

## **Tandem Wittig Rearrangement/Aldol Reactions for the Synthesis of Glycolate Aldols**

**Myra Beaudoin Bertrand and John P. Wolfe\***

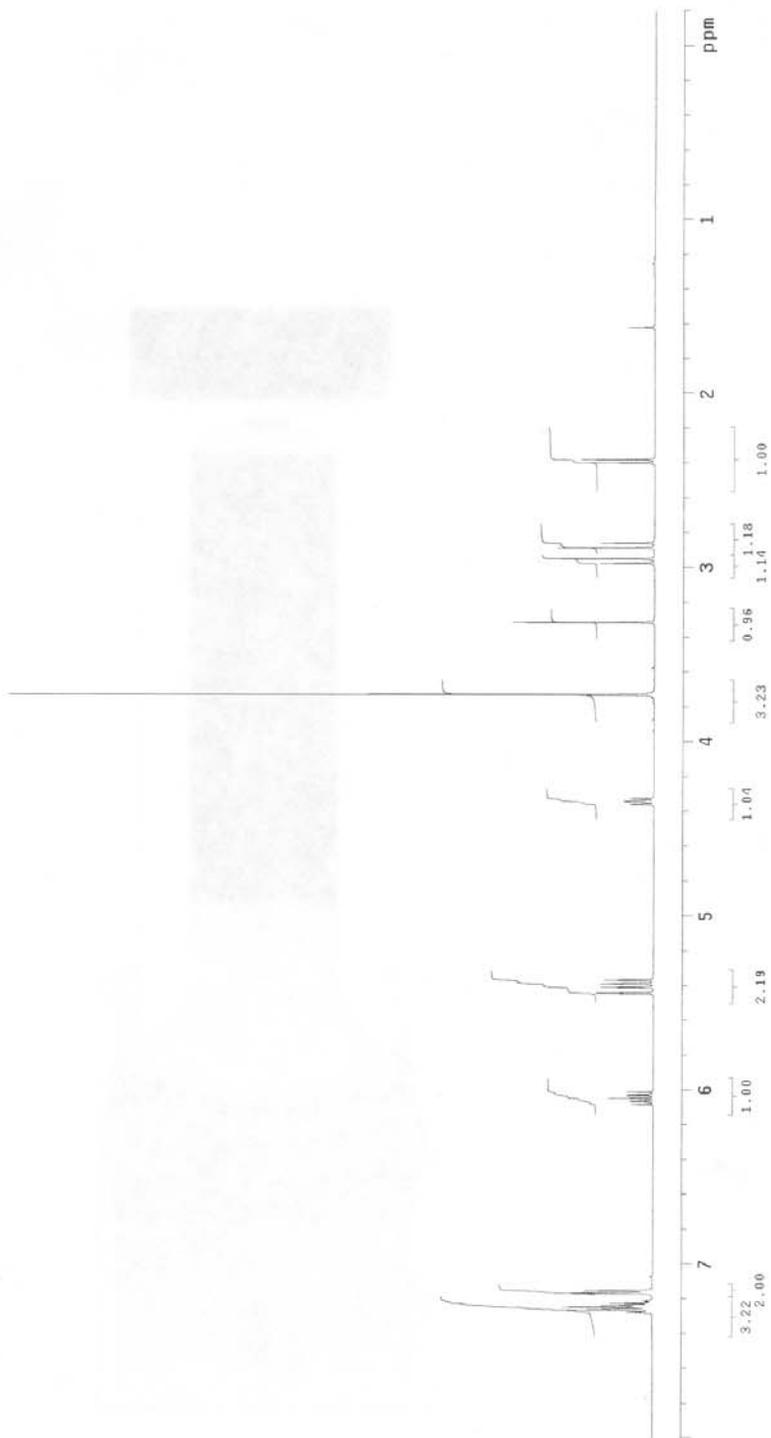
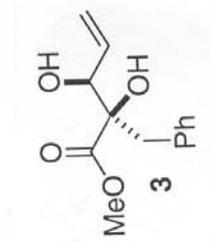
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**Supporting Information (continued).**

**<sup>1</sup>H and <sup>13</sup>C NMR spectra for new compounds in Table 1**

## Standard proton

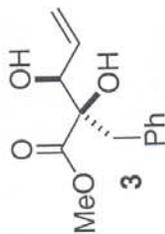
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 Solvent: CDCl3  
 Ambient temperature  
 File: mbb-6-106-iso  
 INOVA-500 "H1"  
 PULSE SEQUENCE  
 Relax. delay 0.500 sec  
 Pulse 45.0 degrees  
 Acq. time 3.000 sec  
 Width 7988.4 Hz  
 OBSERVE H1 499.9042611 MHz  
 DATA PROCESSING 0.2 Hz  
 FT size 65536  
 Total time 1 min, 3 sec



## Std Carbon

Pulse Sequence: s2pu1  
 Solvent: CDCl3  
 Ambient Temperature  
 User: 1-14-87  
 File: mbb-6-106-C13  
 INOVA-500 "N1"  
 PULSE SEQUENCE  
 Relax. delay 0.100 sec  
 Pulse 45.0 degrees  
 Acq. time 1.300 sec  
 24952 repetitions  
 OBSERVE C13, 100.5712732 MHz  
 DECOUPLE H1, 399.3668644 MHz  
 Power 44 dB  
 continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Relaxing 1.0 Hz  
 FT size 65536  
 Total time 19 hr., 34 min., 30 sec

INDEX	FREQUENCY PPM	HEIGHT
1	17537.906	174.383
2	13593.522	135.163
3	13577.315	135.002
4	13057.192	129.830
5	12892.904	128.197
6	12769.399	126.959
7	11973.481	119.055
8	8192.661	80.765
9	7770.510	77.264
10	7703.866	77.000
11	7738.831	76.949
12	7706.415	76.626
13	5306.191	52.761
14	4176.803	41.531

