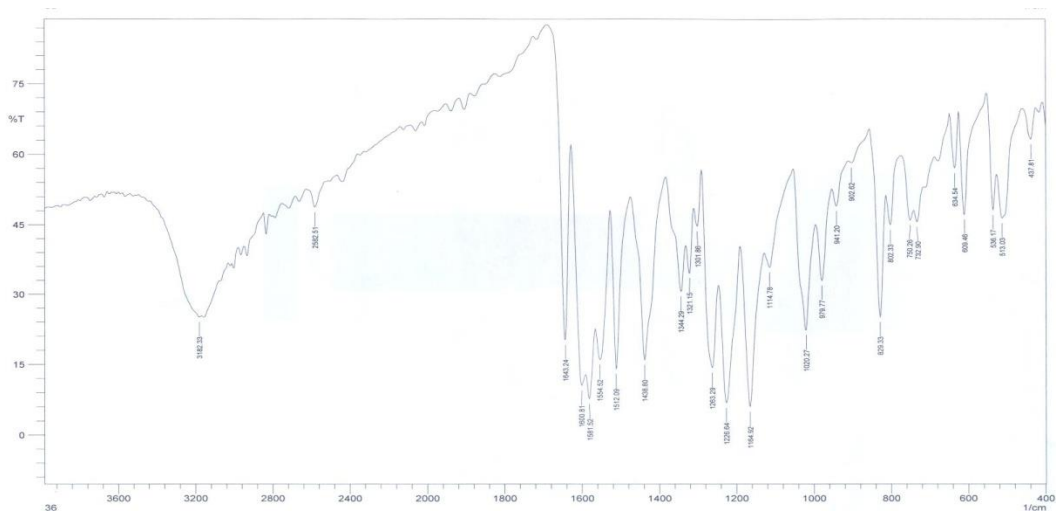
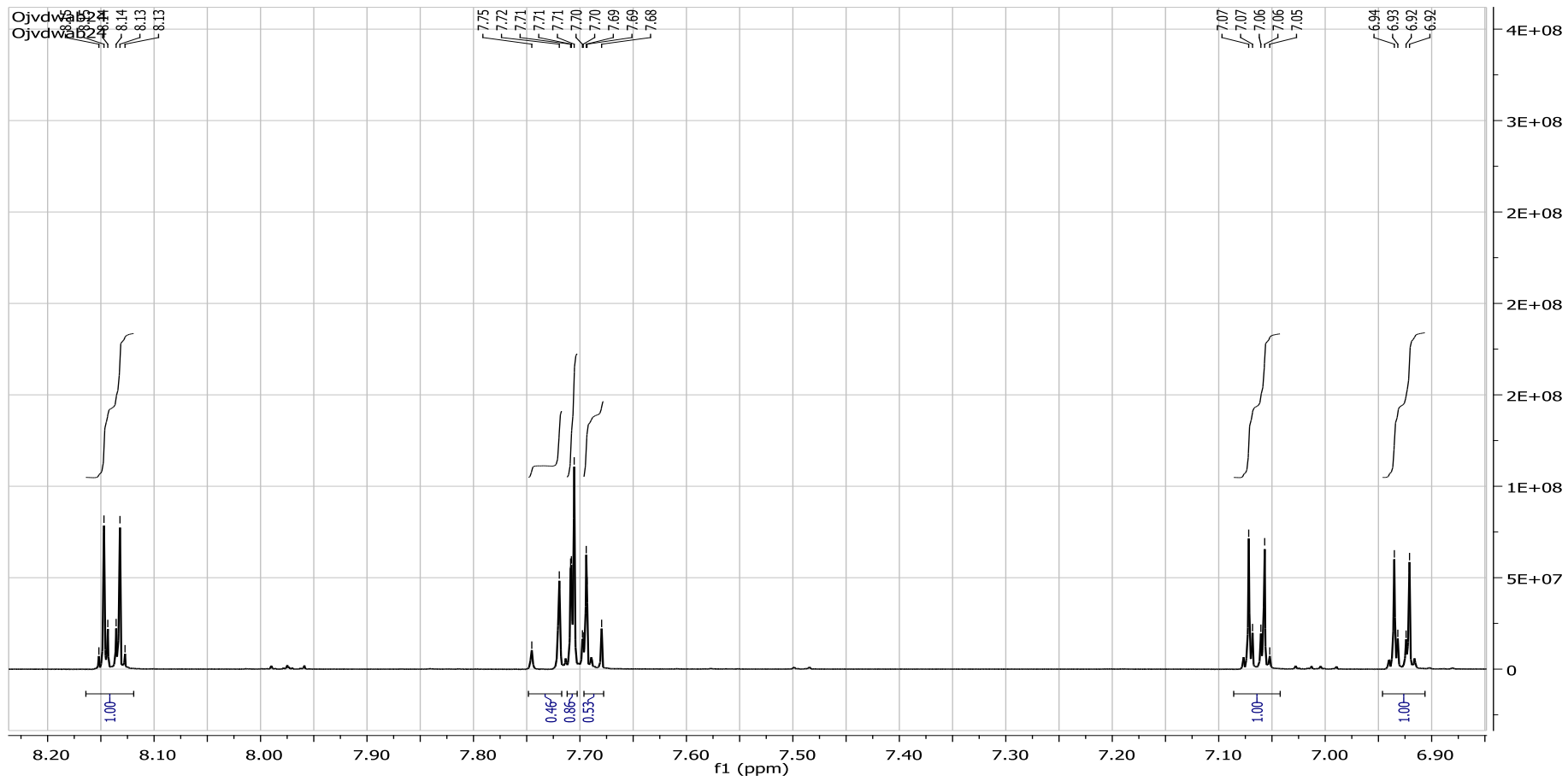


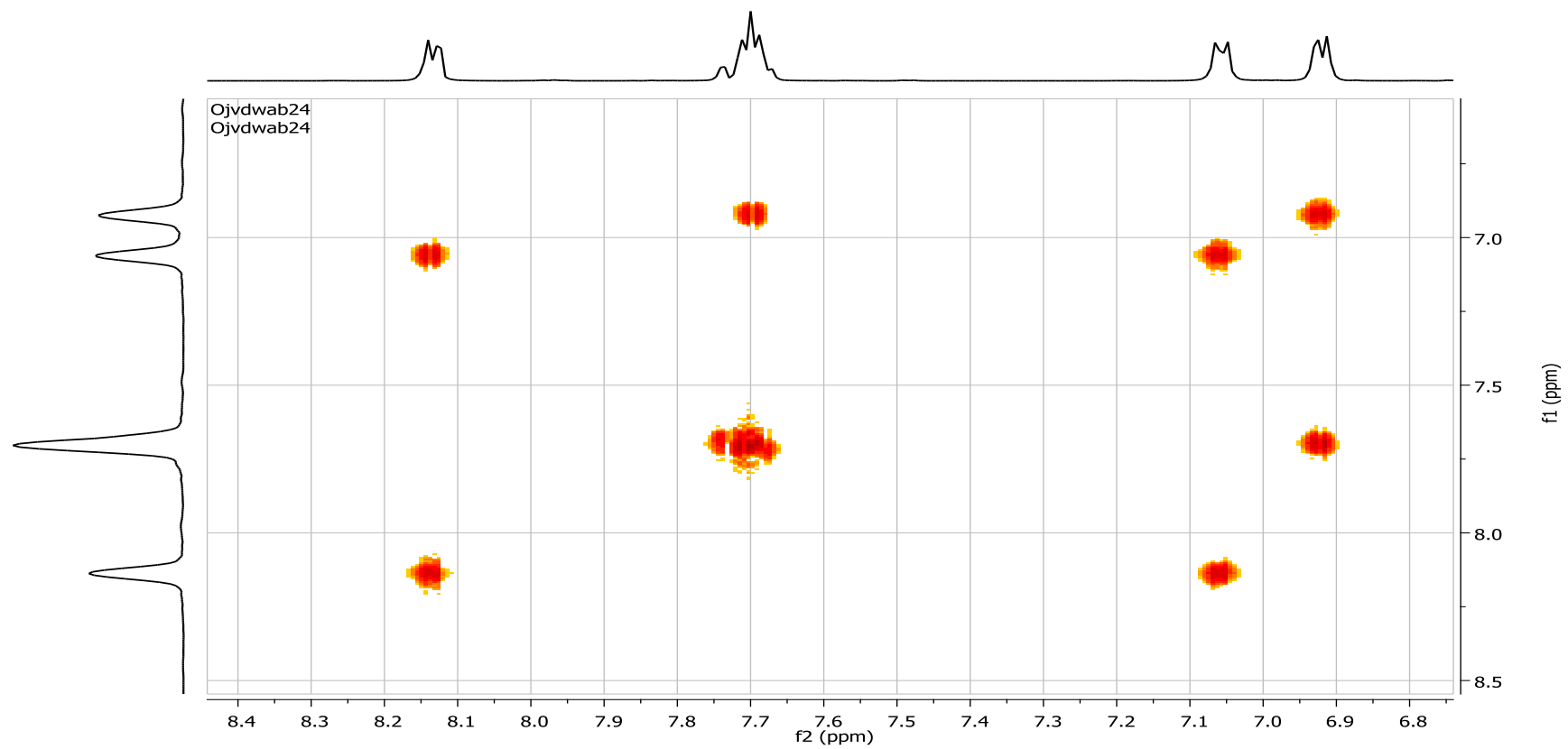
**Fig UV spectrum of 4-hydroxy-4'-methoxychalcone (1)**



