Supporting Information

Trifluoromethide as a strong base: [CF_3^-] mediates dichloromethylation of nitrones by proton abstraction from the solvent.

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2) Dichloromethylation of nitrones

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NMR spectra of new compounds p. S22-S27

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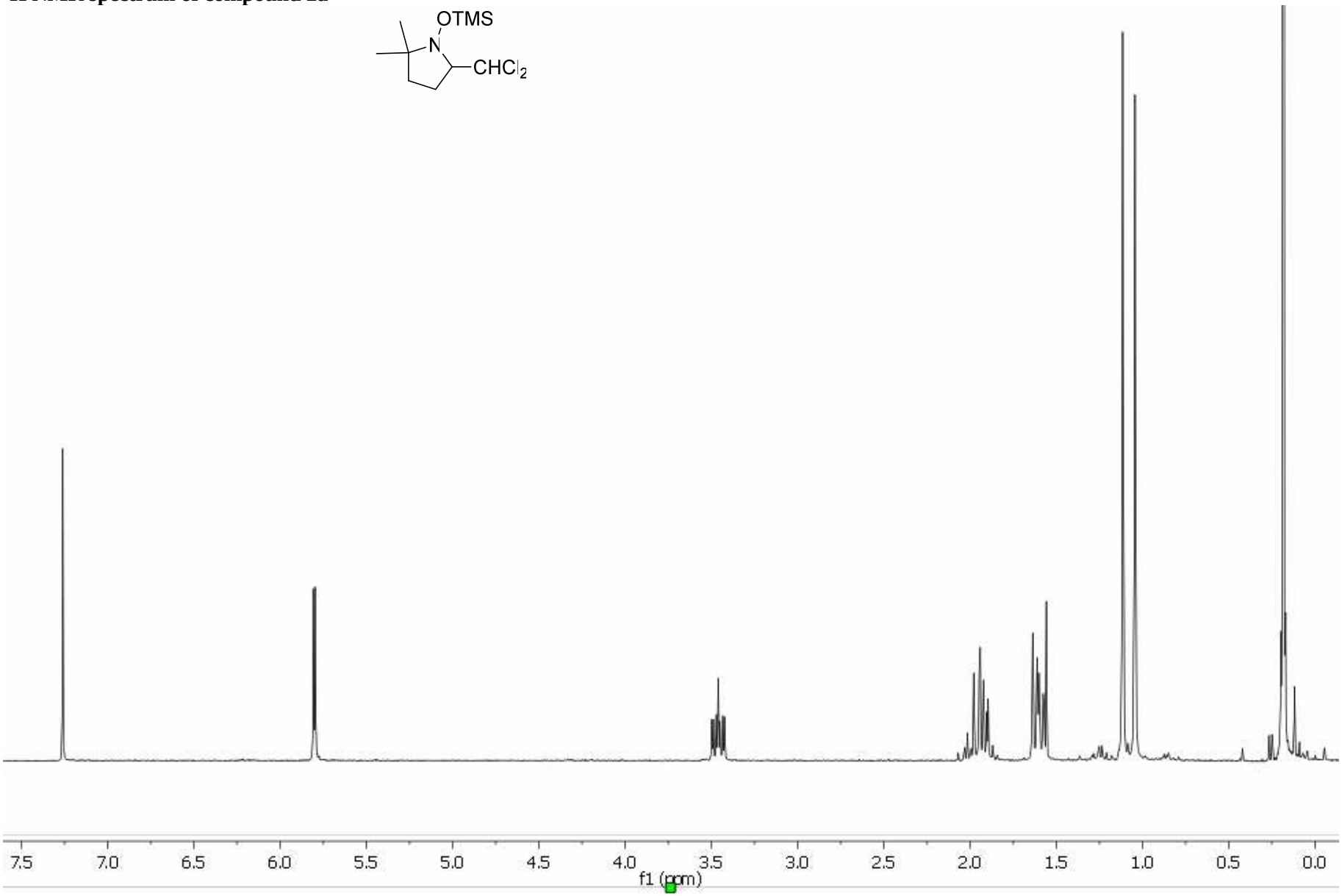
General considerations.

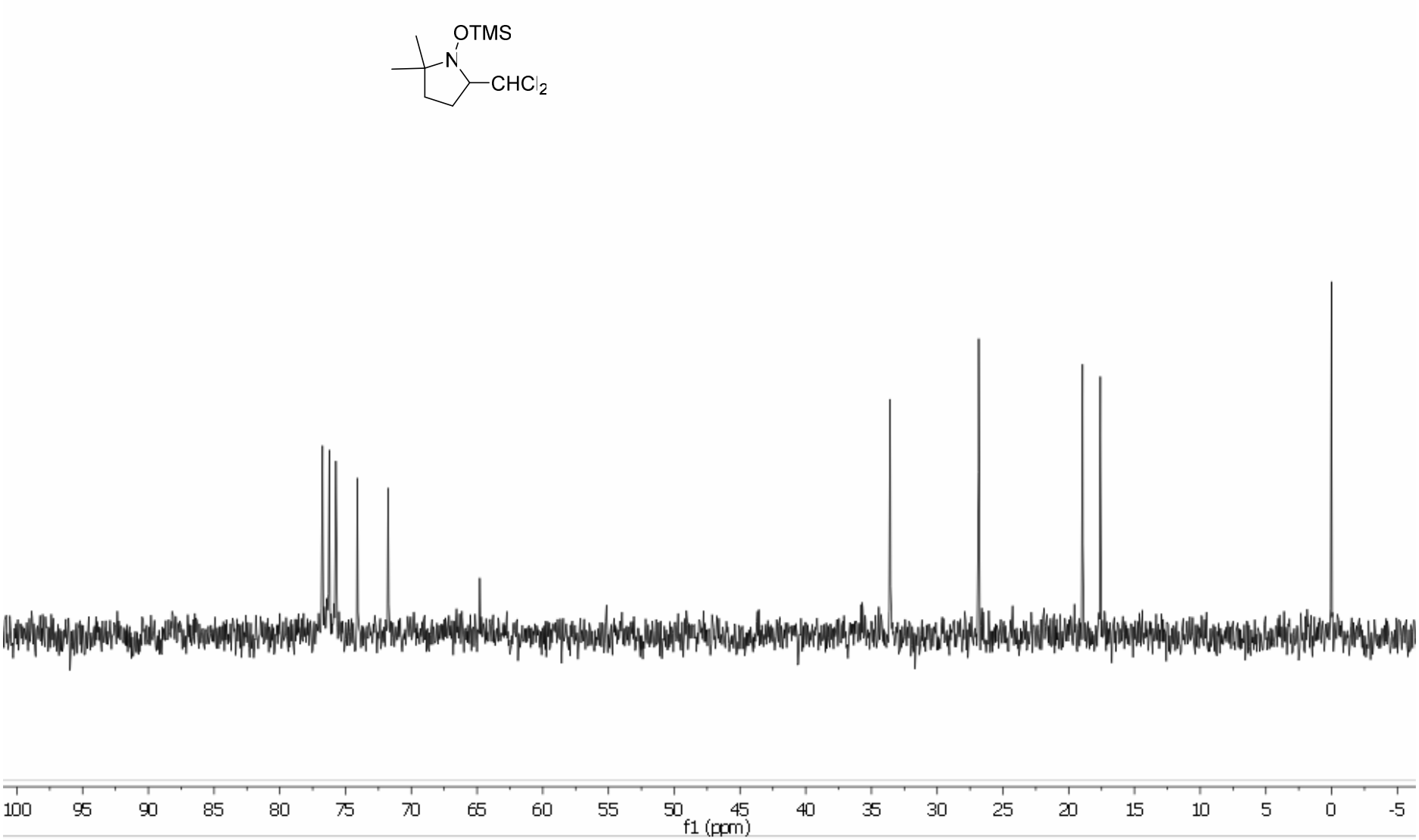
Nitrone 1 was purchased from commercial sources. The other nitrones were prepared, according to previously reported procedures.[ζ] Dichloromethane was purified by simple distillation before use. All reactions were performed under argon. Silica gel F_{254} (0.2 mm) was used for TLC plates, detection being carried out by spraying with an alcoholic solution of phosphomolybdic acid, followed by heating. Flash column chromatography was performed over silica gel M 9385 (40-63 µm) Kieselgel 60. NMR spectra were recorded at 250 MHz for ^{1}H, 62.5 MHz for ^{13}C or 500 MHz for ^{1}H, 125 MHz for ^{13}C. Chemical shifts are expressed in parts per million (ppm) and were calibrated to the residual solvent peak. Coupling constants are in Hz and splitting pattern abbreviations are: br, broad; s, singlet; d, doublet; t, triplet; m, multiplet. Optical rotations were determined at 20 °C in the specified solvents. High Resolution Mass Spectra (HRMS) were performed on Q-TOF (ESI).

[ζ] (a) Evans, D. A.; Song, H.-J.; Fandrick, K. R. *Org. Lett.* **2006**, *8*, 3351; (b) Murahashi, S.-H.; Mitsui, H.; Shiota, T.; Tsuda, T.; Watanabe, S. *J. Org. Chem.* **1990**, *55*, 1736; (c) Colacino, E.; Nun, P.; Colacino, F. M.; Martinez, J.; Lamaty, F. *Tetrahedron* **2008**, *64*, 5569.

