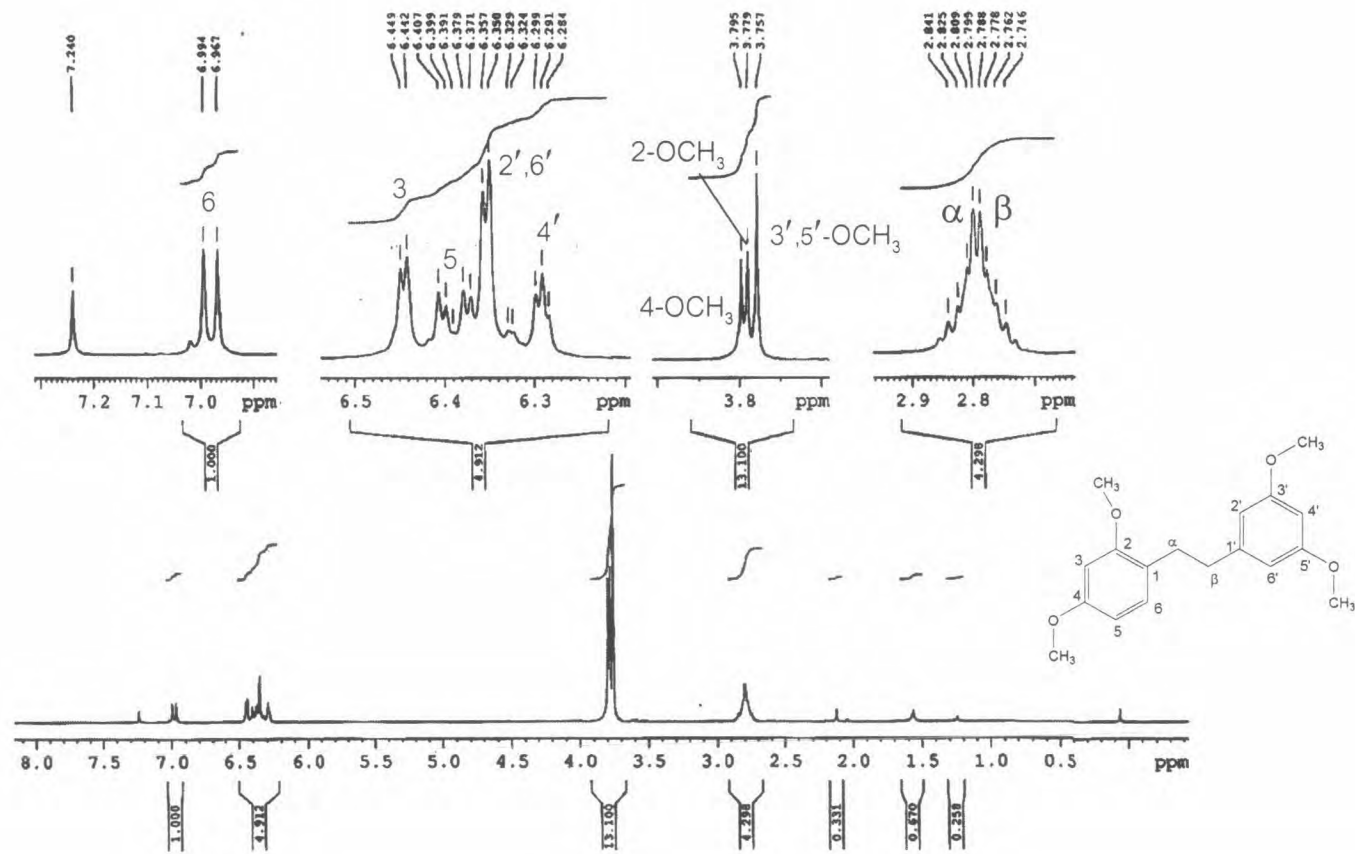


Figure 97: The 300 MHz  $^1\text{H-NMR}$  spectrum of compound AS-13 (in  $\text{CDCl}_3$ )