**Fig IR spectrum of 4-hydroxy-4'-methoxychalcone (1)**



**Fig <sup>1</sup>H NMR spectrum of 4-hydroxy-4'-methoxychalcone (1)**



**Fig cosy spectrum of 4-hydroxy-4'-methoxychalcone (1)**

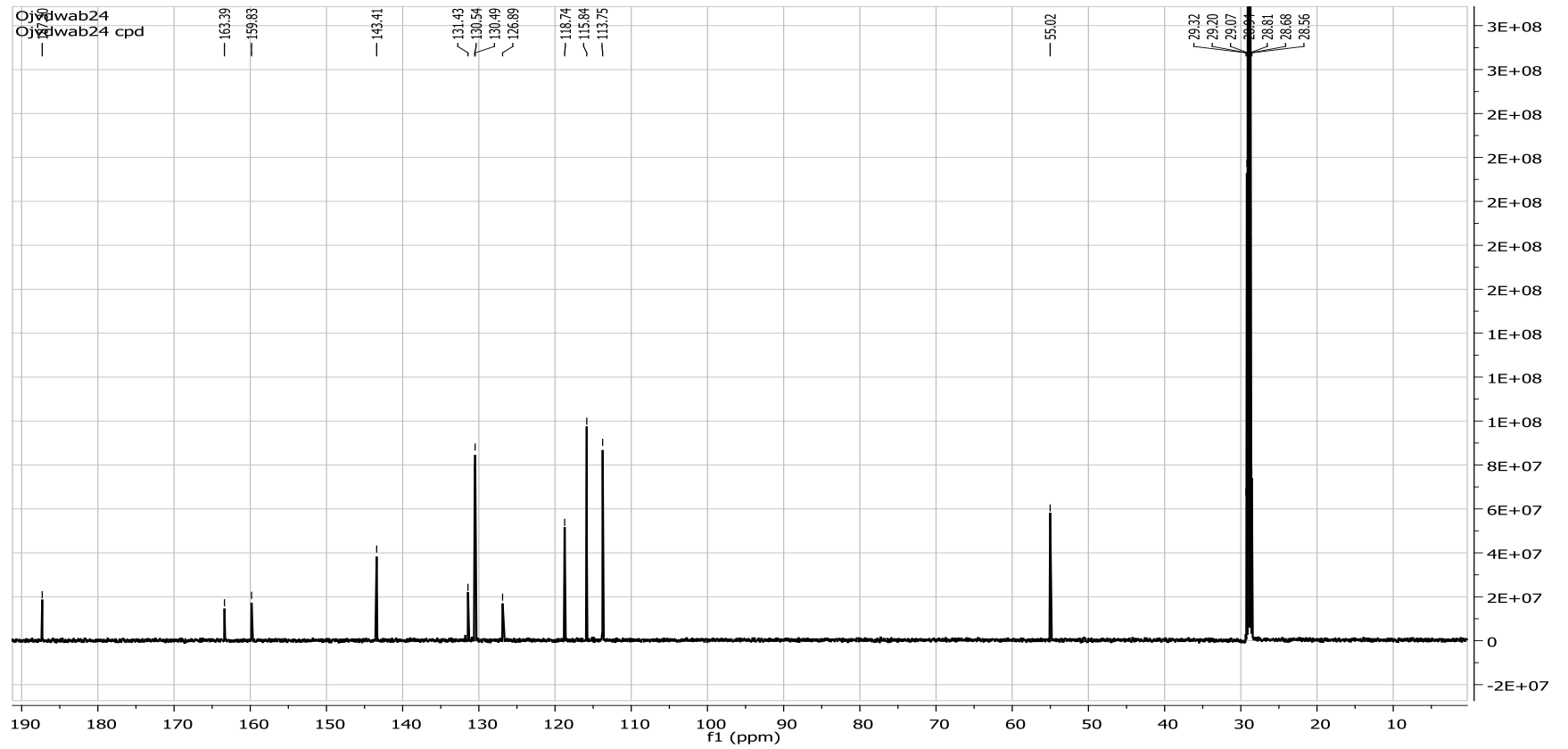
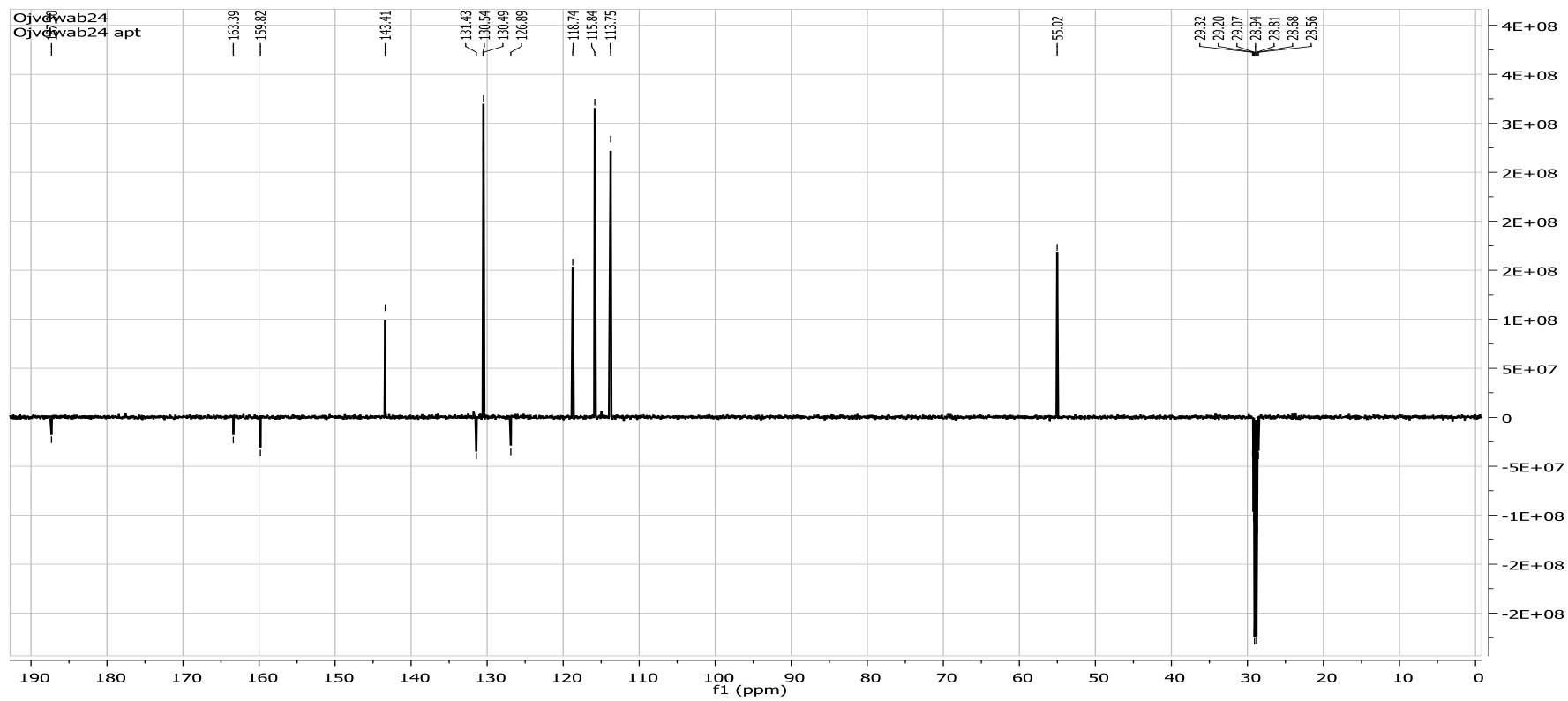
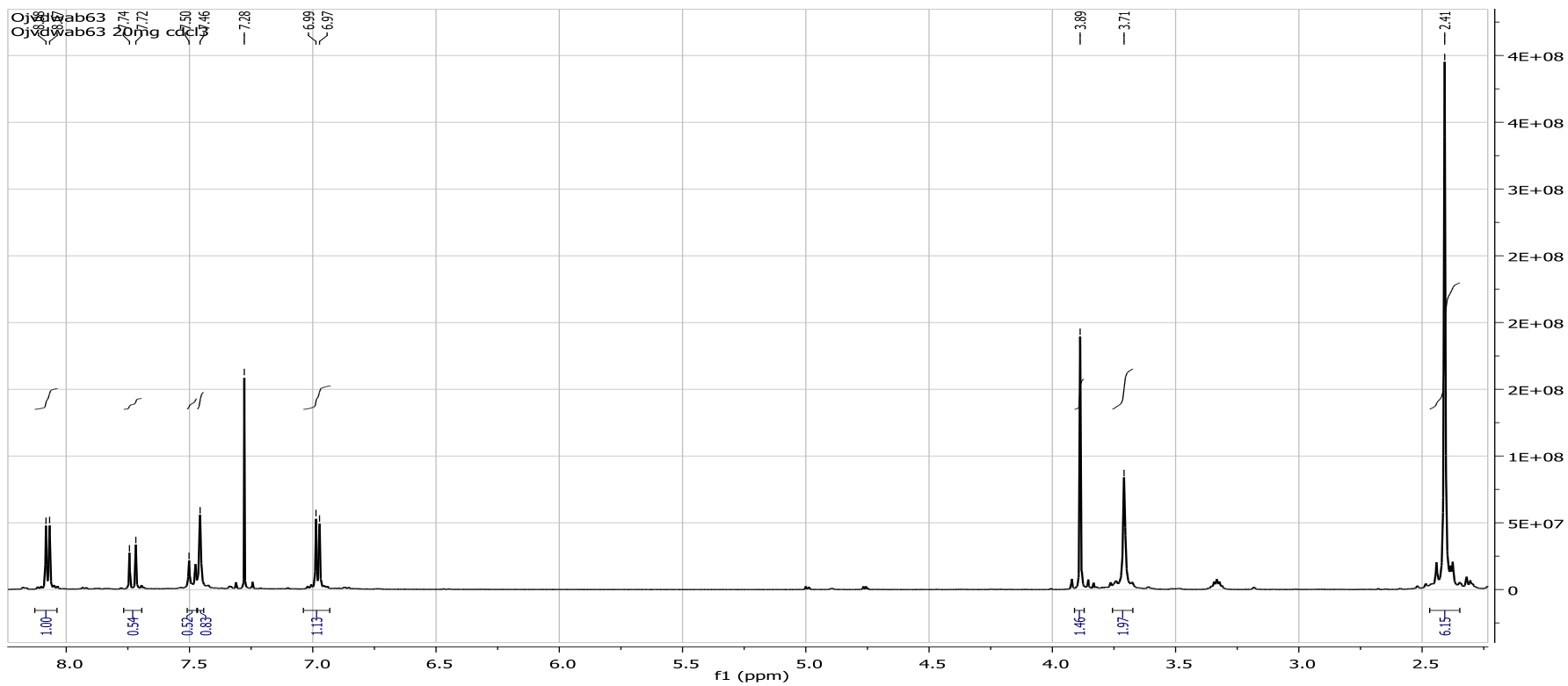


Fig  $^{13}\text{C}$ NMR spectrum of 4-hydroxy-4'-methoxychalcone (1)



**Fig Apt experiments of 4-hydroxy-4'-methoxychalcone (1)**



**Fig  $^1\text{H-NMR}$  spectrum of 4-hydroxy-4'-methoxy-3,5-bis-dimethylaminomethylchalcone (2)**

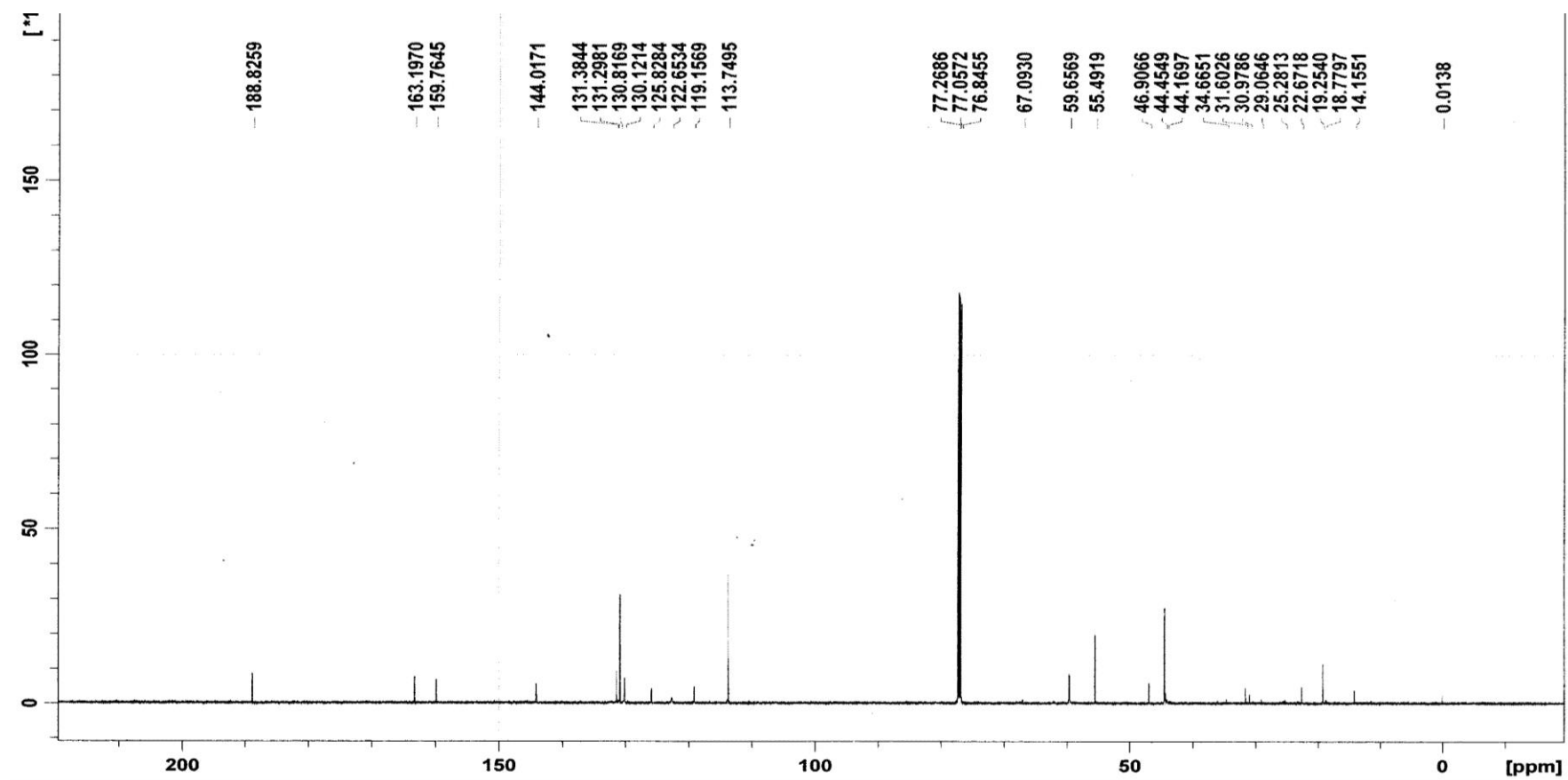


Fig <sup>13</sup>CNMR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-dimethylaminomethylchalcone (2)