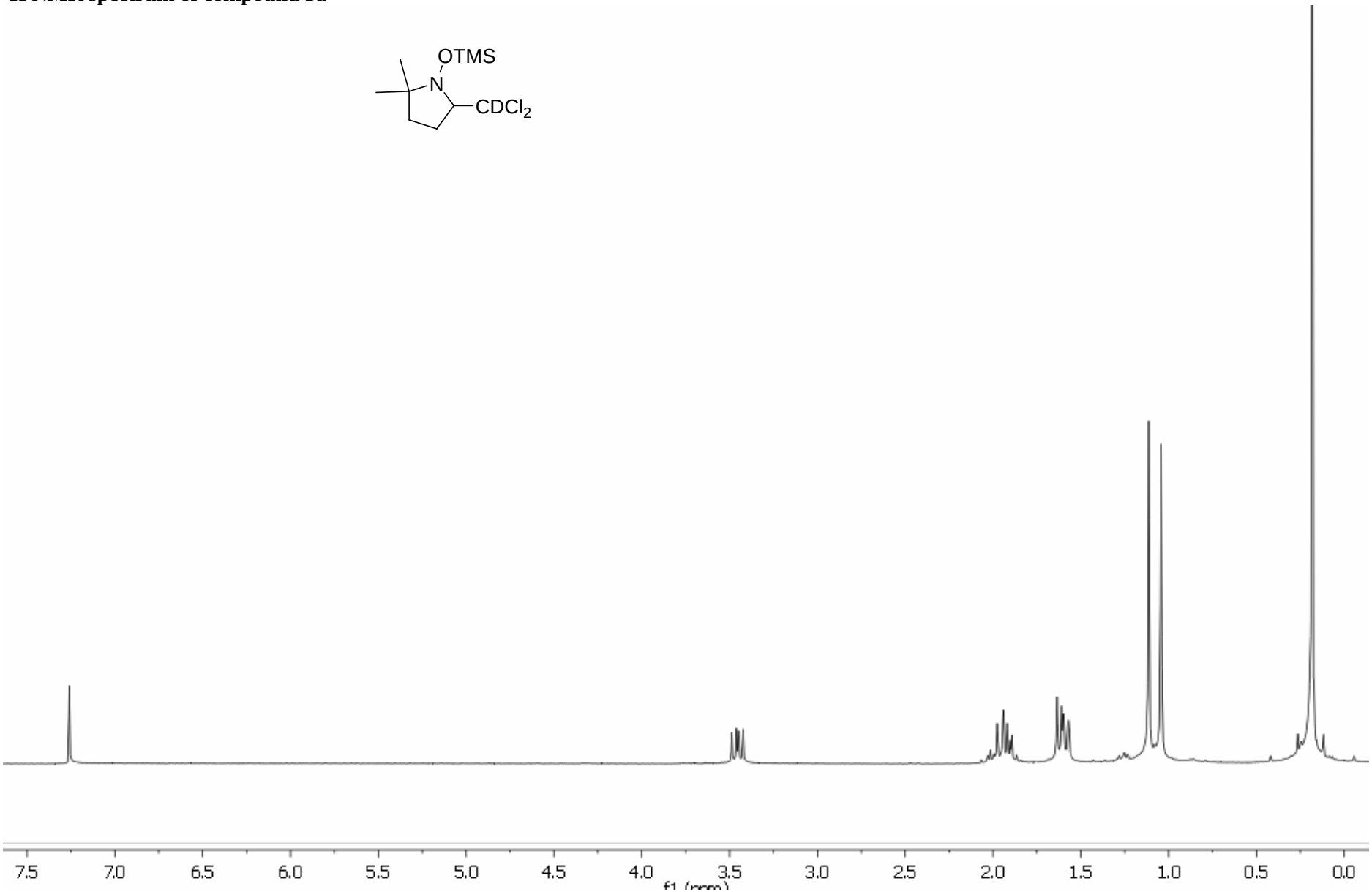
^{1}H NMR spectrum of compound 2a



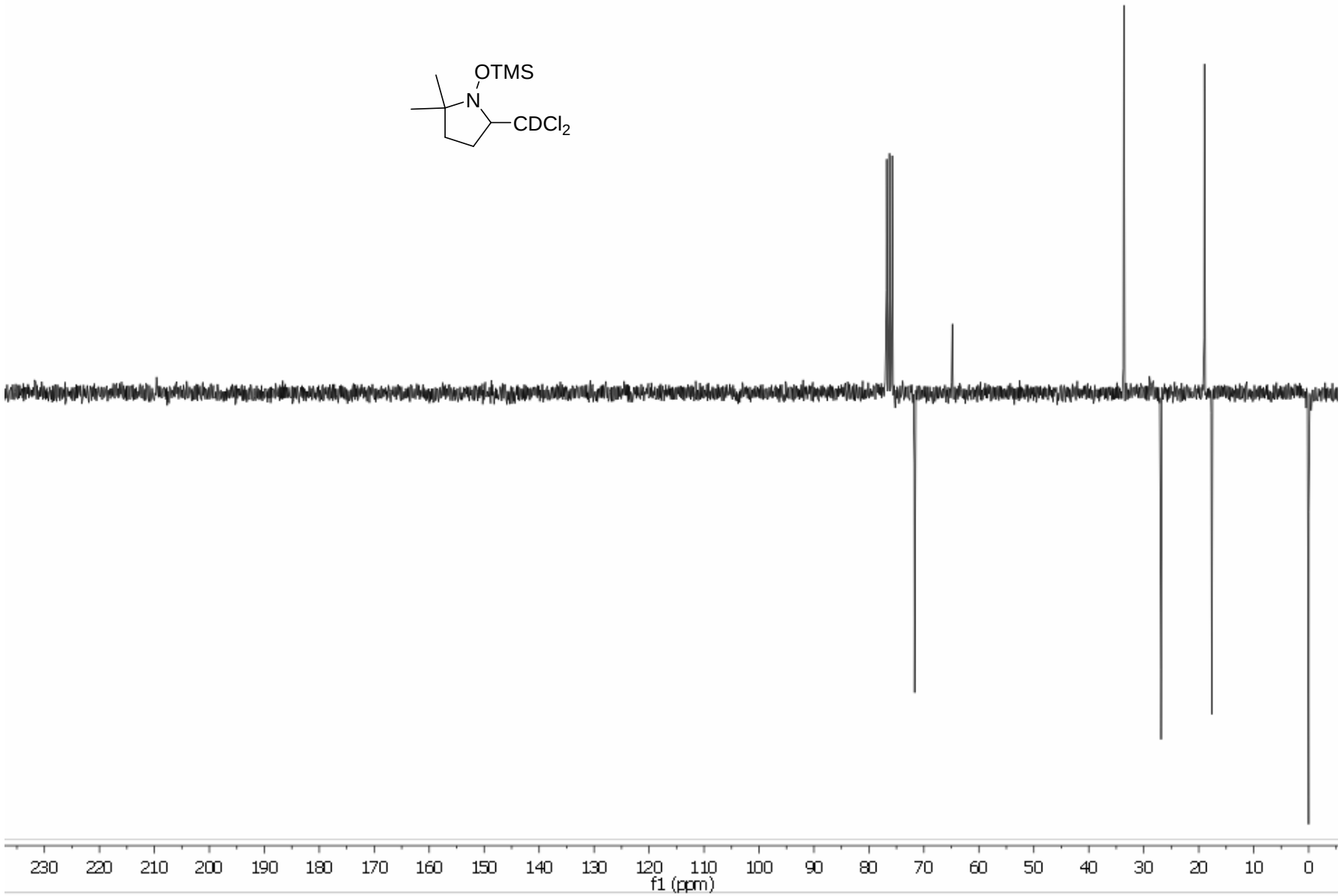
^{13}C NMR spectrum of compound 2a



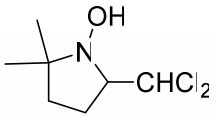
^{1}H NMR spectrum of compound 3a



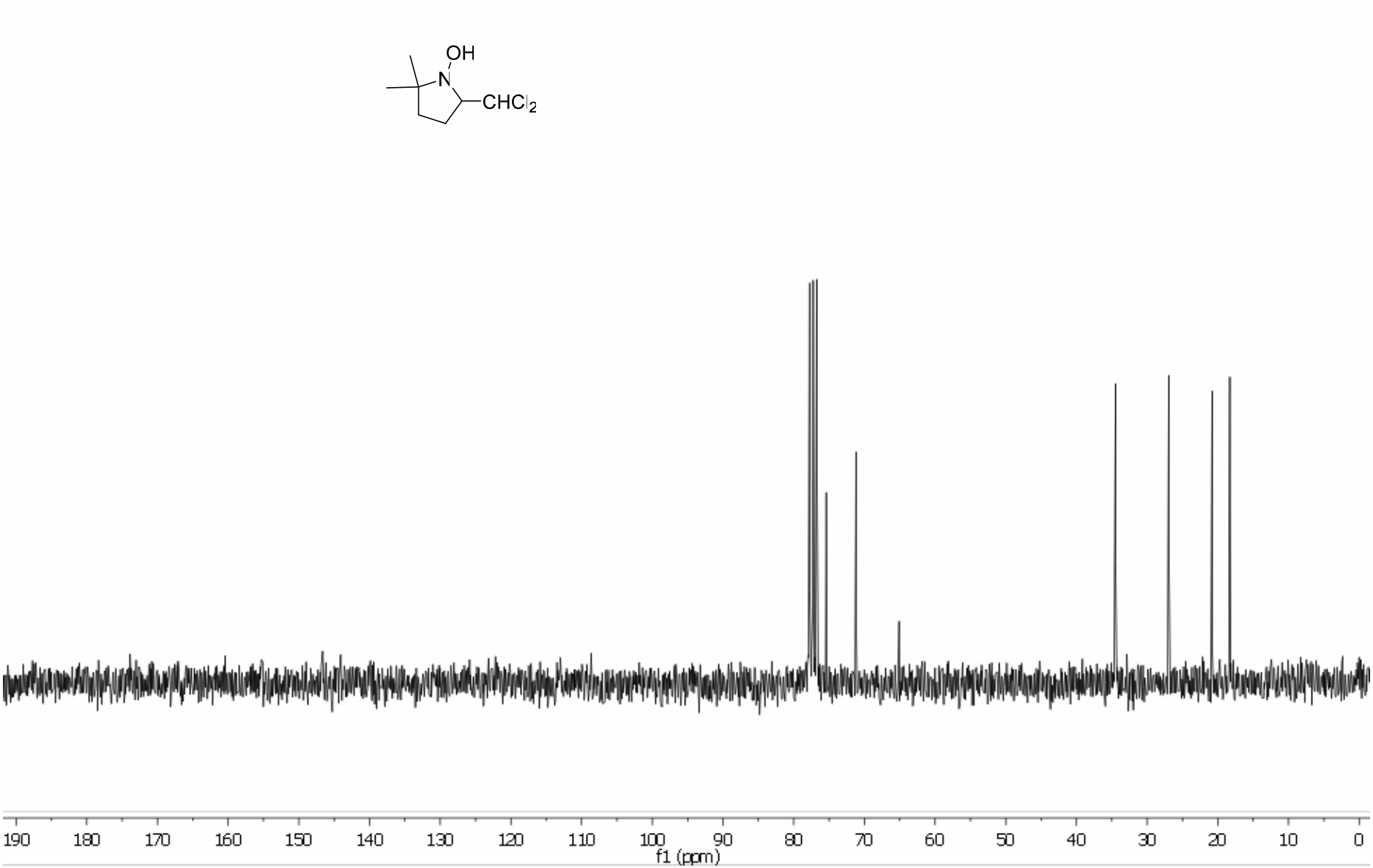
^{13}C NMR spectrum of compound 3a



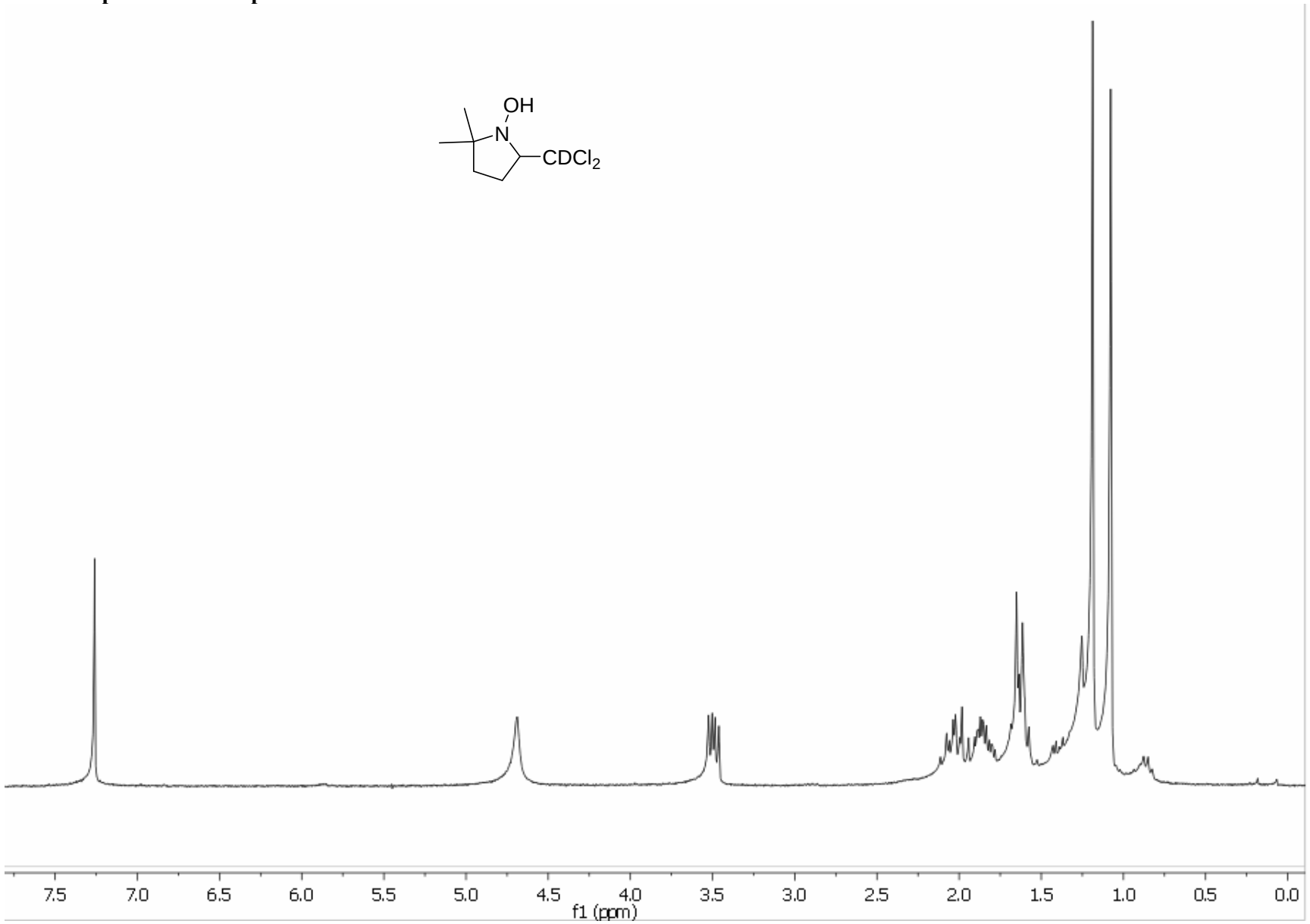
