CHE 344L Spectroscopic Analysis of an Unknown Spring 2014

Section L1—Dr. Fisher 9 students	
1	Benzaldehyde
2	2-Propanol
3	Methyl ethyl ketone (2-butanone)
4	1-Hexene
5	1-Propanol
6	Methylbenzylamine
7	Ethyl acetate
8	Propanoic acid
9	tert-Butanol

Section L2—Dr. Fisher 10 students	
10	Propanoic acid
11	tert-Butanol
12	Benzaldehyde
13	1-Hexene
14	1-Propanol
15	Ethyl acetate
16	2-Propanol
17	Methylbenzylamine
18	Benzoic acid
19	Methyl ethyl ketone

Section L3—Dr. Fisher 10 students	
20	Propanoic acid
21	2-Propanol
22	Benzaldehyde
23	1-Propanol
24	Methylbenzylamine
25	1-Hexene
26	Ethyl acetate
27	Benzoic acid
28	tert-Butanol
29	Methylbenzylamine

Section L4—Ms Tsesarskaia 13 students	
30	Benzoic acid
31	Benzaldehyde
32	Methylbenzylamine
33	1-Propanol
34	Methyl ethyl ketone (2-butanone)
35	1-Hexene
36	Ethyl acetate
37	Propanoic acid
38	Methyl ethyl ketone

39 2-Propanol

40 Methylbenzylamine

41 tert-Butanol

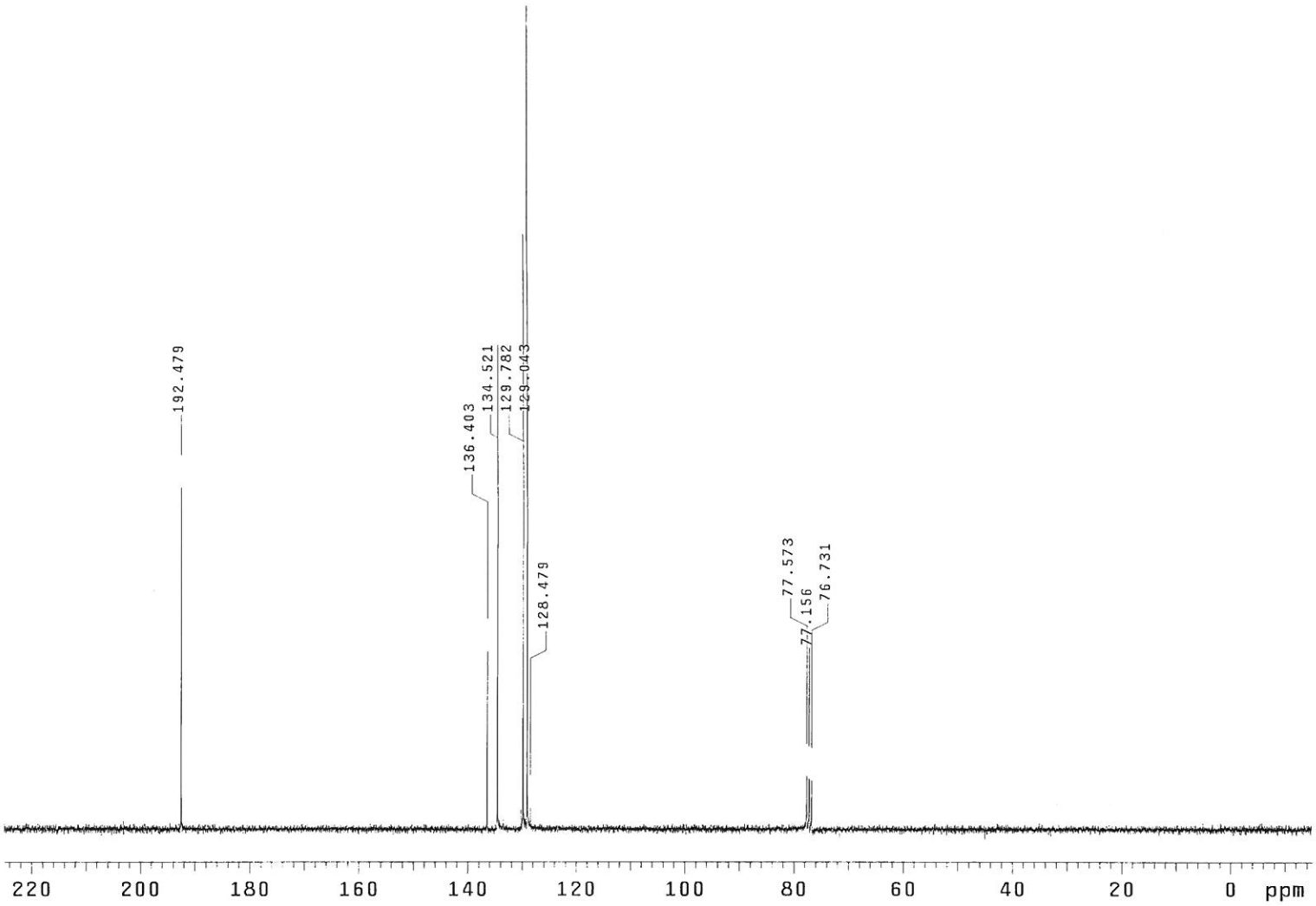
42 1-Hexene

unk 1 spring 2014

Sample: unk 1 spring 2014
Sample ID: s_20140404_05
File: 0049.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: 0049
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 512 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 19 min, 42 sec

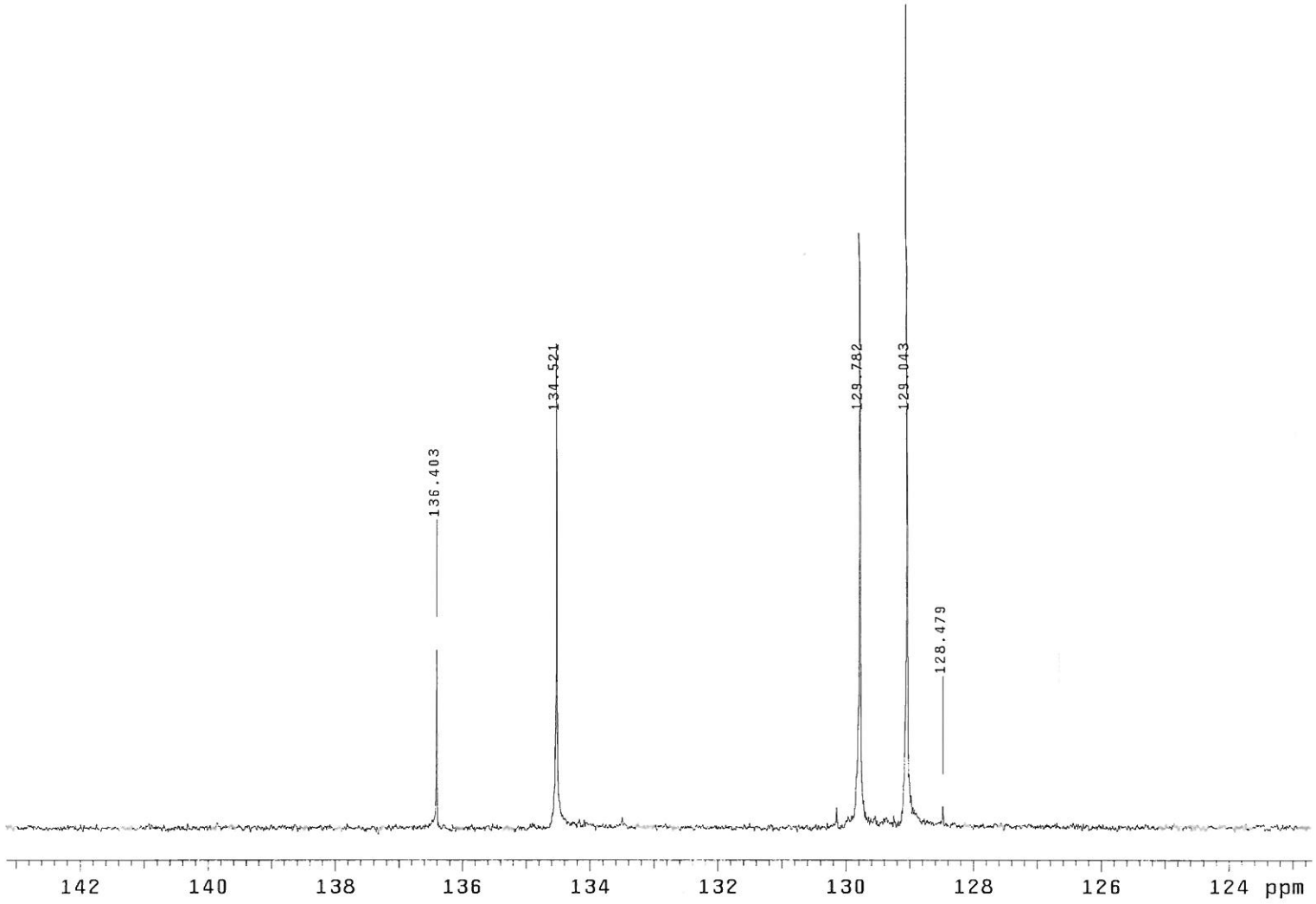


unk 1 spring 2014

Sample: unk 1 spring 2014
Sample ID: s_20140404_05
File: 0049.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: 0049
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 512 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 19 min, 42 sec

