

Supplementary Information

Ribose conversion with amino acids into pyrraline platform chemicals – expeditious synthesis of diverse pyrrole-fused alkaloid compounds

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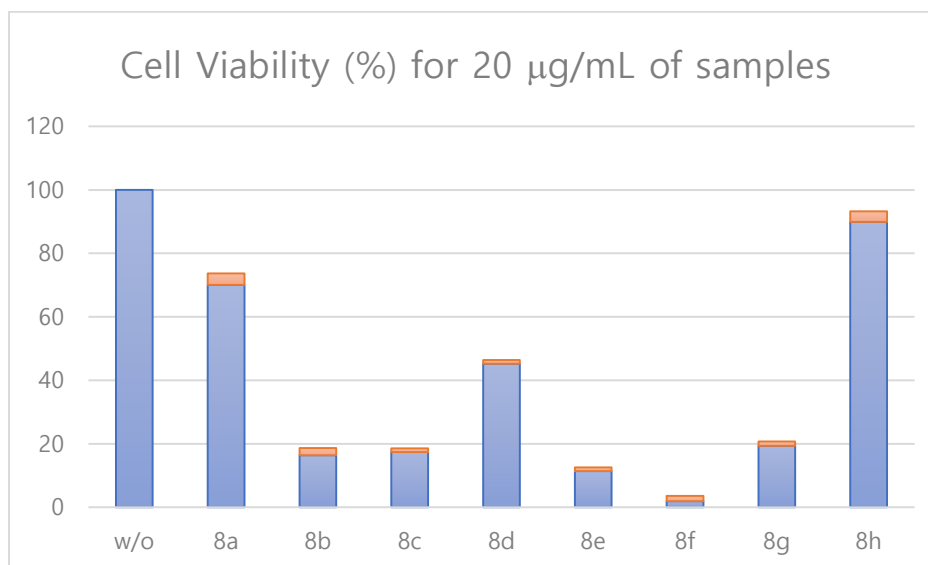
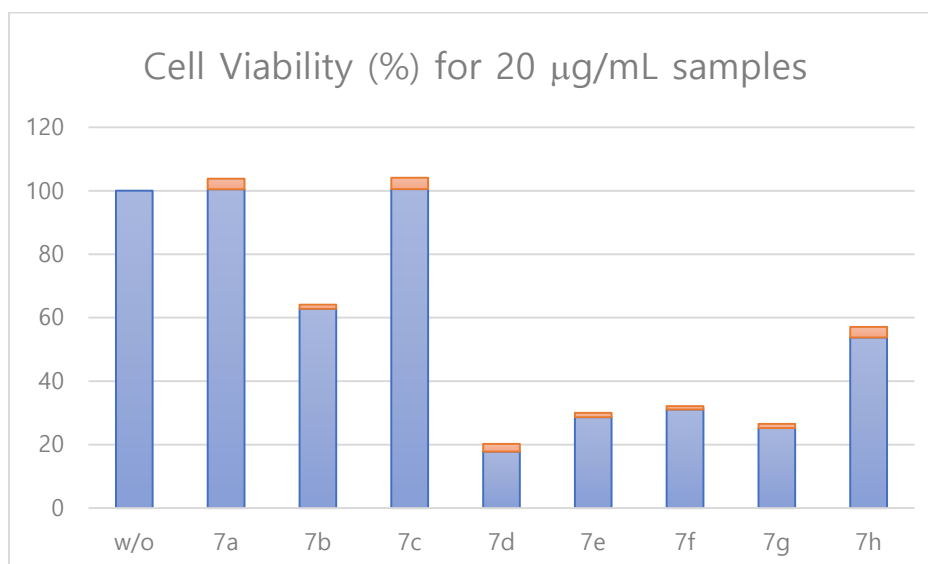
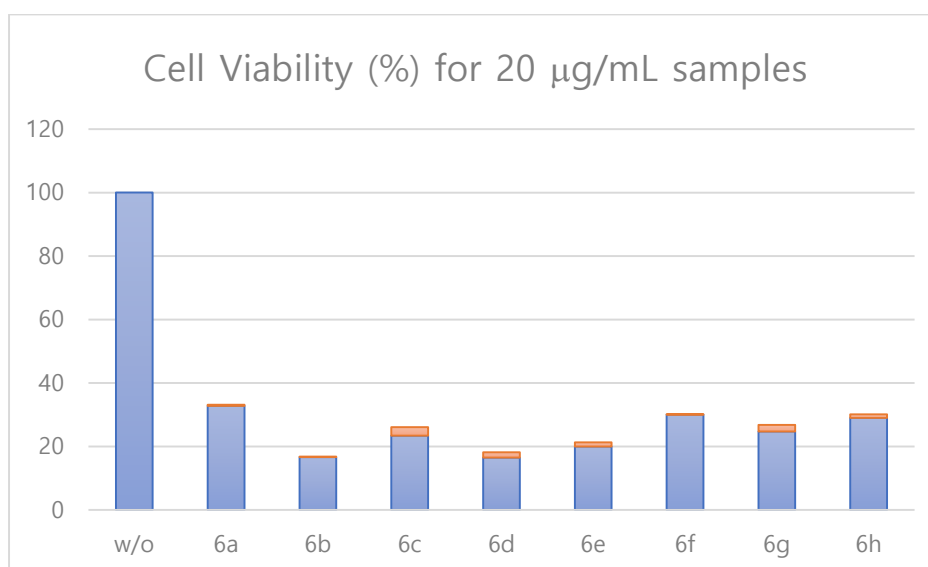
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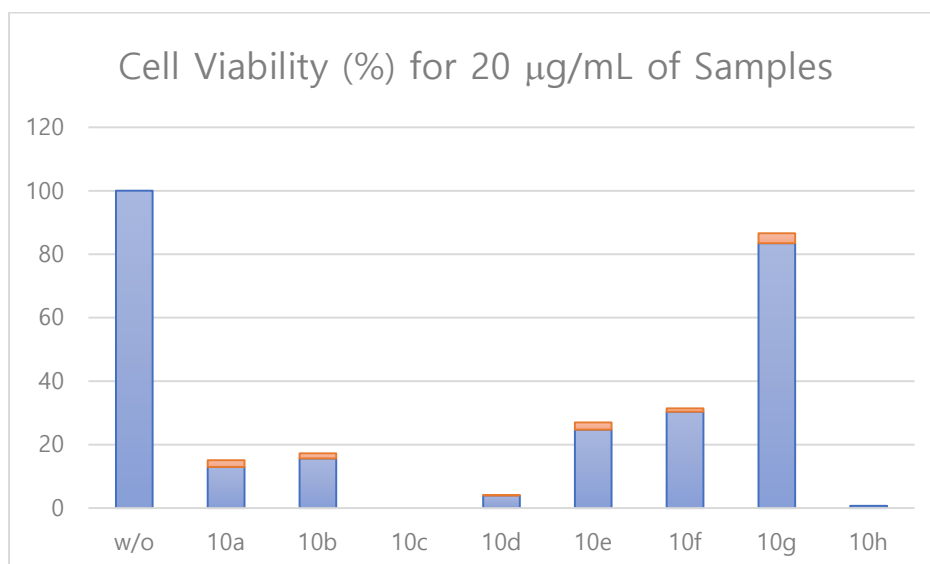
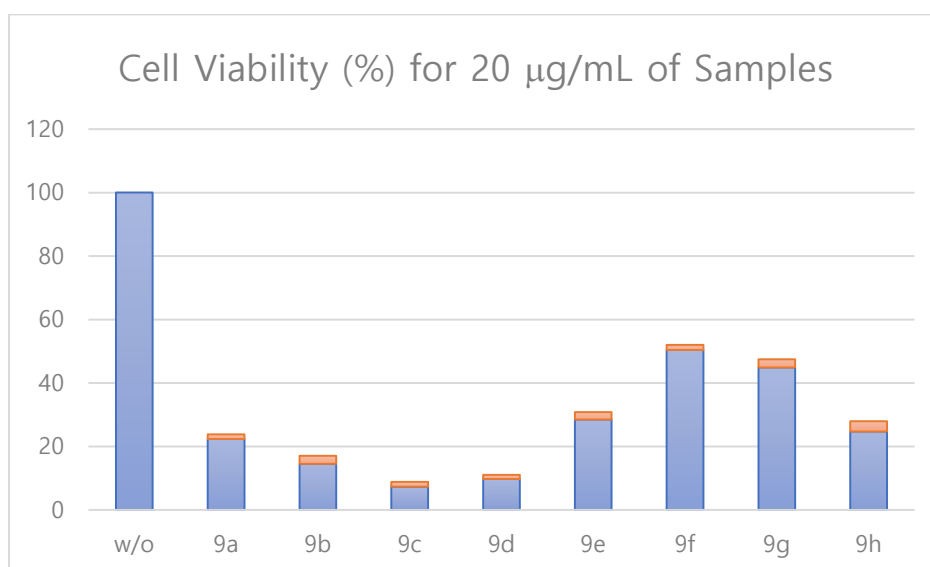
[†]These authors contributed equally.

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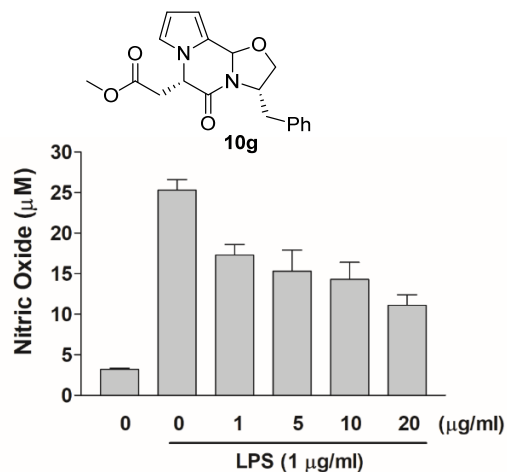
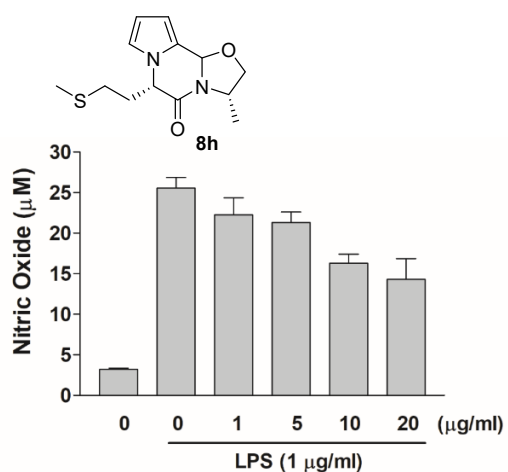
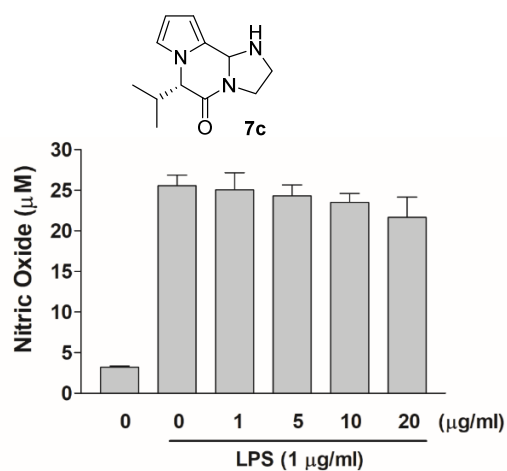
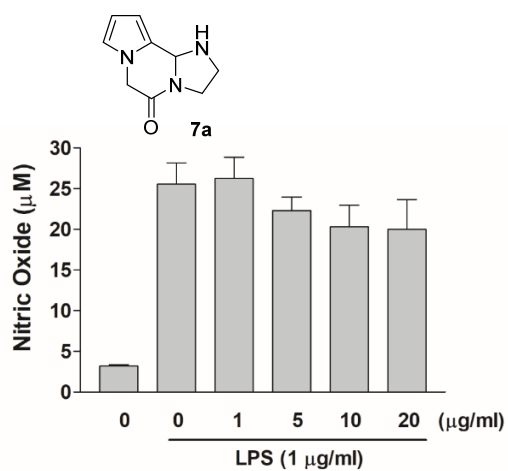
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Cell Viability Assays (MTT method)

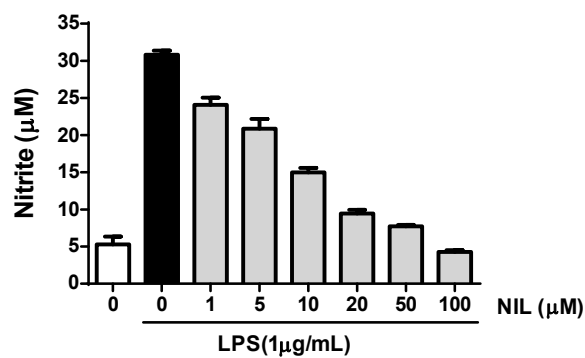




Nitric Oxide Concentration (Griess assay)



RAW 264.7 Macrophages ($IC_{50} = 10.17 \pm 2.09$)

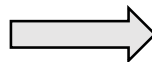


Positive Control NIL (L-N⁶-(1-Iminoethyl)lysine)

Picture demonstration for the pressure reaction of D-ribose and L-amino ester



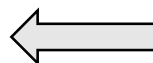
(1) Reagents were added into the pressure bottle



(2) Pressure cap was tightened



(4) The reaction temperature was controlled



(3) Pressure was set up by adding Ar gas

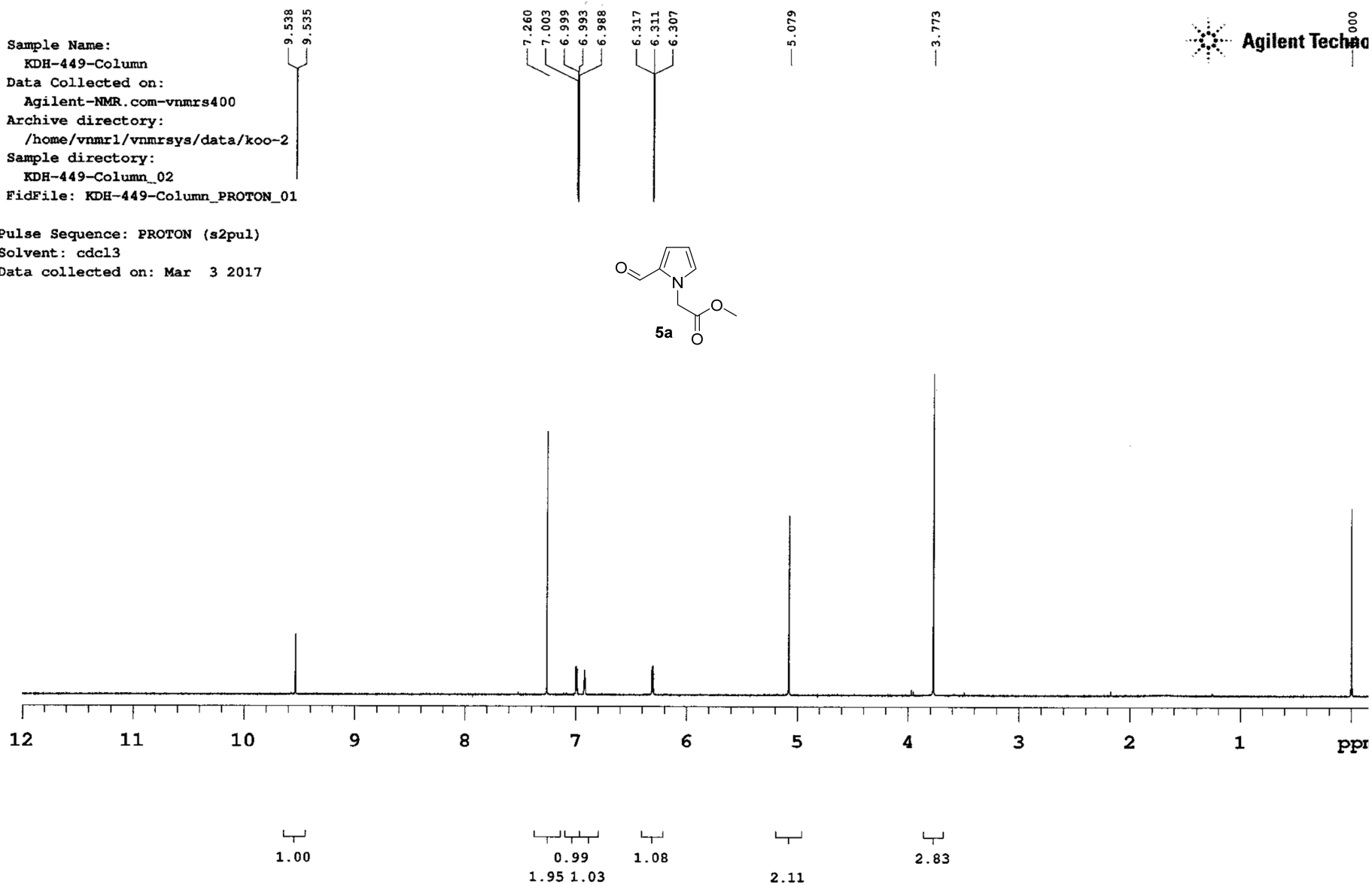


(5) Pressure was released when finished

$^1\text{H}/^{13}\text{C}$ -NMR Spectra

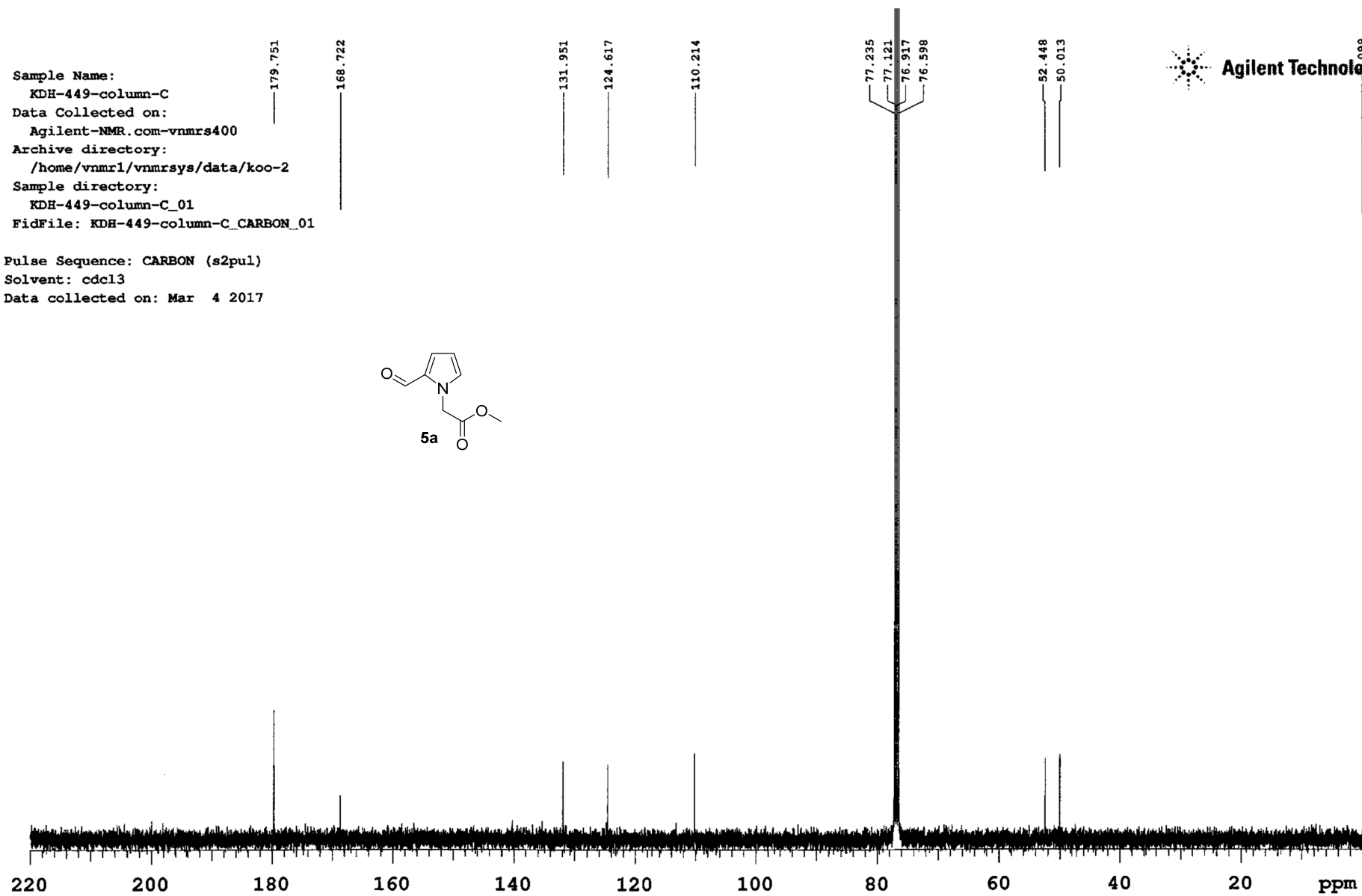
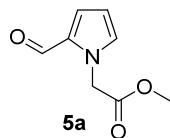
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Solvent: cdcl3
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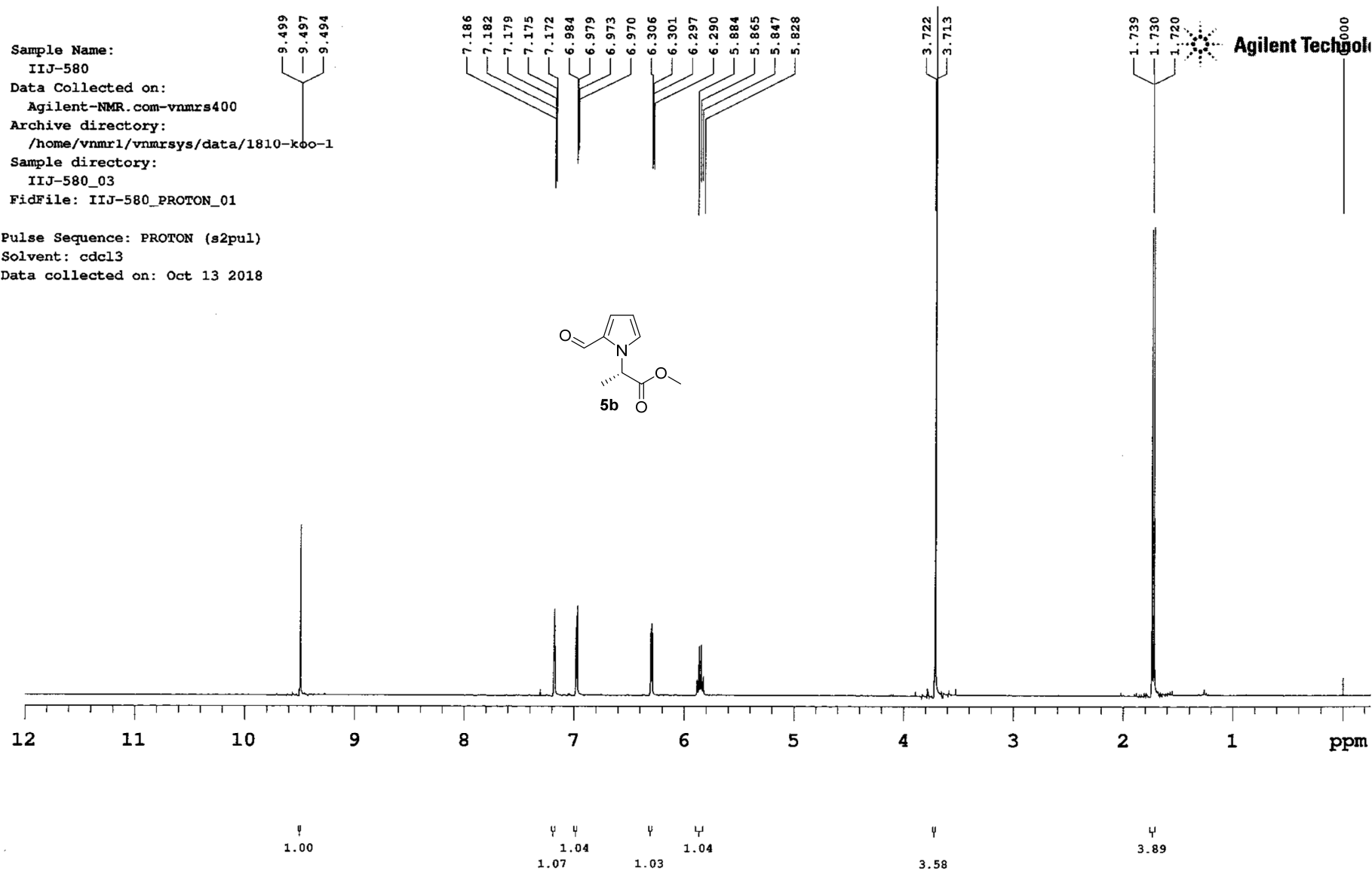
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Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Mar 4 2017



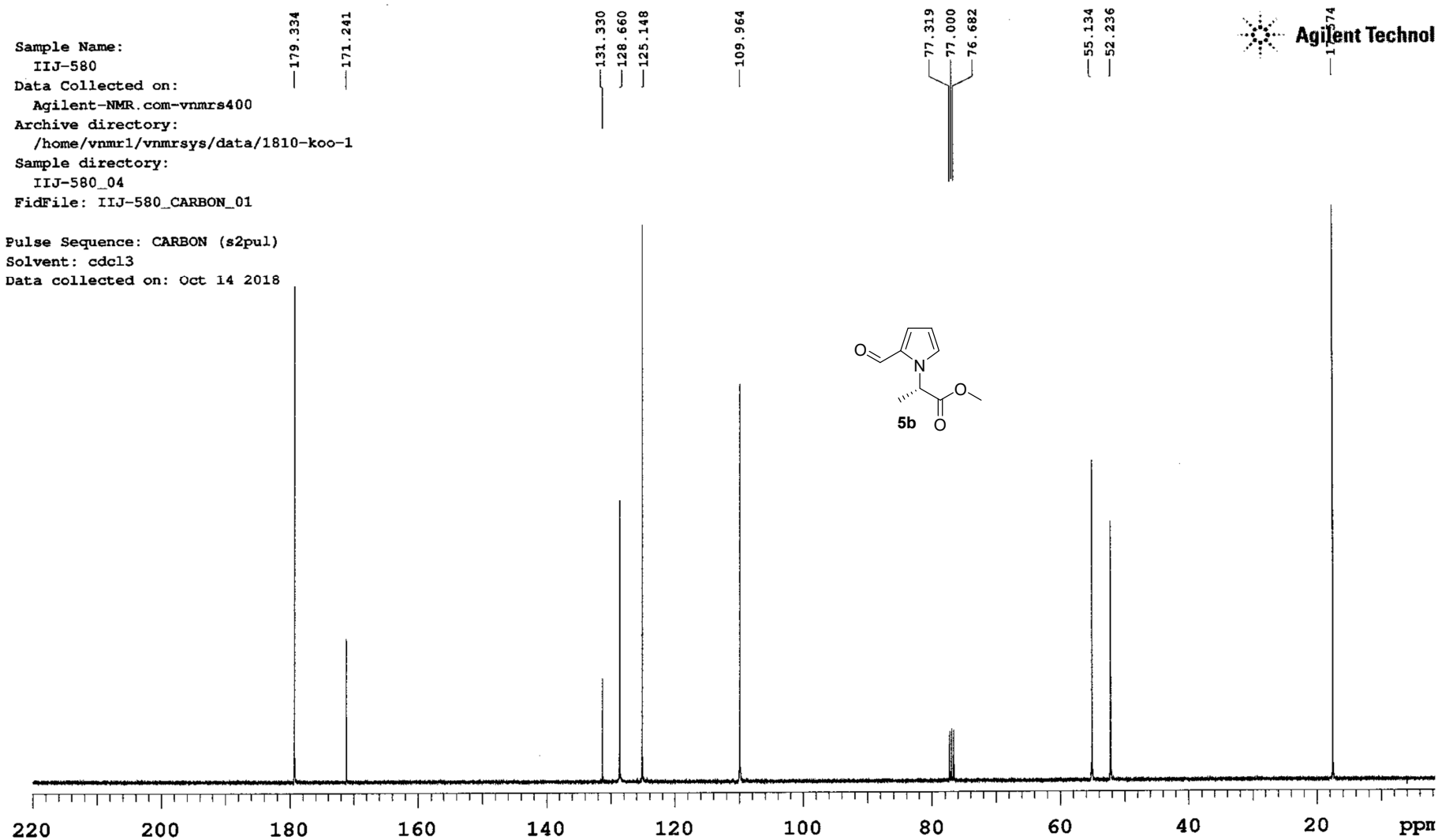
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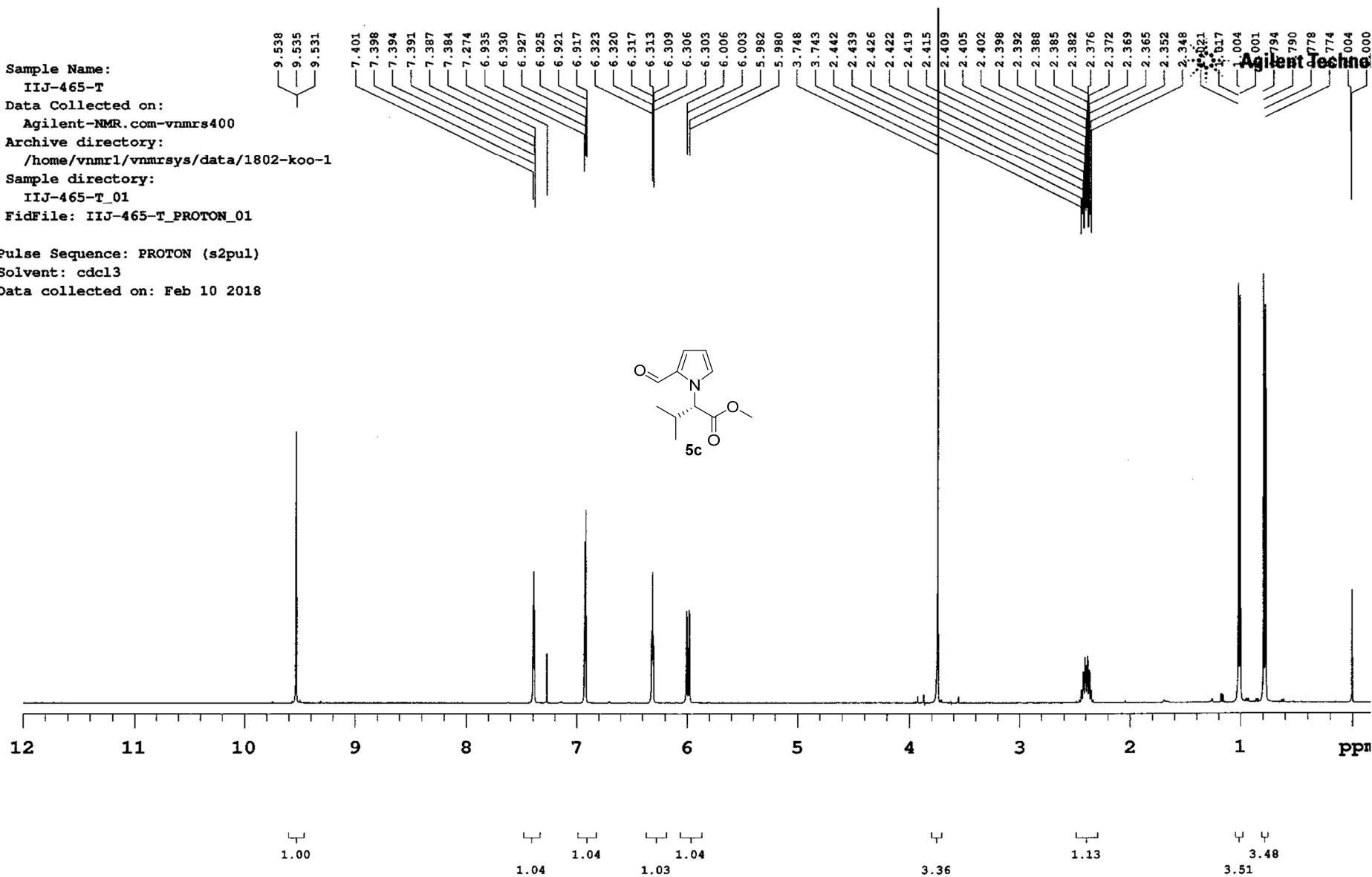
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Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 14 2018



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Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 10 2018

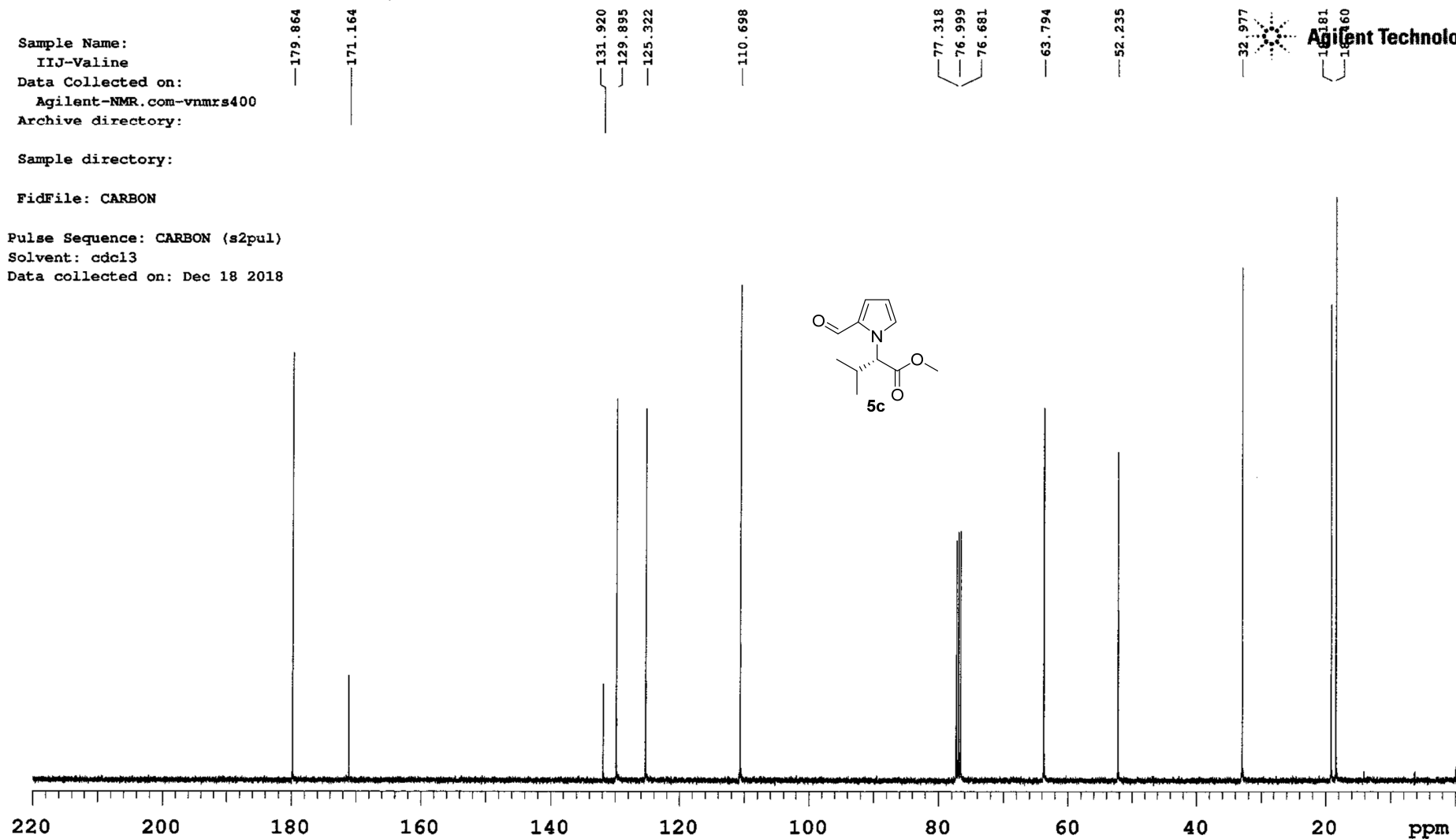


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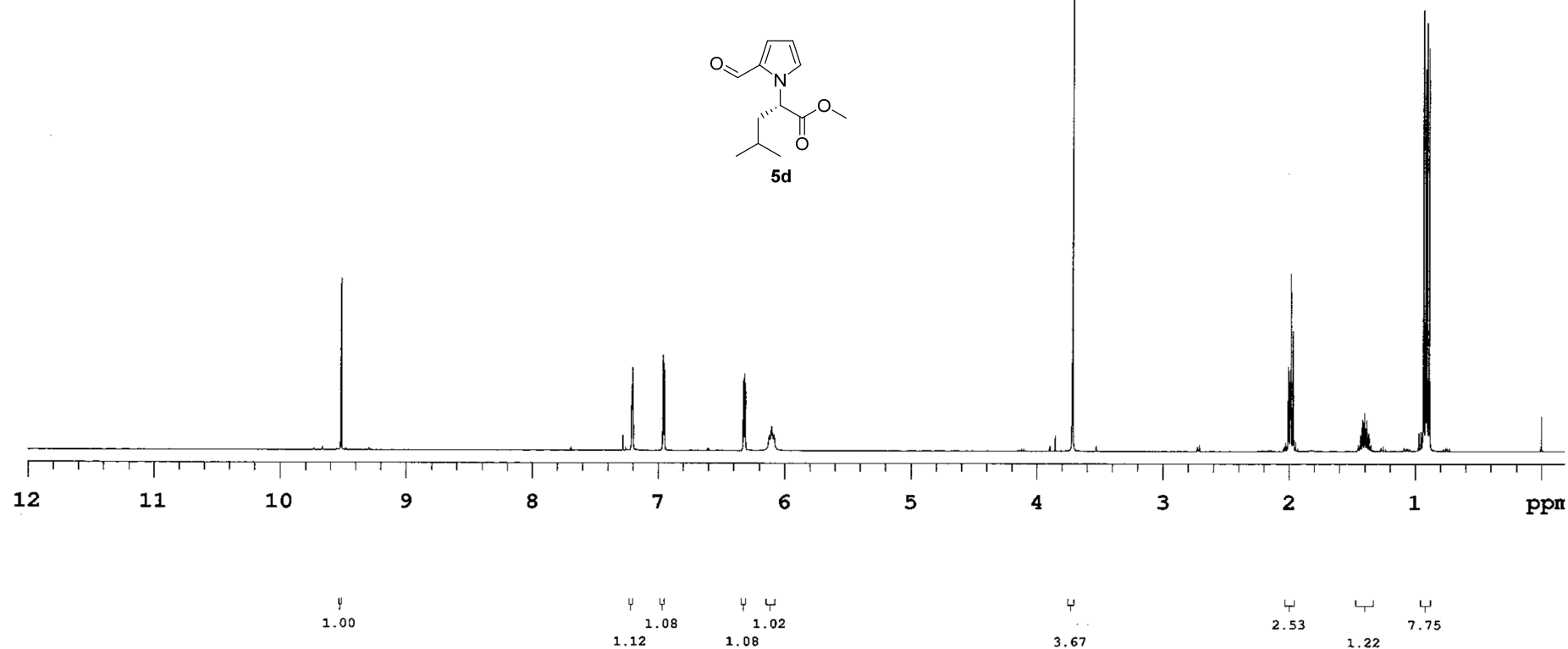
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Solvent: cdcl3
Data collected on: Dec 18 2018



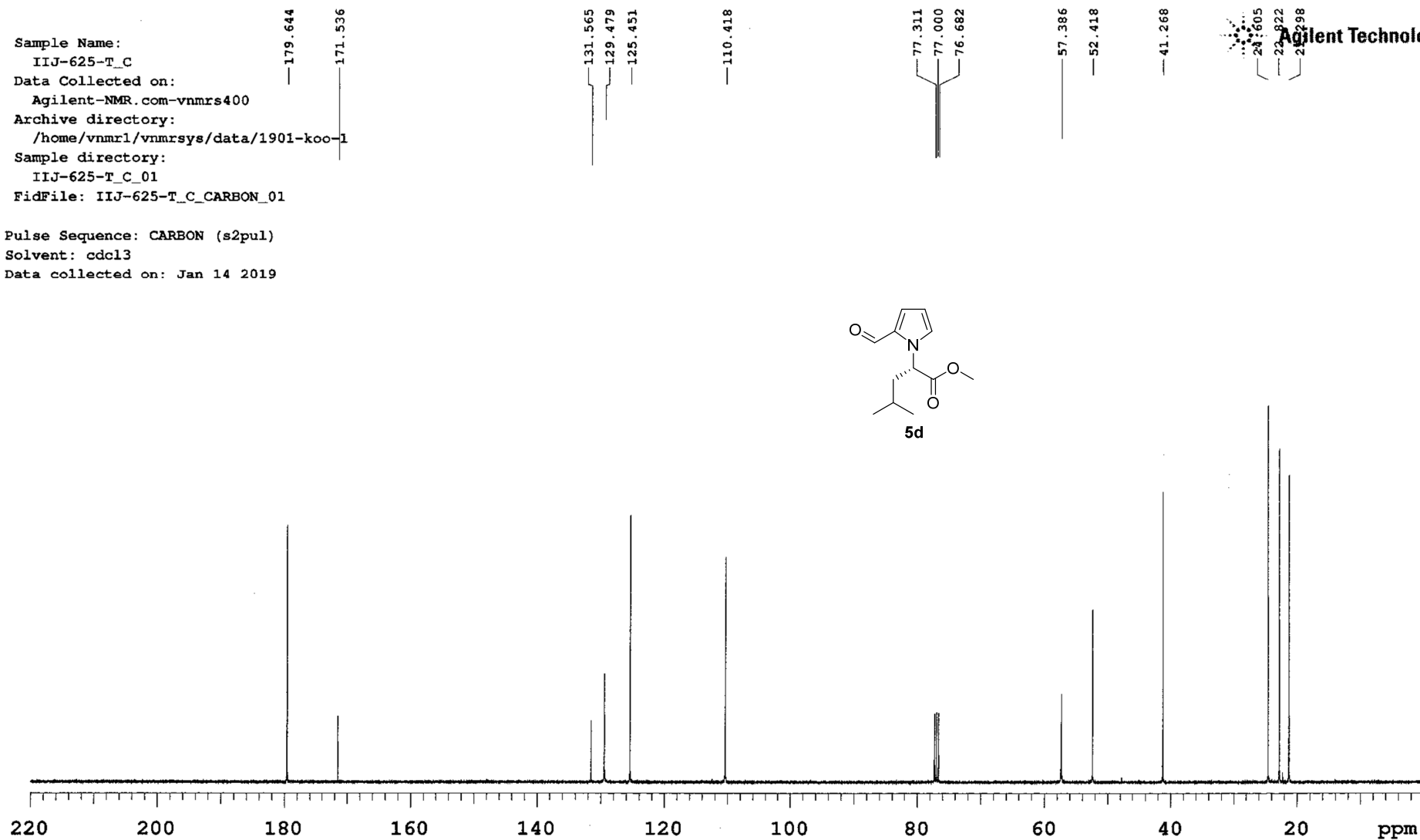
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 Solvent: cdcl3
 Data collected on: Jan 11 2019



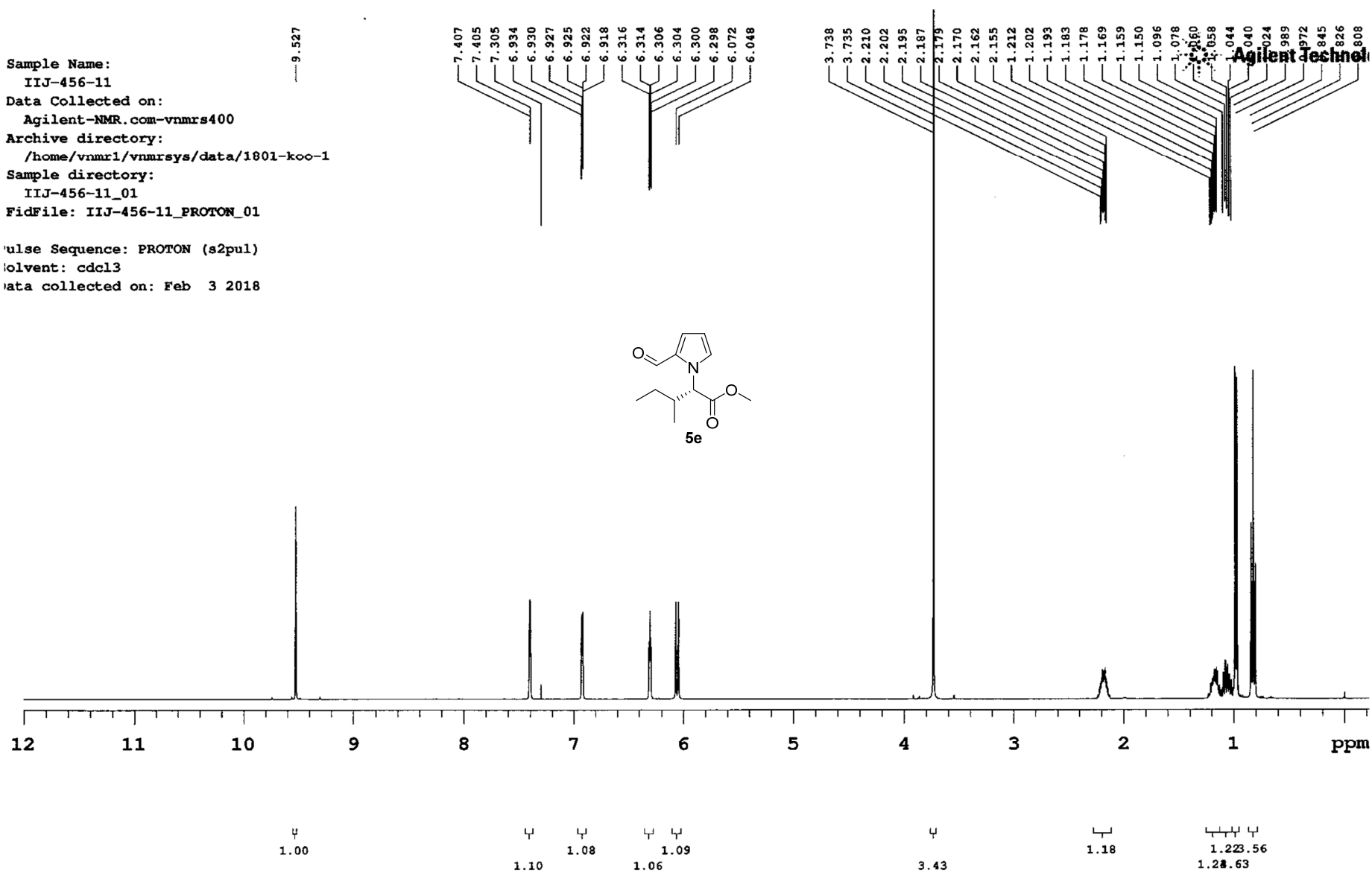
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 Data collected on: Jan 14 2019



