

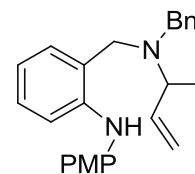
Synthesis of Saturated 1,4-Benzodiazepines via Pd-Catalyzed Carboamination Reactions.

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Supporting Information (Continued)

Copies of ^1H NMR and ^{13}C NMR Spectra for all New Compounds (62 pages).



VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400
Archive directory:

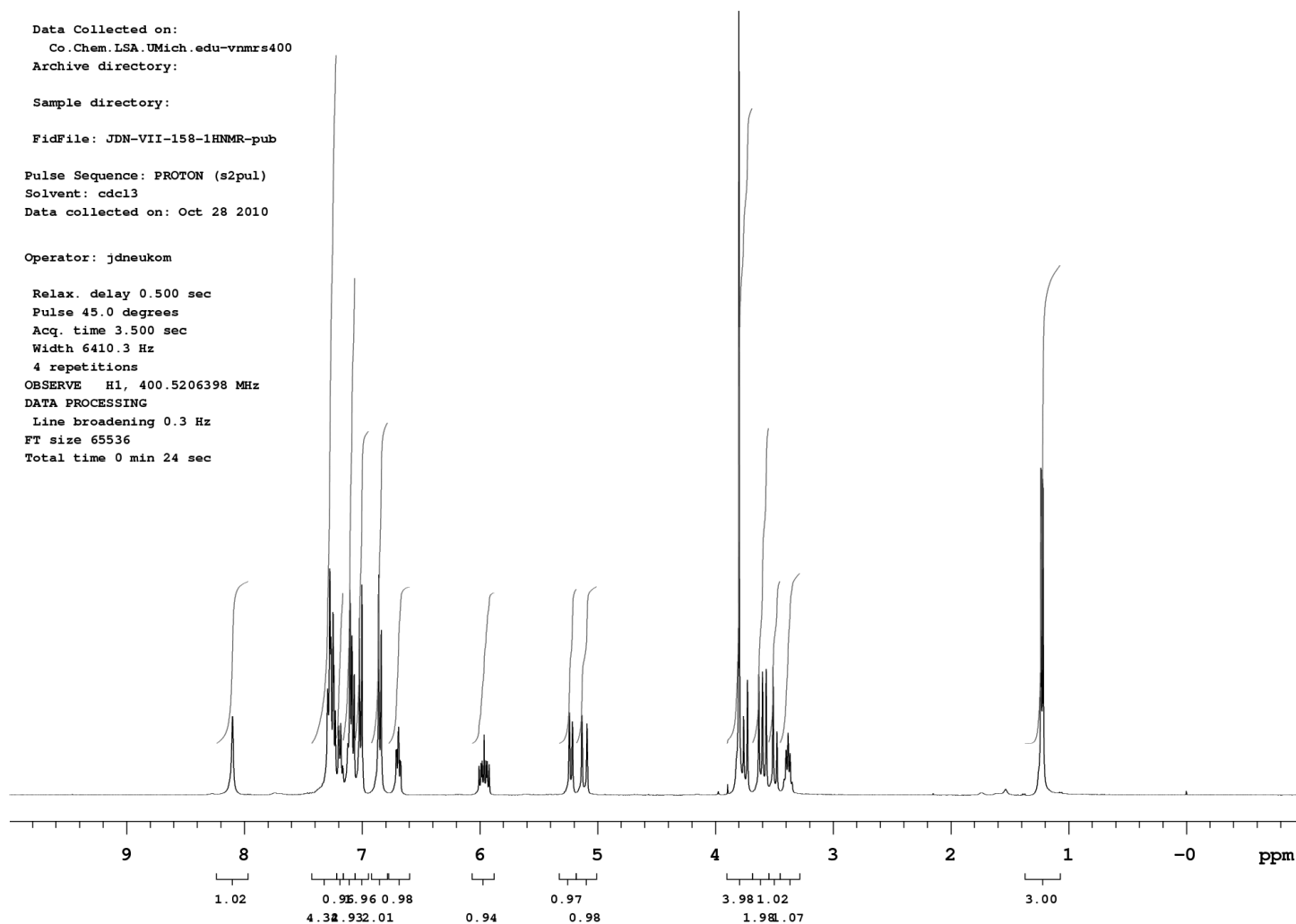
Sample directory:

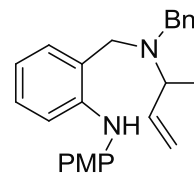
FidFile: JDN-VII-158-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6410.3 Hz
4 repetitions
OBSERVE H1, 400.5206398 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 24 sec





VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

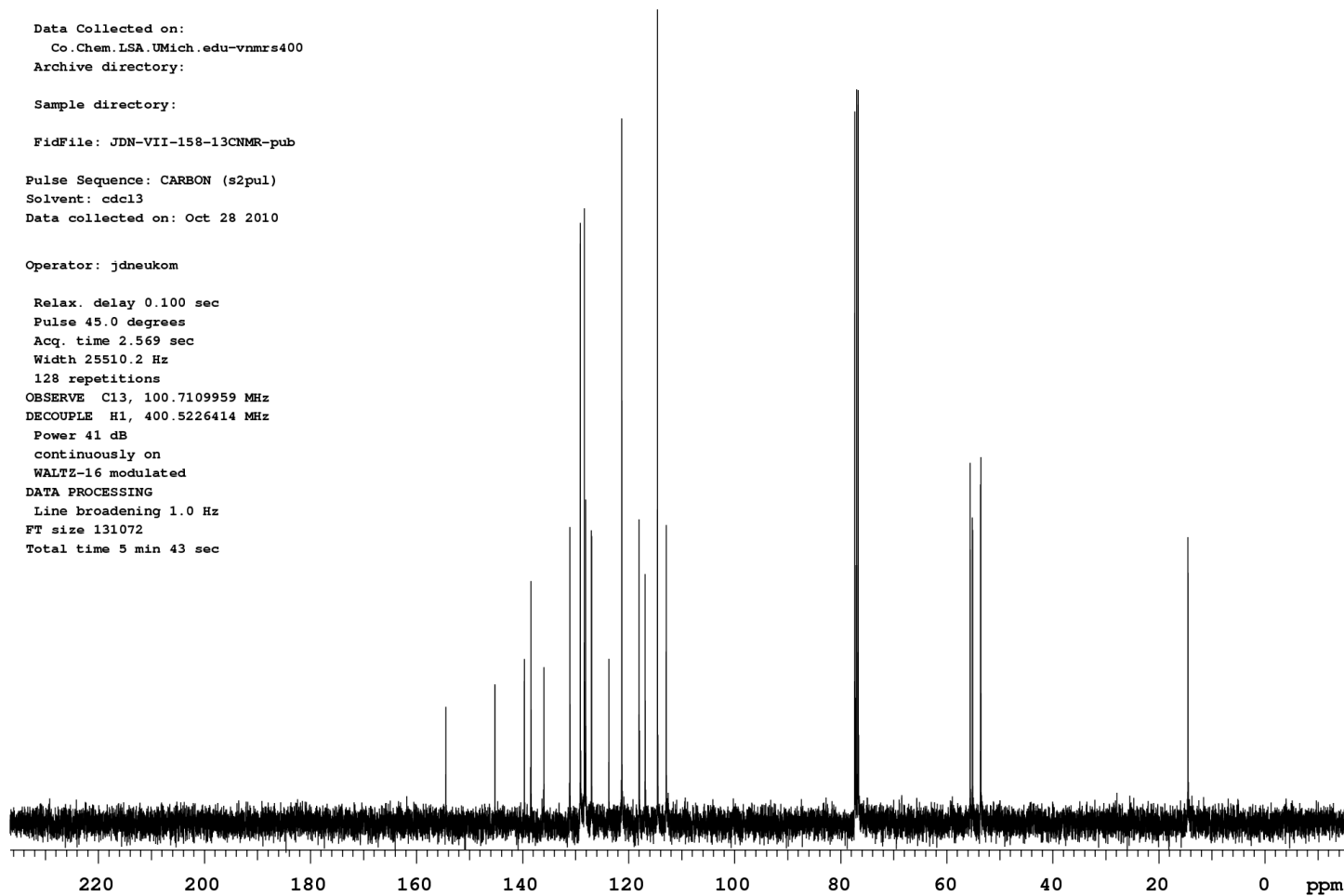
Sample directory:

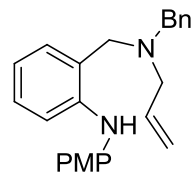
FidFile: JDN-VII-158-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
128 repetitions
OBSERVE C13, 100.7109959 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 5 min 43 sec



**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VII-107-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 27 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

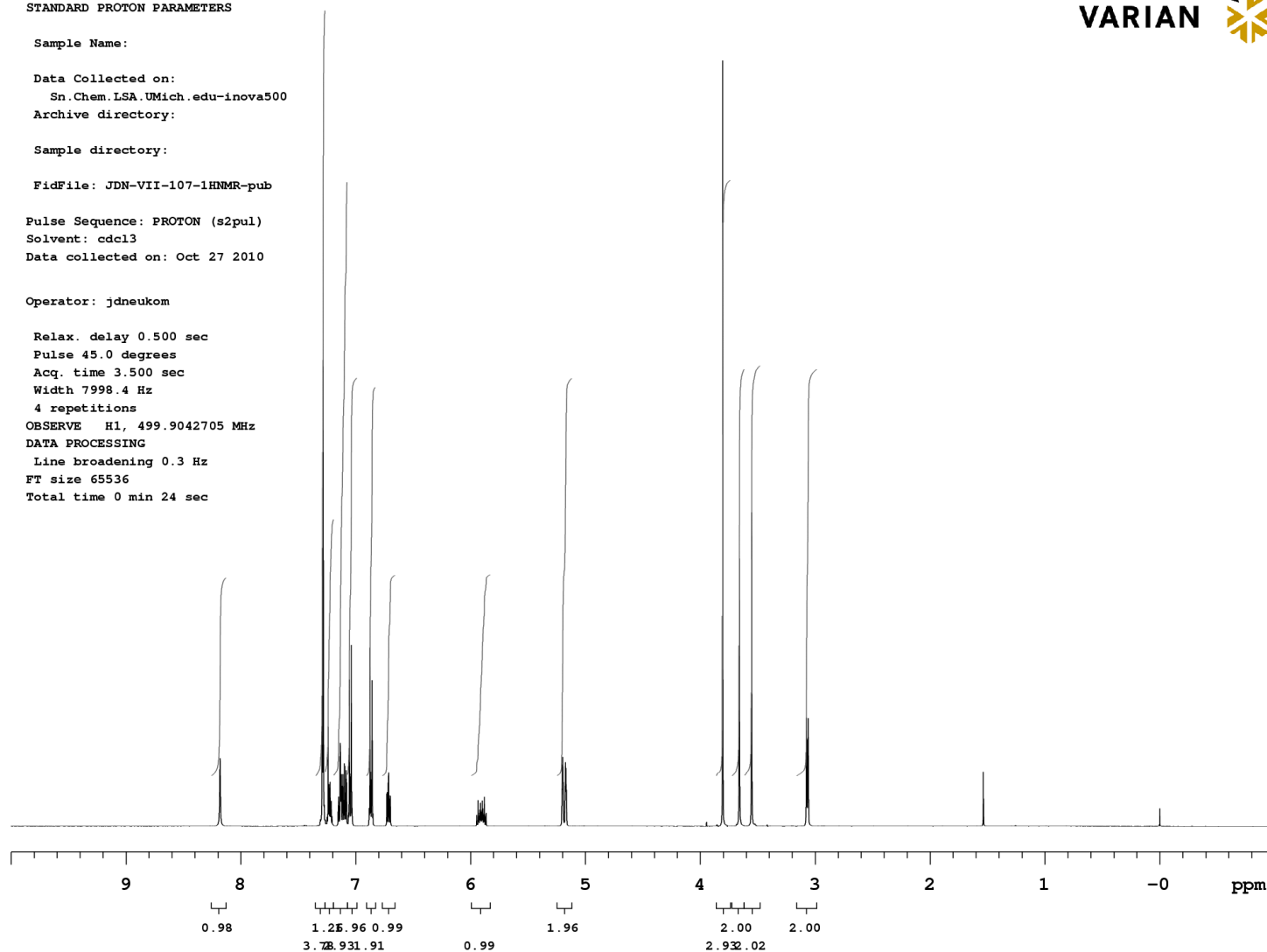
OBSERVE H1, 499.9042705 MHz

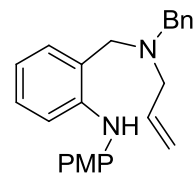
DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec





VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

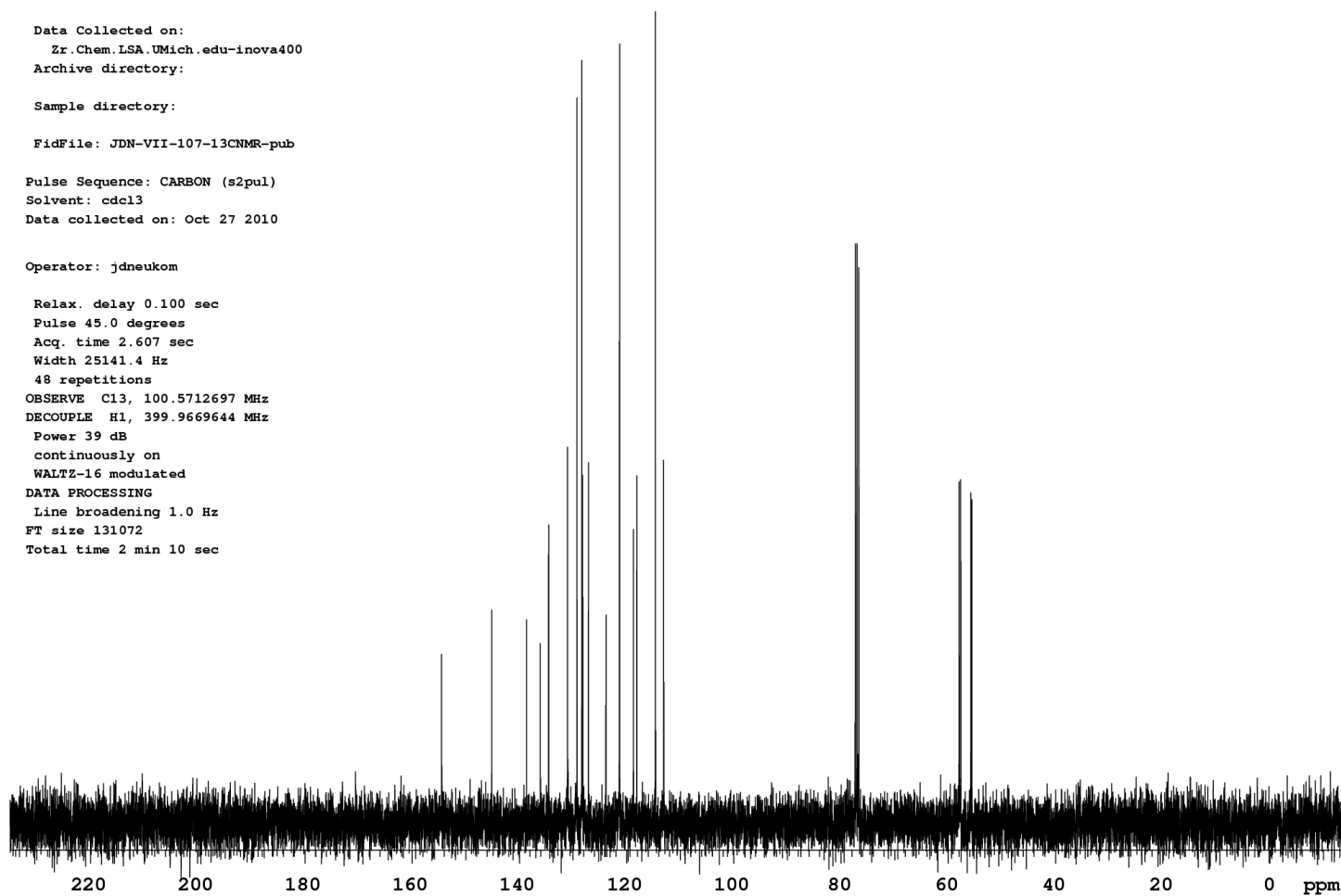
Sample directory:

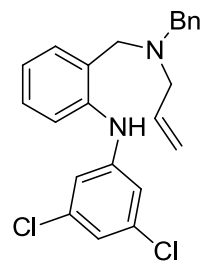
FidFile: JDN-VII-107-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 27 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
48 repetitions
OBSERVE C13, 100.5712697 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 2 min 10 sec



**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500
Archive directory:

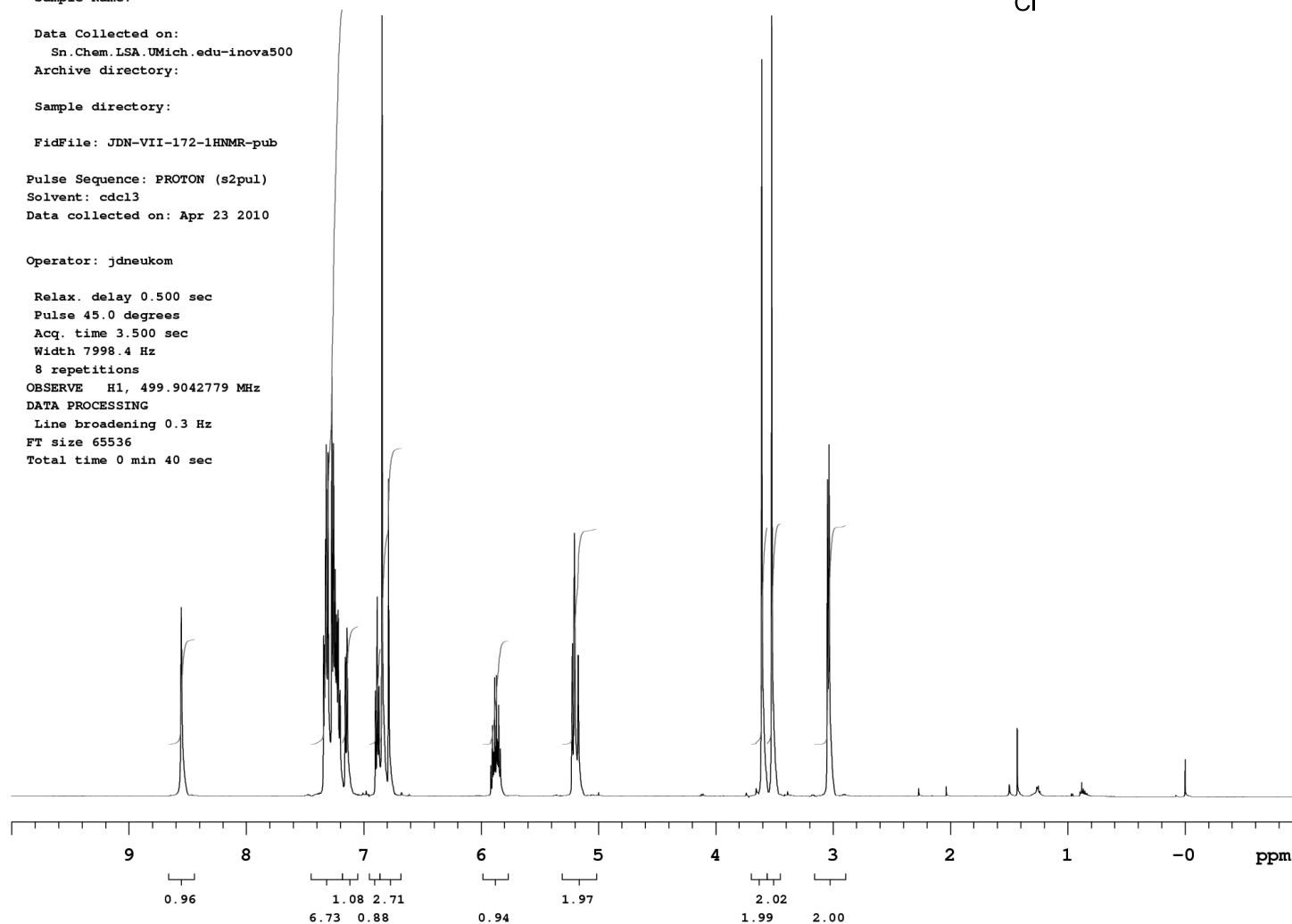
Sample directory:

FidFile: JDN-VII-172-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Apr 23 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 7998.4 Hz
8 repetitions
OBSERVE H1, 499.9042779 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 sec



STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

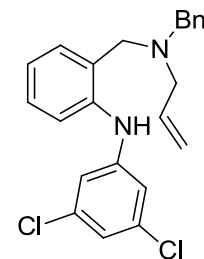
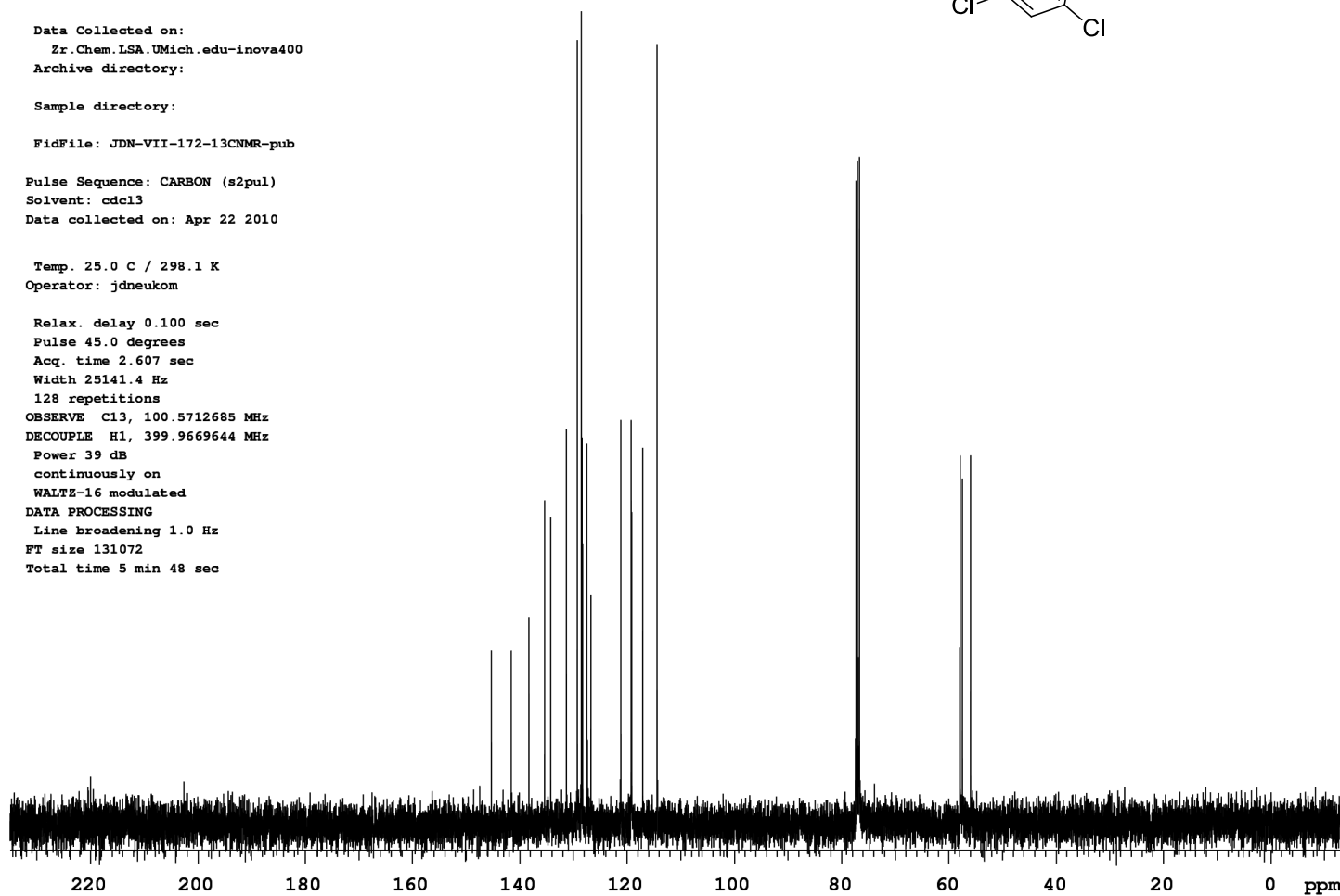
Sample directory:

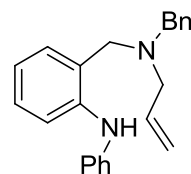
FidFile: JDN-VII-172-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Apr 22 2010

Temp. 25.0 C / 298.1 K
Operator: jdnukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
128 repetitions
OBSERVE C13, 100.5712685 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 5 min 48 sec

VARIAN 

**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VII-142-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Mar 13 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

8 repetitions

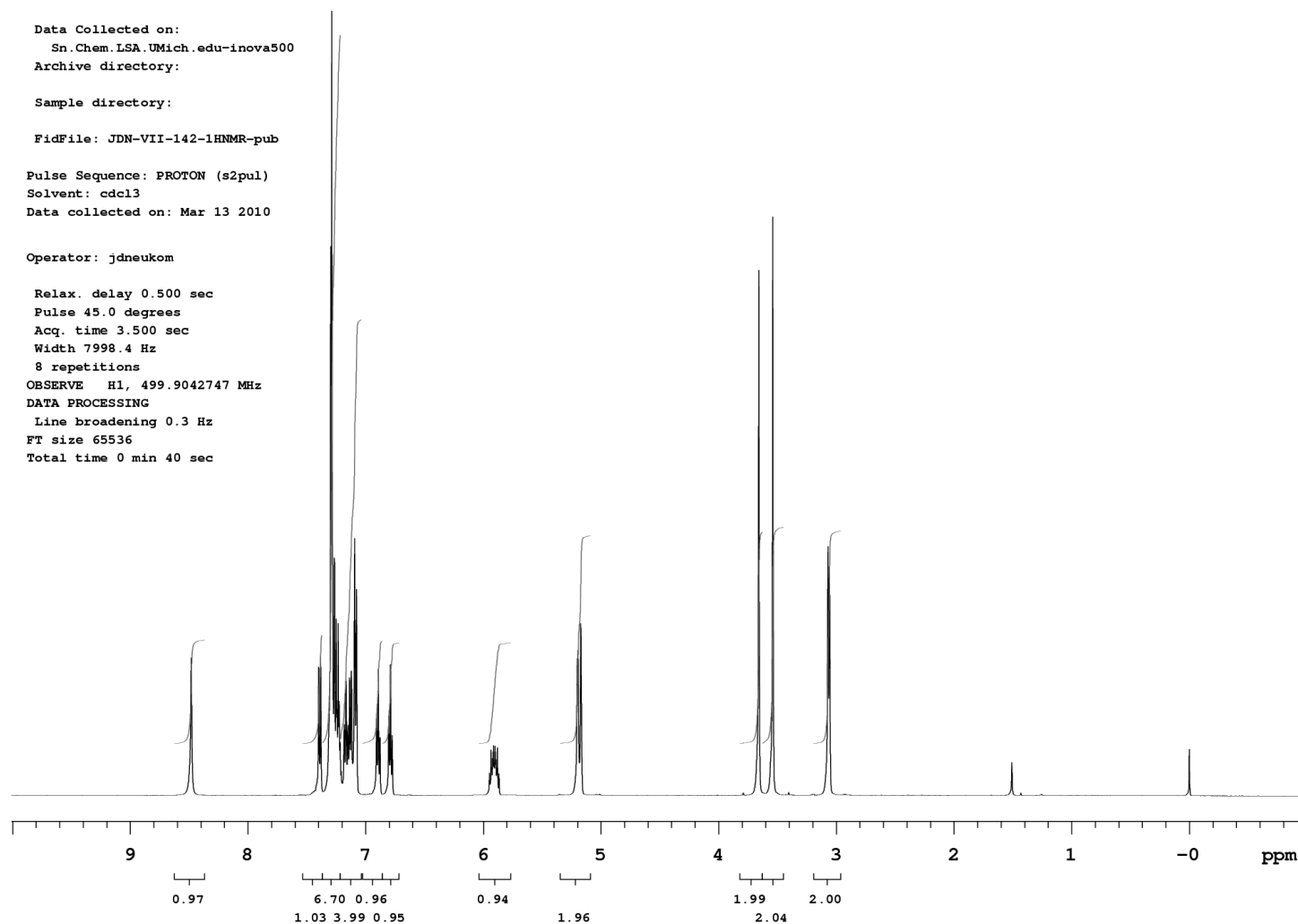
OBSERVE H1, 499.9042747 MHz

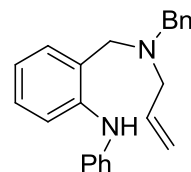
DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 40 sec



**VARIAN** 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VII-142-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Oct 19 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.607 sec

Width 25141.4 Hz

96 repetitions

OBSERVE C13, 100.5712720 MHz

DECOUPLE H1, 399.9669644 MHz

Power 39 dB

continuously on

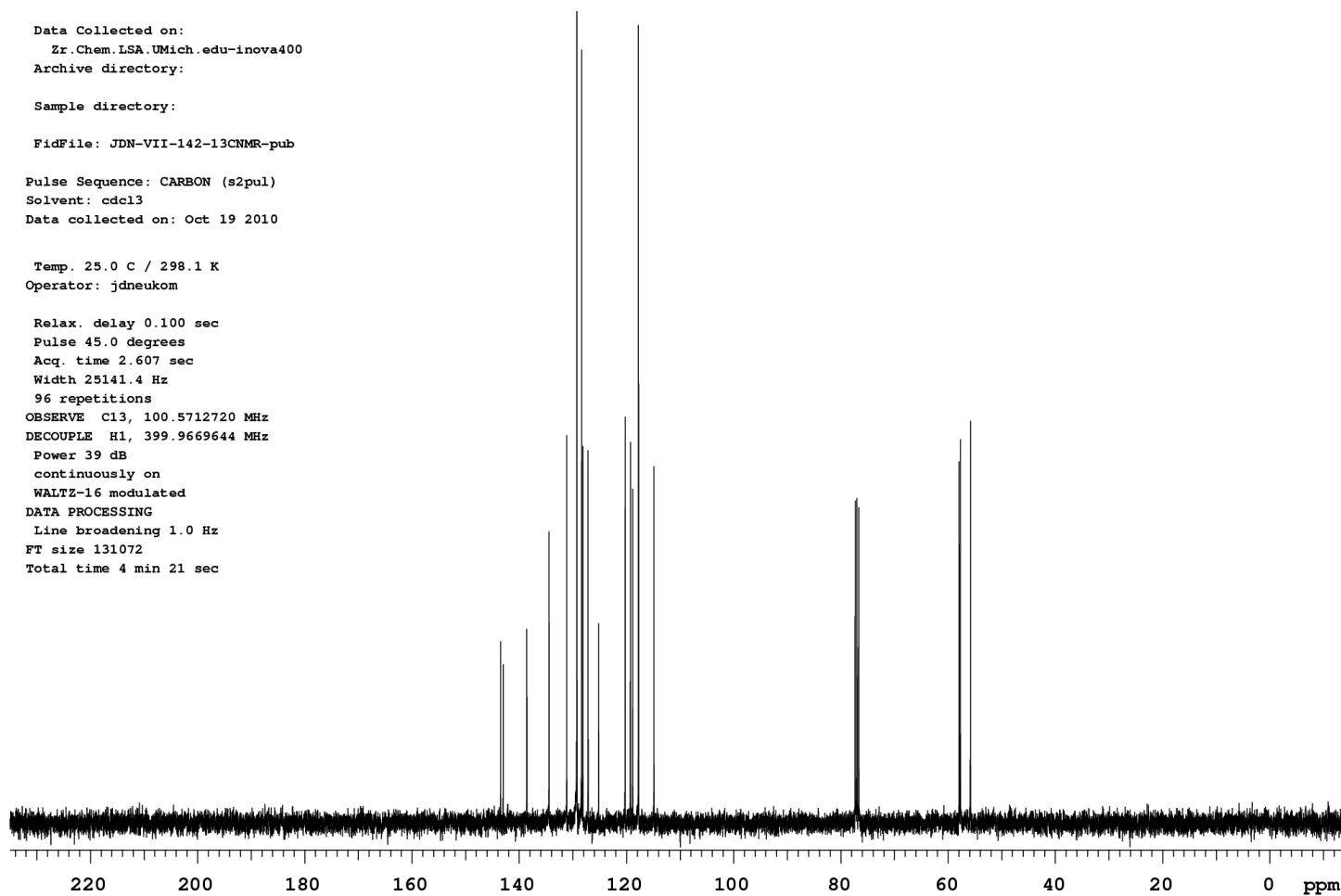
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 4 min 21 sec

