Supporting Information

Direct Synthesis of Secondary Benzylic Alcohols Enabled by Photoredox/Ni Dual-Catalyzed Cross-Coupling

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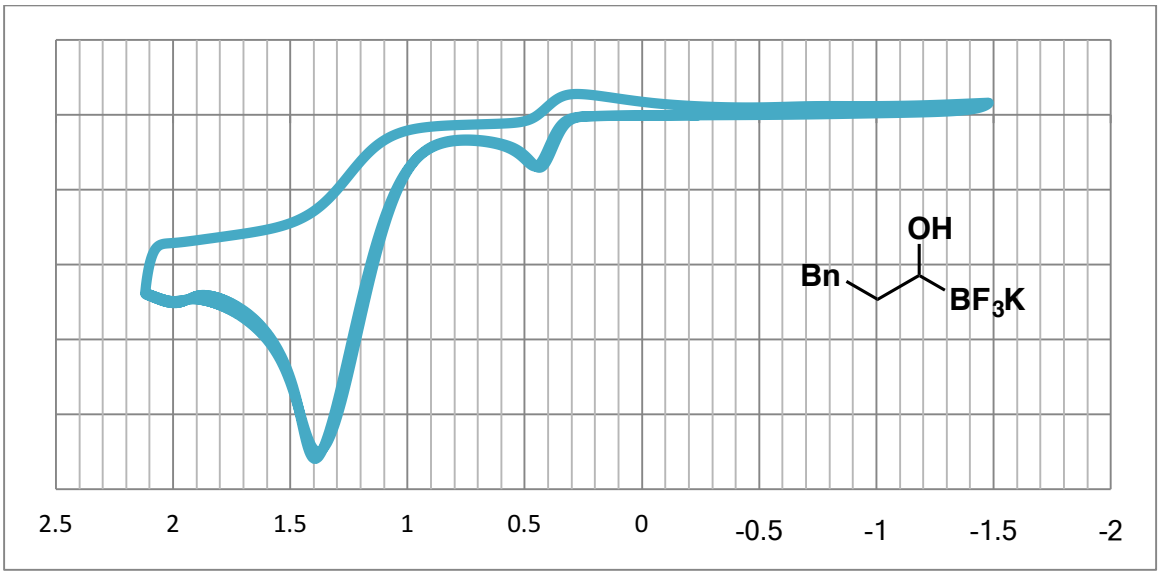
Contents:

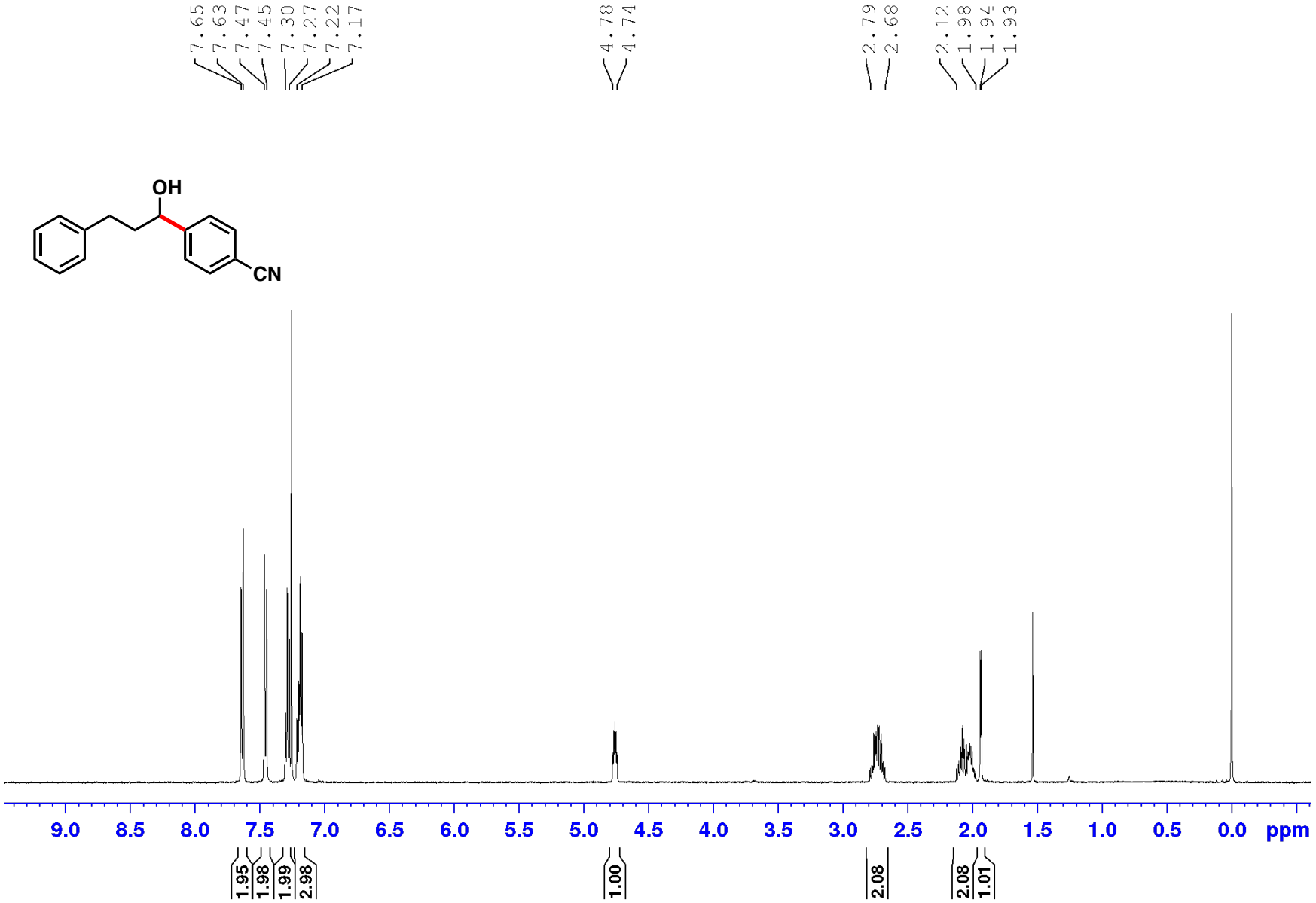
Gram scale reaction for the synthesis of 6a:

Figure A: 1. Reaction components were added to a Schlenk tube and then purged/evacuated with N_2. **2.** Reaction mixture in dioxane. **3.** Schlenk tube was placed in blue LED chamber while a fan was placed at the top to keep the temperature nearly at 25 ^{0}C. **4.** Reaction mixture after 24 h. **5.** Isolated compound.

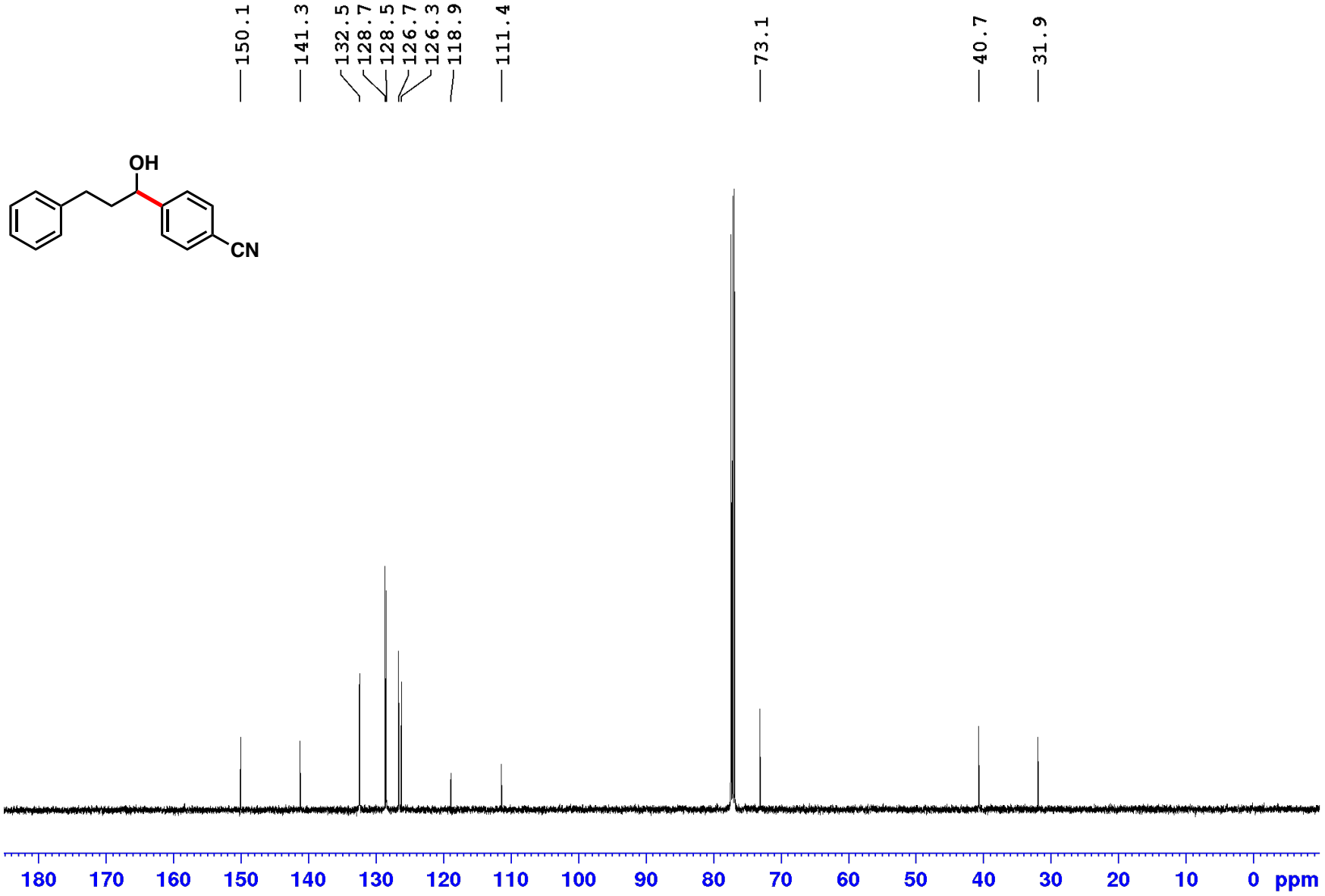
Cyclic Voltammogram of α-Hydroxyalkyltrifluoroborate 3a: Voltammetric measurements were recorded using a standard three electrodes setup in dry and degassed MeCN (10 mL), with ferrocene as an internal reference ($E^0_{1/2}$ = + 0.40 V vs SCE) and Bu_4NPF_6 as the electrolyte (0.10 mmol). Cyclic voltammograms were recorded with a step potential of 0.001 V at a scan rate of 0.5 V/s.



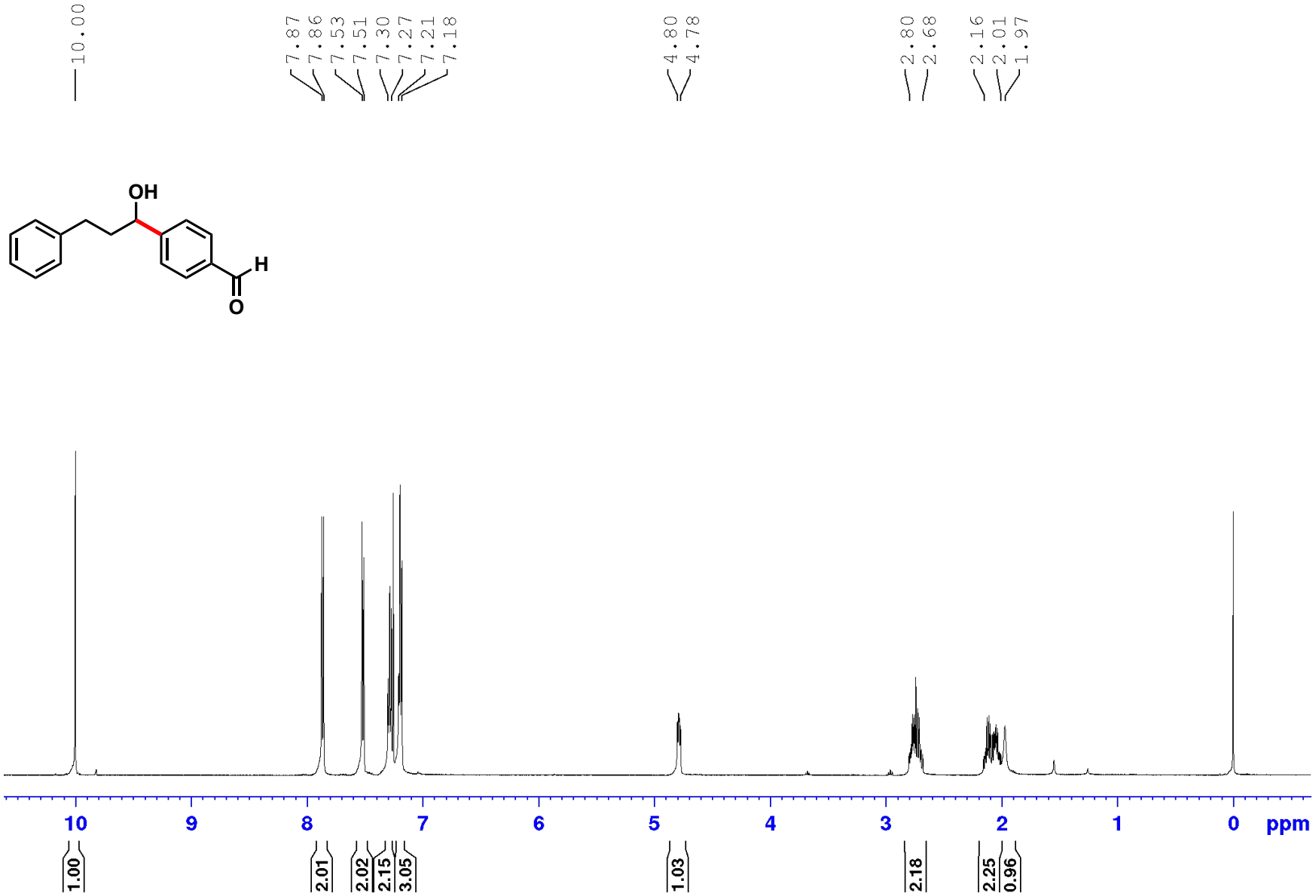
H NMR of compound **6a** ($CDCl_3$, 500 MHz)



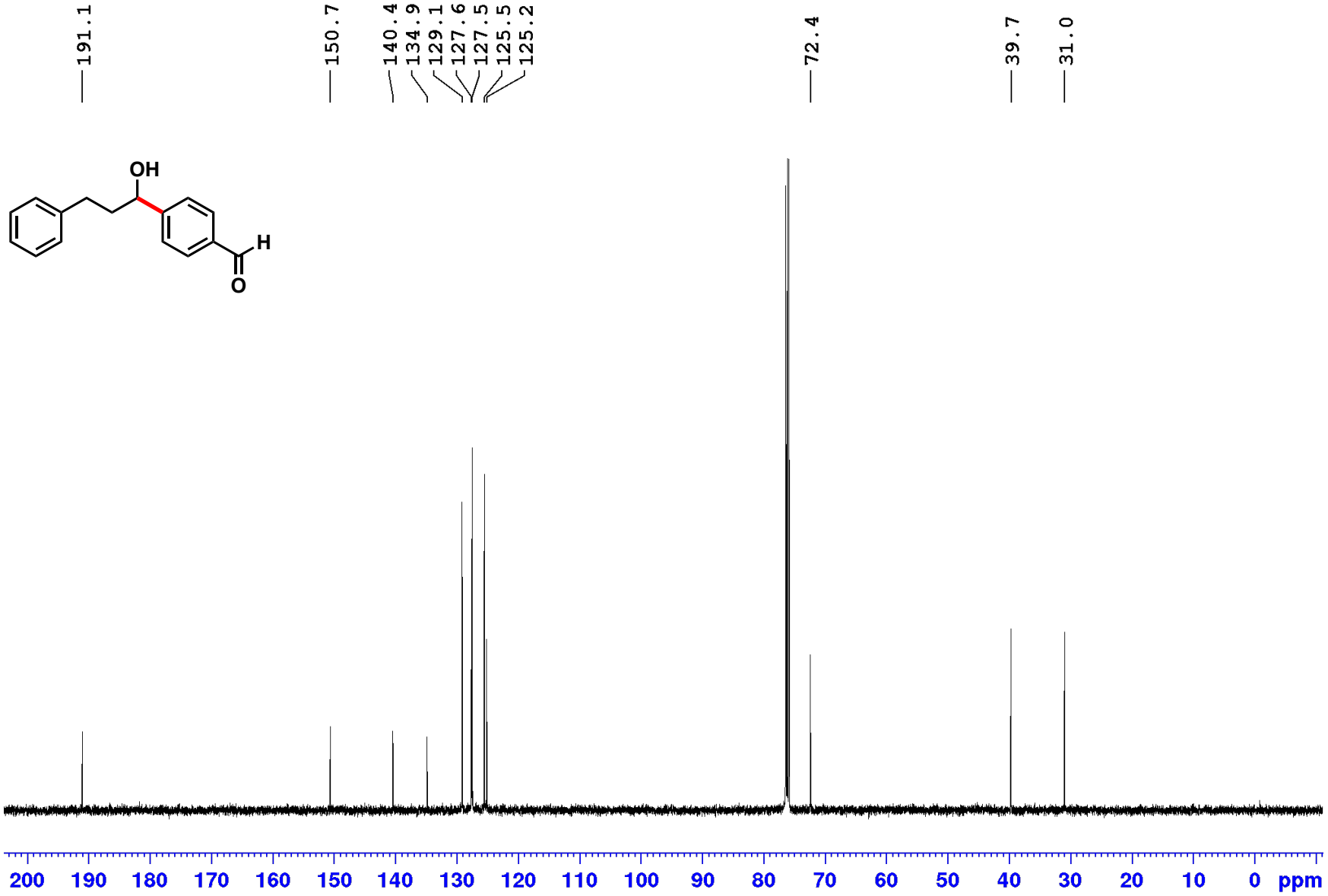
^{13}C NMR of compound **6a** ($CDCl_3$, 125 MHz)



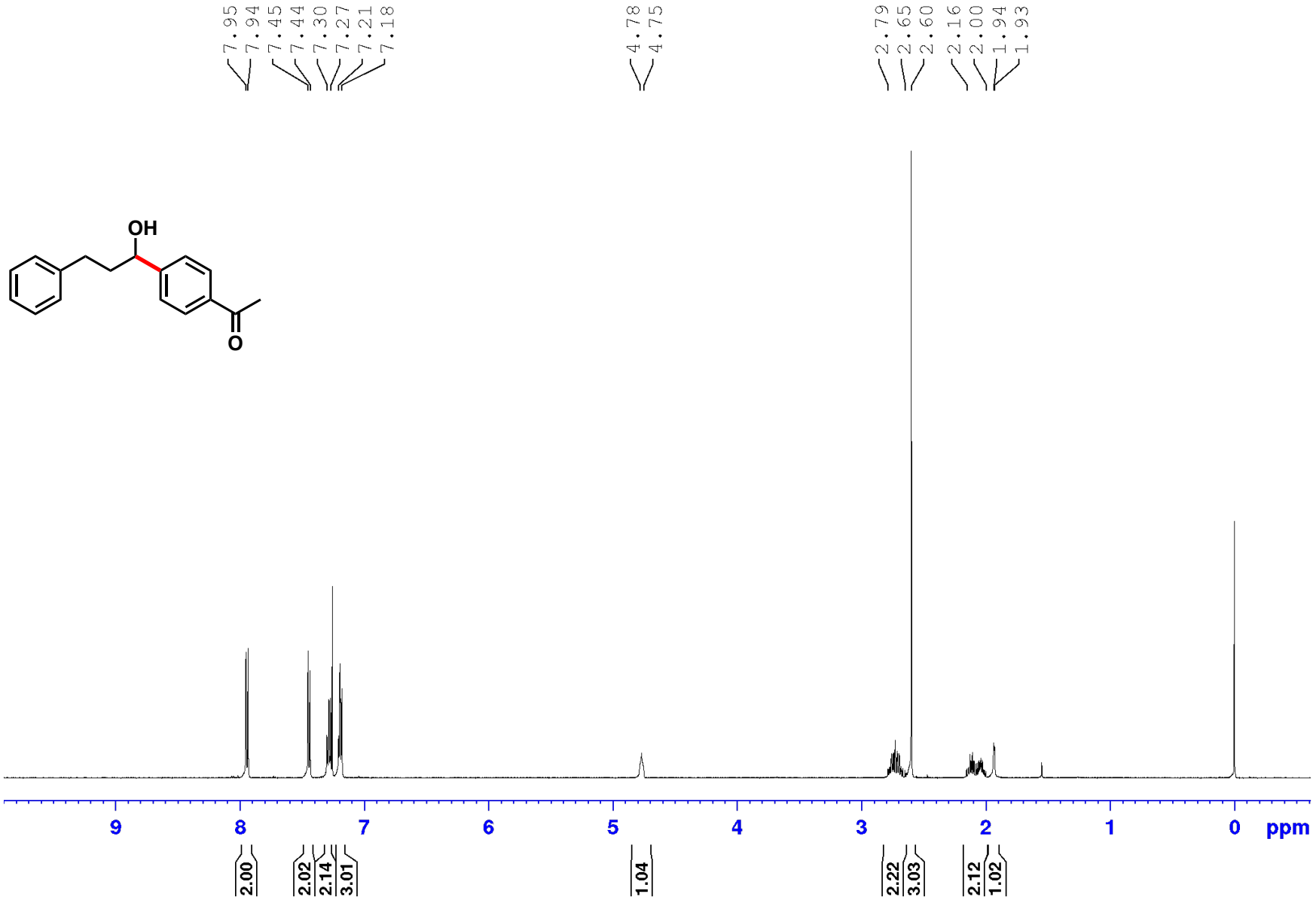
^{1}H NMR of compound **6b** ($CDCl_3$, 500 MHz)



