

Supporting Information

Does thermotropic liquid crystalline self-assembly control biological activity in amphiphilic amino acids? – Tyrosine ILCs as a case study

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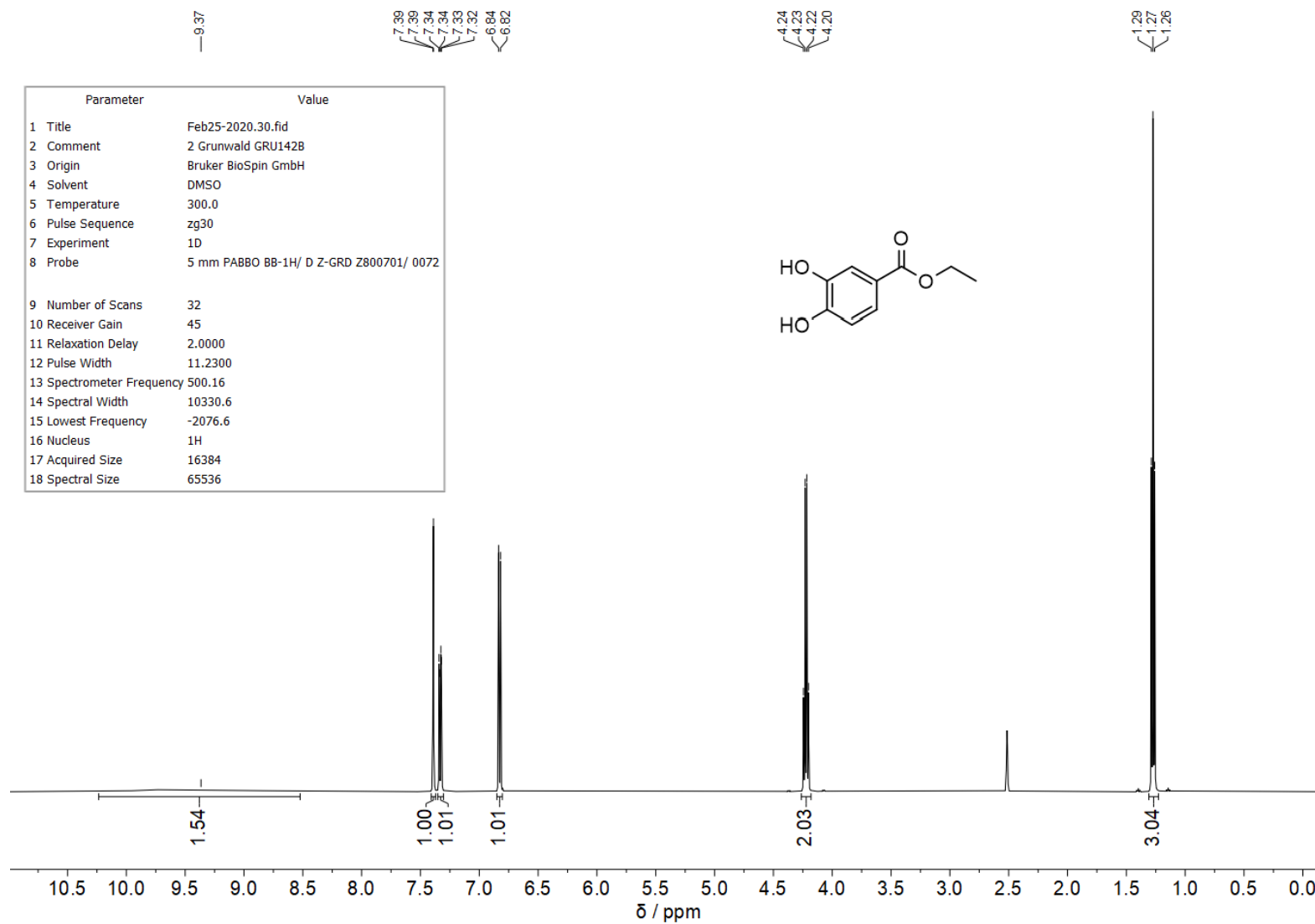
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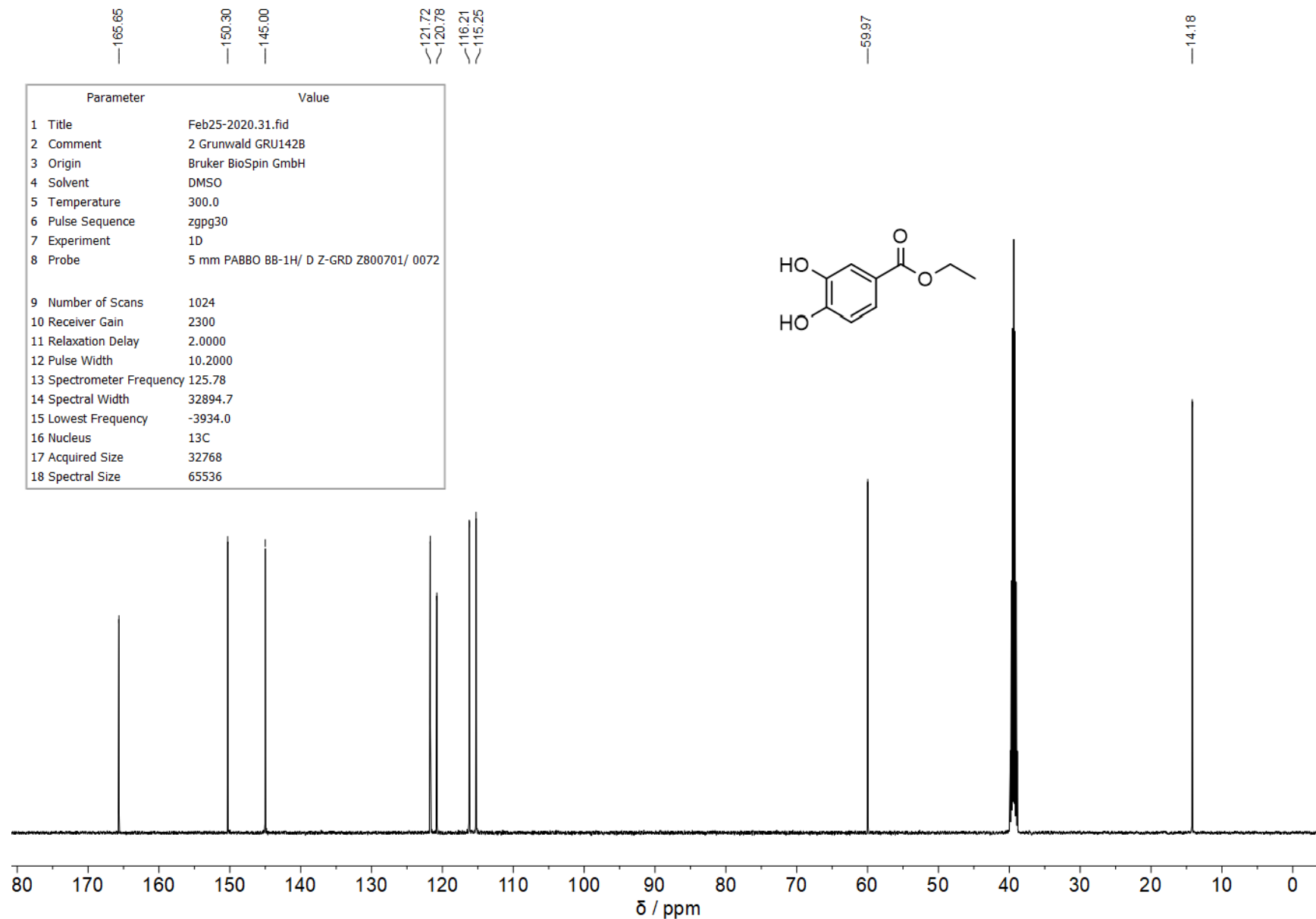
^b *Bundesanstalt für Materialforschung und –prüfung (BAM), D-12205 Berlin, Germany. E-mail: andreas.schoenhals@bam.de*

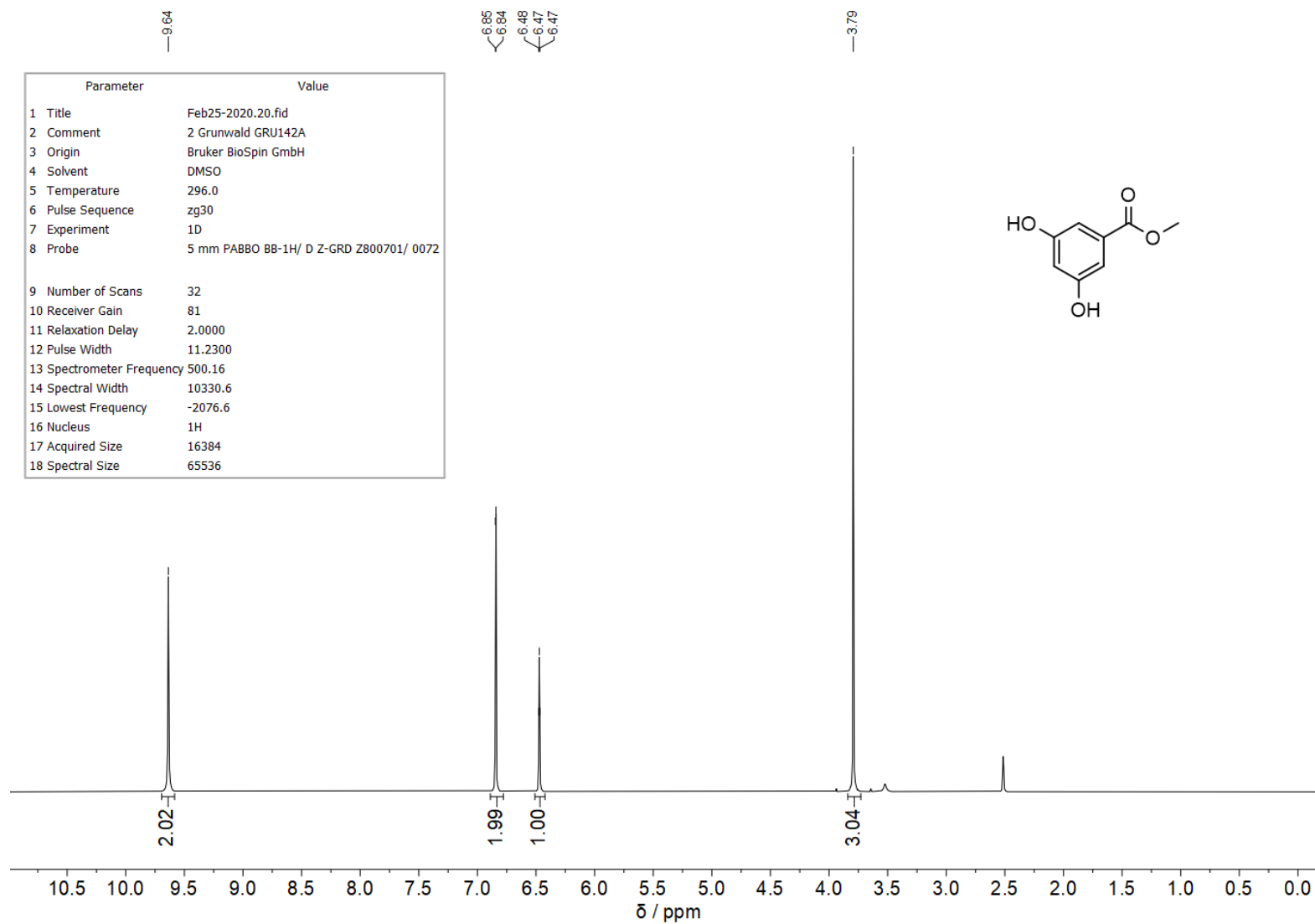
^c *Institute for Materials and X-Ray Physics, Hamburg University of Technology, D-21073 Hamburg, Germany; Centre for X-ray and Nano Science CXNS, Deutsches Elektronen-Synchrotron DESY, D-22605 Hamburg; Centre for Hybrid Nanostructures ChyN, University Hamburg, D-21073 Hamburg, Germany, E-mail: patrick.huber@tuhh.de*

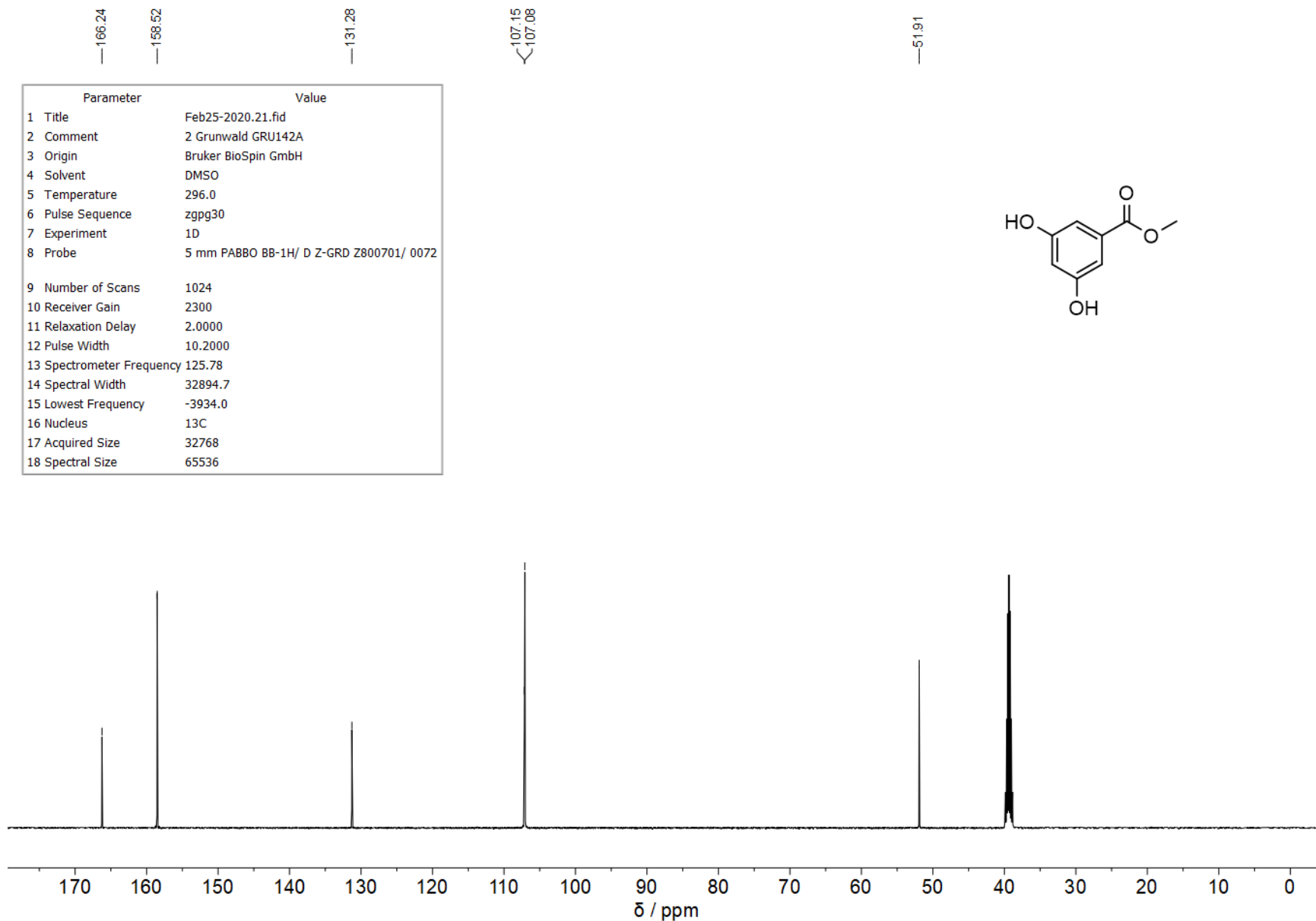
^d *AG Compound Profiling and Screening, Helmholtz Zentrum für Infektionsforschung, Inhoffenstr. 7, D-38124 Braunschweig, Germany. E-mail: ursula.bilitewski@helmholtz-hzi.de*

