

Supporting Information of

**Neighboring Nitrogen Atom-Induced Reactions of Azidoacetyl
Hydrazides, Including Unexpected Nitrogen-Nitrogen Bond
Cleavage of the Hydrazide**

Hiroki Tanimoto,* Ryo Adachi, Aoi Otsuki, and Takenori Tomohiro

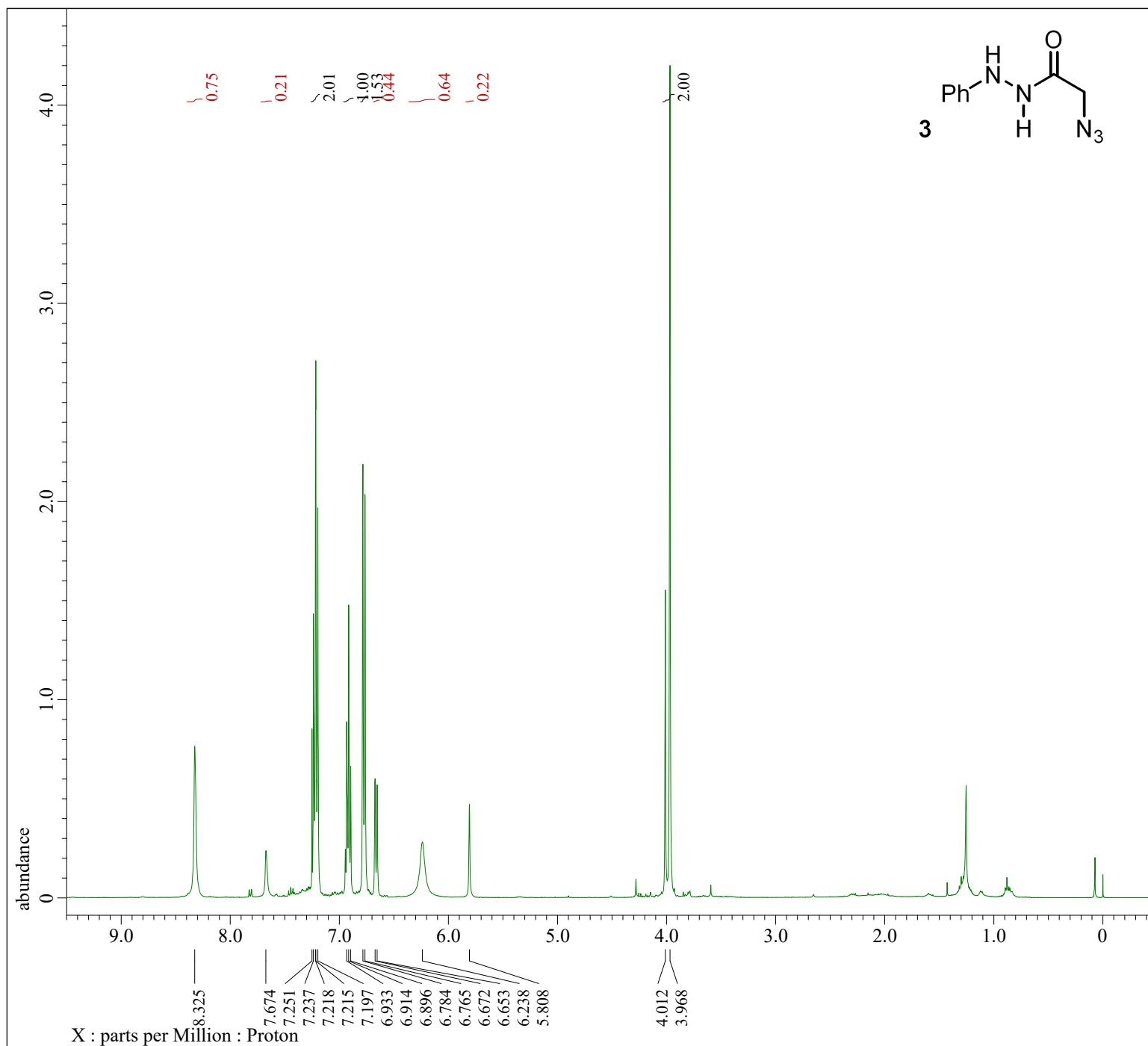
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[1] ^1H and ^{13}C NMR Spectra

S001

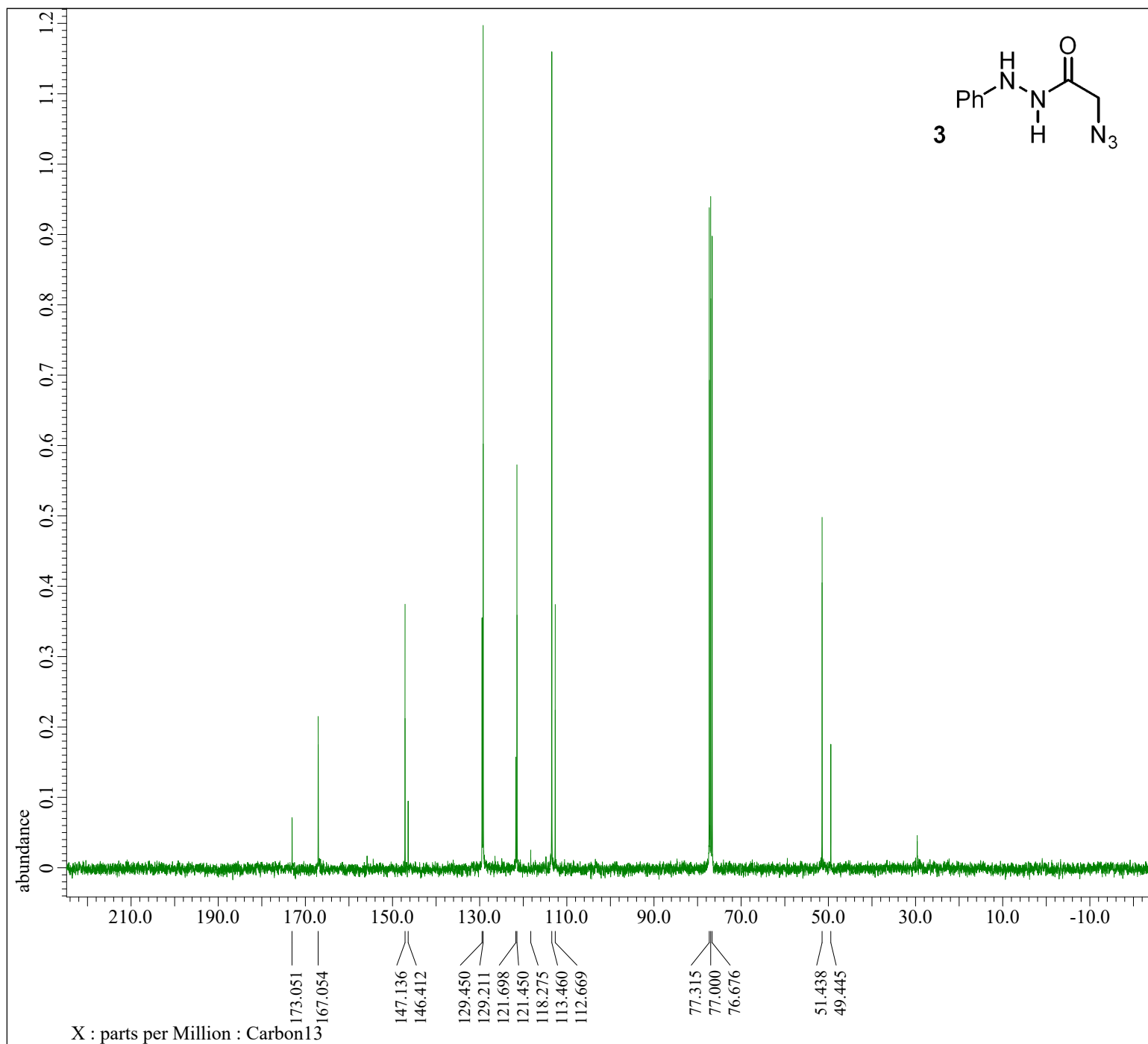


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 Experiment = proton.jxp
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 Solvent = CHLOROFORM-D
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 Dim_Title = Proton
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 Site = ECX 400P
 Spectrometer = DELTA2_NMR

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 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
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 Temp_Get = 22.9[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
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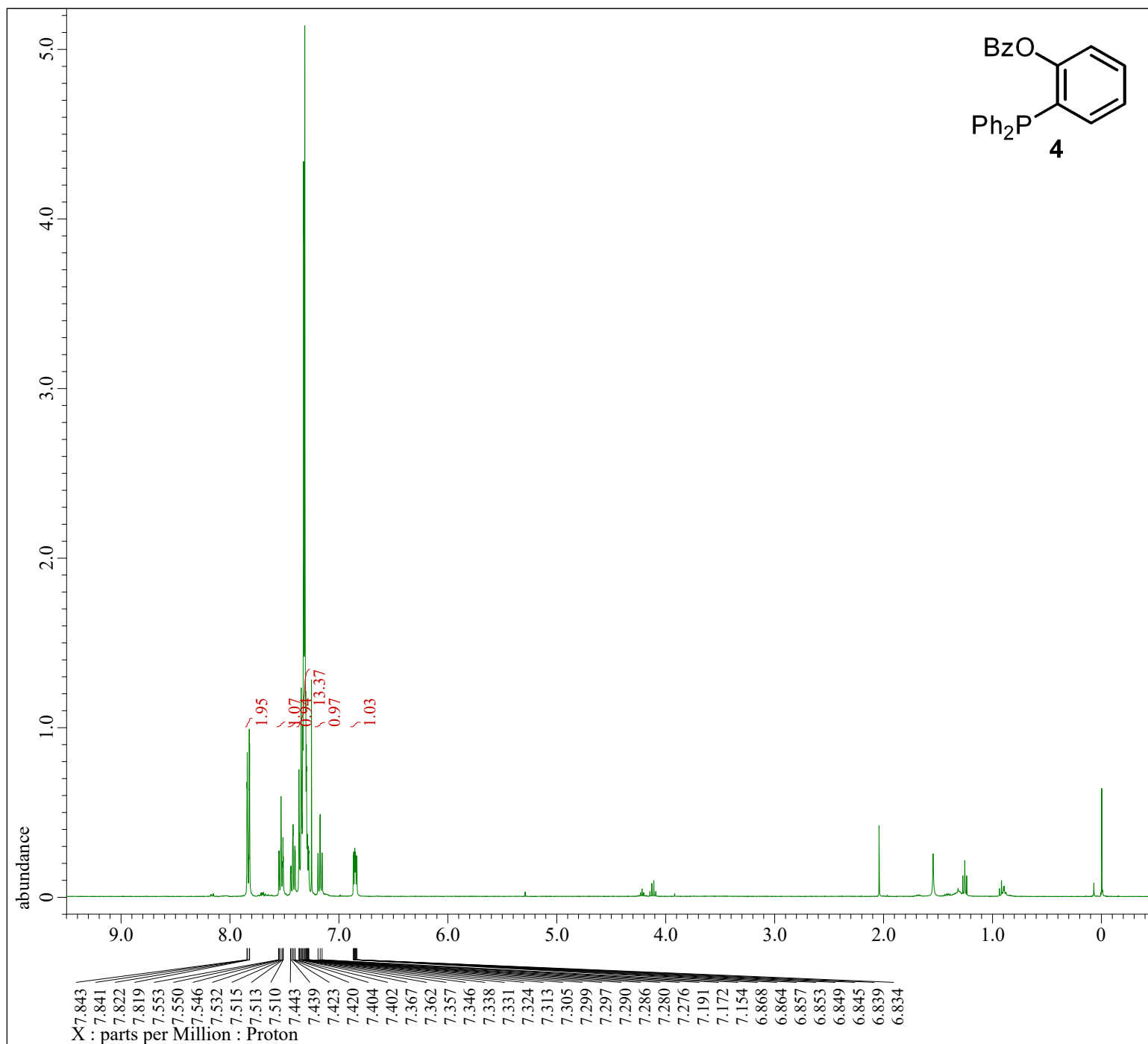