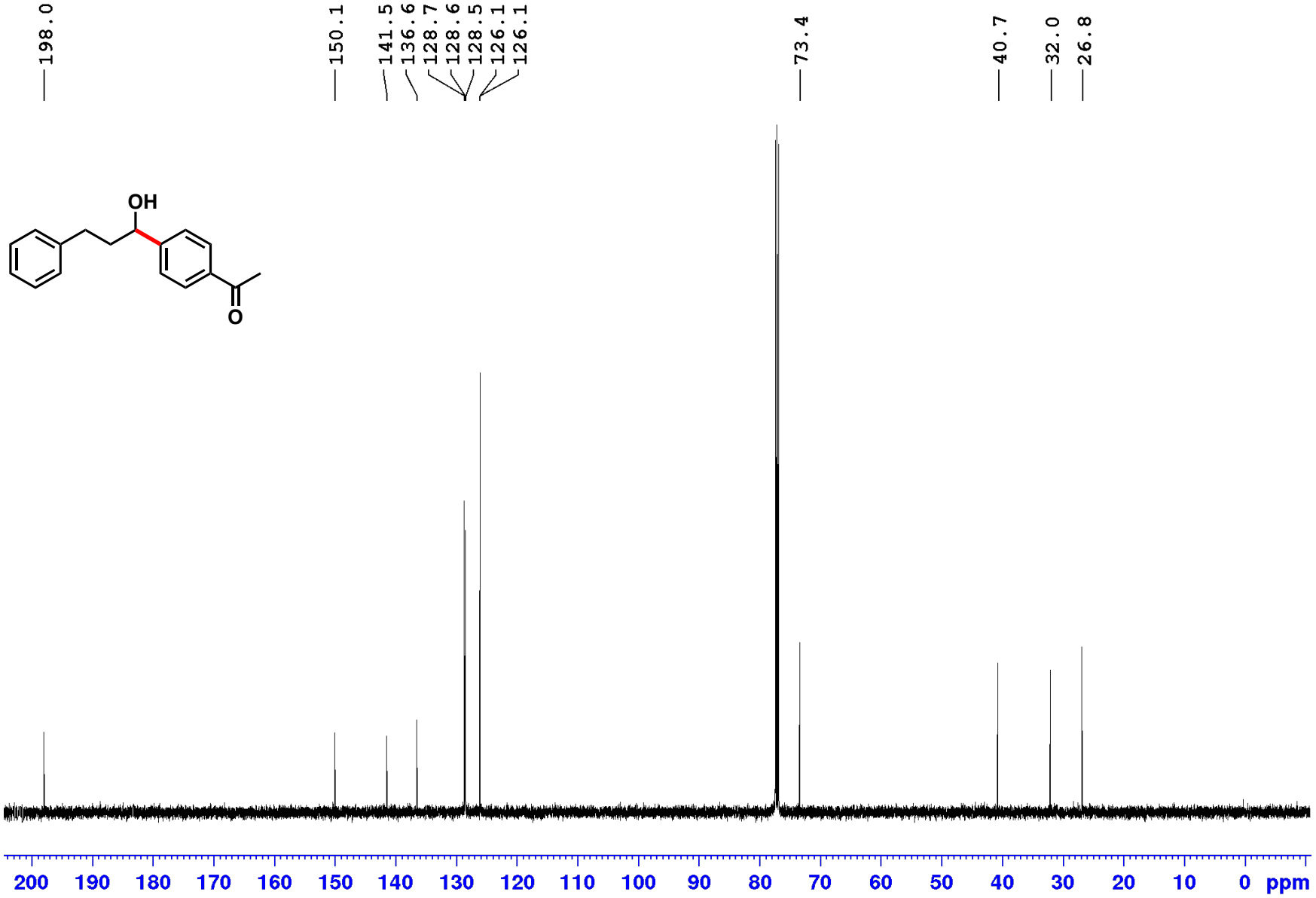
^{13}C NMR of compound **6b** ($CDCl_3$, 125 MHz)



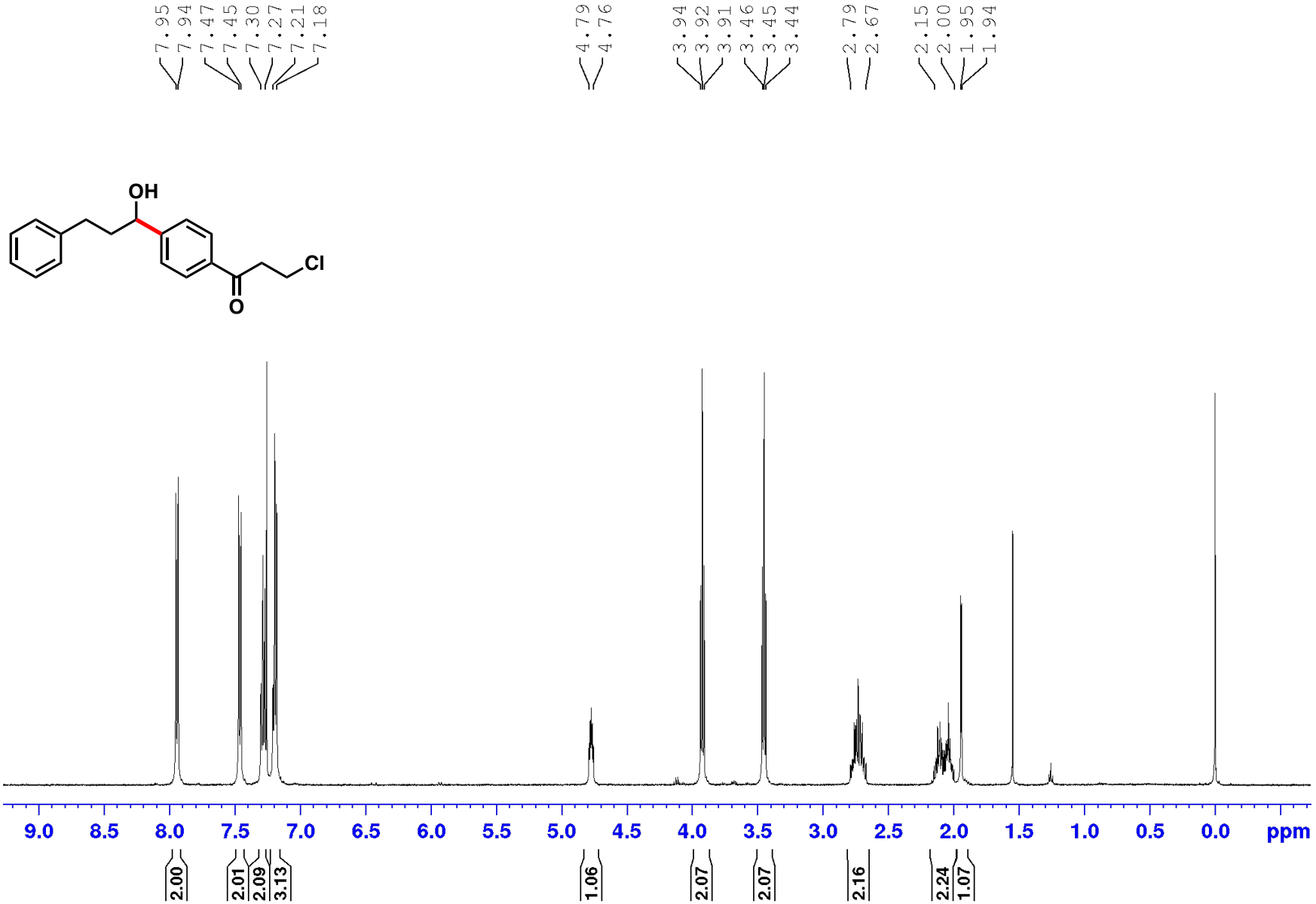
^{1}H NMR of compound **6c** ($CDCl_3$, 500 MHz)



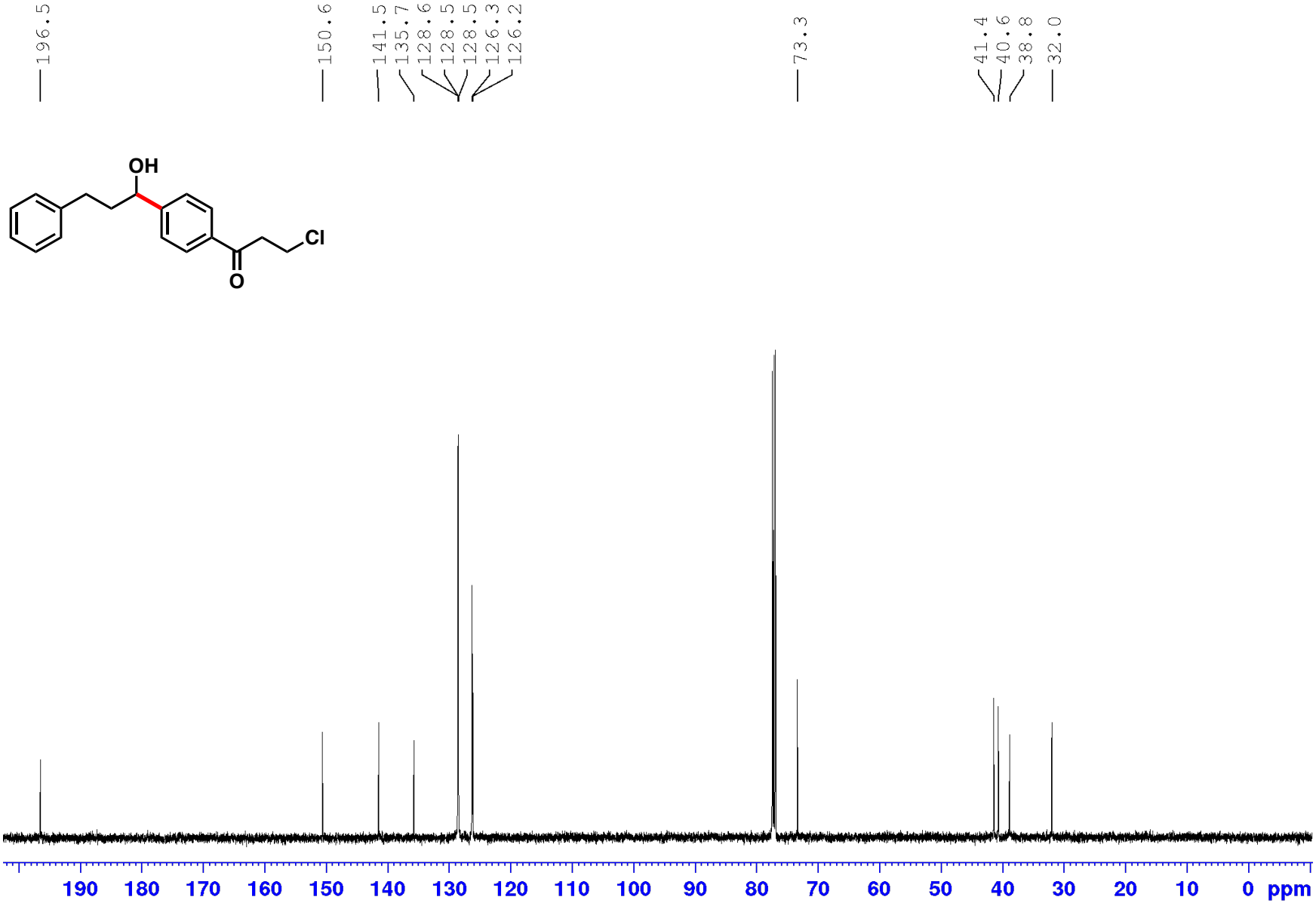
^{13}C NMR of compound **6c** ($CDCl_3$, 125 MHz)



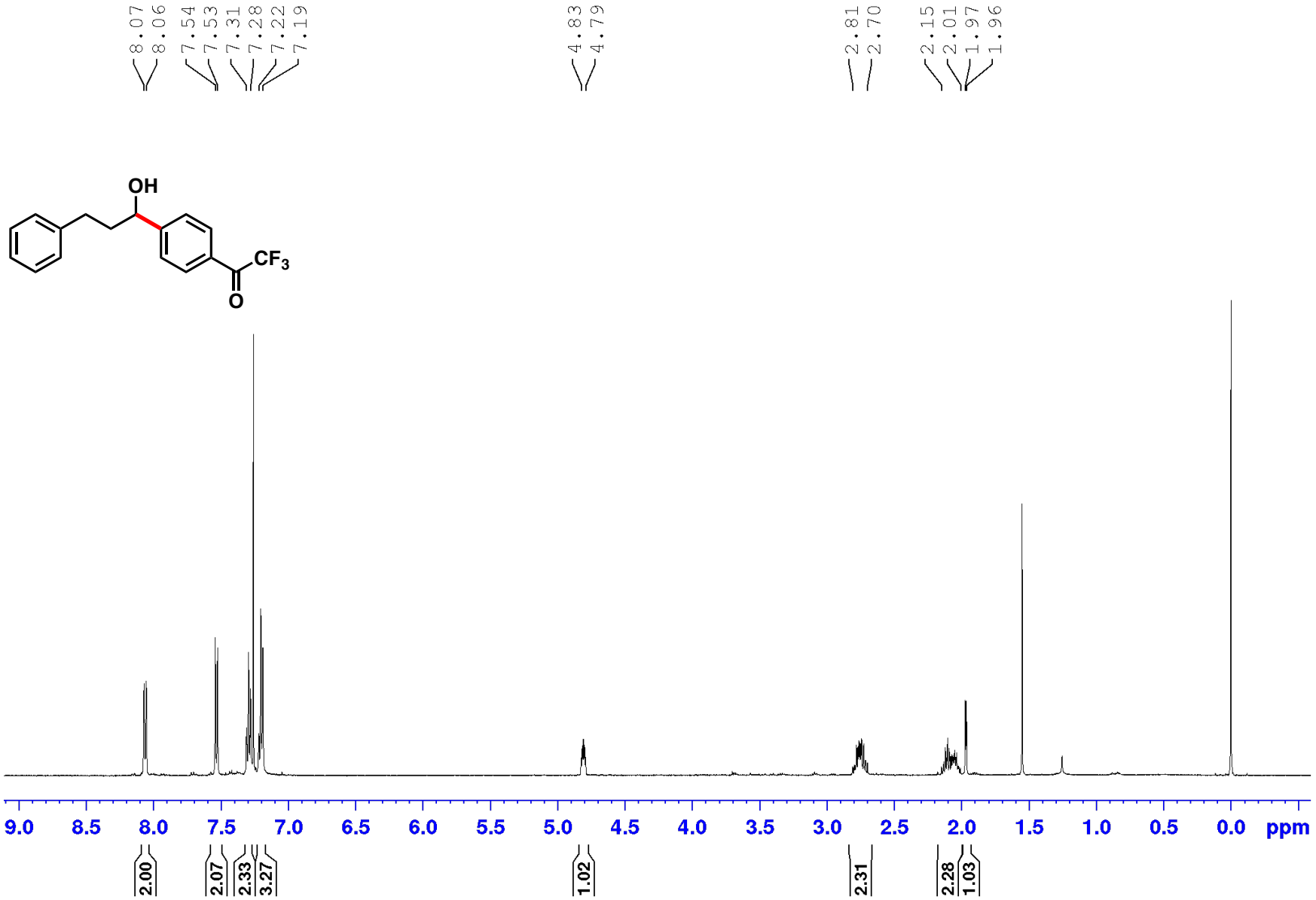
^{1}H NMR of compound **6d** ($CDCl_3$, 500 MHz)



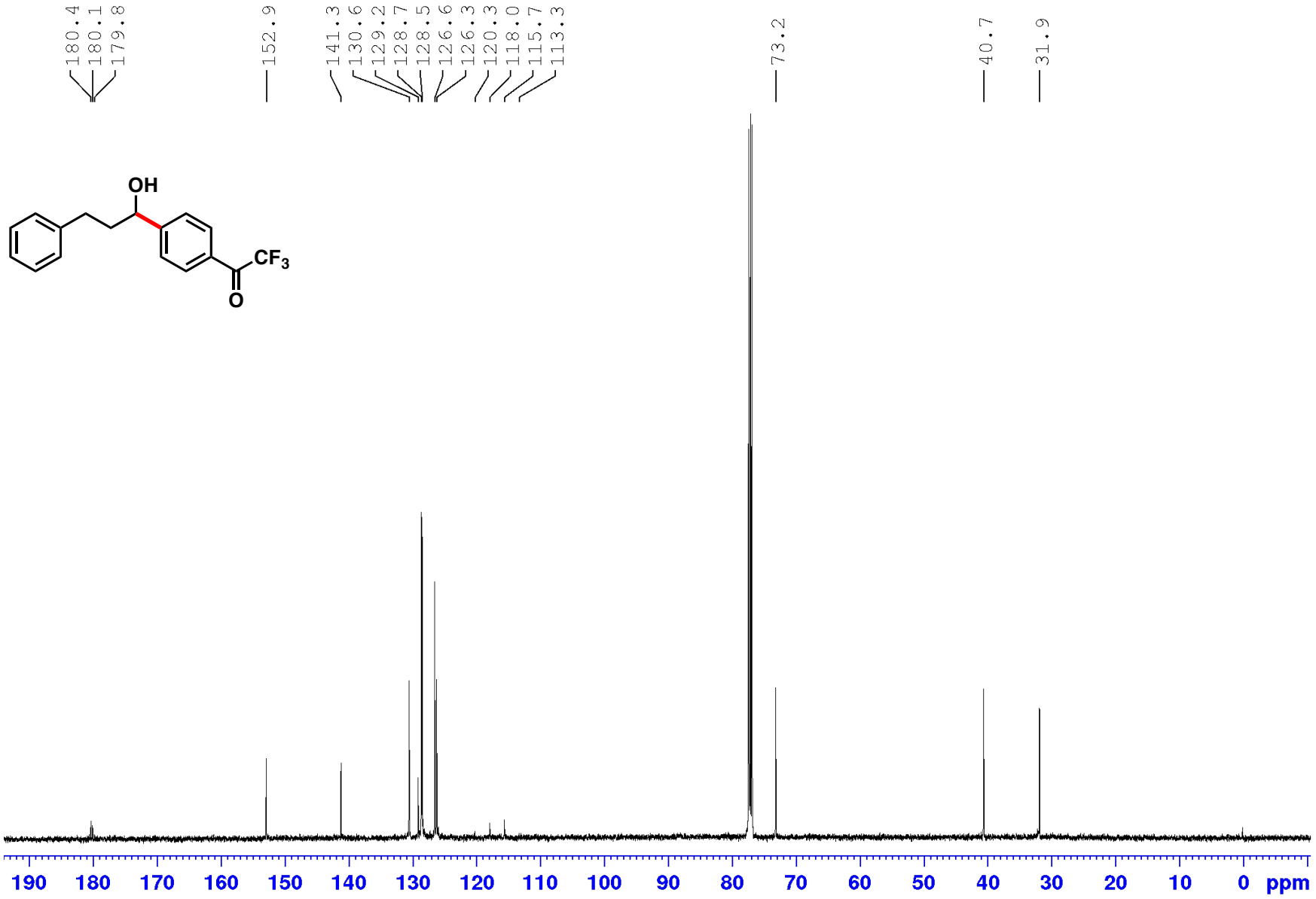
^{13}C NMR of compound **6d** ($CDCl_3$, 125 MHz)



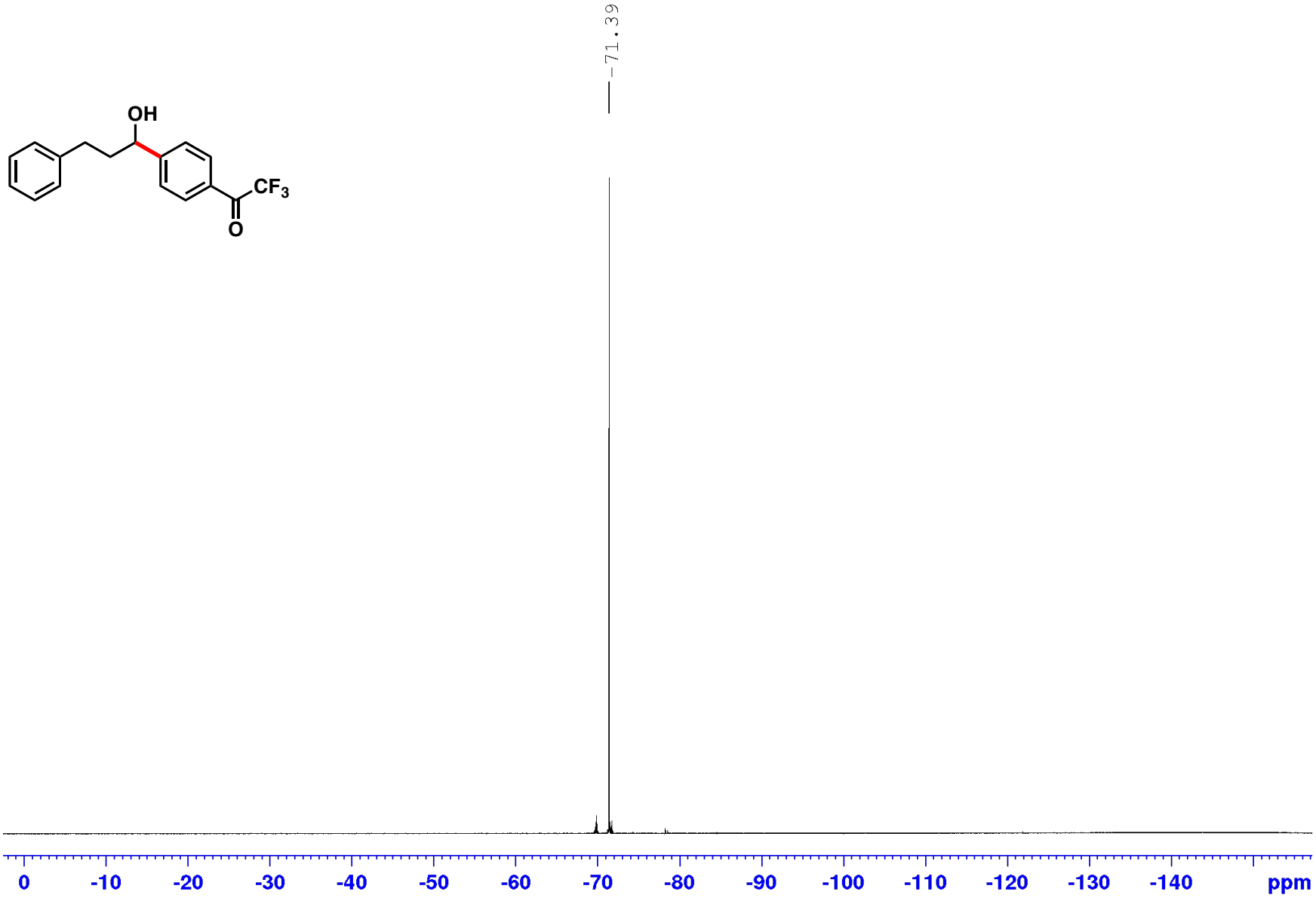
^{1}H NMR of compound **6e** ($CDCl_3$, 500 MHz)



