

Supplementary Materials

Figure S1. ¹H-NMR spectrum of compound **2** (500 MHz, CDCl₃).

Acquisition Time (sec)	3.8535	Comment	Imported from UYNMR.		Date		
File Name		Frequency (MHz)	500.13	Nucleus	1H	Number of Transients	16
Original Points Count	32768	Points Count	32768	Pulse Sequence	zg30	Solvent	CHLOROFORM-D
Sweep Width (Hz)	8503.40	Temperature (degree C)	27.000				

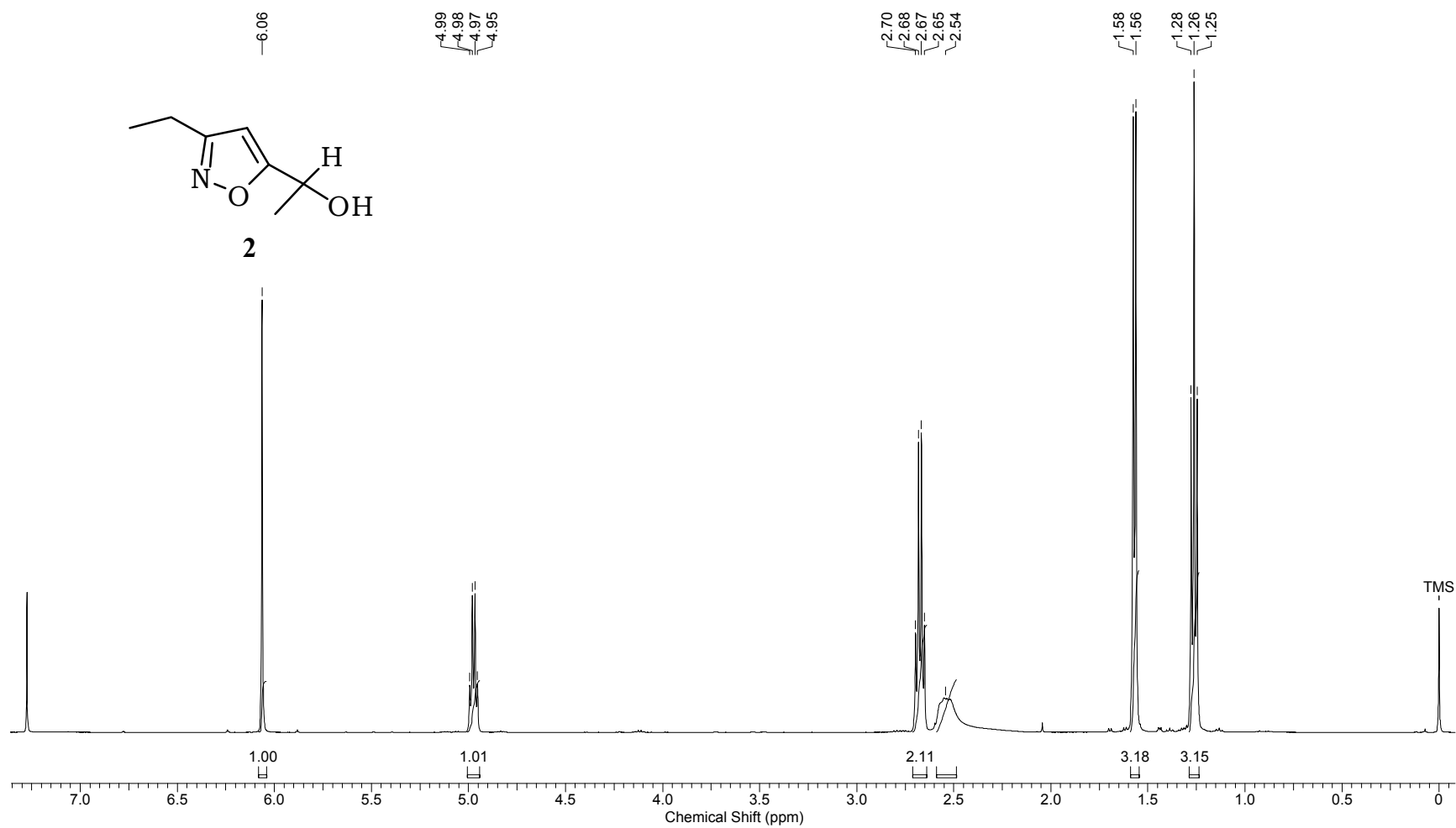


Figure S2. ^{13}C -NMR spectrum of compound **2** (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date				
File Name		Points Count	32768	Frequency (MHz)	125.76	Nucleus	^{13}C	Number of Transients	3072
Original Points Count	32768	Points Count	32768	Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D		
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000						

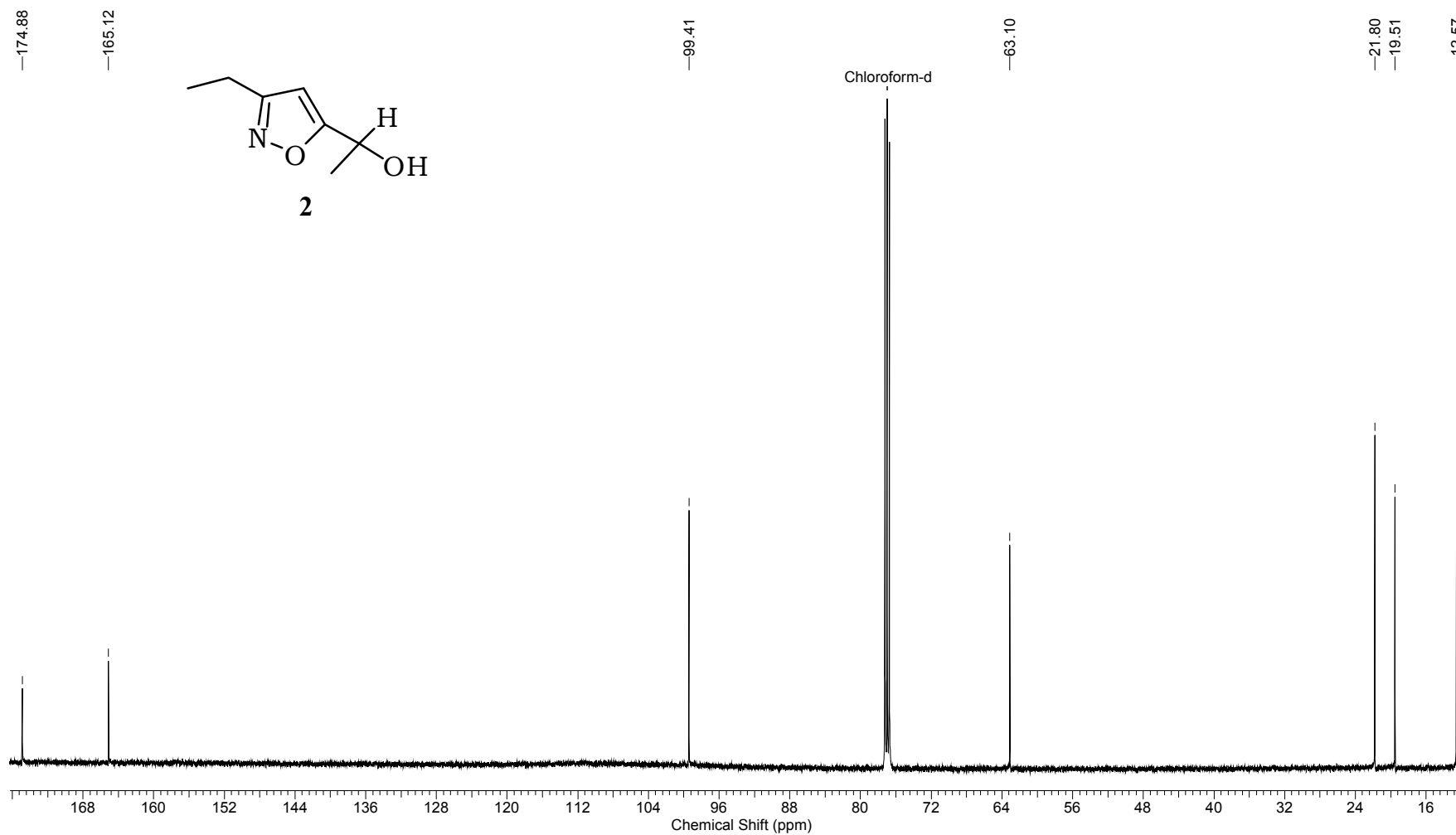


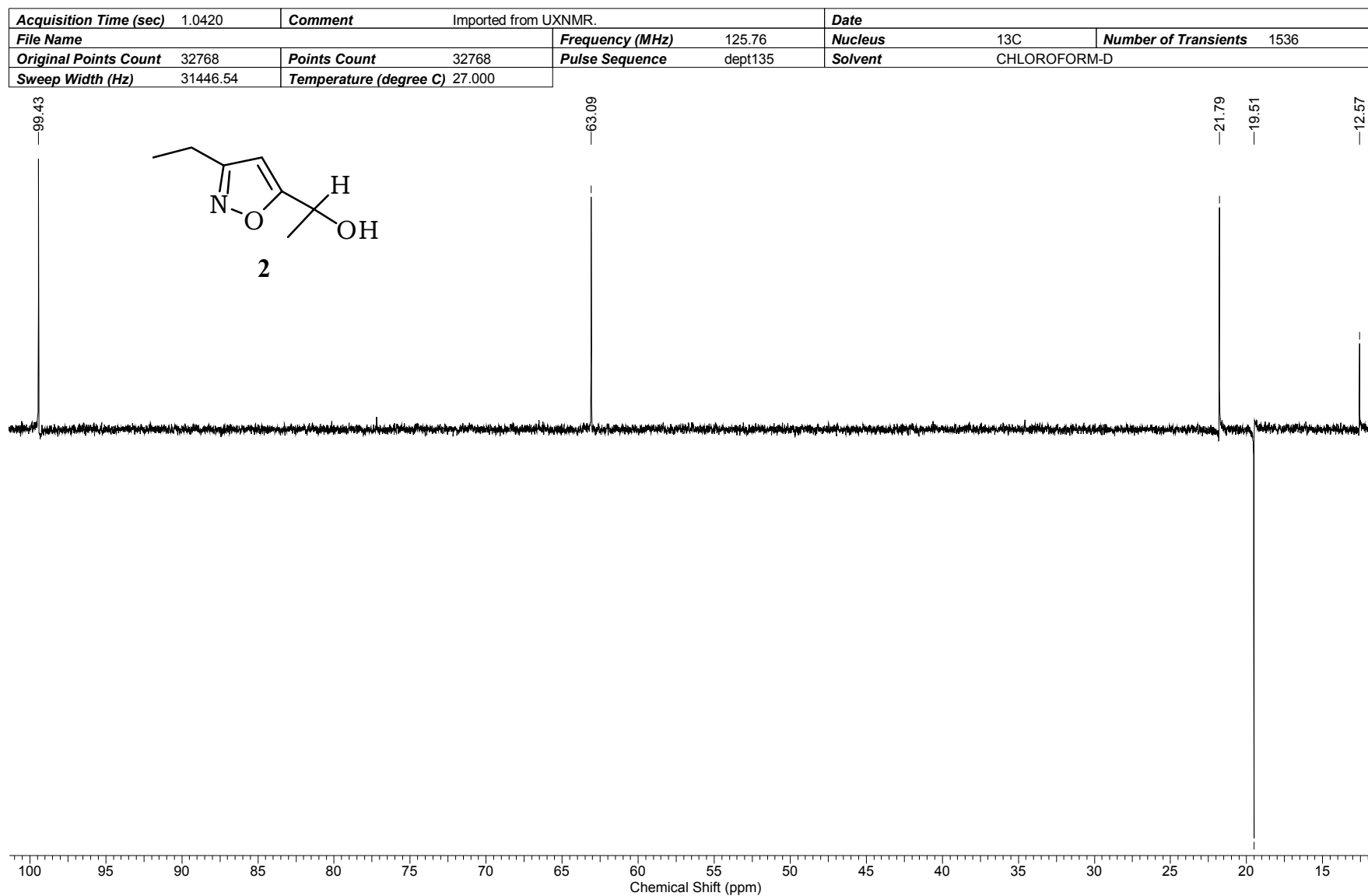
Figure S3. ^{13}C -NMR (DEPT 135) spectrum of compound **2** (125 MHz, CDCl_3).

Figure S4. ^1H -NMR spectrum of compound **3** (500 MHz, CDCl_3).

