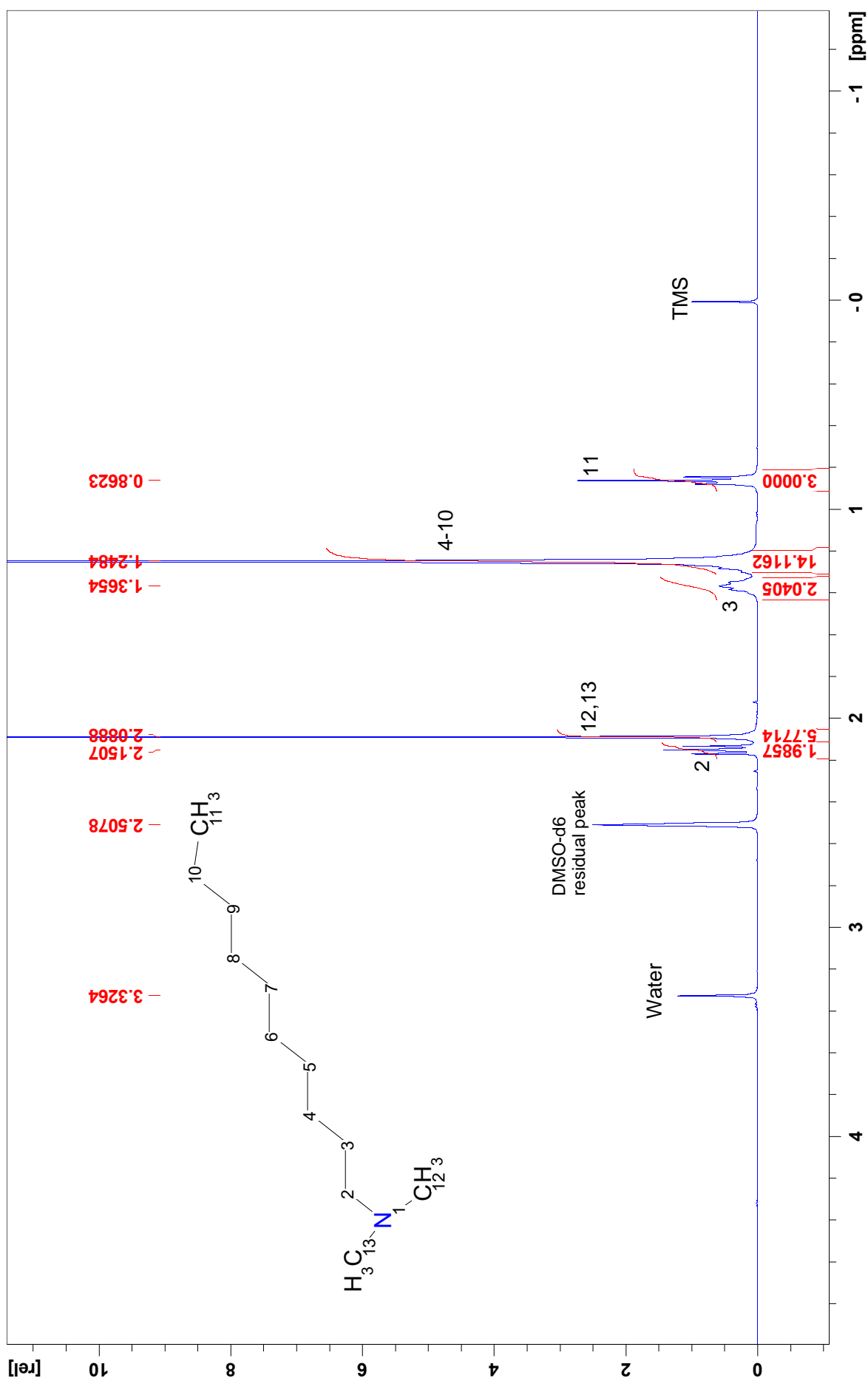


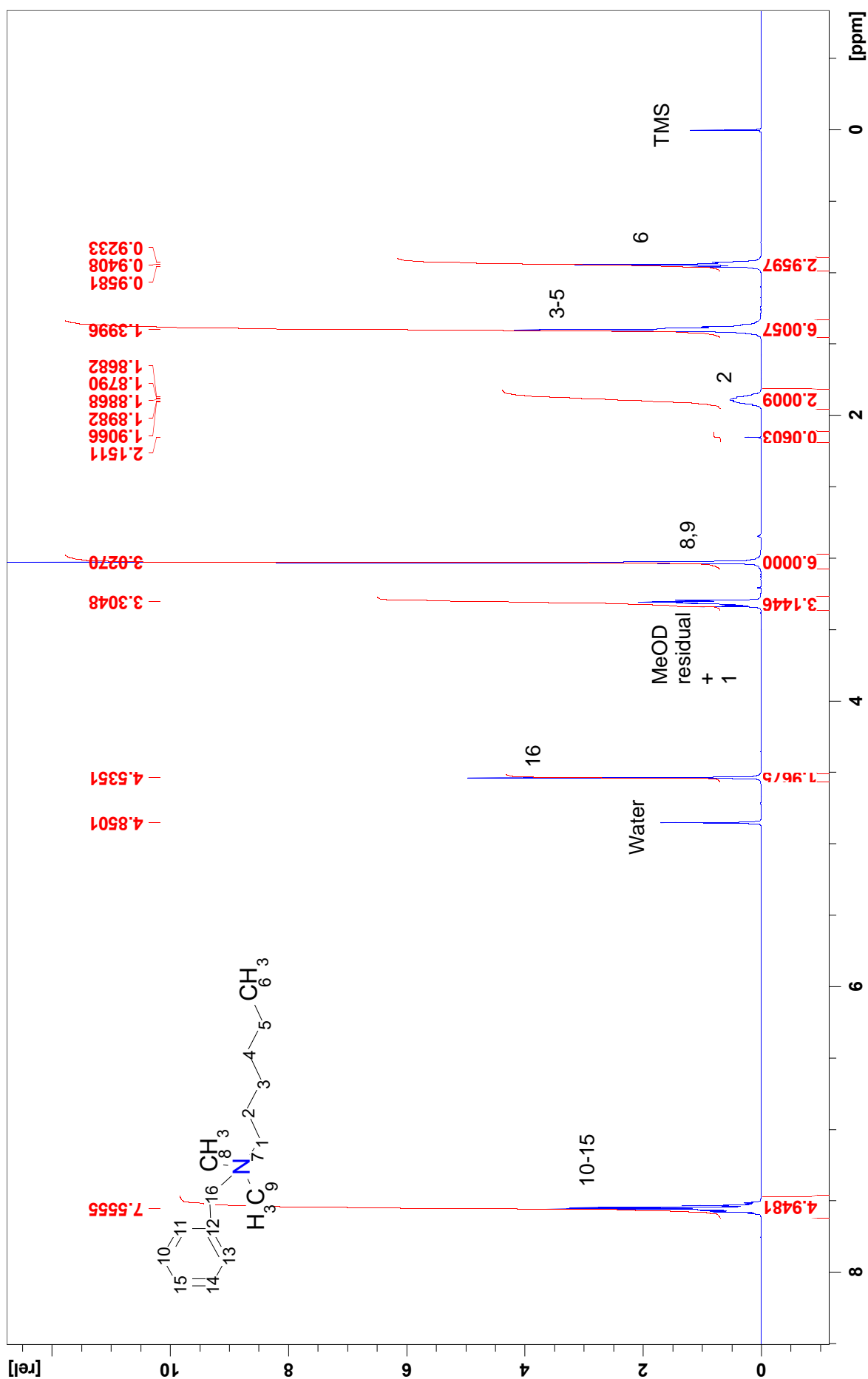
Appendix A-0

Decyldimethylamine



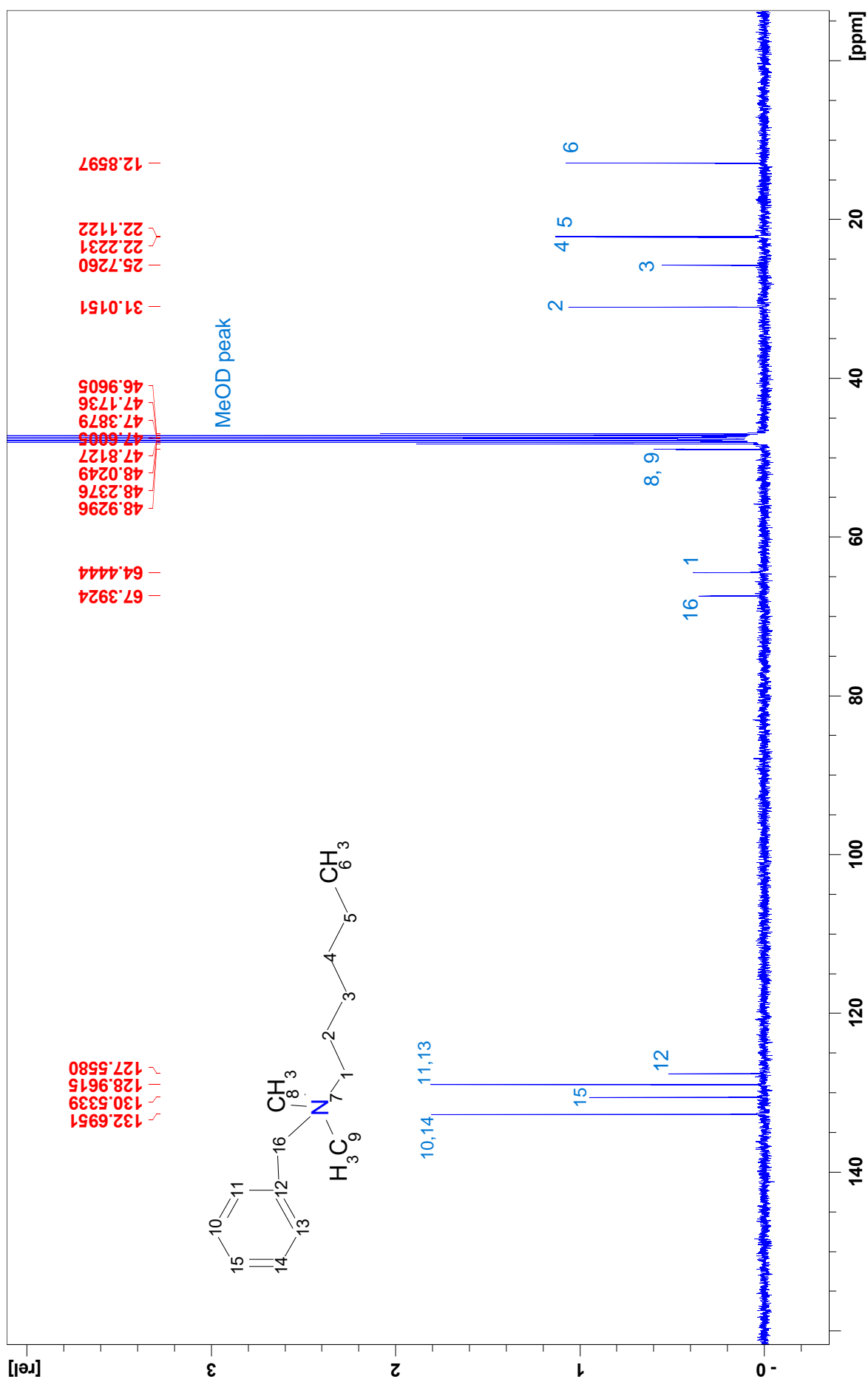
Appendix A-1.1

a1 - BAC-6



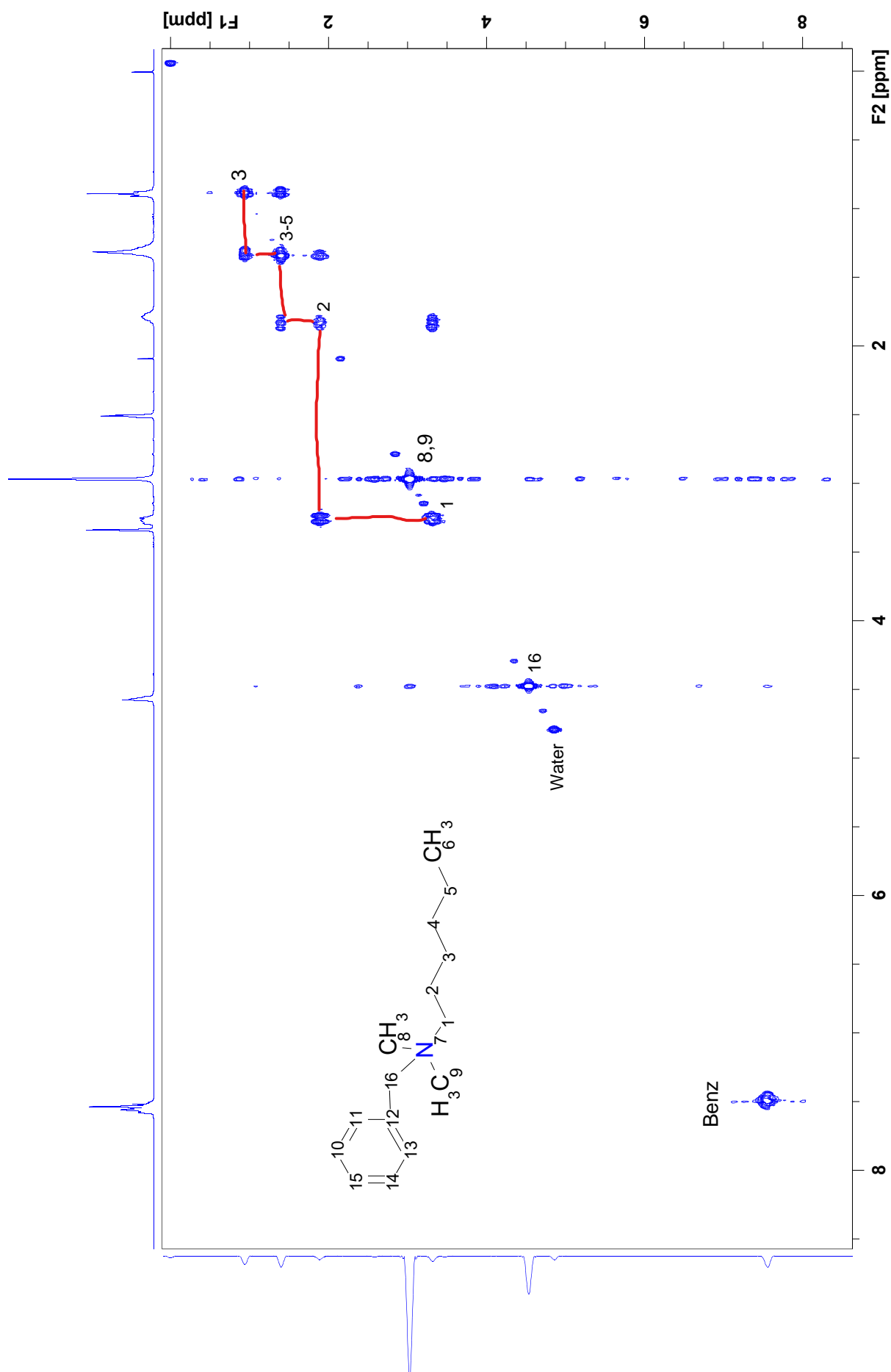
Appendix A-1.2

a1 - BAC-6



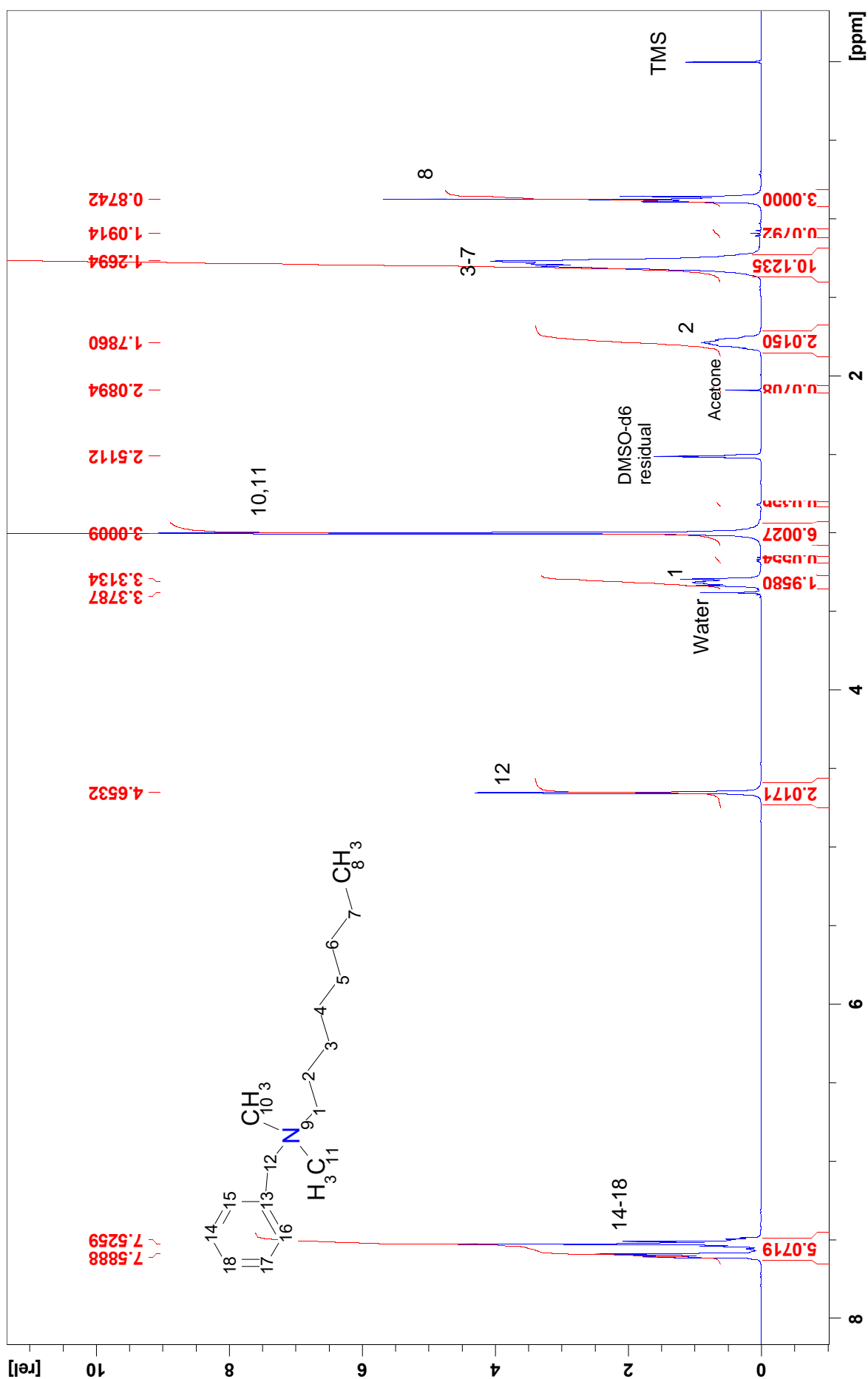
Appendix A-1.3

a1 - BAC-6



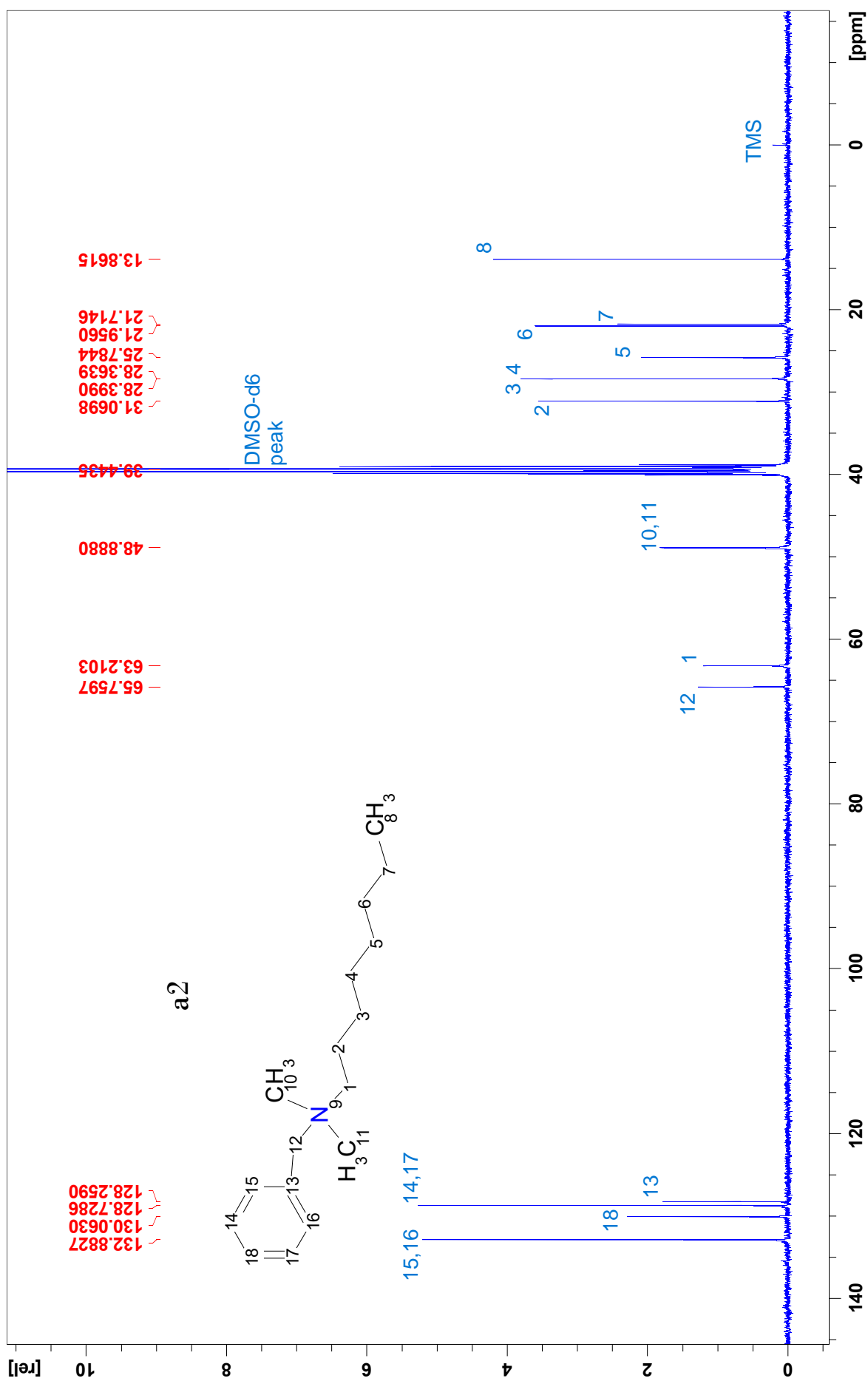
Appendix A-2.1

a2 - BAC-8



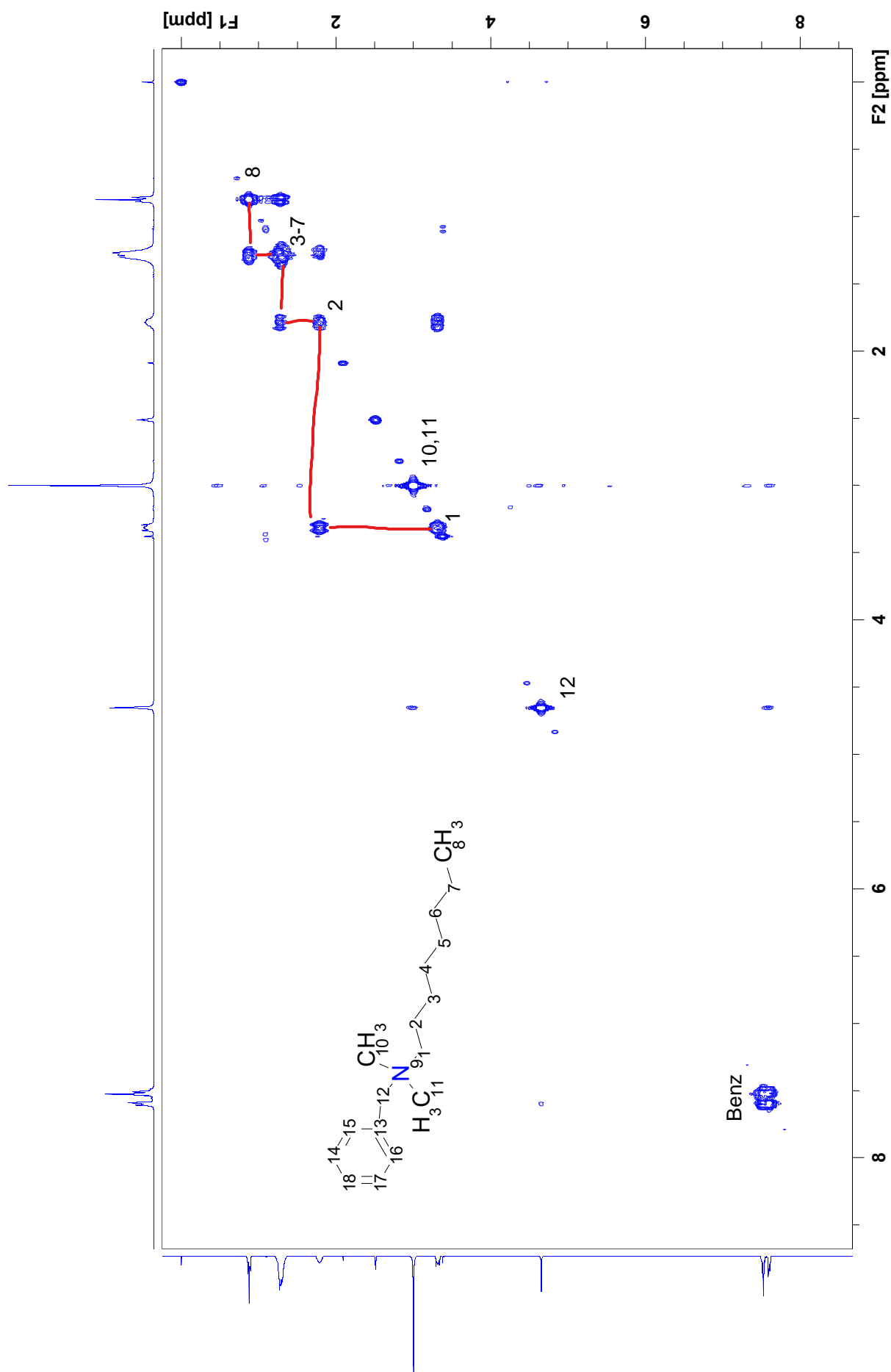
Appendix A-2.2

a2 - BAC-8



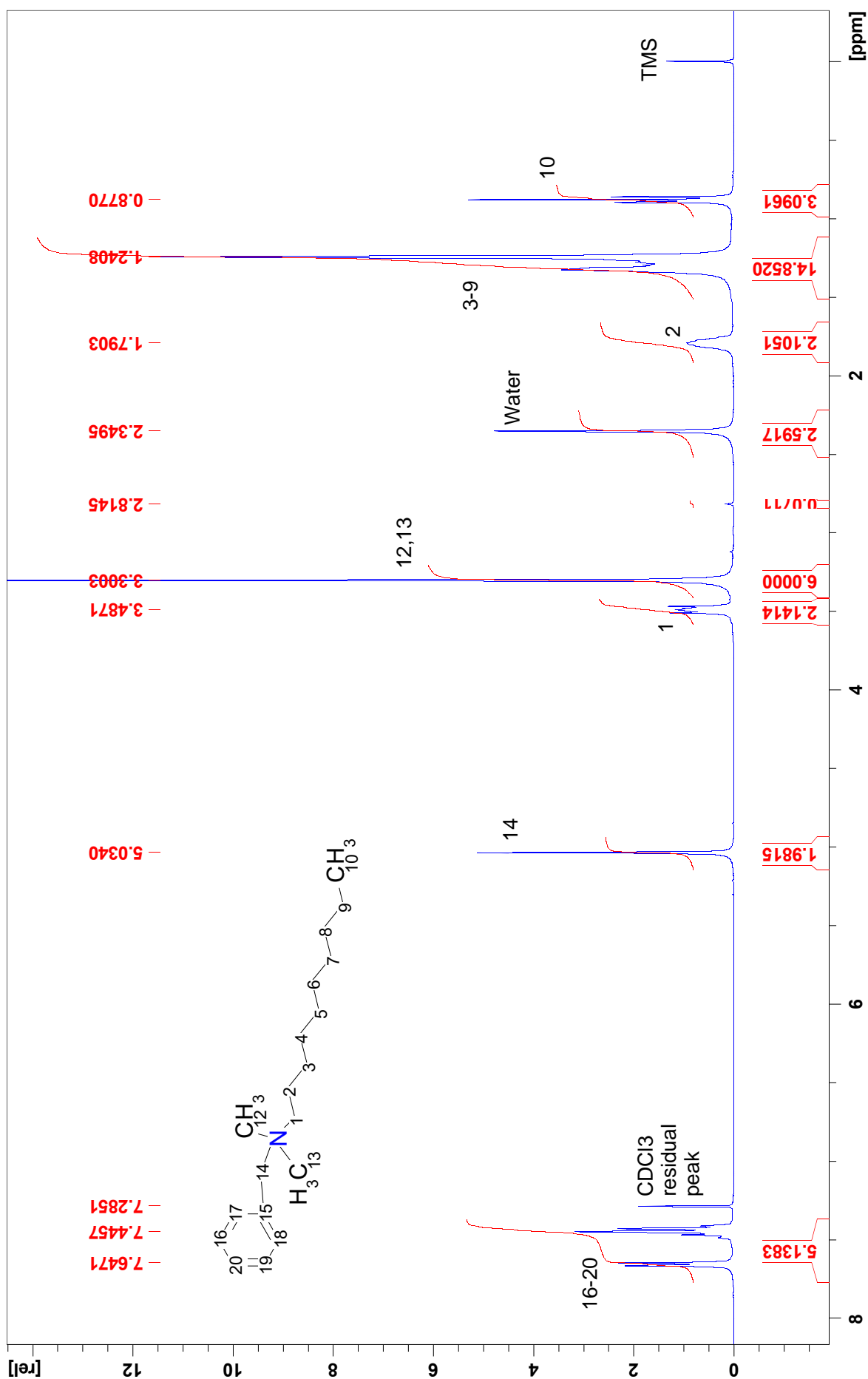