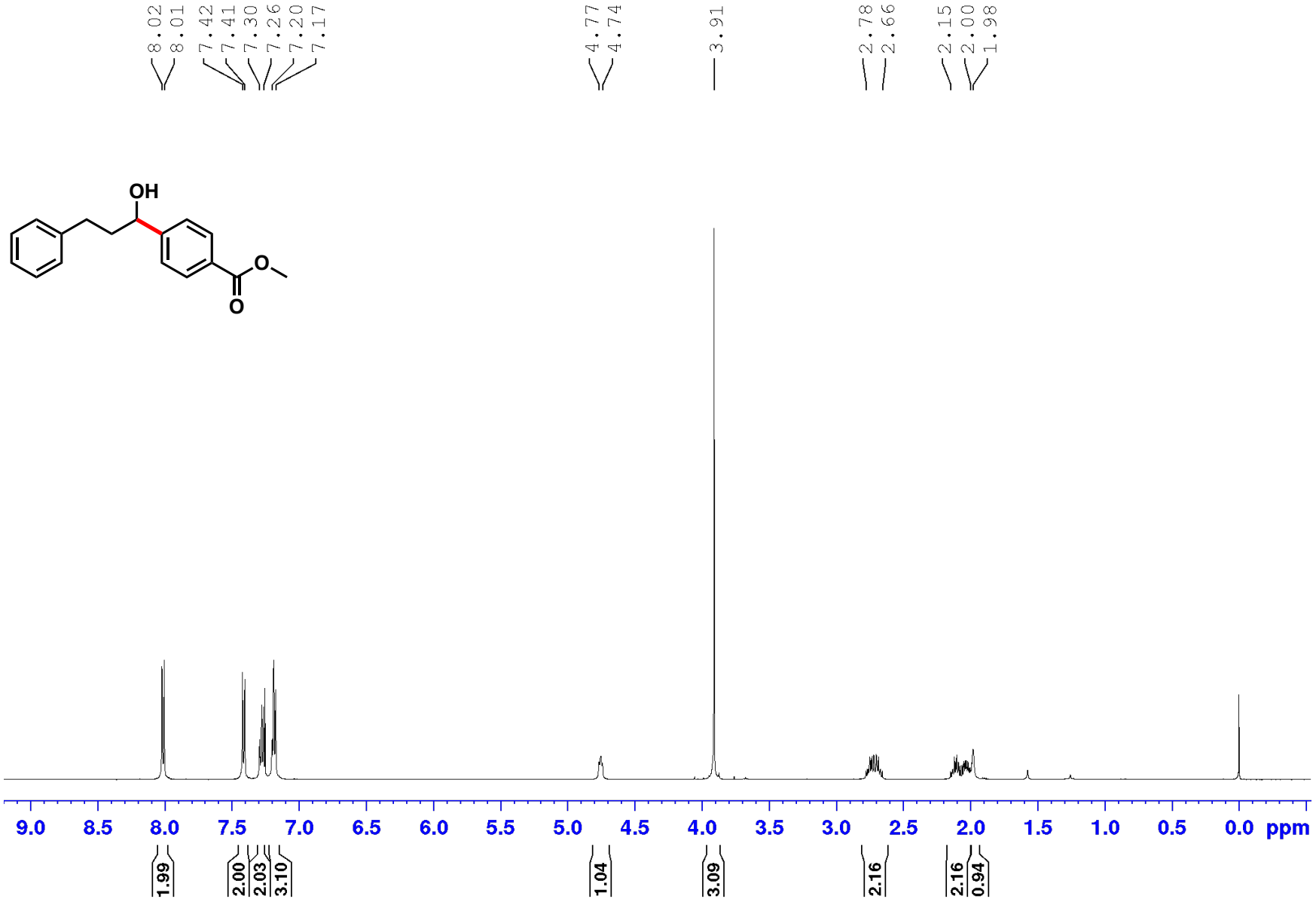
^{13}C NMR of compound **6e** ($CDCl_3$, 125 MHz)



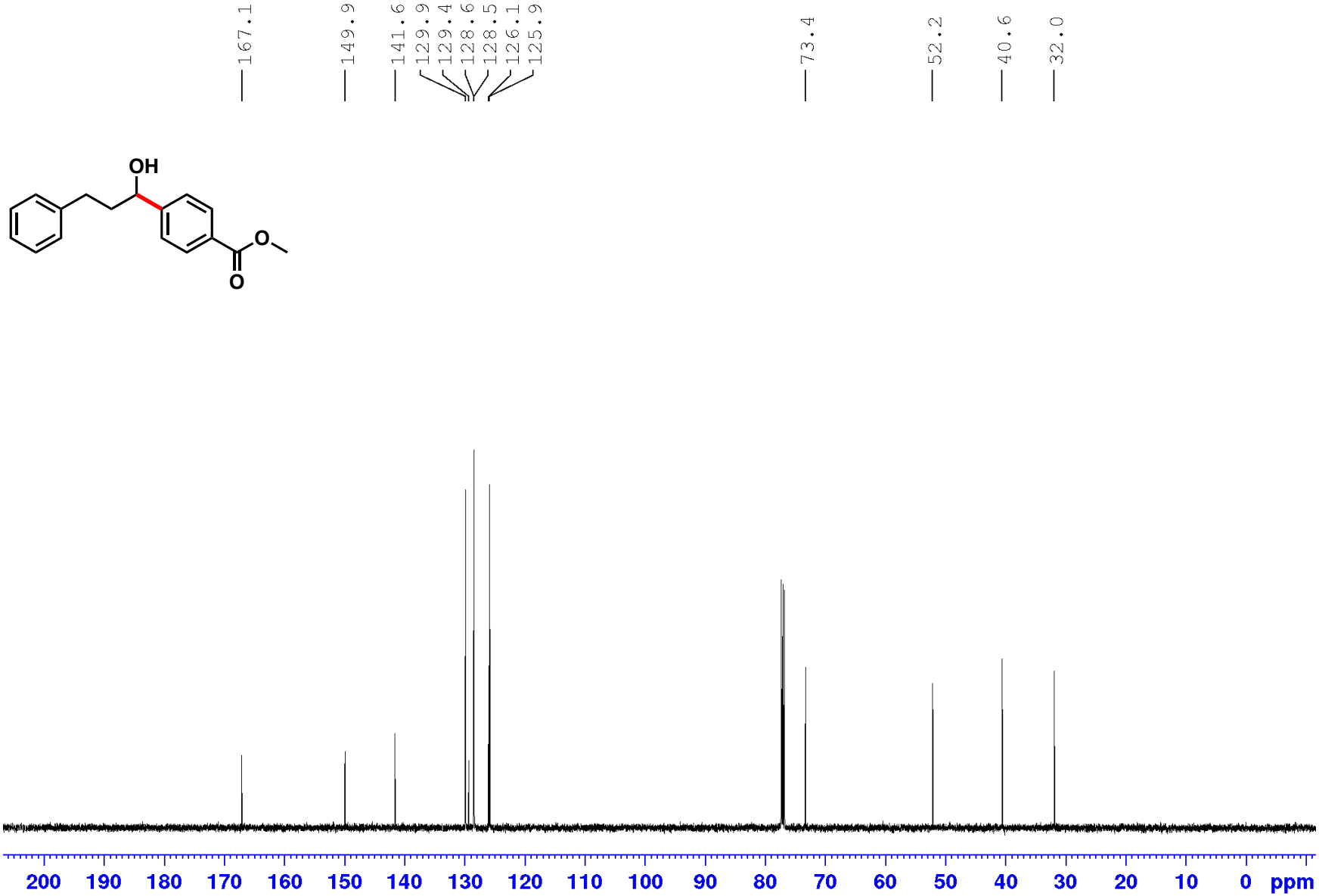
^{19}F NMR of compound **6e** ($CDCl_3$, 471 MHz)



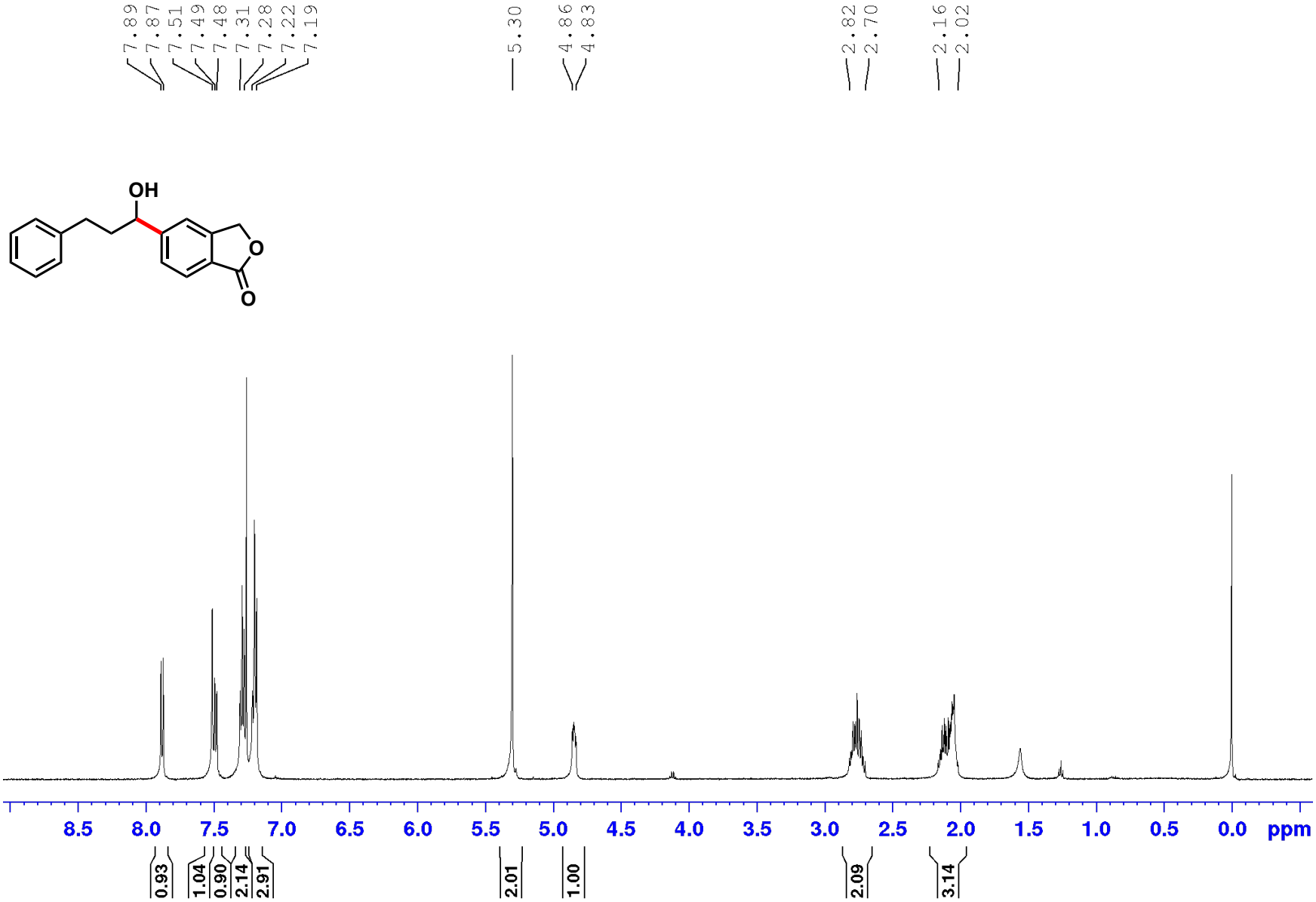
^{1}H NMR of compound **6f** ($CDCl_3$, 500 MHz)



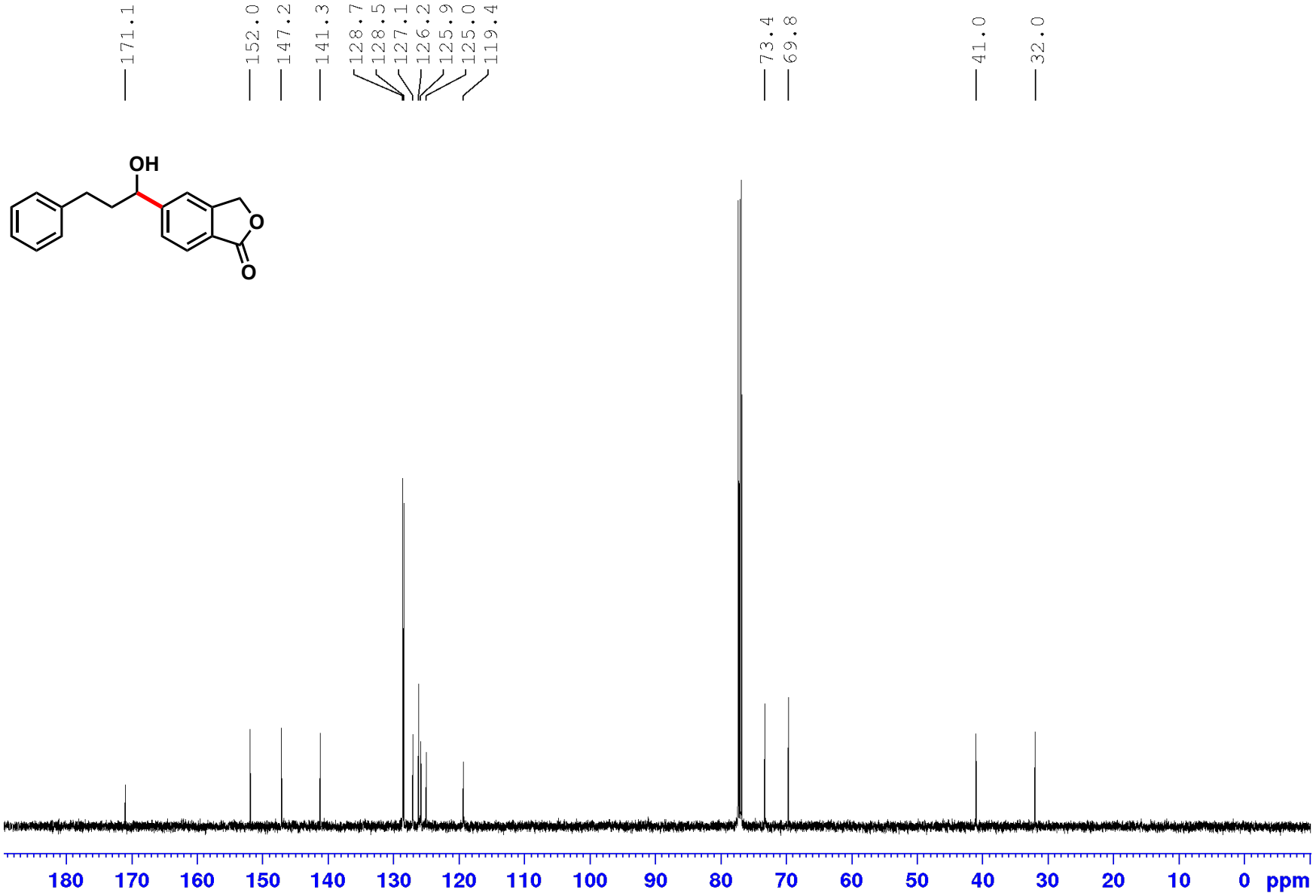
^{13}C NMR of compound **6f** ($CDCl_3$, 125 MHz)



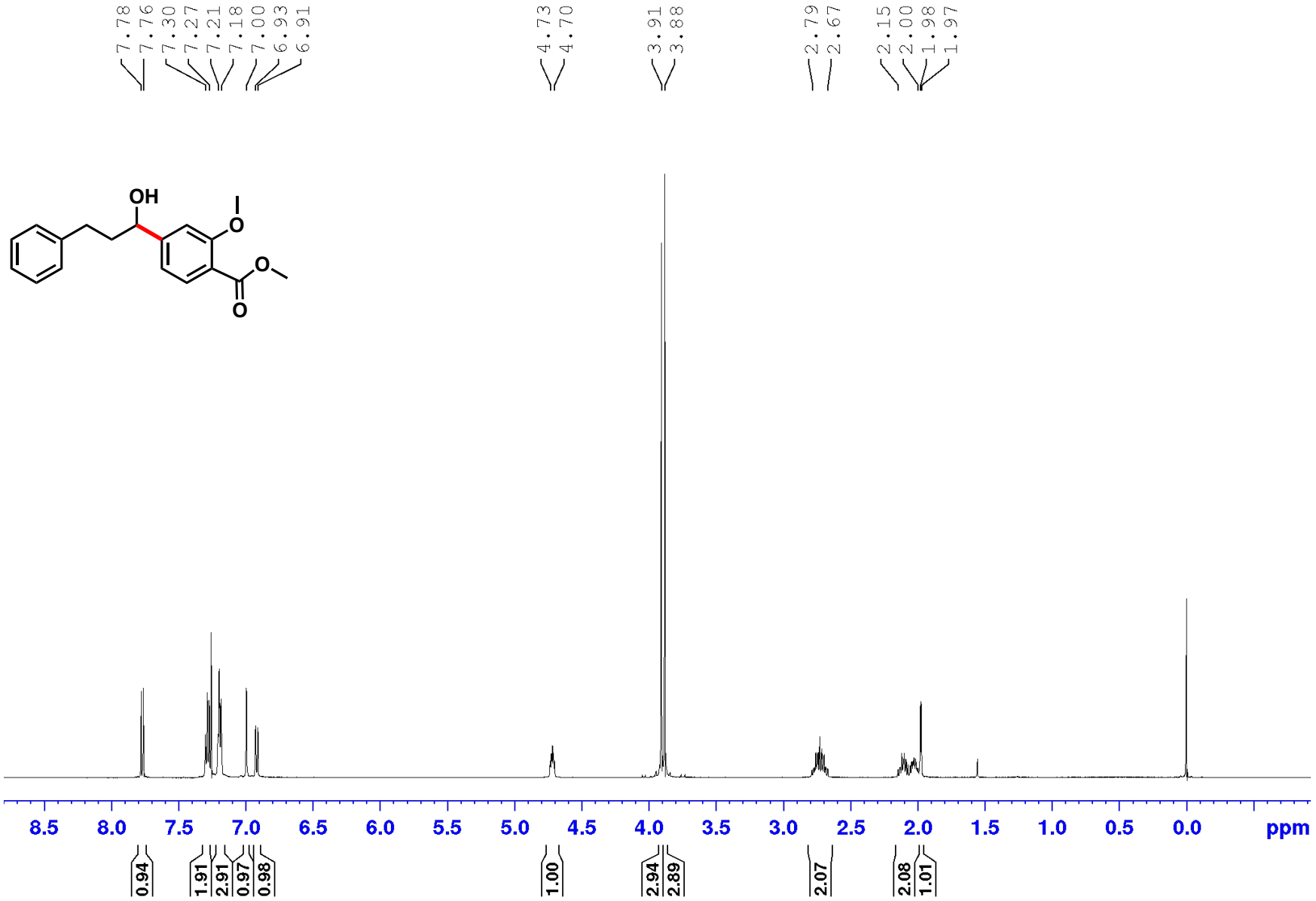
^{1}H NMR of compound **6g** ($CDCl_3$, 500 MHz)



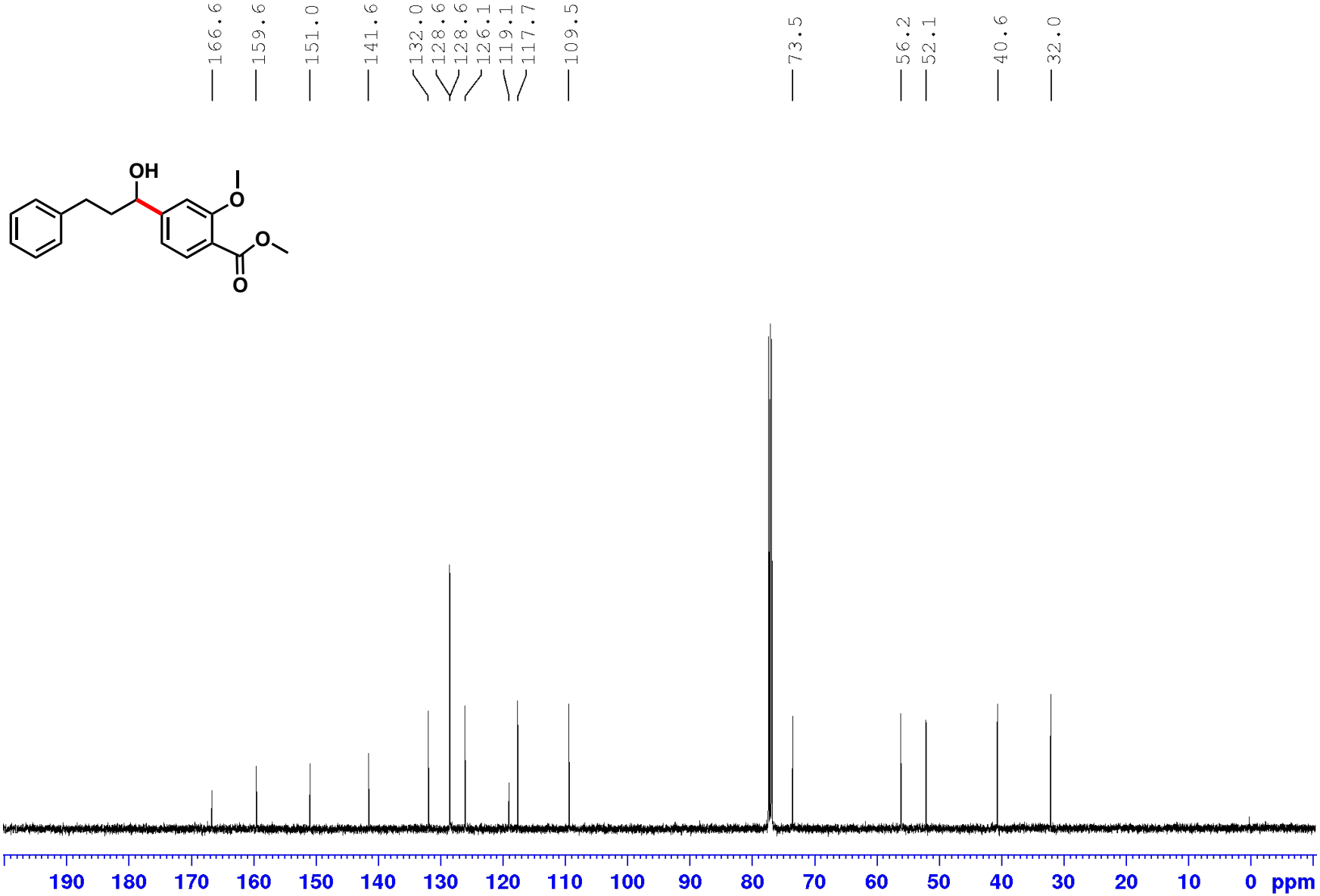
^{13}C NMR of compound **6g** ($CDCl_3$, 125 MHz)