[1]HNMR spectrum of compound 2b



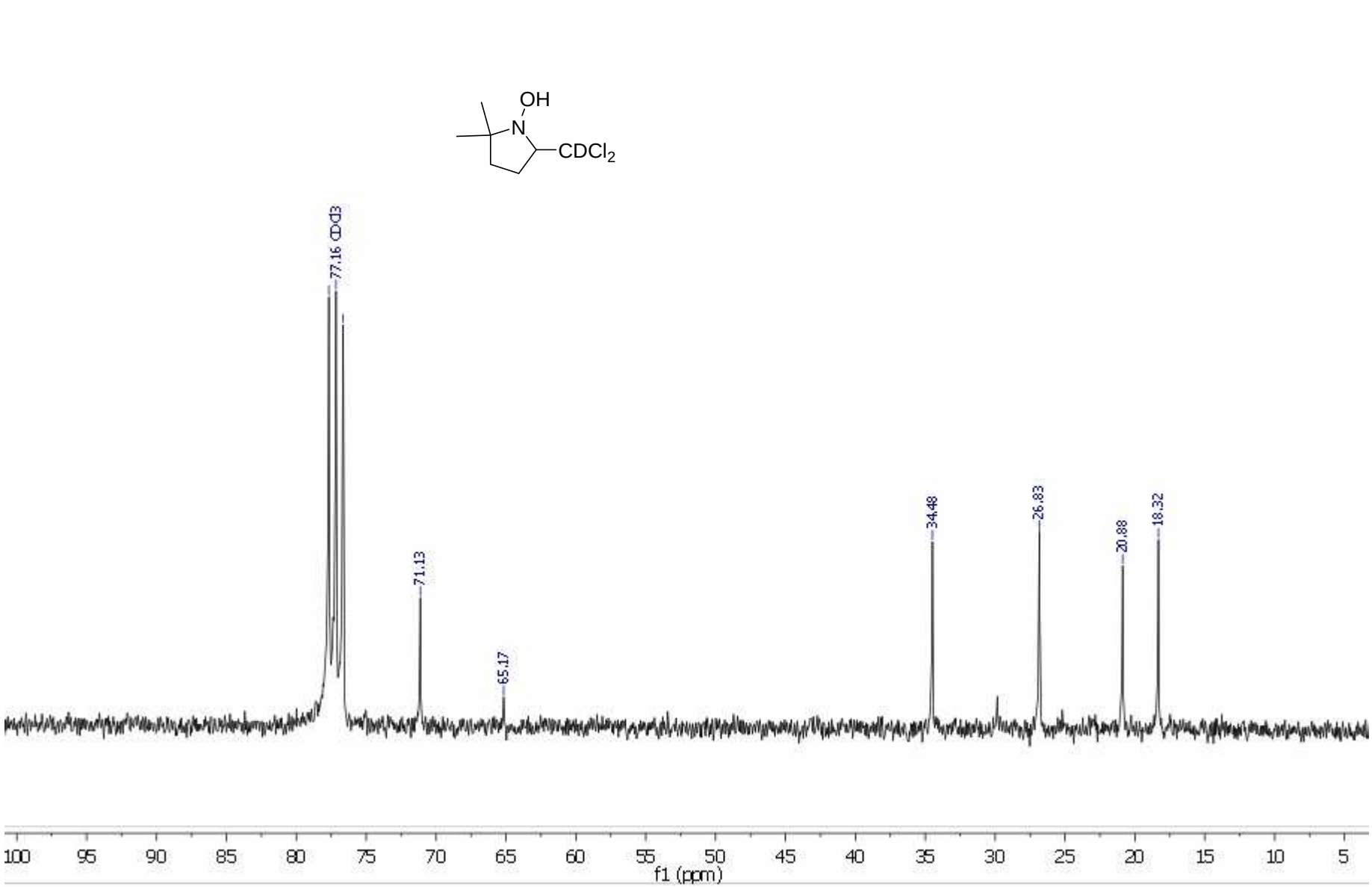
^{13}C NMR spectrum of compound 2b



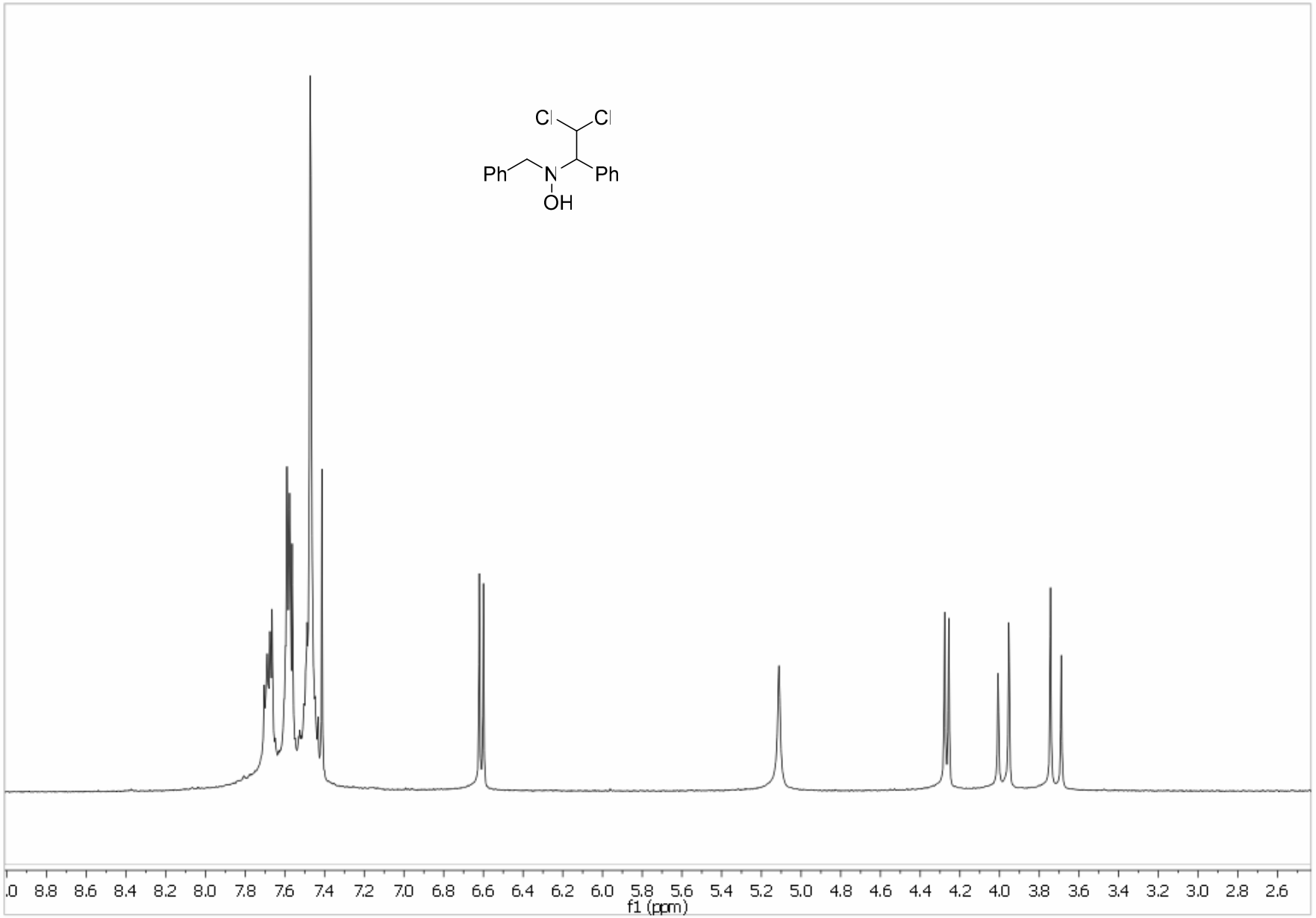
^{1}H NMR spectrum of compound 3b



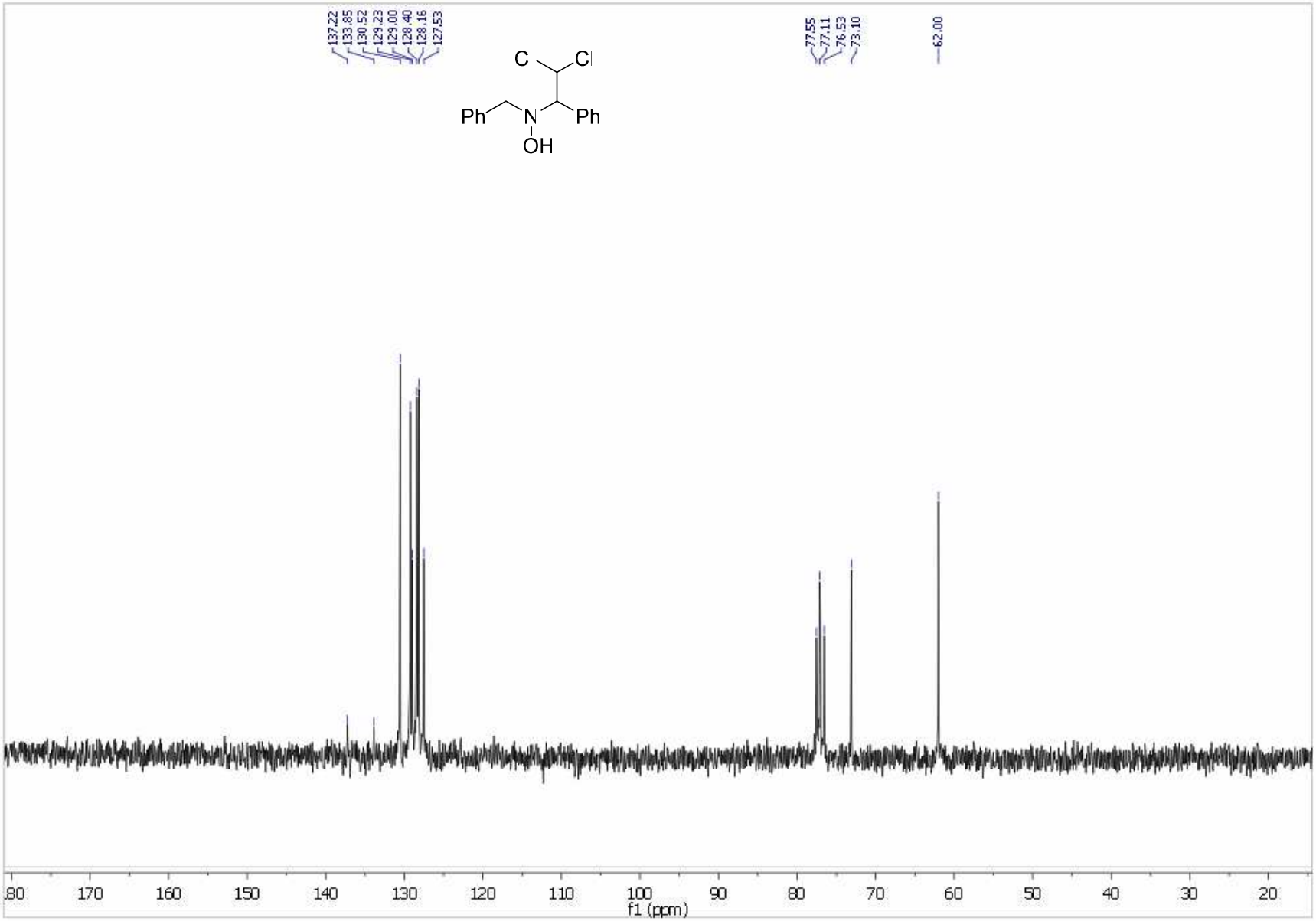
^{13}C NMR spectrum of compound 3b



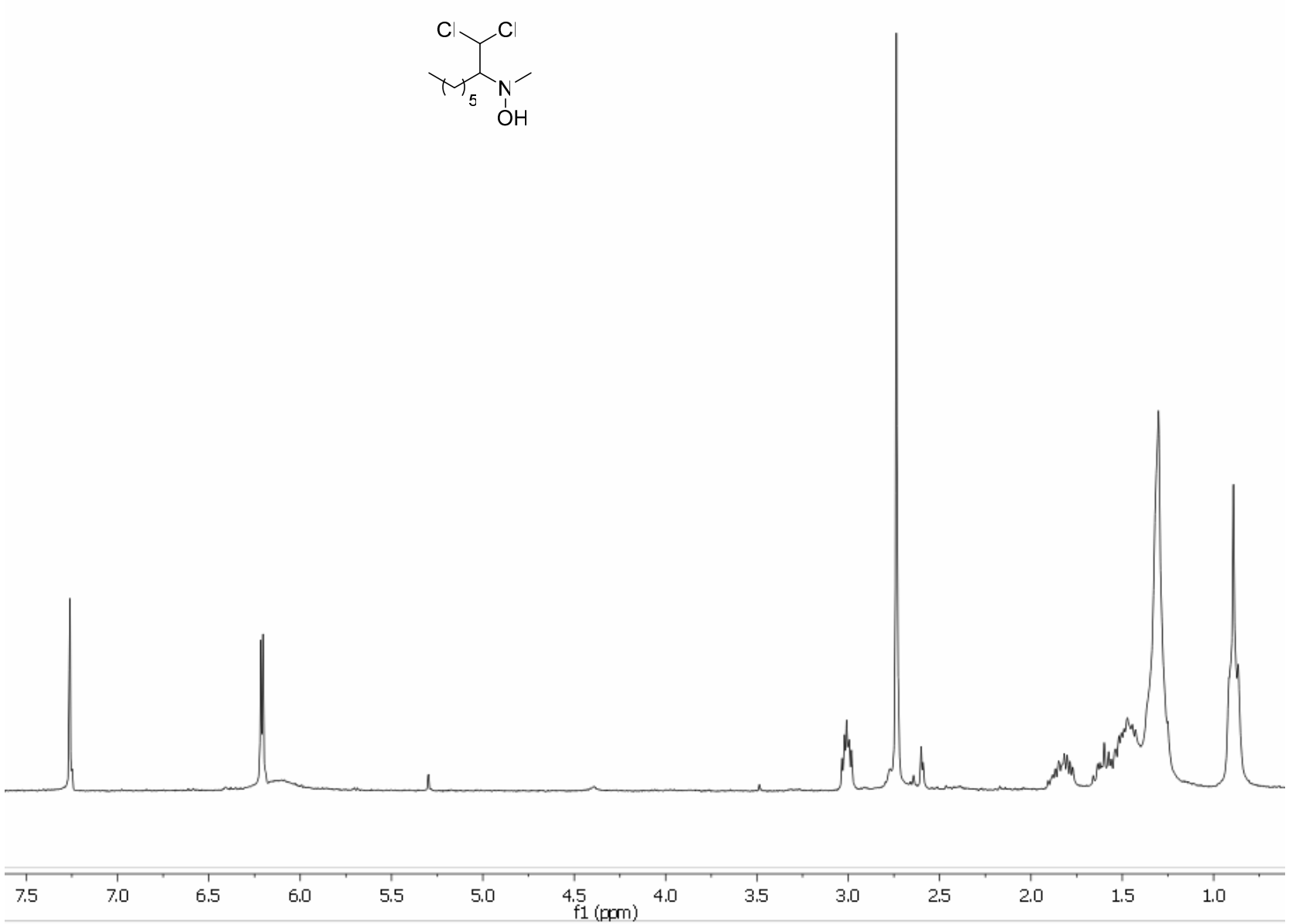
^{1}H NMR spectrum of compound 4