Appendix A-2.3

a2 - BAC-8



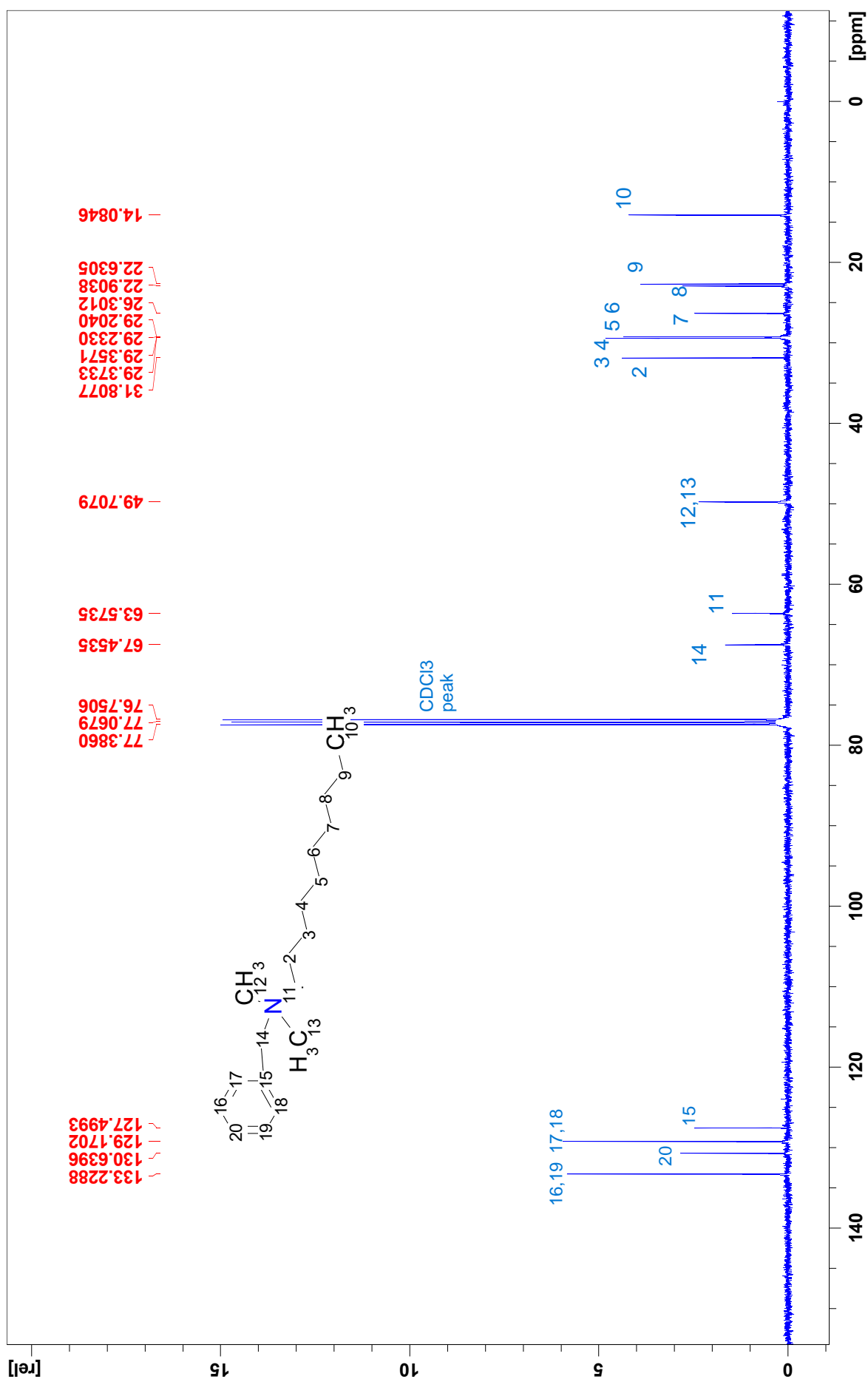
Appendix A-3.1

a3 - BAC-10



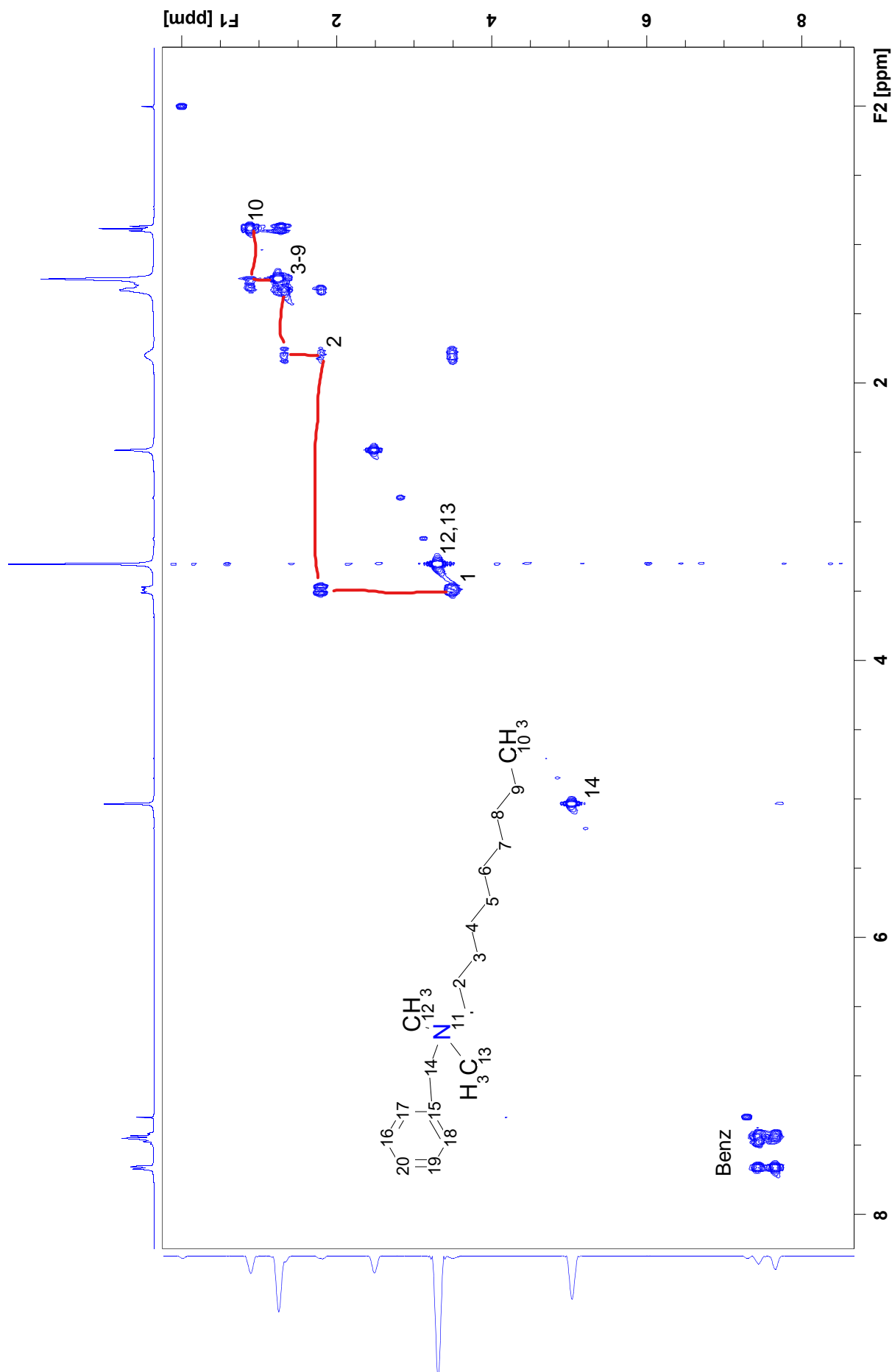
Appendix A-3.2

a3 - BAC-10



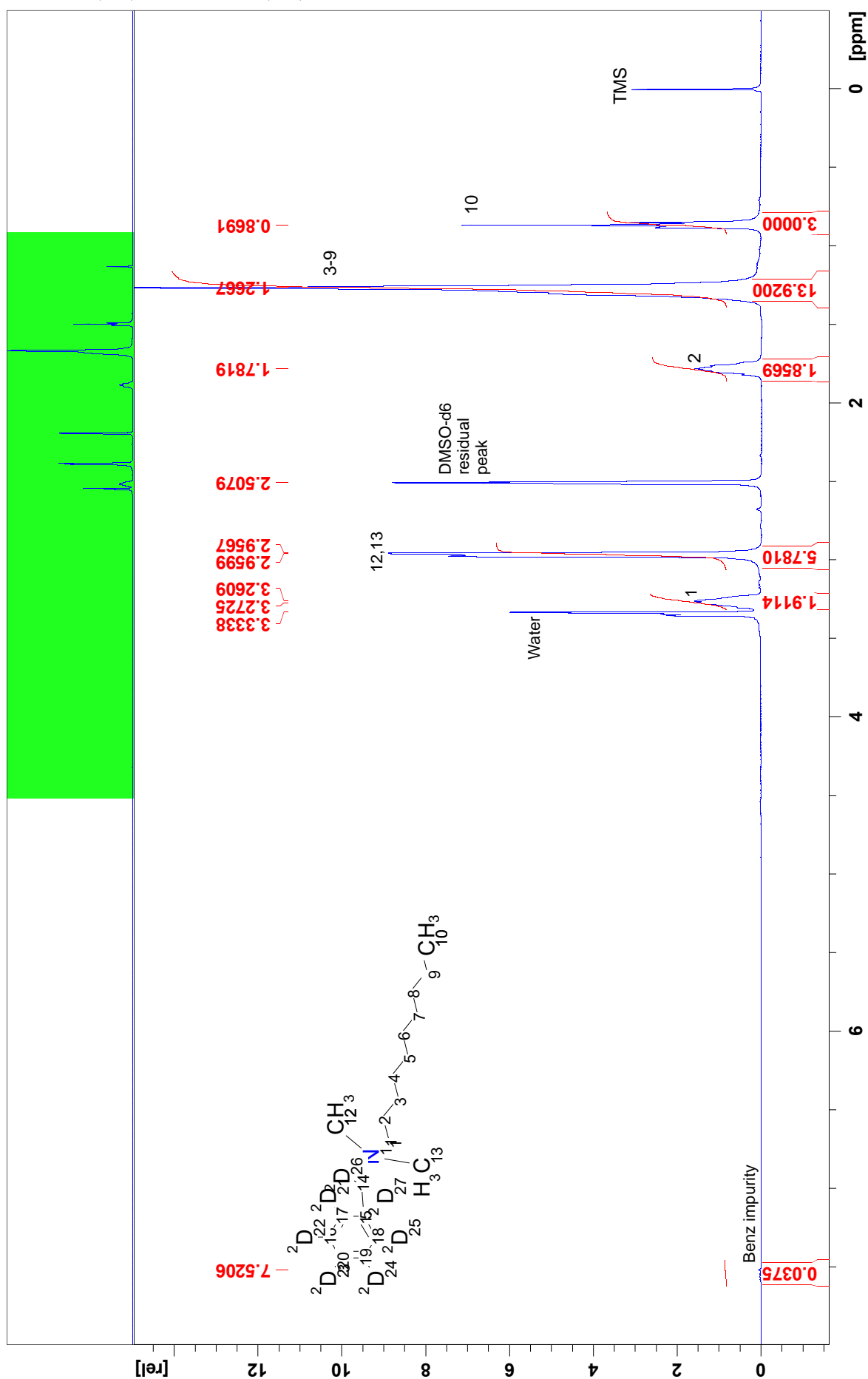
Appendix A-3.3

a3 - BAC-10



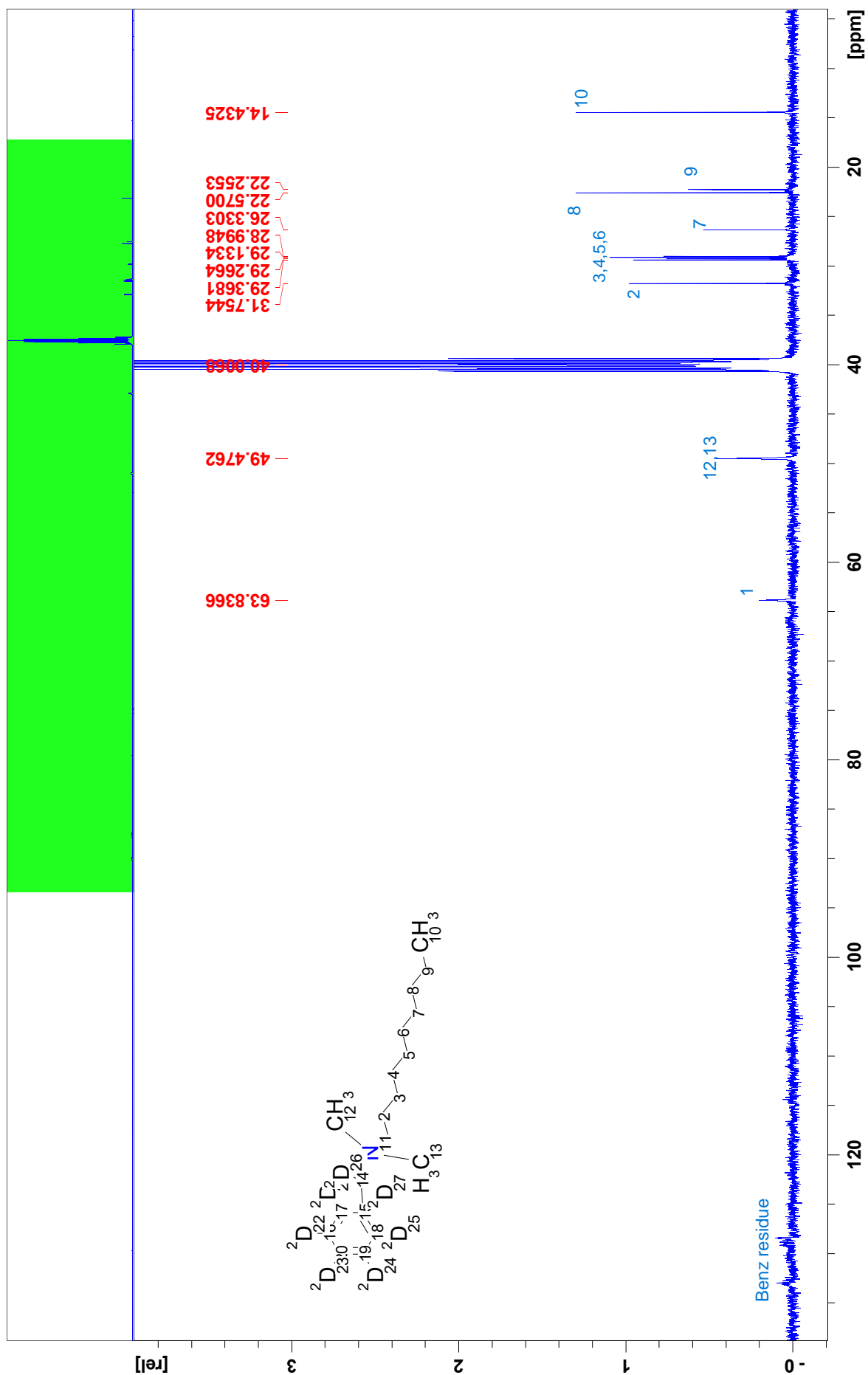
Appendix A-4.1

a3(d7) - BAC-10-(d7)



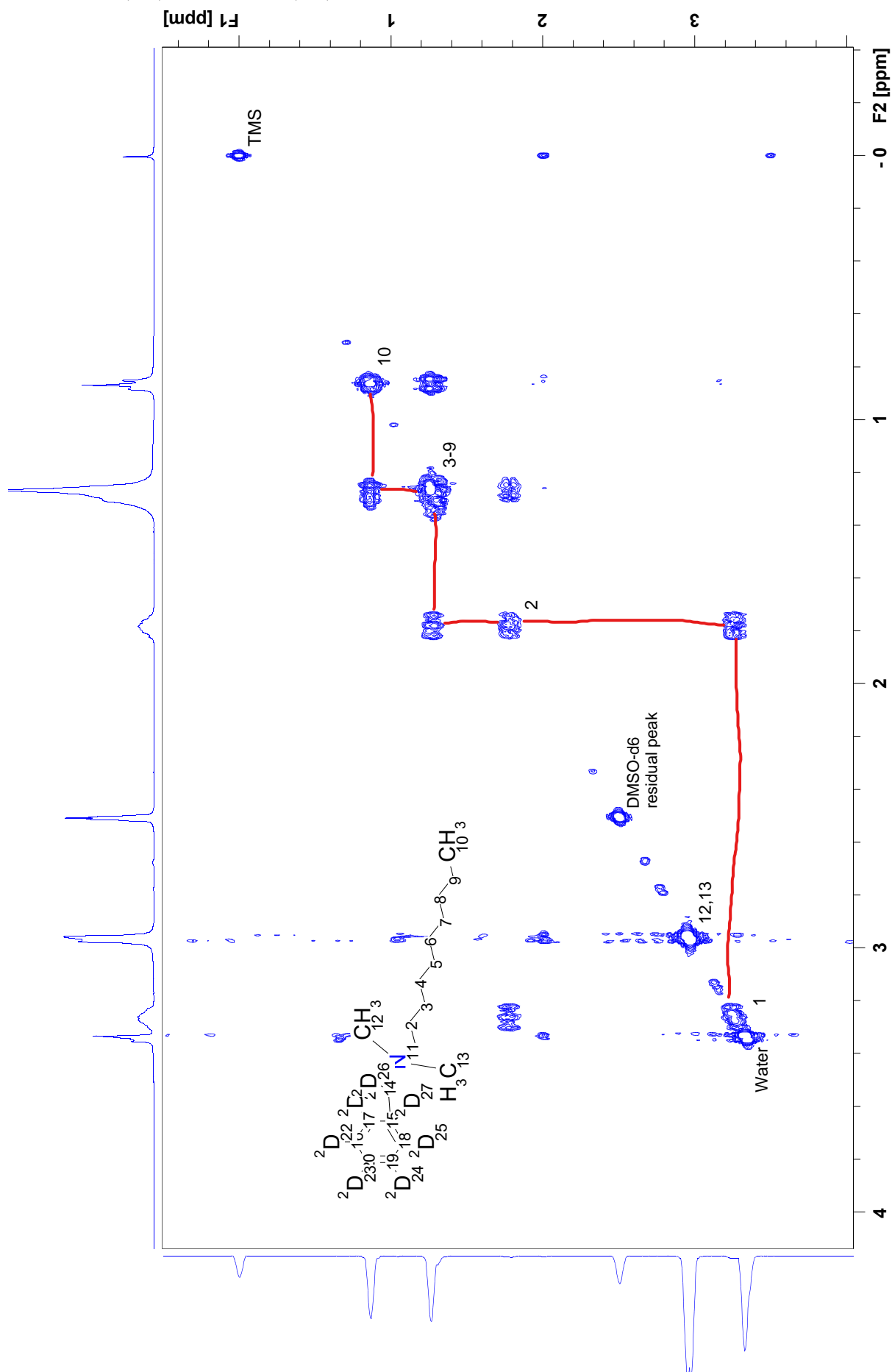
Appendix A-4.2
a3(d7) - BAC-10-(d7)

Appendix A-4.2
a3(d7) - BAC-10-(d7)

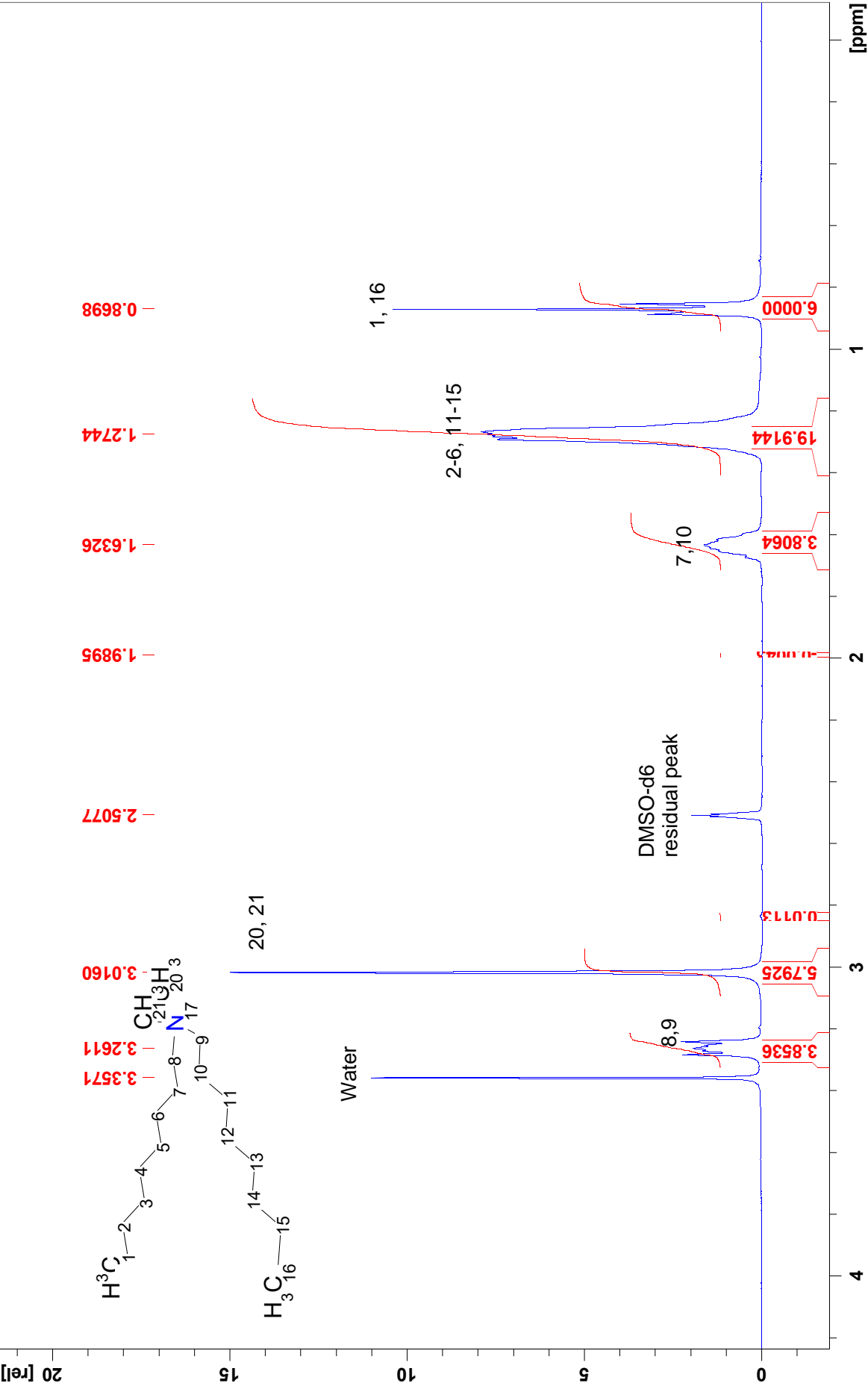


Appendix A-4.3

a3(d7) - BAC-10-(d7)