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 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.0433312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = TRUE
 Scans = 376
 Total_Scans = 376

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 23.5[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.0433312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
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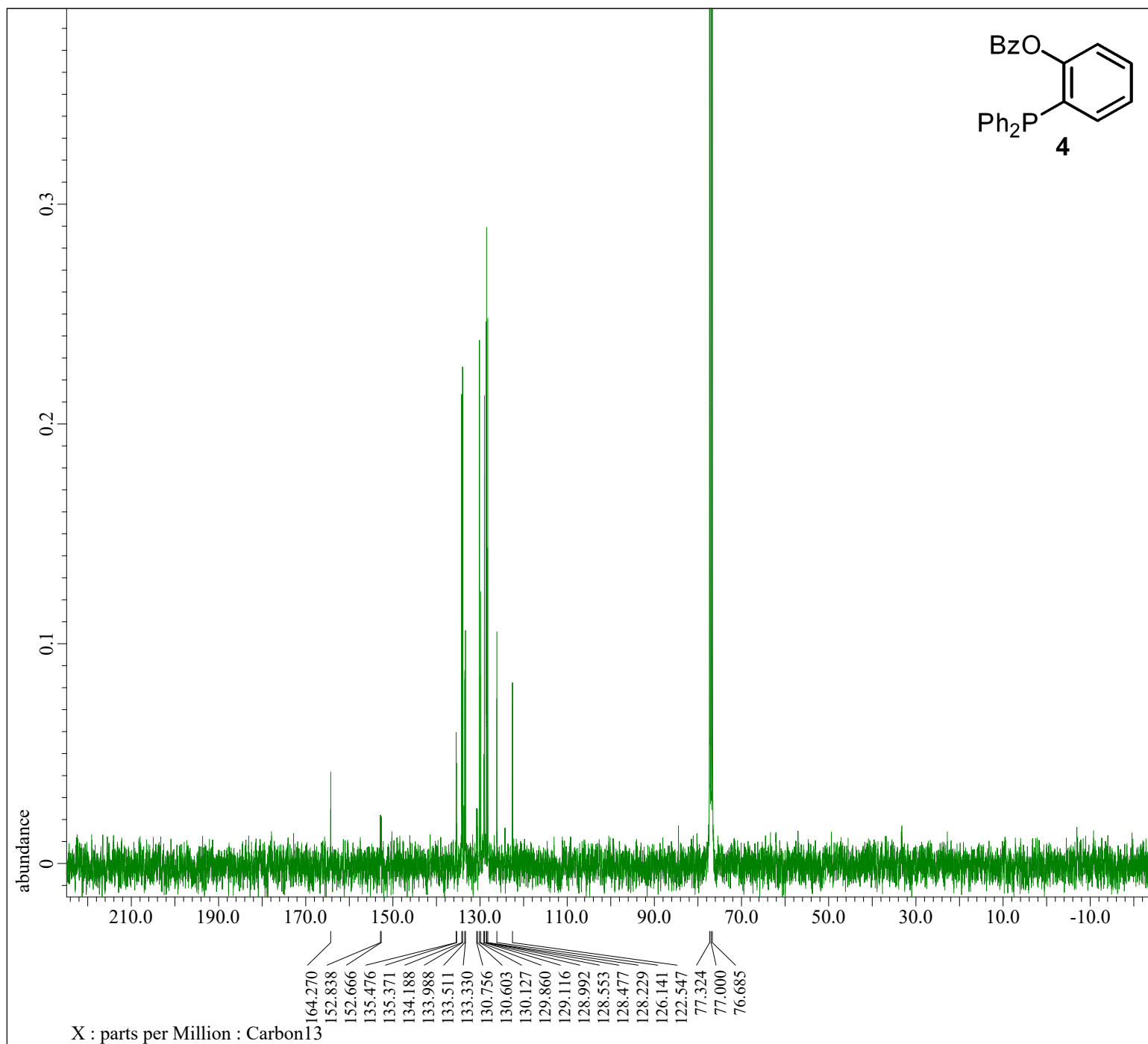


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 Experiment = proton.jxp
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 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 36
 Temp_Get = 22.8[dC]
 X_90_Width = 11.1[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 0.4[dB]
 X_Pulse = 5.55[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
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 Repetition_Time = 7.18365952[s]

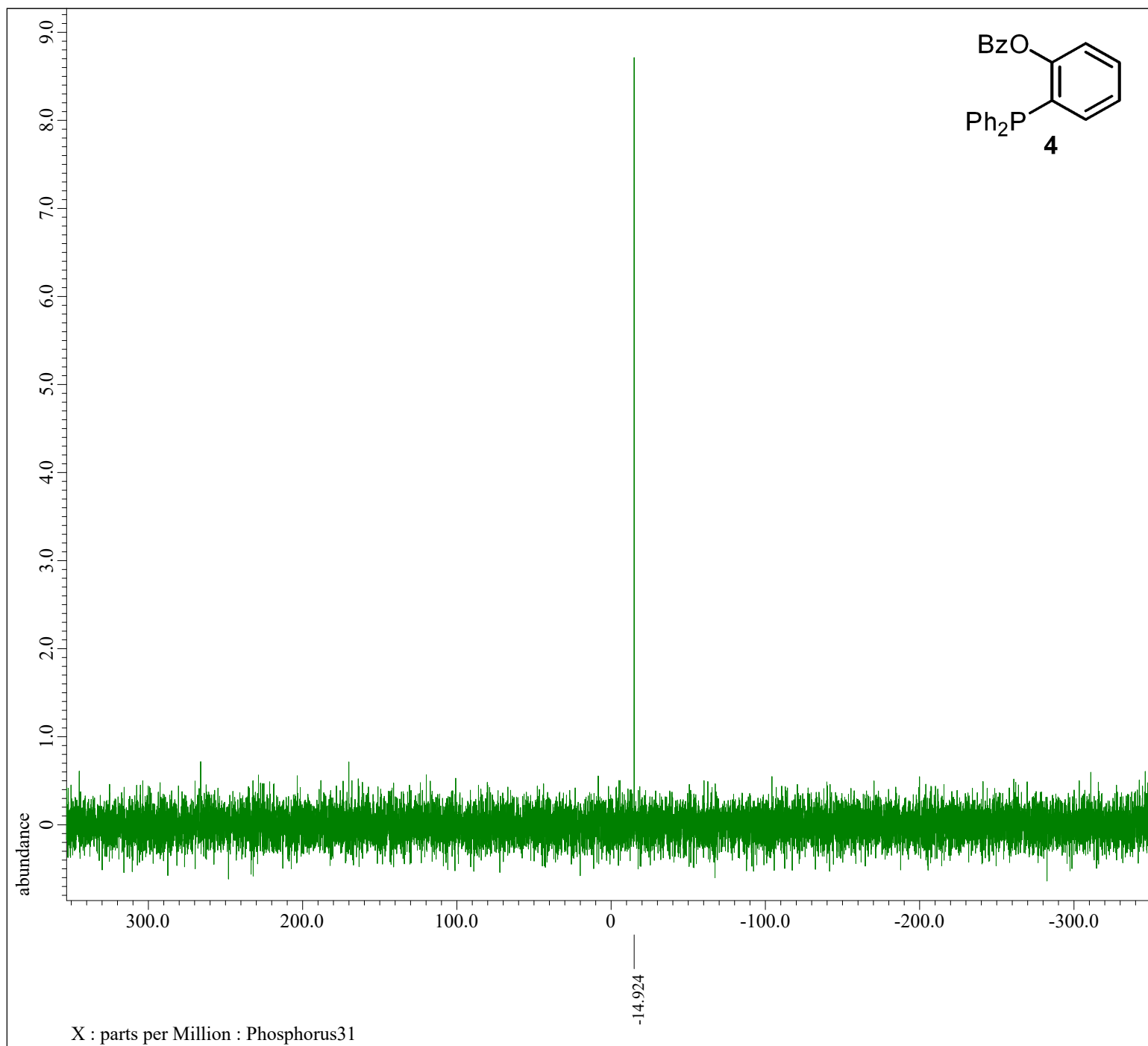


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 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#494059
 Solvent = CHLOROFORM-D
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 Revision_Time = 5-SEP-2022 16:22:39

Comment = single pulse decoupled ga
 Data_Format = 1D_COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 290
 Total_Scans = 290

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 23.3[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]

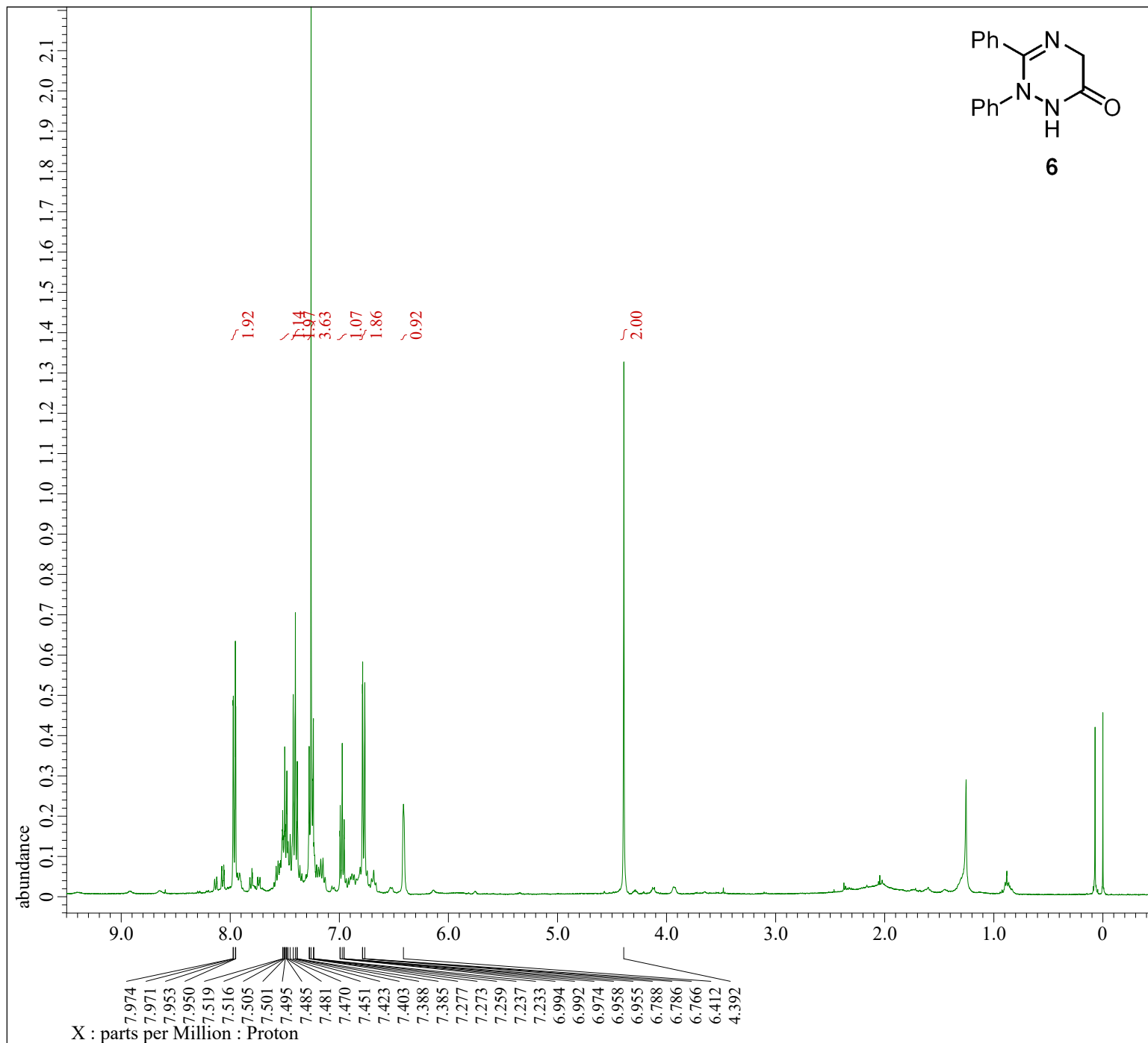


Filename = _RA-1-81-2phosphorus-1-20
 Author = delta
 Experiment = single_pulse.ex2
 Sample_Id = S#525721
 Solvent = CHLOROFORM-D
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 Revision_Time = 21-SEP-2022 11:04:21