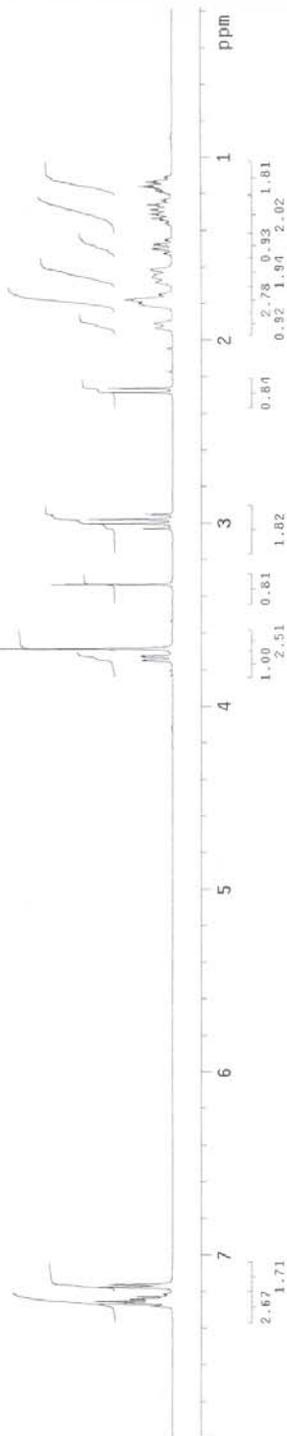
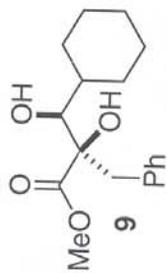






## Standard proton

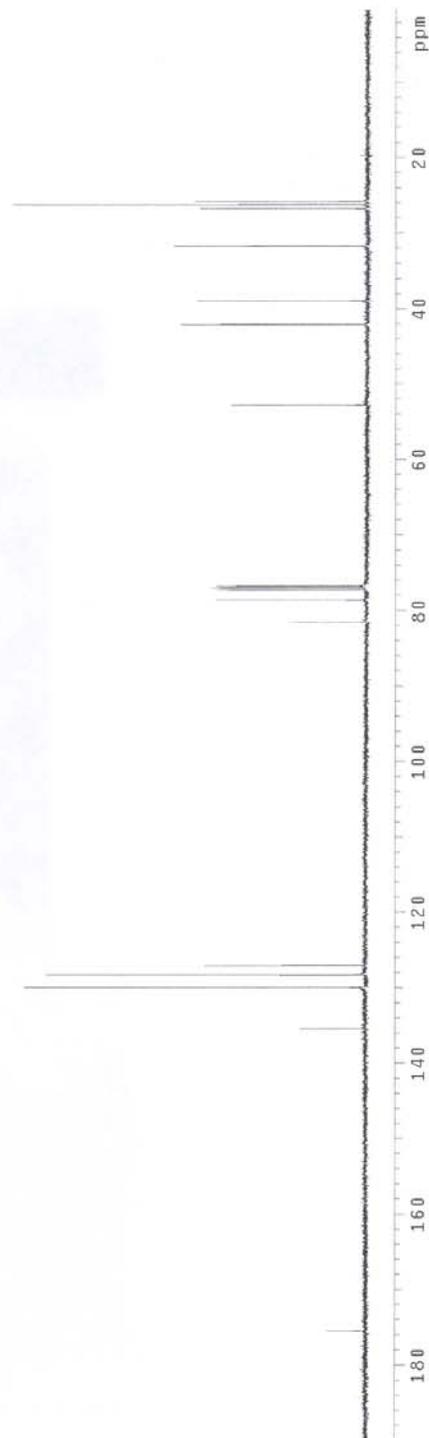
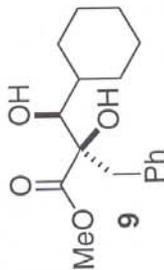
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Solvent: CDCl3  
Ambient temperature  
File: mbh-6-156-HNMR-500  
INOVA-500 "1H"  
PULSE SEQUENCE  
Relax. delay 0.500 sec  
Pulse 45.0 degrees  
Acq. time 3.000 sec  
Width 7998.4 Hz  
Repetitions 499.9042611 MHZ  
SOLVENT  
DATA PROCESSING 0.2 Hz  
FT size 65536  
Total time 1 min, 3 sec