Acquisition Time (sec)	3.8535	Comment	Imported from UXNMR.		Date		
File Name		Frequency (MHz)	500.13	Nucleus	^1H	Number of Transients	16
Original Points Count	32768	Points Count	32768	Pulse Sequence	zg30	Solvent	CHLOROFORM-D
Sweep Width (Hz)	8503.40	Temperature (degree C)	27.000				

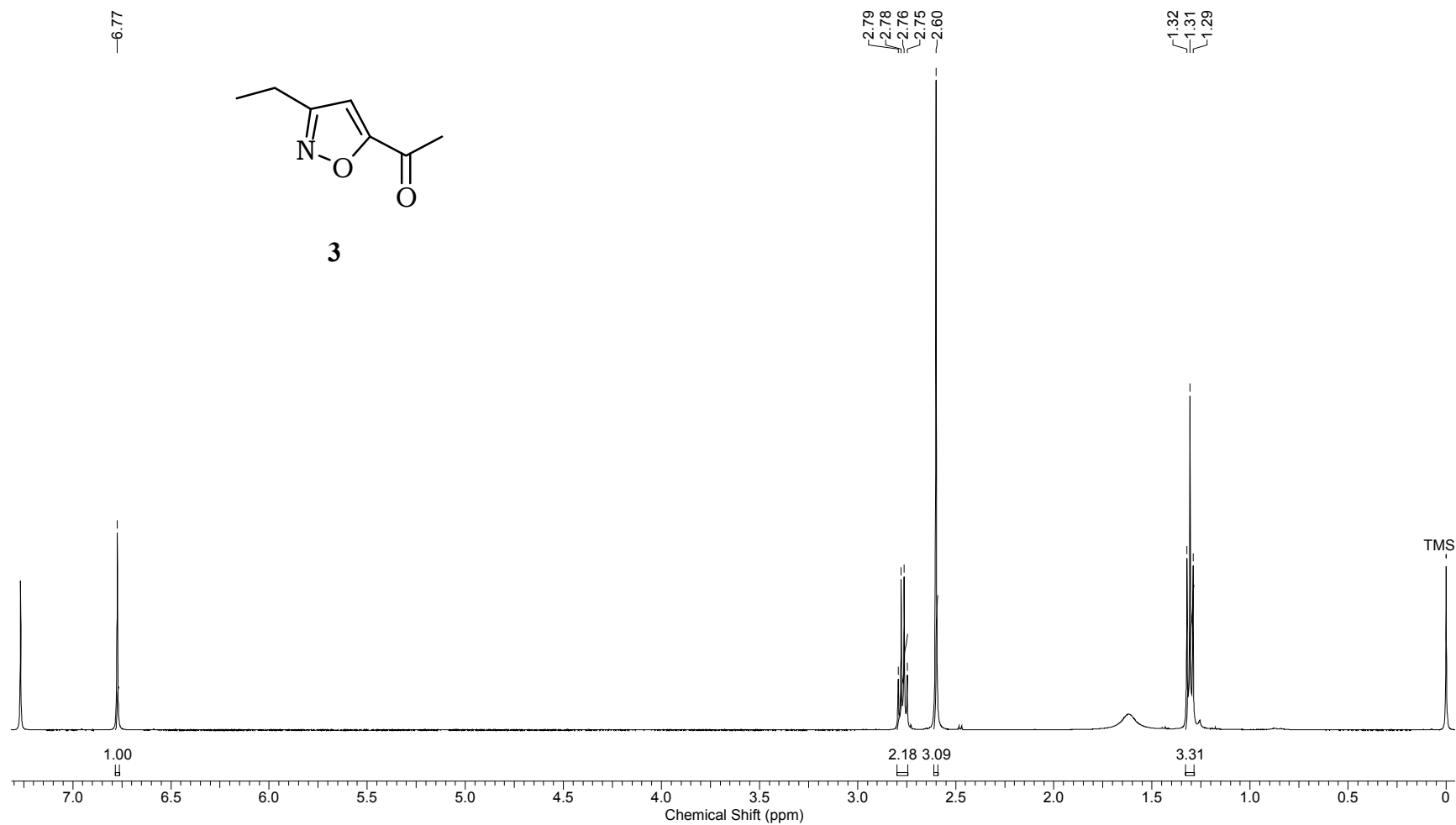


Figure S5. ^{13}C -NMR spectrum of compound 3 (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date		
File Name		Frequency (MHz)	125.76	Nucleus	^{13}C	Number of Transients	3072
Original Points Count	32768	Points Count	32768	Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000				

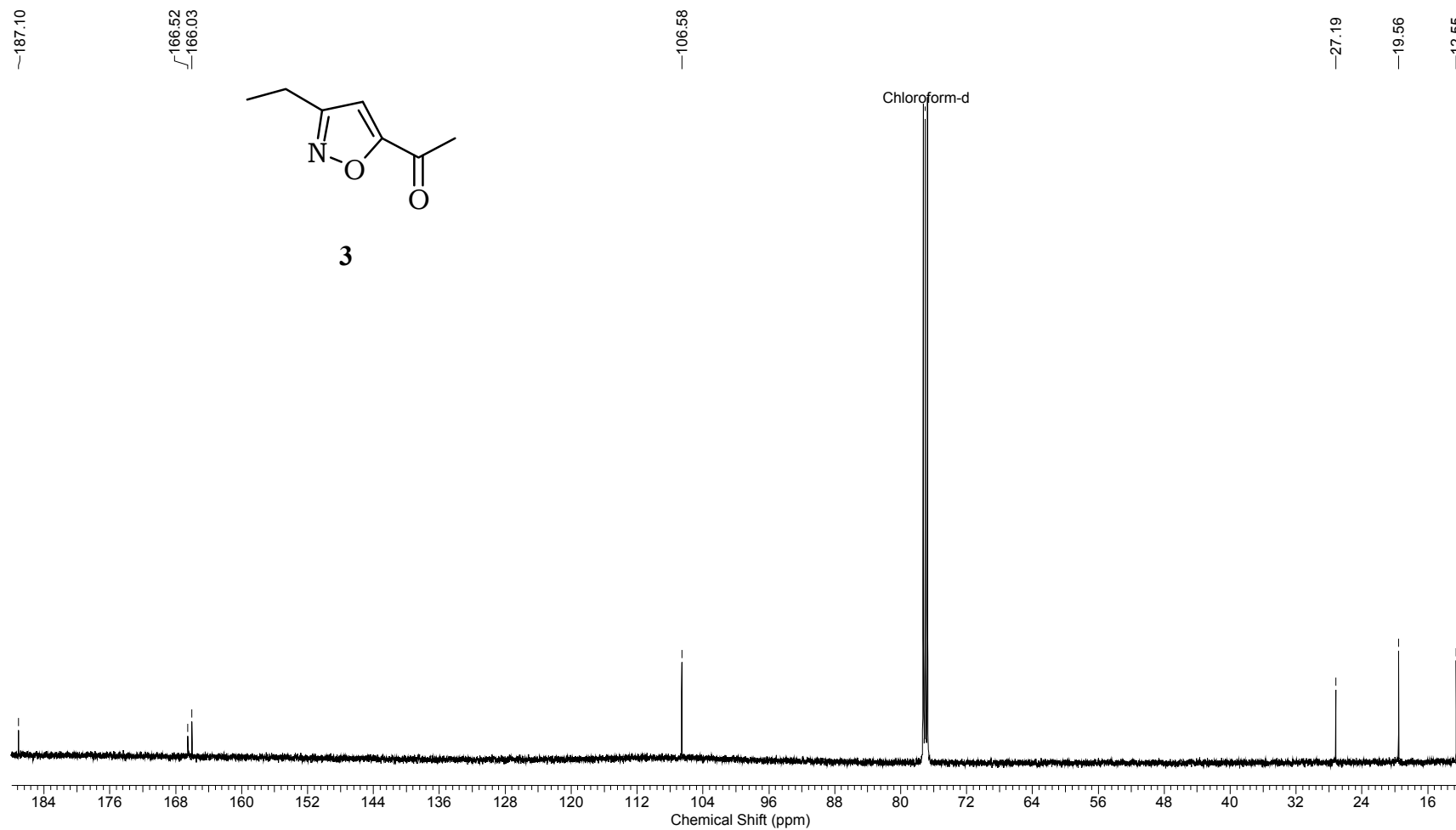


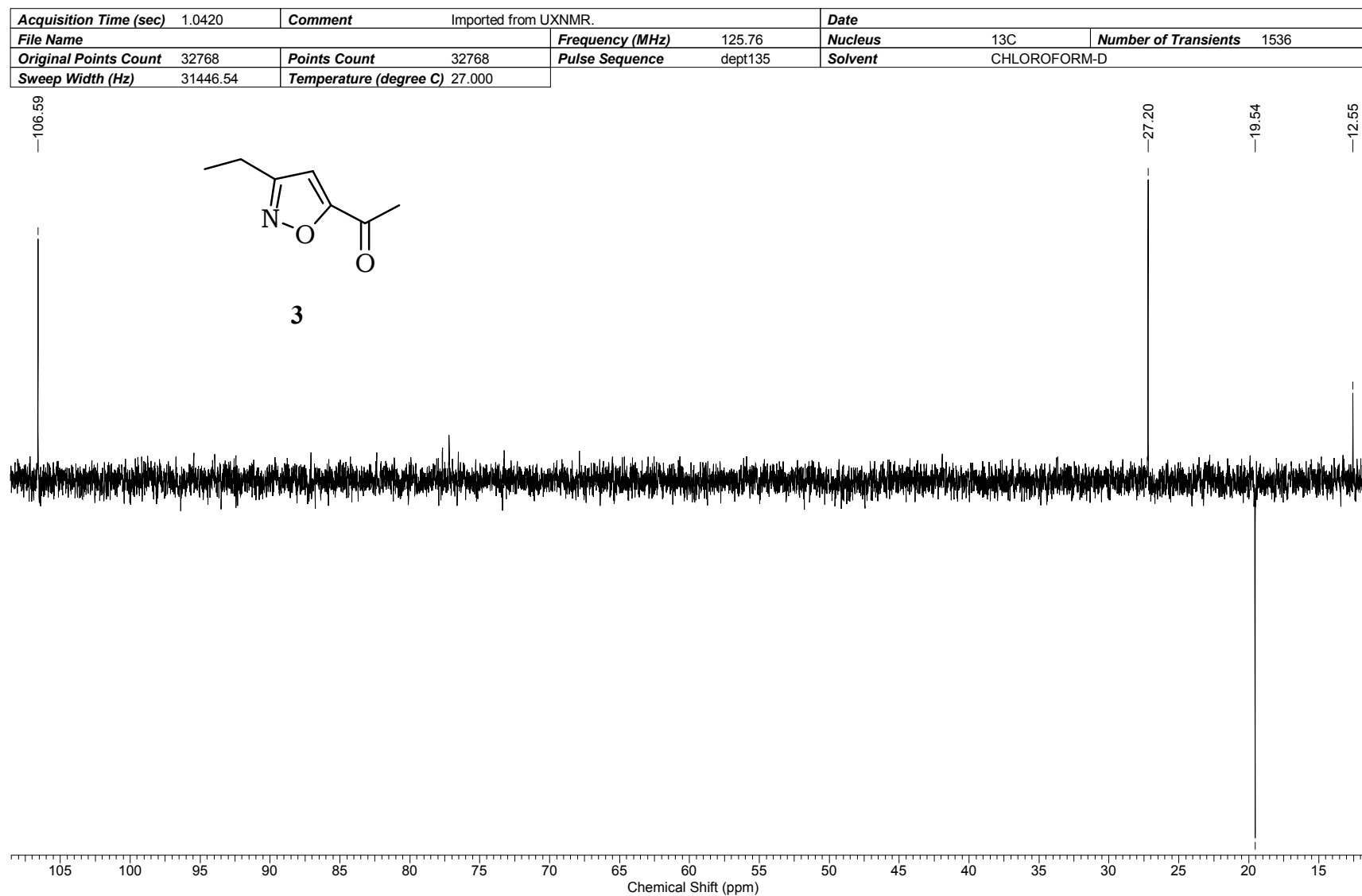
Figure S6. ^{13}C -NMR (DEPT 135) spectrum of compound **3** (125 MHz, CDCl_3).

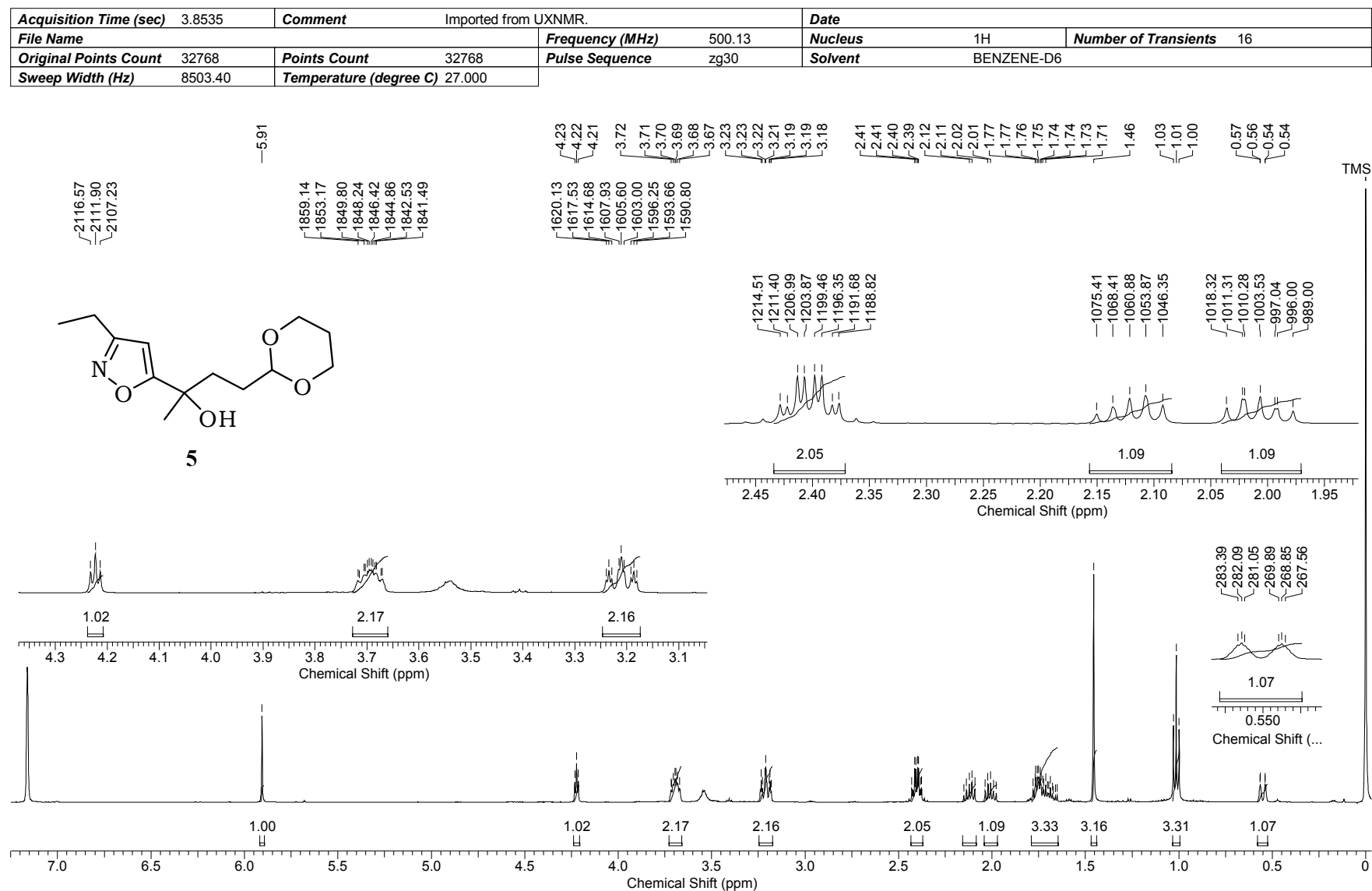
Figure S7. $^1\text{H-NMR}$ spectrum of compound **5** (500 MHz, C_6D_6).