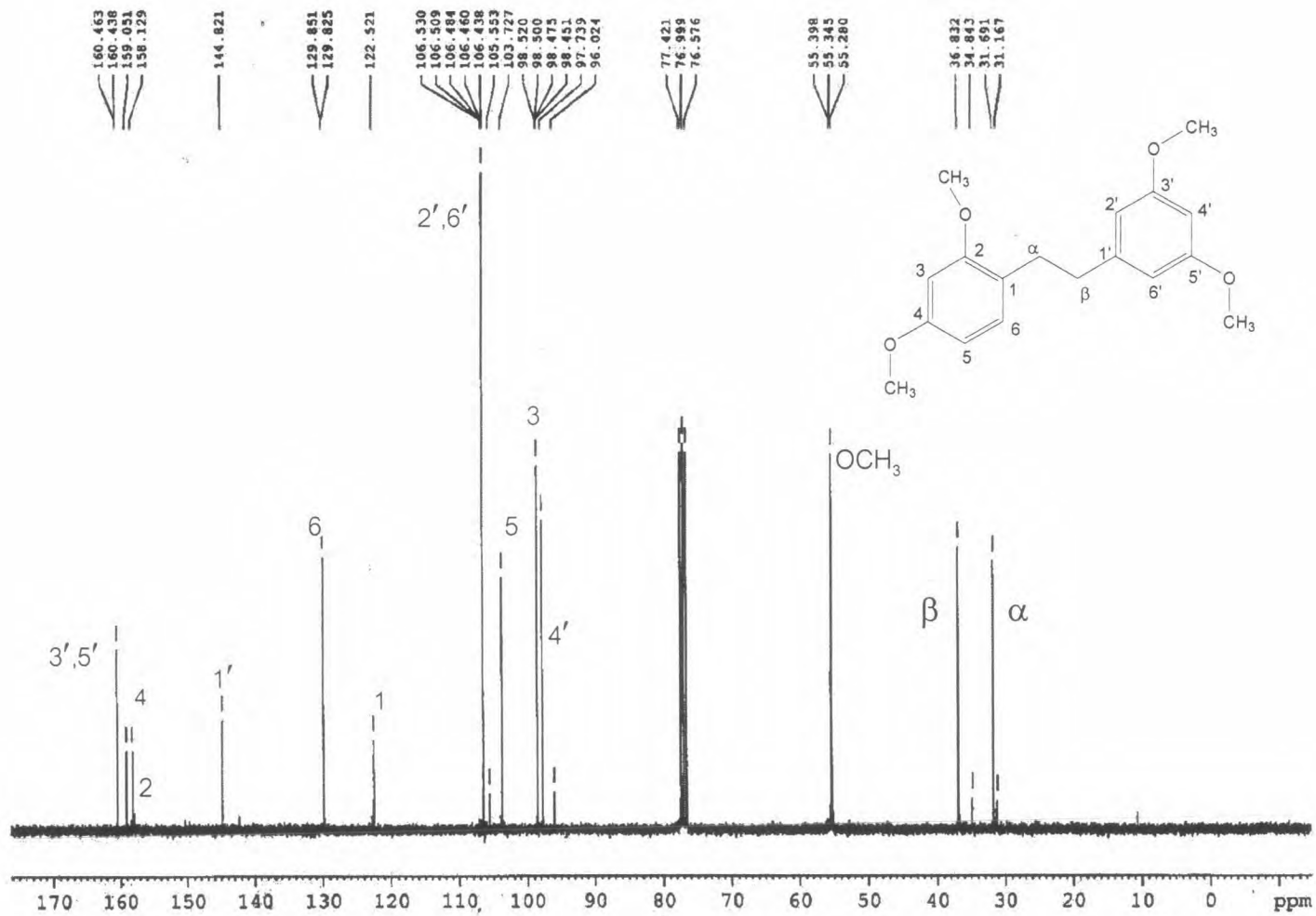


Figure 98: The 75 MHz  $^{13}\text{C-NMR}$  spectrum of compound AS-13 (in  $\text{CDCl}_3$ )