## Standard carbon

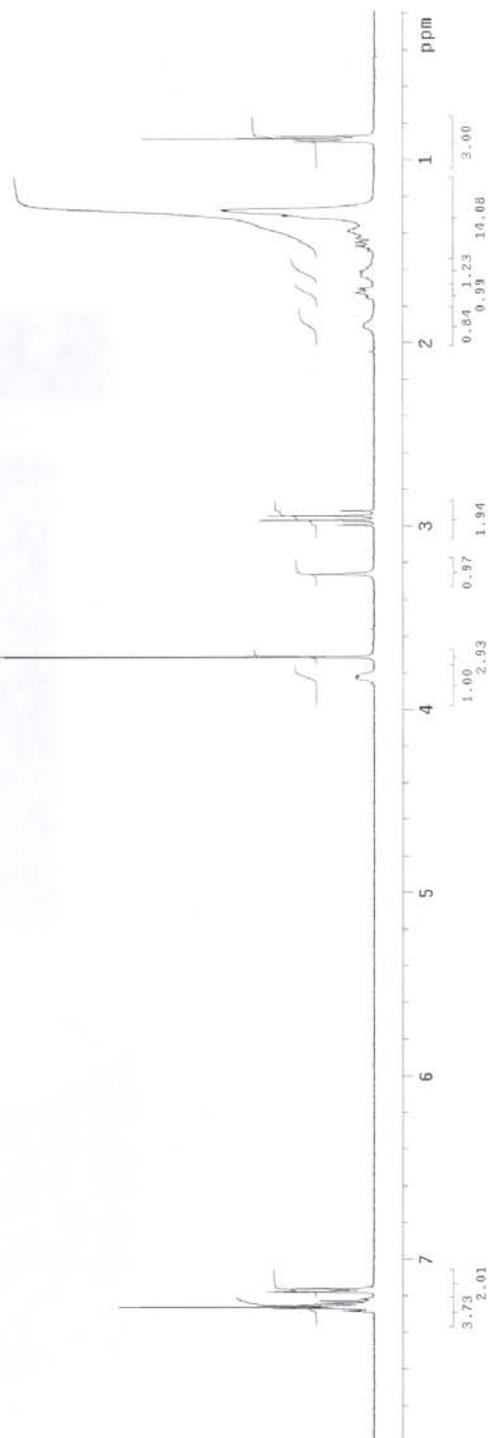
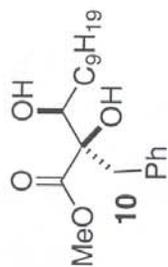
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 Solvent: CDCl3  
 Ambient temperature  
 User: 1-14-87  
 File: mbb-6-156-C13-500  
 INOVA-500 "N1"  
 PULSE SEQUENCE  
 Relax. delay 0.100 sec  
 Pulse, delay 45.0 degrees  
 Acq. time 1.300 sec  
 175.80433 MHz  
 OBSERVE C13, 125.7010246 MHz  
 DECOUPLE H1, 499.9072532 MHz  
 Power 31 dB  
 continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Processing time 1.0 Hz  
 FT size 131072  
 Total time 19 hr, 34 min, 29 sec

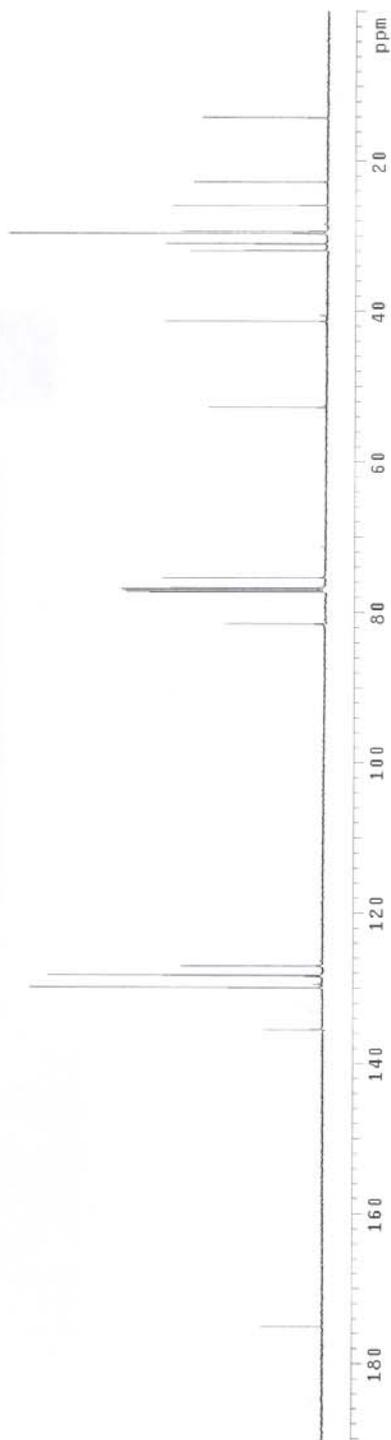
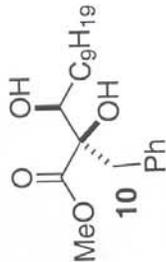
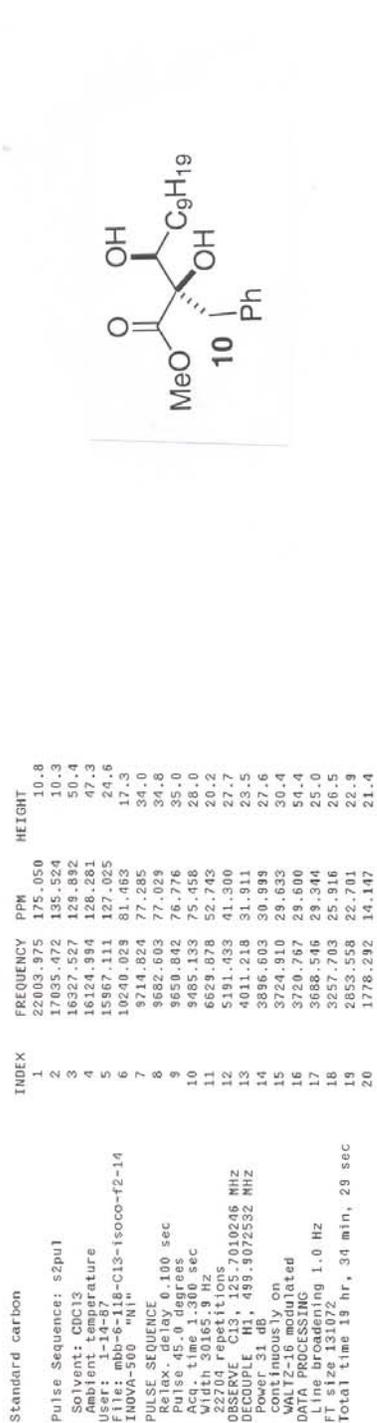
INDEX	FREQUENCY PPM	HEIGHT
1	22055.069	175.457
2	17025.806	135.447
3	16328.908	129.903
4	16123.153	128.266
5	15970.793	127.054
6	10247.394	81.522
7	9883.755	78.629
8	9715.745	77.582
9	8683.984	77.040
10	8651.763	76.783
11	6640.465	52.827
12	5288.557	42.073
13	4884.078	38.834
14	3979.457	31.658
15	3362.652	26.751
16	3283.146	26.198
17	3245.735	25.821