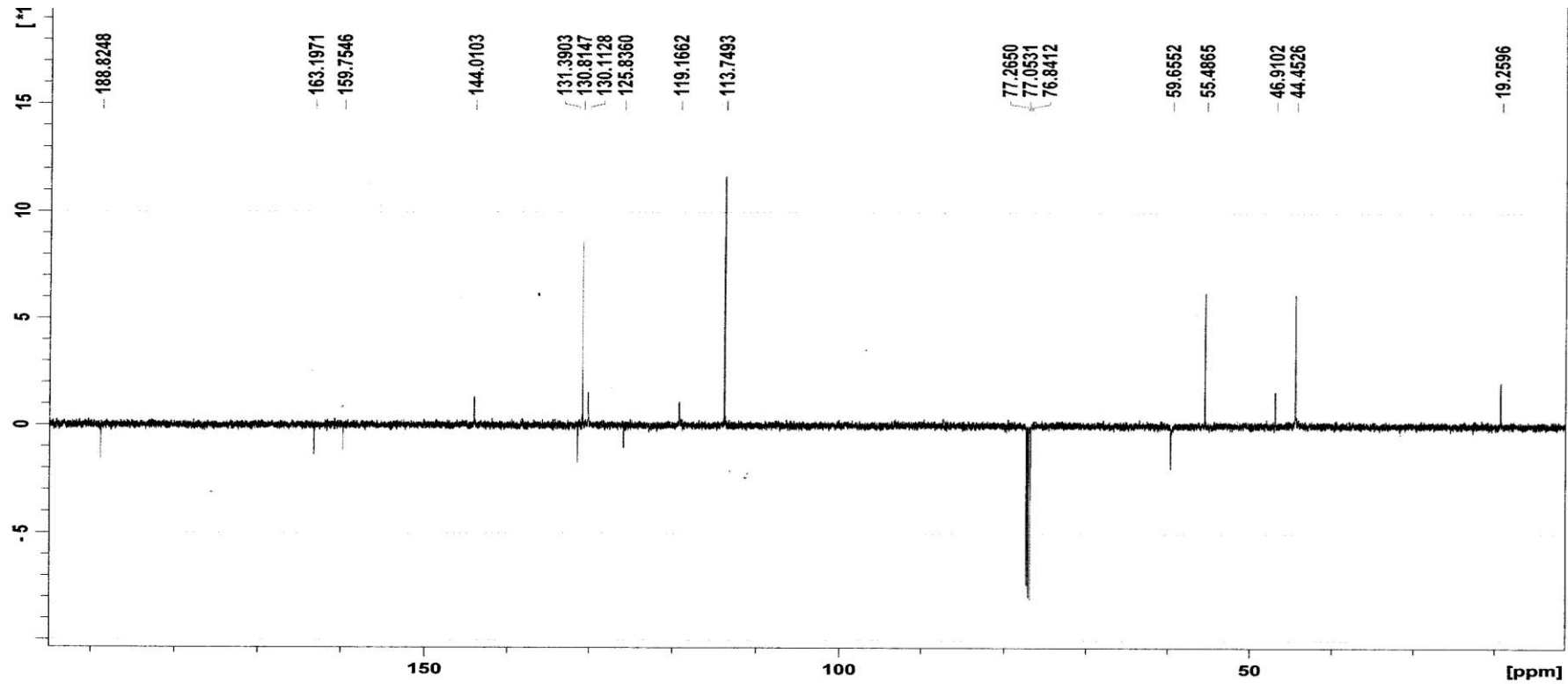
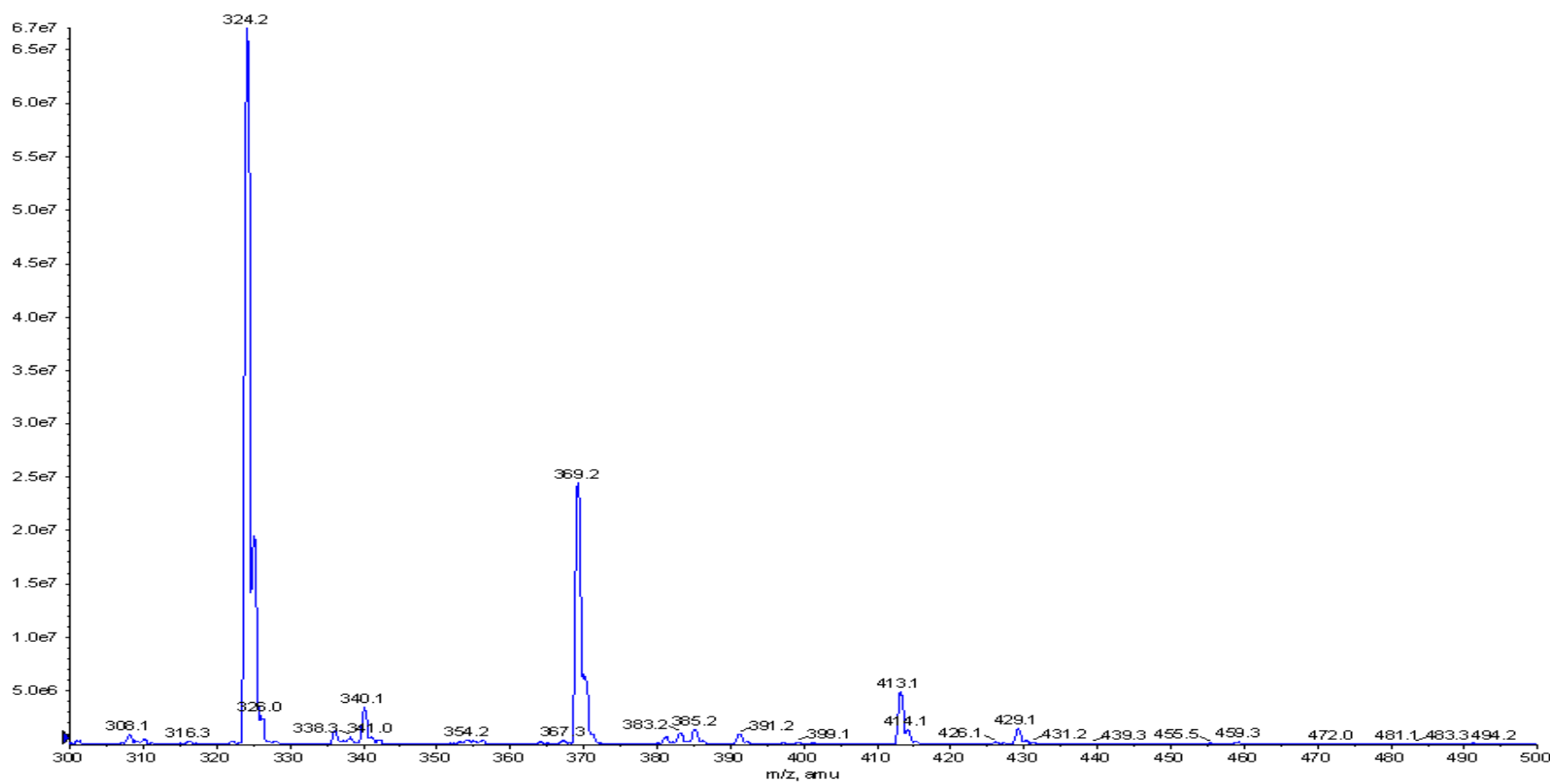
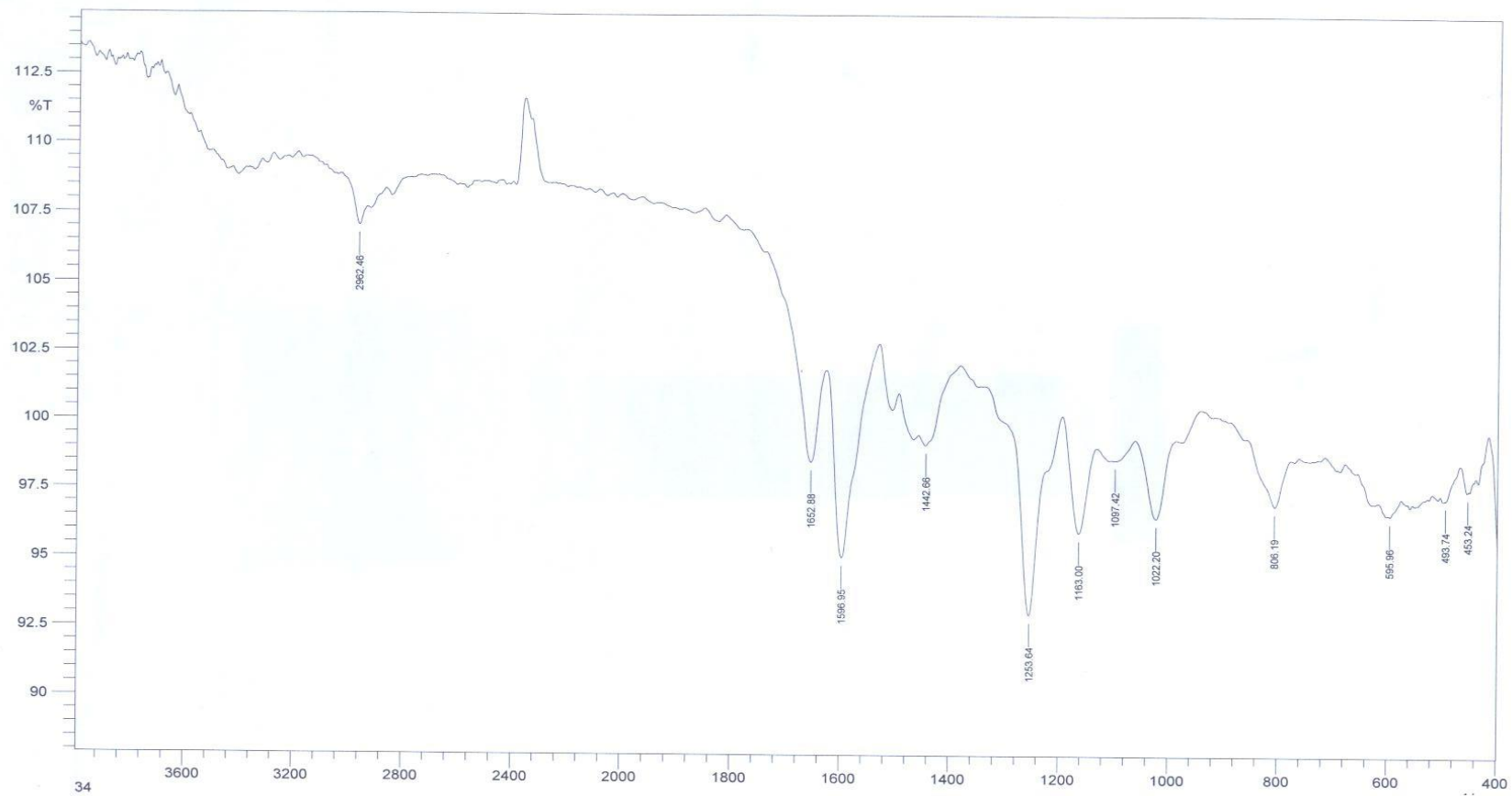