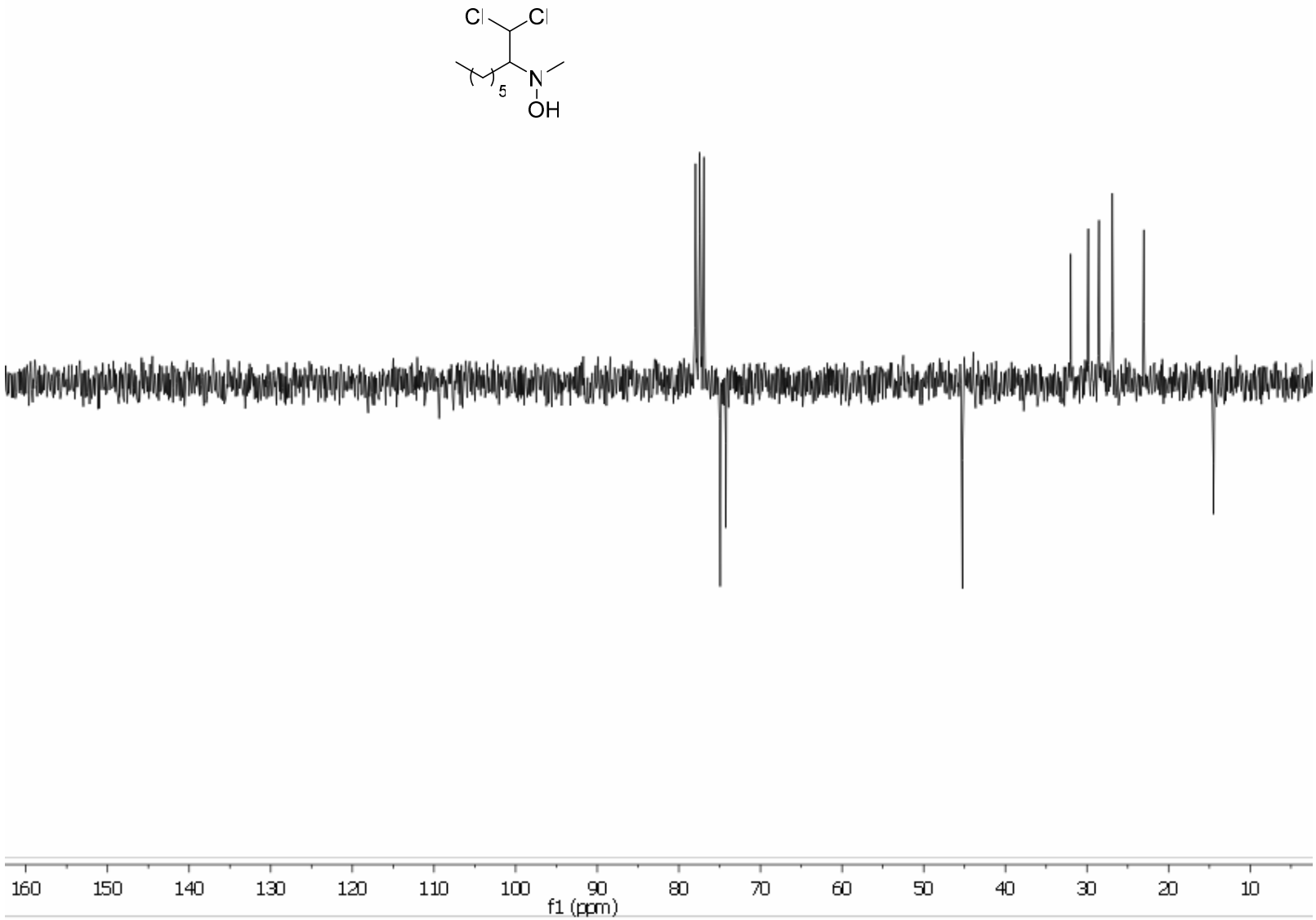
^{13}C NMR spectrum of compound 4



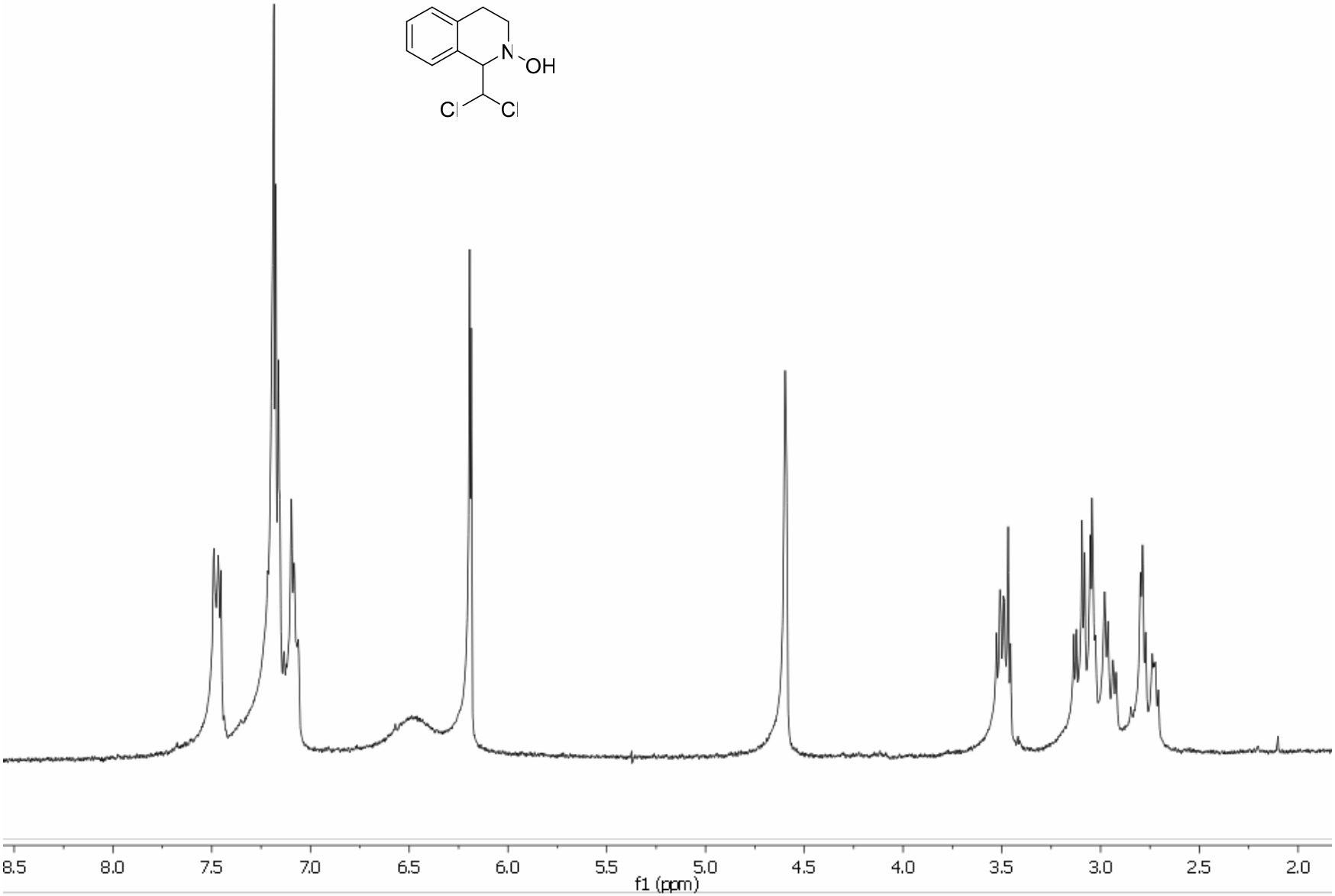
^{1}H NMR spectrum of compound 5



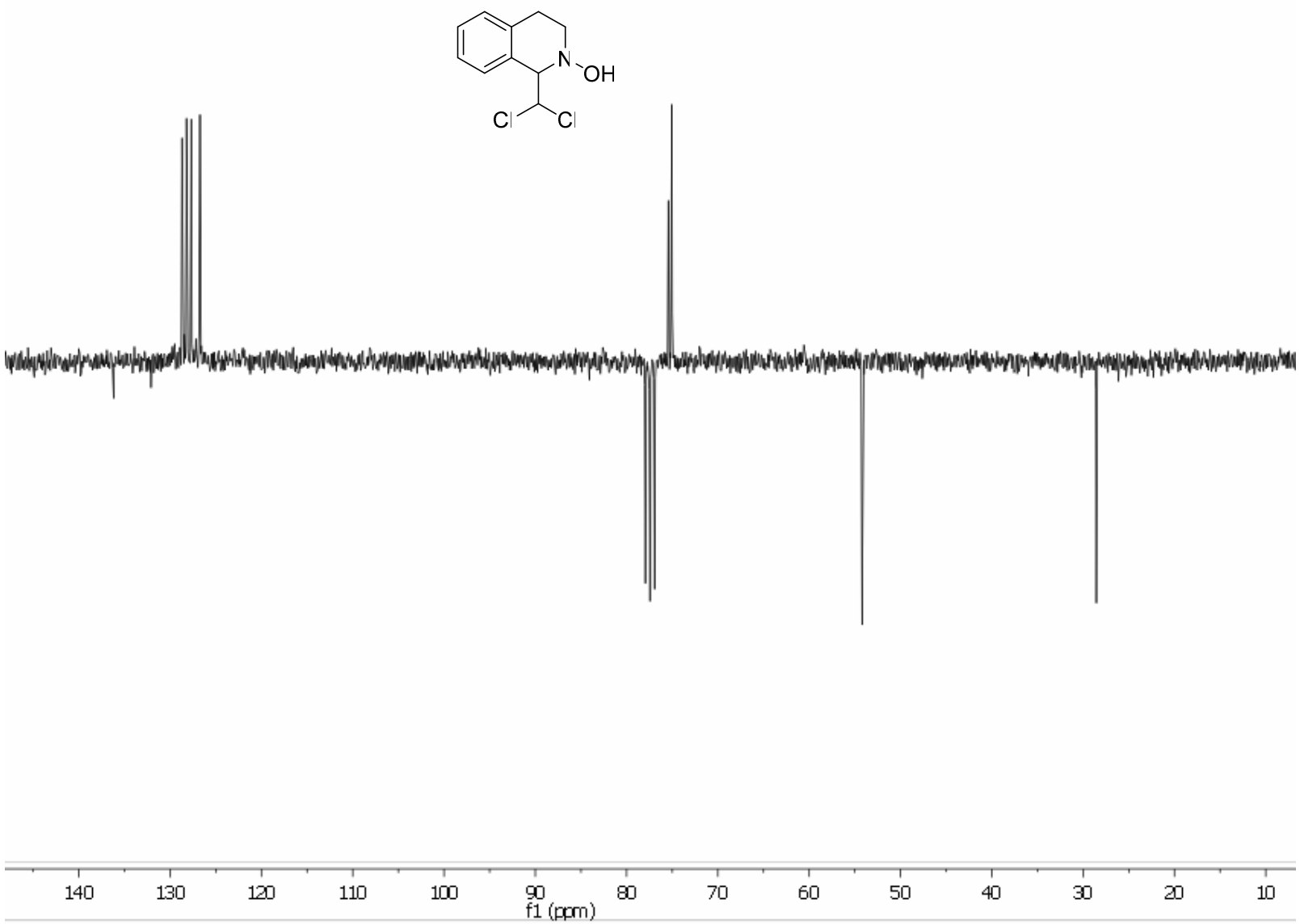
^{13}C NMR spectrum of compound 5



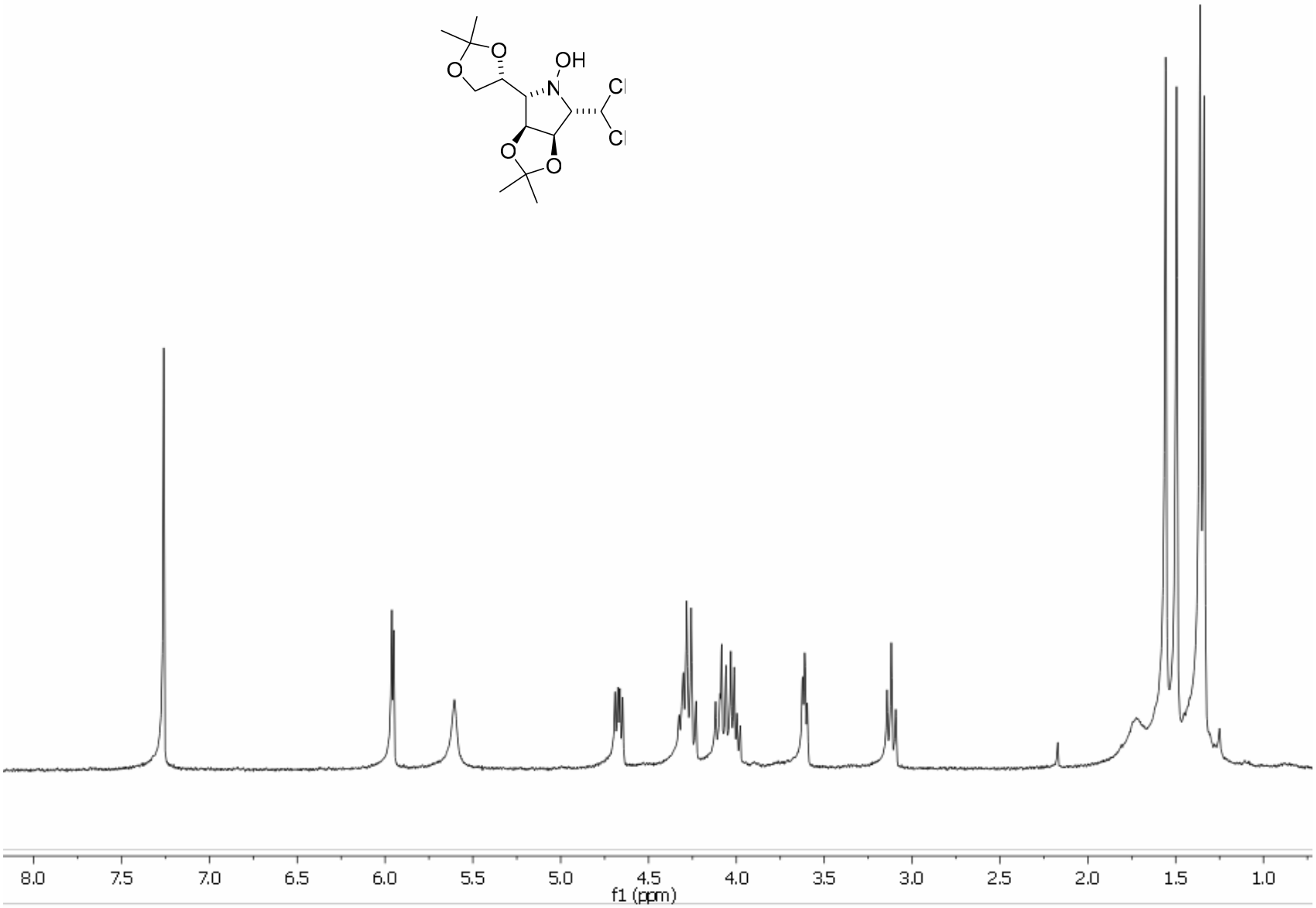
^{1}H NMR spectrum of compound 6



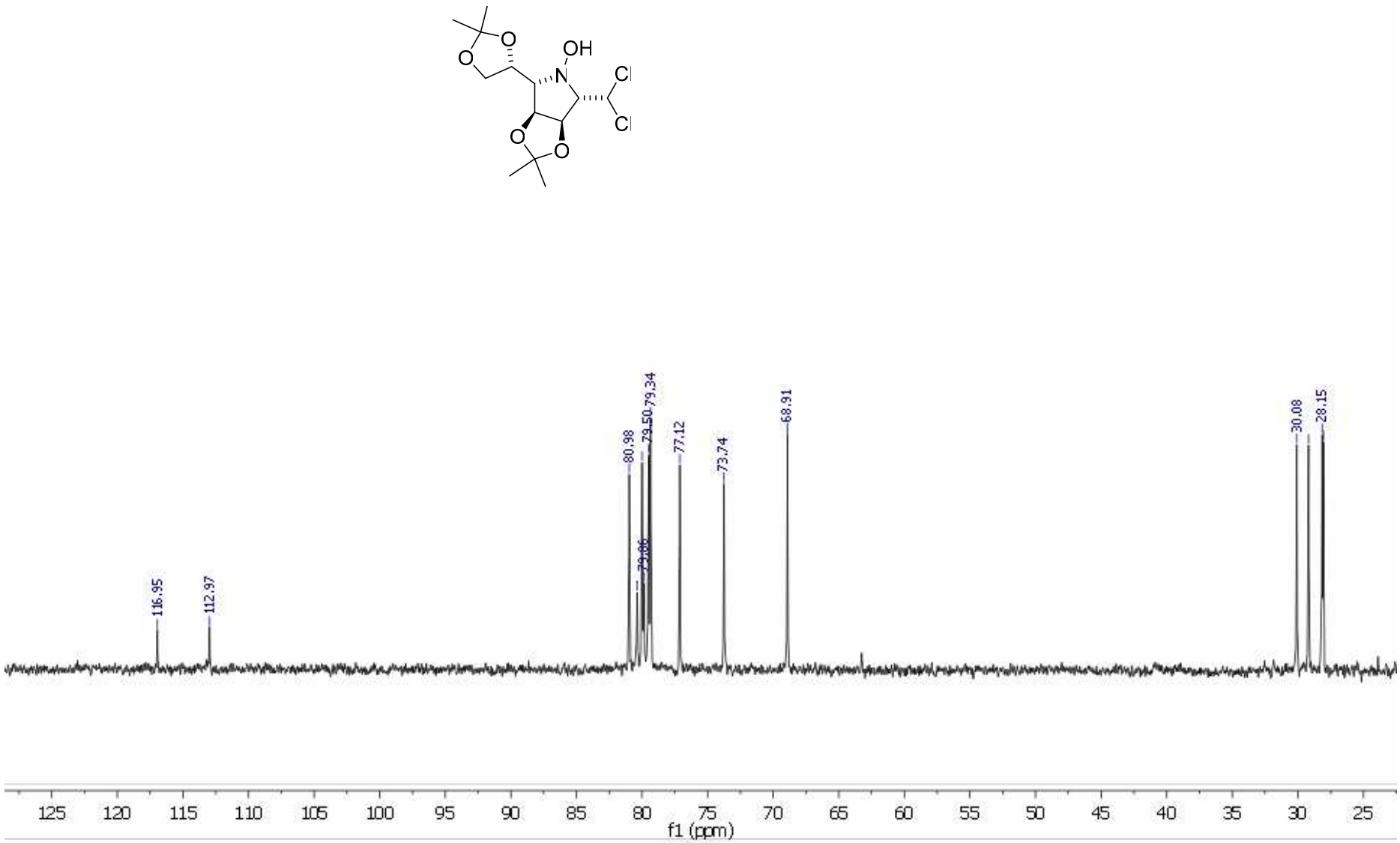