Figure S8. ^{13}C -NMR spectrum of compound **5** (125 MHz, C_6D_6).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date		
File Name		Frequency (MHz)	125.76	Nucleus	^{13}C	Number of Transients	3072
Original Points Count	32768	Points Count	32768	Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000				

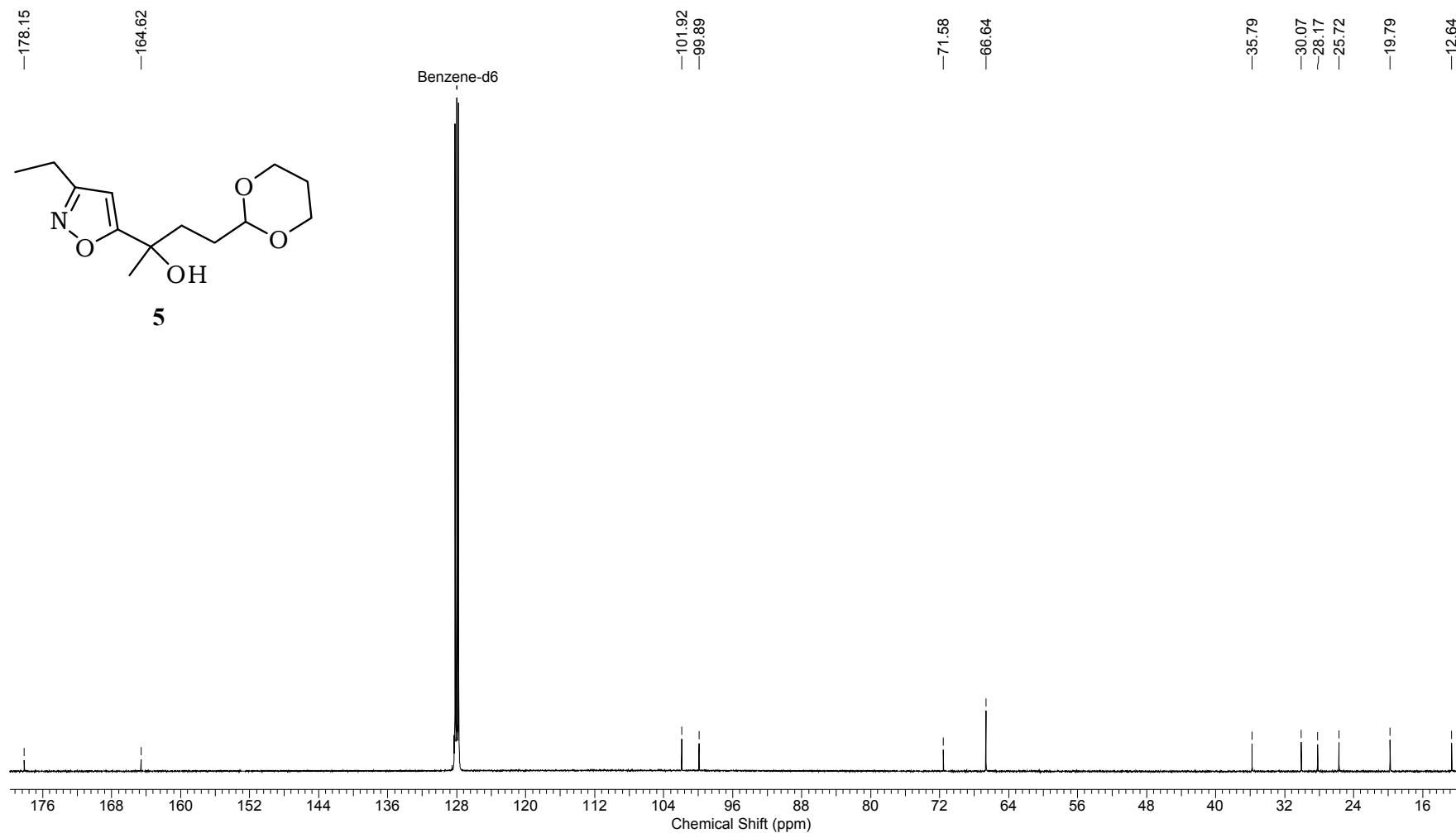


Figure S9. ^{13}C -NMR (DEPT 135) spectrum of compound **5** (125 MHz, C_6D_6).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date		
File Name		Frequency (MHz)	125.76	Nucleus	^{13}C	Number of Transients	1536
Original Points Count	32768	Points Count	32768	Pulse Sequence	dept135	Solvent	CHLOROFORM-D
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000				

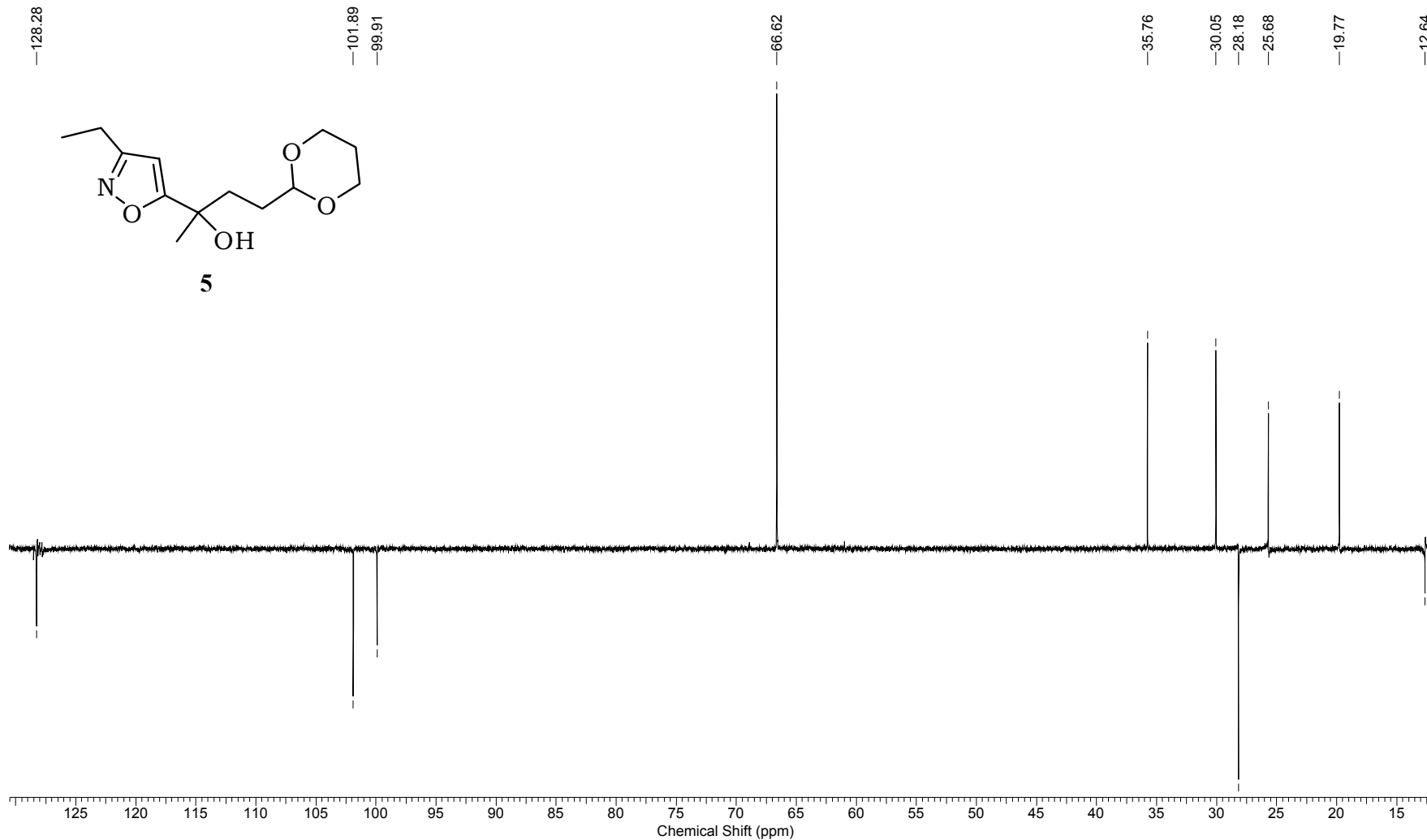


Figure S10. ^1H -NMR spectrum of compound **6** (500 MHz, CDCl_3).

Acquisition Time (sec)	7.7070	Comment	Imported from UXNMR.		Date		
File Name		Frequency (MHz)	500.13	Nucleus	^1H	Number of Transients	16
Original Points Count	65536	Points Count	32768	Pulse Sequence	zg30	Solvent	CHLOROFORM-D
Sweep Width (Hz)	8503.40	Temperature (degree C)	27.000				

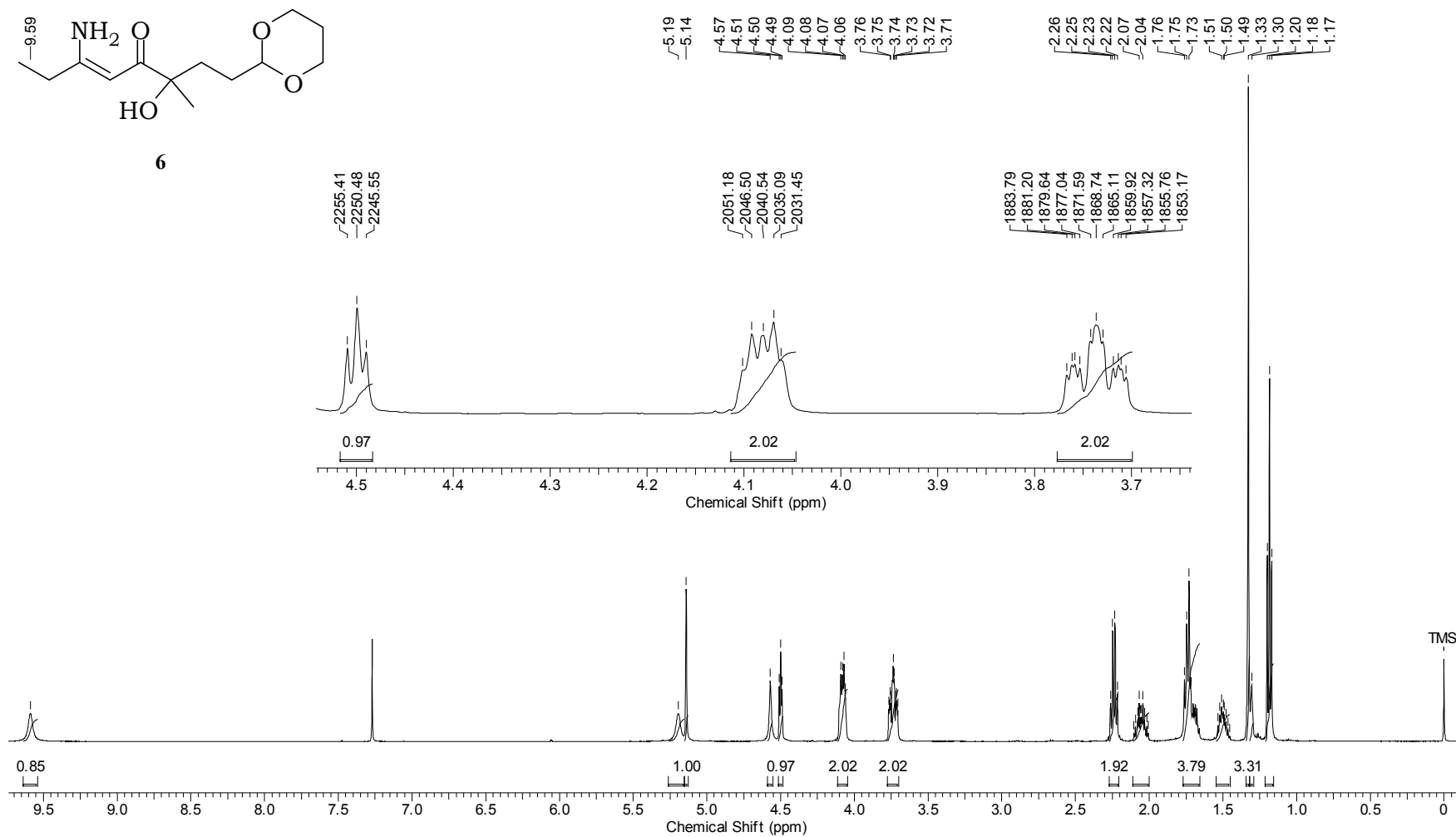


Figure S11. ^{13}C -NMR spectrum of compound 6 (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date				
File Name		Points Count	32768	Frequency (MHz)	125.76	Nucleus	13C	Number of Transients	1024
Original Points Count	32768	Points Count	32768	Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D		
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000						