Fig Apt experiments of 4-hydroxy-4'-methoxy-3,5-bis-dimethylchalcone (2)





**Fig Mass spectrum of 4-hydroxy-4'-methoxy-3,5-bis-dimethylmethylnalcone (2)**



**Fig IR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)**

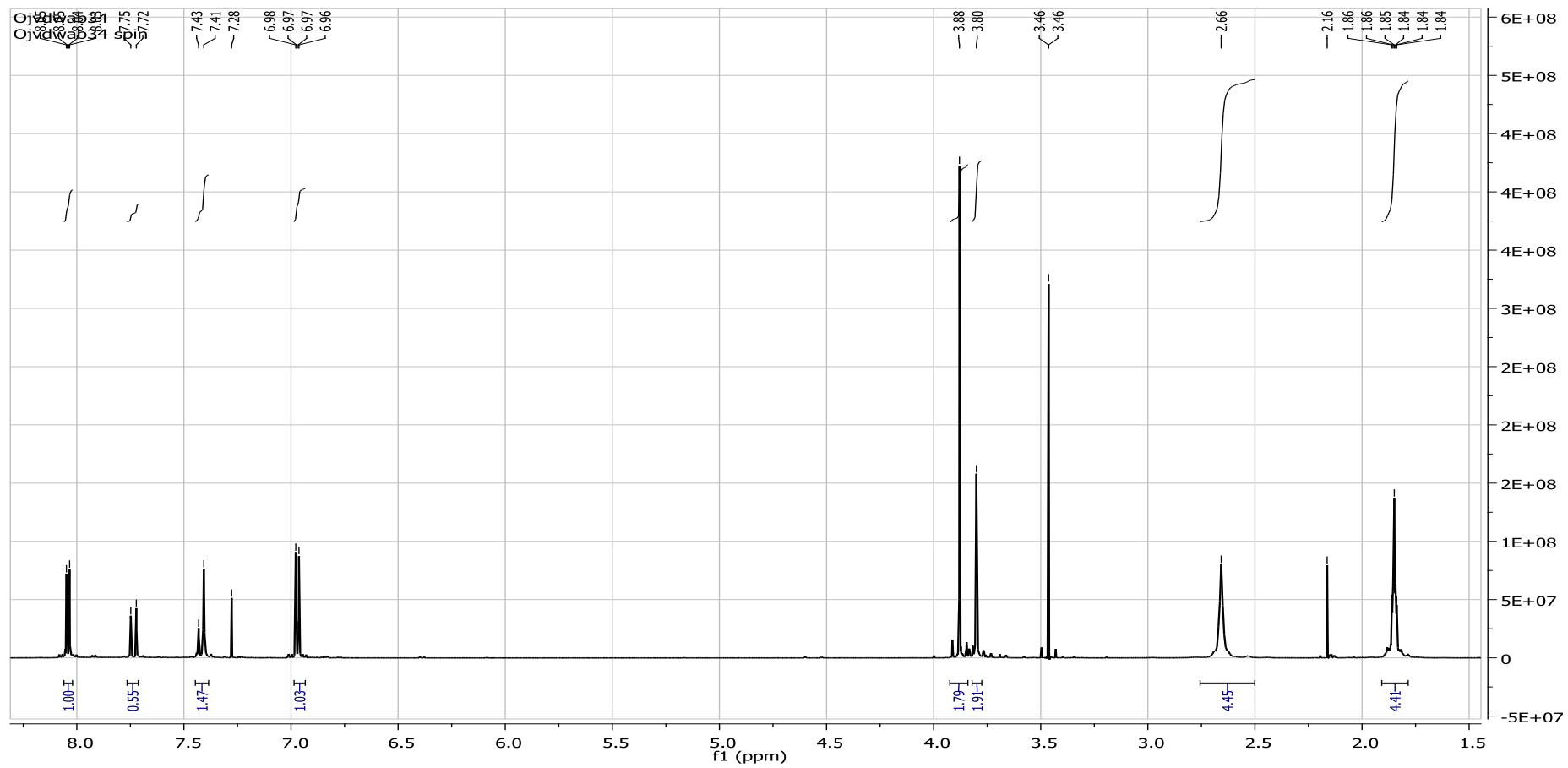


Fig <sup>1</sup>H-NMR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)

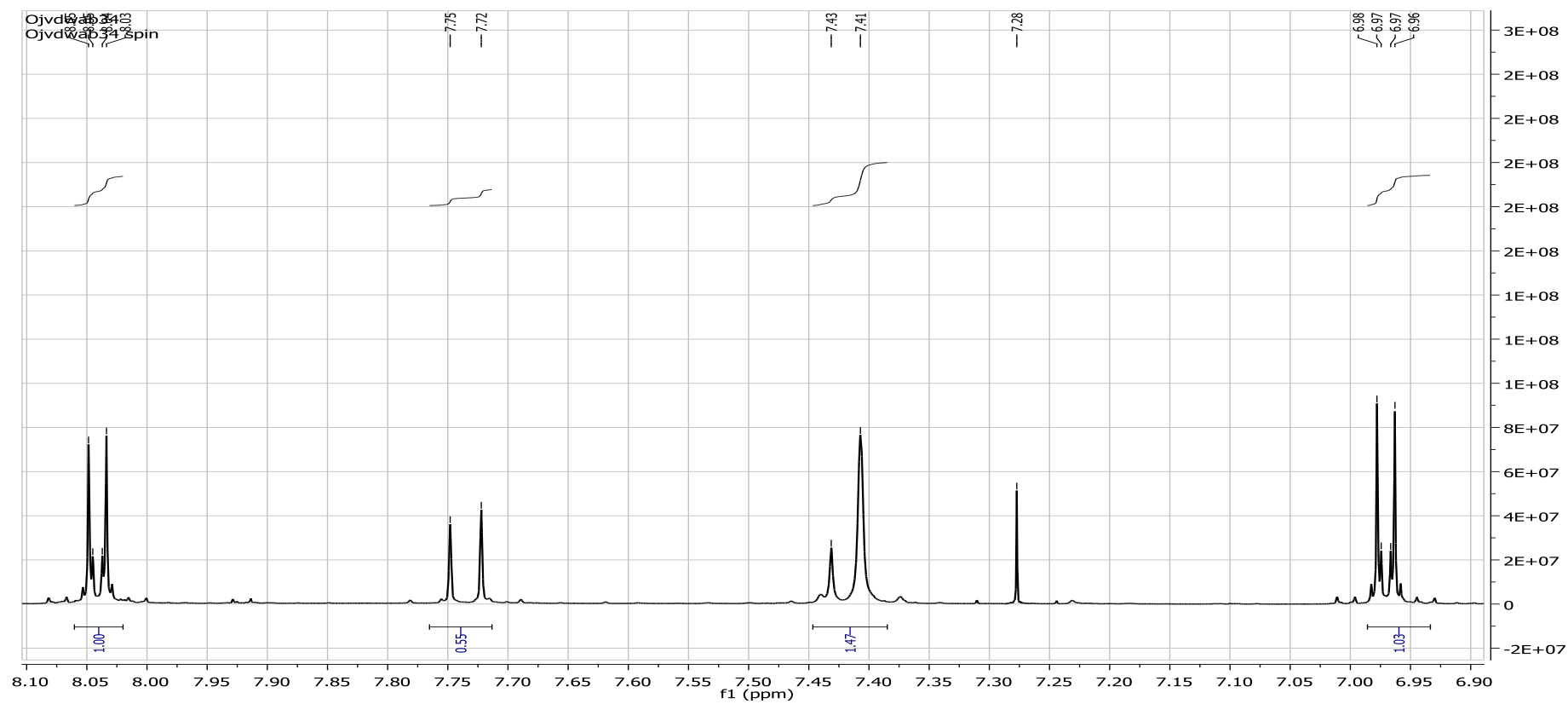
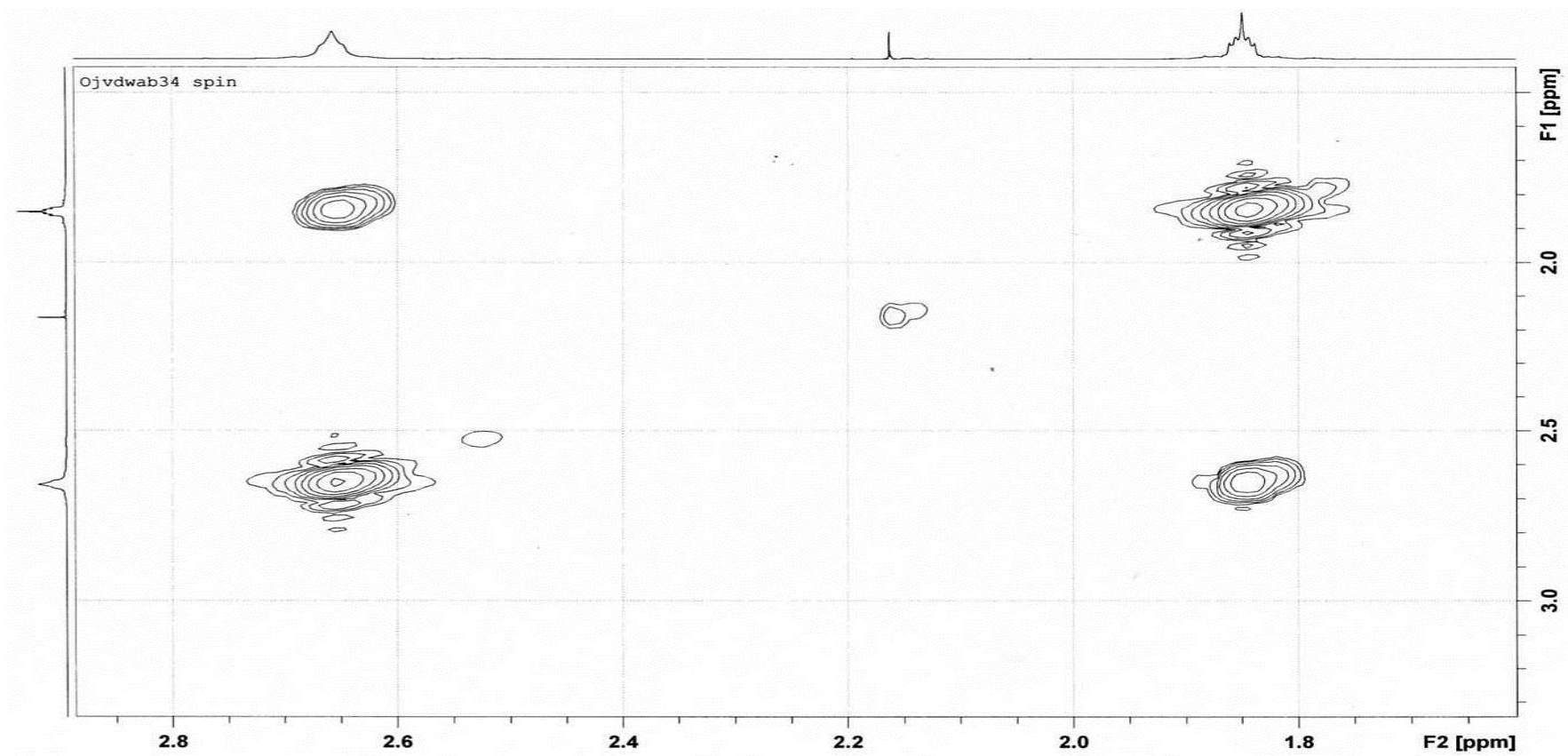