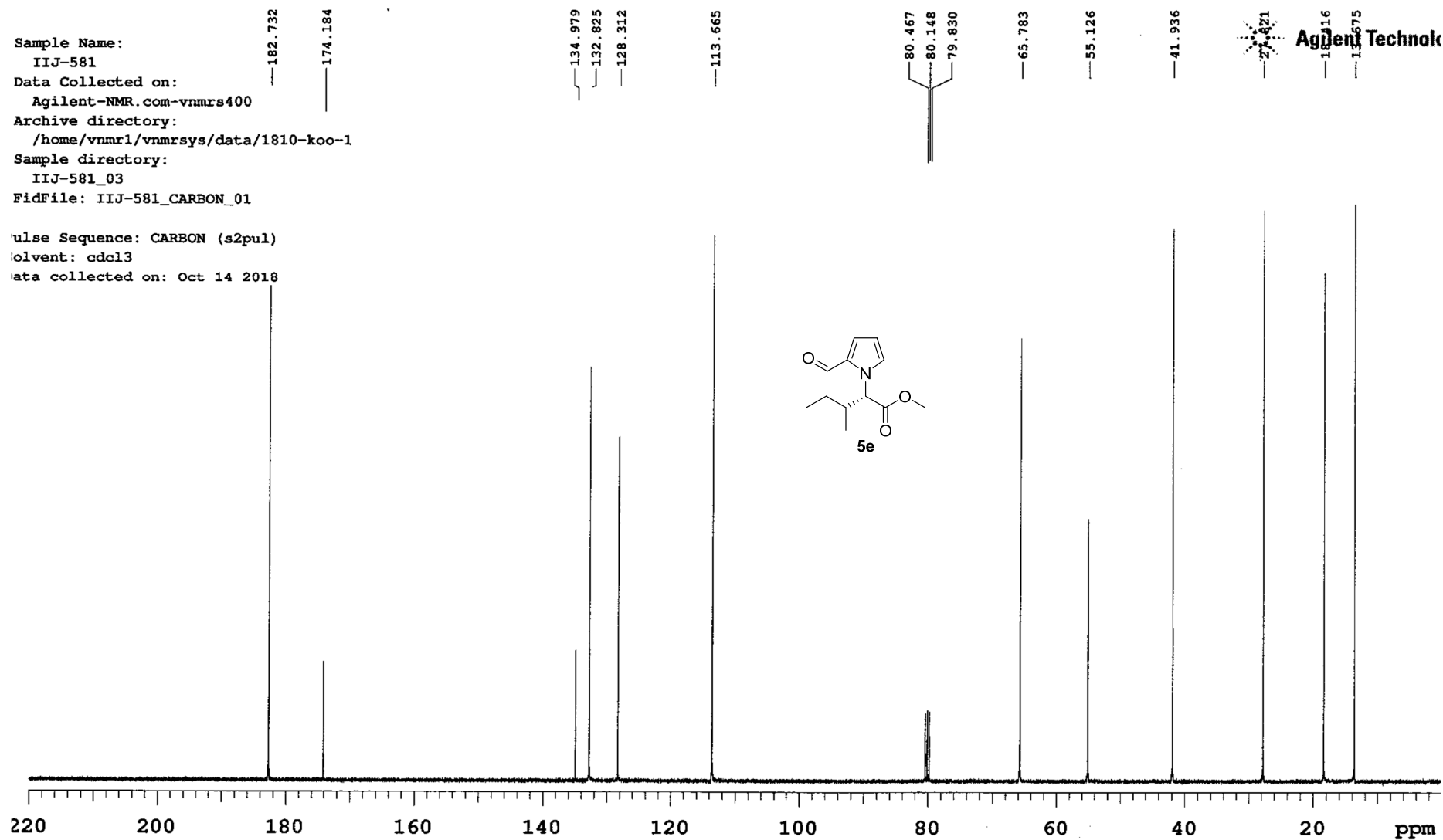
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 Solvent: cdcl3
 Data collected on: Feb 3 2018



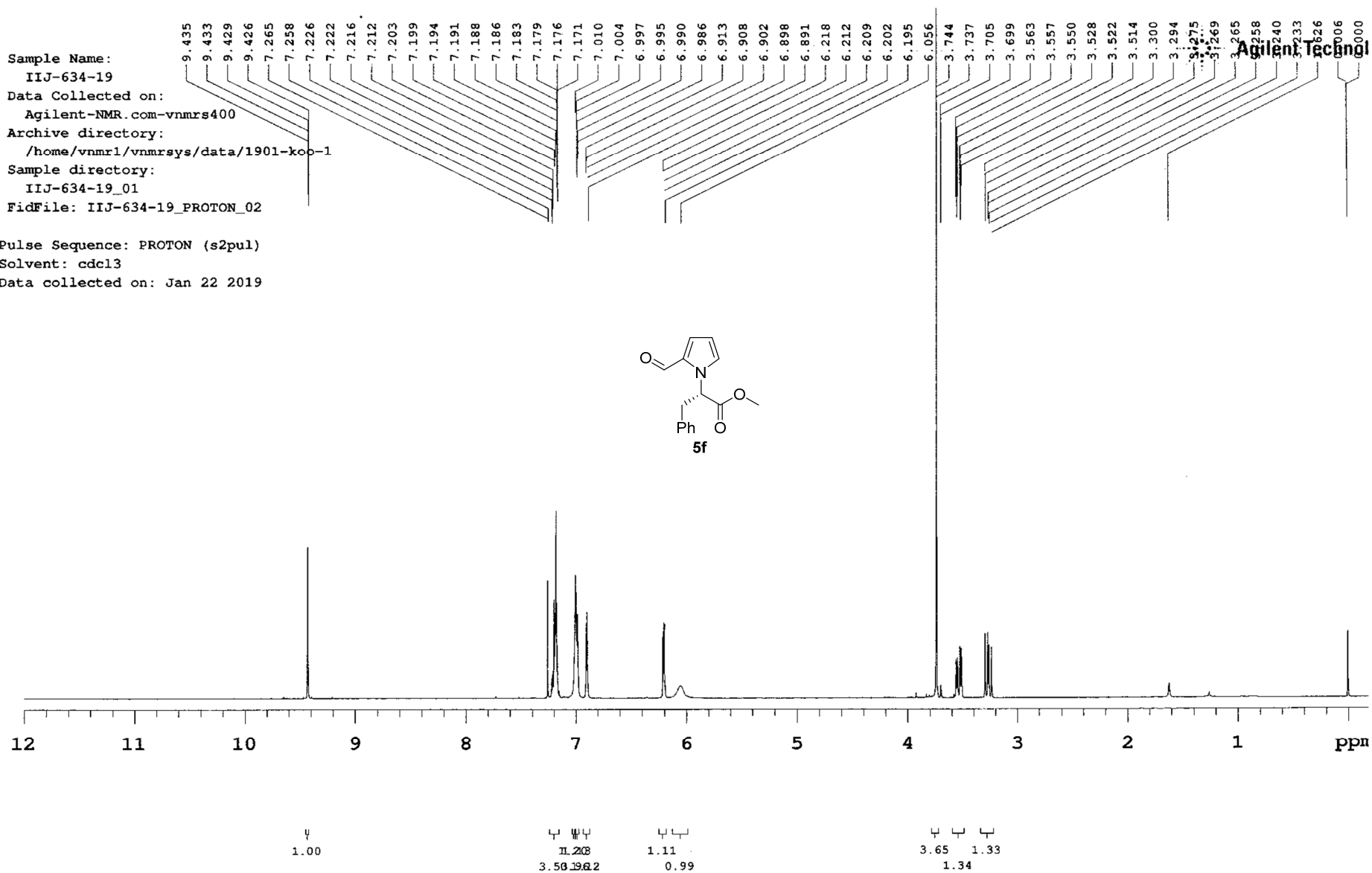
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 Solvent: cdcl3
 Data collected on: Oct 14 2018



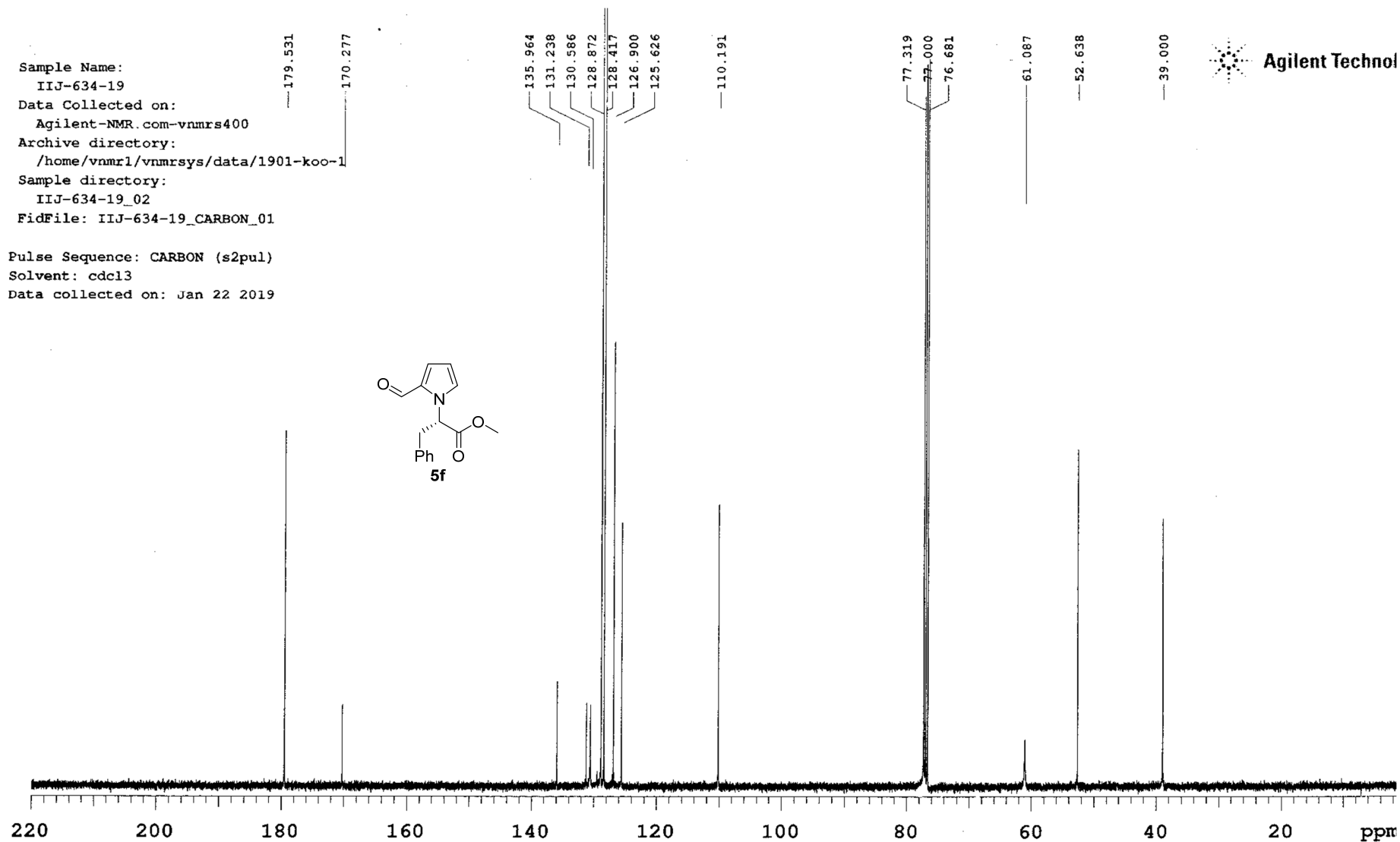
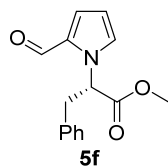
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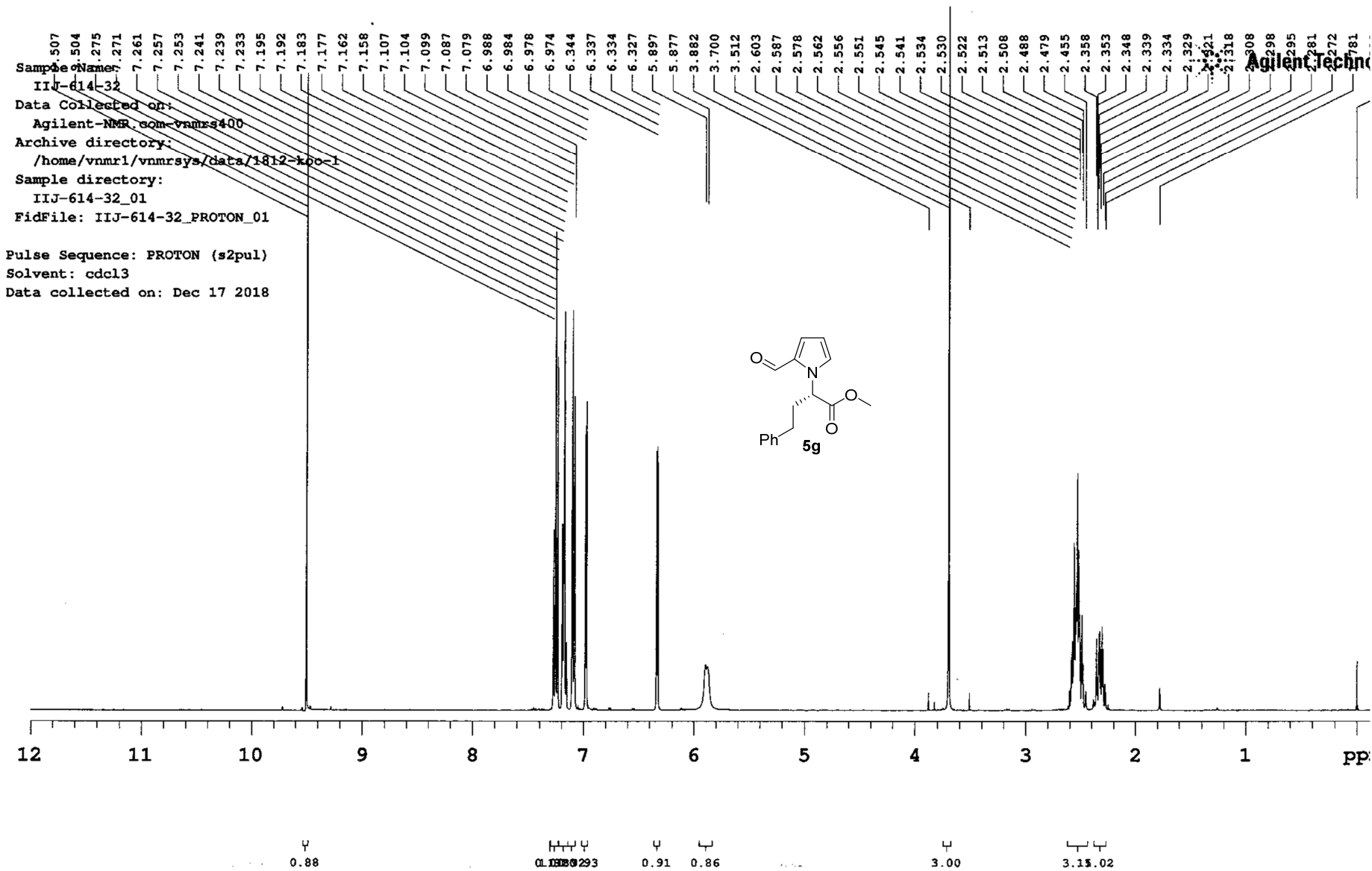
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 Solvent: cdcl3
 Data collected on: Jan 22 2019



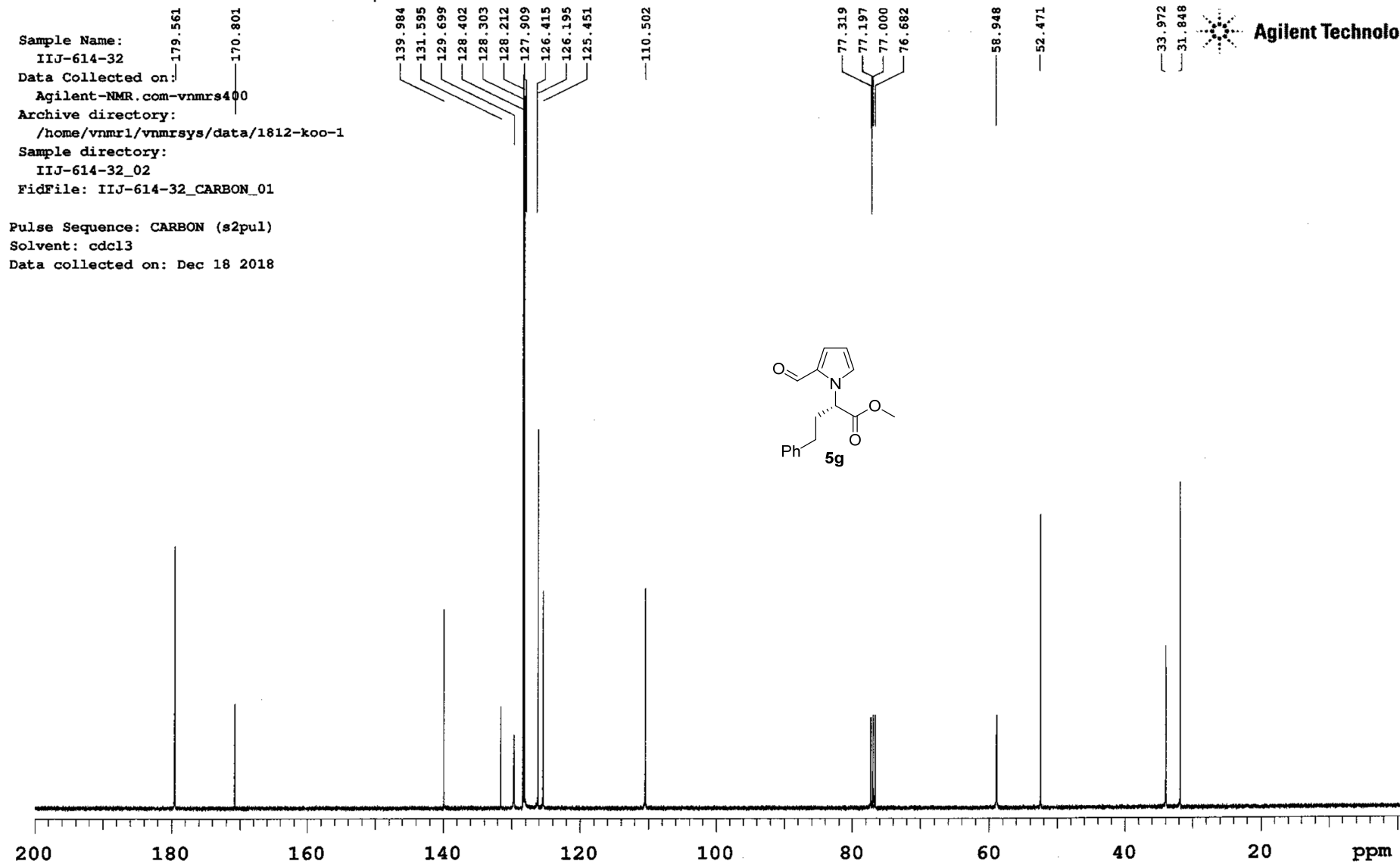
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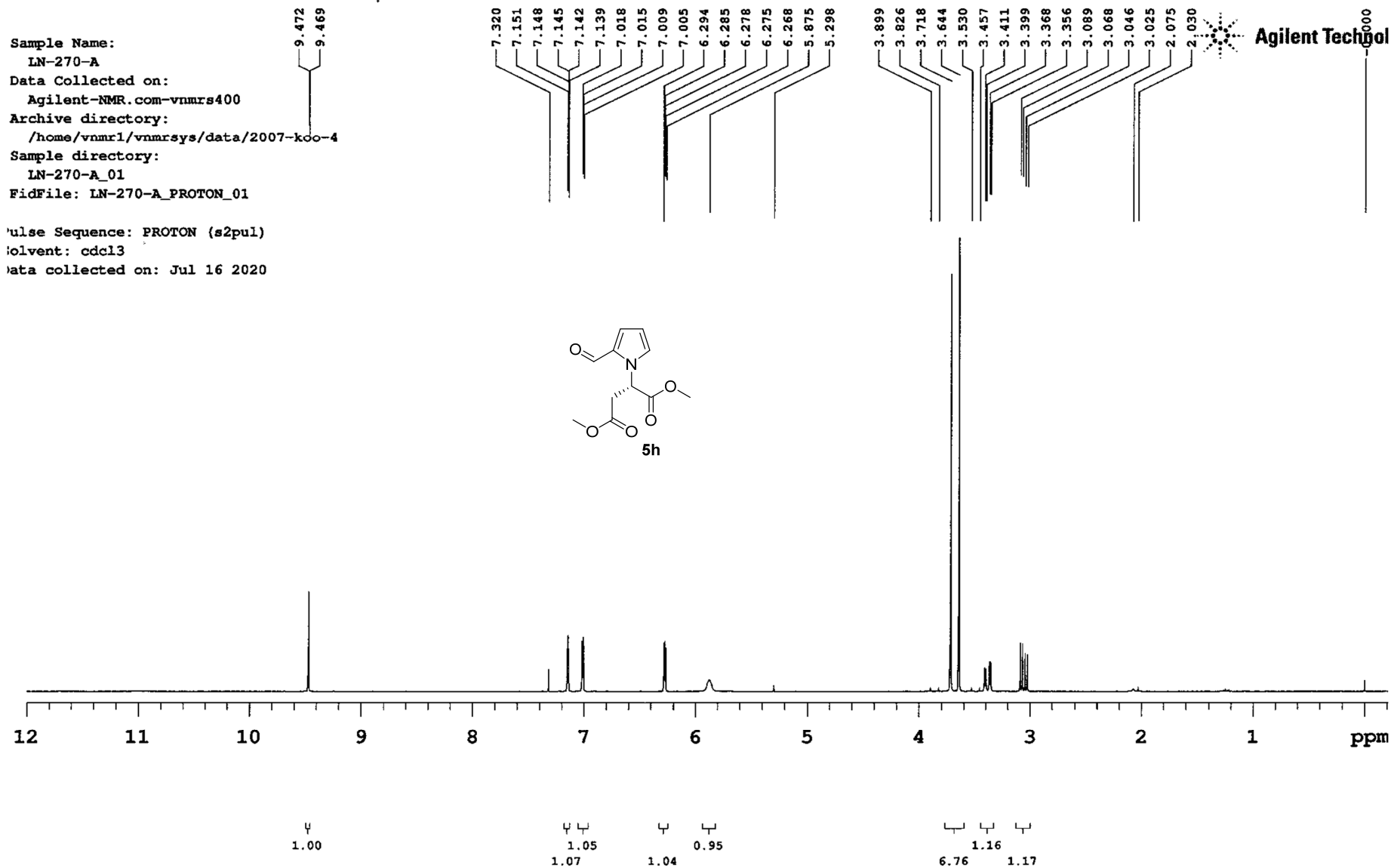


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 Solvent: cdcl3
 Data collected on: Dec 18 2018



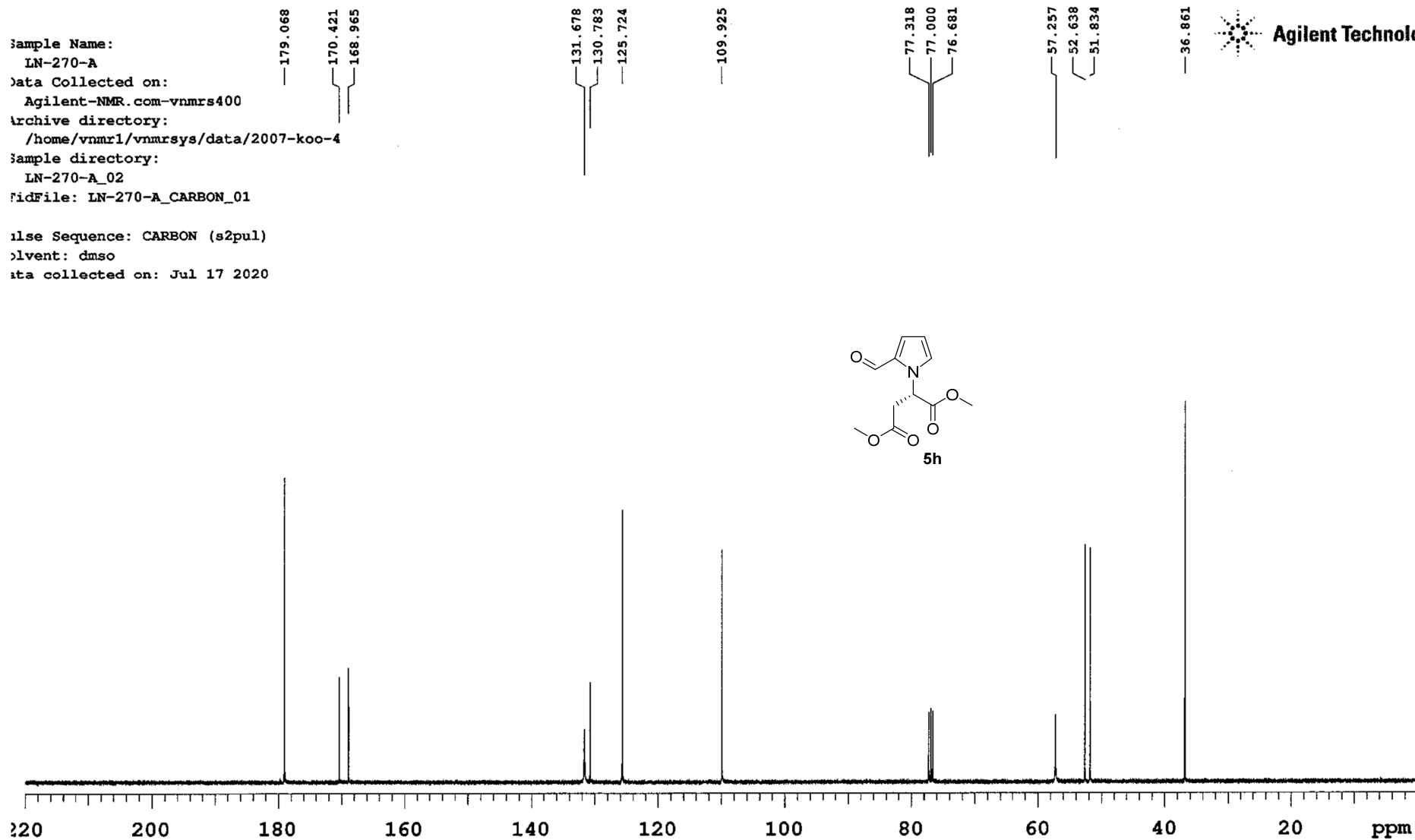
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Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 16 2020



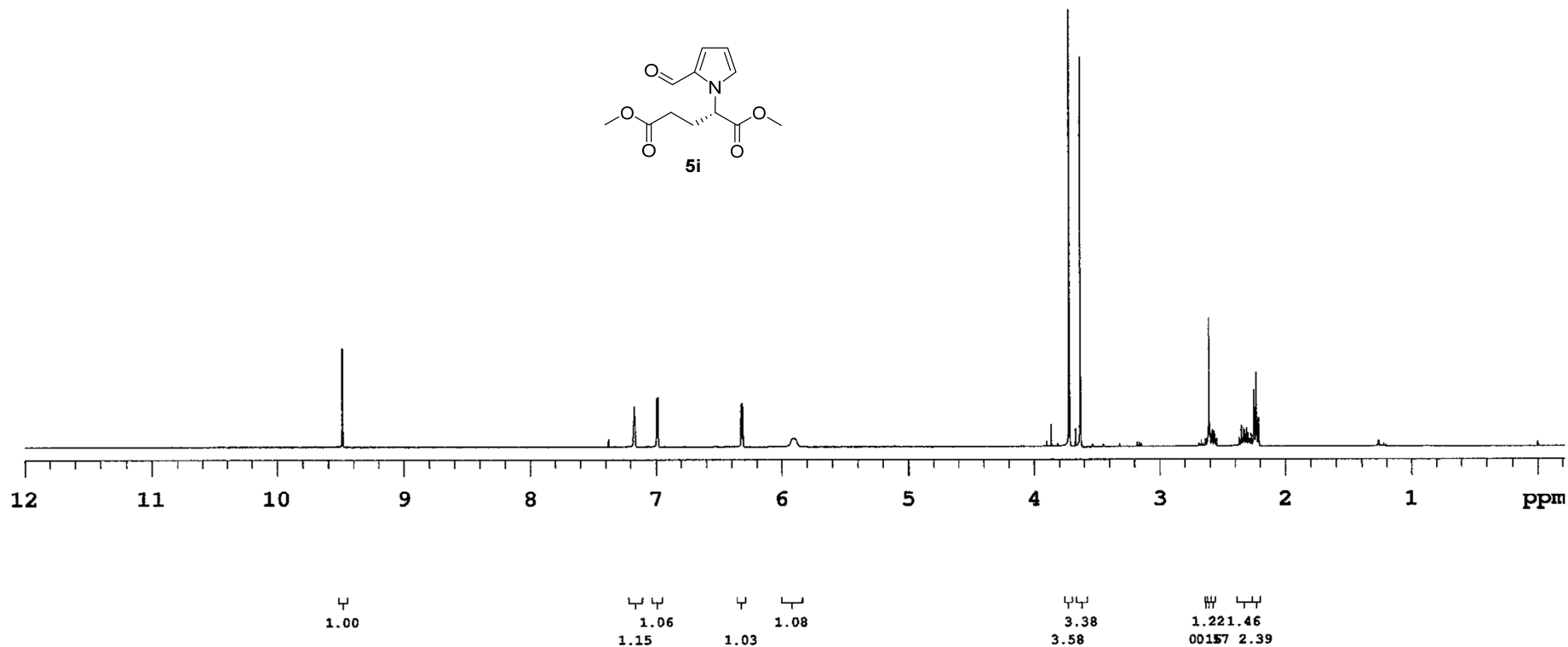
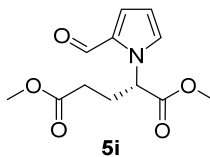
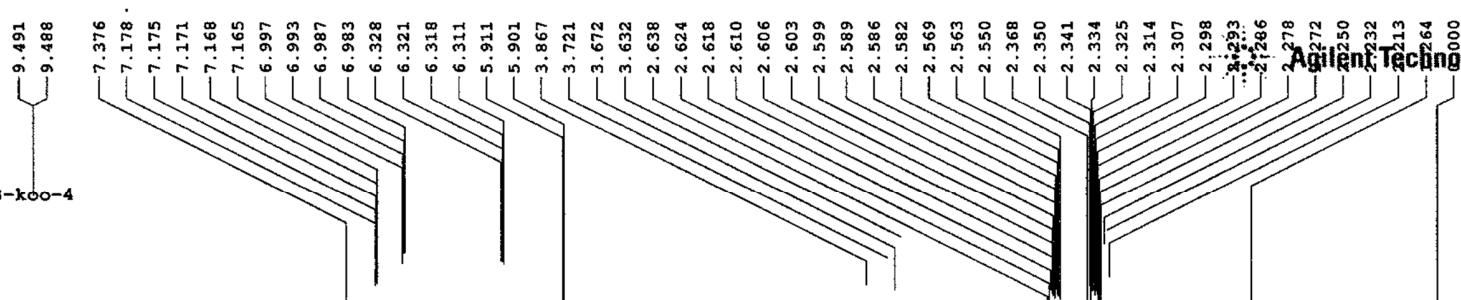
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olvent: dms
ata collected on: Jul 17 2020



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ulse Sequence: PROTON (s2pul)
 olvent: cdcl3
 ata collected on: Aug 18 2020



Sample Name:

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Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

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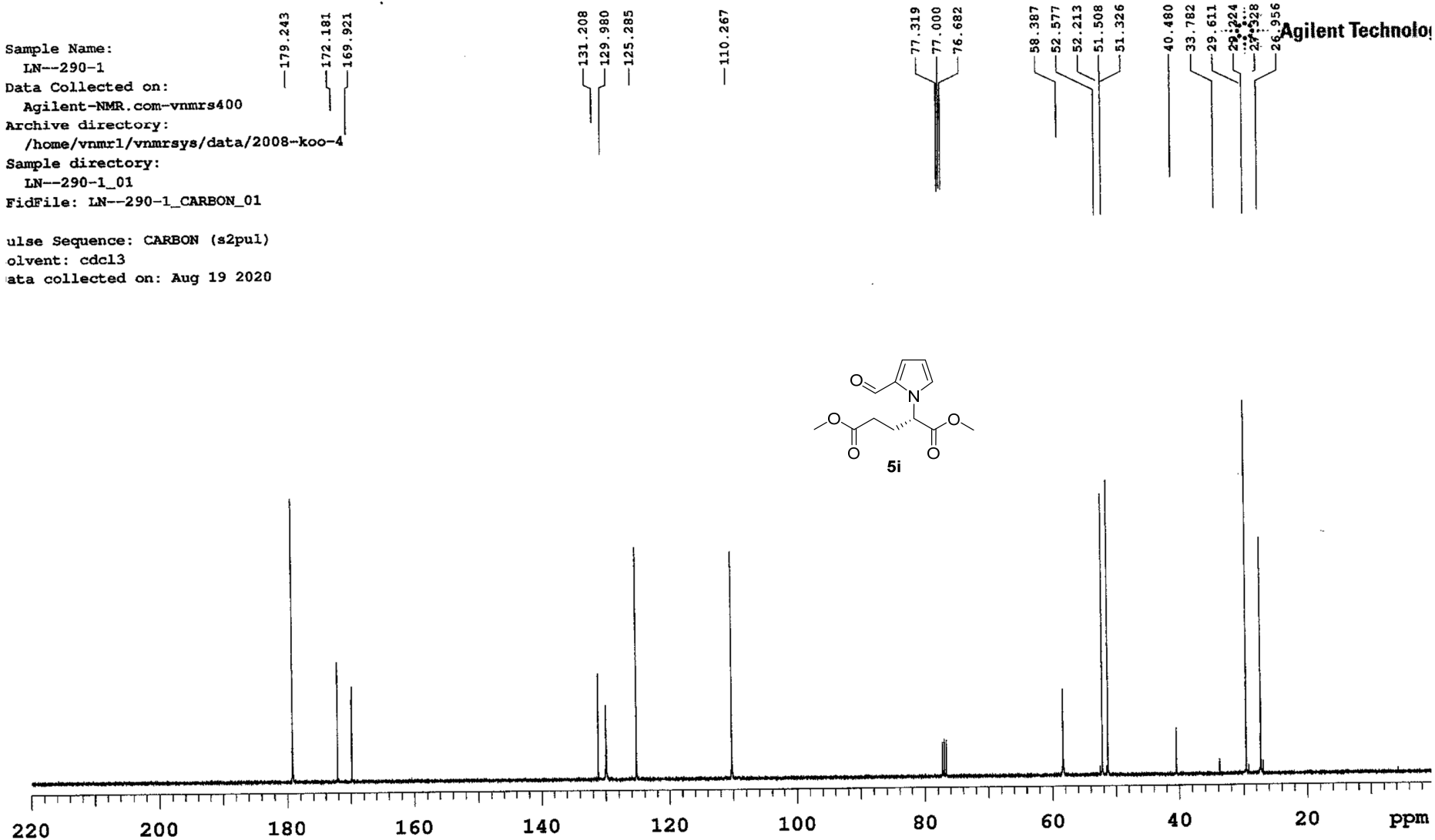
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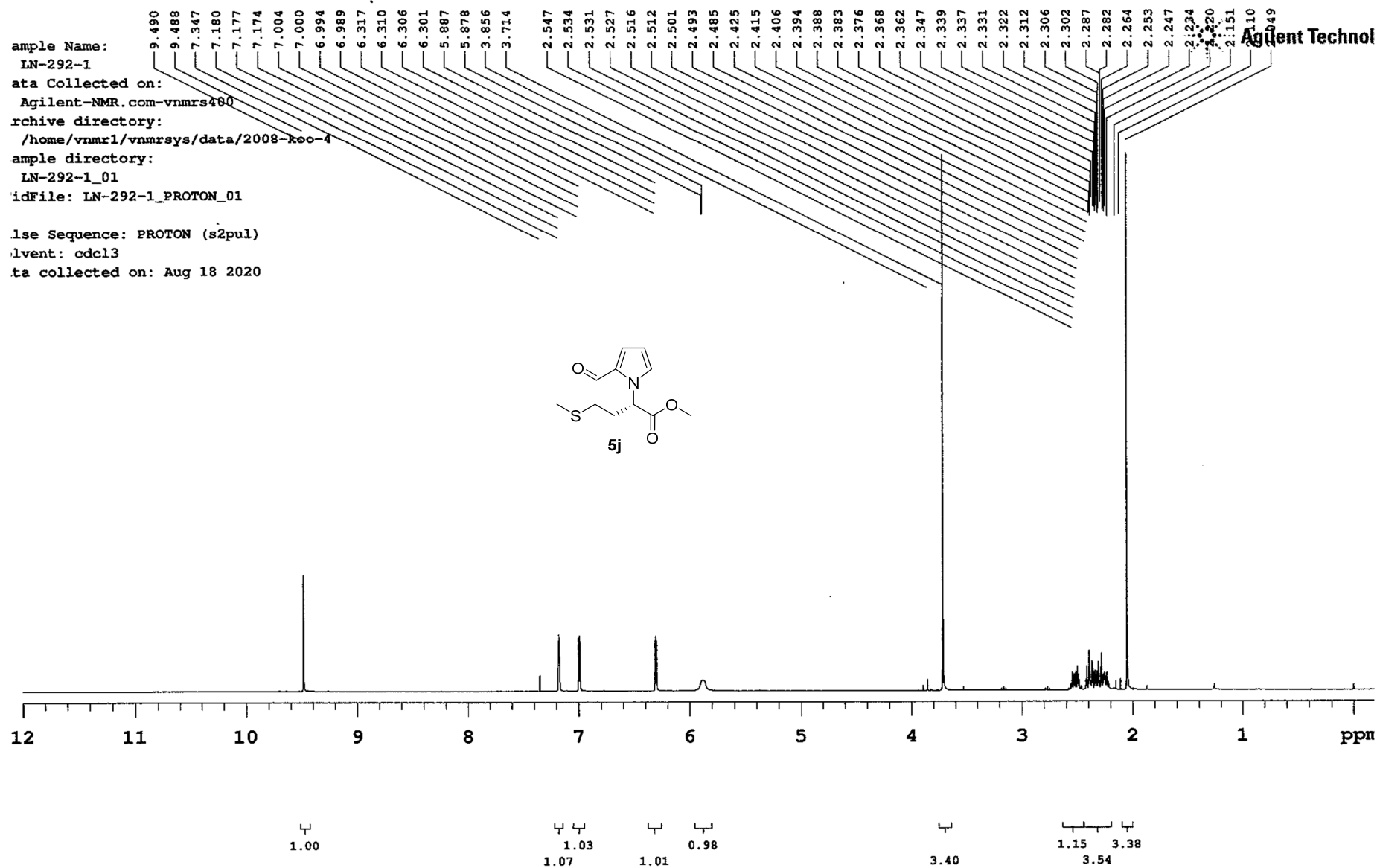
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olvent: cdcl3

ata collected on: Aug 19 2020

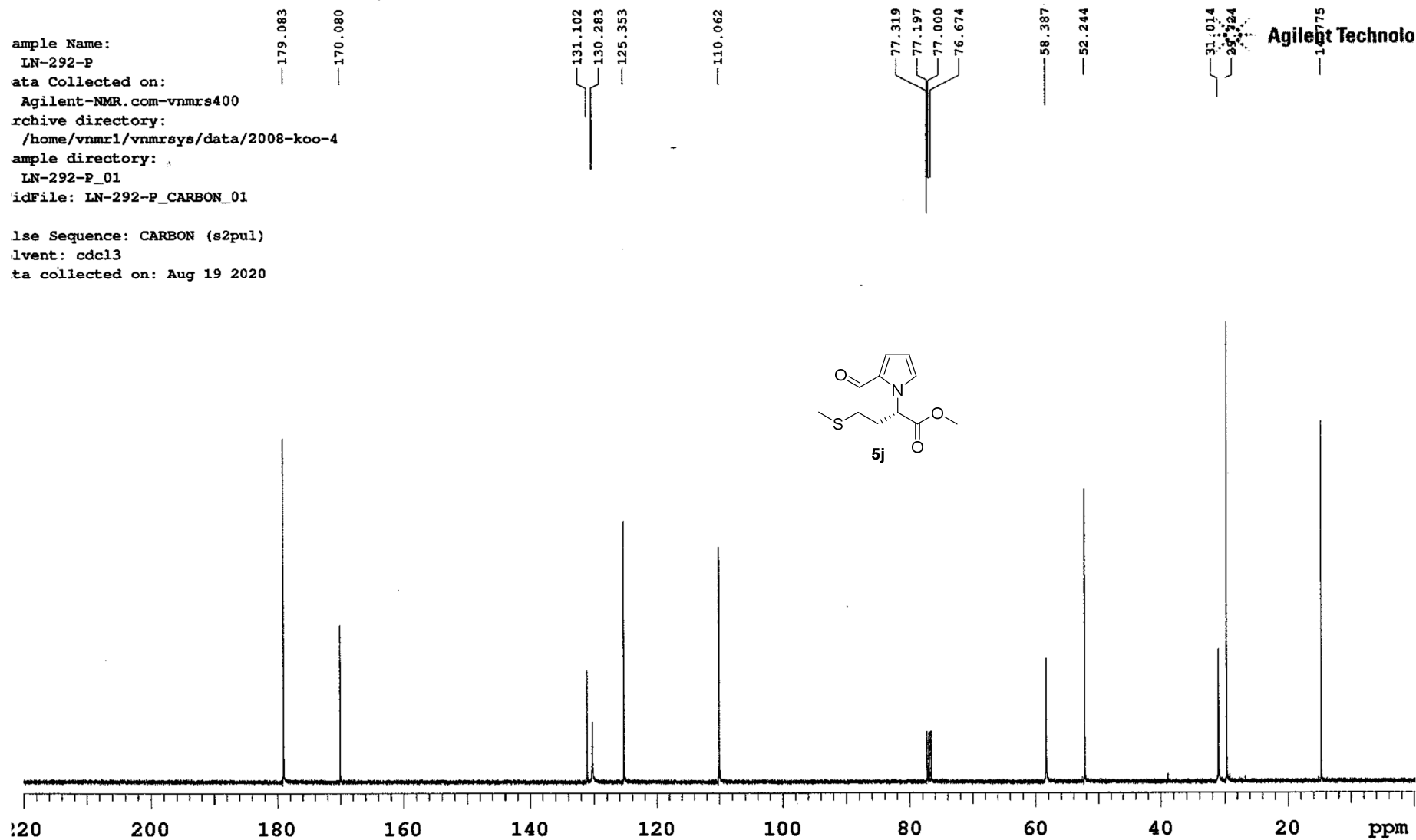


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 Data collected on: Aug 18 2020



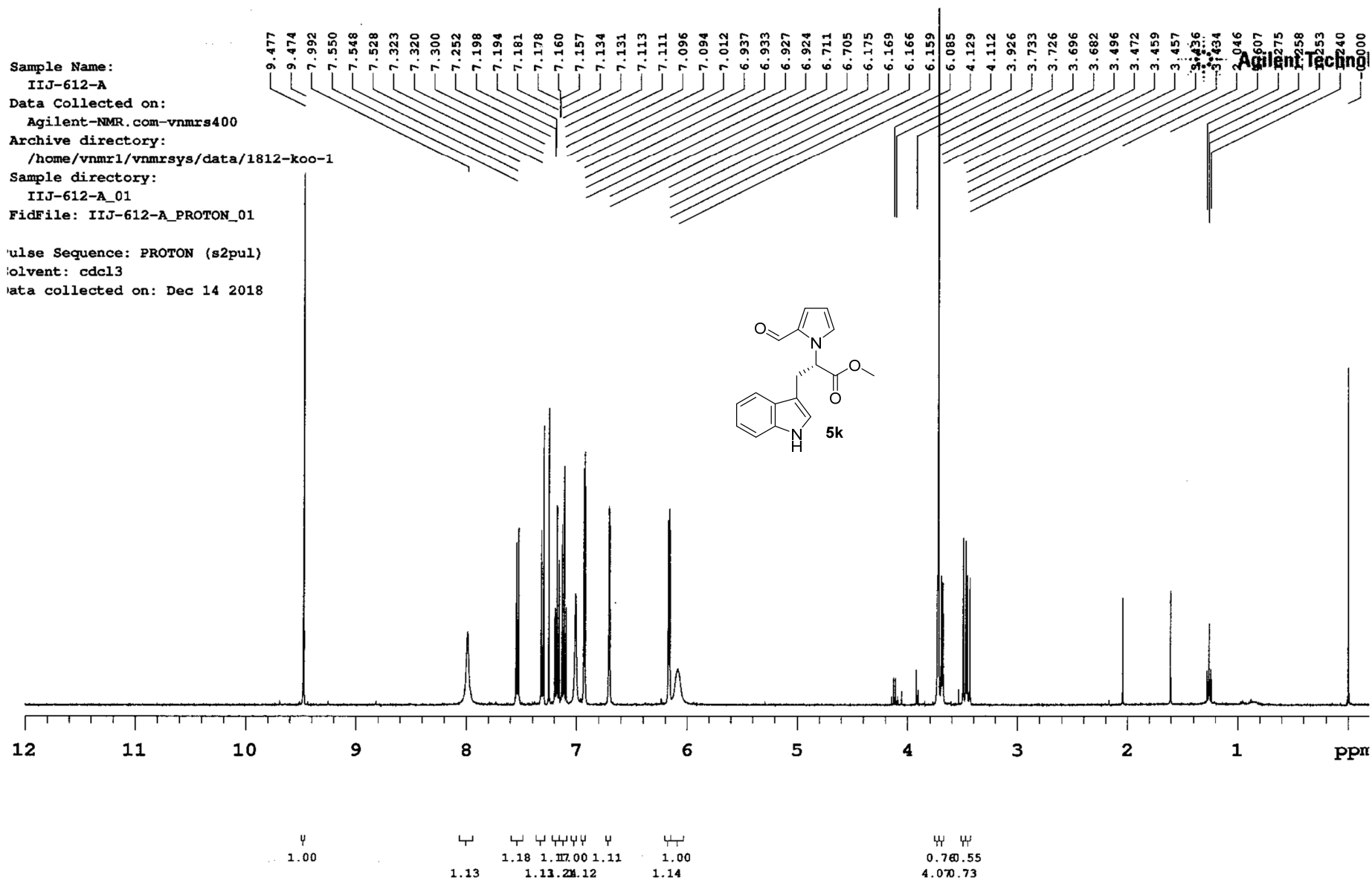
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Use Sequence: CARBON (s2pul)
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Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Dec 14 2018



Sample Name:

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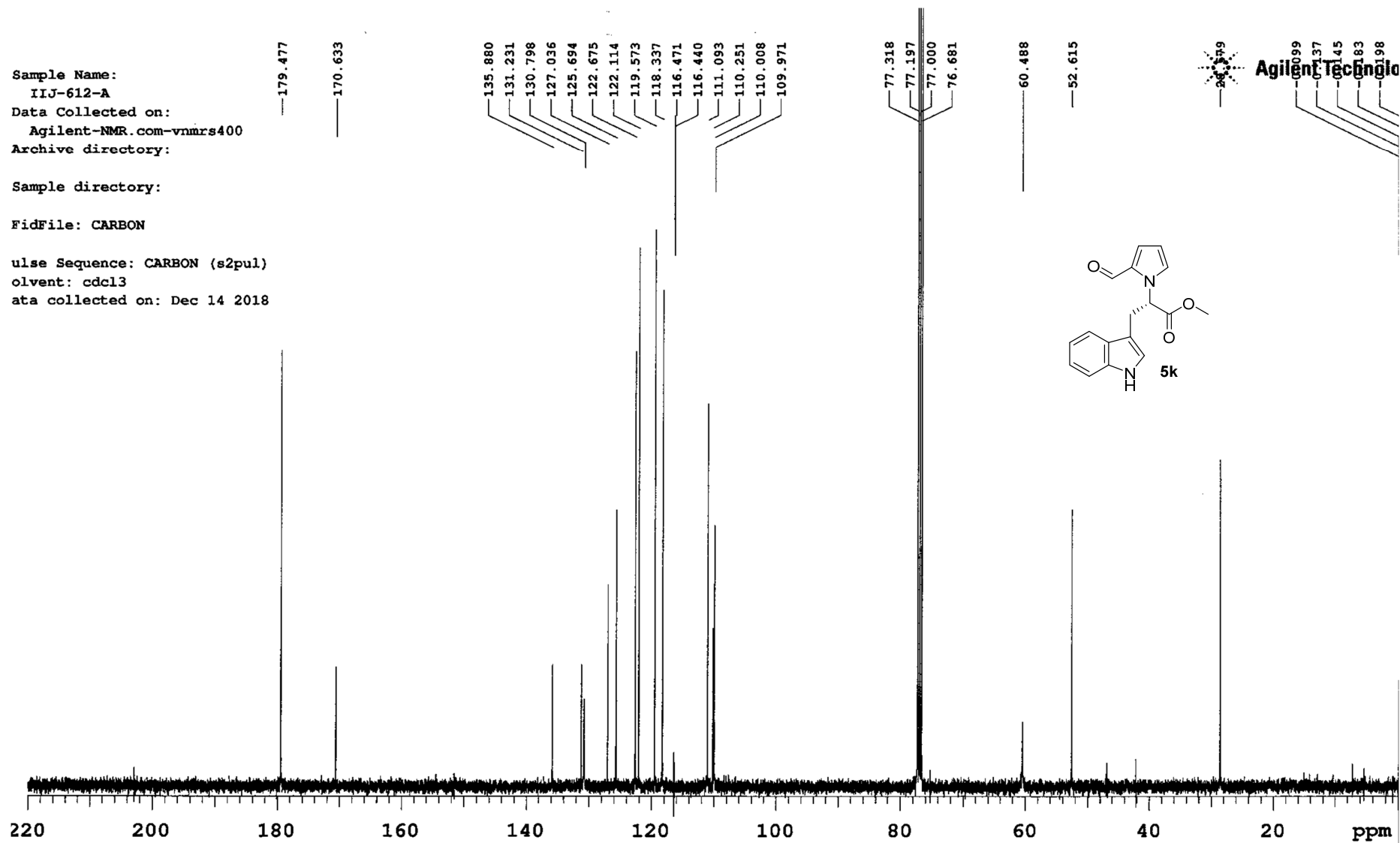
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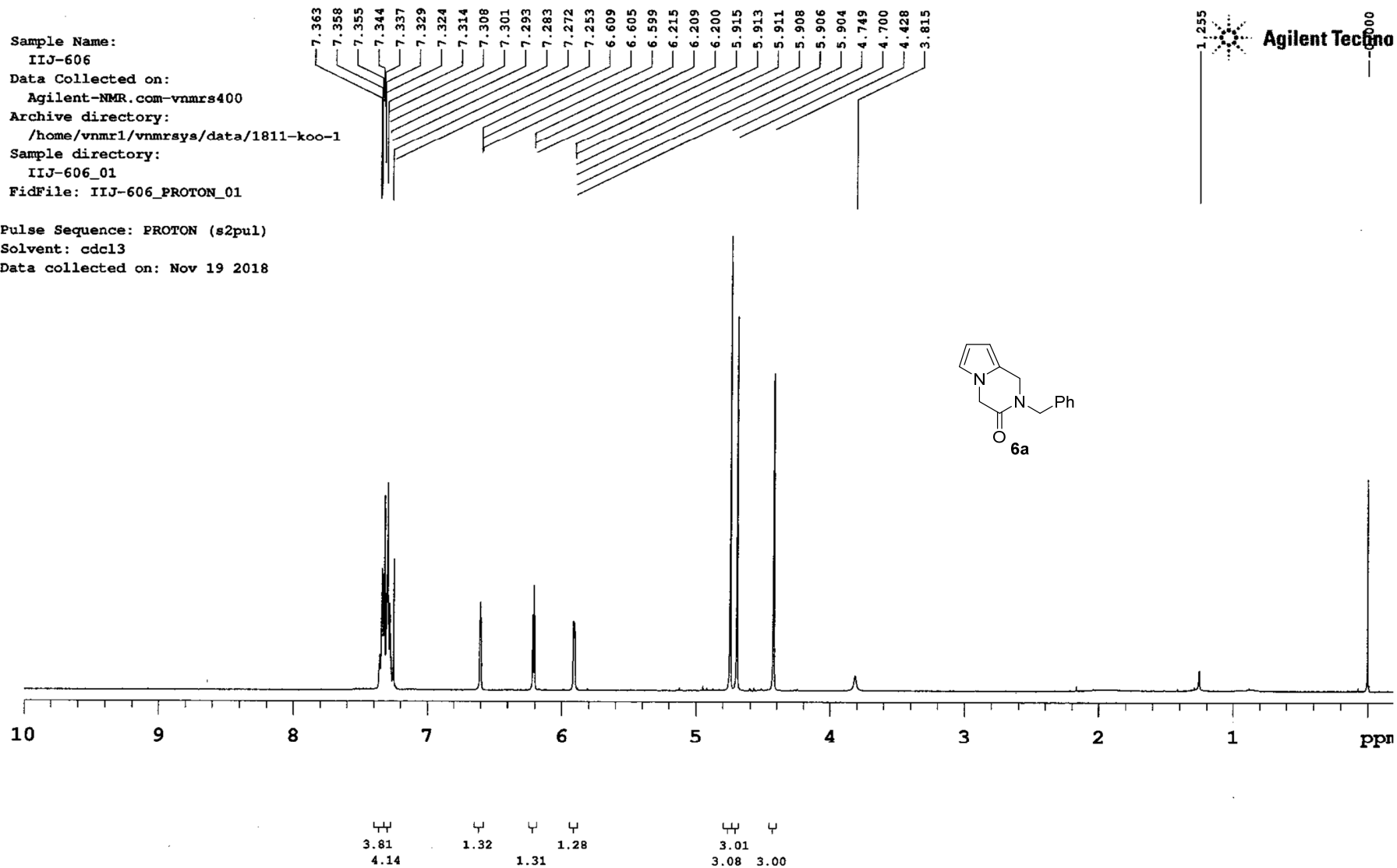
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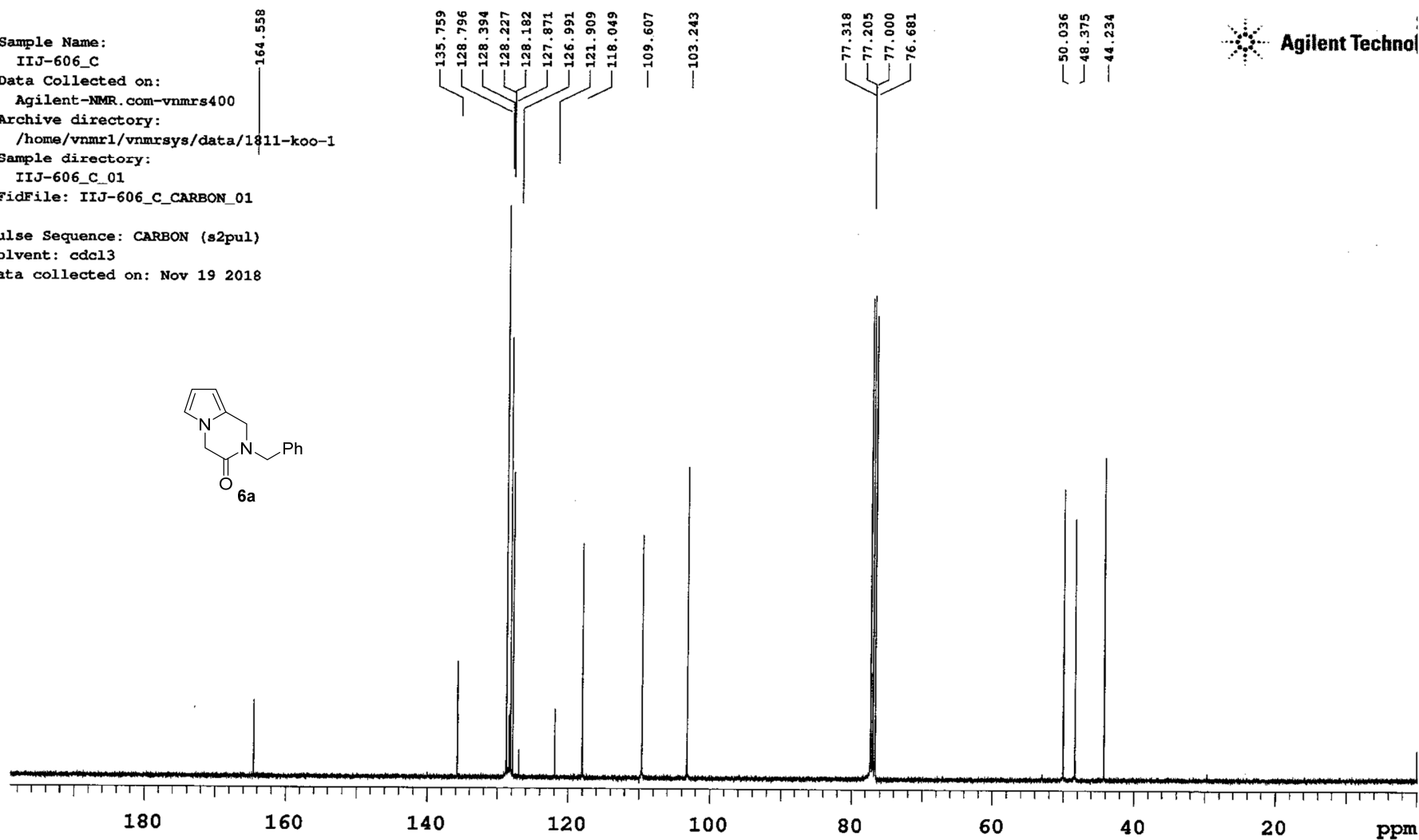
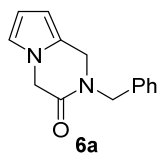
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Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 19 2018



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Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 19 2018



Sample Name:

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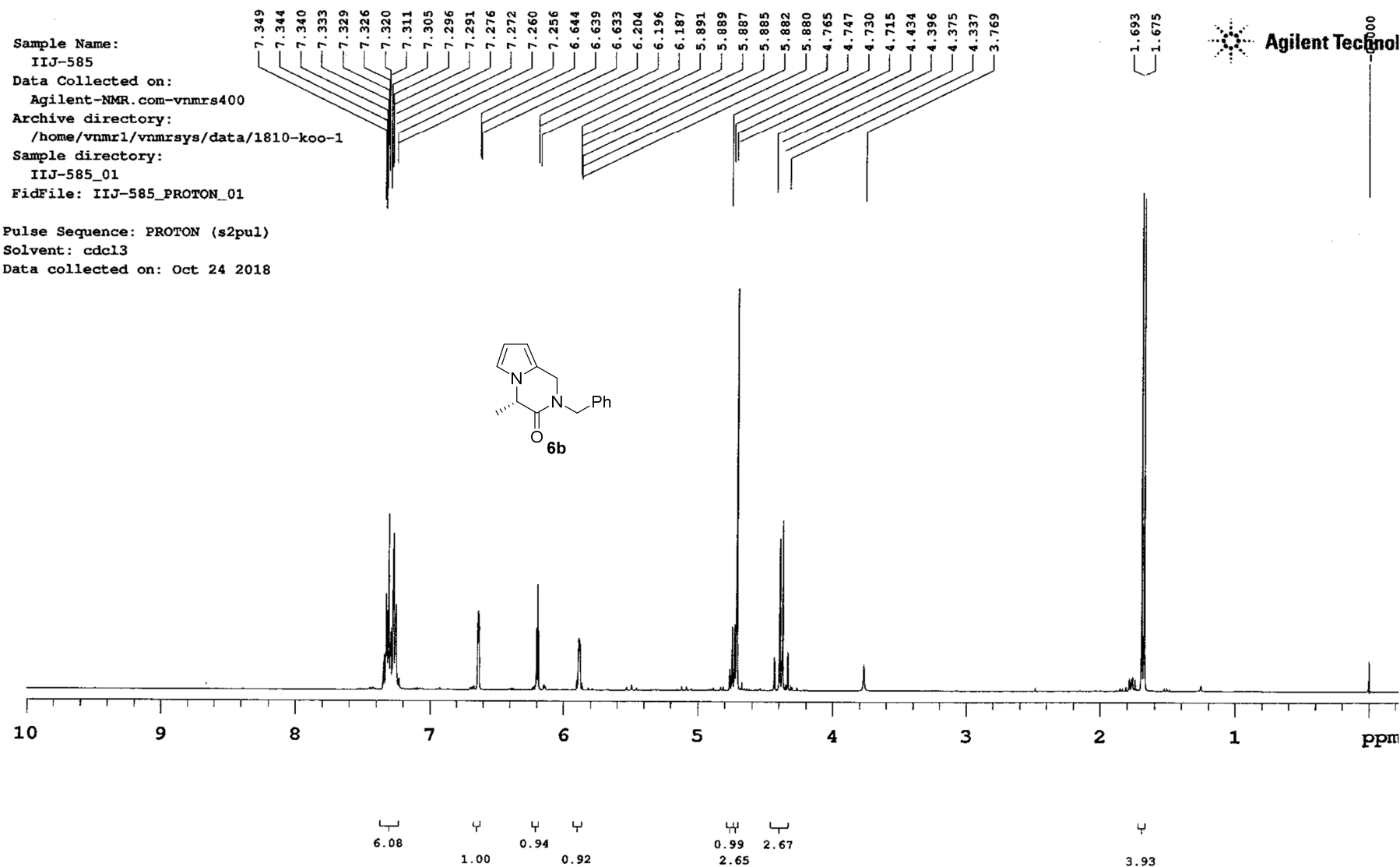
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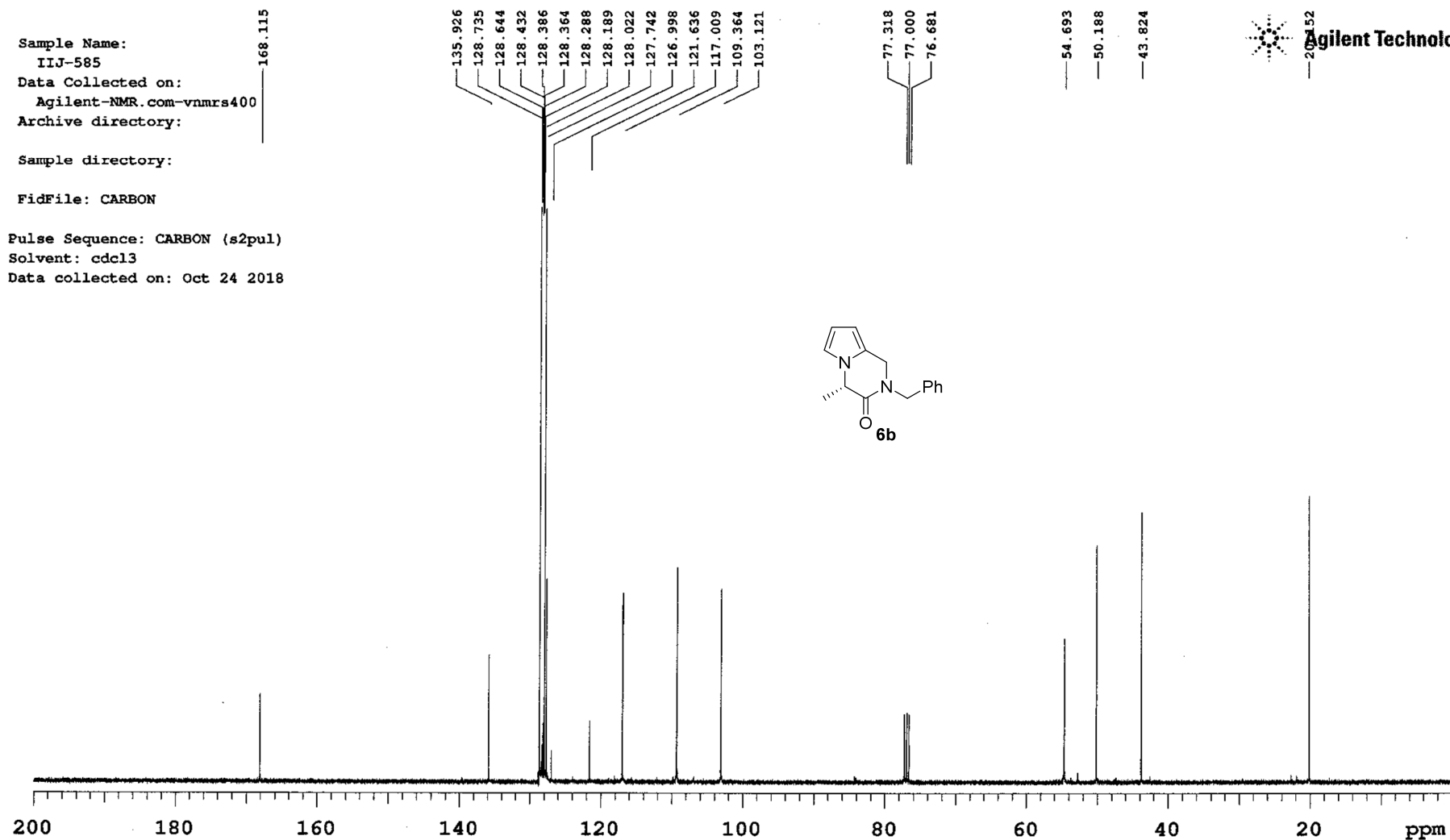


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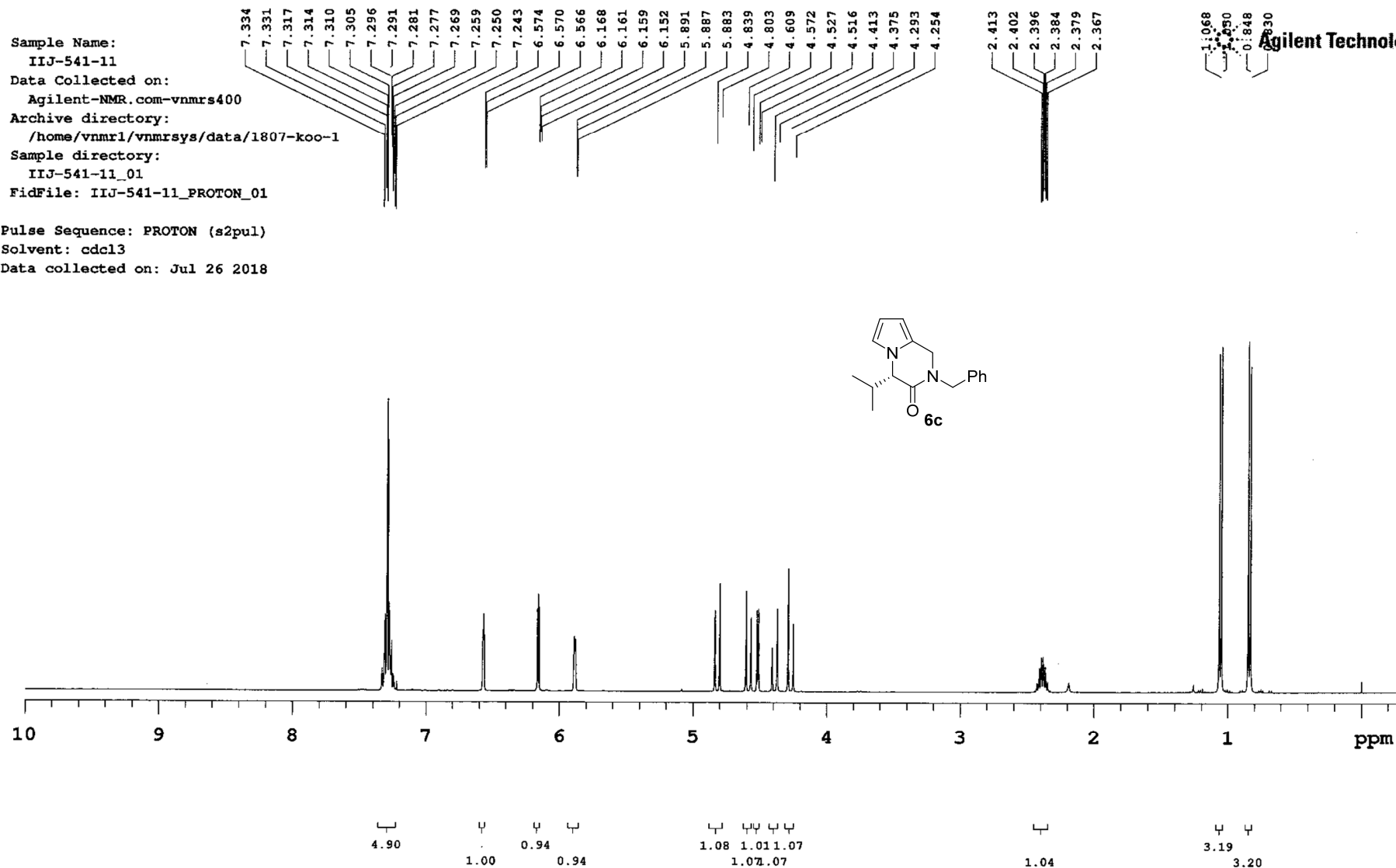
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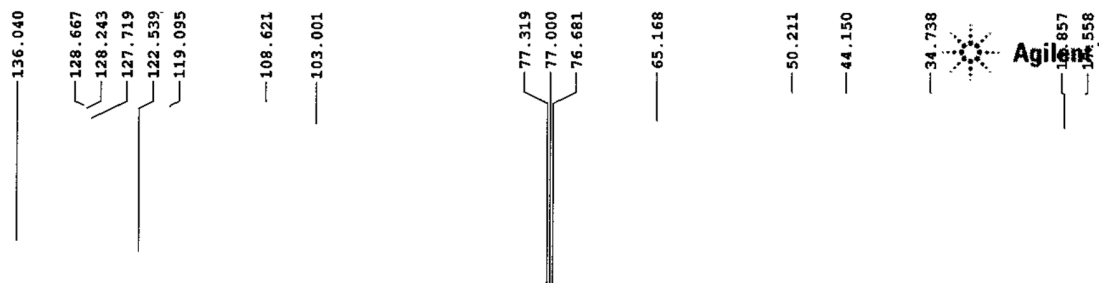
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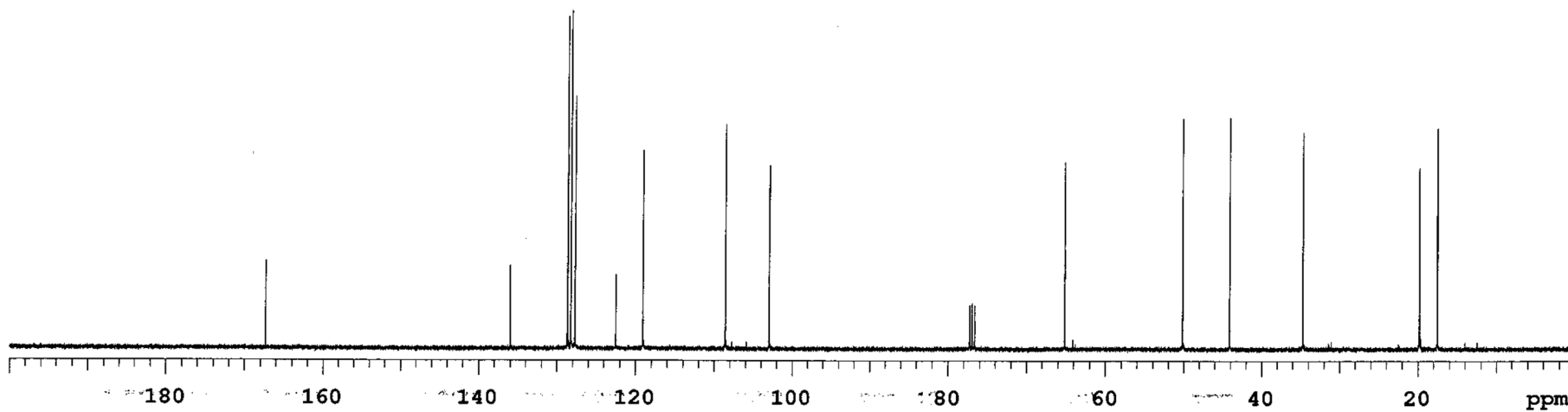
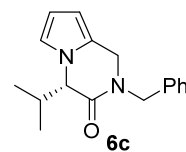


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 Data collected on: Jun 19 2018

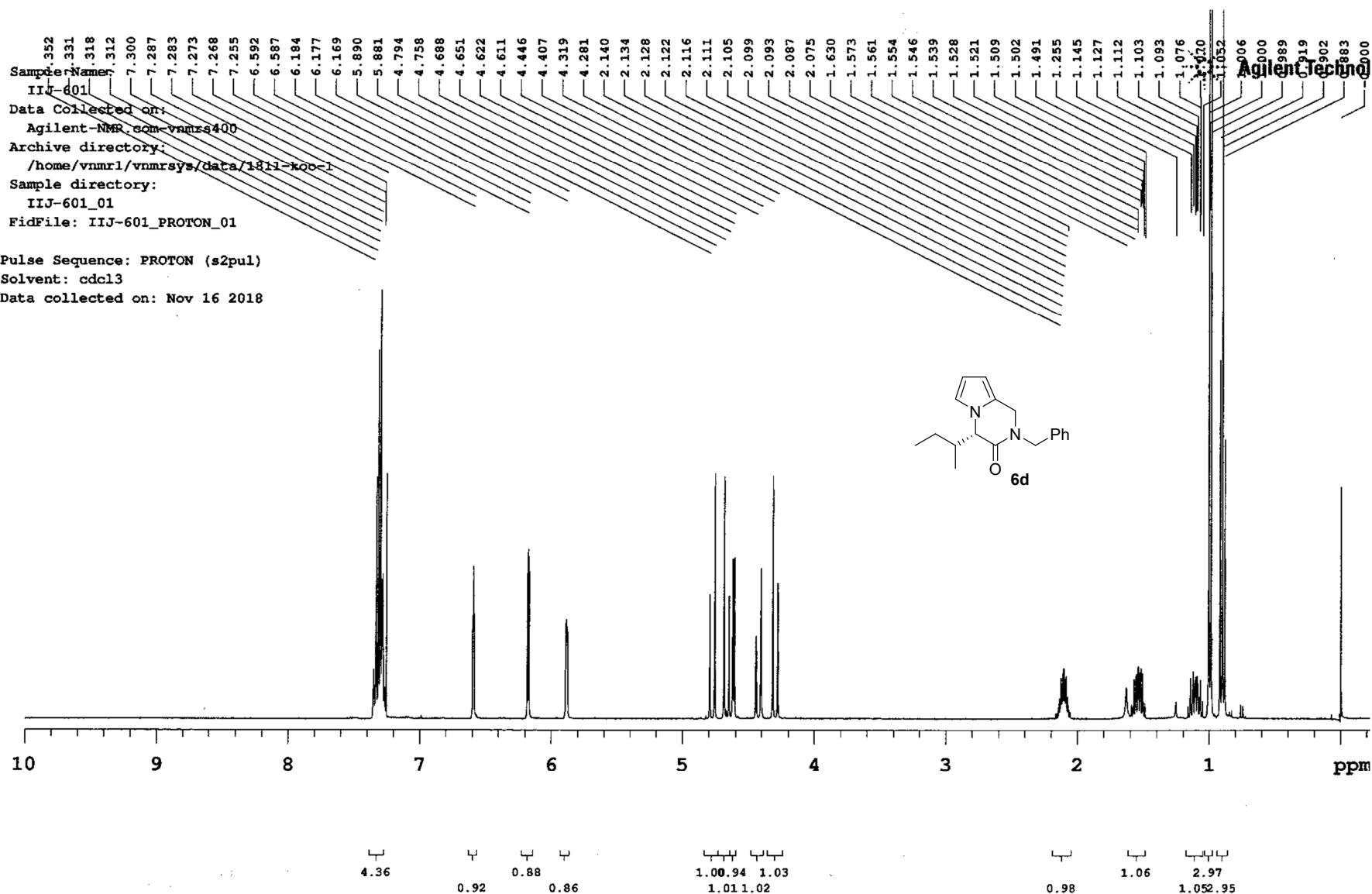


Agilent Technologies



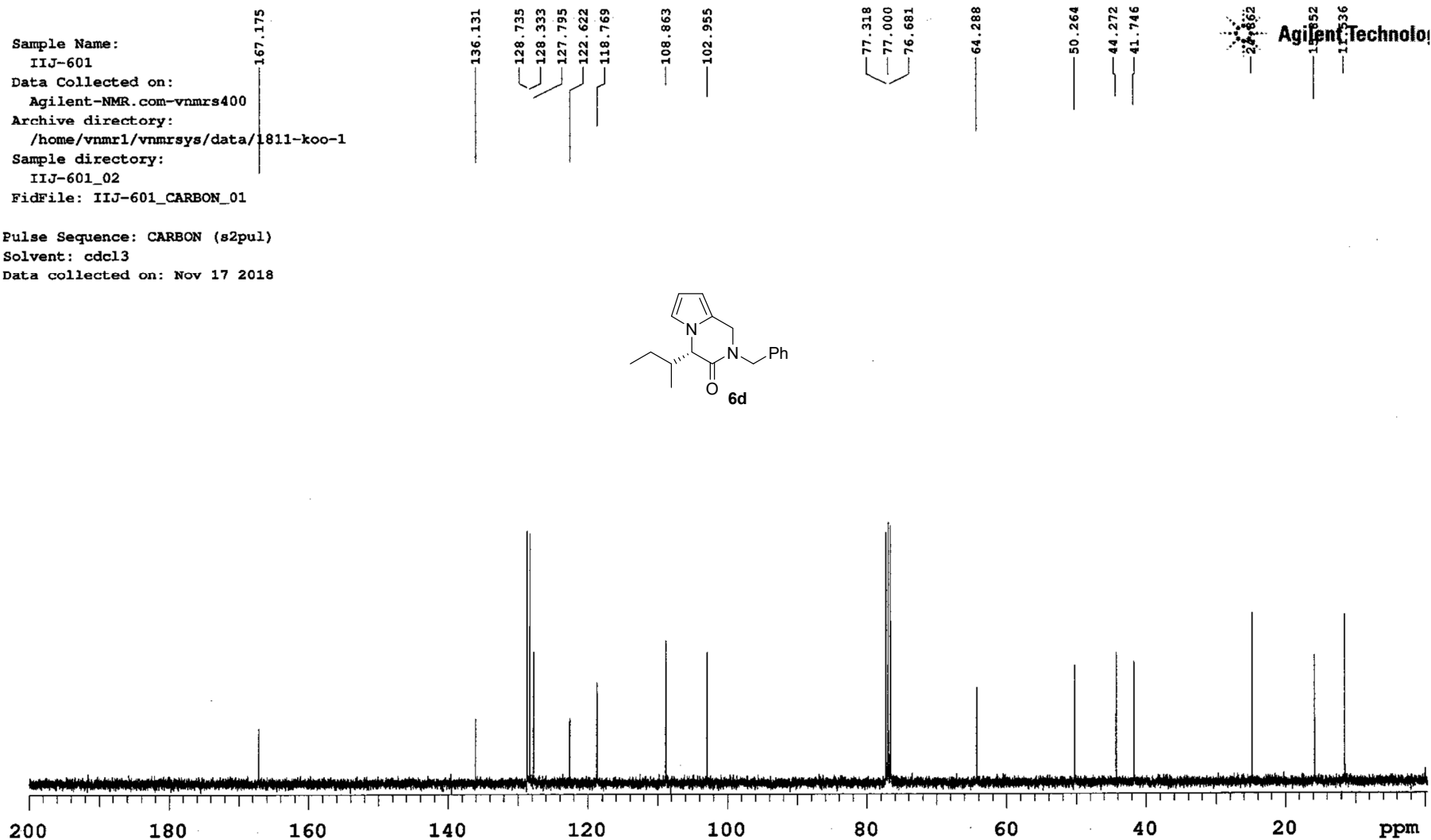
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 Data collected on: Nov 16 2018

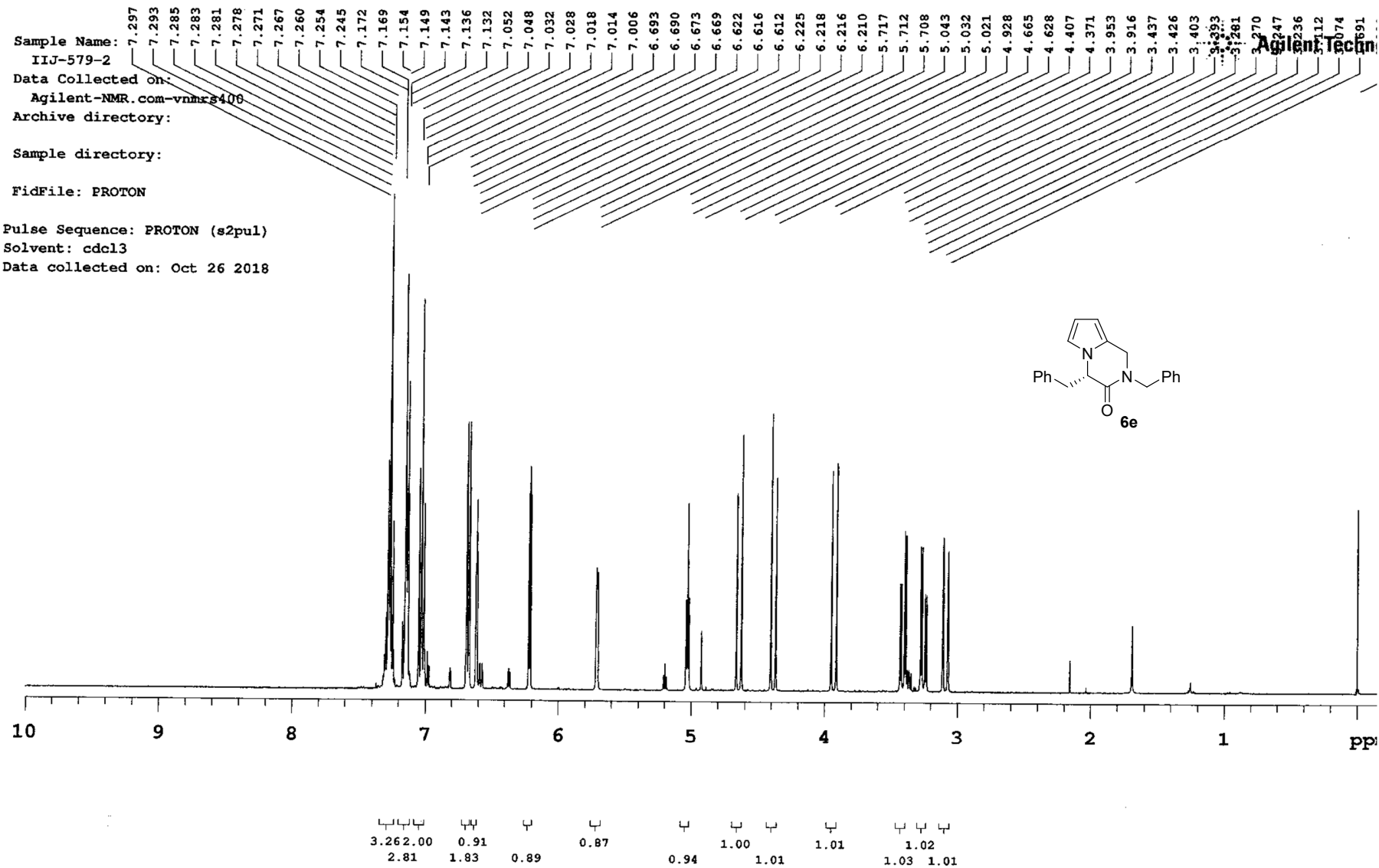


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Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 17 2018



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 Solvent: cdcl3
 Data collected on: Oct 26 2018

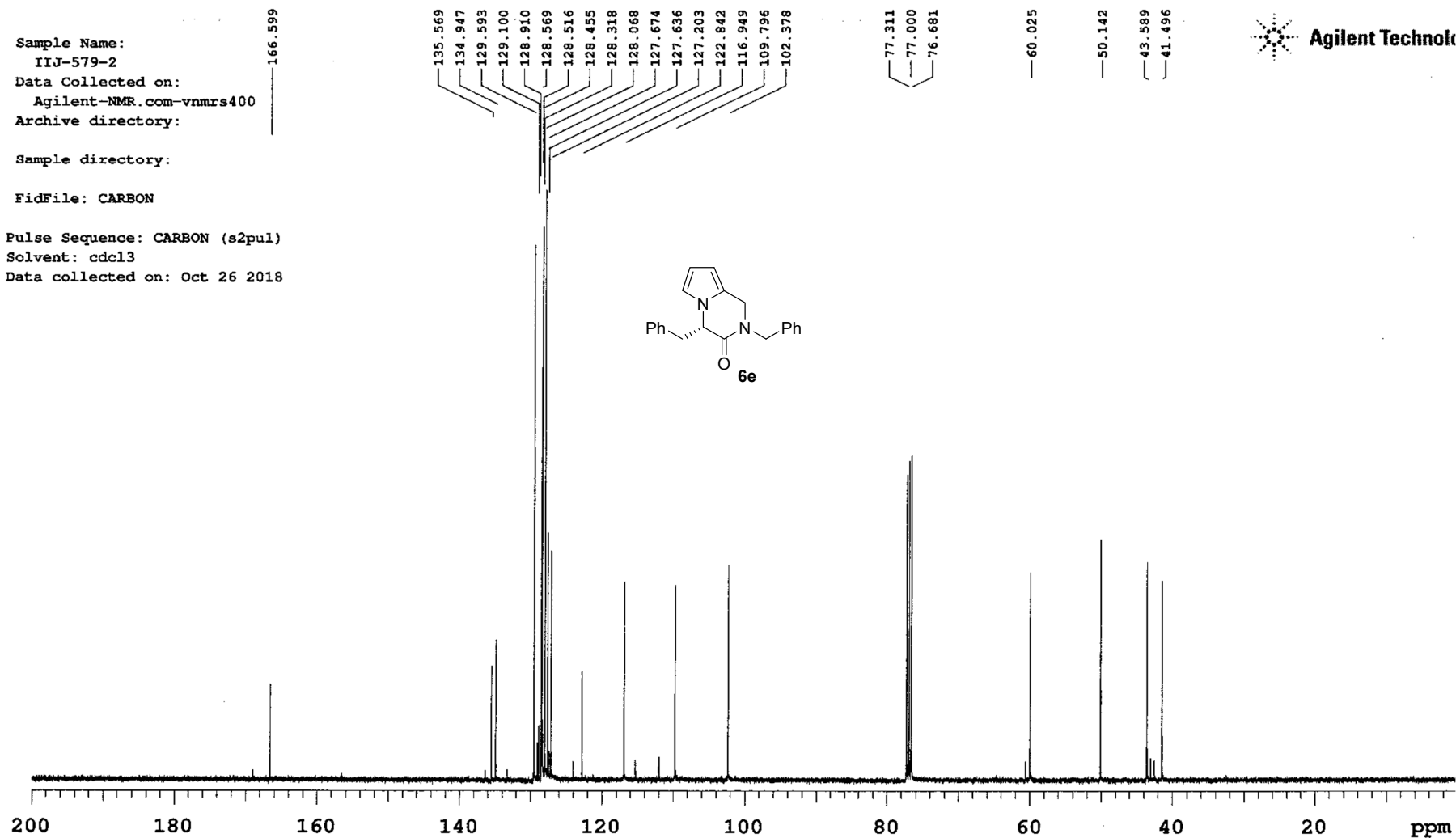


Sample Name:
IIJ-579-2
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:

Sample directory:

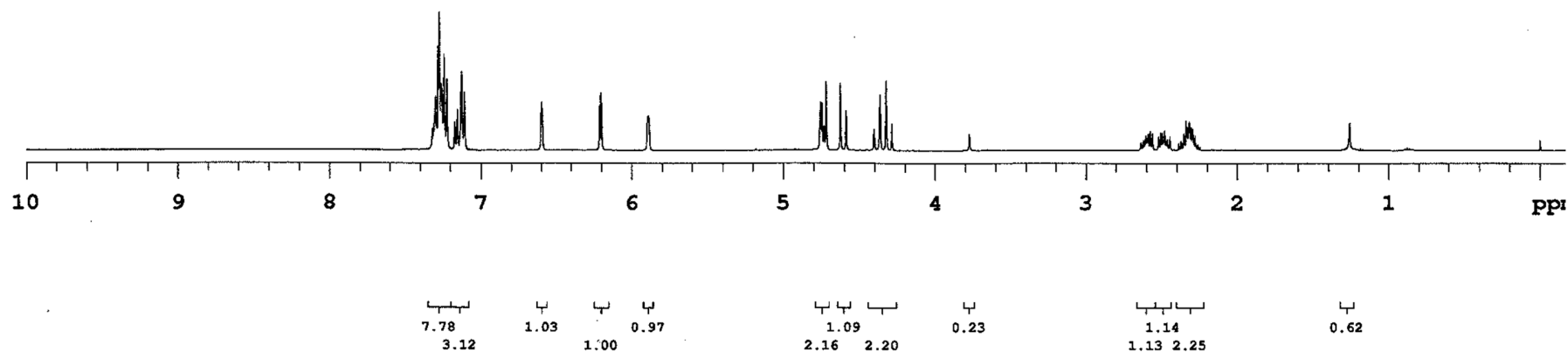
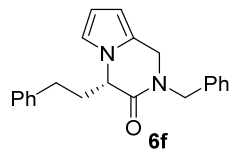
FidFile: CARBON

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 26 2018



Sample Name: LN-274-1
 Data Collected on: Agilent-NMR.com-vnmr400
 Archive directory: /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory: LN-274-1_01
 FidFile: LN-274-1_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 24 2020



Sample Name:

LN-274-1

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2007-koo-4

Sample directory:

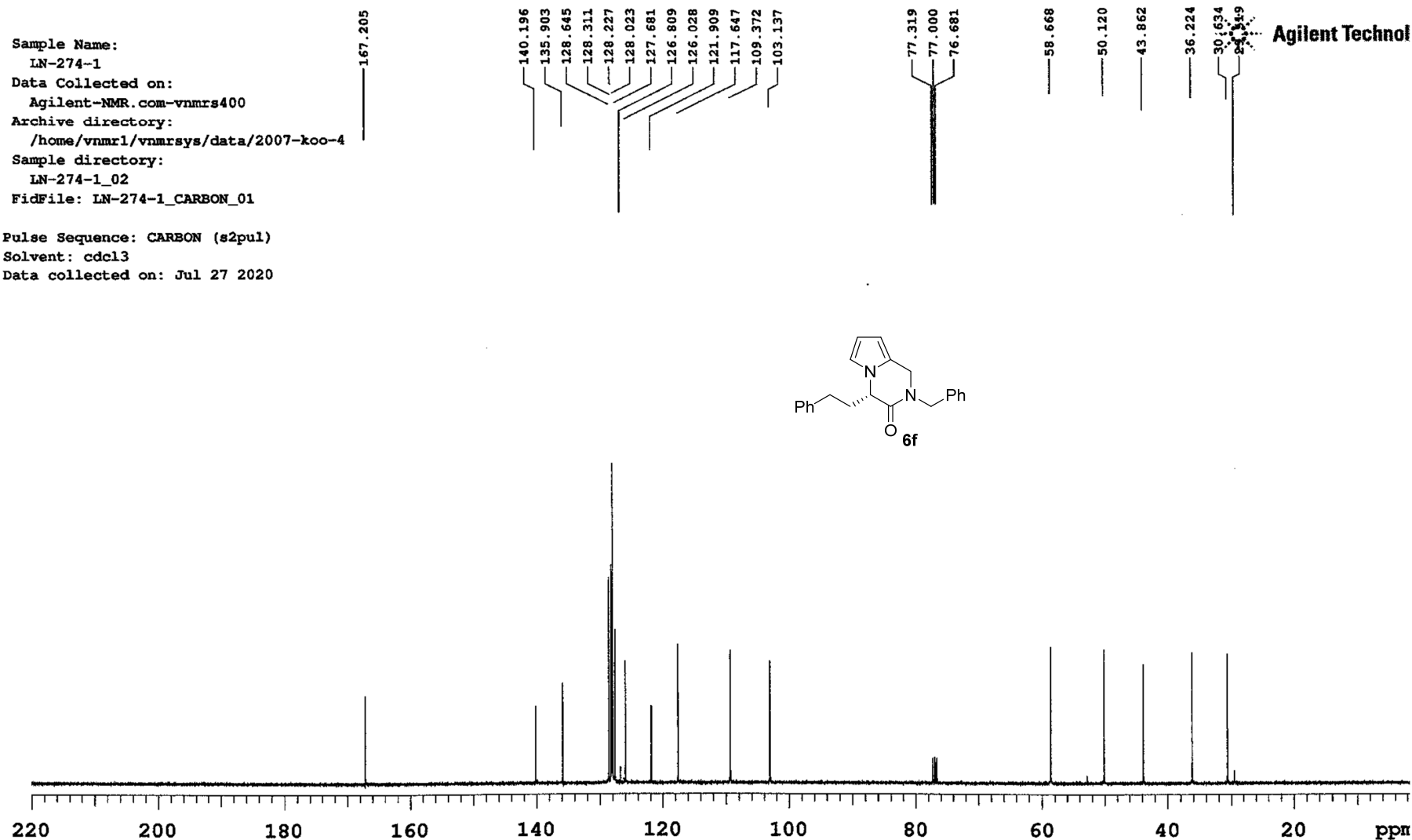
LN-274-1_02

FidFile: LN-274-1_CARBON_01

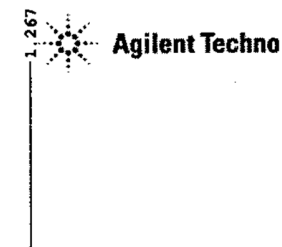
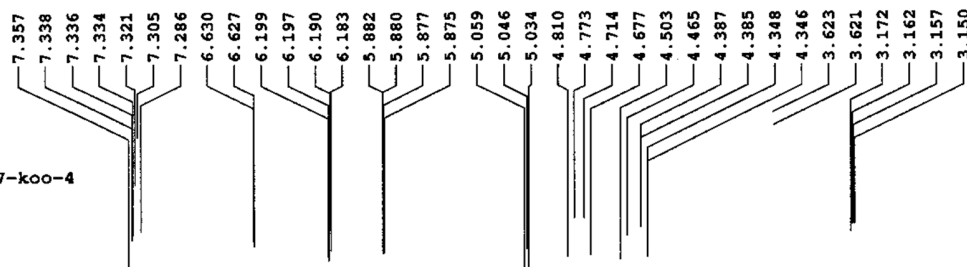
Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