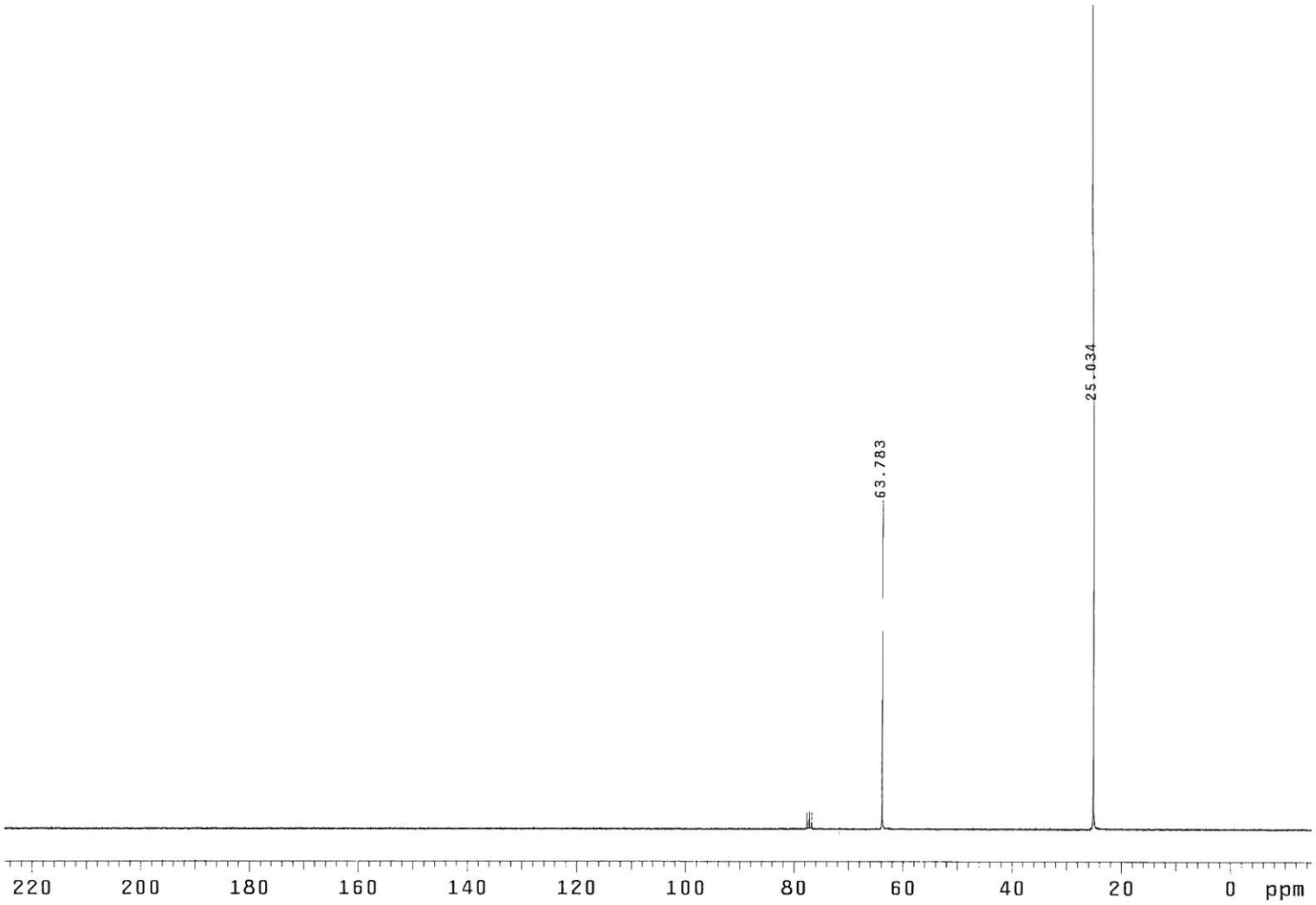


unk 2 spring 2014

Sample: unk 2 spring 2014
Sample ID: s_20140404_07
File: /home/che344/vnmrsys/data/che344spring2014/unk2c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk2c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

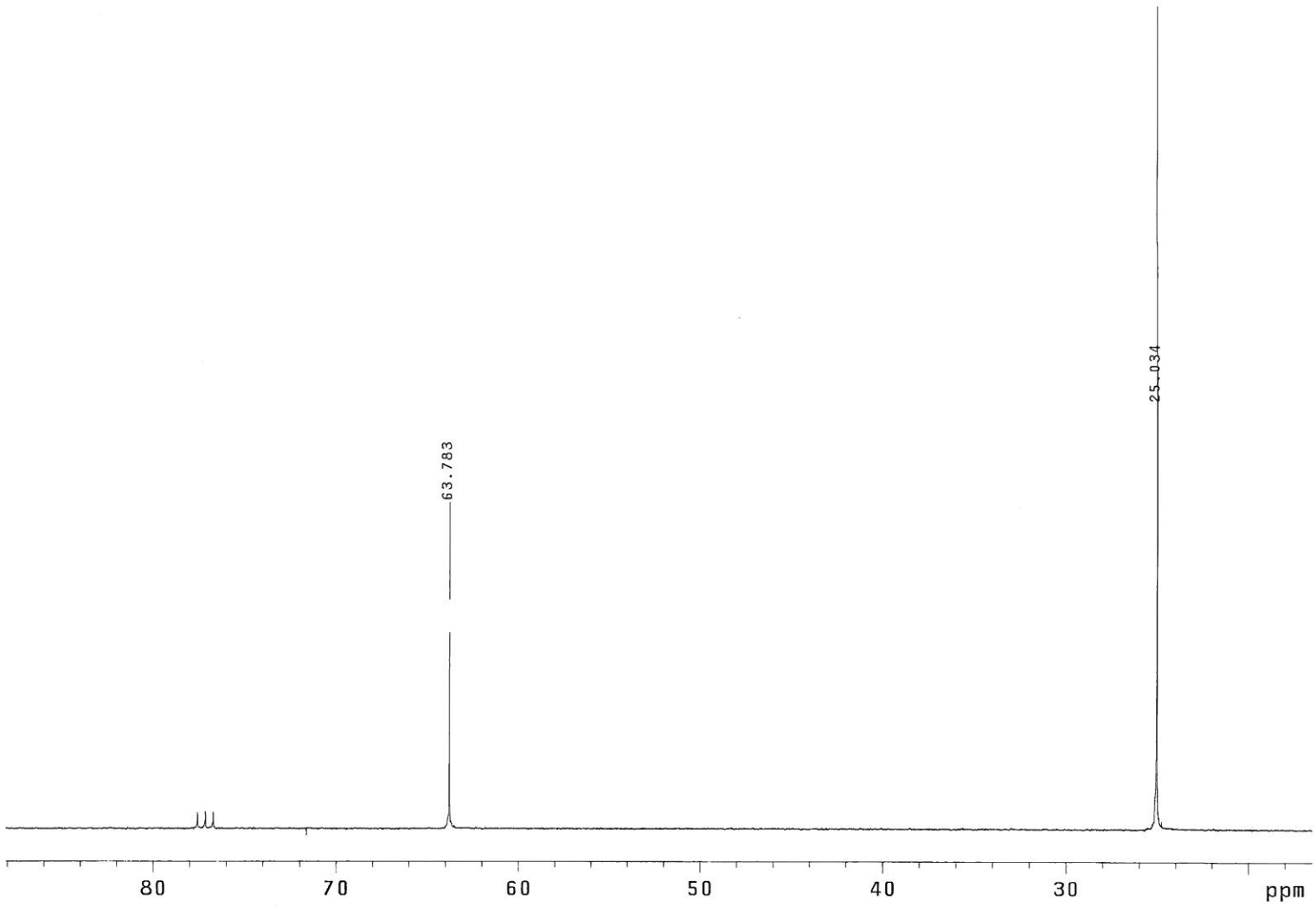


unk 2 spring 2014

Sample: unk 2 spring 2014
Sample ID: s_20140404_07
File: /home/che344/vnmrsys/data/che344spring2014/unk2c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk2c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

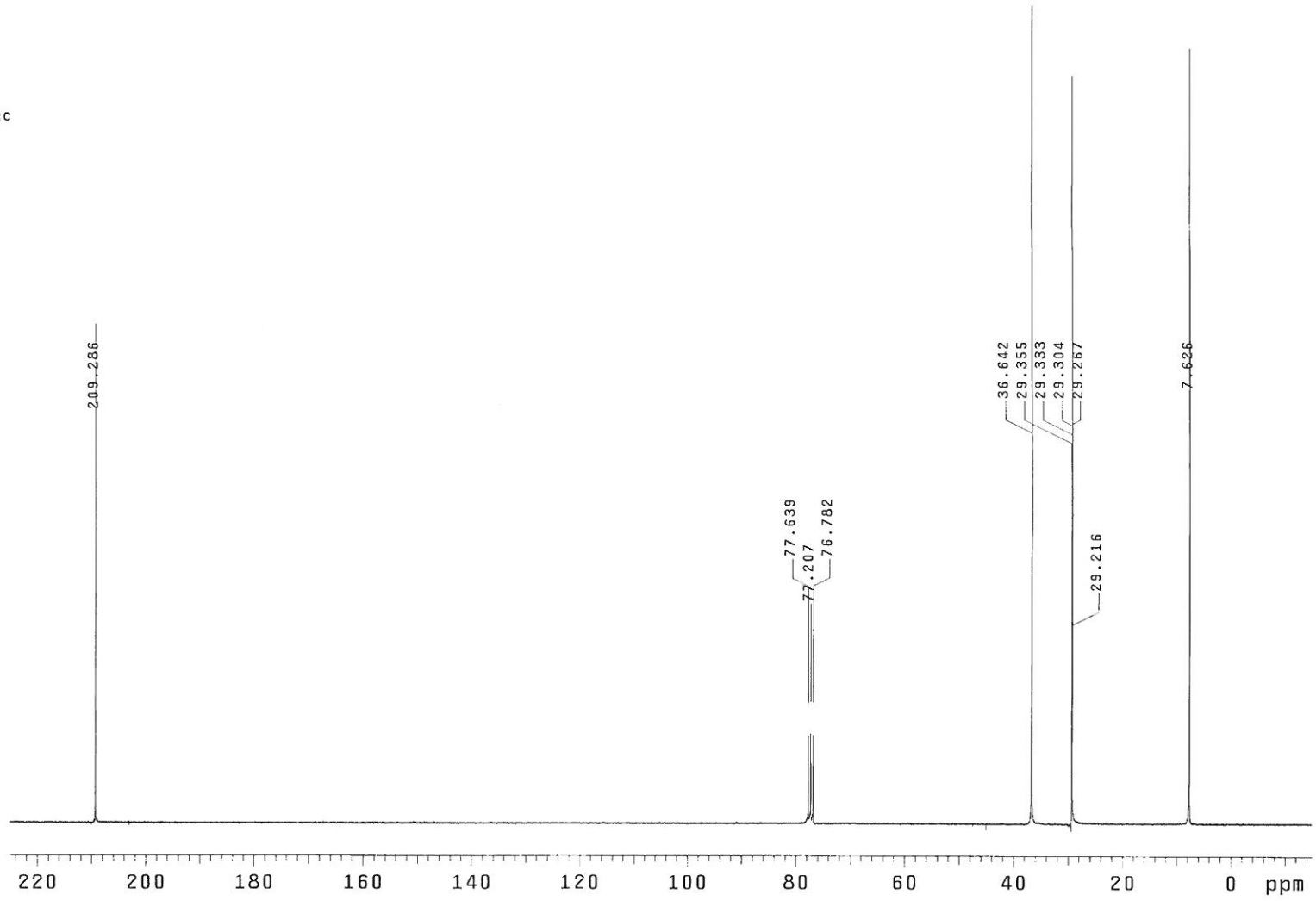


unk 3 spring 2014

Sample: unk 3 spring 2014
Sample ID: s_20140404_08
File: /home/che344/vnmrsys/data/che344spring2014/unk3c13-5kscans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk3c13-5kscans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 5000 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 3 hr, 12 min, 27 sec