Data_Format = 1D COMPLEX
 Dim_Size = 13107
 X_Domain = Phosph
 Dim_Title = Phosphorus31
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400 [MHz])
 X_Acq_Duration = 0.114688[s]
 X_Domain = 31P
 X_Freq = 161.83469309 [MHz]
 X_Offset = 0 [ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 8.71930804 [Hz]
 X_Sweep = 142.85714286 [kHz]
 X_Sweep_Clippped = 114.28571429 [kHz]
 Irr_Domain = Phosphorus31
 Irr_Freq = 161.83469309 [MHz]
 Irr_Offset = 5 [ppm]
 Tri_Domain = Phosphorus31
 Tri_Freq = 161.83469309 [MHz]
 Tri_Offset = 5 [ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 56
 Temp_Get = 23.2 [dC]
 X_90_Width = 15.2 [us]
 X_Acq_Time = 0.114688[s]
 X_Angle = 45 [deg]
 X_Atn = 8 [dB]
 X_Pulse = 7.6 [us]
 Irr_Mode = Off
 Tri_Mode = Off
 Automatic = TRUE
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 5.114688[s]

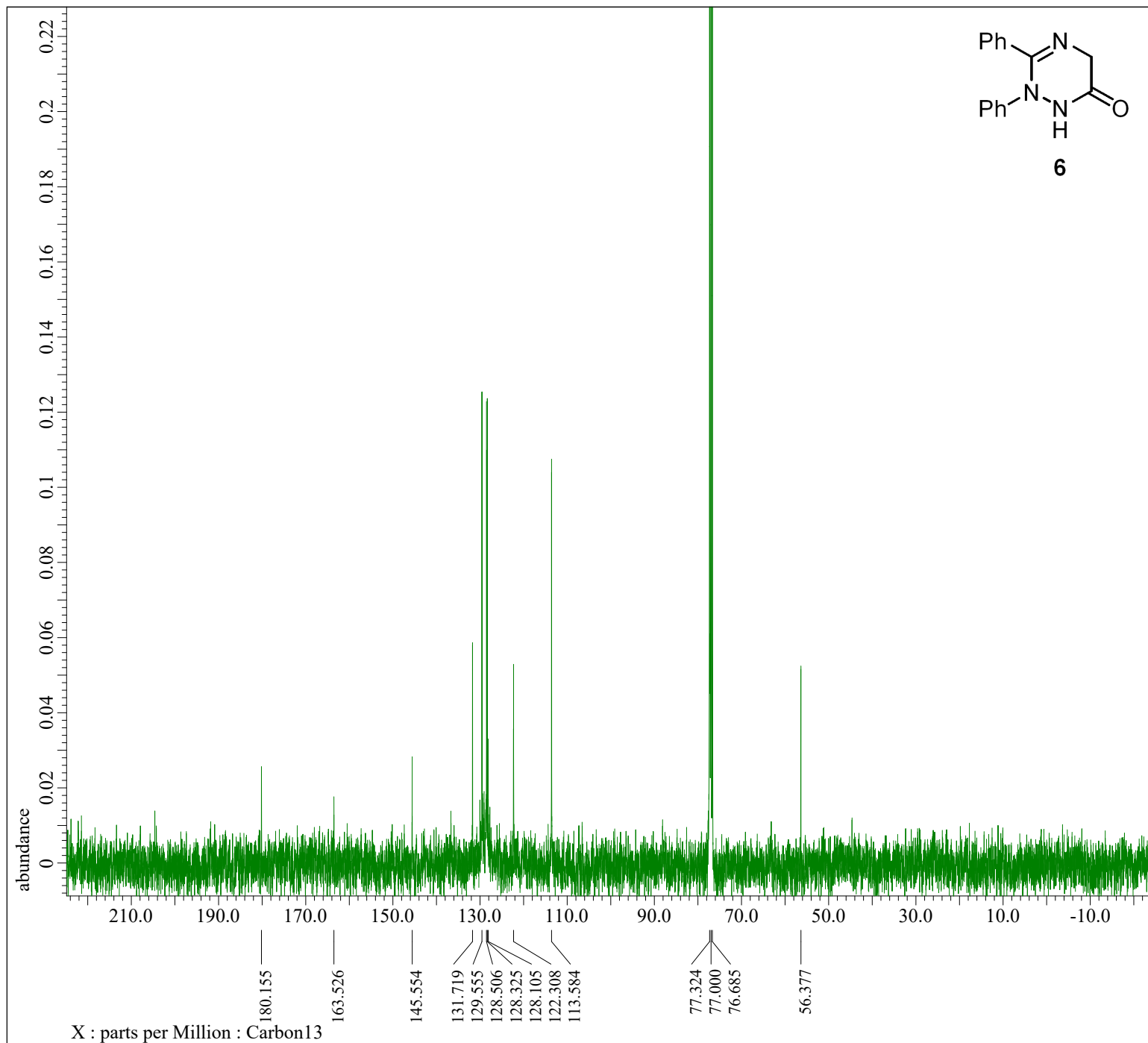


Filename = _RA-1-97-1-2proton-1-8.jd
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 Experiment = proton.jxp
 Sample_Id = S#617898
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 7-DEC-2021 17:10:37
 Revision_Time = 5-JUL-2022 14:47:52

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 38
 Temp_Get = 22.6[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]

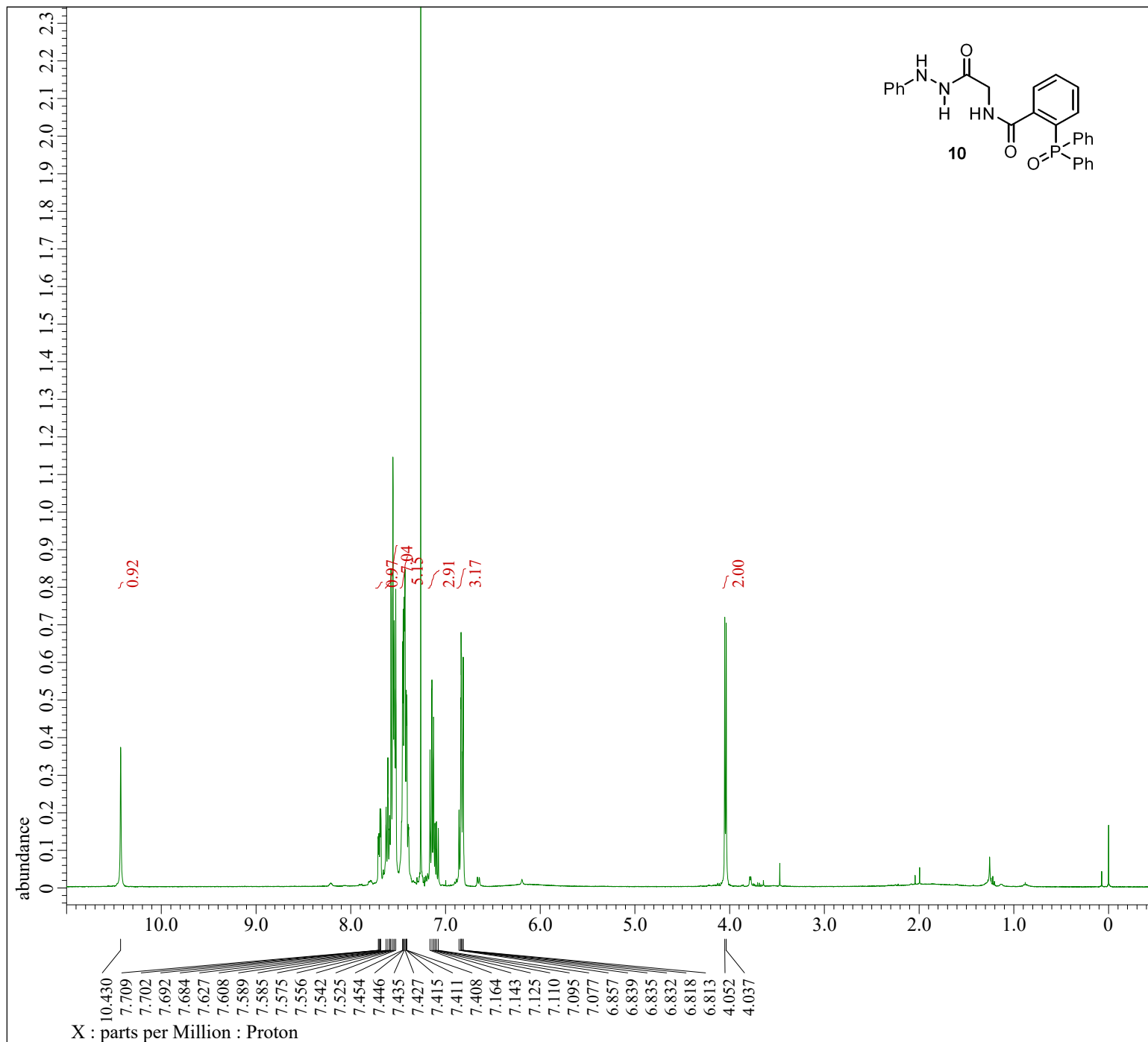


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 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#620281
 Solvent = CHLOROFORM-D
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 Revision_Time = 7-DEC-2021 17:48:55

Comment = single pulse decoupled ga
 Data_Format = 1D COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.0433312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 500
 Total_Scans = 500

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 22.6[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]