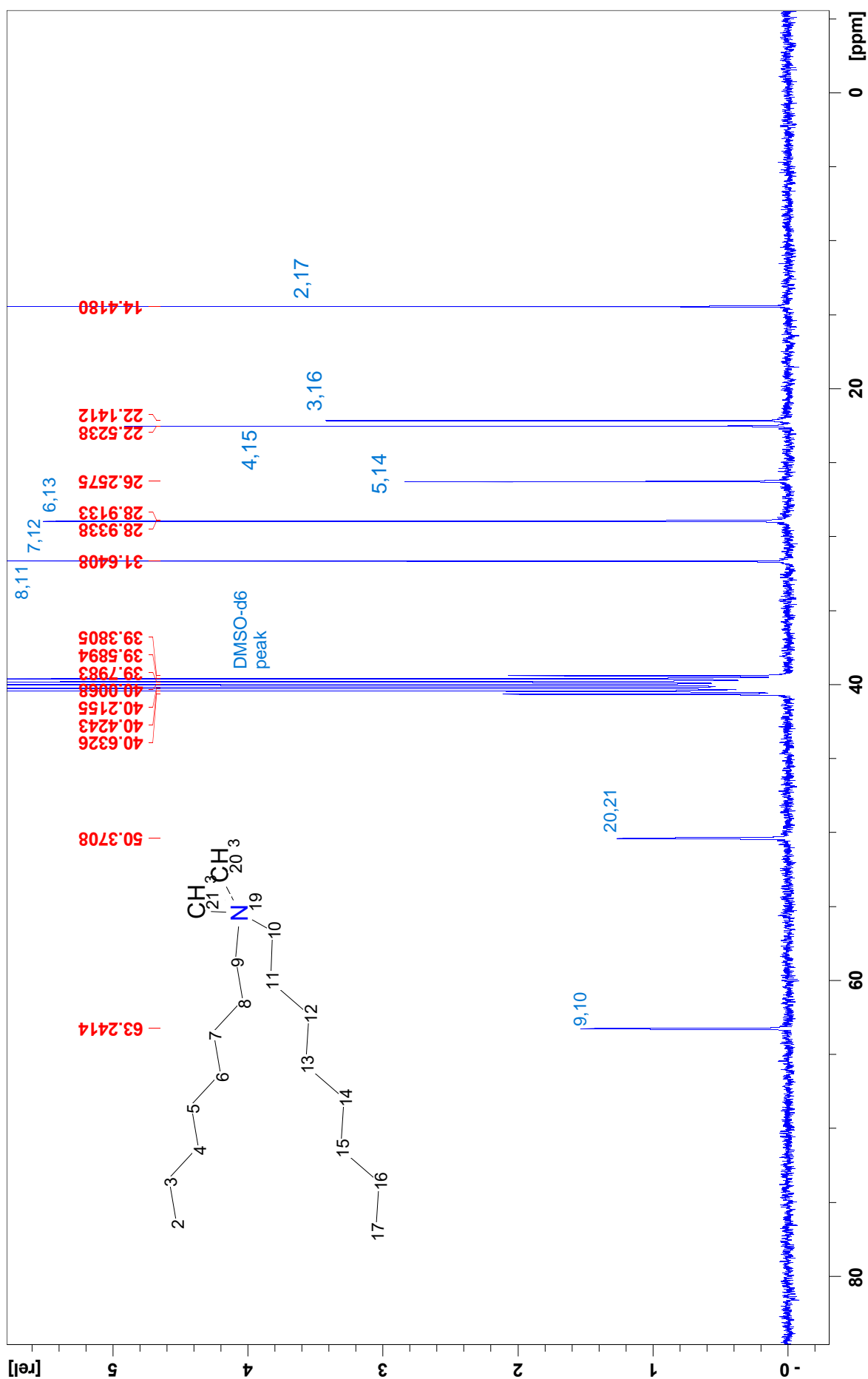


Appendix A-5.1
b2 - DDAC-8



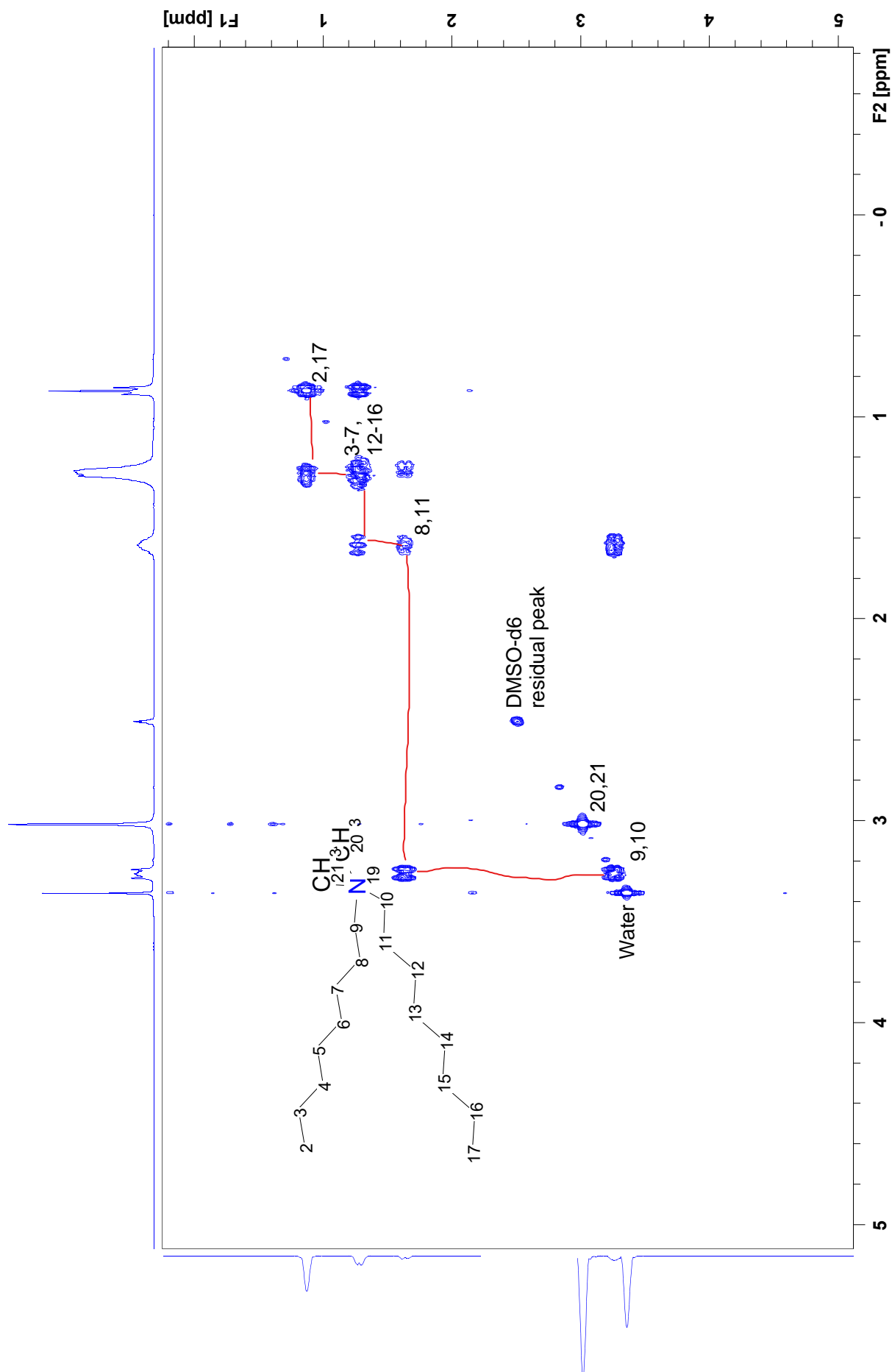
Appendix A-5.2

b2 - DDAC-8



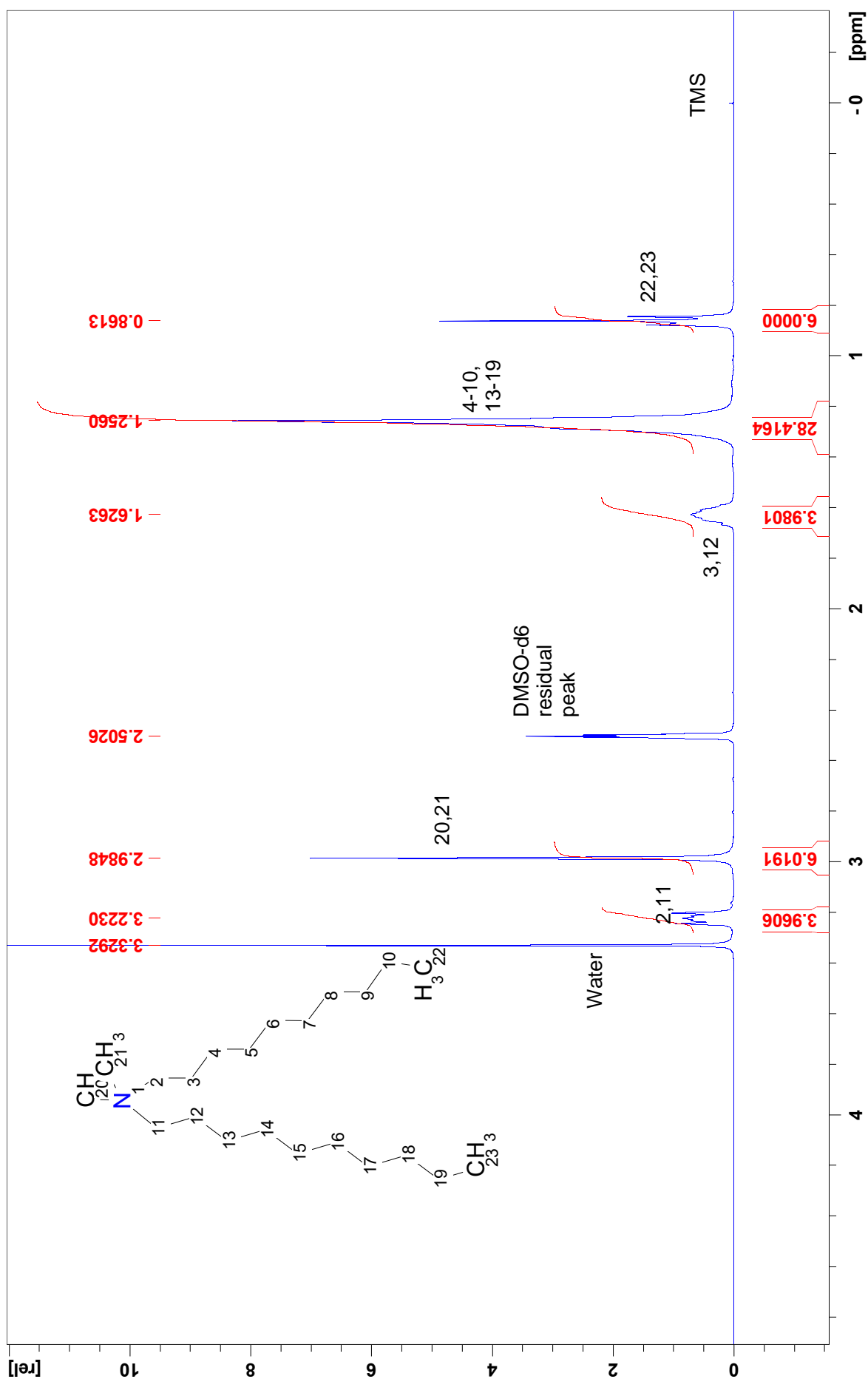
Appendix A-5.3

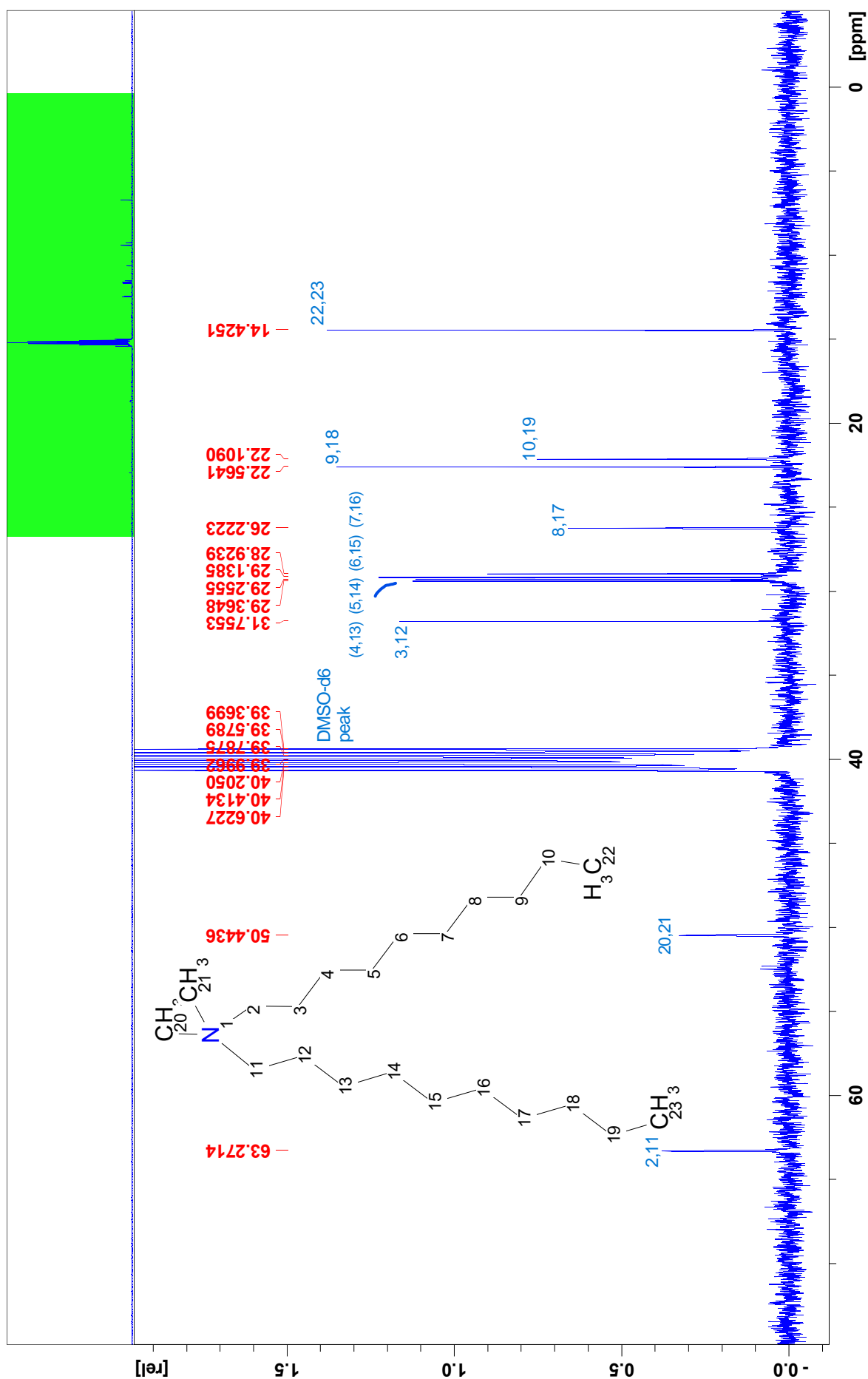
b2 - DDAC-8



Appendix A-6.1

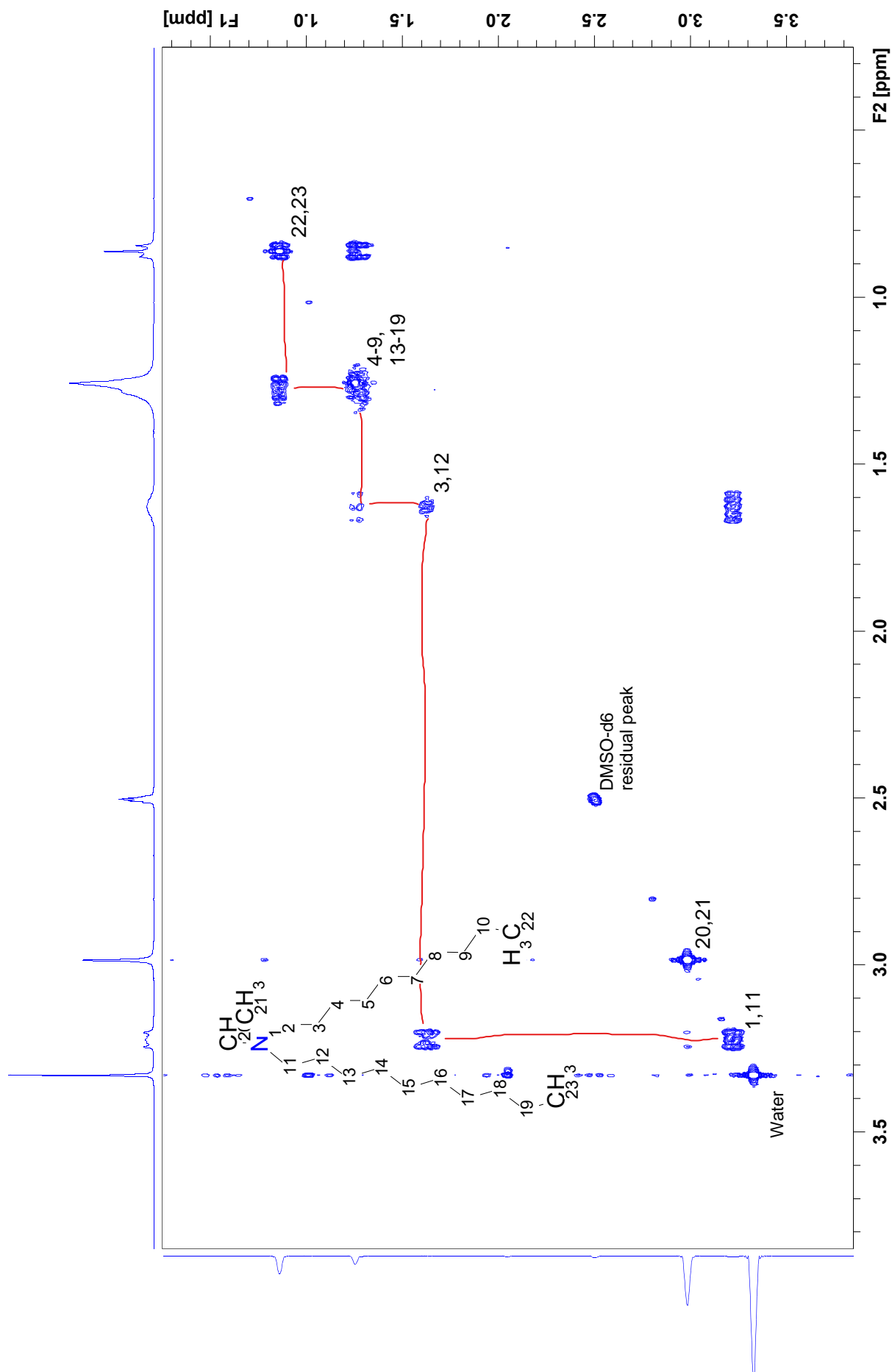
b3 - DDAC-10



b3 - DDAC-10

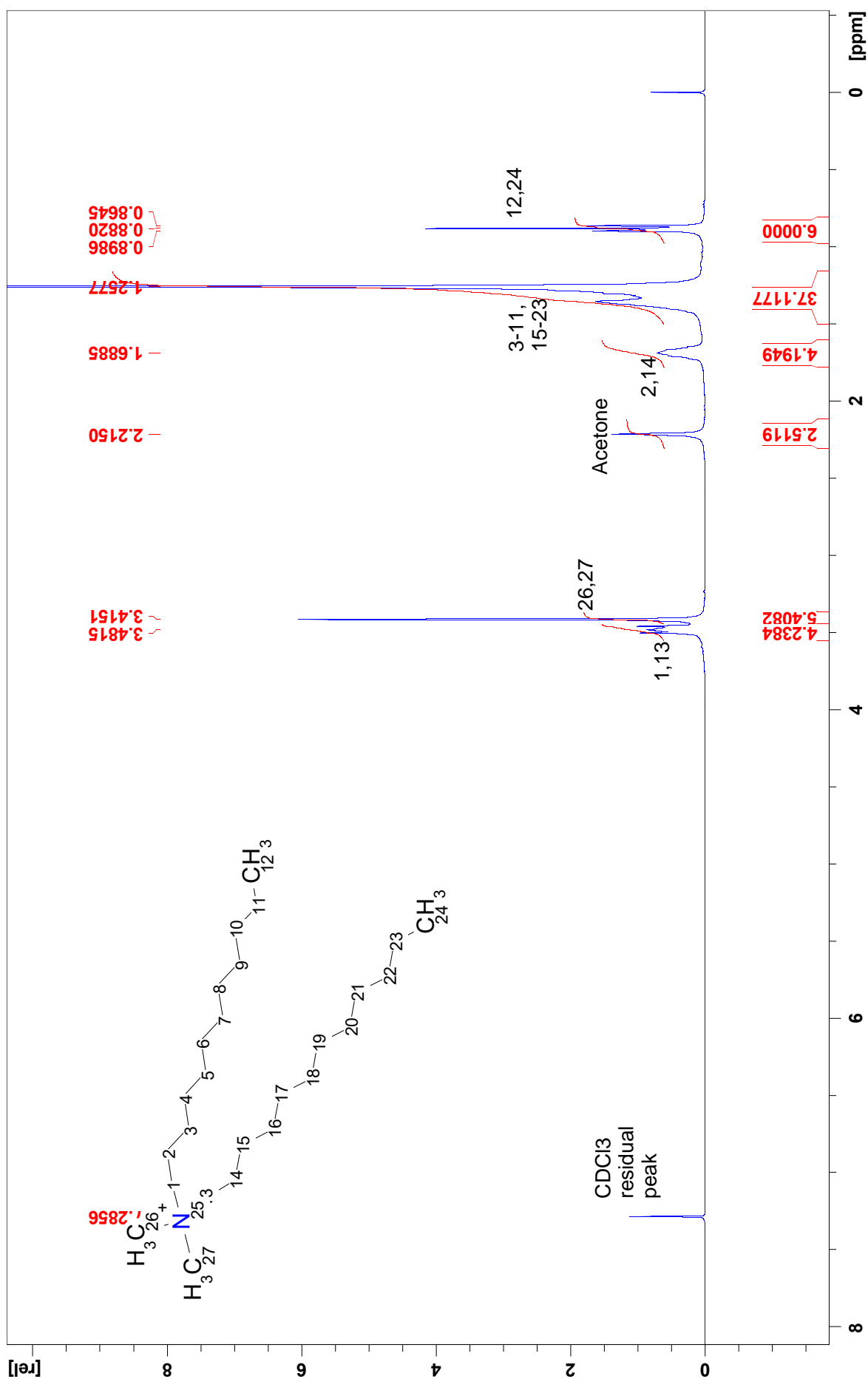
Appendix A-6.3

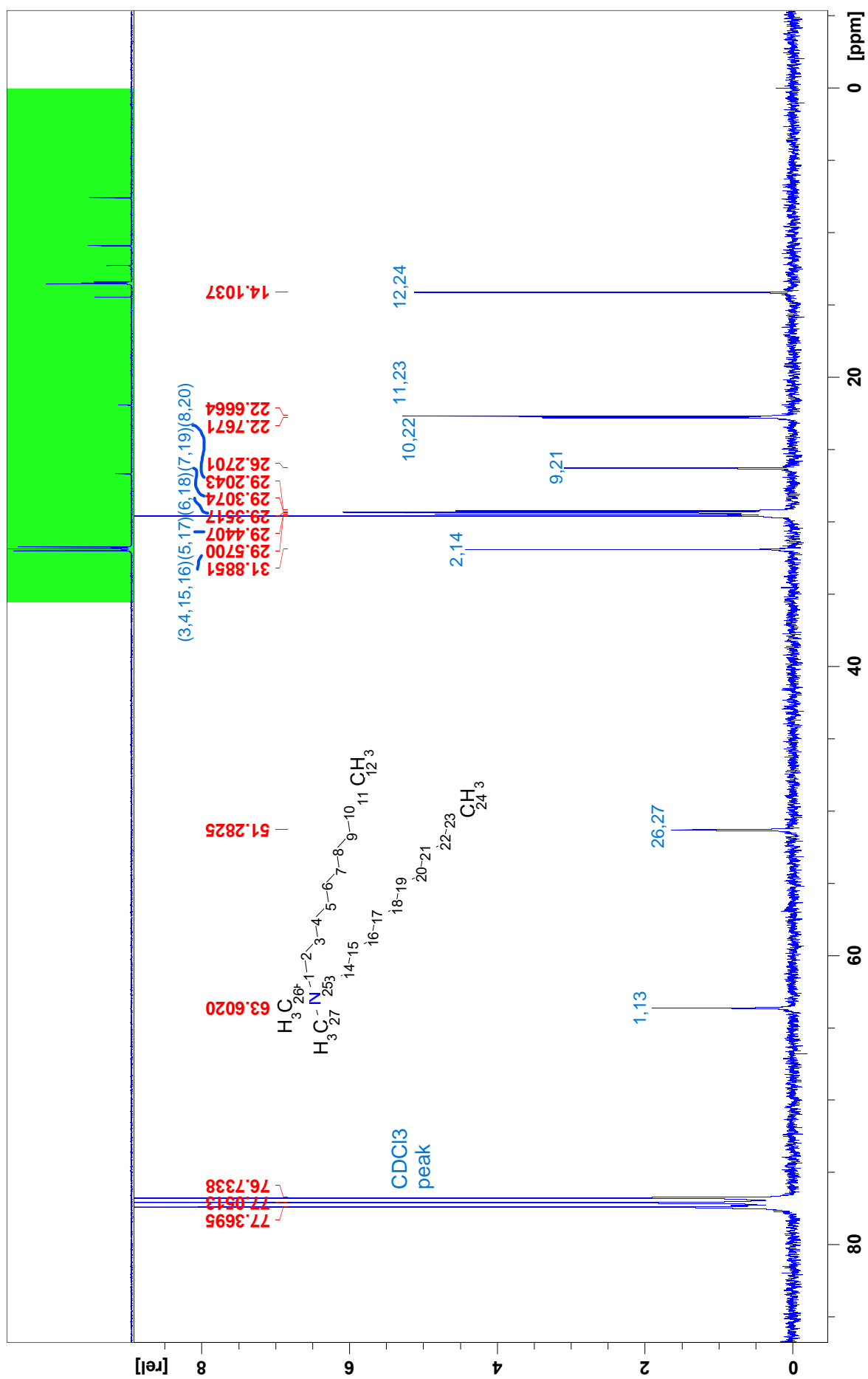
b3 - DDAC-10



Appendix A-7.1

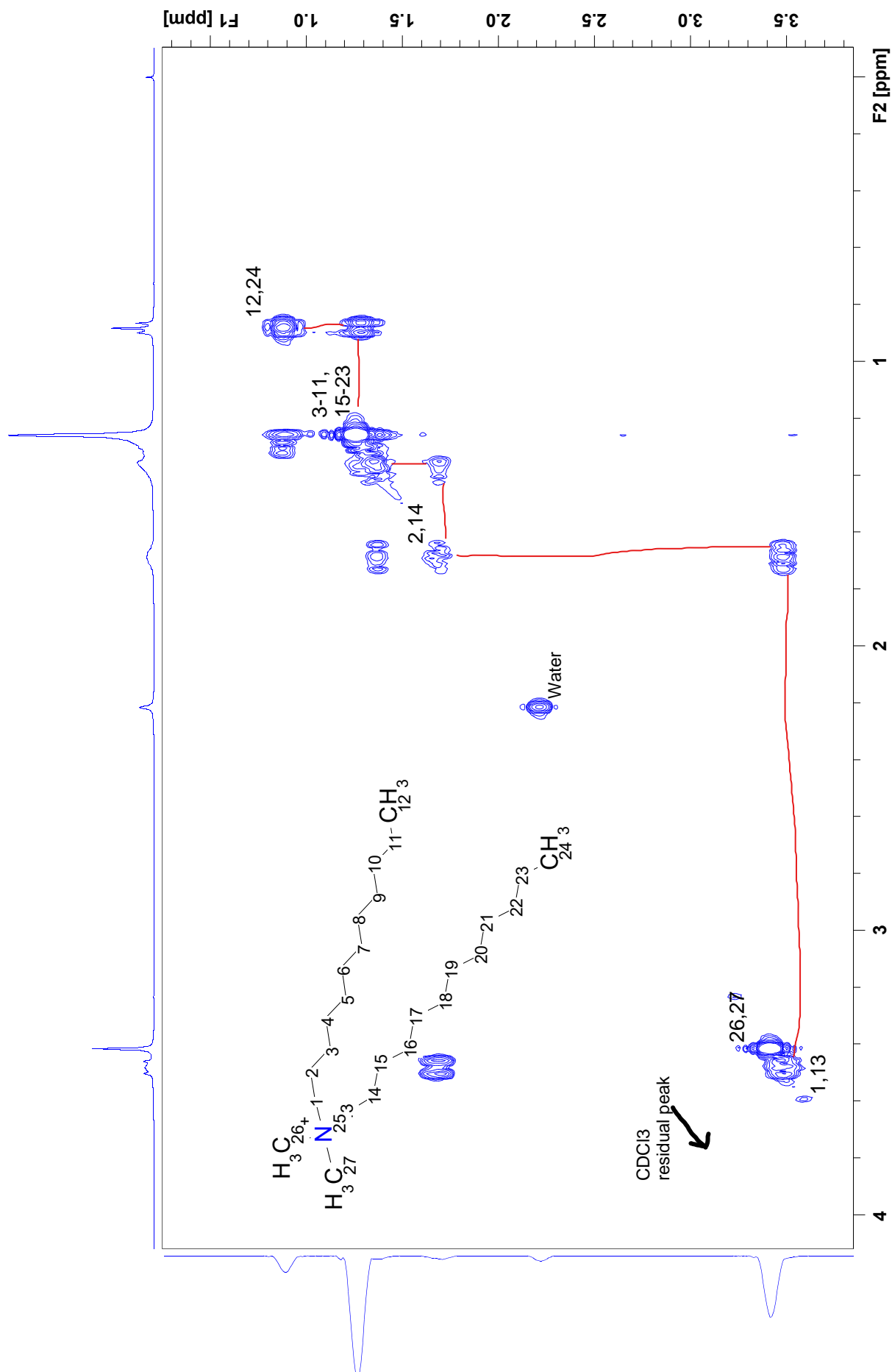
b4 - DDAC-12



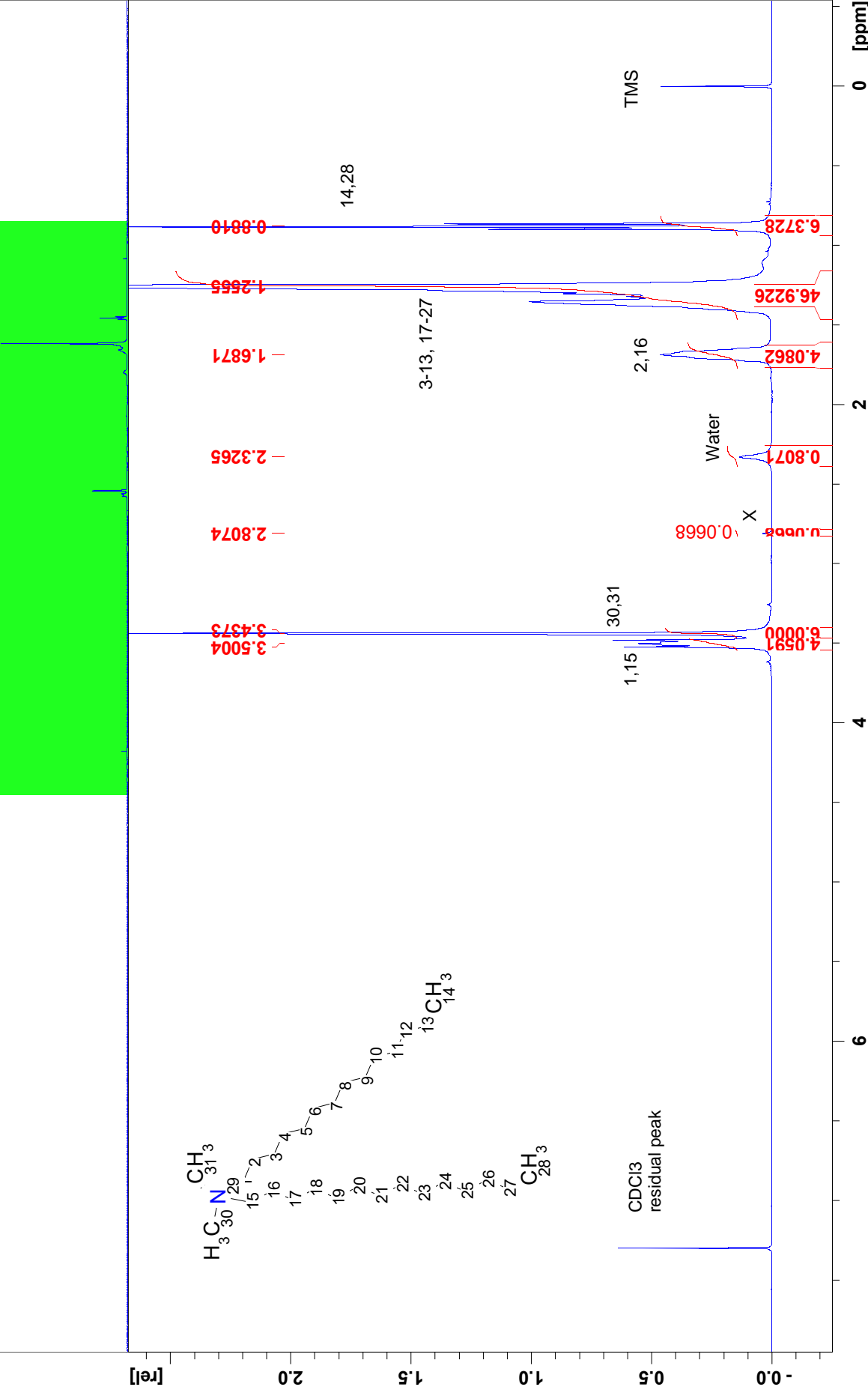
b4 - DDAC-12

Appendix A-7.3

b4 - DDAC-12

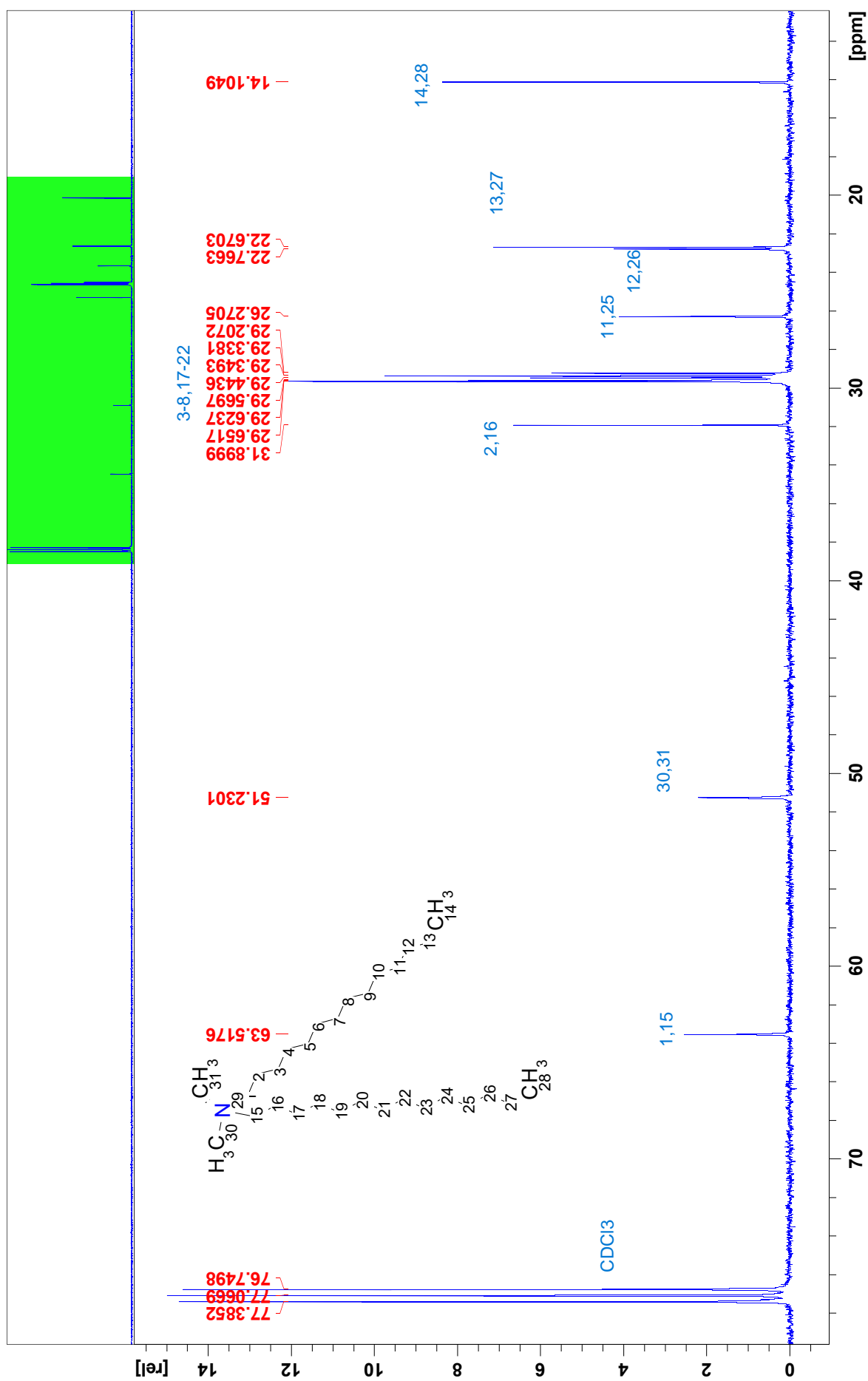


Appendix A-8.1
b5 - DDAC-14



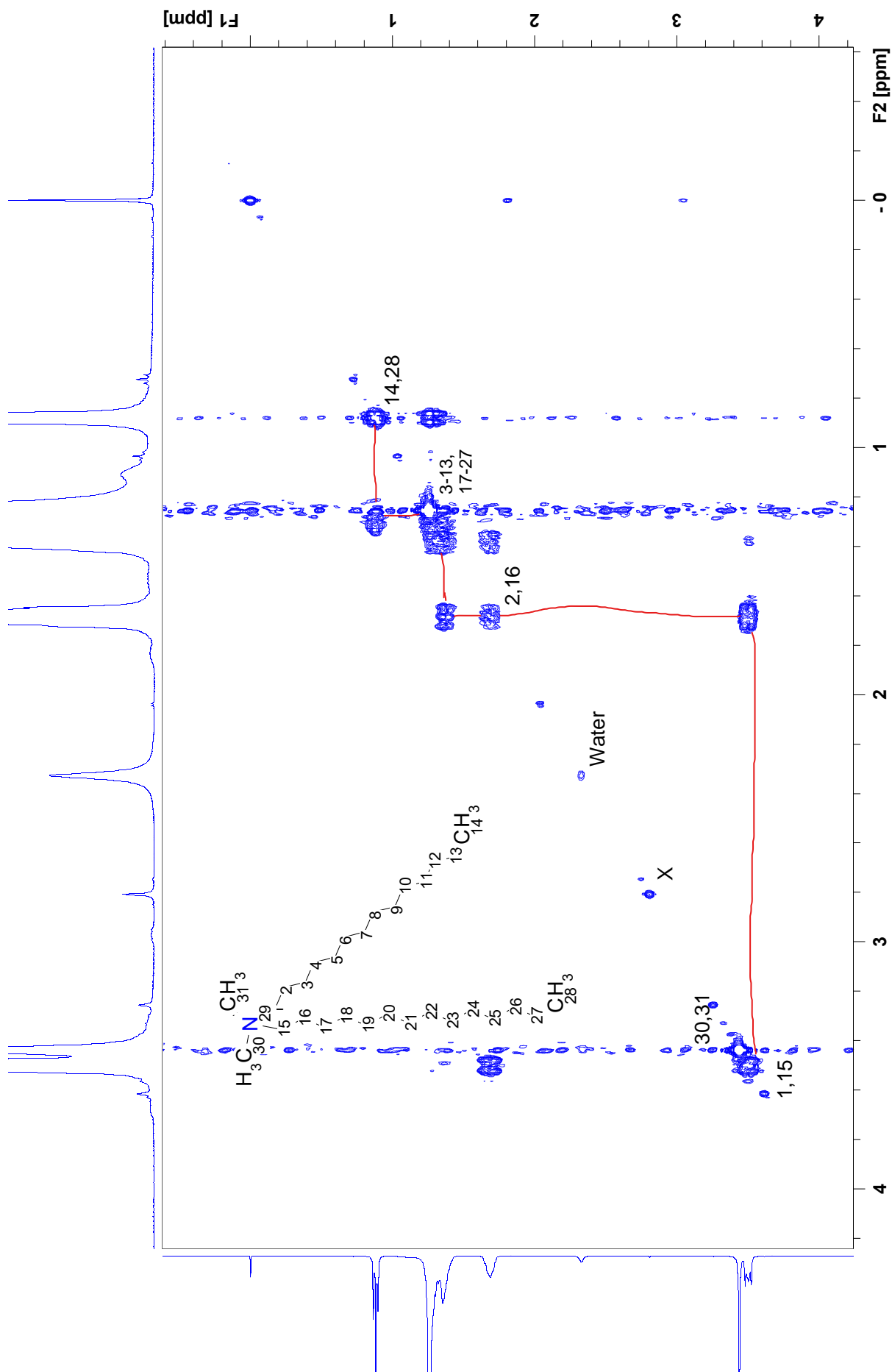
Appendix A-8.2

b5 - DDAC-14

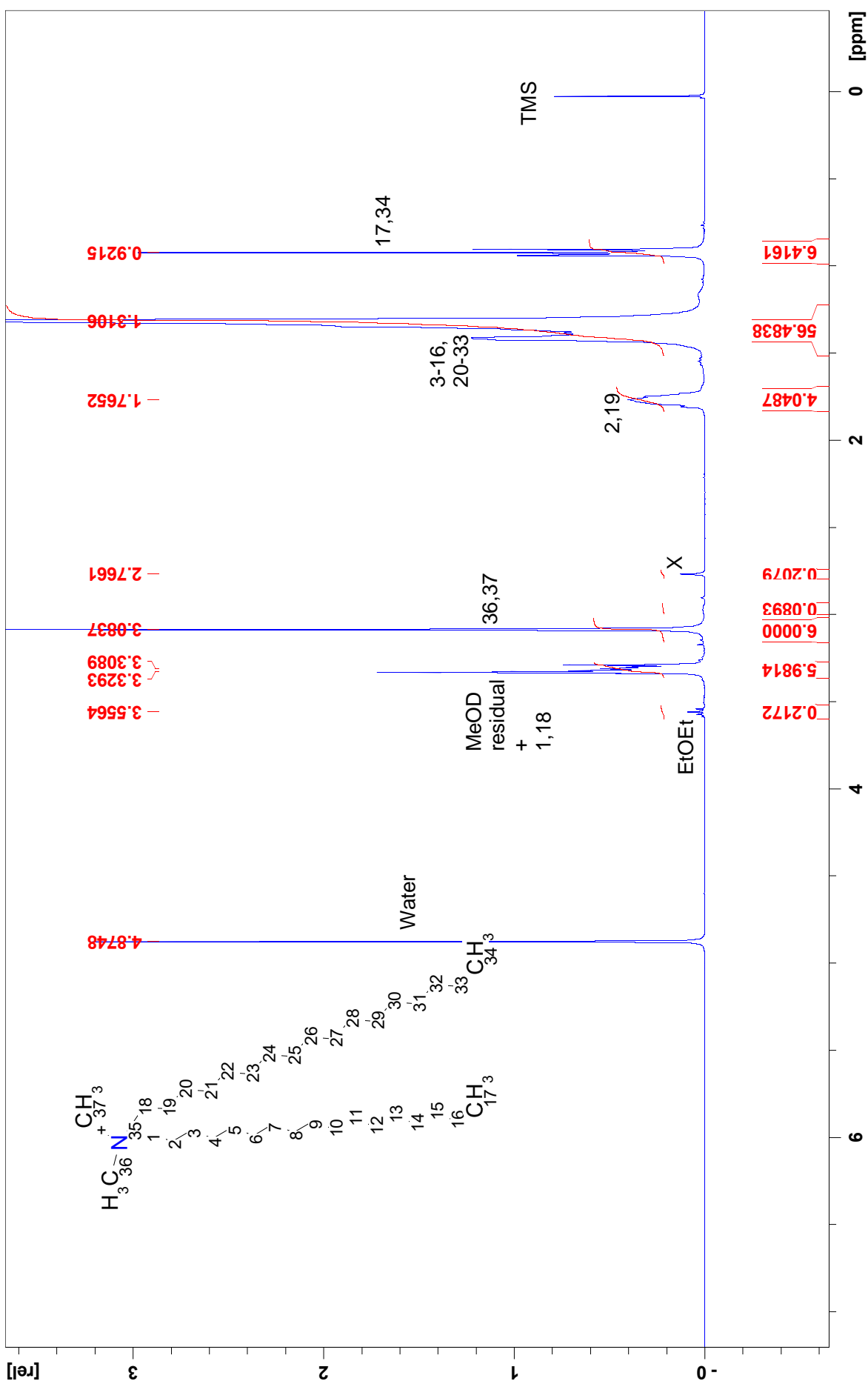


Appendix A-8.3

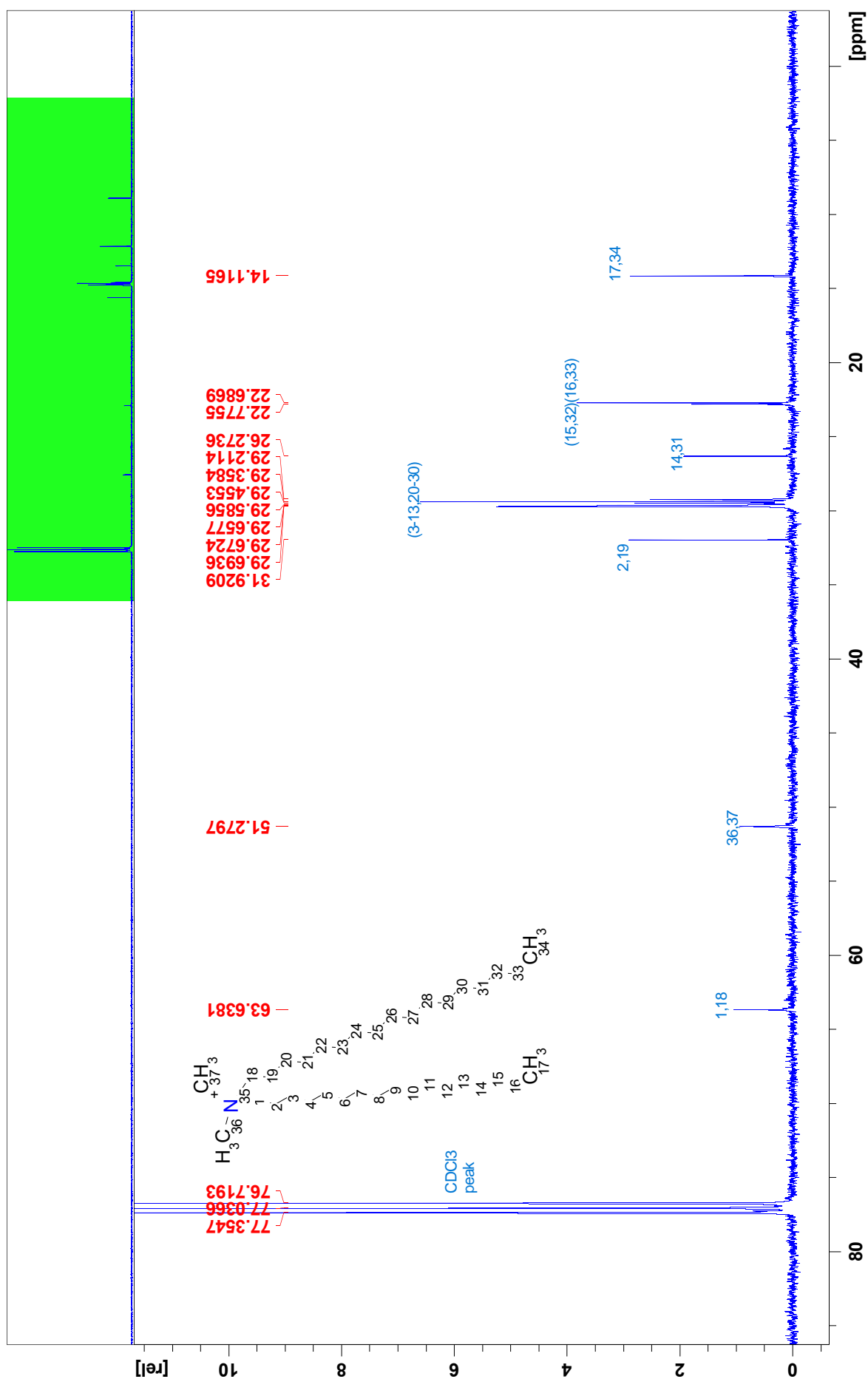
b5 - DDAC-14



b6 - DDAC-16