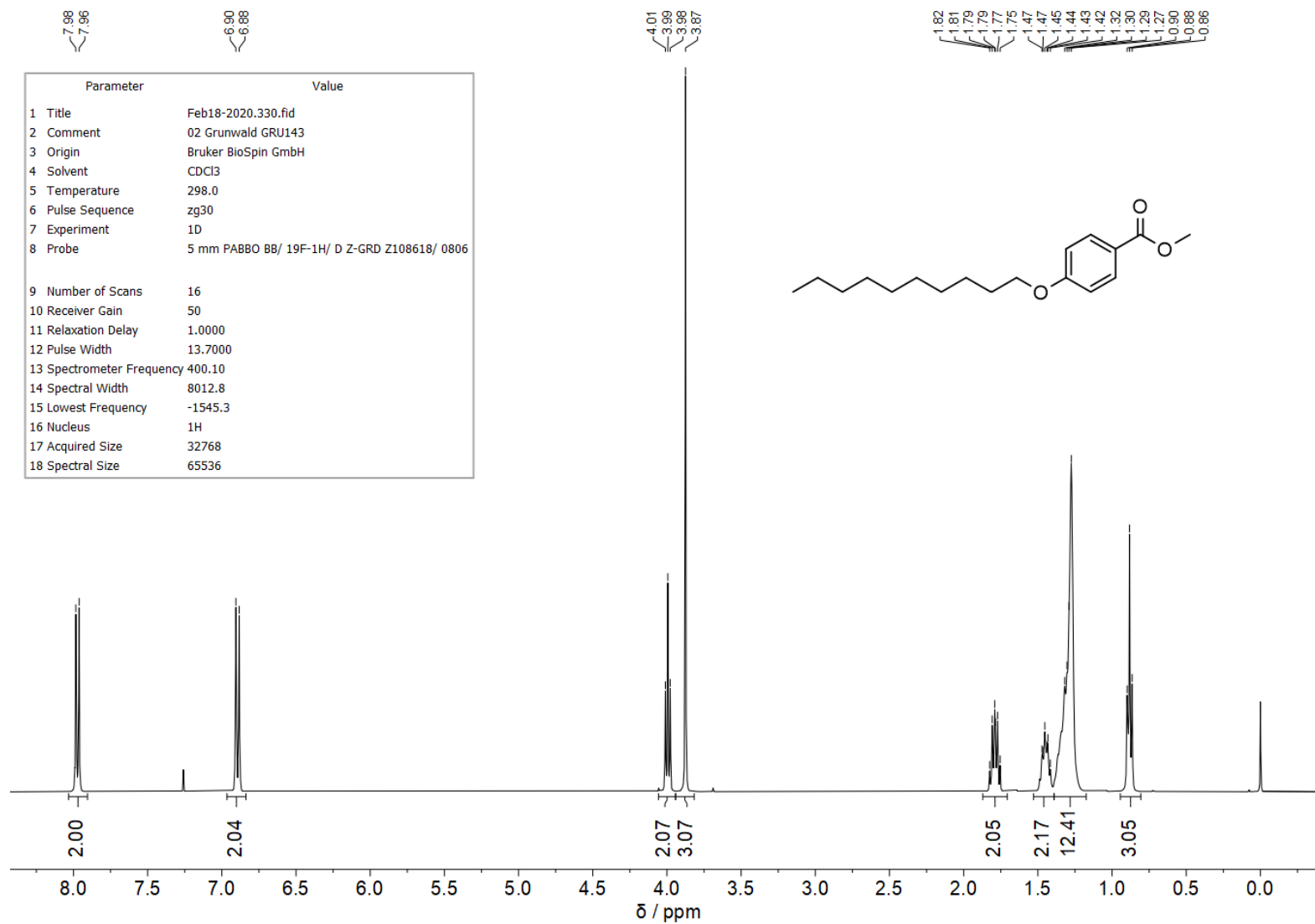
[¶] *Contributed equally to this work*

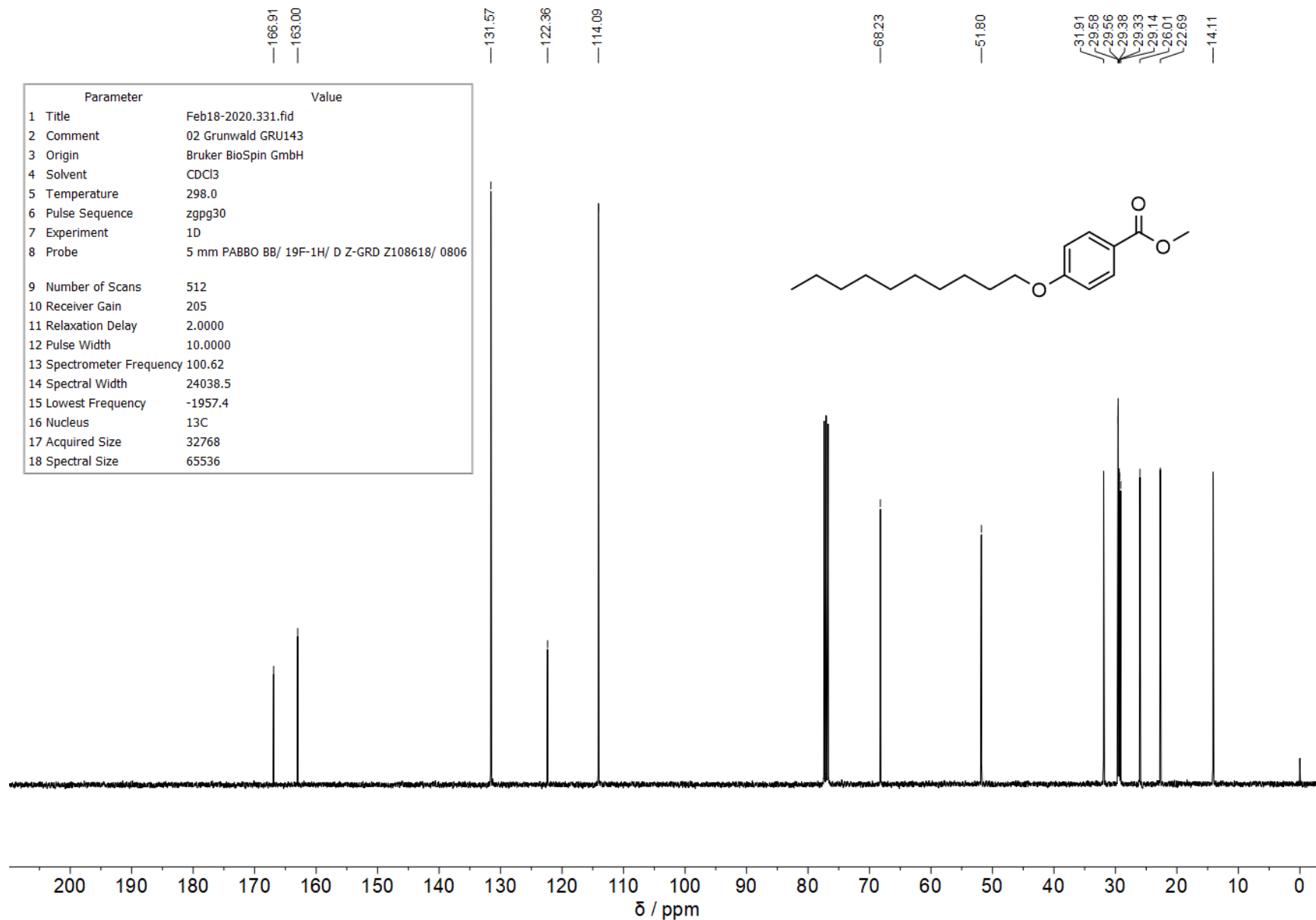
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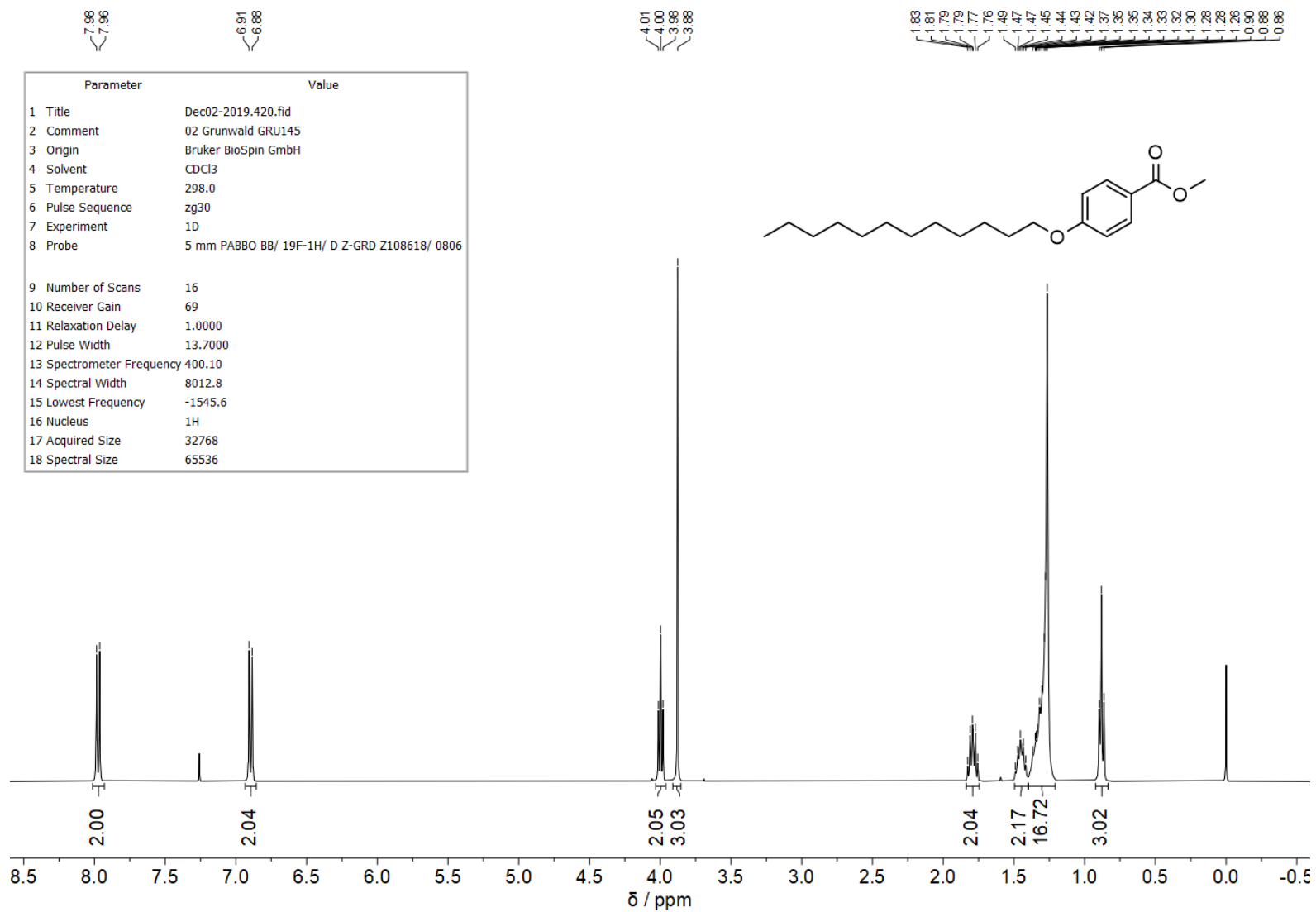


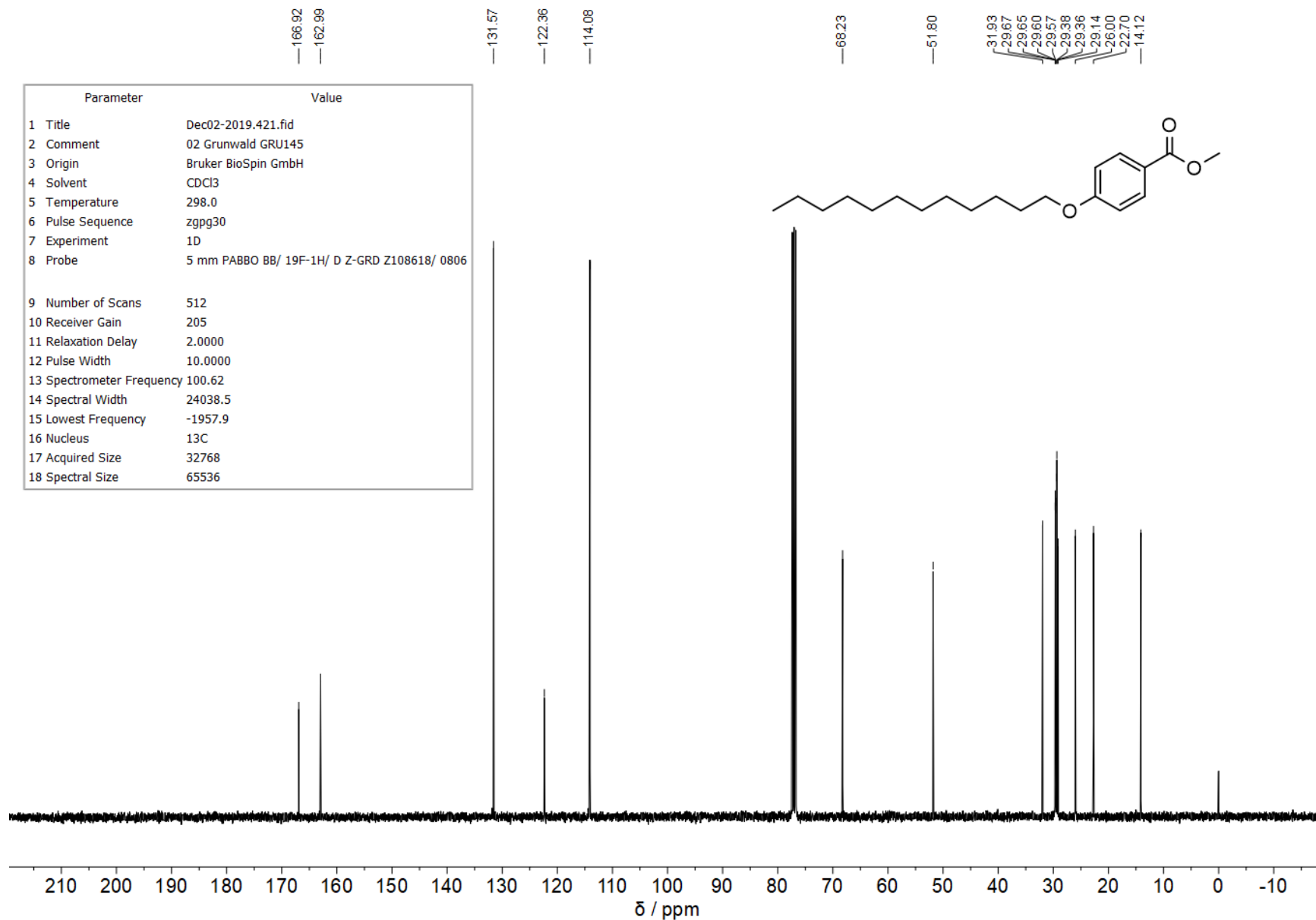
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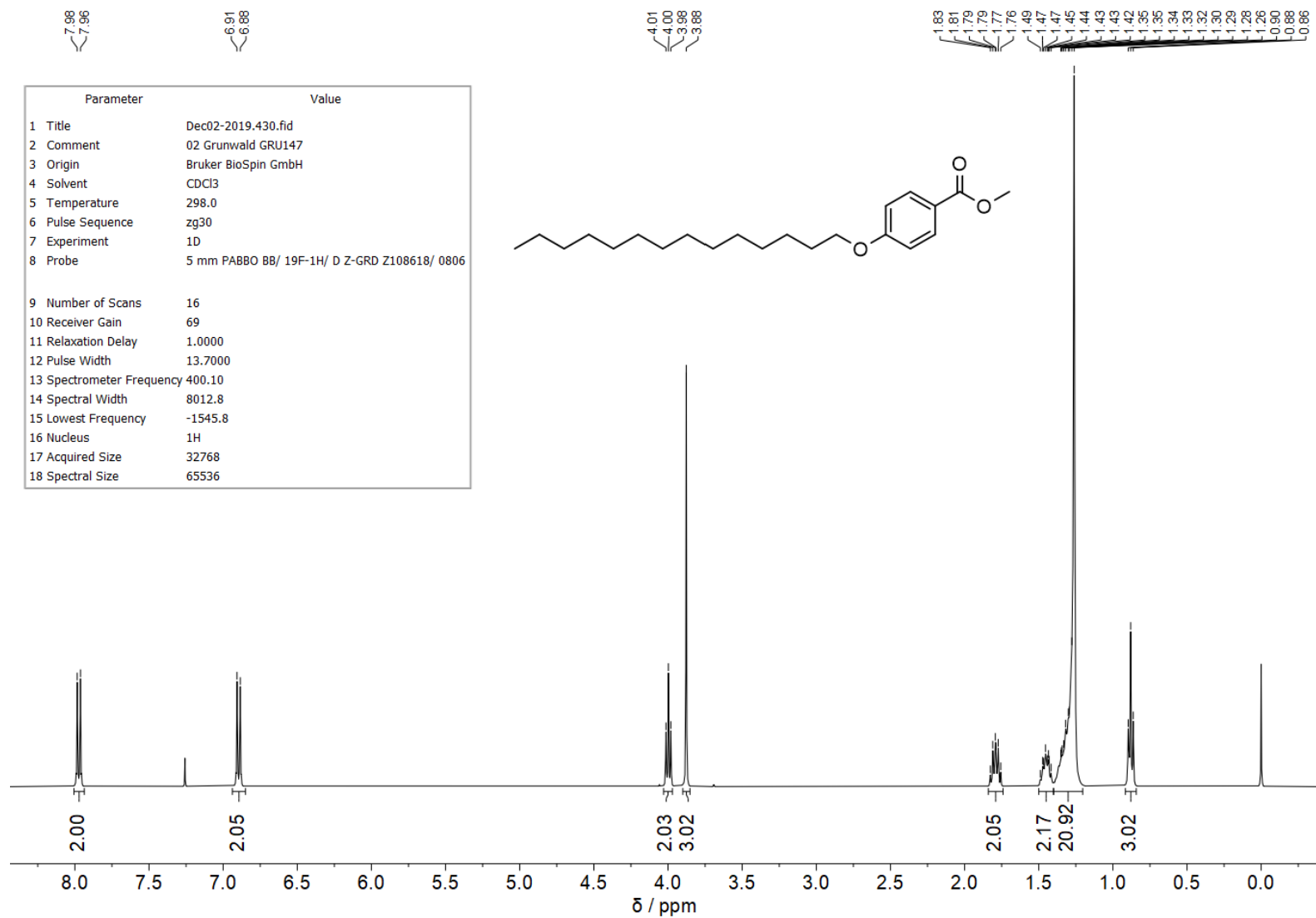


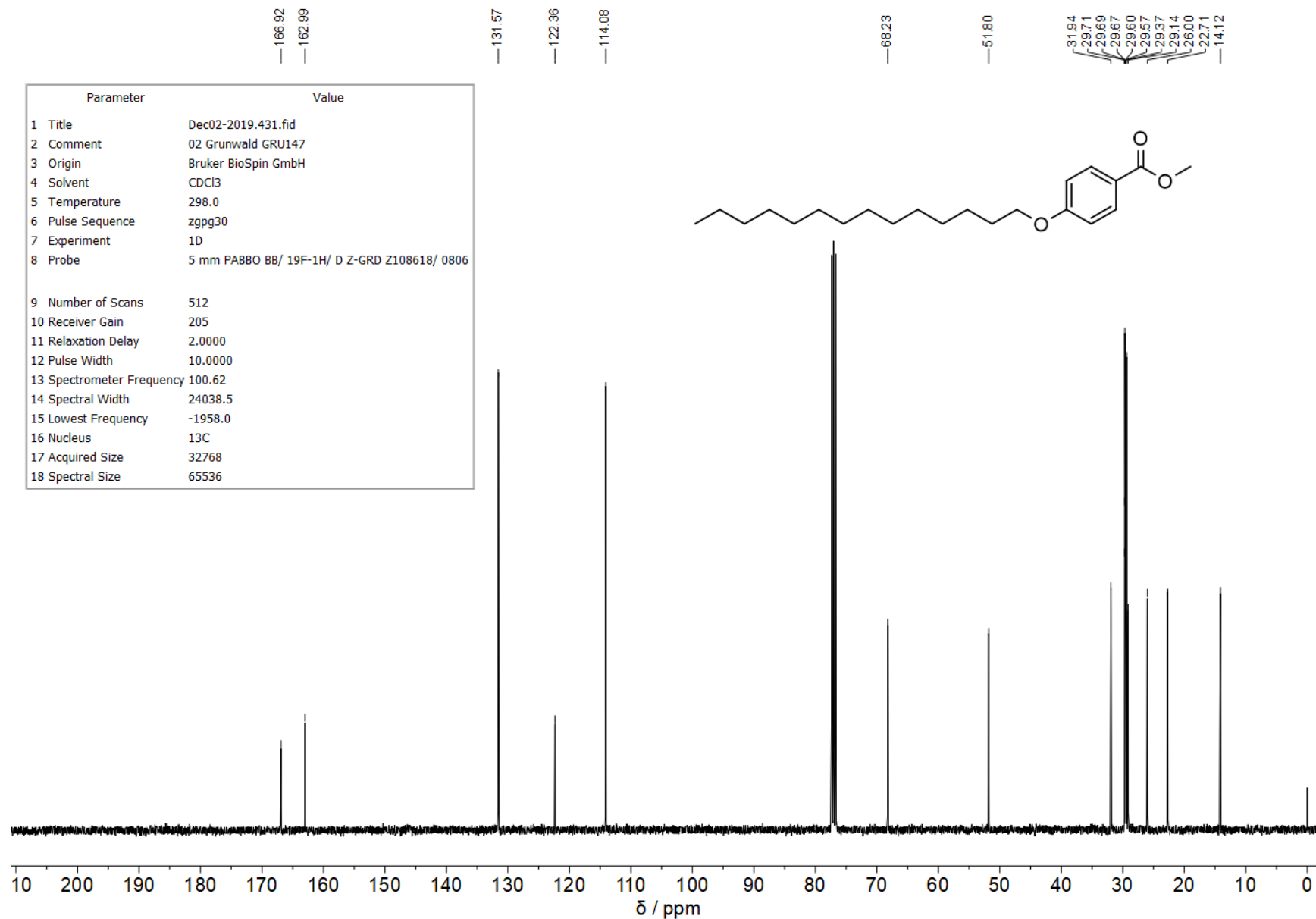
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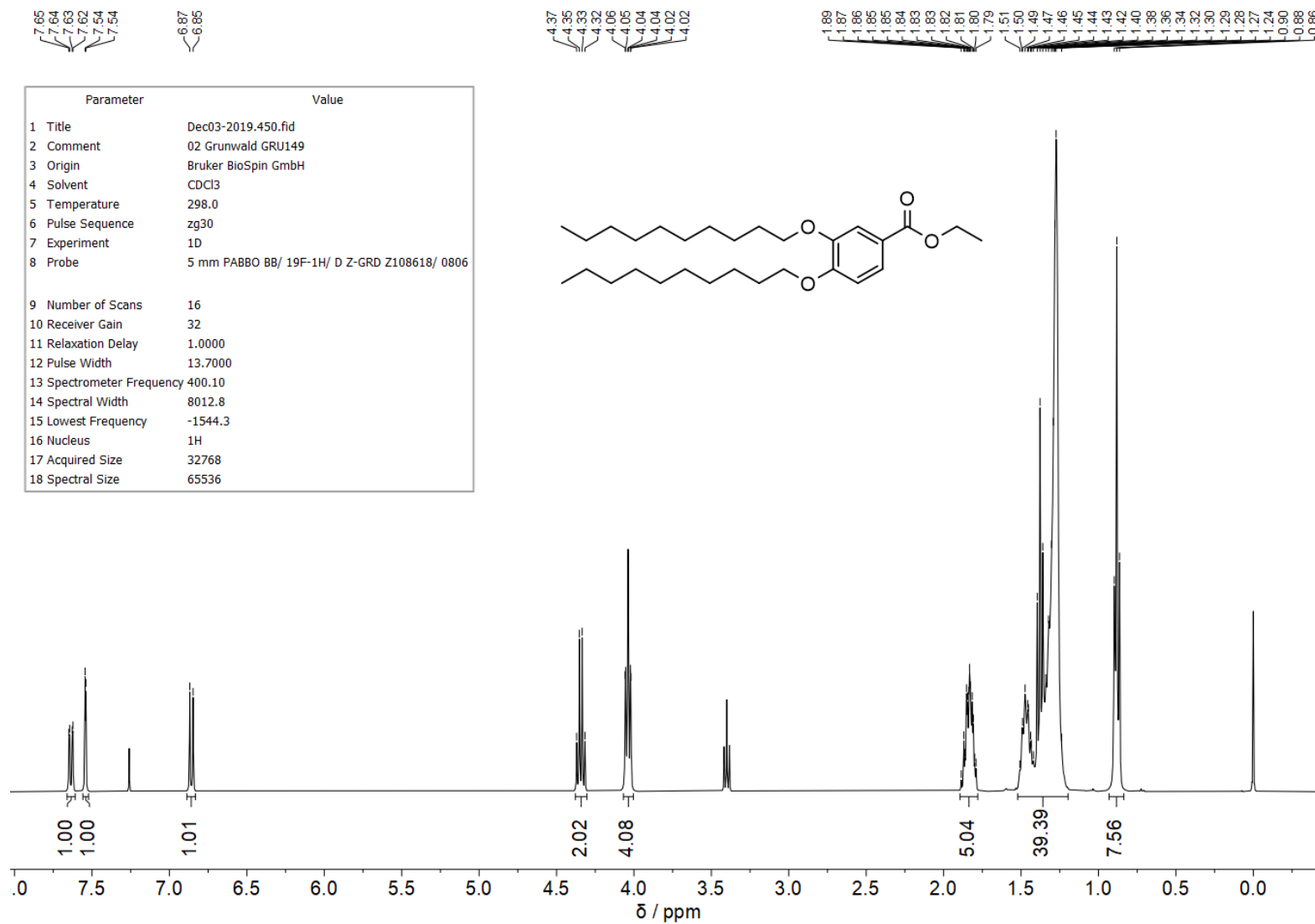