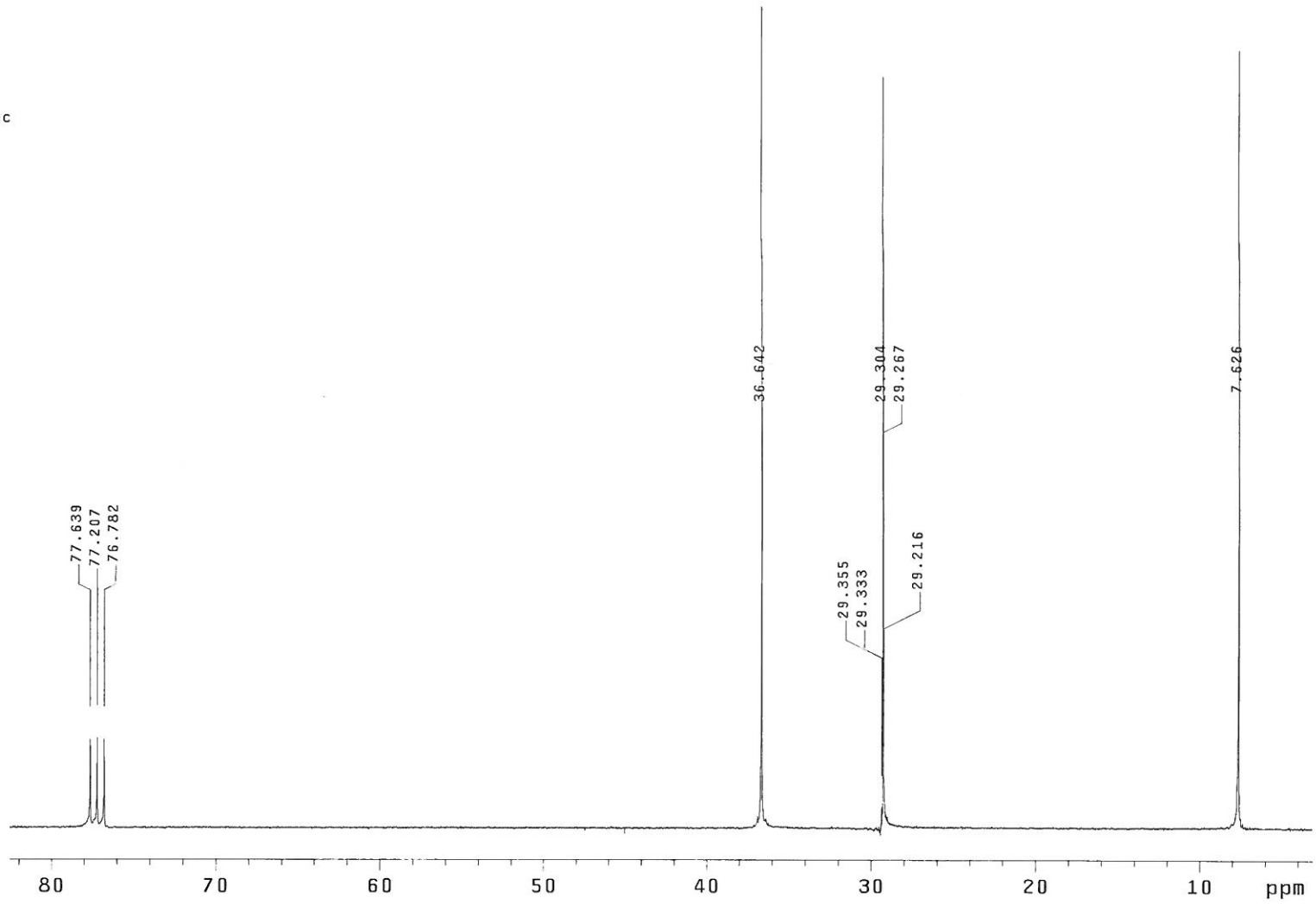


unk 3 spring 2014

Sample: unk 3 spring 2014
Sample ID: s_20140404_08
File: /home/che344/vnmrsys/data/che344spring2014/unk3c13-5kscans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk3c13-5kscans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 5000 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 3 hr, 12 min, 27 sec



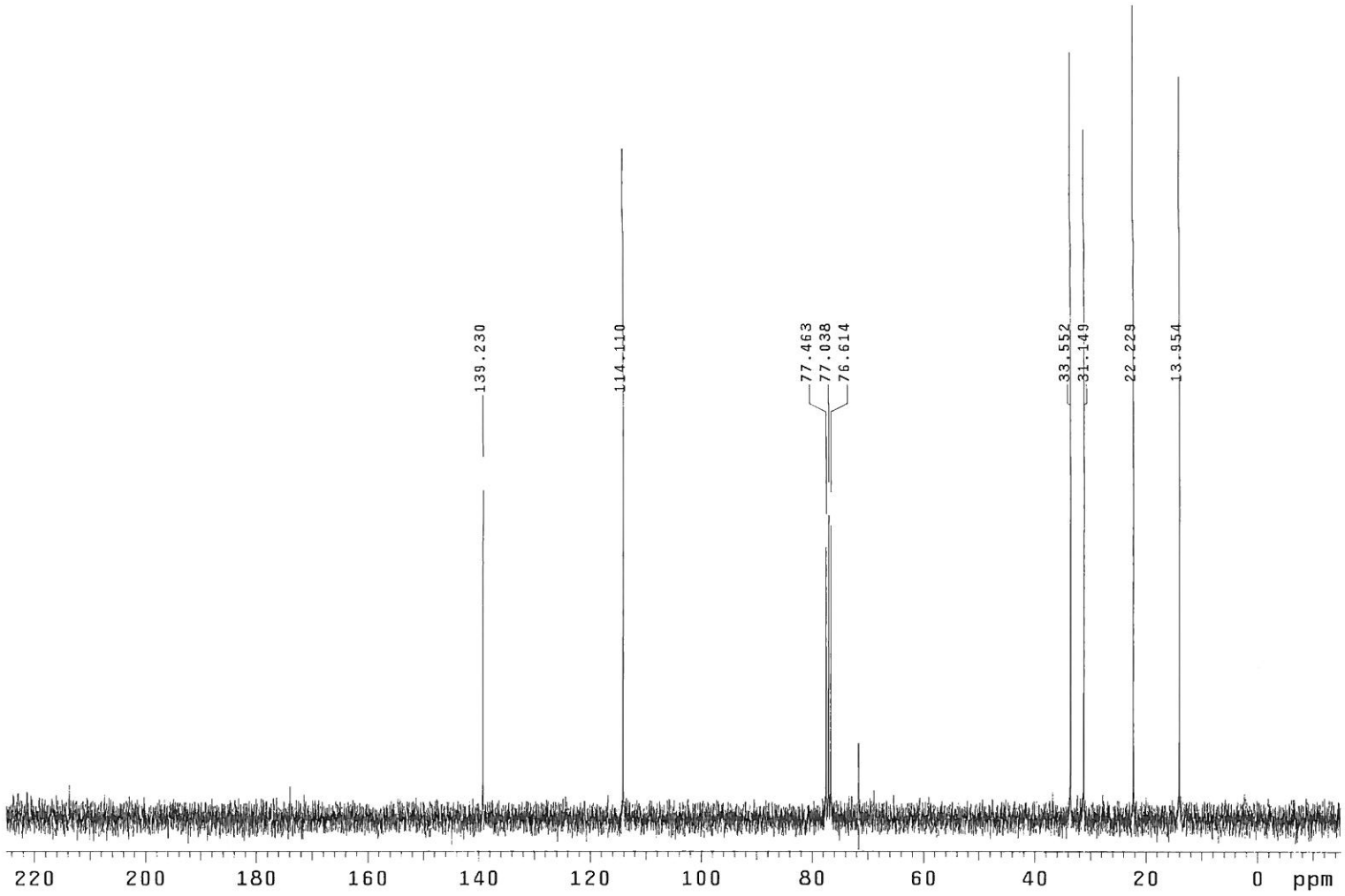
unk 4spring 2014

Sample: unk 4 spring 2014
Sample ID: s_20140406_01
File: /home/che344/vnmrsys/data/che344spring2014/unk4c13-256scans.fid

Pulse Sequence: s2pul

Solvent: cdcl3
Temp. 20.0 C / 293.1 K
Operator: che344
File: unk4c13-256scans
INOVA-300 "nmr300"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 1.300 sec
Width 18095.5 Hz
256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
Power 34 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