Fig <sup>1</sup>H-NMR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)



**Fig  $^1\text{H}$ - $^1\text{H}$  cosy NMR of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)**

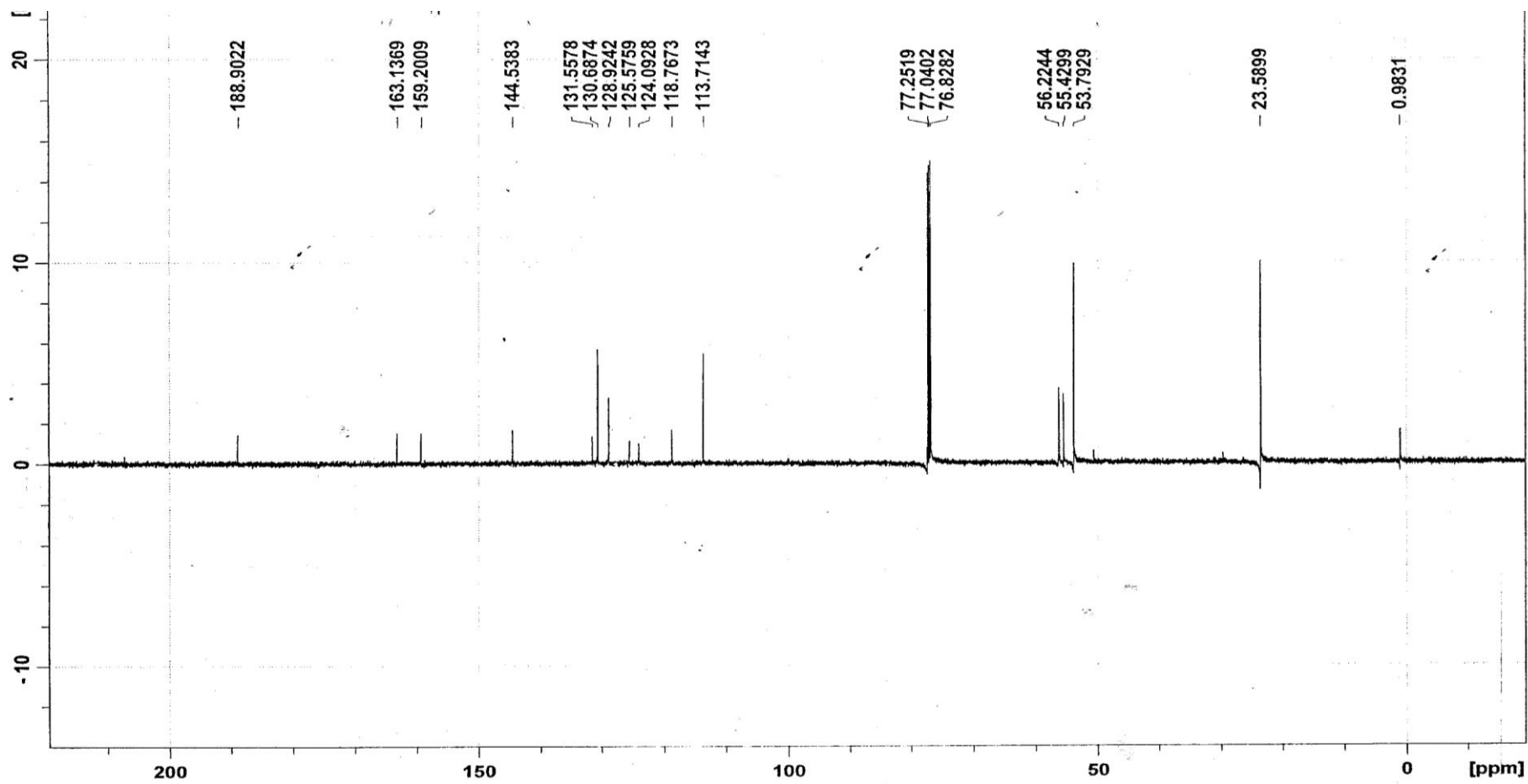


Fig  $^{13}\text{C}$ -NMR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)

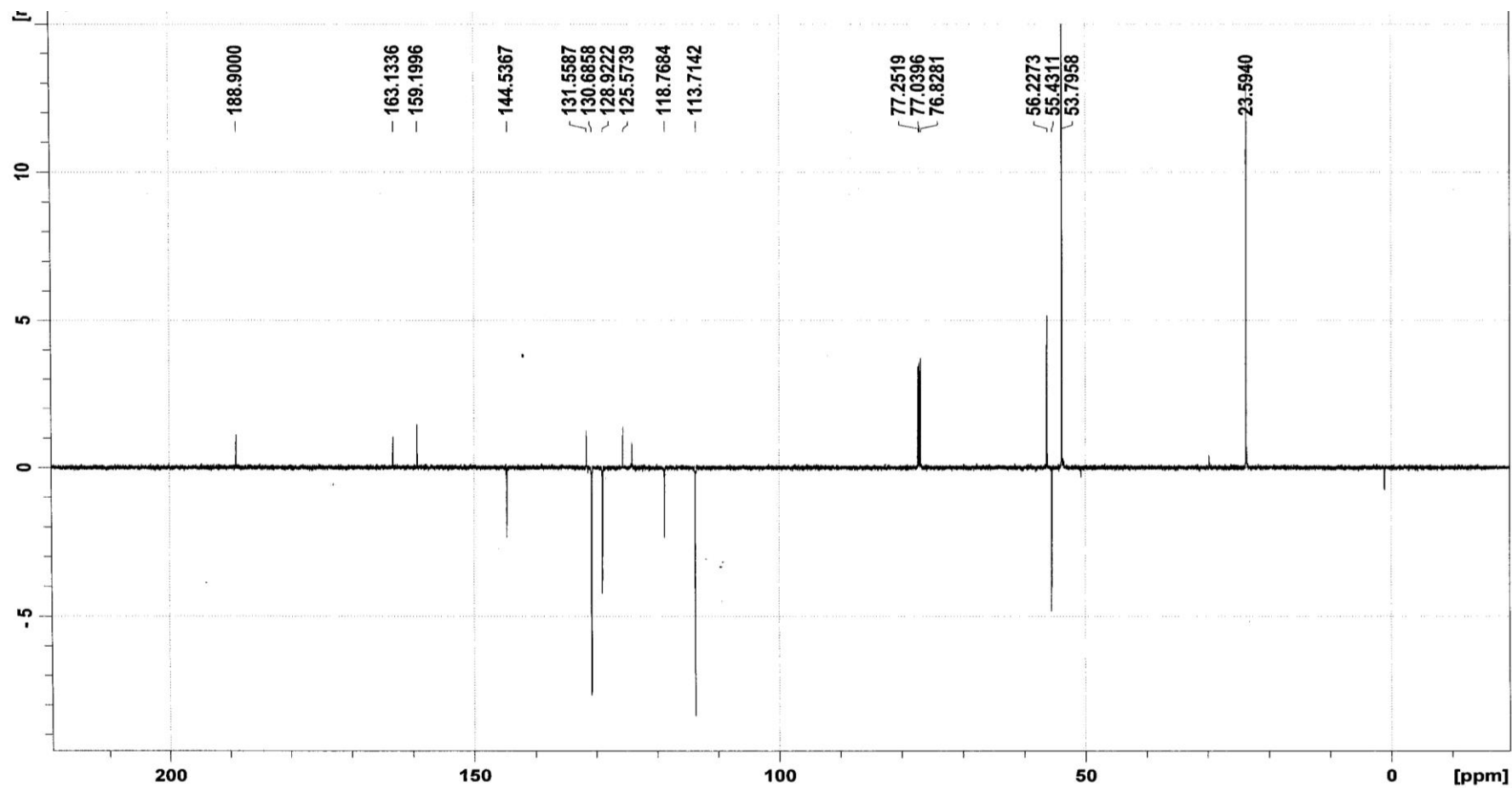
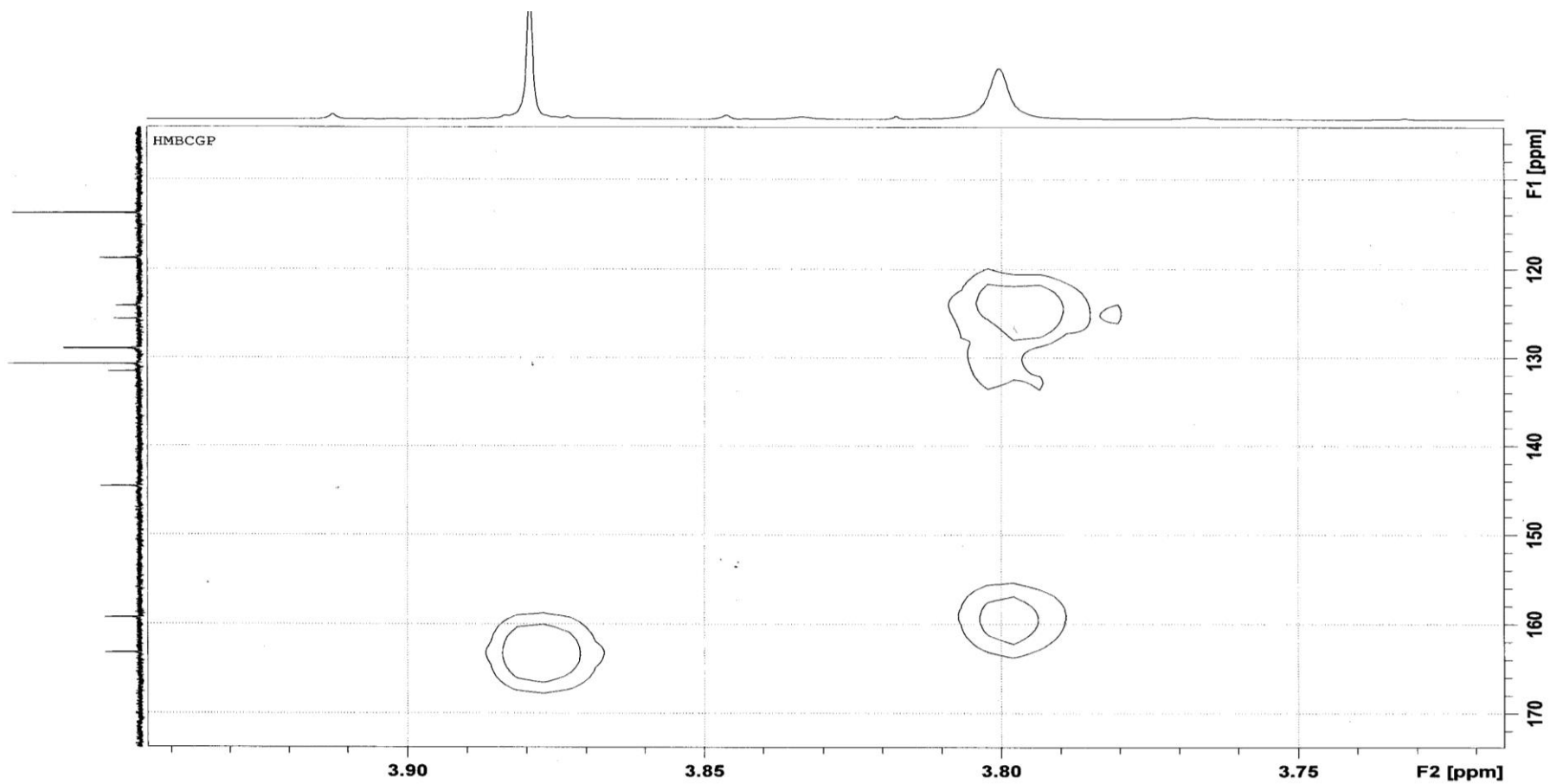