^{13}C NMR spectrum of compound 6



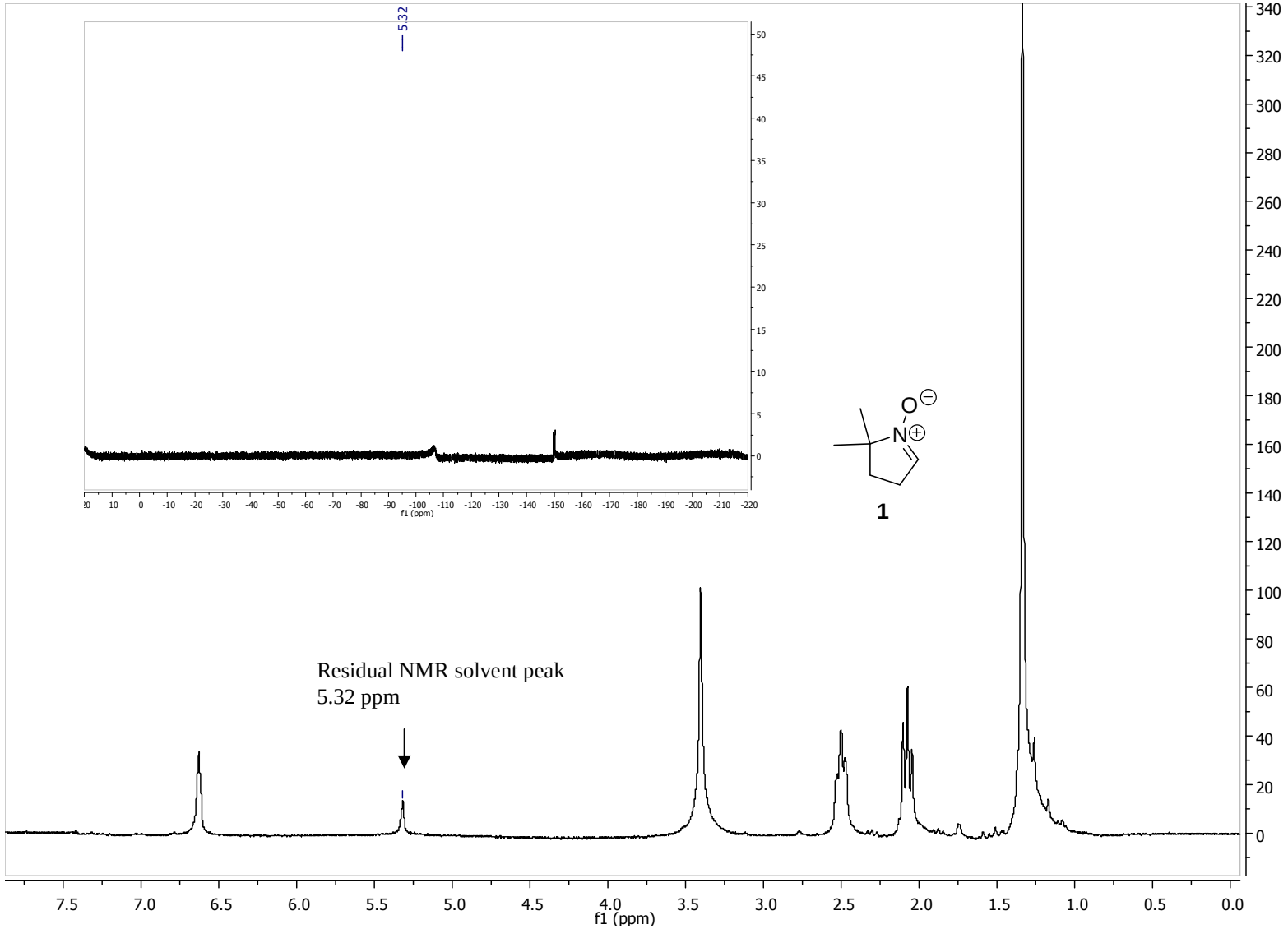
^{1}H NMR spectrum of compound 7a



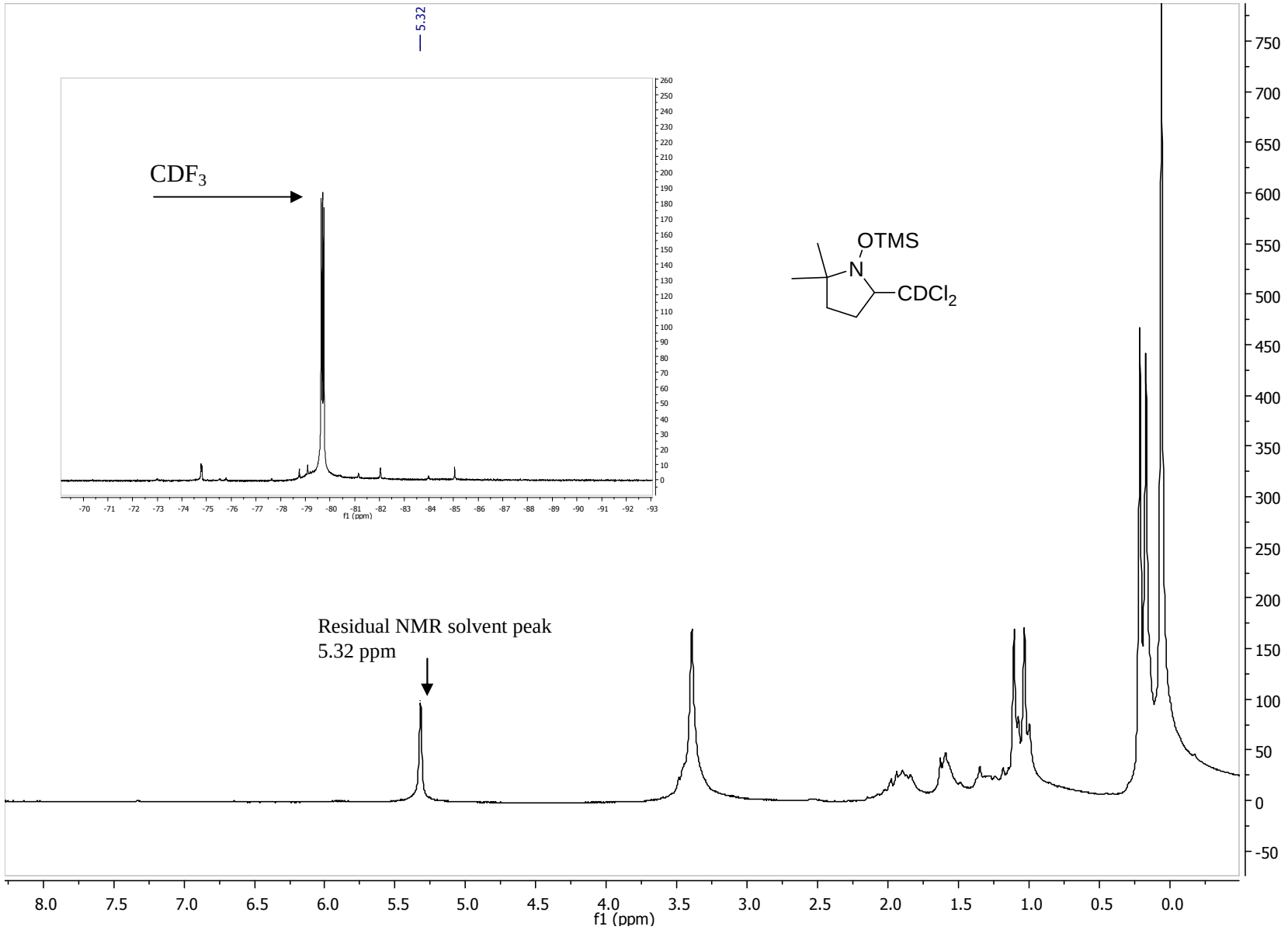
^{13}C NMR spectrum of compound 7a



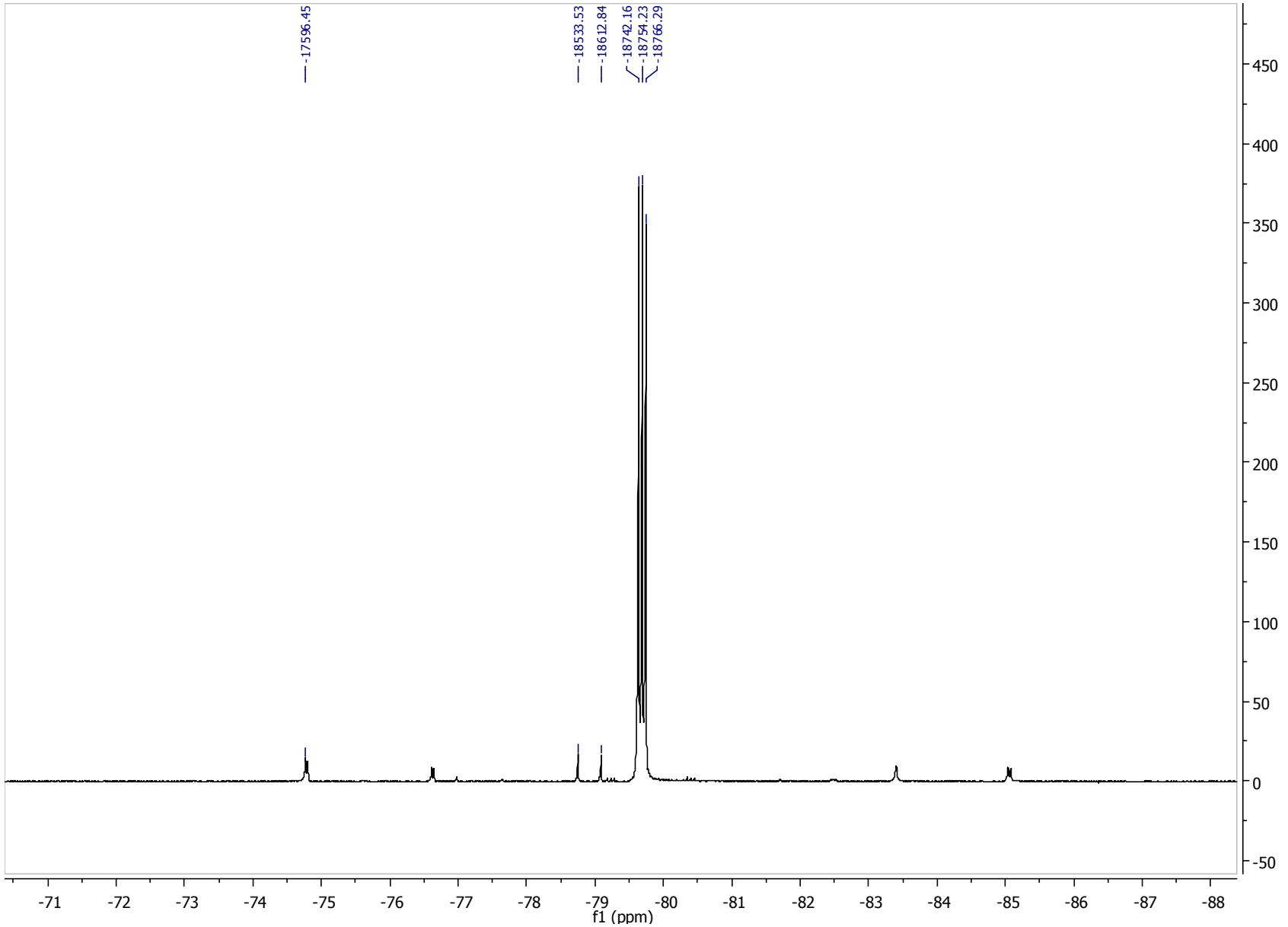
^{1}H NMR and ^{19}F NMR spectra of the reaction mixture (nitrone + TMAF in CD_2Cl_2) before addition of CF_3-TMS