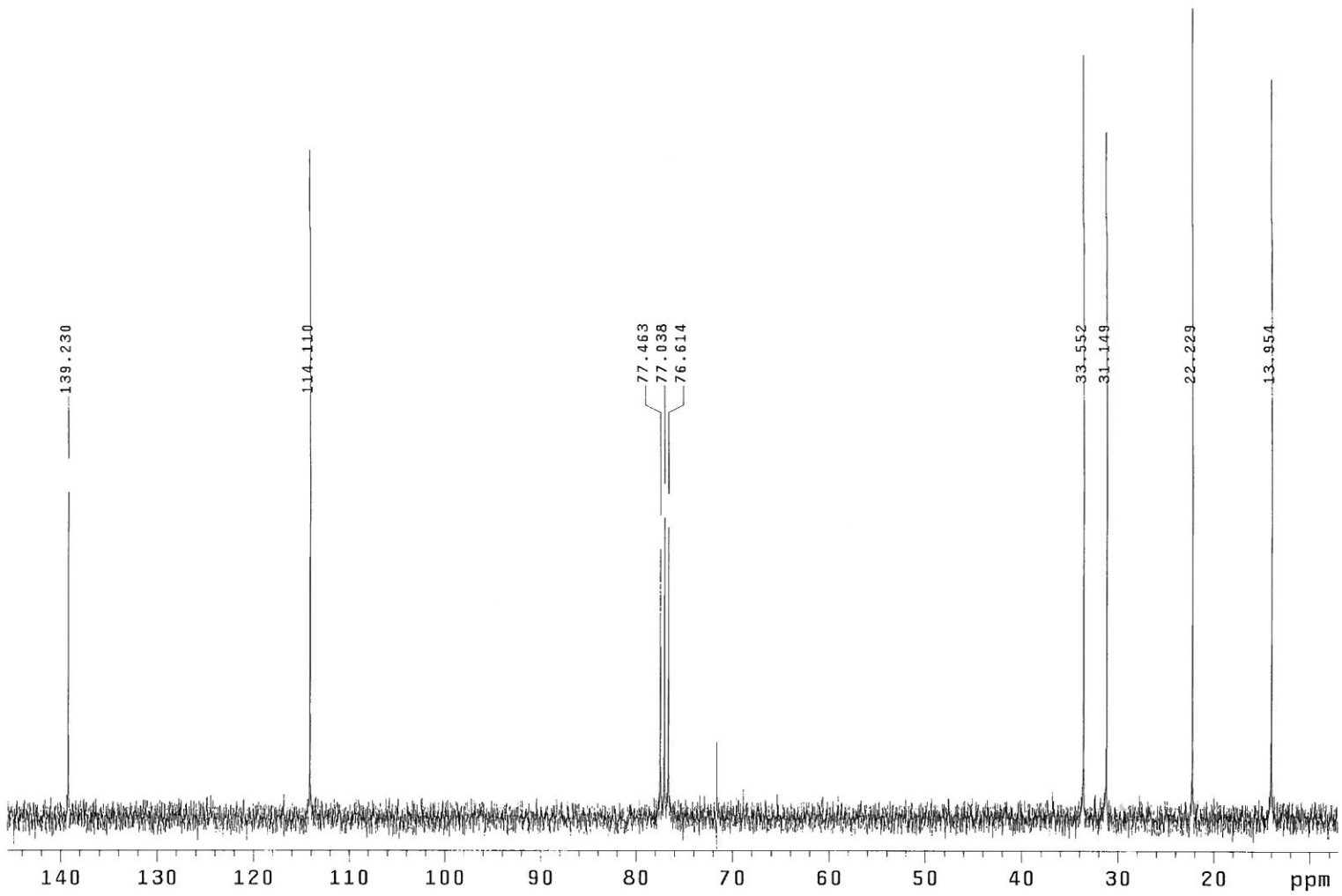


unk 4spring 2014

Sample: unk 4 spring 2014
Sample ID: s_20140406_01
File: /home/che344/vnmrsys/data/che344spring2014/unk4c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk4c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

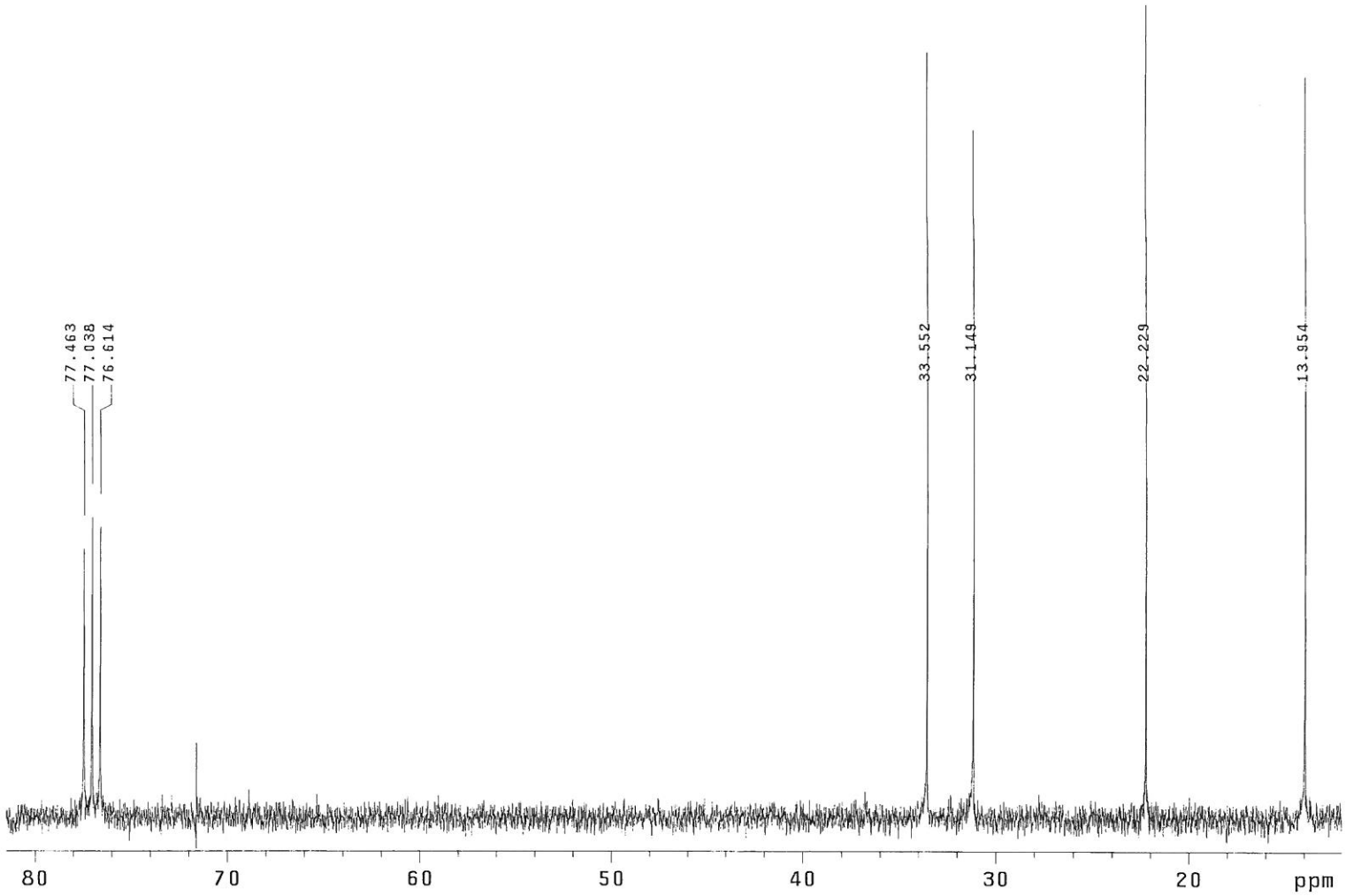


unk 4spring 2014

Sample: unk 4 spring 2014
Sample ID: s_20140406_01
File: /home/che344/vnmrsys/data/che344spring2014/unk4c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk4c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

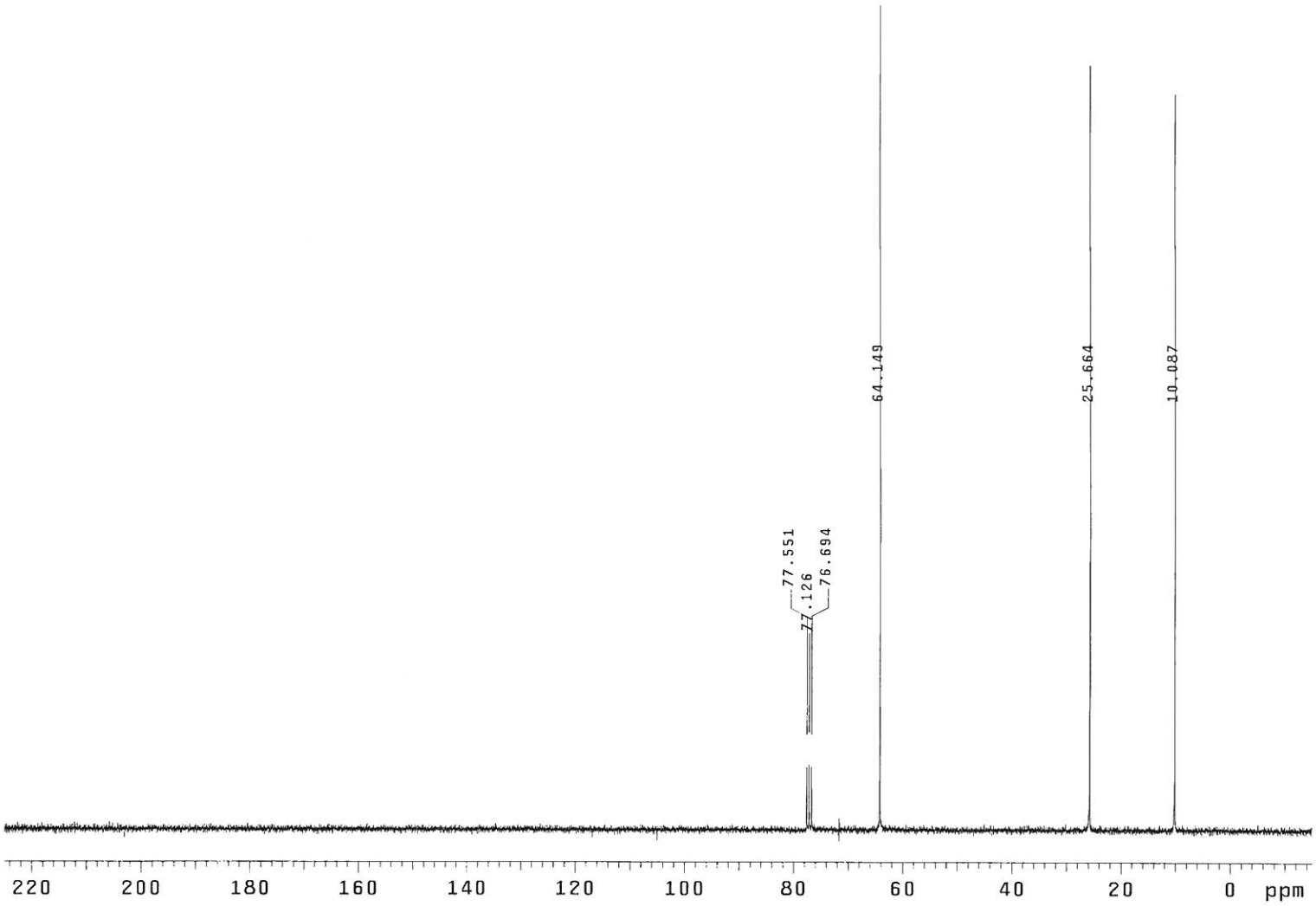


unk 5spring 2014

Sample: unk 5 spring 2014
Sample ID: s_20140406_02
File: /home/che344/vnmrsys/data/che344spring2014/unk5c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk5c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