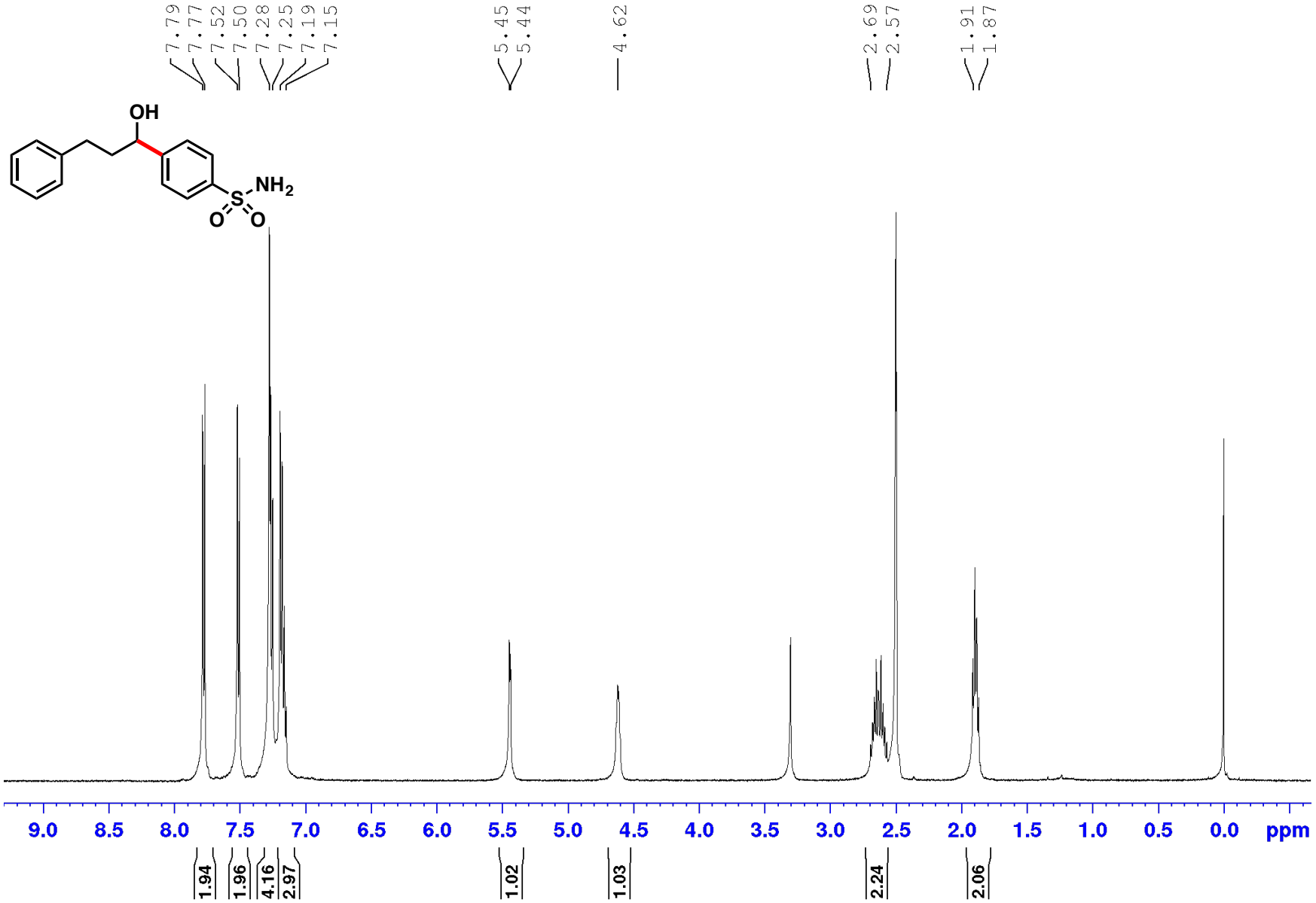
^{1}H NMR of compound **6h** ($CDCl_3$, 500 MHz)



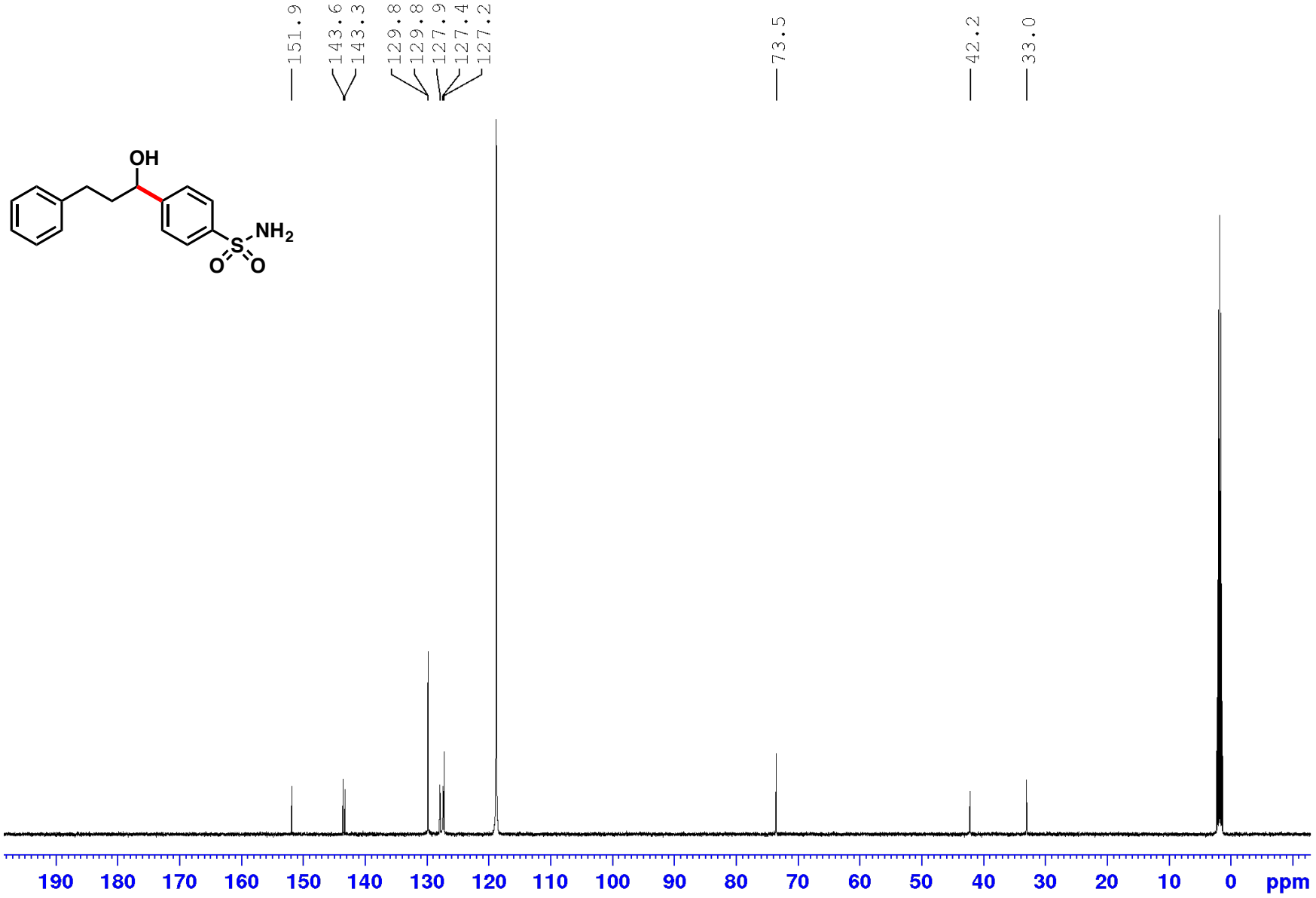
^{13}C NMR of compound **6h** ($CDCl_3$, 125 MHz)



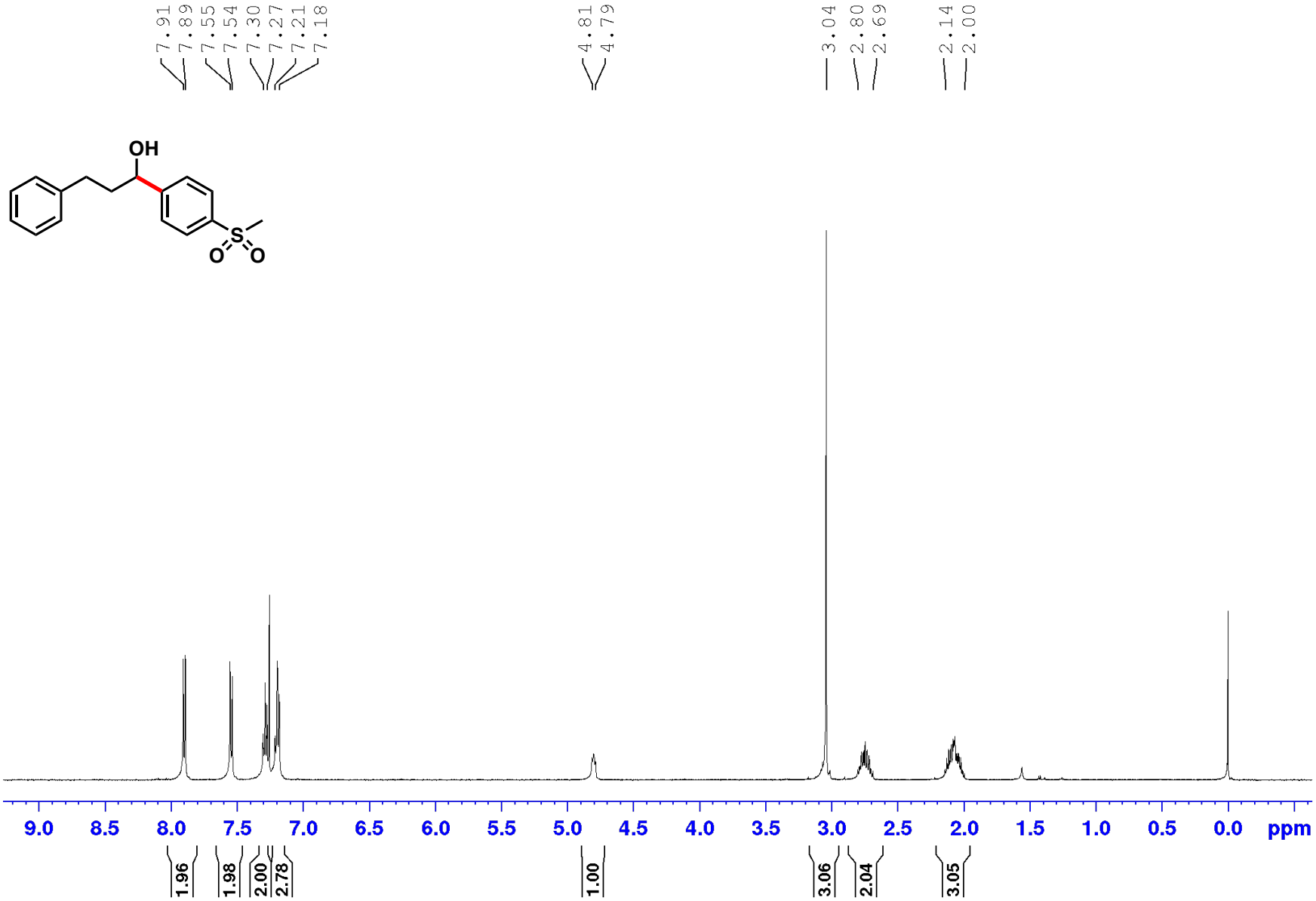
^{1}H NMR of compound **6i** (DMSO, 500 MHz)



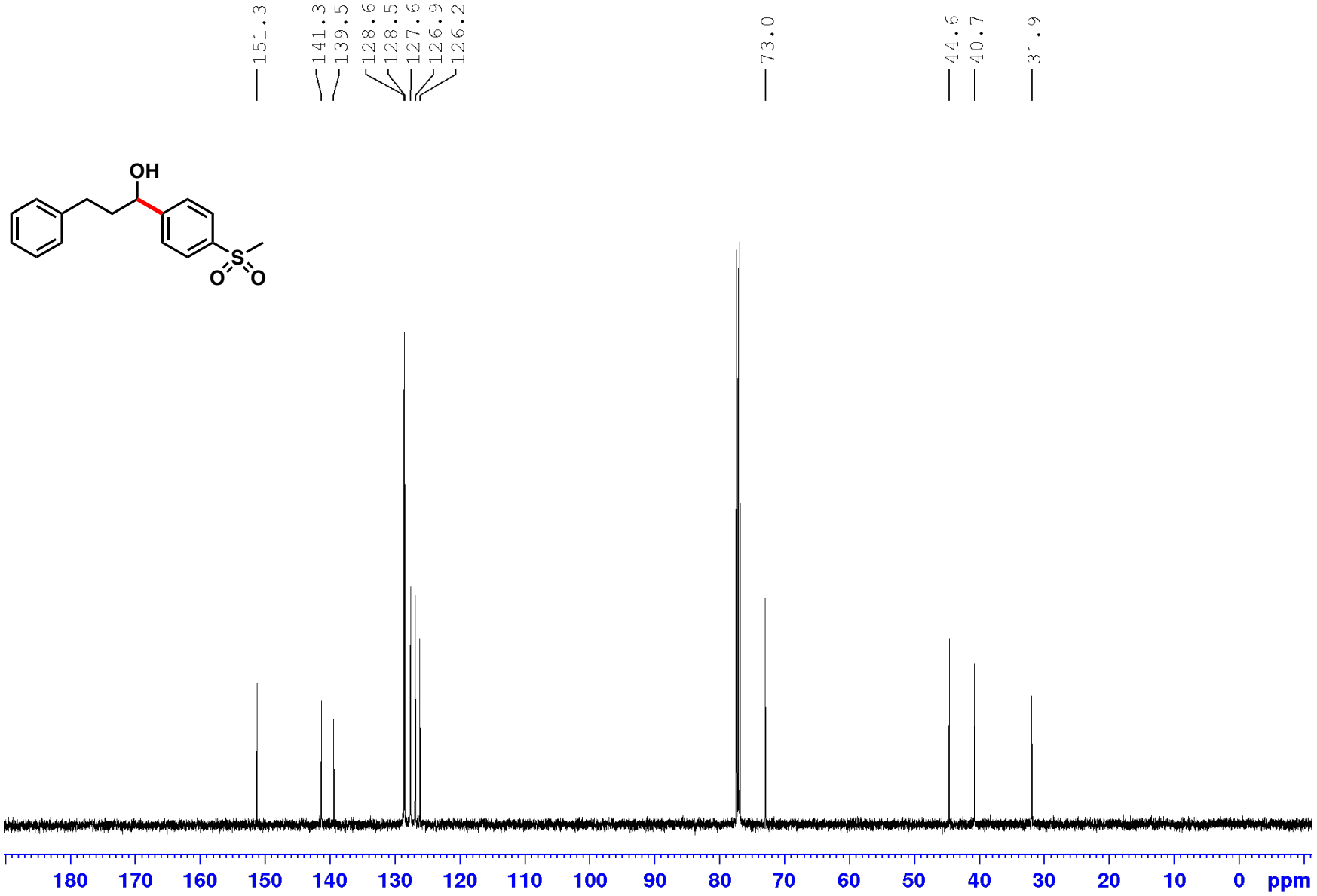
^{13}C NMR of compound **6i** (CD_3CN, 125 MHz)



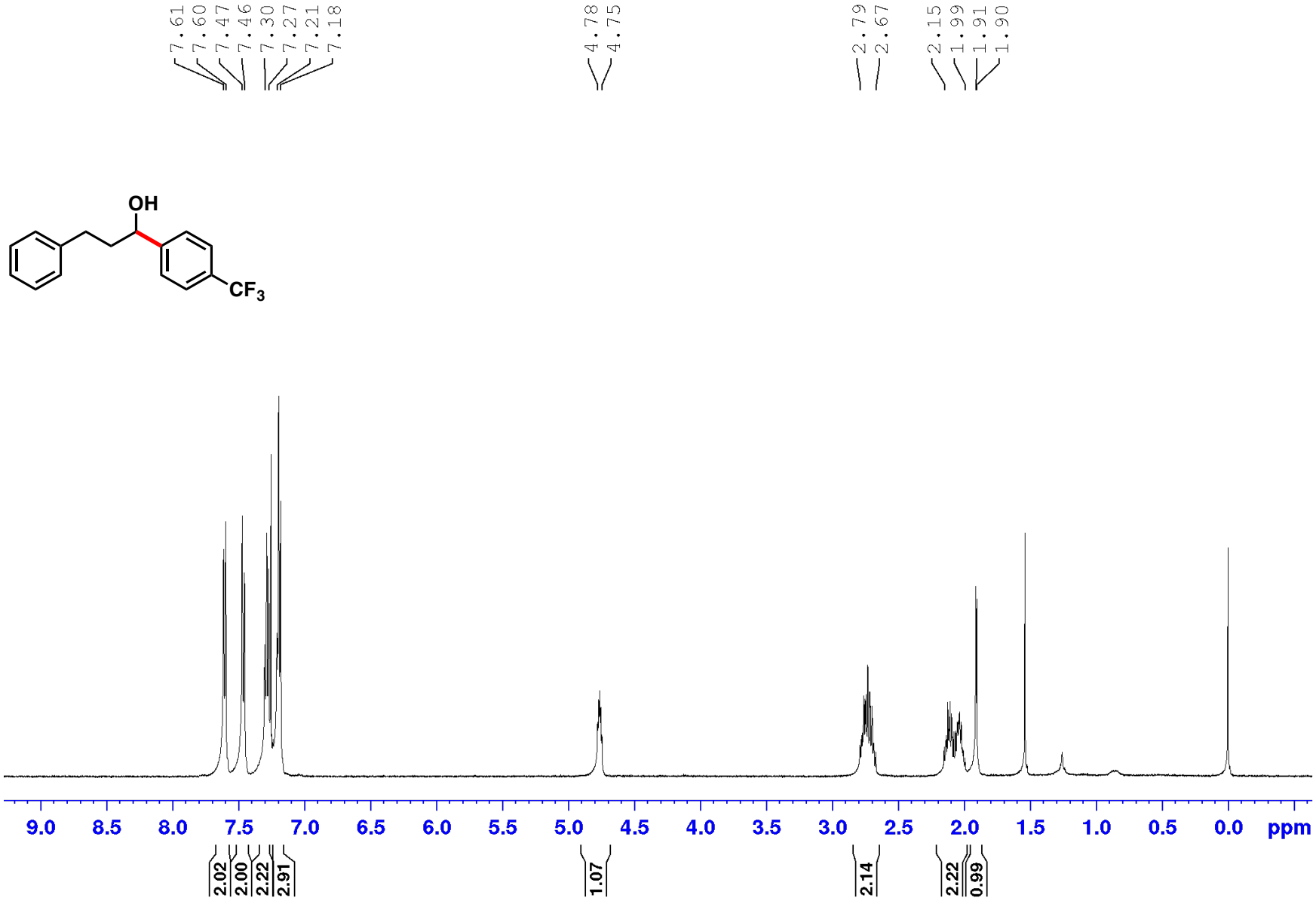
^{1}H NMR of compound **6j** ($CDCl_3$, 500 MHz)



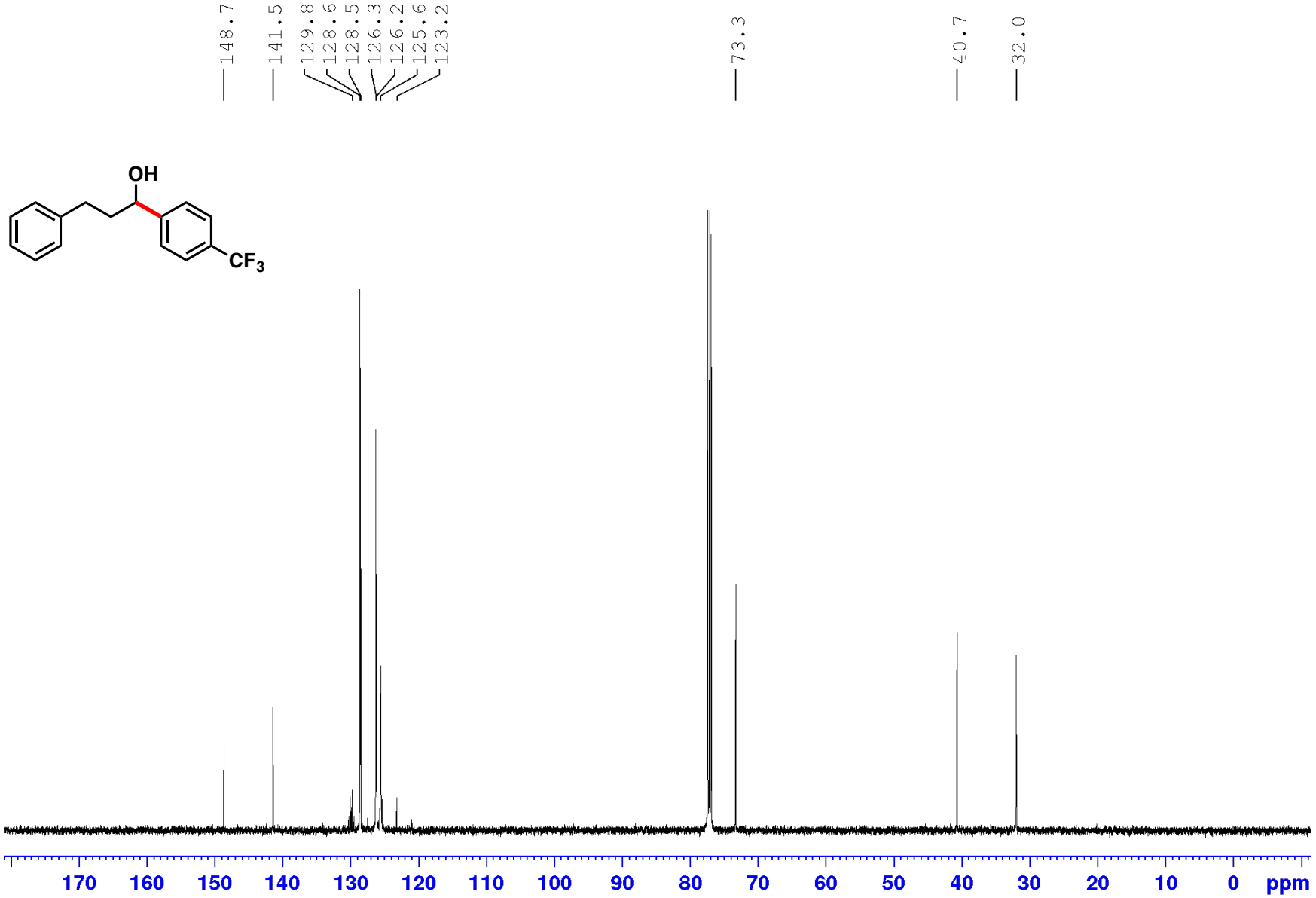
^{13}C NMR of compound **6j** ($CDCl_3$, 125 MHz)