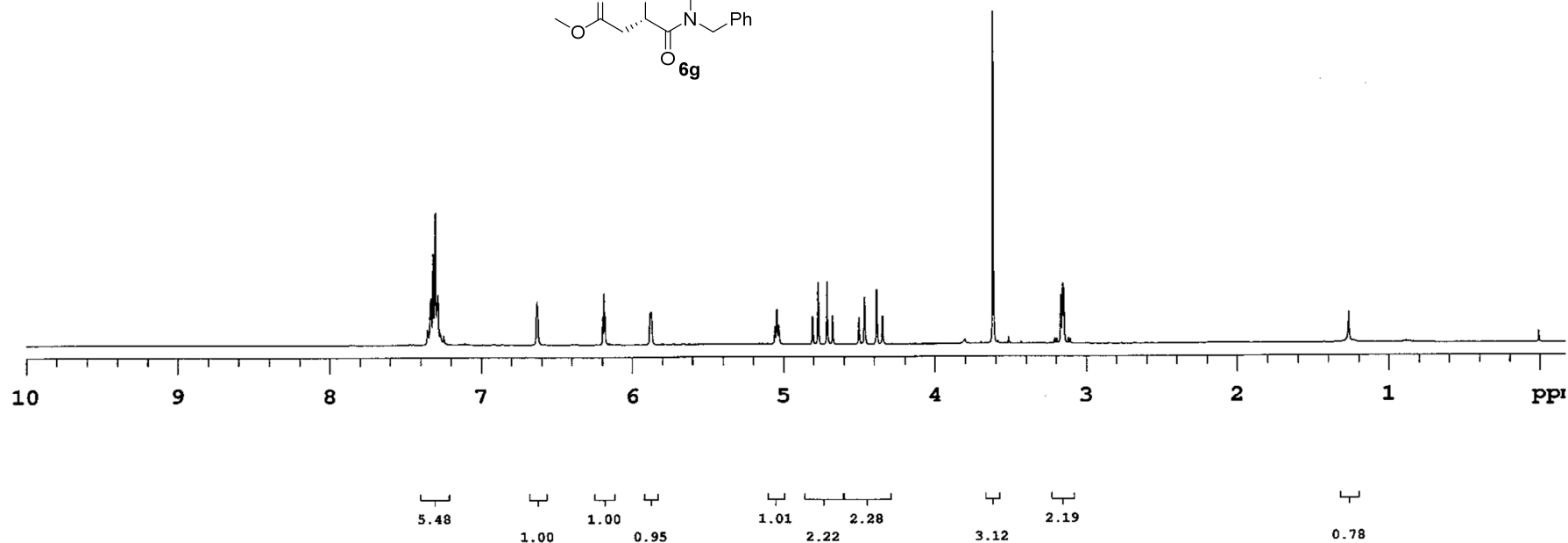
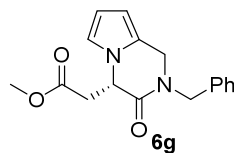
Data collected on: Jul 27 2020



Sample Name:
 LN-276-1
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory:
 LN-276-1_01
 FidFile: LN-276-1_PROTON_01



Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 24 2020



Sample Name:

LN-276-1

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2007-koo-4

Sample directory:

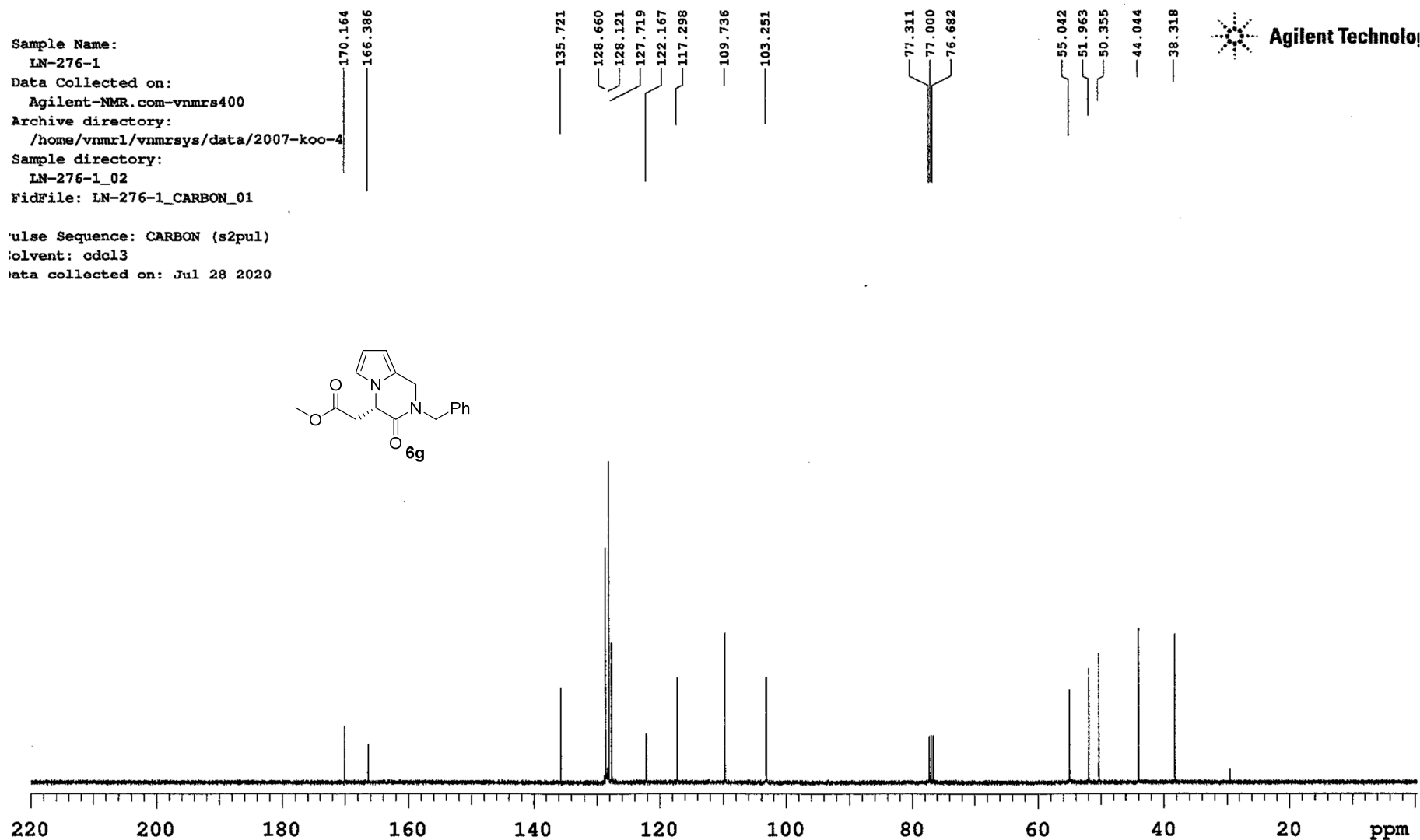
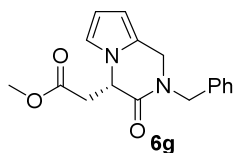
LN-276-1_02

FidFile: LN-276-1_CARBON_01

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

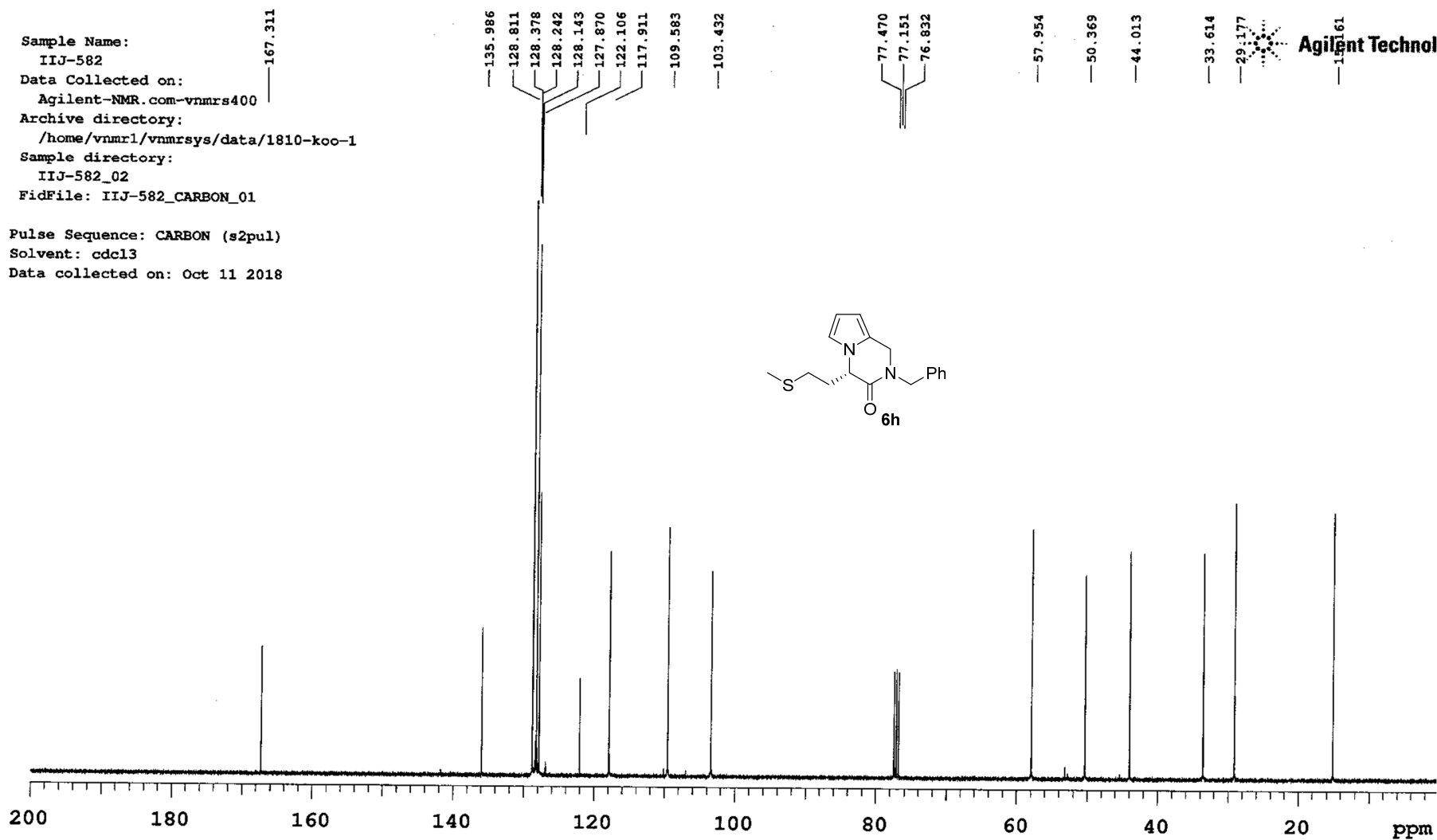
Data collected on: Jul 28 2020



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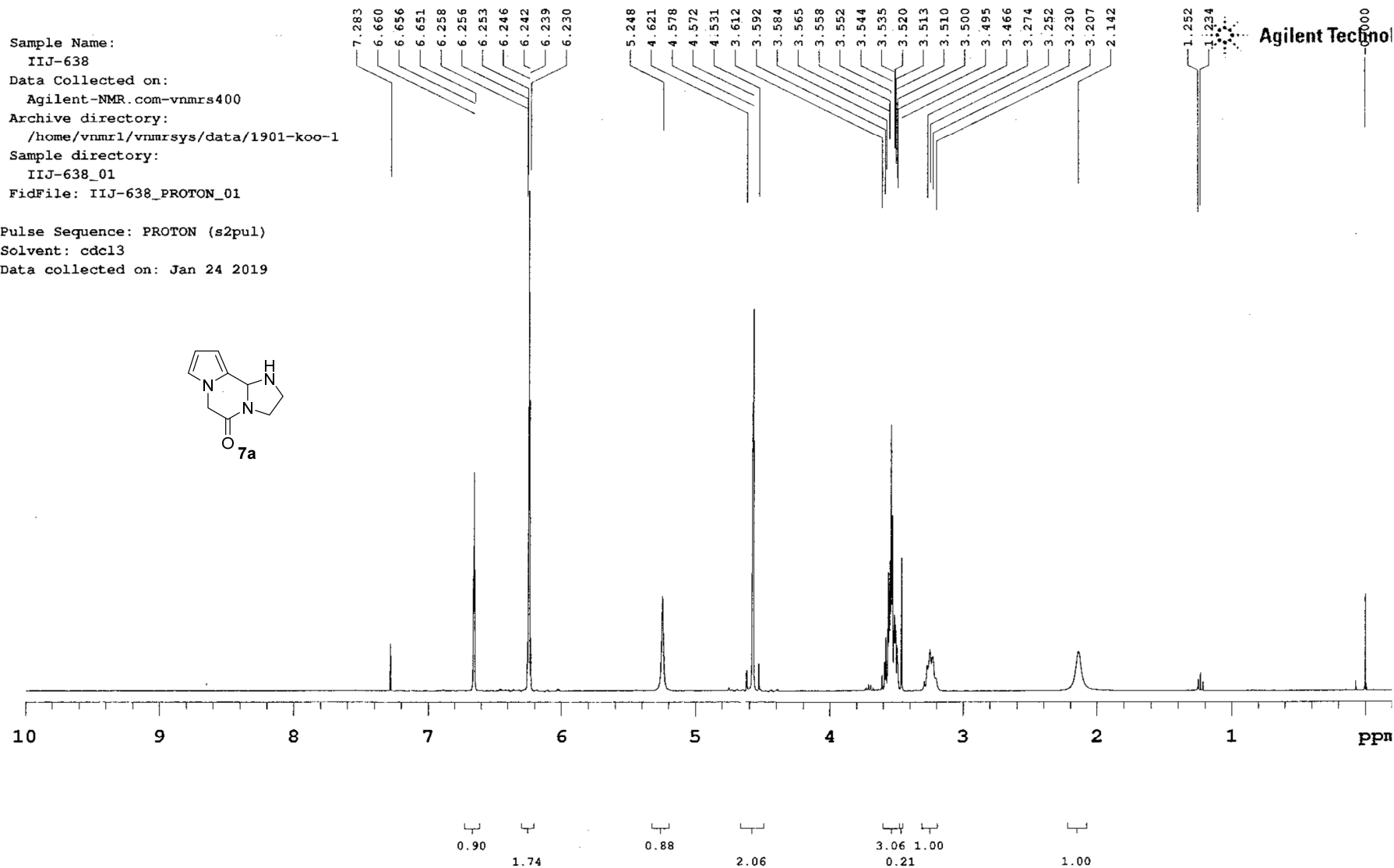
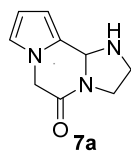
Sample Name: IIJ-582
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1810-koo-1
 Sample directory: IIJ-582_02
 FidFile: IIJ-582_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 11 2018



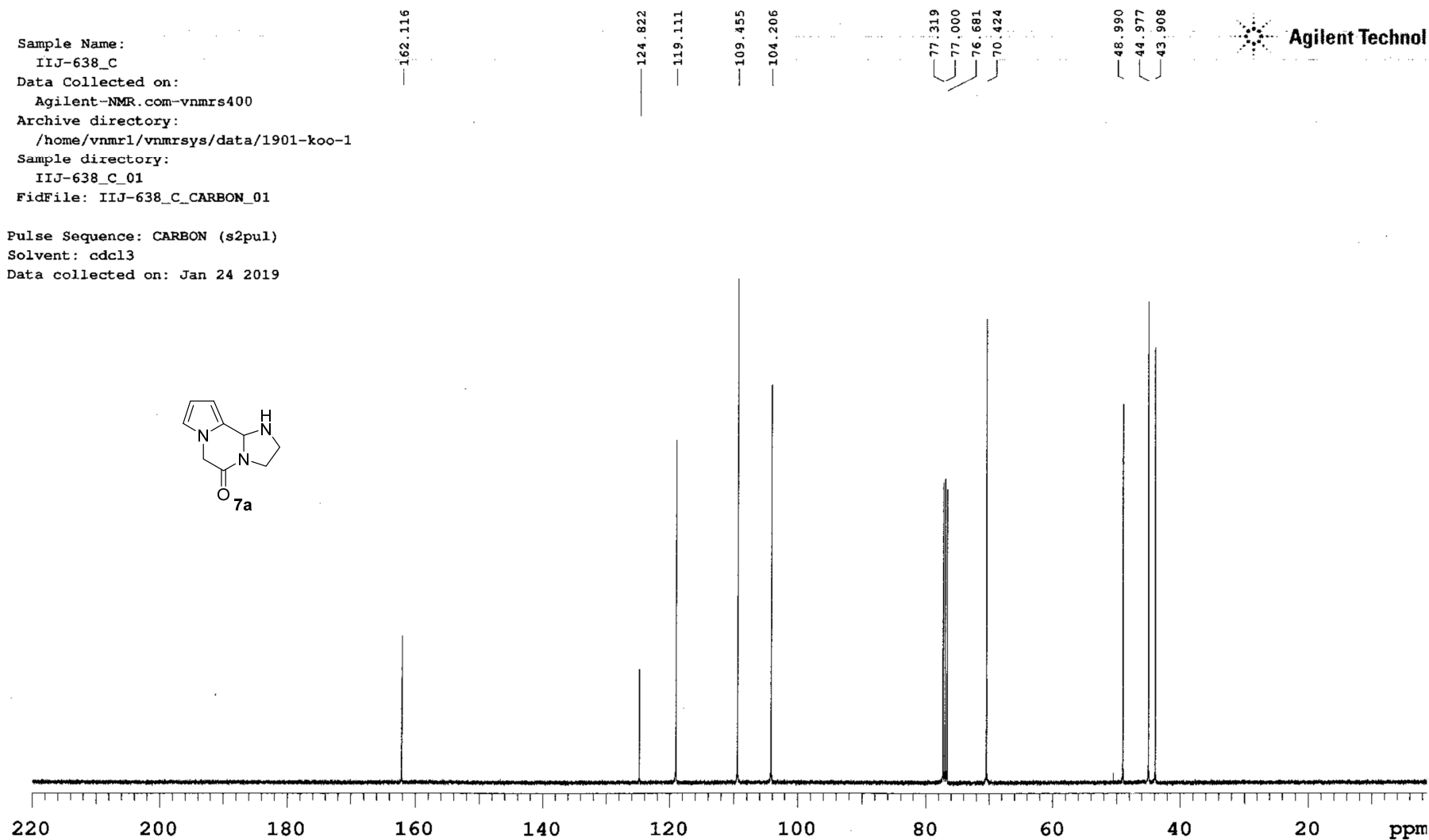
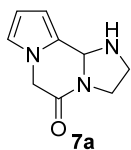
Sample Name:
 IIJ-638
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/1901-koo-1
 Sample directory:
 IIJ-638_01
 FidFile: IIJ-638_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 24 2019



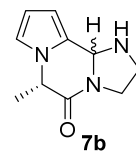
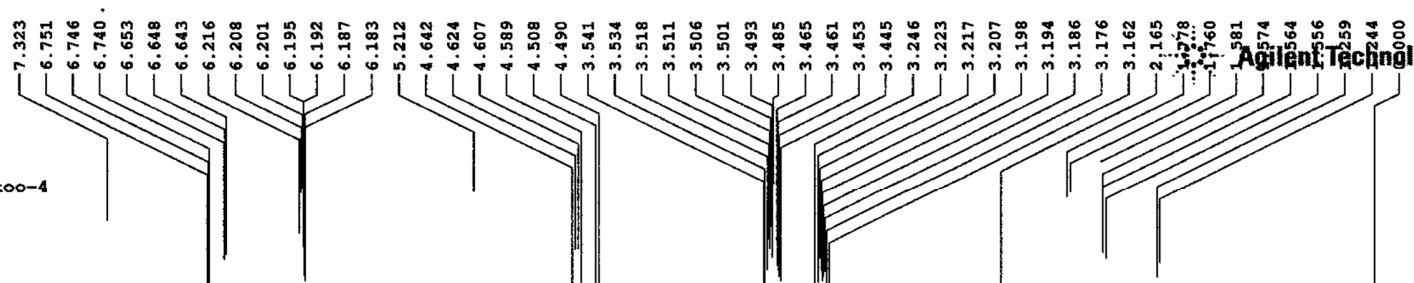
Sample Name:
IIJ-638_C
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/1901-koo-1
Sample directory:
IIJ-638_C_01
FidFile: IIJ-638_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Jan 24 2019

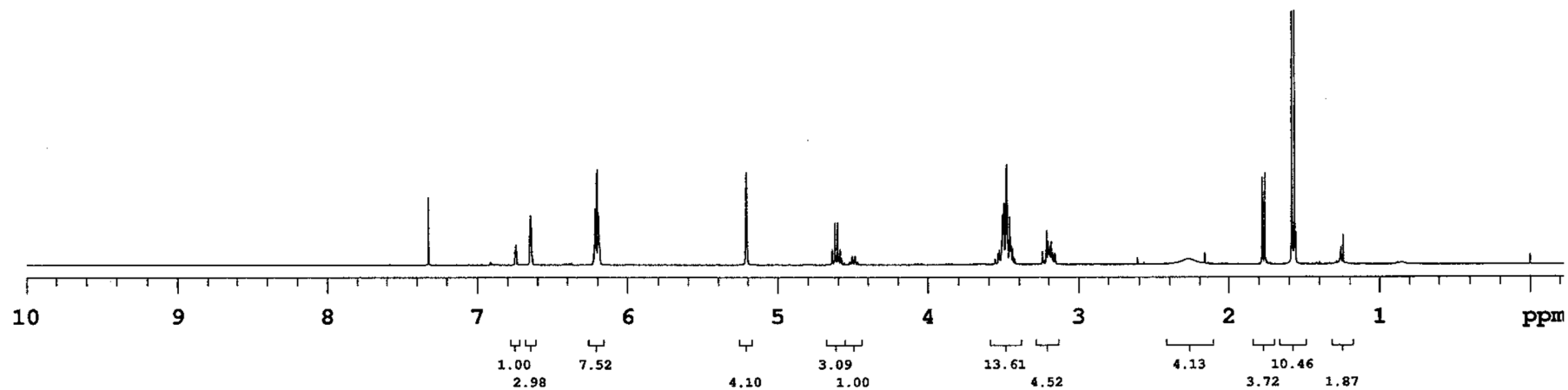


Sample Name:
 LN-336-P1
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2010-koo-4
 Sample directory:
 LN-336-P1_01
 FidFile: LN-336-P1_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 6 2020

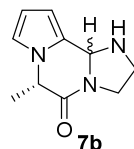


a 3:1 mixture of stereoisomers

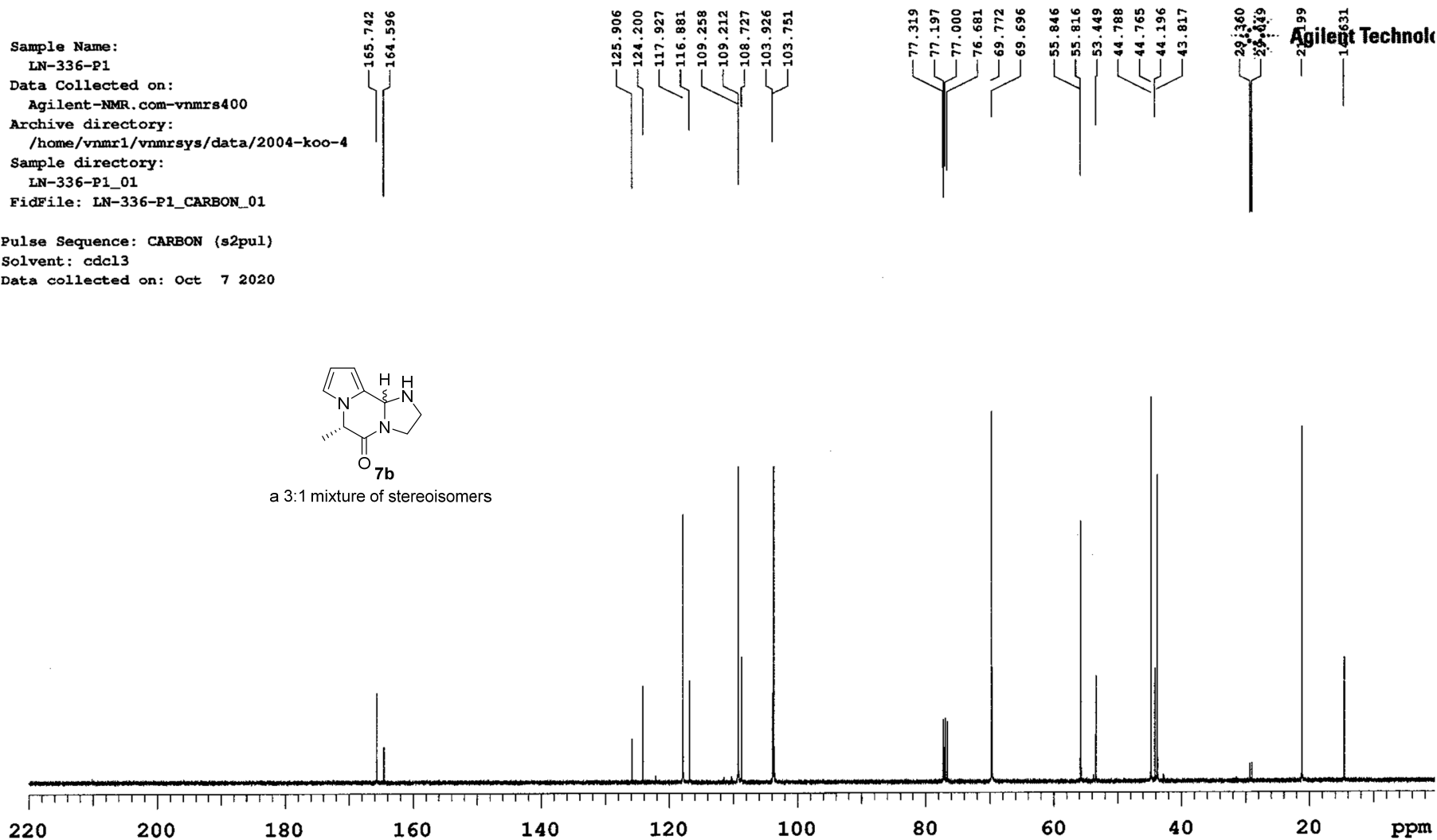


Sample Name:
LN-336-P1
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/2004-koo-4
Sample directory:
LN-336-P1_01
FidFile: LN-336-P1 CARBON_01

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 7 2020

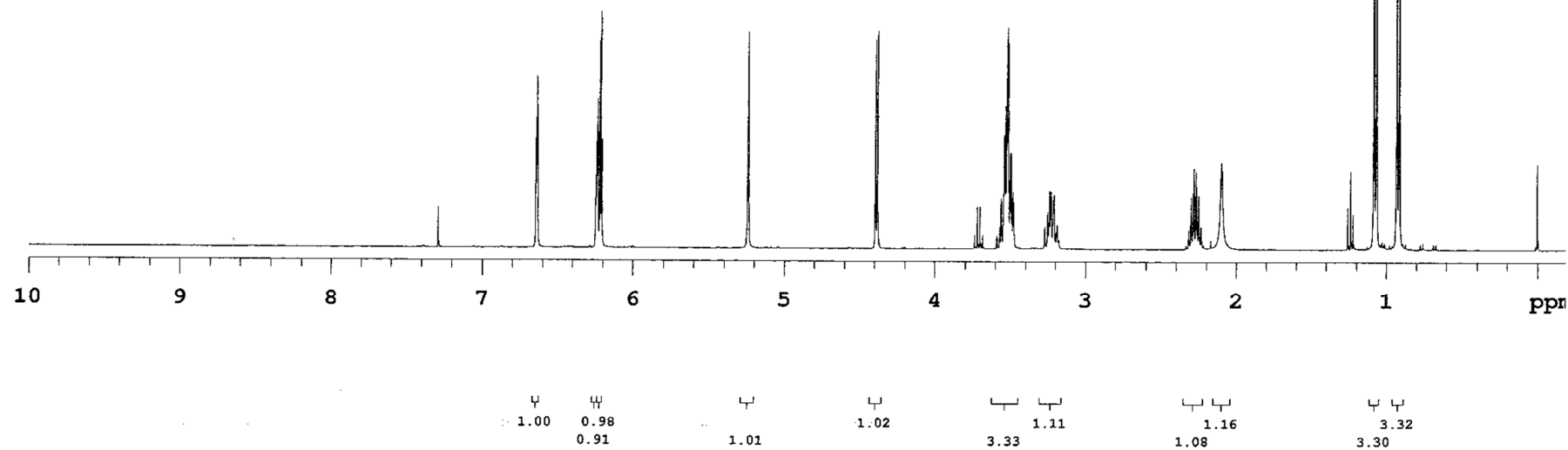
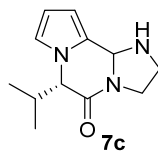


a 3:1 mixture of stereoisomers



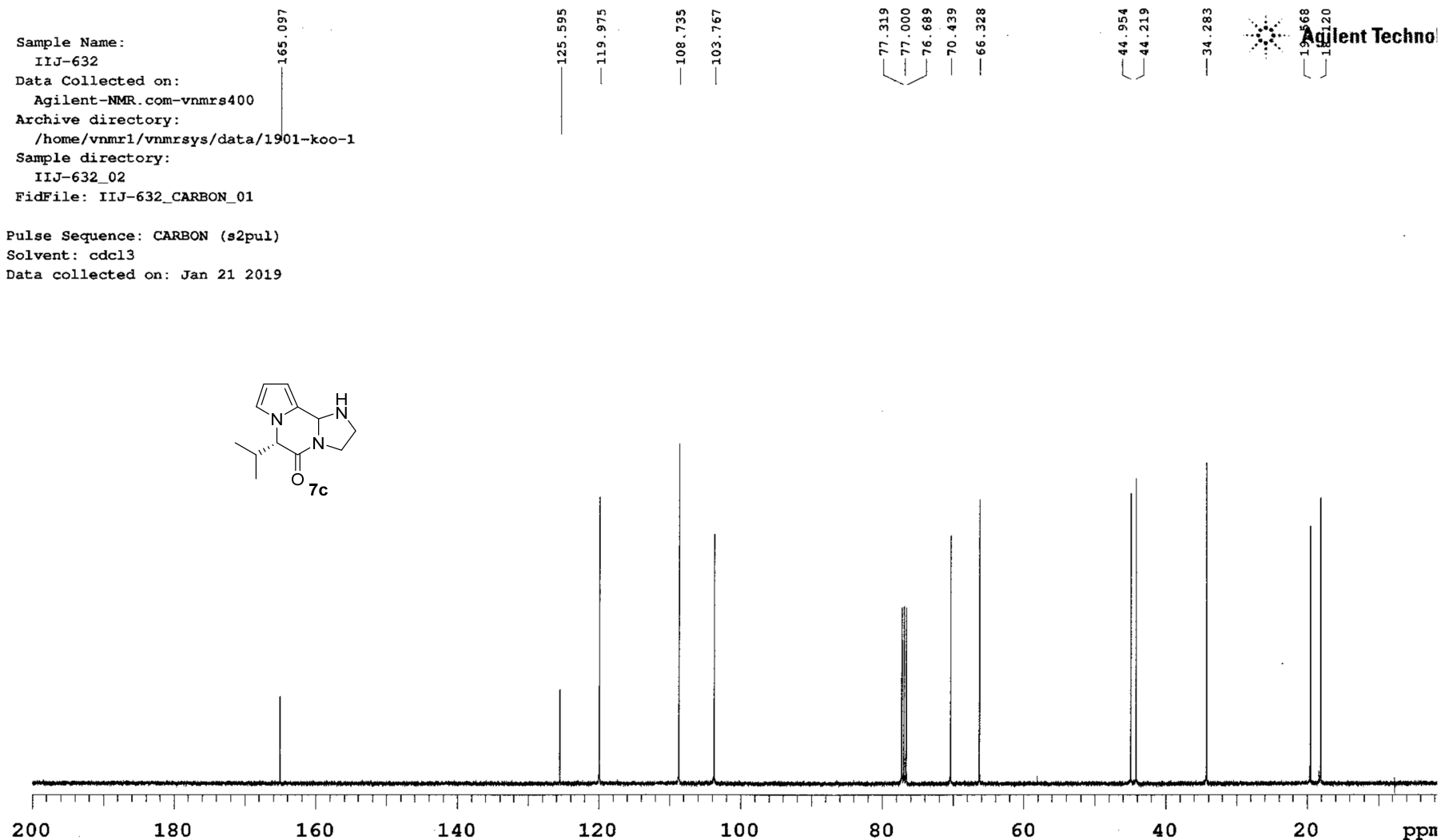
Sample Name: IIJ-632
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1901-koo-1
 Sample directory: IIJ-632_01
 FidFile: IIJ-632_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 21 2019

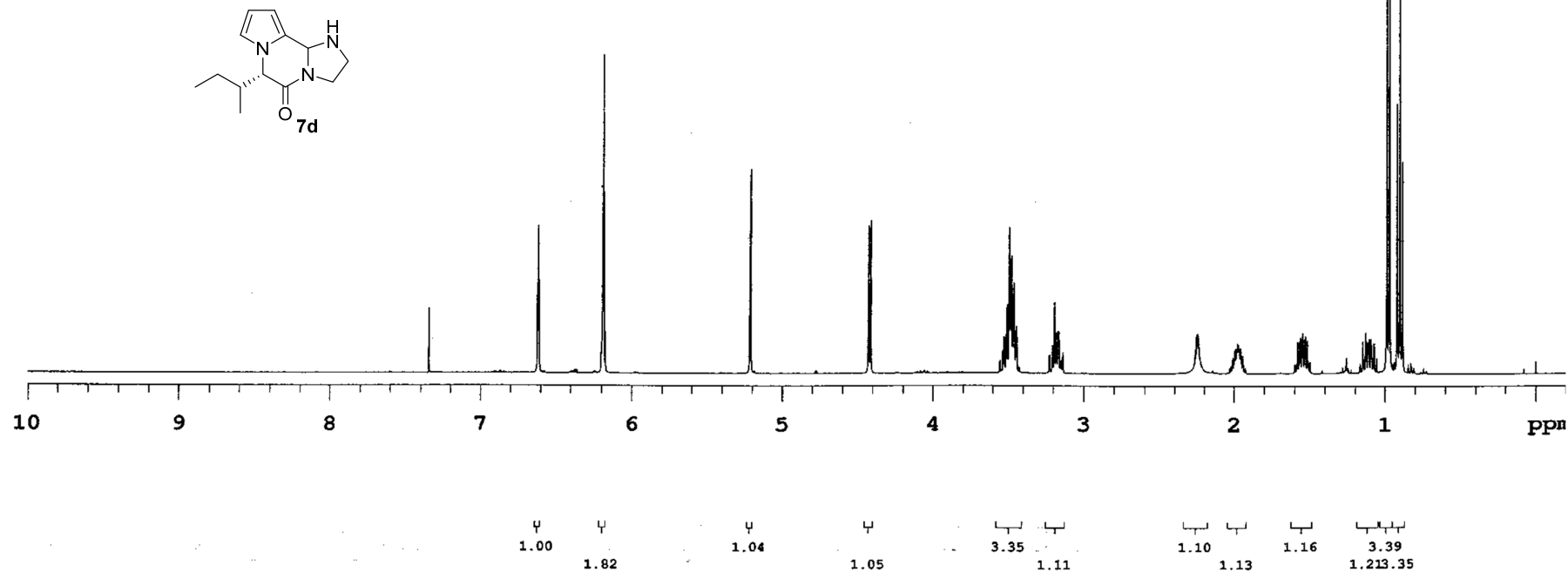


Sample Name: IIJ-632
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1901-koo-1
 Sample directory: IIJ-632_02
 FidFile: IIJ-632_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 21 2019



Sample Name: **II7-643-TT**
 Data Collected on: **Agilent-NMR.com-vnmrs400**
 Archive directory:
 Sample directory:
 FidFile: PROTON
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 13 2019

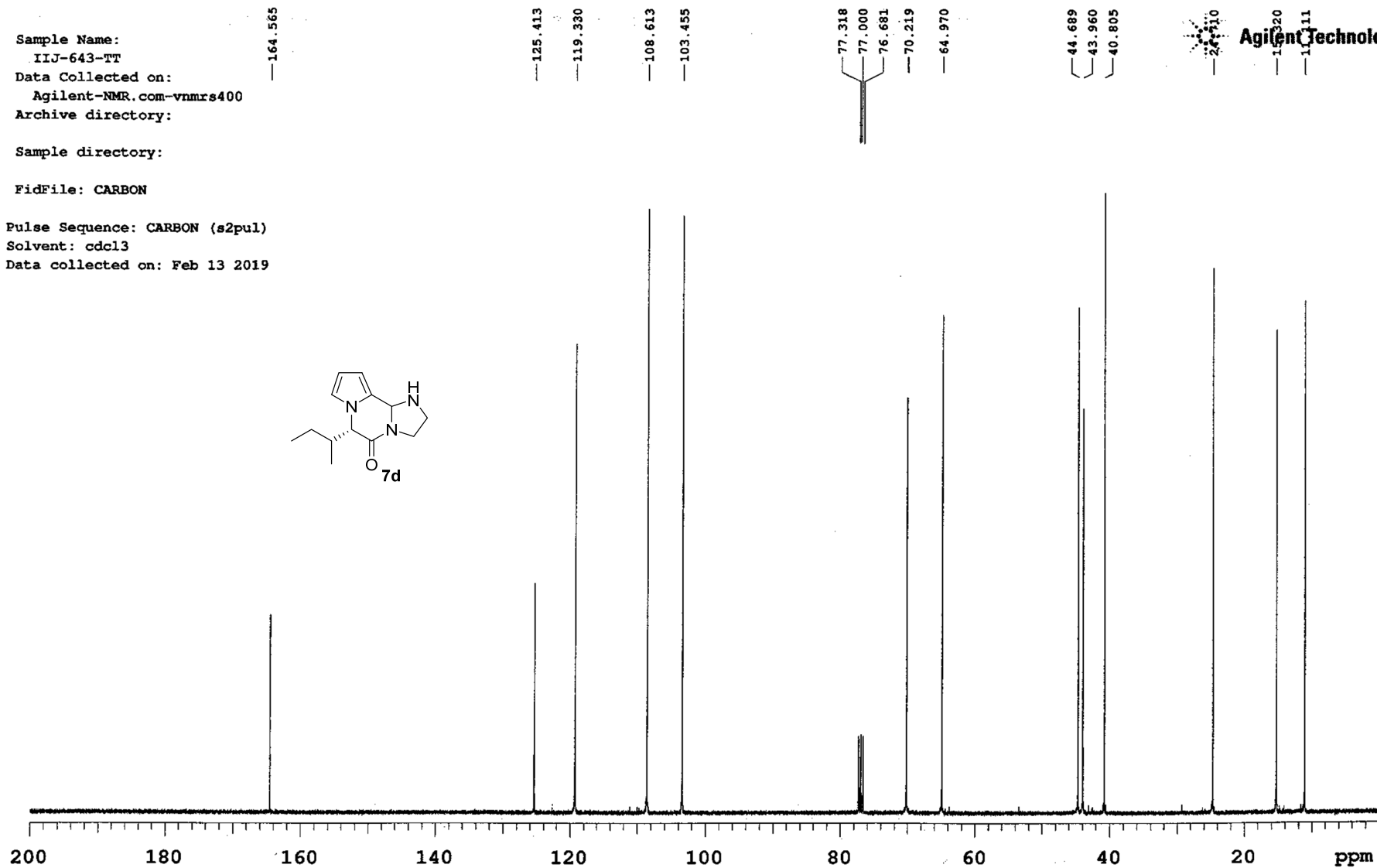
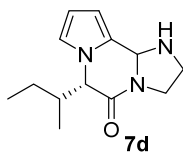


Sample Name:
IIJ-643-TT
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:

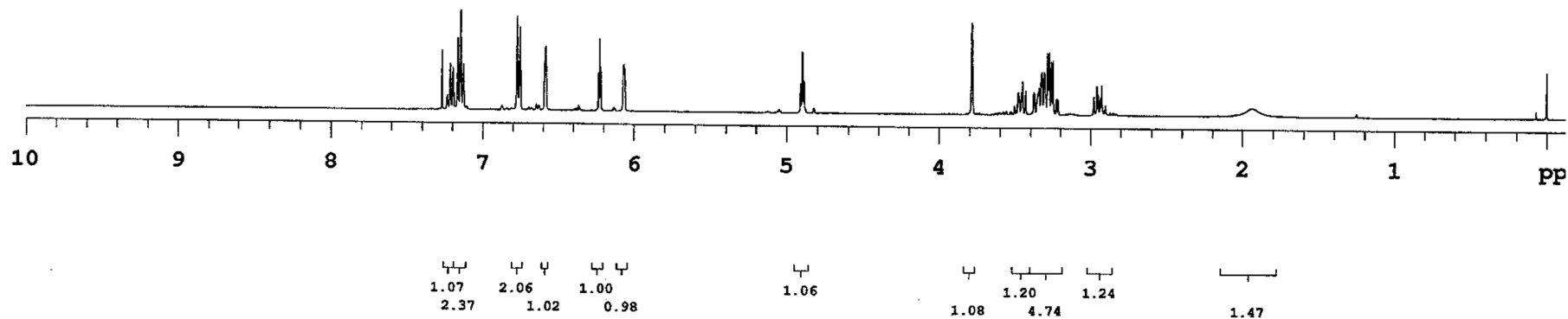
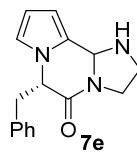
Sample directory:

FidFile: CARBON

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Feb 13 2019



Sample Name: LN-231-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory: LN-231-P_01
 FidFile: LN-231-P_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 20 2020



Sample Name:
 LN-231-P
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory:
 LN-231-P_02
 FidFile: LN-231-P_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 21 2020

164.043

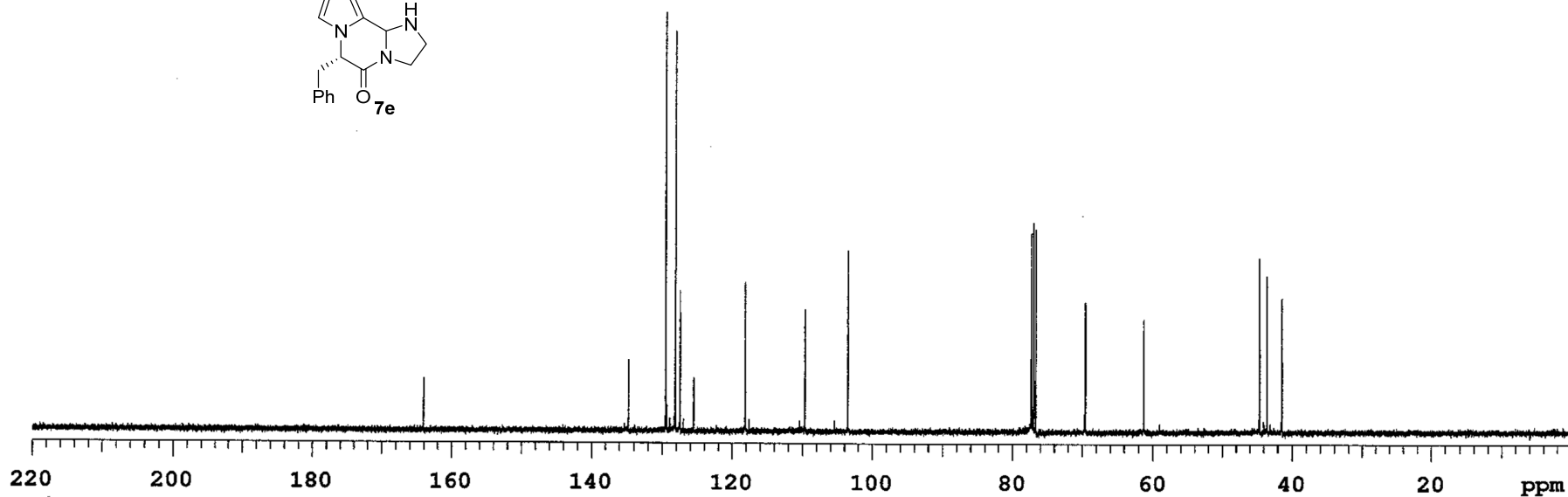
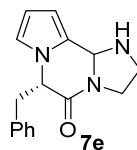
134.804
 129.540
 129.350
 128.159
 128.106
 127.461
 125.558
 118.170
 109.652
 103.516

77.319
 77.000
 76.682
 69.560
 61.300

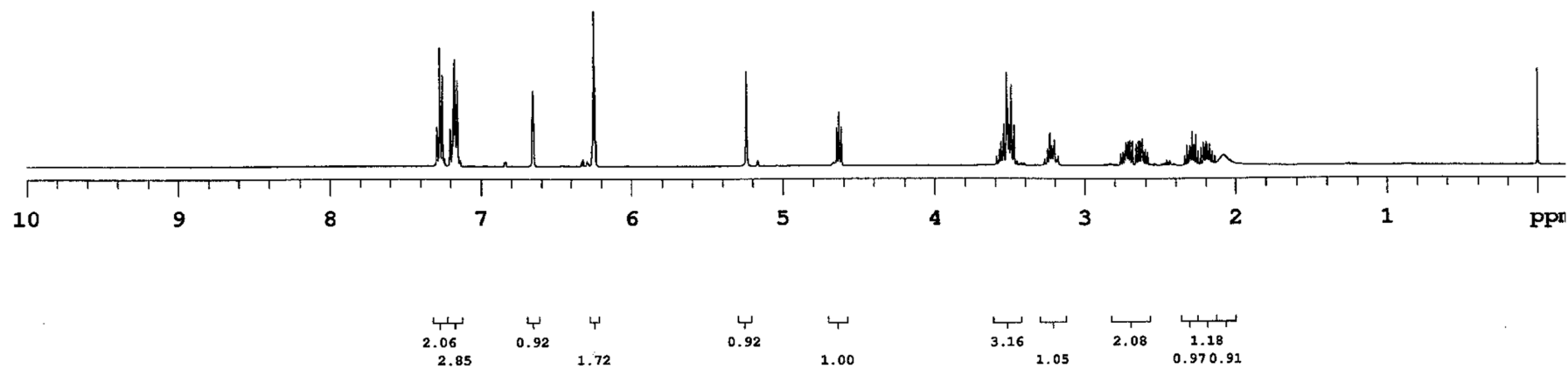
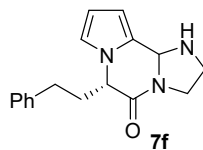
44.651
 43.582
 41.420



Agilent Technolo

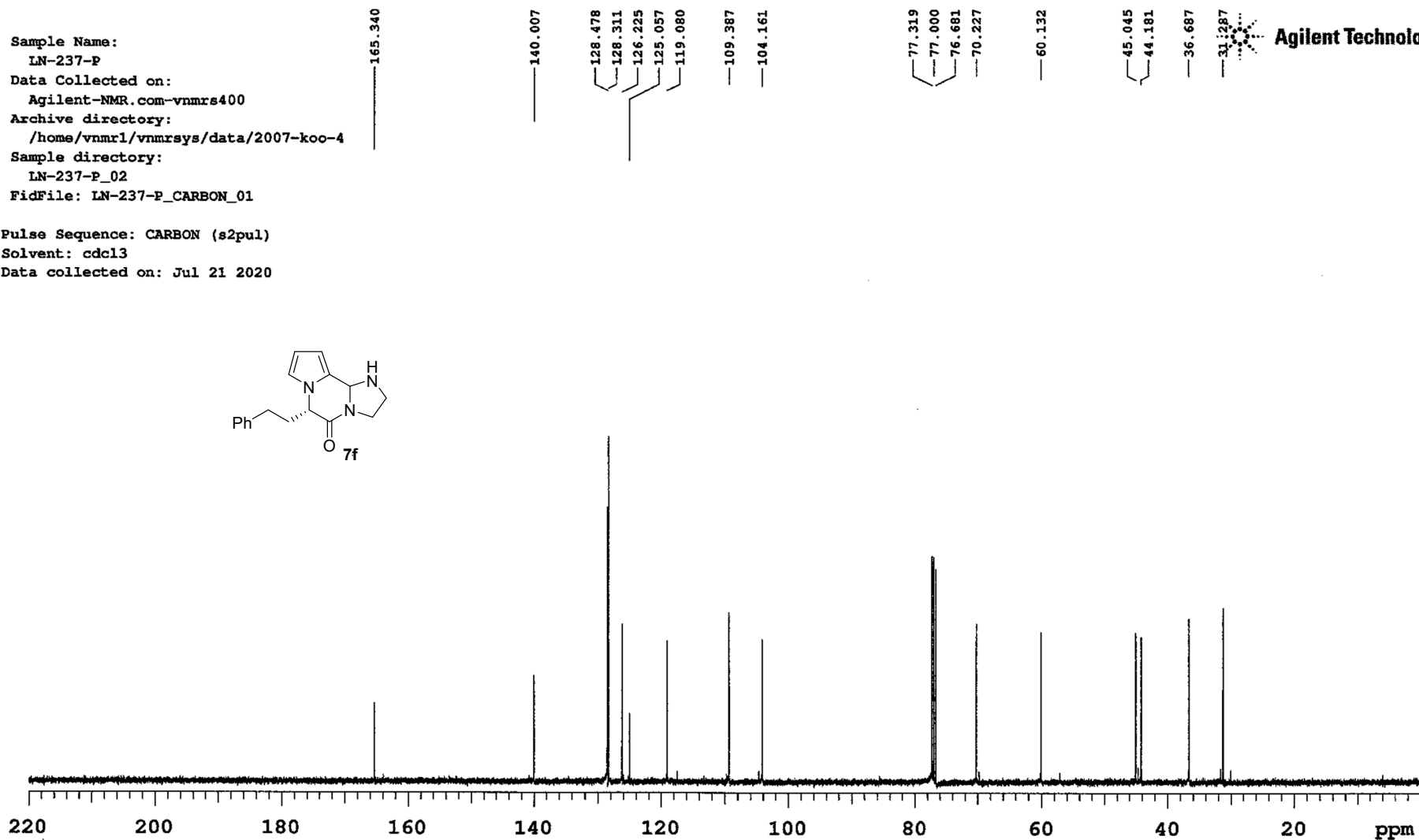
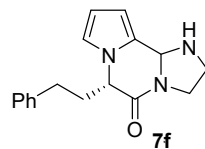