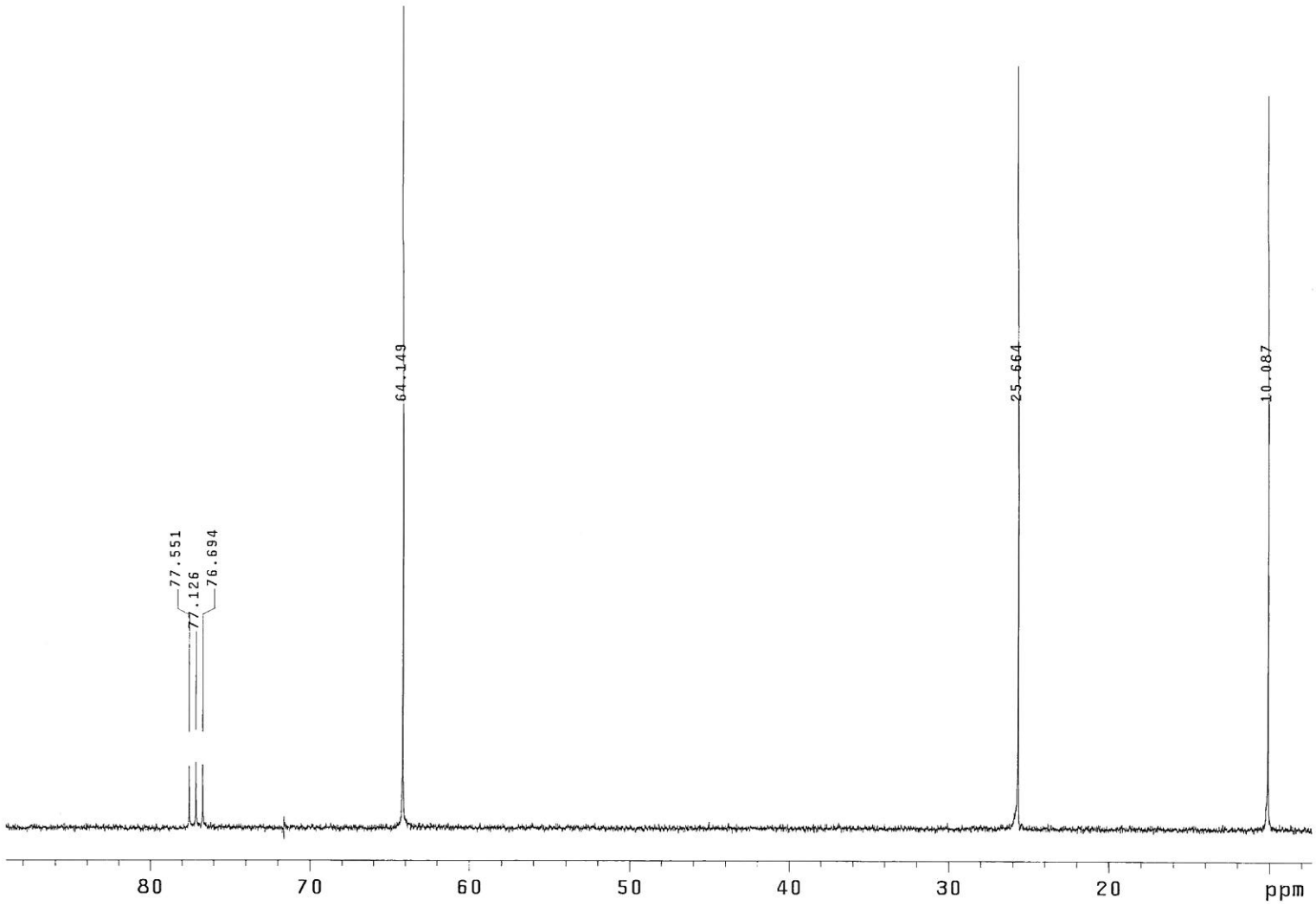


unk 5spring 2014

Sample: unk 5 spring 2014
Sample ID: s_20140406_02
File: /home/che344/vnmrsys/data/che344spring2014/unk5c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk5c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

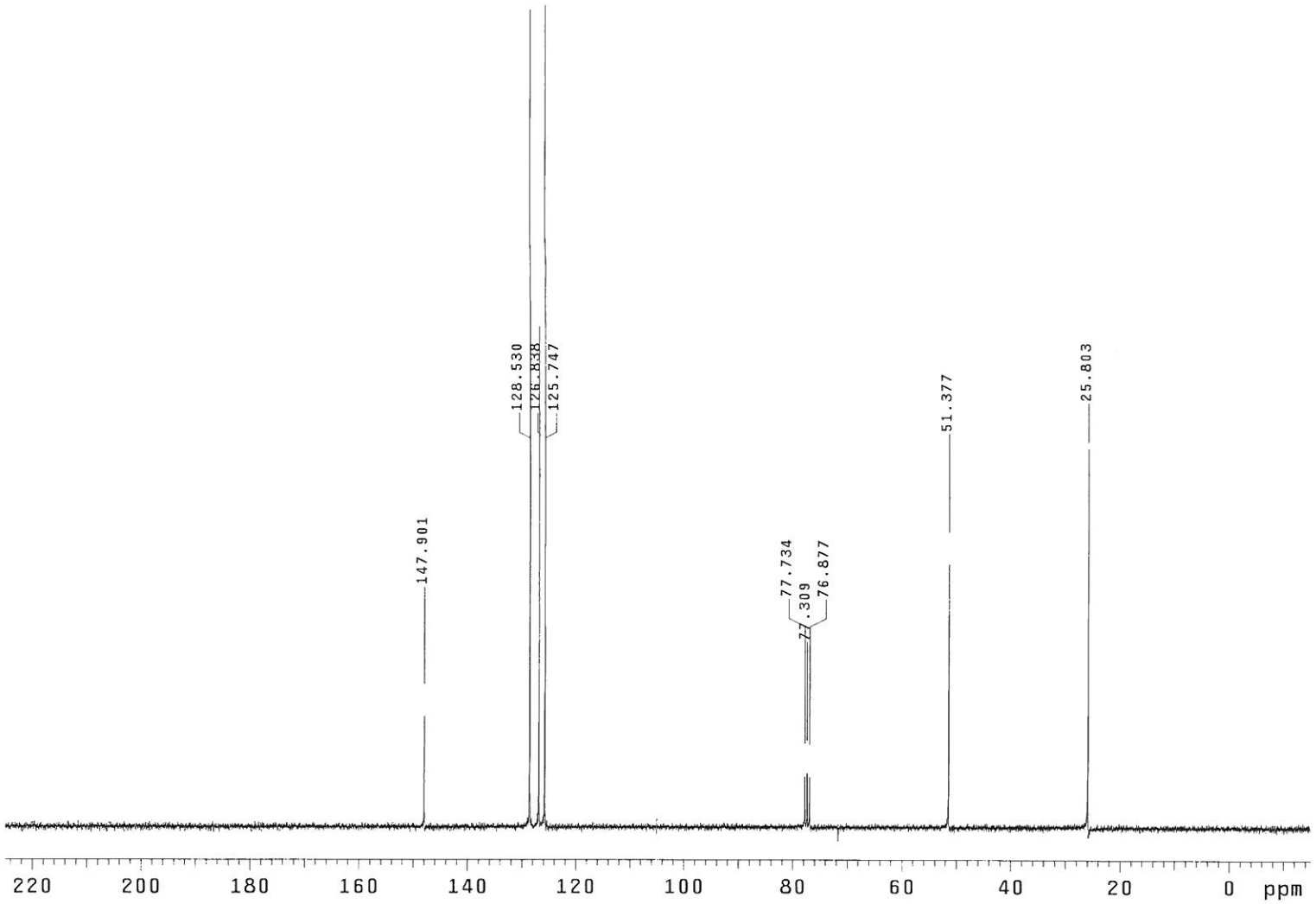


unk 6spring 2014

Sample: unk 6 spring 2014
Sample ID: s_20140406_03
File: /home/che344/vnmrsys/data/che344spring2014/unk6c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk6c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