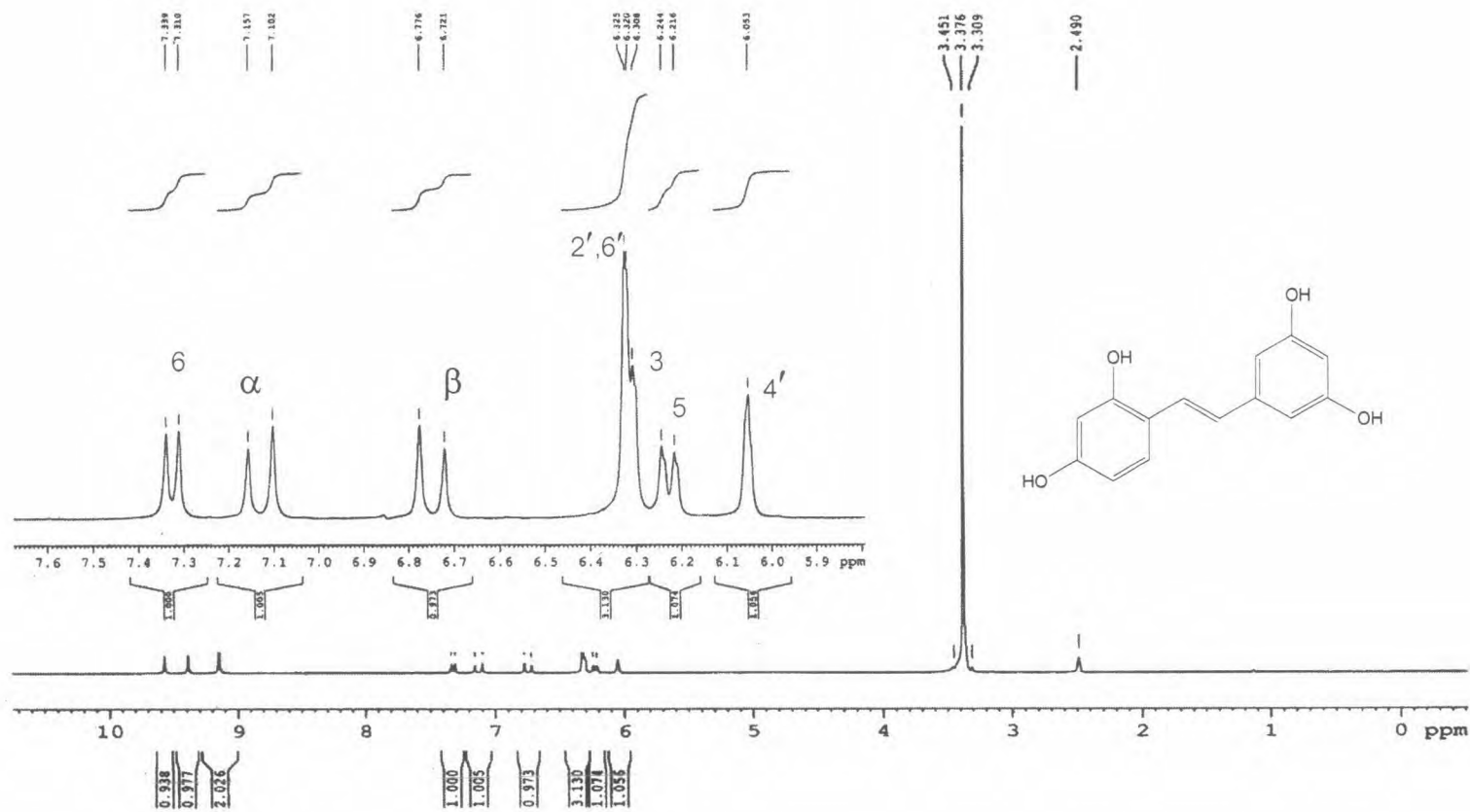


Figure 99: The 300 MHz <sup>1</sup>H-NMR spectrum of oxyresveratrol (in DMSO)