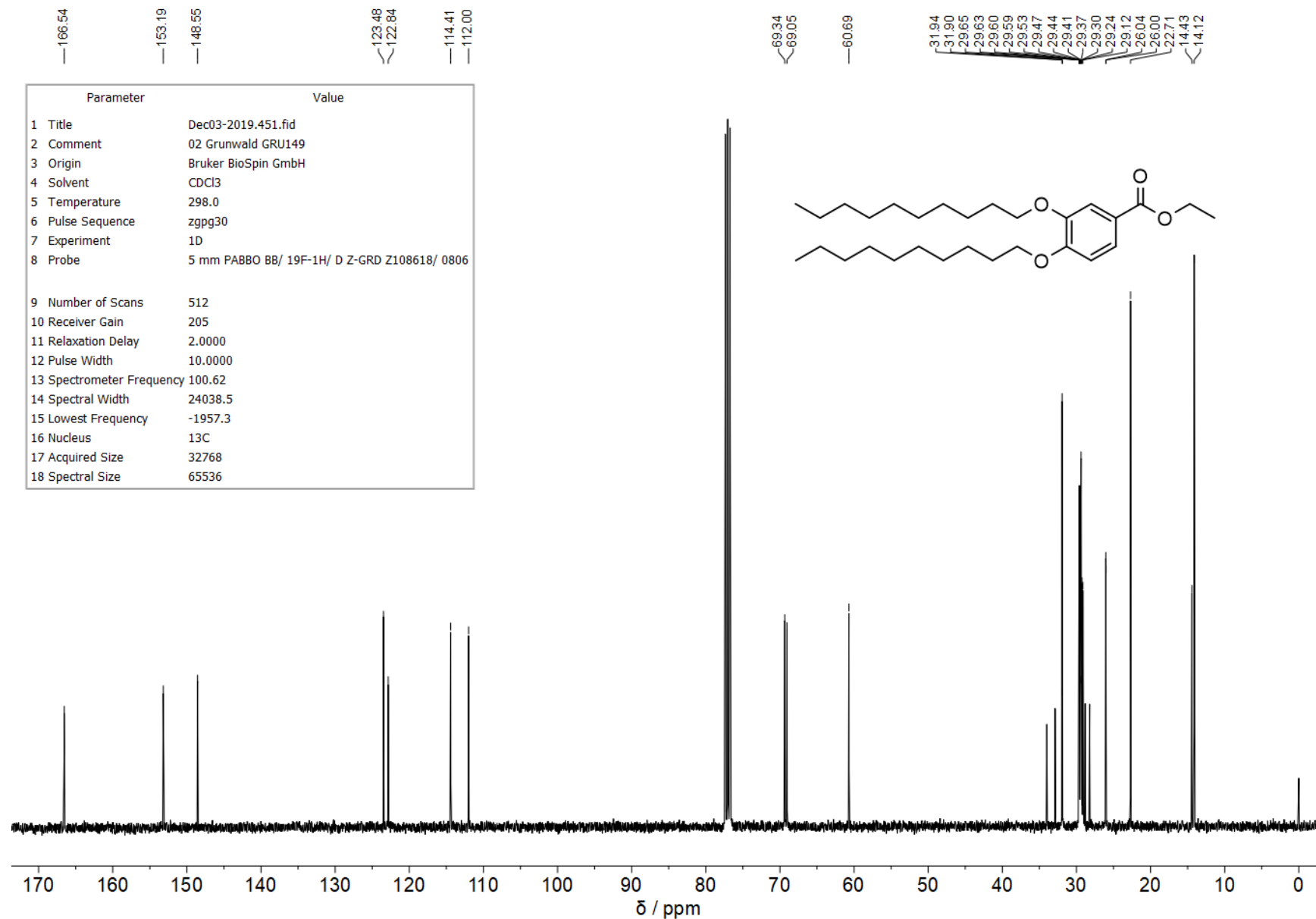
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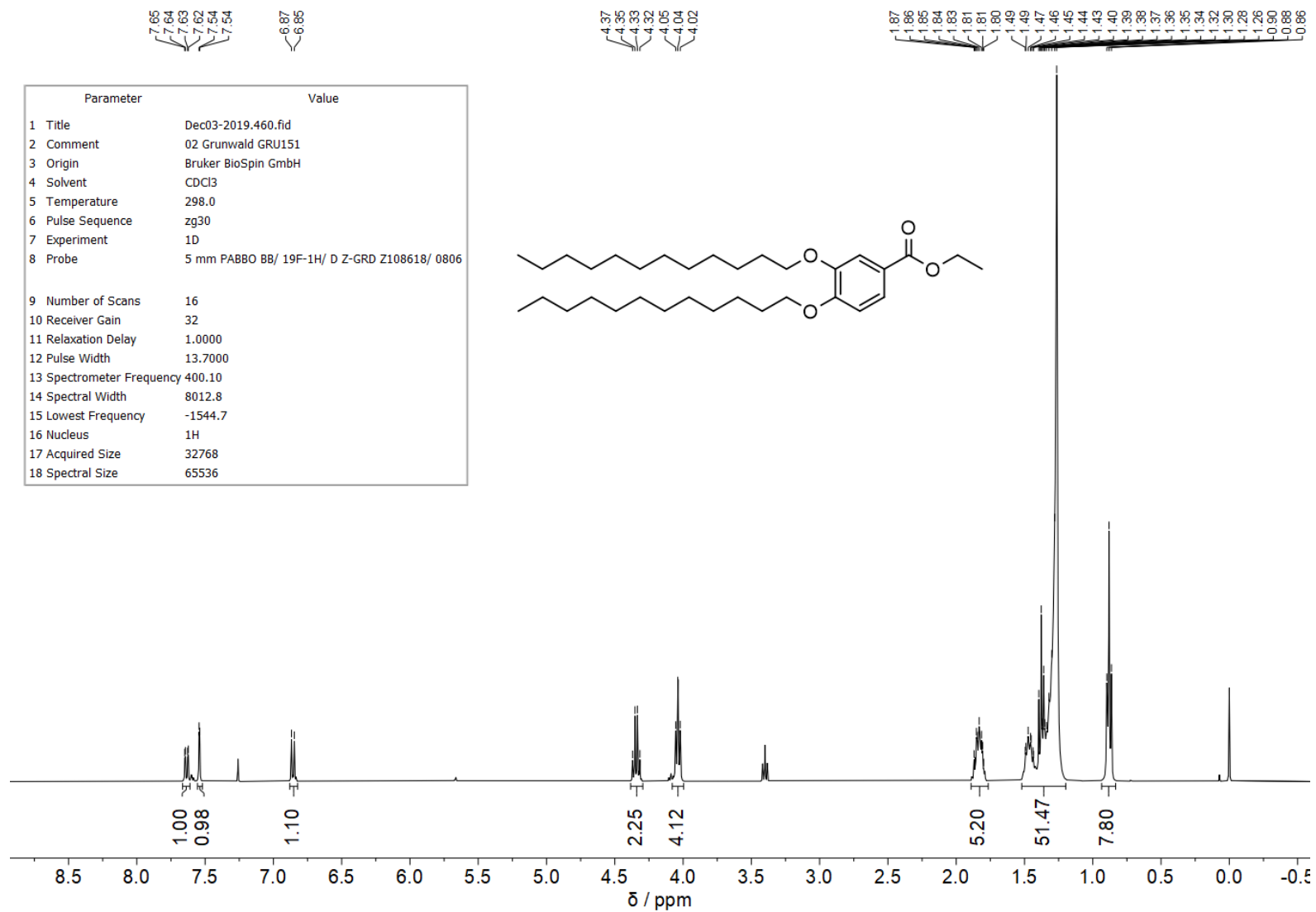


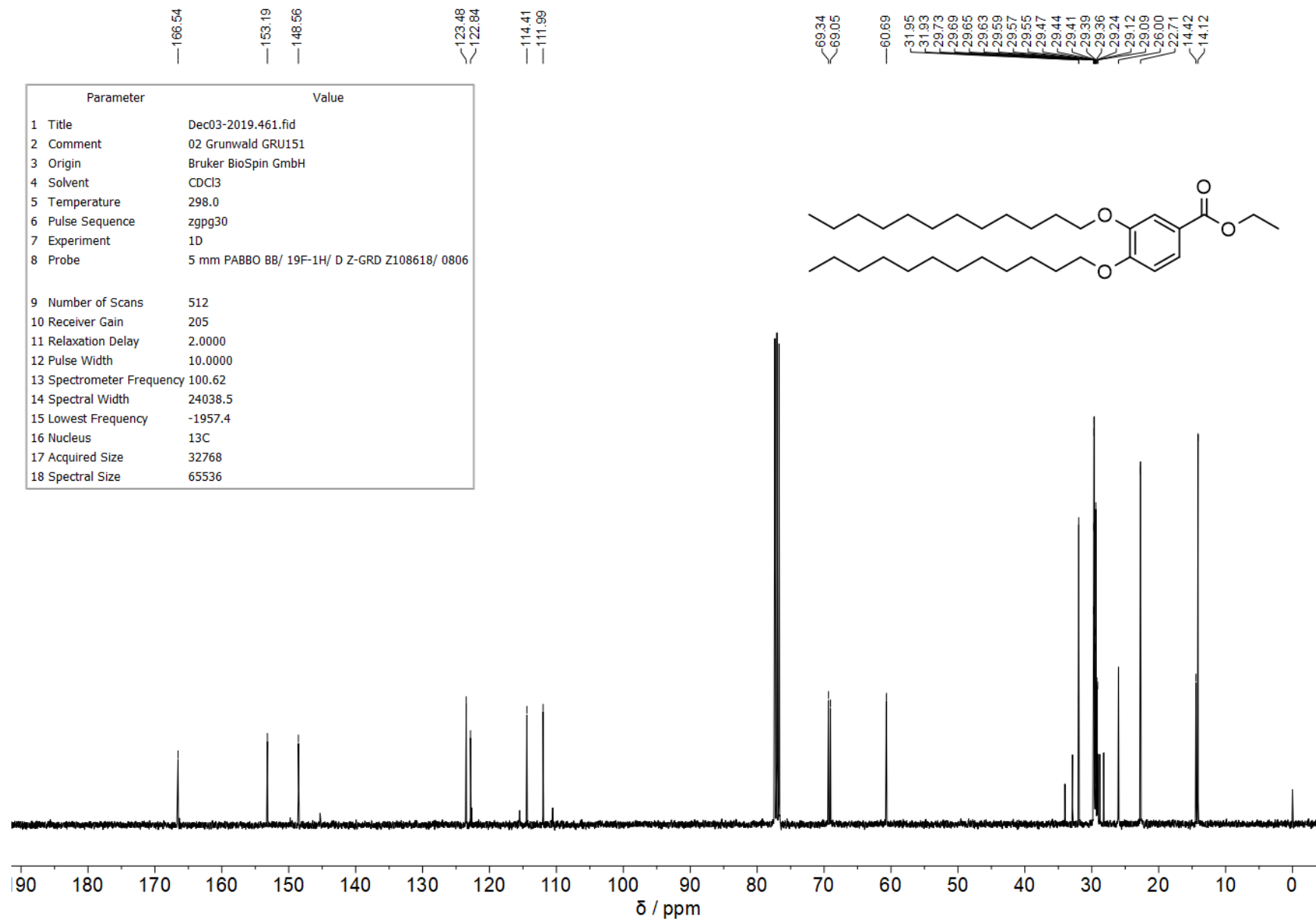
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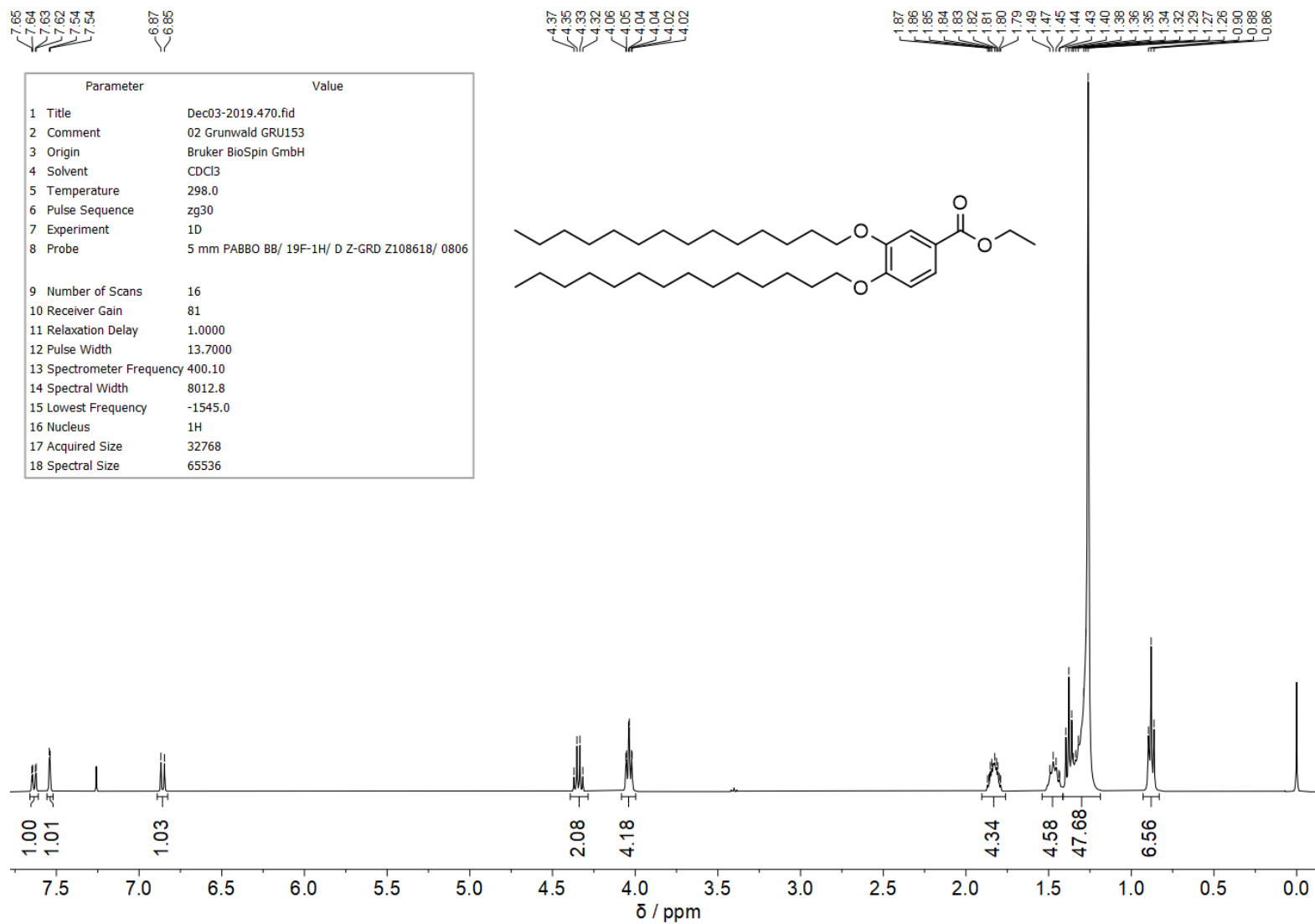


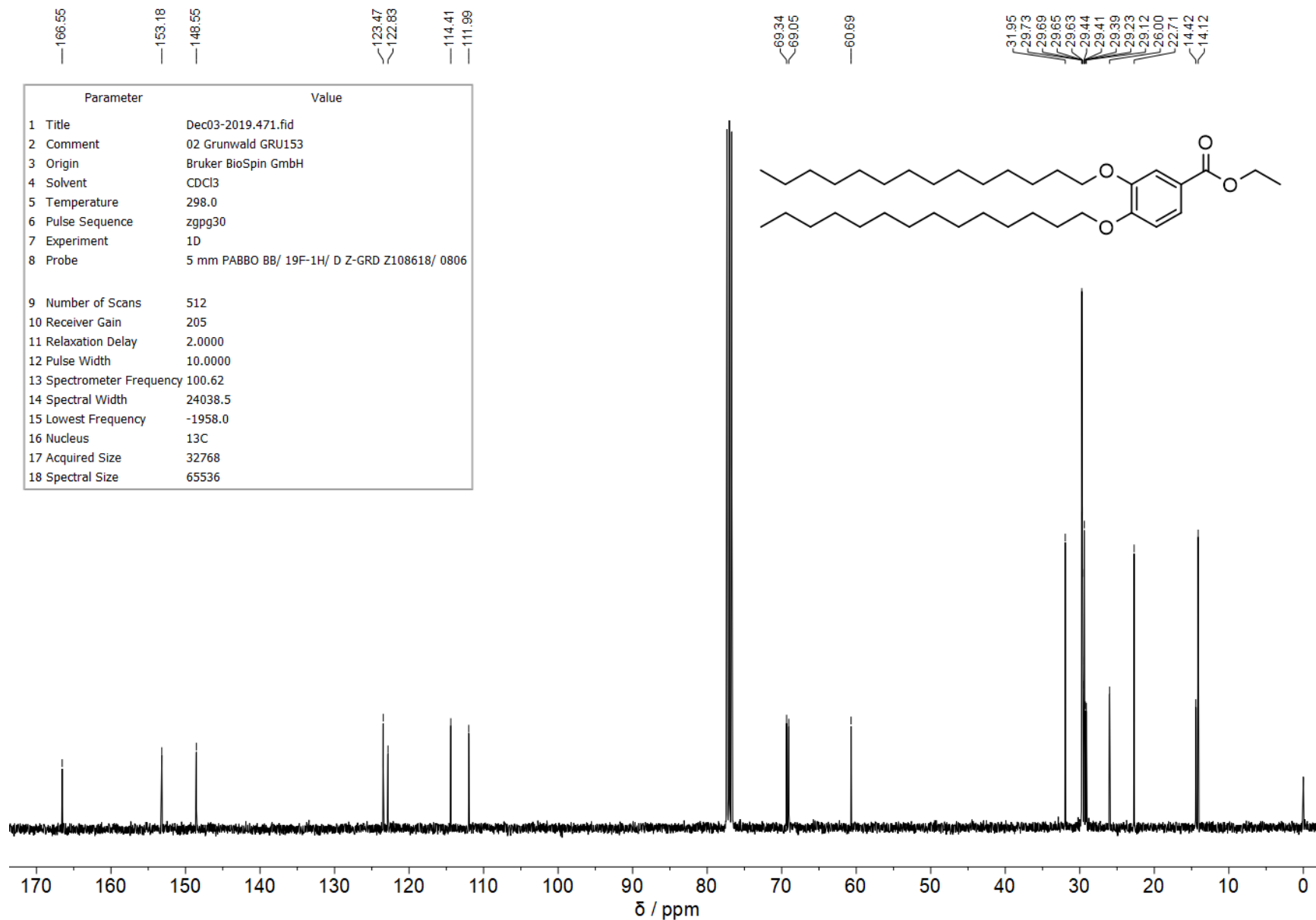
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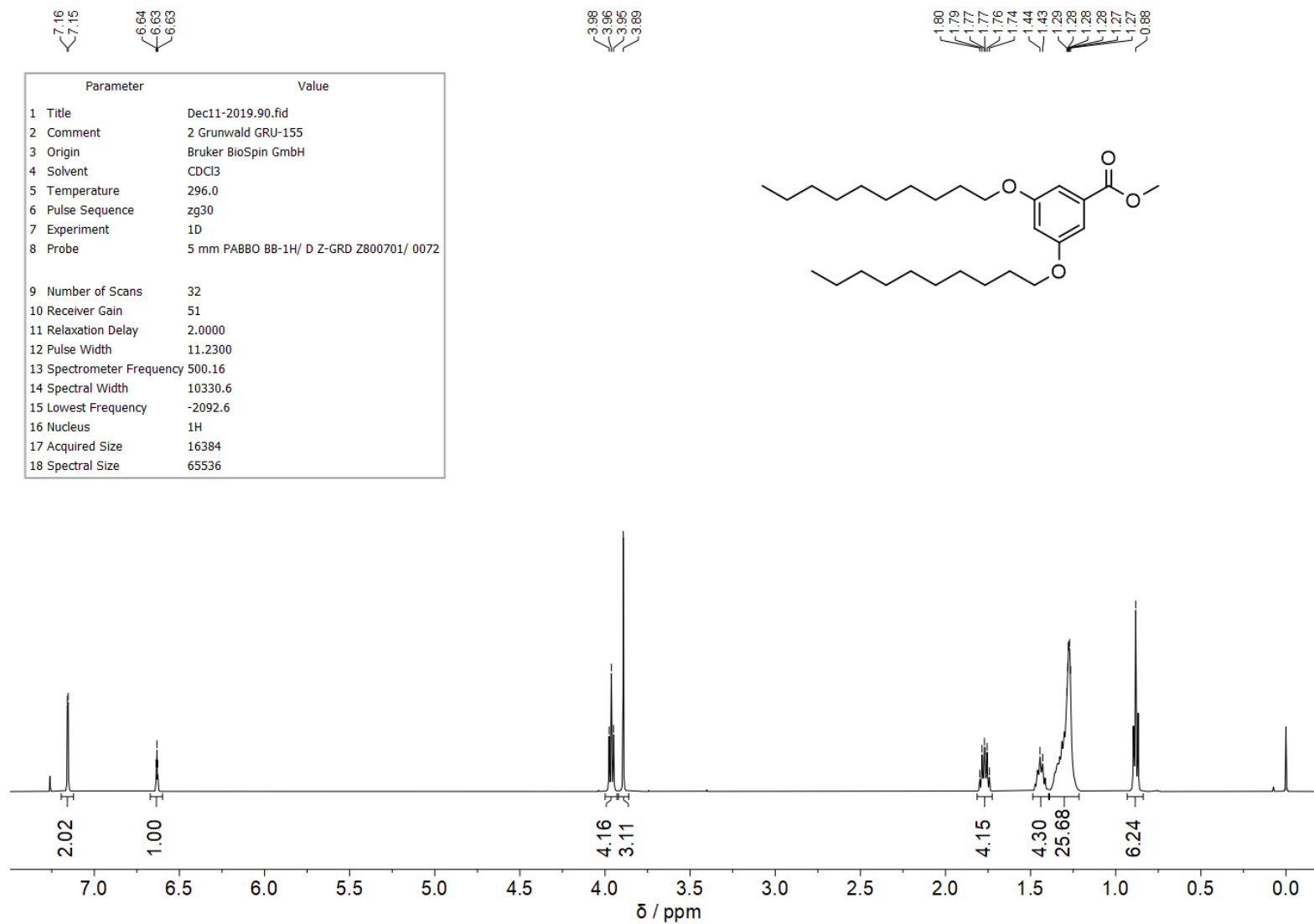