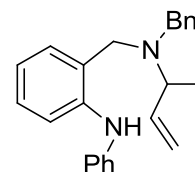


STANDARD PROTON PARAMETERS

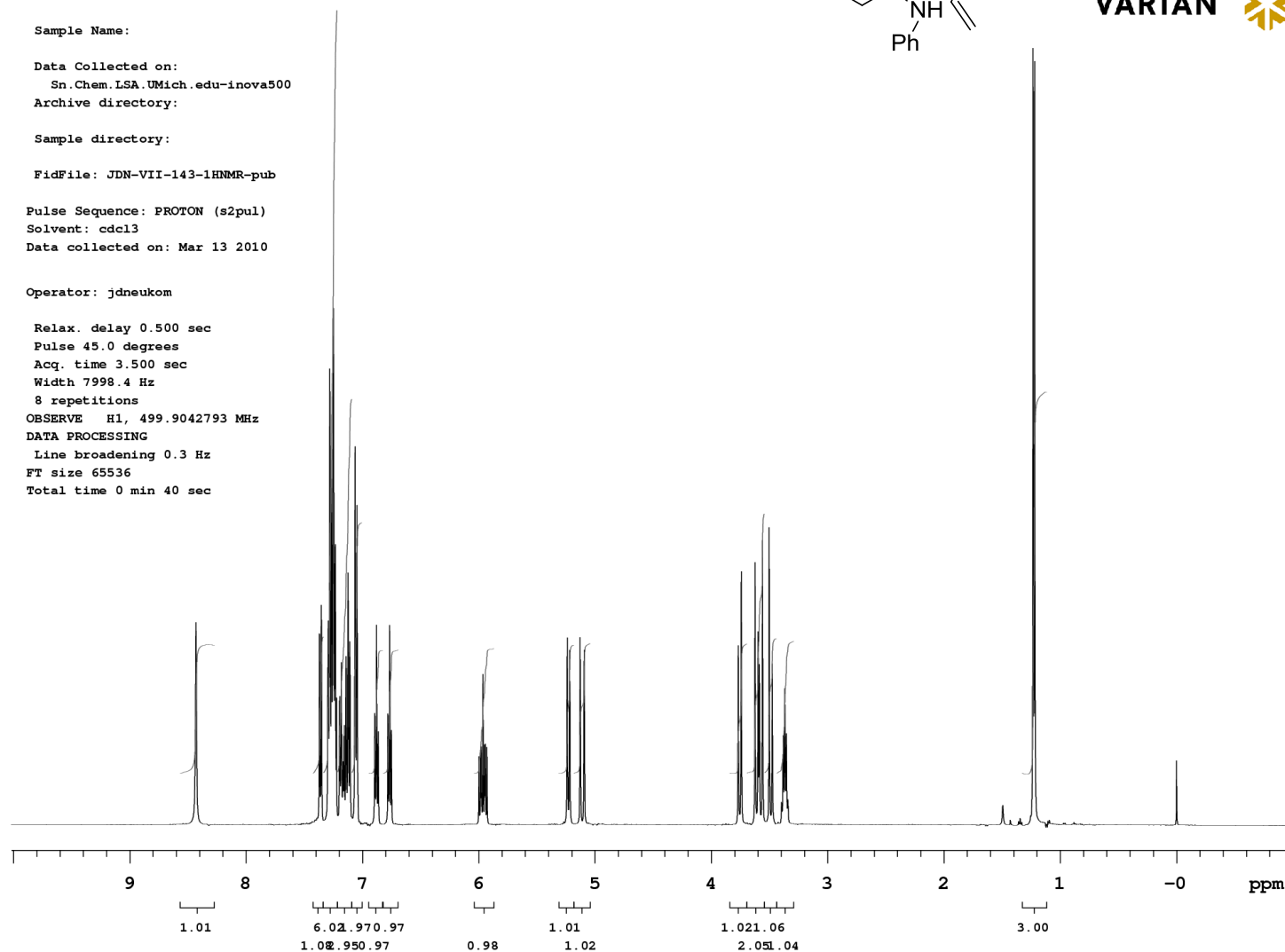
Sample Name:
Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500
Archive directory:
Sample directory:
FidFile: JDN-VII-143-1HNMR-pub
Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Mar 13 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 7998.4 Hz
8 repetitions
OBSERVE H1, 499.9042793 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 sec



VARIAN 



STANDARD CARBON PARAMETERS

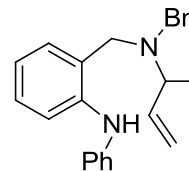
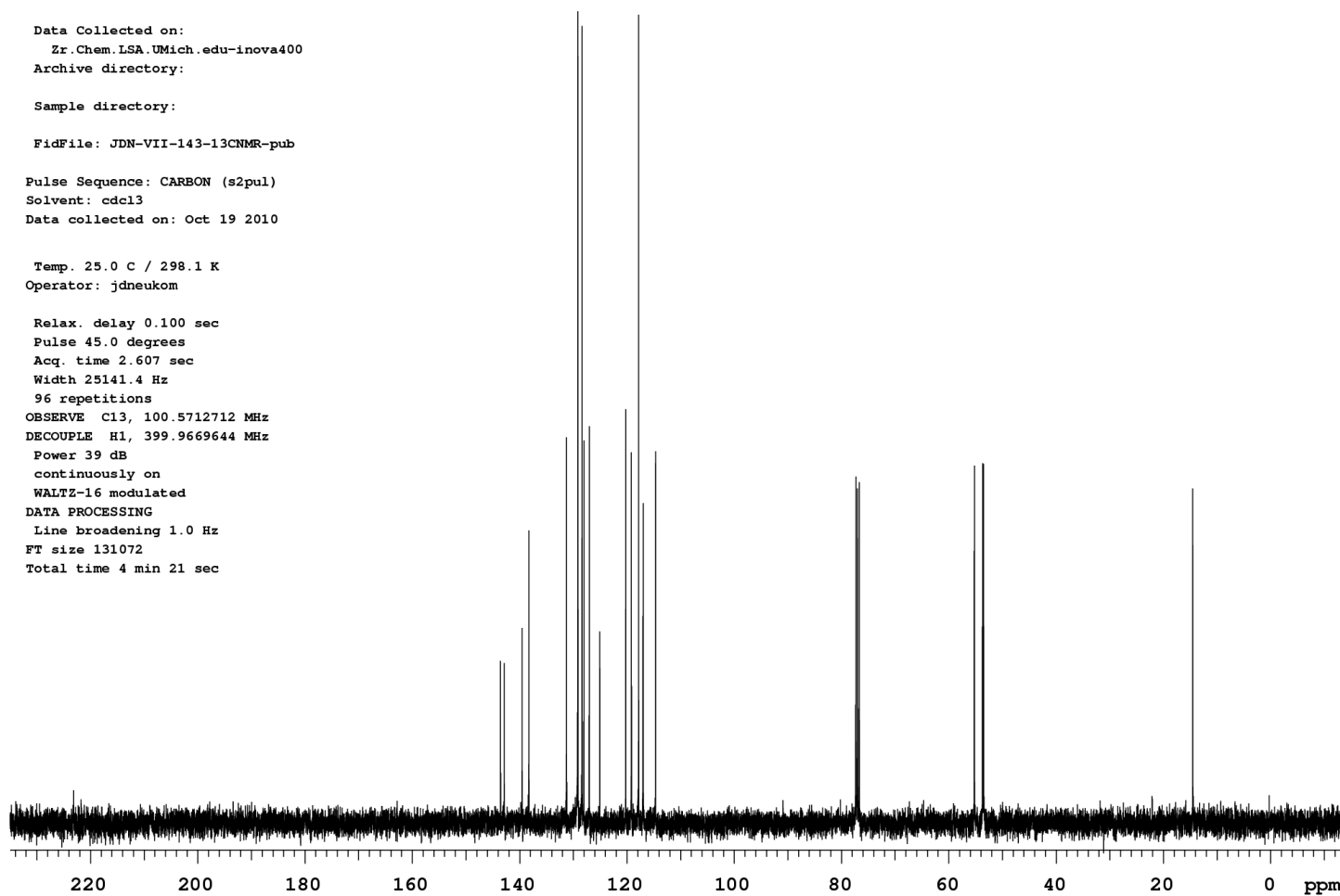
Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VII-143-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 19 2010Temp. 25.0 C / 298.1 K
Operator: jdneukomRelax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
96 repetitions
OBSERVE C13, 100.5712712 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 4 min 21 secVARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VII-166-1HNMR-62degC

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 19 2010

Temp. 62.0 C / 335.1 K

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 6399.5 Hz

4 repetitions

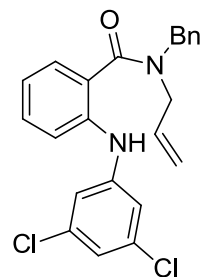
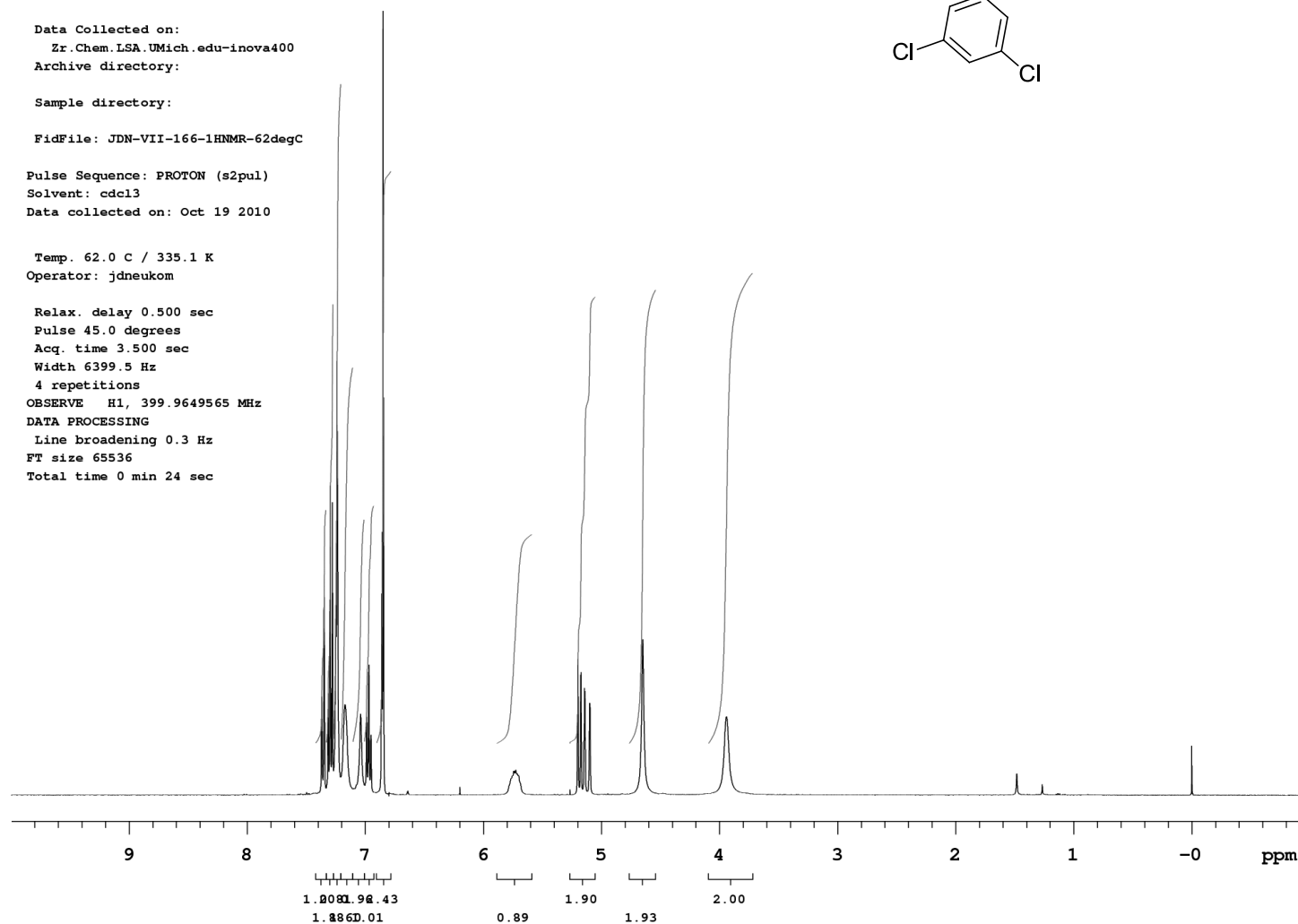
OBSERVE H1, 399.9649565 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

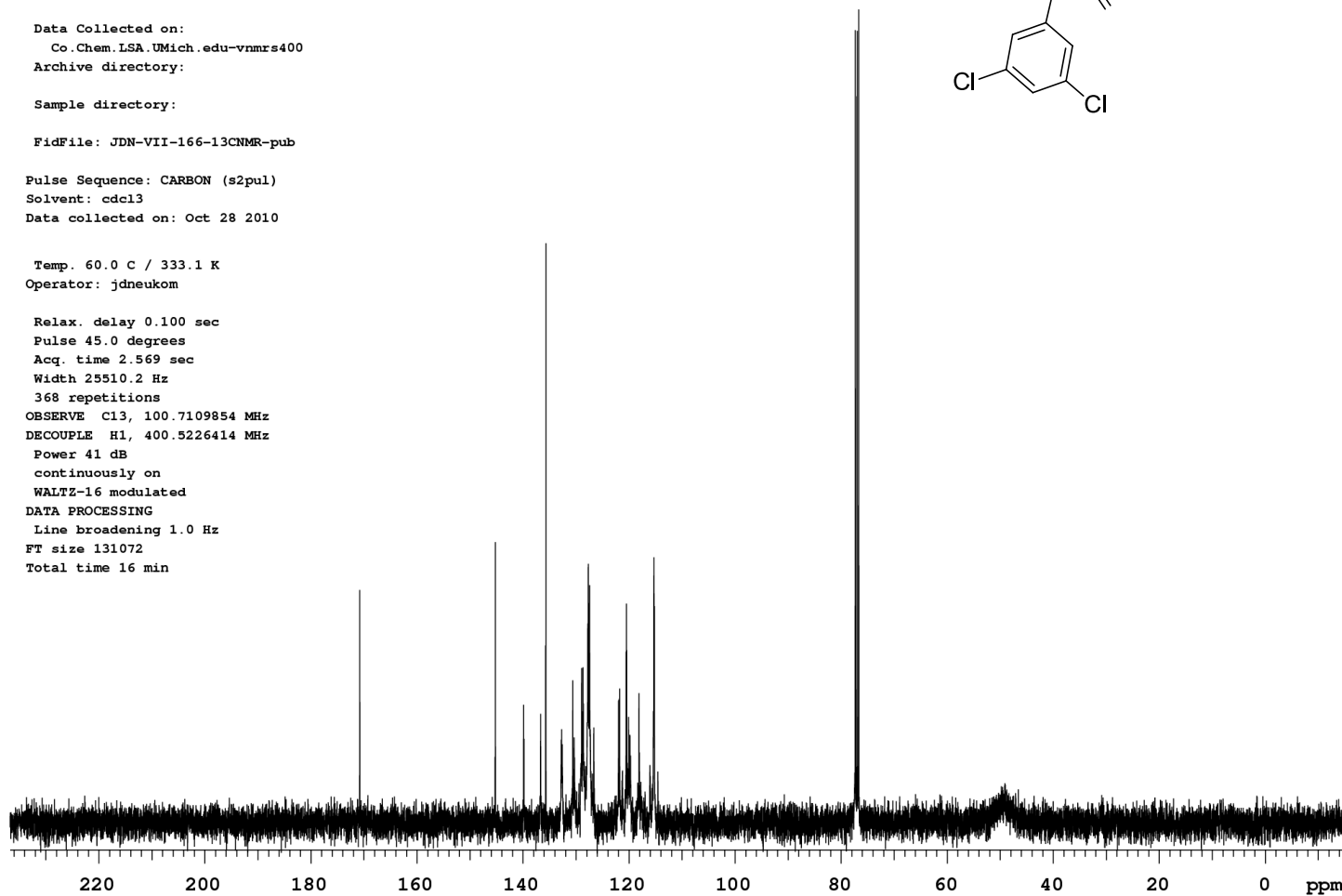
Sample Name:

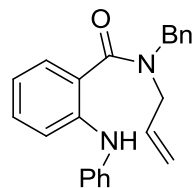
Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-VII-166-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010Temp. 60.0 C / 333.1 K
Operator: jdneukomRelax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
368 repetitions
OBSERVE C13, 100.7109854 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 16 min

**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Te-vnmrs500

Archive directory:

Sample directory:

FidFile: JDN-VII-58-1HNMR-60degC

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 31 2010

Temp. 60.0 C / 333.1 K

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 8012.8 Hz

4 repetitions

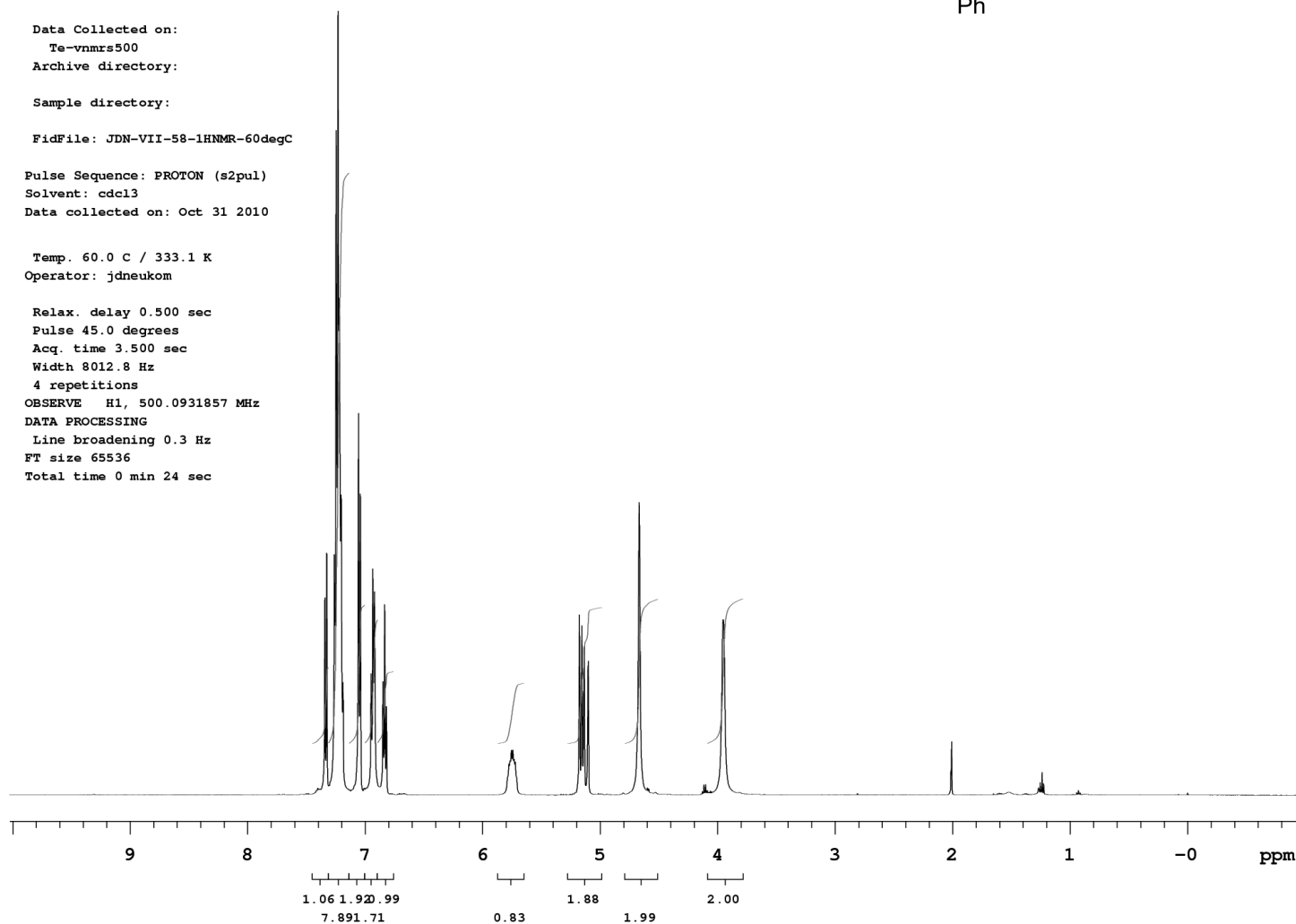
OBSERVE H1, 500.0931857 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec



STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Te-vnmrs500

Archive directory:

Sample directory:

FidFile: JDN-VII-58-13CNMR-pub-60degC

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Oct 31 2010

Temp. 60.0 C / 333.1 K

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.045 sec

Width 32051.3 Hz

208 repetitions

OBSERVE C13, 125.7485197 MHz

DECOUPLE H1, 500.0956704 MHz

Power 42 dB

continuously on

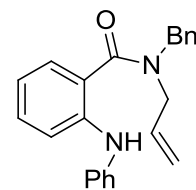
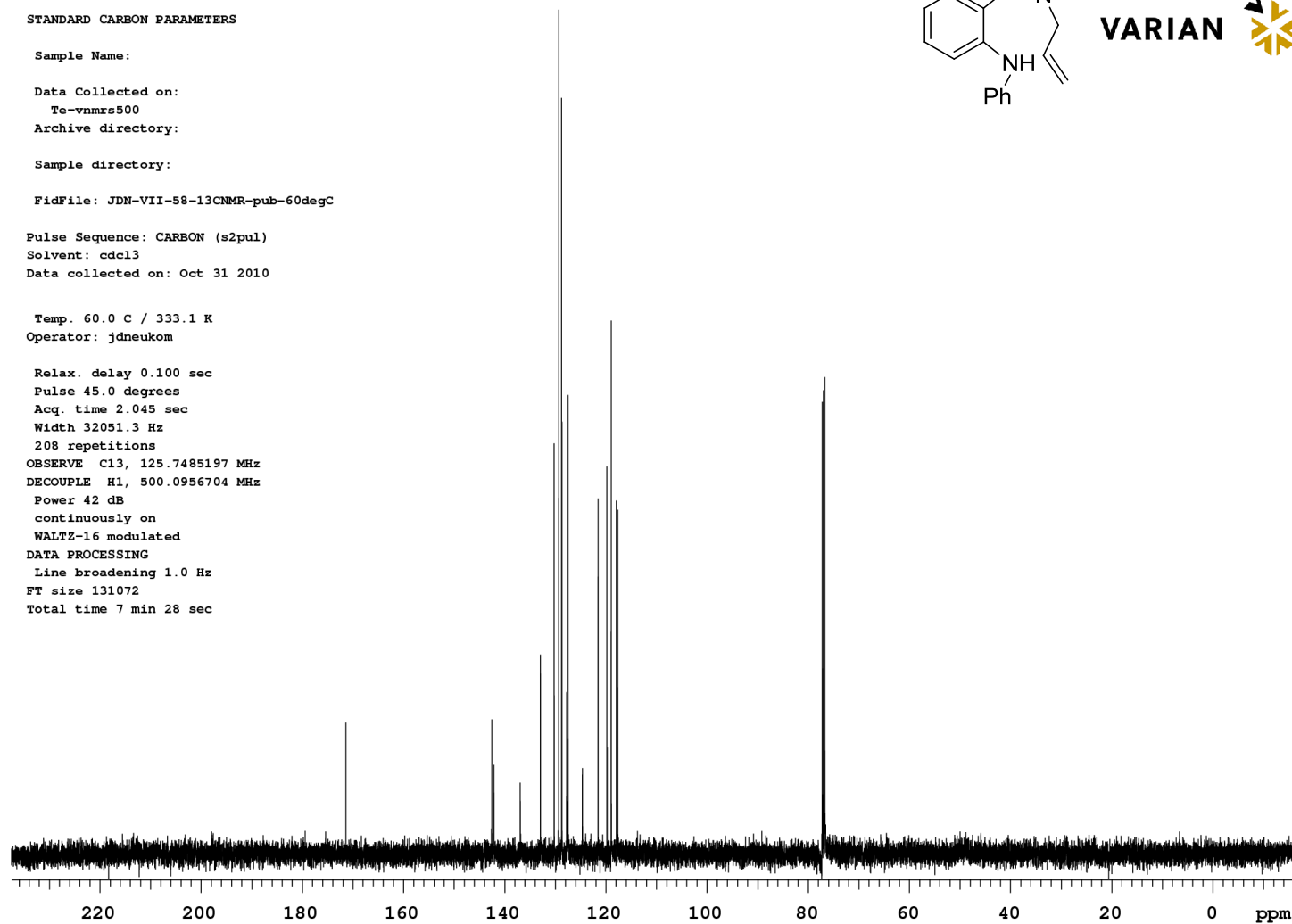
WALTZ-16 modulated

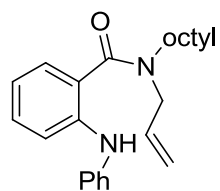
DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 7 min 28 sec

VARIAN 

**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400
Archive directory:

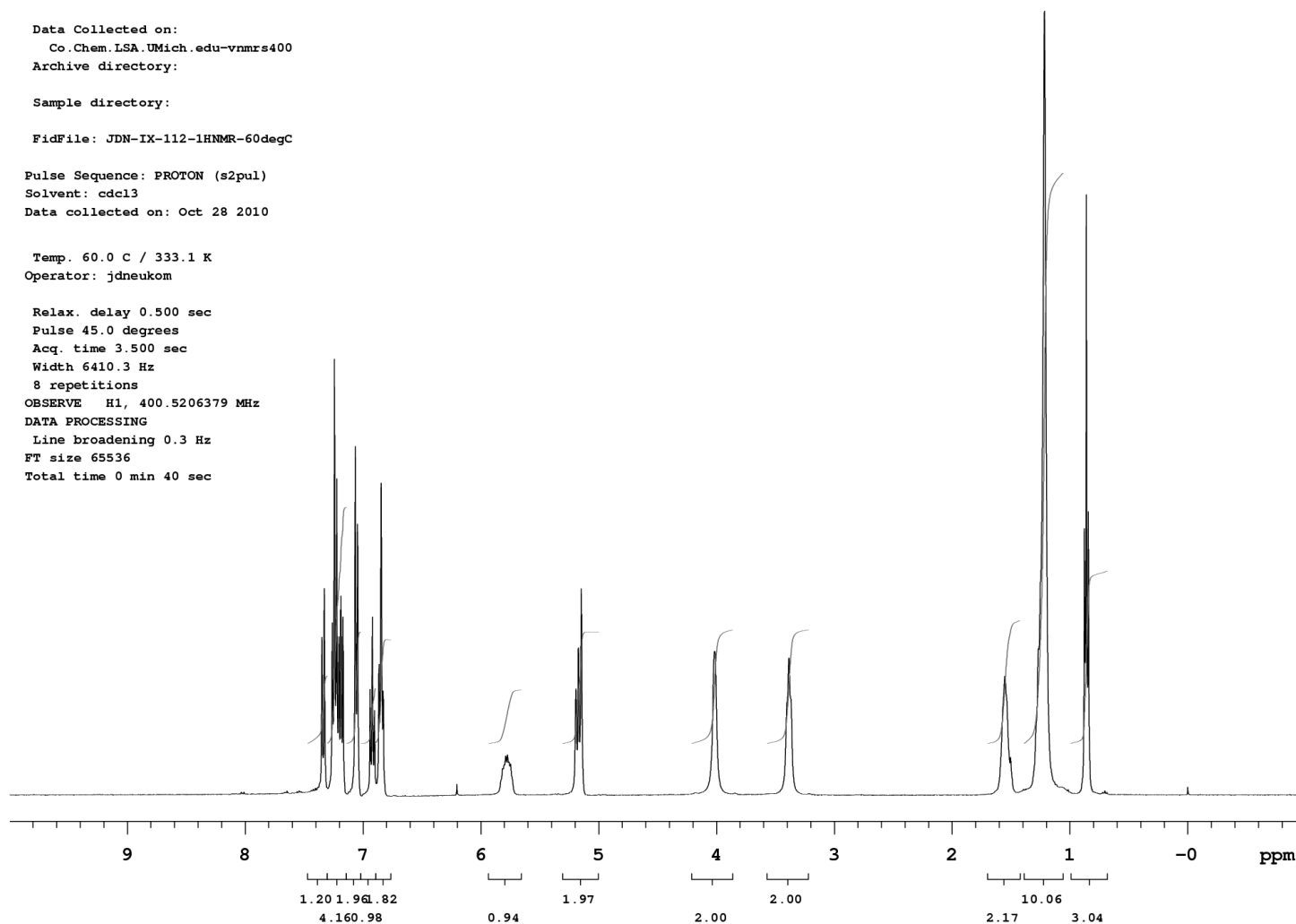
Sample directory:

FidFile: JDN-IX-112-1HNMR-60degC

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Temp. 60.0 C / 333.1 K
Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6410.3 Hz
8 repetitions
OBSERVE H1, 400.5206379 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 sec



STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-IX-112-13CNMR-60degC

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Oct 28 2010

Temp. 60.0 C / 333.1 K

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.569 sec

Width 25510.2 Hz

640 repetitions

OBSERVE C13, 100.7109834 MHz

DECOUPLE H1, 400.5226414 MHz

Power 41 dB

continuously on

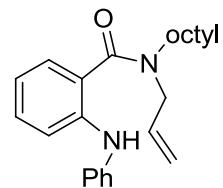
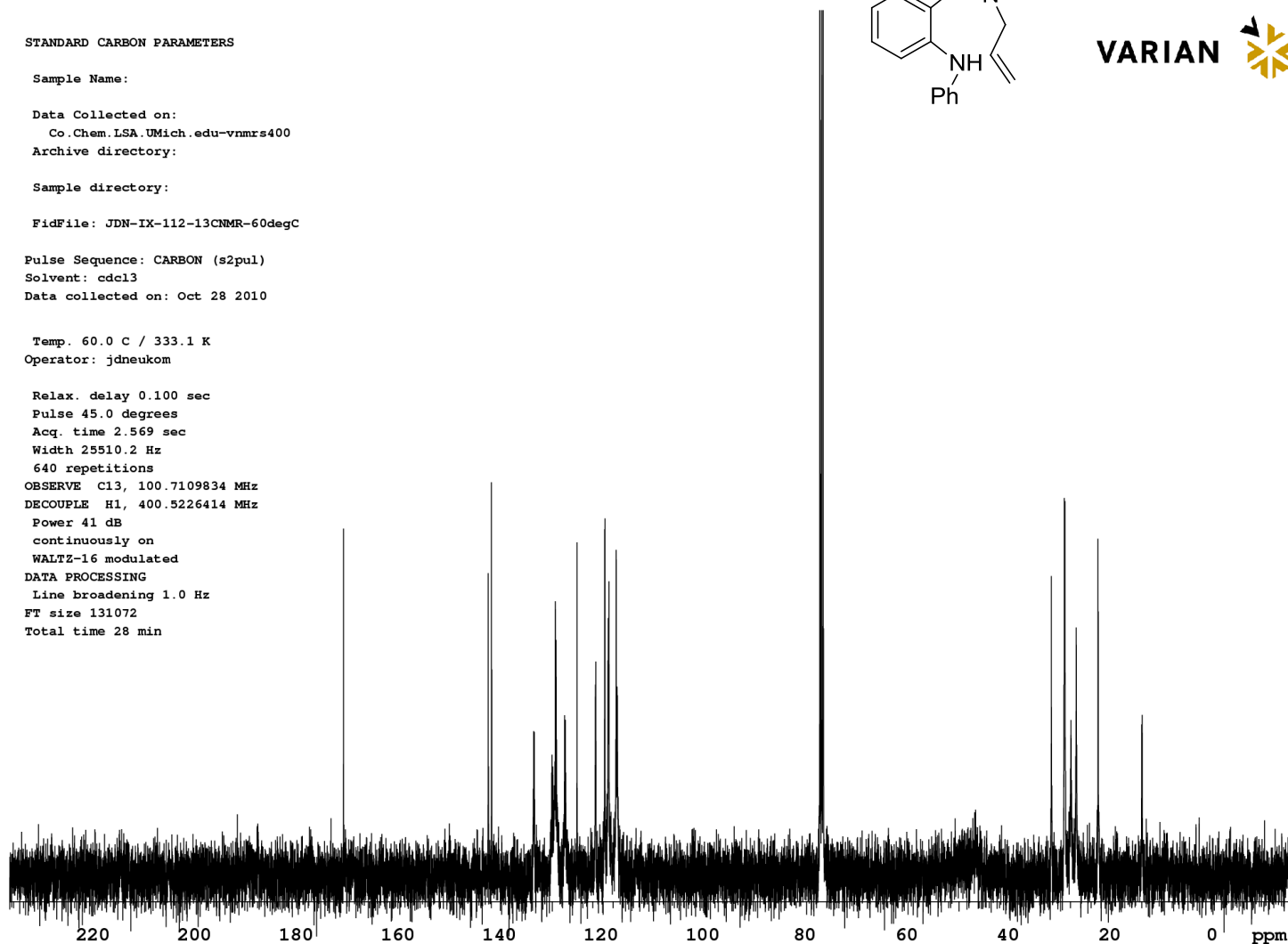
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 28 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-31-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

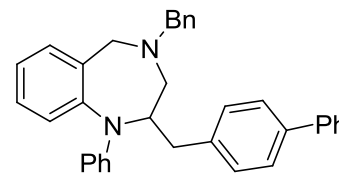
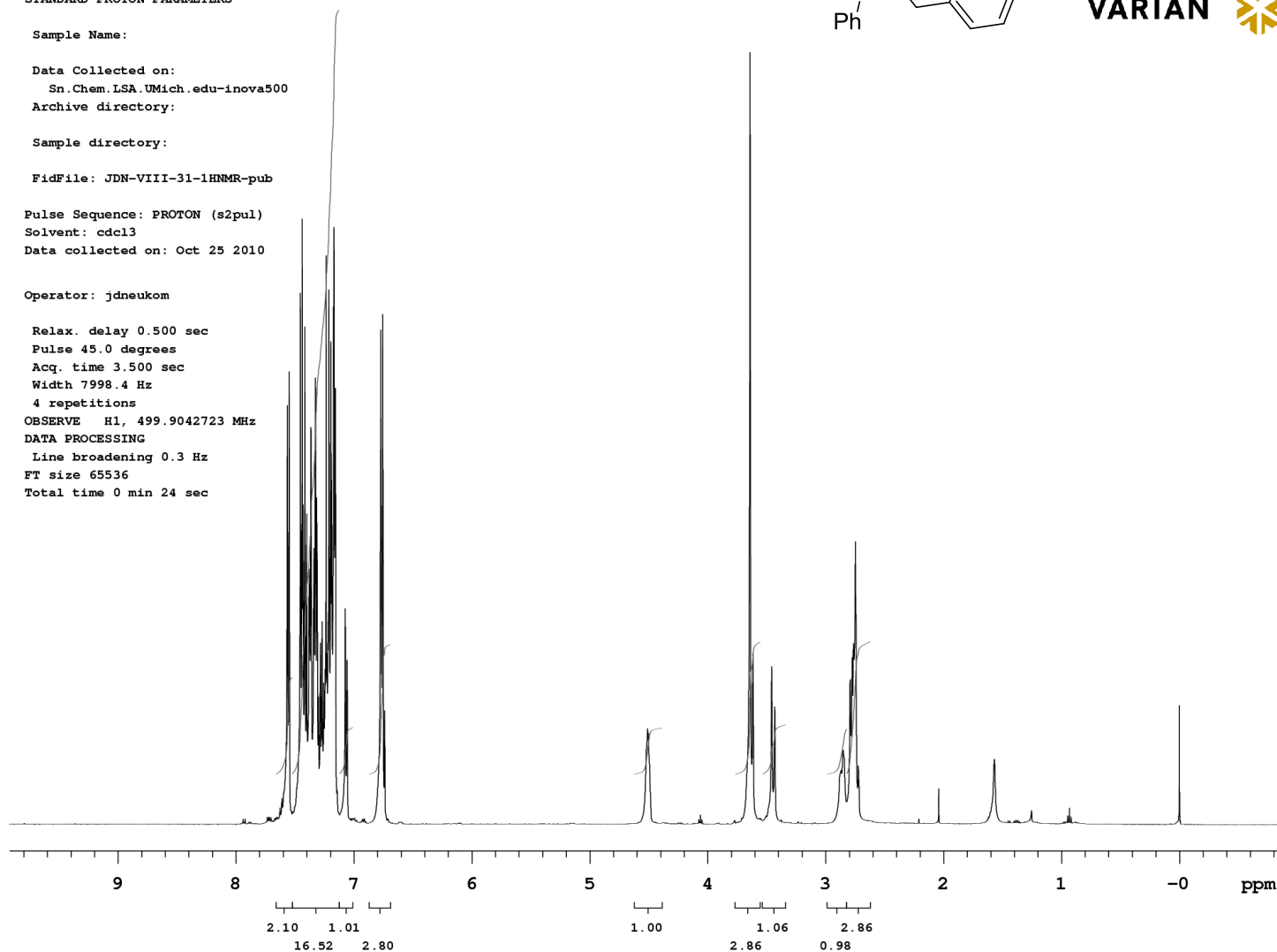
OBSERVE H1, 499.9042723 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-31-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Temp. 25.0 C / 298.1 K

Operator: jdneykom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.607 sec

Width 25141.4 Hz

512 repetitions

OBSERVE C13, 100.5712693 MHz

DECOUPLE H1, 399.9669644 MHz

Power 39 dB

continuously on

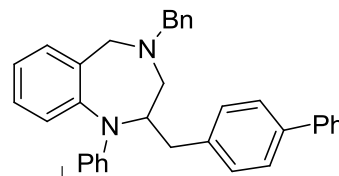
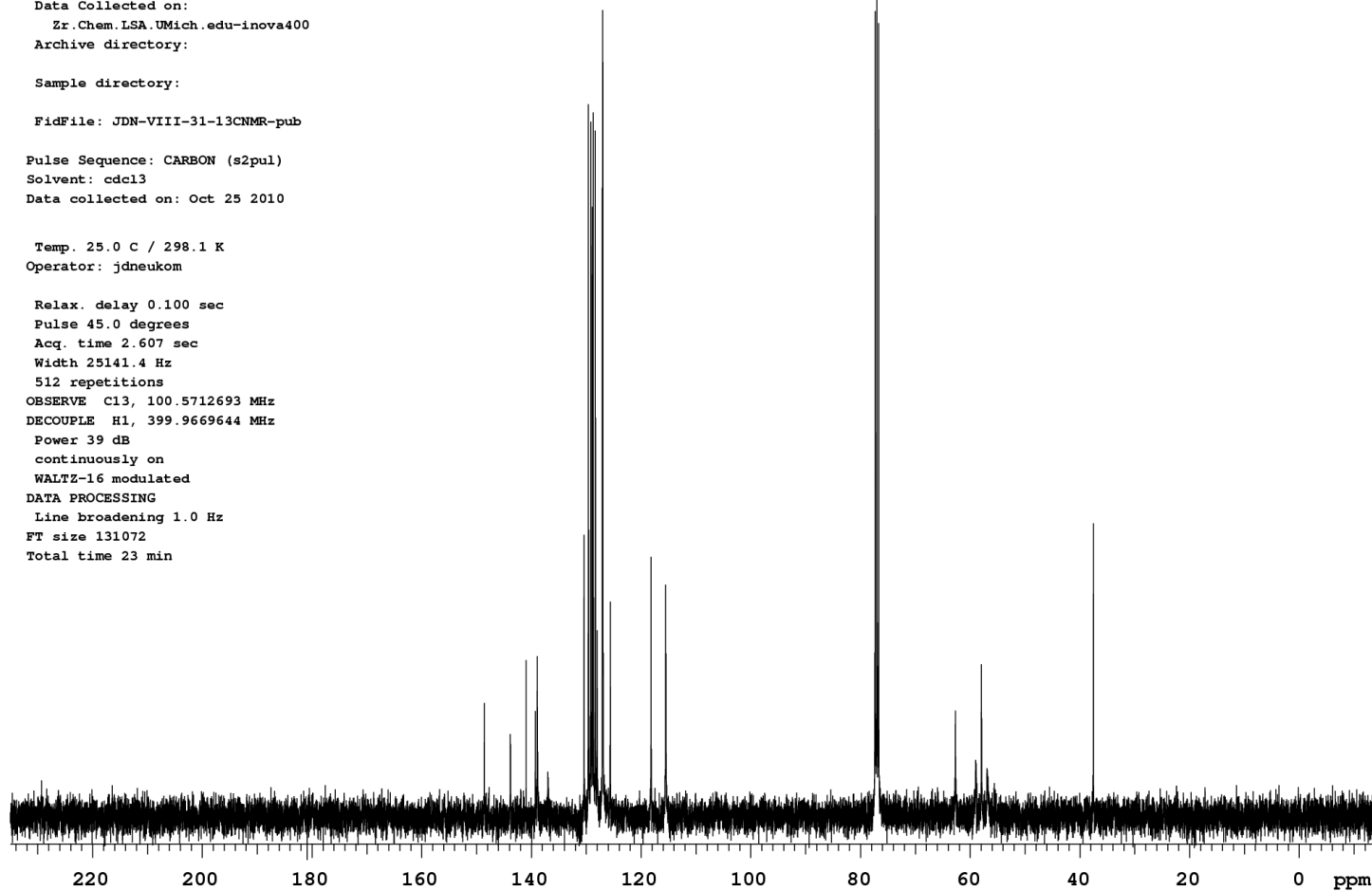
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 23 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VII-199-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: May 6 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

8 repetitions

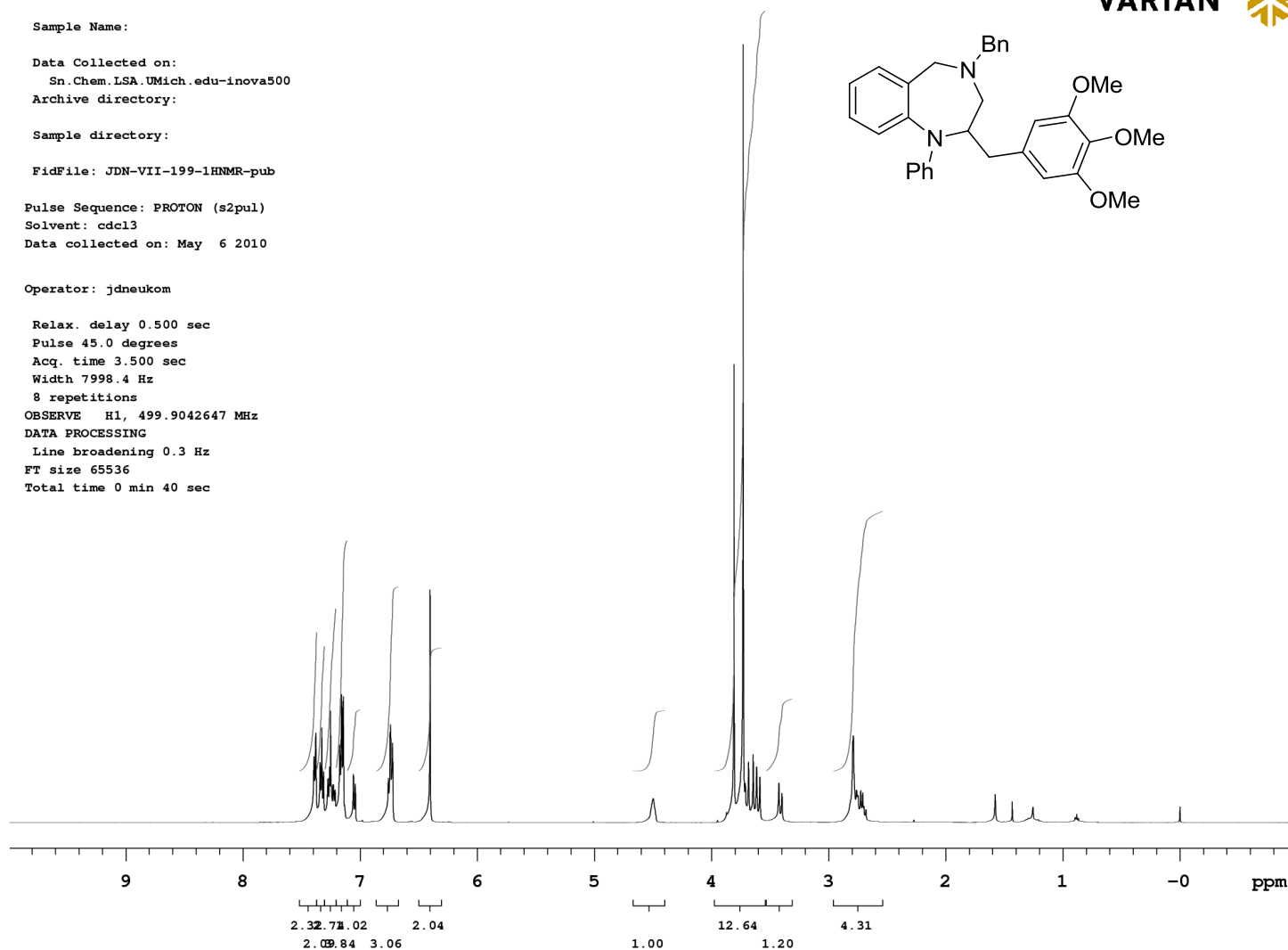
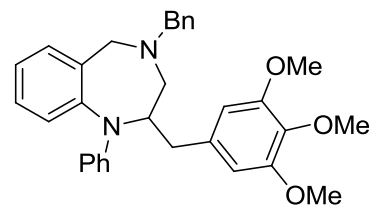
OBSERVE H1, 499.9042647 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 40 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

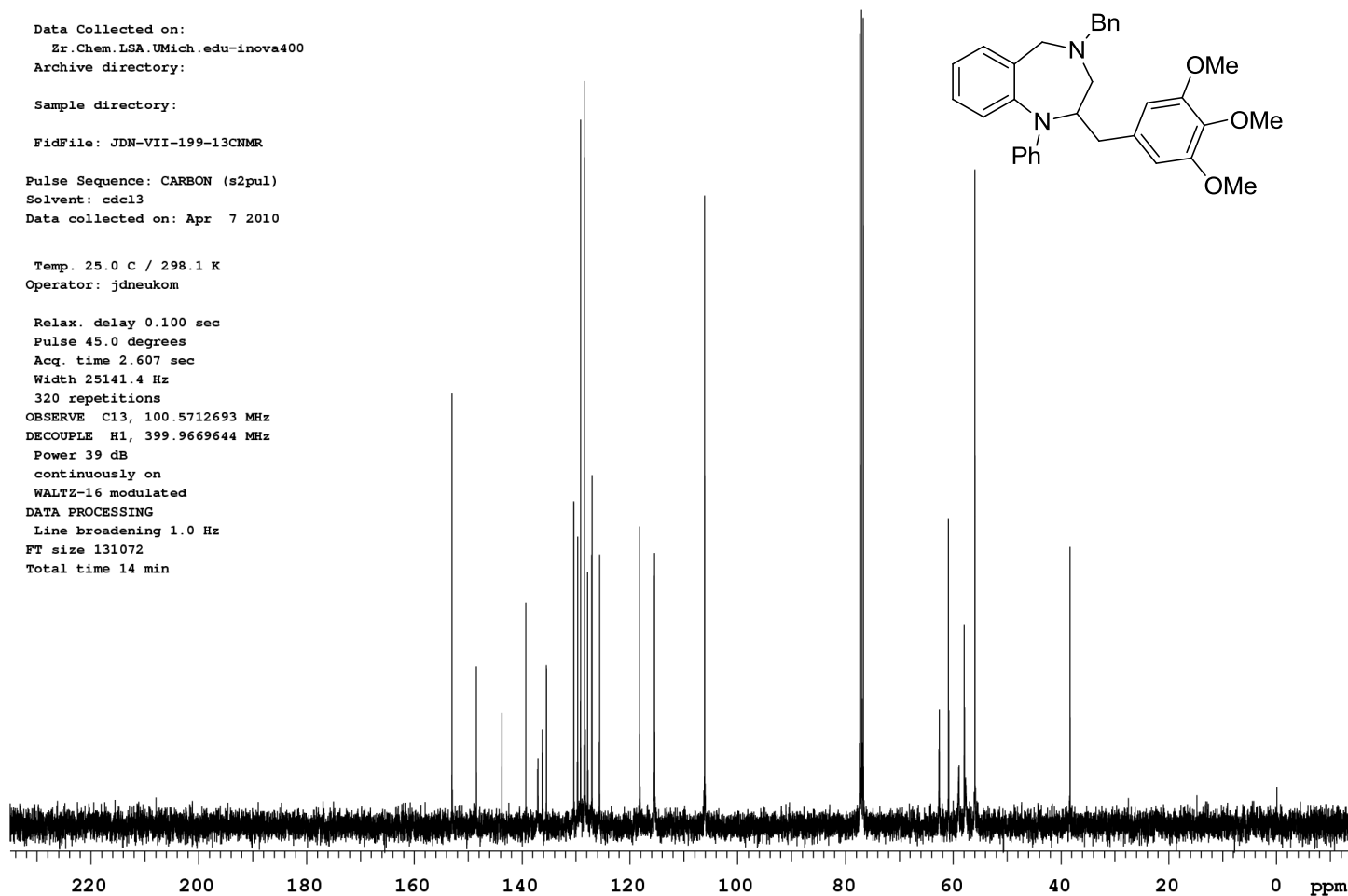
Sample directory:

FidFile: JDN-VII-199-13CNMR

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Apr 7 2010

Temp. 25.0 C / 298.1 K
Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
320 repetitions
OBSERVE C13, 100.5712693 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 14 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-3-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 22 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

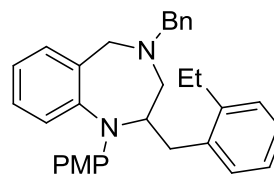
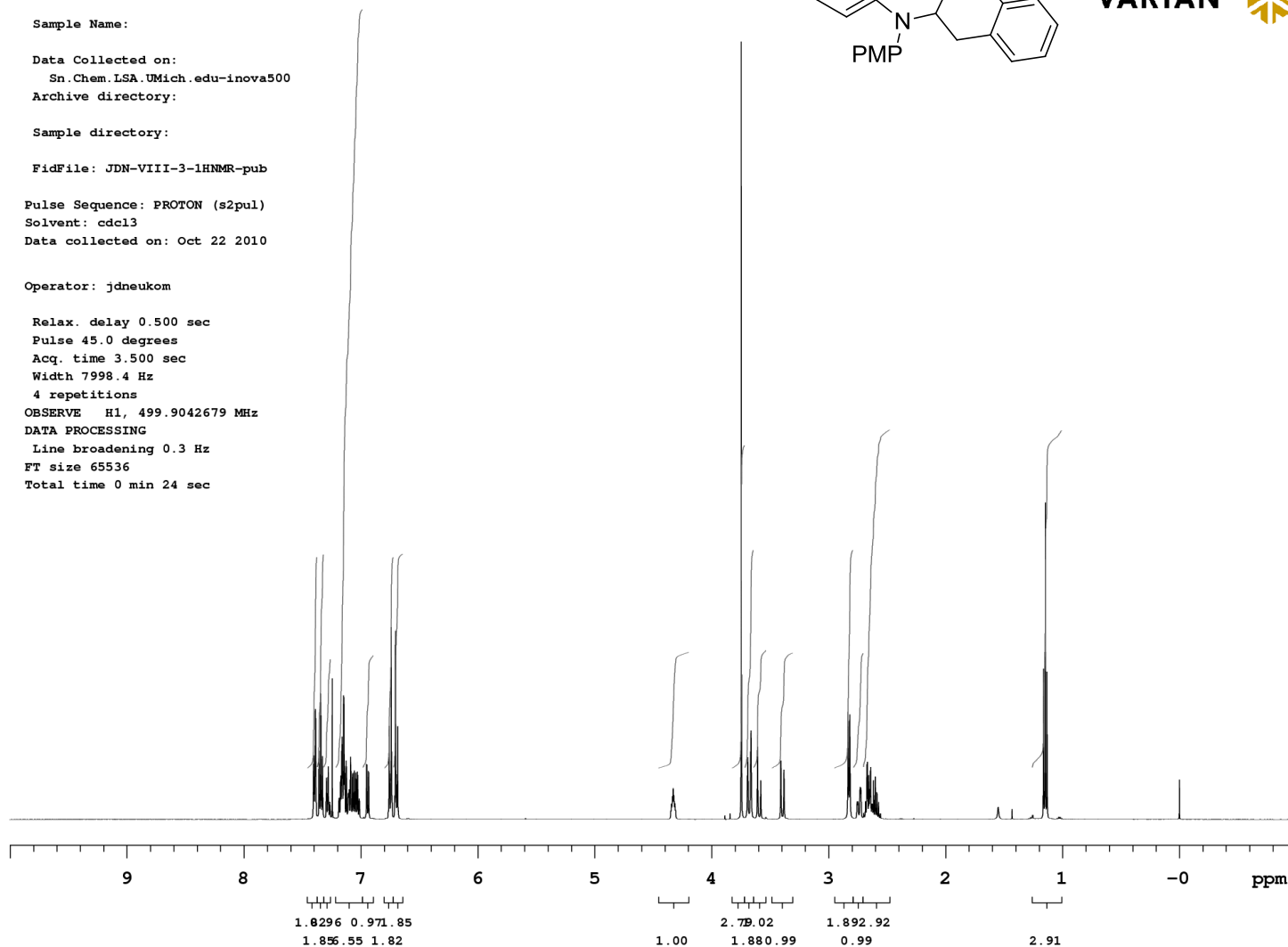
OBSERVE H1, 499.9042679 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

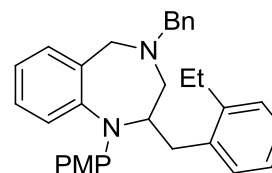
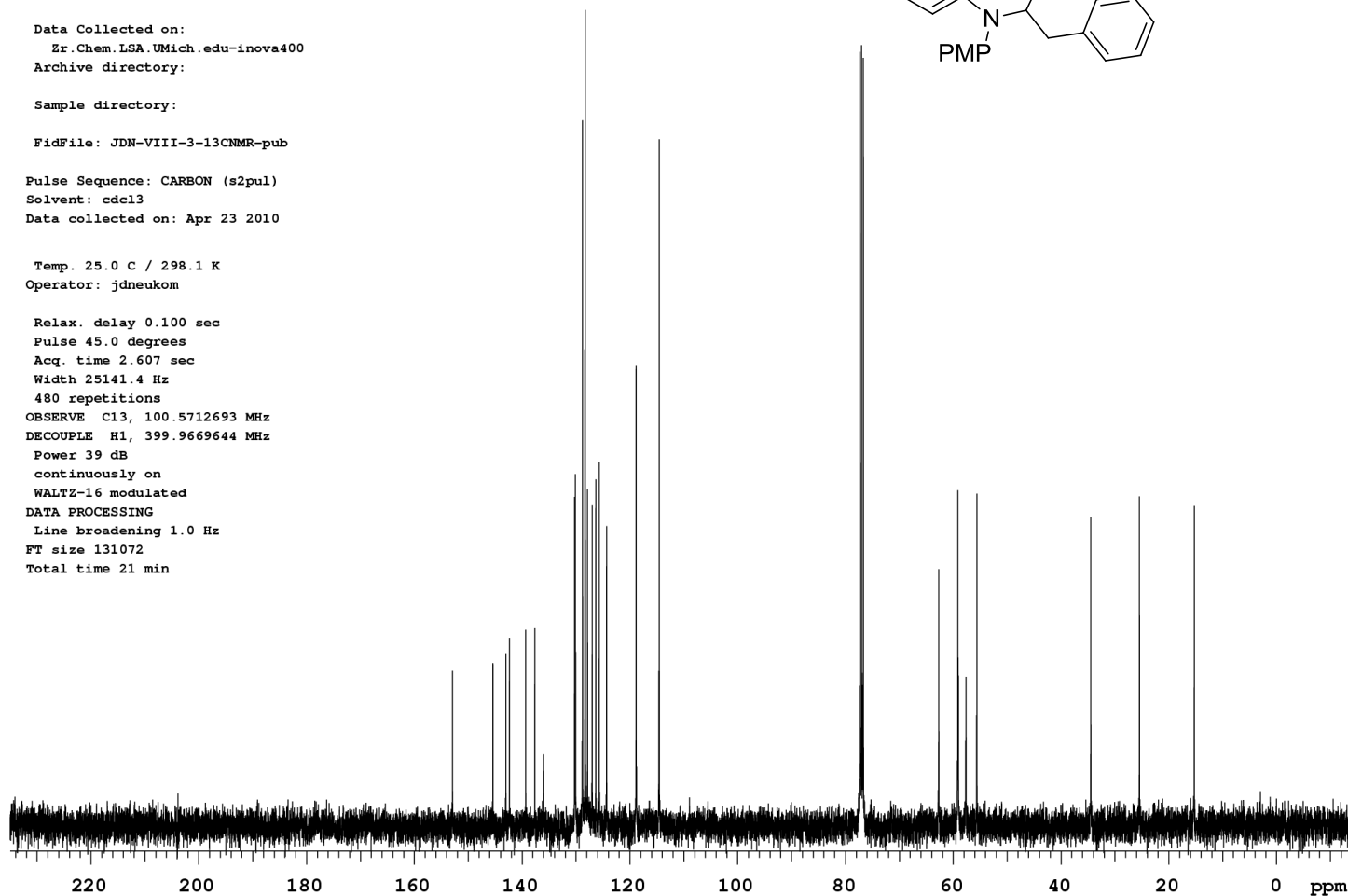
Sample directory:

FidFile: JDN-VIII-3-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Apr 23 2010

Temp. 25.0 C / 298.1 K
Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
480 repetitions
OBSERVE C13, 100.5712693 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 21 min

**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-24-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 19 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 6399.5 Hz

4 repetitions

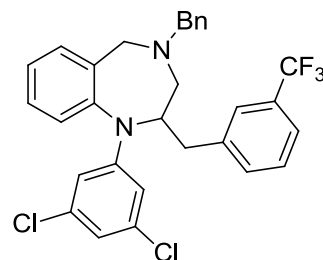
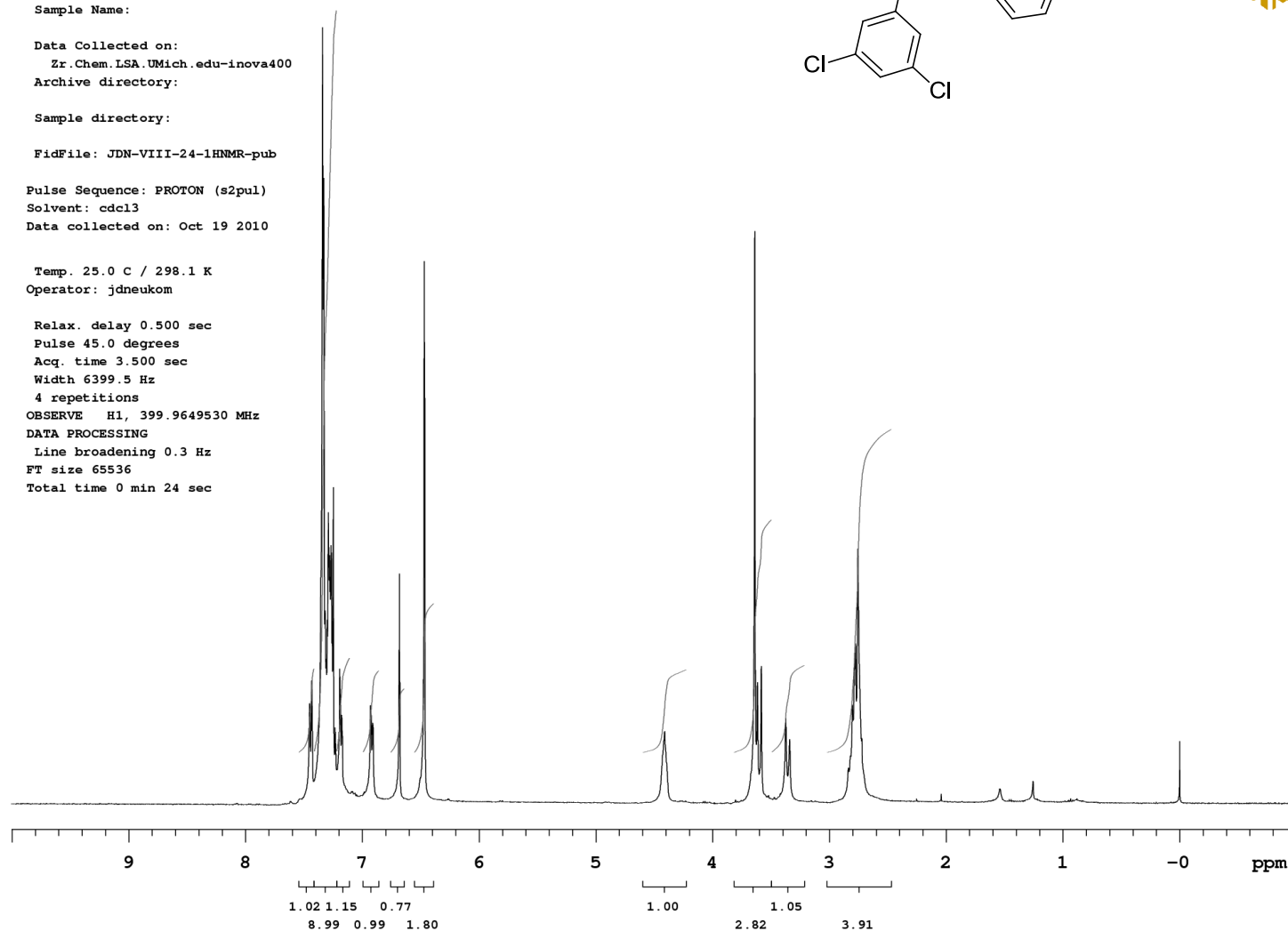
OBSERVE H1, 399.9649530 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