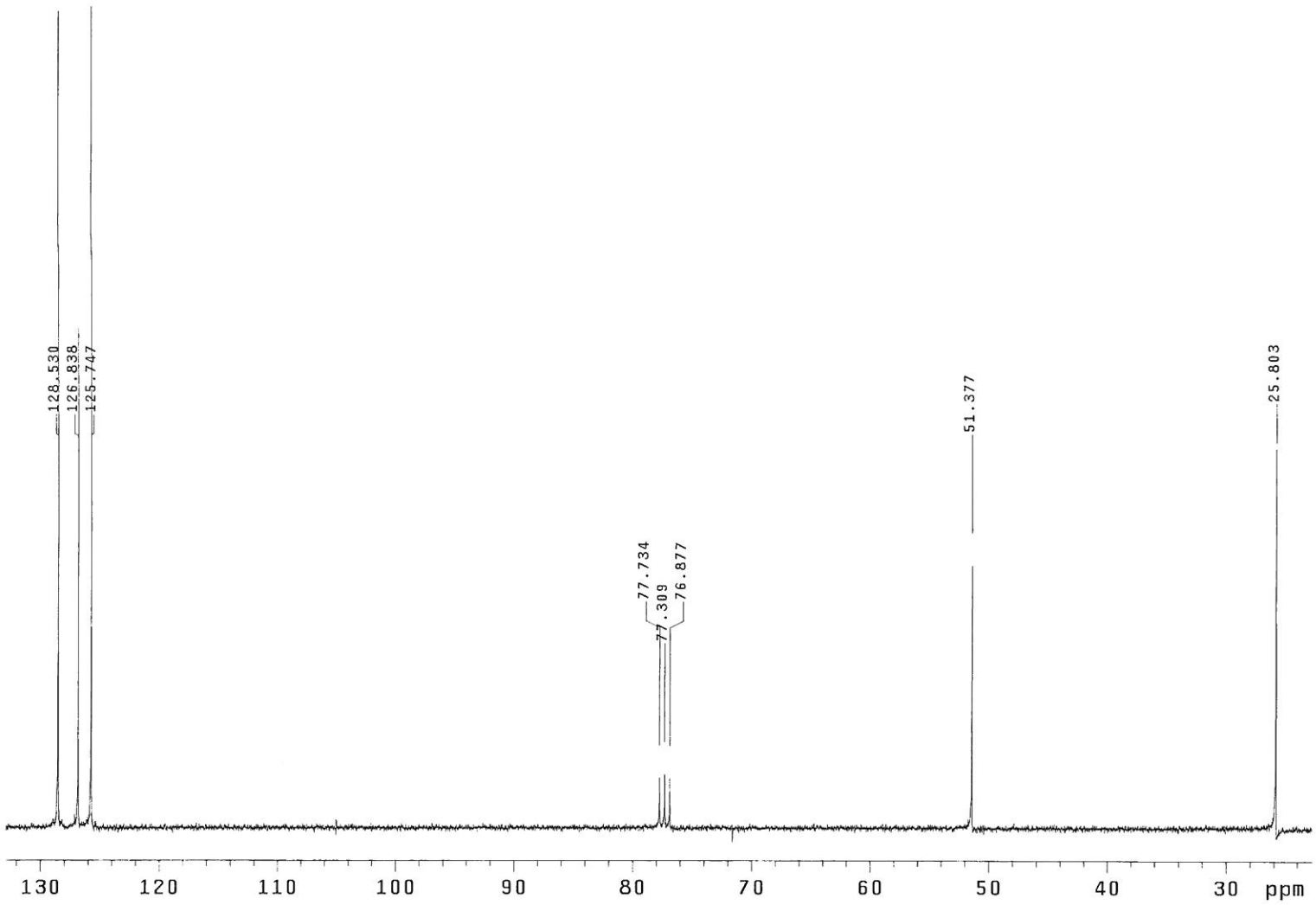


unk 6spring 2014

Sample: unk 6 spring 2014
Sample ID: s_20140406_03
File: /home/che344/vnmrsys/data/che344spring2014/unk6c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk6c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

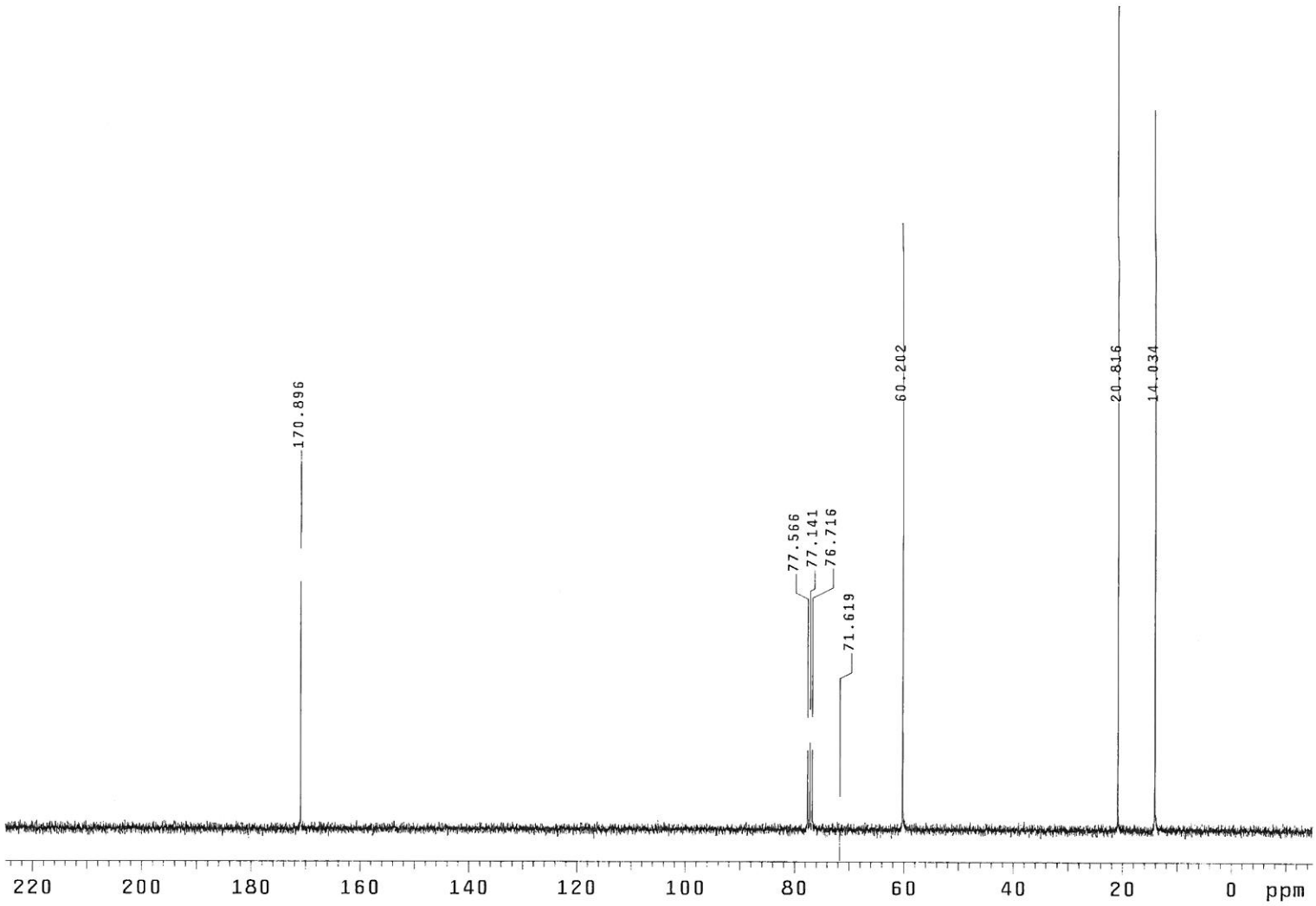


unk 7spring 2014

Sample: unk 7 spring 2014
Sample ID: s_20140406_04
File: /home/che344/vnmrsys/data/che344spring2014/unk7c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk7c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

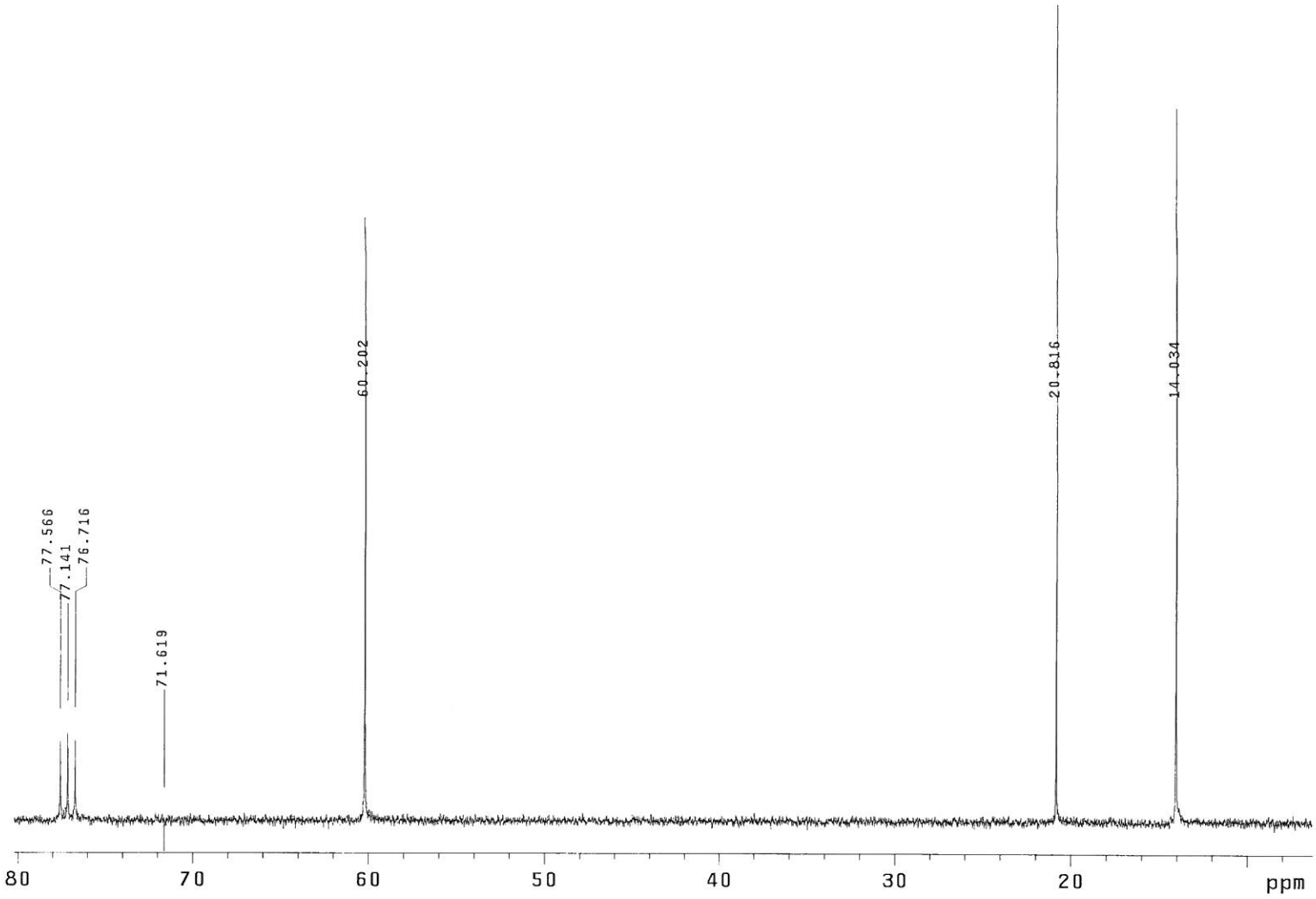


unk 7spring 2014

Sample: unk 7 spring 2014
Sample ID: s_20140406_04
File: /home/che344/vnmrsys/data/che344spring2014/unk7c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk7c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