## Standard proton

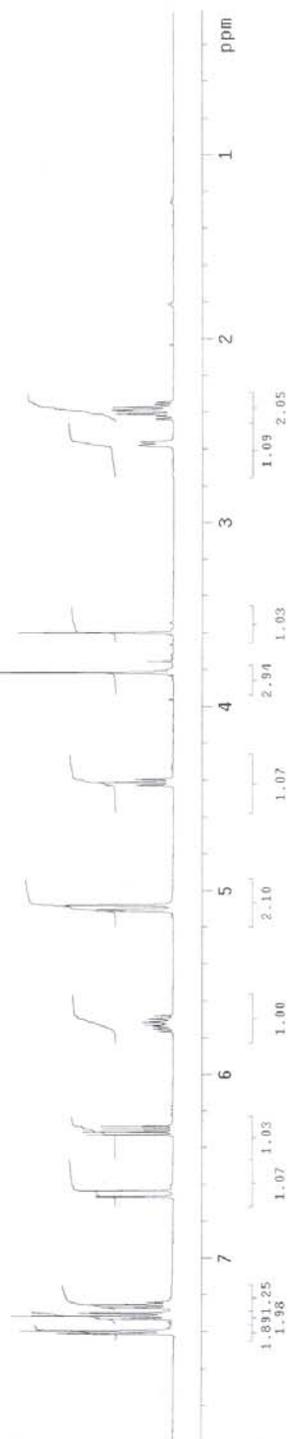
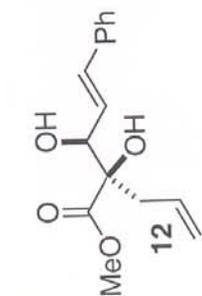
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 Acquisition Date: 11/11/03  
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 INOVA-500 "1H"  
 PULSE SEQUENCE  
 Relax-delay 0.500 sec  
 Pulse 45.0 degrees  
 Acq. time 3.000 sec  
 Width 7988.4 Hz  
 8 repetitions  
 OCEAN PROCESSING 99.9042603 MHz  
 OCEAN PROCESSING 0.2 Hz  
 FT size 65536  
 Total time 1 min, 3 sec