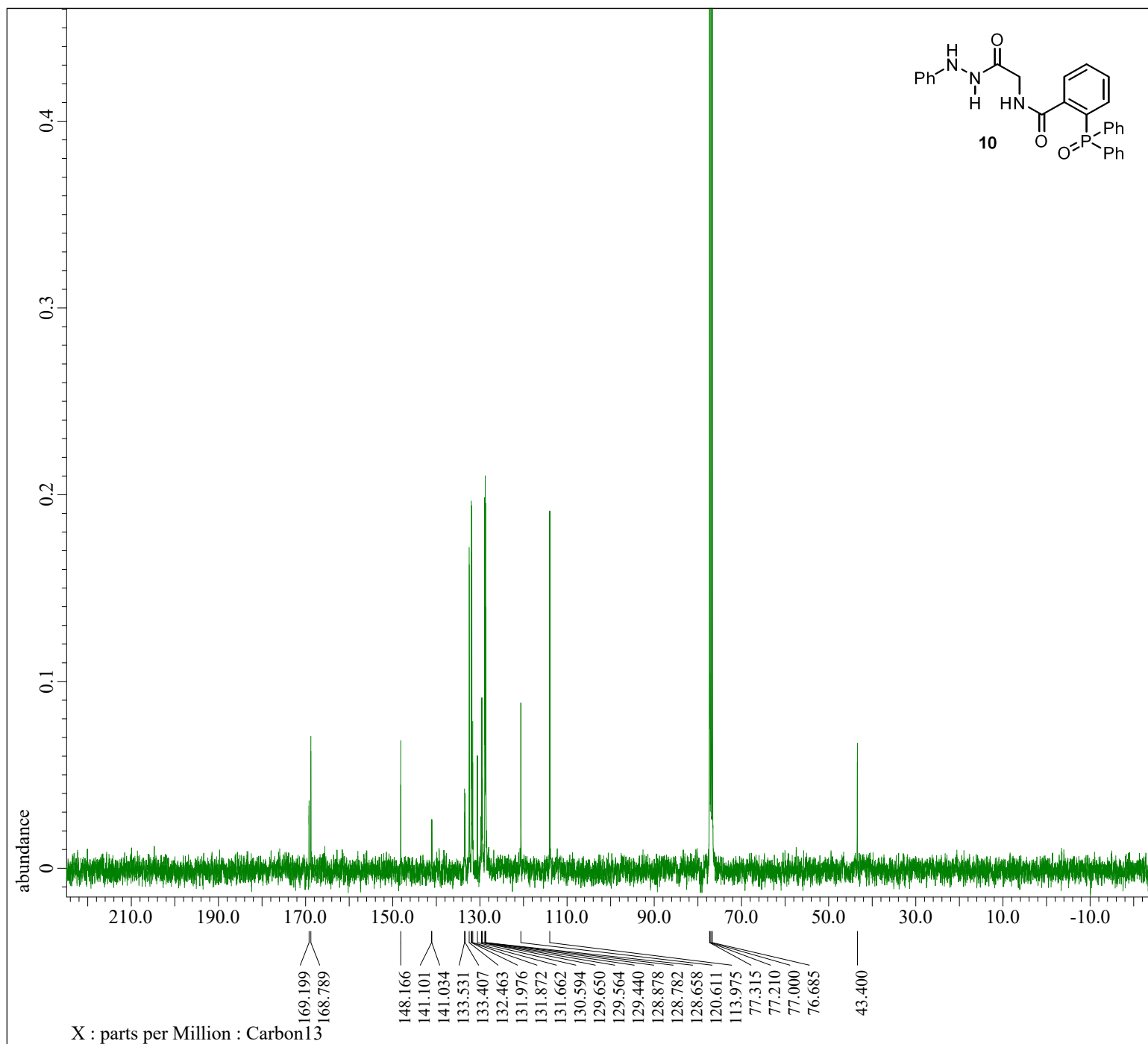


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 Author = delta
 Experiment = proton.jxp
 Sample_Id = S#409022
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 29-OCT-2021 11:22:43
 Revision_Time = 5-JUL-2022 14:52:33

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 36
 Temp_Get = 22.7[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]

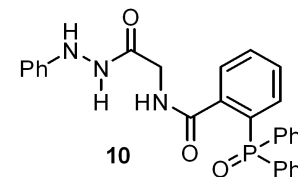
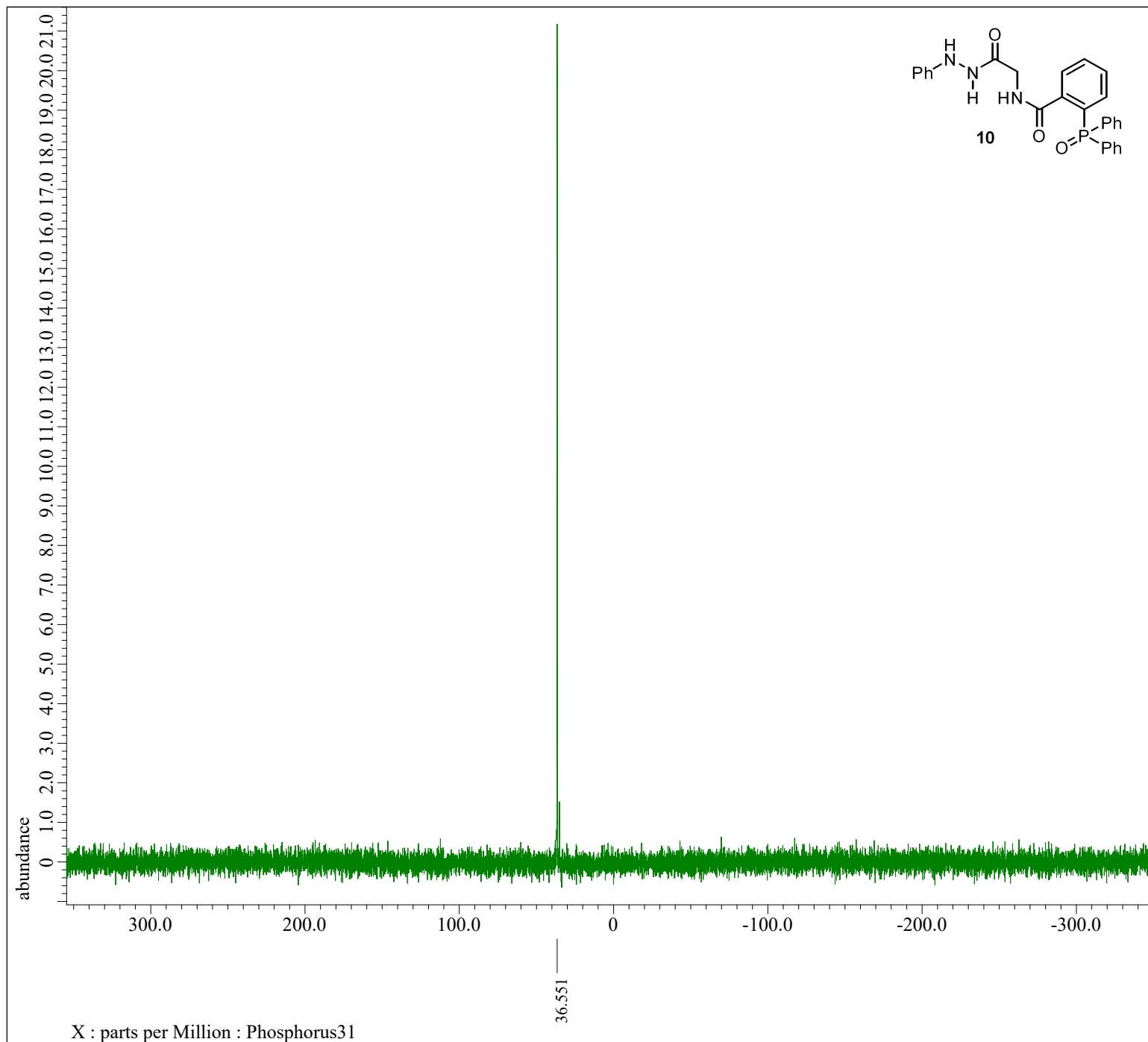


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 Experiment = carbon.jxp
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 Solvent = CHLOROFORM-D
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Comment = single pulse decoupled ga
 Data_Format = 1D_COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 512
 Total_Scans = 512

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 22.8[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]

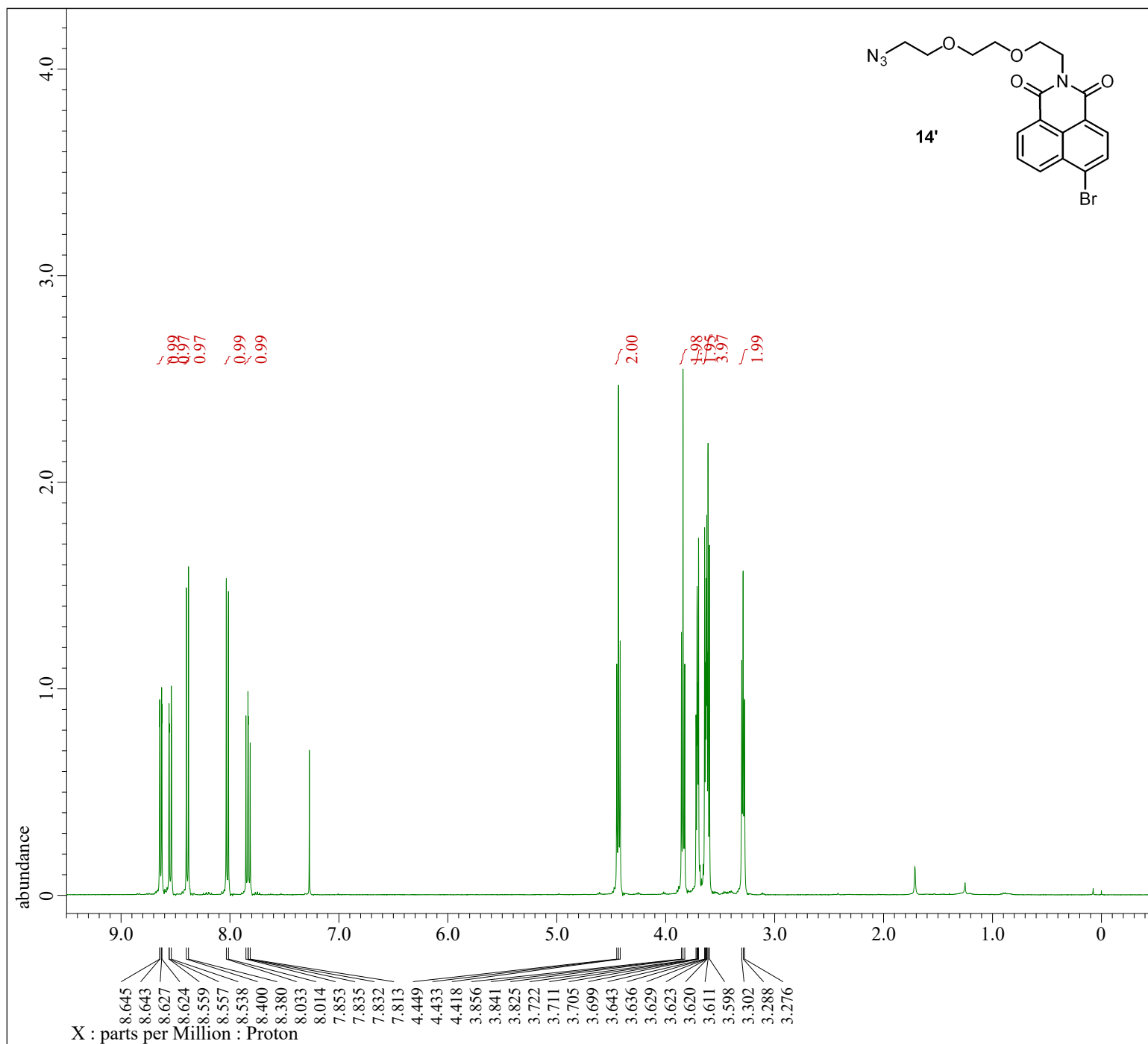


Filename = _RA-1-84-1phosphorus-1-3.
 Author = delta
 Experiment = single_pulse.ex2
 Sample_Id = S#564833
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 21-FEB-2022 15:42:55
 Revision_Time = 11-MAY-2022 12:52:29

Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Phosph
 Dim_Title = Phosphorus31
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 0.114688[s]
 X_Domain = 31P
 X_Freq = 161.83469309[MHz]
 X_Offset = 0[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 8.71930804[Hz]
 X_Sweep = 142.85714286[kHz]
 X_Sweep_Clippped = 114.28571429[kHz]
 Irr_Domain = Phosphorus31
 Irr_Freq = 161.83469309[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Phosphorus31
 Tri_Freq = 161.83469309[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 56
 Temp_Get = 21.5[dC]
 X_90_Width = 15.2[us]
 X_Acq_Time = 0.114688[s]
 X_Angle = 45[deg]
 X_Atn = 8[dB]
 X_Pulse = 7.6[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Automatic = TRUE
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 5.114688[s]