^{1}H NMR of compound **6k** ($CDCl_3$, 500 MHz)

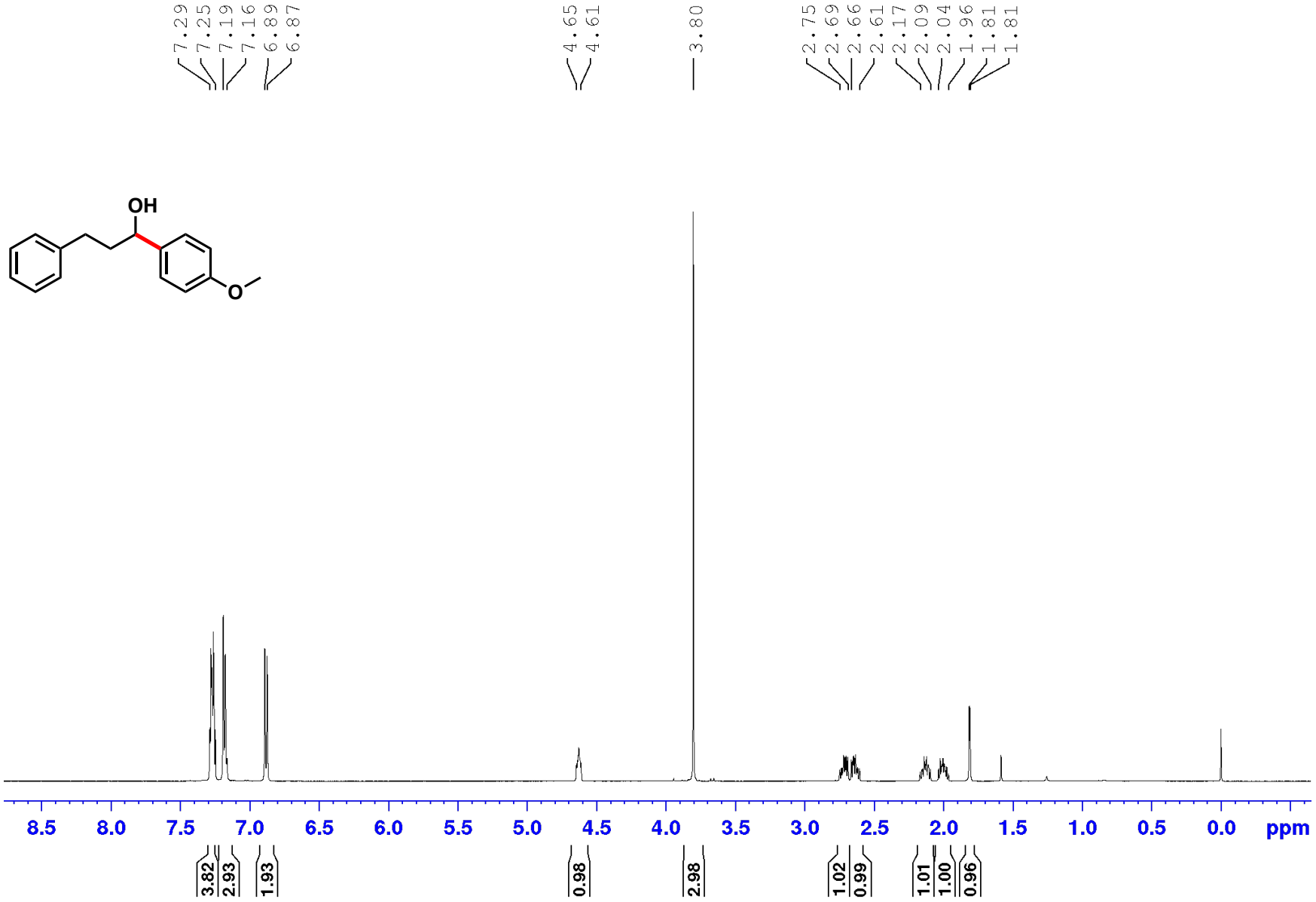


^{13}C NMR of compound **6k** ($CDCl_3$, 125 MHz)

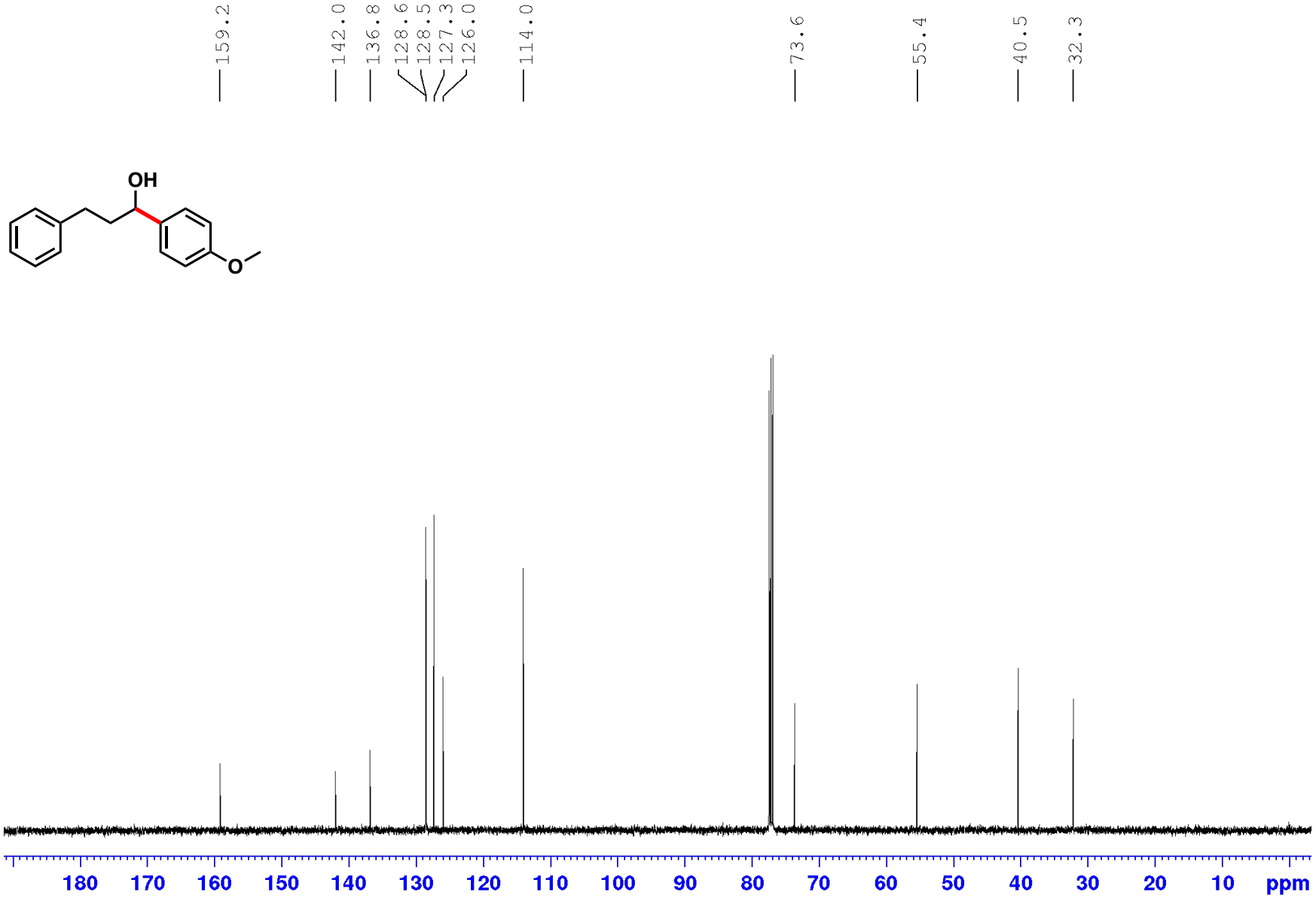


^{19}F NMR of compound **6k** ($CDCl_3$, 470 MHz)

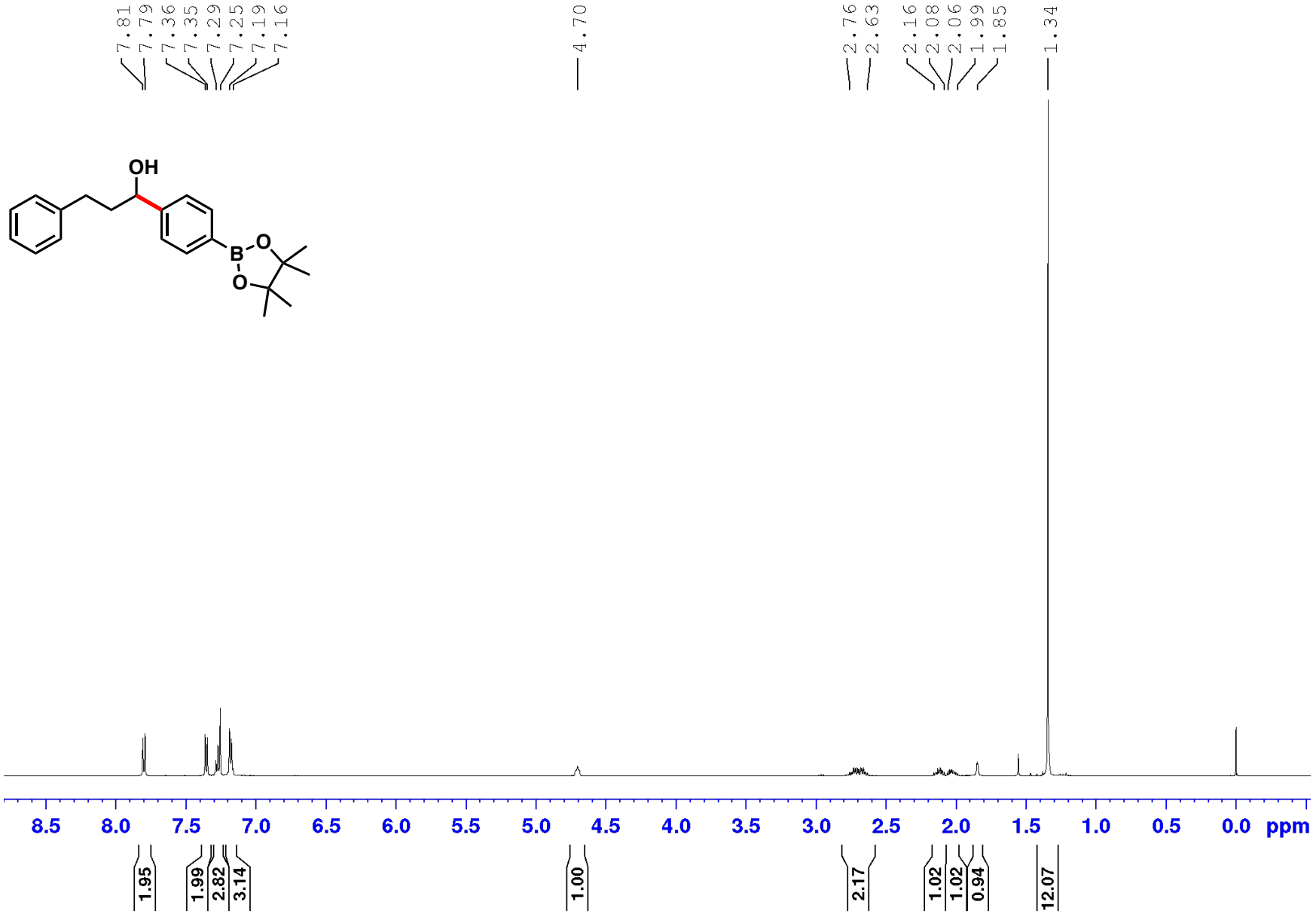
^{1}H NMR of compound **6l** ($CDCl_3$, 500 MHz)



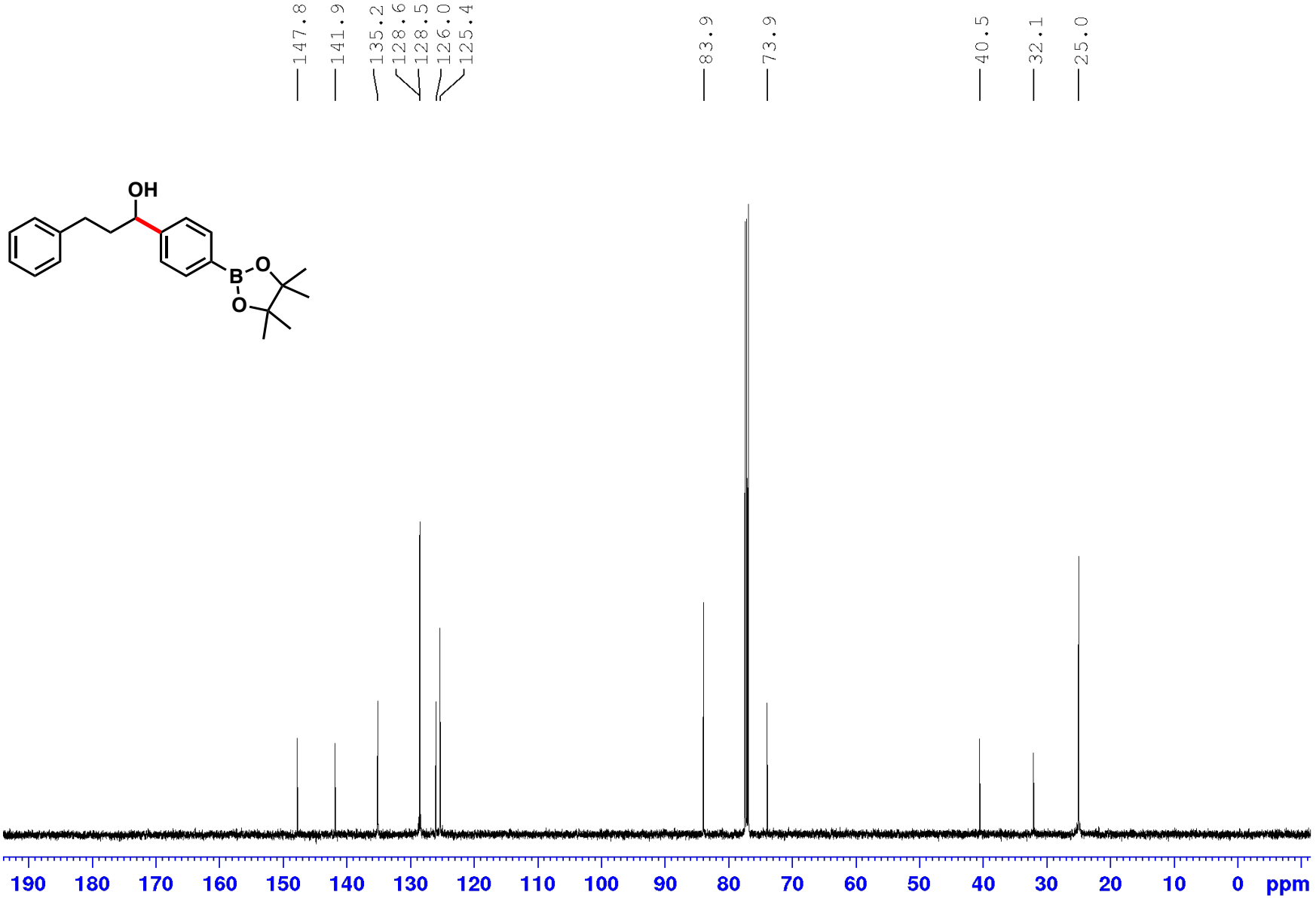
^{13}C NMR of compound **6l** ($CDCl_3$, 125 MHz)



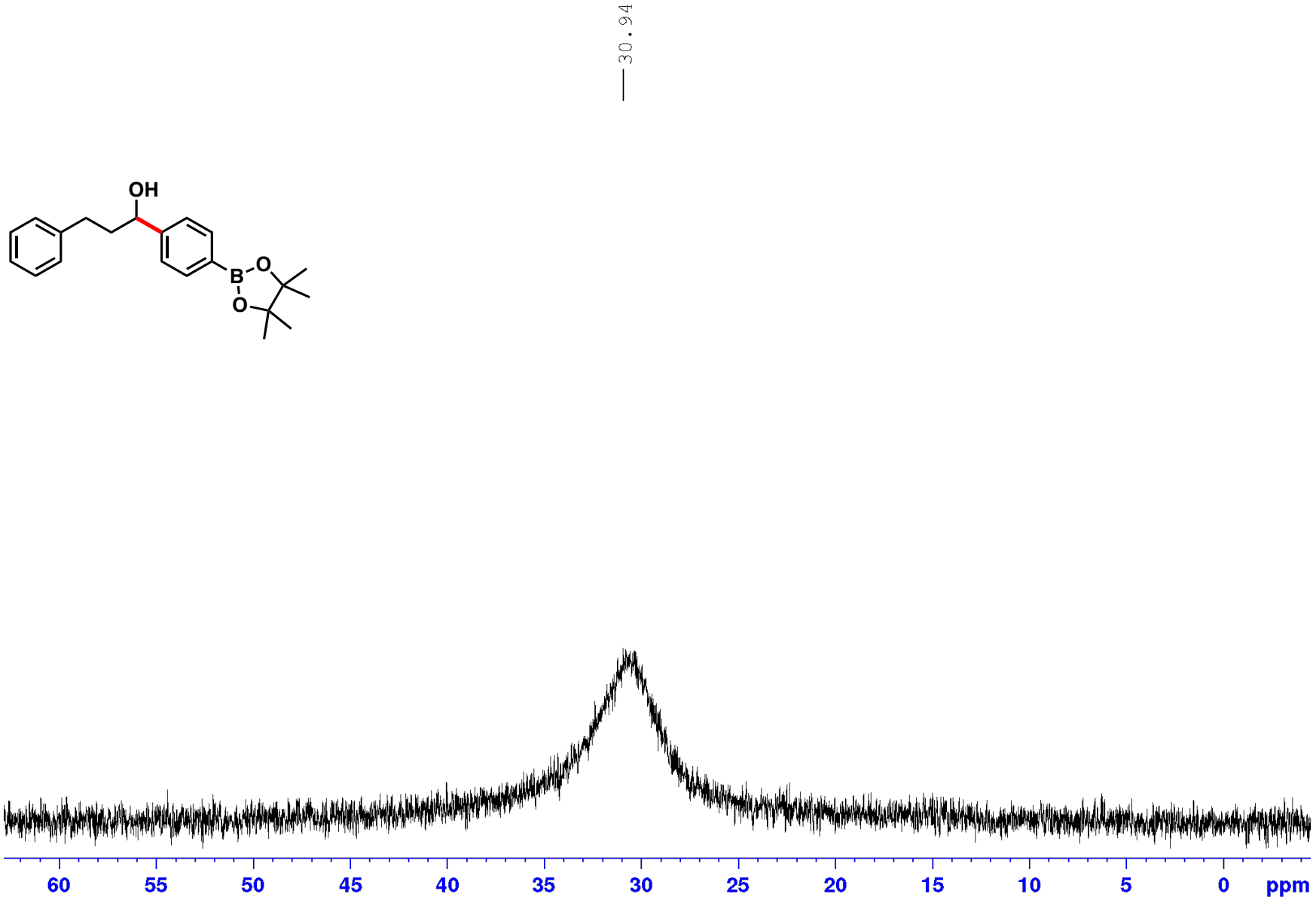
^{1}H NMR of compound **6m** ($CDCl_3$, 500 MHz)



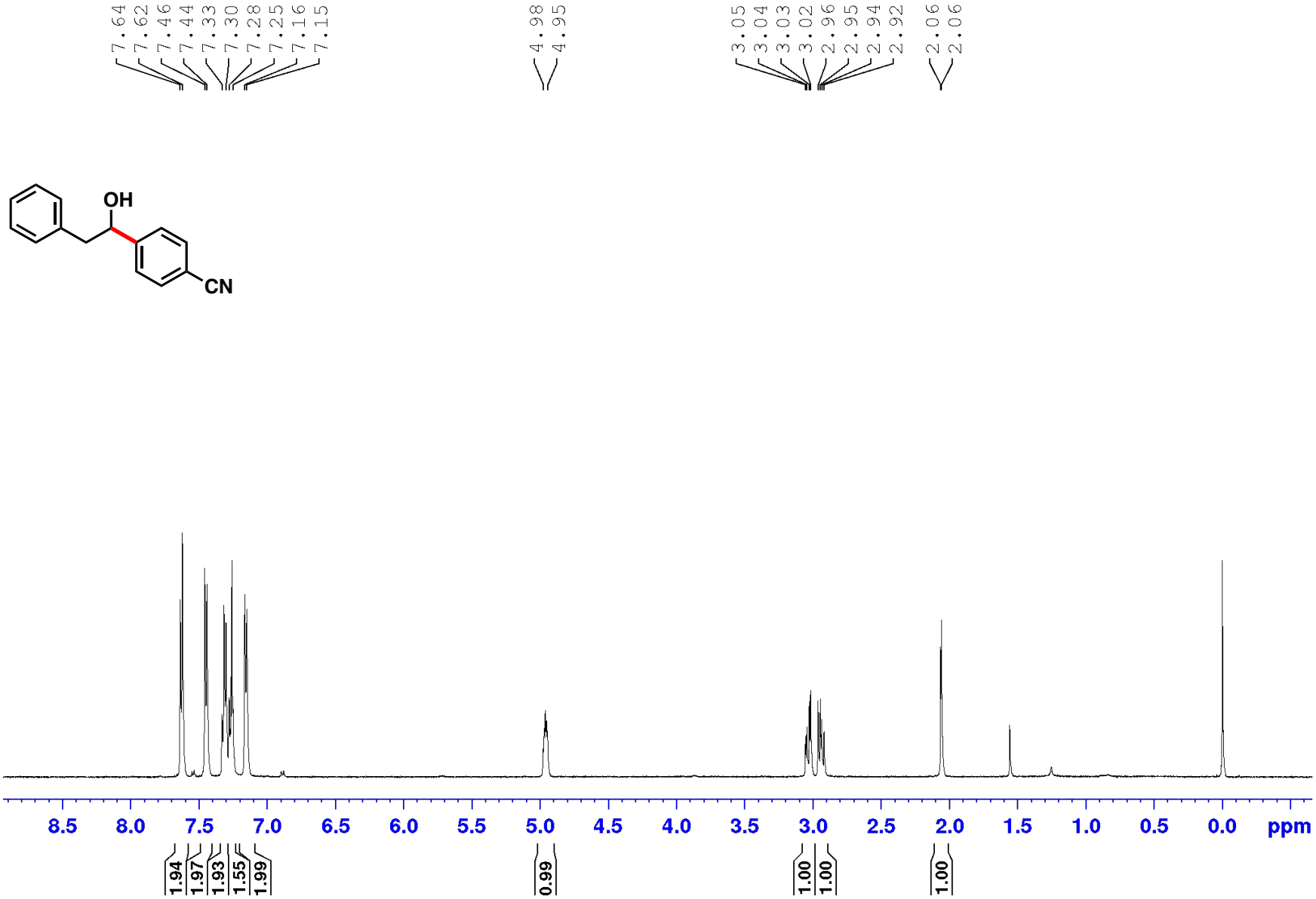
^{13}C NMR of compound **6m** ($CDCl_3$, 125 MHz)