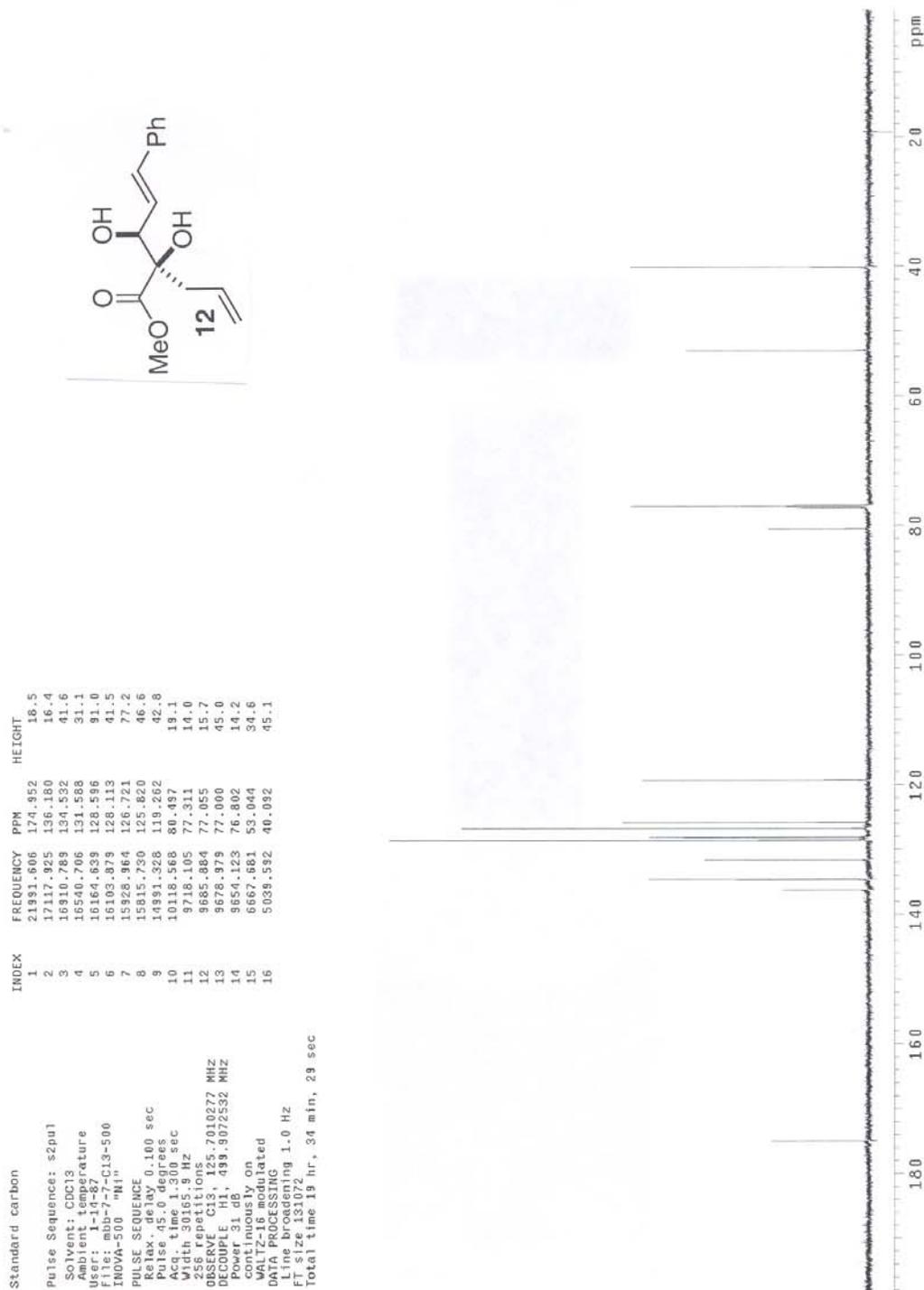




## Standard proton

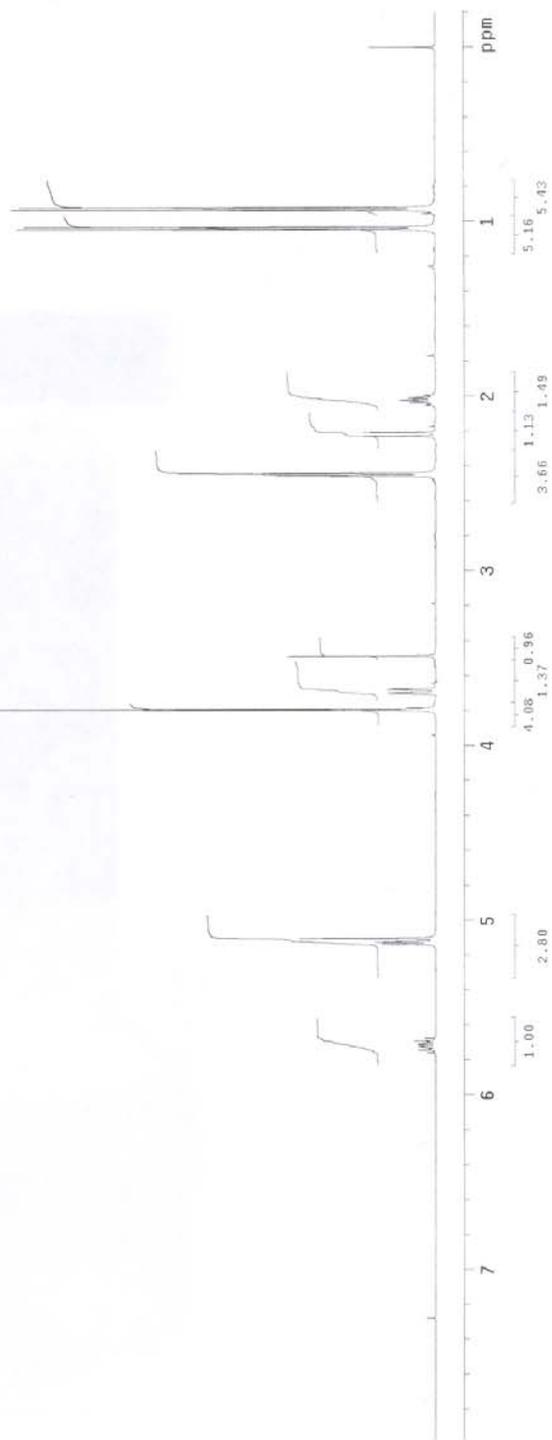
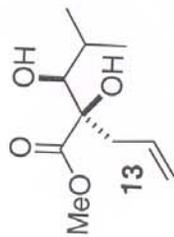
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 Solvent: CDCl3  
 Ambient temperature  
 File: mbb-72-MNR  
 INOVA-500 "H1"  
 PULSE SEQUENCE  
 Relax. delay 0.100 sec  
 Pulse 45.0 degrees  
 Acq. time 3.500 sec  
 Width 6399.5 Hz  
 Observations 399.8649731 MHz  
 DATA PROCESSING  
 Line broadening 0.2 Hz  
 FT size 65536  
 Total time 1 min, 4 sec