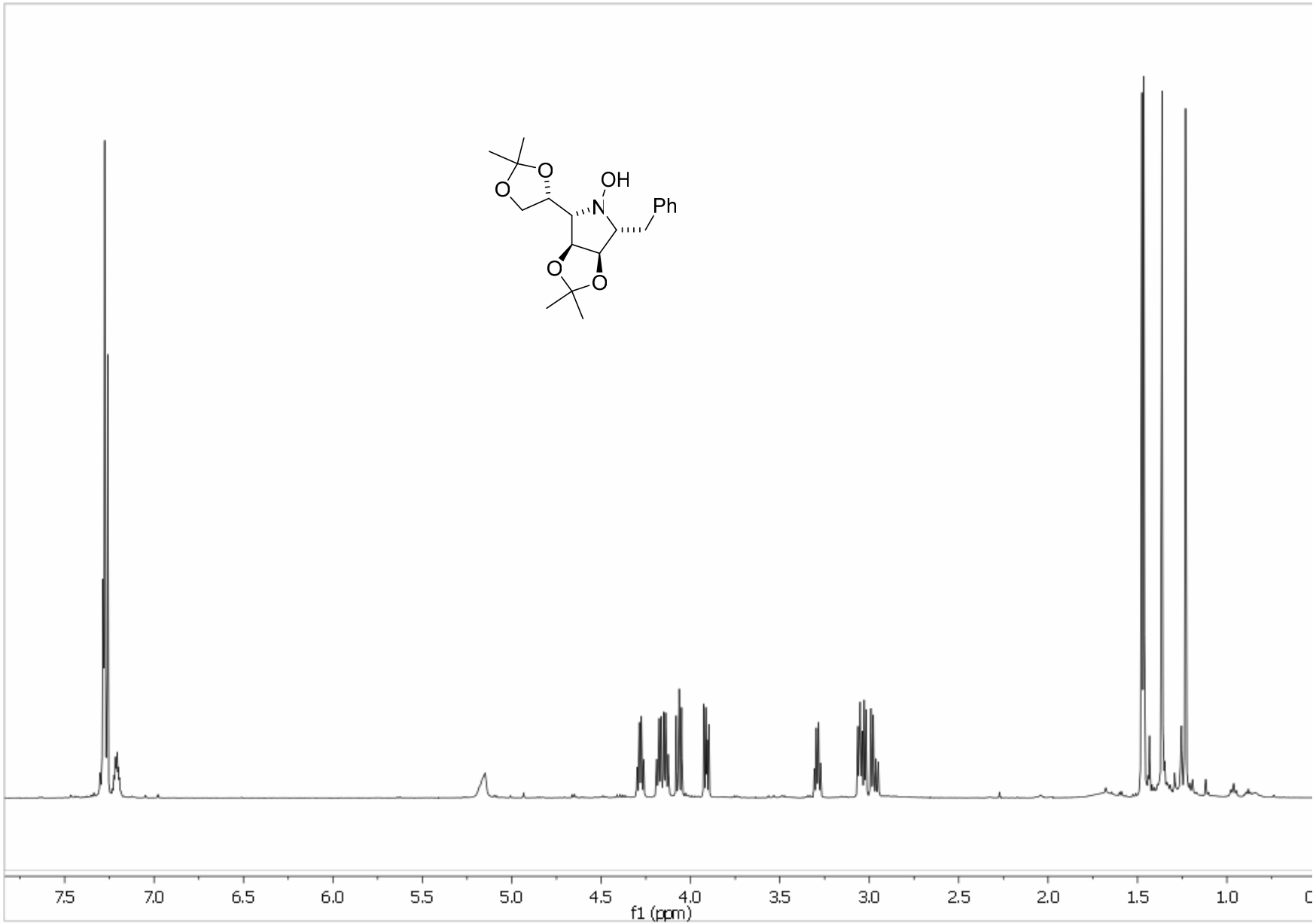
^{1}H NMR and ^{19}F NMR spectra of the reaction mixture 5 min after addition of CF_3-TMS



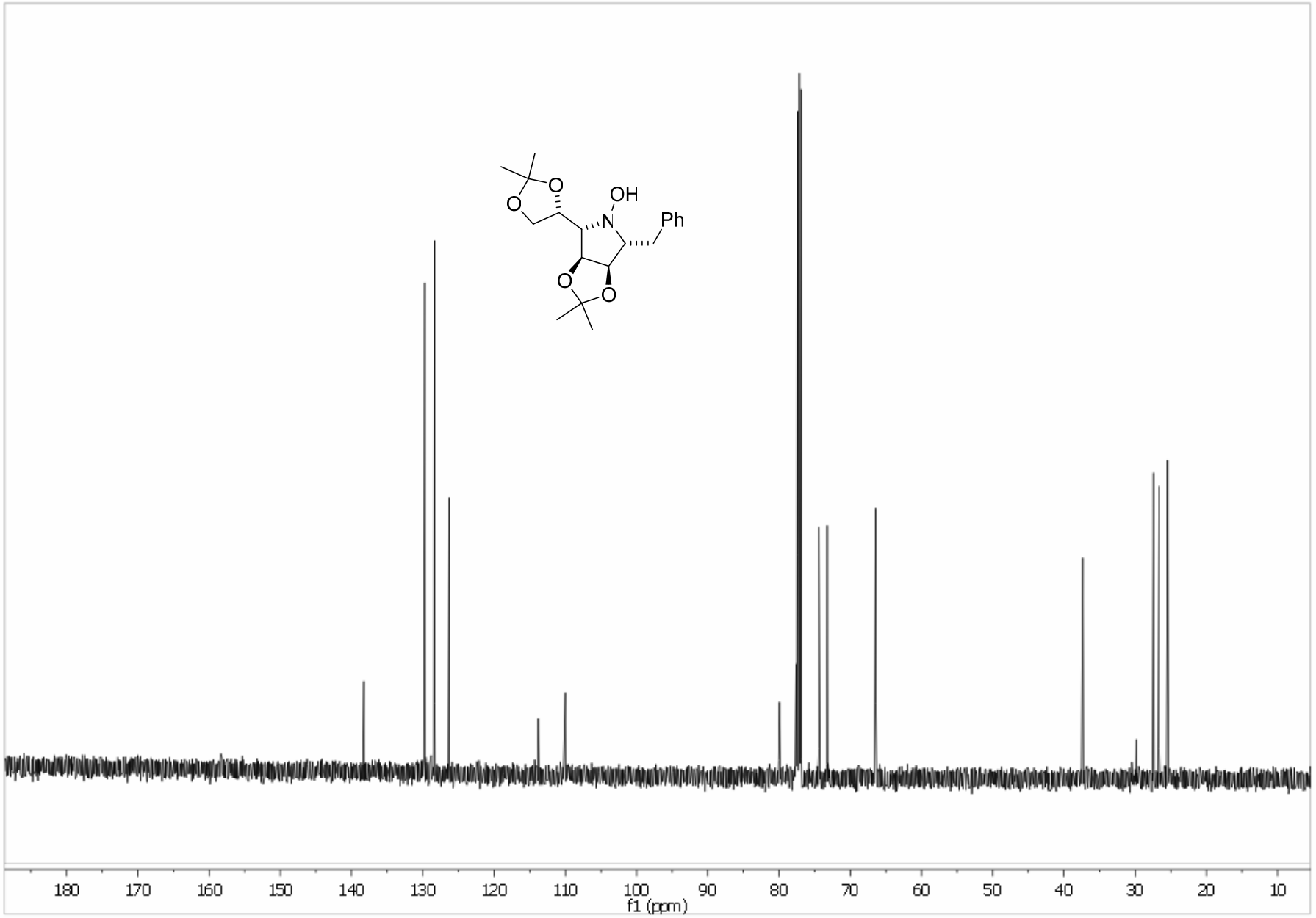
^{19}F NMR spectra of the reaction mixture after 30 min