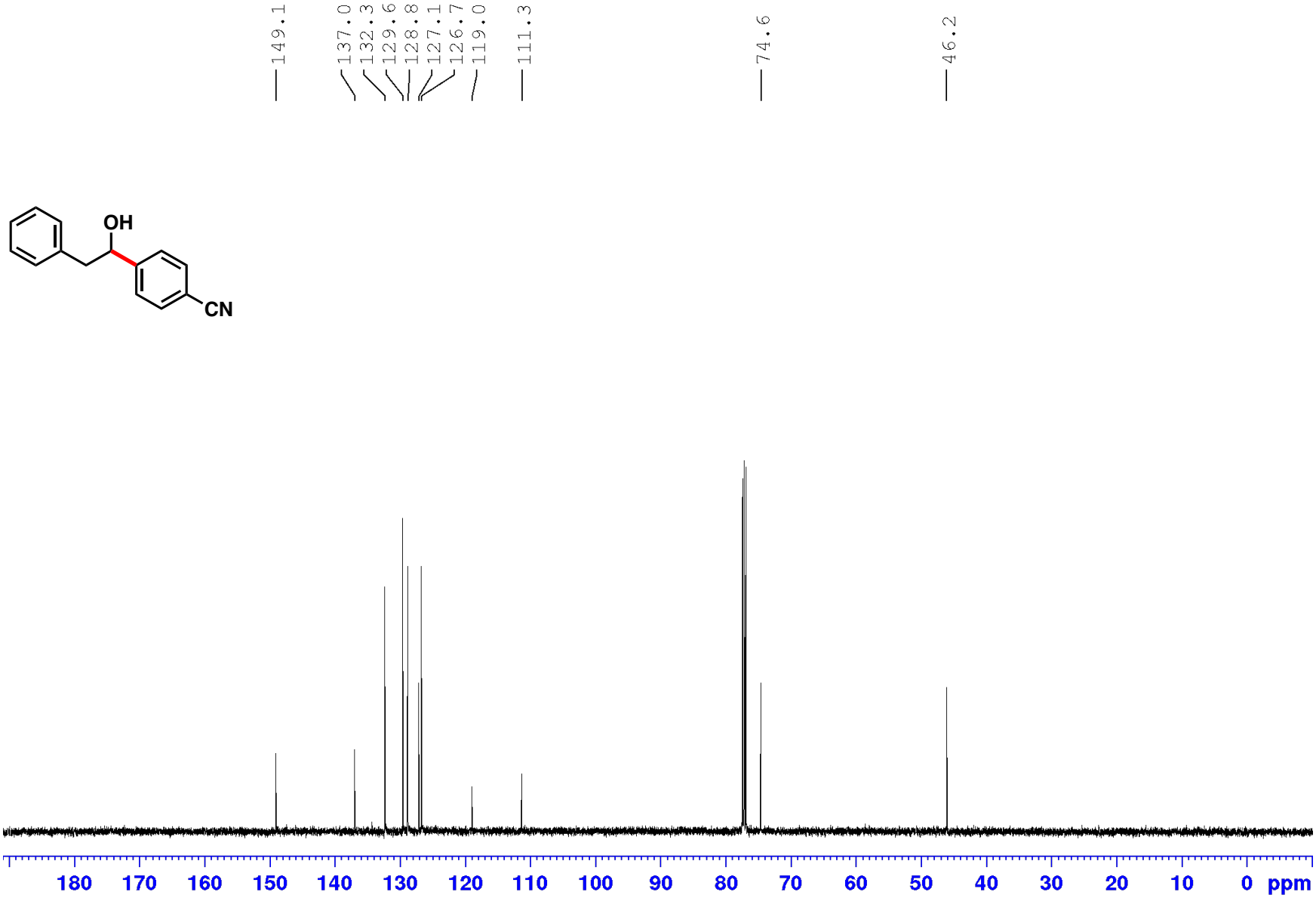
^{11}B NMR of compound **6m** ($CDCl_3$, 160 MHz)



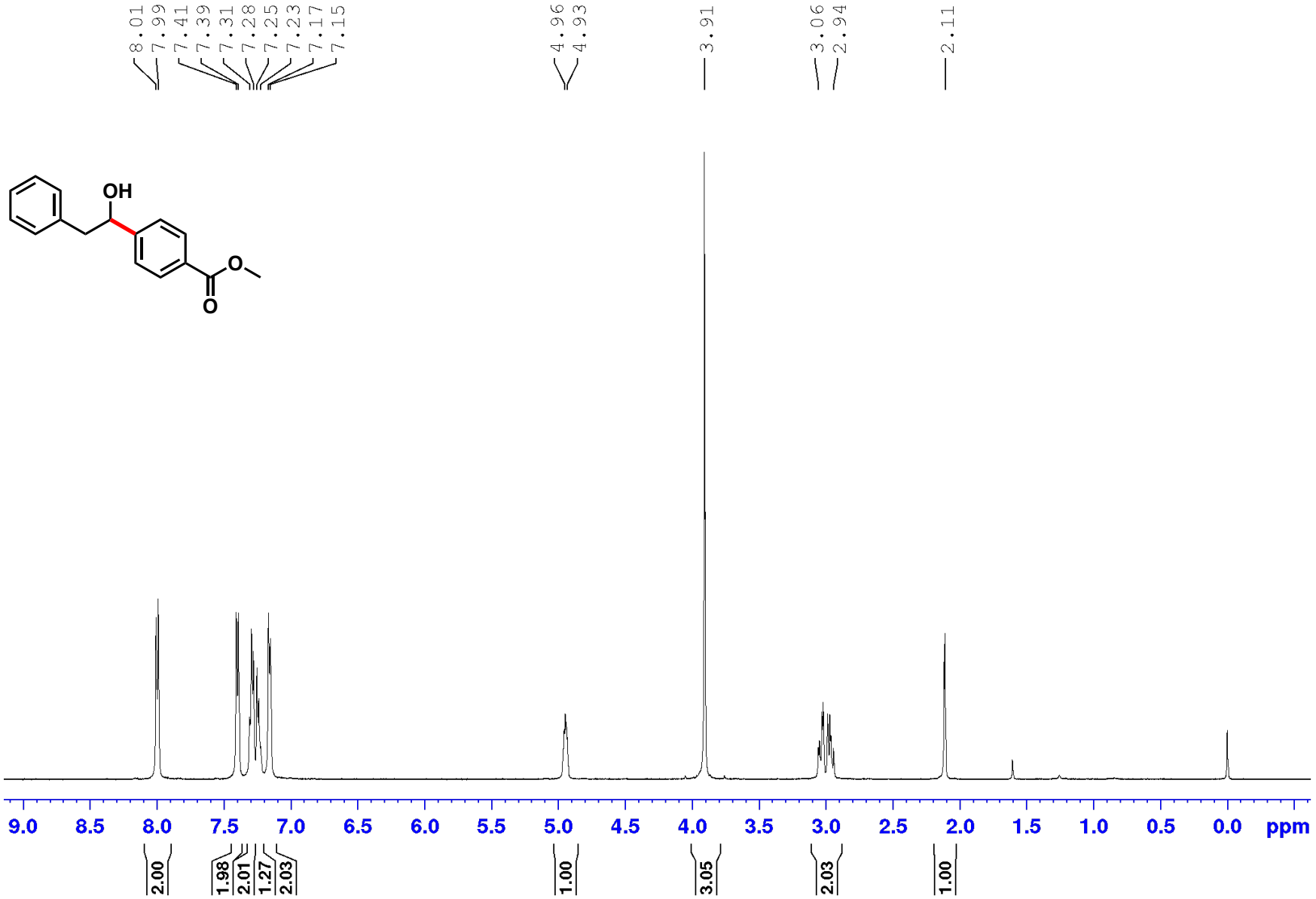
^{1}H NMR of compound **6p** ($CDCl_3$, 500 MHz)



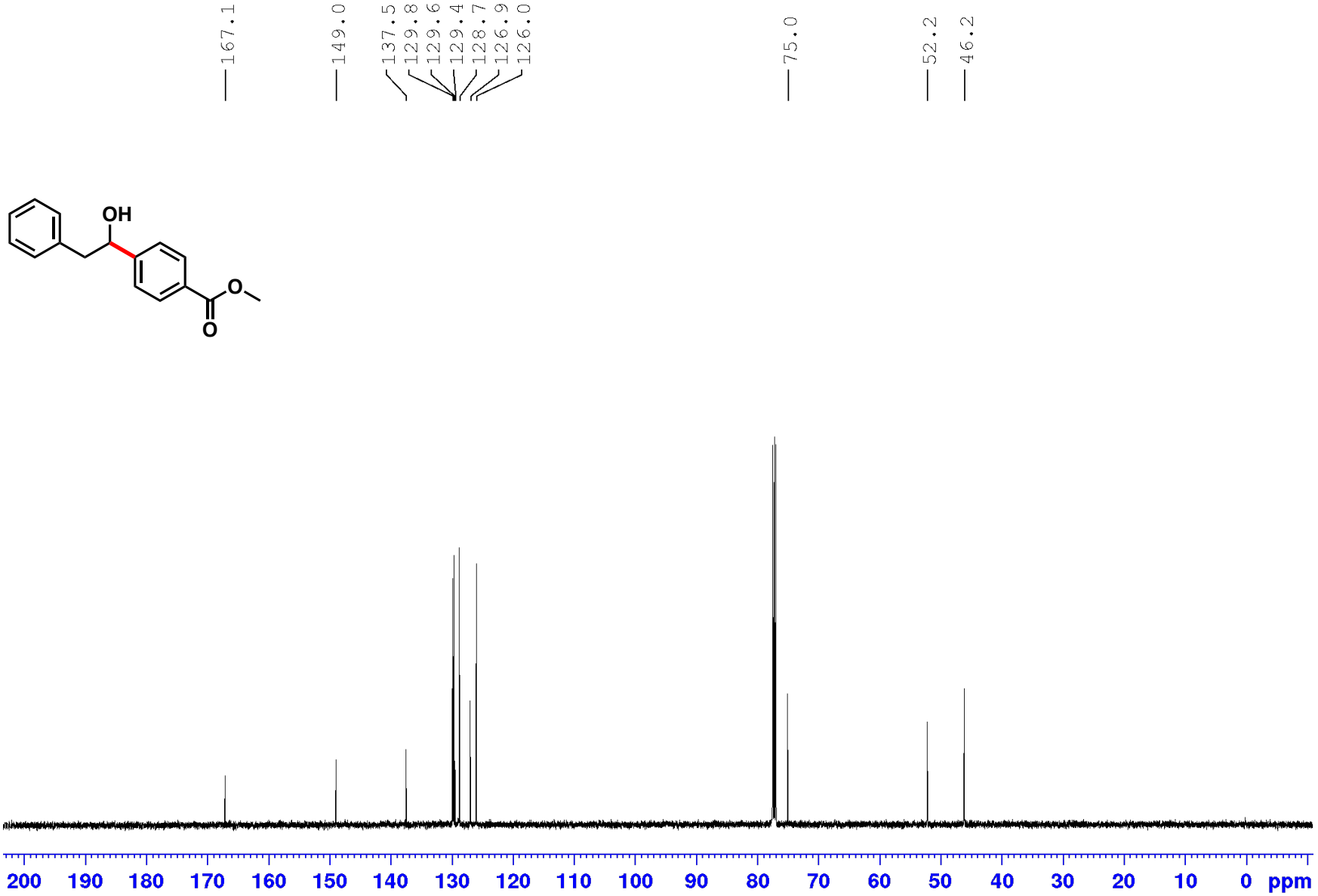
^{13}C NMR of compound **6p** ($CDCl_3$, 125 MHz)



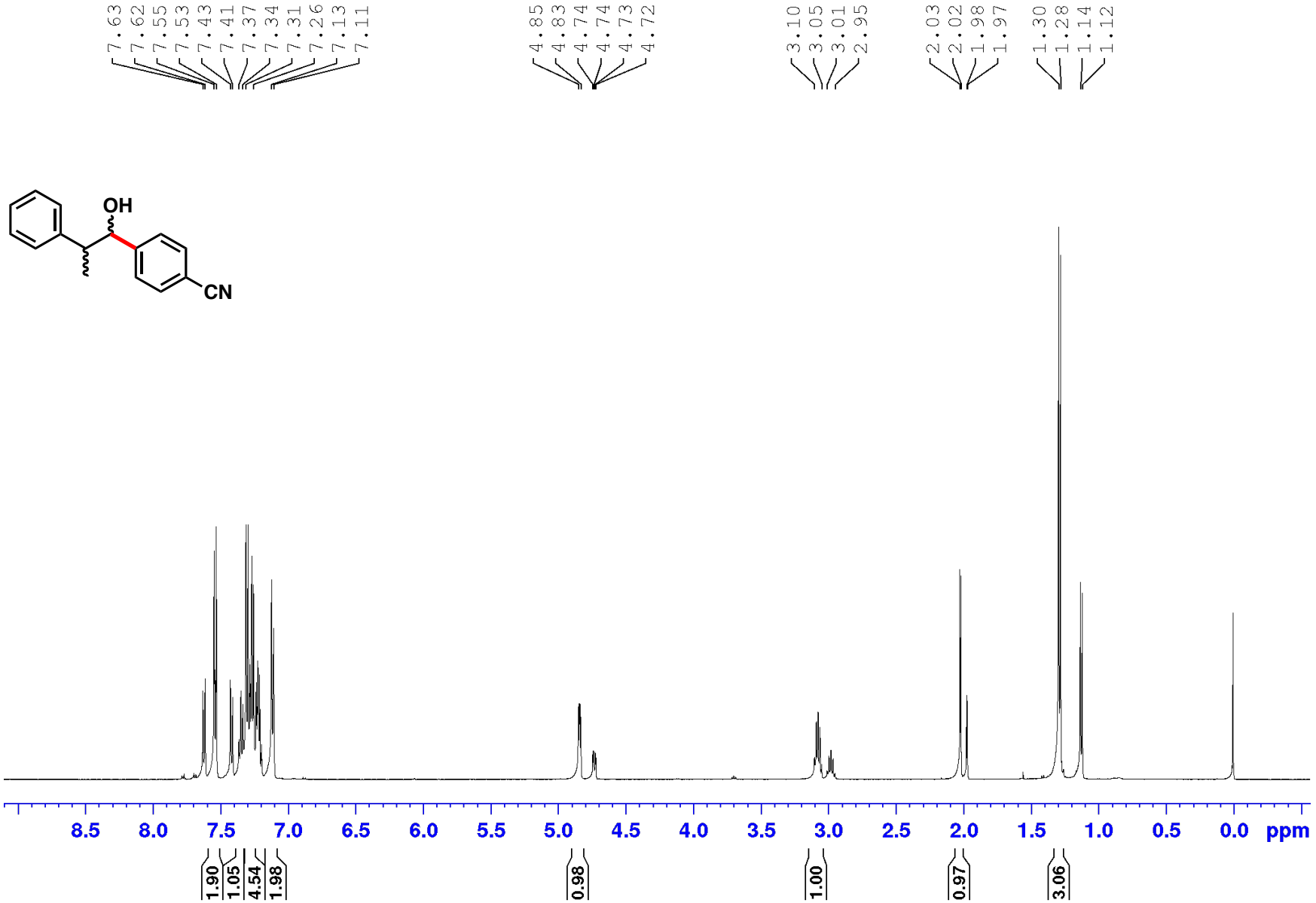
^{1}H NMR of compound **6q** ($CDCl_3$, 500 MHz)



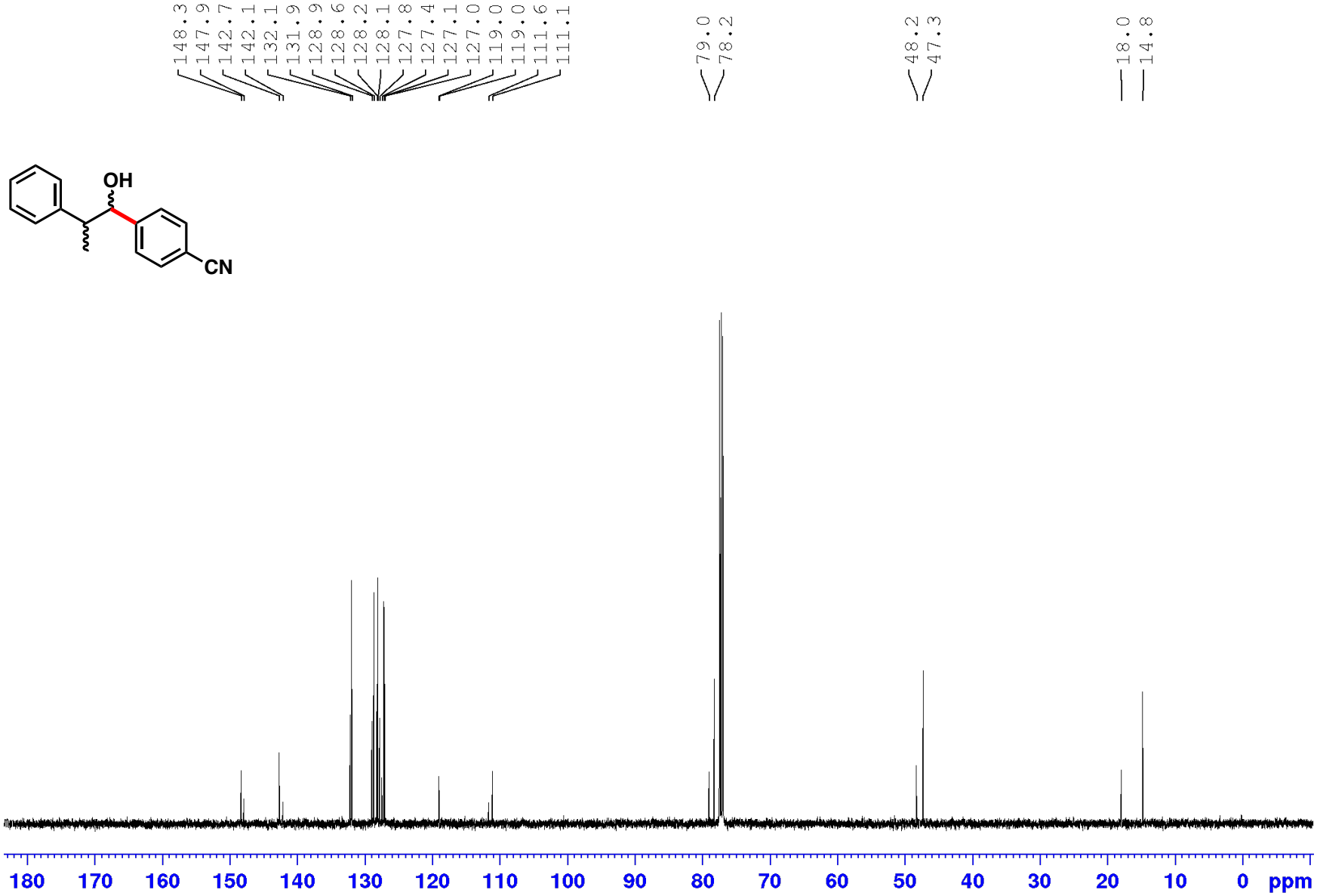
^{13}C NMR of compound **6q** ($CDCl_3$, 125 MHz)