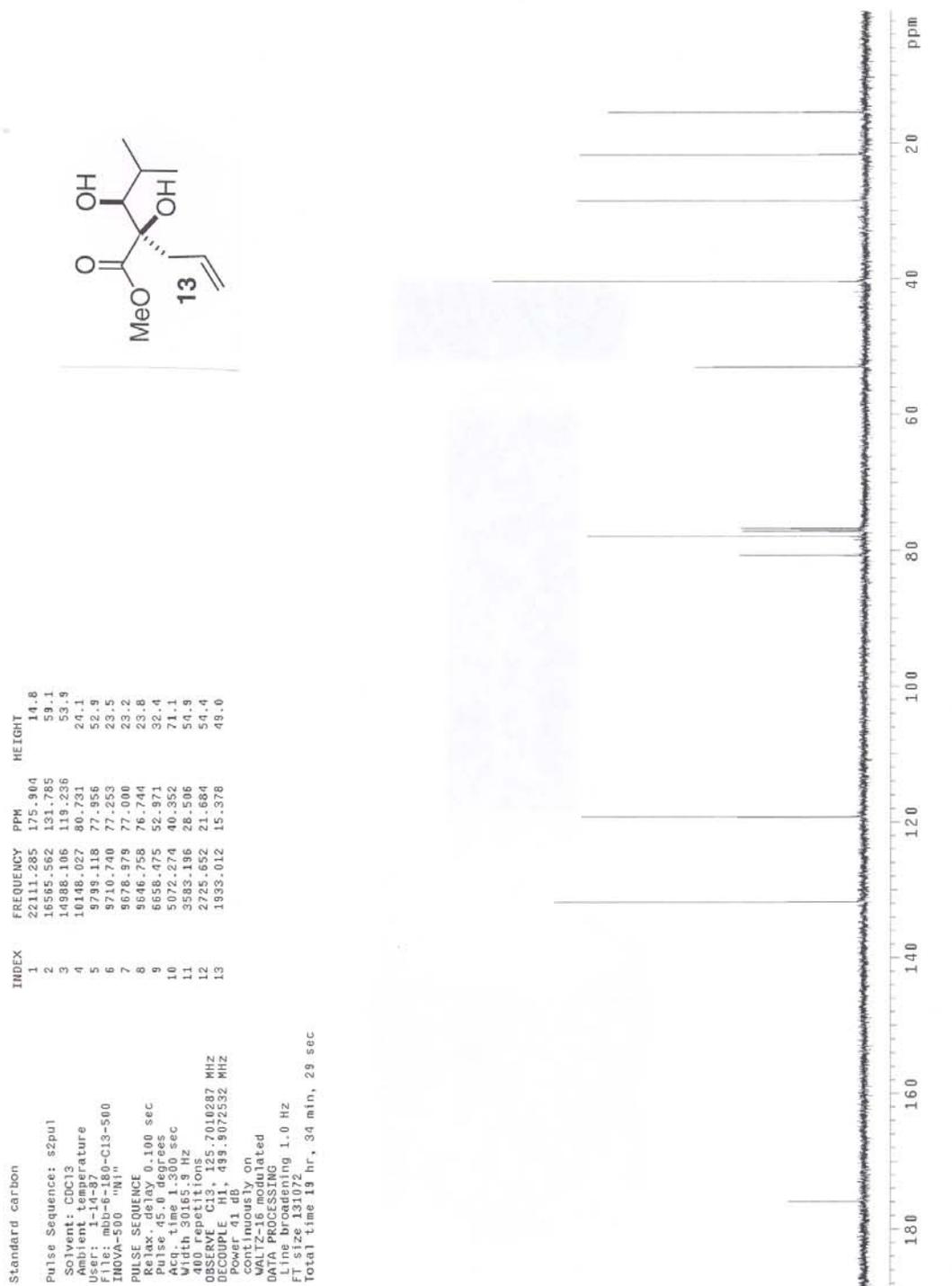




## Standard proton

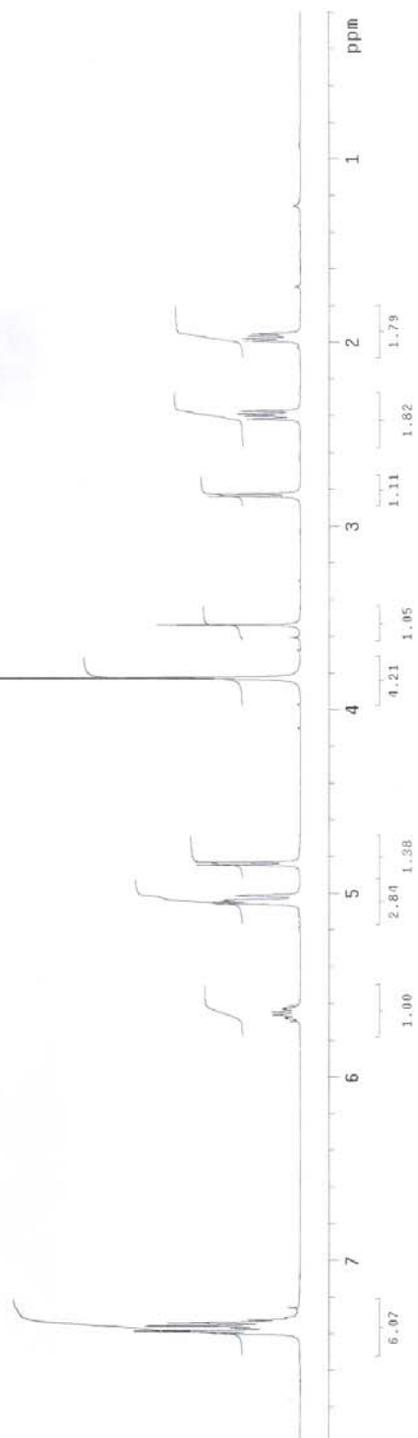
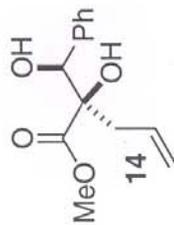
Pulse Sequence: s2pu1  
Solvent: CDCl3  
Acq. temperature  
File: mbb-5-180-HMR  
INOVA-500 "N1"  
PULSE SEQUENCE  
Relax. delay 0.500 sec  
Pulse 45.0 degrees  
Acq. time 3.000 sec  
Width 7999.4 Hz  
8 repetitions  
SOLVENT  
DATA PROCESSING 99.9042513 MHz  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min, 3 sec