Fig Apt experiments of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)



**Fig** nosey experiment of **4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)**



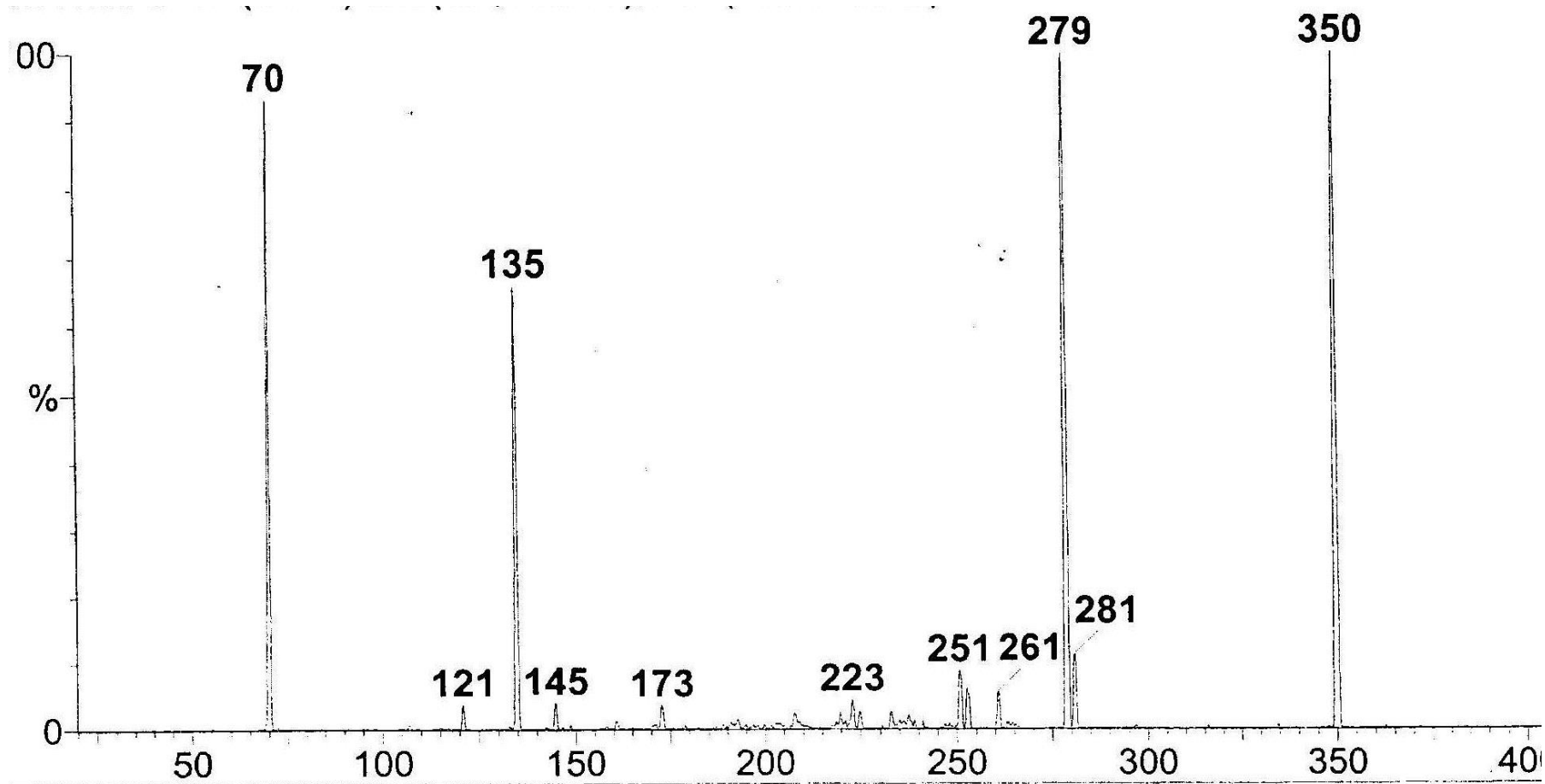
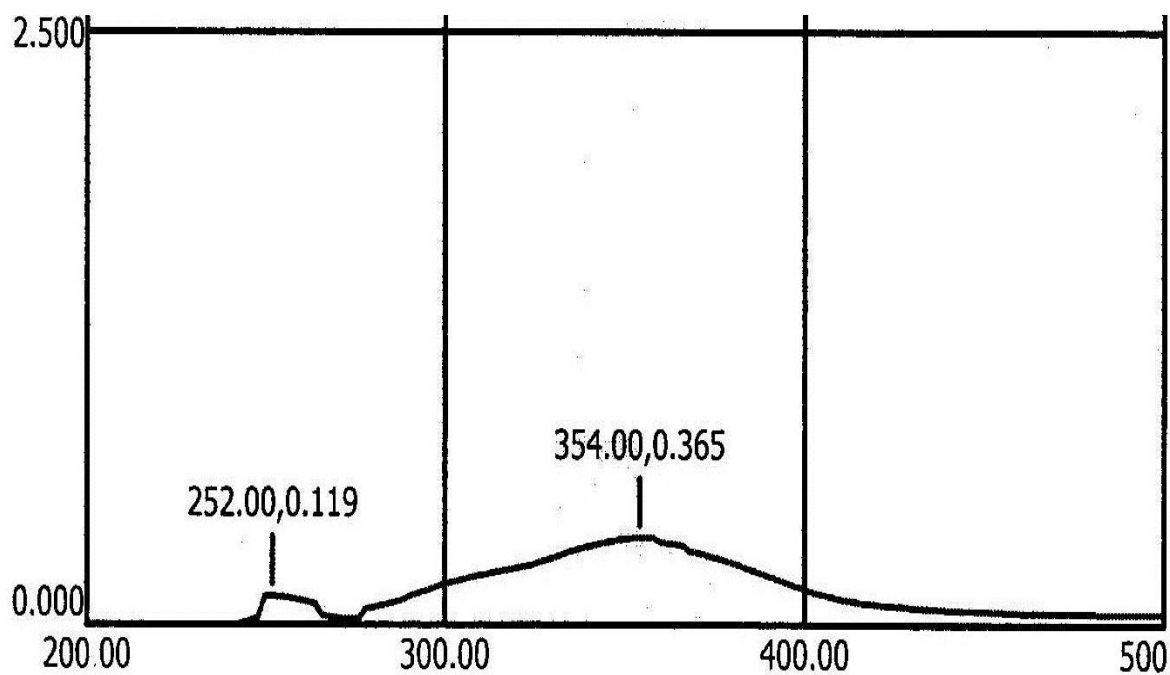
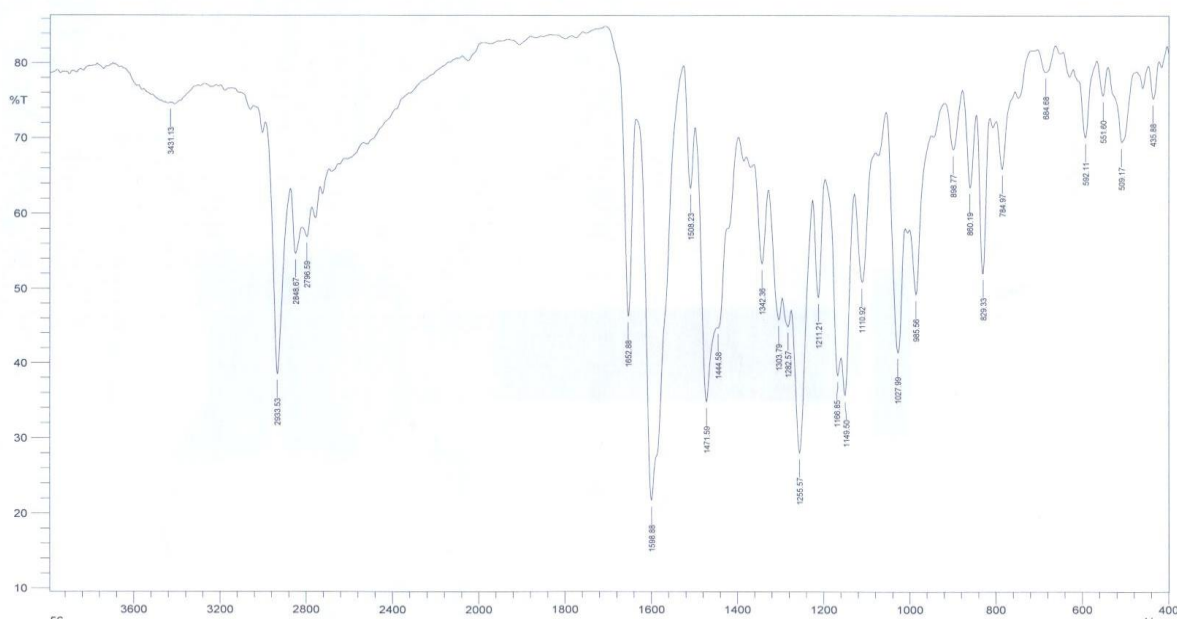


Fig Mass spectrum of 4-hydroxy-4'-methoxy-3,5-bis-pyrrolidinomethylchalcone (3)