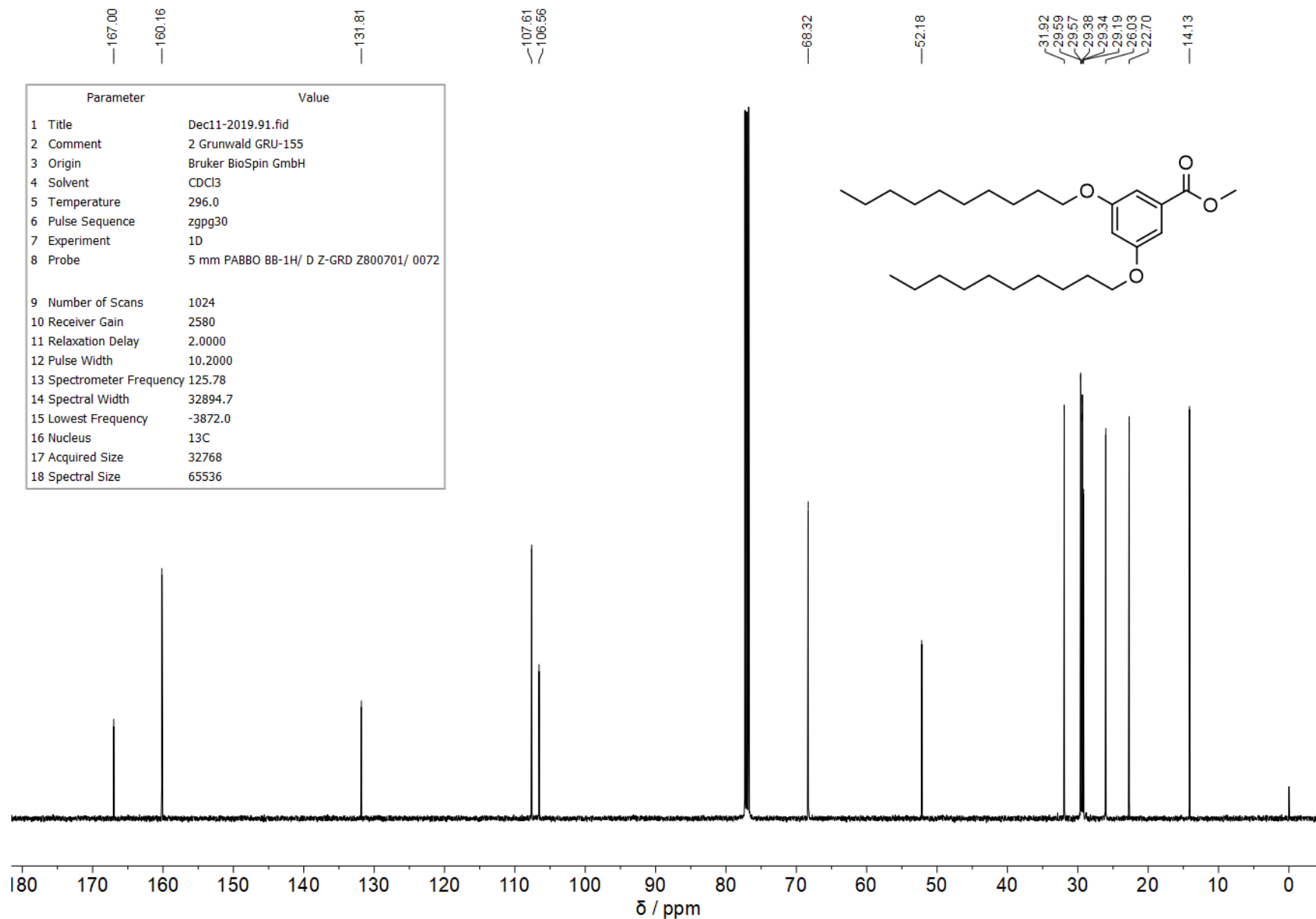
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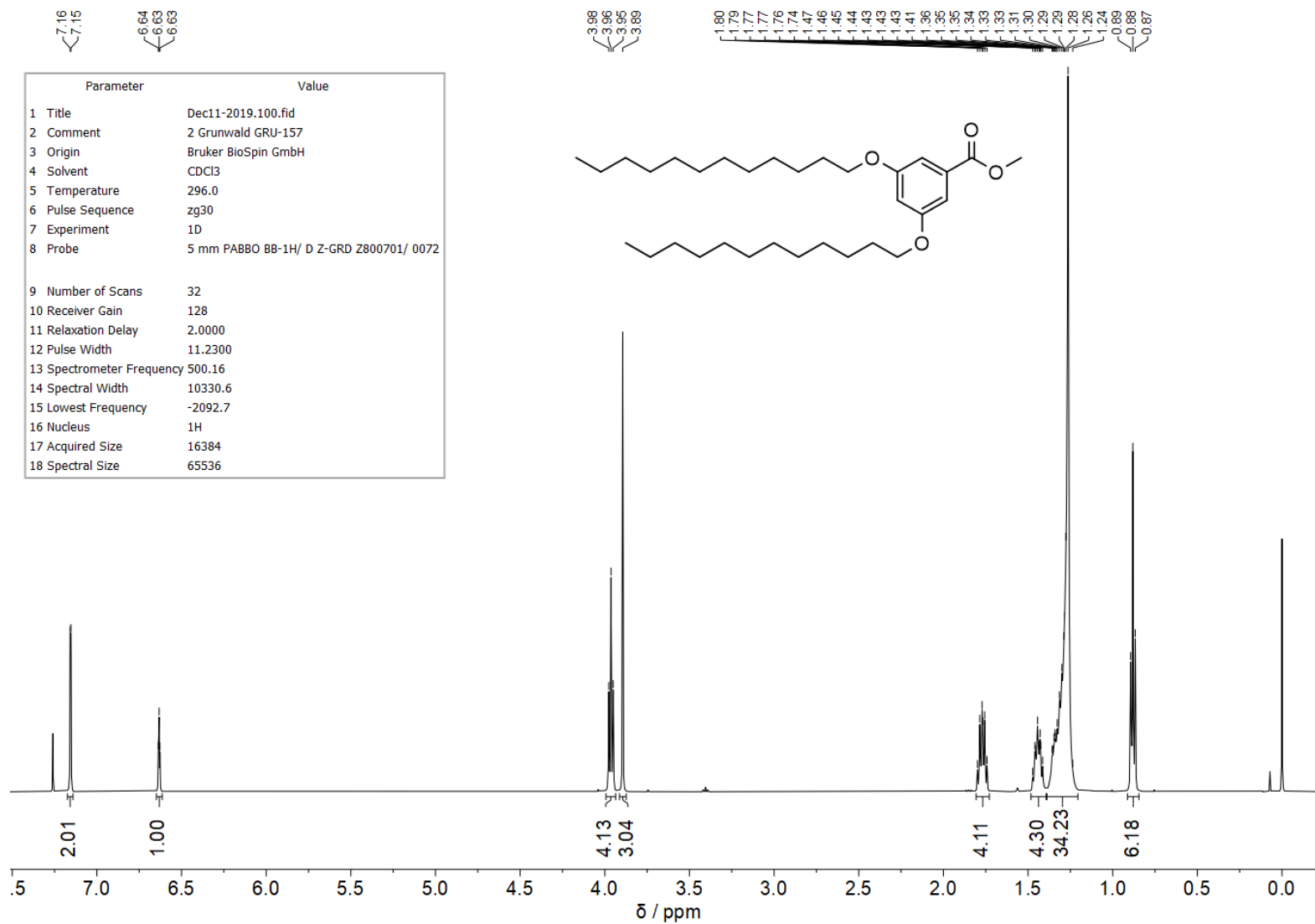


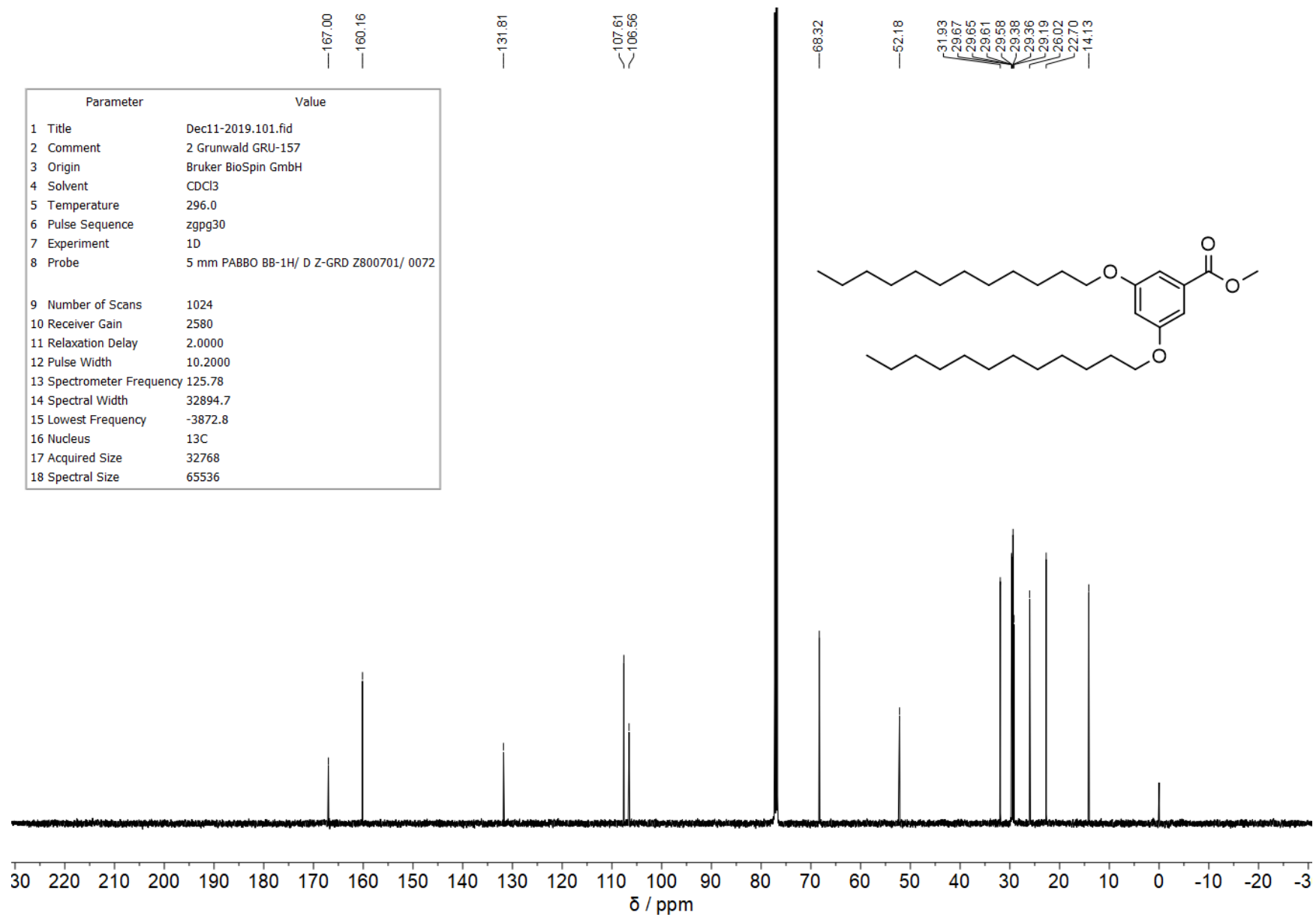
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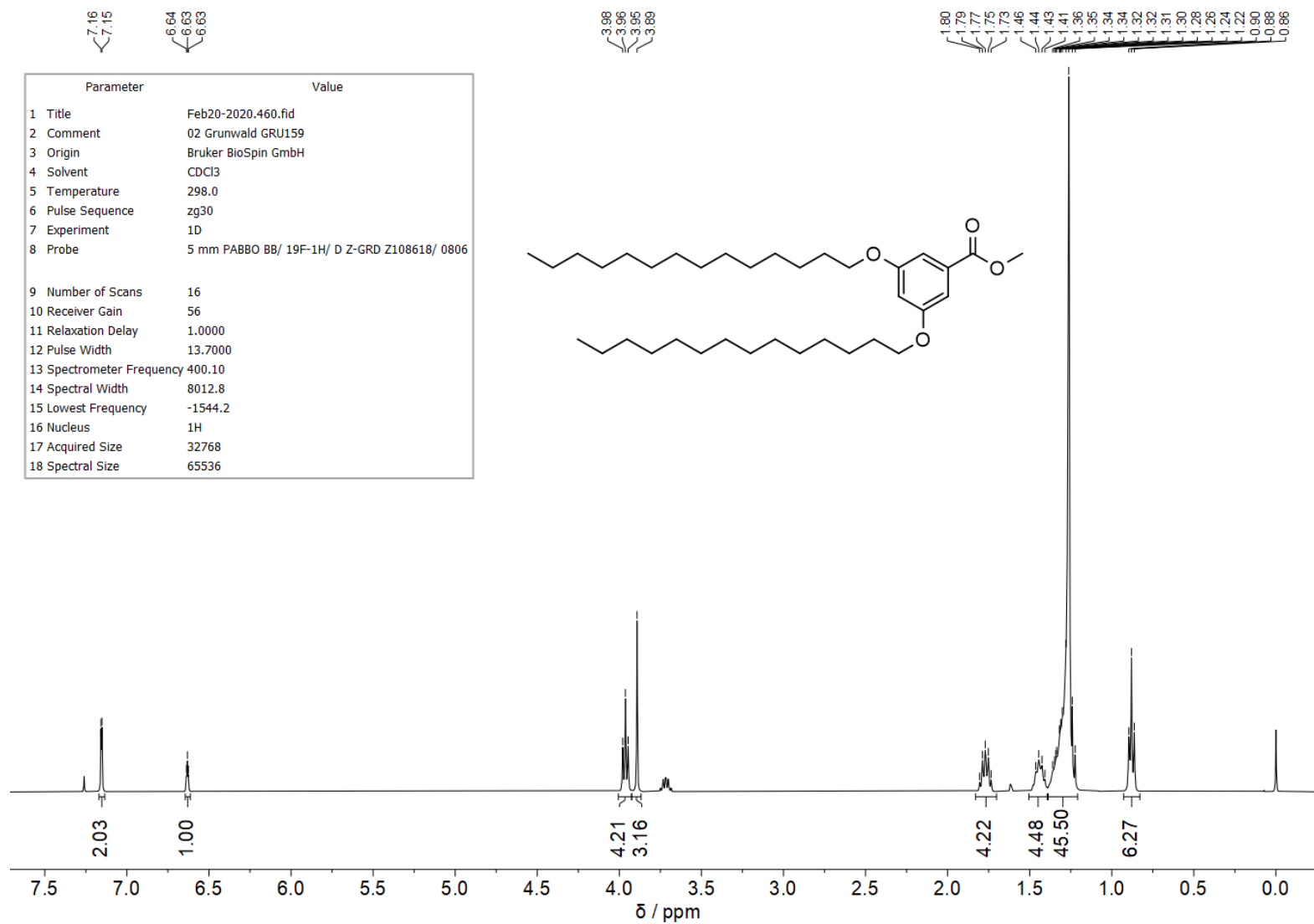


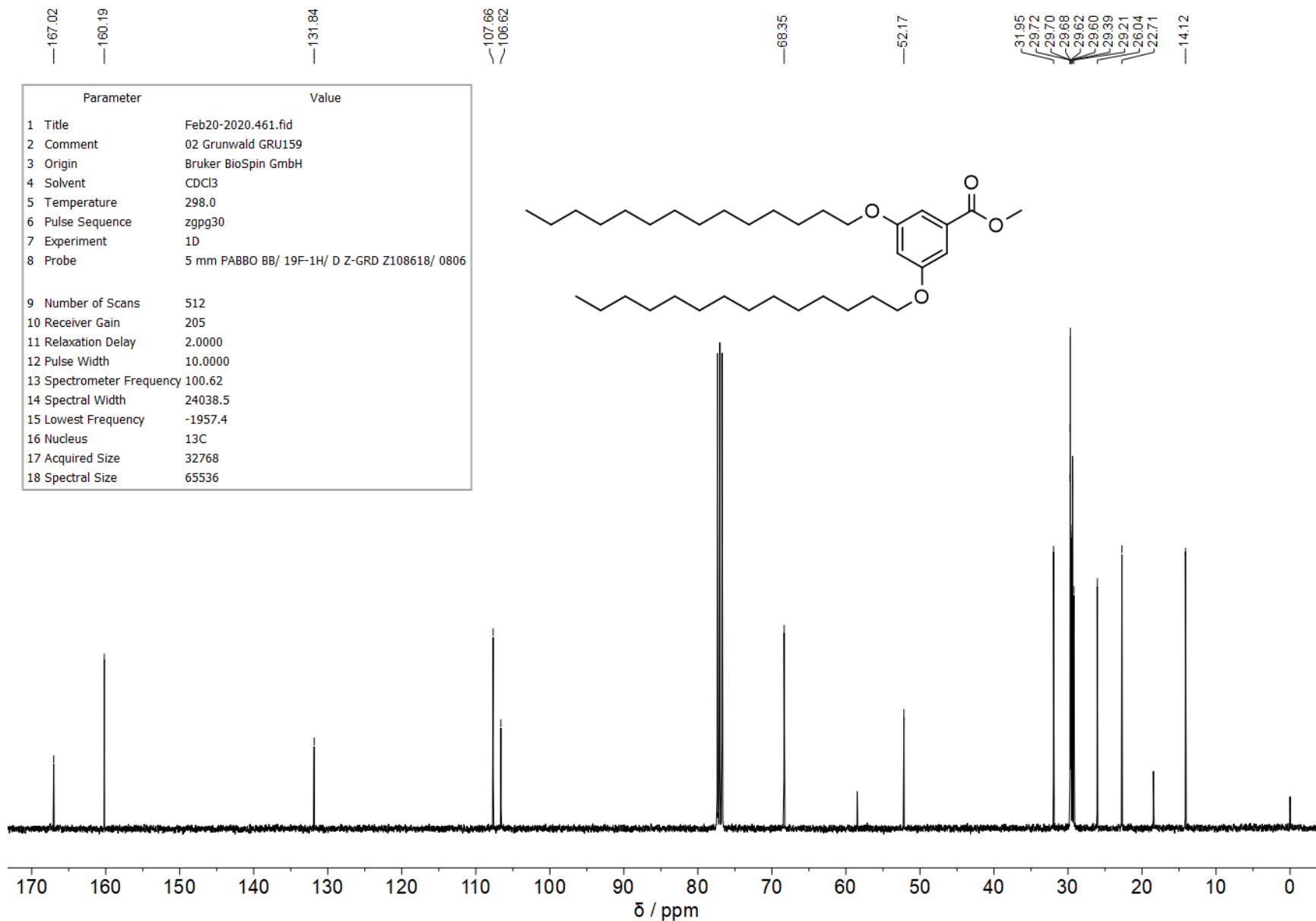
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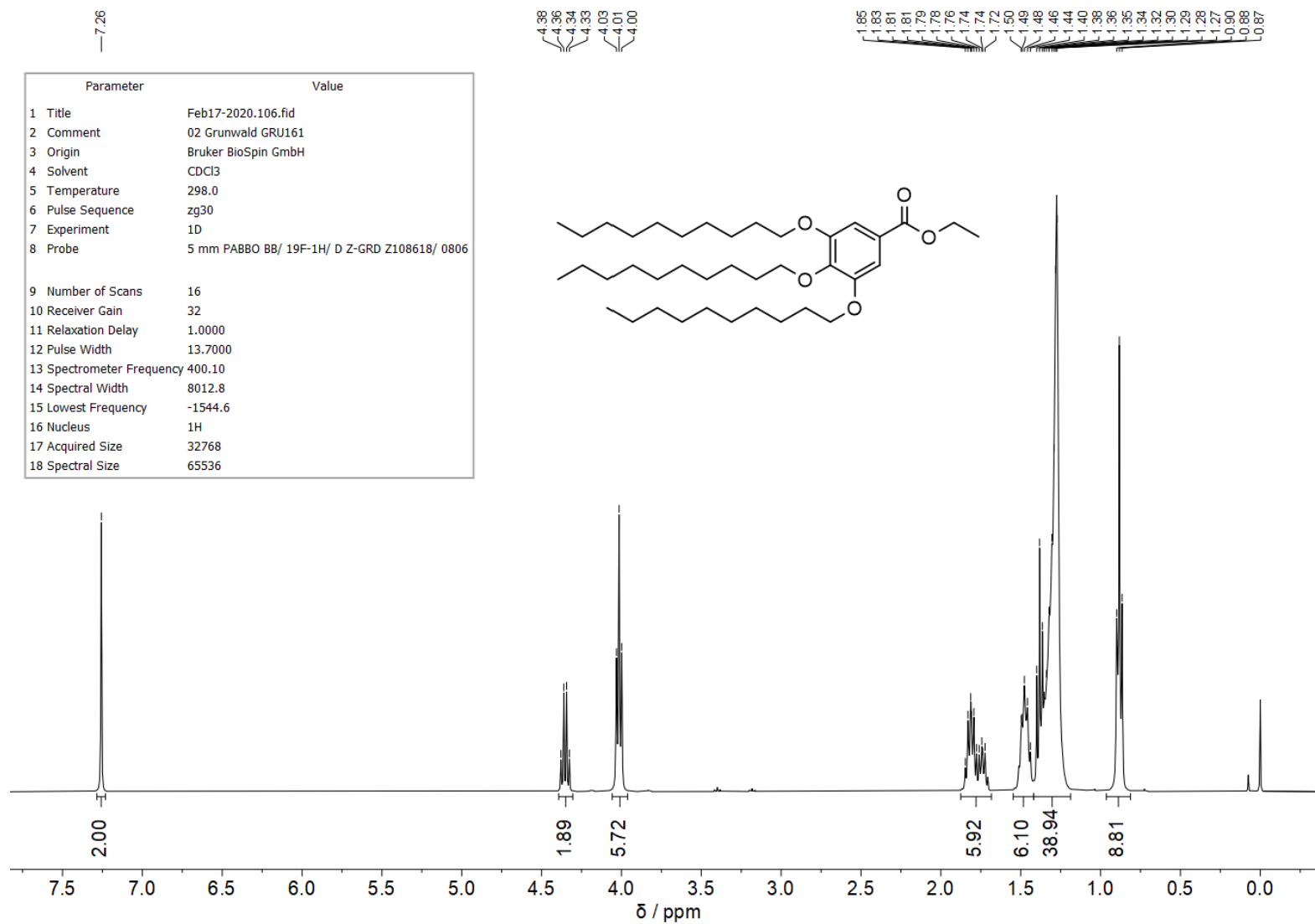