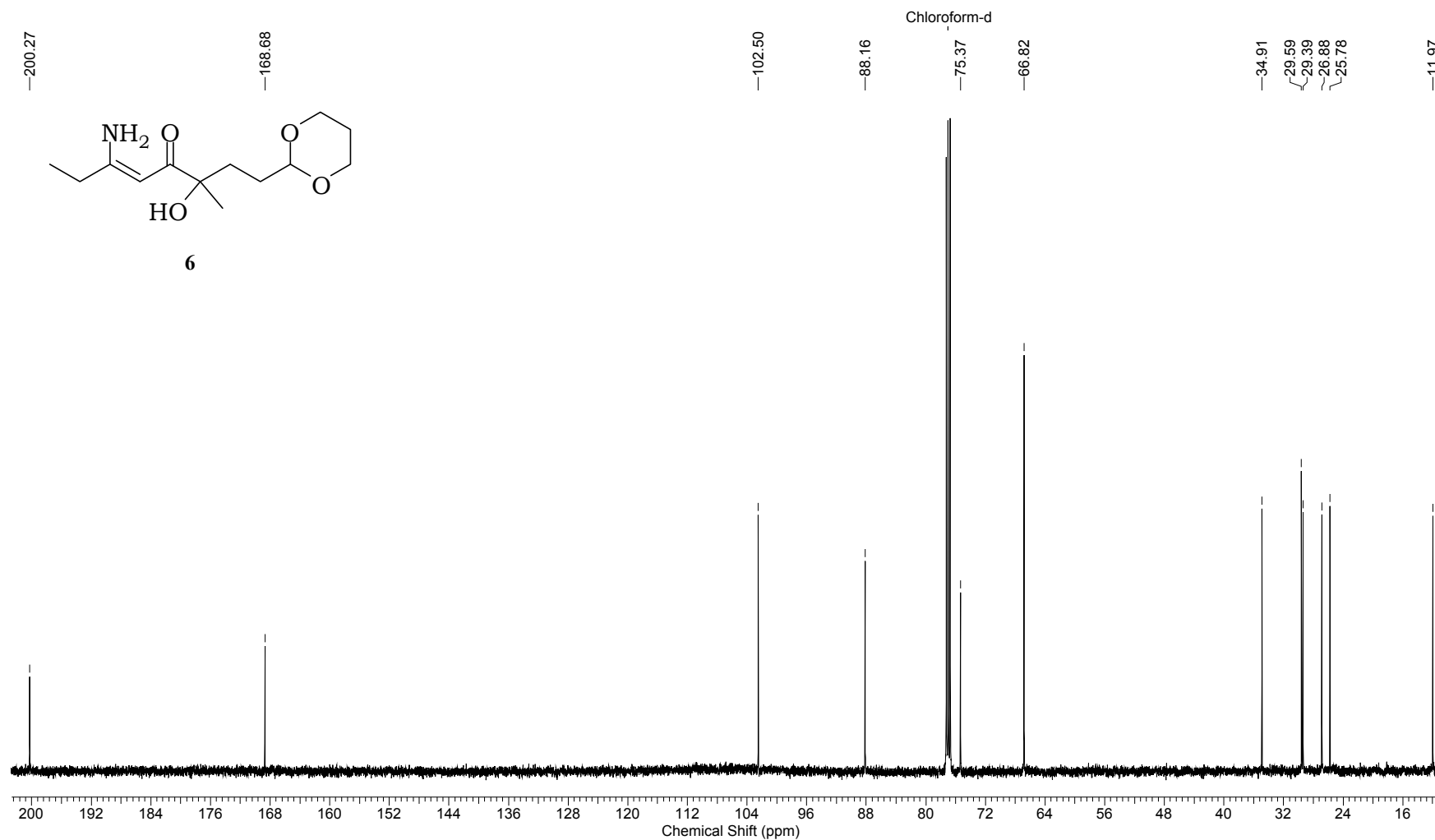


Figure S12. ^{13}C -NMR (DEPT 135) spectrum of compound **6** (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date				
File Name		Points Count	32768	Frequency (MHz)	125.76	Nucleus	^{13}C	Number of Transients	512
Original Points Count	32768	Points Count	32768	Pulse Sequence	dept135	Solvent	CHLOROFORM-D		
Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000						

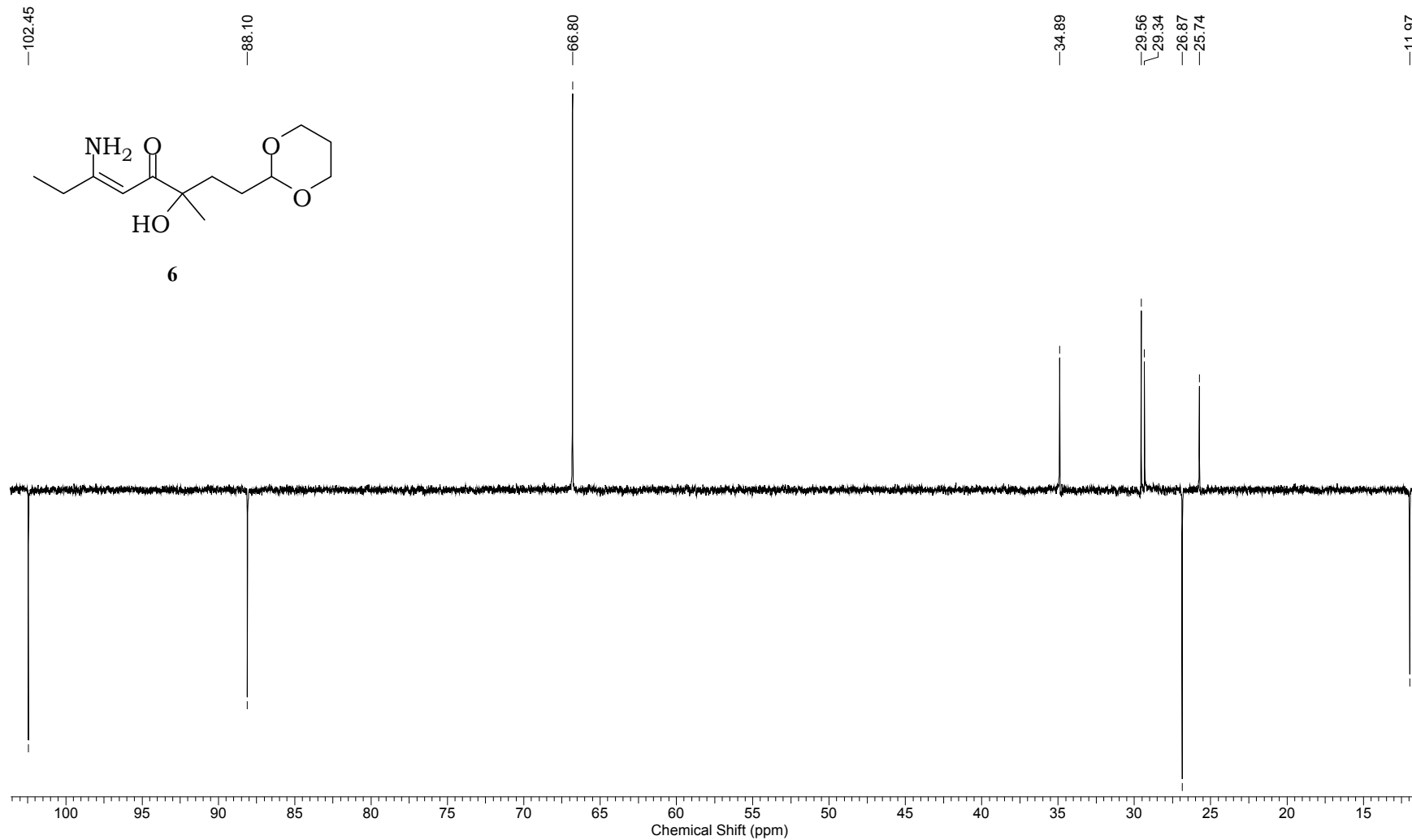


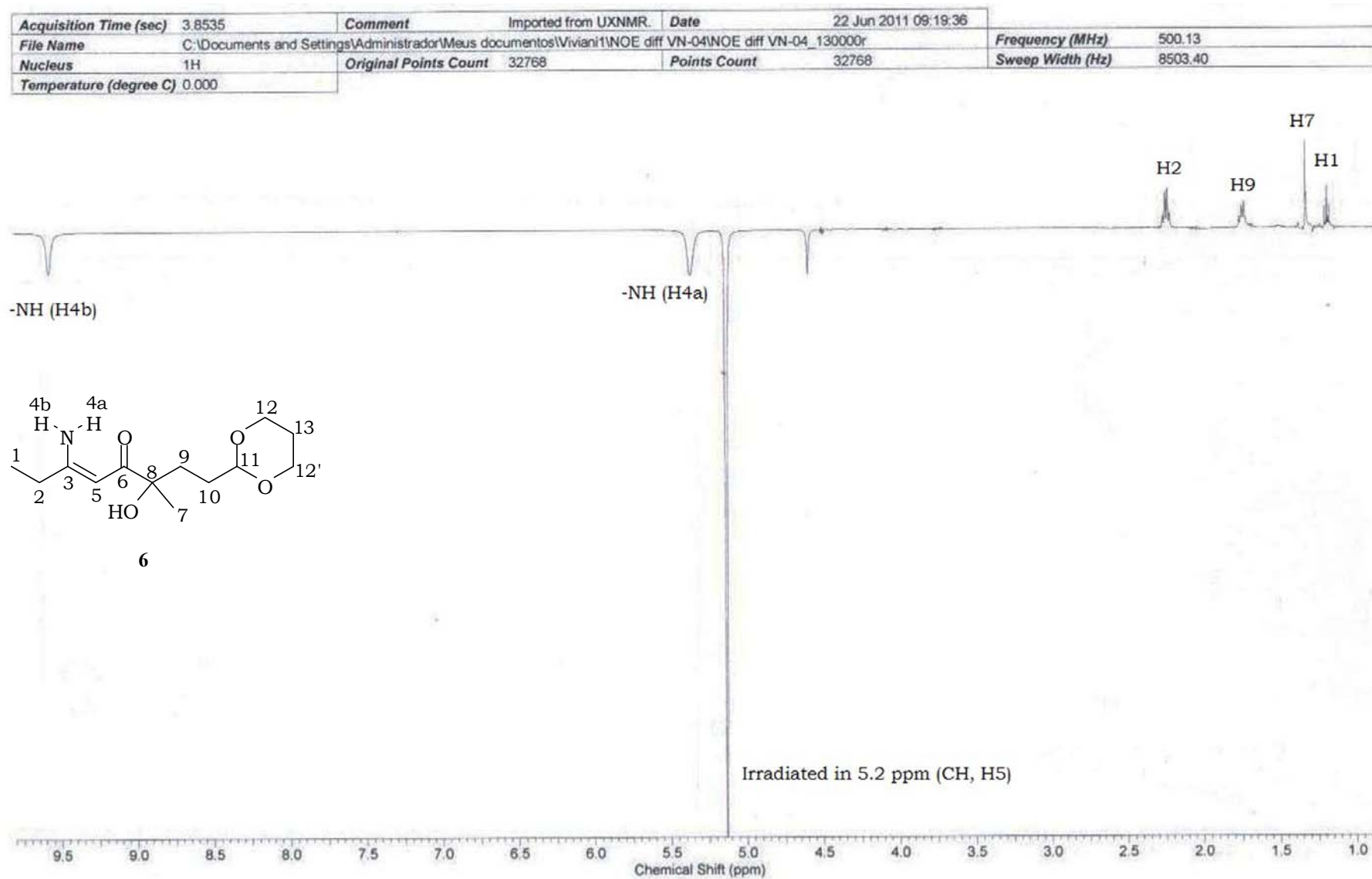
Figure S13. NOE spectrum of compound 6 (125 MHz, CDCl₃).

Figure S14. ¹H-NMR spectrum of compound 7 (500 MHz, CDCl₃).