Sample Name: LN-237-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory: LN-237-P_01
 FidFile: LN-237-P_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 20 2020



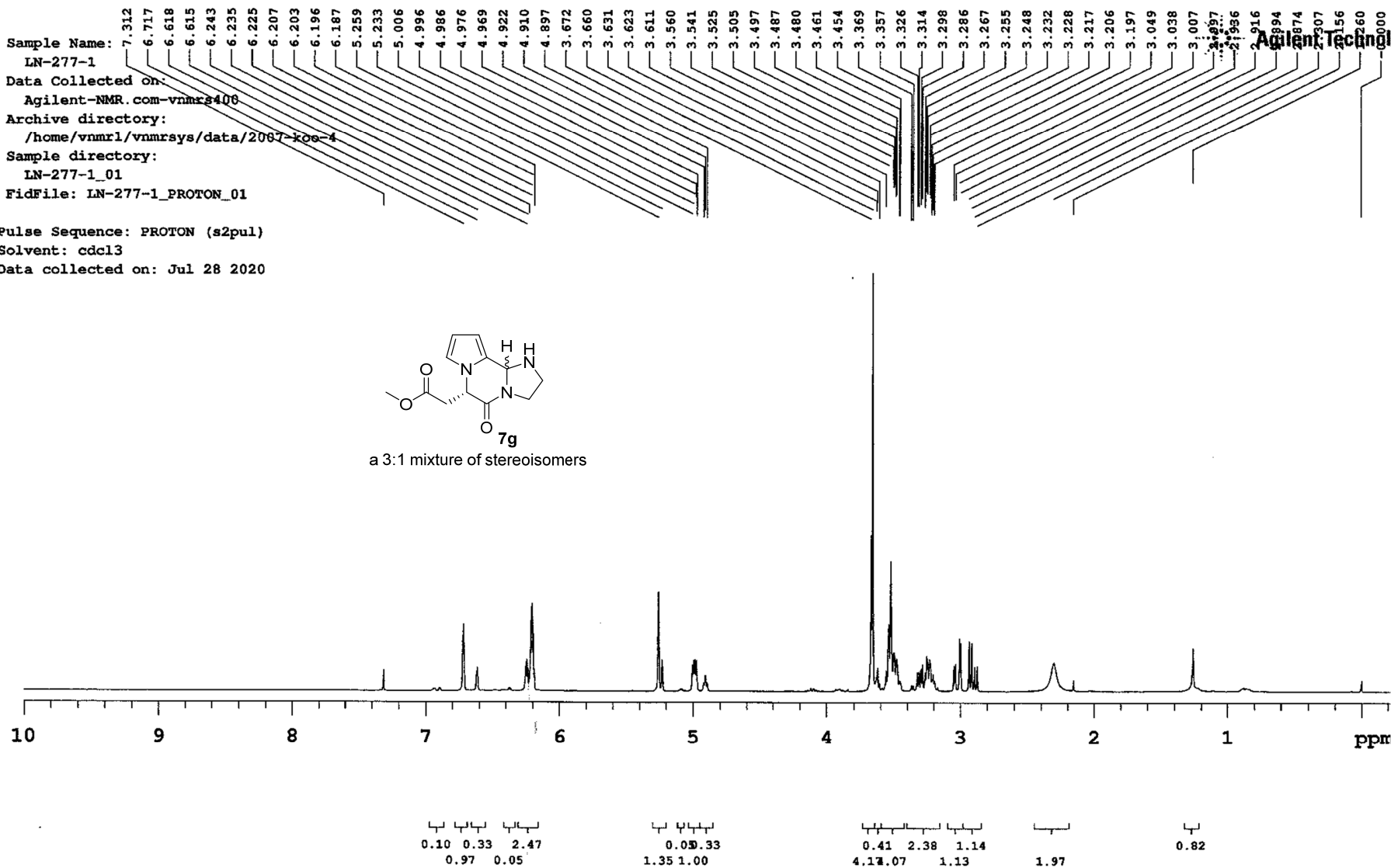
Sample Name:
 LN-237-P
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory:
 LN-237-P_02
 FidFile: LN-237-P_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 21 2020



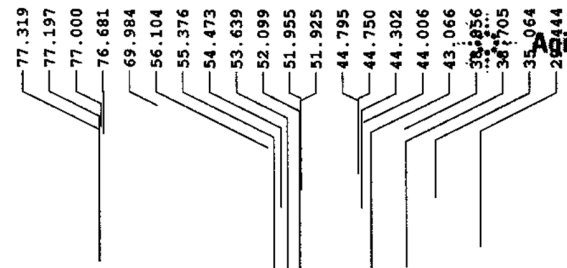
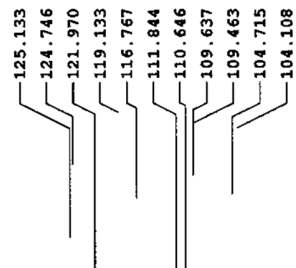
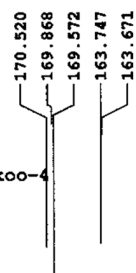
Sample Name: LN-277-1
 Data Collected on: Agilent-NMR.com-vnmr-408
 Archive directory: /home/vnmr1/vnmrsys/data/2067-koe-4
 Sample directory: LN-277-1_01
 FidFile: LN-277-1_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 28 2020

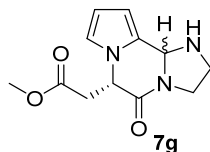


Sample Name:
LN-277-1
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/2007-koo-4
Sample directory:
LN-277-1_02
FidFile: LN-277-1_CARBON_01

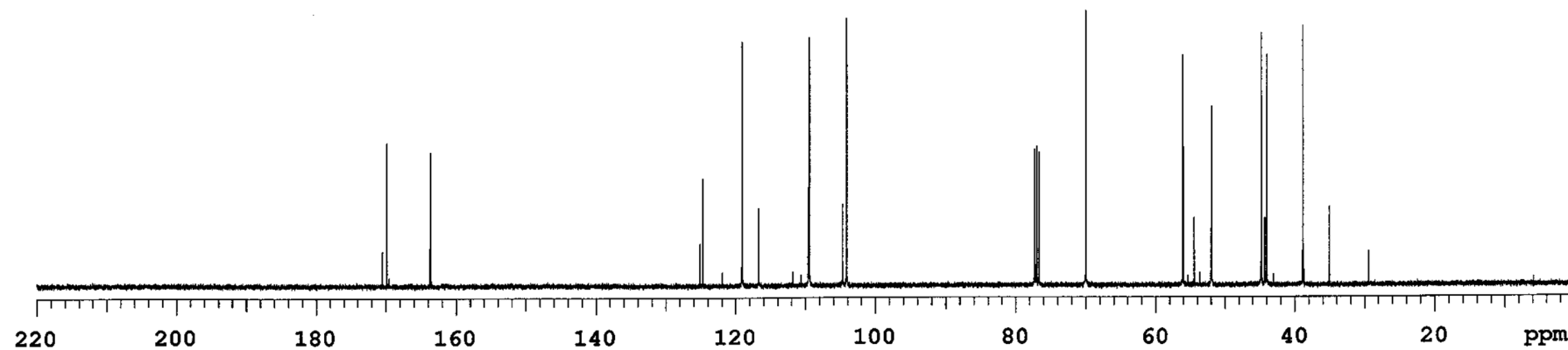
Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Jul 30 2020



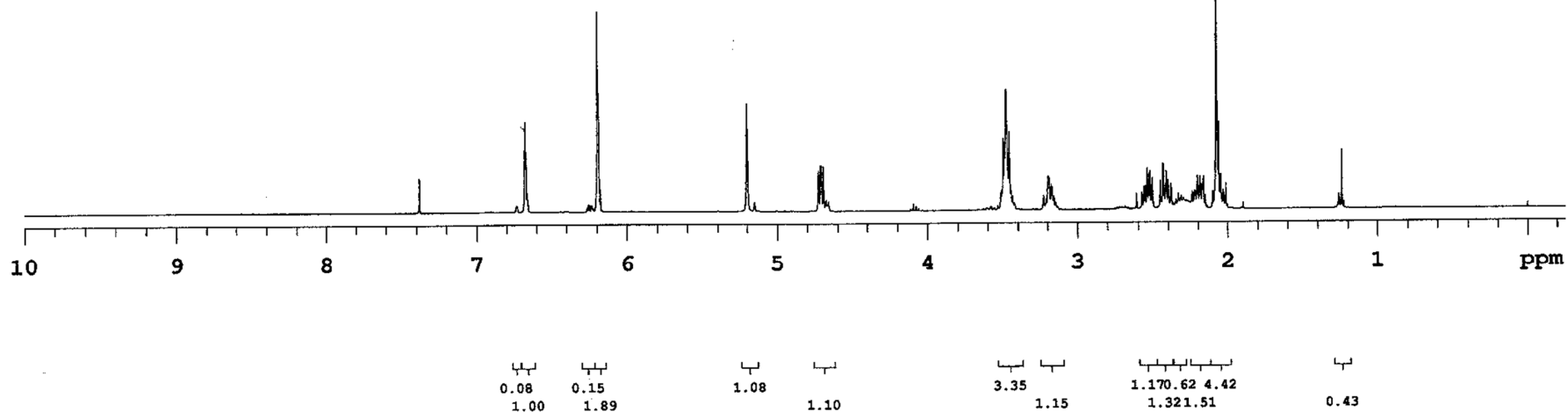
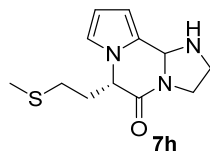
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a 3:1 mixture of stereoisomers



Sample Name: LN-278-1
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2007-k00-4
 Sample directory: LN-278-1_01
 FidFile: LN-278-1_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 28 2020



Sample Name:
 LN-278-1
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2007-koo-4
 Sample directory:
 LN-278-1_02
 FidFile: LN-278-1_CARBON_01

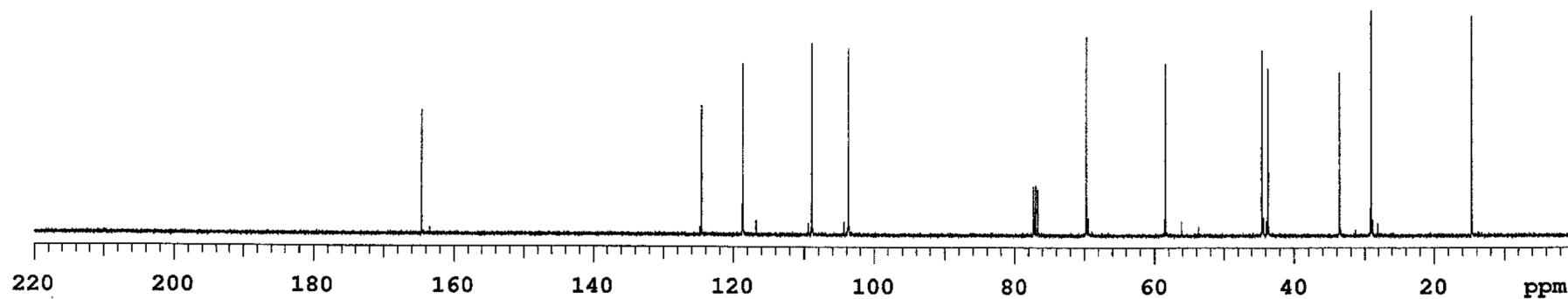
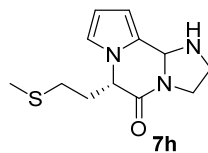
Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Jul 30 2020

164.634

124.640
 118.731
 116.843
 109.425
 108.932
 108.879
 104.358
 103.729

77.319
 77.197
 77.000
 76.674
 69.726
 69.468
 58.524
 56.180
 53.738
 44.598
 44.378
 43.961
 43.726
 33.615
 29.171
 29.118
 28.805
 28.124
 1.8805
 1.706

Agilent Technology



Sample Name:
CSH-612-P

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/1911-koo-3

Sample directory:

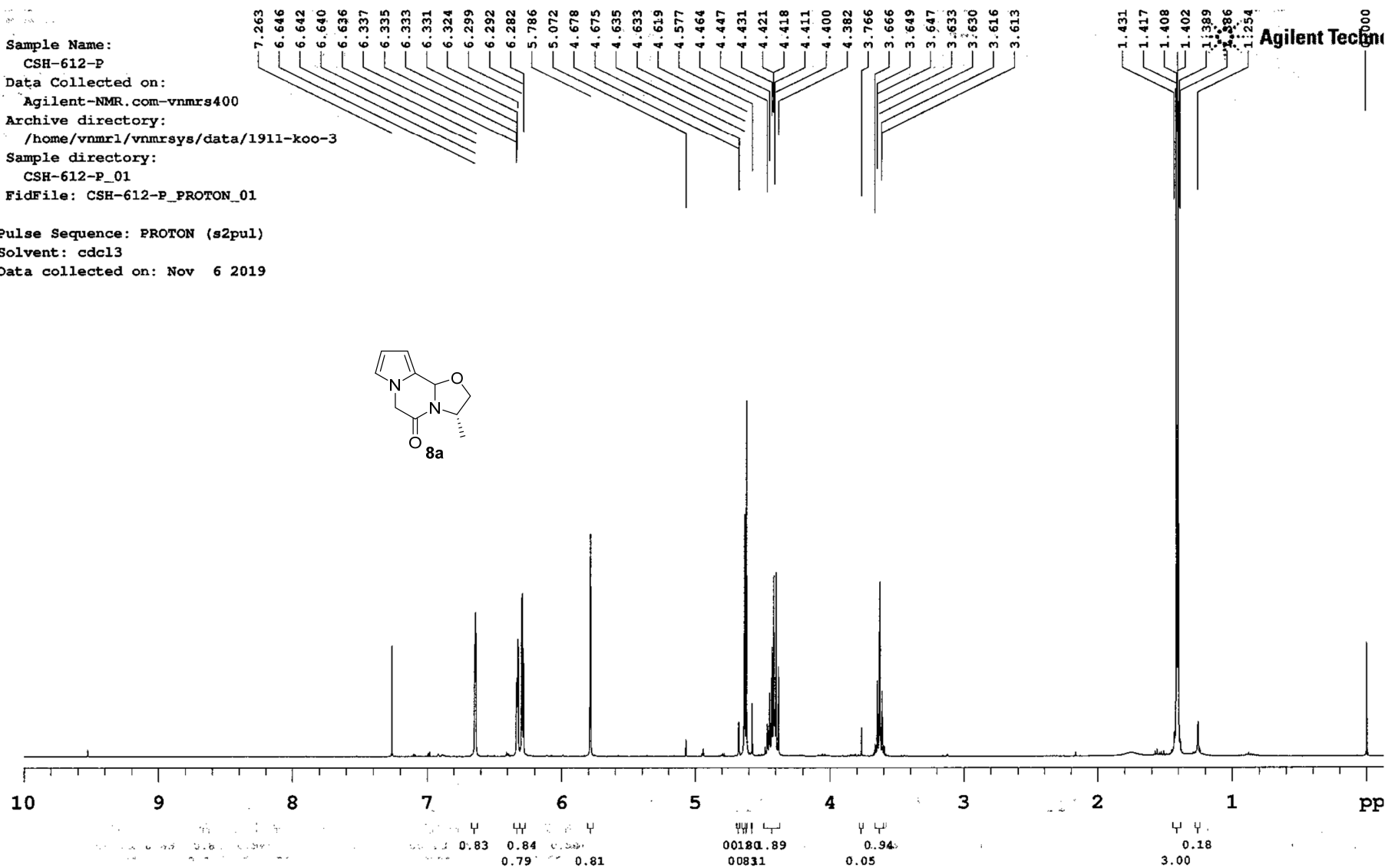
CSH-612-P_01

FidFile: CSH-612-P_PROTON_01

Pulse Sequence: PROTON (s2pul)

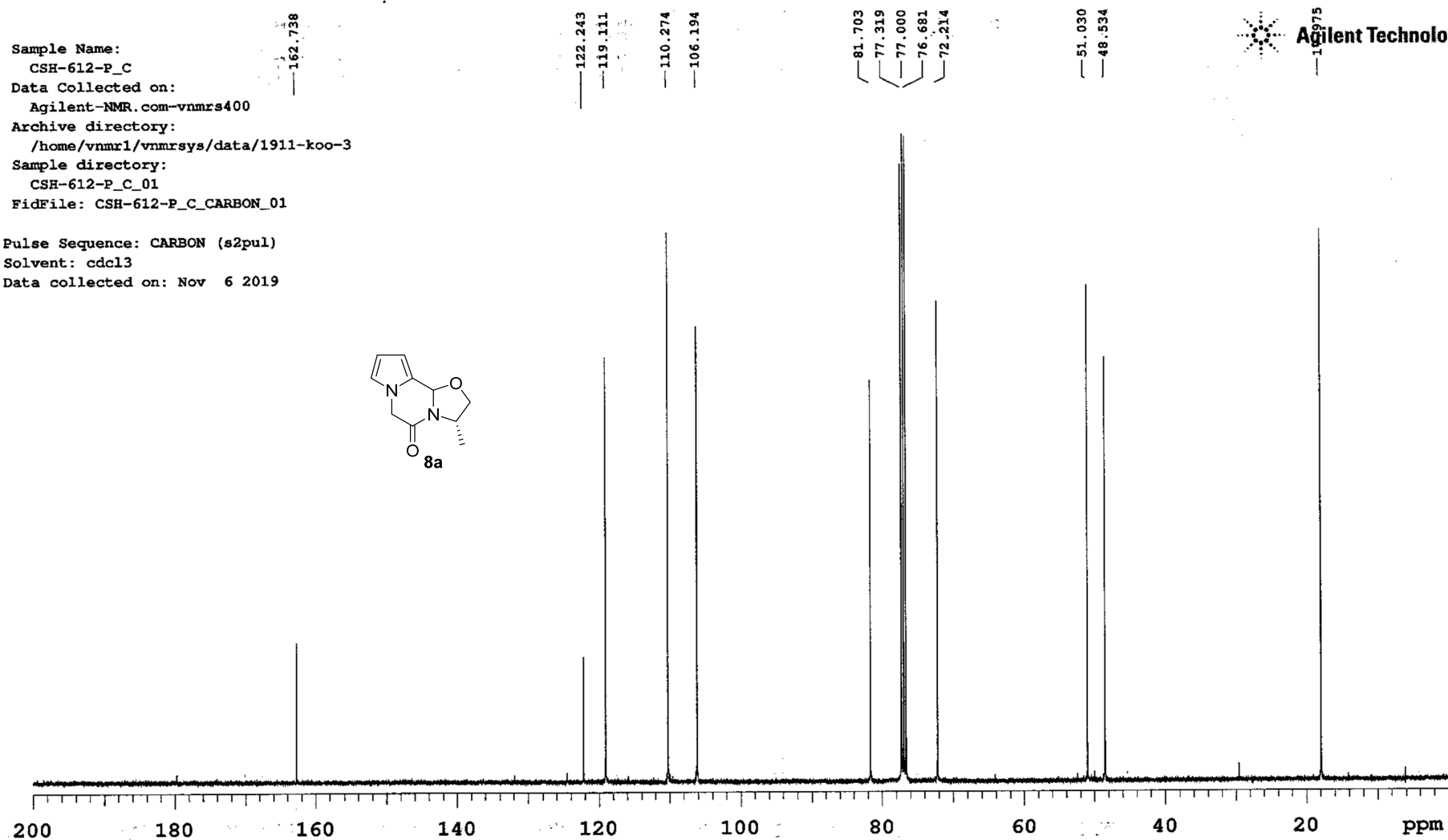
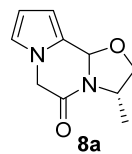
Solvent: cdcl3

Data collected on: Nov 6 2019



Sample Name:
 CSH-612-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/1911-koo-3
 Sample directory:
 CSH-612-P_C_01
 FidFile: CSH-612-P_C_CARBON_01

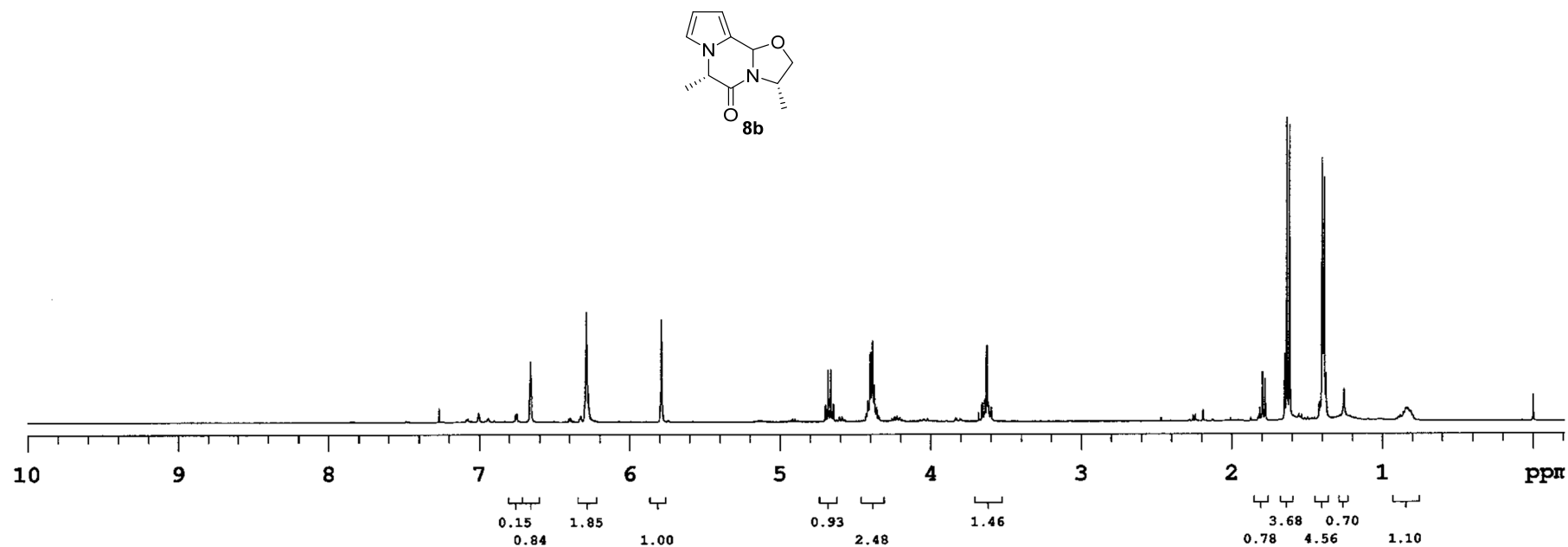
Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 6 2019



268
 006
 760
 753
 6.660
 6.326
 6.300
 6.291
 6.284
 6.275
 6.269
 5.799
 5.790
 4.700
 4.683
 4.665
 4.648
 4.429
 4.421
 4.415
 4.402
 4.388
 4.378
 4.368
 4.360
 4.349
 4.226
 3.683
 3.661
 3.648
 3.642
 3.629
 3.619
 3.602
 2.245
 2.193
 1.817
 1.807
 1.797
 1.779
 1.649
 1.634
 1.617
 1.591
 1.554
 1.537
 1.420
 1.413
 1.402
 1.386
 1.376
 1.285
 1.256
 1.240
 1.230
 1.225
 0.879
 0.861
 0.854
 0.846
 0.838
 0.831
 0.813
 0.797
 0.000

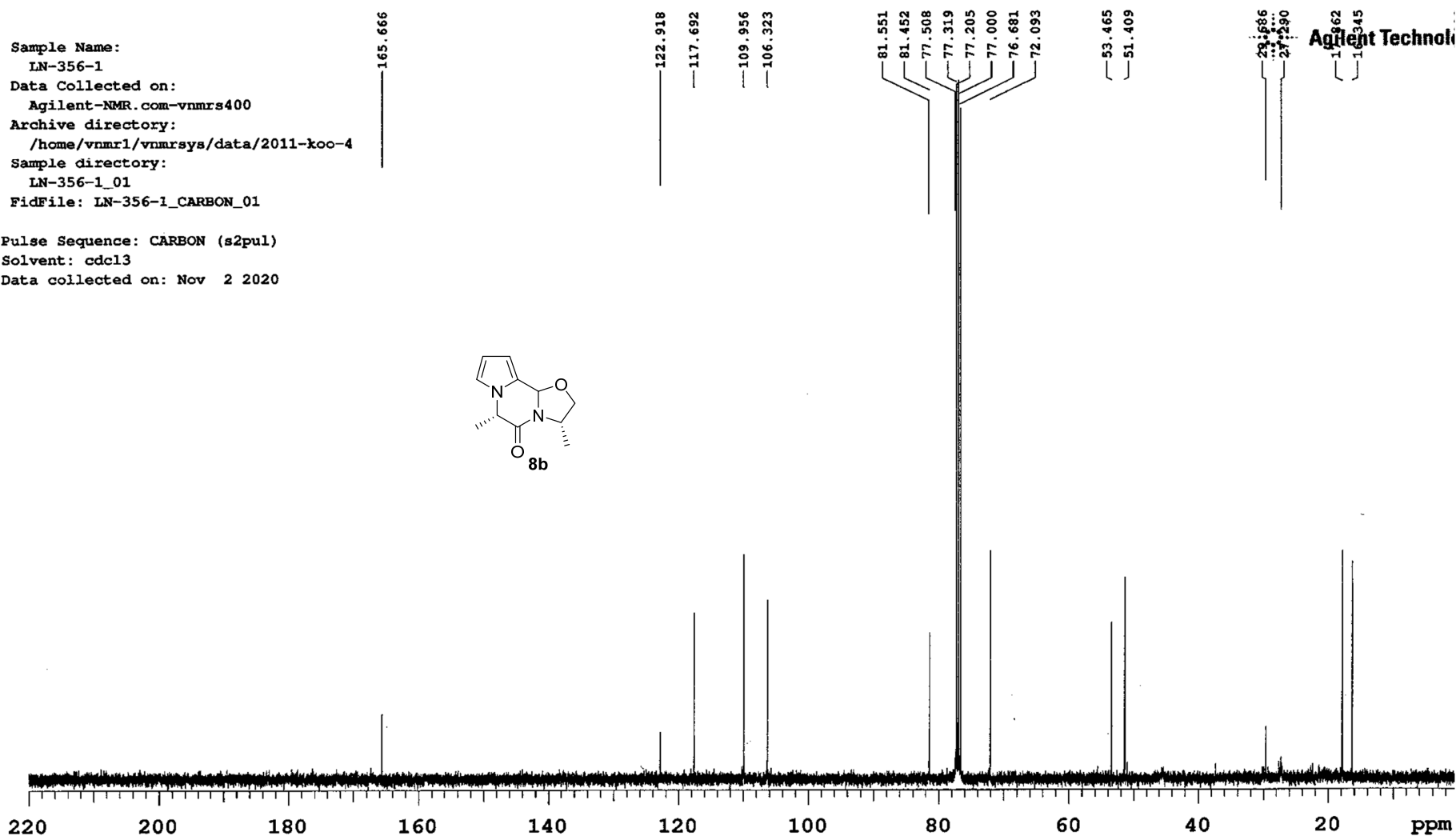
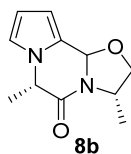
Sample Name: LN-356-M
 Data Collected on: Agilent-NMR.scm-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2010-kob-4
 Sample directory: LN-356-M_01
 FidFile: LN-356-M_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 29 2020



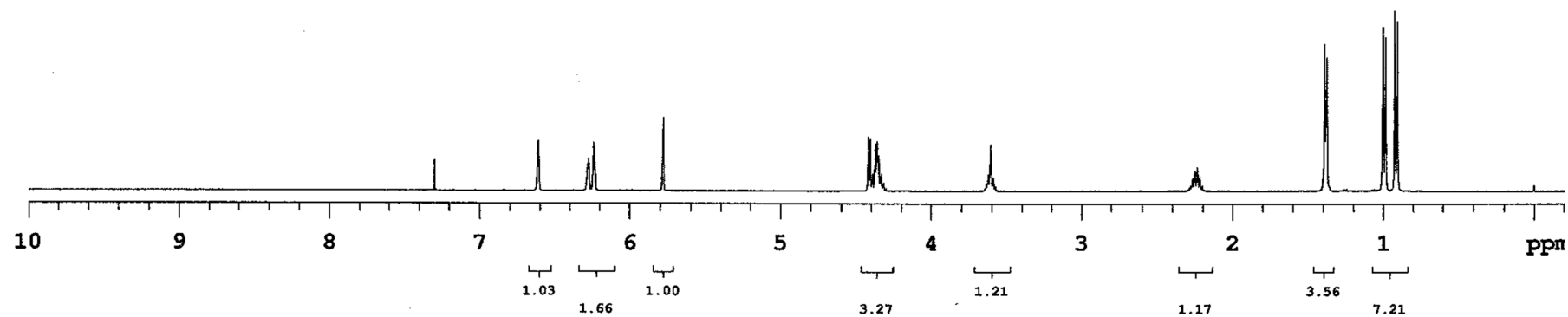
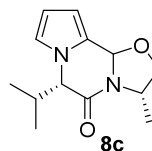
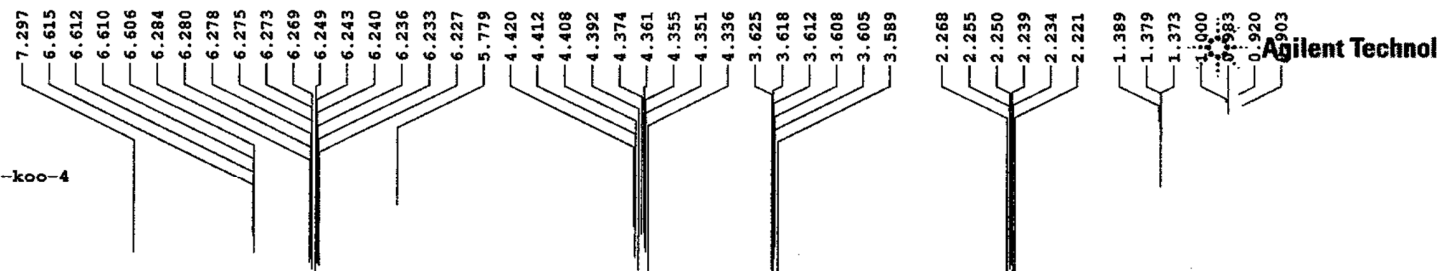
Sample Name:
LN-356-1
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/2011-koo-4
Sample directory:
LN-356-1_01
FidFile: LN-356-1_CARBON_01

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Nov 2 2020



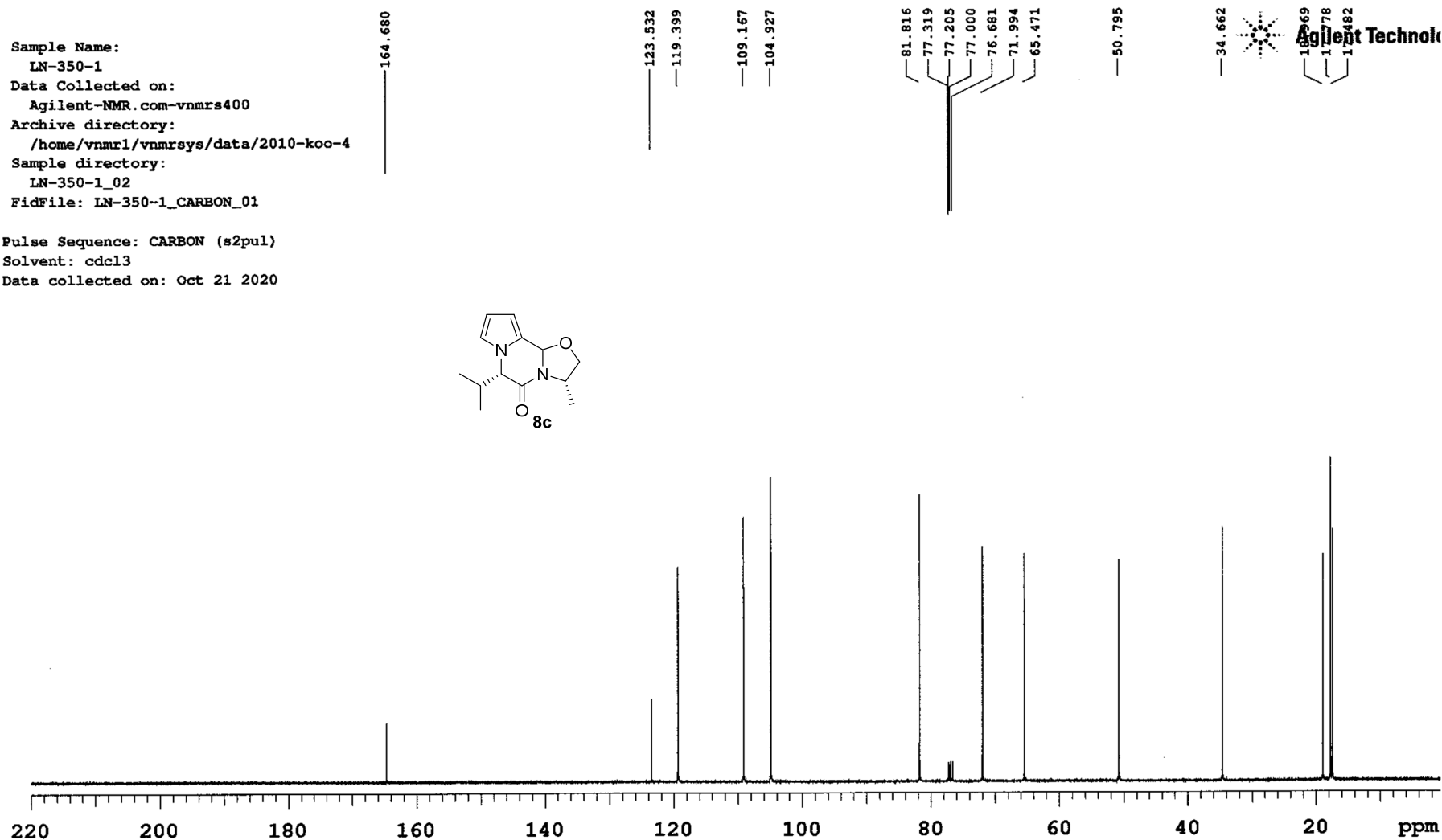
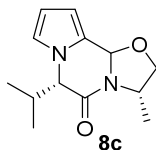
Sample Name:
LN-350-1
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/2010-koo-4
Sample directory:
LN-350-1_01
FidFile: LN-350-1_PROTON_01

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3
Data collected on: Oct 20 2020



Sample Name:
LN-350-1
Data Collected on:
Agilent-NMR.com-vnmrs400
Archive directory:
/home/vnmr1/vnmrsys/data/2010-koo-4
Sample directory:
LN-350-1_02
FidFile: LN-350-1_CARBON_01

Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Oct 21 2020



Sample Name:

LN-354-1

Data Collected on:

Agilent-NMR.com-vnmrs406

Archive directory:

/home/vnmr1/vnmrsys/data/2010-koe-4

Sample directory:

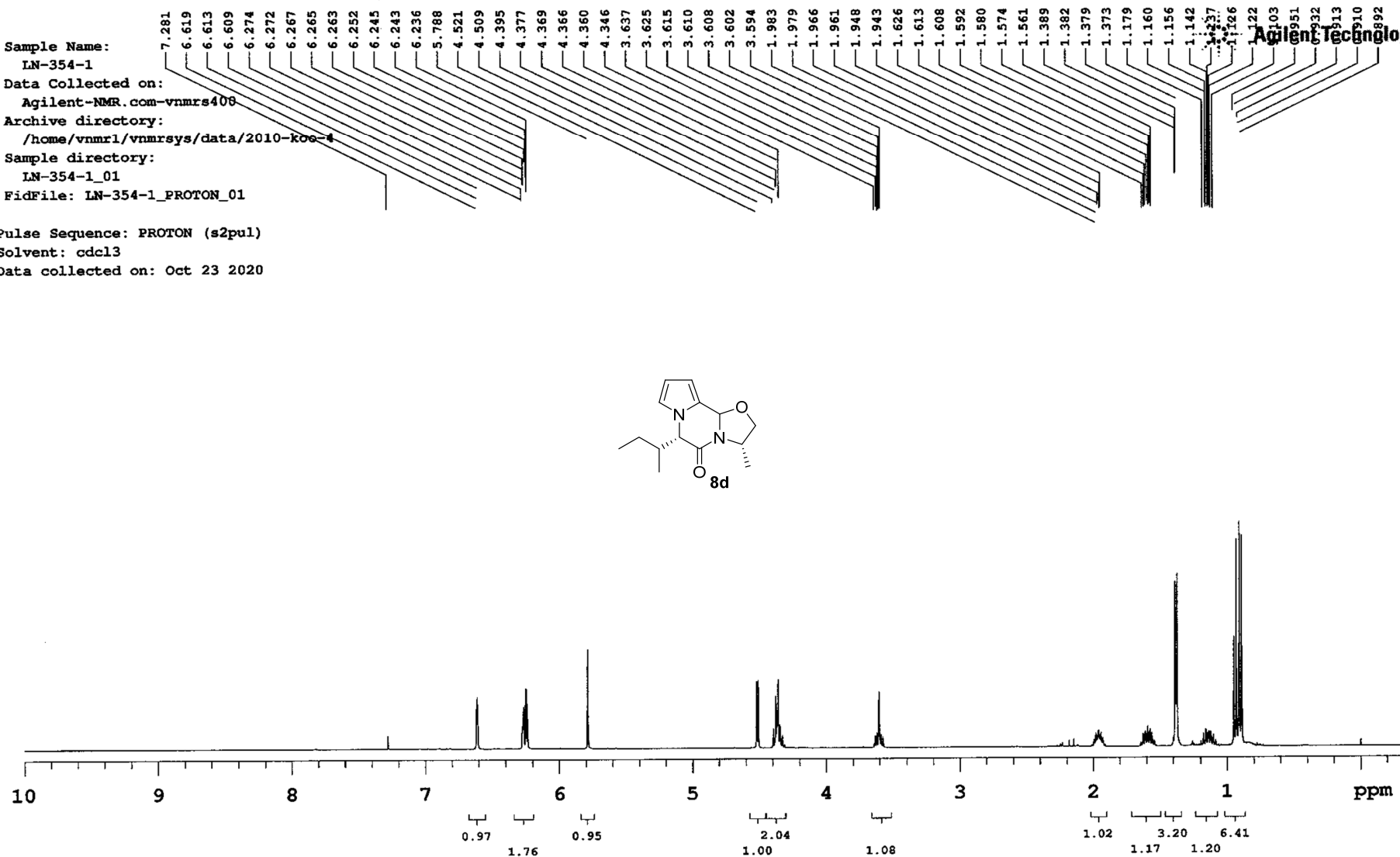
LN-354-1_01

FidFile: LN-354-1_PROTON_01

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Oct 23 2020



Sample Name:
 LN-354-1
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2010-koo-4
 Sample directory:
 LN-354-1_02
 FidFile: LN-354-1 CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 26 2020

164.483

123.578

119.020

109.425

109.288

105.079

104.942

104.806

81.900

77.319

77.197

77.000

76.682

72.032

64.326

50.893

41.670

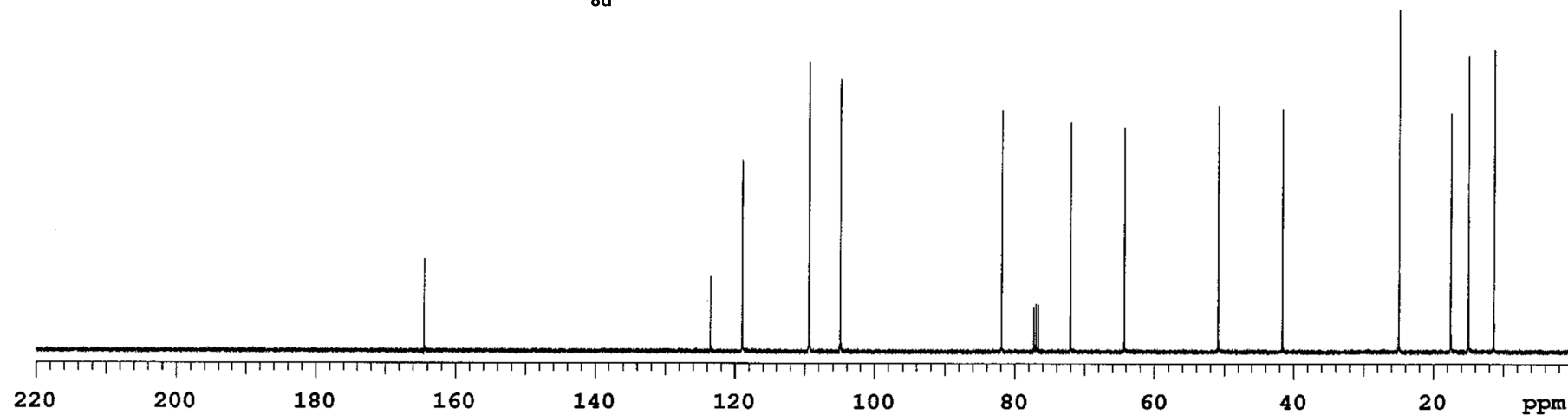
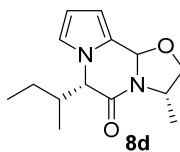
24.984

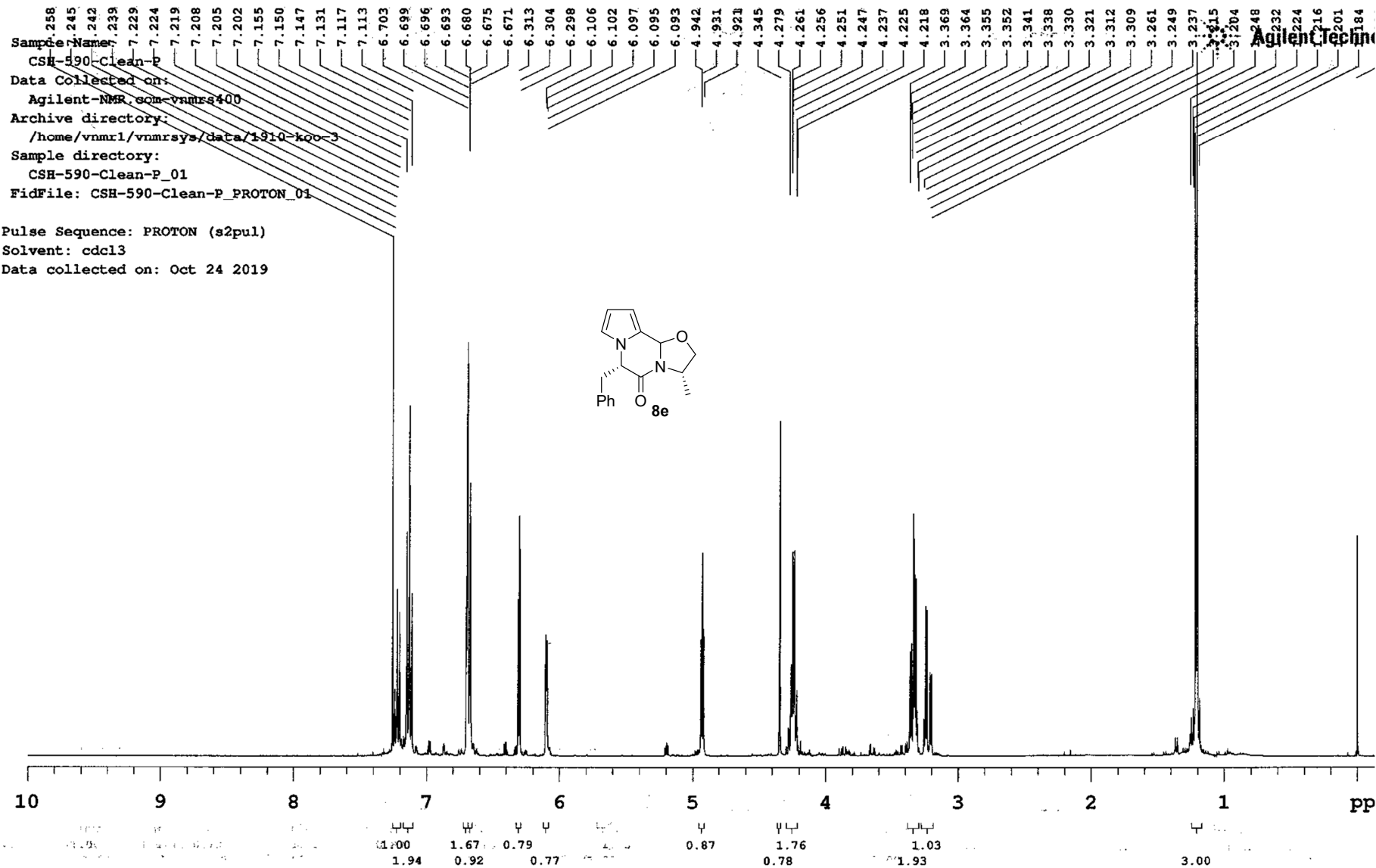
15.588

15.048

11.577

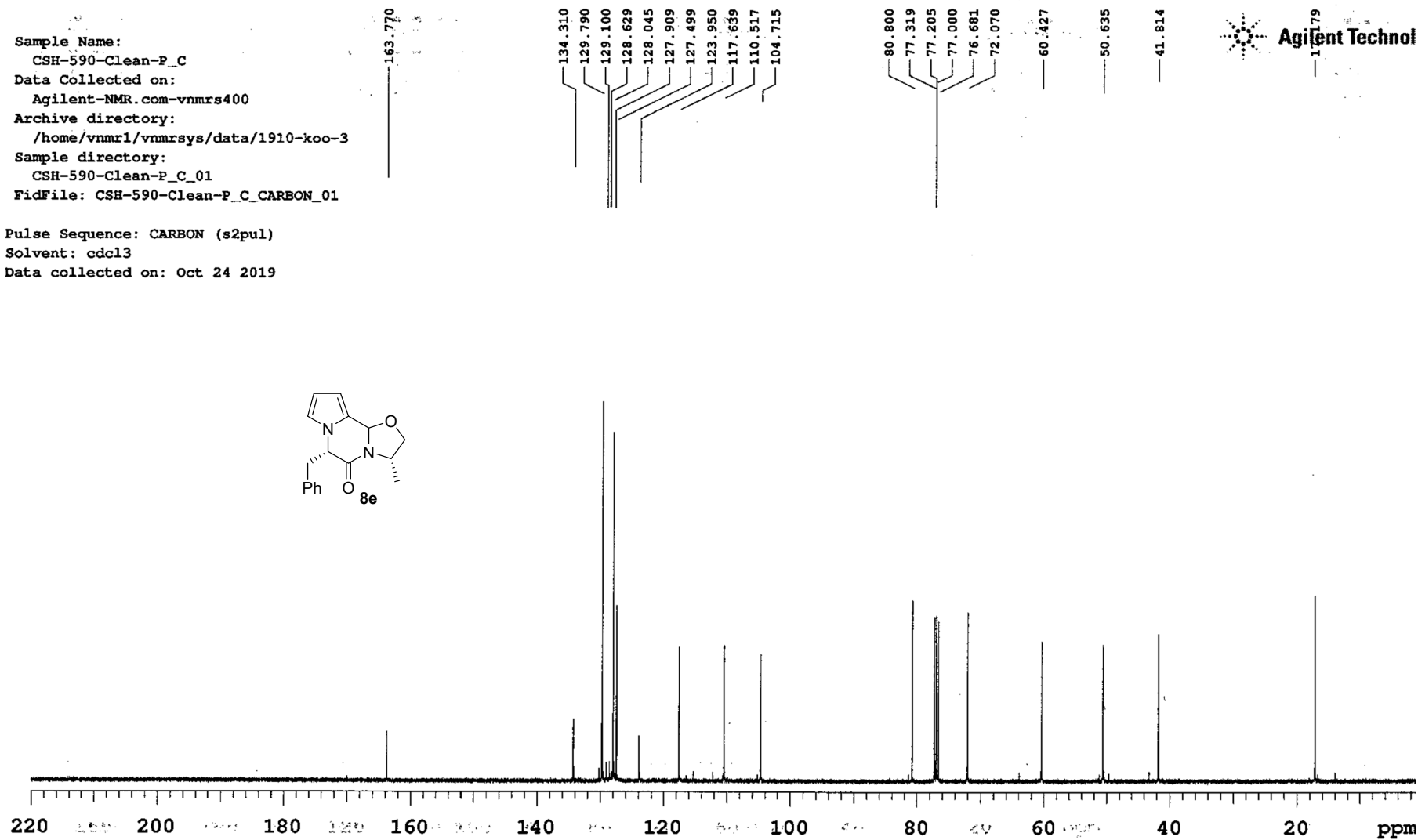
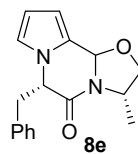
Agilent Technology