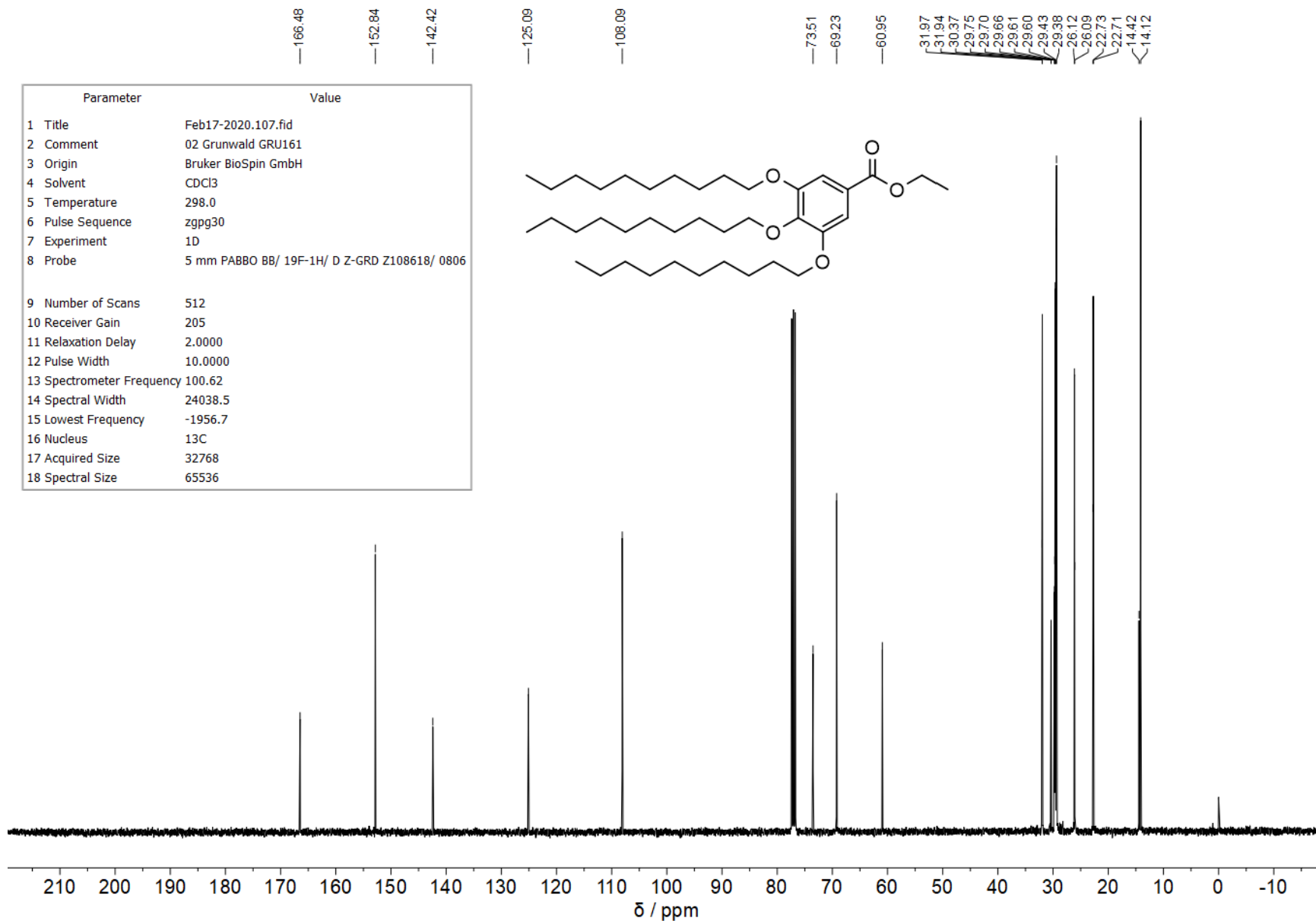
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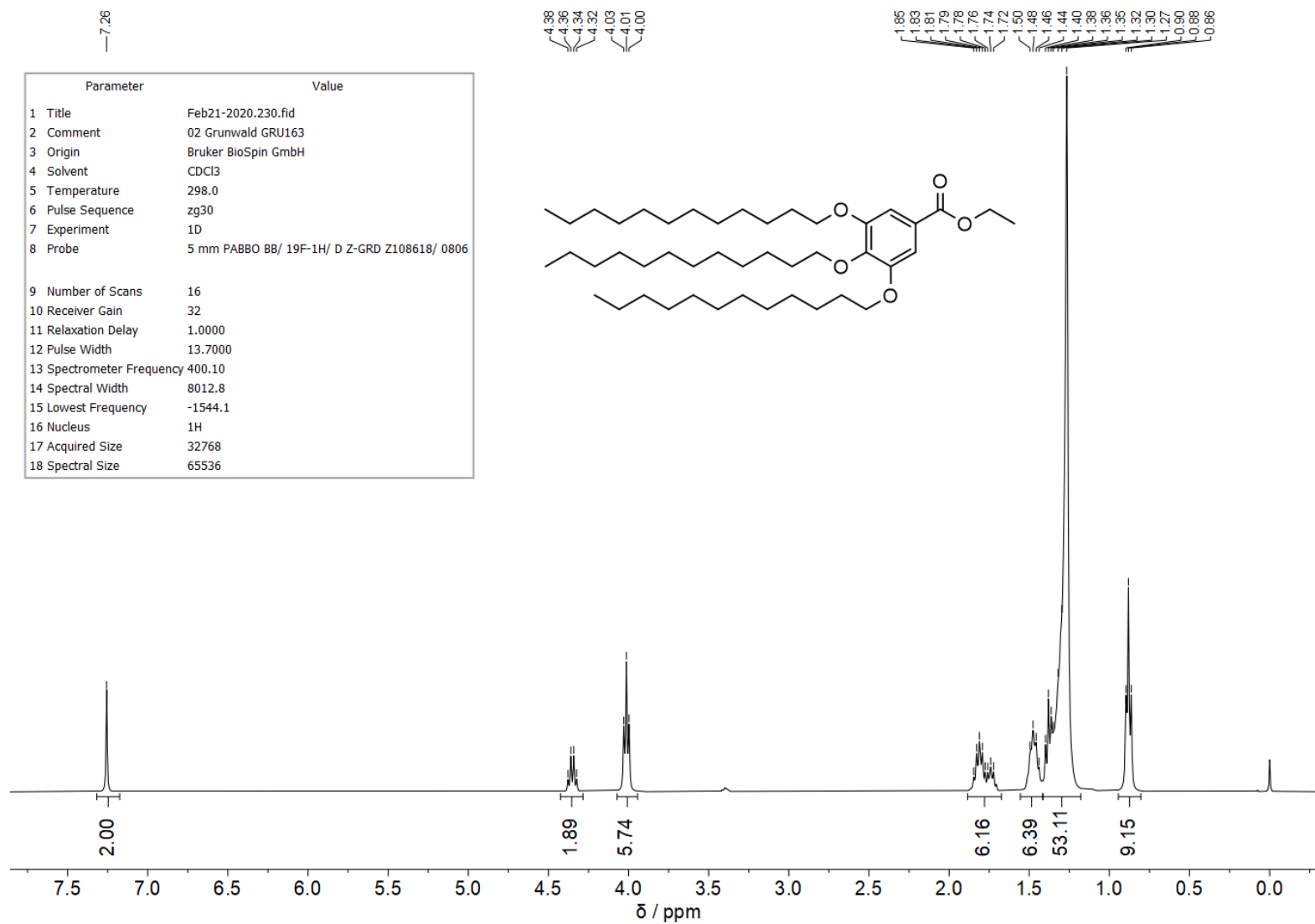


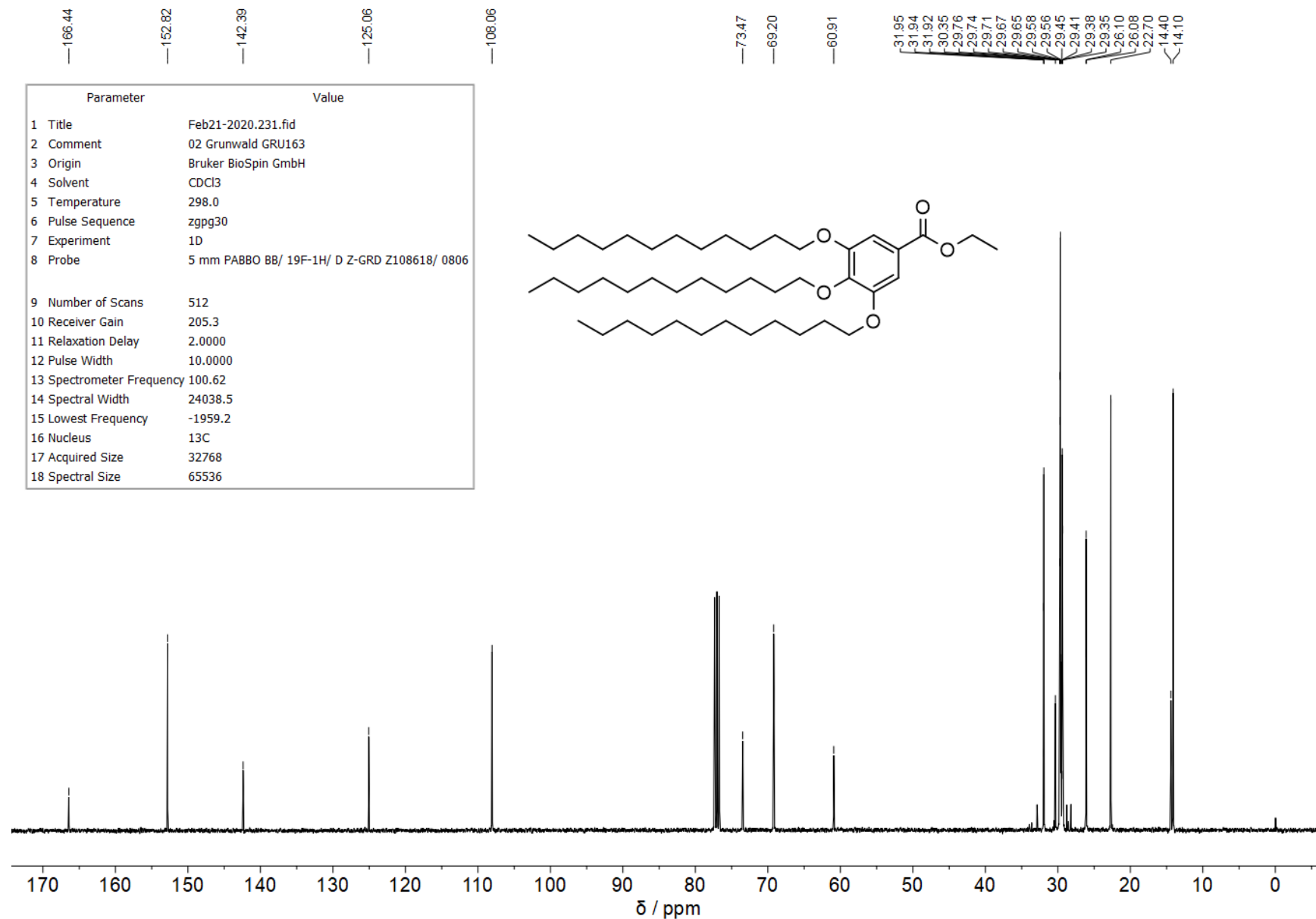
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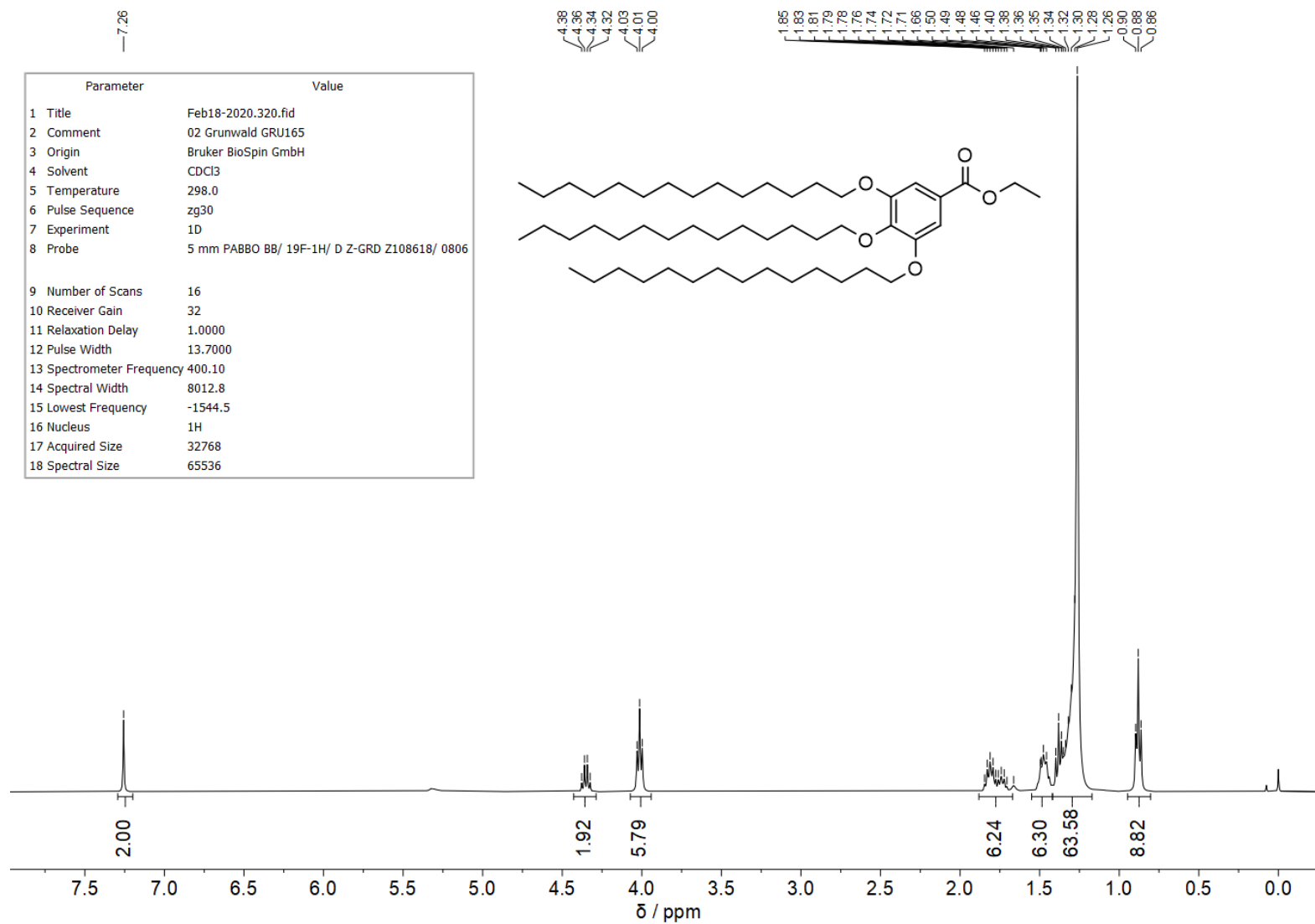


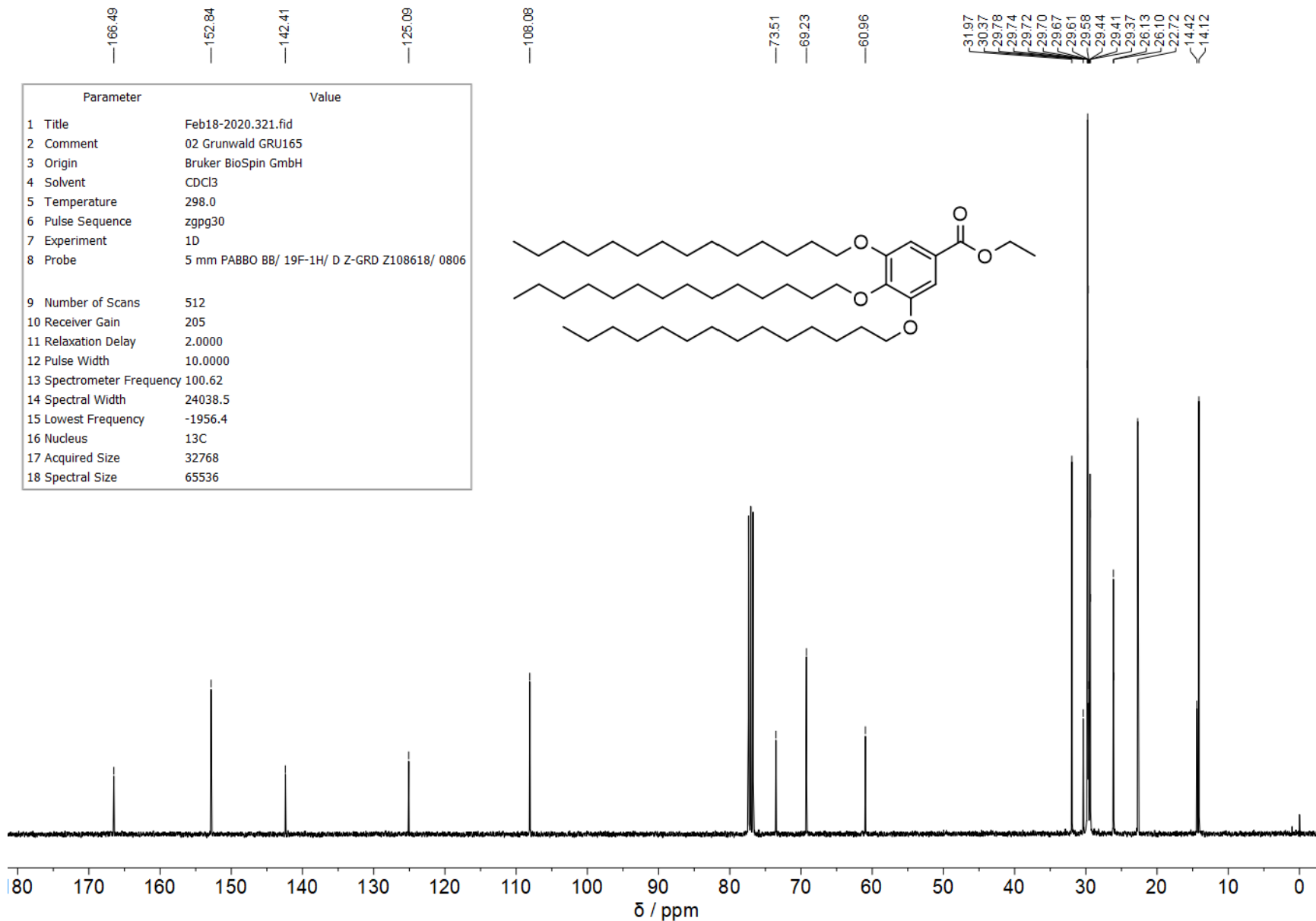
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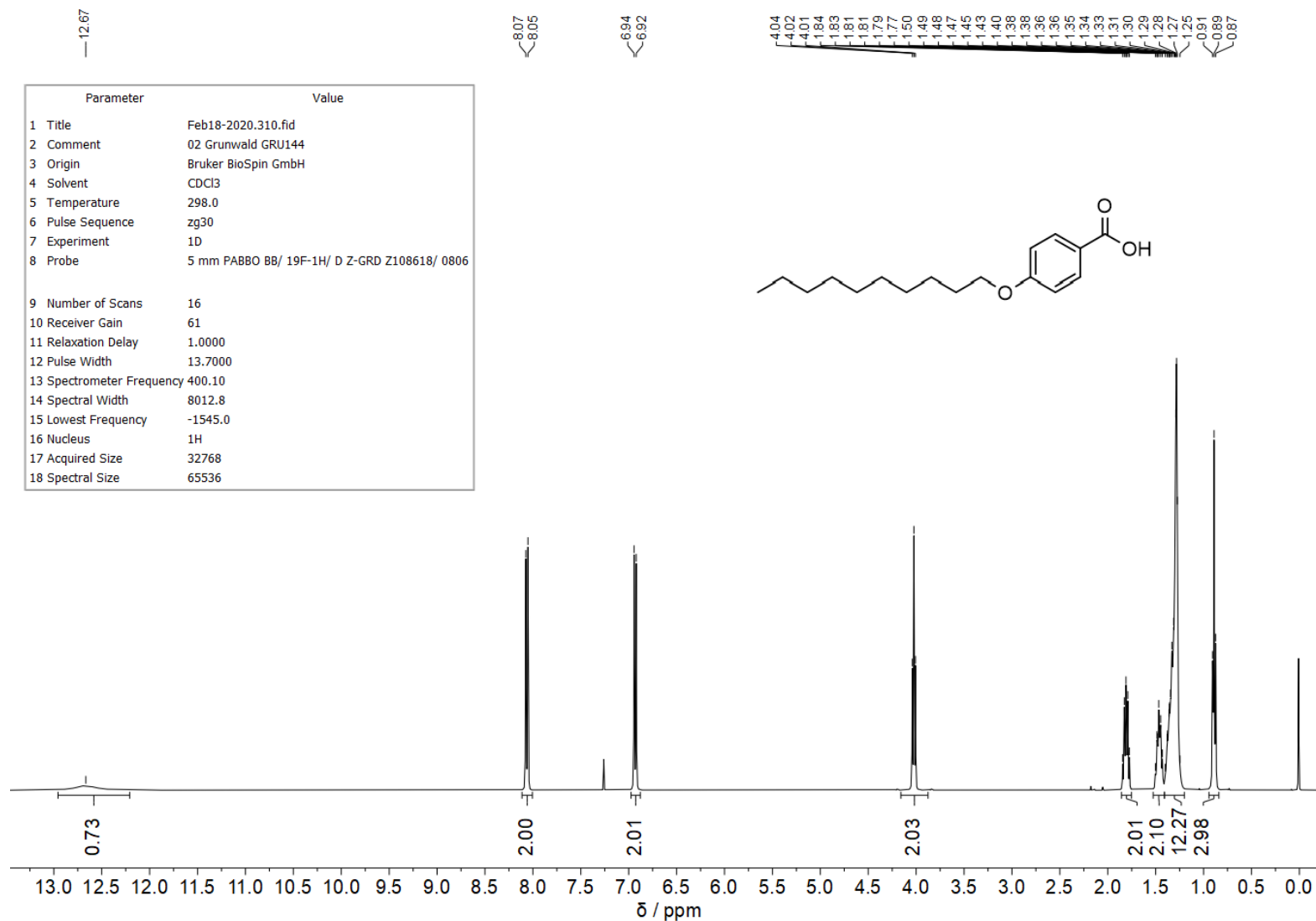