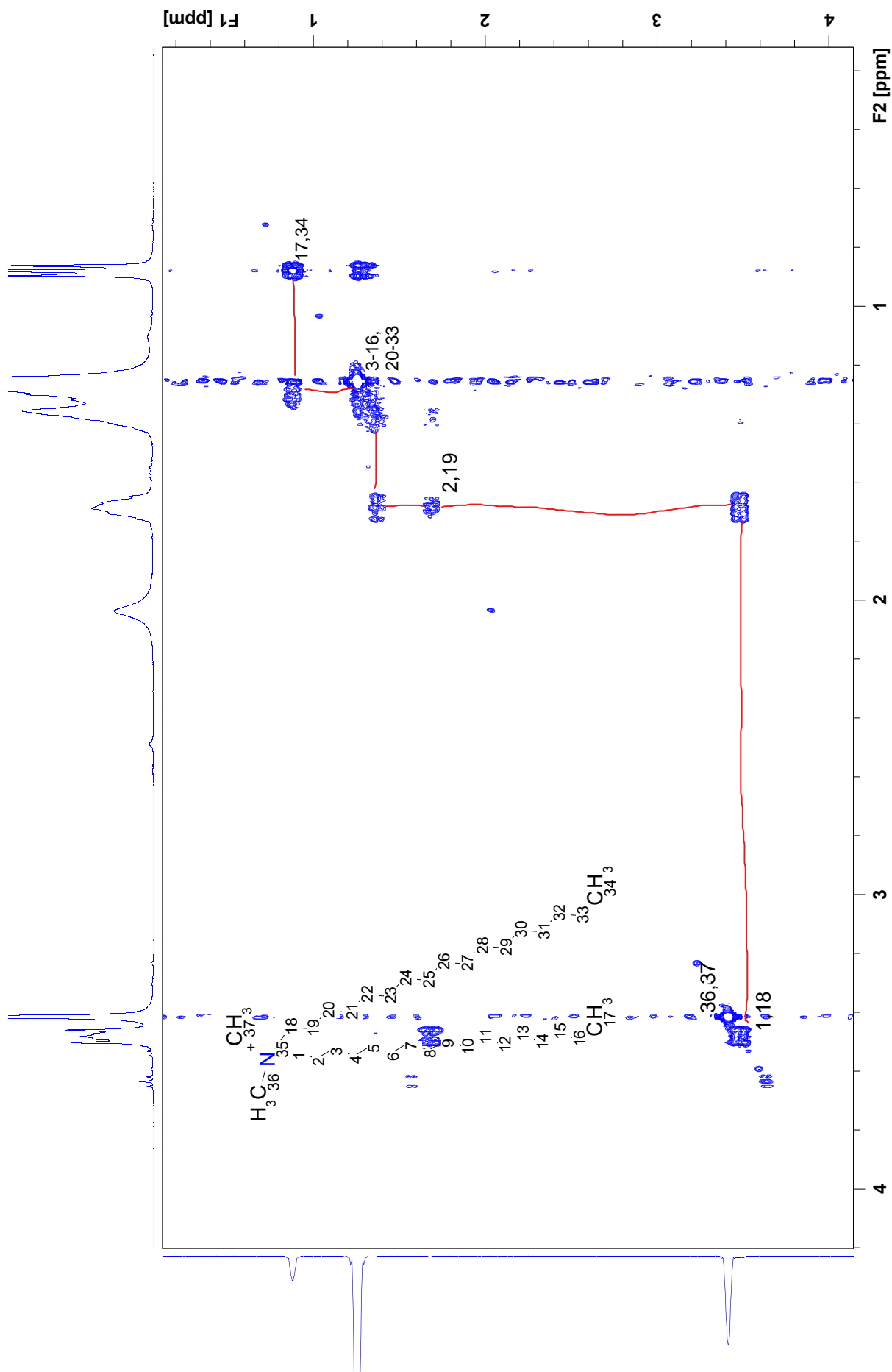


Appendix A-9.2 b6 - DDAC-16



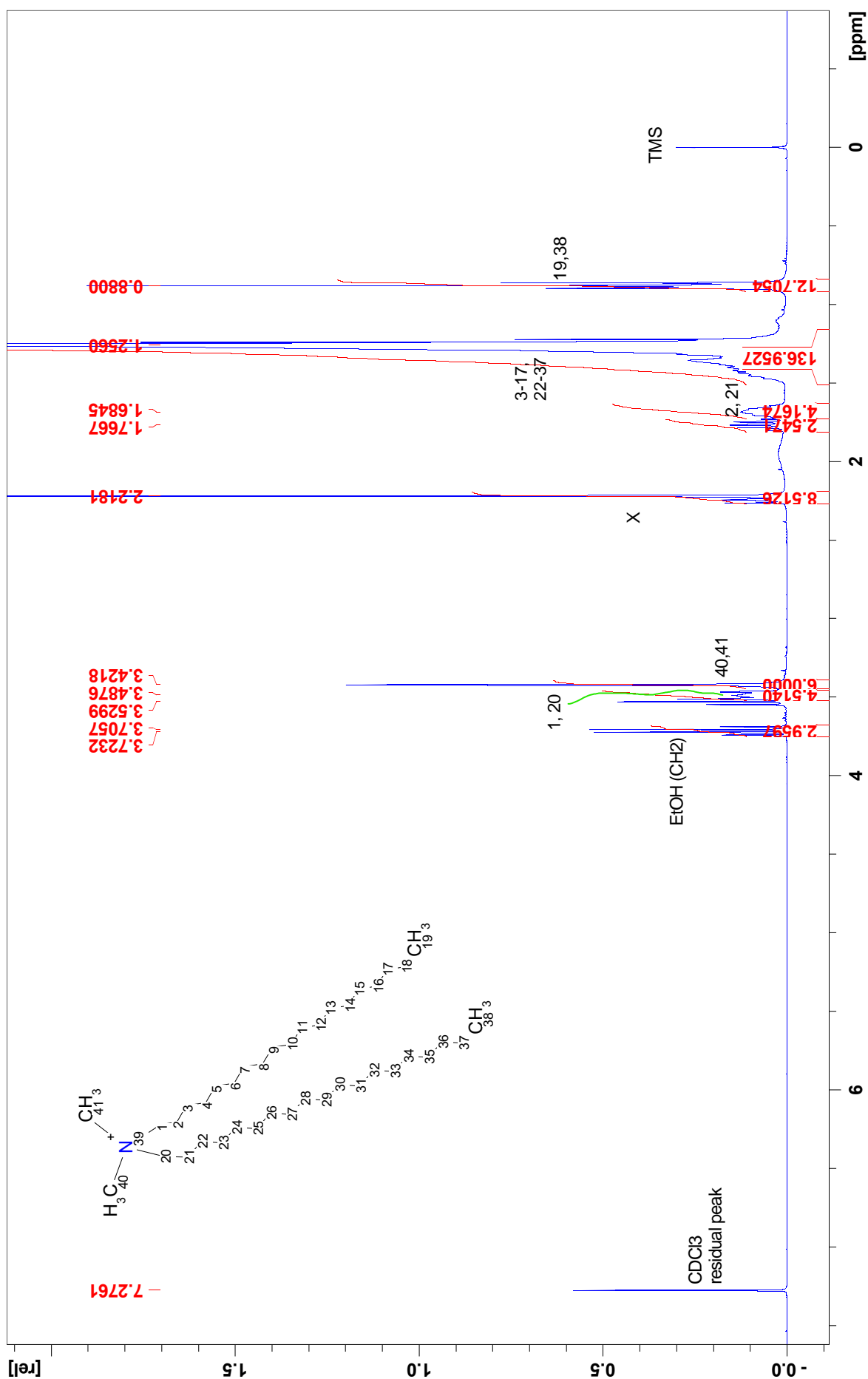
Appendix A-9.3

b6 - DDAC-16

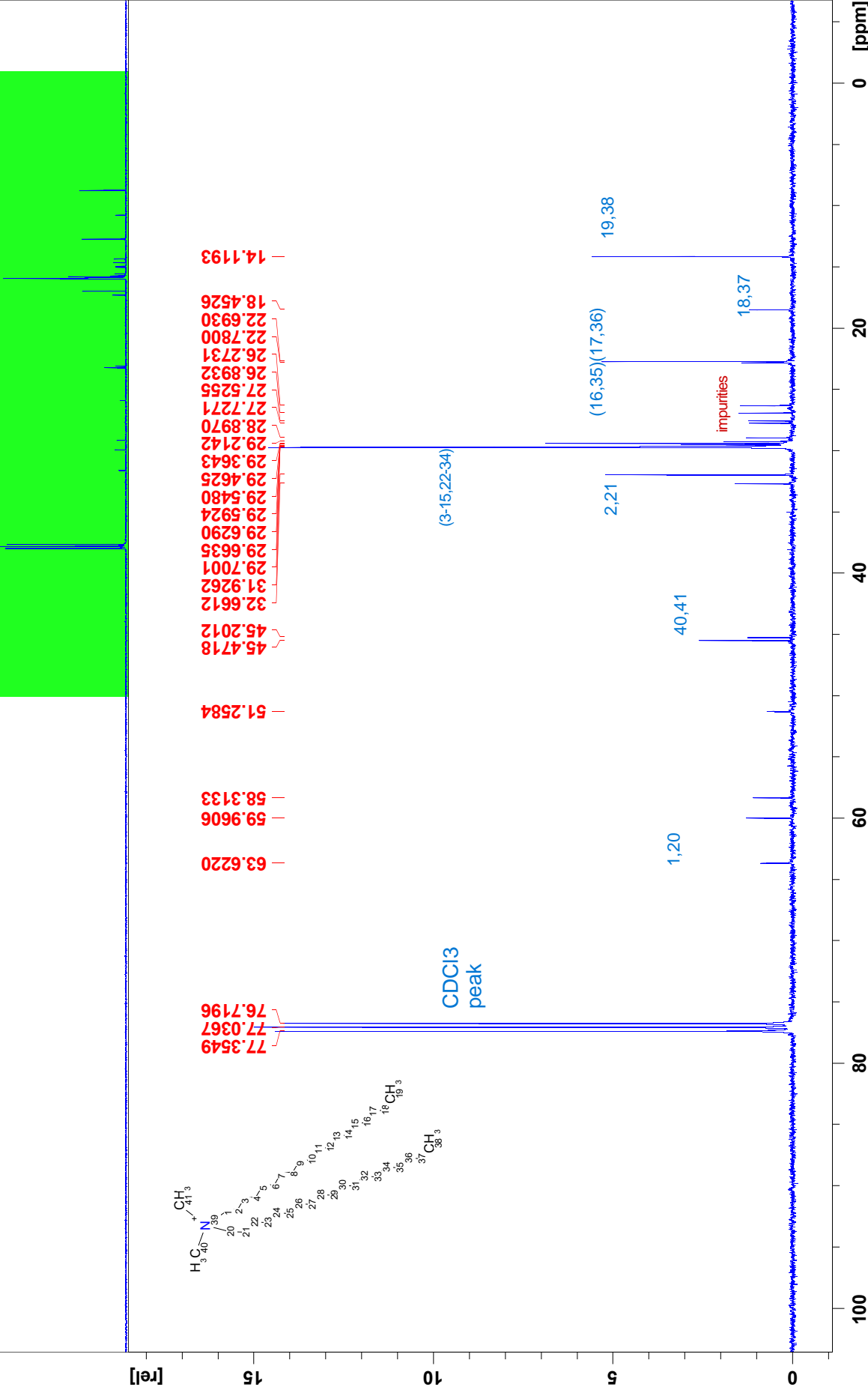


Appendix A-10.1

b7 - DDAC-18

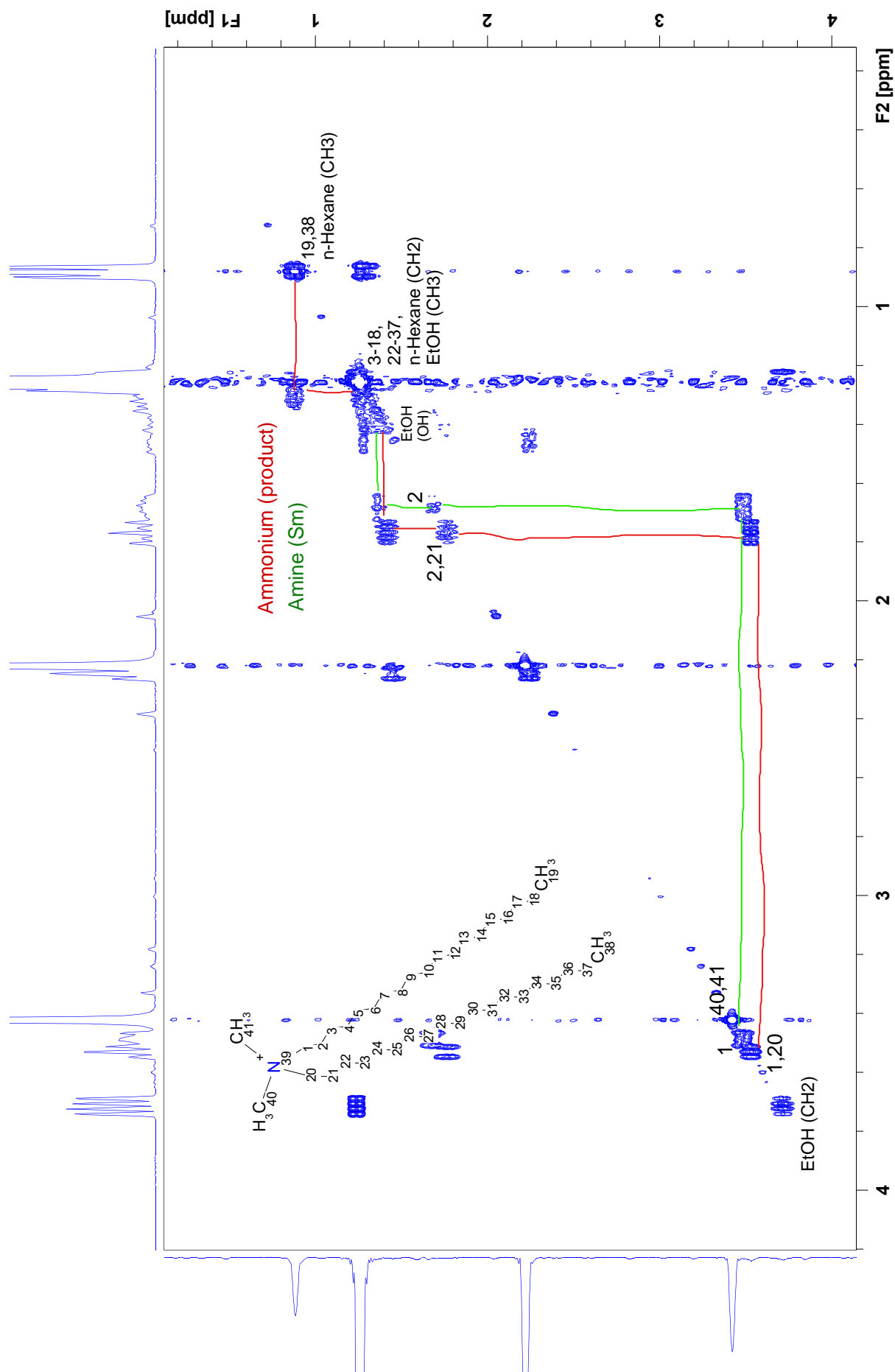


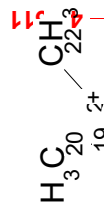
Appendix A-10.2
b7 - DDAC-18



Appendix A-10.3

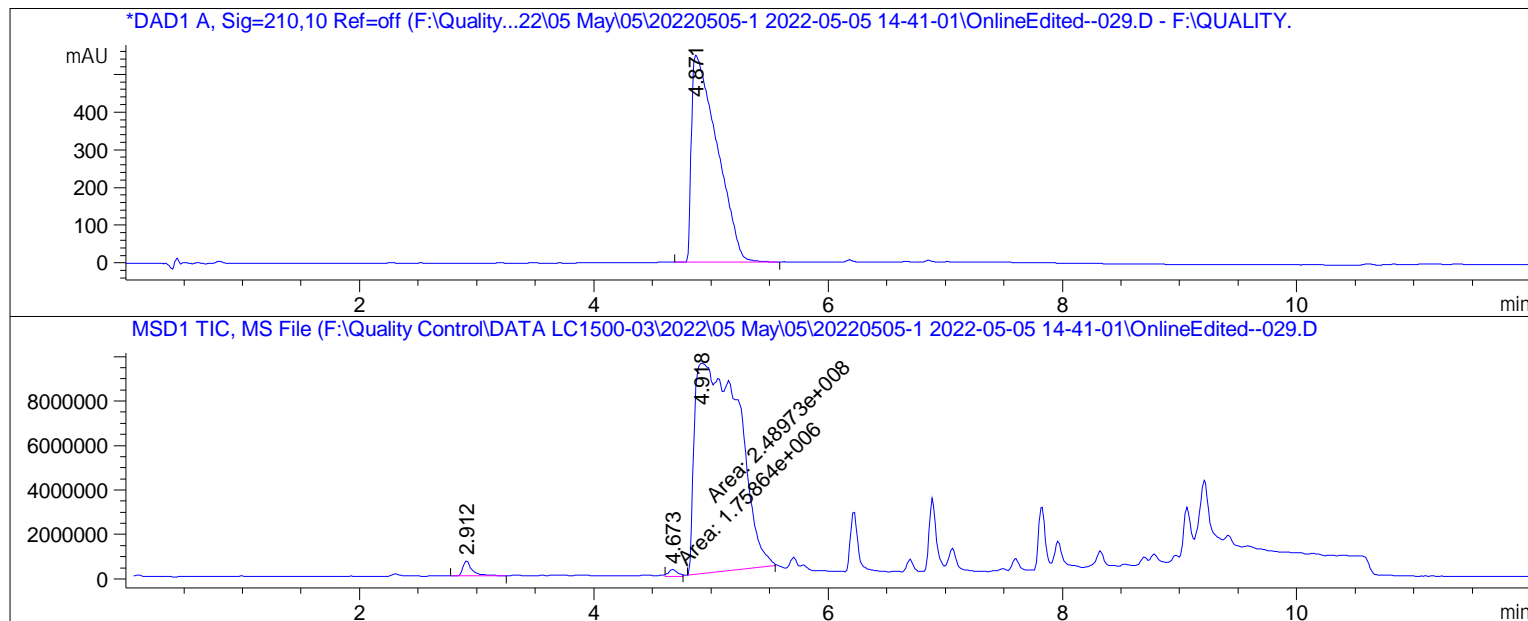
b7 - DDAC-18



b8 - BTC-818

Appendix B-1.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 11:02:36 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	4.871	BB	0.2516	8255.88379	548.57593	100.0000

Totals : 8255.88379 548.57593

Appendix B-1.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 11:02:36 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	2.912	BB	0.0803	3.70262e6	6.70485e5	1.4552
2	4.673	MM	0.0882	1.75864e6	3.32335e5	0.6912
3	4.918	MM	0.4383	2.48973e8	9.46739e6	97.8536