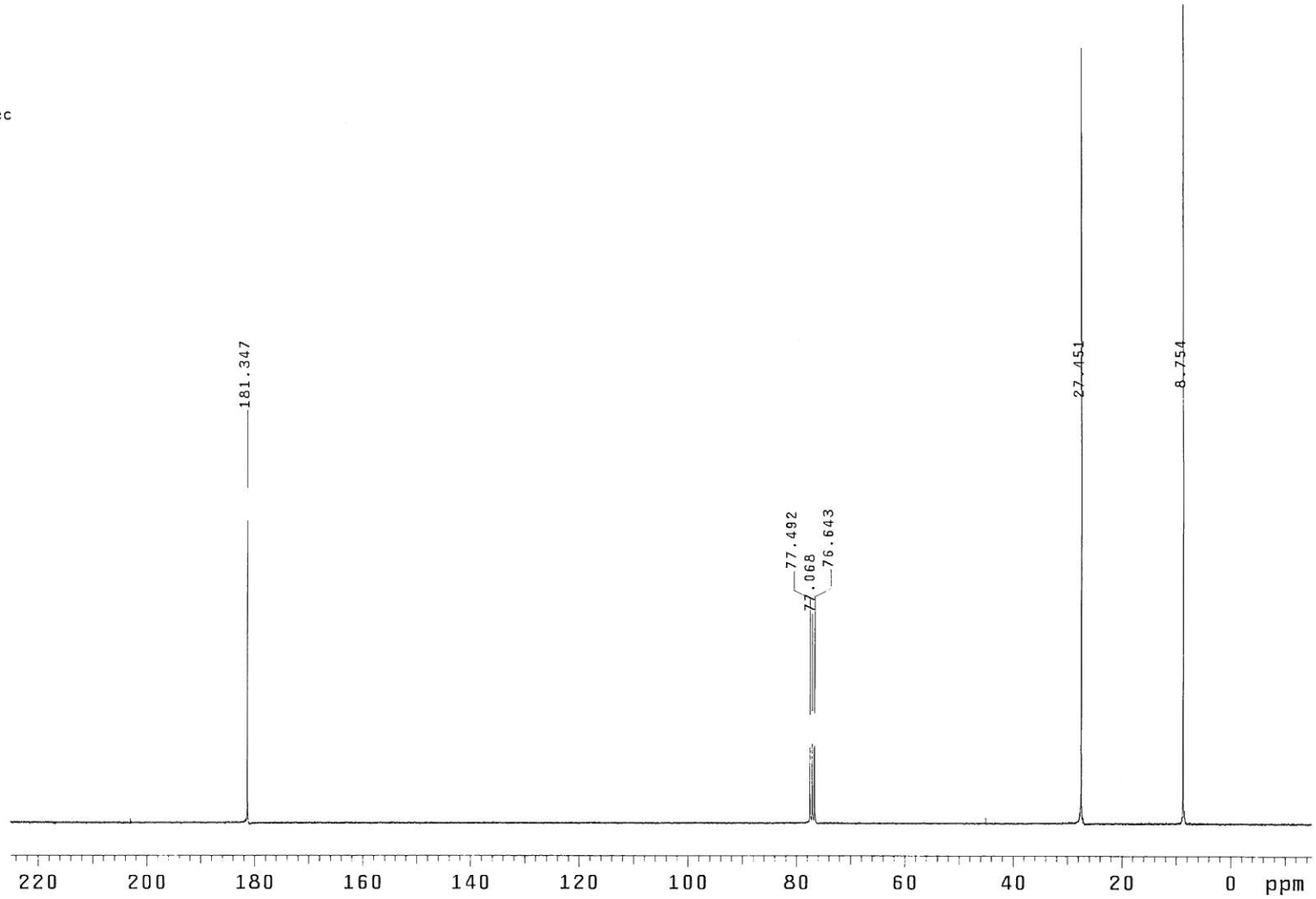


unk 8spring 2014

Sample: unk 8 spring 2014
Sample ID: s_20140406_05
File: /home/che344/vnmrsys/data/che344spring2014/unk8c13-5kscans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk8c13-5kscans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 5000 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 3 hr, 12 min, 27 sec

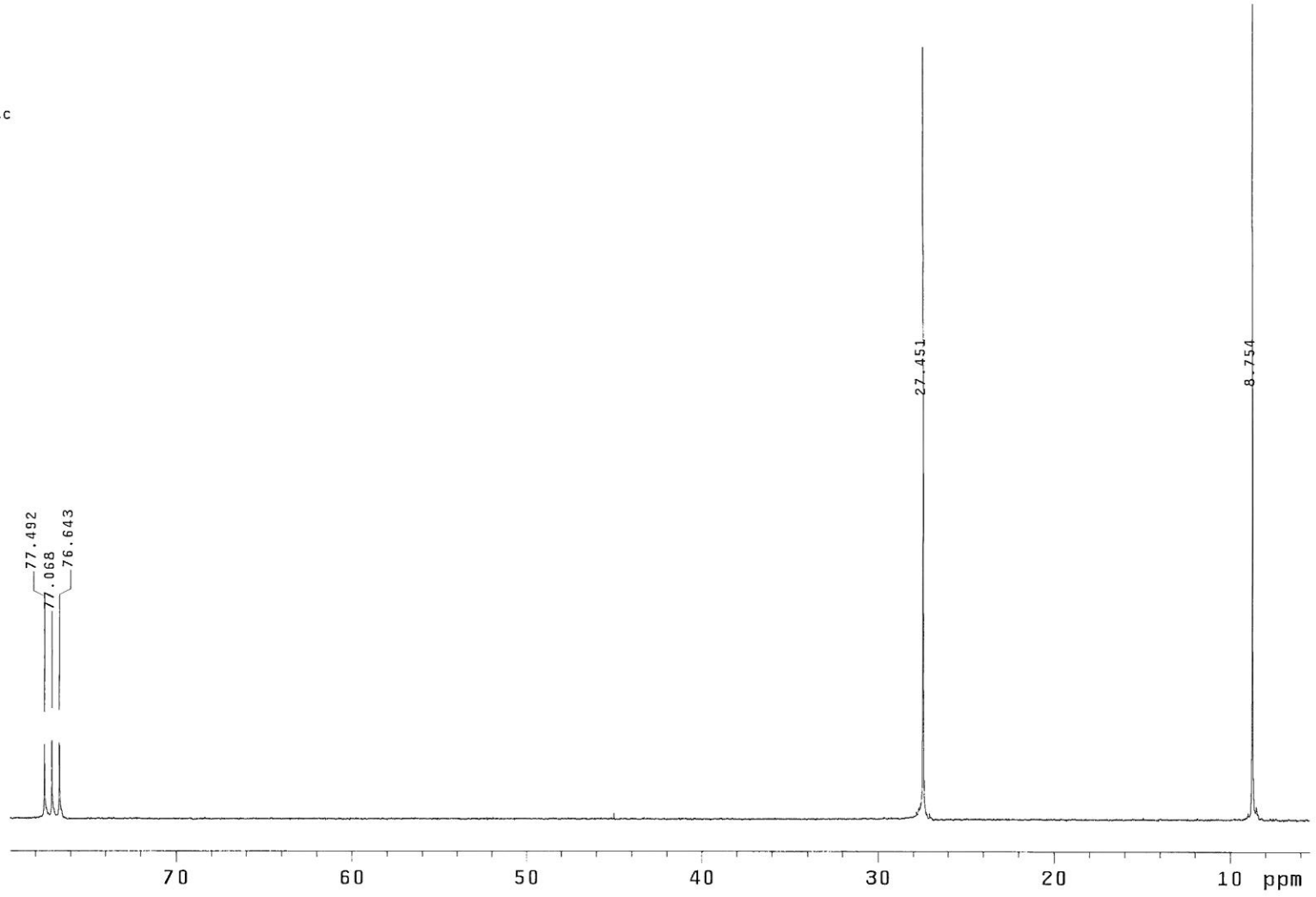


unk 8spring 2014

Sample: unk 8 spring 2014
Sample ID: s_20140406_05
File: /home/che344/vnmrsys/data/che344spring2014/unk8c13-5kscans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk8c13-5kscans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 5000 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 3 hr, 12 min, 27 sec