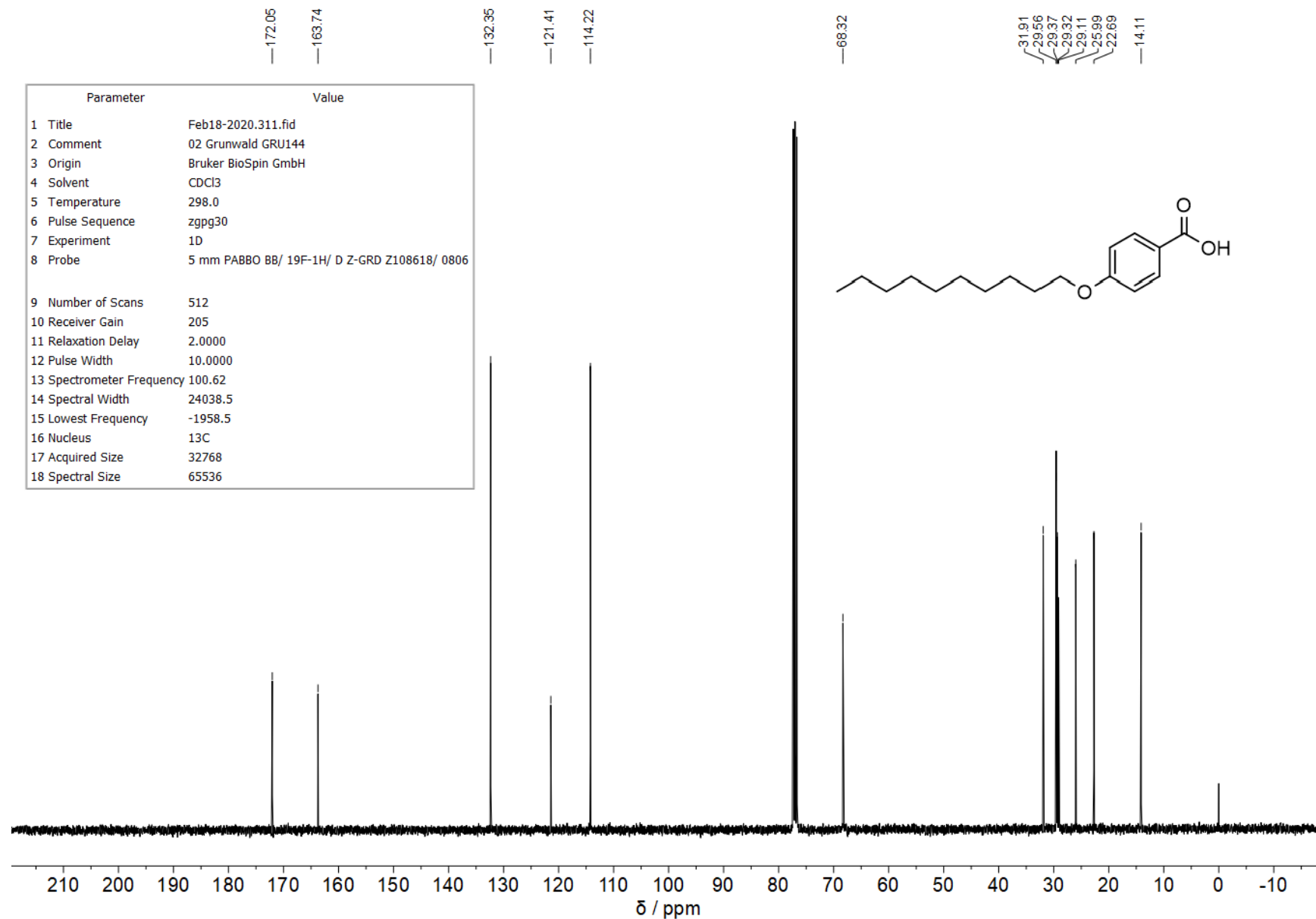
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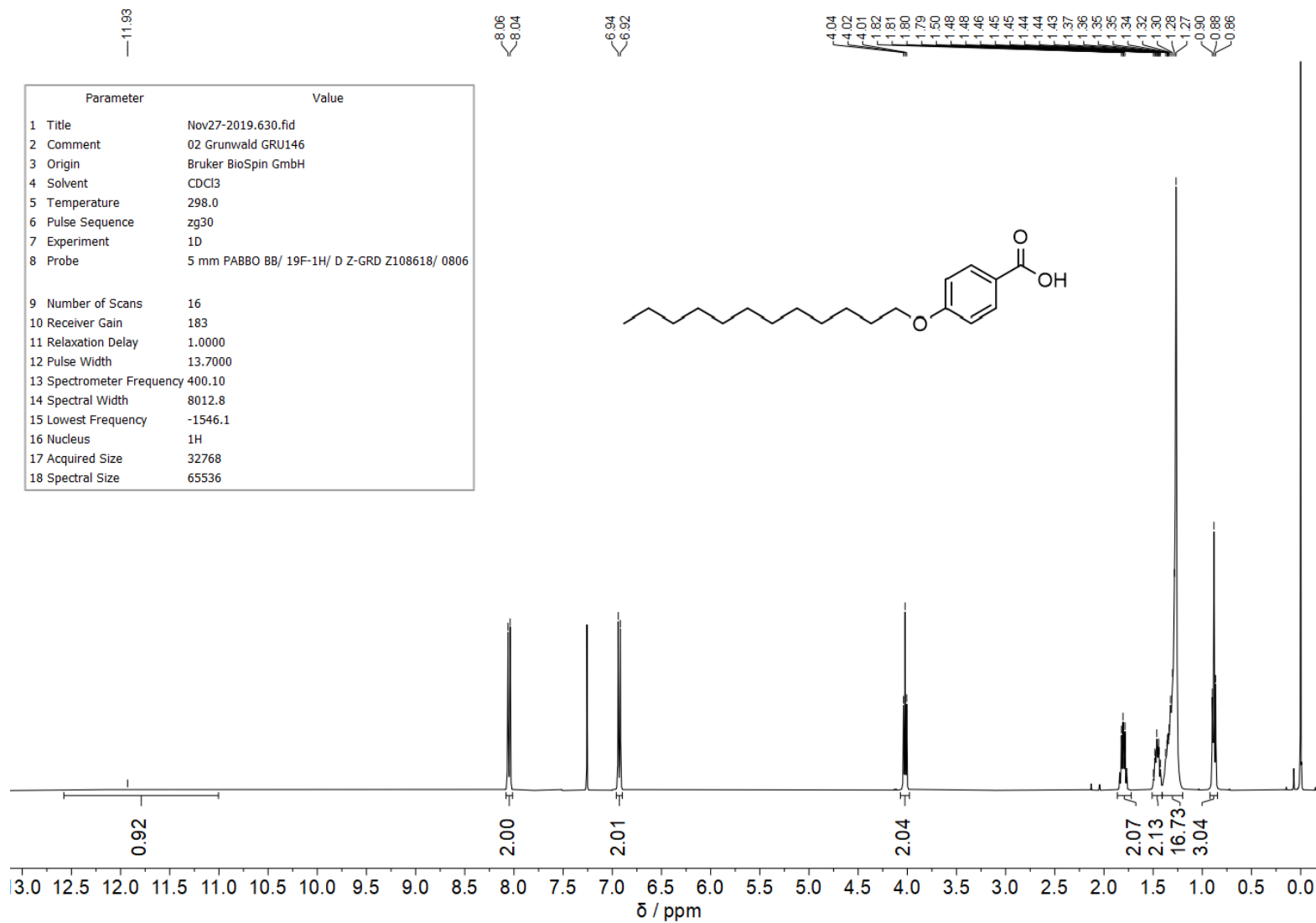


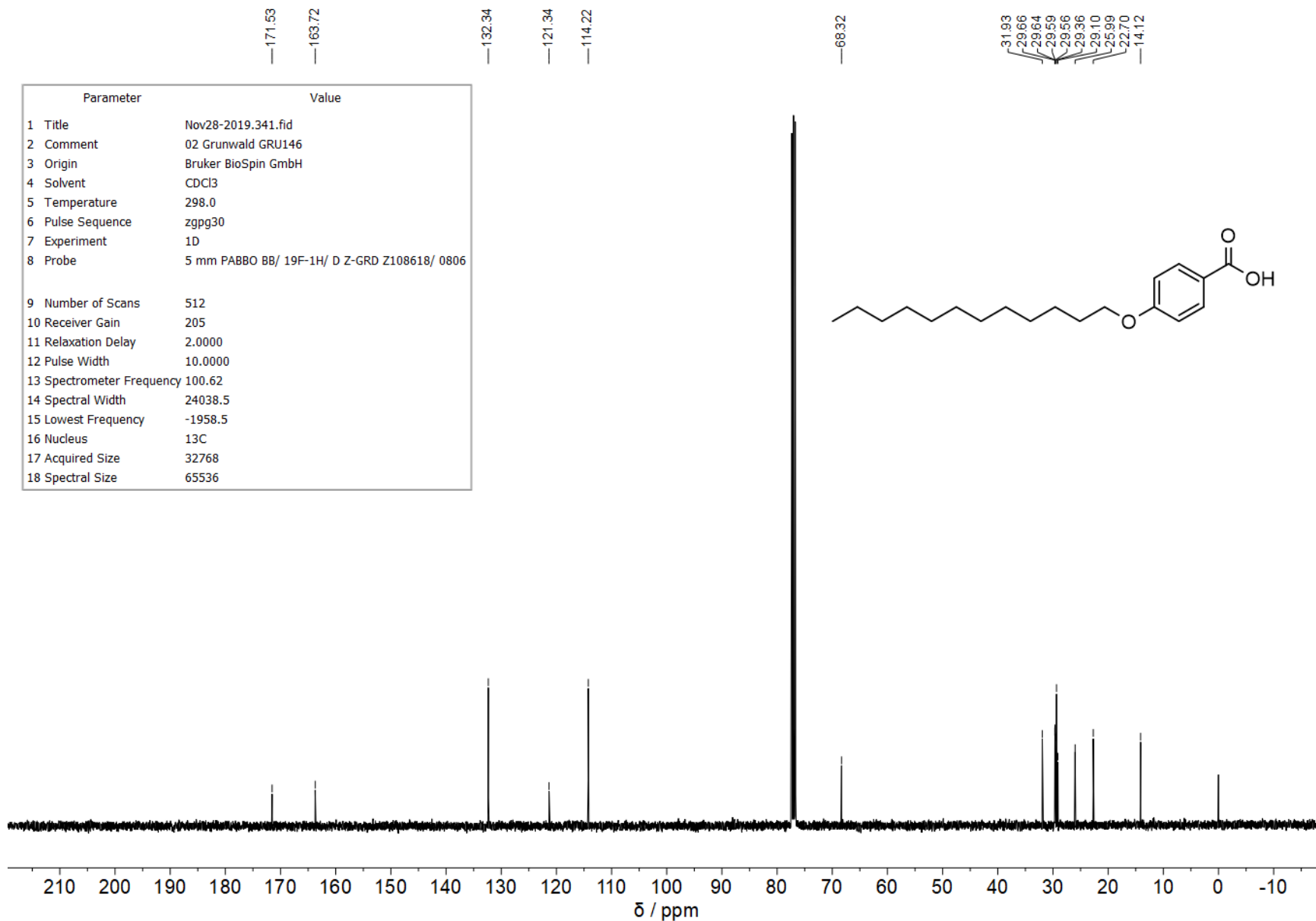
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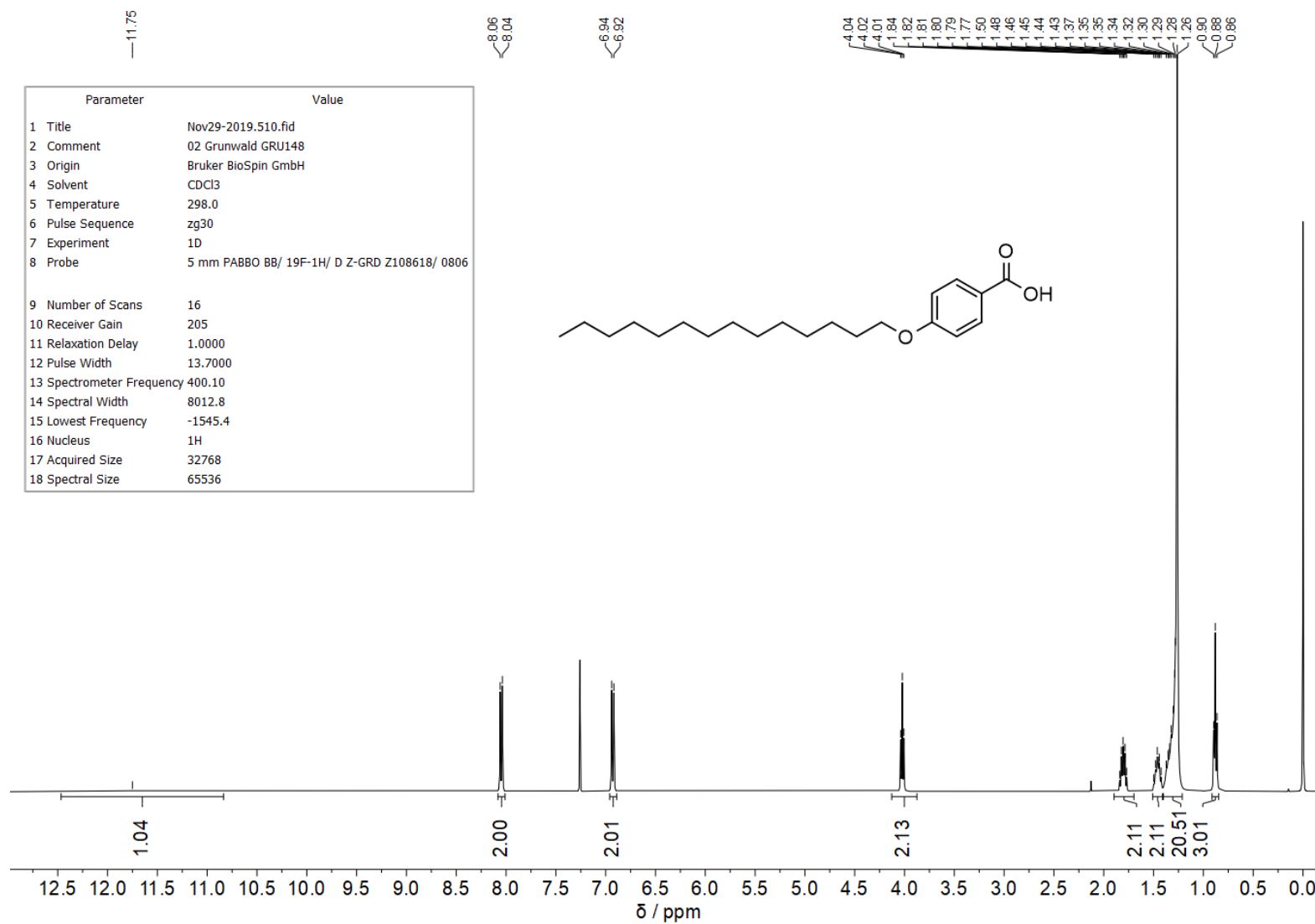


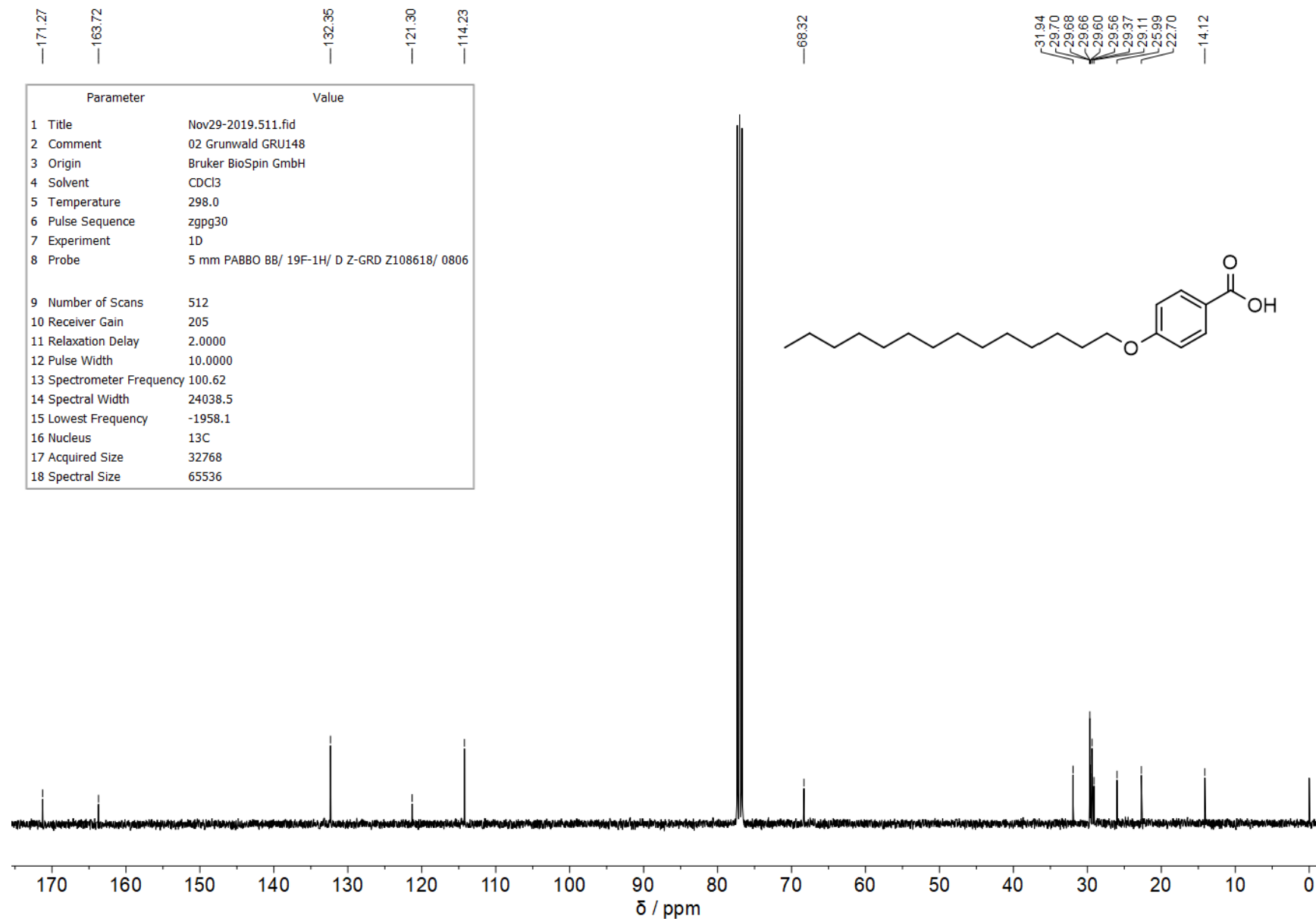
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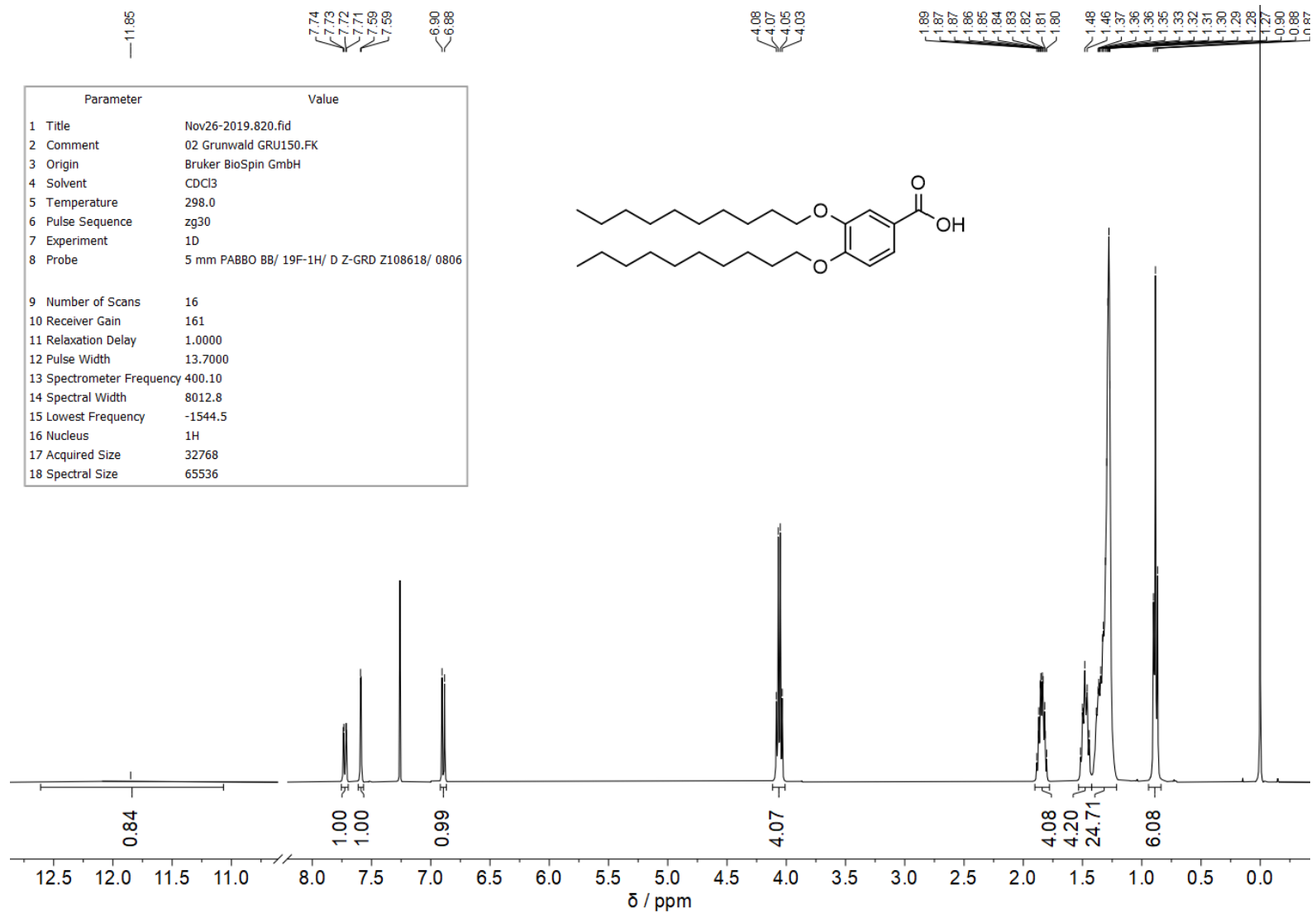