**Fig UV spectrum of 4-hydroxy-4'-methoxy-3,5-bis-piperlidinomethylchalcone (4)**



**Fig IR spectrum of 4-hydroxy-4'-methoxy-3,5-bis-piperlidinomethylchalcone (4)**

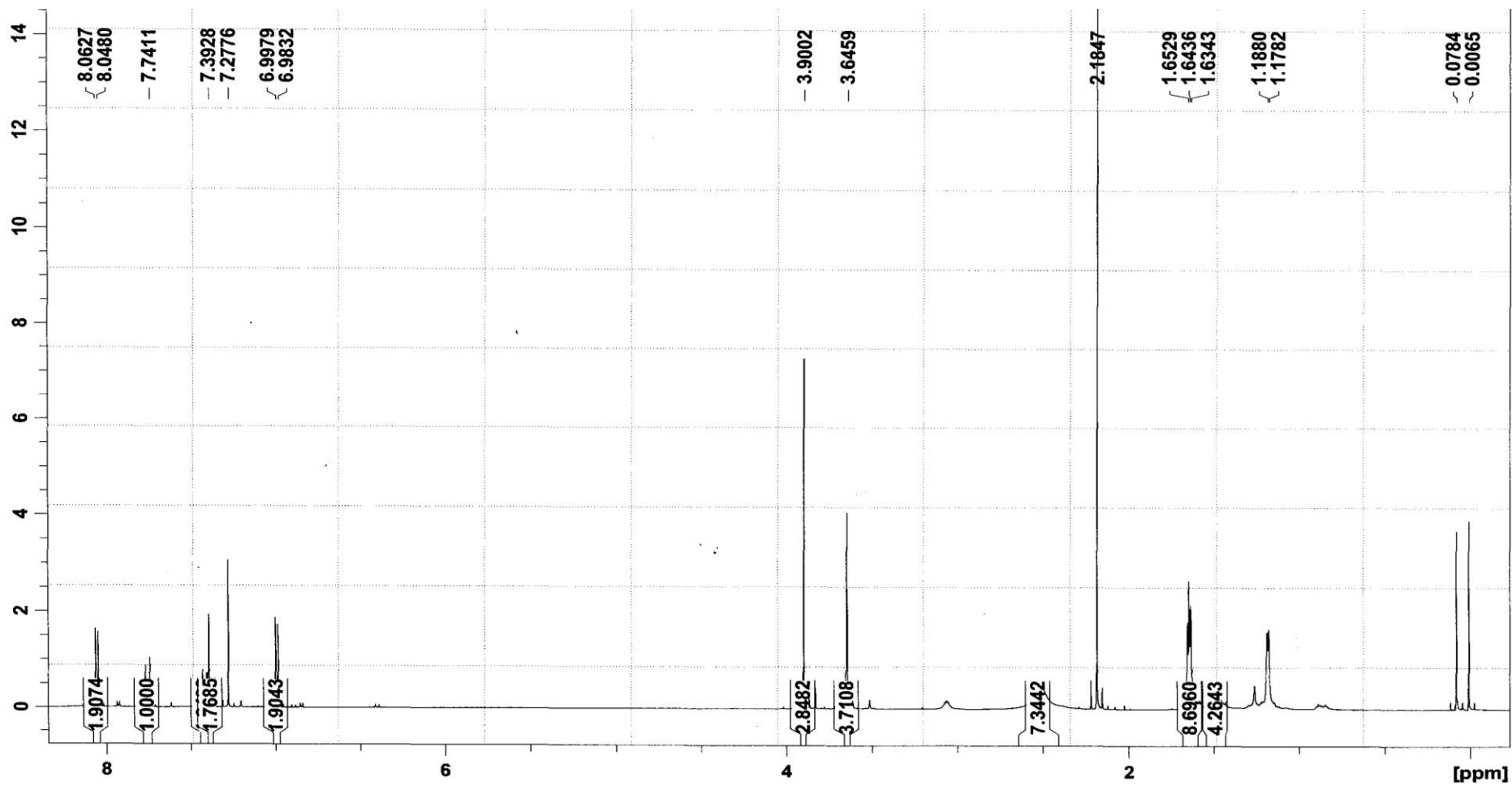


Fig <sup>1</sup>H NMR of 4-hydroxy-4'-methoxy-3,5-bis-piperlidinomethylchalcone (4)

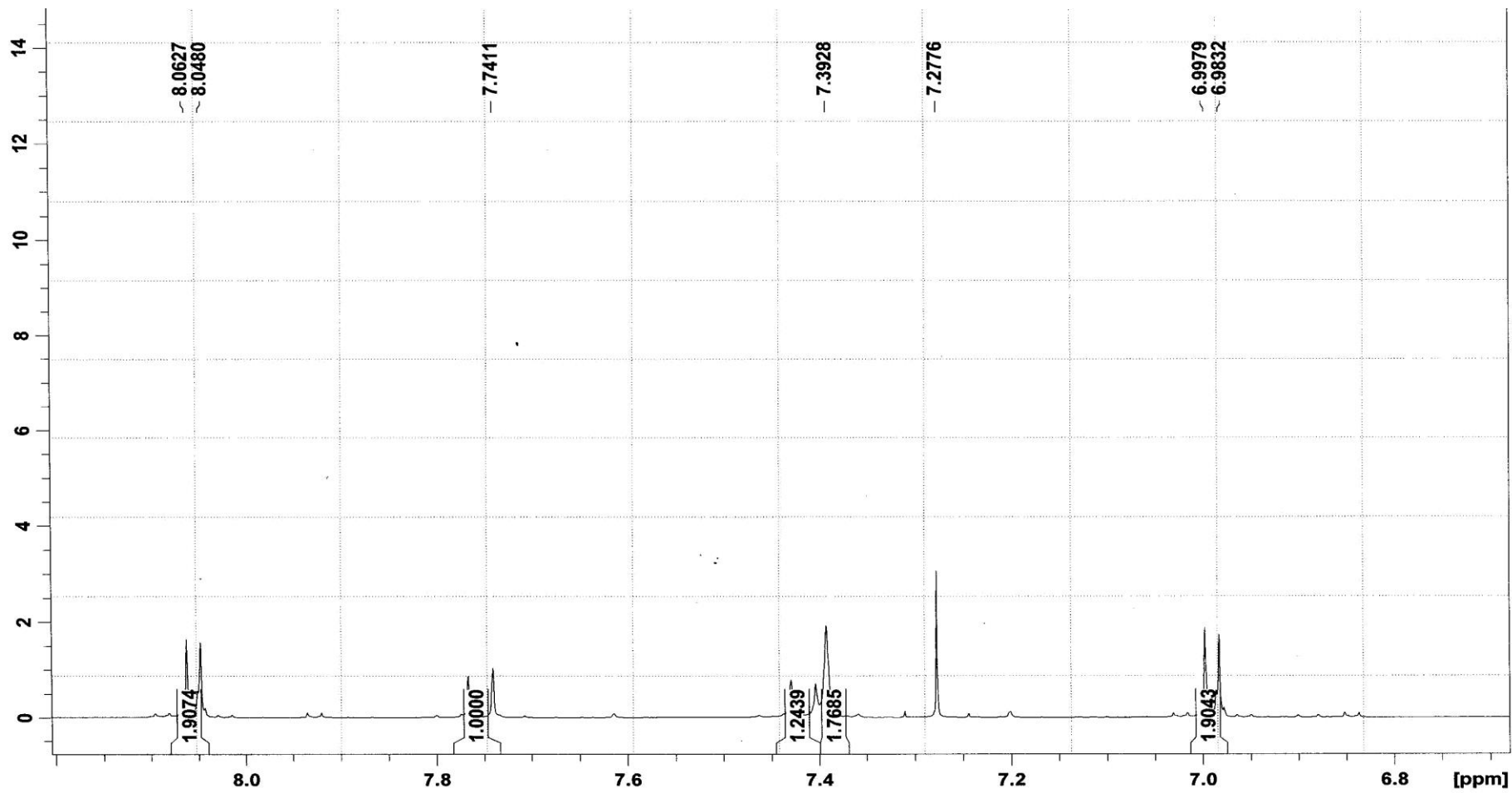
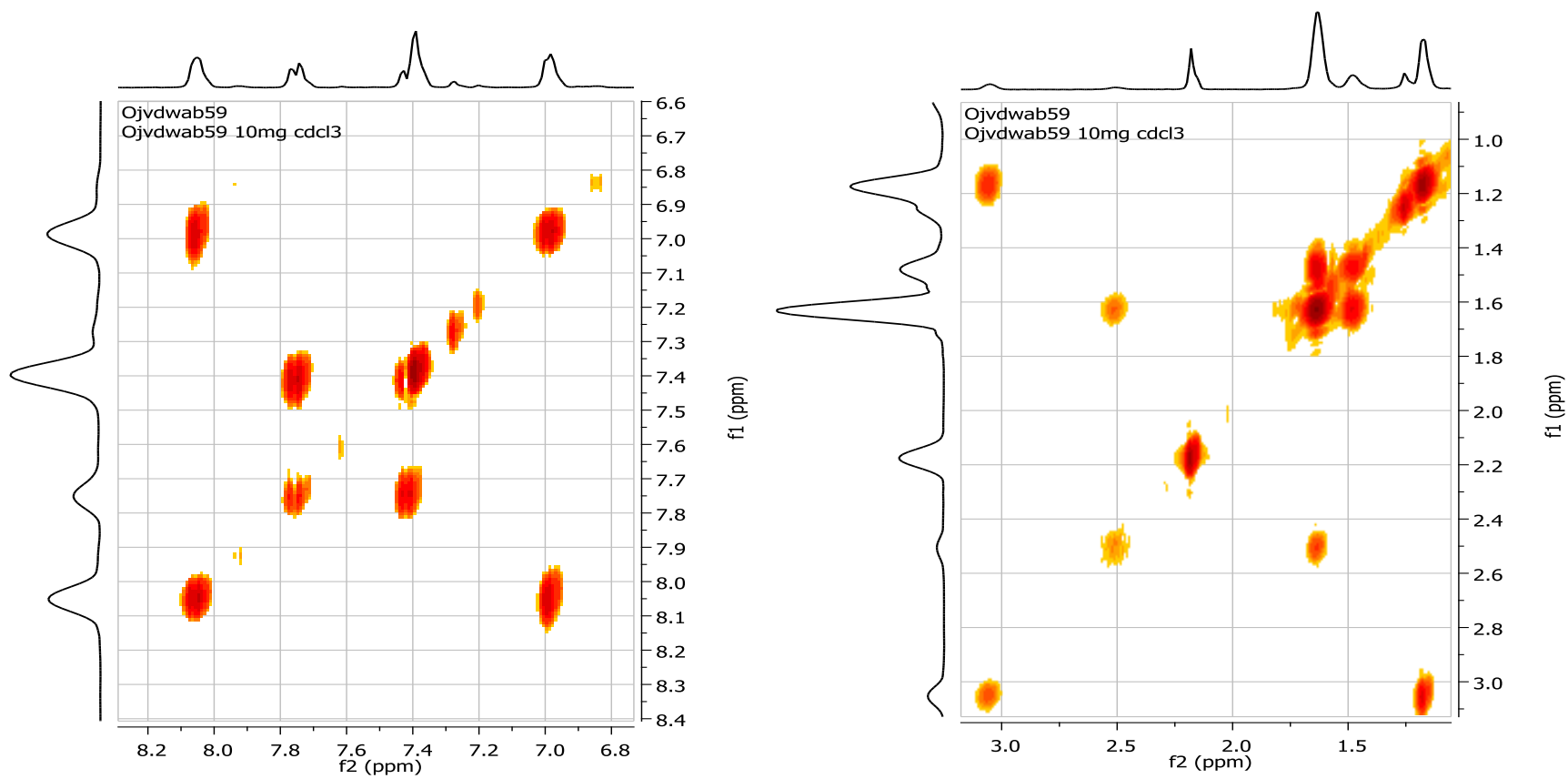


Fig  $^1\text{H}$ NMR of 4-hydroxy-4'-methoxy-3,5-bis-piperidinomethylchalcone (4)