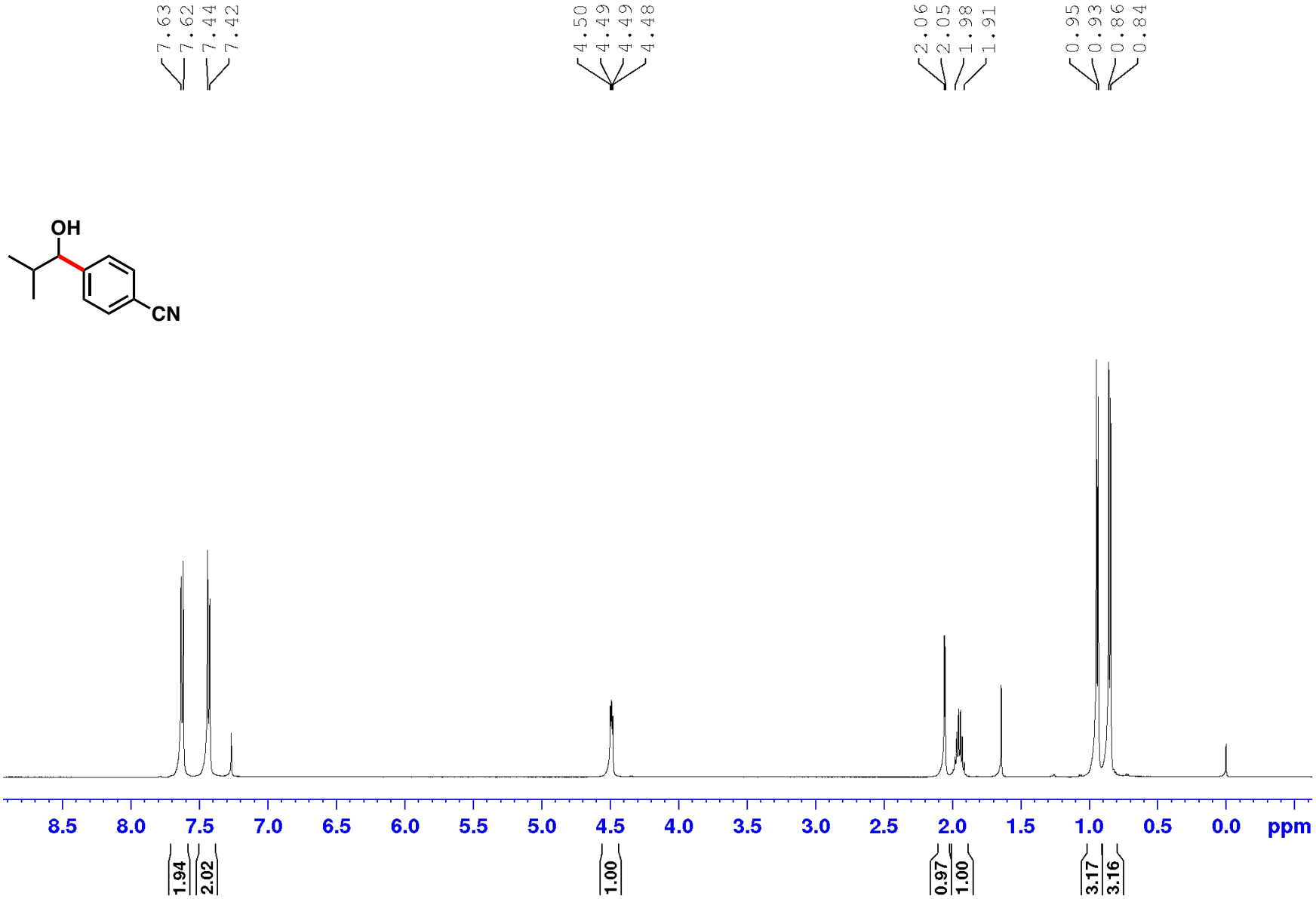
^{1}H NMR of compound **6r** ($CDCl_3$, 500 MHz)



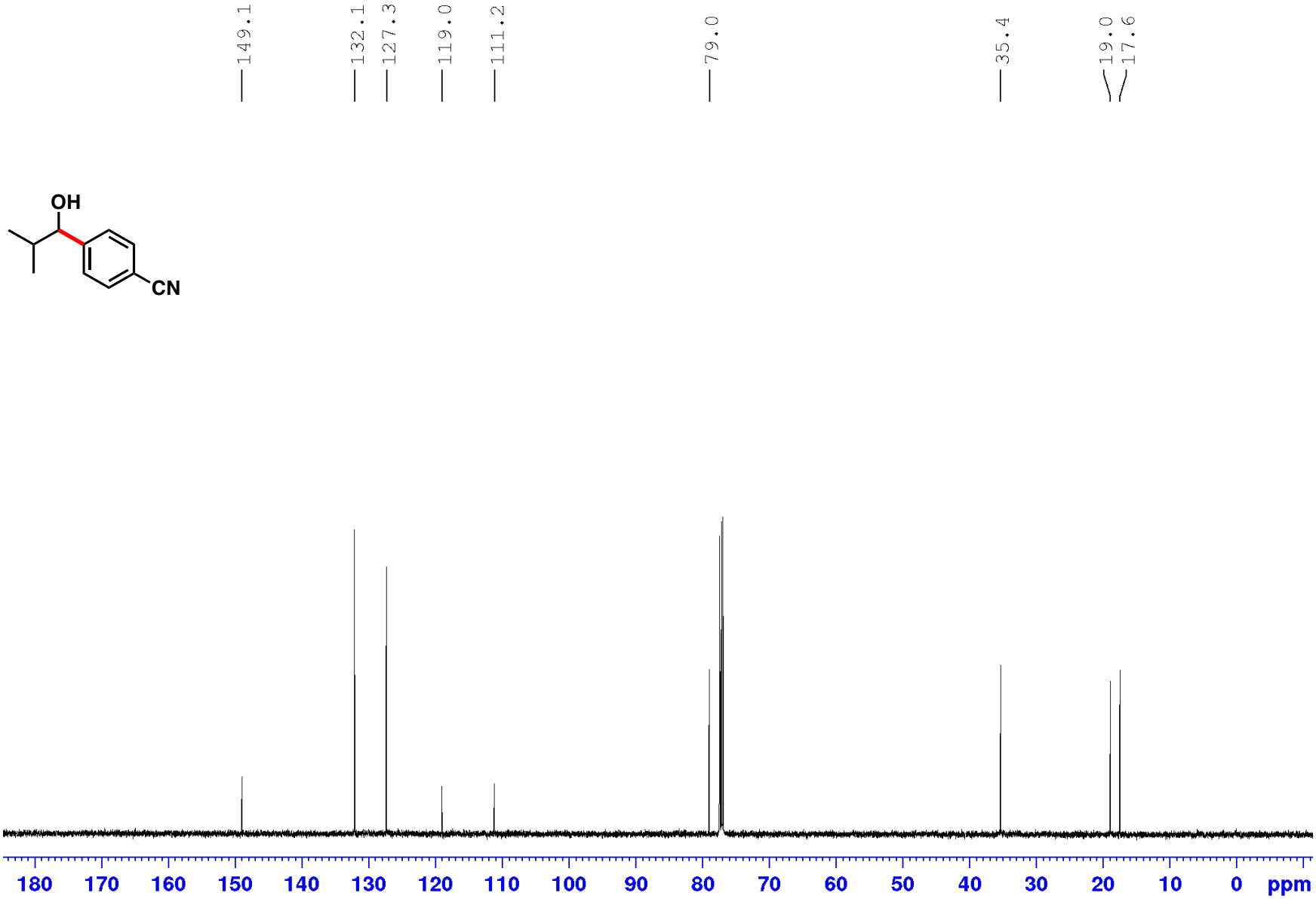
^{13}C NMR of compound **6r** ($CDCl_3$, 125 MHz)



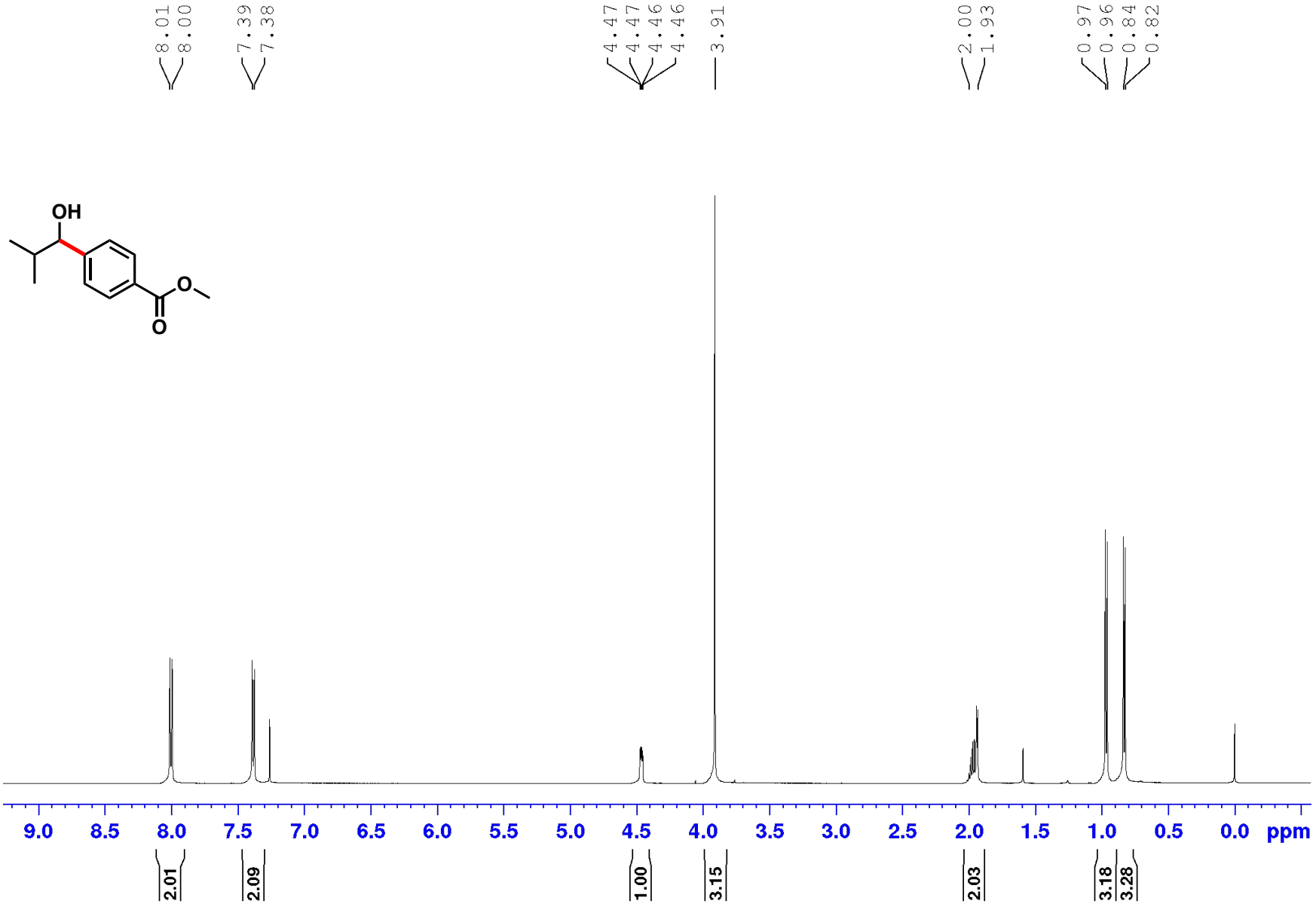
^{1}H NMR of compound **6s** ($CDCl_3$, 500 MHz)



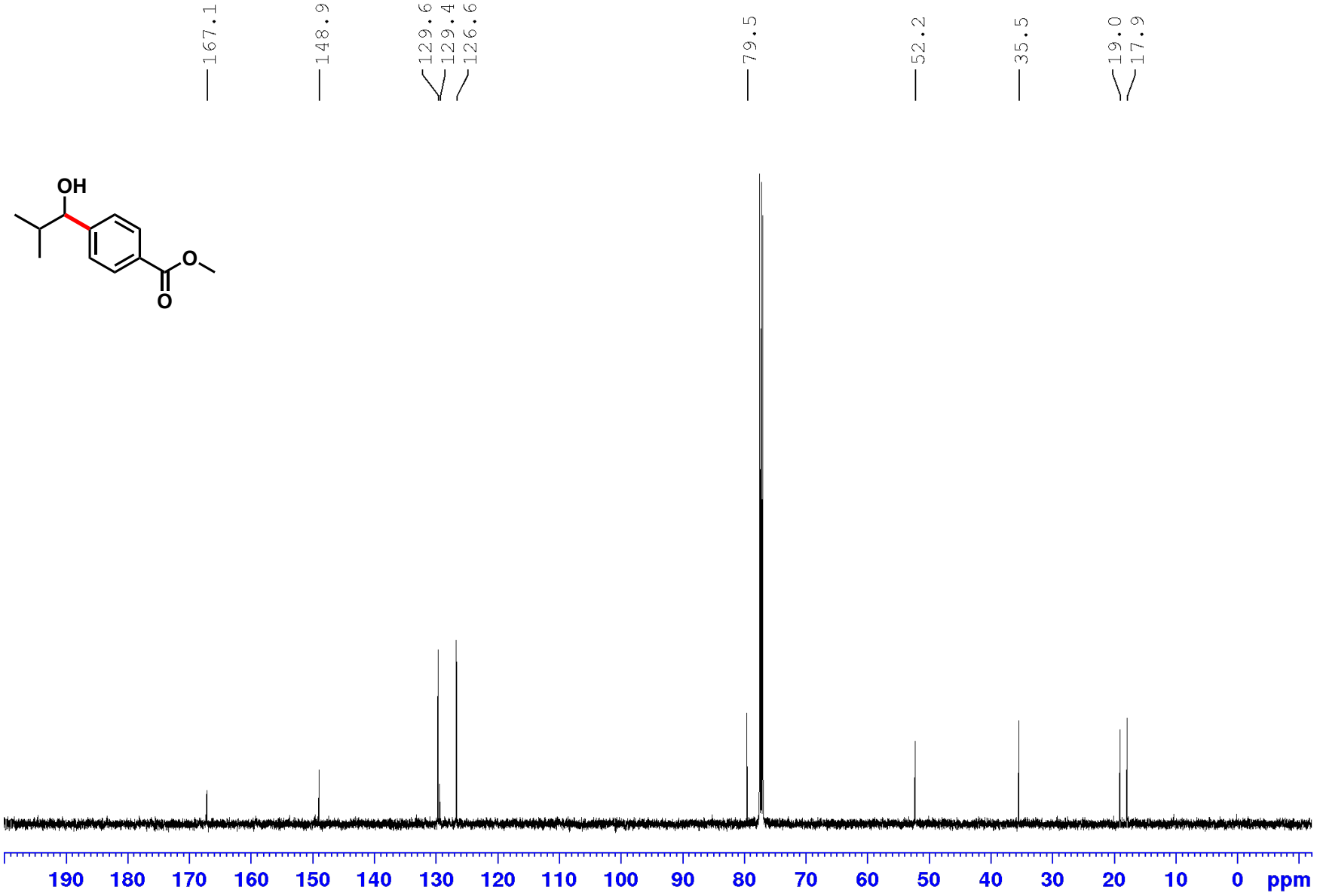
^{13}C NMR of compound **6s** ($CDCl_3$, 125 MHz)



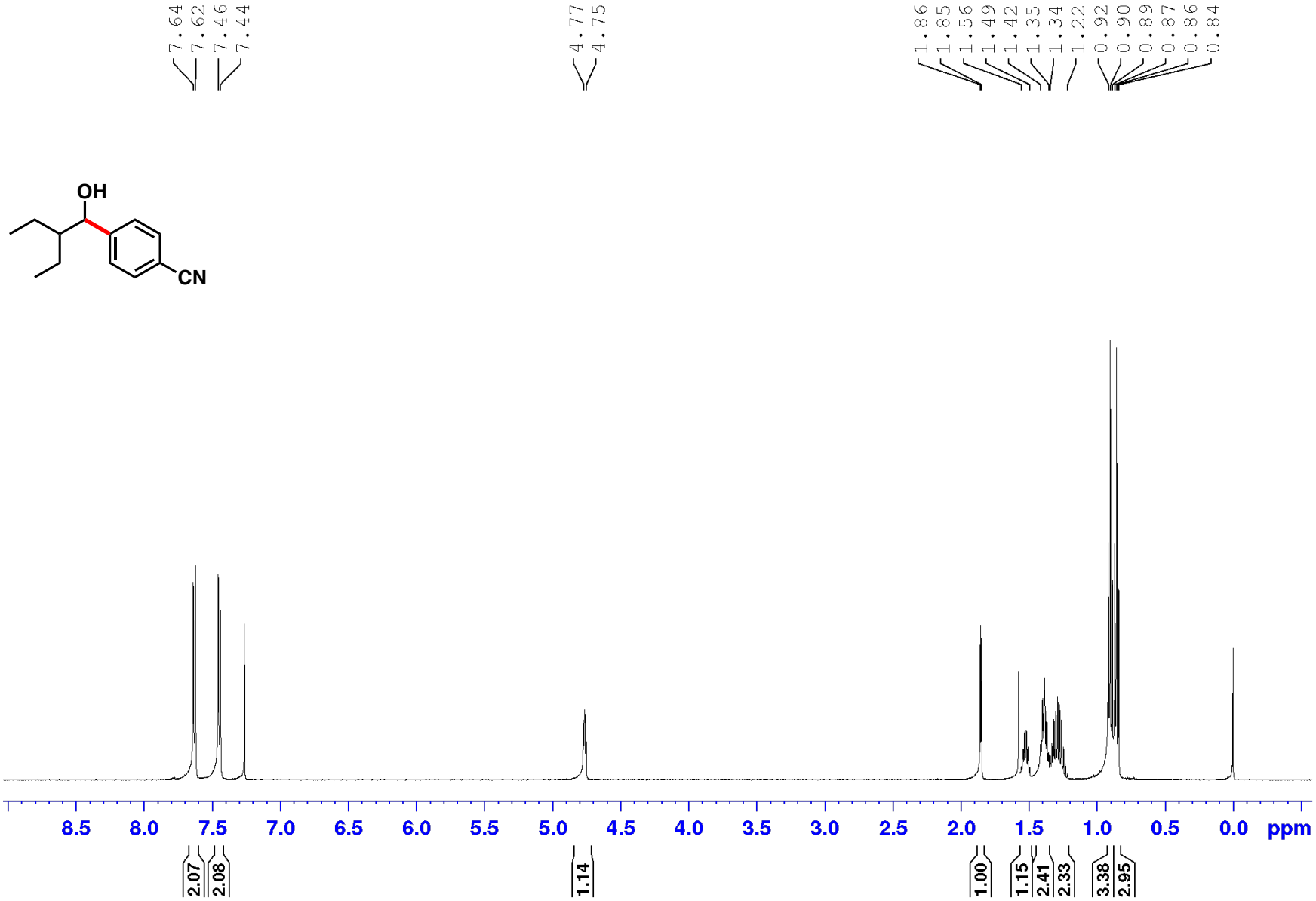
^{1}H NMR of compound **6t** ($CDCl_3$, 500 MHz)



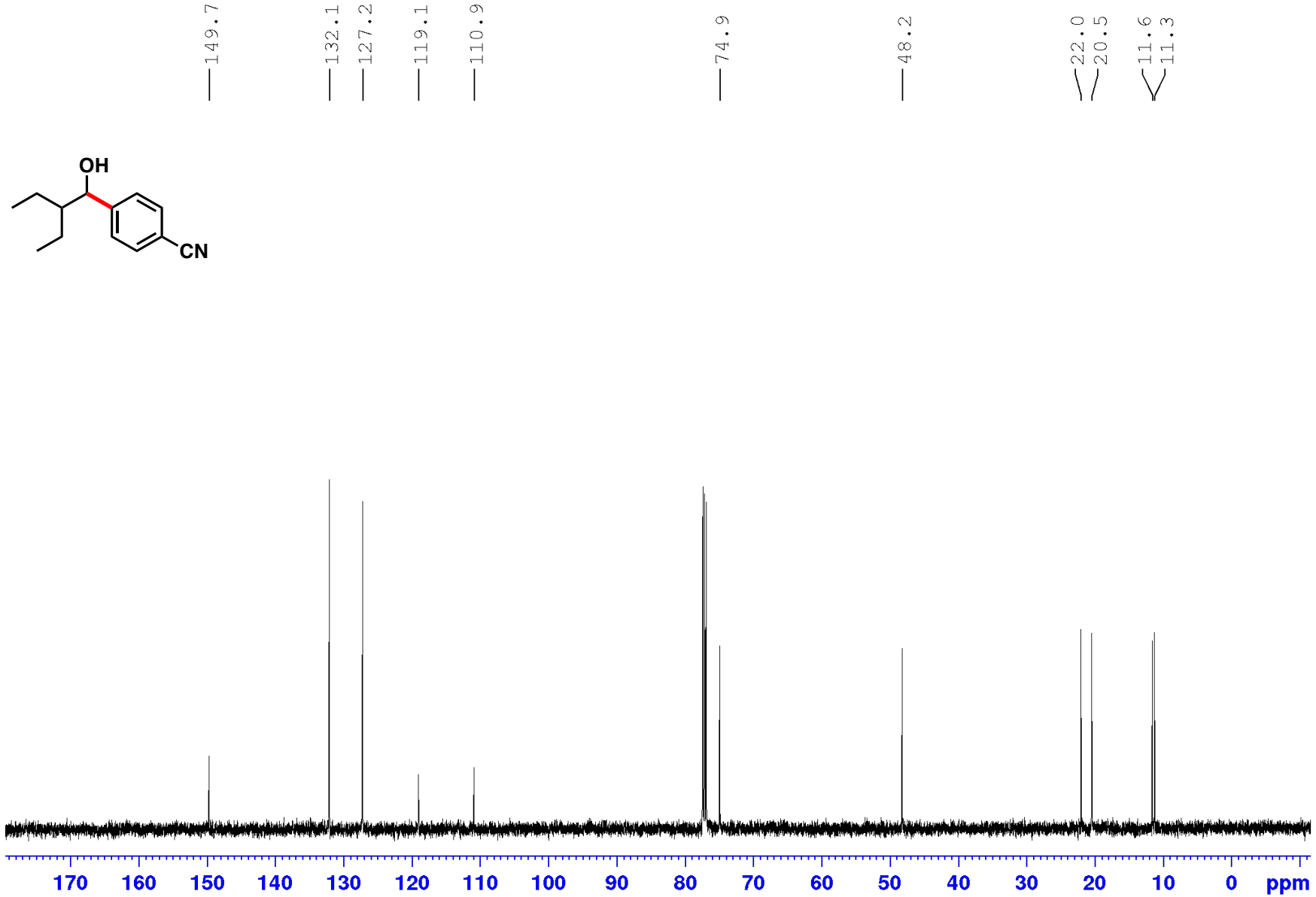
^{13}C NMR of compound **6t** ($CDCl_3$, 125 MHz)