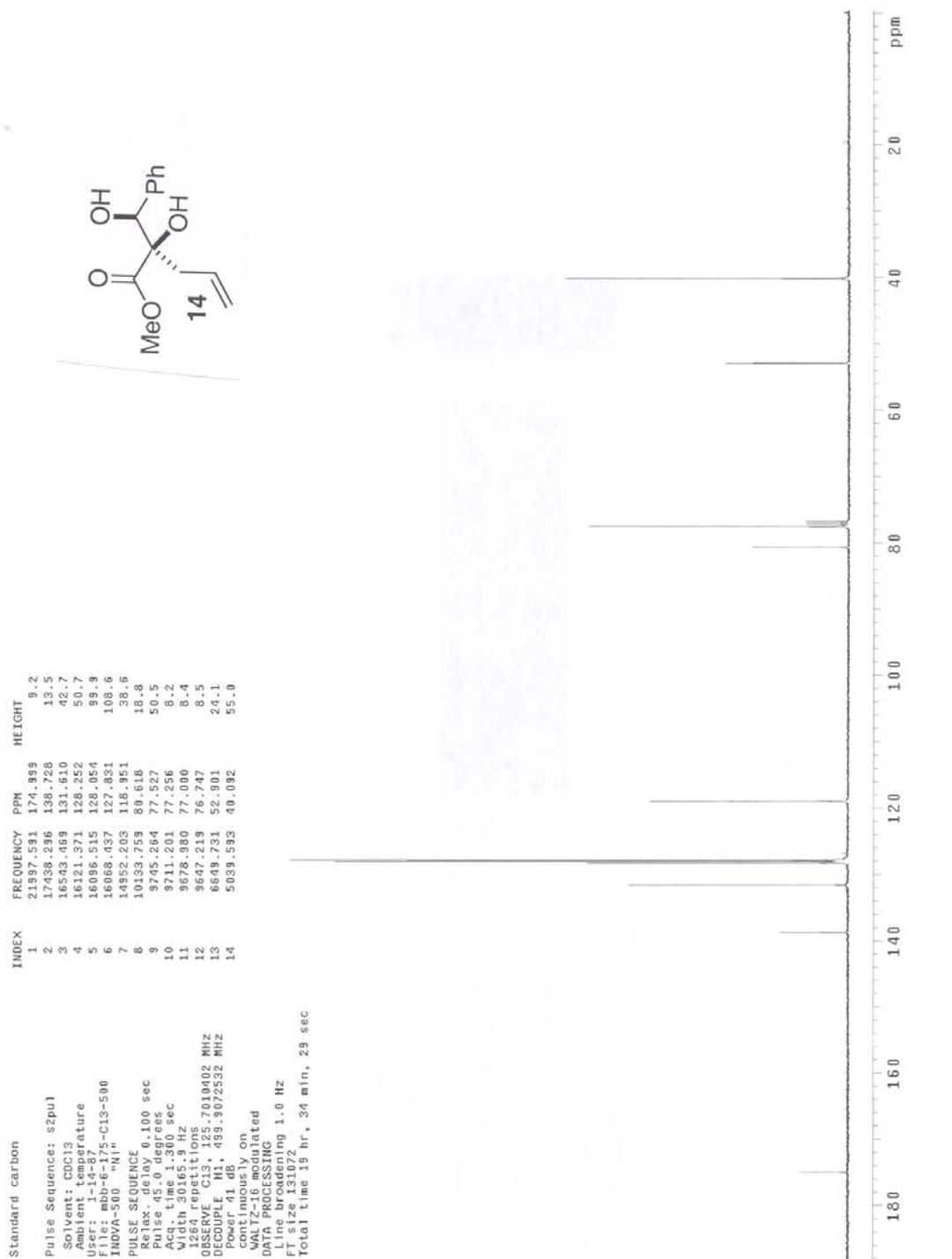




## Standard proton

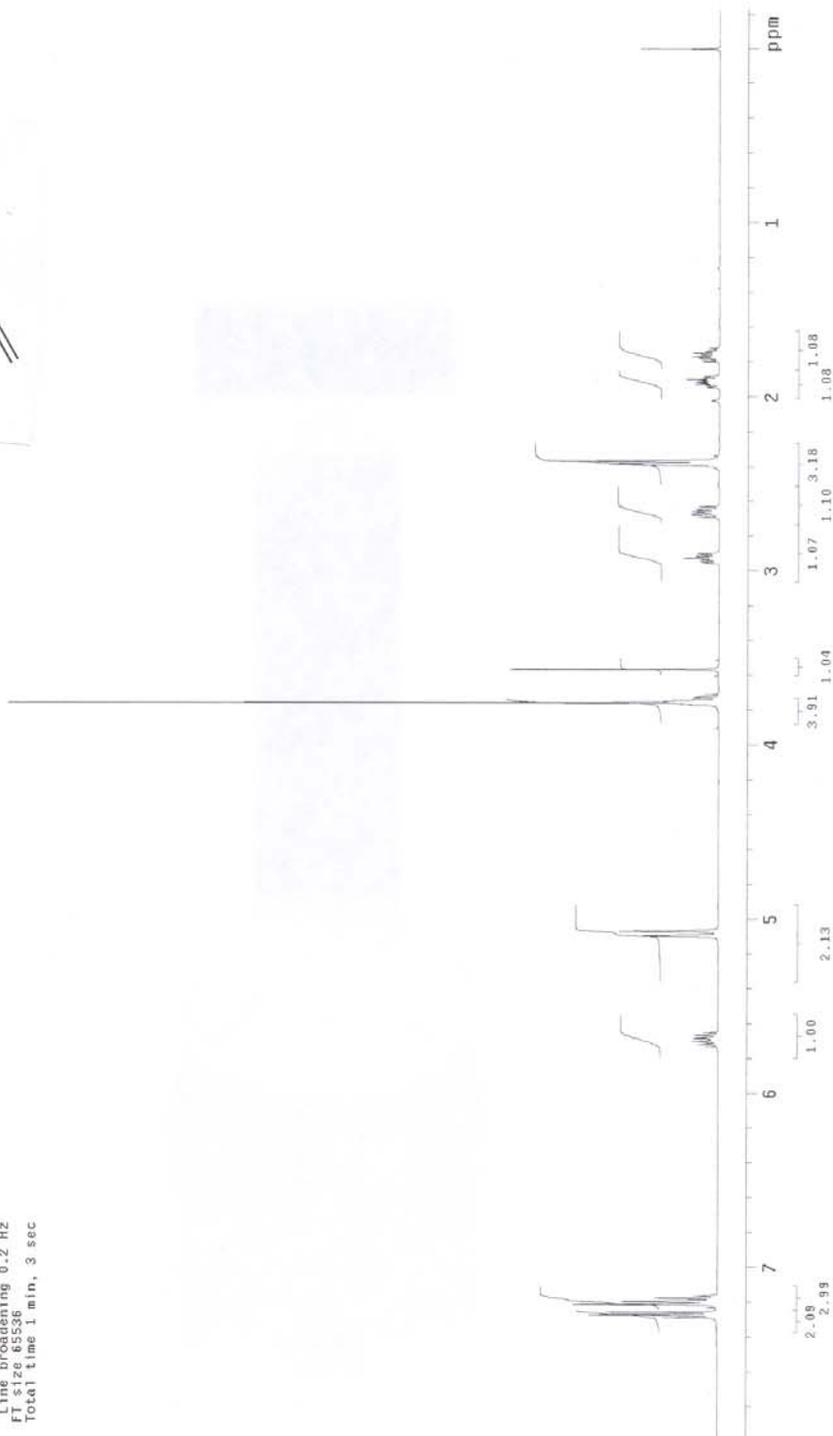
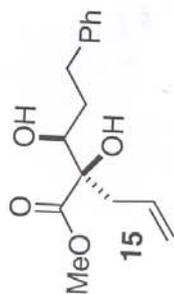
Pulse Sequence: szpul  
Solvent: CDCl3  
Acq. temperature  
File: mb-6-175-HMR-500  
INOVA-500 "H1"  
PULSE SEQUENCE  
Relax. delay 0.500 sec  
Pulse 45.0 degrees  
Acq. time 3.000 sec  
Width 7998.4 Hz  
16 repetitions  
DATA PROCESSING: 9042618 MHz  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min, 3 sec