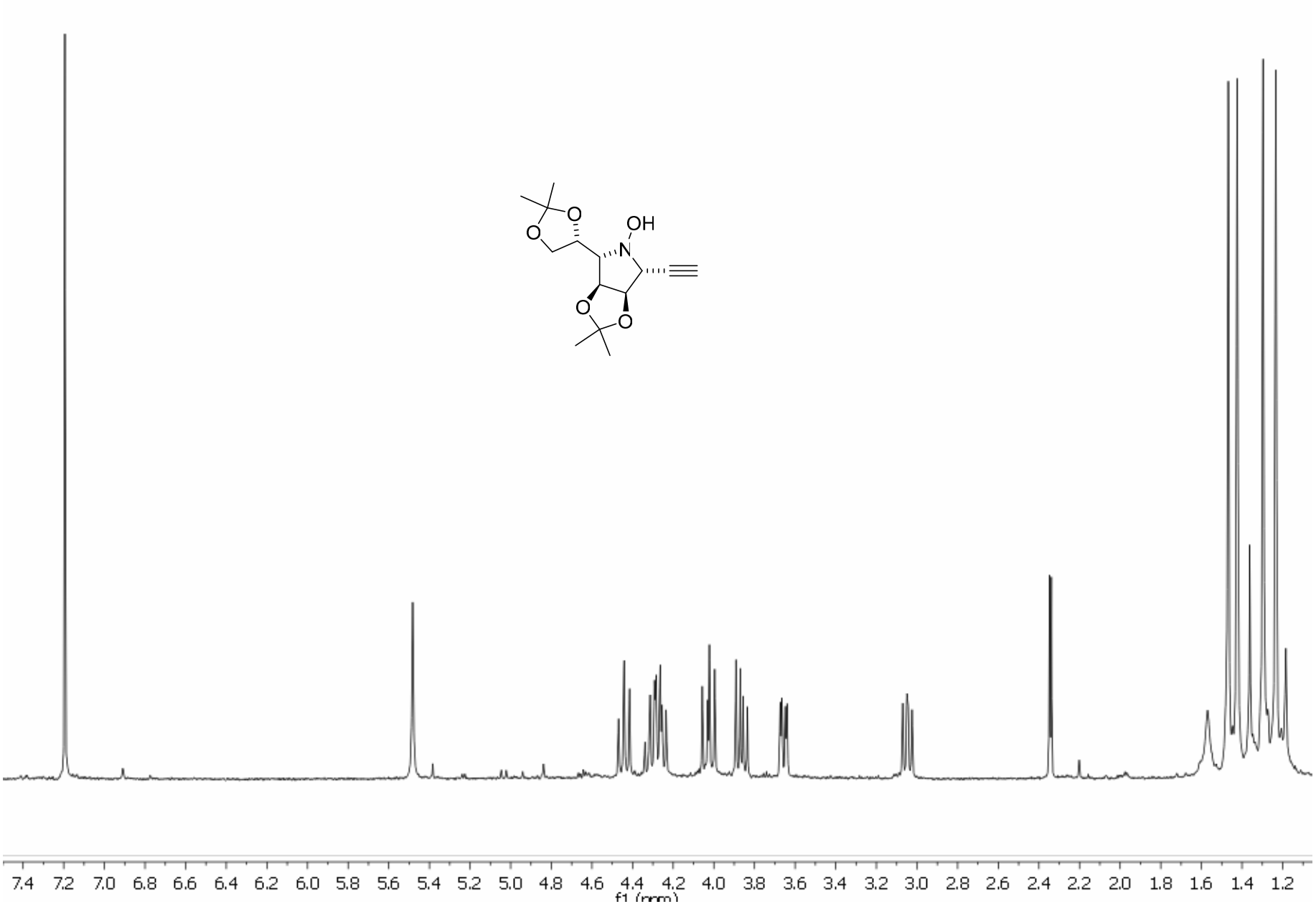
^{1}H NMR spectrum of compound 7b



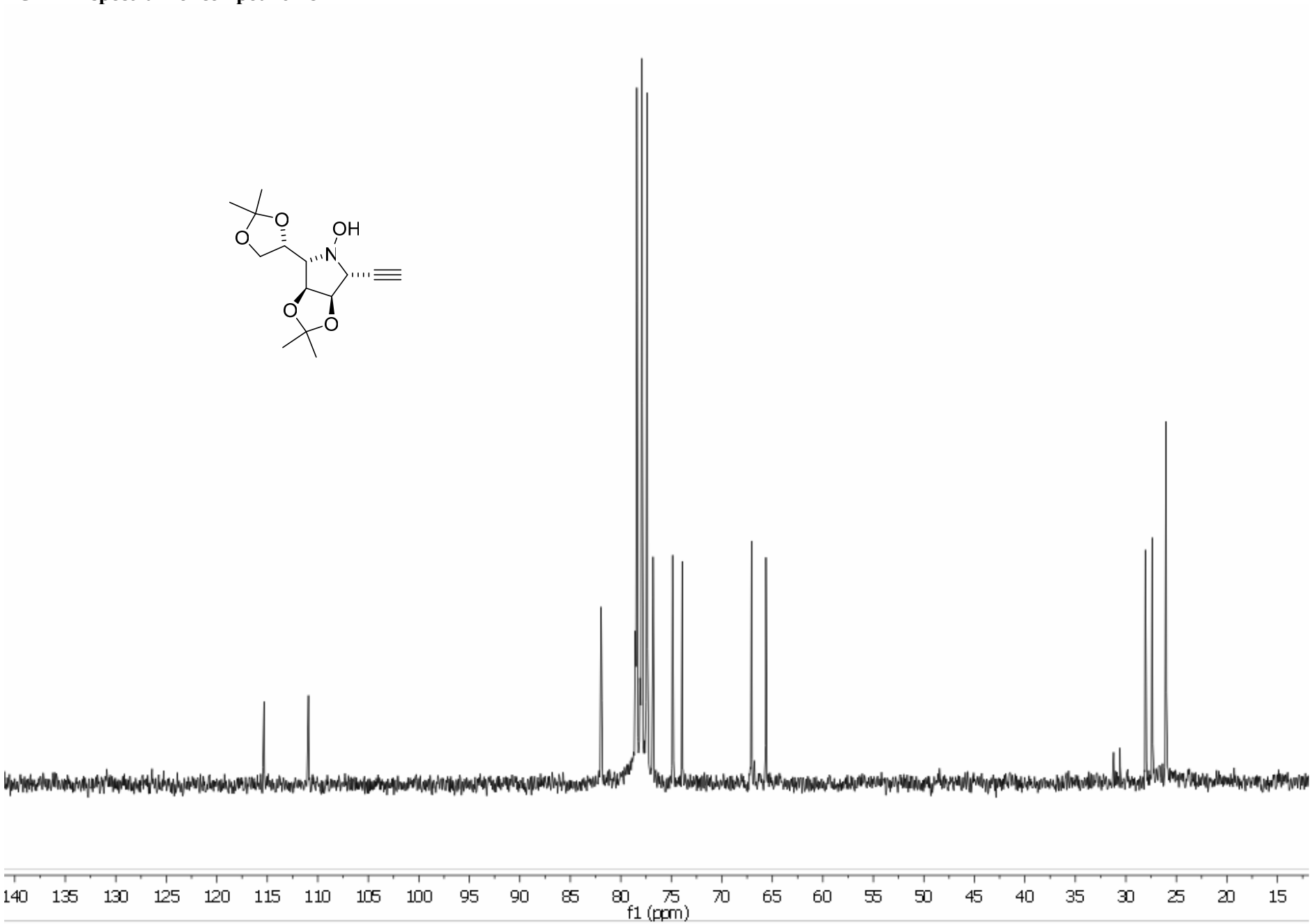
^{13}C NMR spectrum of compound 7b



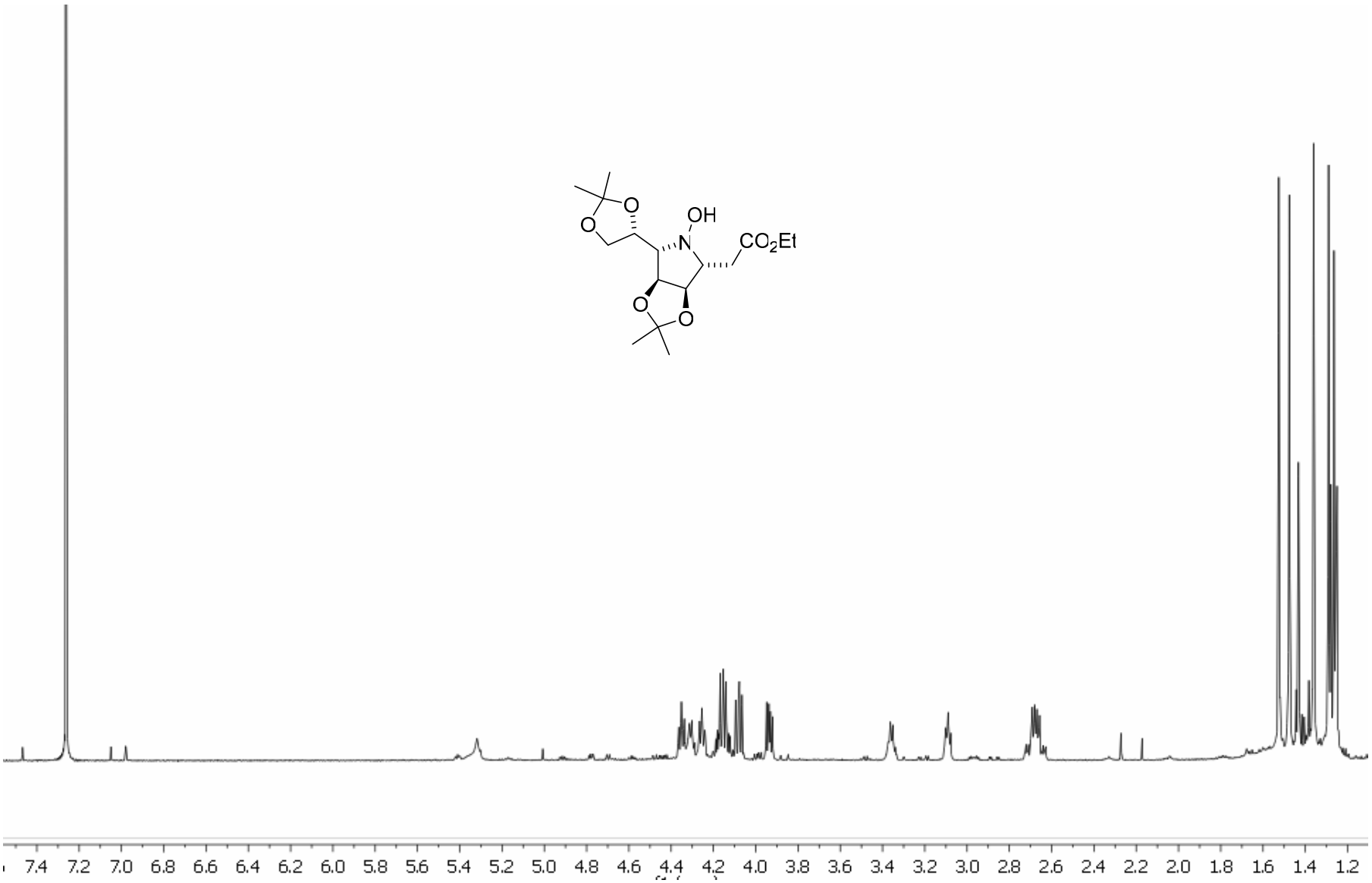
^{1}H NMR spectrum of compound 7c



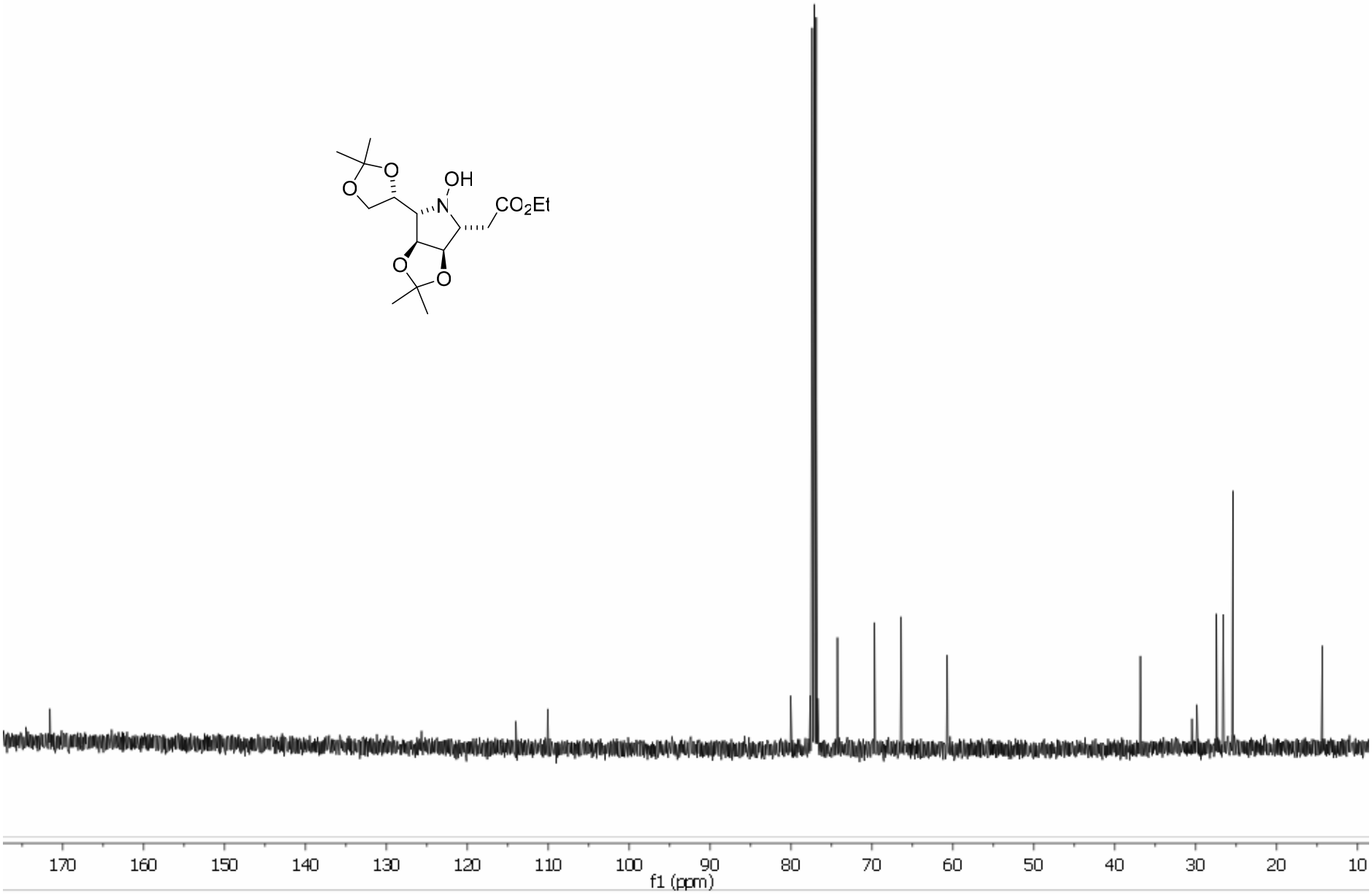
^{13}C NMR spectrum of compound 7c



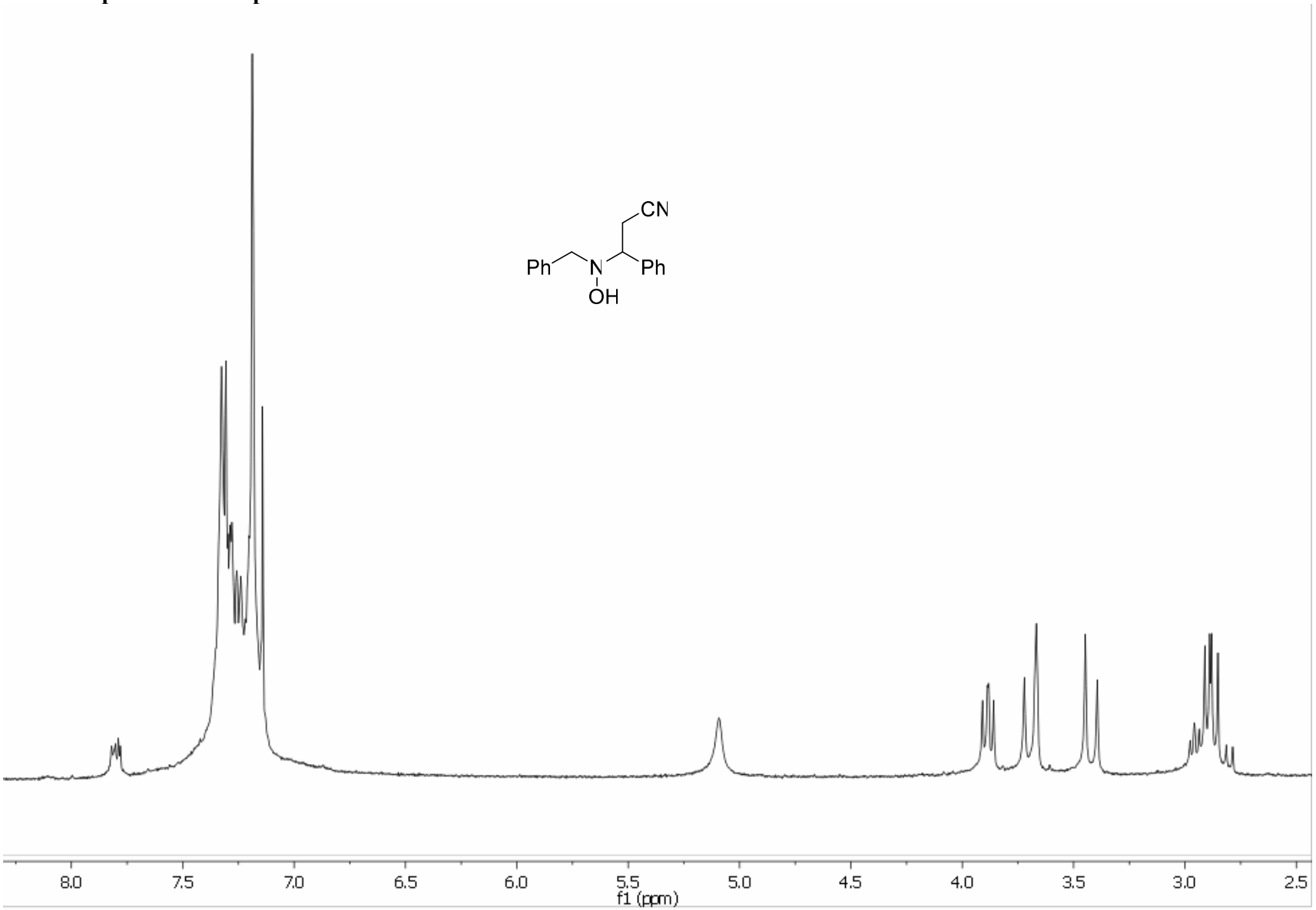
^{1}H NMR spectrum of compound 7d