Acquisition Time (sec)	7.7070	Comment	Imported from UXNMR.		Date	
File Name					Frequency (MHz)	500.13
Nucleus	1H	Number of Transients	16	Original Points Count	Points Count	32768
Pulse Sequence	zg30	Solvent	CHLOROFORM-D		Sweep Width (Hz)	8503.40
Temperature (degree C)	27.000					

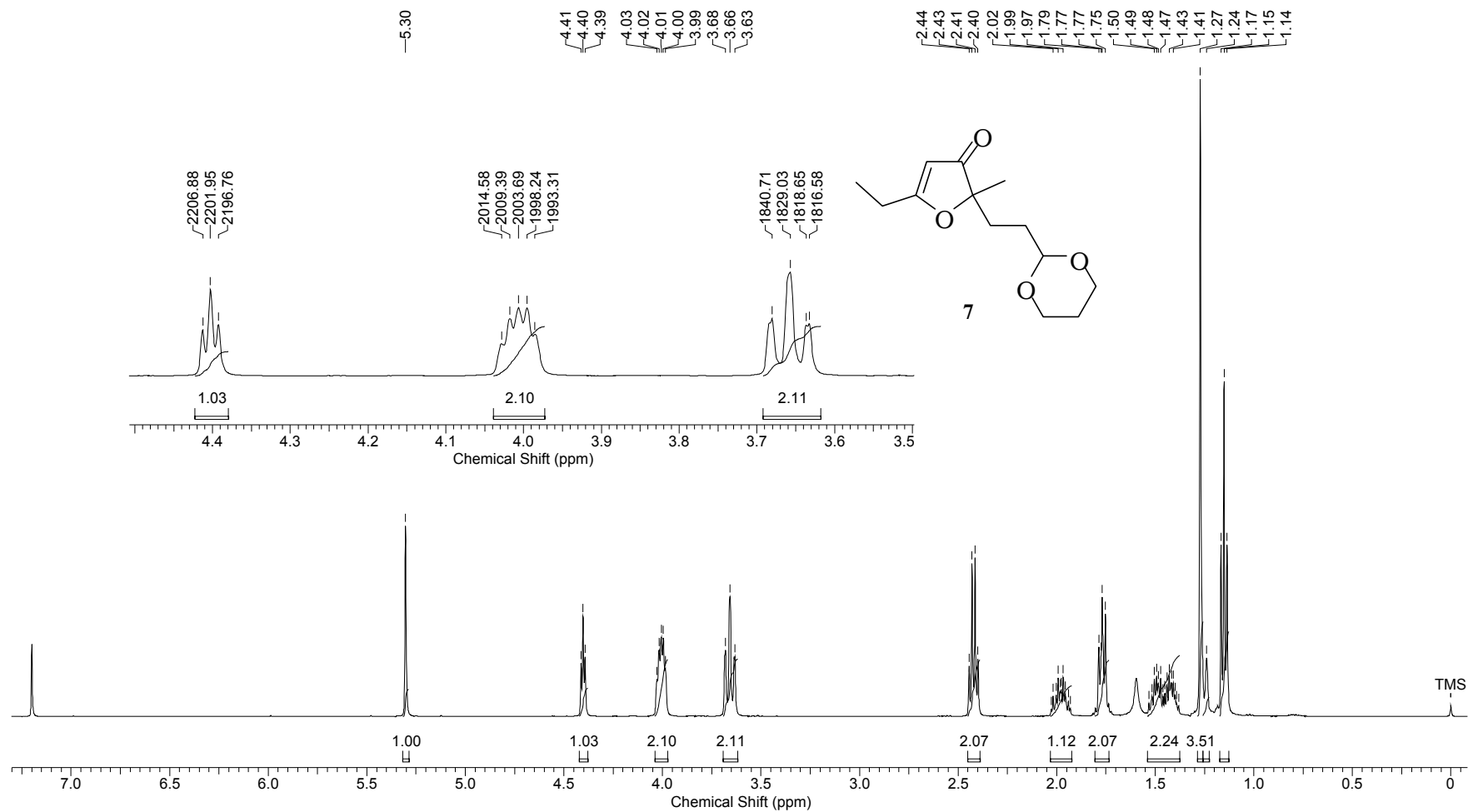


Figure S15. ^{13}C -NMR spectrum of compound 7 (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date
File Name		Frequency (MHz)	125.76	Nucleus	^{13}C
Number of Transients	1024	Original Points Count	32768	Points Count	32768
Solvent	CHLOROFORM-D	Sweep Width (Hz)	31446.54	Pulse Sequence	zgpg30
				Temperature (degree C)	27.000

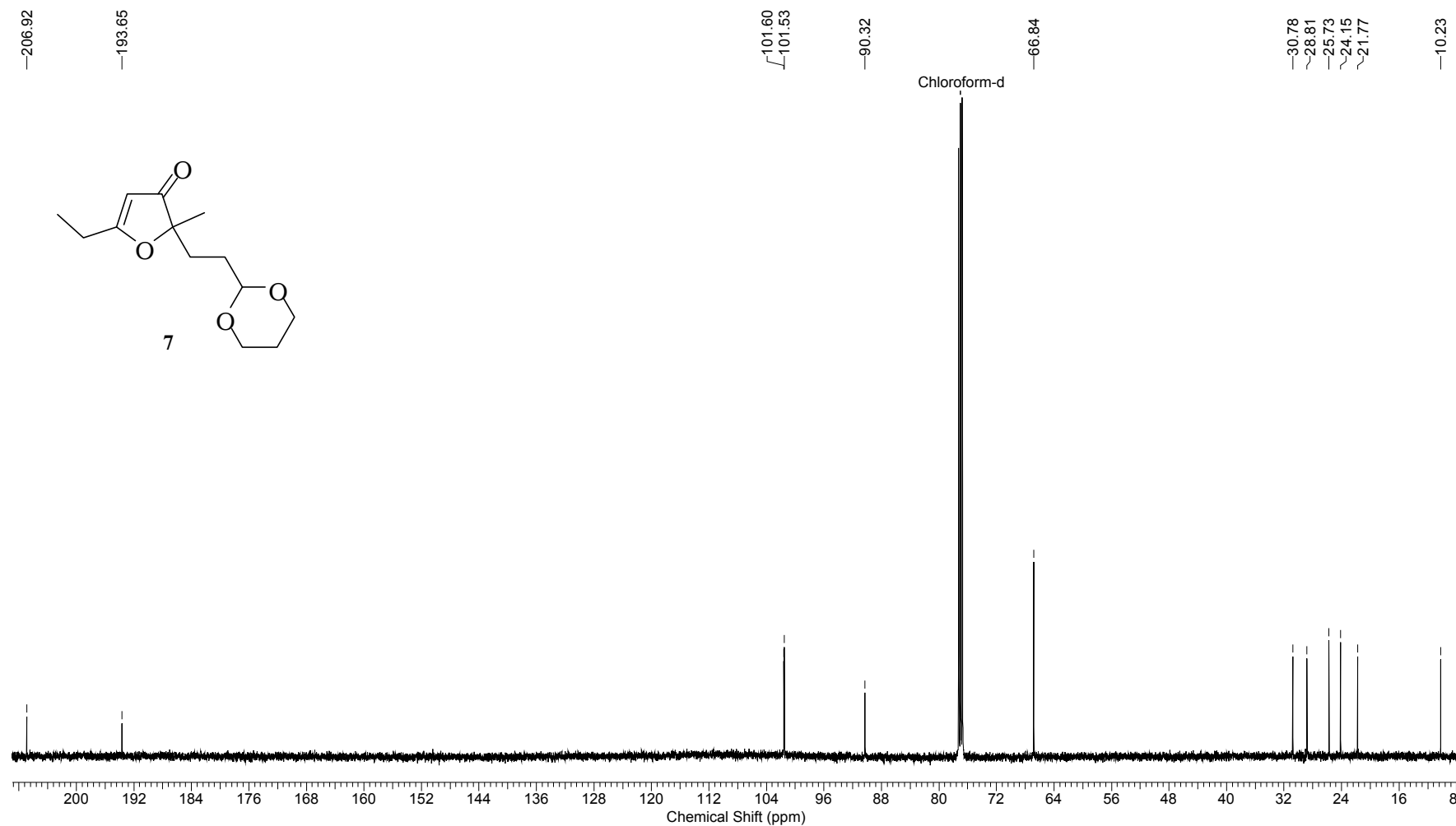


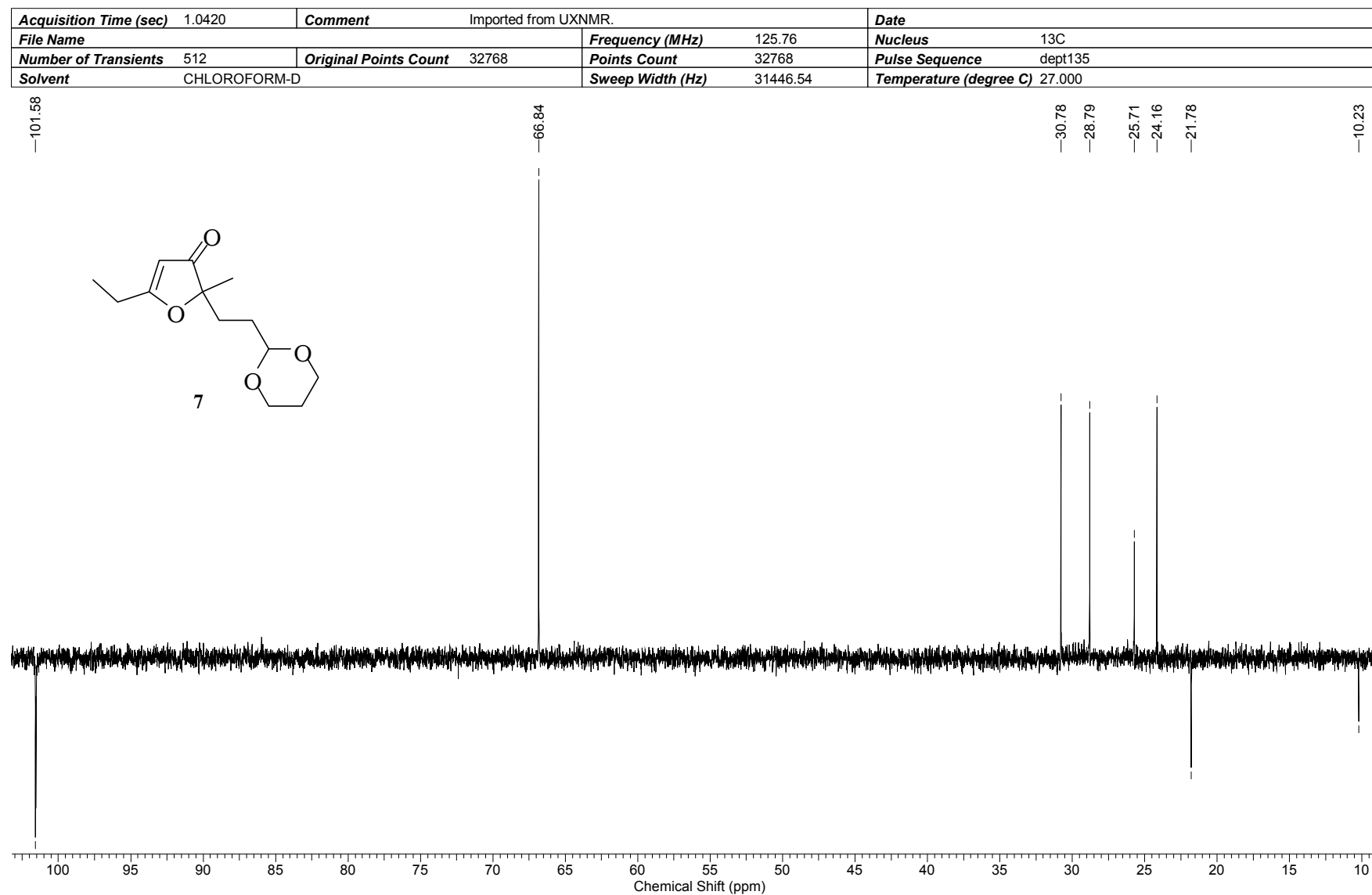
Figure S16. ^{13}C -NMR (DEPT 135) spectrum of compound 7 (125 MHz, CDCl_3).

Figure S17. ¹H-NMR spectrum of compound **8** (500 MHz, CDCl₃).