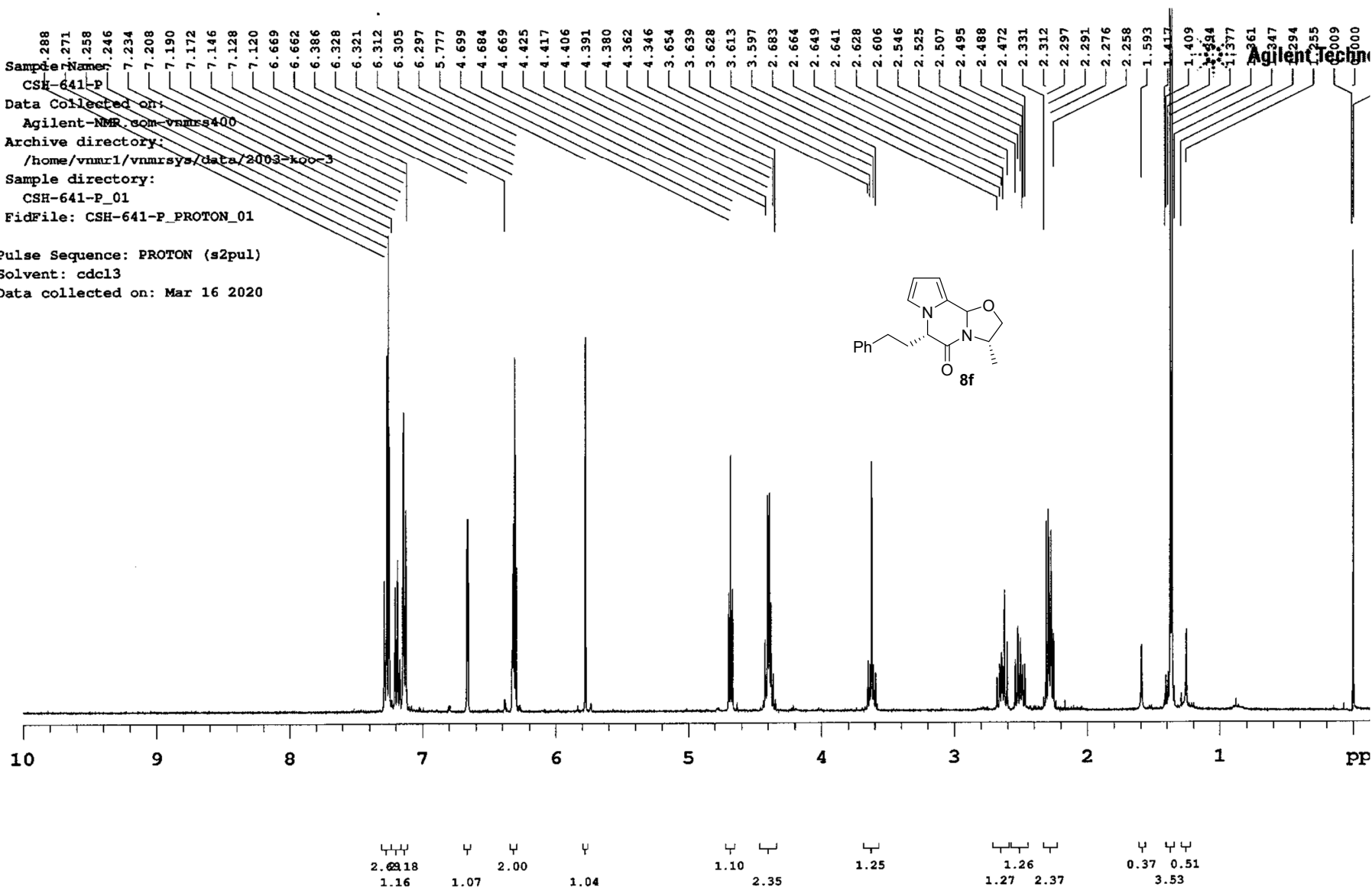
Sample Name:
 CSH-590-Clean-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/1910-koo-3
 Sample directory:
 CSH-590-Clean-P_C_01
 FidFile: CSH-590-Clean-P_C CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 24 2019



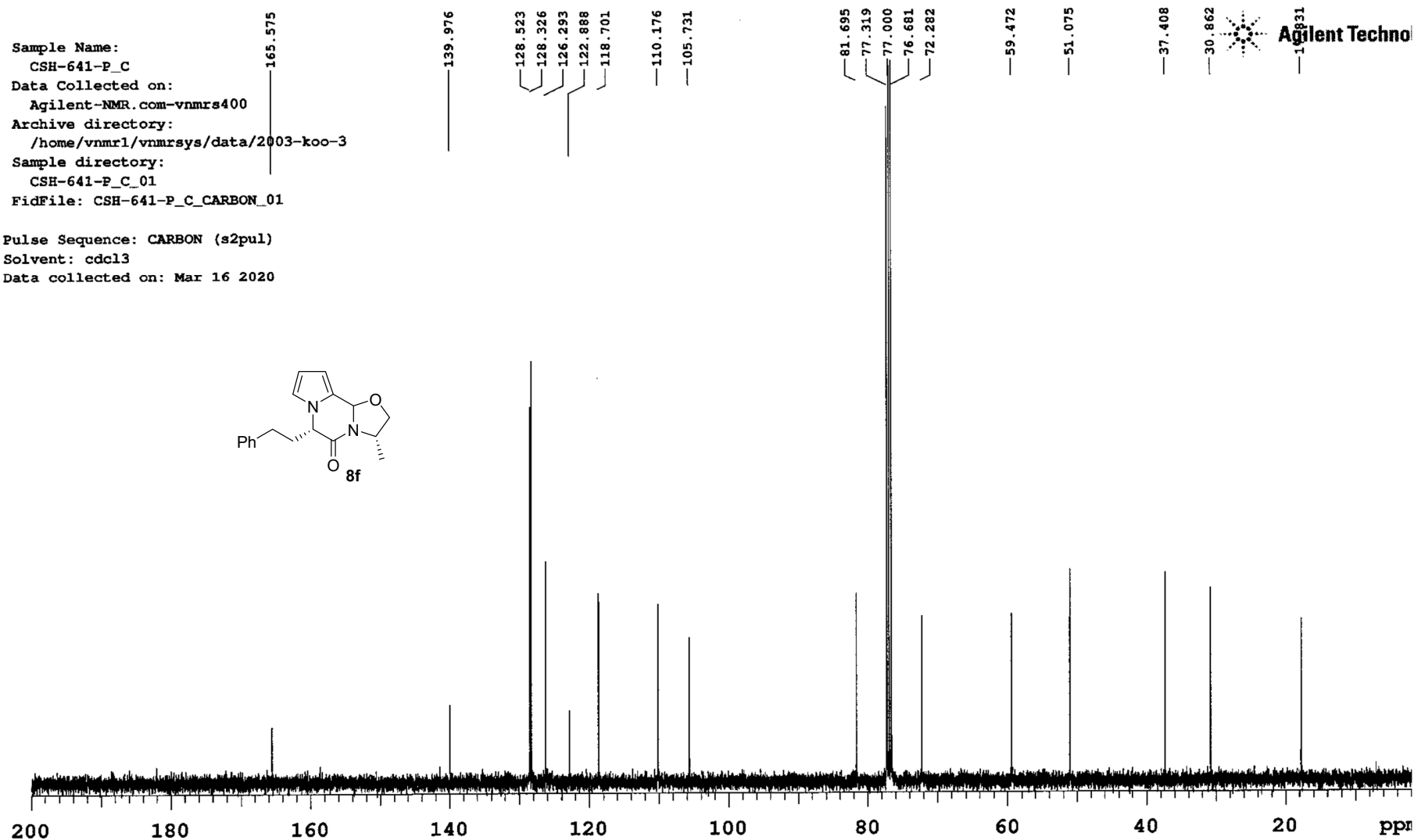
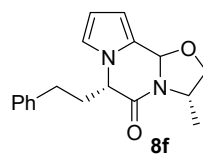
Sample Name: CSH-641-P
 Data Collected on: Agilent-NMR spectrometer
 Archive directory: /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory: CSH-641-P_01
 FidFile: CSH-641-P_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 16 2020

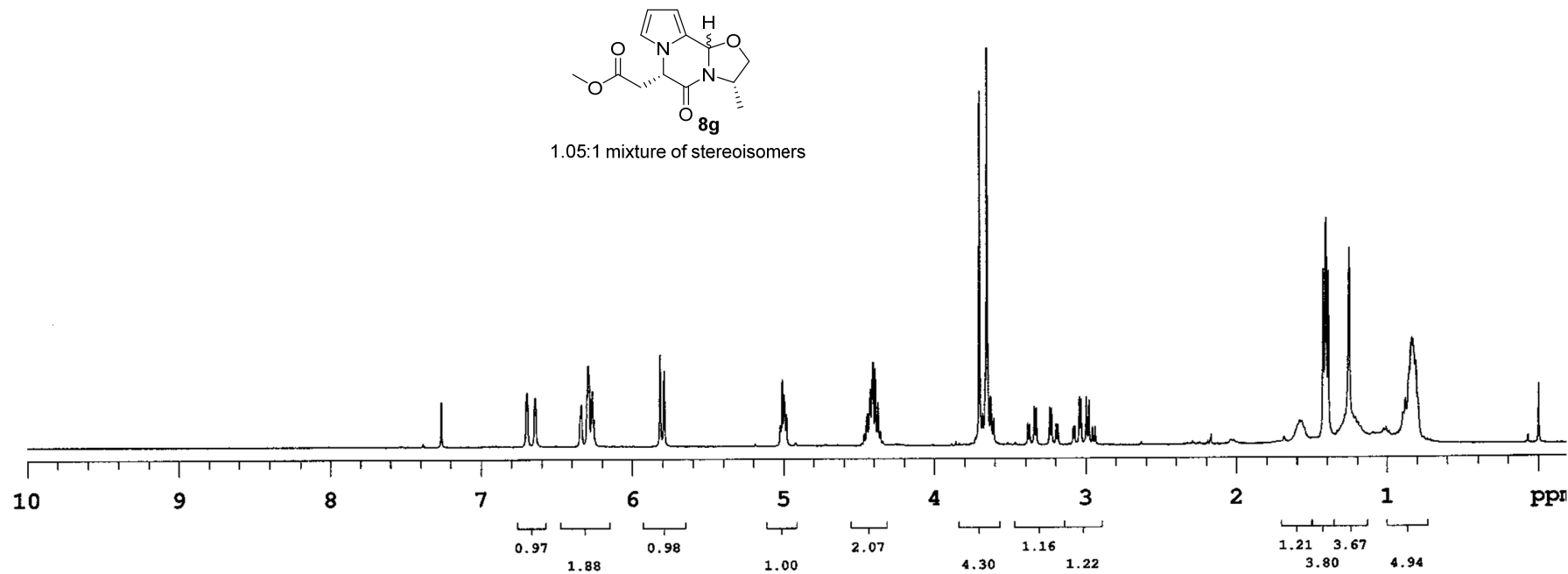


Sample Name:
 CSH-641-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory:
 CSH-641-P_C_01
 FidFile: CSH-641-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 16 2020

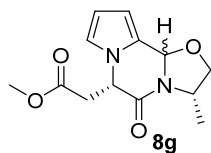


Sample Name: LN-358-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2011-koo-4
 Sample directory: LN-358-P_01
 FidFile: LN-358-P_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 4 2020

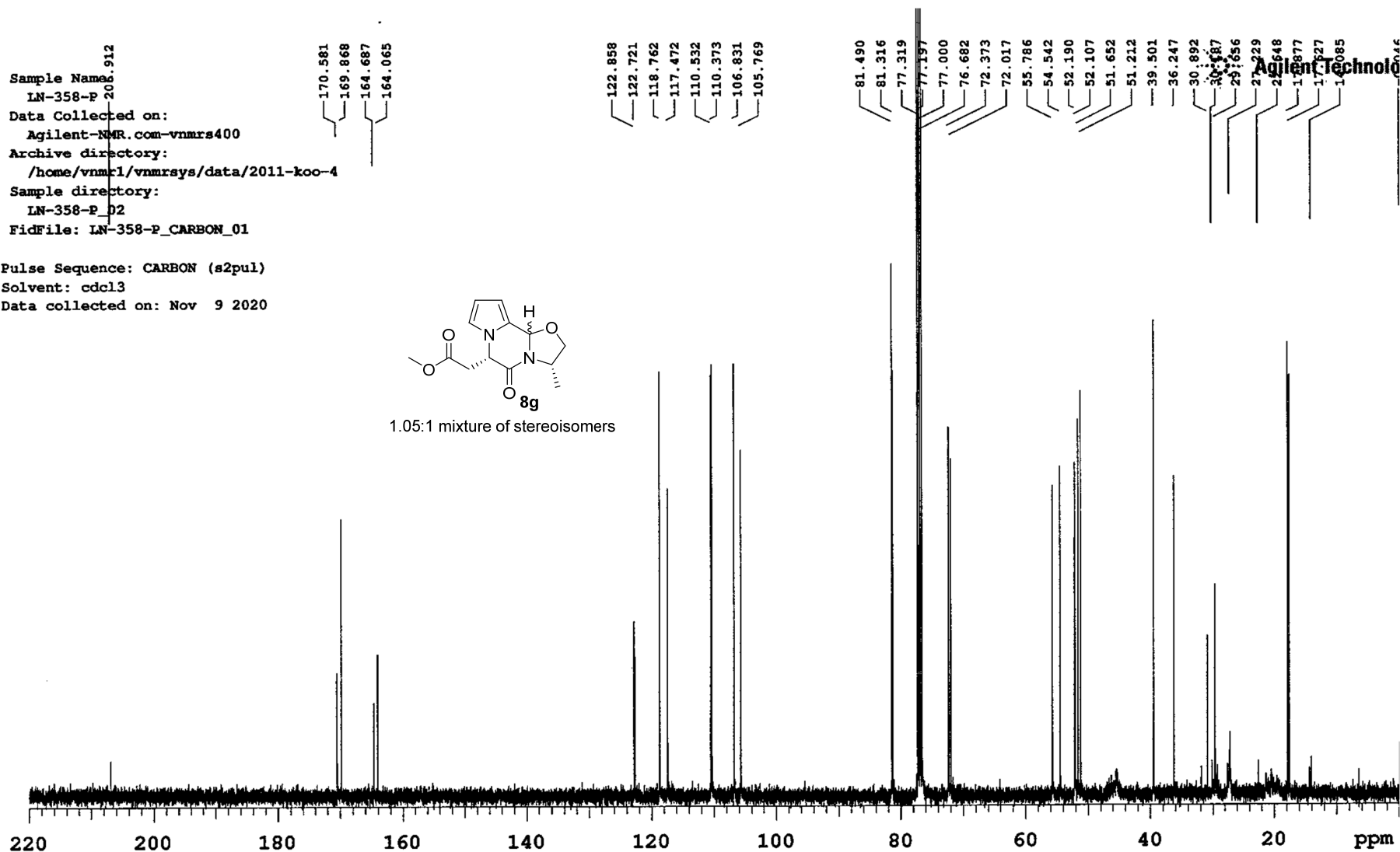


Sample Name: LN-358-P 2020-09-12
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2011-koo-4
 Sample directory: LN-358-P_02
 FidFile: LN-358-P_CARBON_01

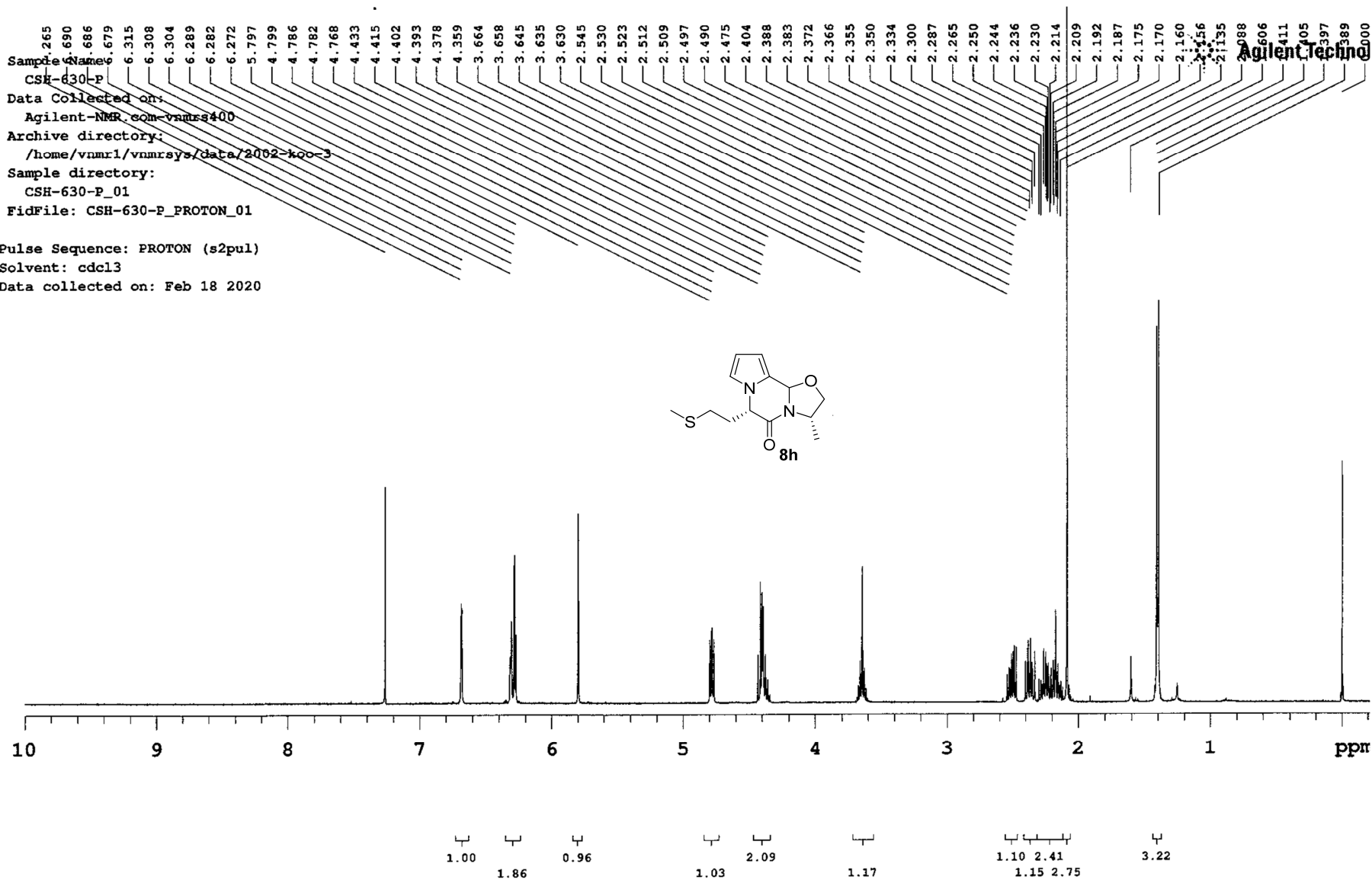
Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Nov 9 2020



1.05:1 mixture of stereoisomers

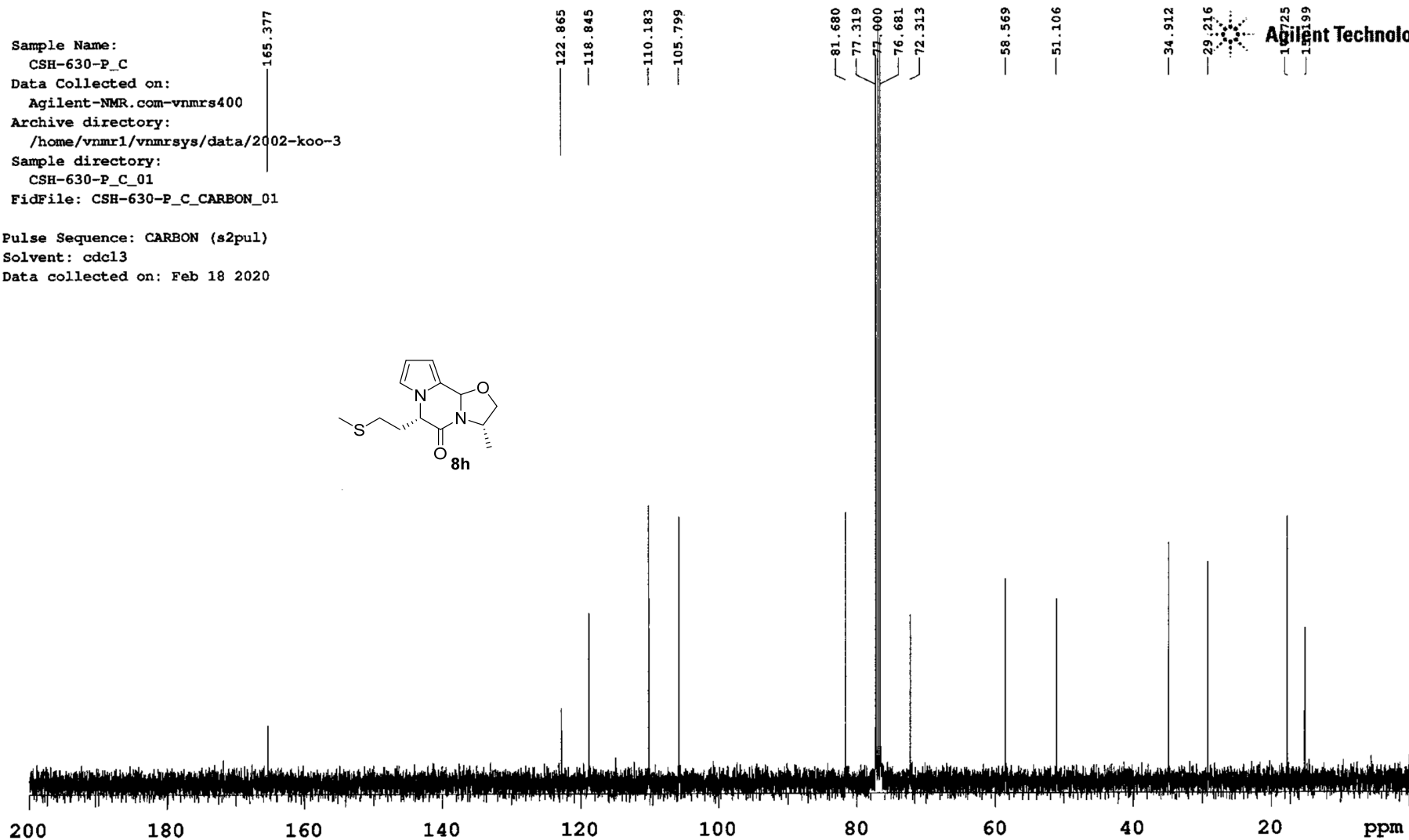
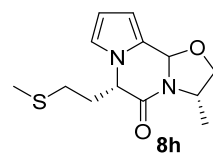


Sample Name: CSH-630-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2002-kgc-3
 Sample directory: CSH-630-P_01
 FidFile: CSH-630-P_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 18 2020



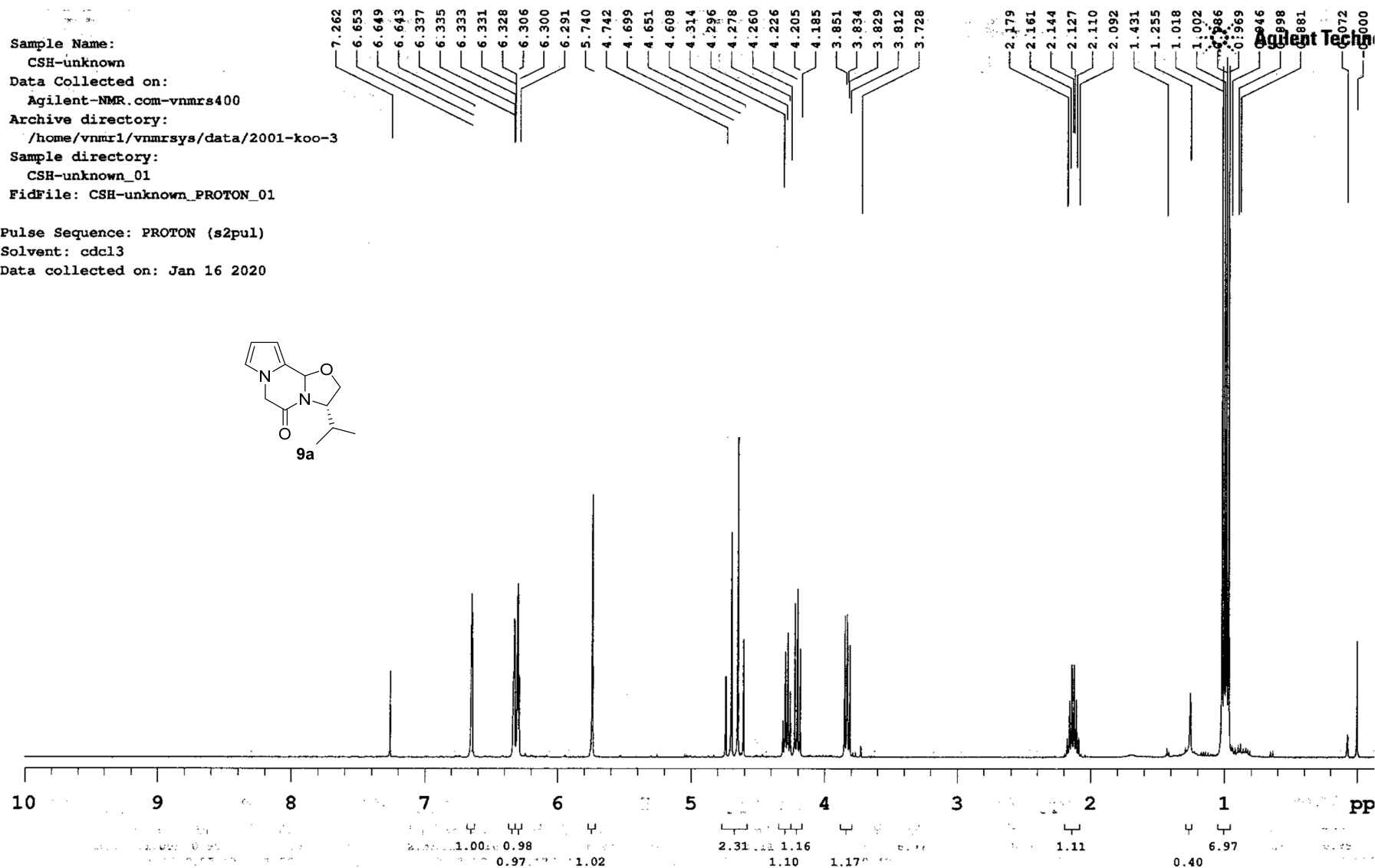
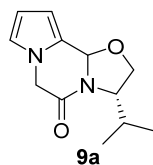
Sample Name:
 CSH-630-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2002-koo-3
 Sample directory:
 CSH-630-P_C_01
 FidFile: CSH-630-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 18 2020



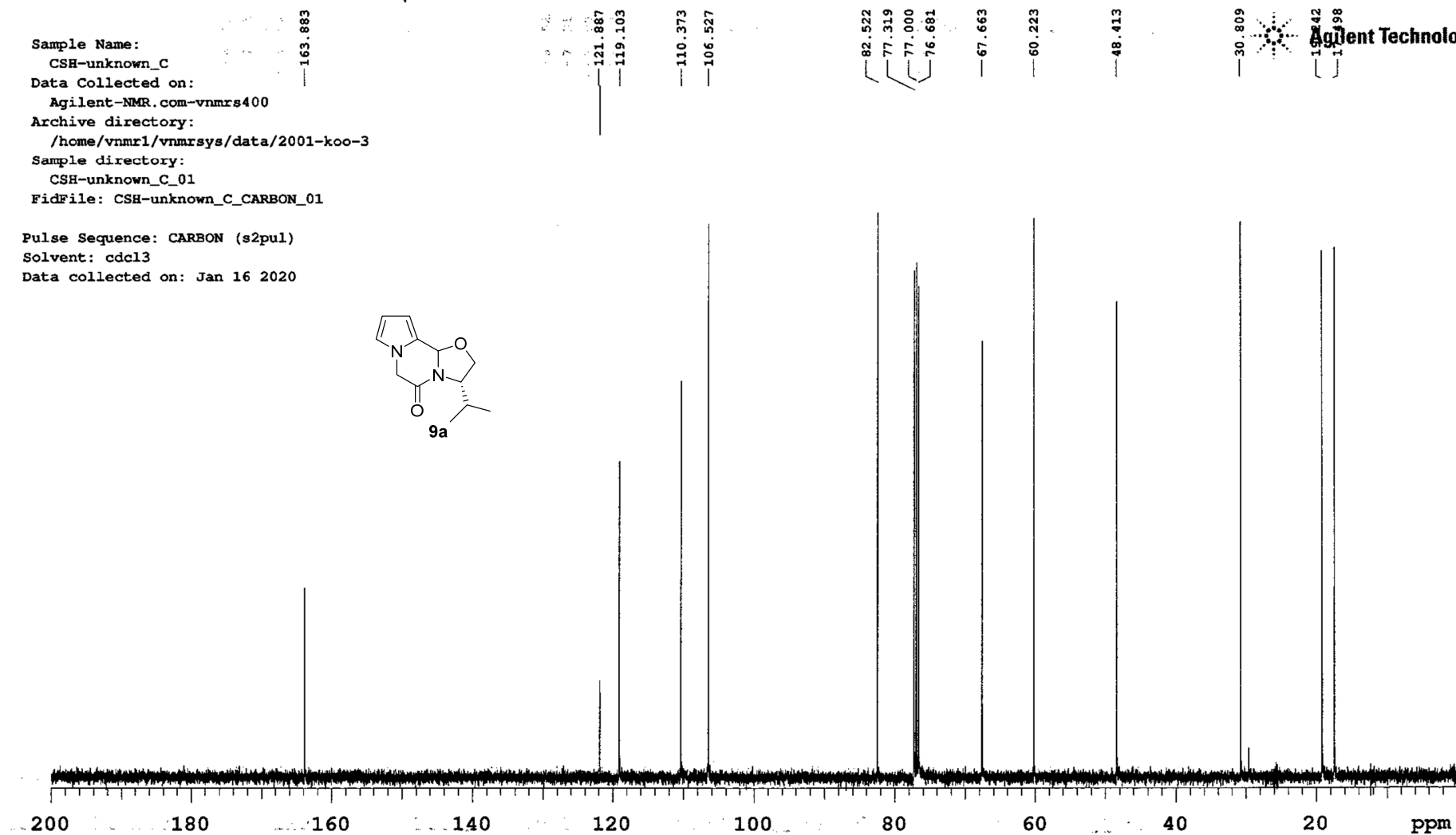
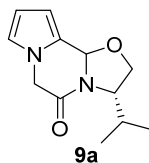
Sample Name:
 CSH-unknown
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2001-koo-3
 Sample directory:
 CSH-unknown_01
 FidFile: CSH-unknown_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 16 2020



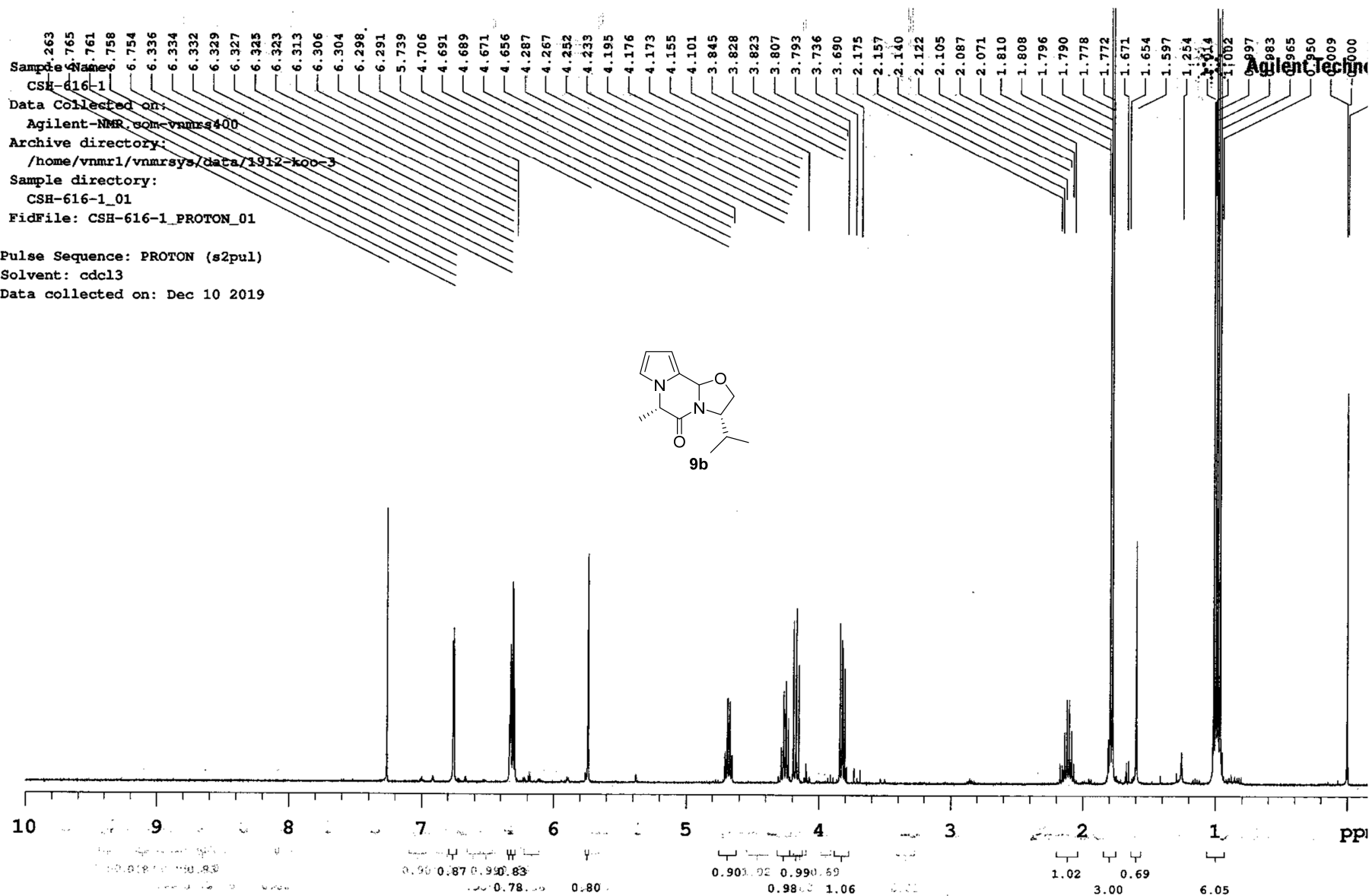
Sample Name:
 CSH-unknown_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2001-koo-3
 Sample directory:
 CSH-unknown_C_01
 FidFile: CSH-unknown_C_CARBO_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 16 2020



Sample Name: CSH-616-1
 Data Collected on: Agilent-NMR.scm-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1912-koo-3
 Sample directory: CSH-616-1_01
 FidFile: CSH-616-1_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Dec 10 2019



Sample Name:

CSH-616-1_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/1912-koo-3

Sample directory:

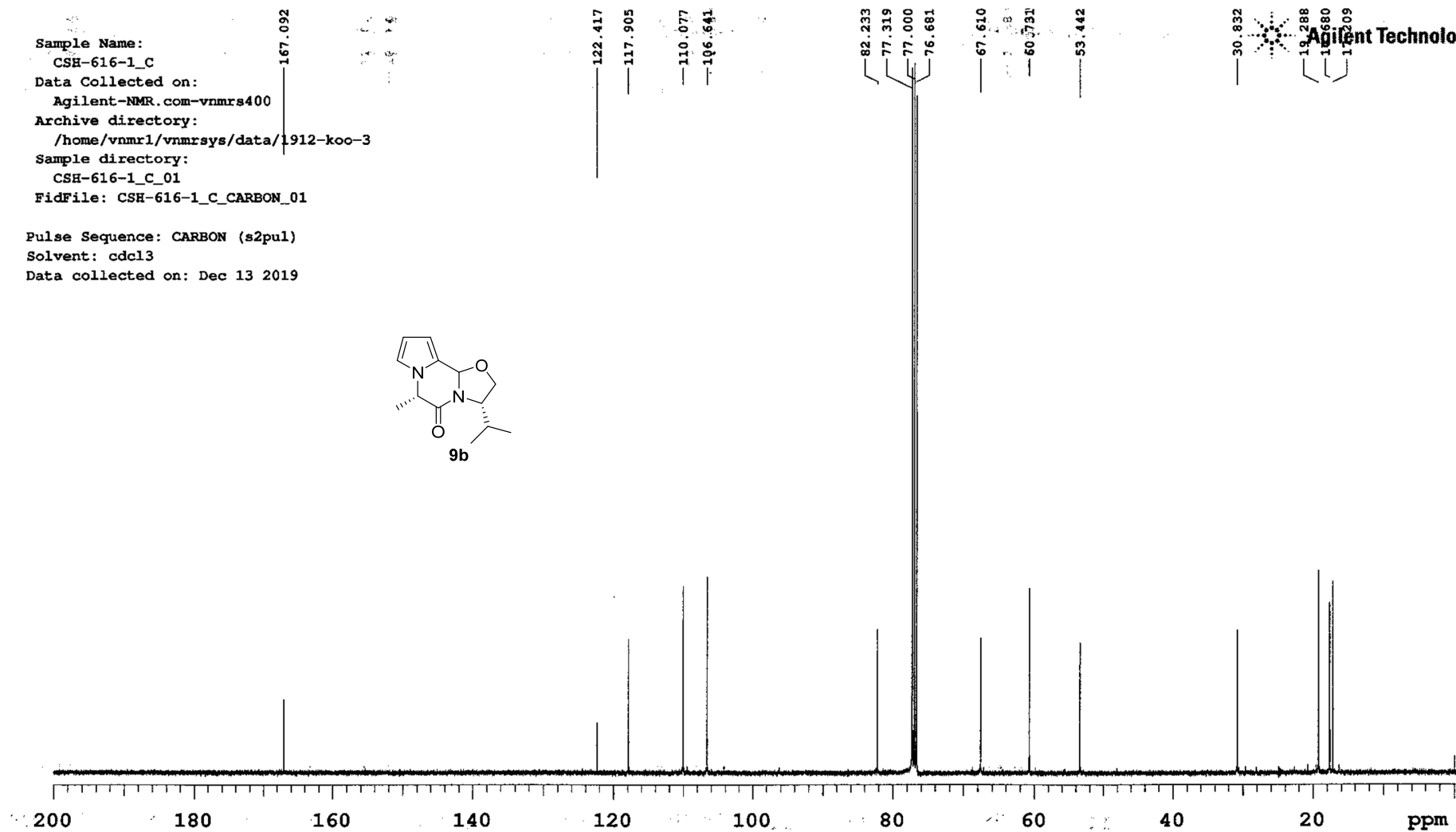
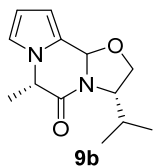
CSH-616-1_C_01

FidFile: CSH-616-1_C_CARBON_01

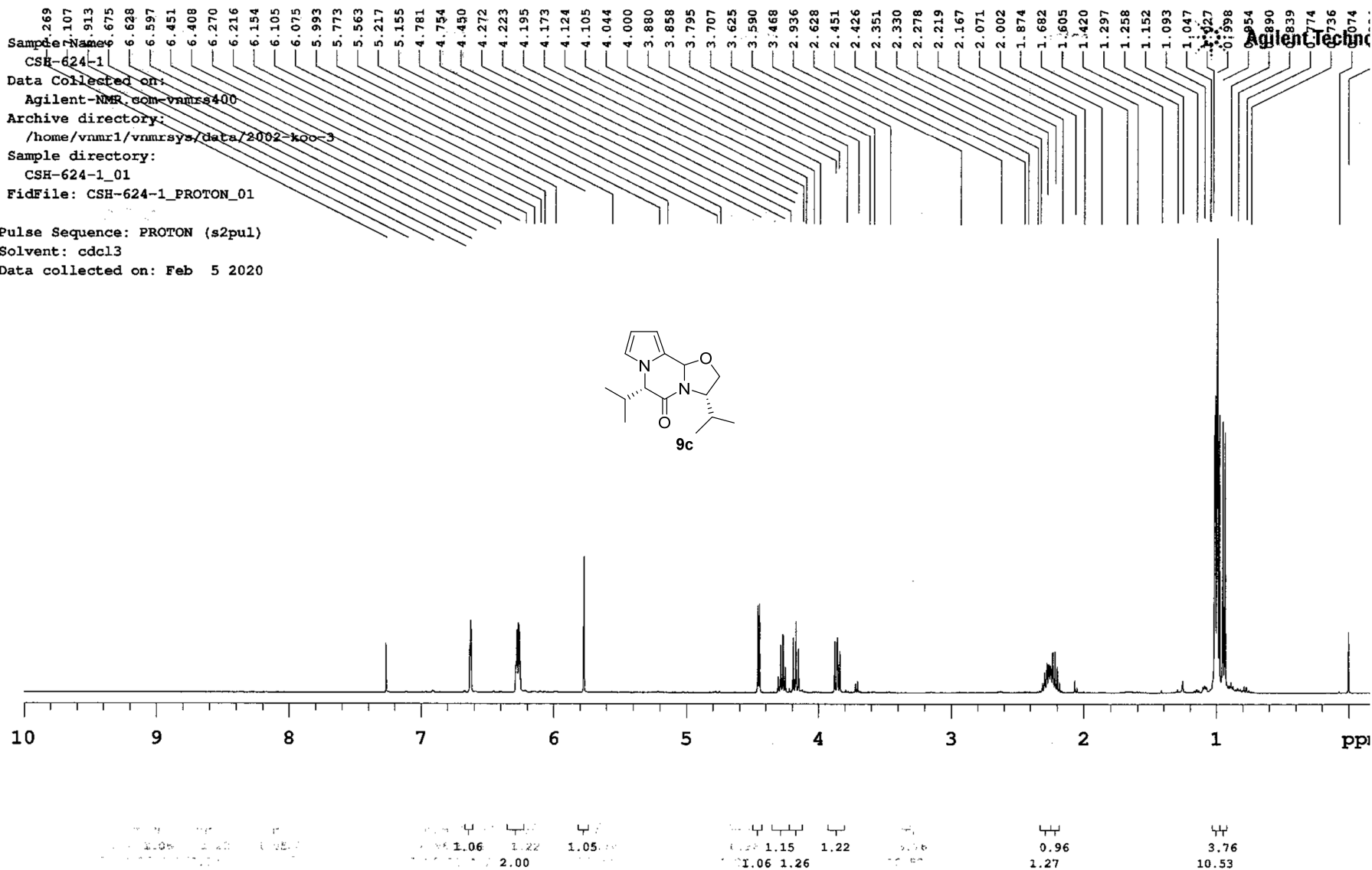
Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Dec 13 2019

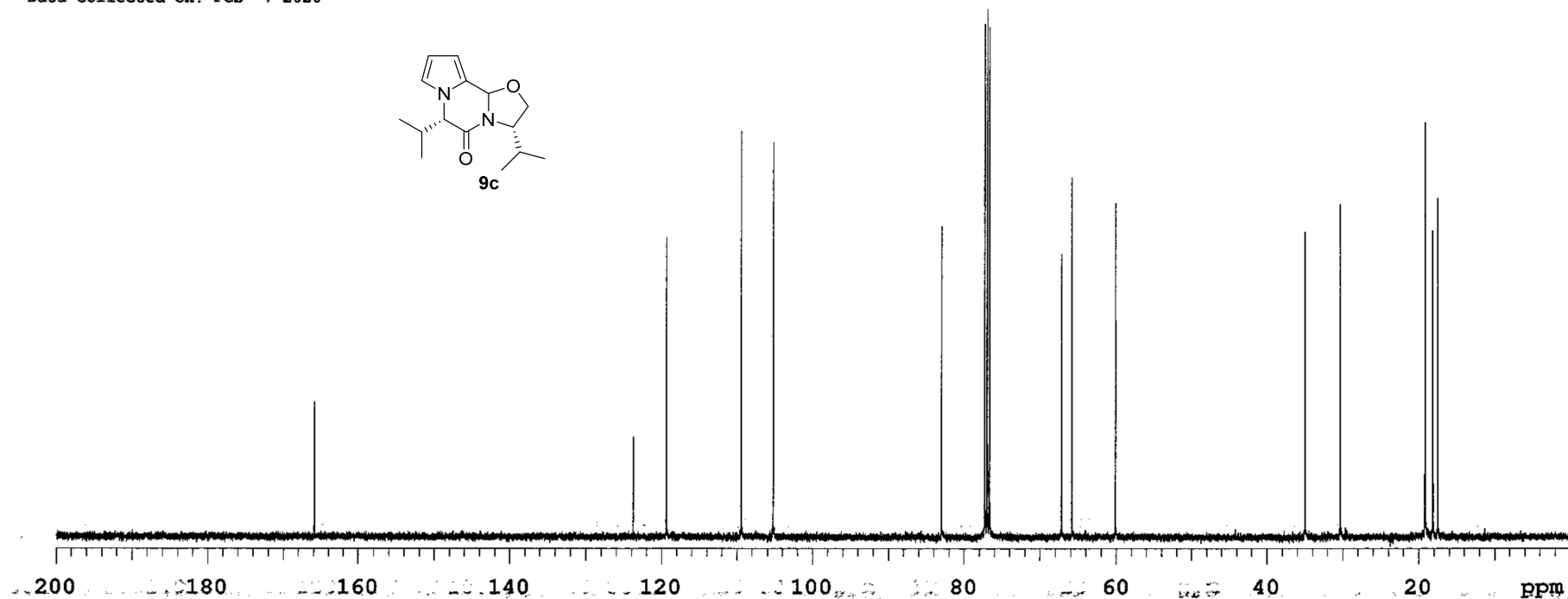
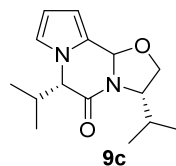