Totals : 2.54434e8 1.04702e7

Appendix B-1.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 11:02:36 PM

Inj : 1

Inj Volume : 3.000 µl

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl

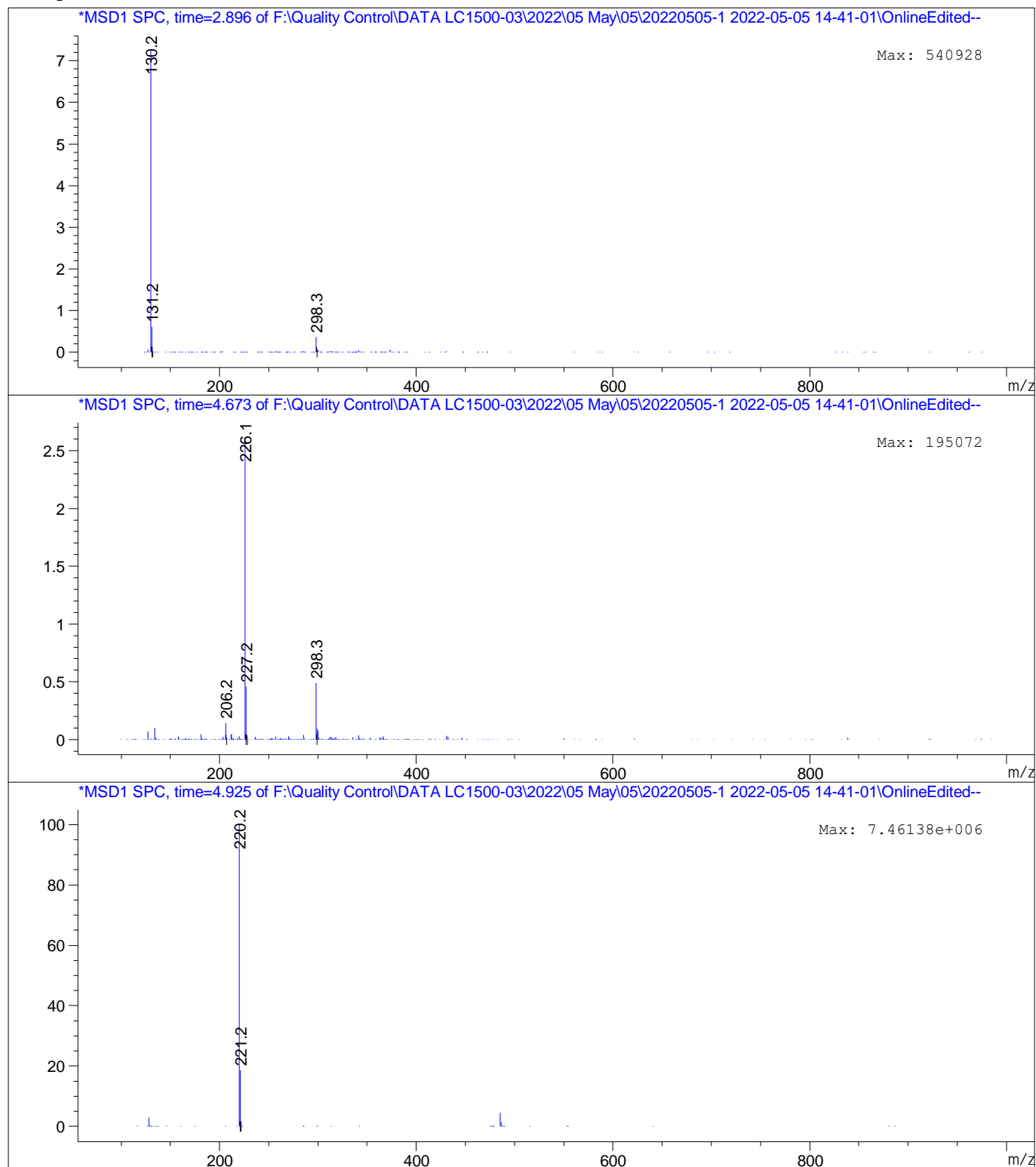
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05
14-41-01\Standard.M

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05
14-41-01\Standard.M (Sequence Method)

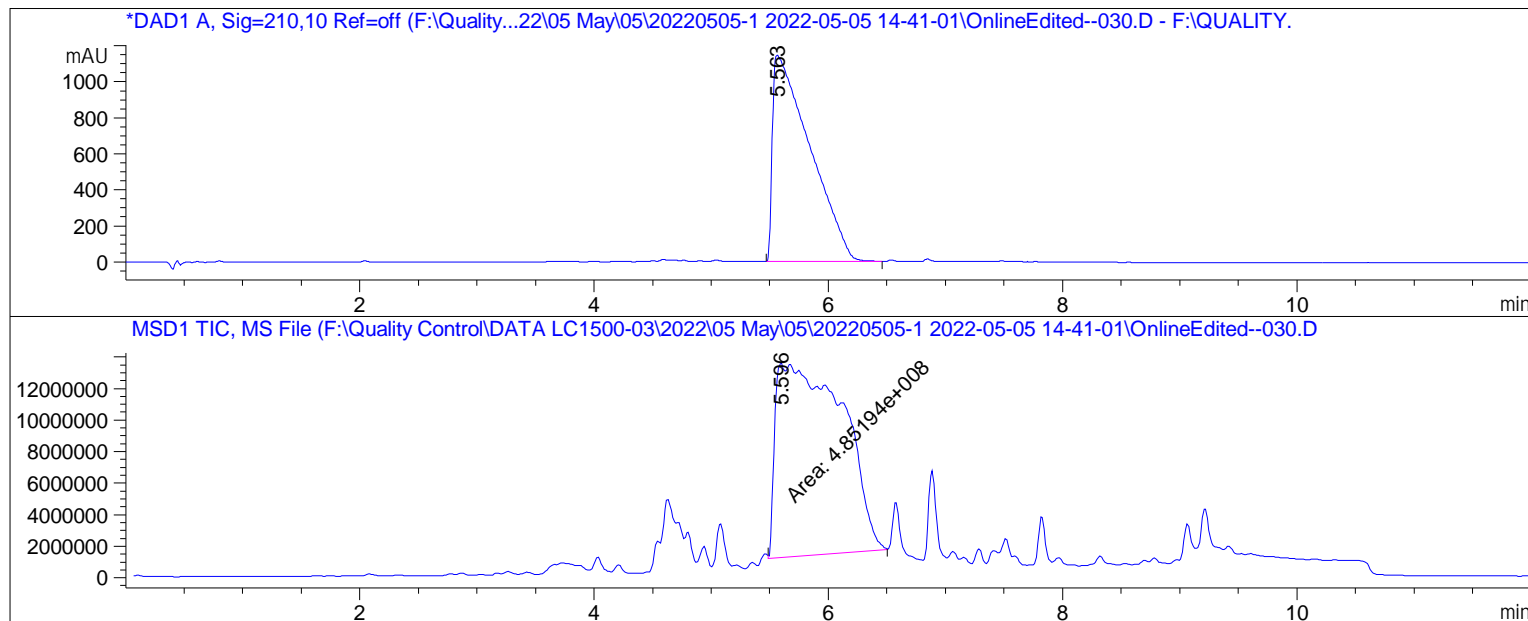
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

MS Spectrum



Appendix B-2.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 11:16:33 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	5.563	BB	0.3057	2.52603e4	1143.55579	100.0000

Totals : 2.52603e4 1143.55579

Appendix B-2.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 11:16:33 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	5.596	MM	0.6546	4.85194e8	1.23534e7	100.0000