Acquisition Time (sec)	3.8535	Comment	Imported from UXNMR.		Date	
File Name		Frequency (MHz)	500.13	Nucleus	1H	Number of Transients 16
Original Points Count	32768	Points Count	32768	Pulse Sequence	zg30	Solvent CHLOROFORM-D
Sweep Width (Hz)	8503.40	Temperature (degree C)	27.000			

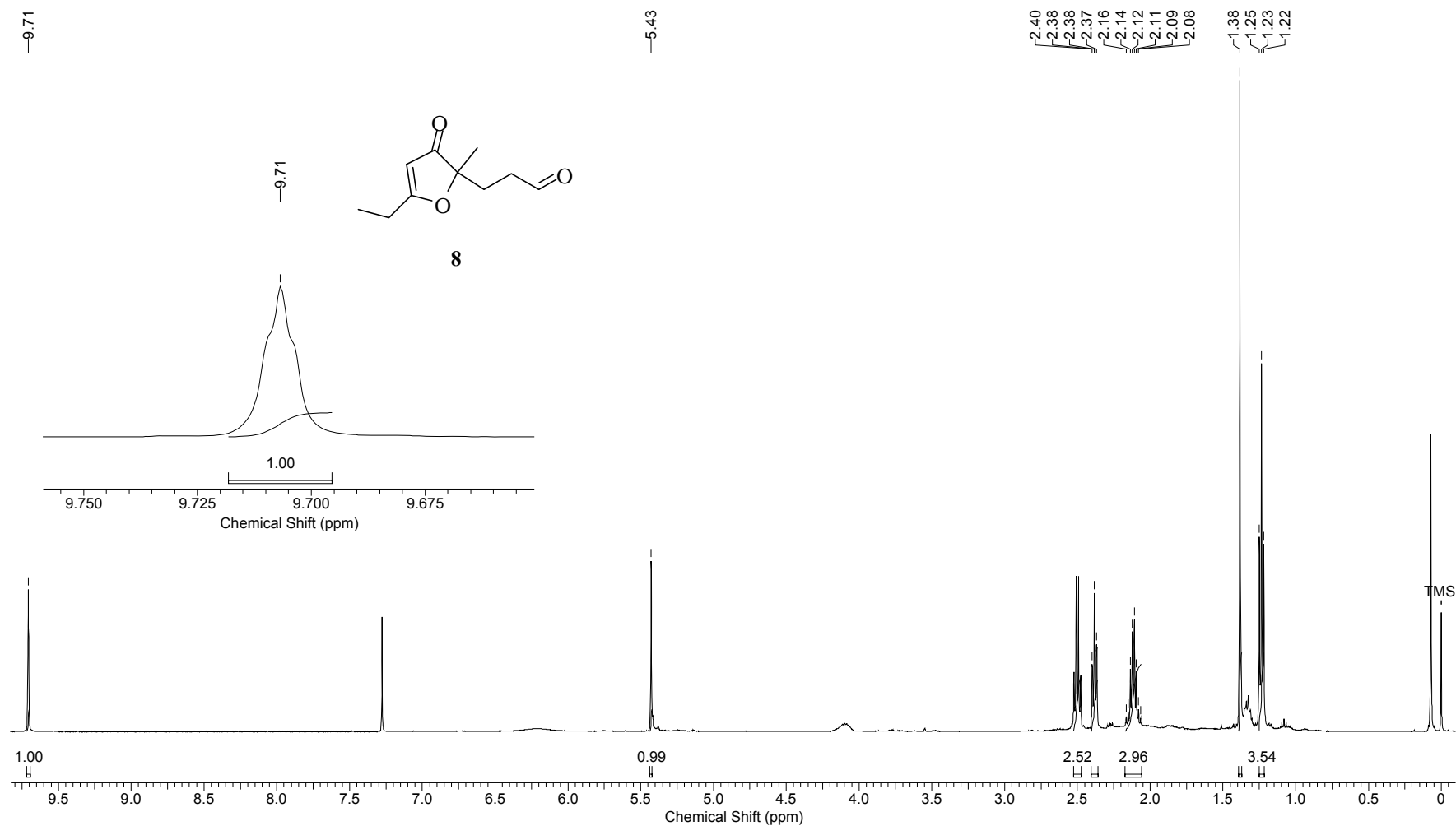


Figure S18. ^{13}C -NMR spectrum of compound **8** (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date		
File Name					Frequency (MHz)	125.76	
Nucleus	^{13}C	Number of Transients	3072	Original Points Count	32768	Points Count	32768
Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D	Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000

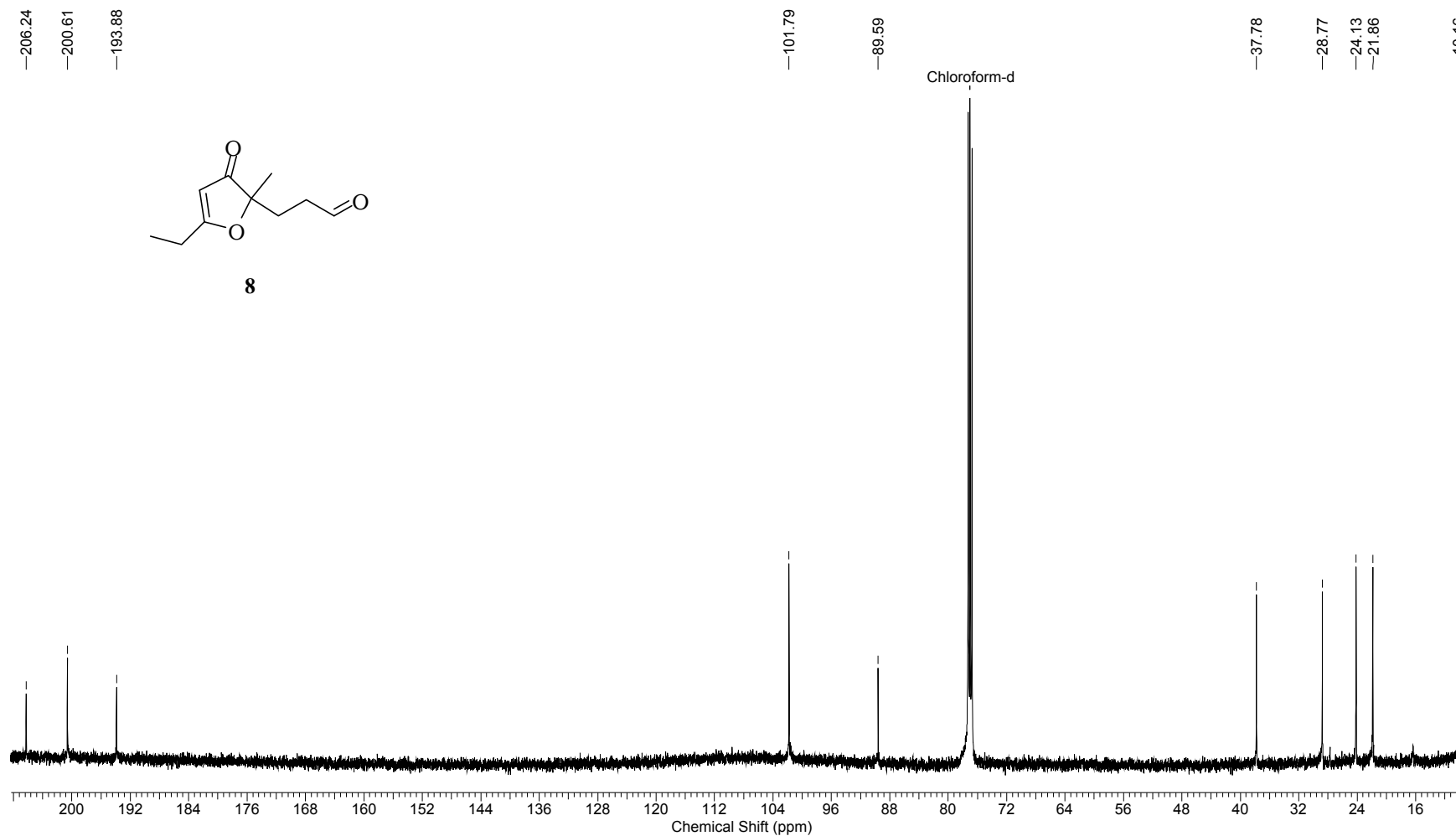


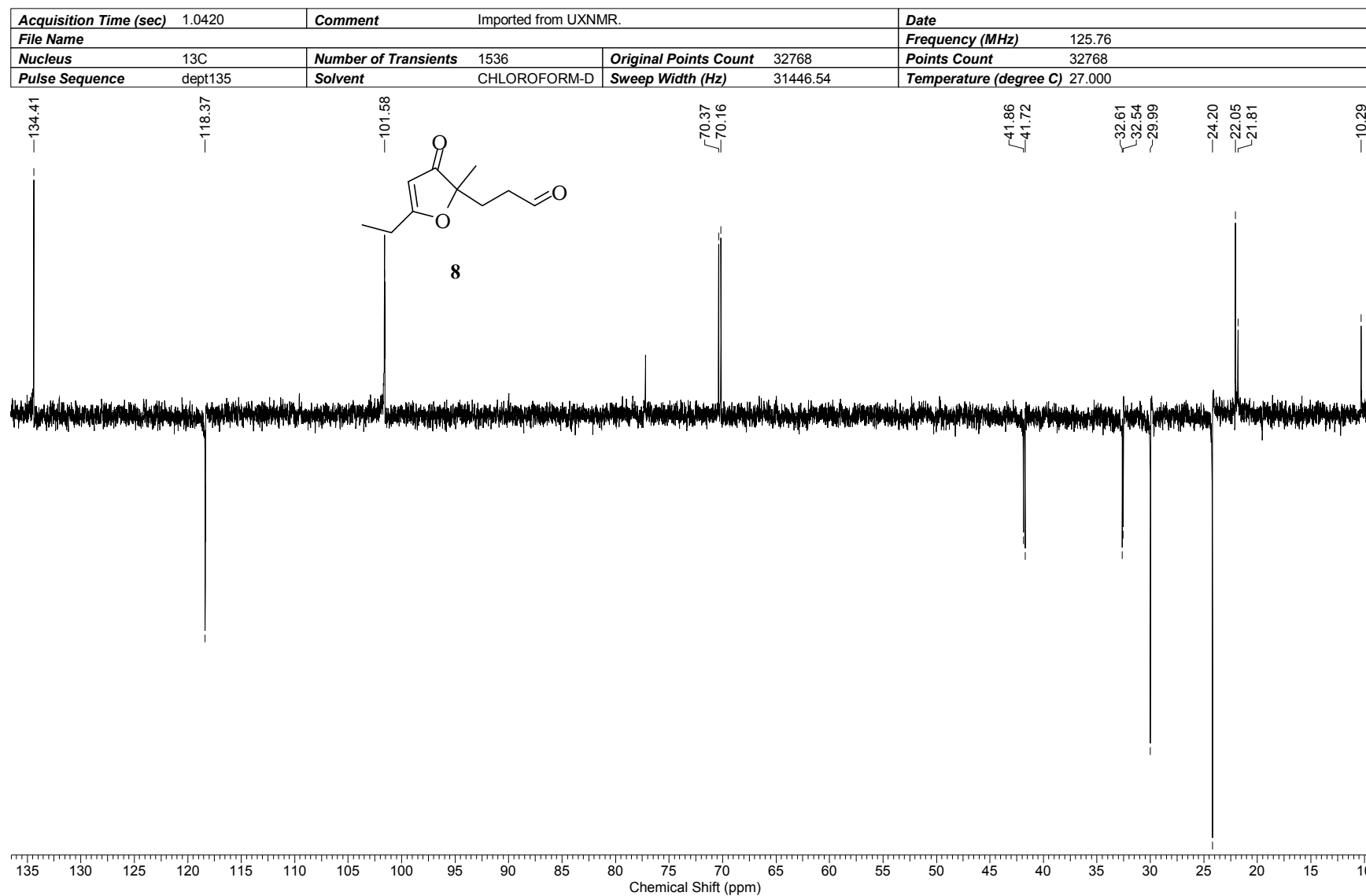
Figure S19. ^{13}C -NMR (DEPT 135) spectrum of compound **8** (125 MHz, CDCl_3).

Figure S20. ^1H -NMR spectrum of compound **9** (500 MHz, CDCl_3).

Acquisition Time (sec)	3.8535	Comment	Imported from UXNMR.		Date		
File Name					Frequency (MHz)	500.13	
Nucleus	^1H	Number of Transients	16	Original Points Count	32768	Points Count	32768
Pulse Sequence	zg30	Solvent	CHLOROFORM-D		Sweep Width (Hz)	8503.40	
Temperature (degree C)	27.000						