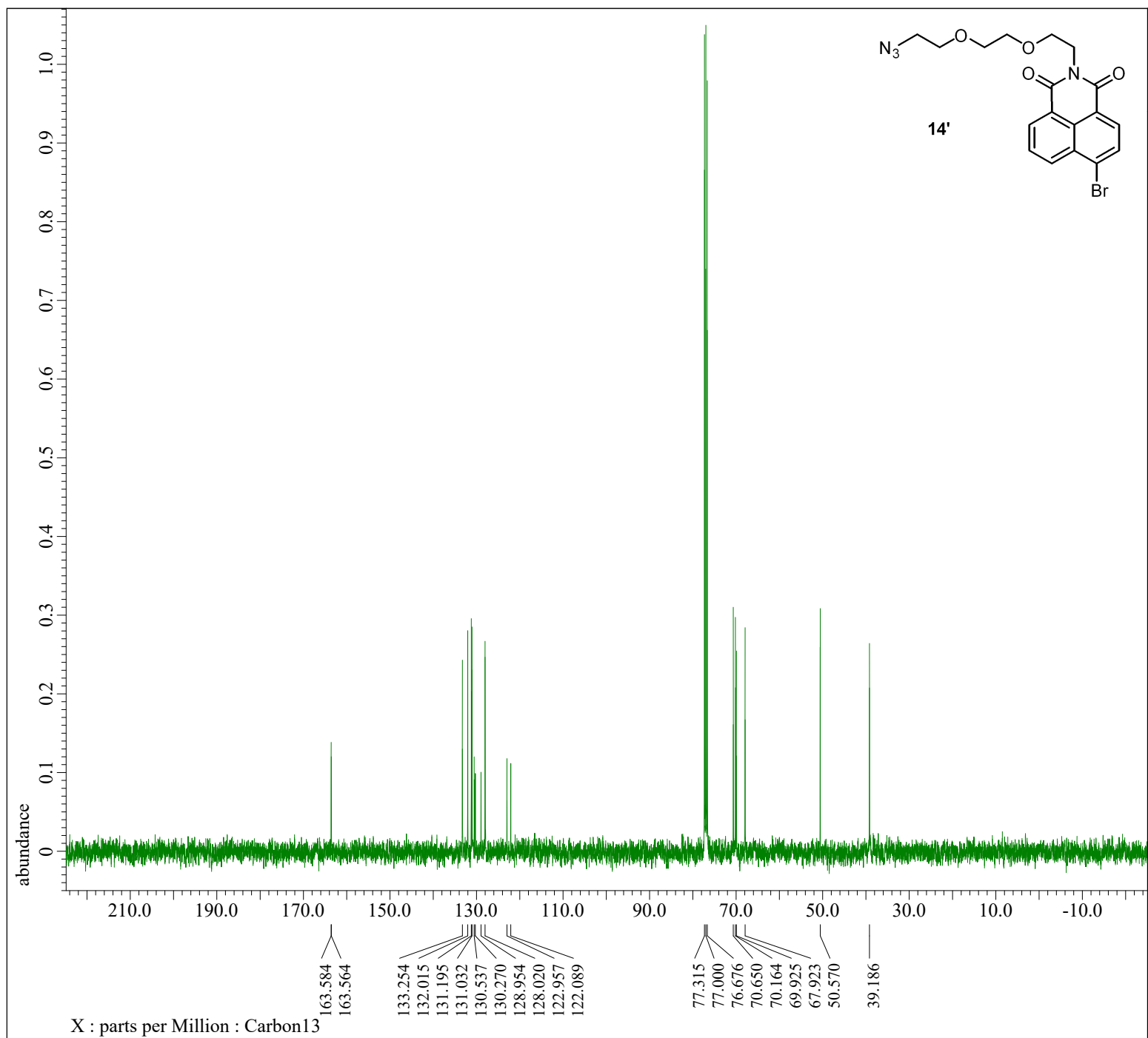


Filename = _RA-1-113-1proton-1-6.jdf
 Author = delta
 Experiment = proton.jxp
 Sample_Id = S#544031
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 24-JAN-2022 15:07:30
 Revision_Time = 5-JUL-2022 14:56:06

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 34
 Temp_Get = 21.1[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]

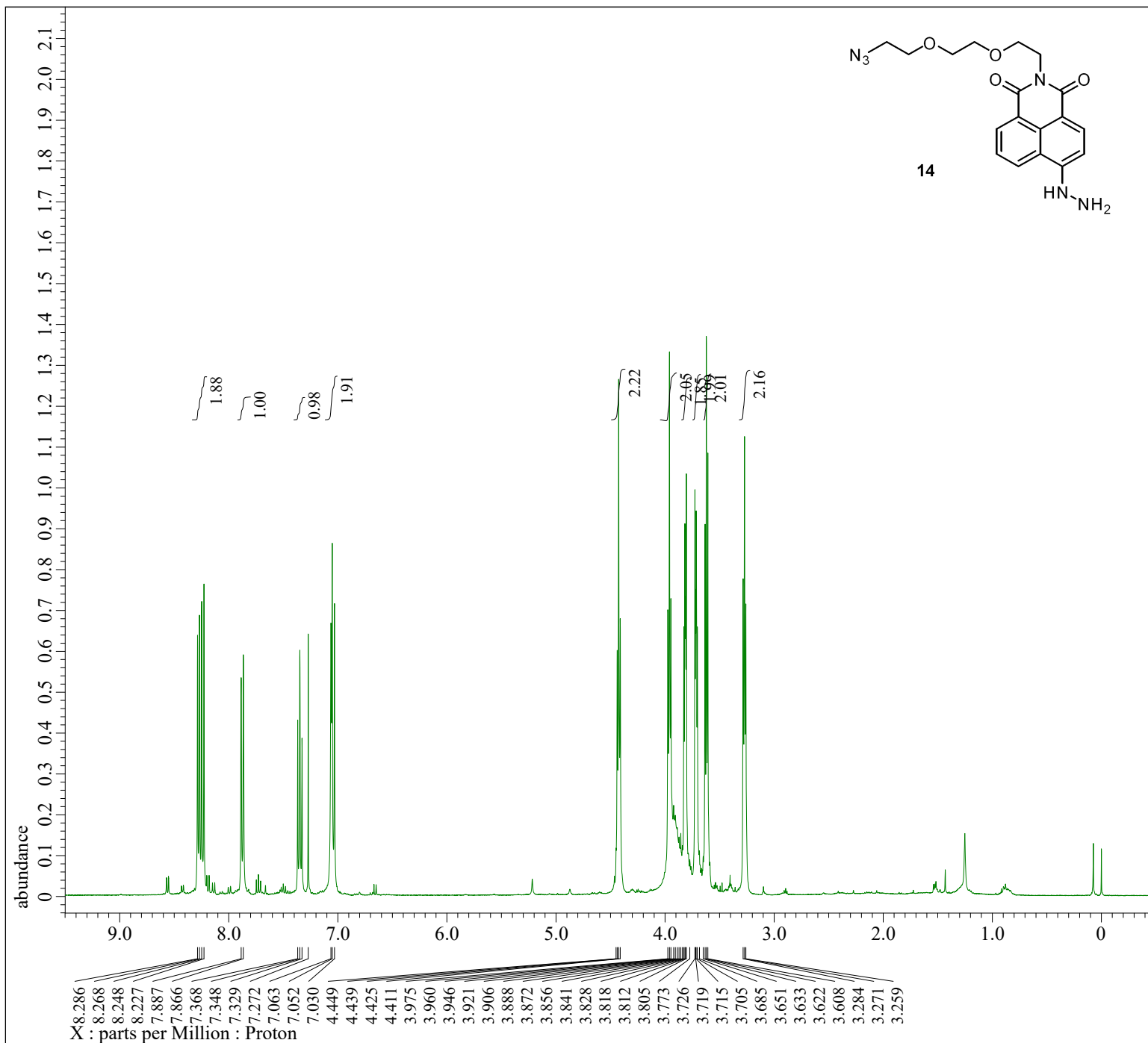


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 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#546332
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 24-JAN-2022 15:10:59
 Revision_Time = 24-JAN-2022 15:56:03

Comment = single pulse decoupled ga
 Data_Format = 1D_COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 131
 Total_Scans = 131

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 21.7[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]

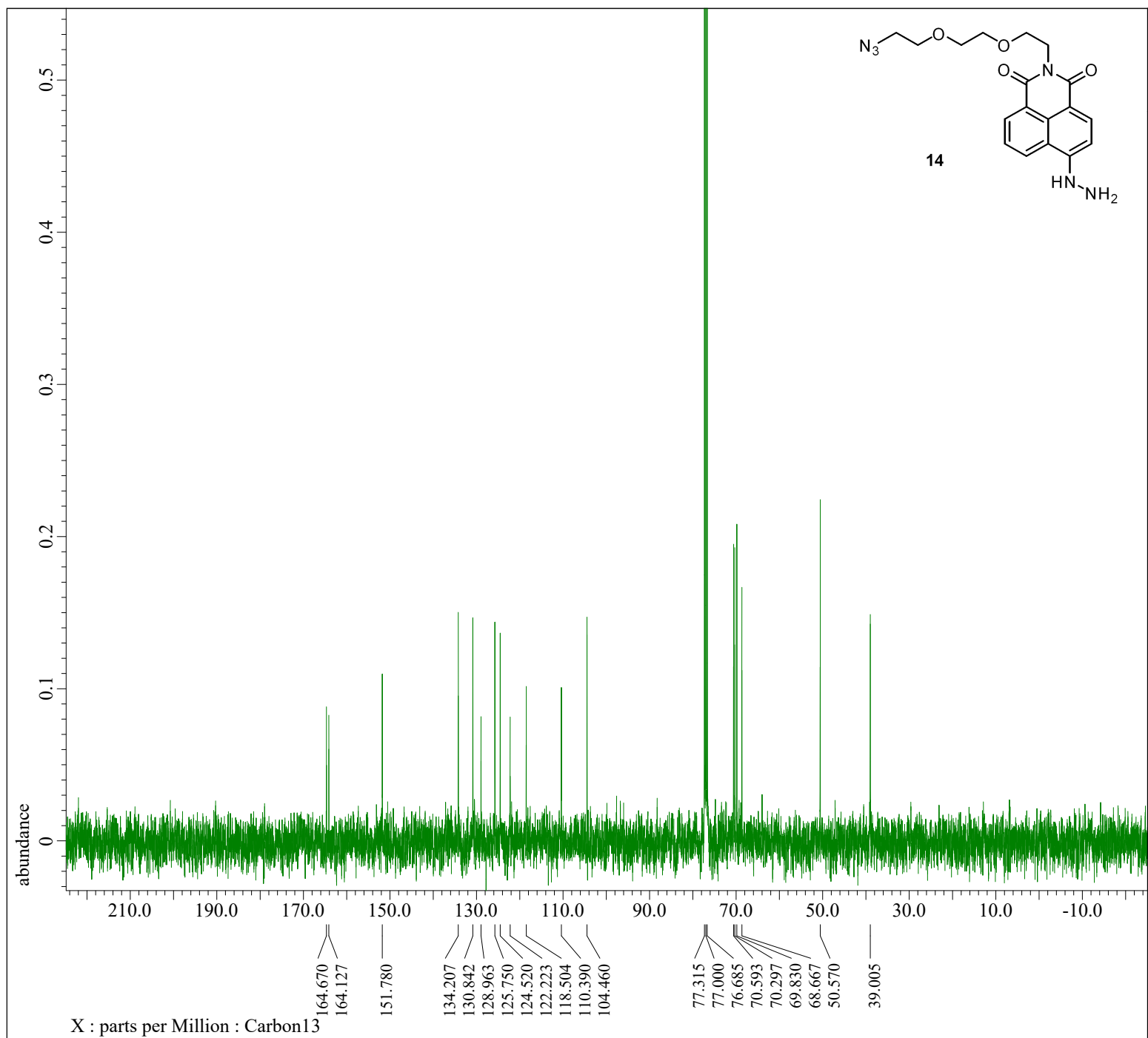


Filename = _RA-1-114-1-2proton-1-7.j
 Author = delta
 Experiment = proton.jxp
 Sample_Id = S#599422
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 26-JAN-2022 16:40:39
 Revision_Time = 5-JUL-2022 15:05:19

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 8
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 34
 Temp_Get = 21.9[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]