**Fig of 4-hydroxy-4'-methoxy-3,5-bis-piperidinomethylchalcone (4)**

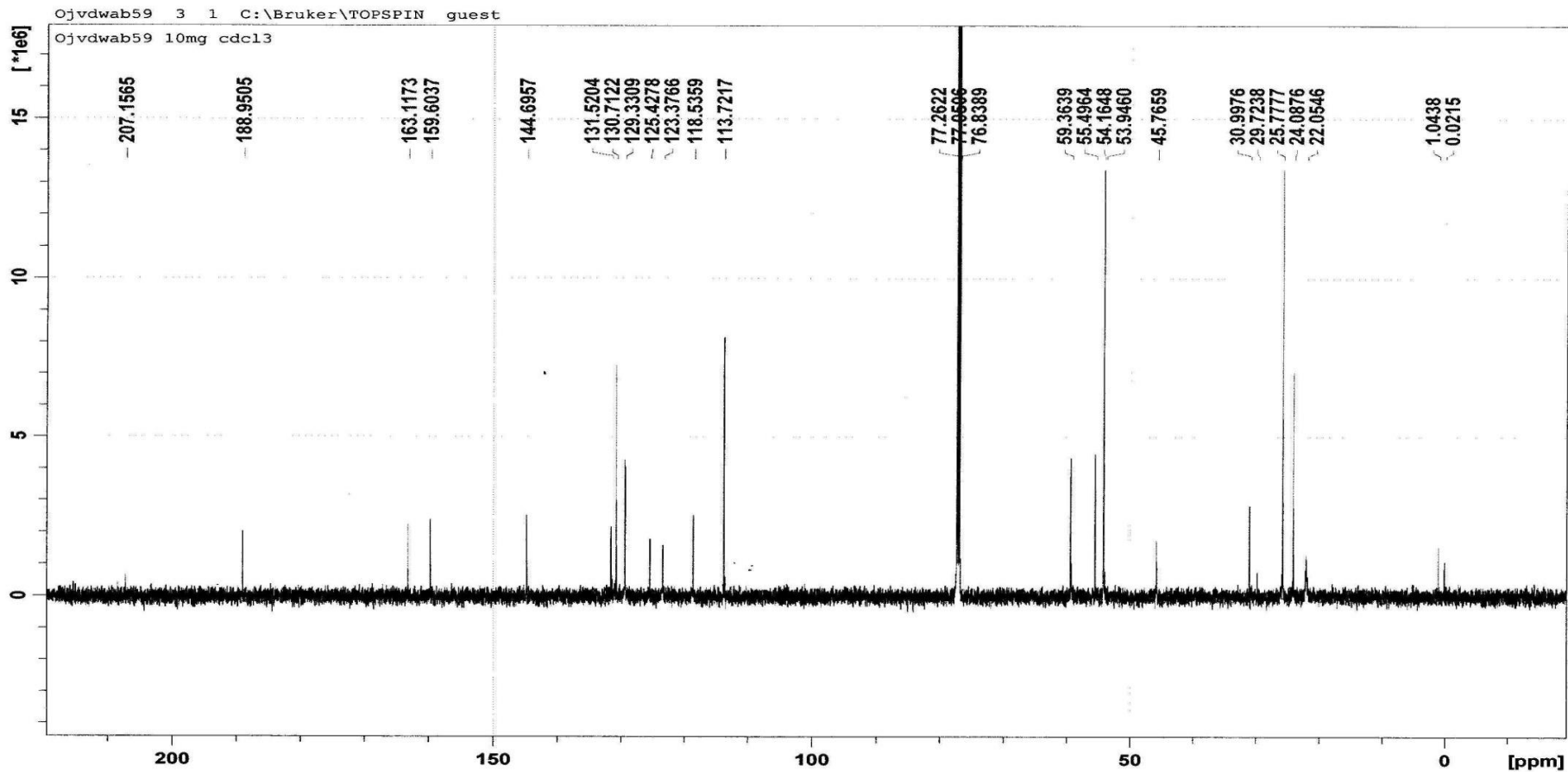
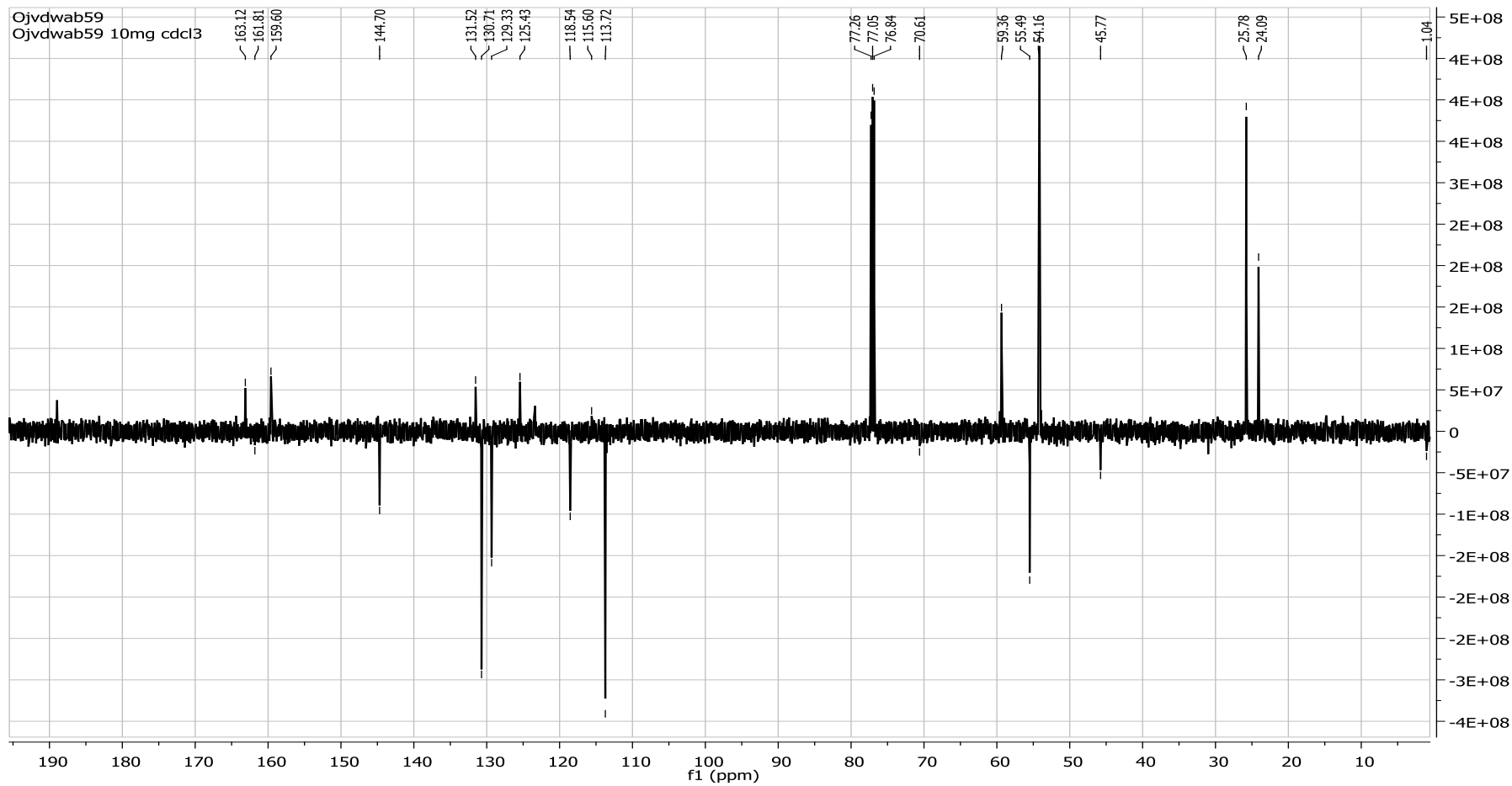
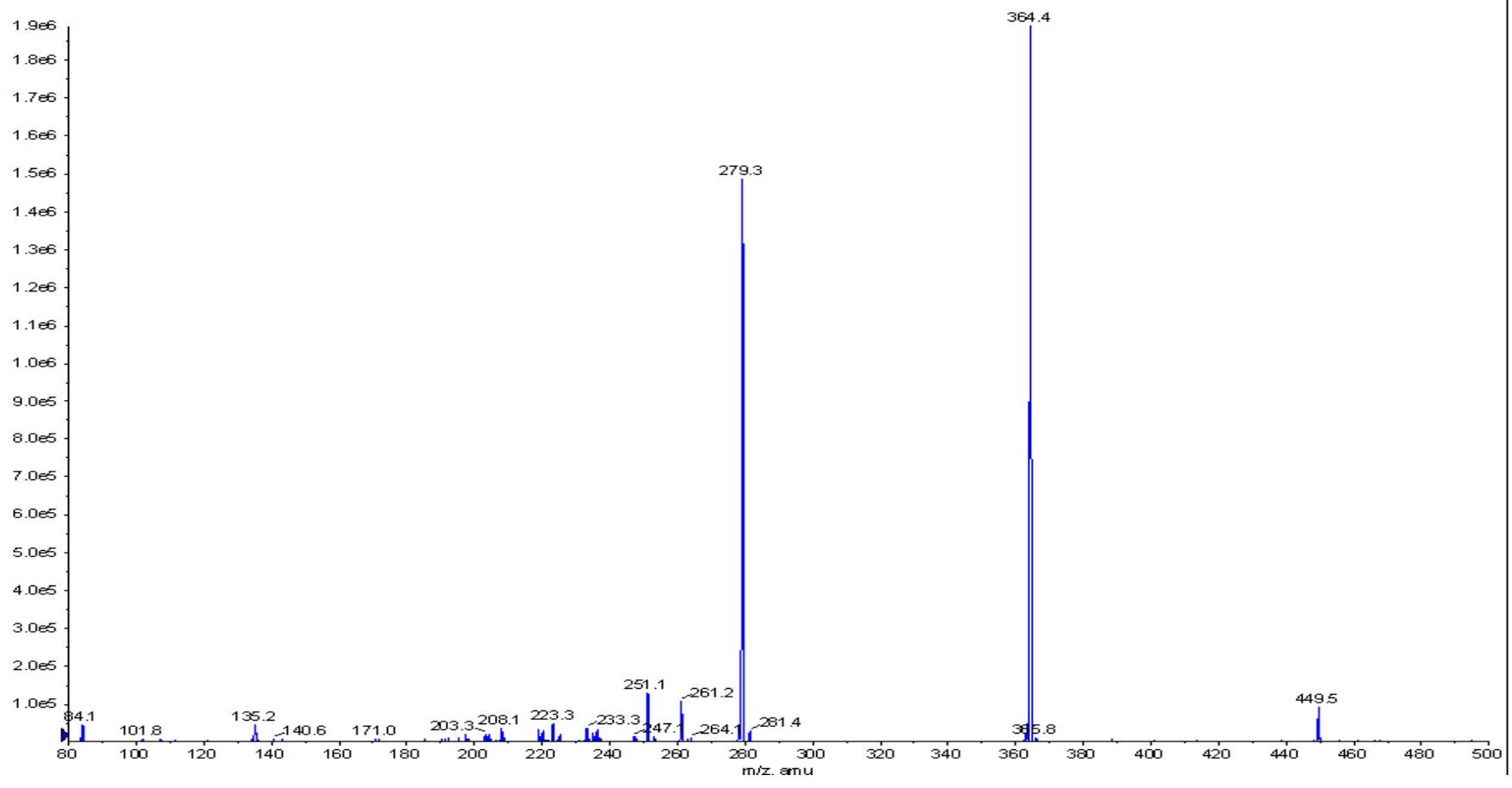


Fig  $^{13}\text{C}$ HNMR of 4-hydroxy-4'-methoxy-3,5-bis-piperlidinomethylchalcone (4)



**Fig** Apt experiments of 4-hydroxy-4'-methoxy-3,5-bis-piperlidinomethylchalcone (4)



**Fig** Mass spectrum of 4-hydroxy-4'-methoxy-3,5-bis-piperidinomethylchalcone (4)