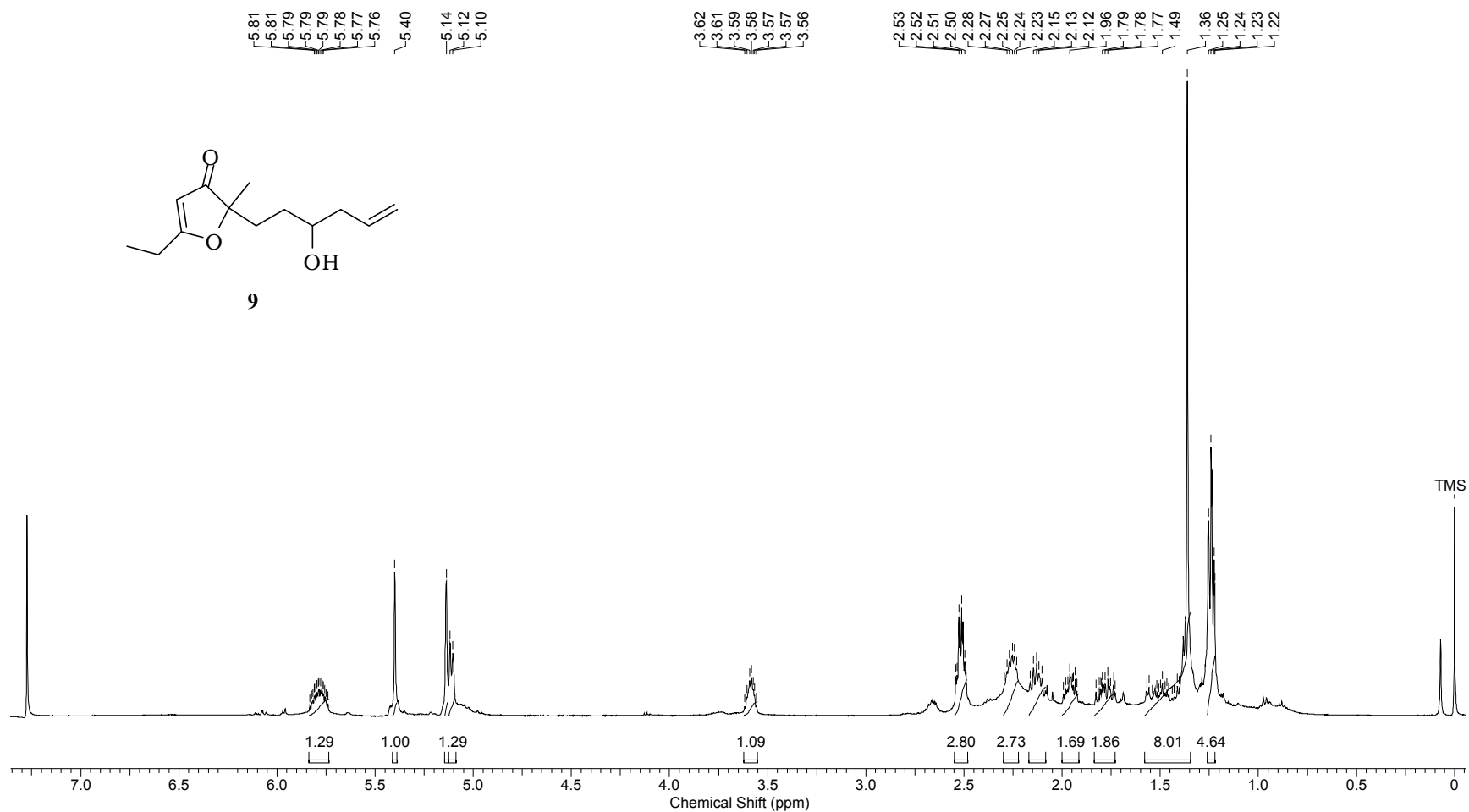


Figure S21. ^{13}C -NMR spectrum of compound **9** (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXNMR.		Date		
File Name					Frequency (MHz)	125.76	
Nucleus	^{13}C	Number of Transients	3072	Original Points Count	32768	Points Count	32768
Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D	Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000

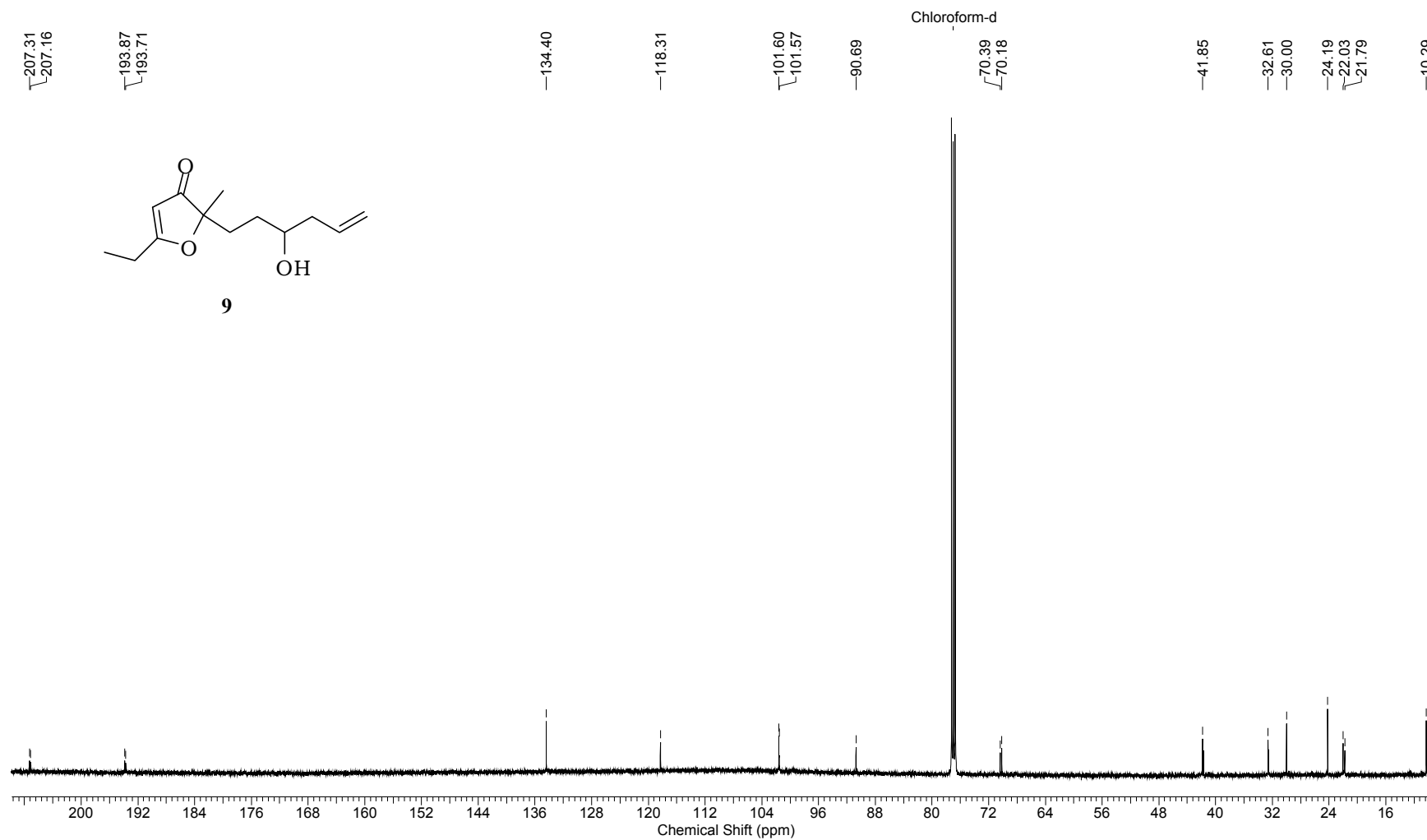


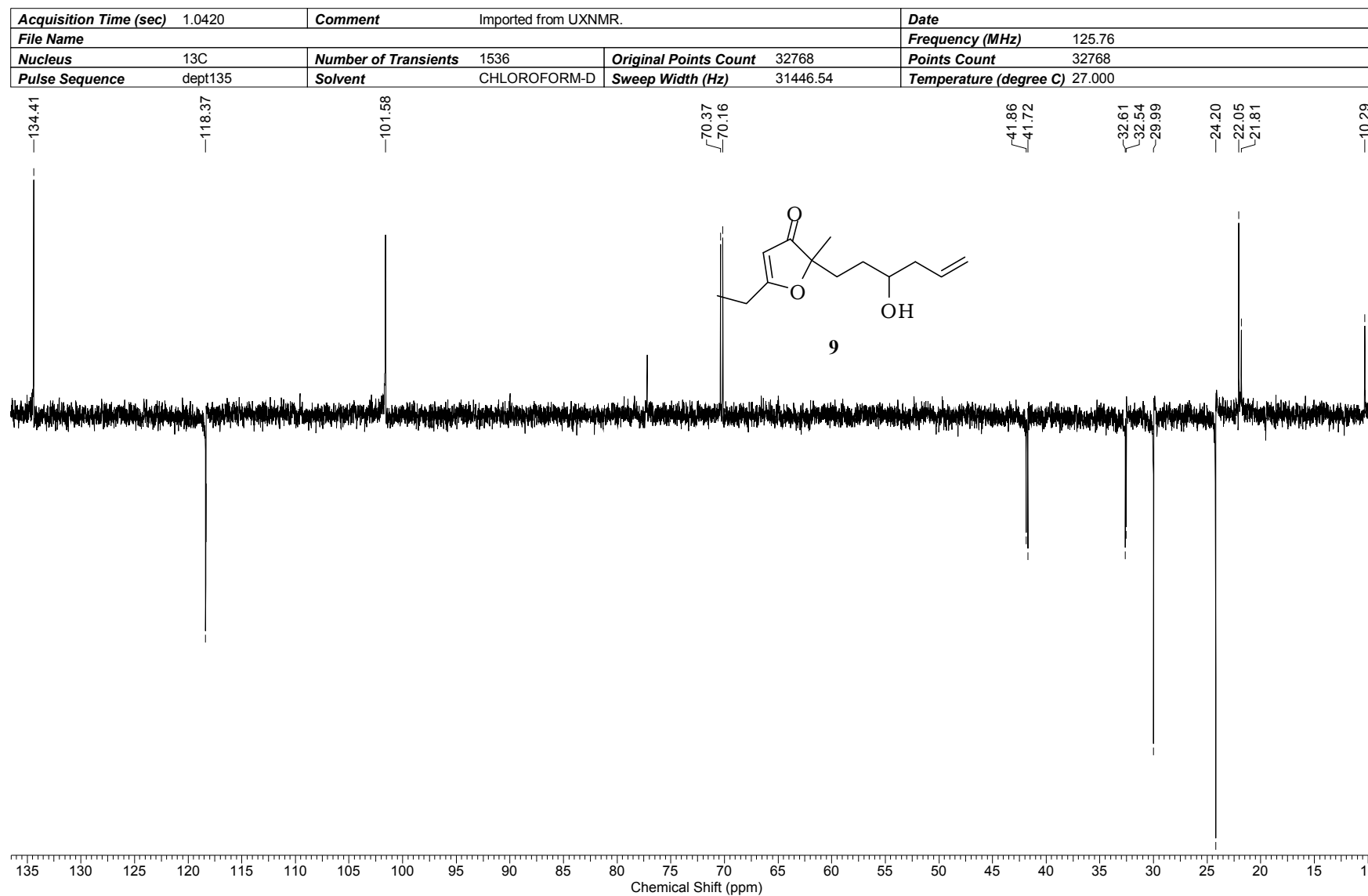
Figure S22. ^{13}C -NMR (DEPT 135) spectrum of compound **9** (125 MHz, CDCl_3).

Figure S23. $^1\text{H-NMR}$ spectrum of compound **10** (500 MHz, CDCl_3).

Acquisition Time (sec)	6.0817	Comment	Imported from UXNMR.		Date
File Name					Frequency (MHz)
Nucleus	^1H	Number of Transients	64	Original Points Count	32768
Pulse Sequence	zg30	Solvent	CHLOROFORM-D		Points Count
Temperature (degree C)	27.000				Sweep Width (Hz)

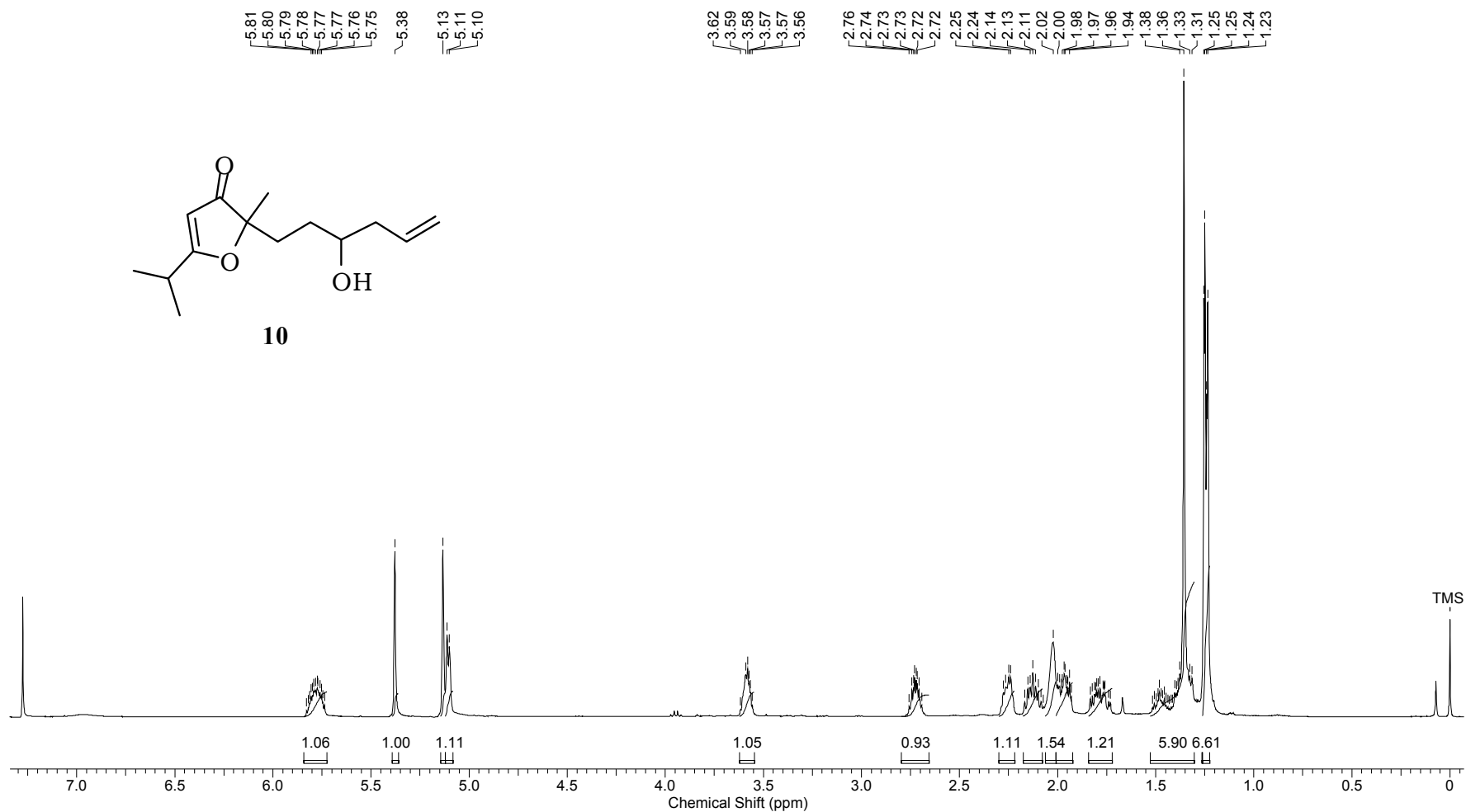


Figure S24. ^{13}C -NMR spectrum of compound **10** (125 MHz, CDCl_3).