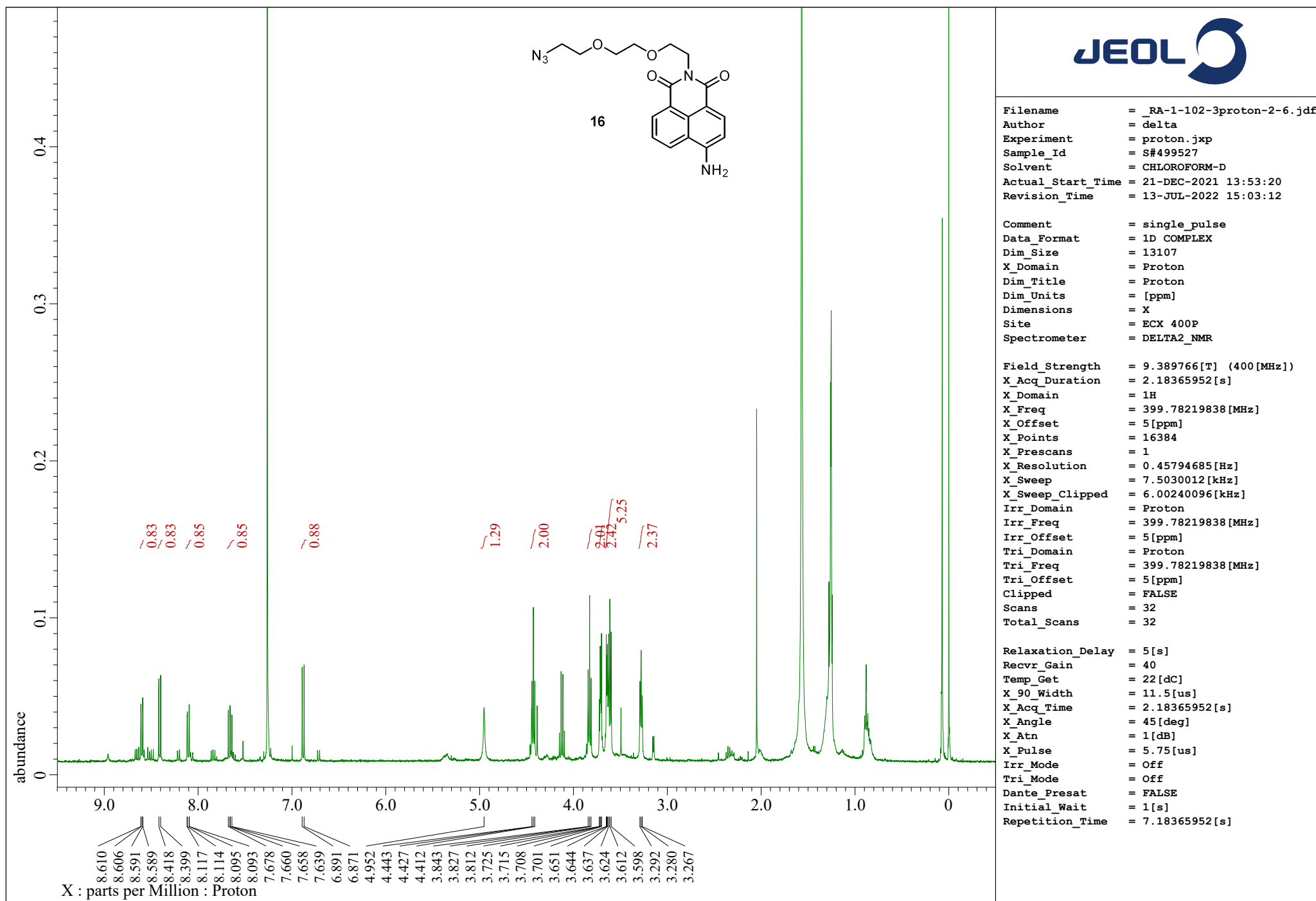


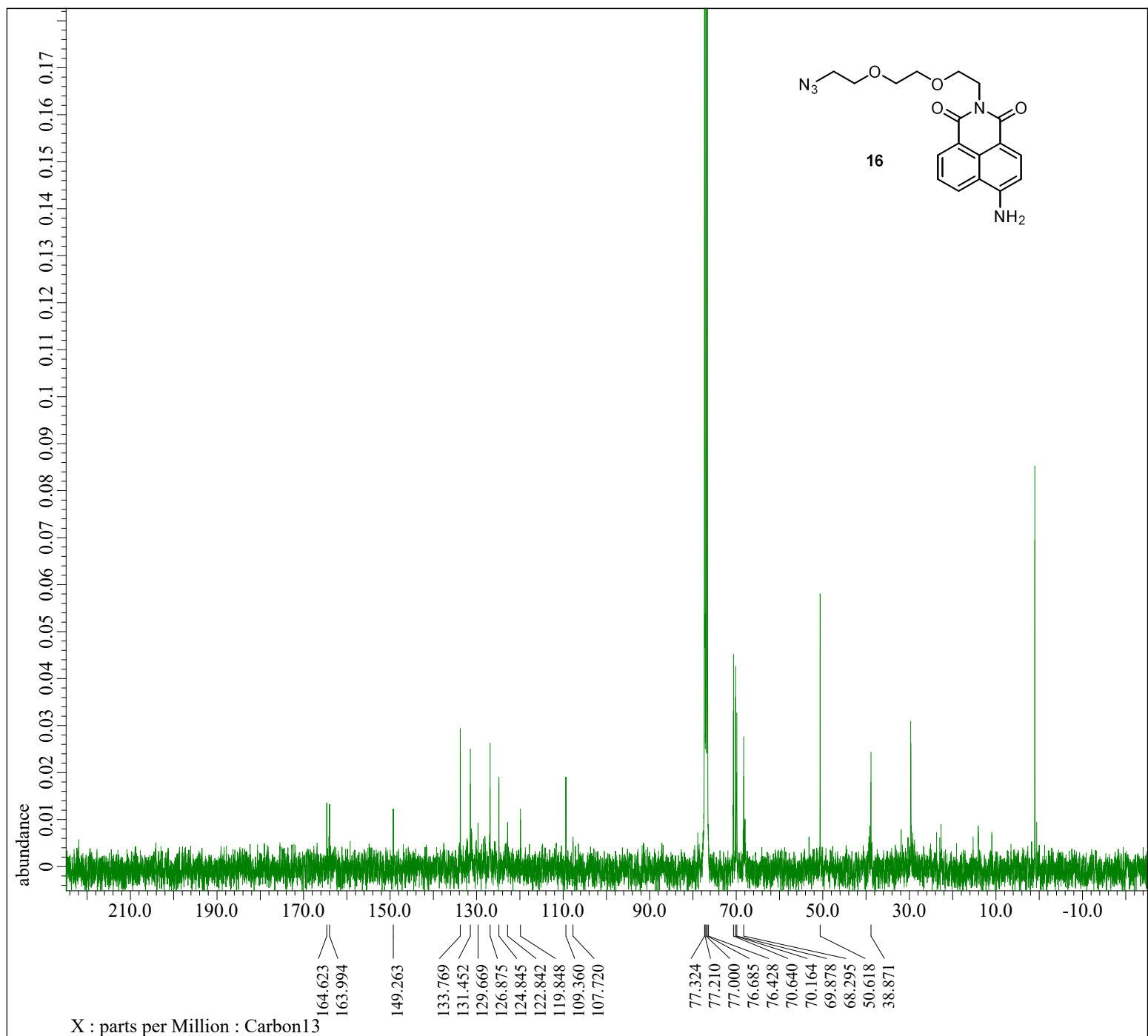
Filename = _RA-1-114-1-2carbon-1-4.j
 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#602563
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 26-JAN-2022 16:44:54
 Revision_Time = 26-JAN-2022 17:09:41

Comment = single pulse decoupled ga
 Data_Format = 1D_COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 8
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 88
 Total_Scans = 88

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 22[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]