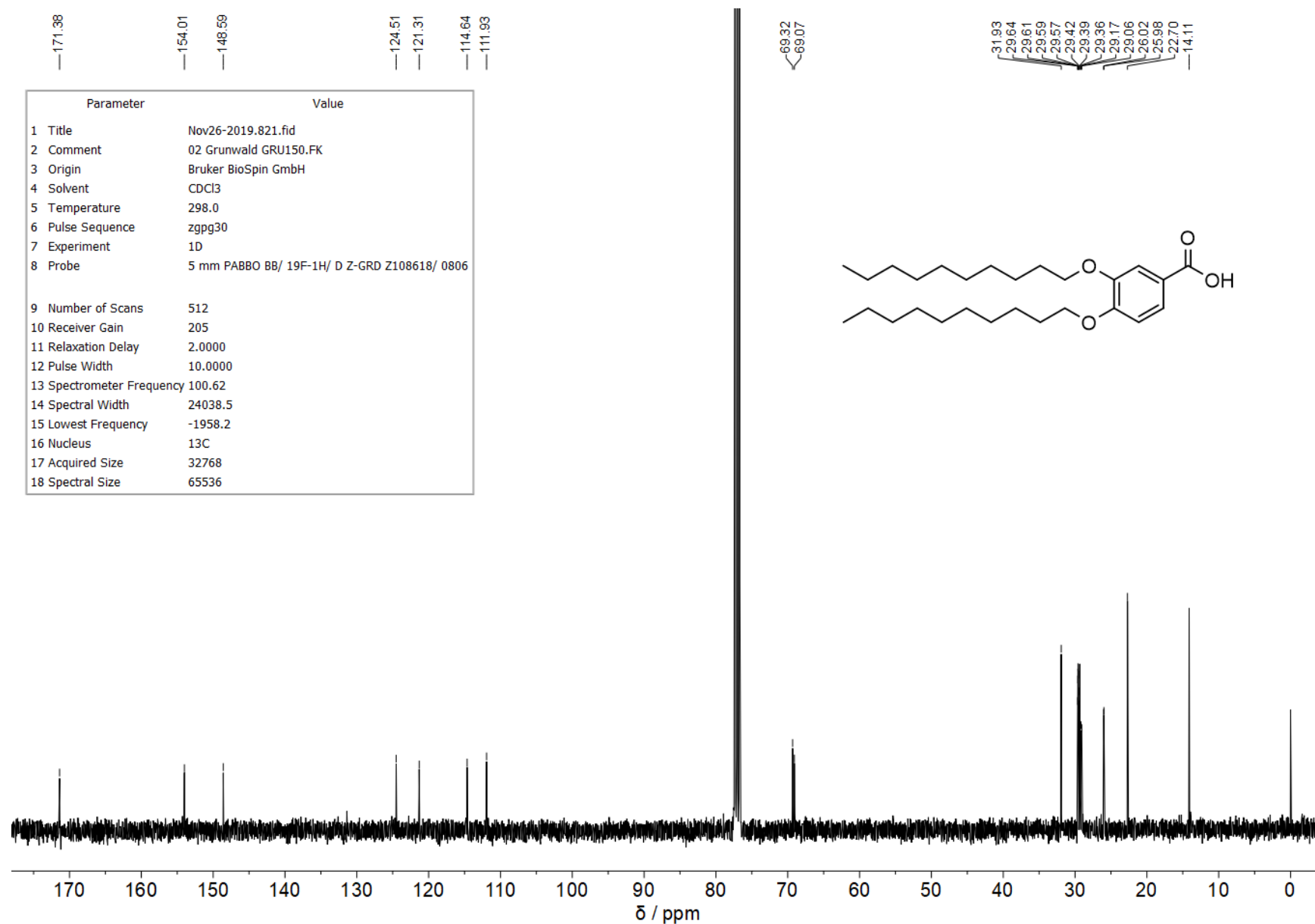
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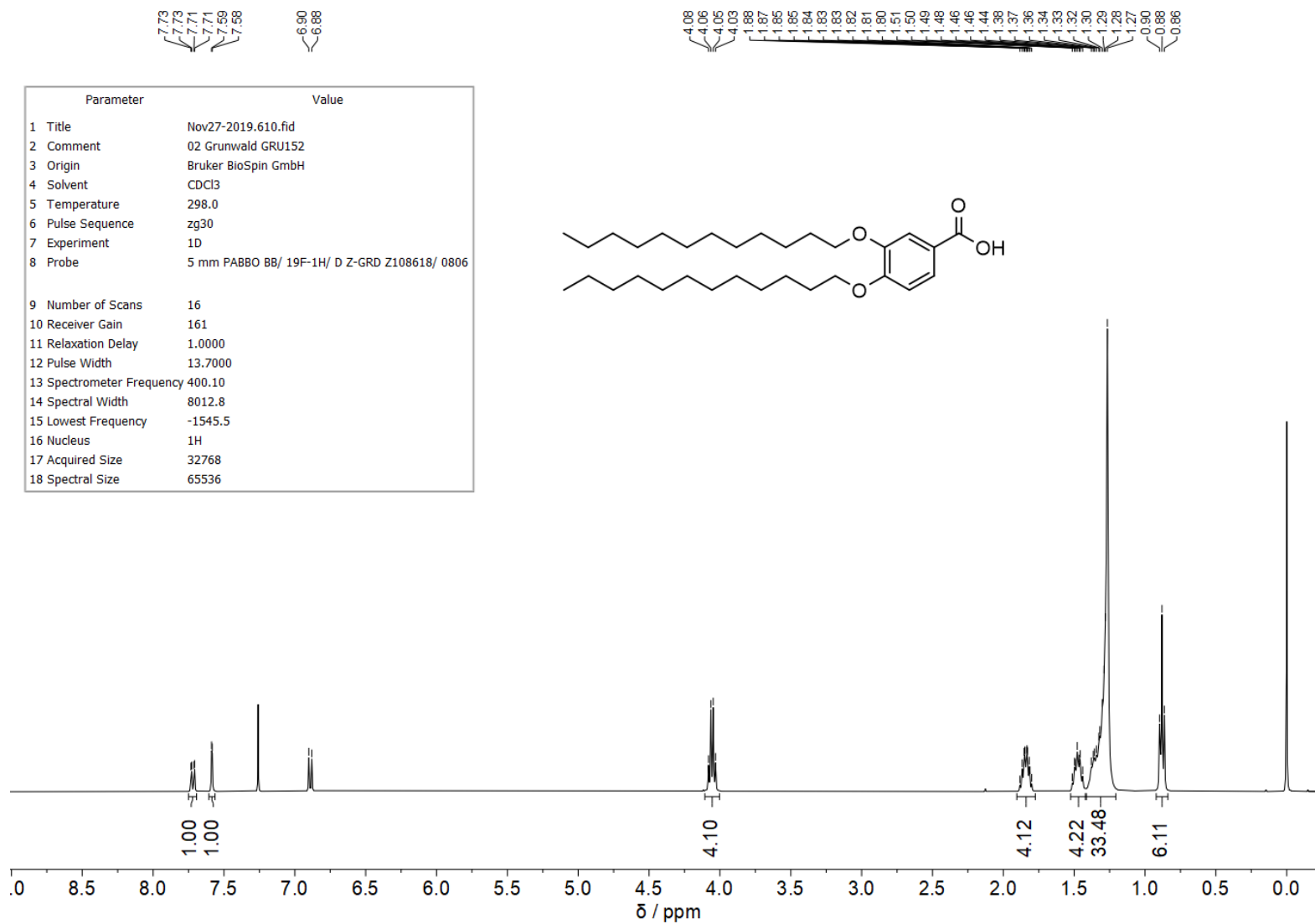


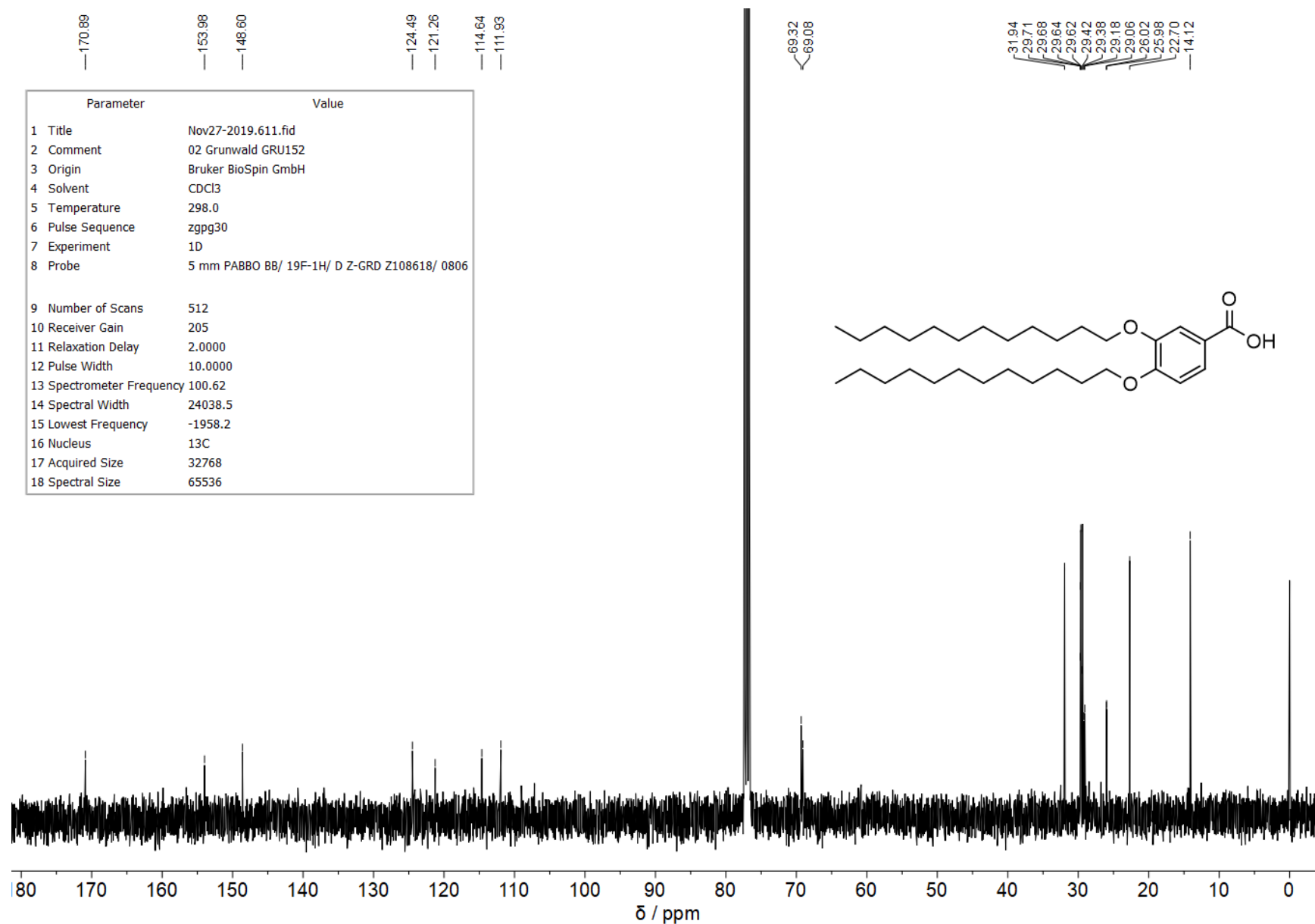
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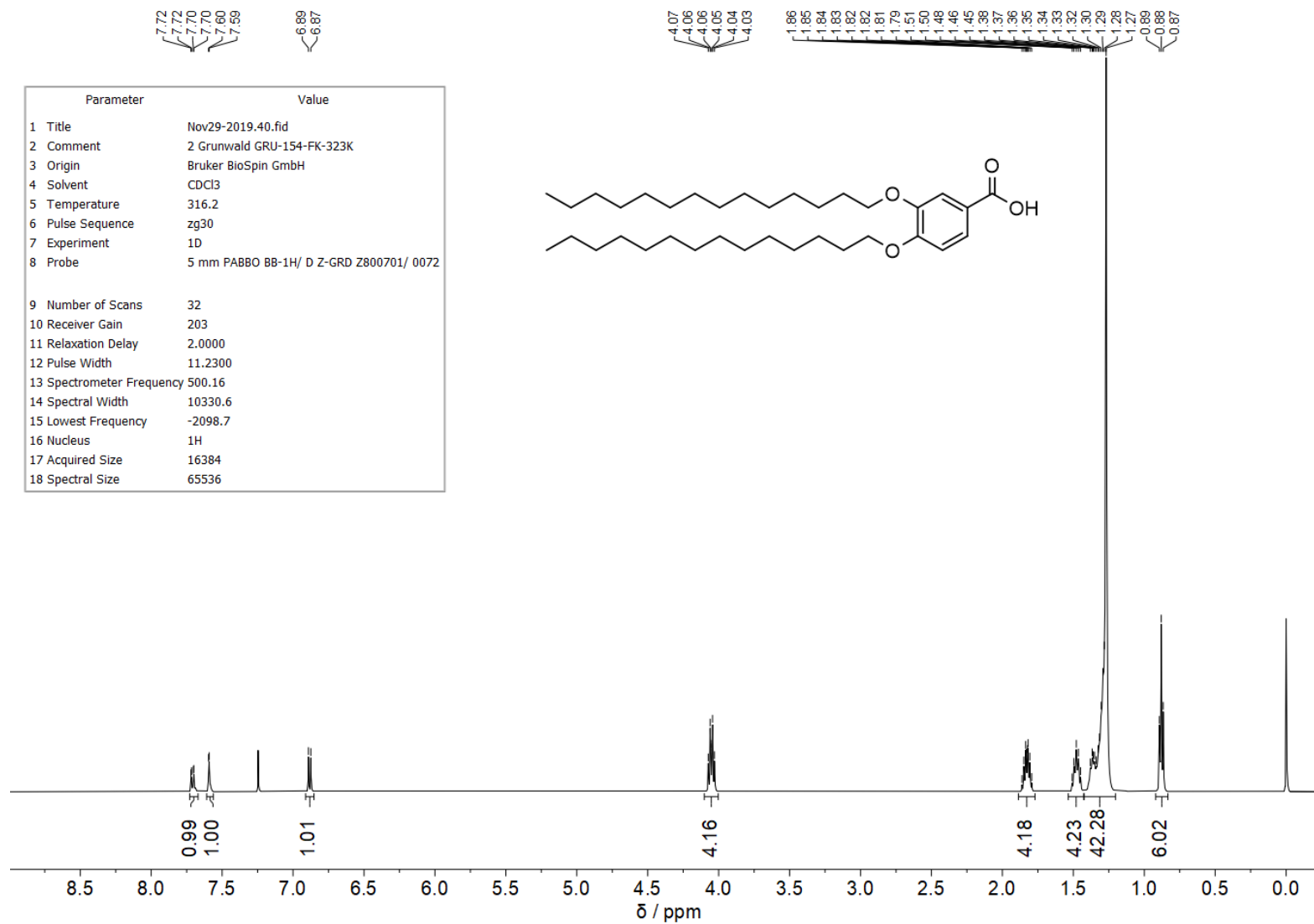


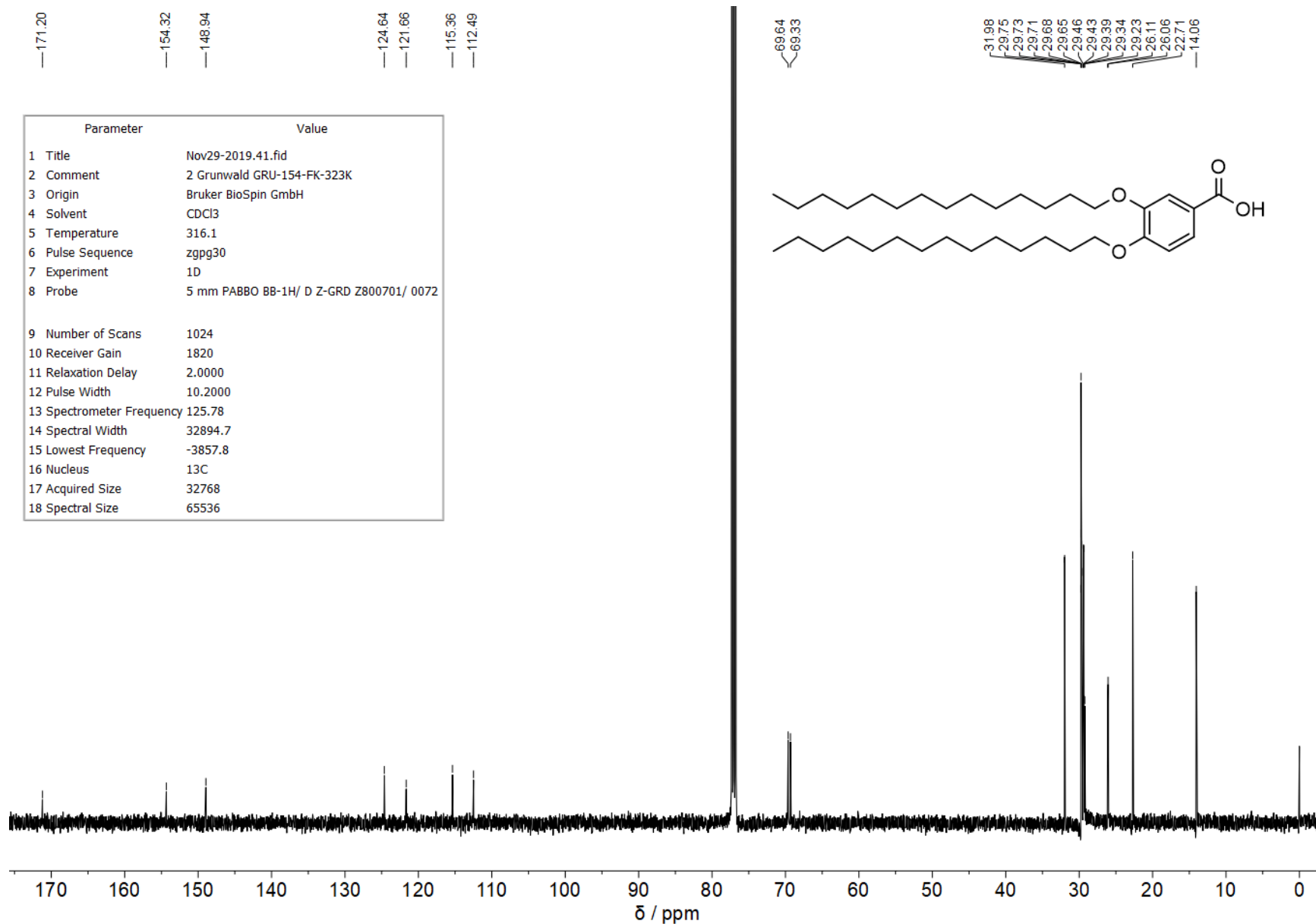
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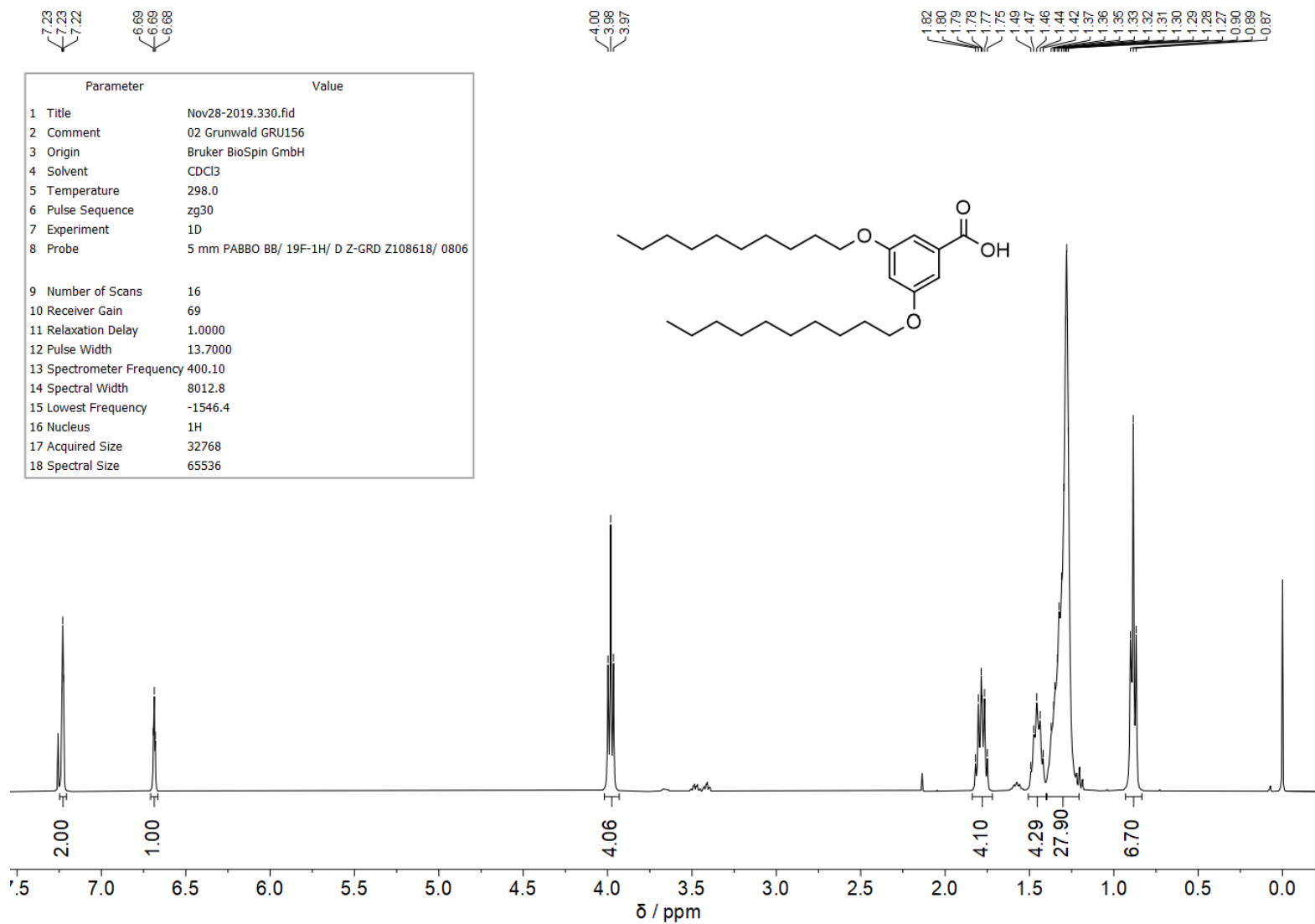