Sample Name: CSH-624-1
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2002-koo-3
 Sample directory: CSH-624-1_01
 FidFile: CSH-624-1_PROTON_01
 Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 5 2020



Sample Name:
 CSH-624-1_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2002-koo-3
 Sample directory:
 CSH-624-1_C_01
 FidFile: CSH-624-1_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 7 2020



Sample Name: CSH-620
 Sample Number: 5.772

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2002-koo-3

Sample directory:

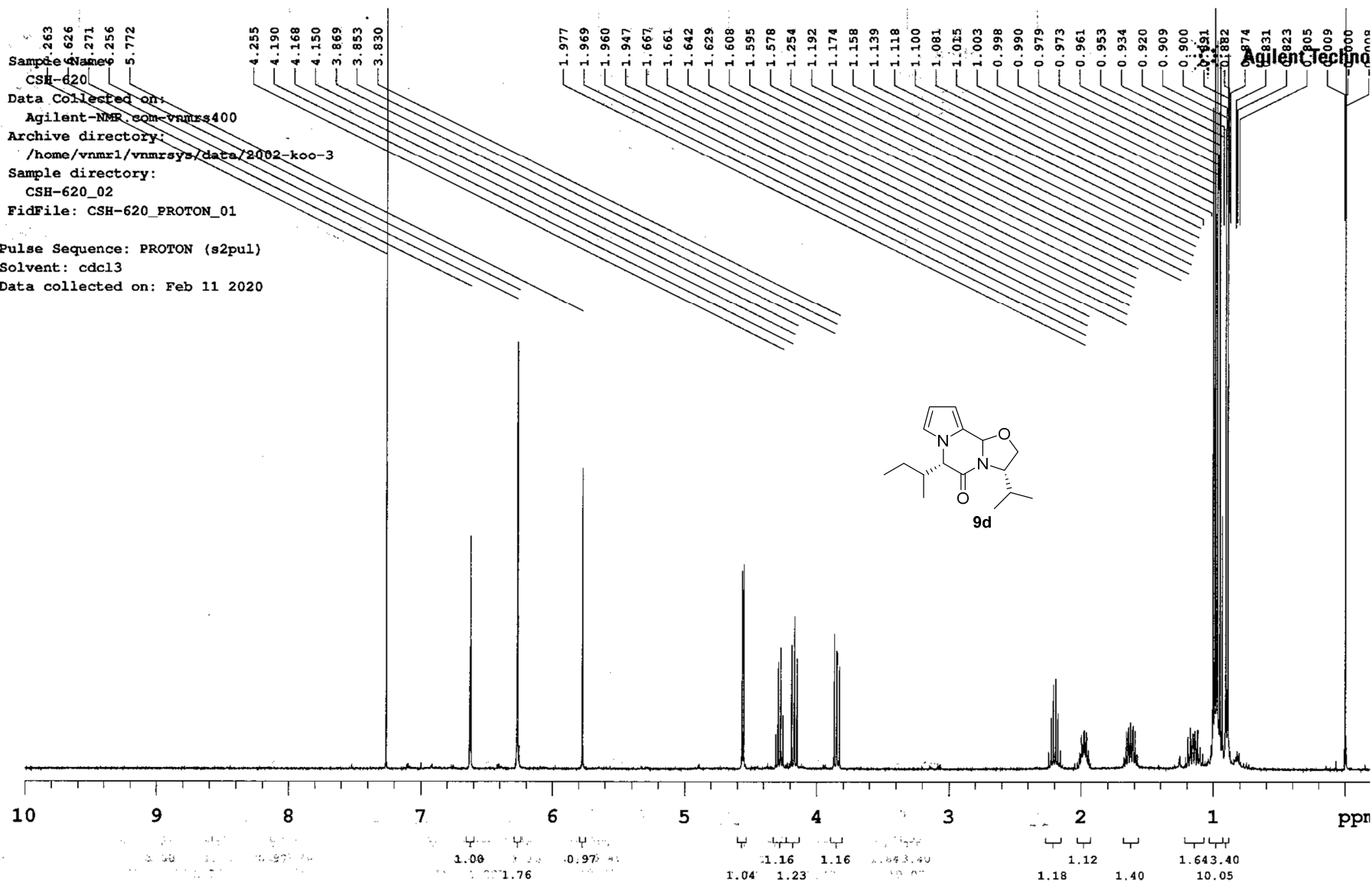
CSH-620_02

FidFile: CSH-620_PROTON_01

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 11 2020



Sample Name:
CSH-620_C

Data Collected on:
Agilent-NMR.com-vnmrs400

Archive directory:
/home/vnmr1/vnmrsys/data/2002-koo-3

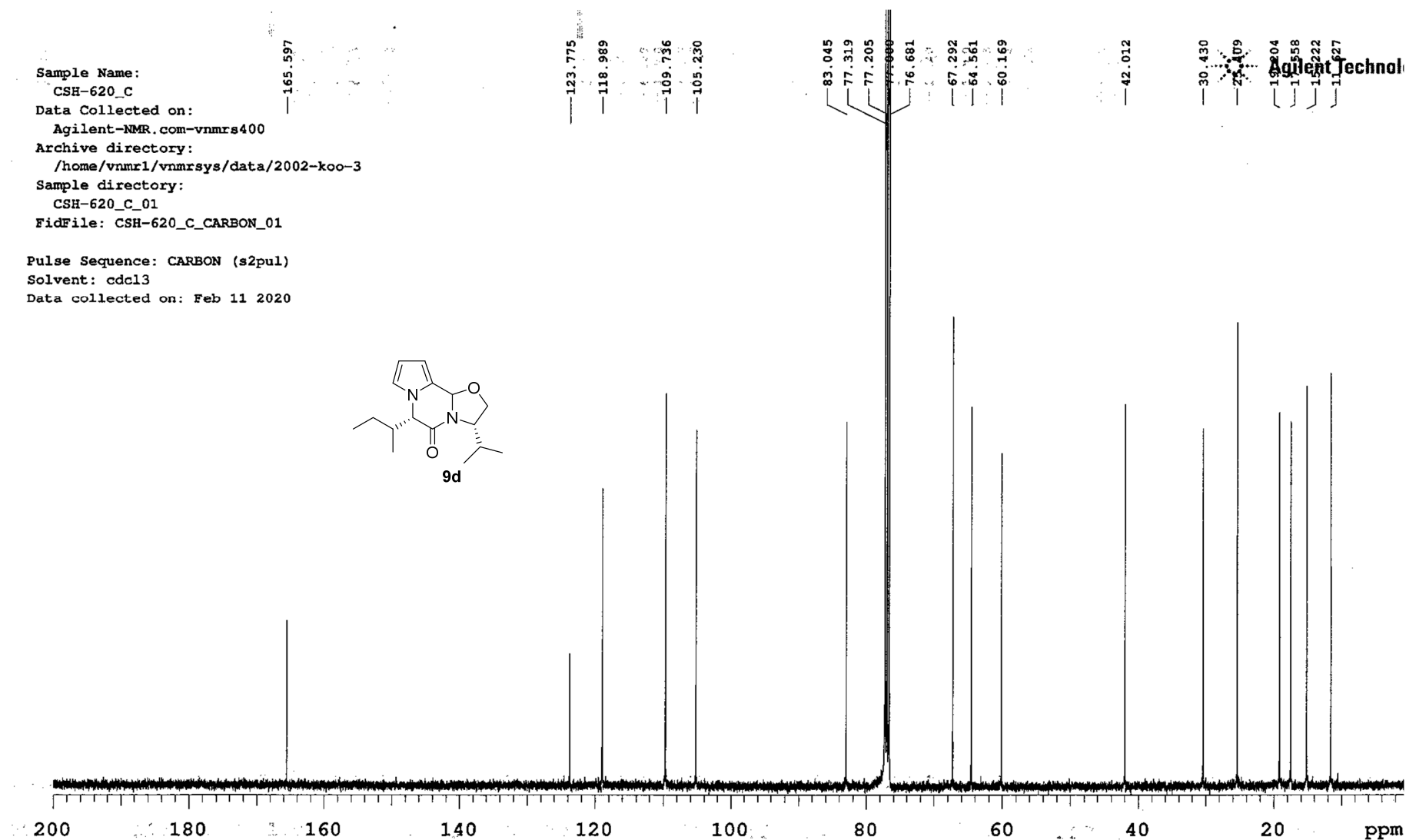
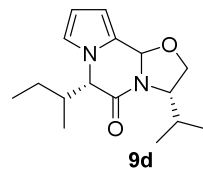
Sample directory:
CSH-620_C_01

FidFile: CSH-620_C_CARBON_01

Pulse Sequence: CARBON (s2pul)

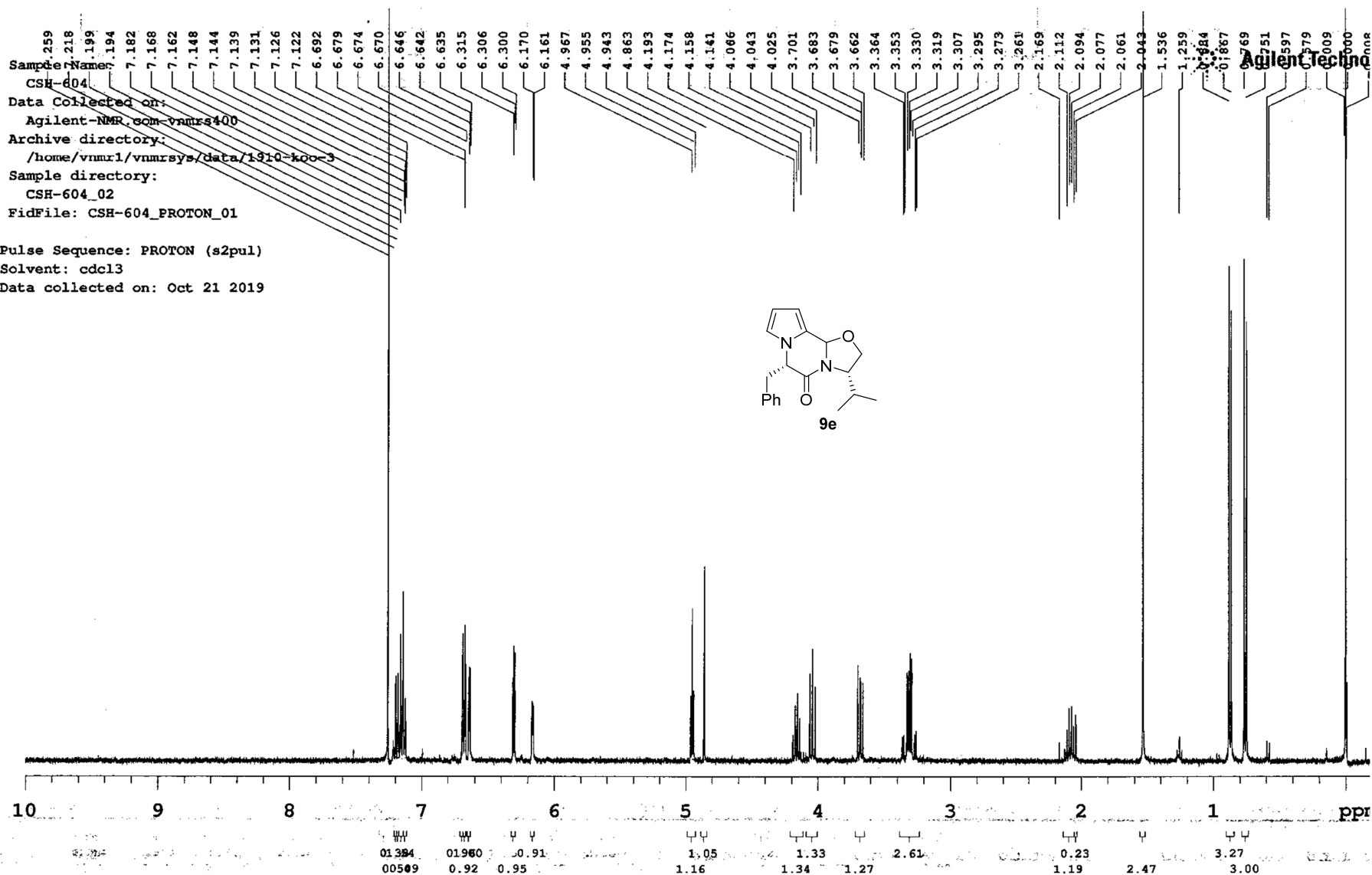
Solvent: cdcl3

Data collected on: Feb 11 2020



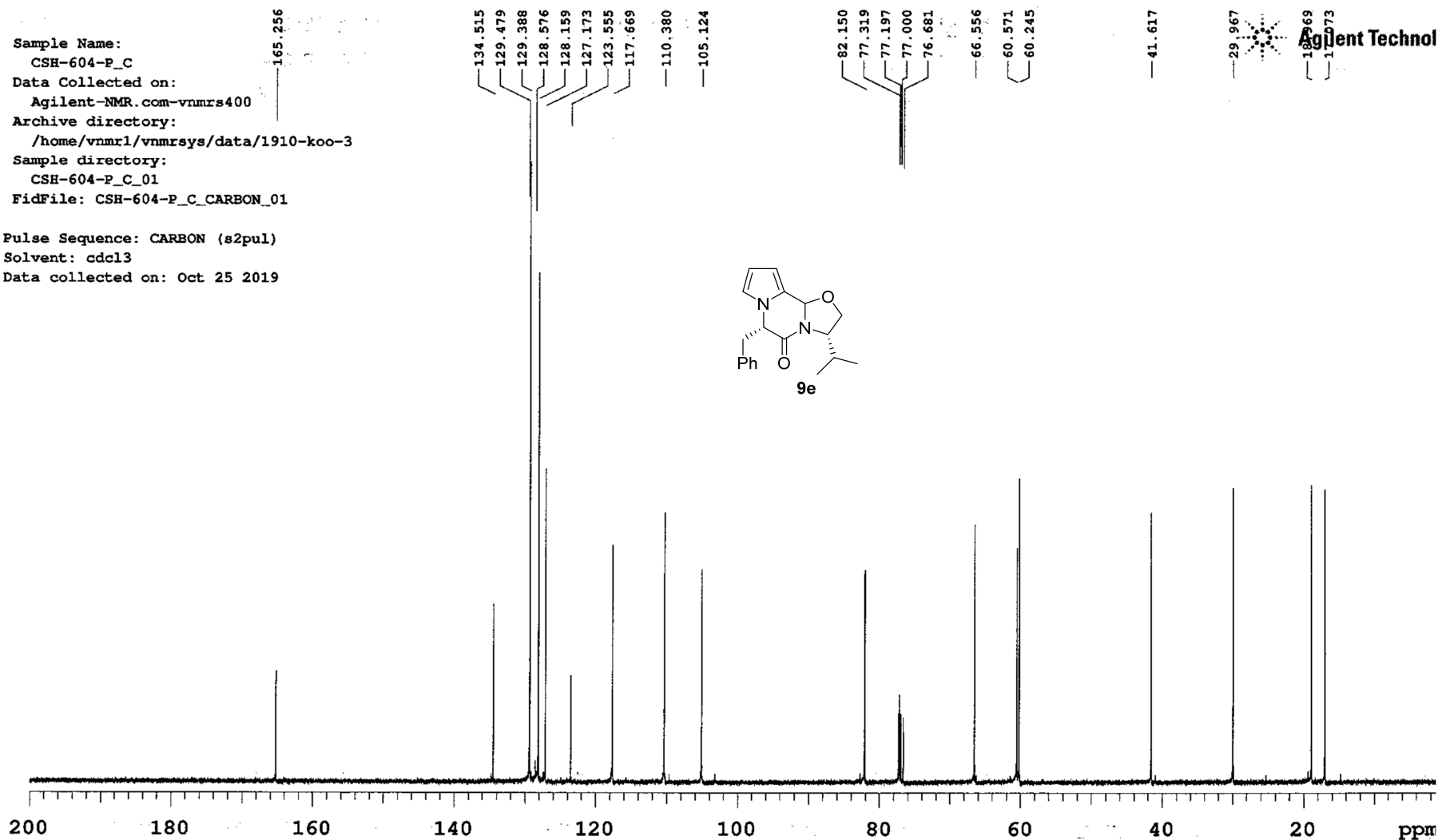
Sample Name: CSH-604
 Data Collected on: Agilent-NMR,com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1910-koo-3
 Sample directory: CSH-604_02
 FidFile: CSH-604_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 21 2019



Sample Name:
 CSH-604-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/1910-koo-3
 Sample directory:
 CSH-604-P_C_01
 FidFile: CSH-604-P_C_CARBON_01

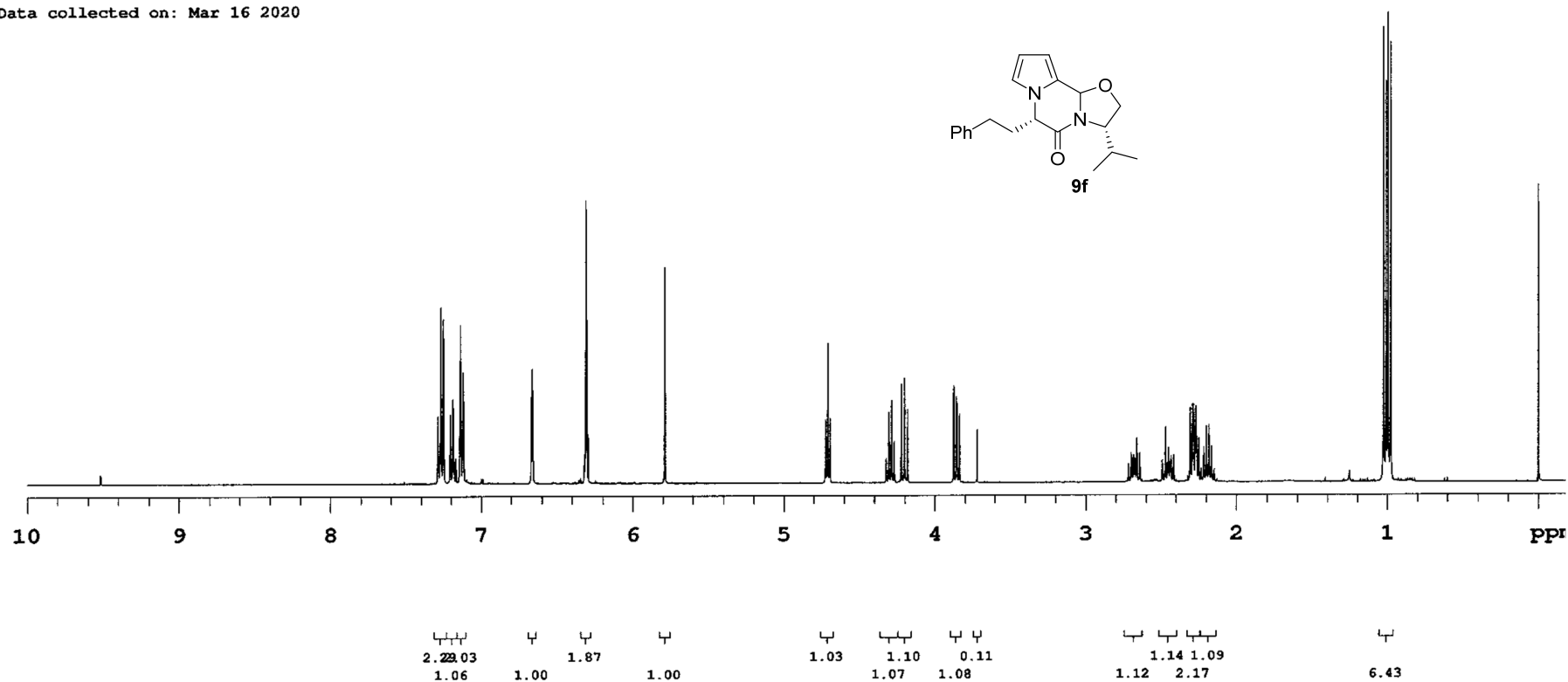
Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 25 2019



289
 272
 255
 248
 7.208
 7.195
 7.190
 7.184
 7.172
 7.140
 7.123
 7.114
 6.669
 6.663
 6.324
 6.319
 6.311
 6.304
 6.296
 5.788
 4.725
 4.710
 4.696
 4.325
 4.306
 4.289
 4.271
 4.223
 4.202
 4.182
 3.877
 3.860
 3.855
 3.839
 3.720
 2.721
 2.701
 2.687
 2.679
 2.665
 2.645
 2.494
 2.473
 2.461
 2.454
 2.443
 2.436
 2.420
 2.308
 2.294
 2.288
 2.272
 2.251
 2.237
 2.219
 2.202
 2.185
 2.167
 2.150
 2.255
 2.027
 2.009
 1.997
 1.979
 1.960
 Agilent Technologies

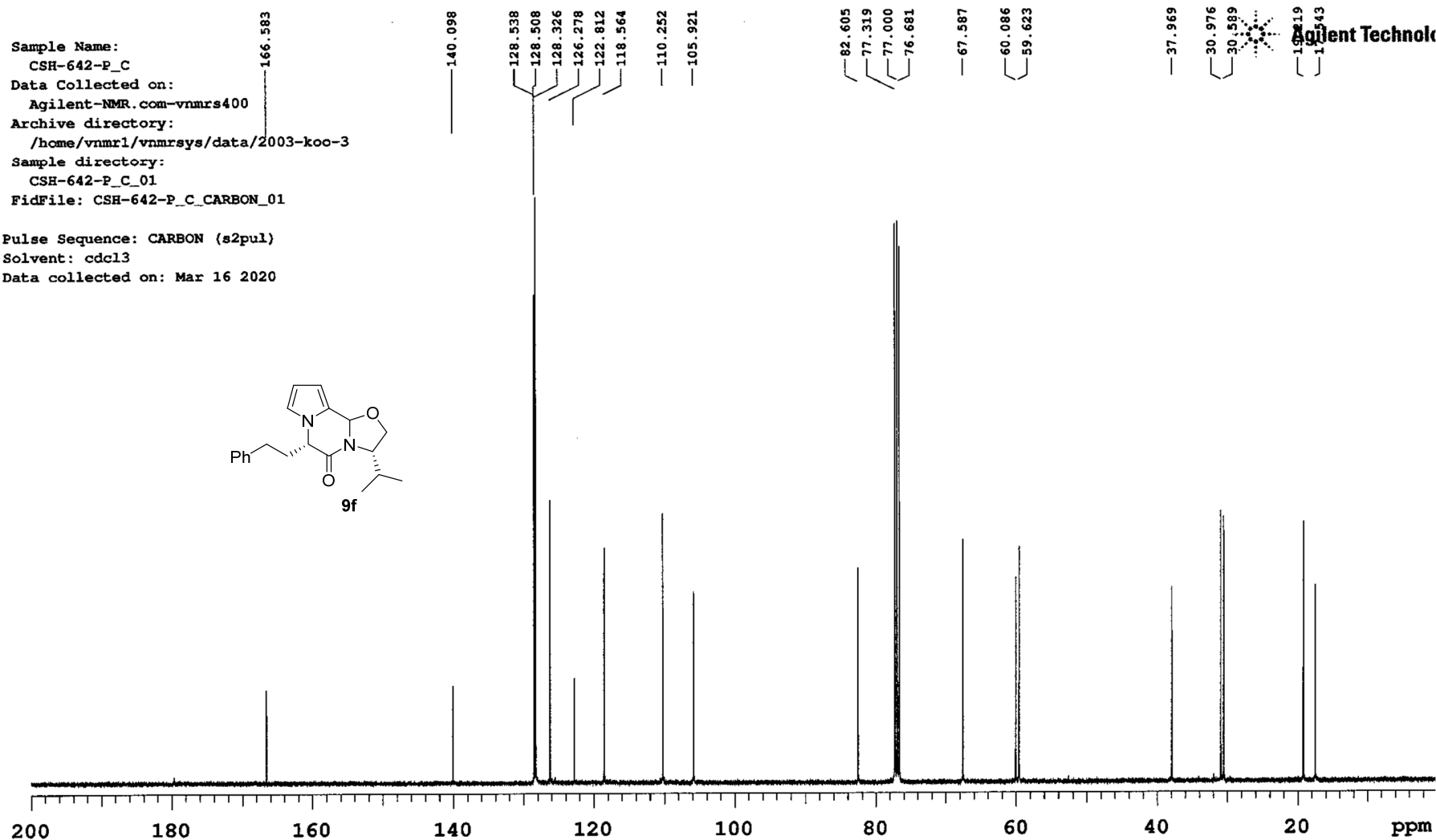
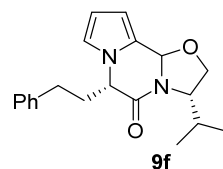
Sample Name: CSH-642-P
 Data Collected on: Agilent-NMR spectrometer400
 Archive directory: /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory: CSH-642-P_01
 FidFile: CSH-642-P_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 16 2020



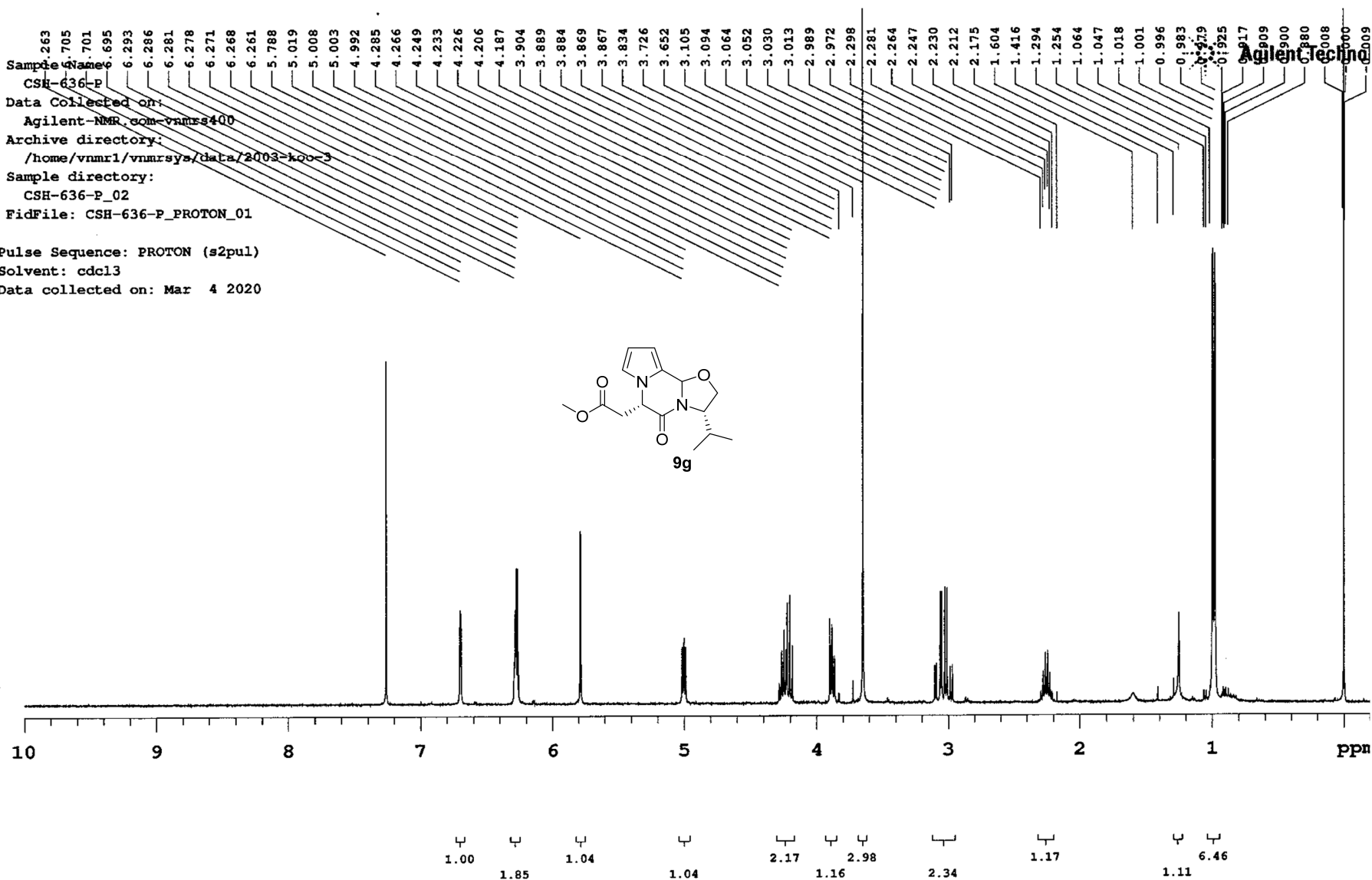
Sample Name:
 CSH-642-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory:
 CSH-642-P_C_01
 FidFile: CSH-642-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 16 2020



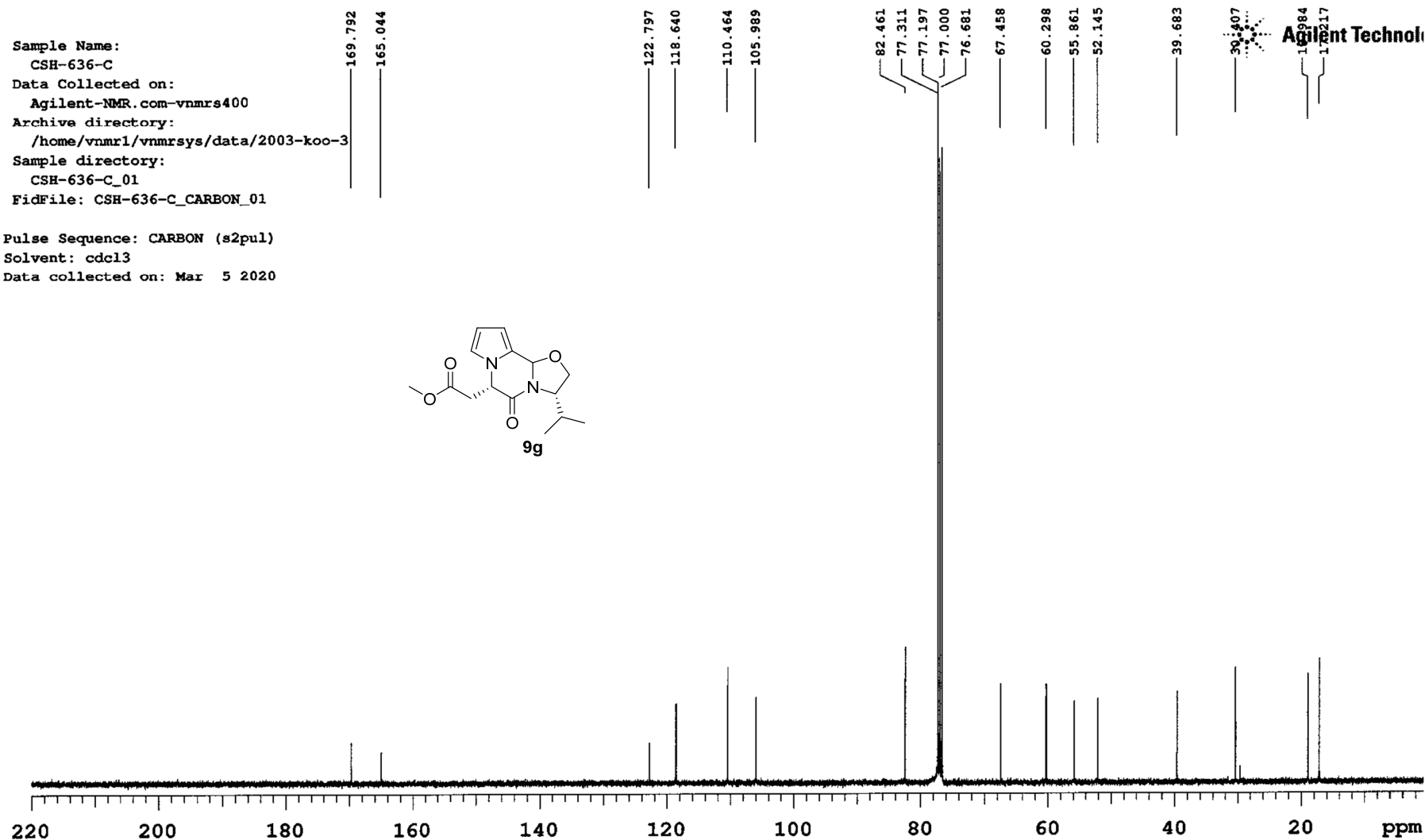
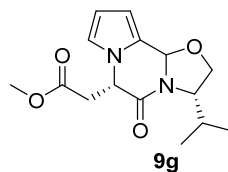
Sample Name: CSH-636-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory: CSH-636-P_02
 FidFile: CSH-636-P_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 4 2020



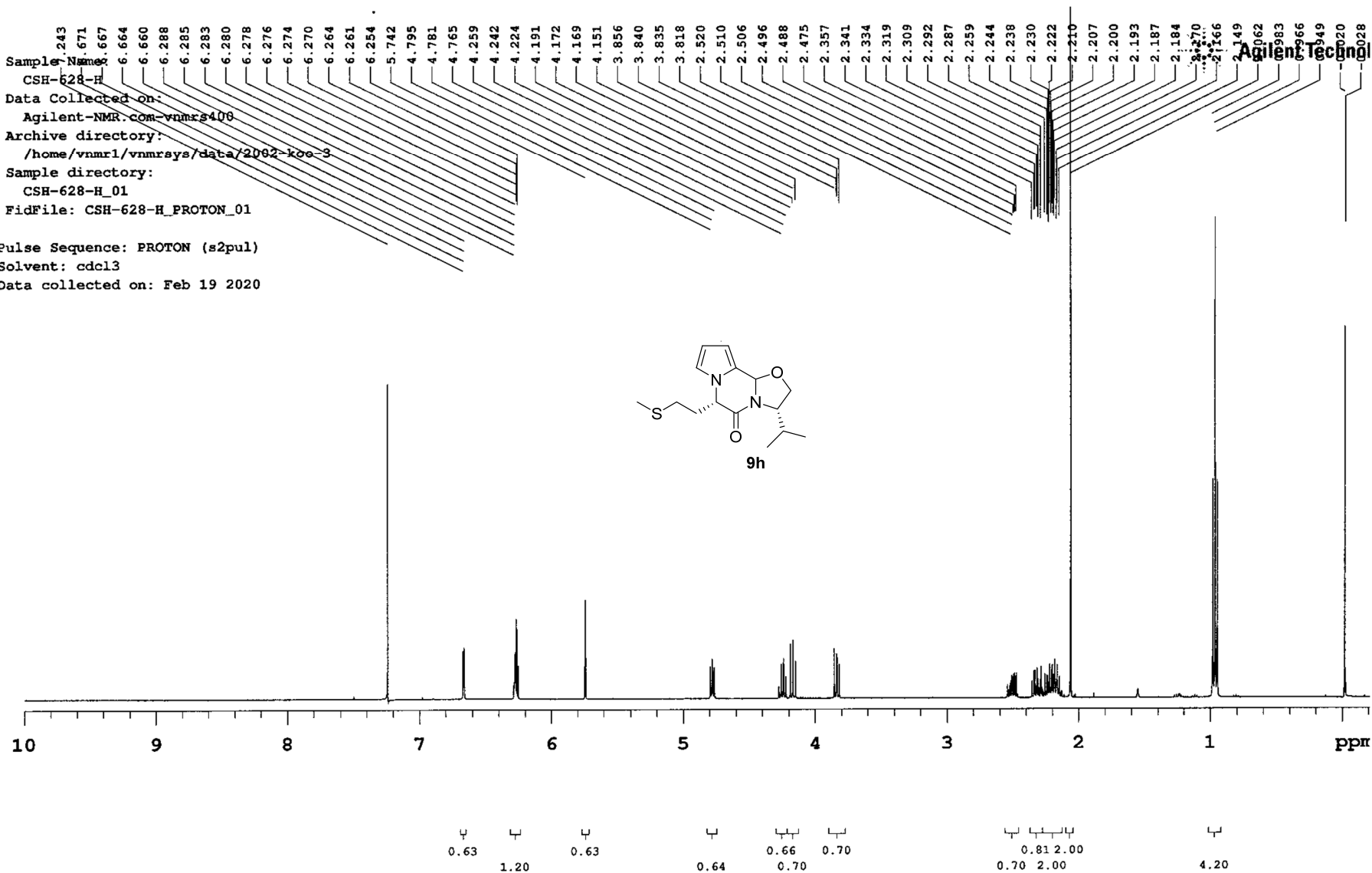
Sample Name:
 CSH-636-C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory:
 CSH-636-C_01
 FidFile: CSH-636-C CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 5 2020



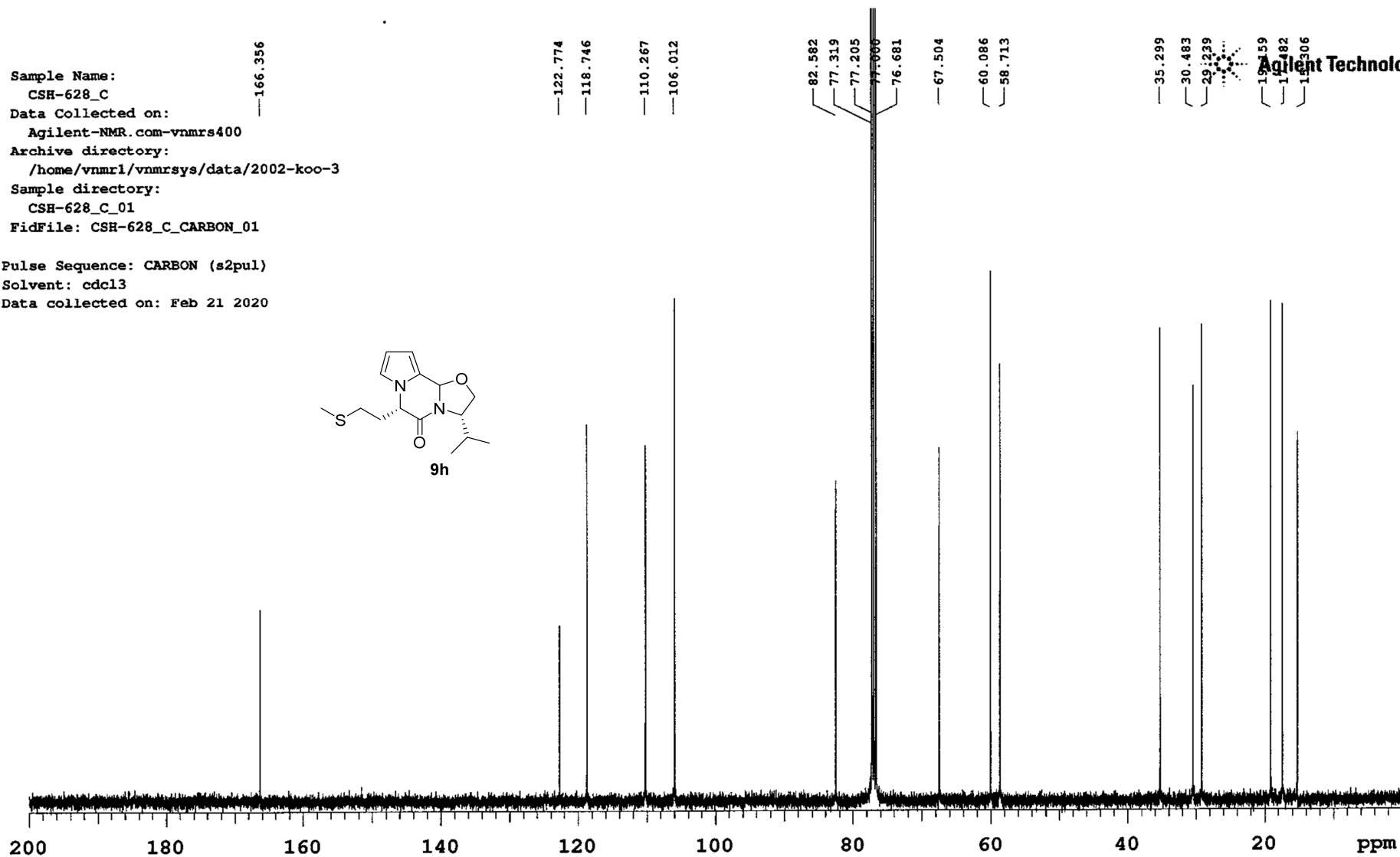
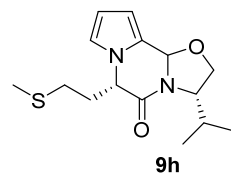
Sample Name: CSH-628-H
 Data Collected on: Agilent-NMR.com-vnmrs406
 Archive directory: /home/vnmr1/vnmrsys/data/2092-k00-3
 Sample directory: CSH-628-H_01
 FidFile: CSH-628-H_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 19 2020



Sample Name:
 CSH-628_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2002-koo-3
 Sample directory:
 CSH-628_C_01
 FidFile: CSH-628_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 21 2020



7.338
7.321
7.302
7.273
7.270
7.258
7.256
7.253
7.249
7.233
6.654
6.648
6.643
6.293
6.285
6.280
5.537
4.712
4.678
4.669
4.656
4.651
4.639
4.629
4.619
4.614
4.610
4.227
4.208
4.204
4.185
3.870
3.851
3.848
3.828
3.313
3.303
3.279
3.270
3.011
2.989
2.977
2.956
2.947
1.653
1.256
0.002
0.000

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c1cc[nH]c1C(=O)N2C[C@H](Cc3ccccc3)OC2

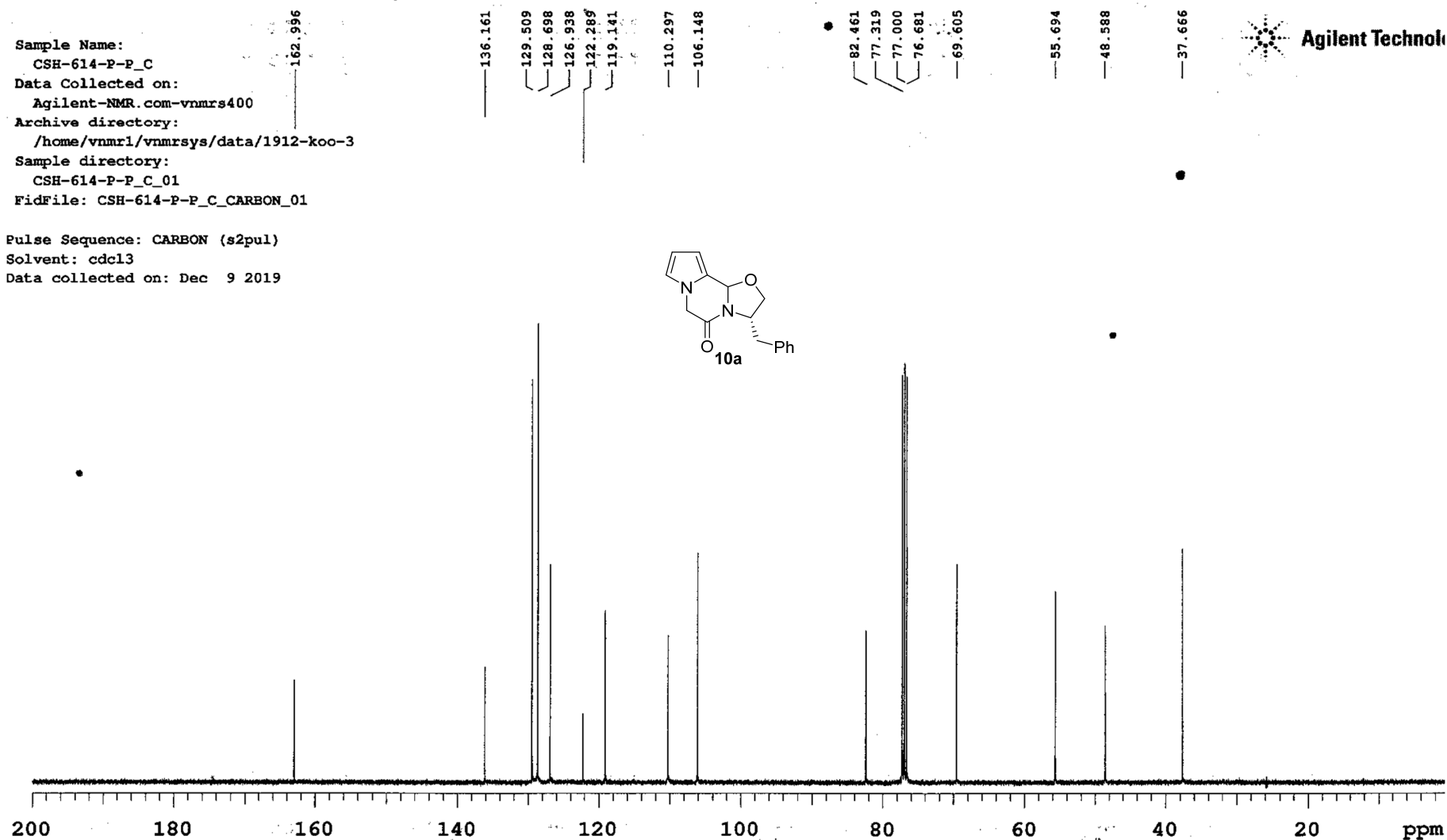
10a

10 9 8 7 6 5 4 3 2 1 ppm

2.16 3.53 1.02 2.00 1.03 0.71 2.55 1.17 1.17 1.16 1.17 0.34 0.26

Sample Name:
 CSH-614-P-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/1912-koo-3
 Sample directory:
 CSH-614-P-P_C_01
 FidFile: CSH-614-P-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Dec 9 2019



Sample Name:

CSH-617-P_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2001-koo-3

Sample directory:

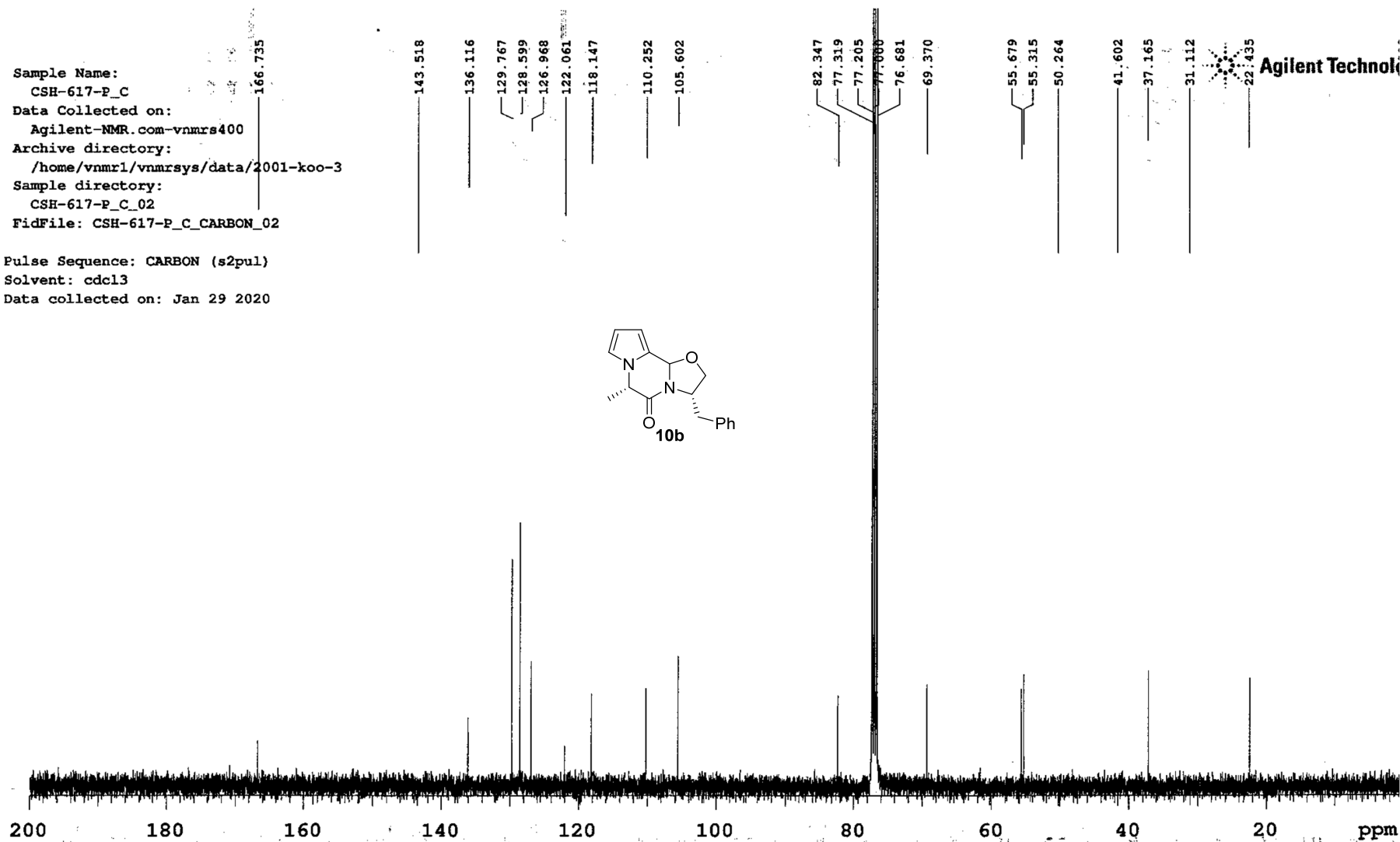
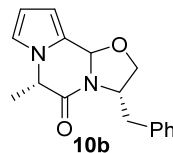
CSH-617-P_C_02