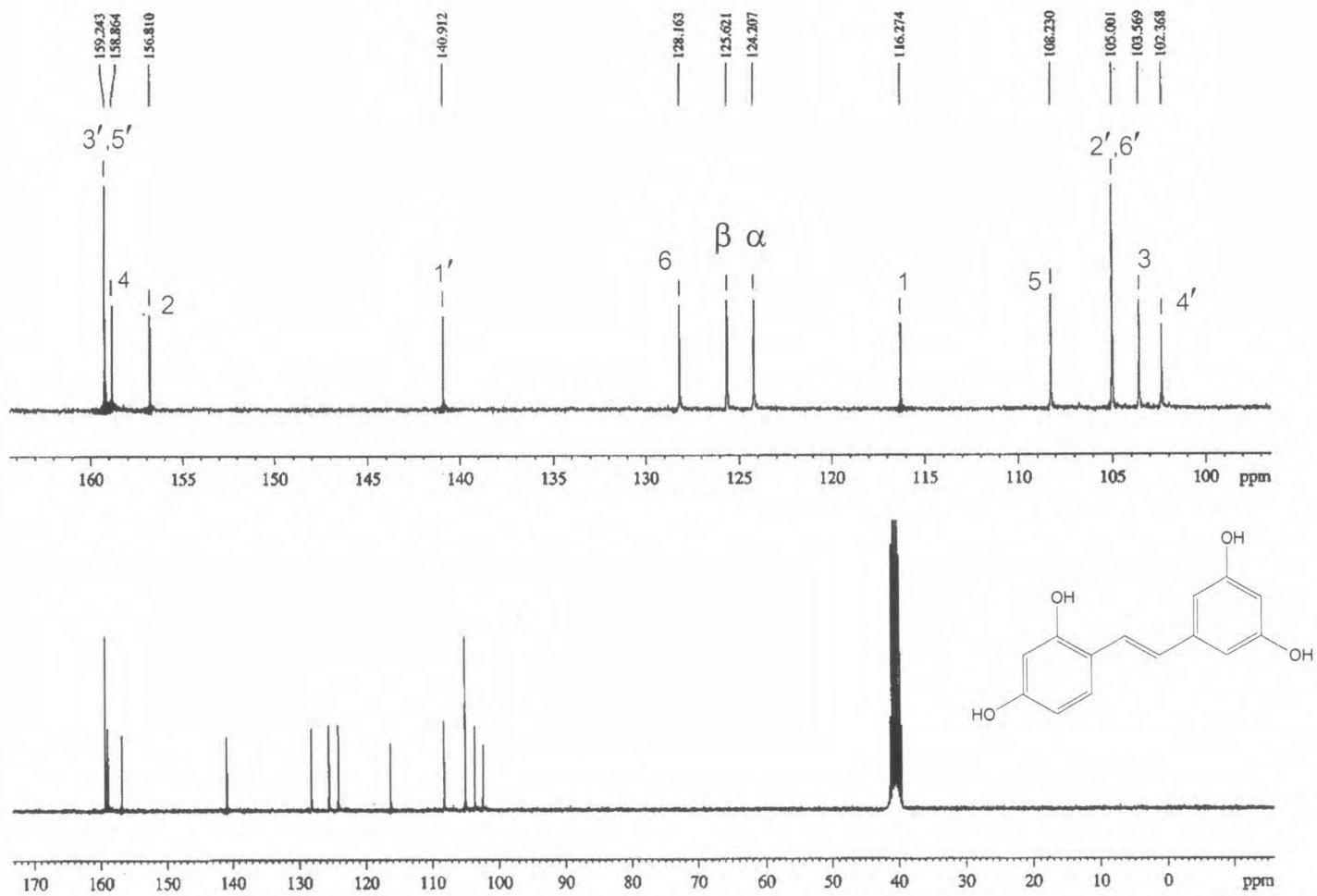


Figure 100: The 75 MHz  $^{13}\text{C}$ -NMR spectrum of oxresveratrol (in DMSO)



## VITA

Mr. Acom Sornsute was born on June 9, 1974 in Chumphon, Thailand. He received his Bachelor's Degree in Pharmaceutical Sciences in 1999 from the Faculty of Pharmaceutical Sciences, Silpakorn University, Thailand. Currently, he is working as a staff member of the Sirindhorn Public Health College Ubonratchathani.