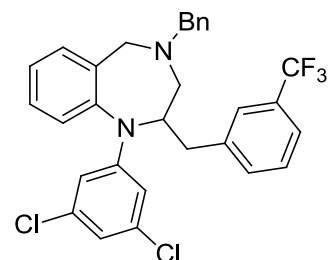
Sample directory:

FidFile: JDN-VIII-19-13CNMR-pub

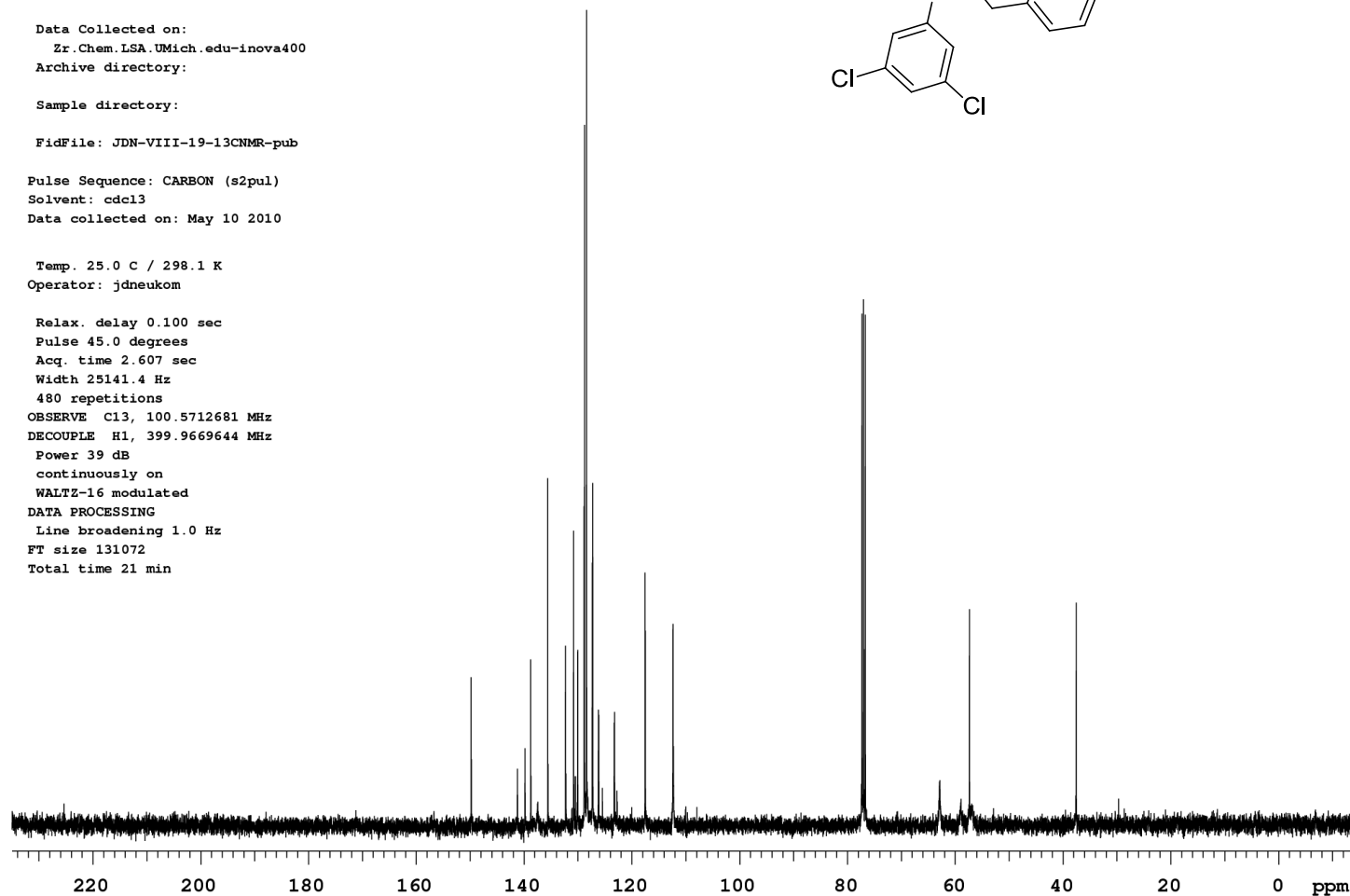
Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: May 10 2010

Temp. 25.0 C / 298.1 K
Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
480 repetitions
OBSERVE C13, 100.5712681 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 21 min



VARIAN 



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-19-19FNMR-pub

Pulse Sequence: FLUORINE (s2pul)

Solvent: cdcl3

Data collected on: Apr 27 2010

Operator: jdneukom

Relax. delay 1.000 sec

Pulse 30.0 degrees

Acq. time 0.757 sec

Width 86580.1 Hz

8 repetitions

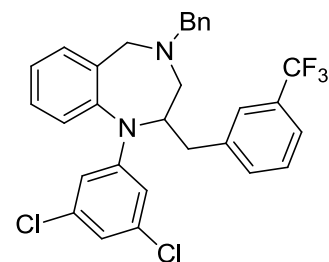
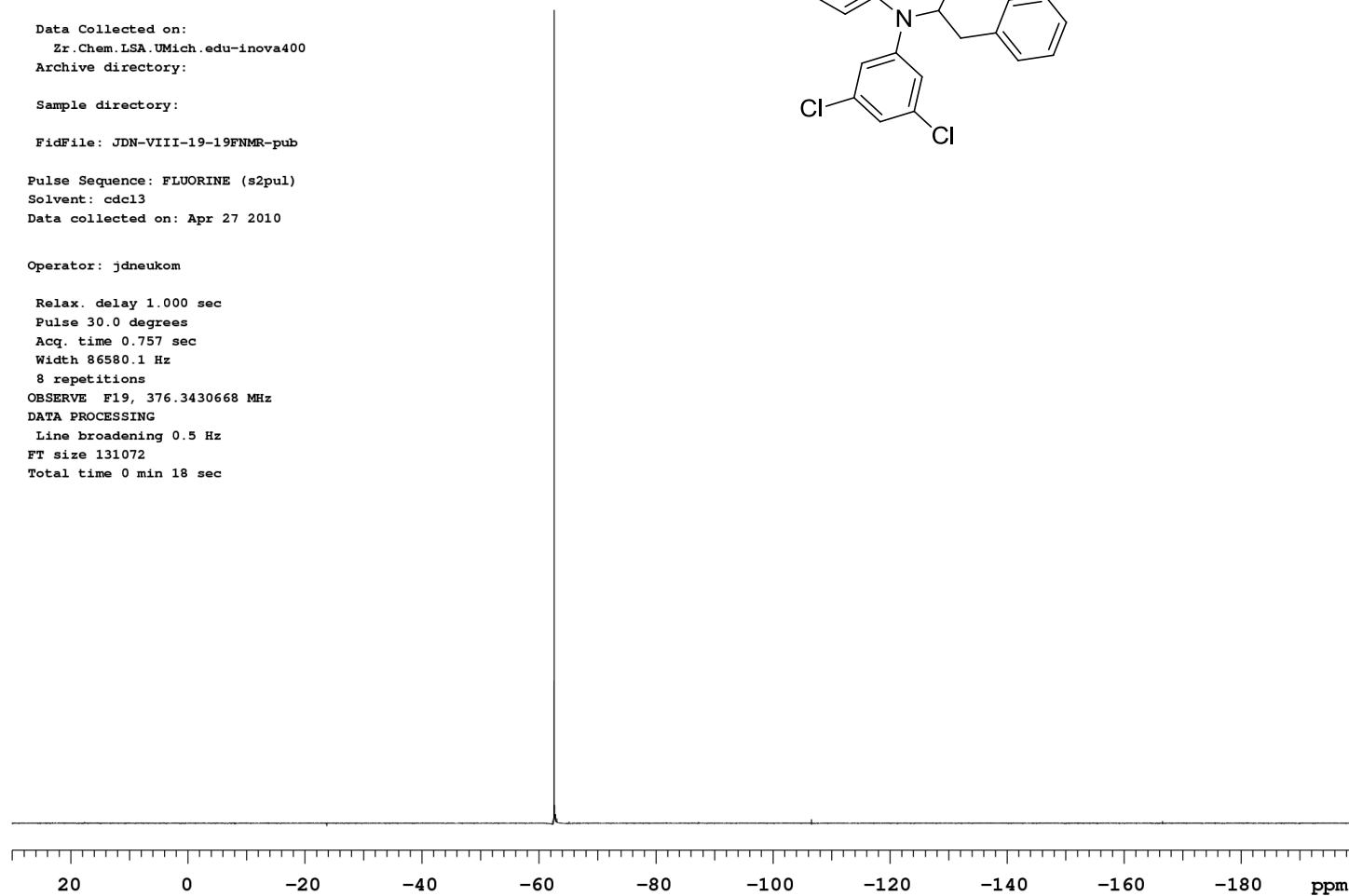
OBSERVE F19, 376.3430668 MHz

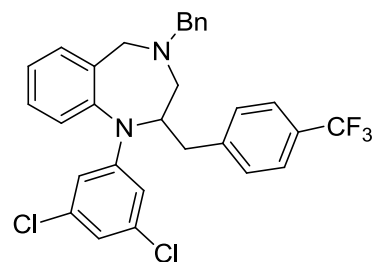
DATA PROCESSING

Line broadening 0.5 Hz

FT size 131072

Total time 0 min 18 sec

VARIAN 

**VARIAN** 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-23-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

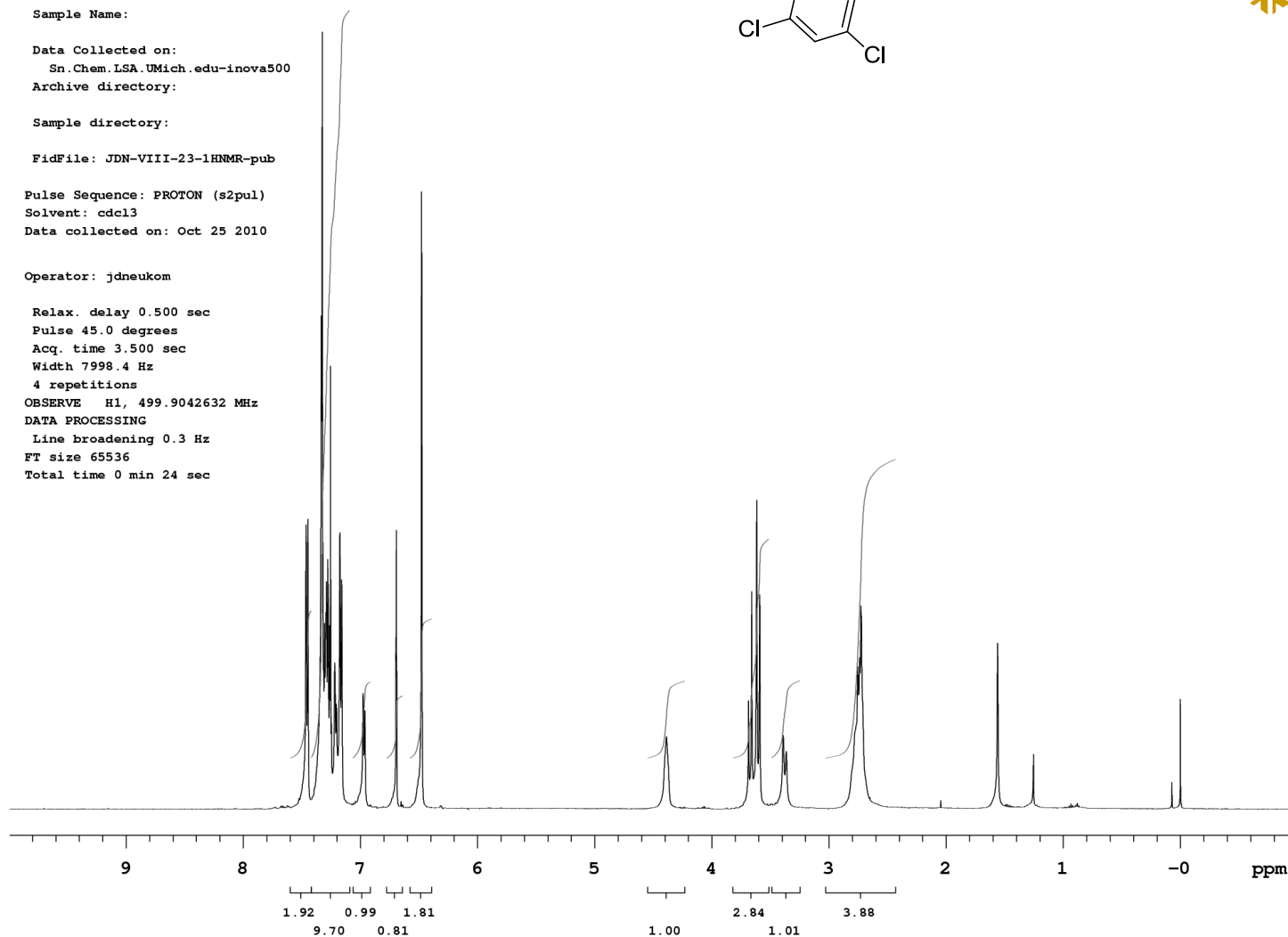
OBSERVE H1, 499.9042632 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec



STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-18-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: May 10 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.607 sec

Width 25141.4 Hz

736 repetitions

OBSERVE C13, 100.5712678 MHz

DECOUPLE H1, 399.9669644 MHz

Power 39 dB

continuously on

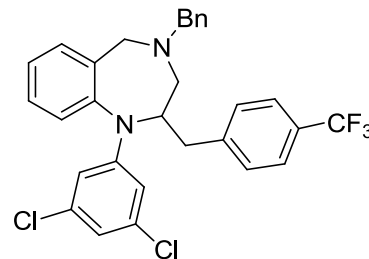
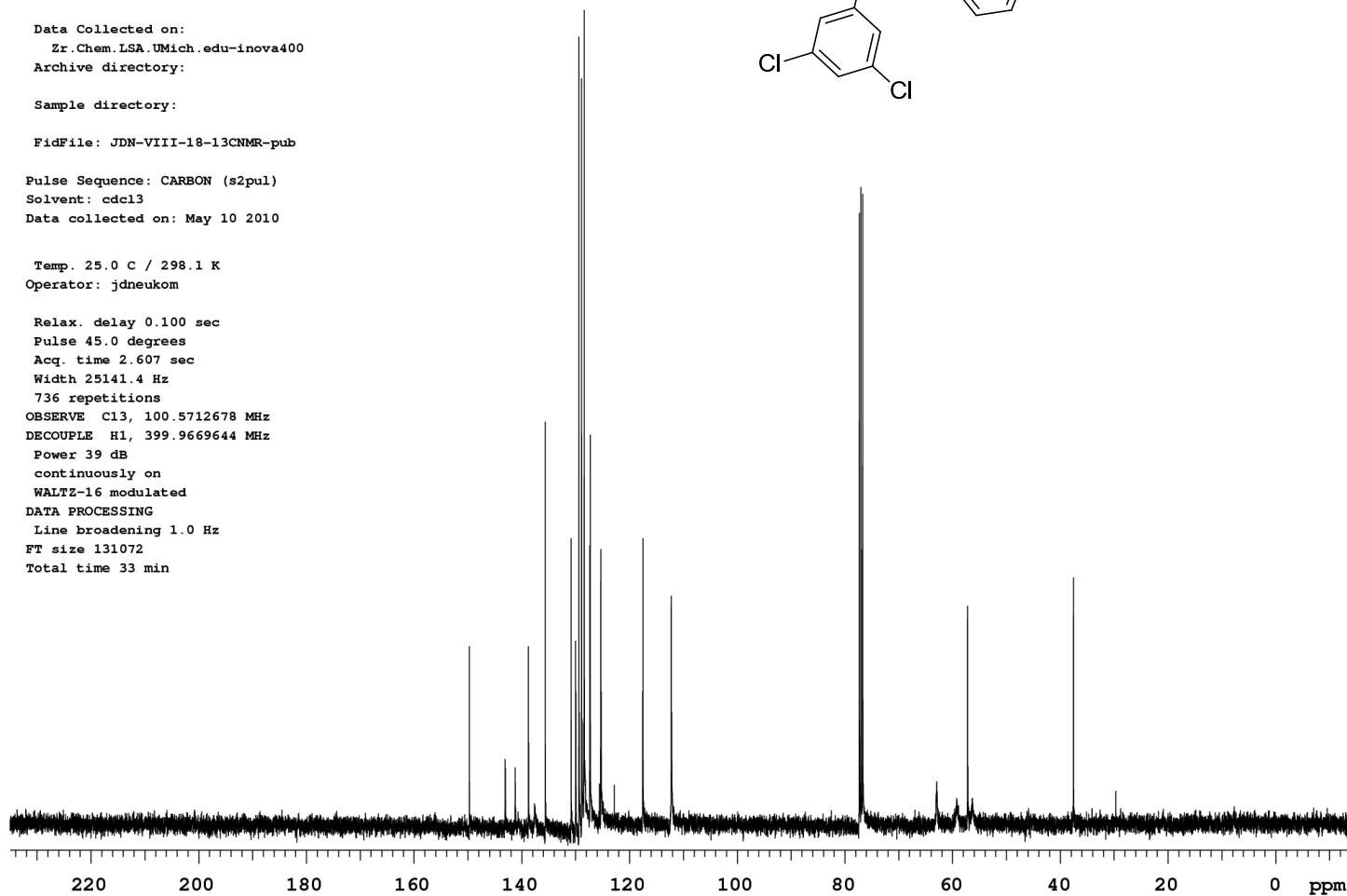
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 33 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-18-19FNMR-pub

Pulse Sequence: FLUORINE (s2pul)

Solvent: cdcl3

Data collected on: Apr 27 2010

Operator: jdneukom

Relax. delay 1.000 sec

Pulse 30.0 degrees

Acq. time 0.757 sec

Width 86580.1 Hz

8 repetitions

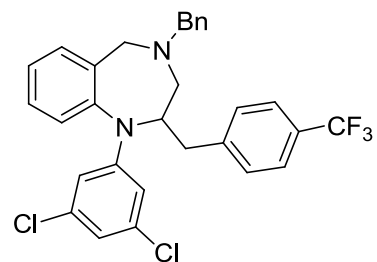
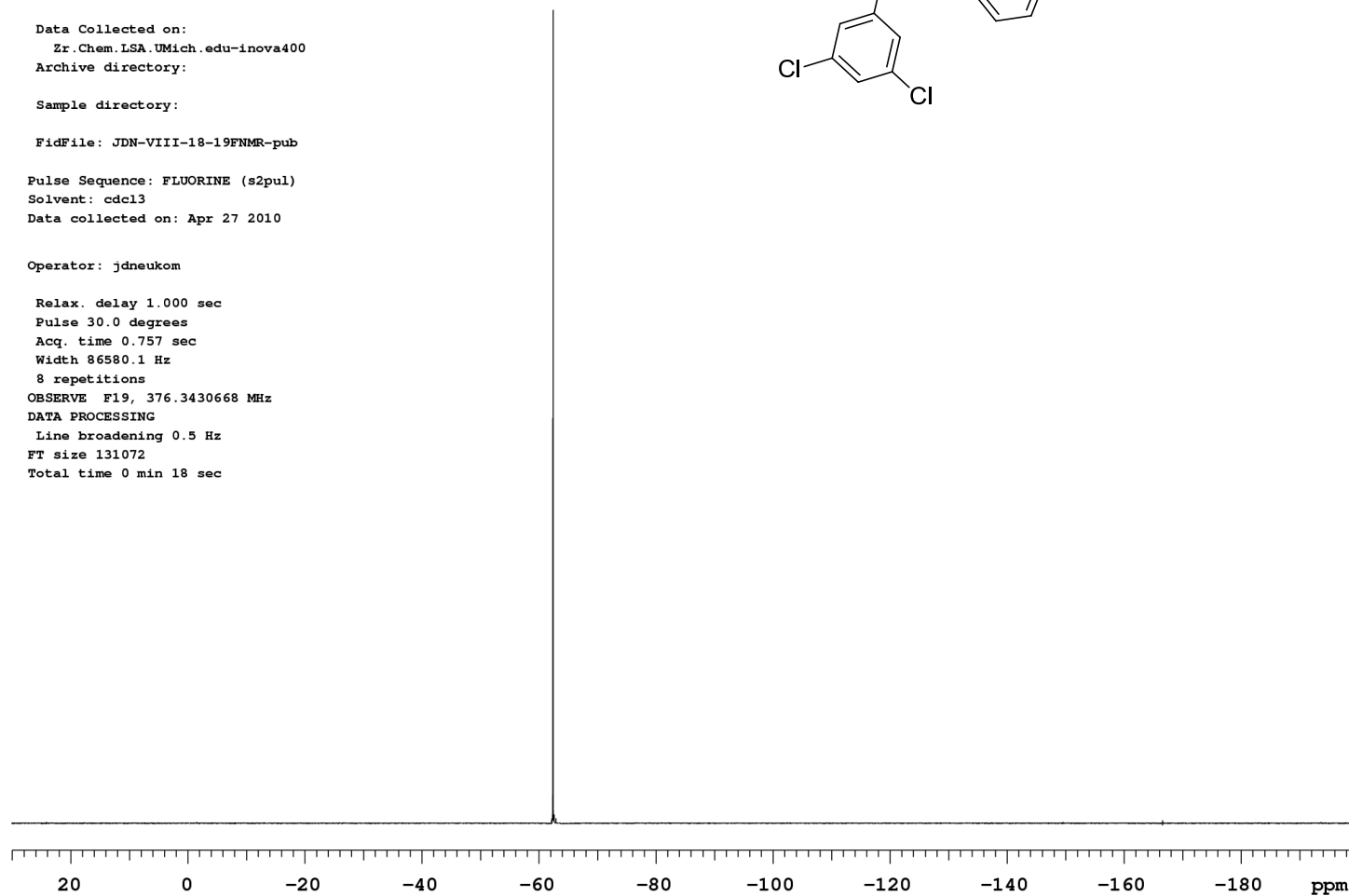
OBSERVE F19, 376.3430668 MHz

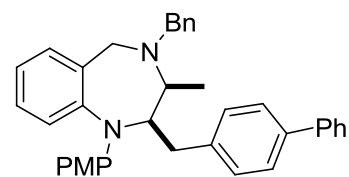
DATA PROCESSING

Line broadening 0.5 Hz

FT size 131072

Total time 0 min 18 sec

VARIAN 

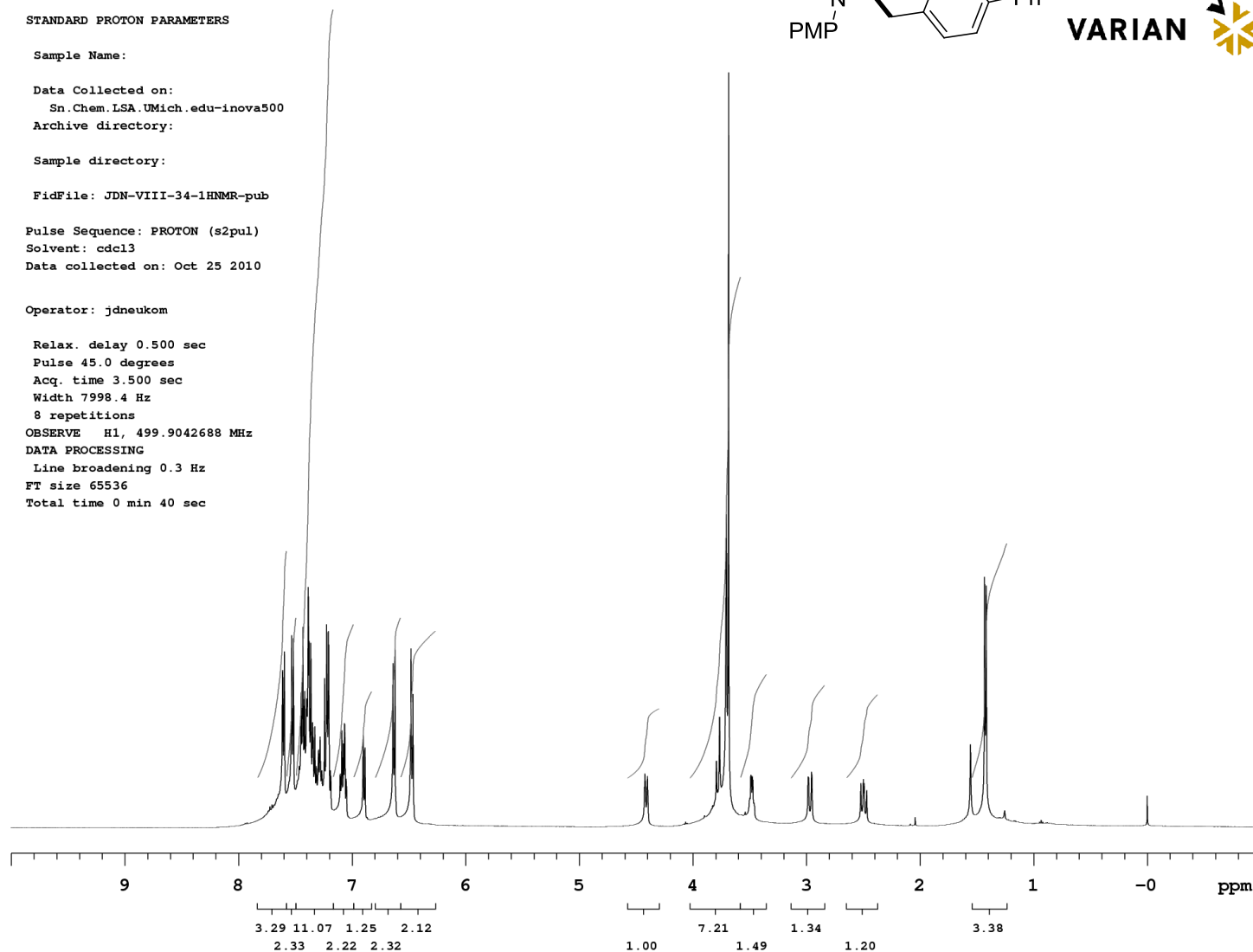
**VARIAN** 

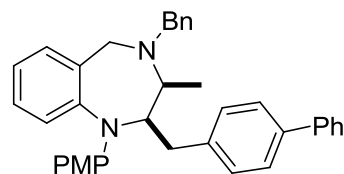
STANDARD PROTON PARAMETERS

Sample Name:
Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500
Archive directory:
Sample directory:
FidFile: JDN-VIII-34-1HNMR-pub
Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 7998.4 Hz
8 repetitions
OBSERVE H1, 499.9042688 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 sec



**VARIAN** 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-VIII-34-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Oct 21 2010

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.569 sec

Width 25510.2 Hz

96 repetitions

OBSERVE C13, 100.7109955 MHz

DECOUPLE H1, 400.5226414 MHz

Power 41 dB

continuously on

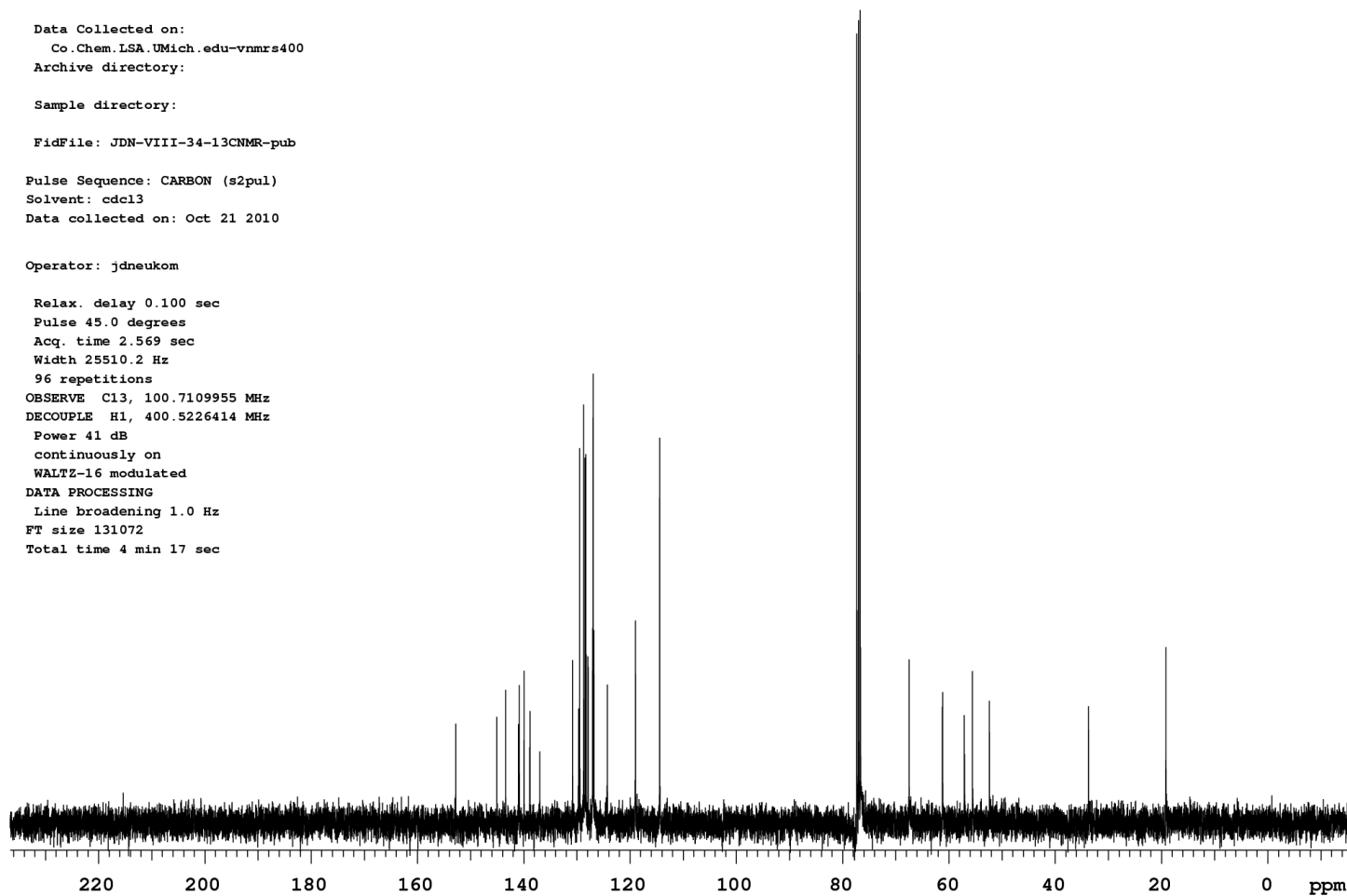
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 4 min 17 sec



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500
Archive directory:

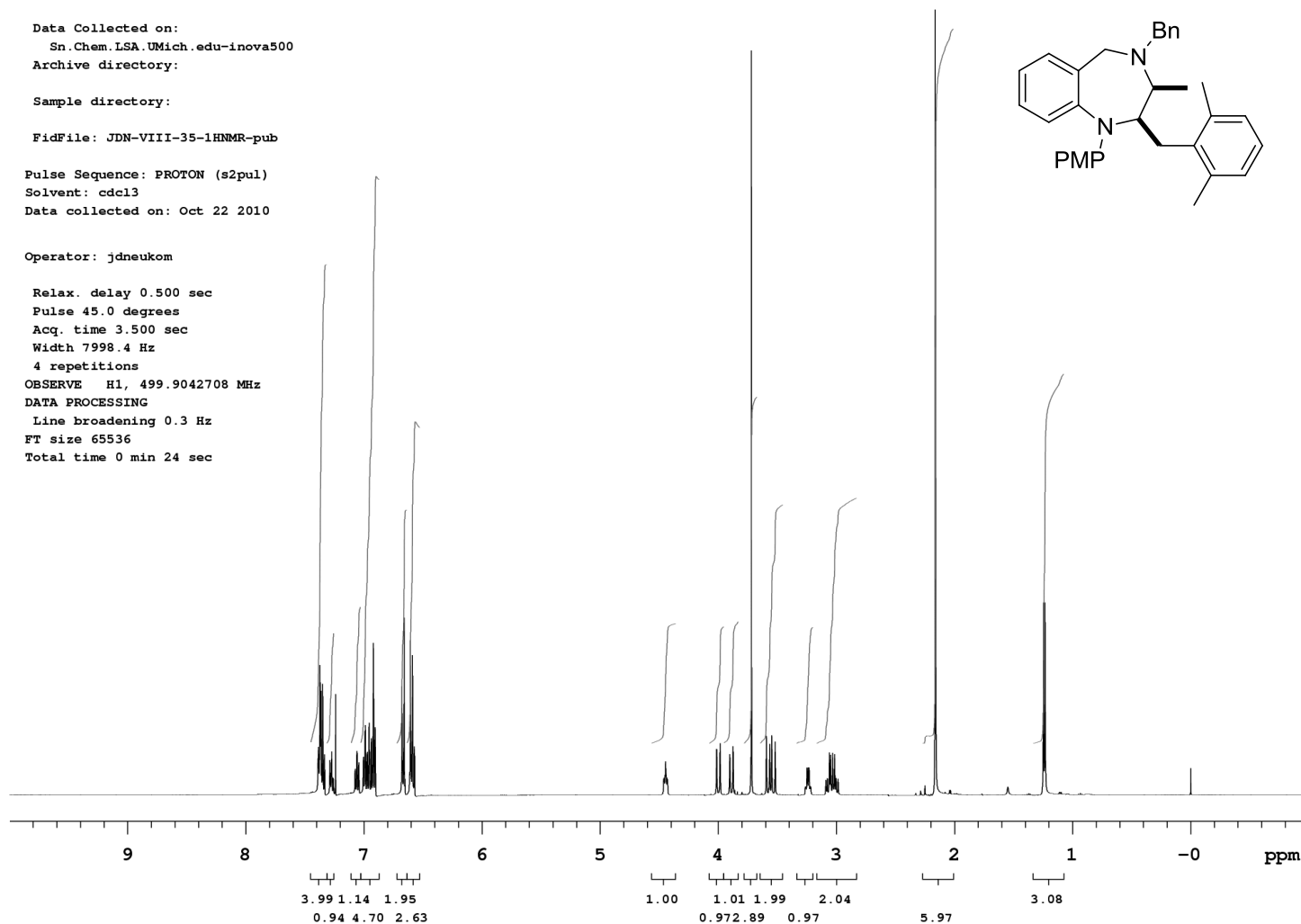
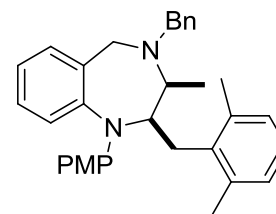
Sample directory:

FidFile: JDN-VIII-35-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 22 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 7998.4 Hz
4 repetitions
OBSERVE H1, 499.9042708 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vmrs400
Archive directory:

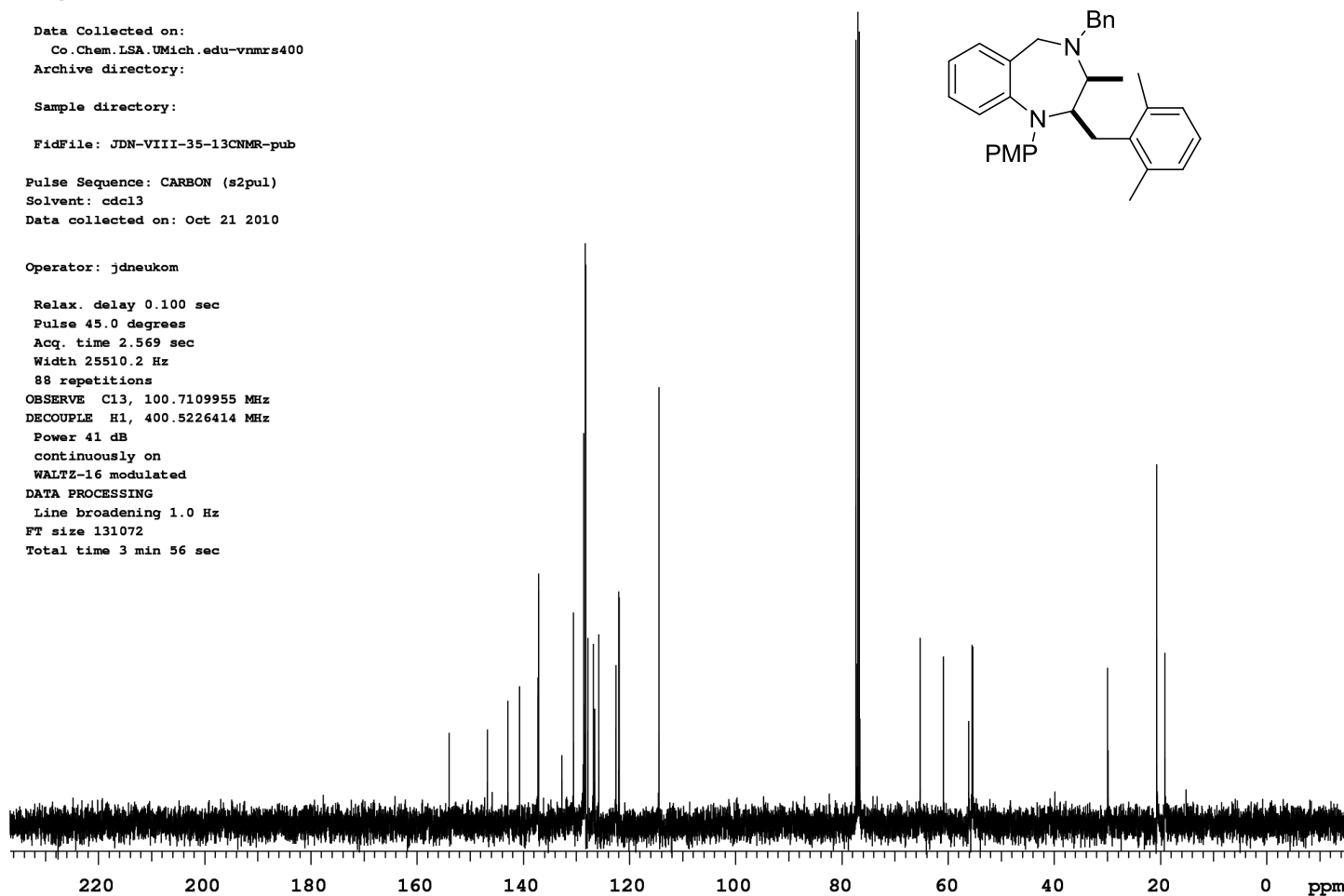
Sample directory:

FidFile: JDN-VIII-35-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 21 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
88 repetitions
OBSERVE C13, 100.710955 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 3 min 56 sec

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-45-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

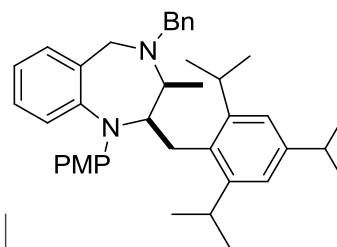
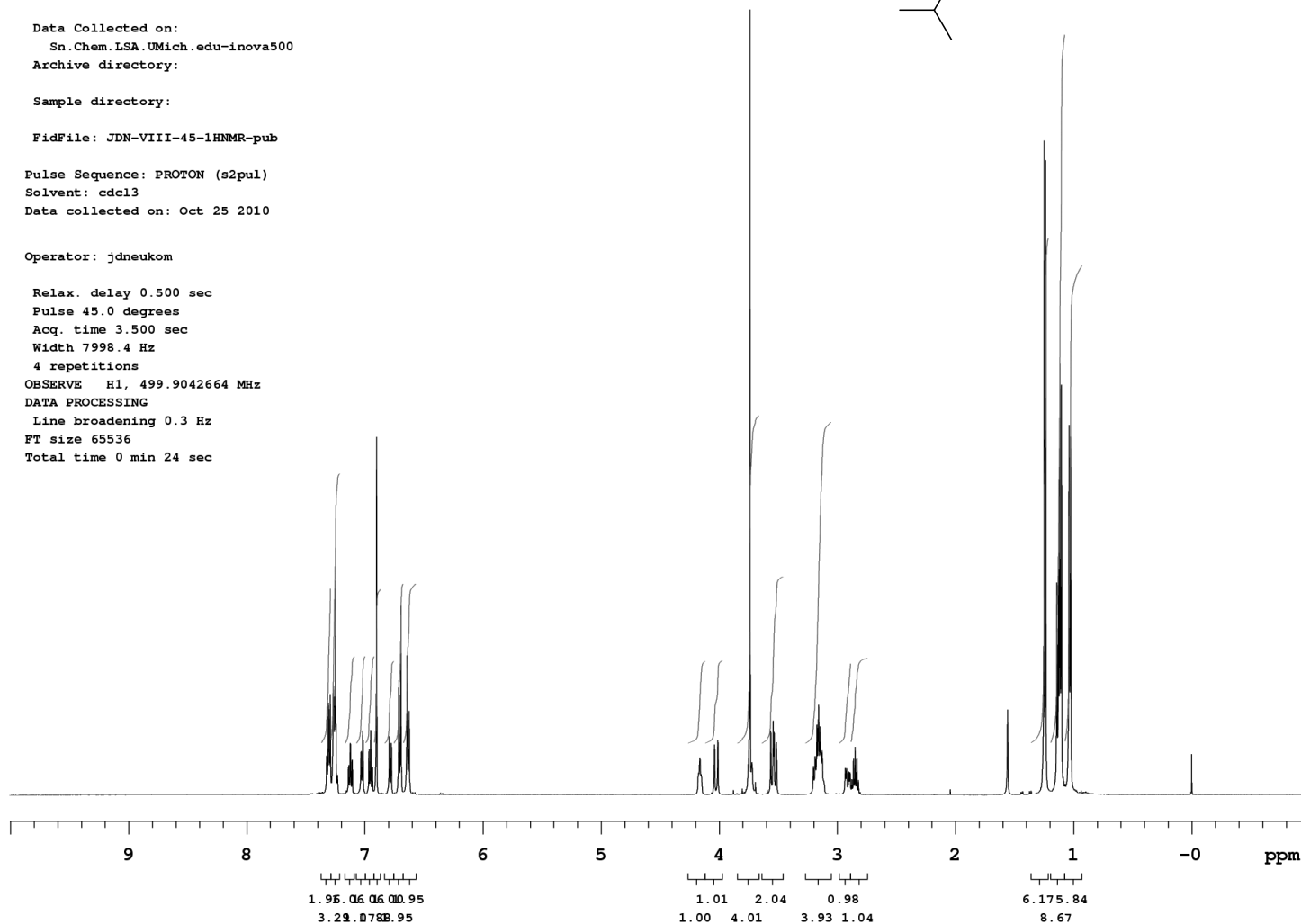
OBSERVE H1, 499.9042664 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-50-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: May 12 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.607 sec

Width 25141.4 Hz

240 repetitions

OBSERVE C13, 100.5712689 MHz

DECOUPLE H1, 399.9669644 MHz

Power 39 dB

continuously on

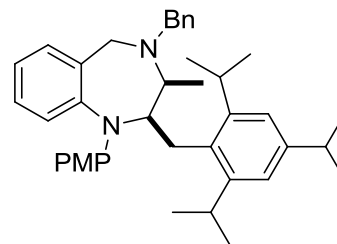
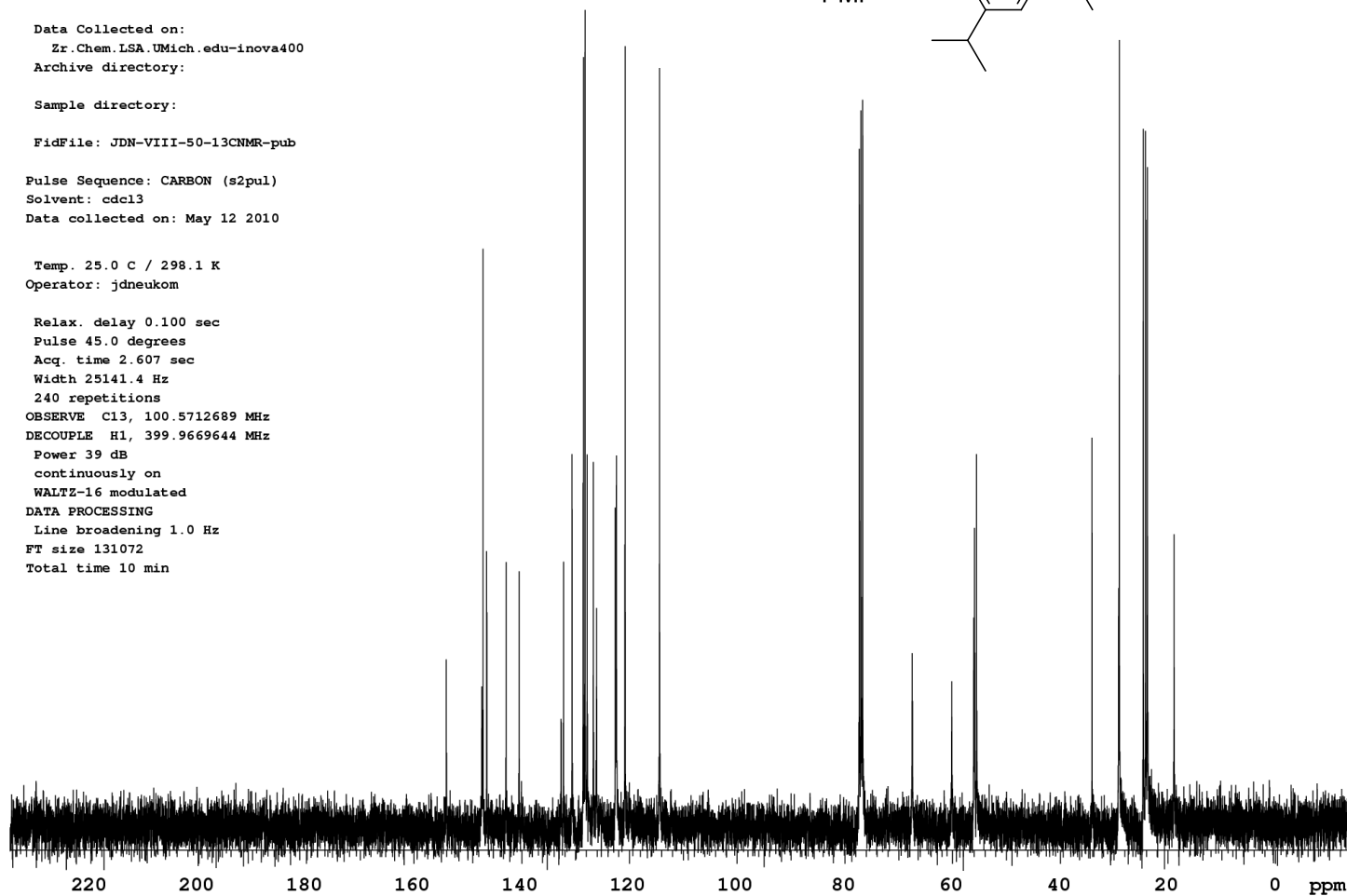
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 10 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500
Archive directory:

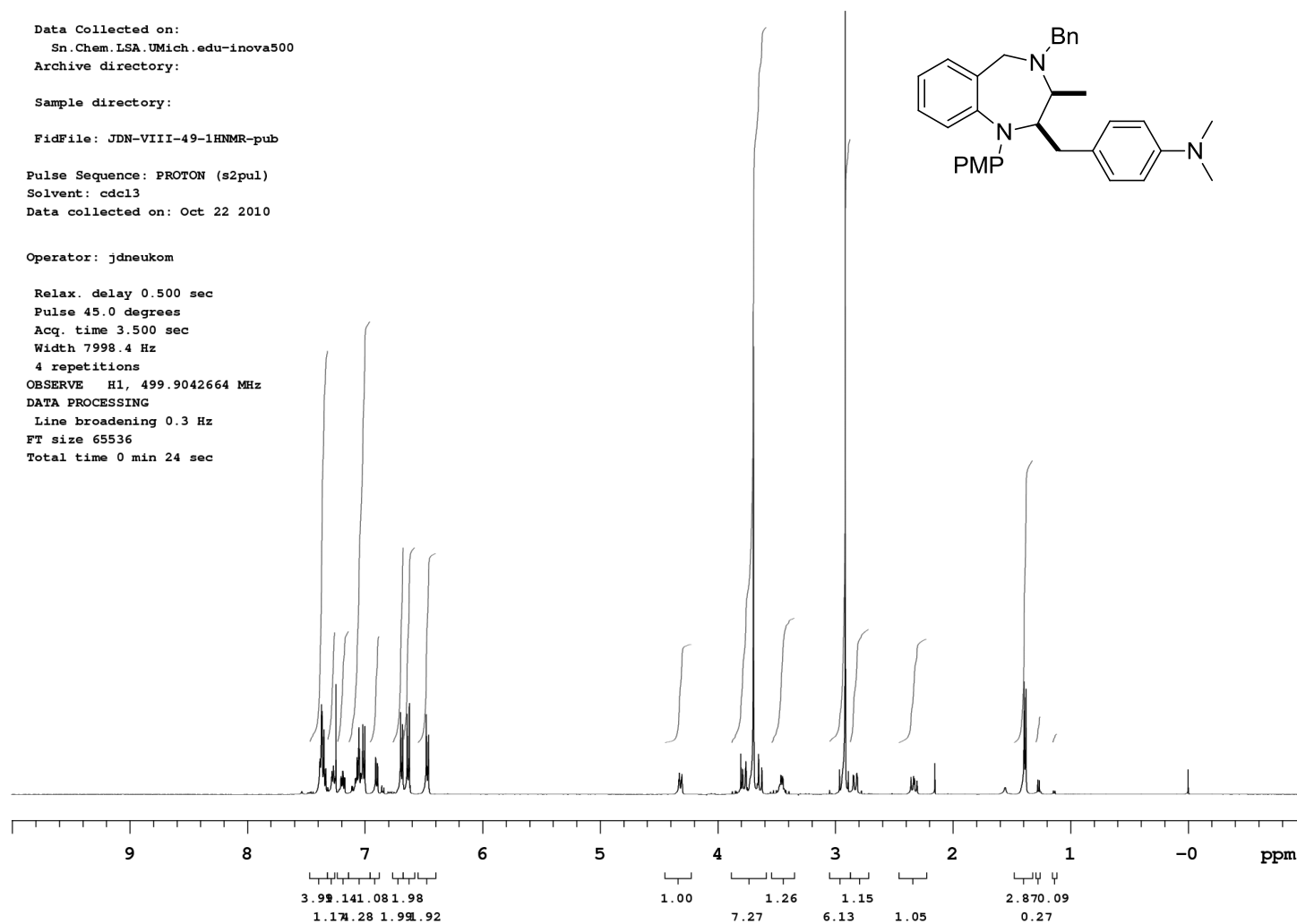
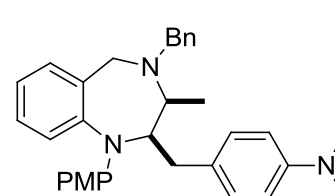
Sample directory:

FidFile: JDN-VIII-49-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 22 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 7998.4 Hz
4 repetitions
OBSERVE H1, 499.9042664 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

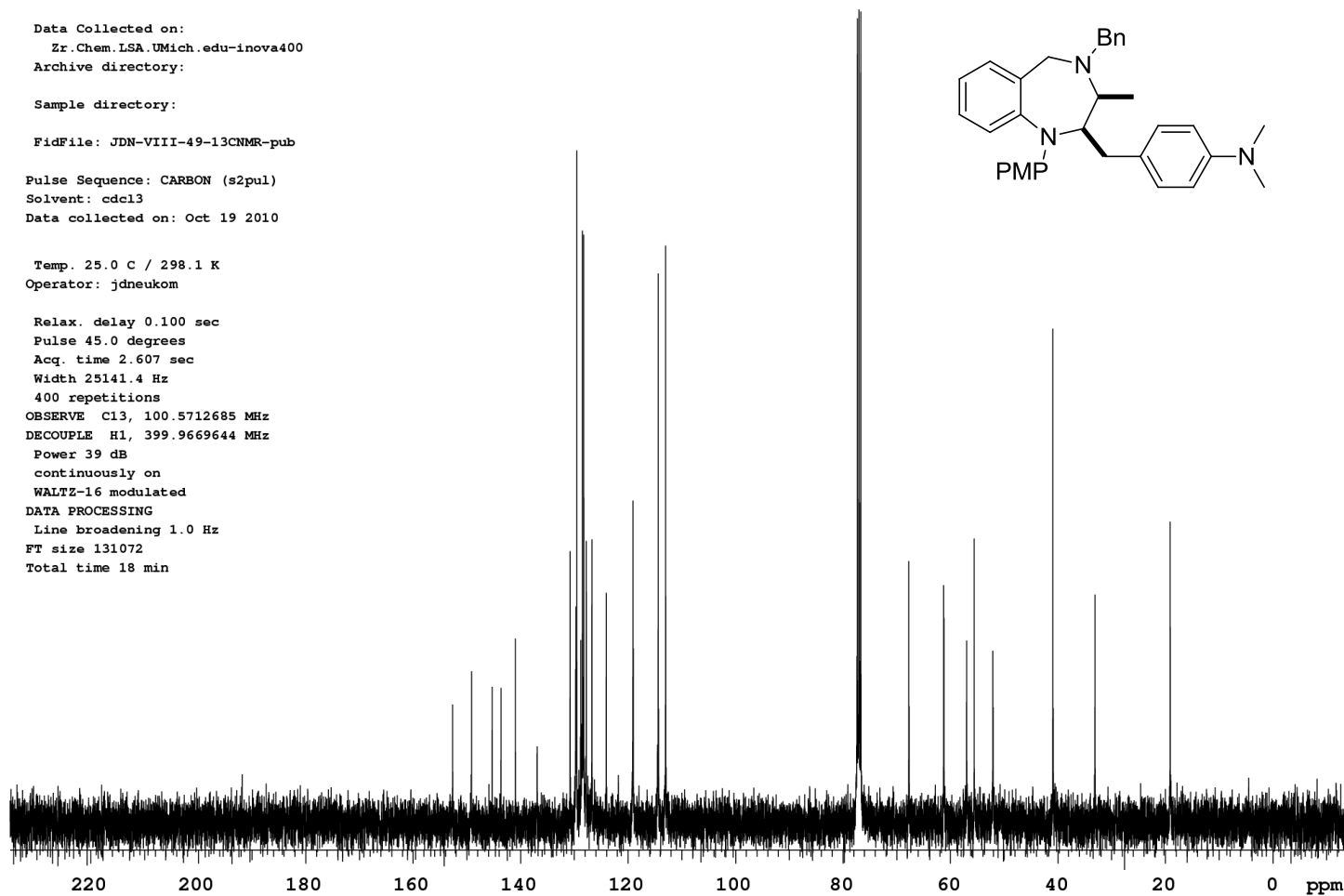
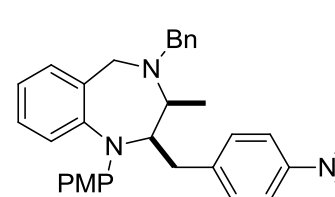
Sample directory:

FidFile: JDN-VIII-49-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 19 2010

Temp. 25.0 C / 298.1 K
Operator: jdneykom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
400 repetitions
OBSERVE C13, 100.5712685 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 18 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-13-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 22 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

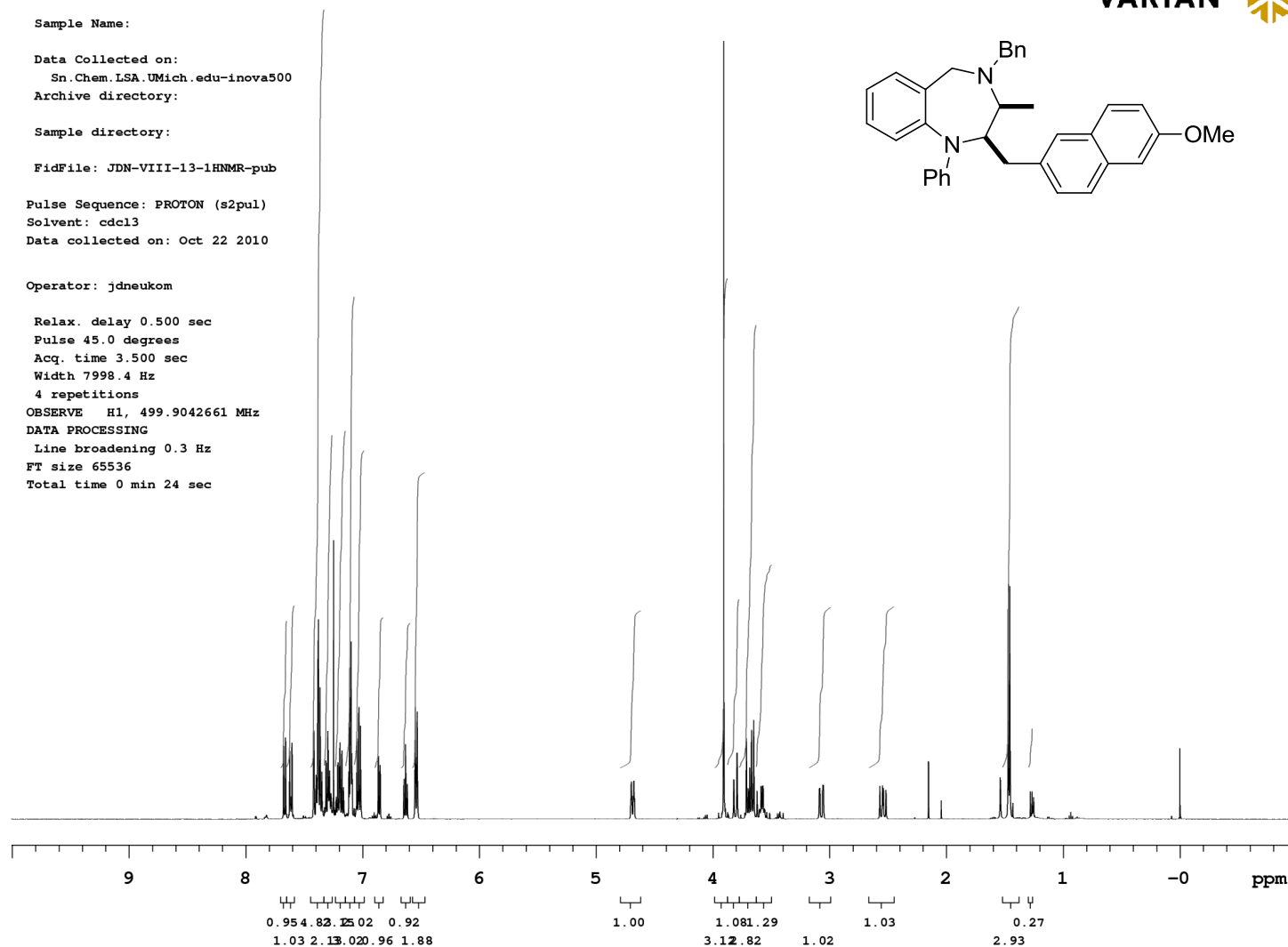
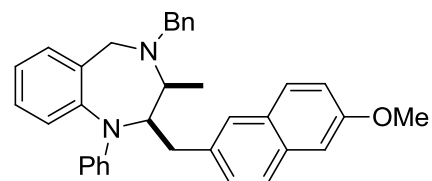
OBSERVE H1, 499.9042661 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

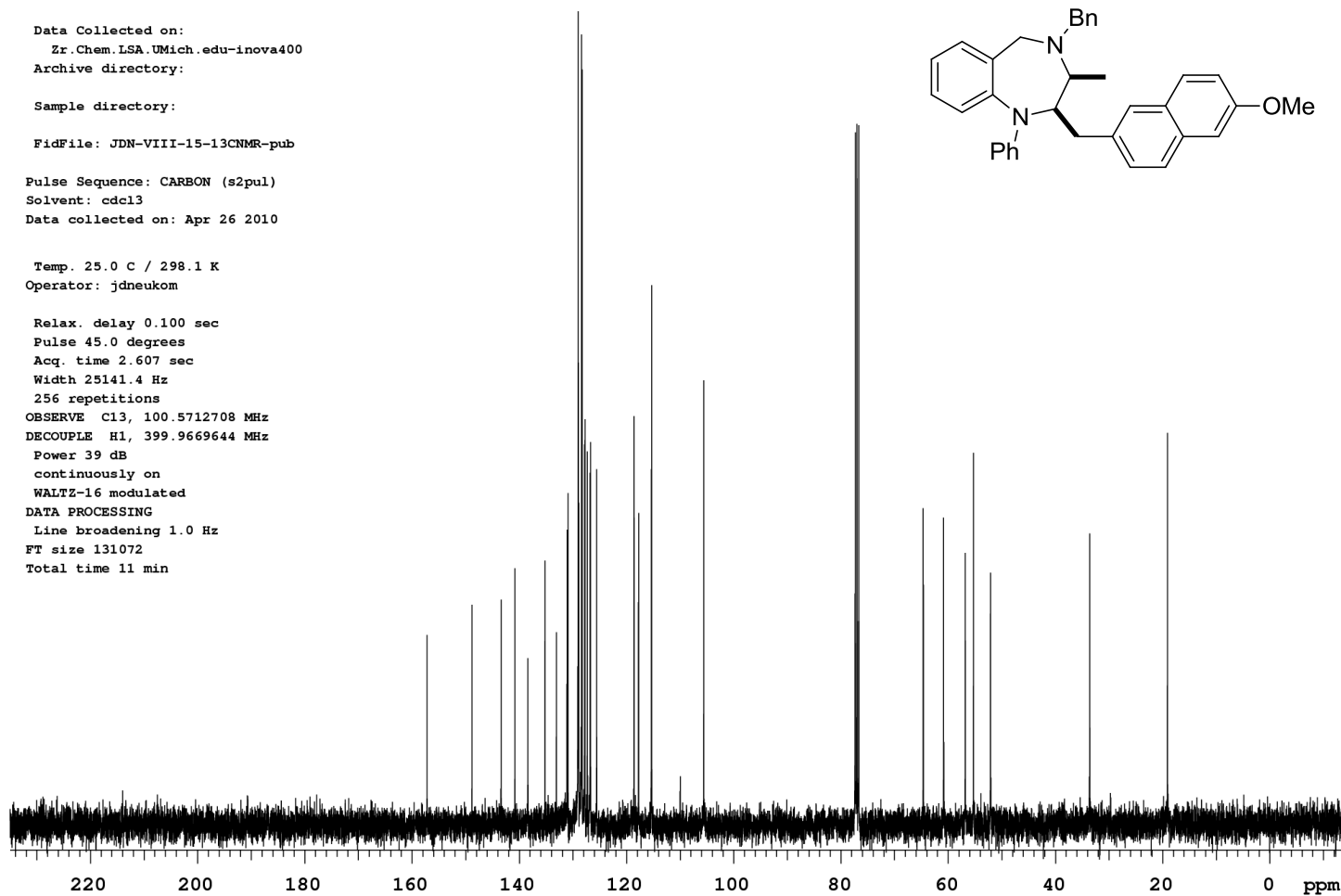
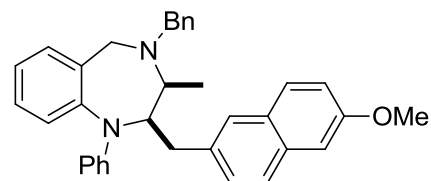
Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