Totals : 4.85194e8 1.23534e7

Appendix B-2.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 11:16:33 PM

Inj : 1

Inj Volume : 3.000 μ l

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 μ l

Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01
\Standard.M

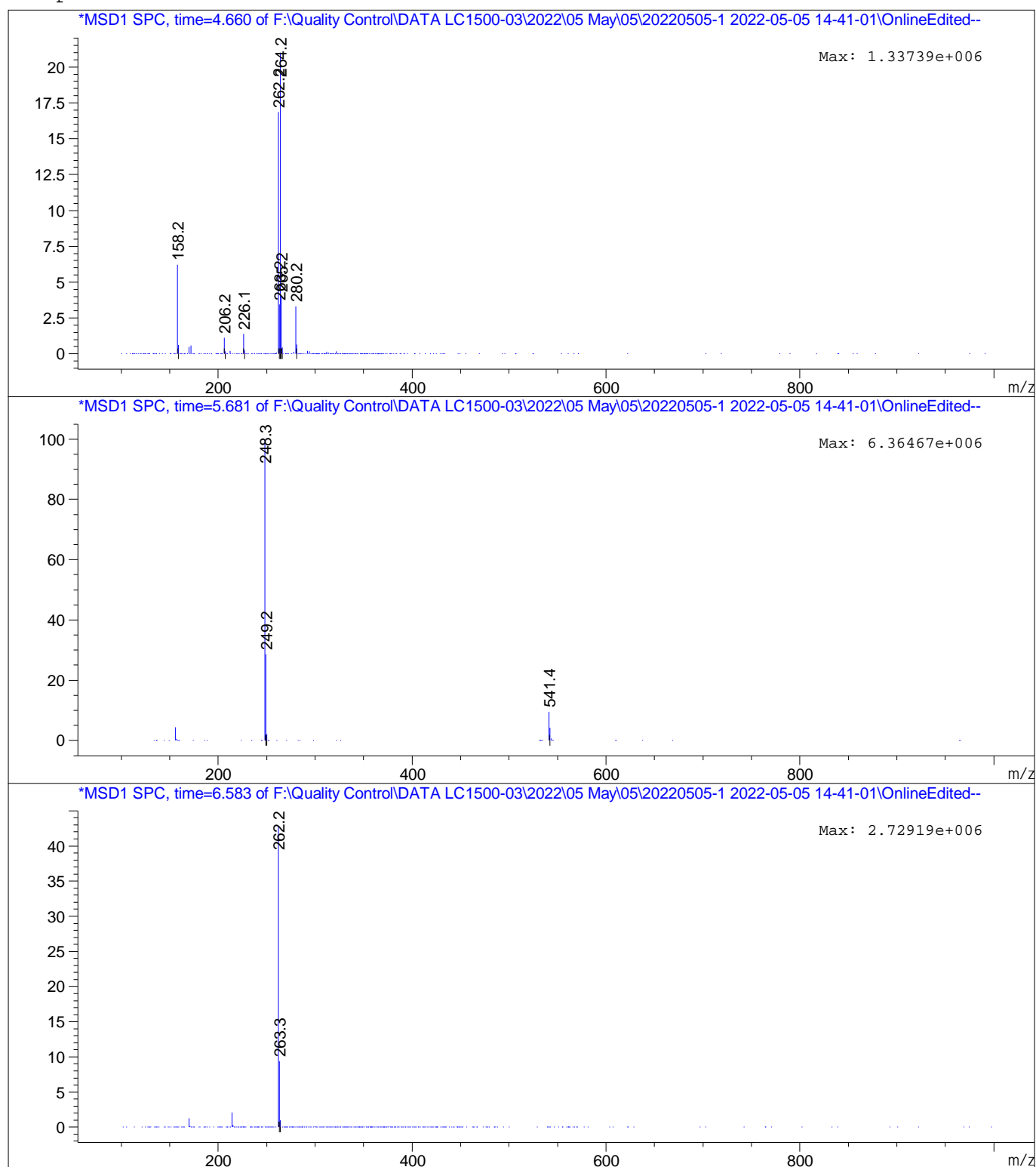
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01
\Standard.M (Sequence Method)

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

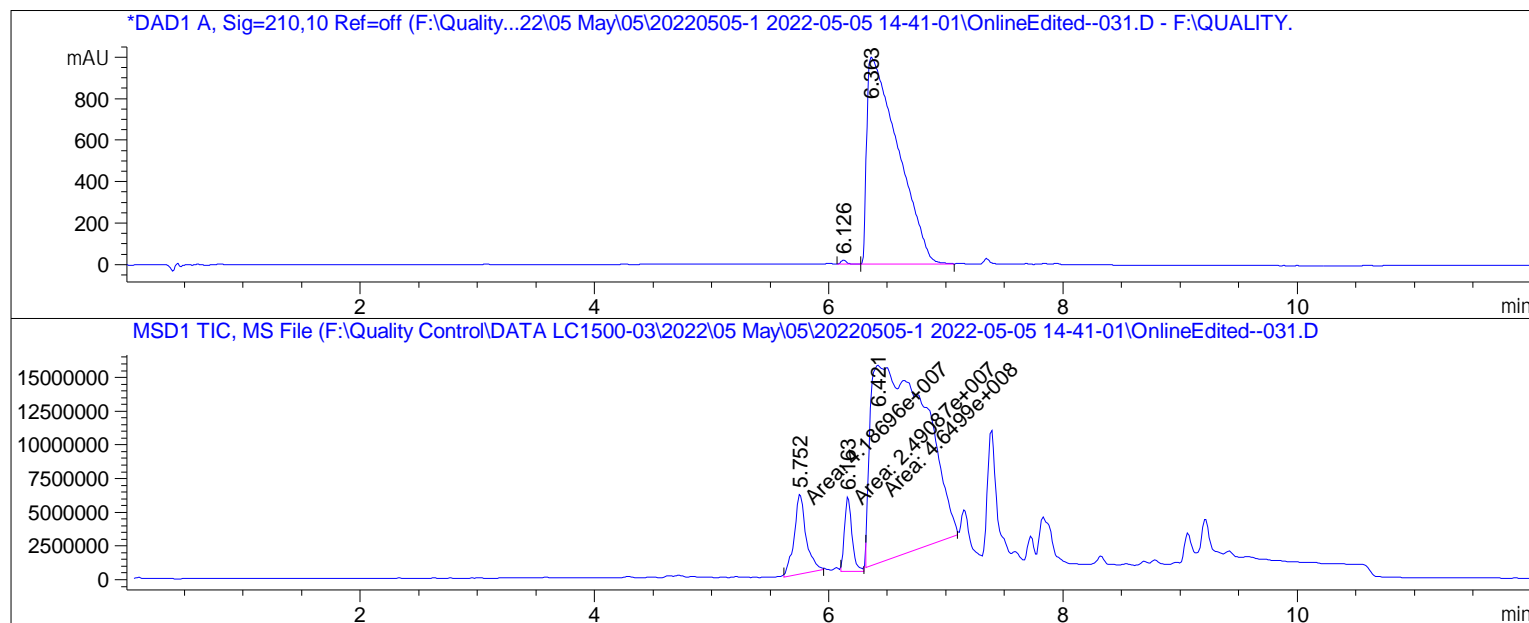
Additional Info : Peak(s) manually integrated

MS Spectrum



Appendix B-3.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 11:30:32 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.126	BB	0.0502	59.39705	18.11723	0.3225
2	6.363	BB	0.2707	1.83592e4	997.74640	99.6775

Totals : 1.84186e4 1015.86362

Appendix B-3.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 11:30:32 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

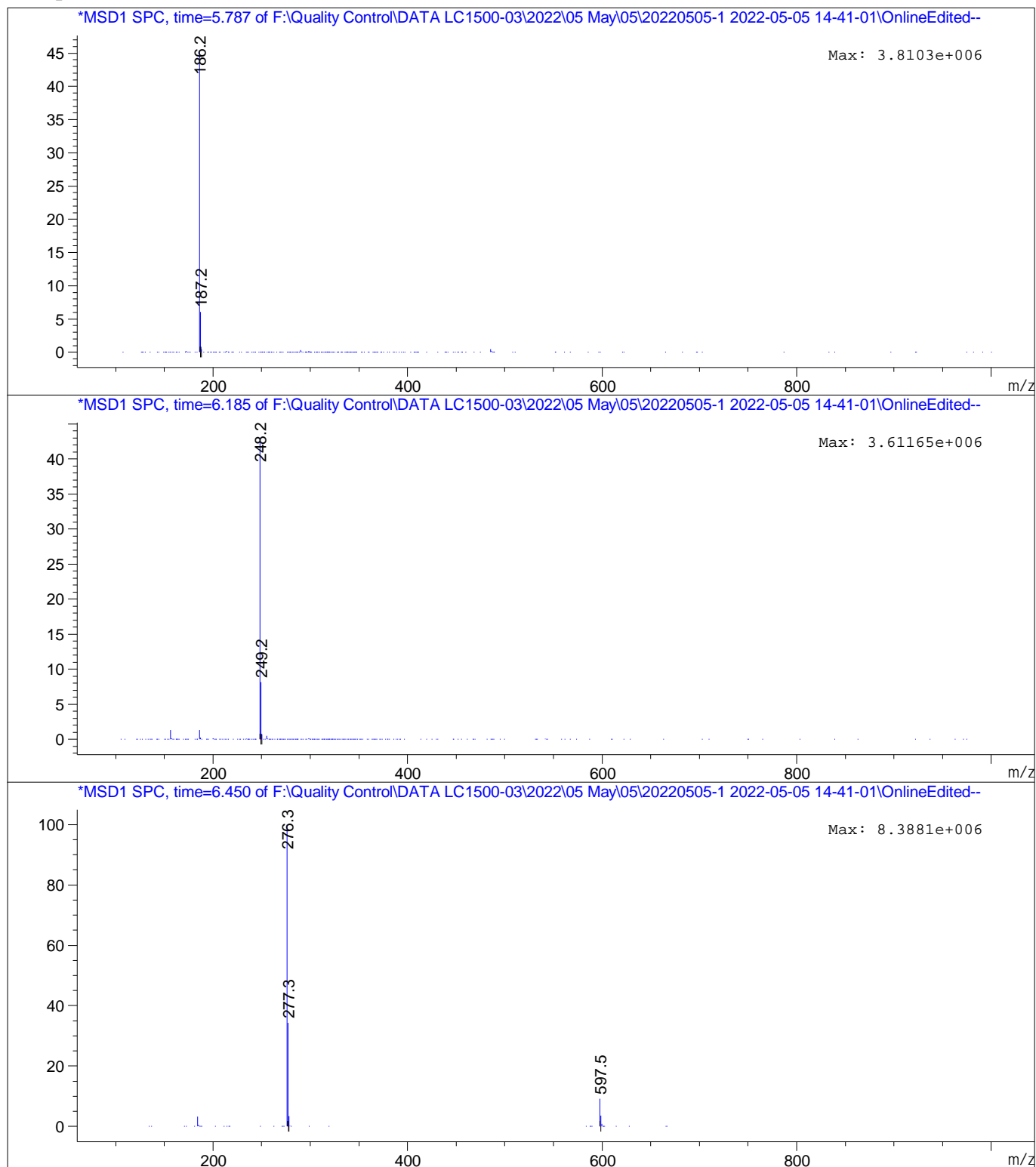
Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	5.752	MM	0.1164	4.18696e7	5.99557e6	7.8737
2	6.163	MM	0.0739	2.49087e7	5.62068e6	4.6841
3	6.421	MM	0.5266	4.64990e8	1.47175e7	87.4422

Totals : 5.31768e8 2.63337e7

Appendix B-3.3

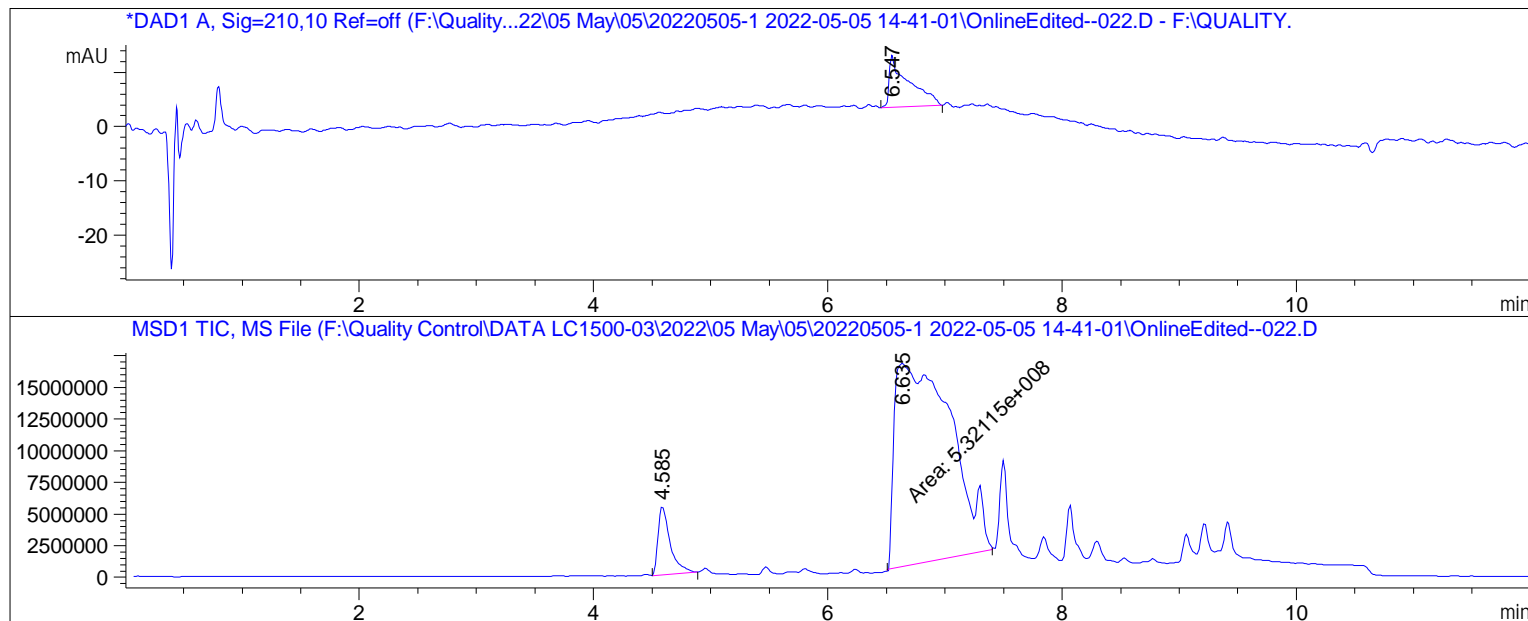
Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 11:30:32 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05
14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05
14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

MS Spectrum



Appendix B-4.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 9:24:46 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.547	BB	0.1474	111.96726	9.65109	100.0000

Totals : 111.96726 9.65109

Appendix B-4.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 9:24:46 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	4.585	BB	0.1119	3.90464e7	5.41975e6	6.8363
2	6.635	MM	0.5518	5.32115e8	1.60734e7	93.1637

Totals : 5.71161e8 2.14932e7

Appendix B-4.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 9:24:46 PM

Inj : 1

Inj Volume : 3.000 µl

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl

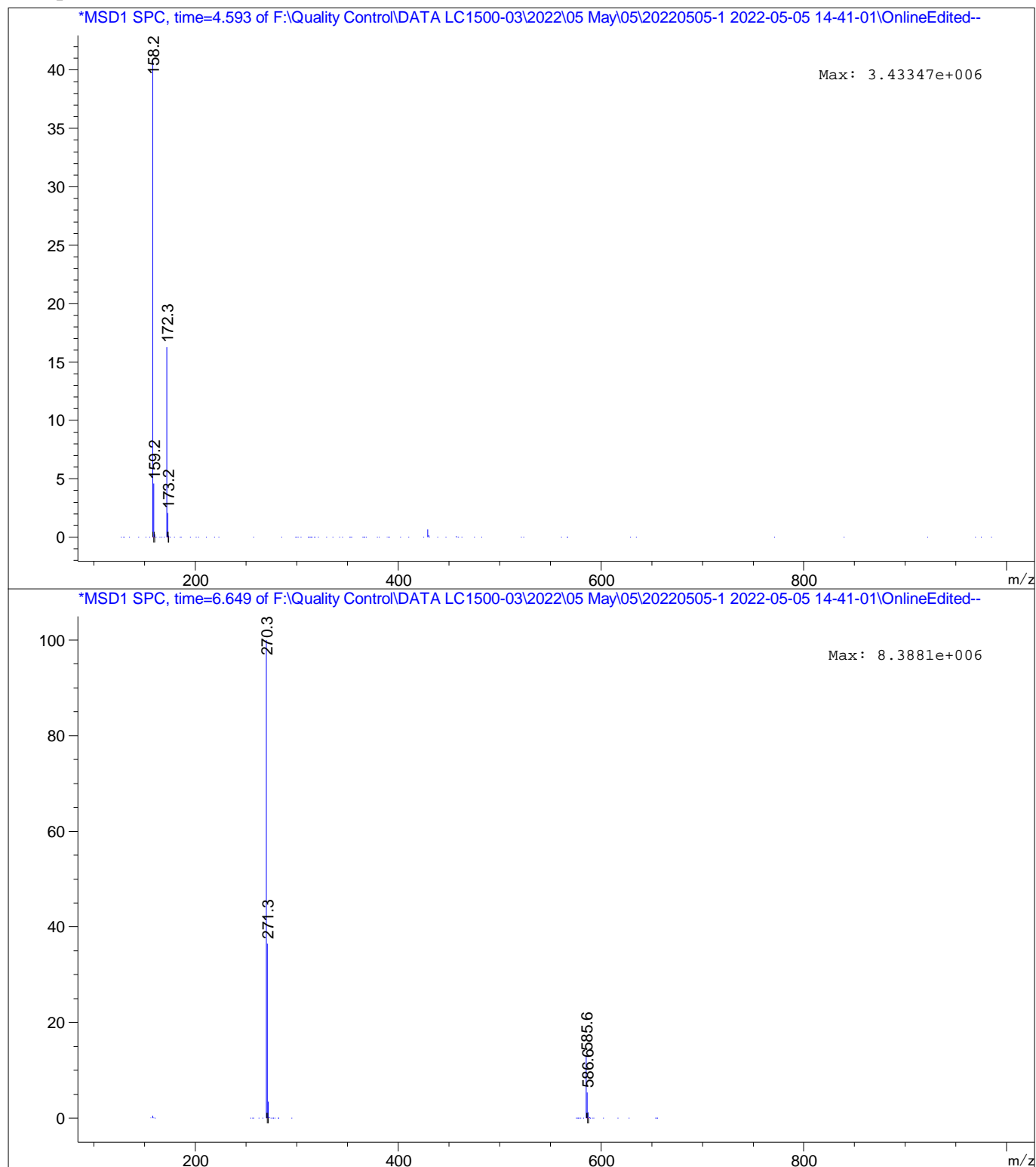
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01
\Standard.M

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01
\Standard.M (Sequence Method)

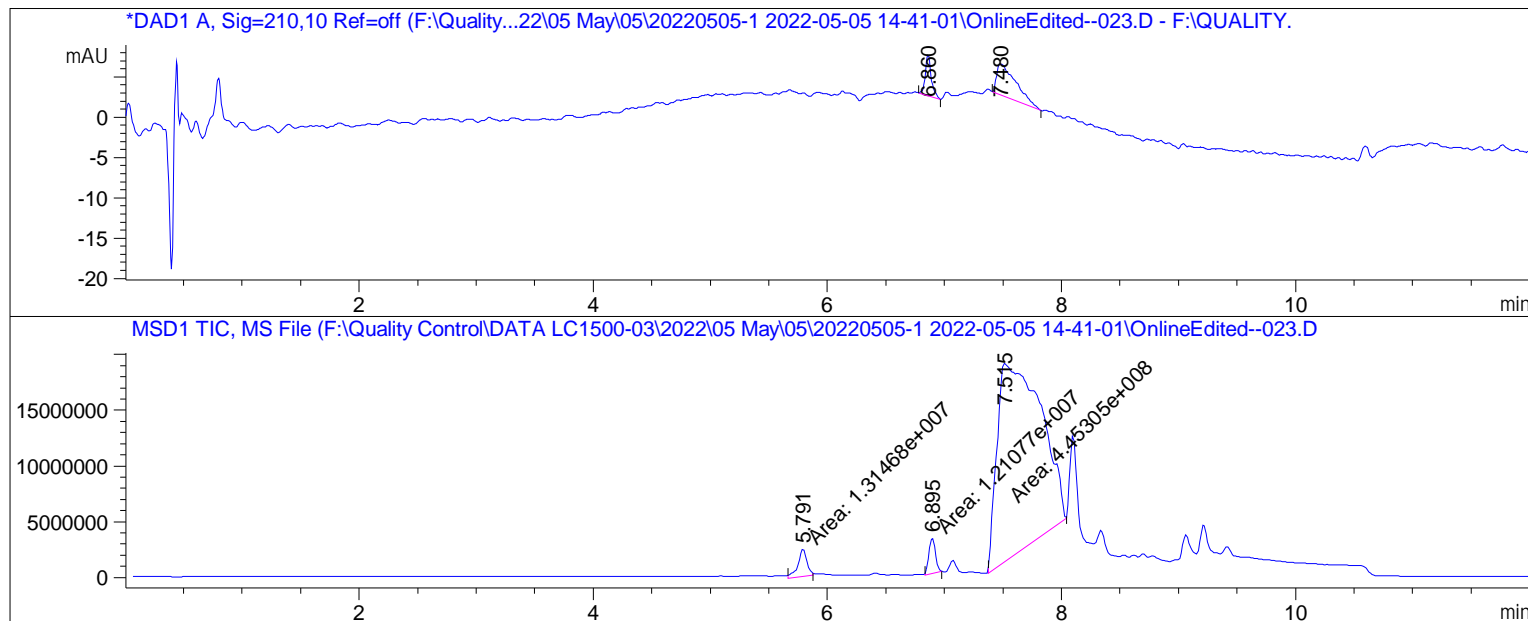
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

MS Spectrum



Appendix B-5.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 9:38:45 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.860	BB	0.0565	18.19397	5.00030	28.6542
2	7.480	BB	0.1630	45.30093	3.80238	71.3458

Totals : 63.49491 8.80267

Appendix B-5.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 9:38:45 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	5.791	MM	0.0886	1.31468e7	2.47310e6	2.7939
2	6.895	MM	0.0630	1.21077e7	3.20332e6	2.5731
3	7.515	MM	0.4152	4.45305e8	1.78736e7	94.6331

Totals : 4.70560e8 2.35500e7

Appendix B-5.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 9:38:45 PM

Inj : 1

Inj Volume : 3.000 µl

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl

Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05
14-41-01\Standard.M

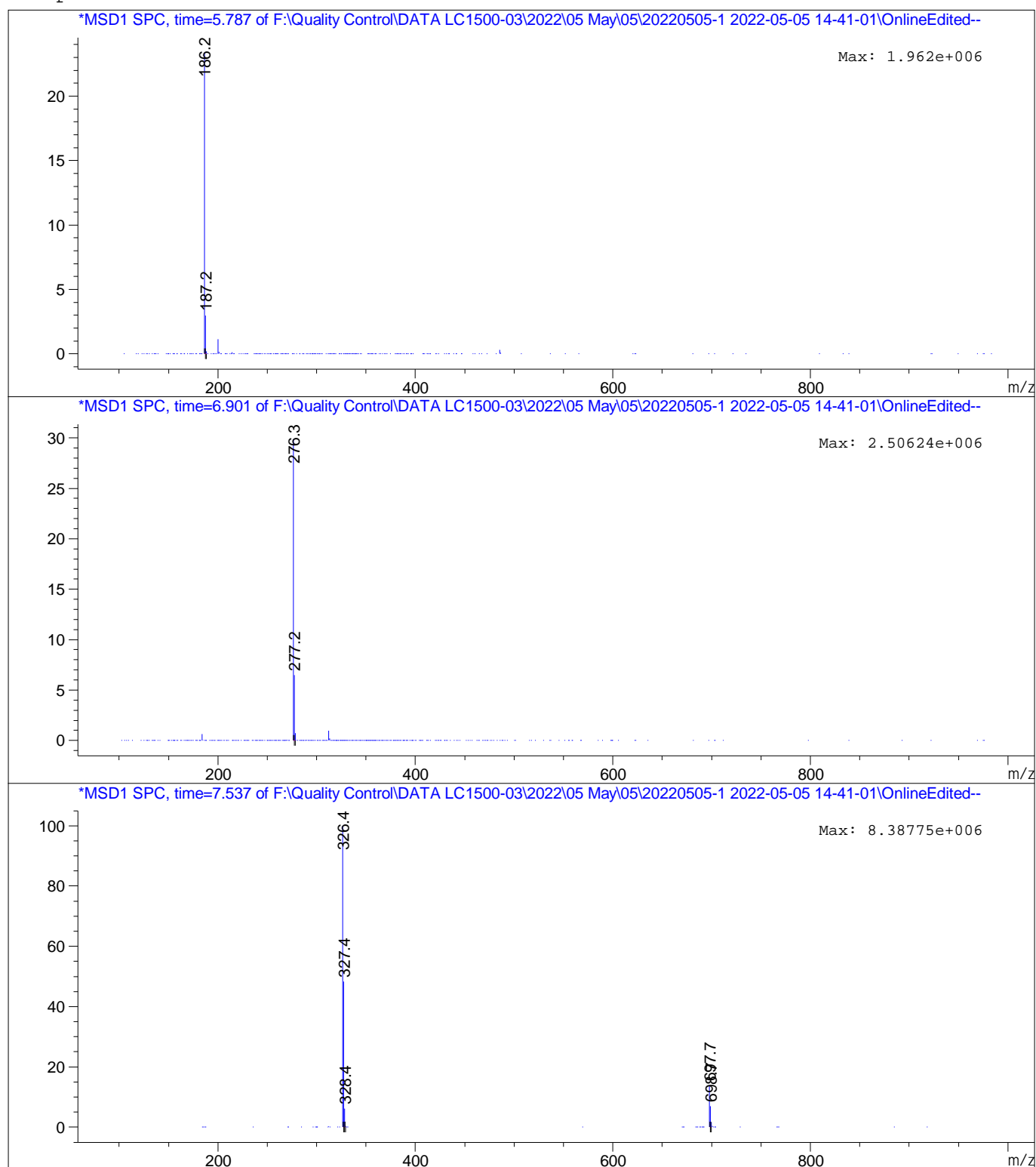
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05
14-41-01\Standard.M (Sequence Method)