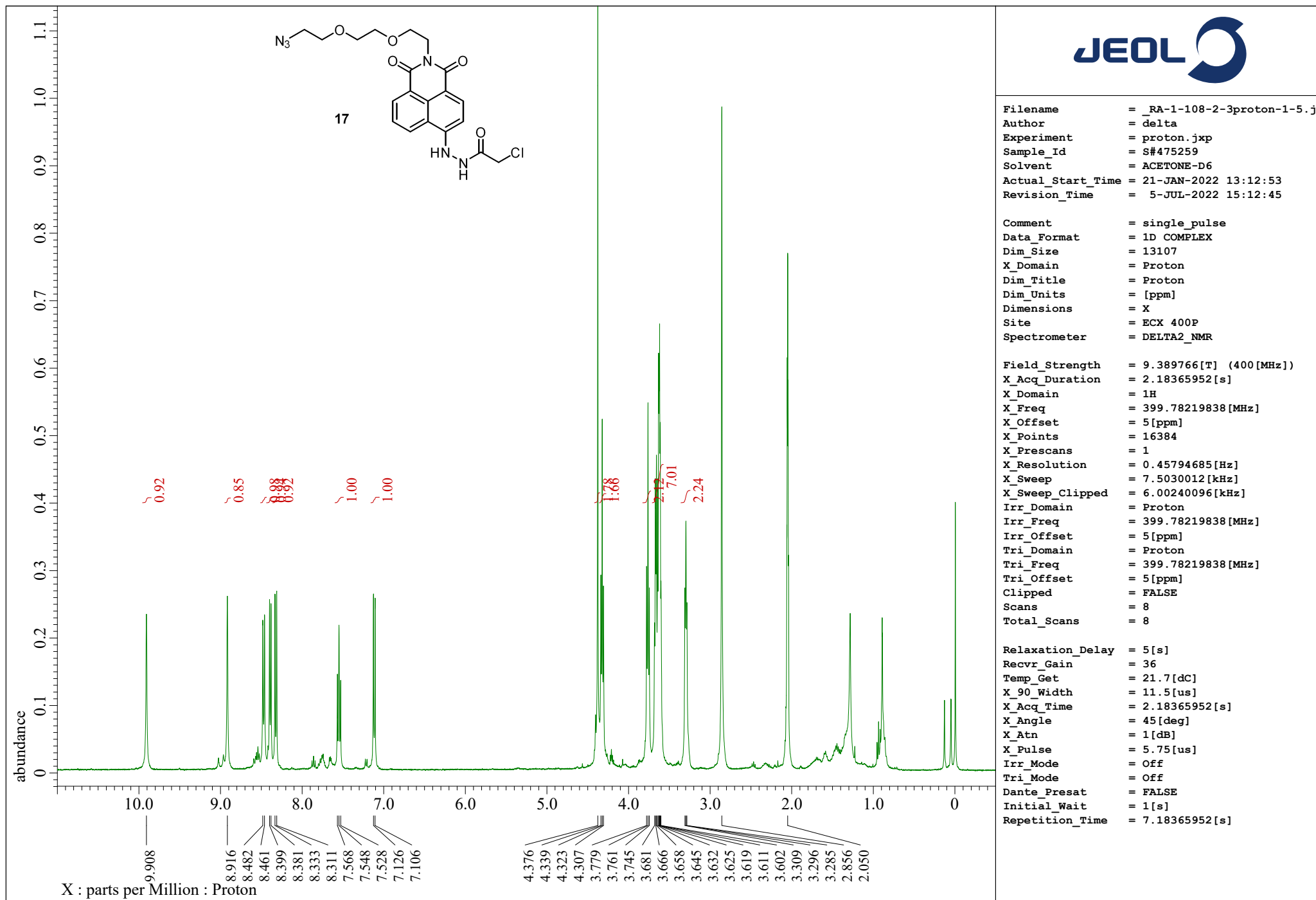


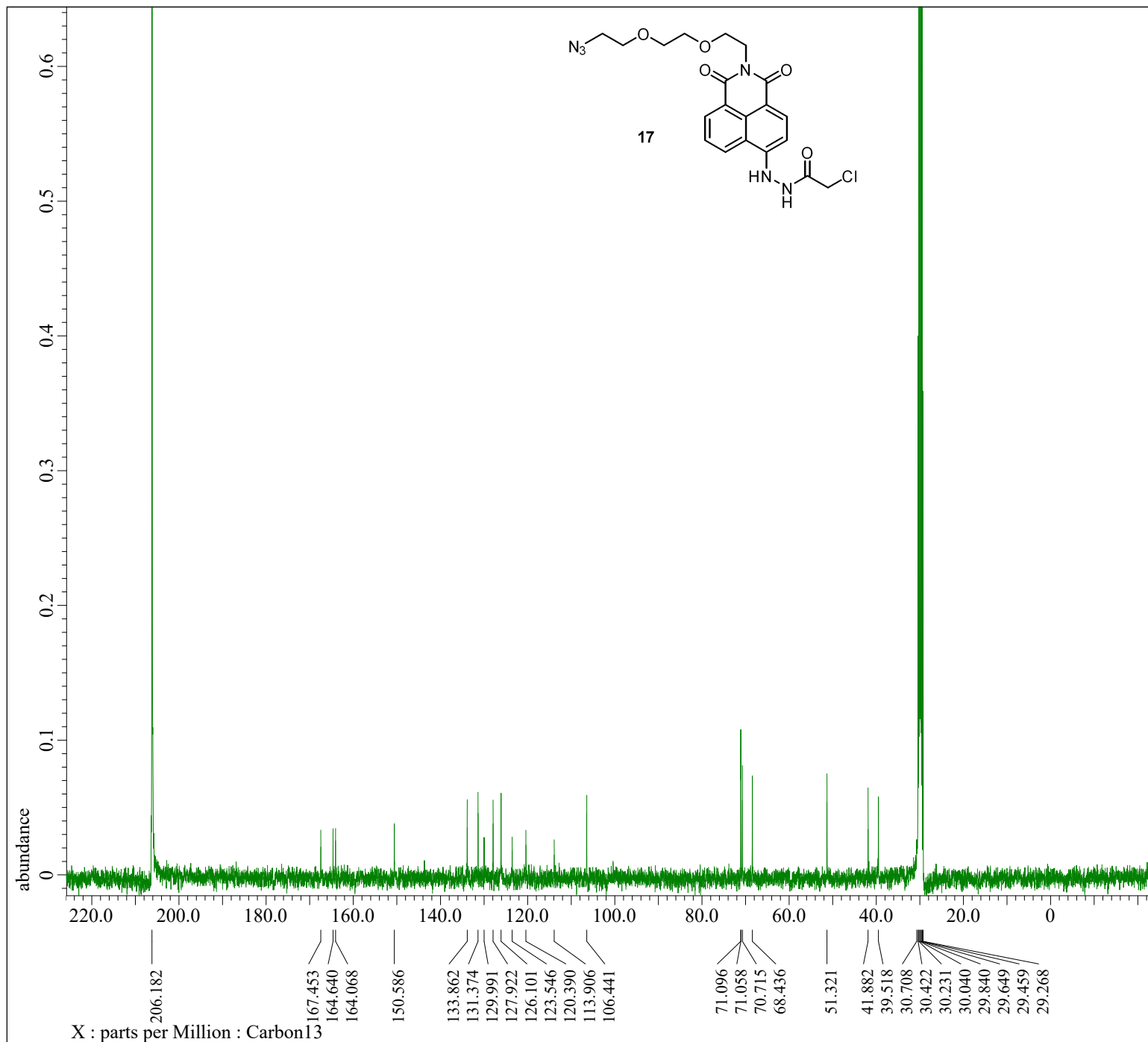
Filename = _RA-1-128-1-2carbon-1-6.j
 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#472575
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 11-MAY-2022 13:08:03
 Revision_Time = 11-MAY-2022 15:14:09

Comment = single pulse decoupled ga
 Data_Format = 1D COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 1685
 Total_Scans = 1685

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 23[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]



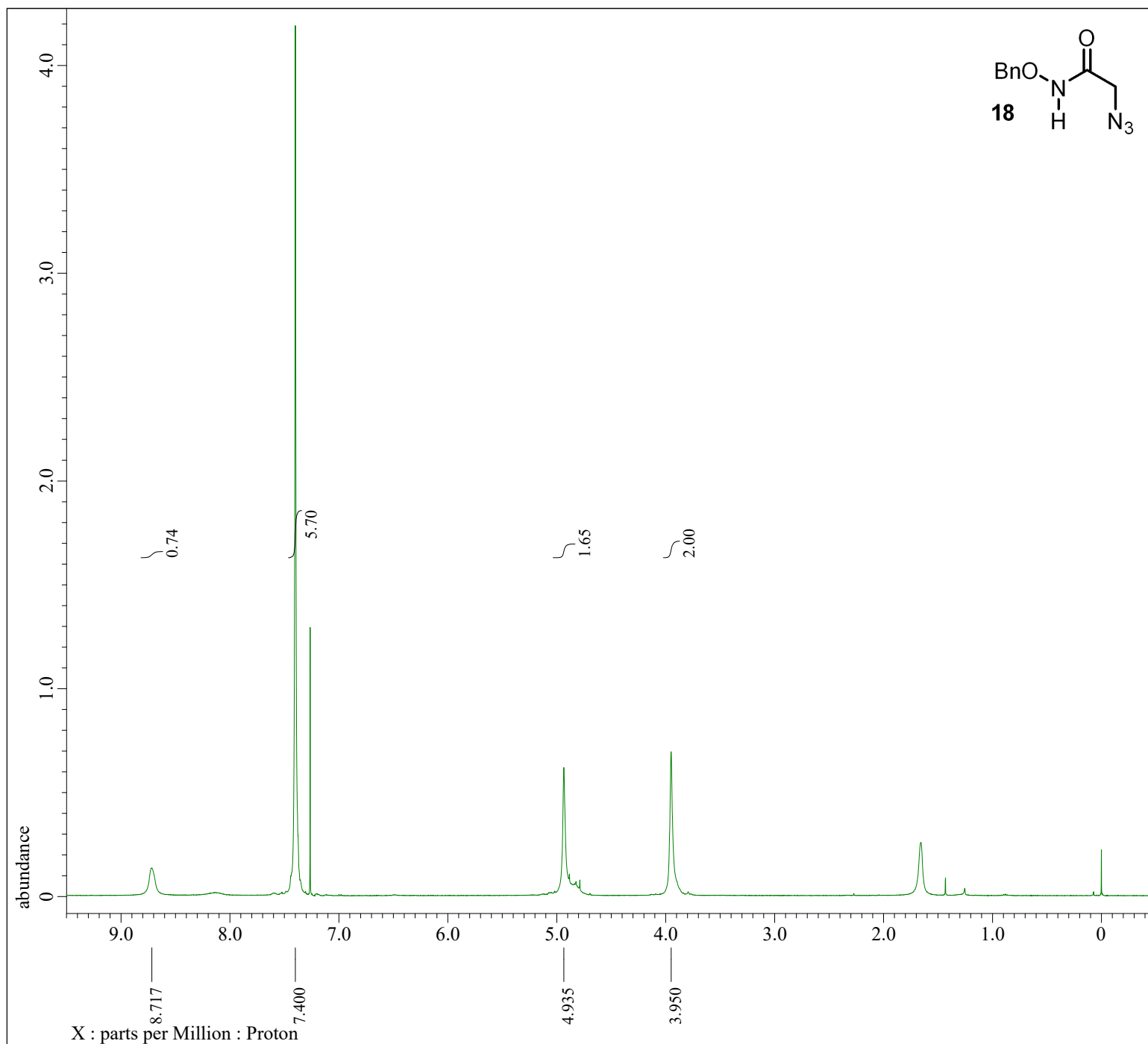


Filename = _RA-1-108-2-3carbon-1-4.j
 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#478434
 Solvent = ACETONE-D6
 Actual_Start_Time = 21-JAN-2022 13:17:49
 Revision_Time = 21-JAN-2022 14:38:04

Comment = single pulse decoupled ga
 Data_Format = 1D COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 1.04333312[s]
 X_Domain = 13C
 X_Freq = 100.52530333[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 0.95846665[Hz]
 X_Sweep = 31.40703518[kHz]
 X_Sweep_Clippped = 25.12562814[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 550
 Total_Scans = 550

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 21.9[dC]
 X_90_Width = 11[us]
 X_Acq_Time = 1.04333312[s]
 X_Angle = 30[deg]
 X_Atn = 4[dB]
 X_Pulse = 3.66666667[us]
 Irr_Atn_Dec = 21[dB]
 Irr_Atn_Noe = 21[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 0.115[ms]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 3.04333312[s]

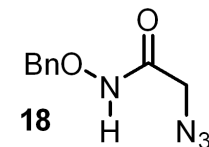
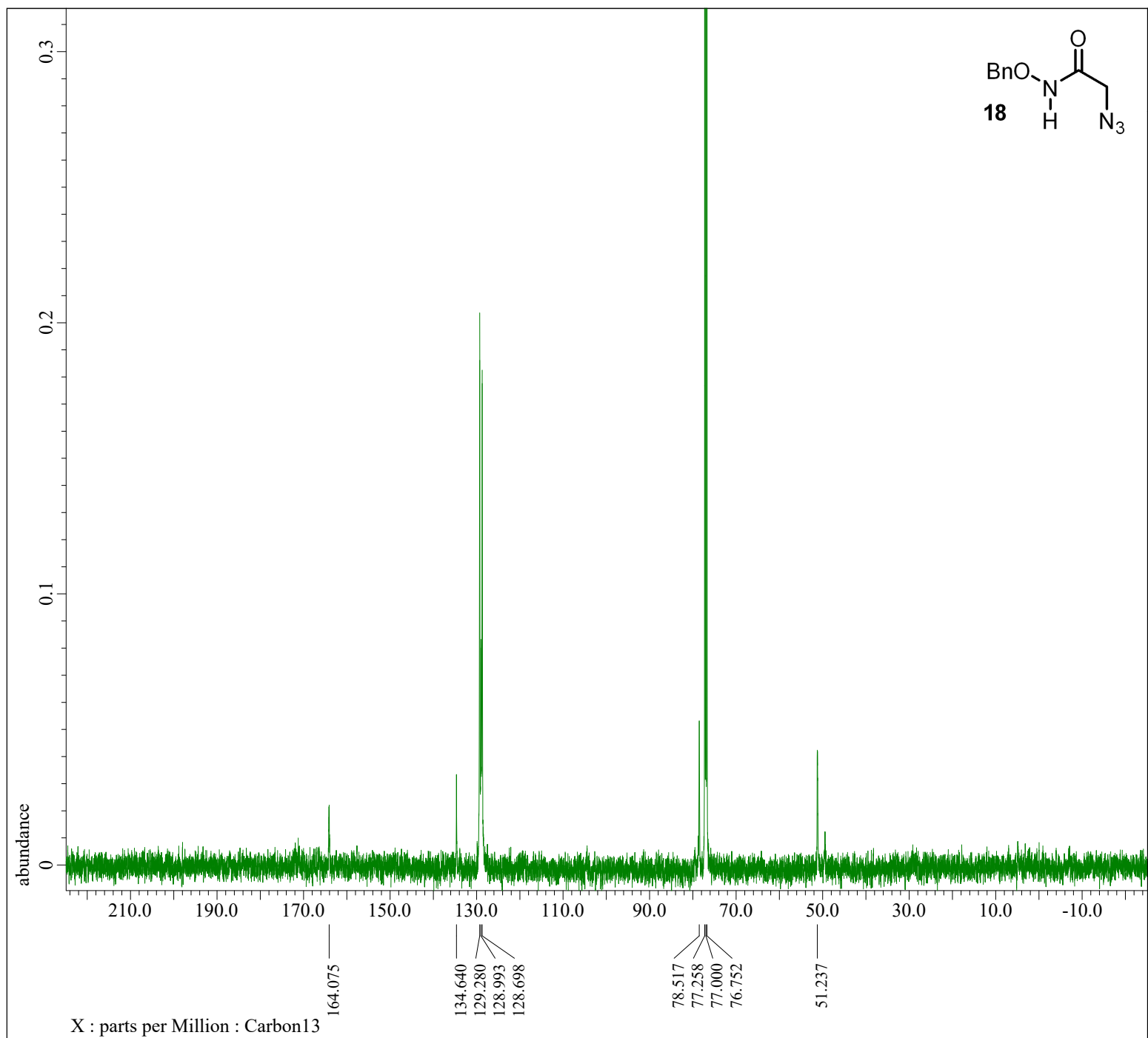