FidFile: CSH-617-P_C_CARBON_02

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

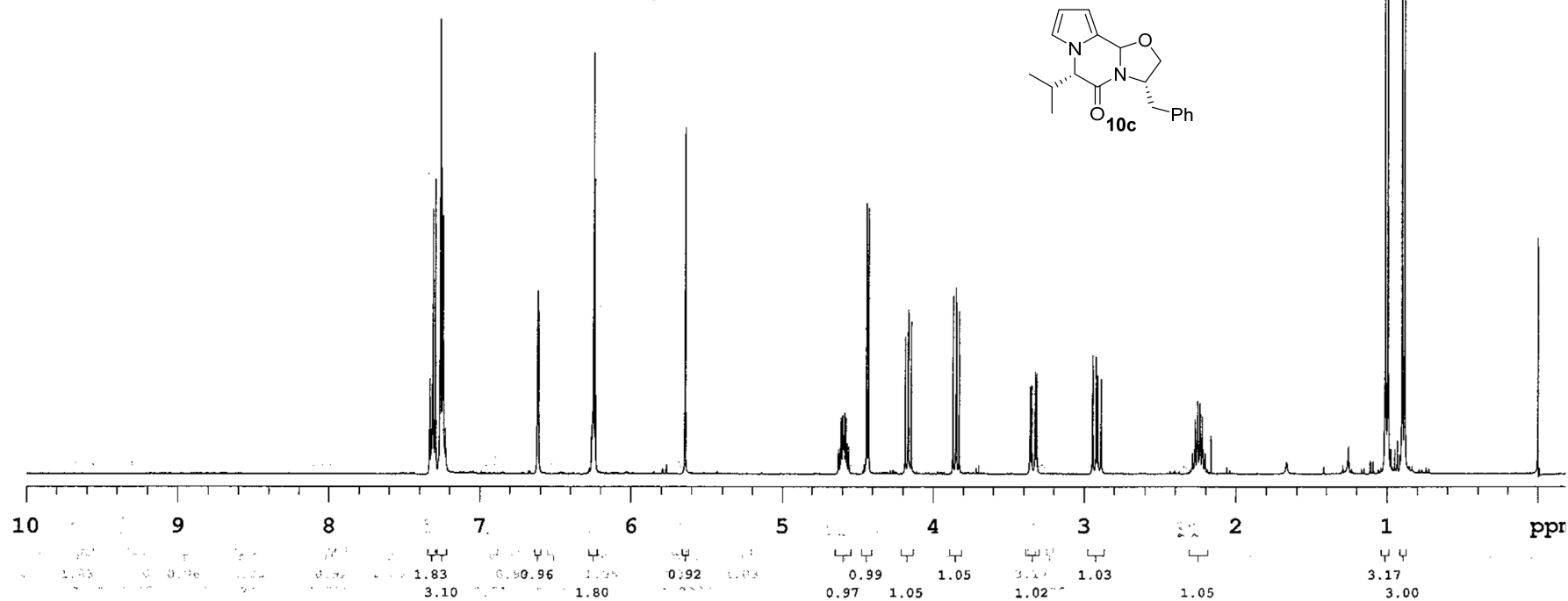
Data collected on: Jan 29 2020



Agilent Technology

Sample Name: CSH-625-P
 Data Collected on: Agilent-NMR.com-vnmr400
 Archive directory: /home/vnmr1/vnmrsys/data/2002-koo-3
 Sample directory: CSH-625-P_02
 FidFile: CSH-625-P_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Feb 11 2020



Sample Name:

CSH-625-P_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2002-koo-3

Sample directory:

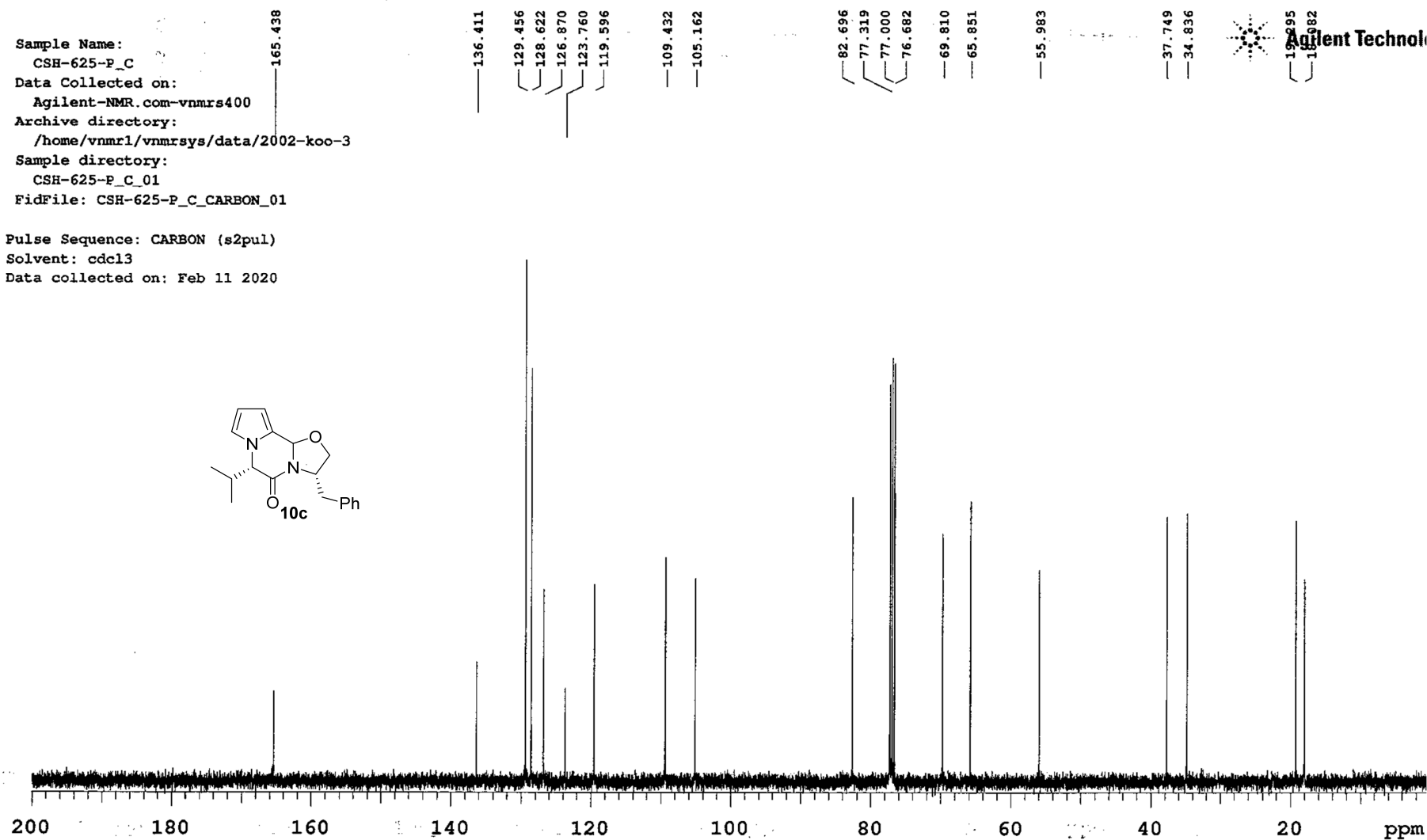
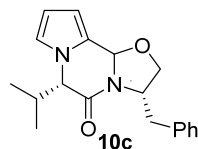
CSH-625-P_C_01

FidFile: CSH-625-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)

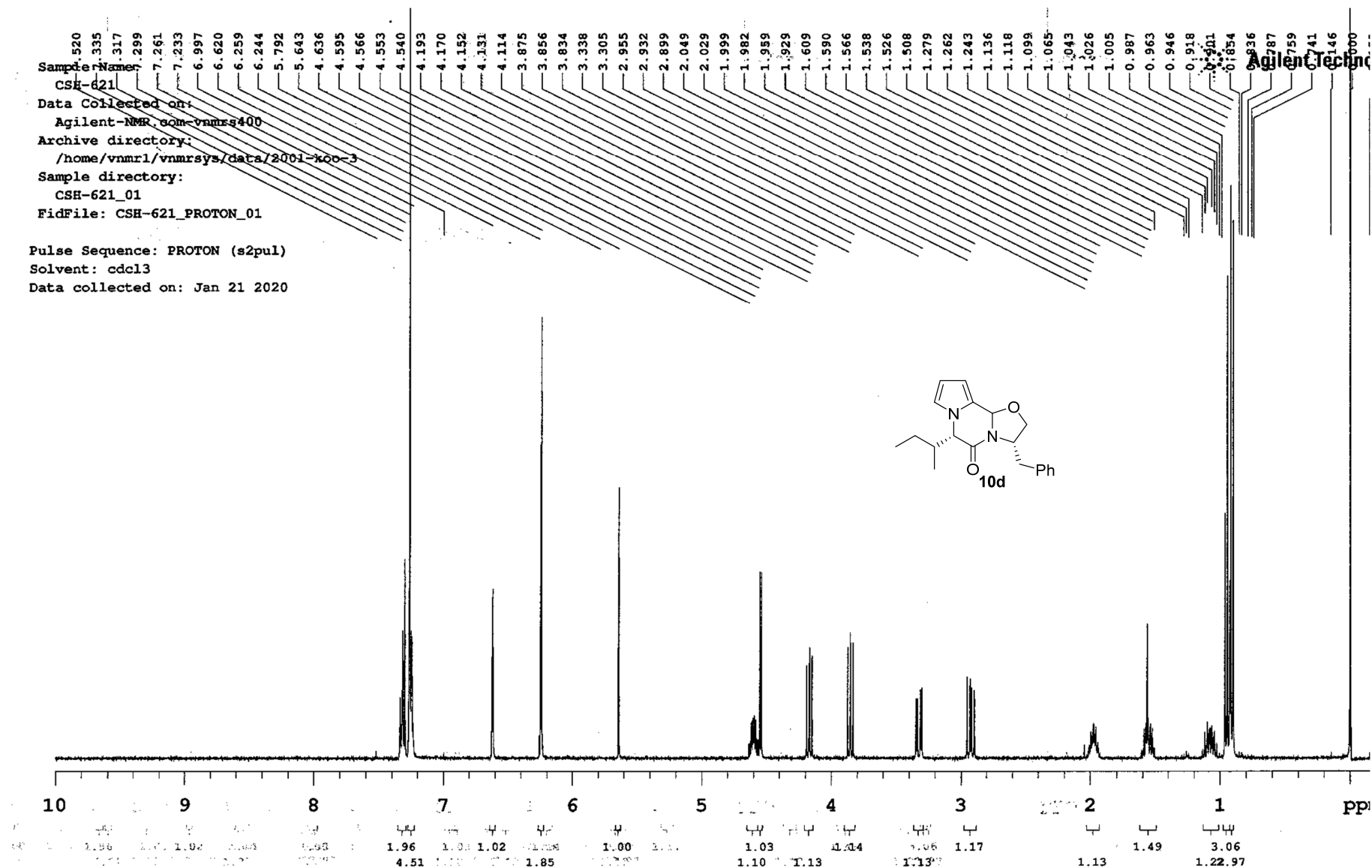
Solvent: cdcl3

Data collected on: Feb 11 2020



Sample Name: CSH-621
 Data Collected on: Agilent-NMR, 600-MHz, 400
 Archive directory: /home/vnmr1/vnmrsys/data/2001-koo-3
 Sample directory: CSH-621_01
 FidFile: CSH-621_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Jan 21 2020



Sample Name:

CSH-621_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2001-koo-3

Sample directory:

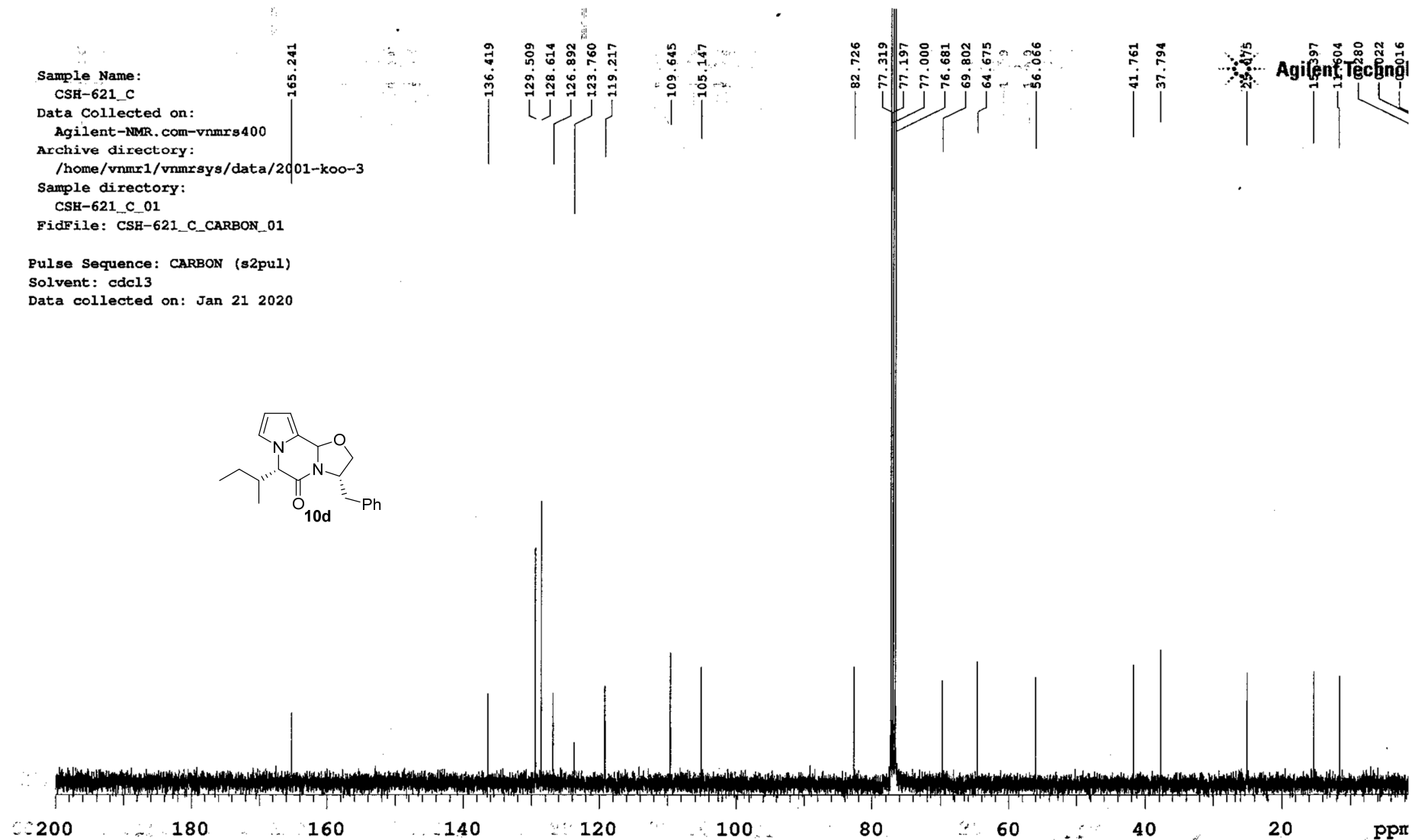
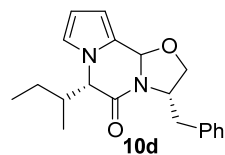
CSH-621_C_01

FidFile: CSH-621_C_CARBON_01

Pulse Sequence: CARBON (s2pul)

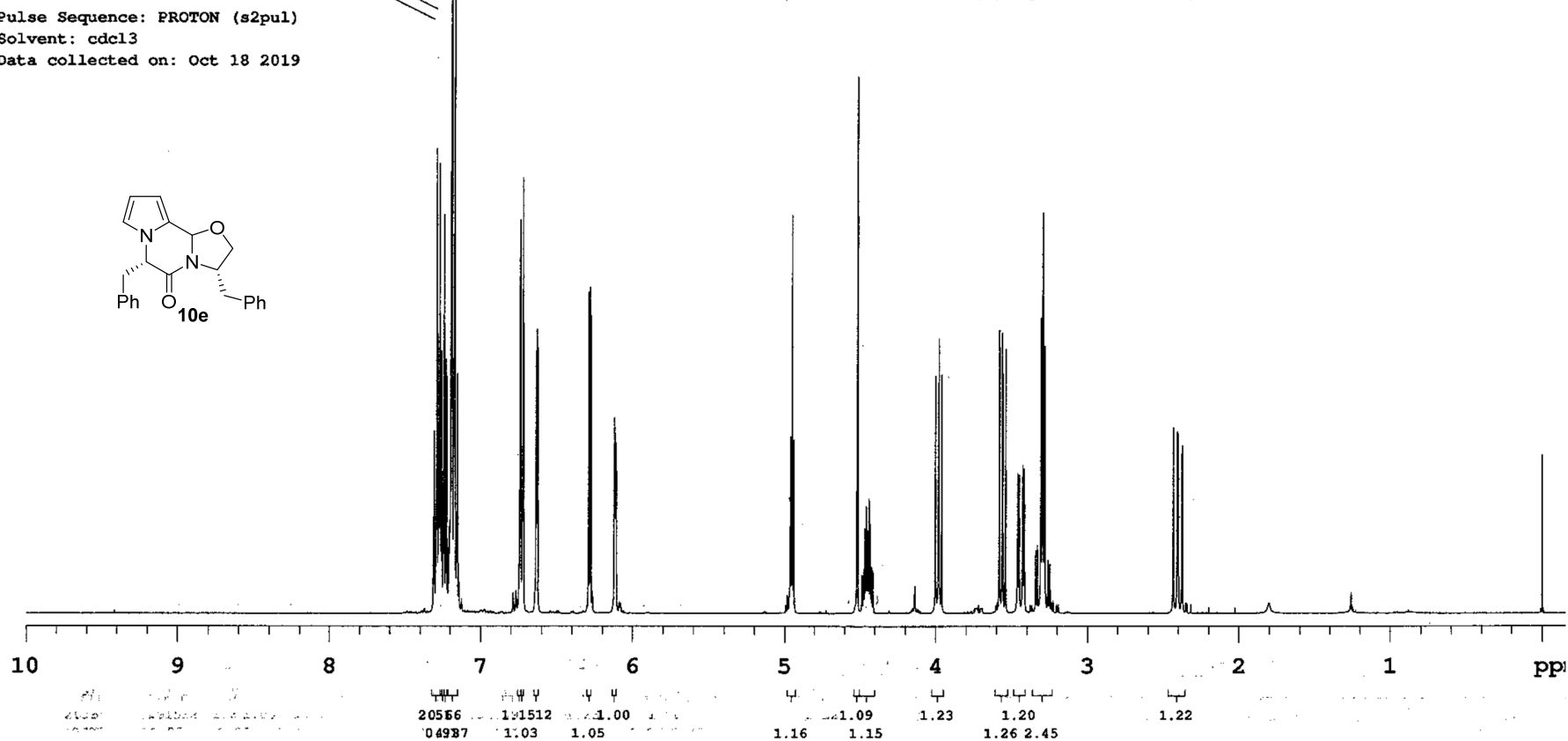
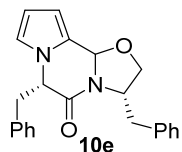
Solvent: cdcl3

Data collected on: Jan 21 2020



Sample Name: CSH-605
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/1910-koo-3
 Sample directory: CSH-605_01
 FidFile: CSH-605_PROTON_01

Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Oct 18 2019



Sample Name:
CSH-605_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/1910-koo-3

Sample directory:

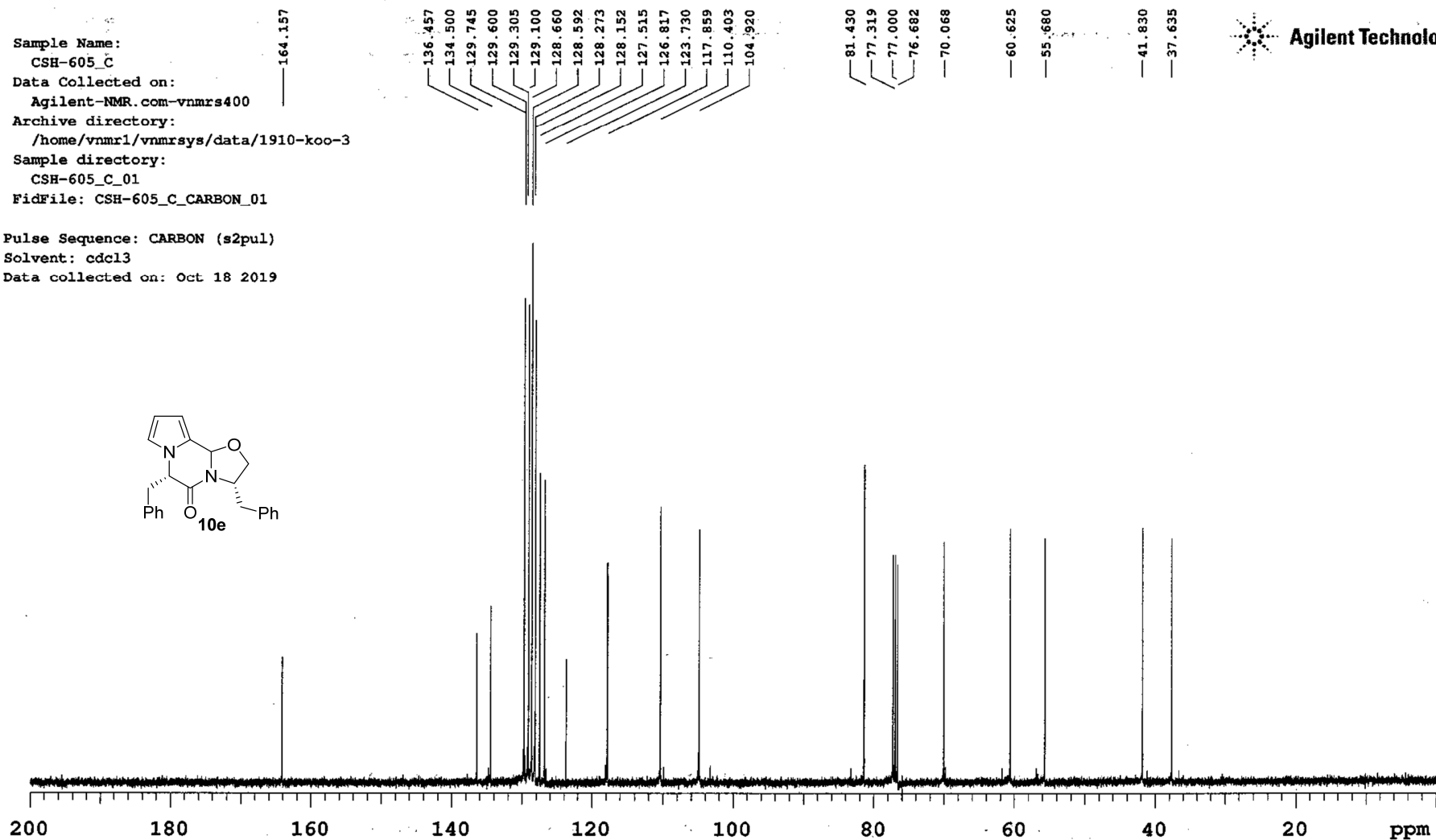
CSH-605_C_01

FidFile: CSH-605_C_CARBON_01

Pulse Sequence: CARBON (s2pul)

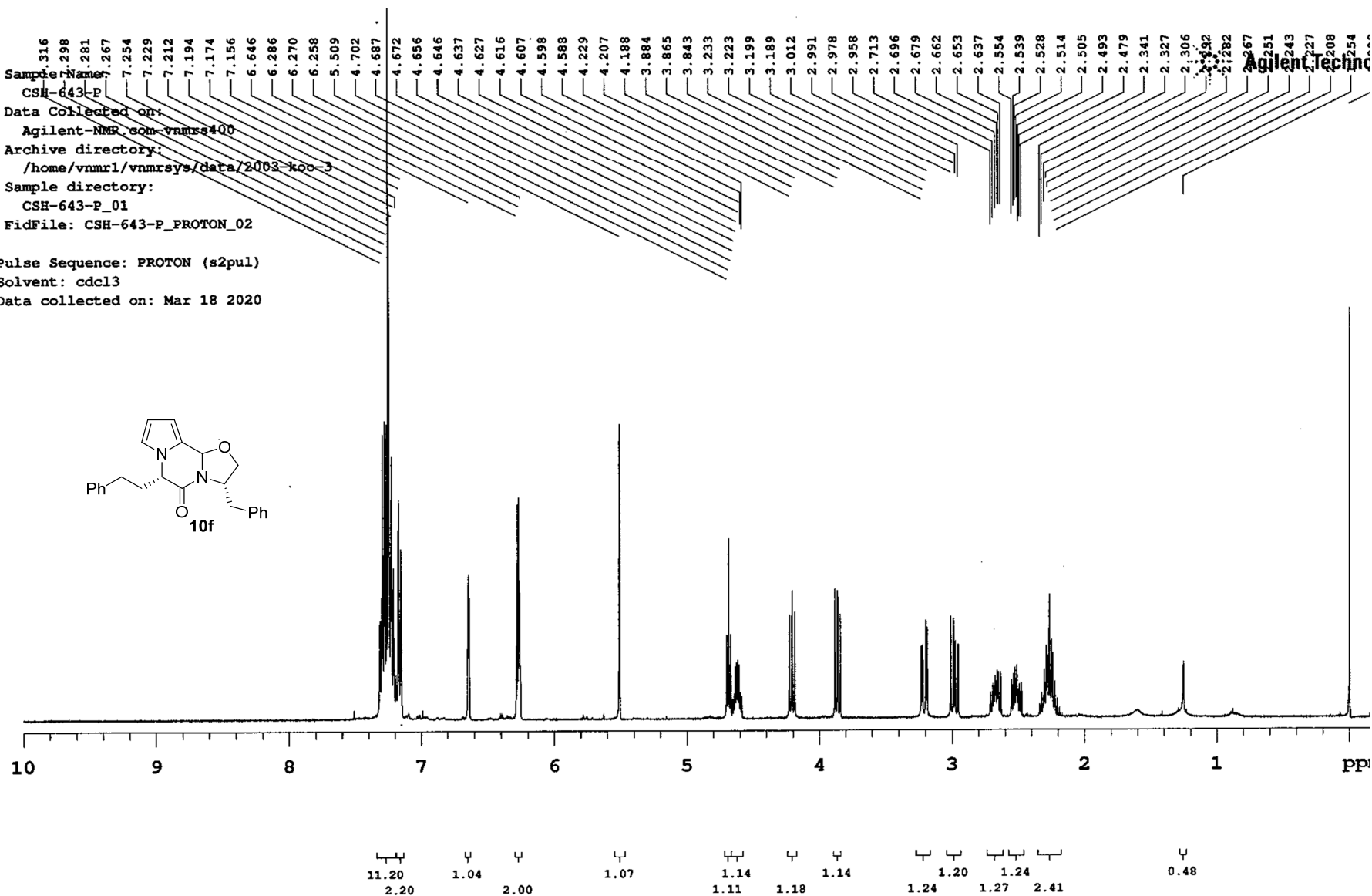
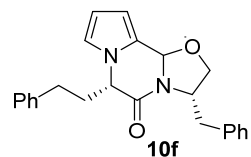
Solvent: cdcl3

Data collected on: Oct 18 2019



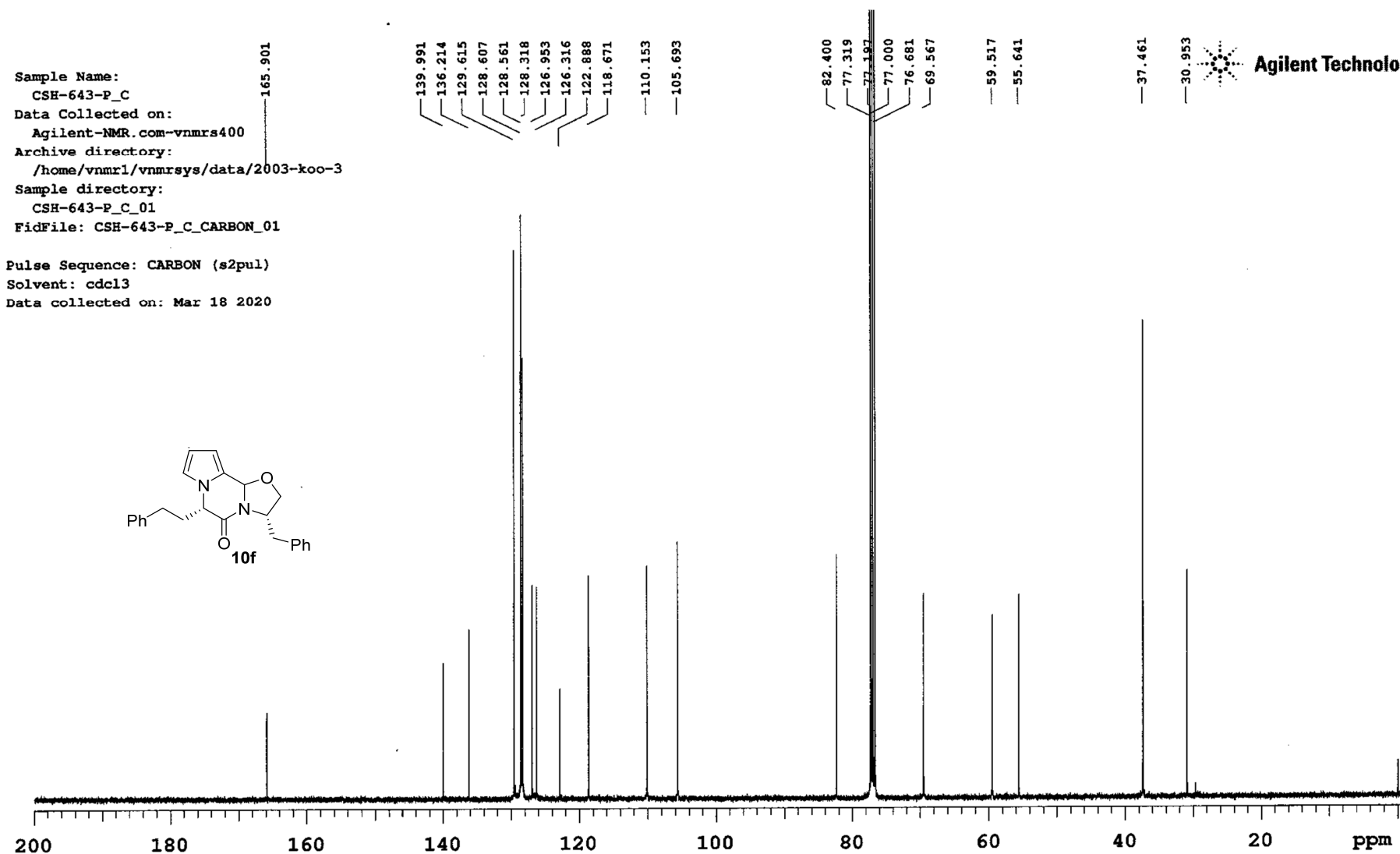
Sample Name: CSH-643-P
 Data Collected on: Agilent-NMR.com-vnmrs400
 Archive directory: /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory: CSH-643-P_01
 FidFile: CSH-643-P_PROTON_02

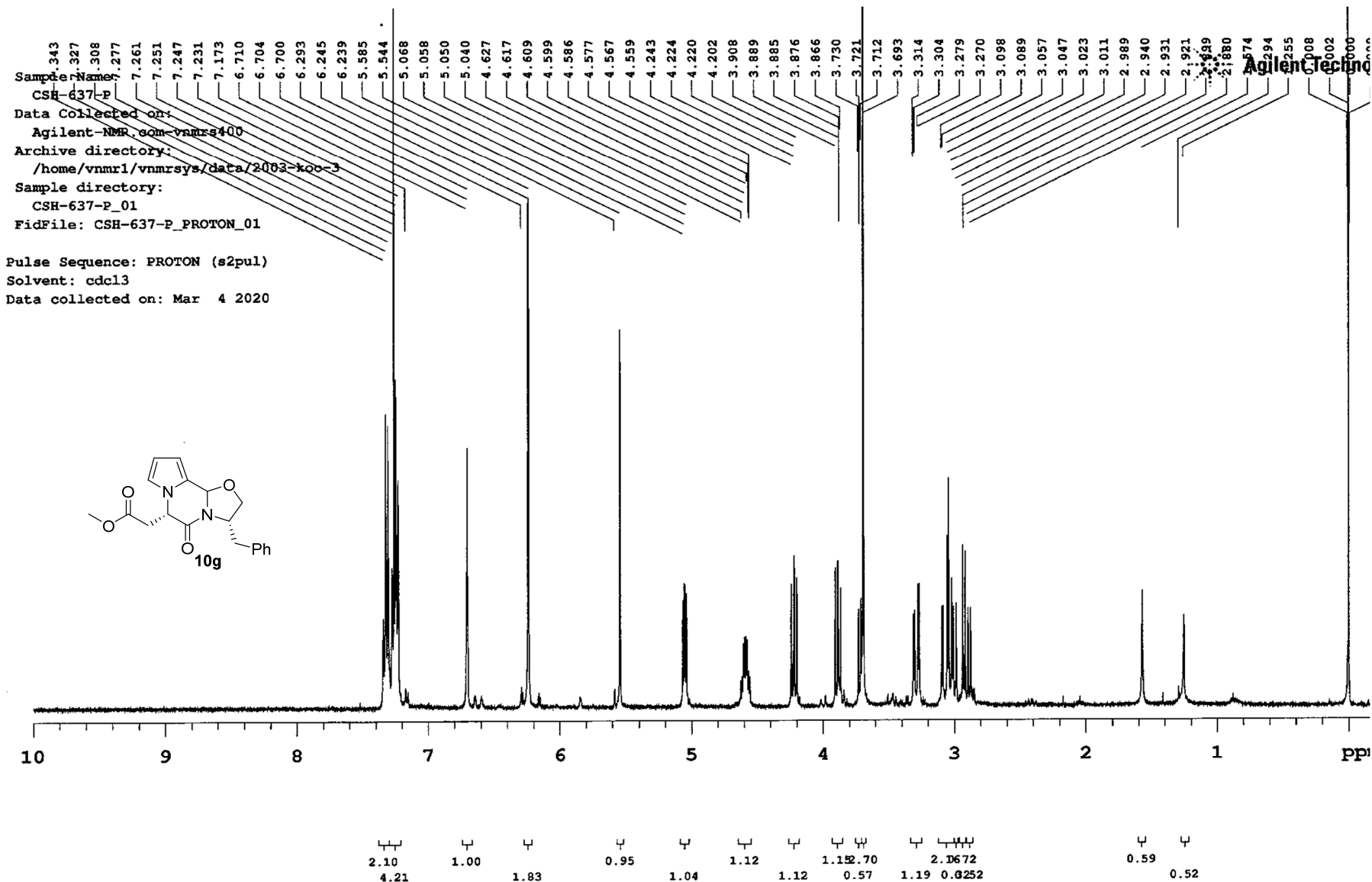
Pulse Sequence: PROTON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 18 2020



Sample Name:
 CSH-643-P_C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory:
 CSH-643-P_C_01
 FidFile: CSH-643-P_C_CARBON_01

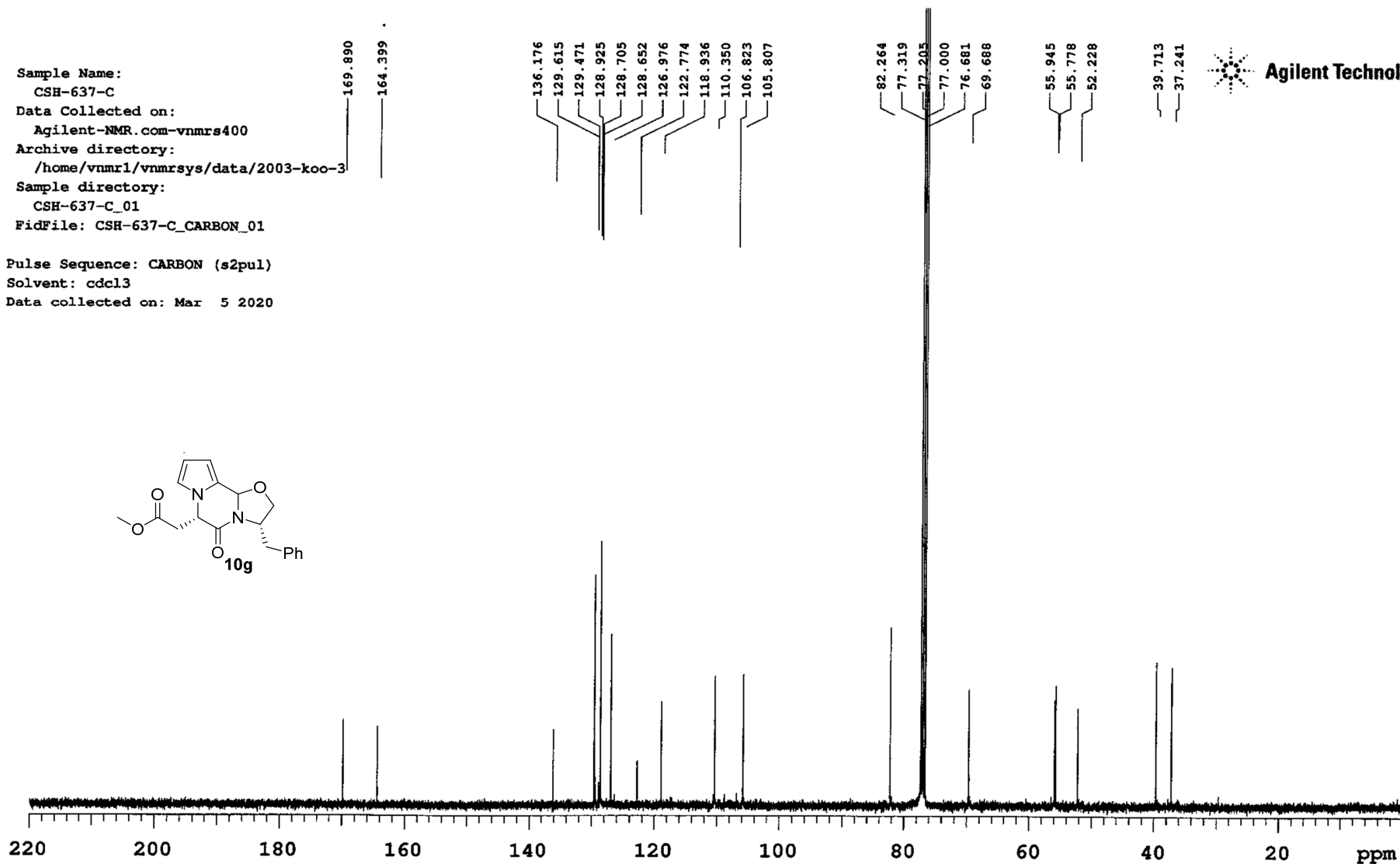
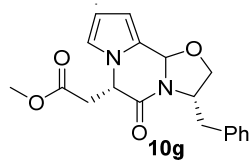
Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 18 2020

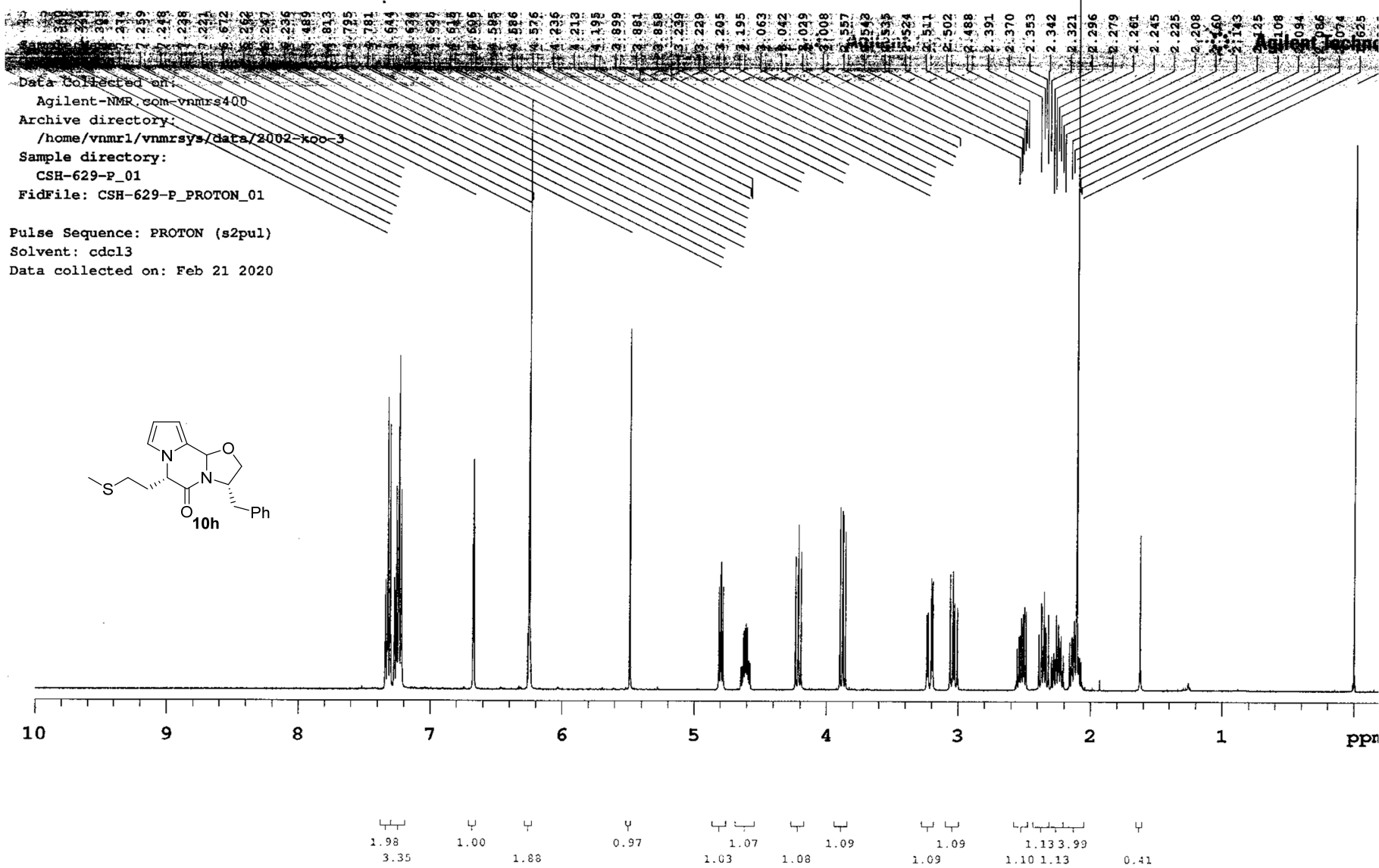




Sample Name:
 CSH-637-C
 Data Collected on:
 Agilent-NMR.com-vnmrs400
 Archive directory:
 /home/vnmr1/vnmrsys/data/2003-koo-3
 Sample directory:
 CSH-637-C_01
 FidFile: CSH-637-C_CARBON_01

Pulse Sequence: CARBON (s2pul)
 Solvent: cdcl3
 Data collected on: Mar 5 2020





Sample Name:

CSH-629-P_C

Data Collected on:

Agilent-NMR.com-vnmrs400

Archive directory:

/home/vnmr1/vnmrsys/data/2002-koo-3

Sample directory:

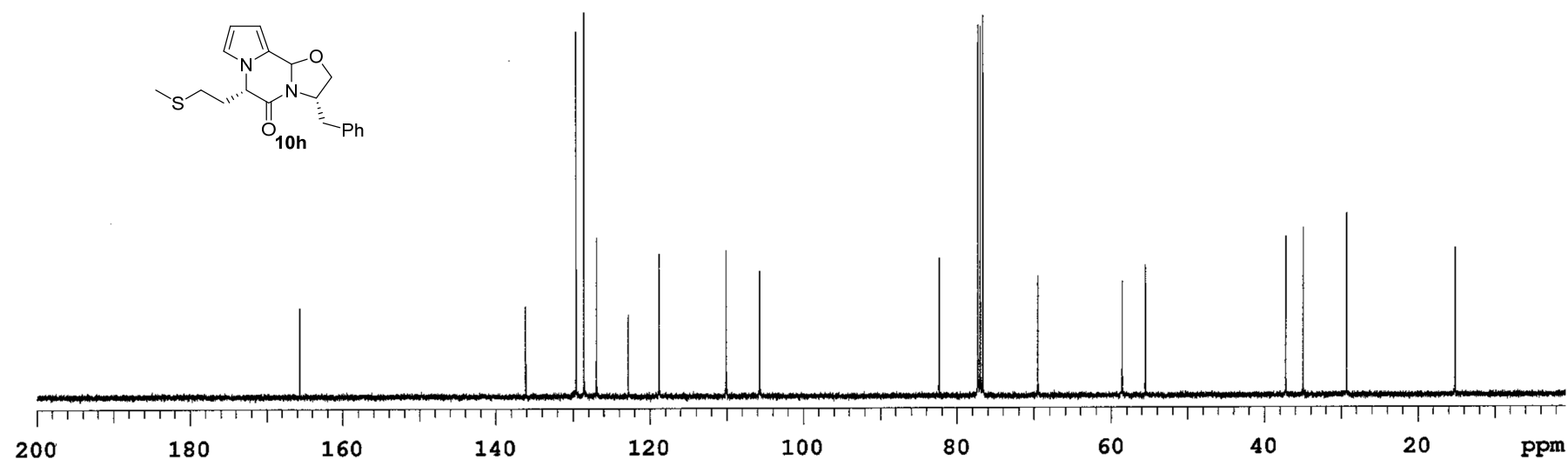
CSH-629-P_C_01

FidFile: CSH-629-P_C_CARBON_01

Pulse Sequence: CARBON (s2pul)

Solvent: cdcl3

Data collected on: Feb 24 2020



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