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

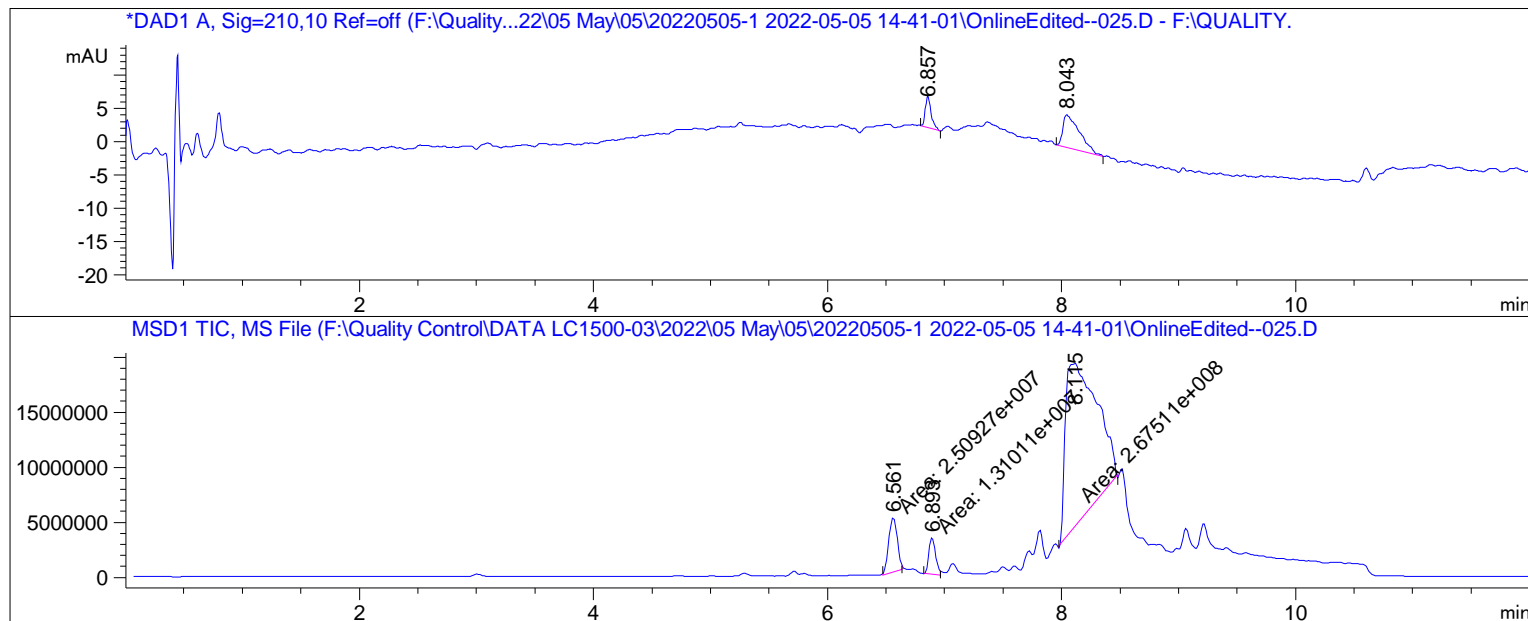
Additional Info : Peak(s) manually integrated

MS Spectrum



Appendix B-6.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 10:06:41 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.857	BB	0.0540	16.25991	4.73778	24.8411
2	8.043	BB	0.1327	49.19582	4.92001	75.1589

Totals : 65.45573 9.65779

Appendix B-6.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 10:06:41 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	6.561	MM	0.0843	2.50927e7	4.96047e6	8.2081
2	6.893	MM	0.0656	1.31011e7	3.32937e6	4.2856
3	8.115	MM	0.2208	2.67511e8	1.49101e7	87.5063

Totals : 3.05705e8 2.31999e7

Appendix B-6.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 10:06:41 PM

Inj : 1

Inj Volume : 3.000 µl

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl

Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01
\Standard.M

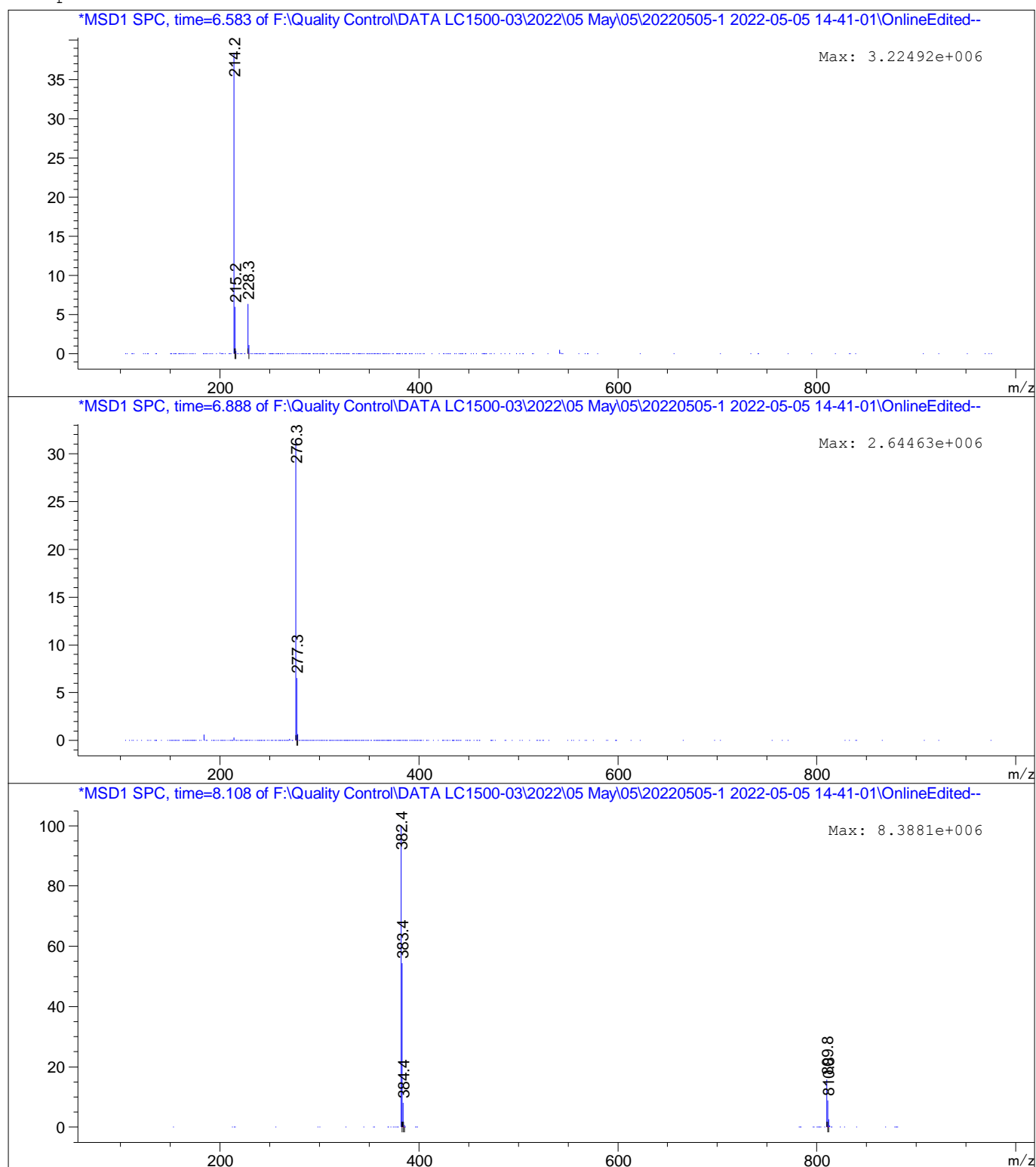
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01
\Standard.M (Sequence Method)

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

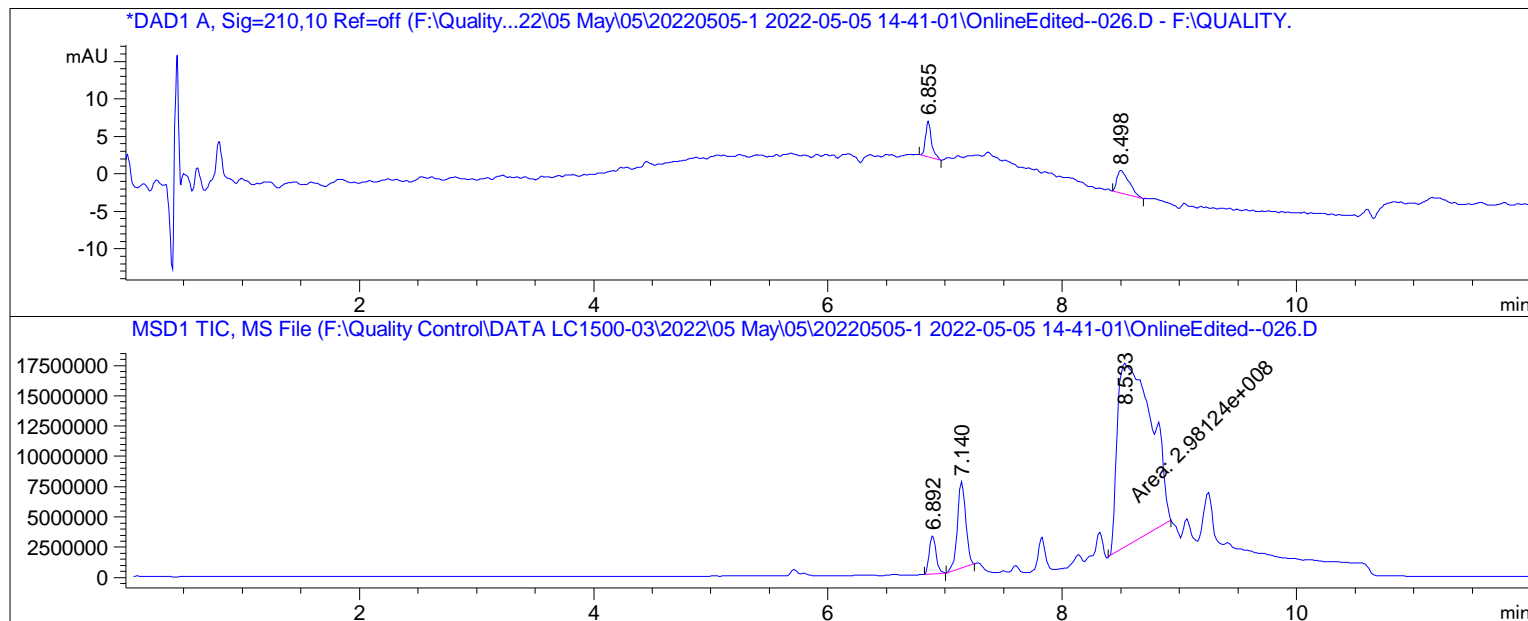
Additional Info : Peak(s) manually integrated

MS Spectrum



Appendix B-7.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 10:20:40 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.855	BB	0.0528	16.67915	4.77305	43.4499
2	8.498	BB	0.1064	21.70797	2.99922	56.5501

Totals : 38.38712 7.77227

Appendix B-7.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 10:20:40 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	6.892	BB	0.0623	1.25619e7	3.15743e6	3.6333
2	7.140	BB	0.0773	3.50616e7	7.12669e6	10.1408
3	8.533	MM	0.3267	2.98124e8	1.52086e7	86.2260

Totals : 3.45748e8 2.54928e7

*** End of Report ***

Appendix B-7.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 10:20:40 PM

Inj : 1

Inj Volume : 3.000 μ l

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 μ l

Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01
\Standard.M

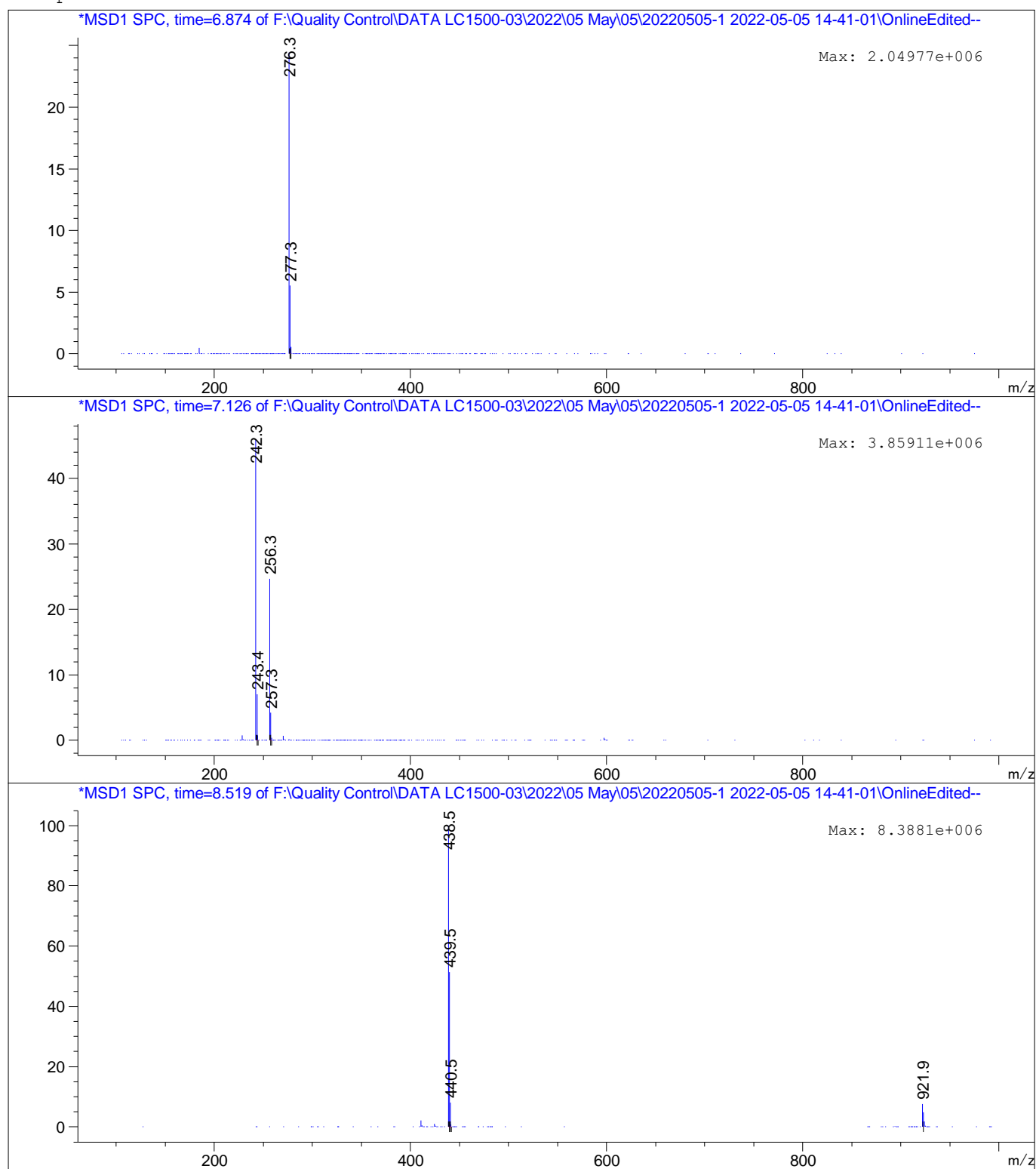
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01
\Standard.M (Sequence Method)

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Additional Info : Peak(s) manually integrated

MS Spectrum

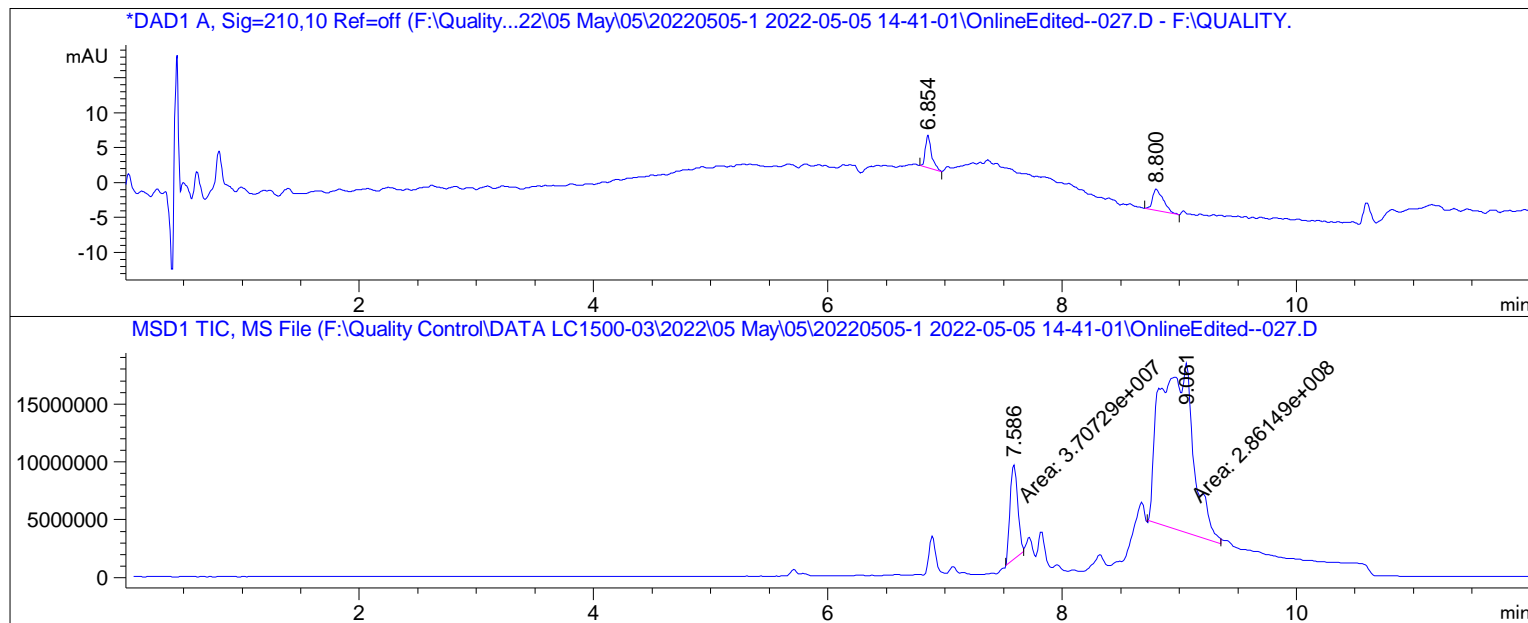


LC-MS data

B21/30

Appendix B-8.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 10:34:39 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.854	BB	0.0543	16.99430	4.69139	46.4603
2	8.800	BB	0.0866	19.58381	3.06149	53.5397

Totals : 36.57811 7.75288

Appendix B-8.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 10:34:39 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	7.586	MM	0.0744	3.70729e7	8.30663e6	11.4698
2	9.061	MM	0.3247	2.86149e8	1.46875e7	88.5302

Totals : 3.23222e8 2.29941e7

Appendix B-8.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 10:34:39 PM

Inj : 1

Inj Volume : 3.000 μ l

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 μ l

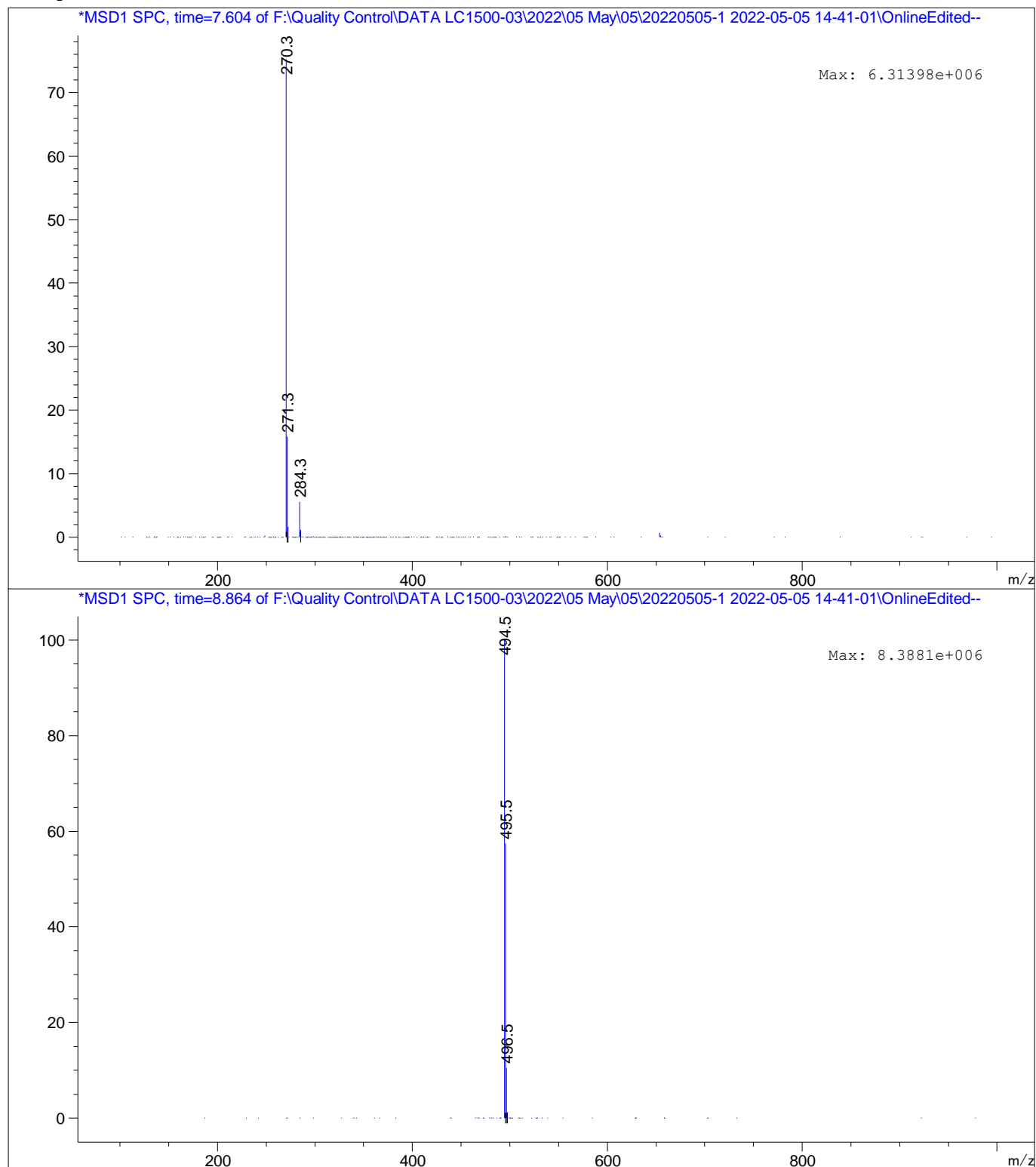
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05
14-41-01\Standard.M

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05
14-41-01\Standard.M (Sequence Method)

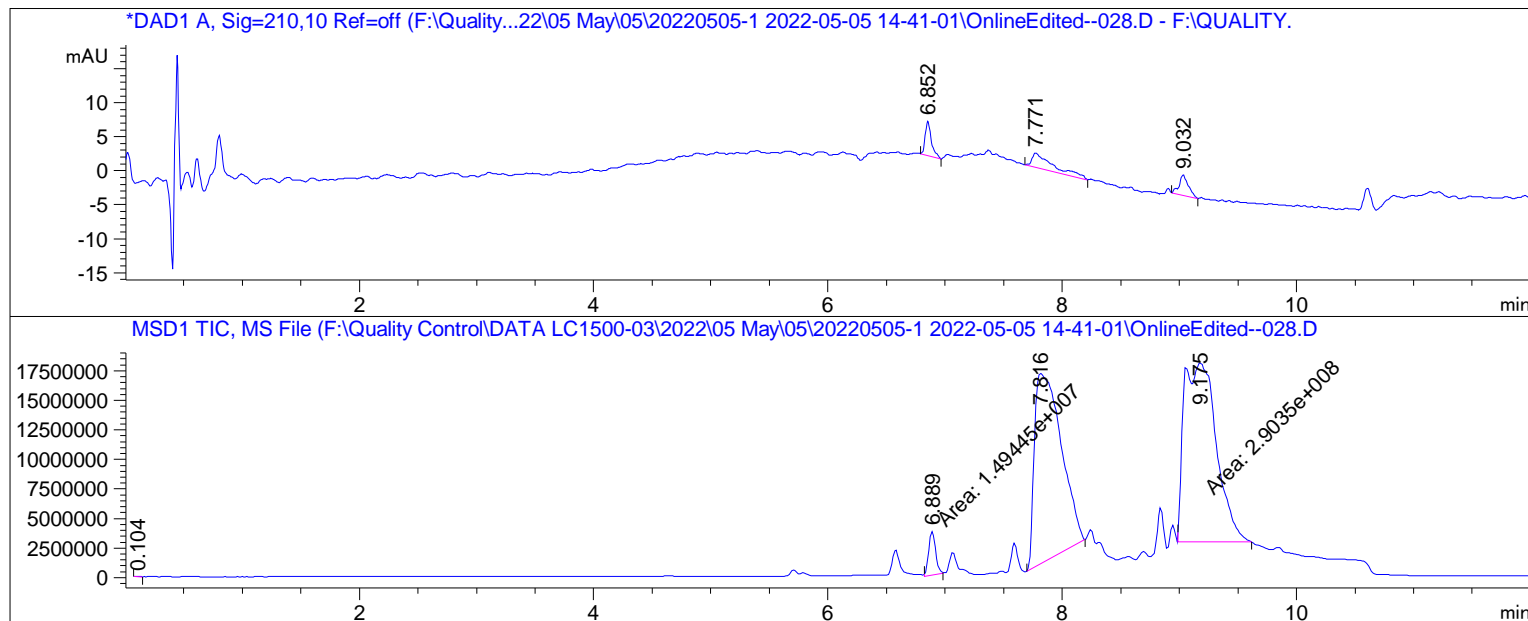
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

MS Spectrum



Appendix B-9.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 10:48:37 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.852	BB	0.0560	18.09723	5.02276	29.4173
2	7.771	BB	0.1687	27.13343	2.07312	44.1057
3	9.032	BB	0.0772	16.28841	3.00498	26.4770

Totals : 61.51907 10.10086

Appendix B-9.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 10:48:37 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated
=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	0.104	BB	0.0405	1.11078e5	4.56551e4	0.0199
2	6.889	MM	0.0665	1.49445e7	3.74729e6	2.6822
3	7.816	BB	0.2104	2.51773e8	1.60898e7	45.1871
4	9.175	MM	0.3192	2.90350e8	1.51625e7	52.1107