Filename = _RA-1-10-2proton-1-5.jdf
 Author = delta
 Experiment = proton.jxp
 Sample_Id = S#583447
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 19-JUL-2022 16:13:11
 Revision_Time = 16-SEP-2022 17:55:57

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 36
 Temp_Get = 23.1[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]

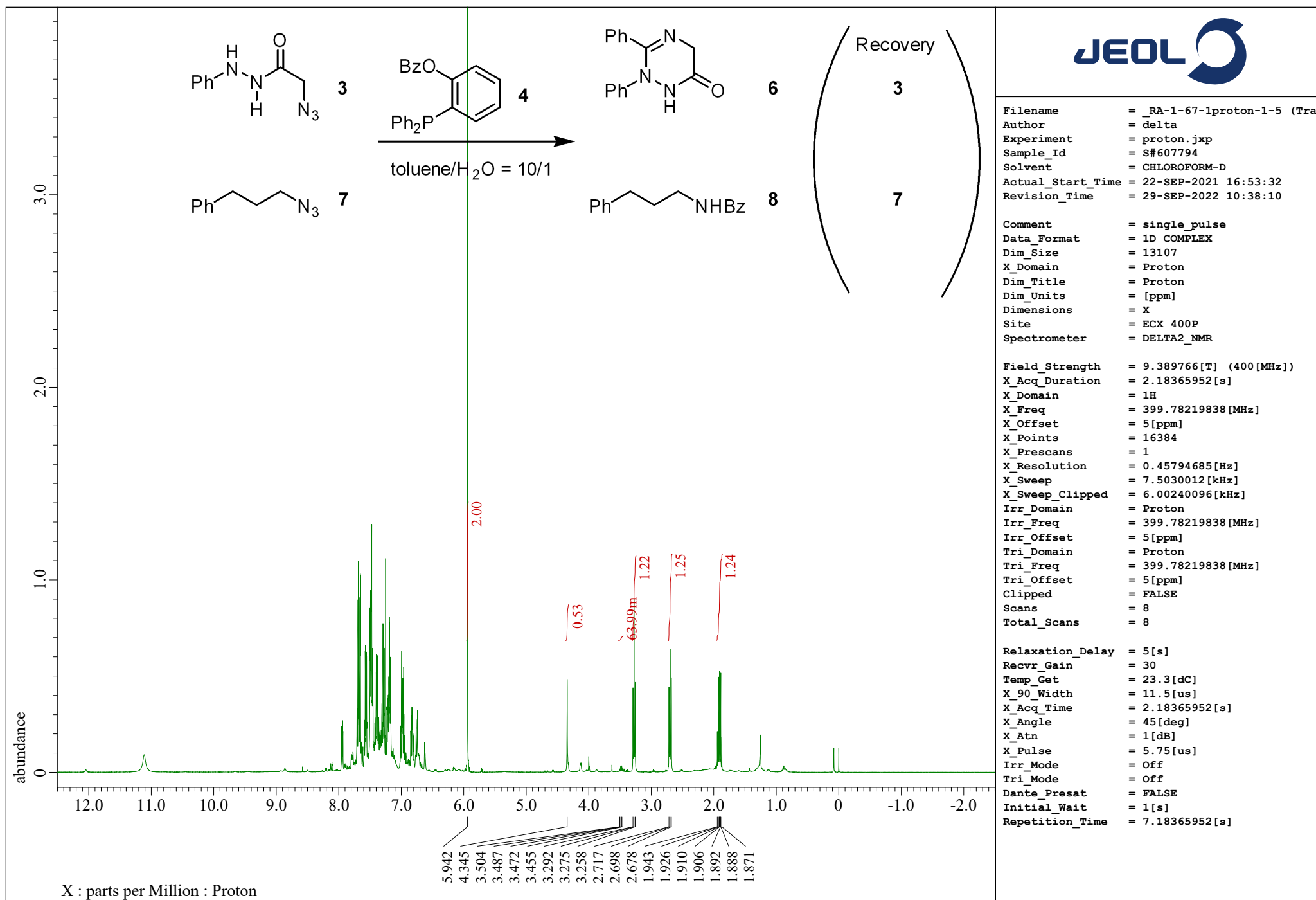


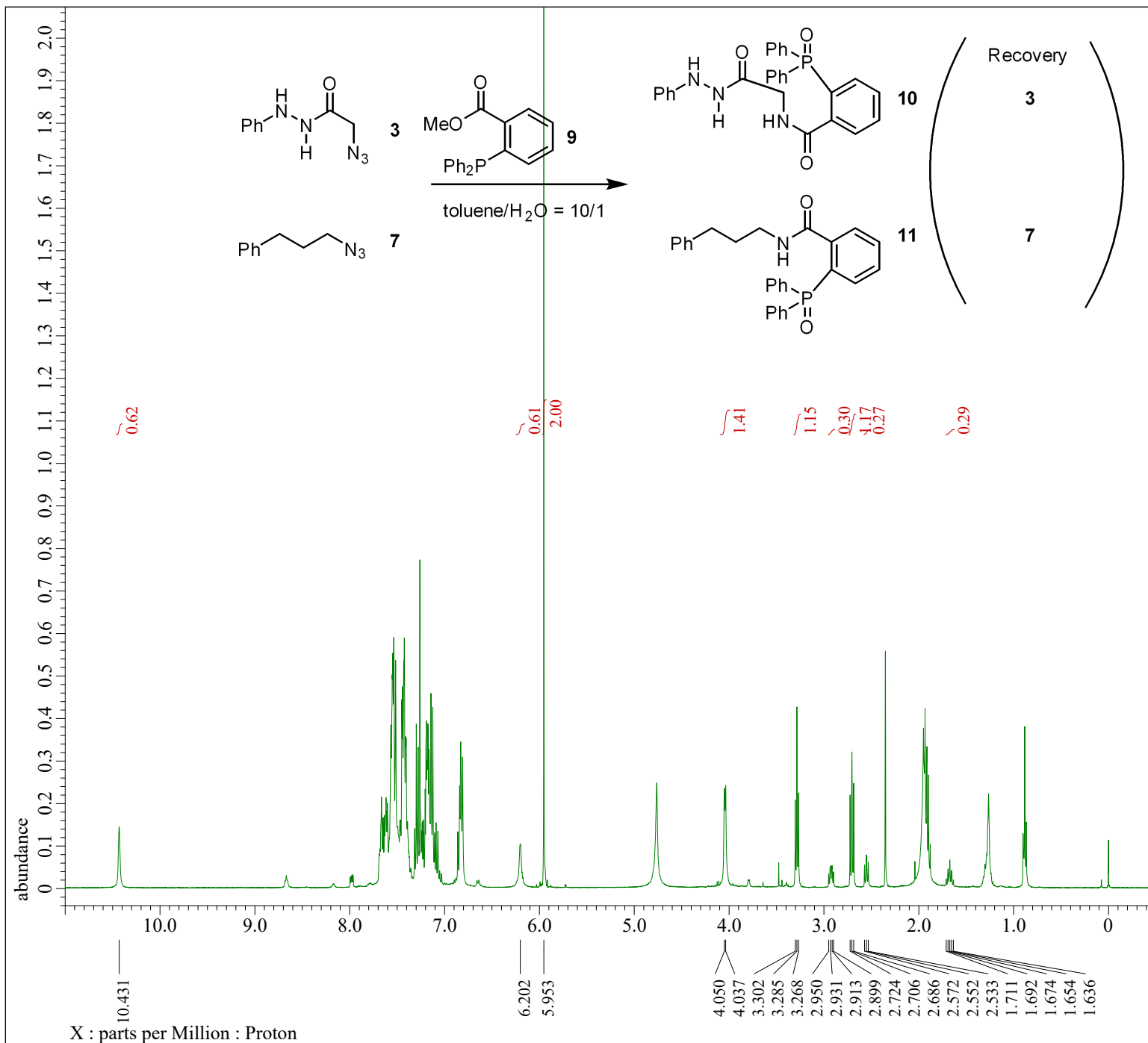
Filename = _RA-1-10-2carbon-1-3.jdf
 Author = delta
 Experiment = carbon.jxp
 Sample_Id = S#578978
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 20-JUL-2022 16:05:27
 Revision_Time = 20-JUL-2022 17:20:13

Comment = single pulse decoupled ga
 Data_Format = 1D COMPLEX
 Dim_Size = 26214
 X_Domain = Carbon
 Dim_Title = Carbon13
 Dim_Units = [ppm]
 Dimensions = X
 Site = JNM-ECA500II
 Spectrometer = DELTA2_NMR

Field_Strength = 11.7473579[T] (500[MHz])
 X_Acq_Duration = 0.83361792[s]
 X_Domain = 13C
 X_Freq = 125.76529768[MHz]
 X_Offset = 100[ppm]
 X_Points = 32768
 X_Prescans = 4
 X_Resolution = 1.19959034[Hz]
 X_Sweep = 39.3081761[kHz]
 X_Sweep_Clippped = 31.44654088[kHz]
 Irr_Domain = Proton
 Irr_Freq = 500.15991521[MHz]
 Irr_Offset = 5.0[ppm]
 Clipped = FALSE
 Scans = 1024
 Total_Scans = 1024

Relaxation_Delay = 2[s]
 Recvr_Gain = 58
 Temp_Get = 21.9[dC]
 X_90_Width = 10.9[us]
 X_Acq_Time = 0.83361792[s]
 X_Angle = 30[deg]
 X_Atn = 8.2[dB]
 X_Pulse = 3.63333333[us]
 Irr_Atn_Dec = 22.955[dB]
 Irr_Atn_Noe = 22.955[dB]
 Irr_Noise = WALTZ
 Irr_Pwidth = 75[us]
 Decoupling = TRUE
 Initial_Wait = 1[s]
 Noe = TRUE
 Noe_Time = 2[s]
 Repetition_Time = 2.83361792[s]





Filename = _RA-1-91-lproton-1-4 (Sta
 Author = delta
 Experiment = proton.jxp
 Sample_Id = S#610475
 Solvent = CHLOROFORM-D
 Actual_Start_Time = 29-OCT-2021 16:58:29
 Revision_Time = 2-SEP-2022 18:21:34

Comment = single_pulse
 Data_Format = 1D_COMPLEX
 Dim_Size = 13107
 X_Domain = Proton
 Dim_Title = Proton
 Dim_Units = [ppm]
 Dimensions = X
 Site = ECX 400P
 Spectrometer = DELTA2_NMR

Field_Strength = 9.389766[T] (400[MHz])
 X_Acq_Duration = 2.18365952[s]
 X_Domain = 1H
 X_Freq = 399.78219838[MHz]
 X_Offset = 5[ppm]
 X_Points = 16384
 X_Prescans = 1
 X_Resolution = 0.45794685[Hz]
 X_Sweep = 7.5030012[kHz]
 X_Sweep_Clippped = 6.00240096[kHz]
 Irr_Domain = Proton
 Irr_Freq = 399.78219838[MHz]
 Irr_Offset = 5[ppm]
 Tri_Domain = Proton
 Tri_Freq = 399.78219838[MHz]
 Tri_Offset = 5[ppm]
 Clipped = FALSE
 Scans = 8
 Total_Scans = 8

Relaxation_Delay = 5[s]
 Recvr_Gain = 34
 Temp_Get = 22.5[dC]
 X_90_Width = 11.5[us]
 X_Acq_Time = 2.18365952[s]
 X_Angle = 45[deg]
 X_Atn = 1[dB]
 X_Pulse = 5.75[us]
 Irr_Mode = Off
 Tri_Mode = Off
 Dante_Presat = FALSE
 Initial_Wait = 1[s]
 Repetition_Time = 7.18365952[s]