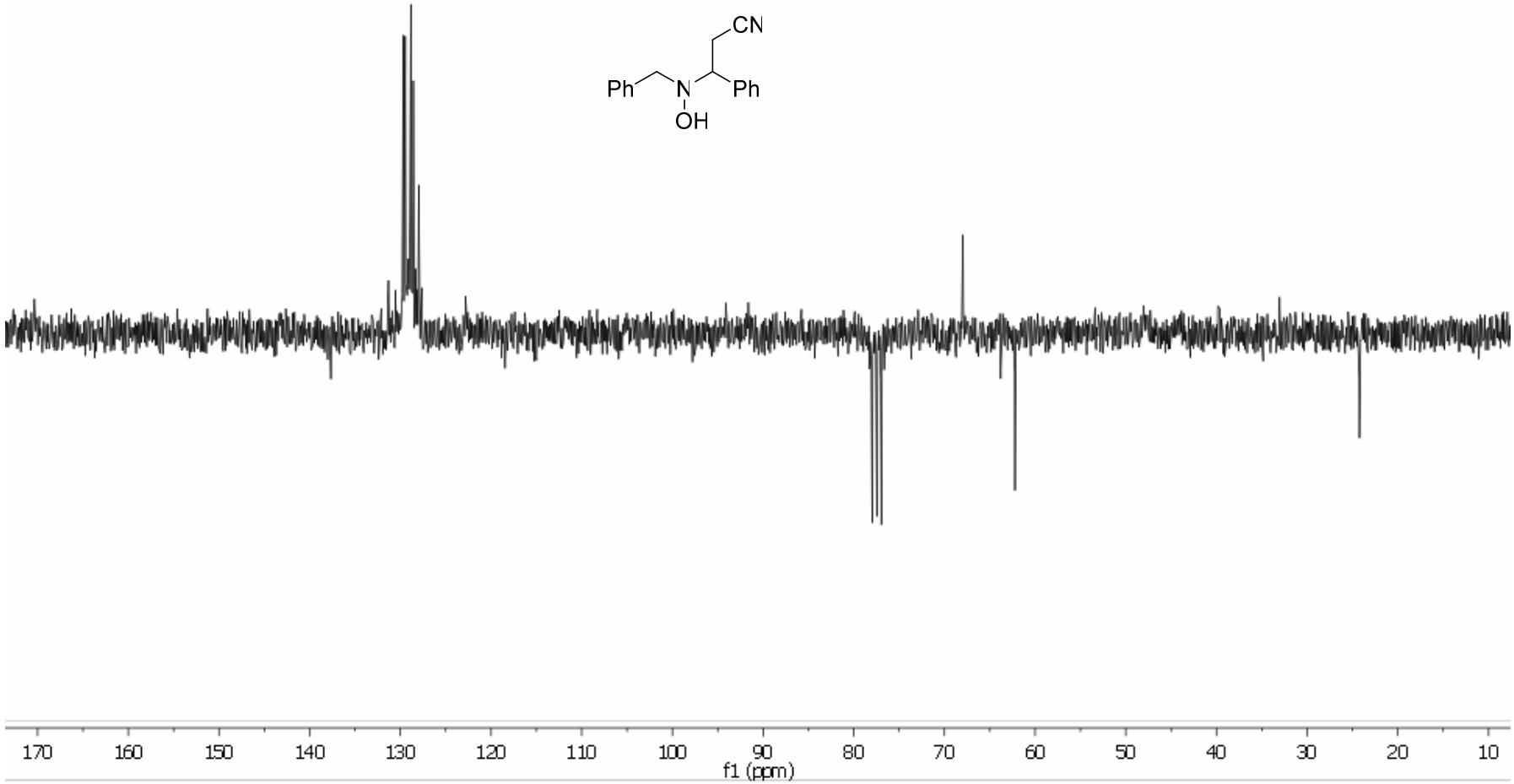
^{13}C NMR spectrum of compound 7d



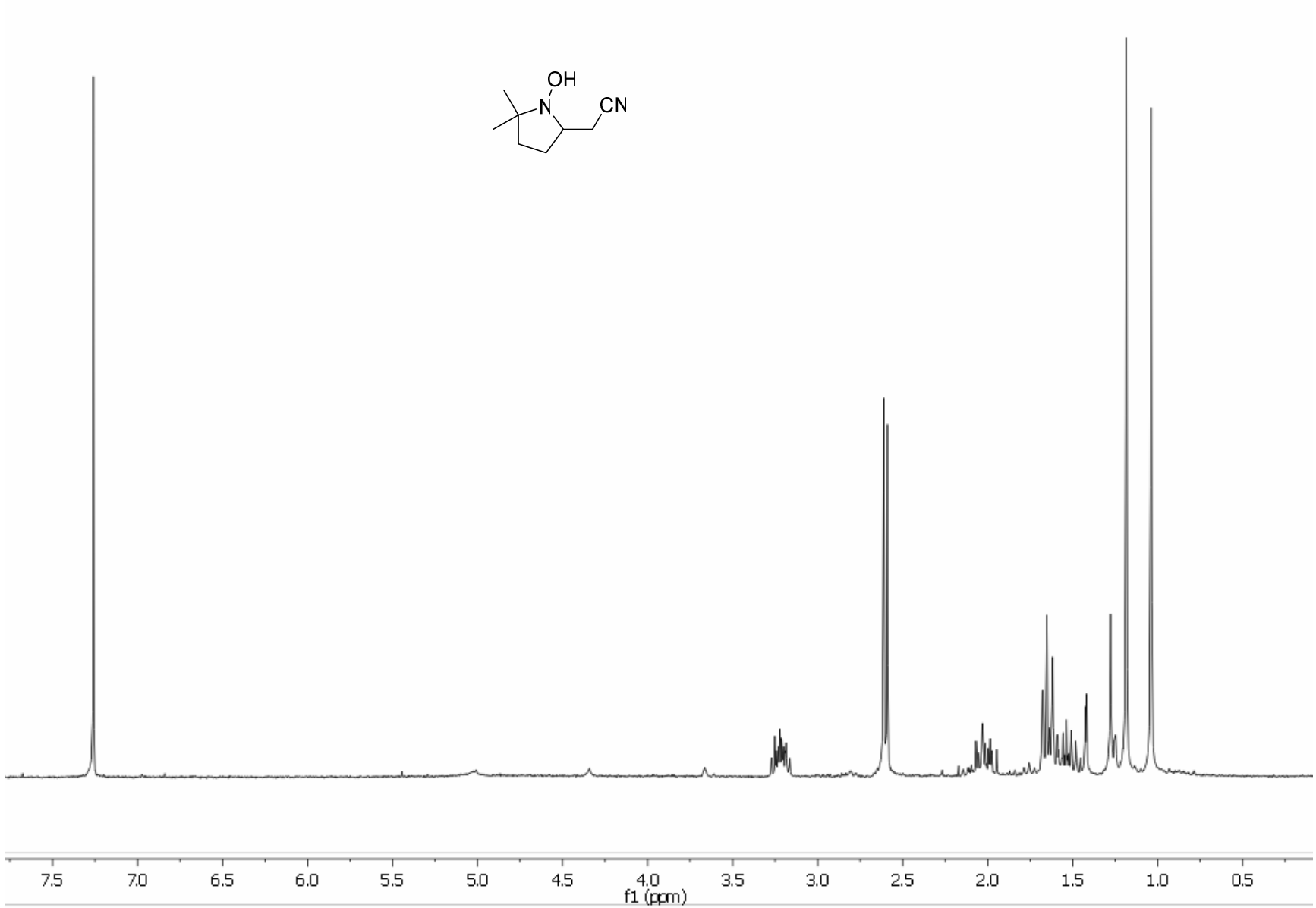
^{1}H NMR spectrum of compound 10



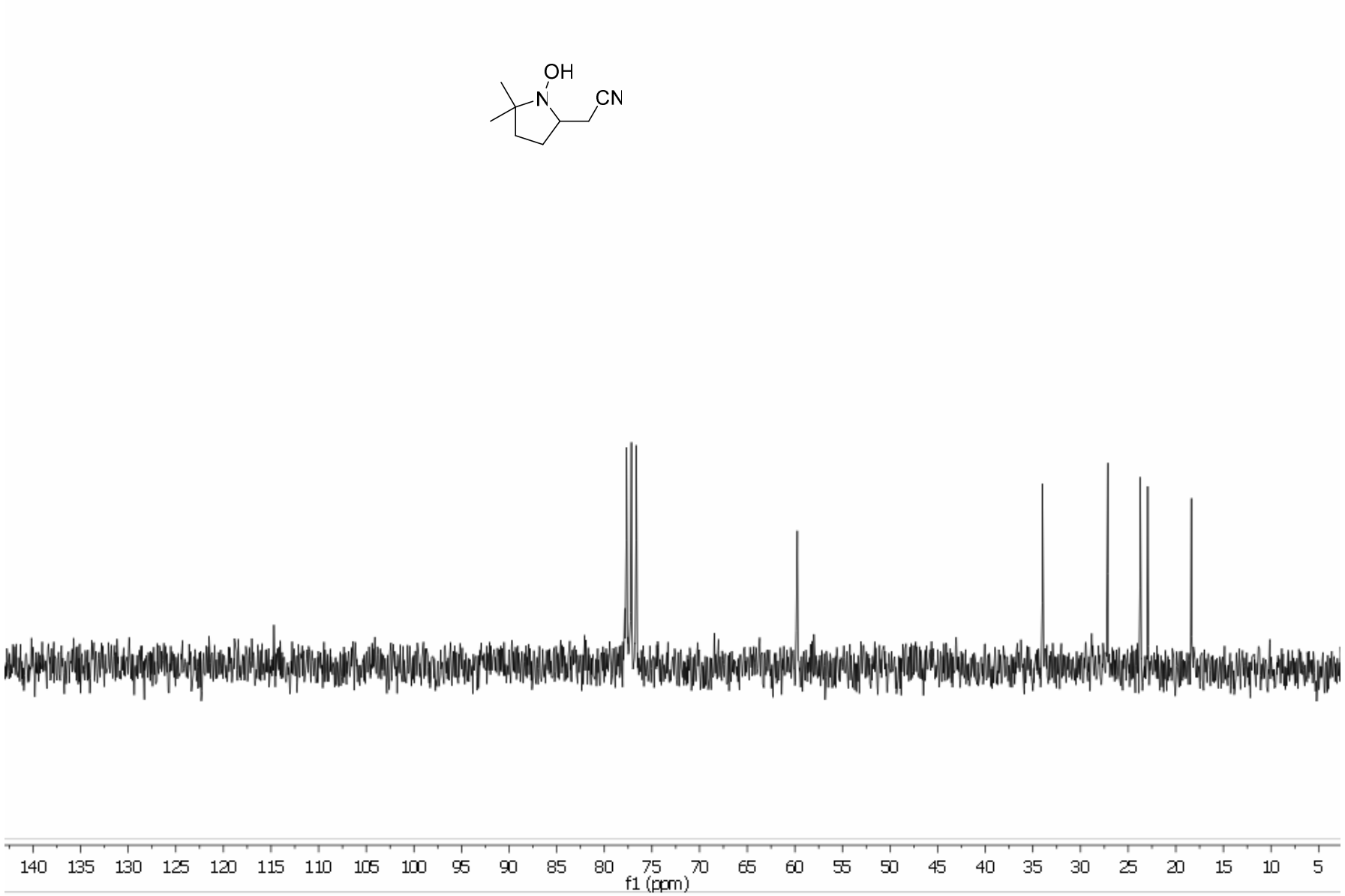
^{13}C NMR spectrum of compound 10



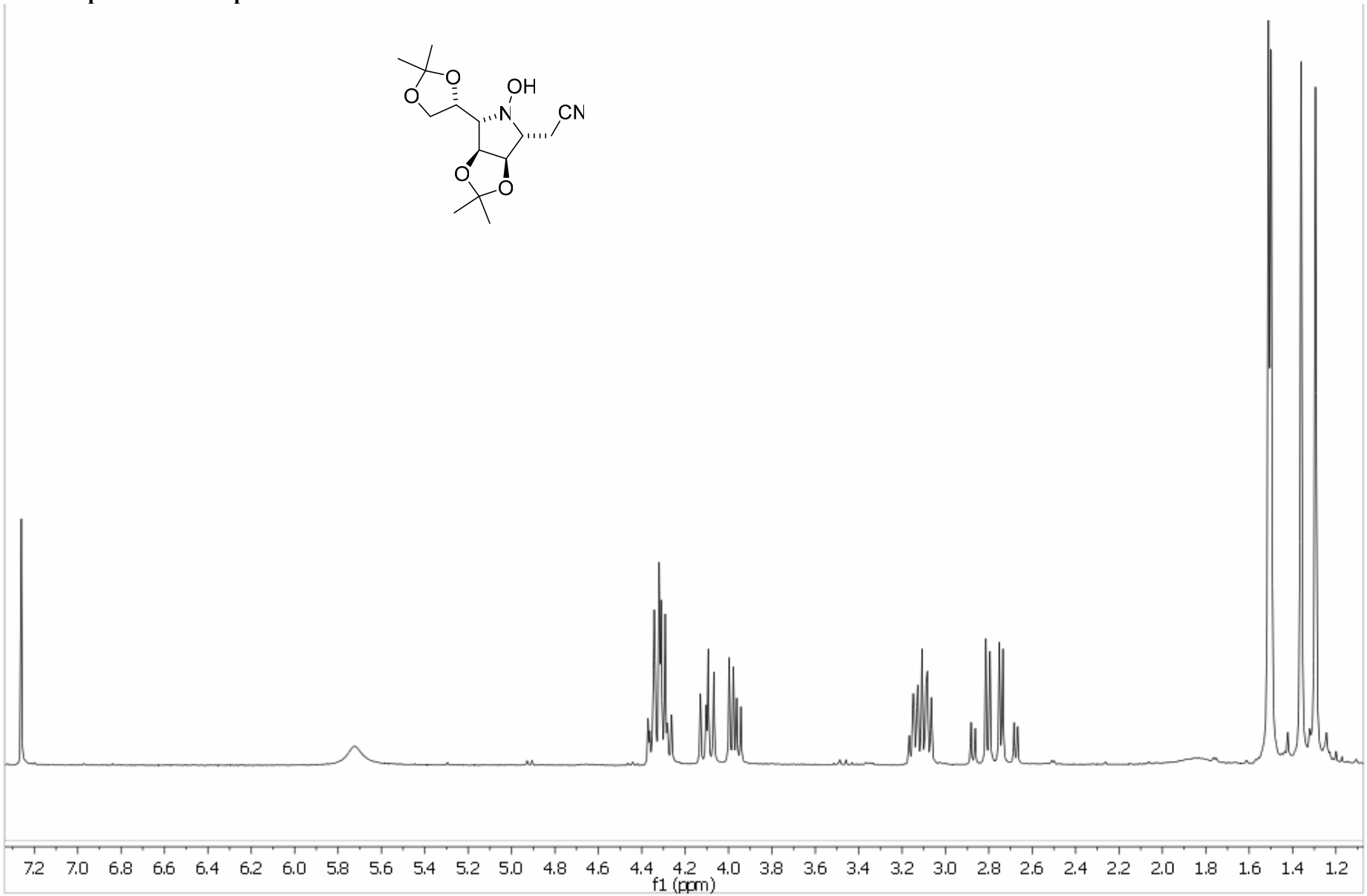
^{1}H NMR spectrum of compound 11



^{13}C NMR spectrum of compound 11



^{1}H NMR spectrum of compound 7e



^{13}C NMR spectrum of compound 7e