Totals : 5.57179e8 3.50453e7

Appendix B-9.3

Acq. Operator : SYSTEM

Acq. Instrument : LC-MS

Injection Date : 5/5/2022 10:48:37 PM

Inj : 1

Inj Volume : 3.000 µl

Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl

Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05
14-41-01\Standard.M

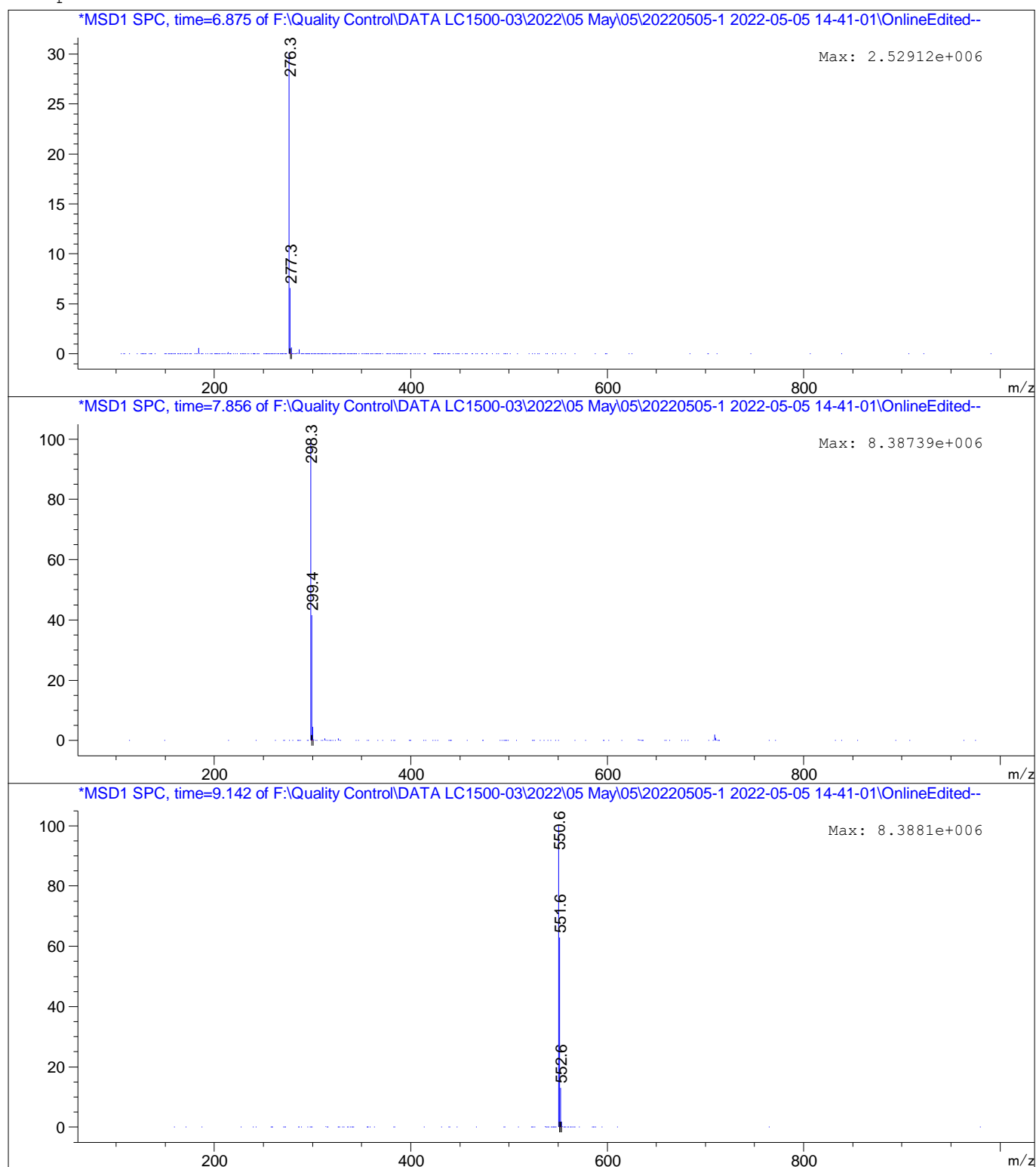
Last changed : 4/21/2022 9:33:13 AM by SYSTEM

Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05
14-41-01\Standard.M (Sequence Method)

Last changed : 4/21/2022 9:33:13 AM by SYSTEM

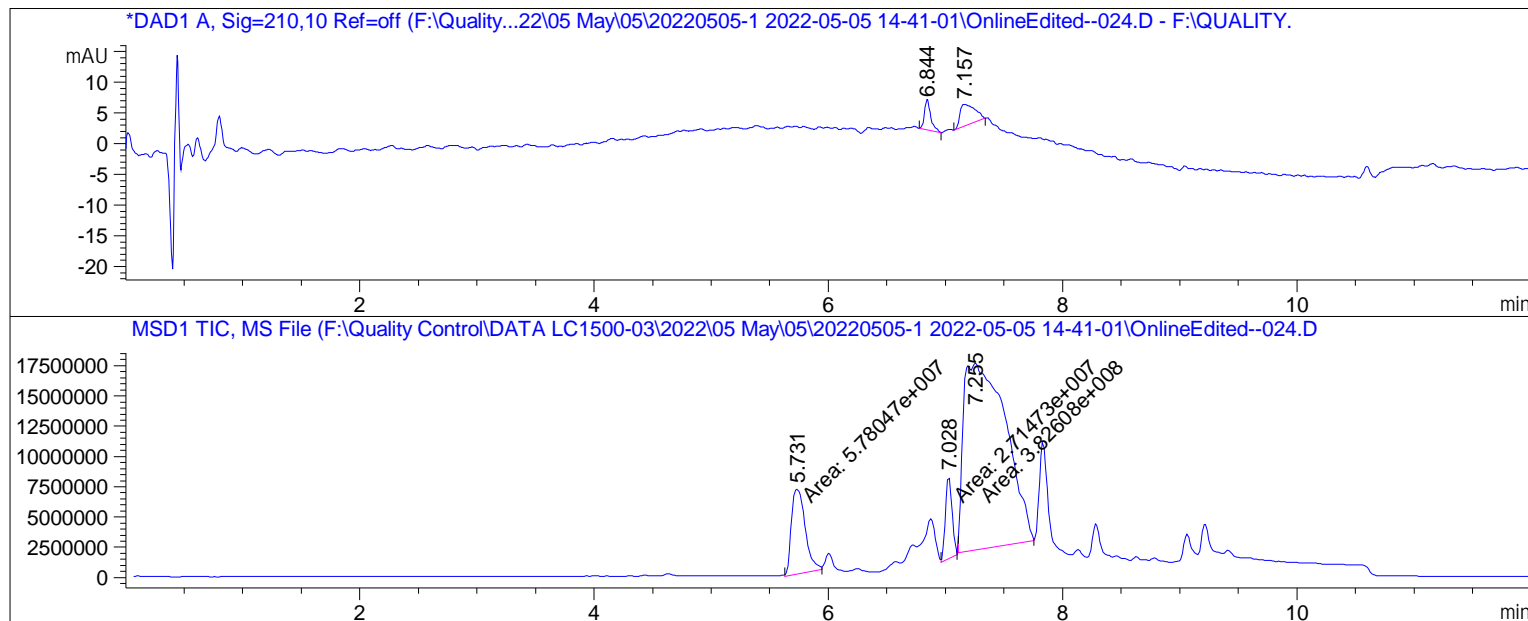
Additional Info : Peak(s) manually integrated

MS Spectrum



Appendix B-10.1

Acq. Operator : SYSTEM
 Acq. Instrument : LC-MS
 Injection Date : 5/5/2022 9:52:43 PM Inj : 1
 Inj Volume : 3.000 µl
 Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
 Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
 Last changed : 4/21/2022 9:33:13 AM by SYSTEM
 Additional Info : Peak(s) manually integrated



Area Percent Report

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=210,10 Ref=off
 Signal has been modified after loading from rawdata file!

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	6.844	BB	0.0551	18.40672	4.98098	37.5906
2	7.157	BB	0.1274	30.55962	3.58560	62.4094

Totals : 48.96634 8.56658

Appendix B-10.2

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 9:52:43 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

=====

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	5.731	MM	0.1365	5.78047e7	7.05734e6	12.3630
2	7.028	MM	0.0664	2.71473e7	6.81755e6	5.8062
3	7.255	MM	0.4124	3.82608e8	1.54643e7	81.8308

Totals : 4.67560e8 2.93392e7

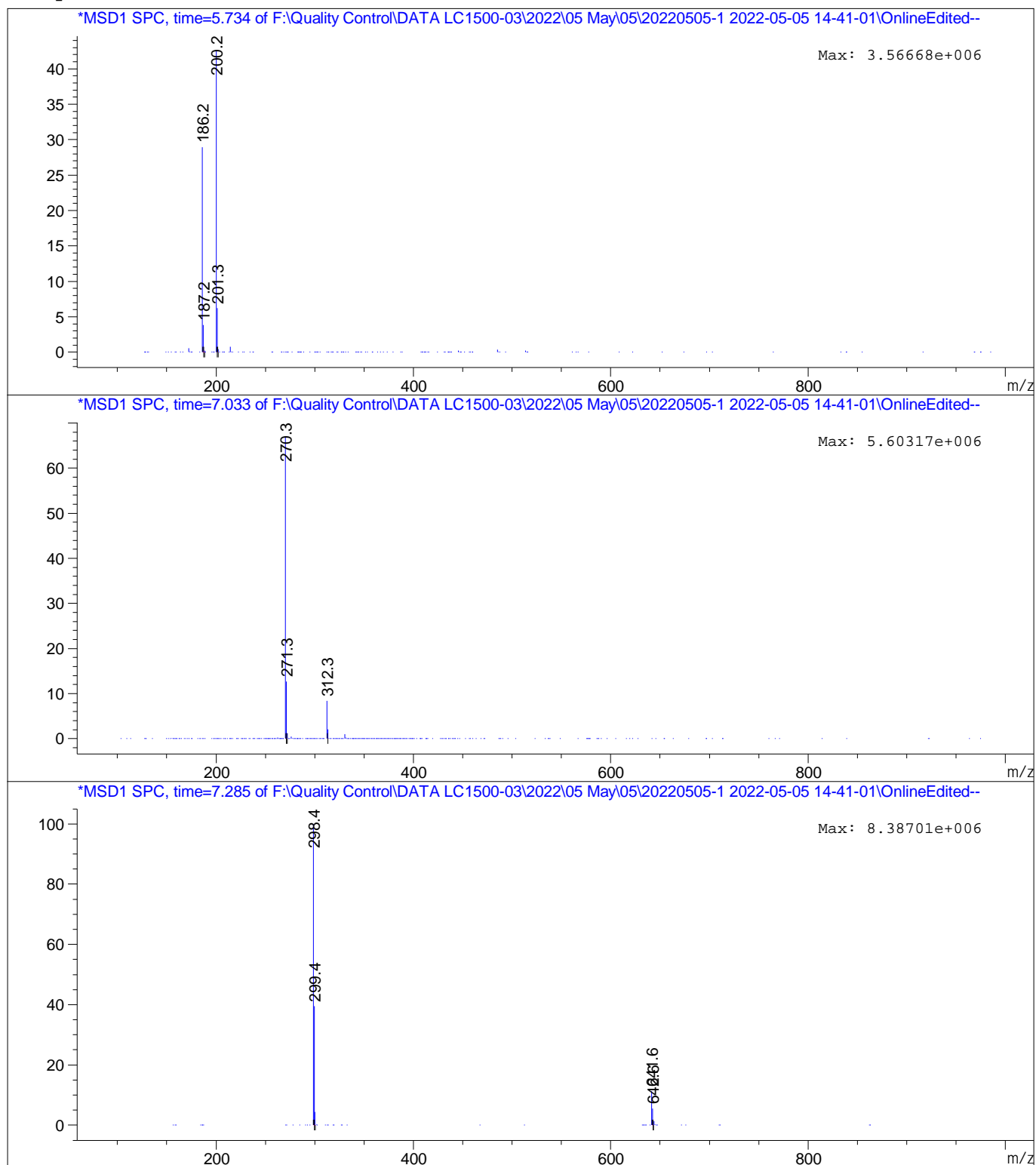
=====

*** End of Report ***

Appendix B-10.3

Acq. Operator : SYSTEM
Acq. Instrument : LC-MS
Injection Date : 5/5/2022 9:52:43 PM Inj : 1
Inj Volume : 3.000 µl
Different Inj Volume from Sample Entry! Actual Inj Volume : 0.500 µl
Acq. Method : F:\Quality Control\DATA LC1500-03\2022\05 May\03\20220505-1 2022-05-05 14-41-01
\Standard.M
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Analysis Method : F:\Quality Control\DATA LC1500-03\2022\05 May\05\20220505-1 2022-05-05 14-41-01
\Standard.M (Sequence Method)
Last changed : 4/21/2022 9:33:13 AM by SYSTEM
Additional Info : Peak(s) manually integrated

MS Spectrum



Appendix C – Kinetic calculations

Rate law for S_N2 :

$$\frac{d[A]}{dt} = -k[A][B] \quad (1)$$

Assuming $[A]=[B]$ in equation 1.

$$\frac{d[A]}{dt} = -k[A]^2$$

Solving the ODE:

$$\begin{aligned} \int_0^t \frac{d[A]}{dt} \cdot \frac{1}{[A]^2} dt &= -k \int_0^t dt \\ \int_{[A]_0}^{[A]_t} \frac{1}{[A]^2} d[A] &= \frac{1}{[A]_0} - \frac{1}{[A]_t} = -kt \\ \frac{1}{[A]_t} &= \frac{1}{[A]_0} + \frac{kt[A]_0}{[A]_0} \\ [A]_t &= \frac{[A]_0}{1 + kt[A]_0} \end{aligned} \quad (2)$$

Equation 2 can be manipulated further to give an expression for time t in terms of conversion factor c , start concentration $[A]_0$ and reaction coefficient k (equation 2.1).

$$\begin{aligned} c &= \frac{[A]_t}{[A]_0} = \frac{1}{1 + kt[A]_0} \\ t &= \frac{1 - c}{[A]_0 k} \end{aligned} \quad (2.1)$$

Arrhenius equation:

$$\ln(k) = \ln(A) - \frac{E_a}{RT} \quad (3)$$

Arrhenius equation 3 can be written as a linear relation.

$$y = a - C \cdot x$$

Where $y = \ln(k)$, $a = \ln(A)$, $C = \frac{E_a}{R}$ and $x = \frac{1}{T}$. Values for T and k are measured and the datapoints are plotted to find $\ln(A)$ and $\frac{E_a}{R}$ where $R = 8.314 \frac{J}{K \cdot mol}$. Figure 1 displays an example of a plot.

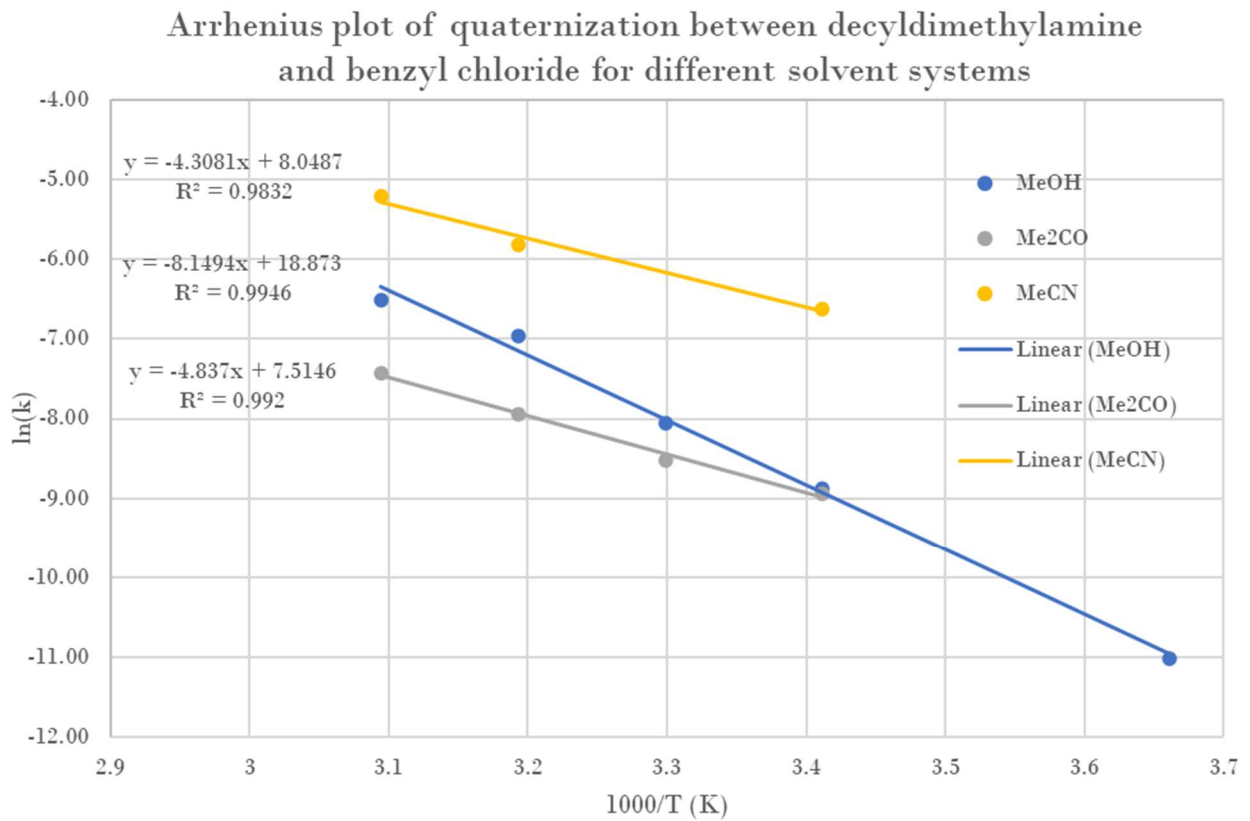


Figure 1 Arrhenius plots of various solvents in synthesis of BAC-10

The trendlines gathered from the Arrhenius plot can be extrapolated. In this example, the line for MeOH is chosen for further calculations.

$$\ln(k) = -8.1494 \cdot \frac{1000}{T} + 18.873$$

$$-\frac{E_a}{R} = -8149.4 \leftrightarrow E_a = 6784 \cdot 10^1 \frac{J}{mol} = 67.84 \frac{kJ}{mol}$$

$$\ln(A) = 18.873$$

The temperature is chosen to be $100^\circ\text{C} = 373.15^\circ\text{K}$

$$\ln(k) = -\frac{E_a}{R} \cdot \frac{1}{T} + \ln(A) = -8149.4 \cdot \frac{1}{373.15} + 18.873 = -2.9695$$

$$k = \exp(-2.9695) = 5.1330 \cdot 10^{-2} \frac{L}{s \cdot mol}$$

The new k can be used in equation 2.1 together with an assumption that conversion factor $c = 0.05$ (95% of starting material has reacted).

$$t([A]_0, k(T)) = \frac{1 - 0.05}{[A]_0 k(T)}$$

For any given set of $[A]_0$ and k a reaction time t (in seconds) can be obtained. k is a function of T as shown above. An example of this is given in the following matrix where each element represents the time t (in hours).

T (°C)	k	0.5 M	1.0 M	2.0 M
0	1.65E-05	638.65	319.32	159.66
20	1.40E-04	75.38	37.69	18.84
30	3.19E-04	33.12	16.56	8.28
40	9.51E-04	11.10	5.55	2.77
50	1.50E-03	7.04	3.52	1.76
100	5.15E-02	0.21	0.10	0.05

This data can be 3D plotted as shown in figure

Theoretical reaction time (95% yield) [ln(hours)] as function of temperature and reactant concentration (MeOH)

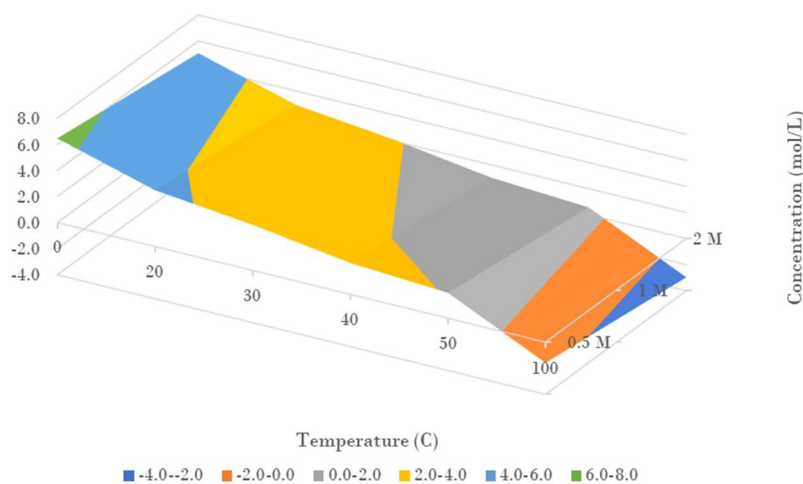


Figure 2: 3D plot of reaction time for 95% yield in terms of temperature and concentration

Appendix D – Starting materials and signal words

Code	Amine	Supplier	p.nr	lot.nr
1	N,N-dimethylhexylamine	fluorochem	046920	FCB078035
2	N,N-dimethyloctylamine	TCI	D1814	KP8HD-LN
3	N,N-dimethyldecylamine	TCI	D2288	JAHWF-GI
4	N,N-dimethyldodecylamine	TCI	D0002	IUWZM-KU
5	N,N-dimethyltetradecylamine	TCI	D1844	N83VB-WF
6	N,N-dimethylhexadecylamine	fluorochem	134700	FCB02047
7	N,N-dimethyloctadecylamine	TCI	D1609	5OQ7M-AJ
8	Trimethylamine	TCI	T2268	TEWSK-CE
	Alkyl chloride			
9	Benzyl chloride	Sigma Aldrich	185558	0001439954
10	Benzyl chloride-d7	CDN	D-0330	DE-364
11	1-chlorohexane	TCI	C0184	FHJ01
12	1-chlorooctane	TCI	C0236	6VFIK-CS
13	1-chlorodecane	TCI	C0600	PNWJD-NT
14	1-chlorododecane	TCI	C0163	JGM4O-HL
15	1-chlorotetradecane	TCI	C0622	HN2PN-CF
16	1-chlorohexadecane	TCI	C0183	OR5BG-DJ
17	1-chlorooctadecane	TCI	C0235	DC7CL-IK

	Hazard statements	Precautionary statements
1	H226 Flammable liquid and vapour. H314 Causes severe skin burns and eye damage.	P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P370 + P378 In case of fire: Use sand, CO2 or extinguishing powder for extinction.
2	H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H330 Fatal if inhaled. H360FD May damage fertility. May damage the unborn child. H410 Very toxic to aquatic life with long lasting effects.	P201 Obtain special instructions before use. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
3	Combustible liquid Harmful if swallowed, in contact with skin or if inhaled Causes severe skin burns and eye damage	Keep away from flames and hot surfaces–No smoking. Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves, protective clothing, face protection
4	H302-Harmful if swallowed. H314-Causes severe skin burns and eye damage. H361fd-Suspected of damaging fertility. Suspected of damaging the unborn child. H400-Very toxic to aquatic life. H410-Very toxic to aquatic life with long lasting effects	P260-Do not breathe dusts or mists. P280-Wear protective gloves, protective clothing, face protection. P301+P330+P331+P310-IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. P303+P361+P353+P310+P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. P304+P340+P310-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P305+P351+P338+P310-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor

5	H314-Causes severe skin burns and eye damage.	P260-Do not breathe dusts or mists. P280-Wear protective gloves, protective clothing, face protection. P301+P330+P331+P310-IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. P303+P361+P353+P310+P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. P304+P340+P310-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P305+P351+P338+P310-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor
6	H314 Causes severe skin burns and eye damage.	P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/container to local regulations
7	Causes serious eye damage Causes severe skin burns and eye damage Very toxic to aquatic life Very toxic to aquatic life with long lasting effects May cause drowsiness or dizziness.	Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield). Avoid breathing dusts or mists.
8	H225-Highly flammable liquid and vapour. H314-Causes severe skin burns and eye damage. H360FD-May damage fertility. May damage the unborn child. H370-Causes damage to organs : Central nervous system H372-Causes damage to organs through prolonged or repeated exposure : Visual system Central nervous system H335-May cause respiratory irritation. H336-May cause drowsiness or dizziness	P260-Do not breathe mist, vapours or spray. P280-Wear protective gloves, protective clothing, face protection. P301+P330+P331+P310-IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. P303+P361+P353+P310+P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. P304+P340+P310-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P305+P351+P338+P310-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor
9	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H331 Toxic if inhaled. H335 May cause respiratory irritation. H340 May cause genetic defects. H350 May cause cancer. H373 May cause damage to organs (Heart, forestomach) through prolonged or repeated exposure if swallowed.	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention.
10	- H227 Combustible liquid and vapour. - H302 Harmful if swallowed. - H315 Causes skin irritation. - H318 Causes serious eye damage. - H330 Fatal if inhaled. - H335 May cause respiratory irritation. - H340 May cause genetic defects. - H350 May cause cancer. - H371 May cause damage to organs through prolonged or repeated exposure.	- P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. - P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. - P302 + P352 IF ON SKIN: Wash with plenty of soap and water. - P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P316 Get emergency medical help immediately.
11	H226-Flammable liquid and vapour. H315-Causes skin irritation. H319-Causes serious eye irritation.	P210-Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. P370+P378-In case of fire: Use dry chemical or dry sand to extinguish. P403+P235-Store in a well-ventilated place. Keep cool.
12	H315-Causes skin irritation. H319-Causes serious eye irritation. H400-Very toxic to aquatic life. H410-Very	P273-Avoid release to the environment. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water.

	toxic to aquatic life with long lasting effects.	If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. P391-Collect spillage.
13	H319-Causes serious eye irritation. H351-Suspected of causing cancer. H336-May cause drowsiness or dizziness. H400-Very toxic to aquatic life. H410-Very toxic to aquatic life with long lasting effects.	P261-Avoid breathing mist, vapours or spray. P280-Wear protective gloves, protective clothing, face protection. P304+P340+P312-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. P308+P313-IF exposed or concerned: Get medical advice or attention. P403+P233-Store in a well-ventilated place. Keep container tightly closed.
14	H319-Causes serious eye irritation. H351-Suspected of causing cancer. H336-May cause drowsiness or dizziness. H400-Very toxic to aquatic life. H410-Very toxic to aquatic life with long lasting effects	P261-Avoid breathing mist, vapours or spray. P280-Wear protective gloves, protective clothing, face protection. P304+P340+P312-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. P308+P313-IF exposed or concerned: Get medical advice or attention. P403+P233-Store in a well-ventilated place. Keep container tightly closed.
15	H315-Causes skin irritation. H319-Causes serious eye irritation.	P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
16	-	-
17	H315-Causes skin irritation. H319-Causes serious eye irritation	P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.