Sample directory:

FidFile: JDN-VIII-15-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Apr 26 2010Temp. 25.0 C / 298.1 K
Operator: jdneukomRelax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
256 repetitions
OBSERVE C13, 100.5712708 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 11 minVARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

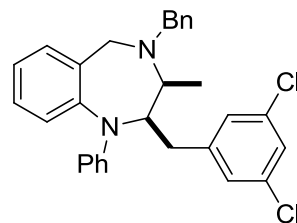
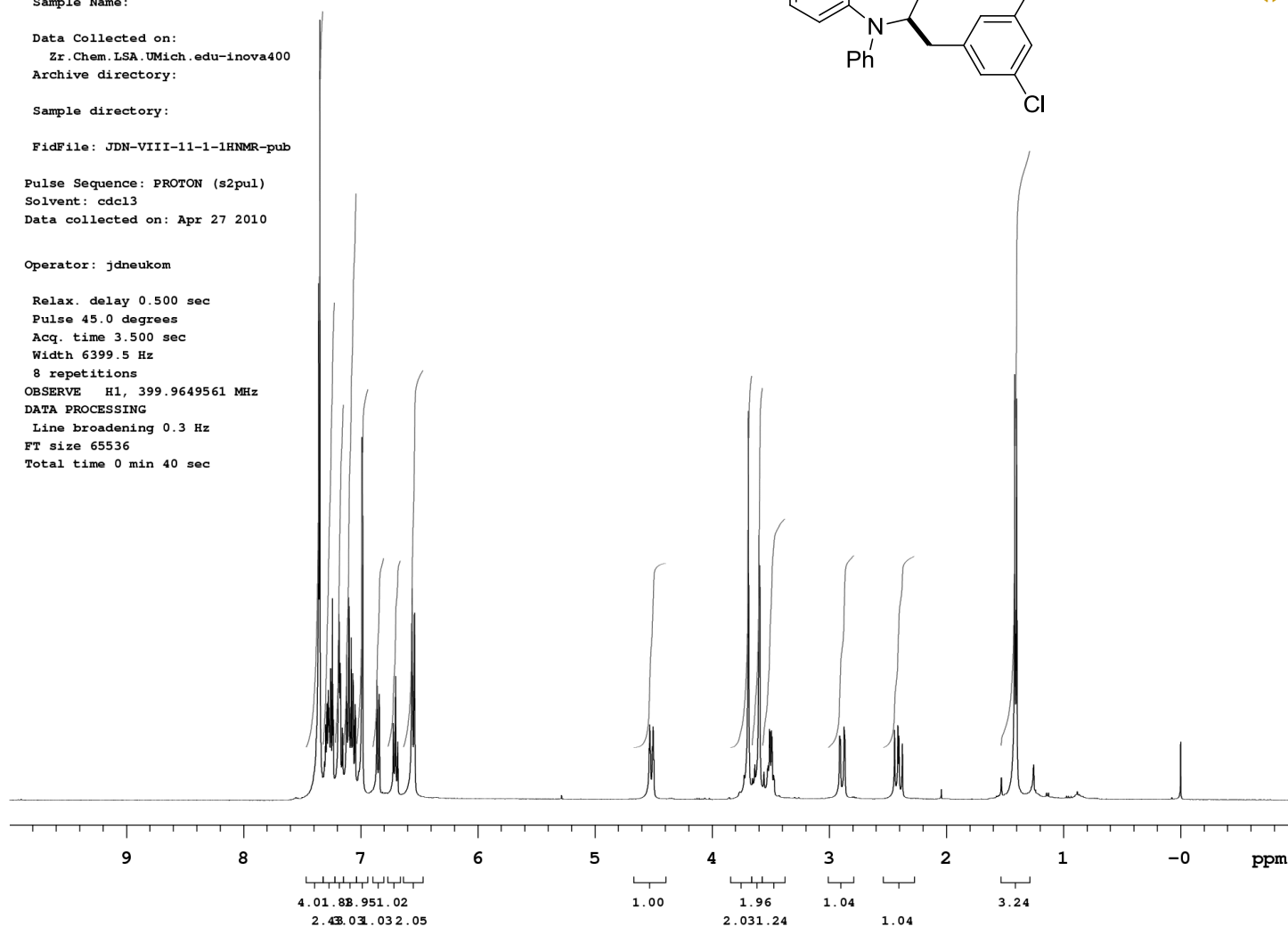
Archive directory:

Sample directory:

FidFile: JDN-VIII-11-1-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Apr 27 2010

Operator: jdnuekom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6399.5 Hz
8 repetitions
OBSERVE H1, 399.9649561 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 secVARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

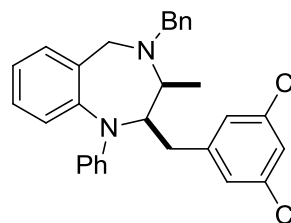
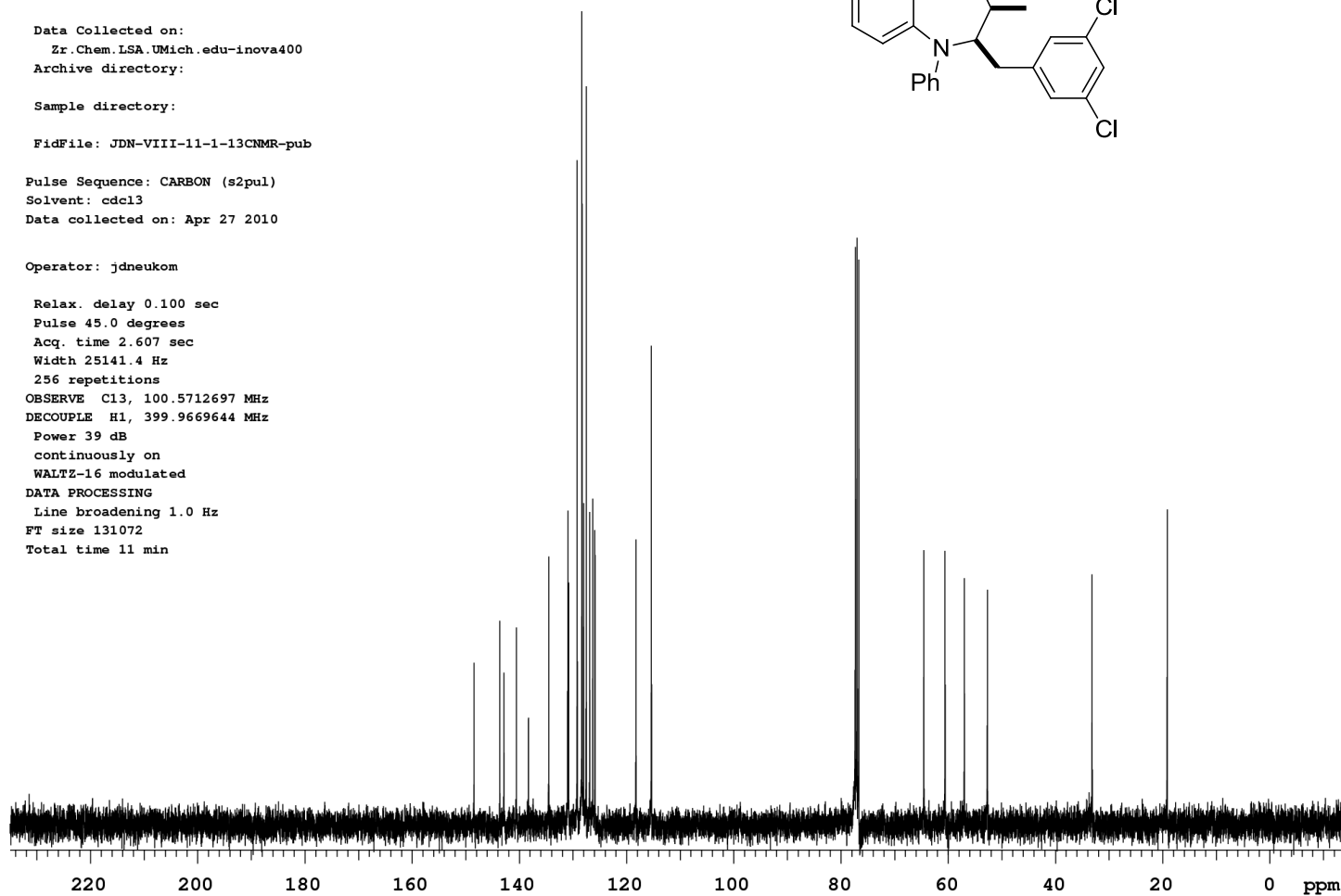
Sample directory:

FidFile: JDN-VIII-11-1-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Apr 27 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
256 repetitions
OBSERVE C13, 100.5712697 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 11 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Te-vnmrs500

Archive directory:

Sample directory:

FidFile: JDN-VIII-11-2-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 7 2011

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 8012.8 Hz

8 repetitions

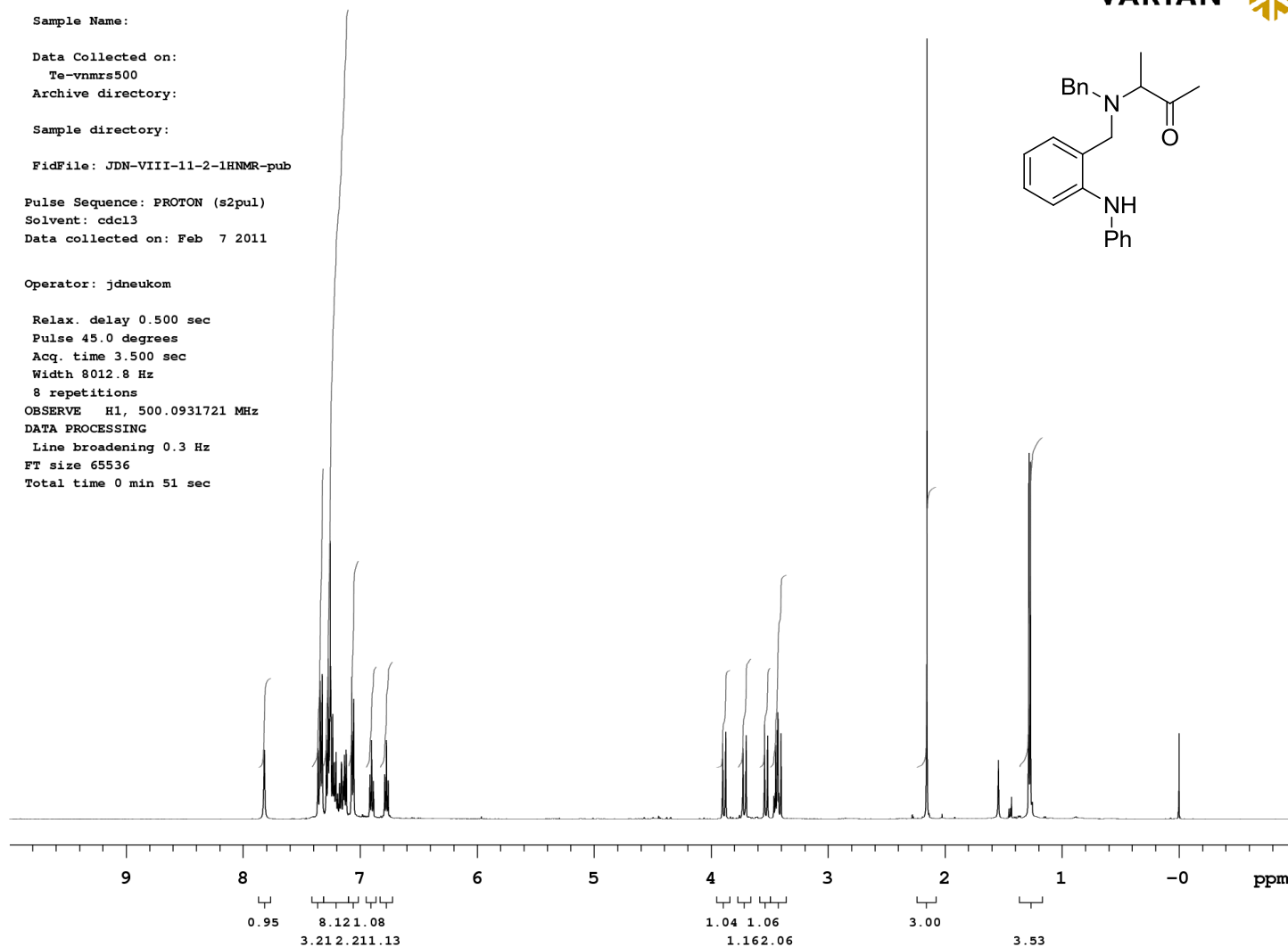
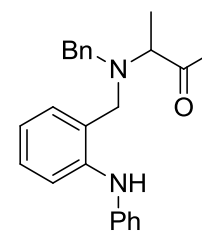
OBSERVE H1, 500.0931721 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 51 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:

Te-vnmrs500

Archive directory:

Sample directory:

FidFile: JDN-VIII-11-2-13CNMR-pub

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Feb 7 2011

Operator: jdneukom

Relax. delay 0.100 sec

Pulse 45.0 degrees

Acq. time 2.045 sec

Width 32051.3 Hz

400 repetitions

OBSERVE C13, 125.7485280 MHz

DECOUPLE H1, 500.0956704 MHz

Power 42 dB

continuously on

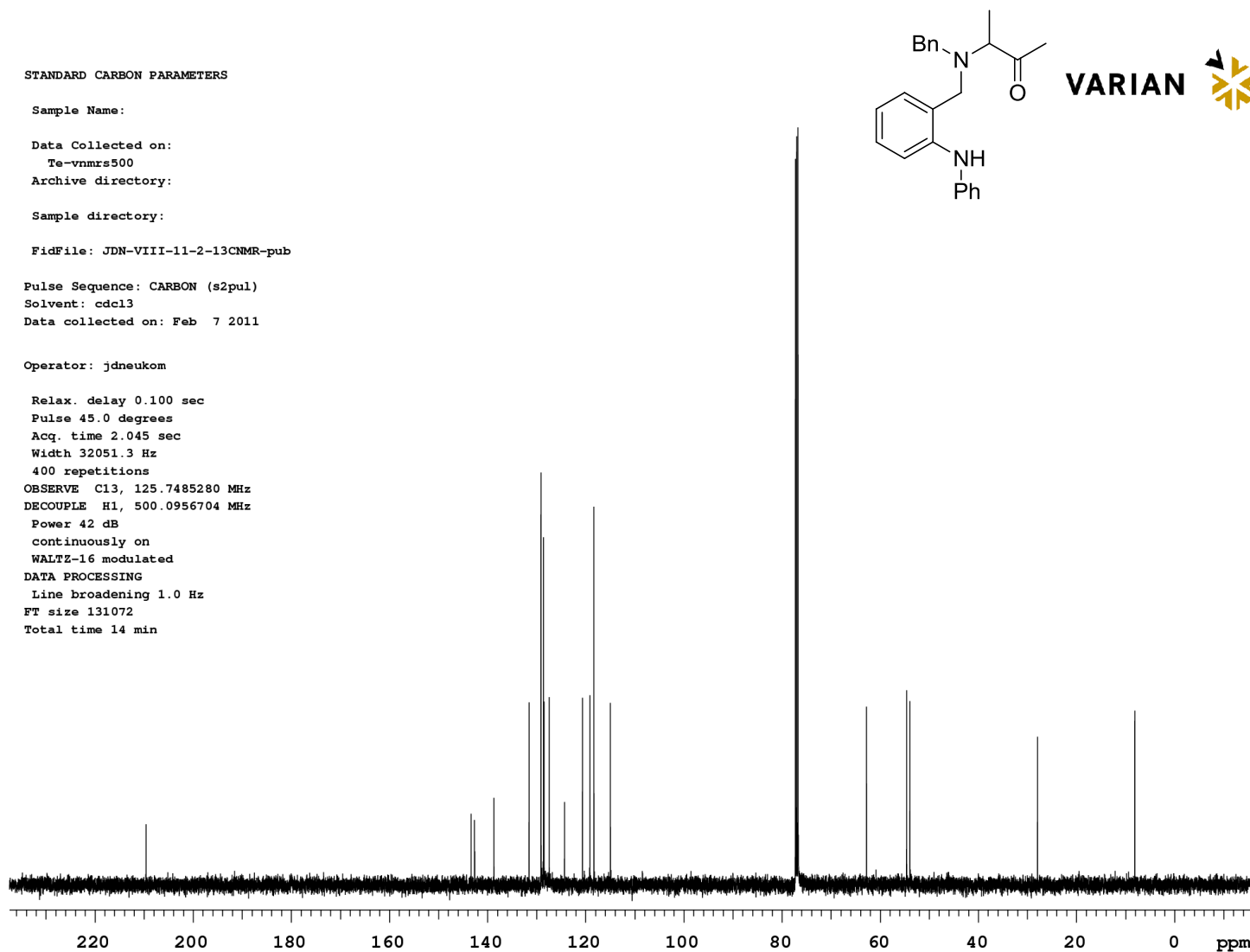
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 131072

Total time 14 min



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Te-vnmrs500

Archive directory:

Sample directory:

FidFile: JDN-VIII-11-2-COSY

Pulse Sequence: gCOSY

Solvent: cdcl3

Data collected on: Feb 7 2011

Operator: jdneukom

Relax. delay 1.000 sec

Acq. time 0.150 sec

Width 8012.8 Hz

2D Width 8012.8 Hz

Single scan

128 increments

OBSERVE H1, 500.0931721 MHz

DATA PROCESSING

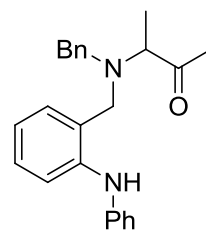
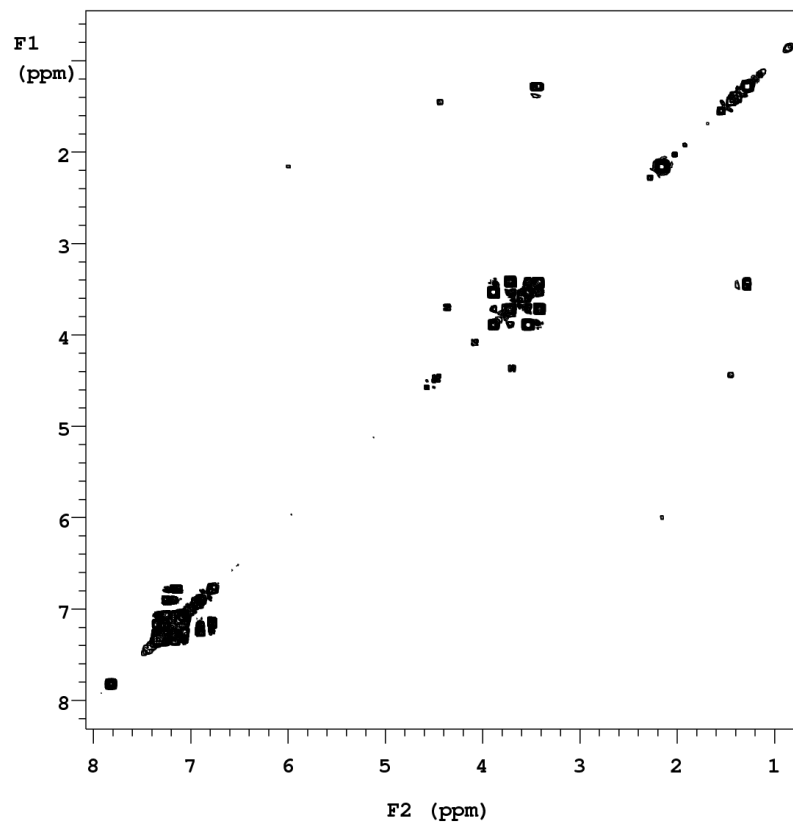
Sq. sine bell 0.064 sec

F1 DATA PROCESSING

Sq. sine bell 0.016 sec

FT size 2048 x 2048

Total time 3 min 11 sec

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-IX-186-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 14 2011

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

8 repetitions

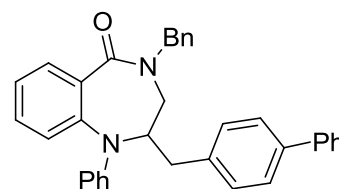
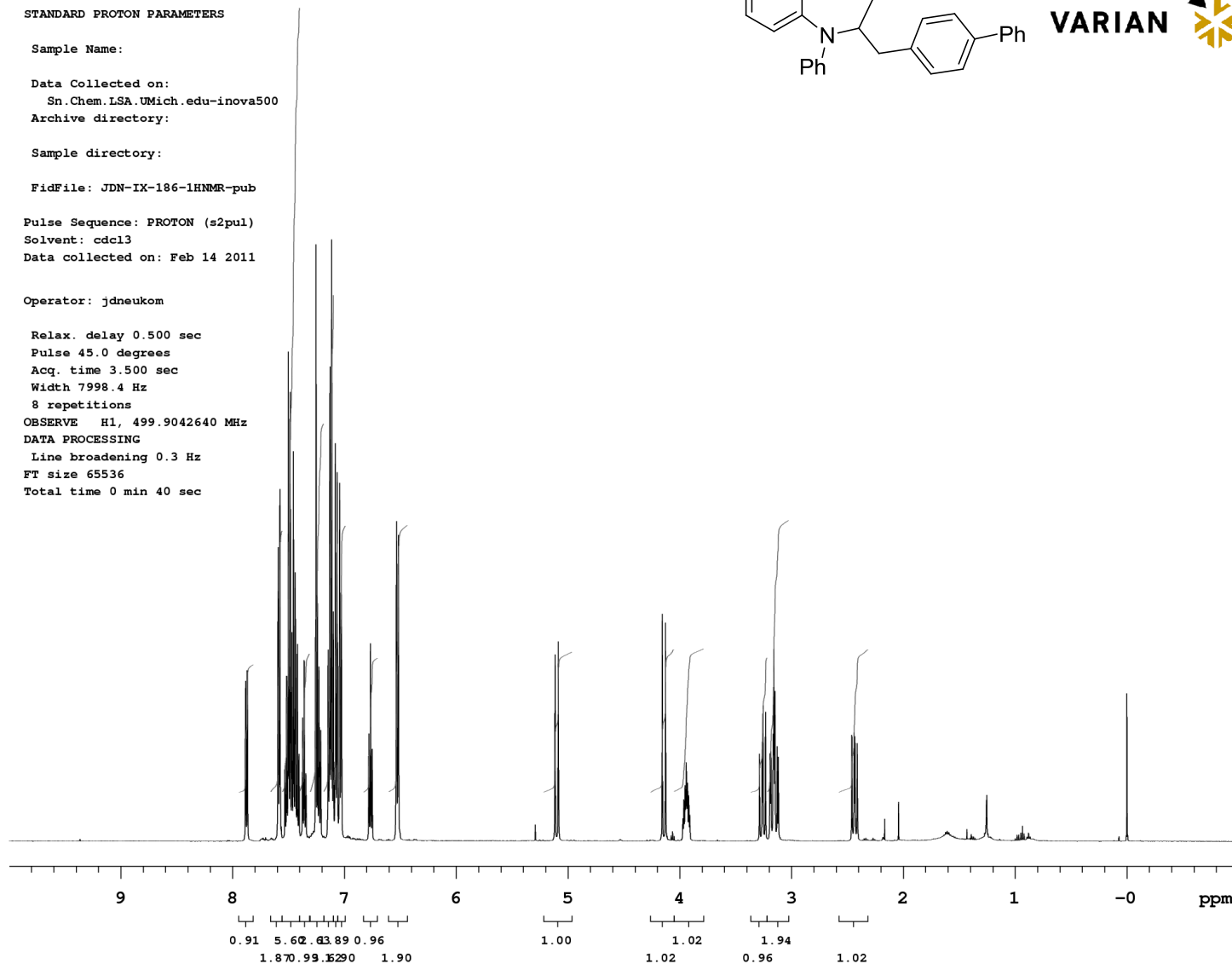
OBSERVE H1, 499.9042640 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 40 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Te-vnmrs500

Archive directory:

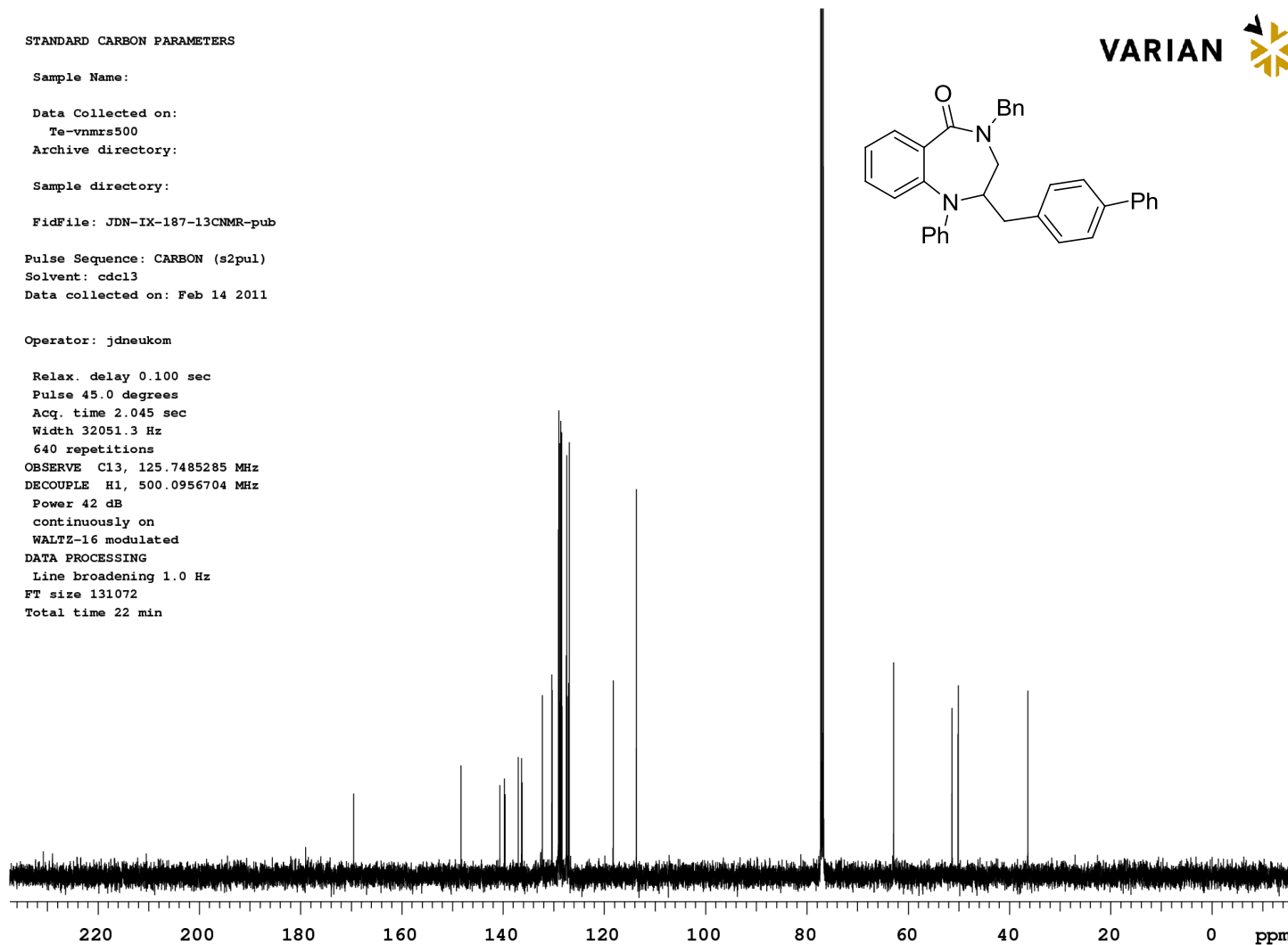
Sample directory:

FidFile: JDN-IX-187-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Feb 14 2011

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.045 sec
Width 32051.3 Hz
640 repetitions
OBSERVE C13, 125.7485285 MHz
DECOUPLE H1, 500.0956704 MHz
Power 42 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 22 min



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-IX-114-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 15 2011

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

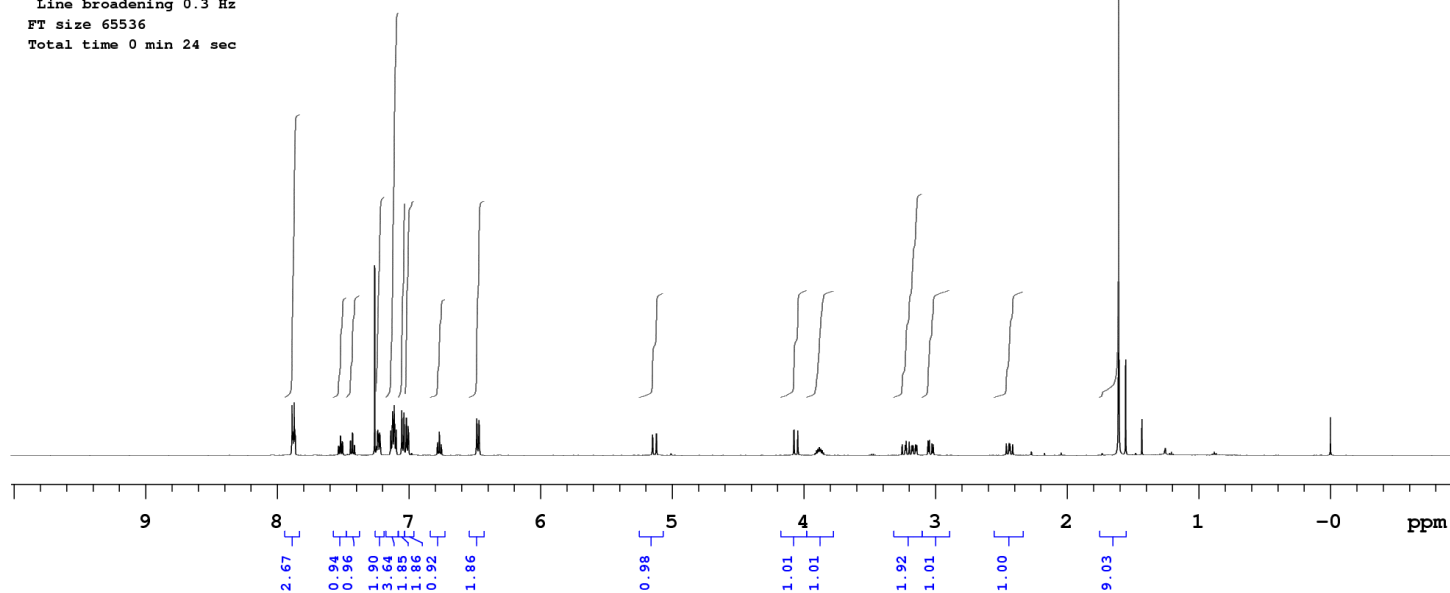
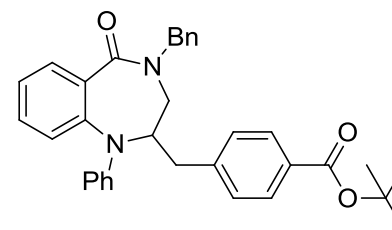
OBSERVE H1, 499.9042605 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400
Archive directory:

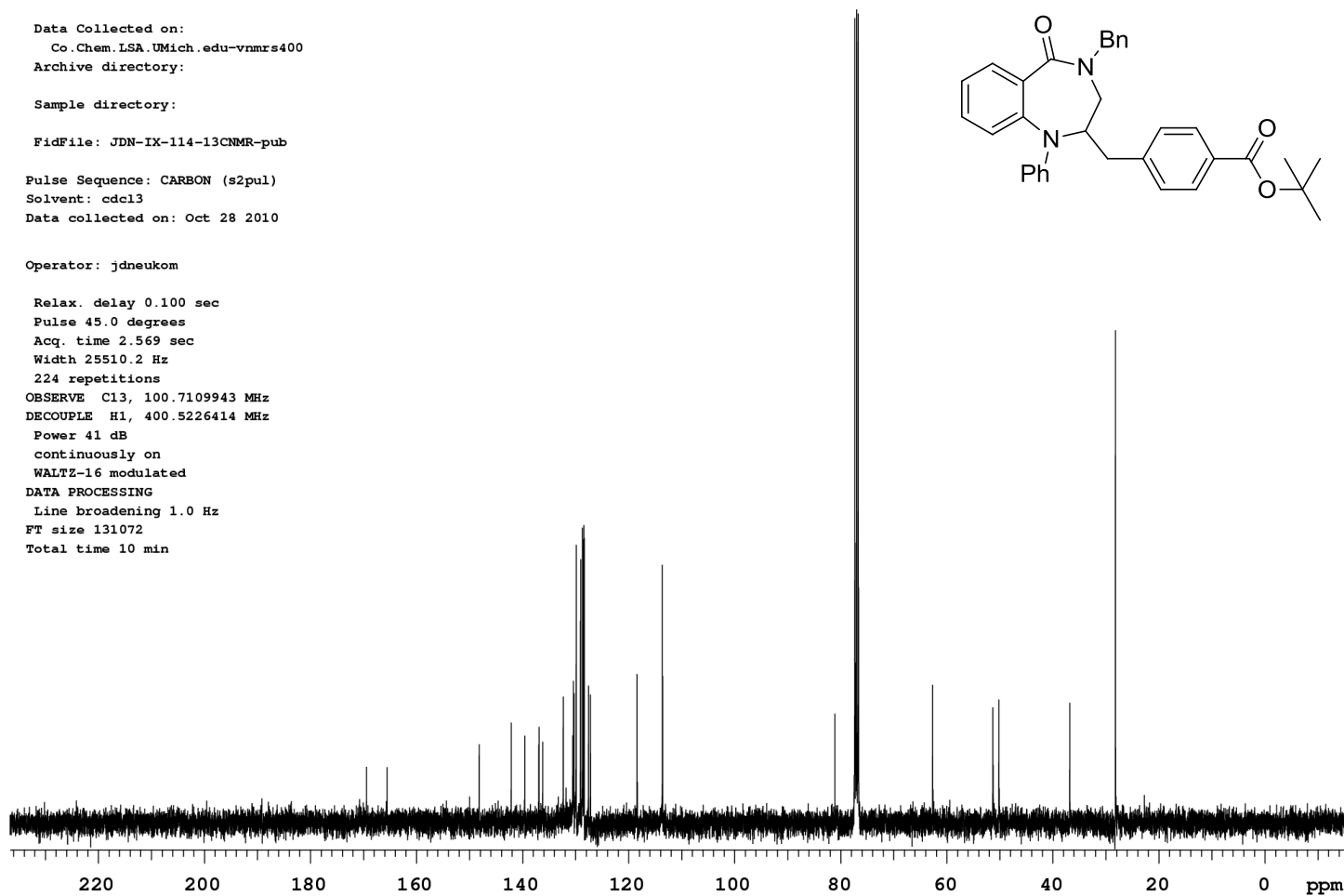
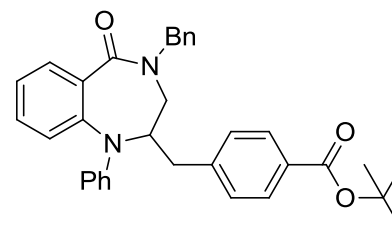
Sample directory:

FidFile: JDN-IX-114-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
224 repetitions
OBSERVE C13, 100.7109943 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 10 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-IX-126-1HNMR

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Nov 8 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

8 repetitions

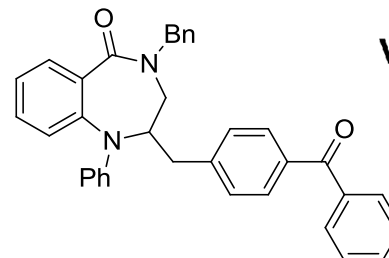
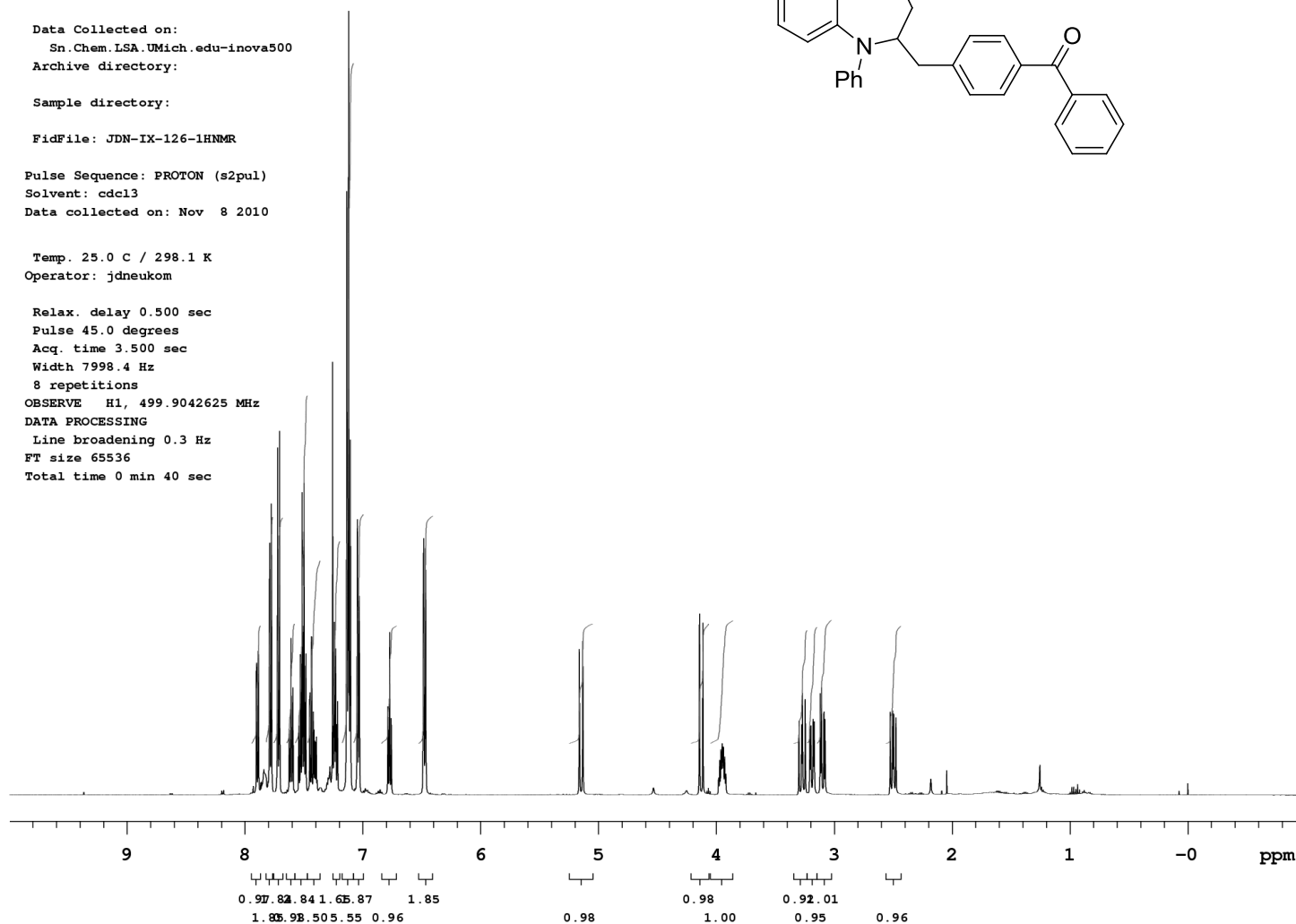
OBSERVE H1, 499.9042625 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 40 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400

Archive directory:

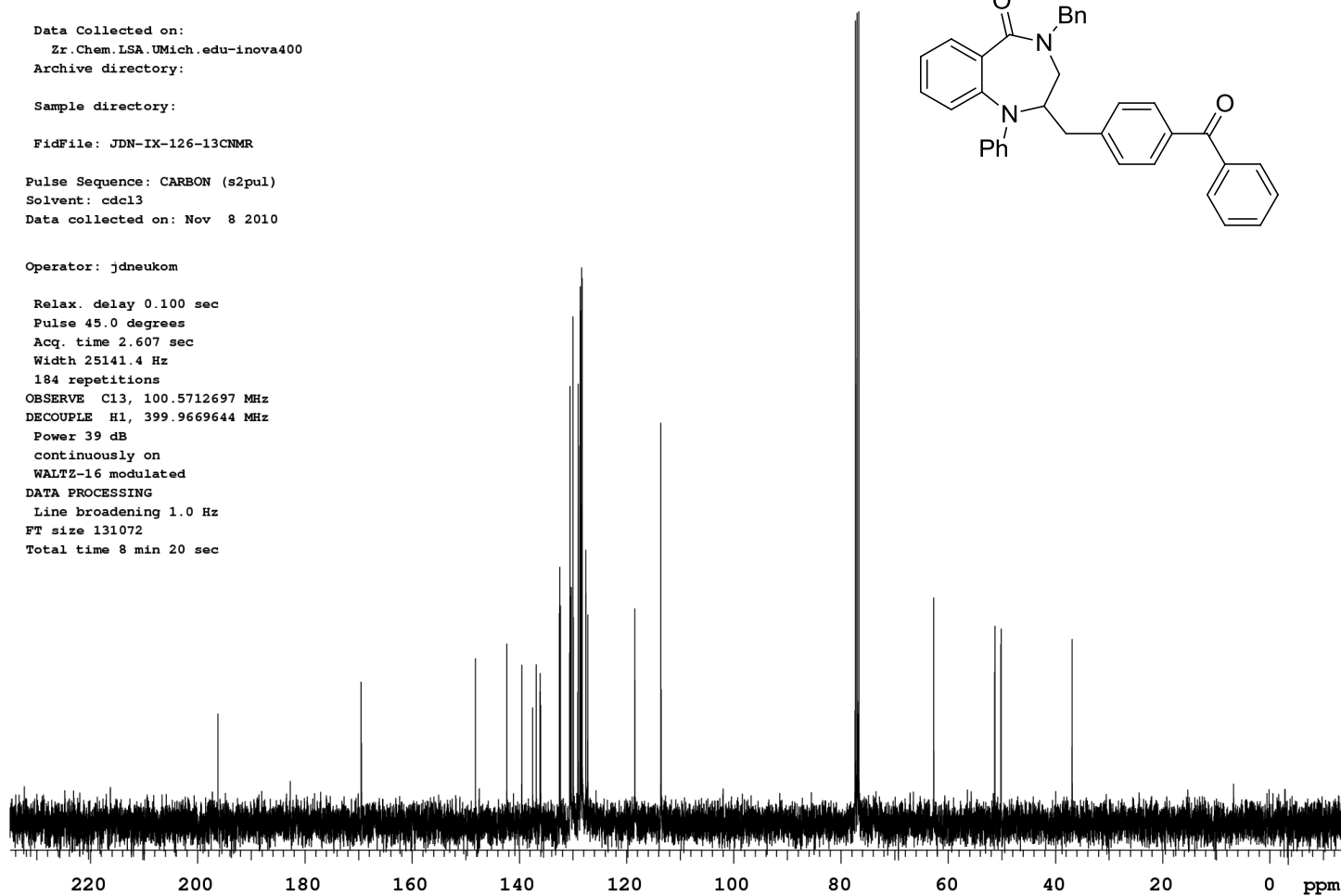
Sample directory:

FidFile: JDN-IX-126-13CNMR

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Nov 8 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
184 repetitions
OBSERVE C13, 100.5712697 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 8 min 20 sec



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

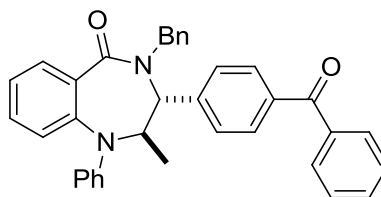
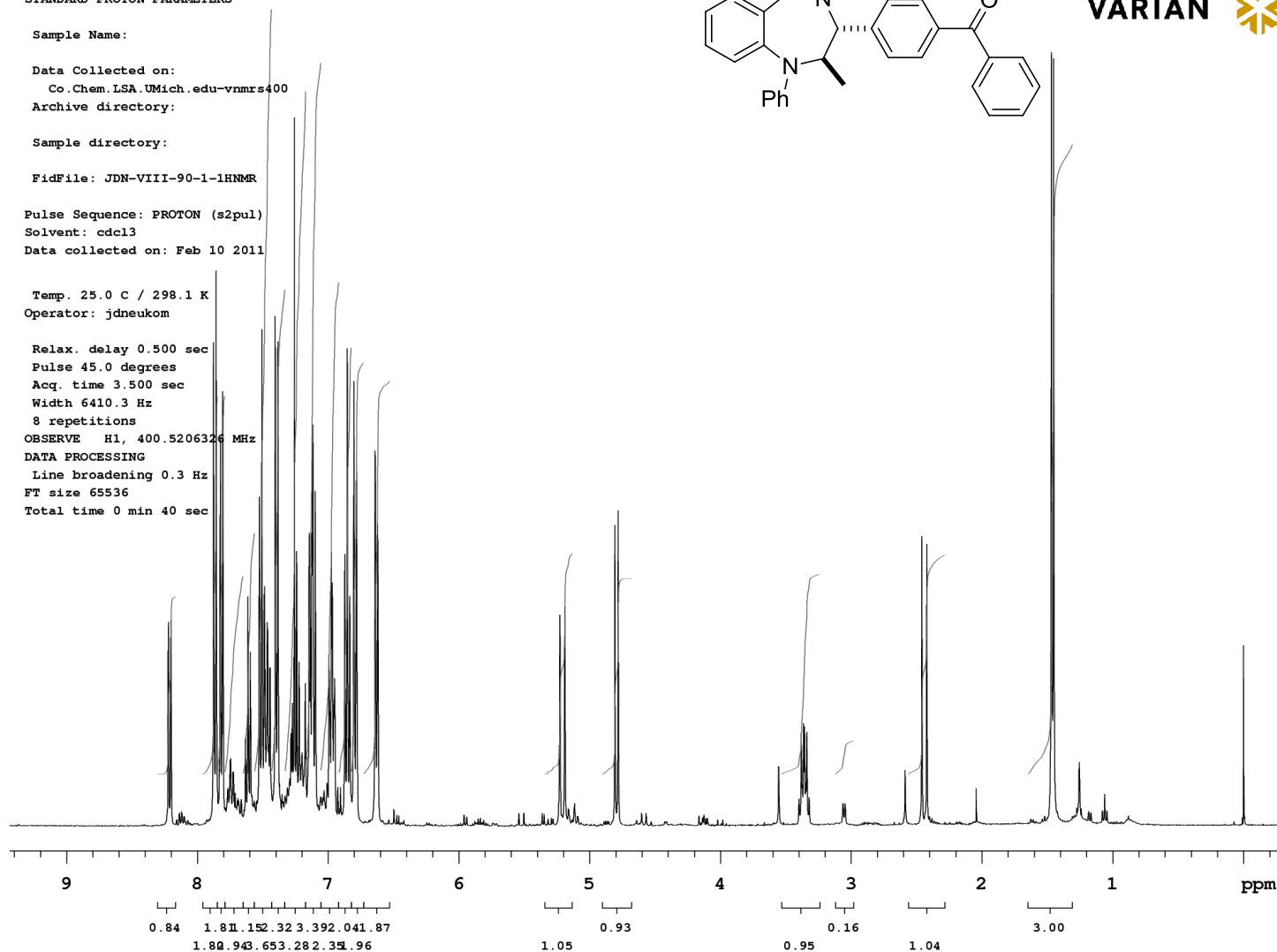
Sample directory:

FidFile: JDN-VIII-90-1-1HNMR

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 10 2011

Temp. 25.0 C / 298.1 K
Operator: jdnukomRelax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6410.3 Hz
8 repetitions
OBSERVE H1, 400.5206326 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 40 secVARIAN 

STANDARD CARBON PARAMETERS

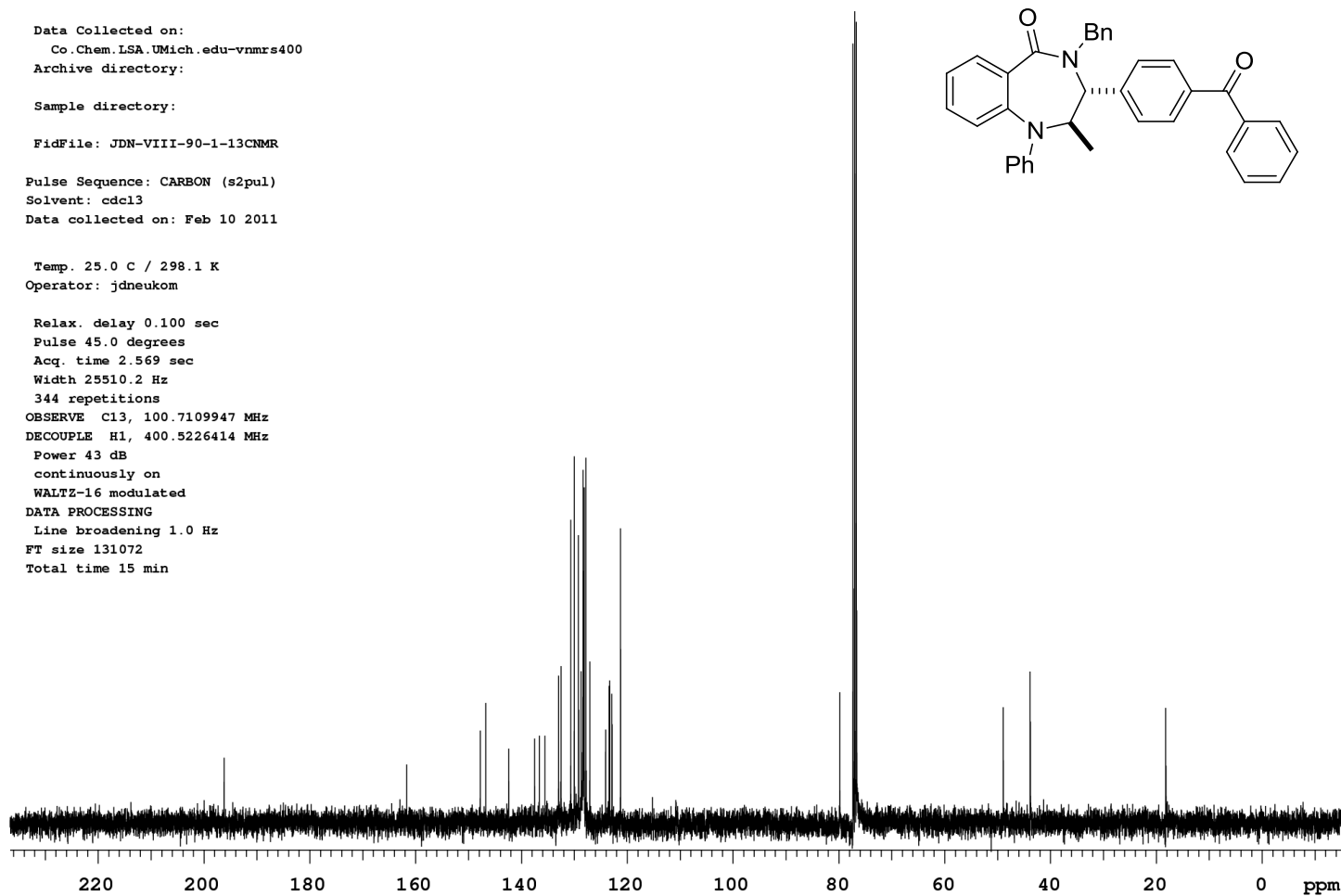
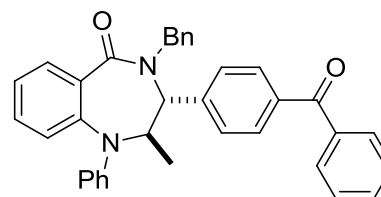
Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-VIII-90-1-13CNMR

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Feb 10 2011Temp. 25.0 C / 298.1 K
Operator: jdnukomRelax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
344 repetitions
OBSERVE C13, 100.7109947 MHz
DECOUPLE H1, 400.5226414 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 15 minVARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-VIII-90-1-COSY

Pulse Sequence: gCOSY

Solvent: cdcl3

Data collected on: Feb 10 2011

Operator: jdnukom

Relax. delay 1.000 sec

Acq. time 0.150 sec

Width 5335.1 Hz

2D Width 5335.1 Hz

Single scan

128 increments

OBSERVE H1, 499.9042608 MHz

DATA PROCESSING

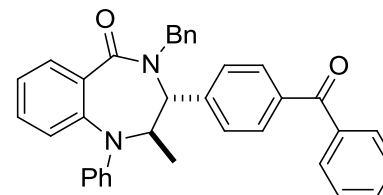
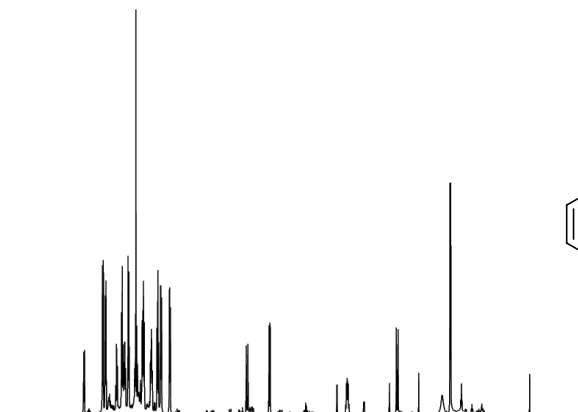
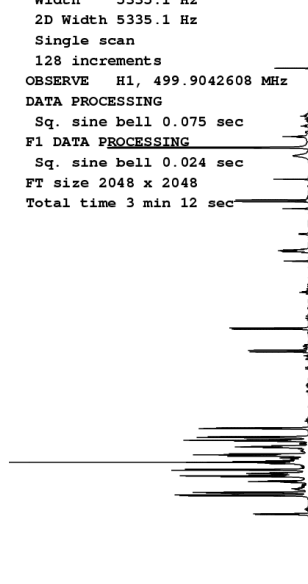
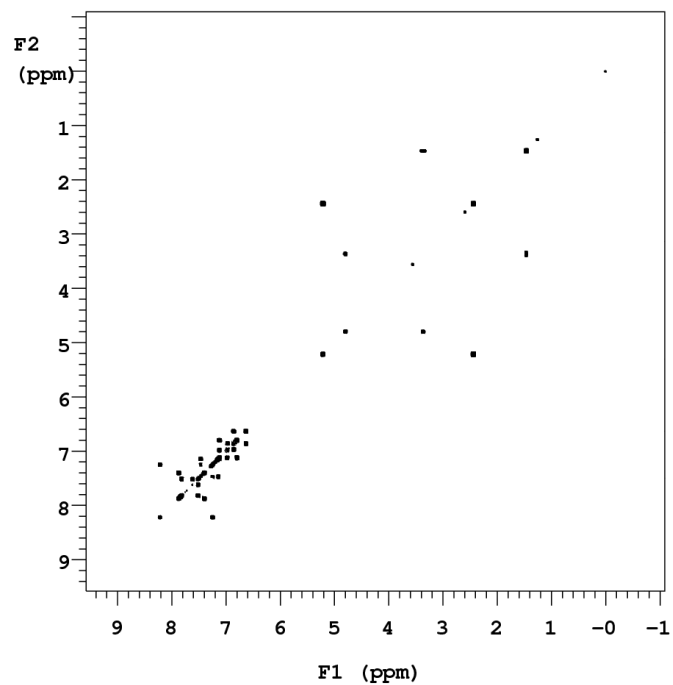
Sq. sine bell 0.075 sec

F1 DATA PROCESSING

Sq. sine bell 0.024 sec

FT size 2048 x 2048

Total time 3 min 12 sec

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Sn.Chem.LSA.UMich.edu-inova500

Archive directory:

Sample directory:

FidFile: JDN-IX-121-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 7998.4 Hz

4 repetitions

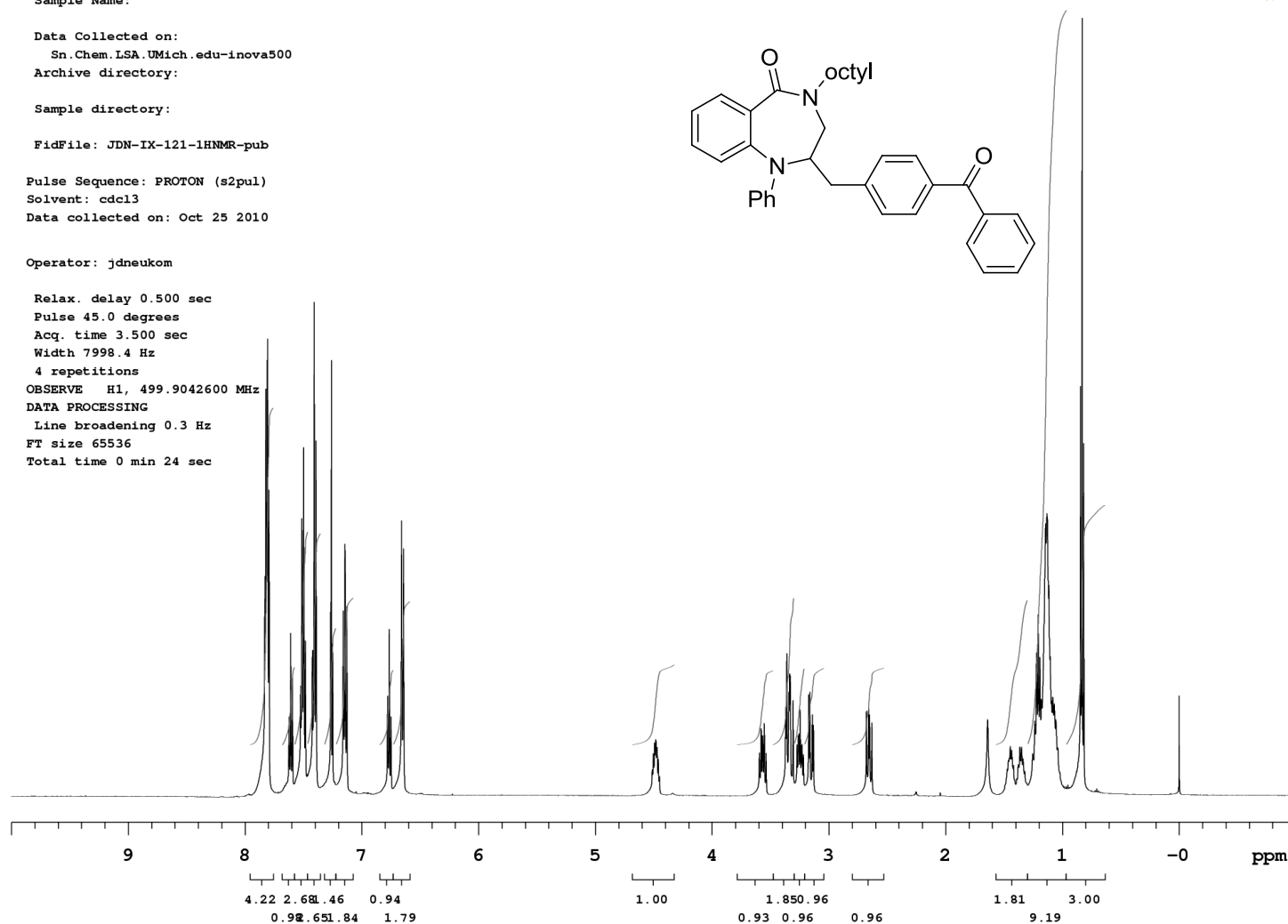
OBSERVE H1, 499.9042600 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

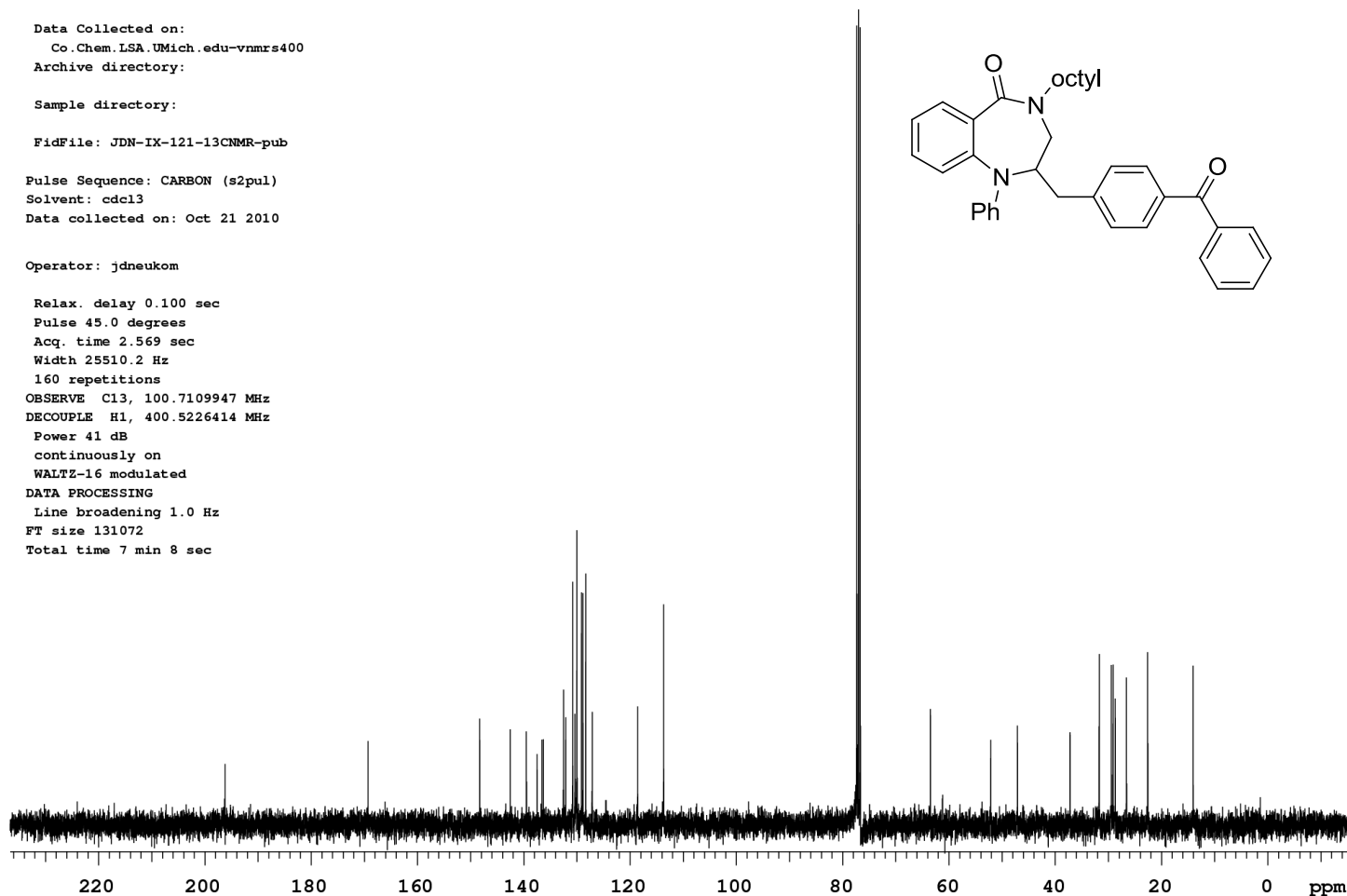
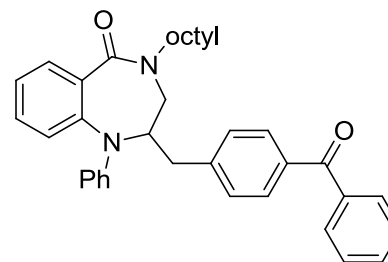
Sample directory:

FidFile: JDN-IX-121-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 21 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
160 repetitions
OBSERVE C13, 100.7109947 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 7 min 8 sec

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:

Ga.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-IX-115-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 25 2010

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 6410.3 Hz

8 repetitions

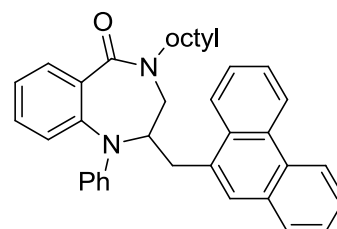
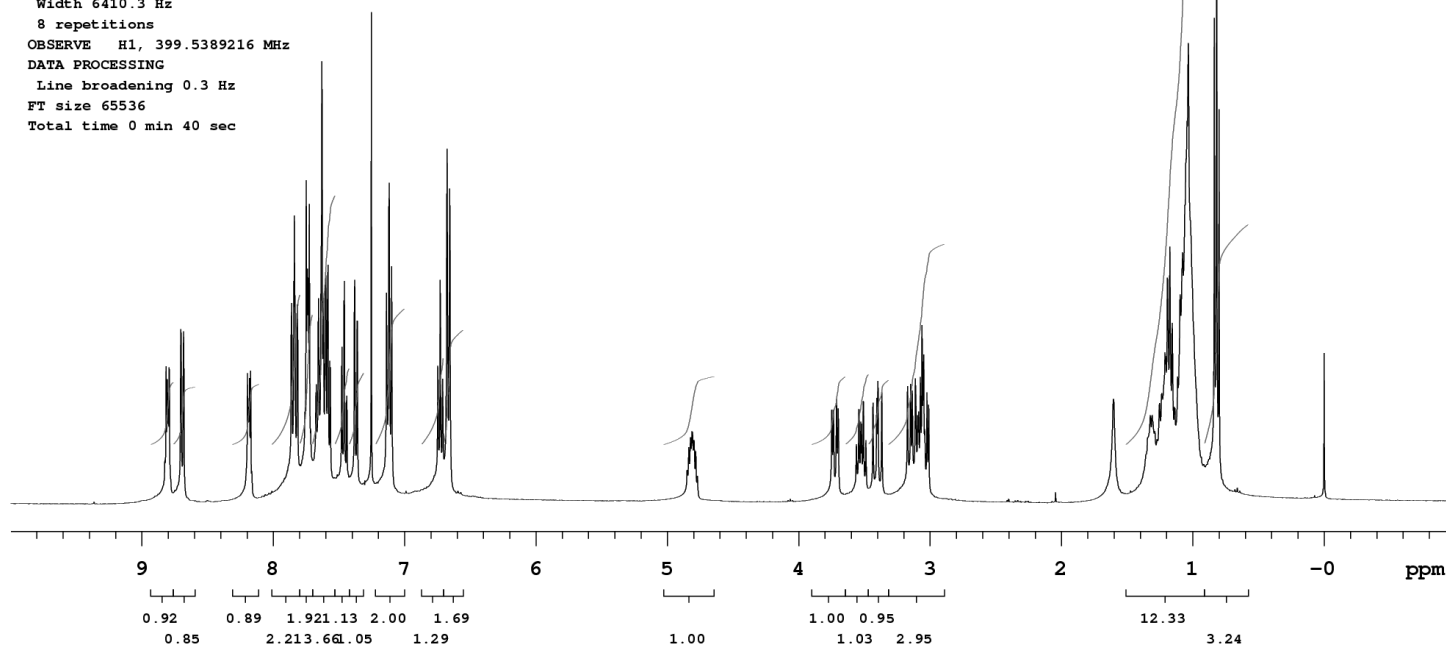
OBSERVE H1, 399.5389216 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 0 min 40 sec

VARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Zr.Chem.LSA.UMich.edu-inova400
Archive directory:

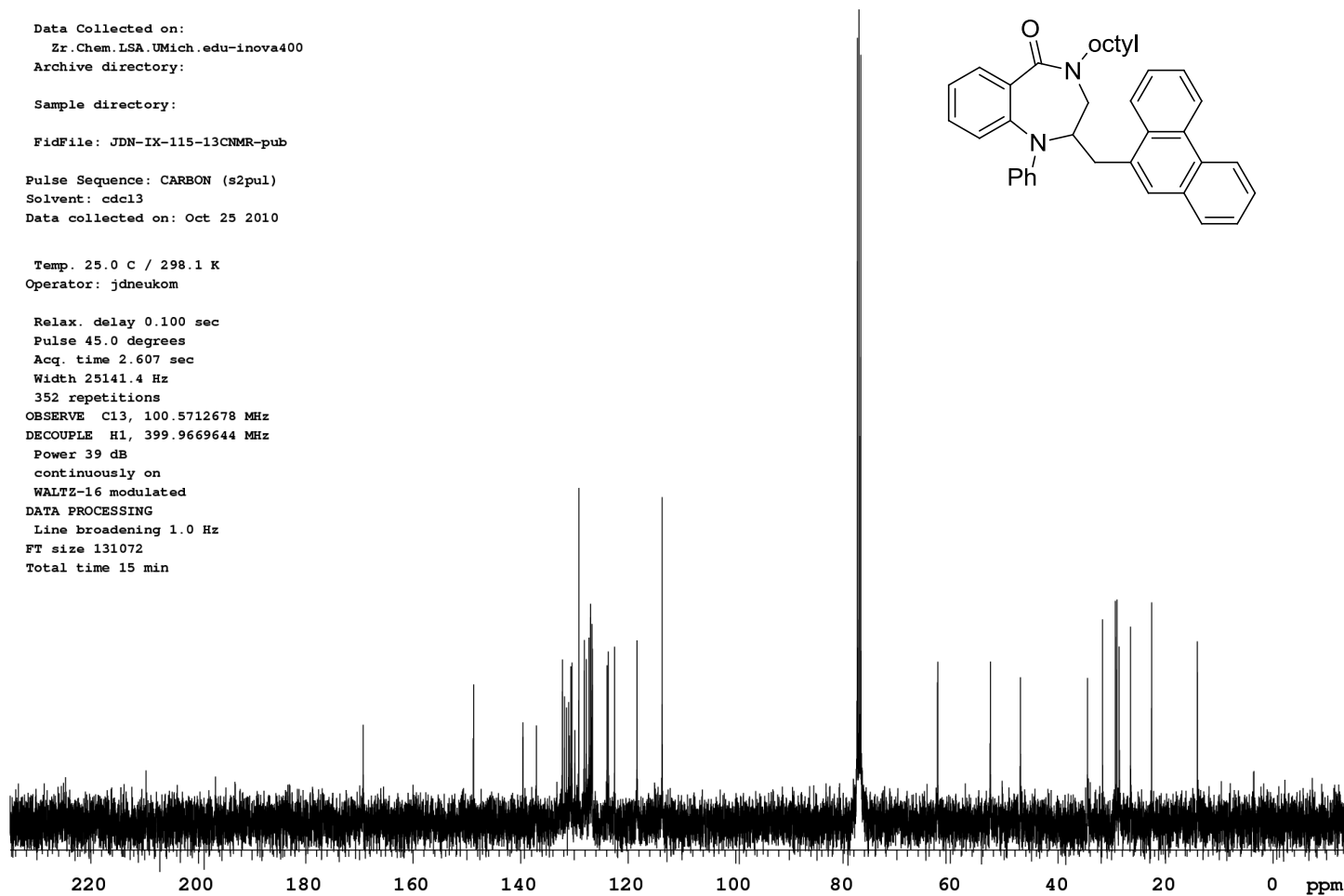
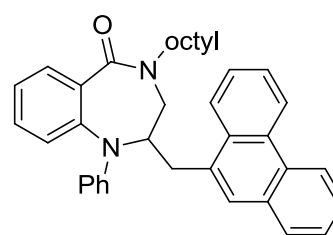
Sample directory:

FidFile: JDN-IX-115-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 25 2010

Temp. 25.0 C / 298.1 K
Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.607 sec
Width 25141.4 Hz
352 repetitions
OBSERVE C13, 100.5712678 MHz
DECOUPLE H1, 399.9669644 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 15 min

VARIAN 

STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Ga.Chem.LSA.UMich.edu-vnmrs400

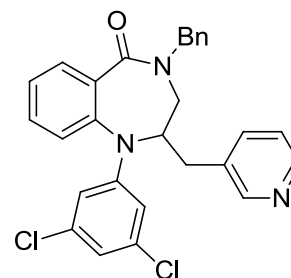
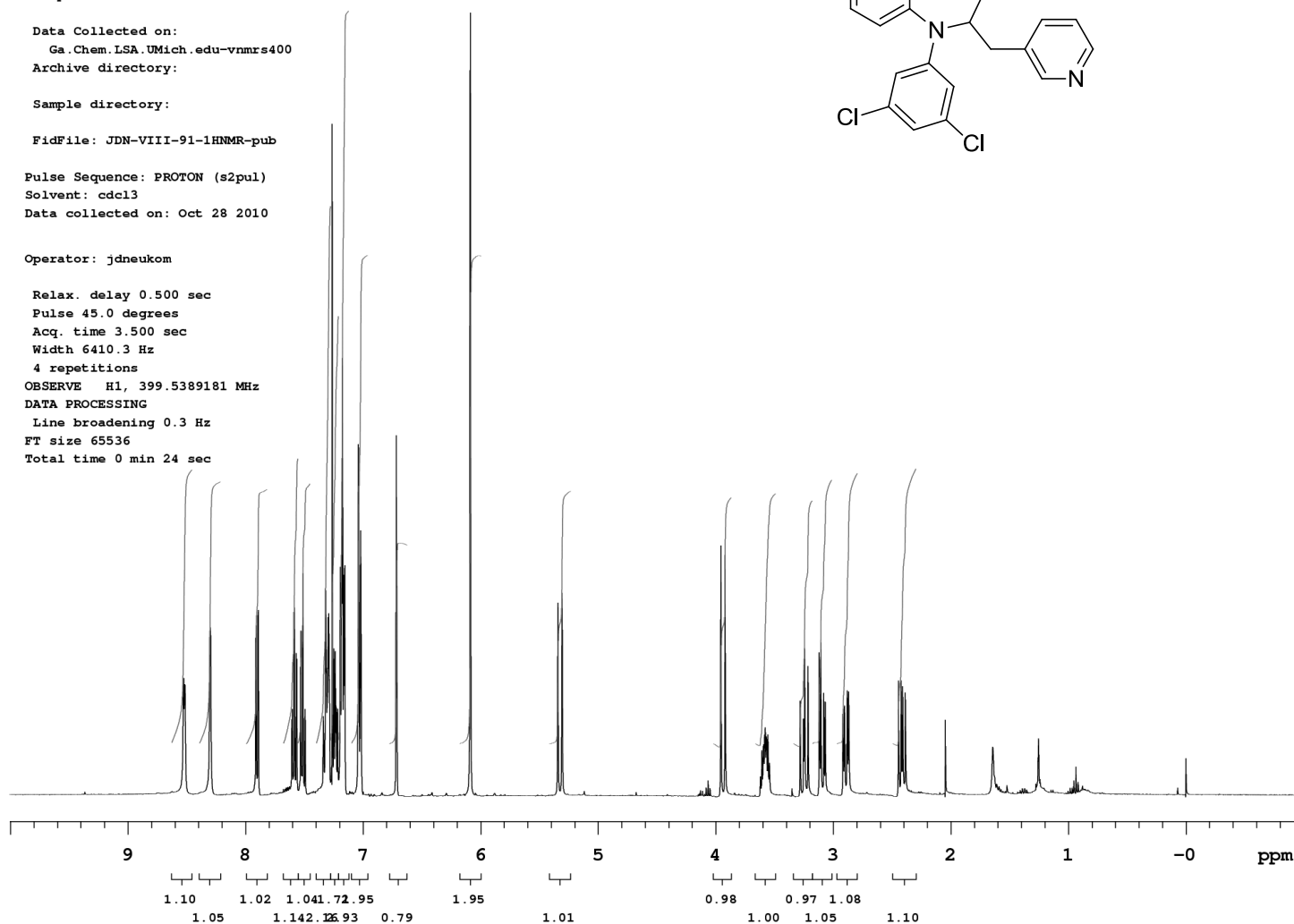
Archive directory:

Sample directory:

FidFile: JDN-VIII-91-1HNMR-pub

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Operator: jdneukom

Relax. delay 0.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6410.3 Hz
4 repetitions
OBSERVE H1, 399.5389181 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 0 min 24 secVARIAN 

STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

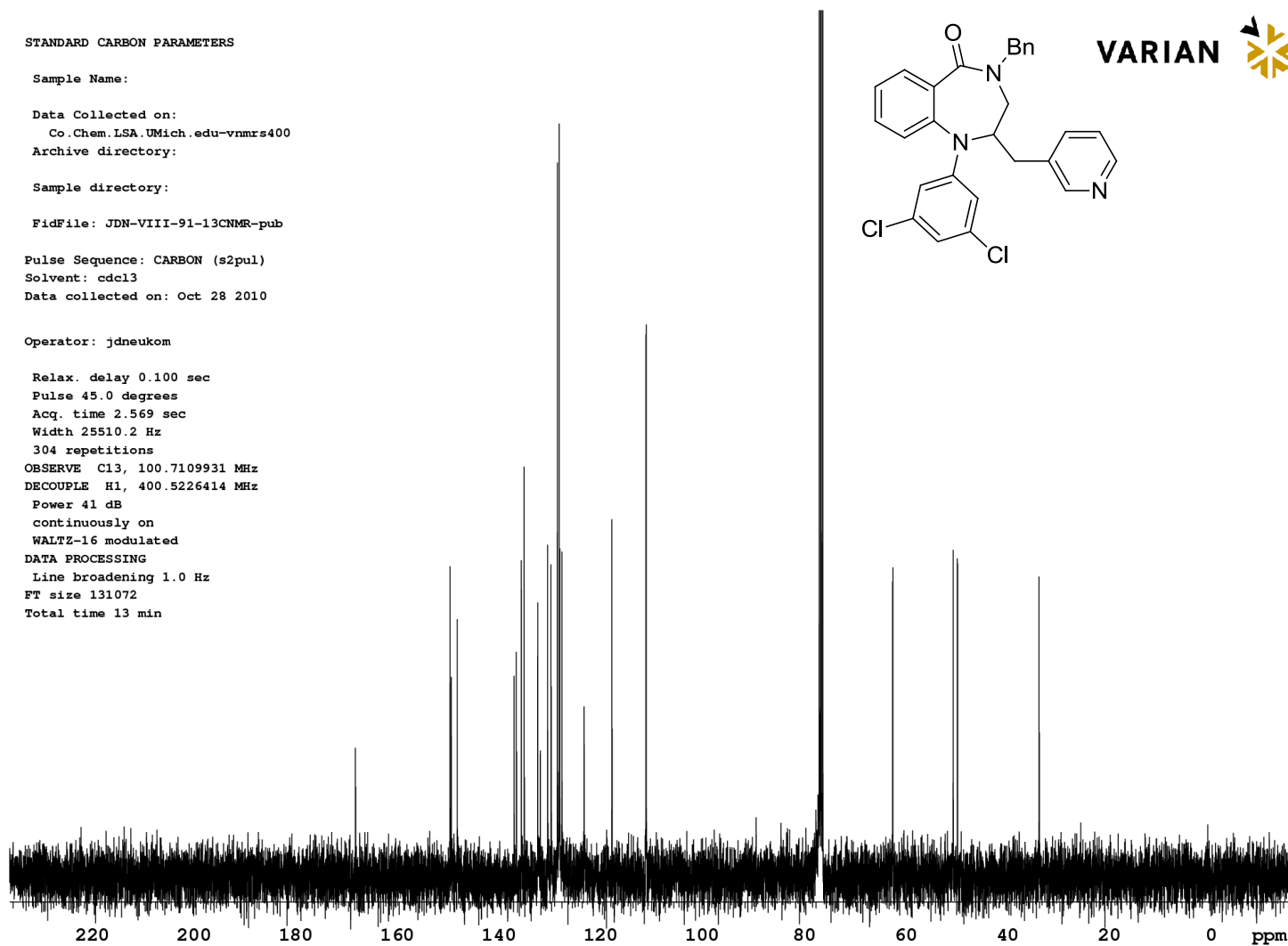
Sample directory:

FidFile: JDN-VIII-91-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 28 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.569 sec
Width 25510.2 Hz
304 repetitions
OBSERVE C13, 100.7109931 MHz
DECOUPLE H1, 400.5226414 MHz
Power 41 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 13 min



STANDARD PROTON PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400

Archive directory:

Sample directory:

FidFile: JDN-IX-116-1HNMR-pub

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl_3

Data collected on: Oct 29 2010

Temp. 25.0 C / 298.1 K

Operator: jdneukom

Relax. delay 0.500 sec

Pulse 45.0 degrees

Acq. time 3.500 sec

Width 6410.3 Hz

4 repetitions

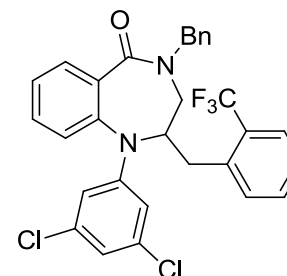
OBSERVE H1, 400.5206320 MHz

DATA PROCESSING

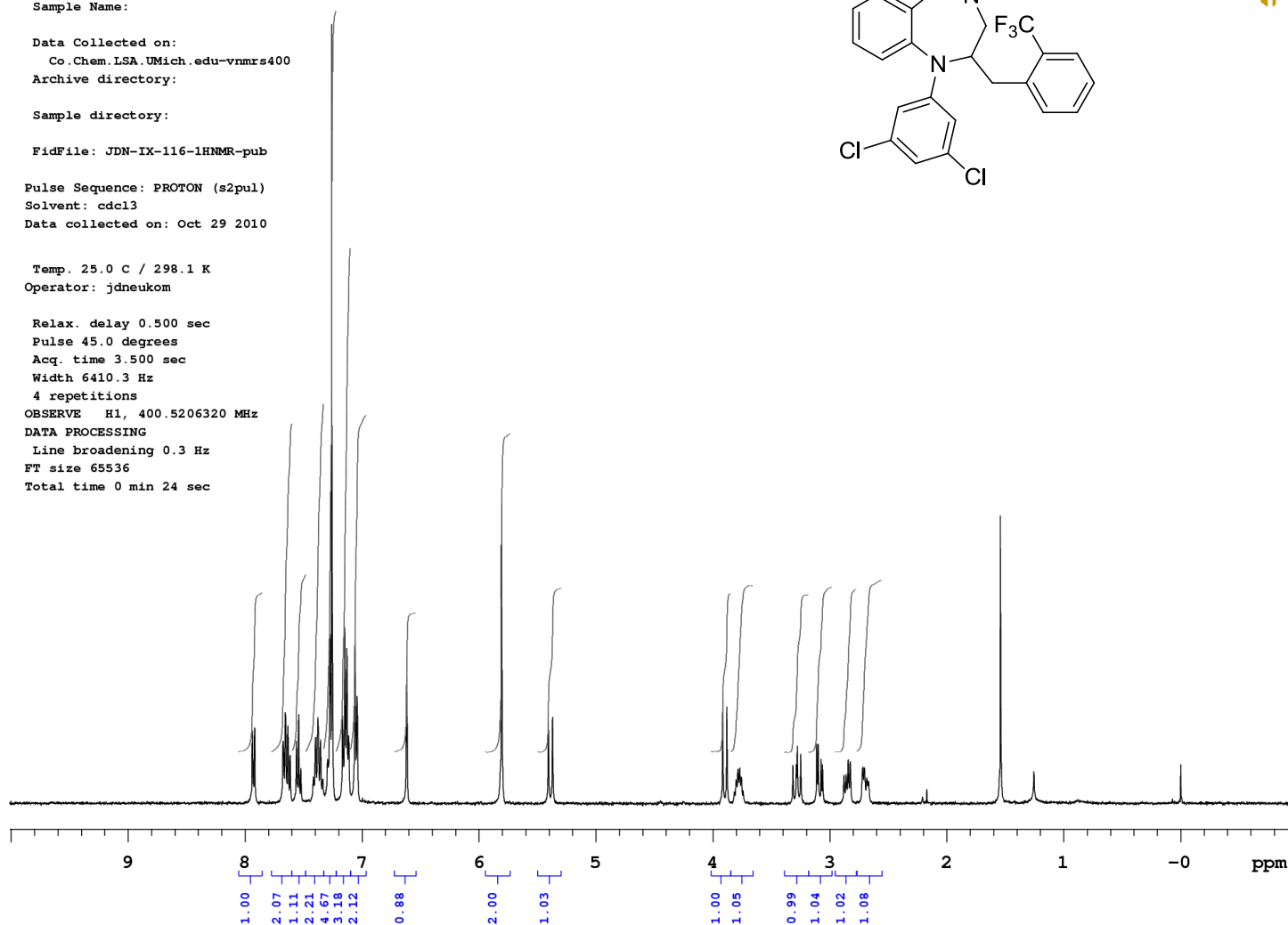
Line broadening 0.3 Hz

FT size 65536

Total time 0 min 24 sec



VARIAN 



STANDARD CARBON PARAMETERS

Sample Name:

Data Collected on:
Te-vnmrs500

Archive directory:

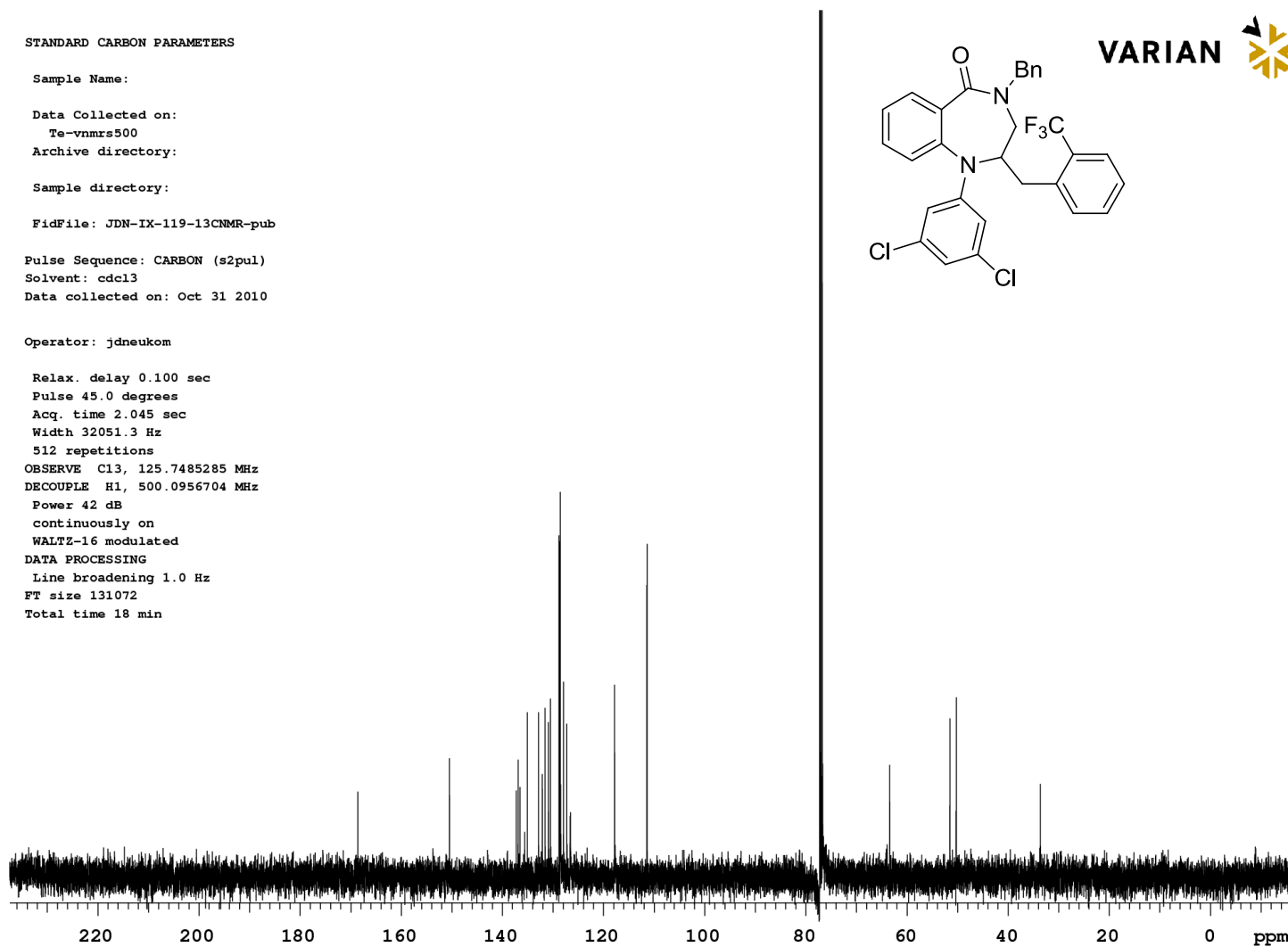
Sample directory:

FidFile: JDN-IX-119-13CNMR-pub

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 31 2010

Operator: jdneukom

Relax. delay 0.100 sec
Pulse 45.0 degrees
Acq. time 2.045 sec
Width 32051.3 Hz
512 repetitions
OBSERVE C13, 125.7485285 MHz
DECOUPLE H1, 500.0956704 MHz
Power 42 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 18 min



STANDARD FLUORINE PARAMETERS

Sample Name:

Data Collected on:
Co.Chem.LSA.UMich.edu-vnmrs400
Archive directory:

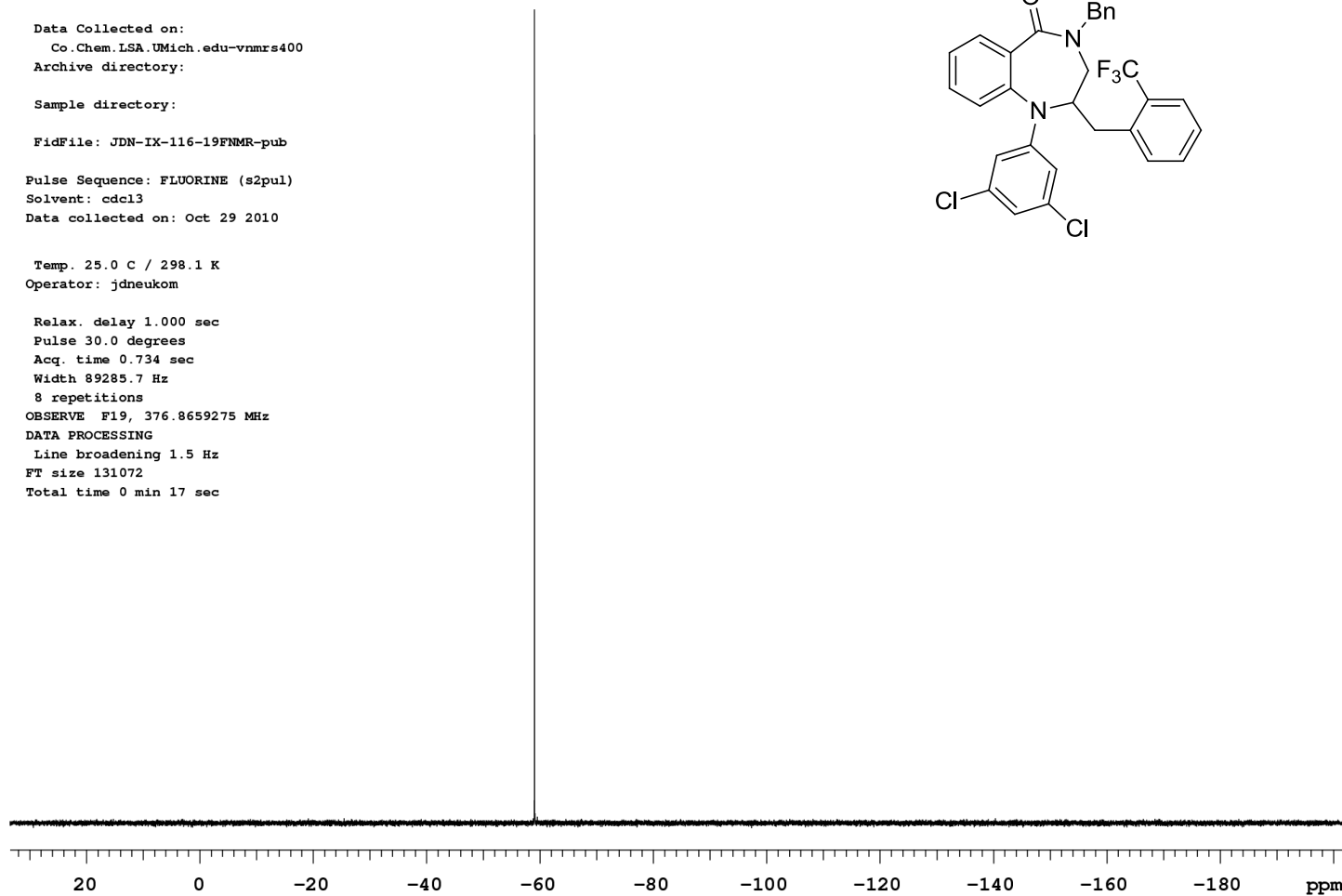
Sample directory:

FidFile: JDN-IX-116-19FNMR-pub

Pulse Sequence: FLUORINE (s2pul)
Solvent: cdcl3
Data collected on: Oct 29 2010

Temp. 25.0 C / 298.1 K
Operator: jdneukom

Relax. delay 1.000 sec
Pulse 30.0 degrees
Acq. time 0.734 sec
Width 89285.7 Hz
8 repetitions
OBSERVE F19, 376.8659275 MHz
DATA PROCESSING
Line broadening 1.5 Hz
FT size 131072
Total time 0 min 17 sec

VARIAN 