Acquisition Time (sec)	1.0420	Comment	Imported from UXMNR.		Date		
File Name					Frequency (MHz)	125.76	
Nucleus	^{13}C	Number of Transients	3072	Original Points Count	32768	Points Count	32768
Pulse Sequence	zgpg30	Solvent	CHLOROFORM-D	Sweep Width (Hz)	31446.54	Temperature (degree C)	27.000

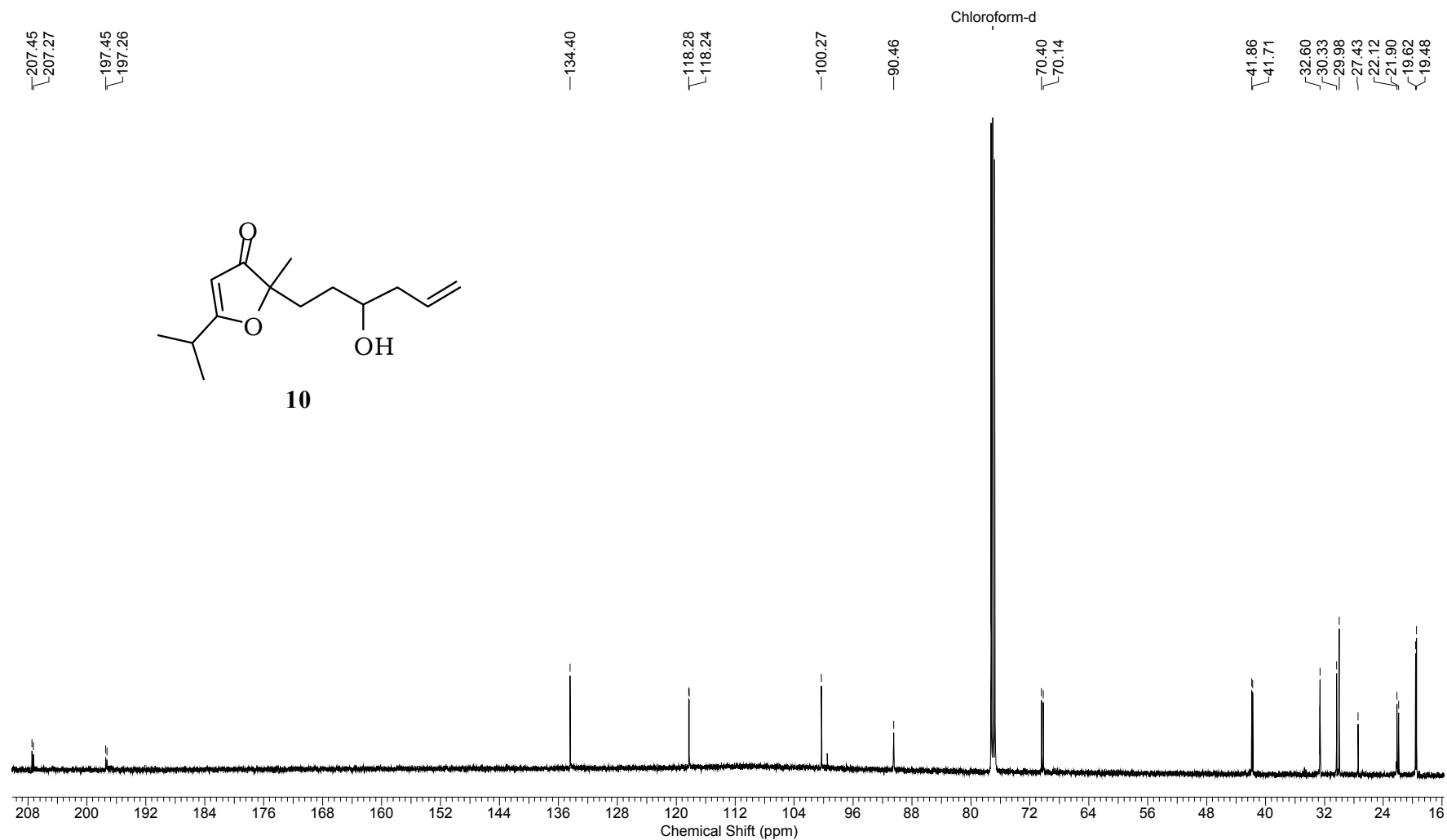


Figure S25. ^{13}C -NMR (DEPT 135) spectrum of compound **10** (125 MHz, CDCl_3).

Figure S26. ^1H -NMR spectrum of compound **11** (500 MHz, CDCl_3).

Acquisition Time (sec)	3.8535	Comment	Imported from UXNMR.		Date	
File Name					Frequency (MHz)	500.13
Nucleus	^1H	Number of Transients	16	Original Points Count	Points Count	32768
Pulse Sequence	zg30	Solvent	CHLOROFORM-D		Sweep Width (Hz)	8503.40
Temperature (degree C)	27.000					

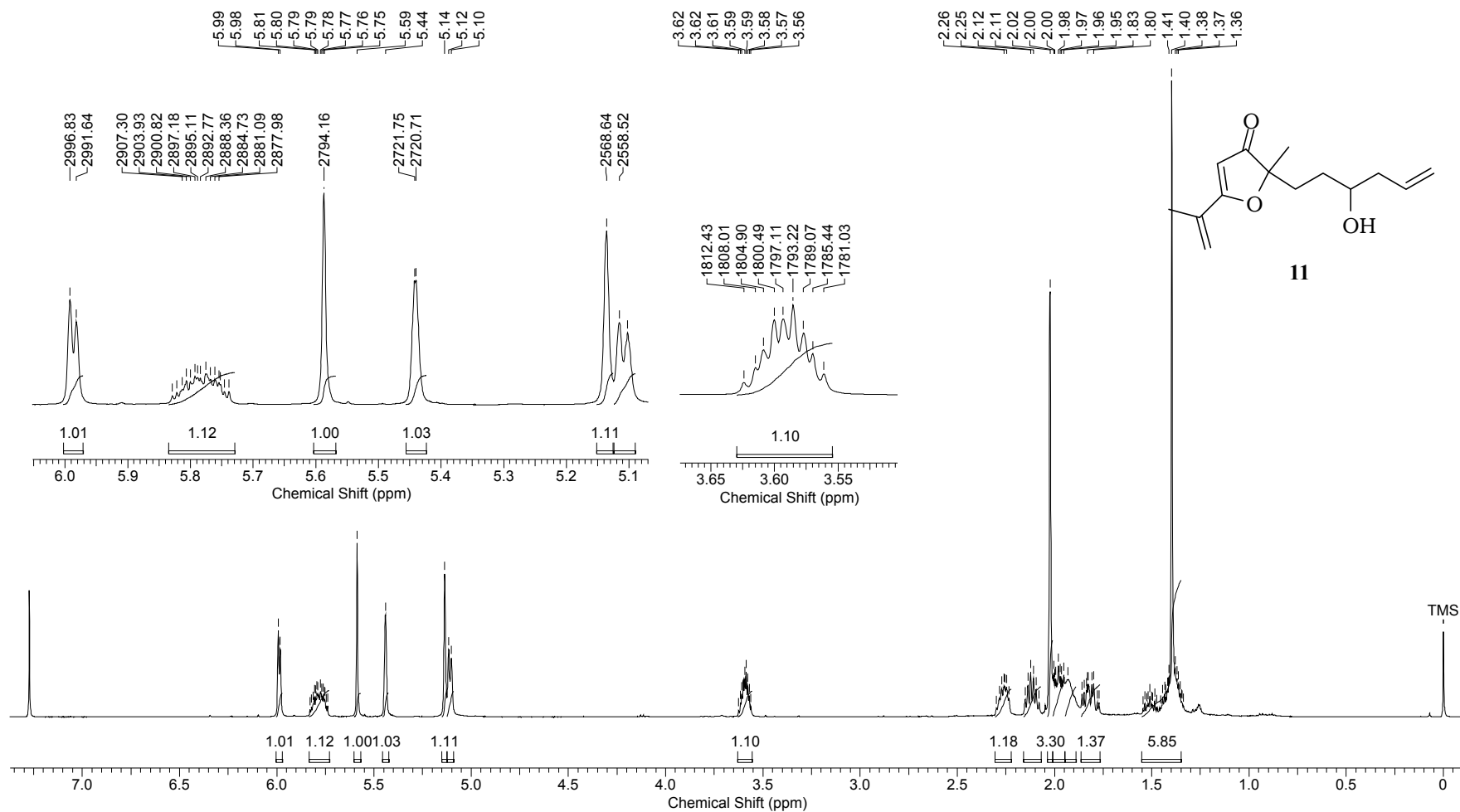


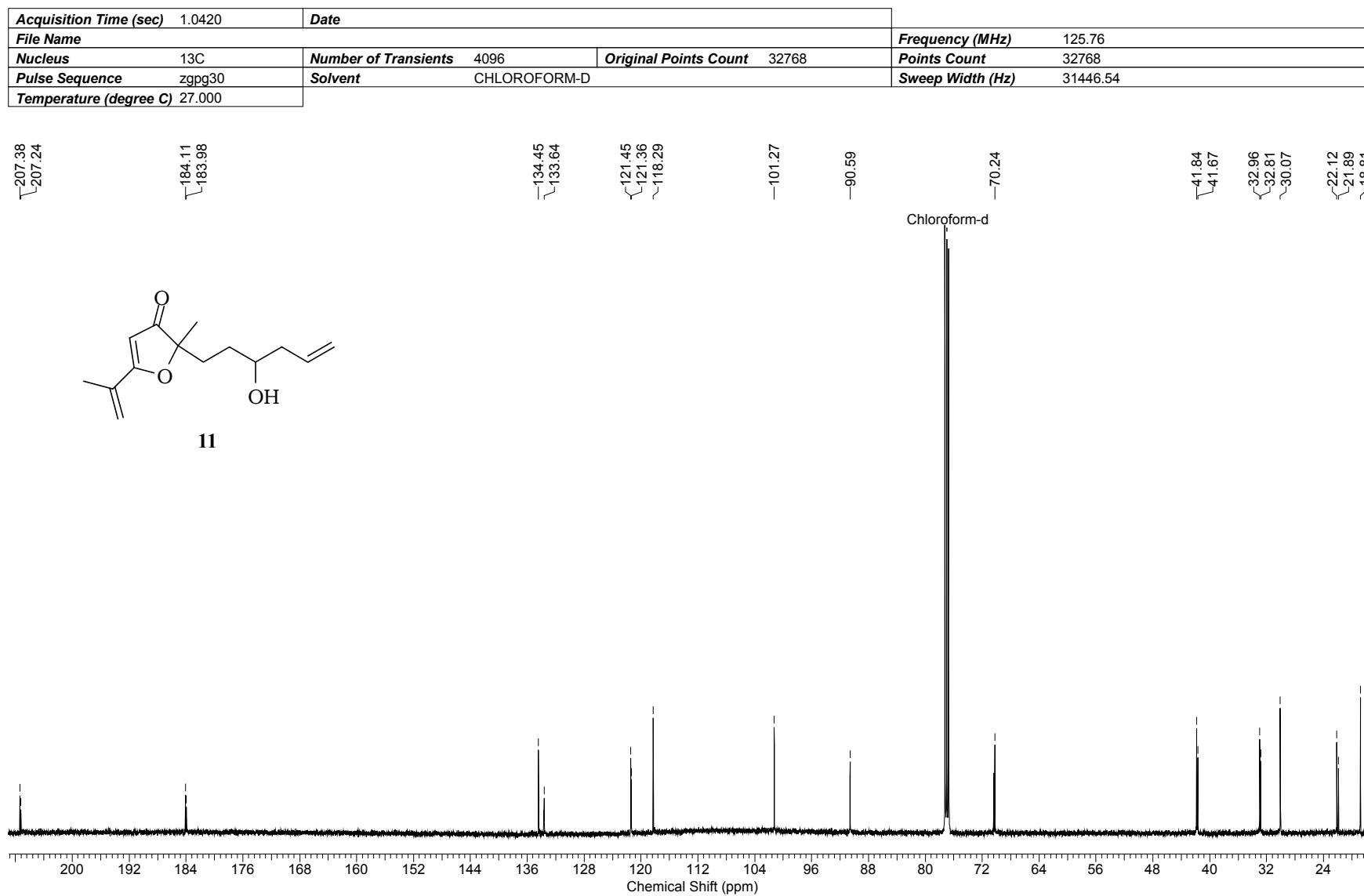
Figure S27. ^{13}C -NMR spectrum of compound **11** (125 MHz, CDCl_3).

Figure S28. ^{13}C -NMR (DEPT 135) spectrum of compound **11** (125 MHz, CDCl_3).