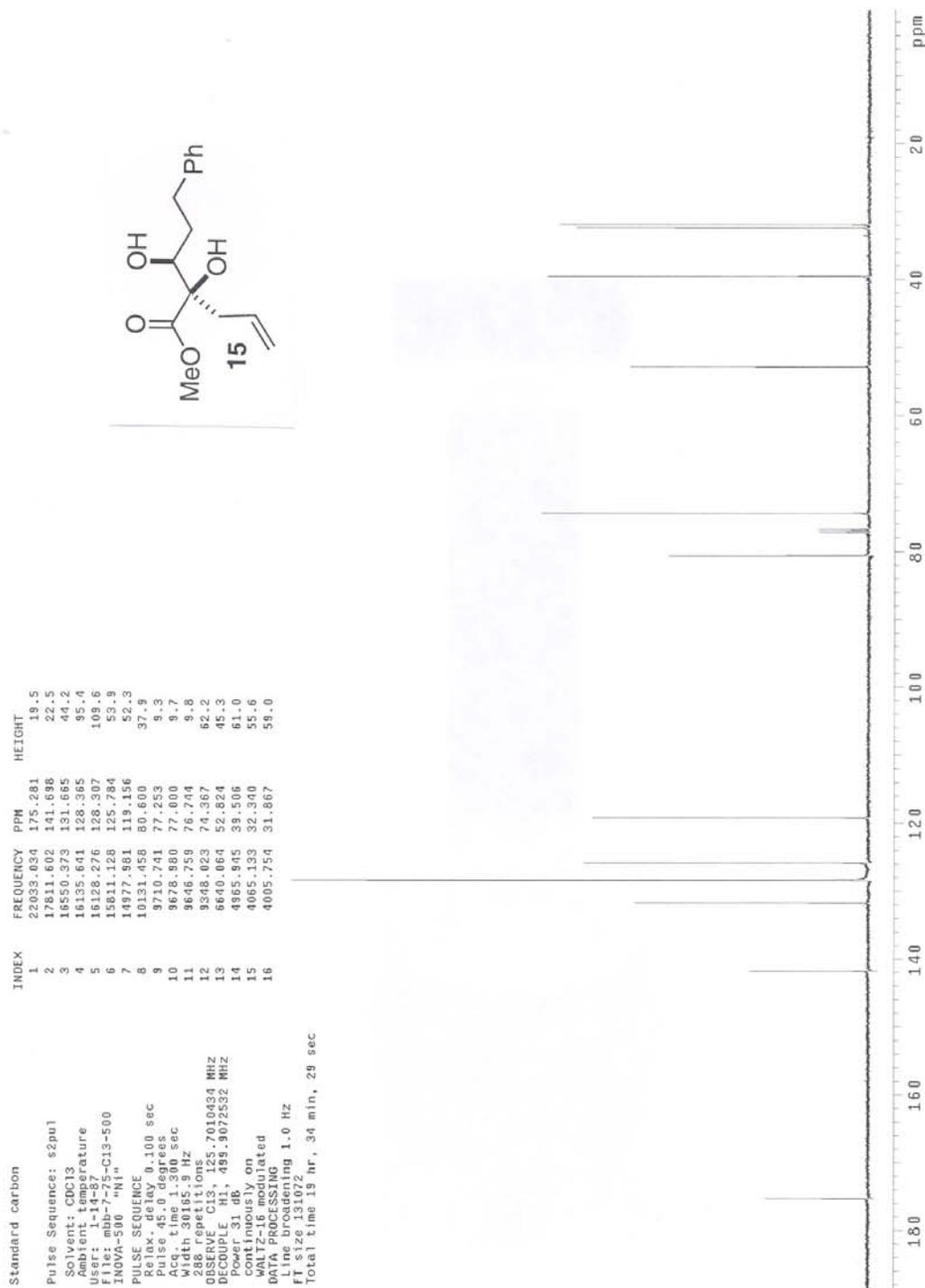




Standard proton

Pulse Sequence: s2pul  
 Solvent: CDCl3  
 Ambient temperature  
 File: mbh-7-75-HMR-major  
 INOVA-500 "H1"  
 PULSE SEQUENCE  
 Relax. delay 0.500 sec  
 Pulse 45.0 degrees  
 Acq. time 3.000 sec  
 Width 7998.4 Hz  
 OBSERVE: 1H 499.9002735 MHz  
 DATA PROCESSING  
 Line broadening 0.2 Hz  
 FT size 65536  
 Total time 1 min, 3 sec





## Std proton

Pulse Sequence: s2pul  
 Solvent: CDCl3  
 Ambient temperature  
 FID  
 INOVA-500 "H1"  
 PULSE SEQUENCE  
 Relax 6.100 sec  
 Pulse 45.0 degree  
 Acq. time 3.500 sec  
 Width 6399.5 Hz  
 8 repetitions  
 OBSERVE H1, 399.9649333 MHz  
 DATA PROCESSING  
 FT size 65536  
 Total time 1 min, 4 sec