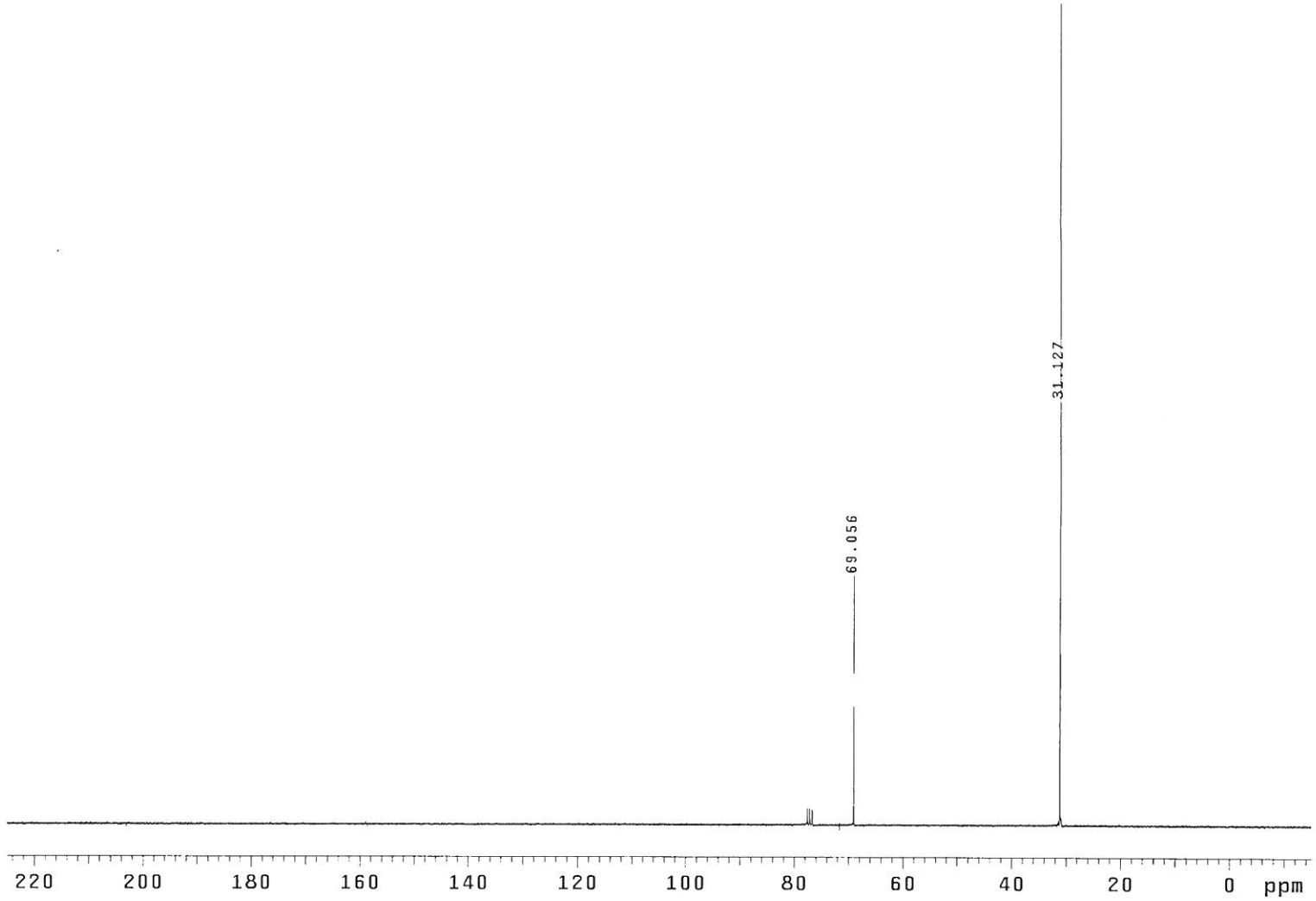


unk 9spring 2014

Sample: unk 9 spring 2014
Sample ID: s_20140407_01
File: /home/che344/vnmrsys/data/che344spring2014/unk9c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk9c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

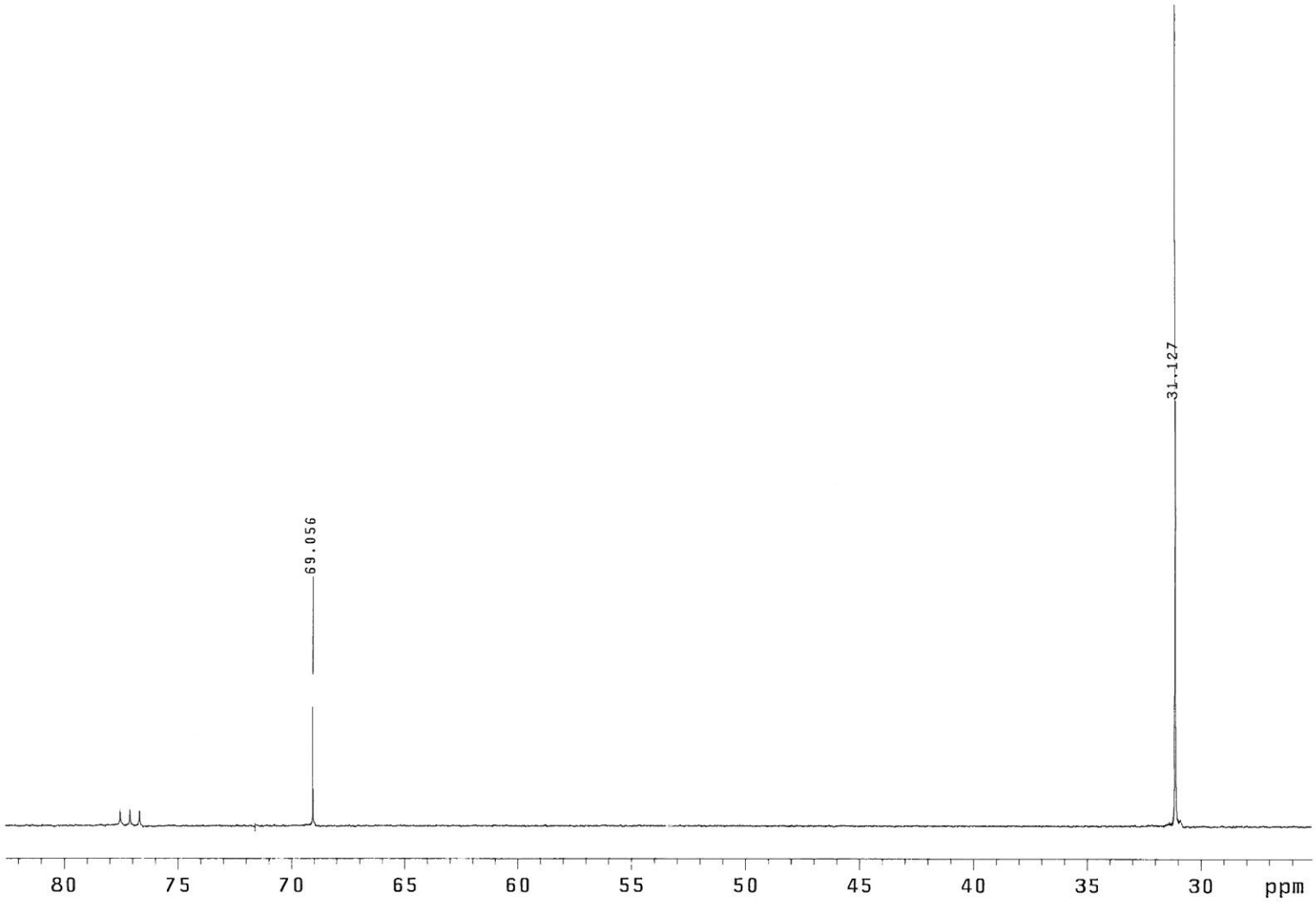


unk 9spring 2014

Sample: unk 9 spring 2014
Sample ID: s_20140407_01
File: /home/che344/vnmrsys/data/che344spring2014/unk9c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk9c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec

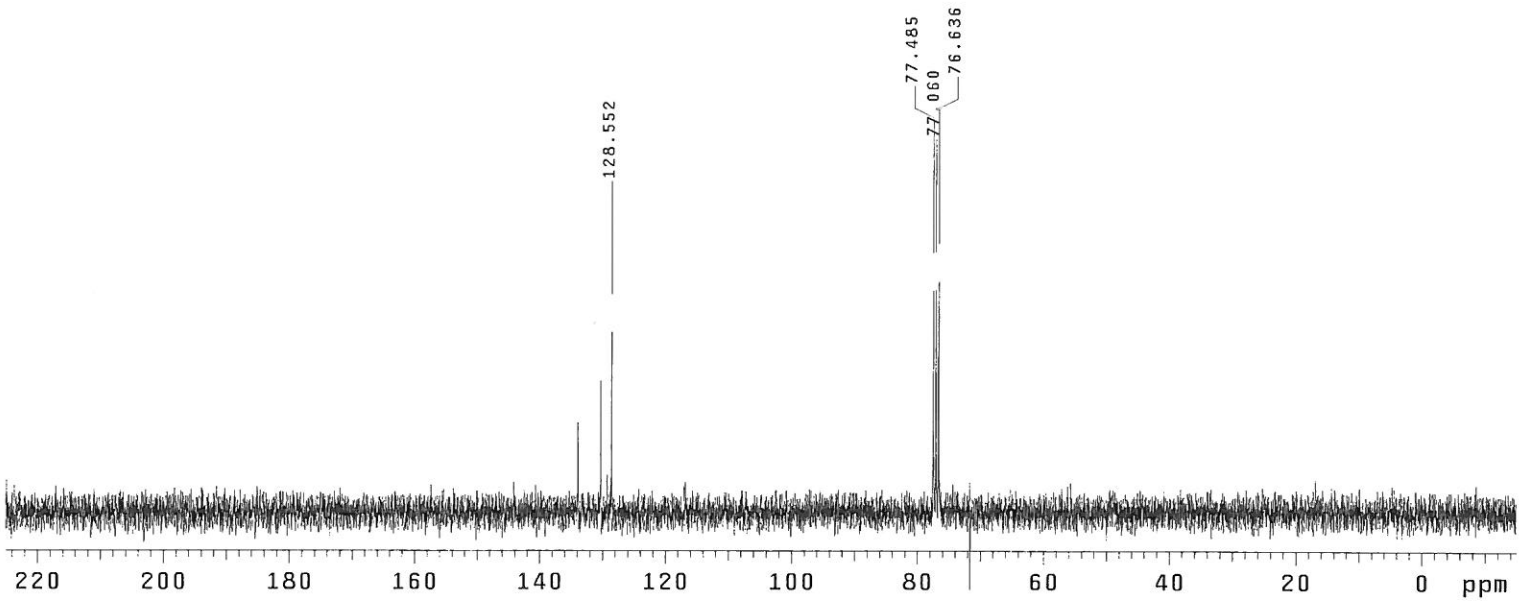


unk 18 spring 2014

Sample: unk 18 spring 2014
Sample ID: s_20140407_02
File: /home/che344/vnmrsys/data/che344spring2014/unk18c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk18c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec



unk 18 spring 2014

Sample: unk 18 spring 2014
Sample ID: s_20140407_02
File: /home/che344/vnmrsys/data/che344spring2014/unk18c13-256scans.fid

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp. 20.0 C / 293.1 K
Operator: che344
File: unk18c13-256scans
INOVA-300 "nmr300"

 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 18095.5 Hz
 256 repetitions
OBSERVE C13, 75.4051517 MHz
DECOUPLE H1, 299.8825561 MHz
 Power 34 dB
 continuously on
 WALTZ-16 modulated
DATA PROCESSING
 Line broadening 0.5 Hz
FT size 65536
Total time 9 min, 51 sec