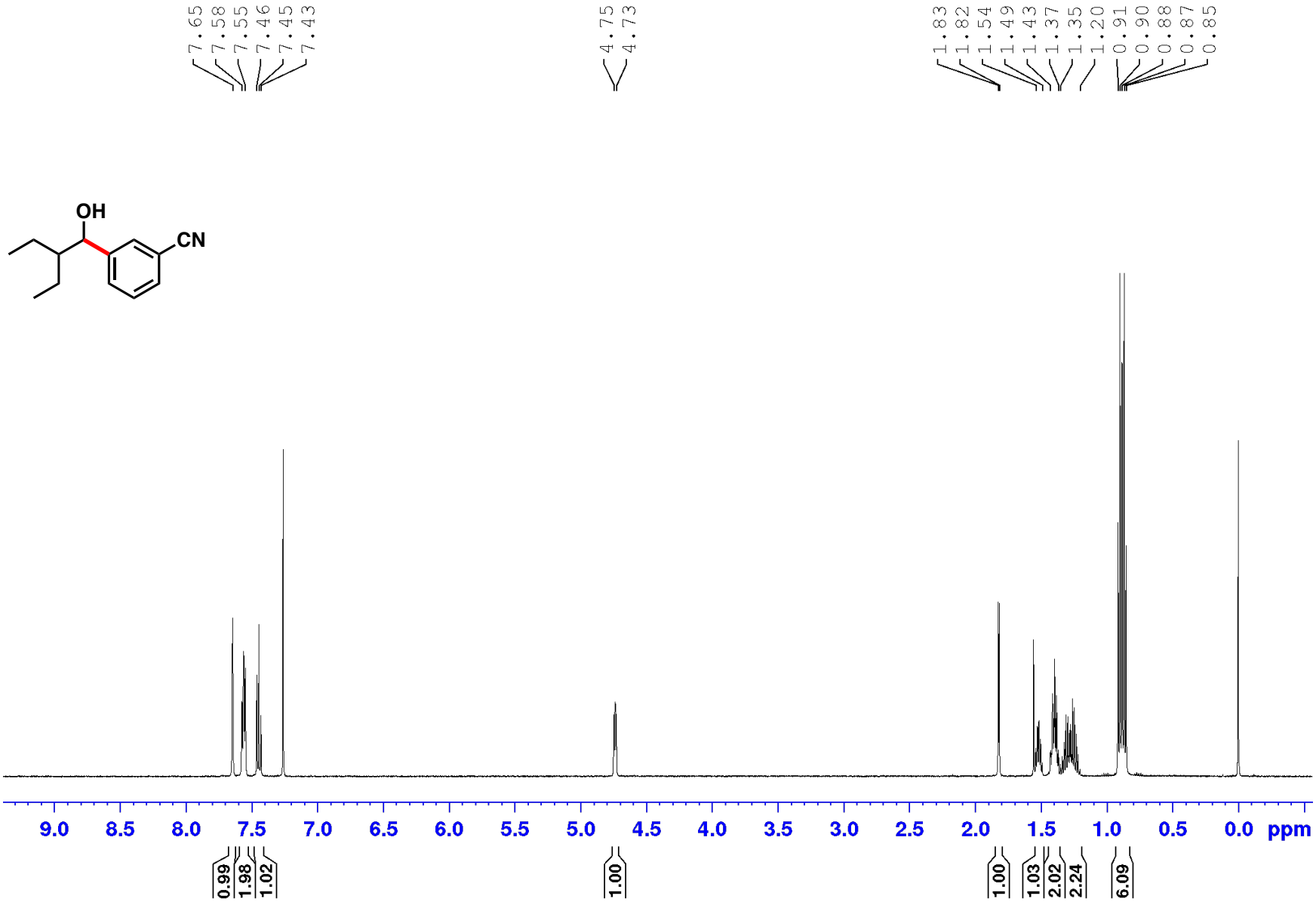
^{1}H NMR of compound **6u** ($CDCl_3$, 500 MHz)



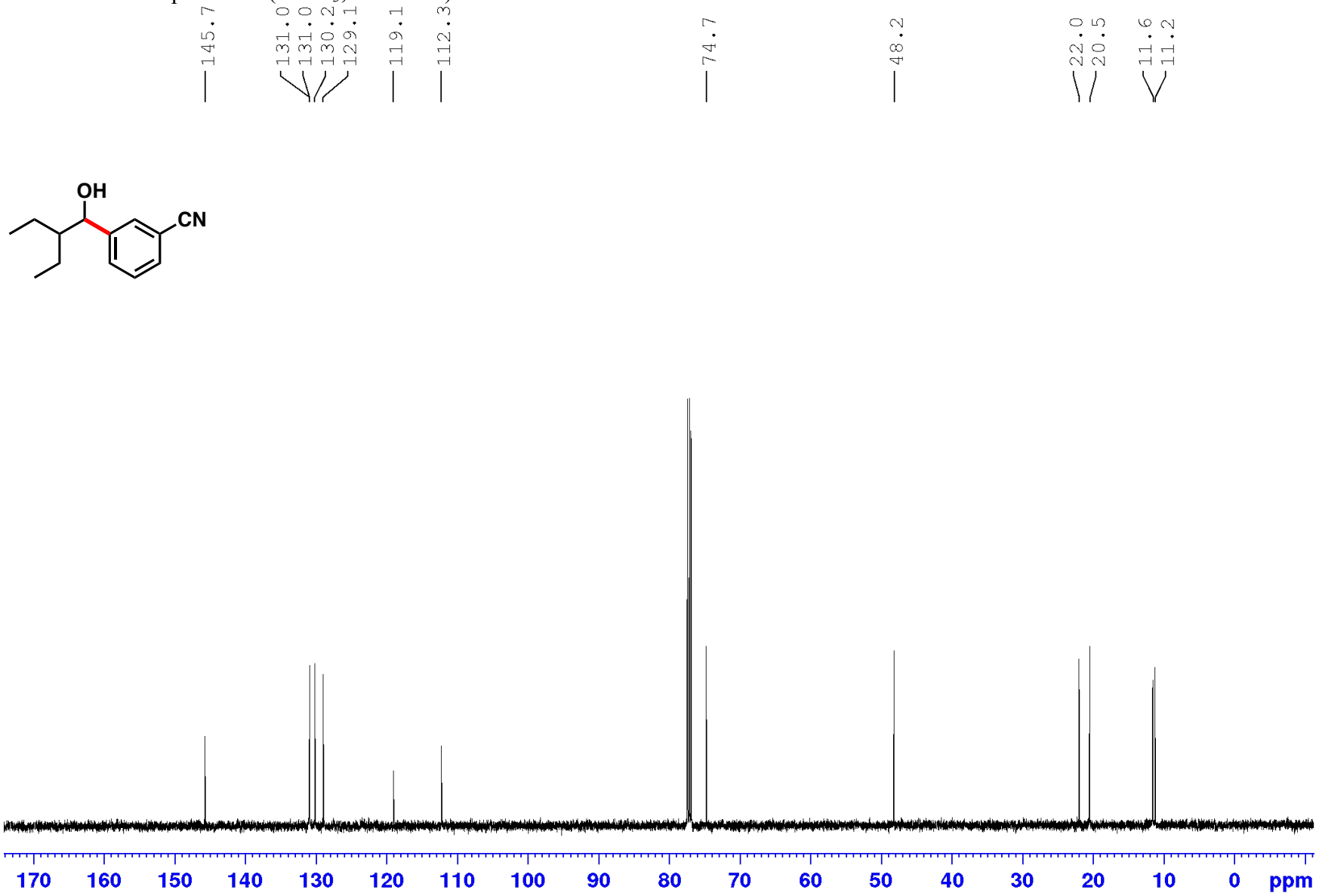
^{13}C NMR of compound **6u** ($CDCl_3$, 125 MHz)



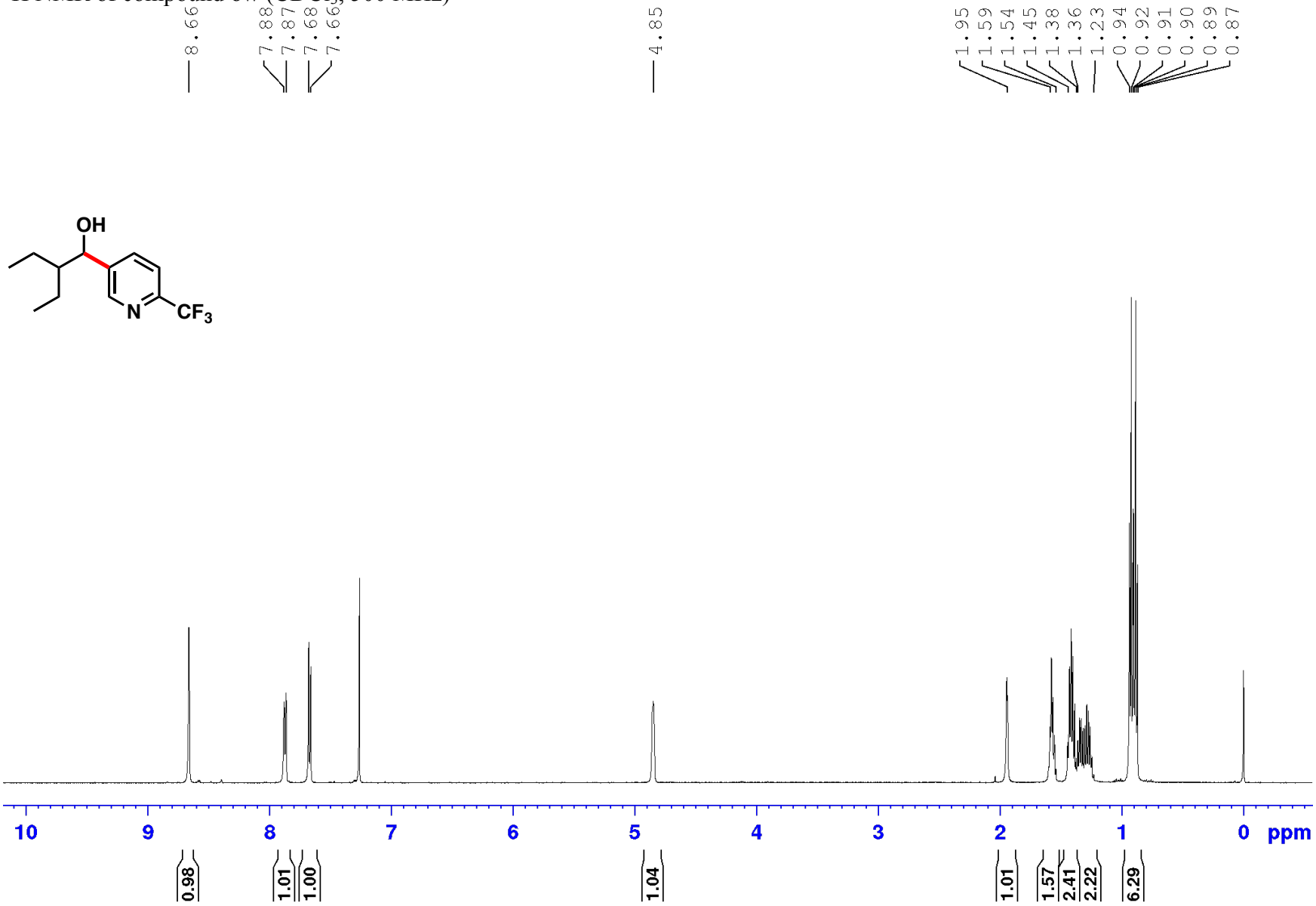
^{1}H NMR of compound **6v** ($CDCl_3$, 500 MHz)



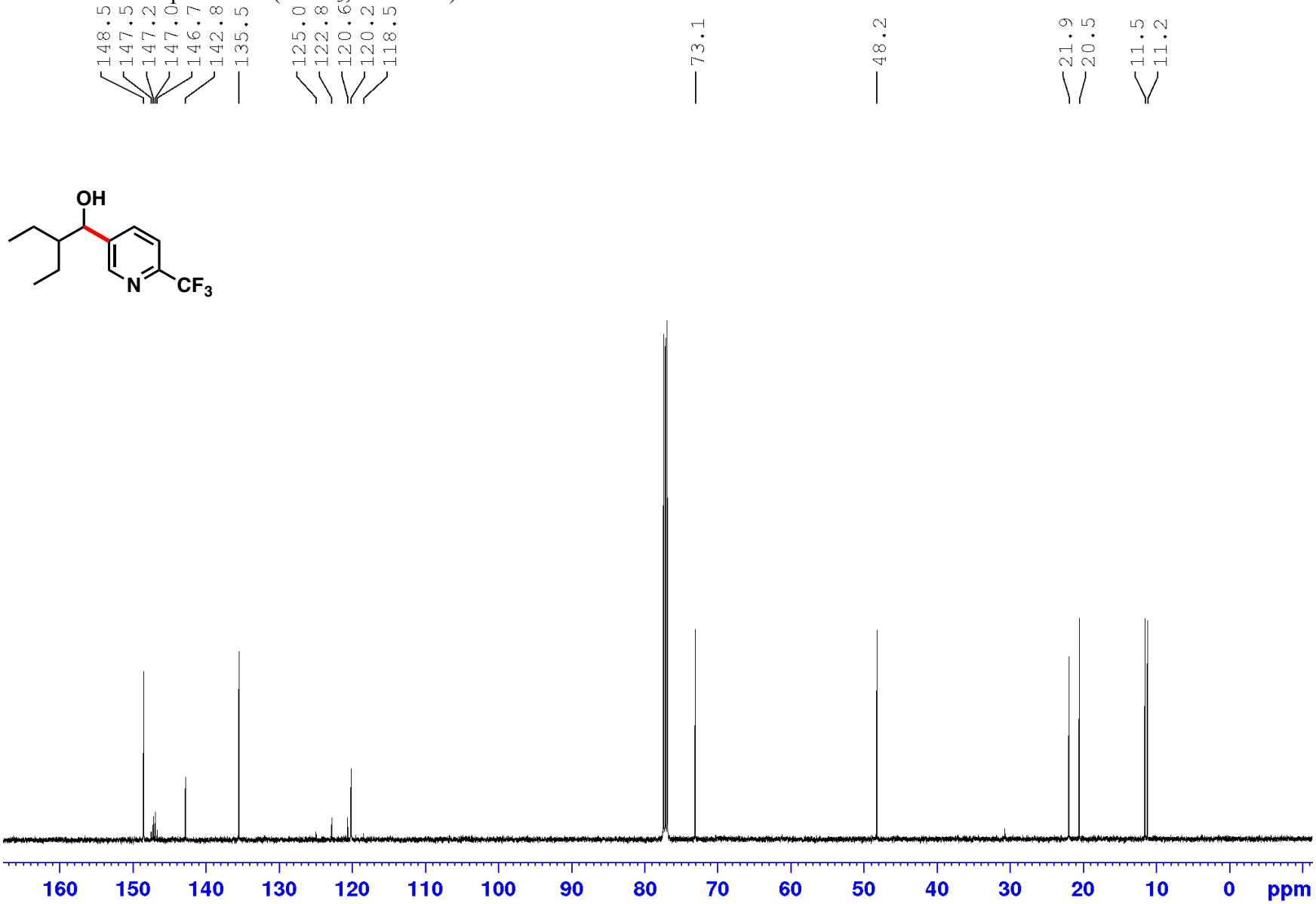
^{13}C NMR of compound **6v** ($CDCl_3$, 125 MHz)



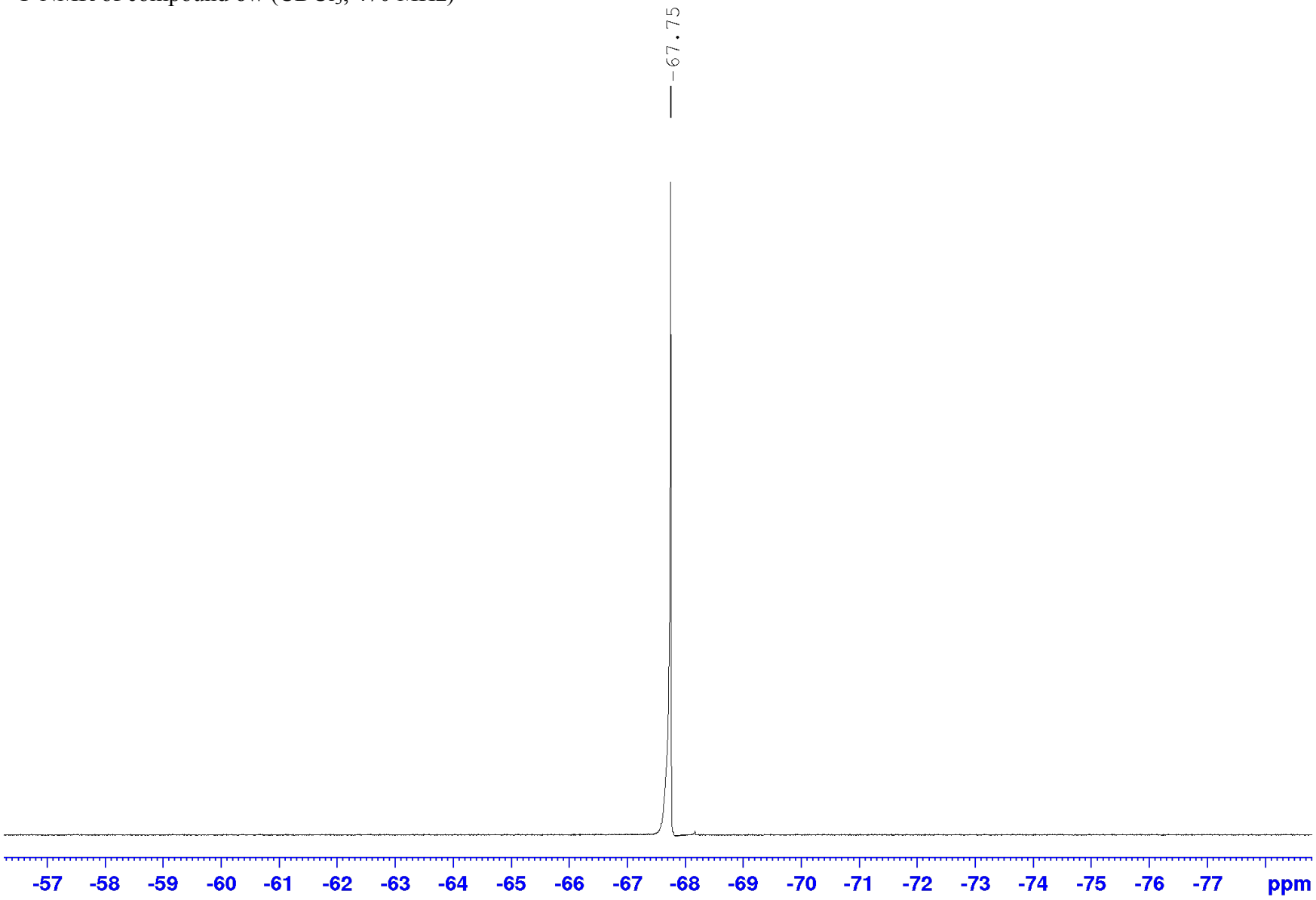
^{1}H NMR of compound **6w** ($CDCl_3$, 500 MHz)



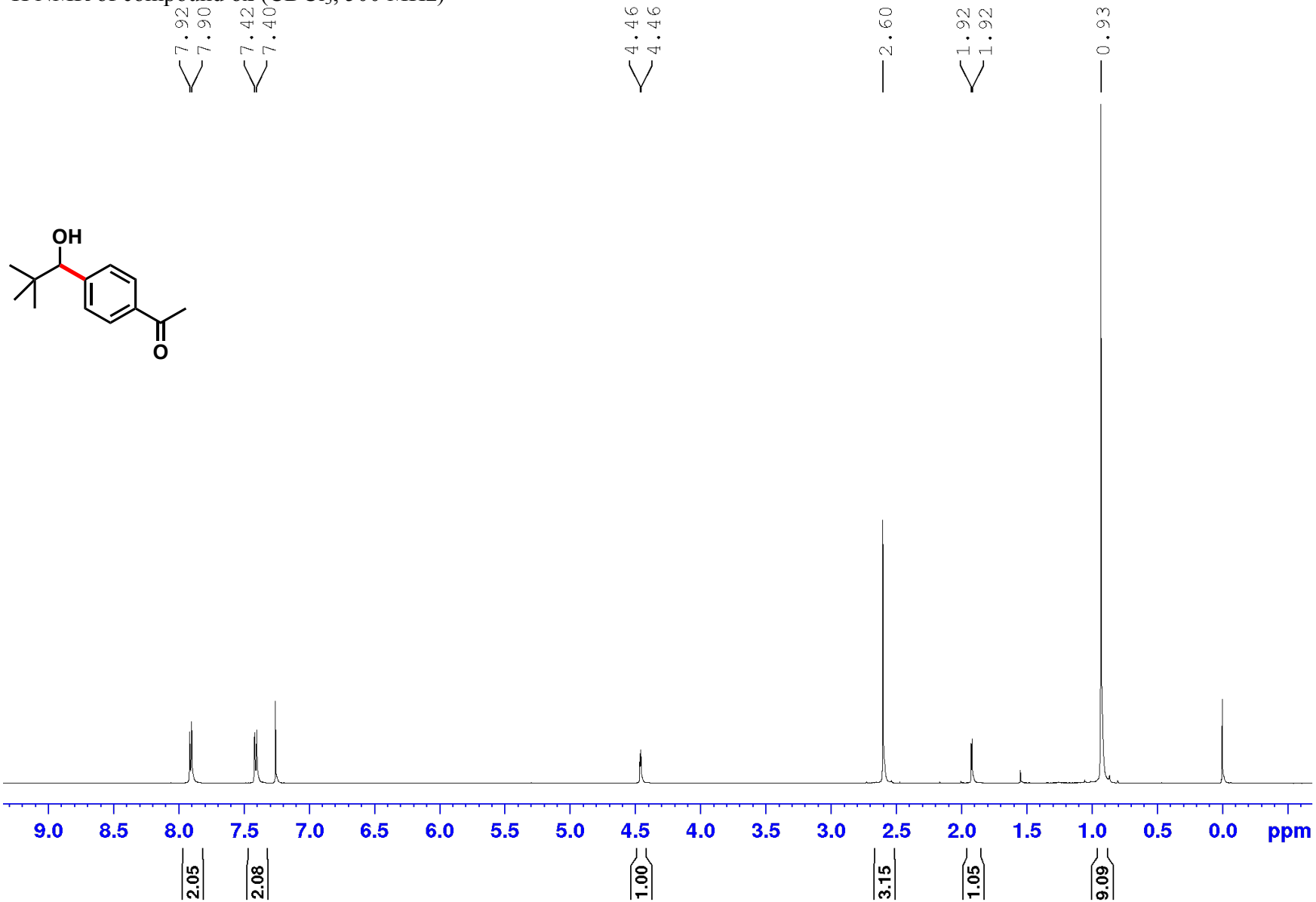
^{13}C NMR of compound **6w** ($CDCl_3$, 125 MHz)



^{19}F NMR of compound **6w** ($CDCl_3$, 470 MHz)



^{1}H NMR of compound **6x** ($CDCl_3$, 500 MHz)



^{13}C NMR of compound **6x** ($CDCl_3$, 125 MHz)