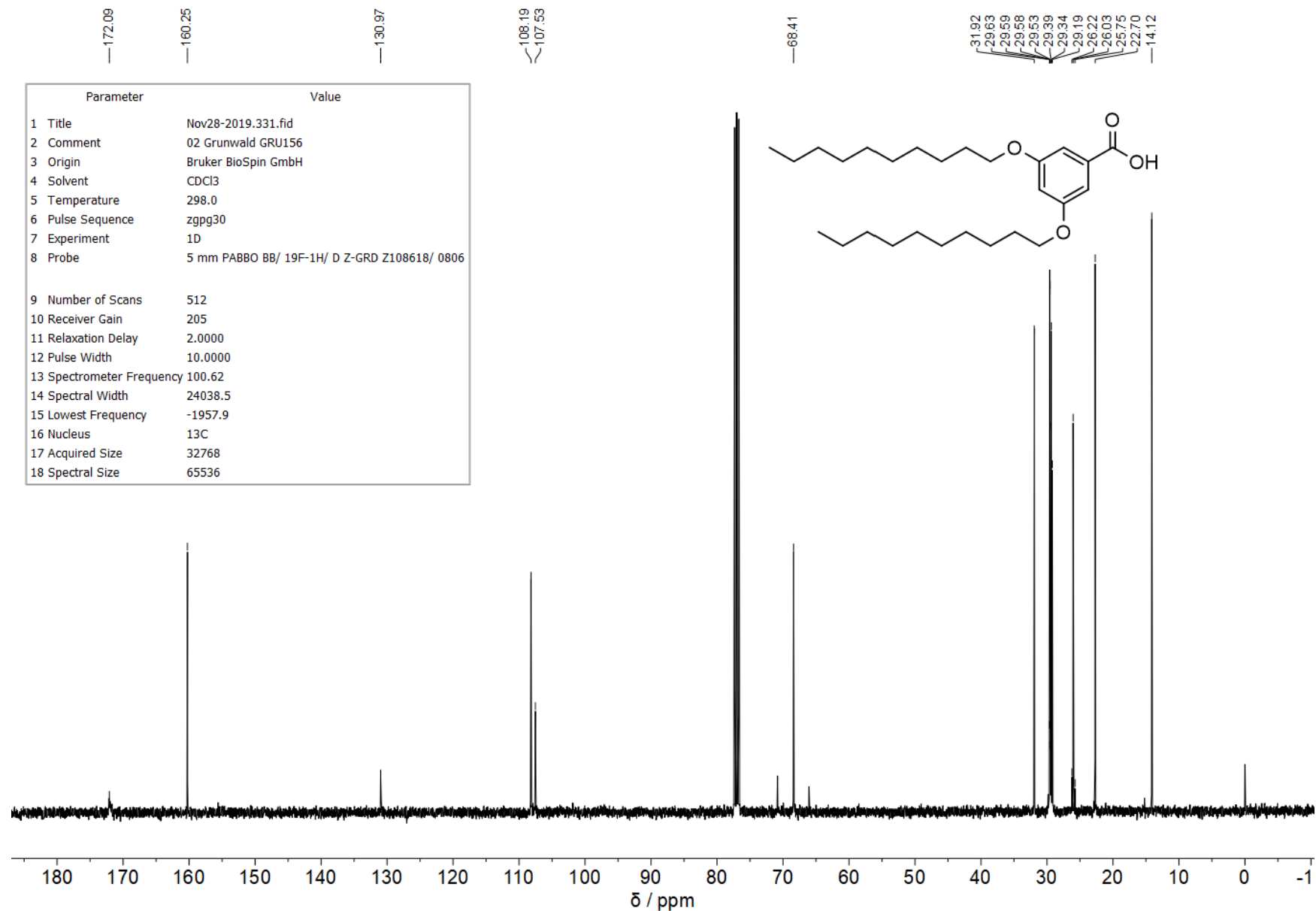
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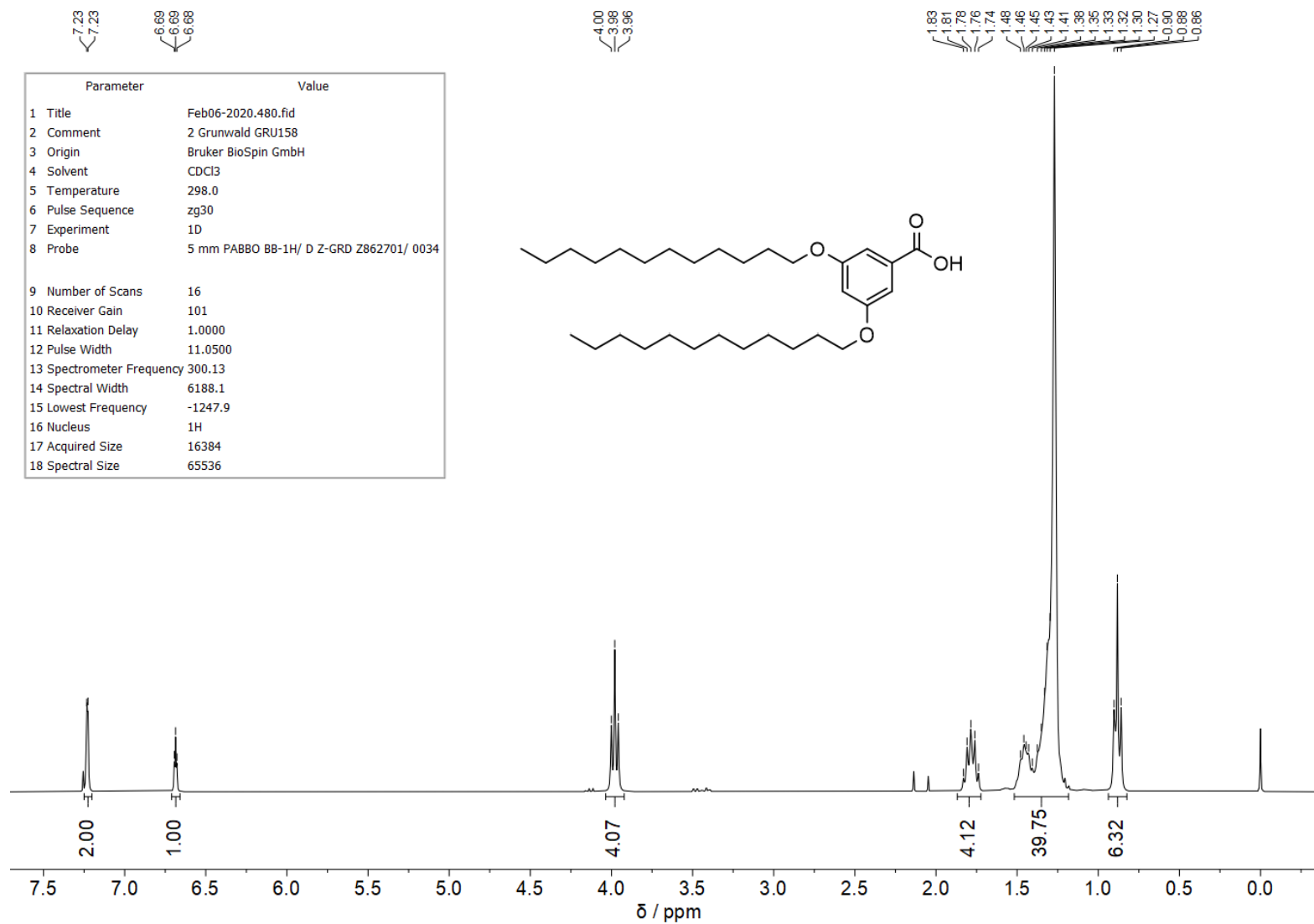
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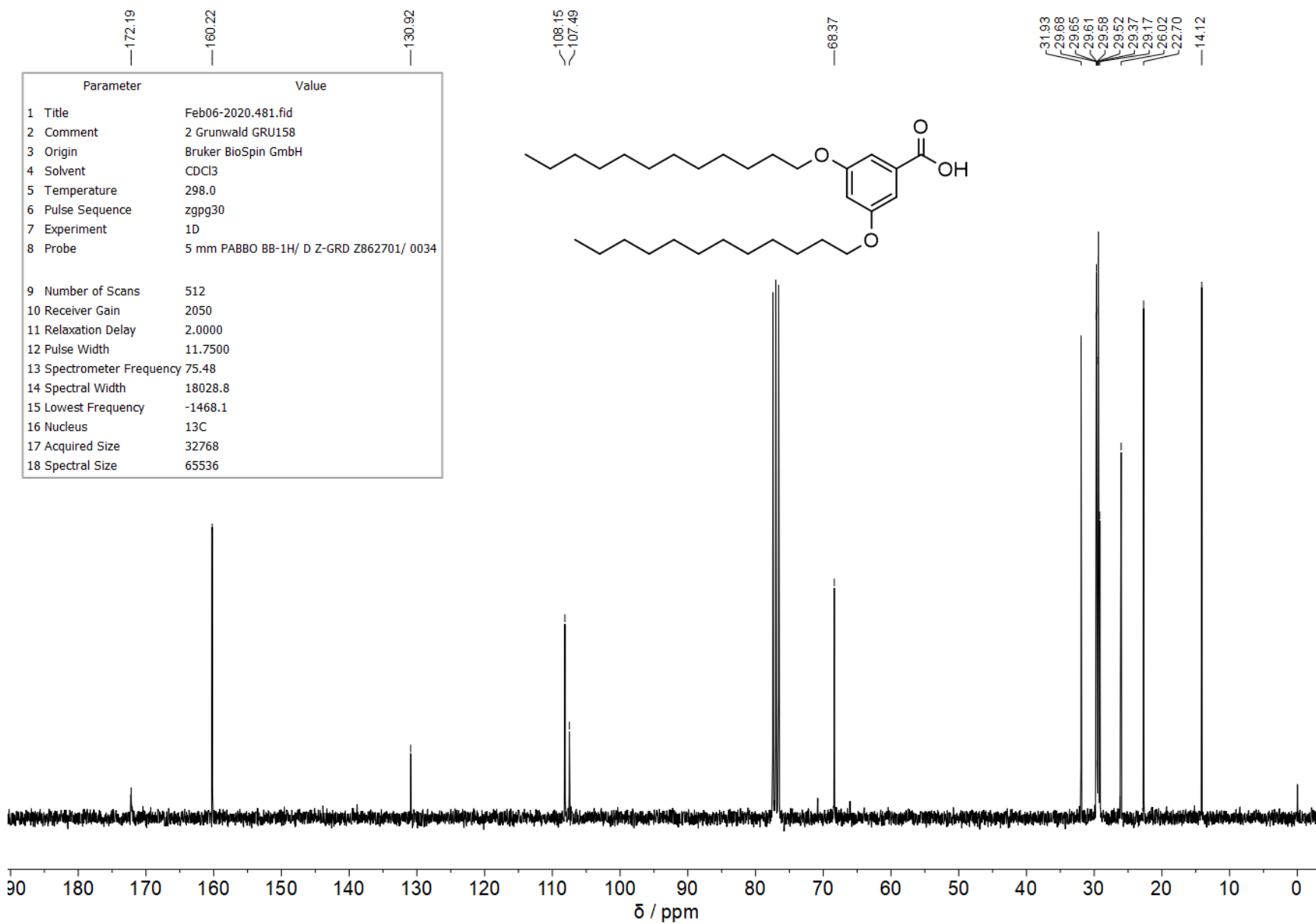


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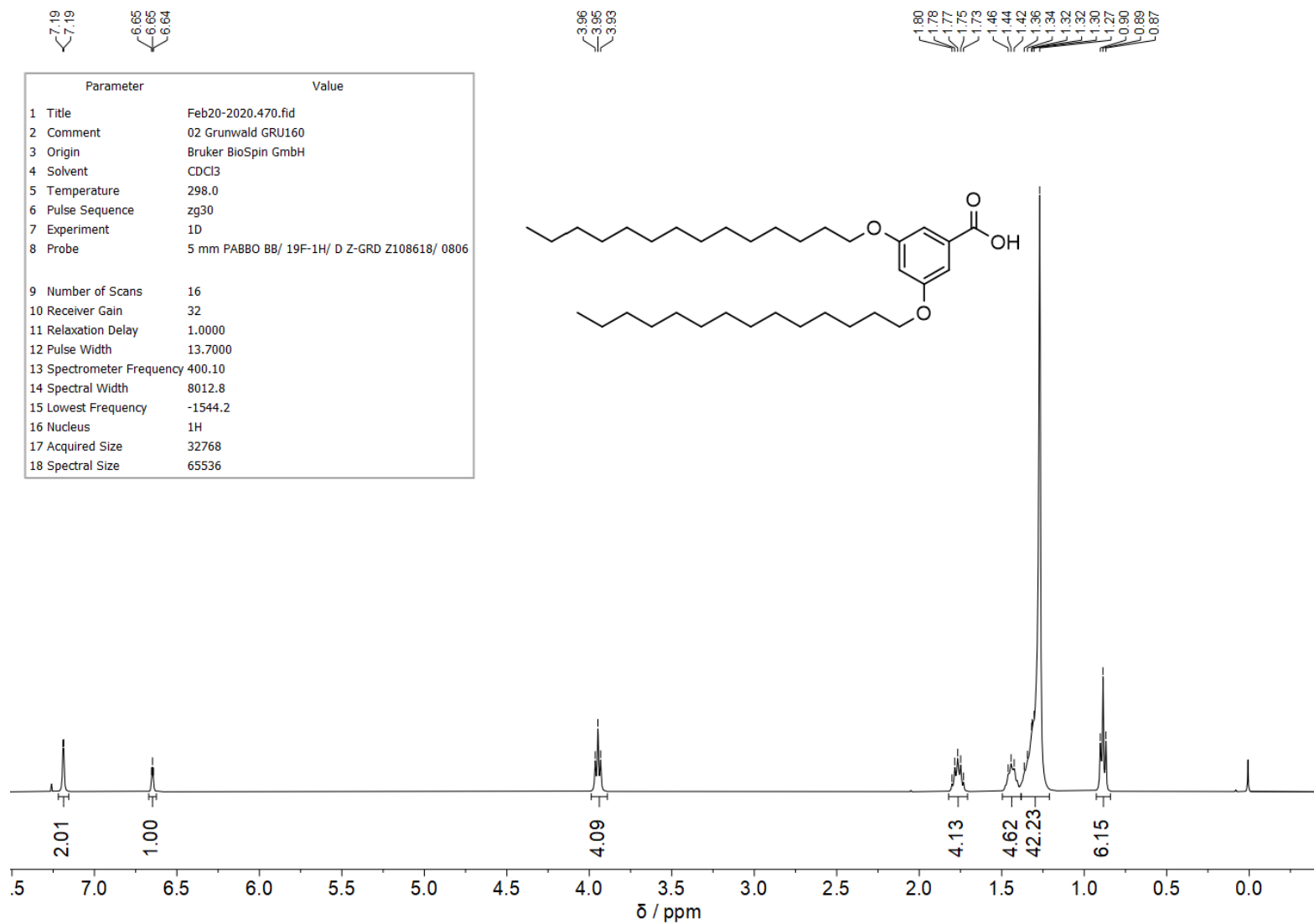


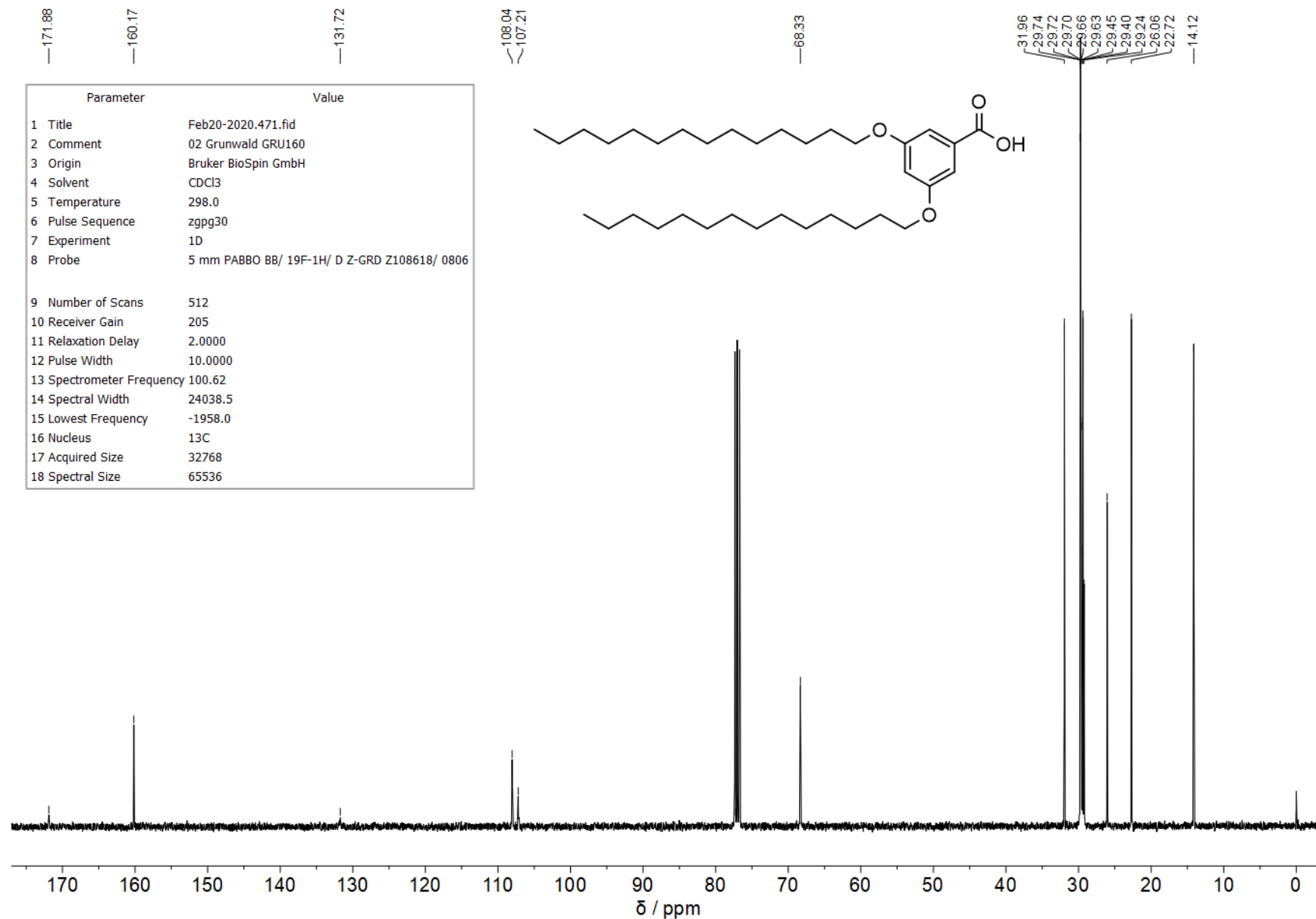
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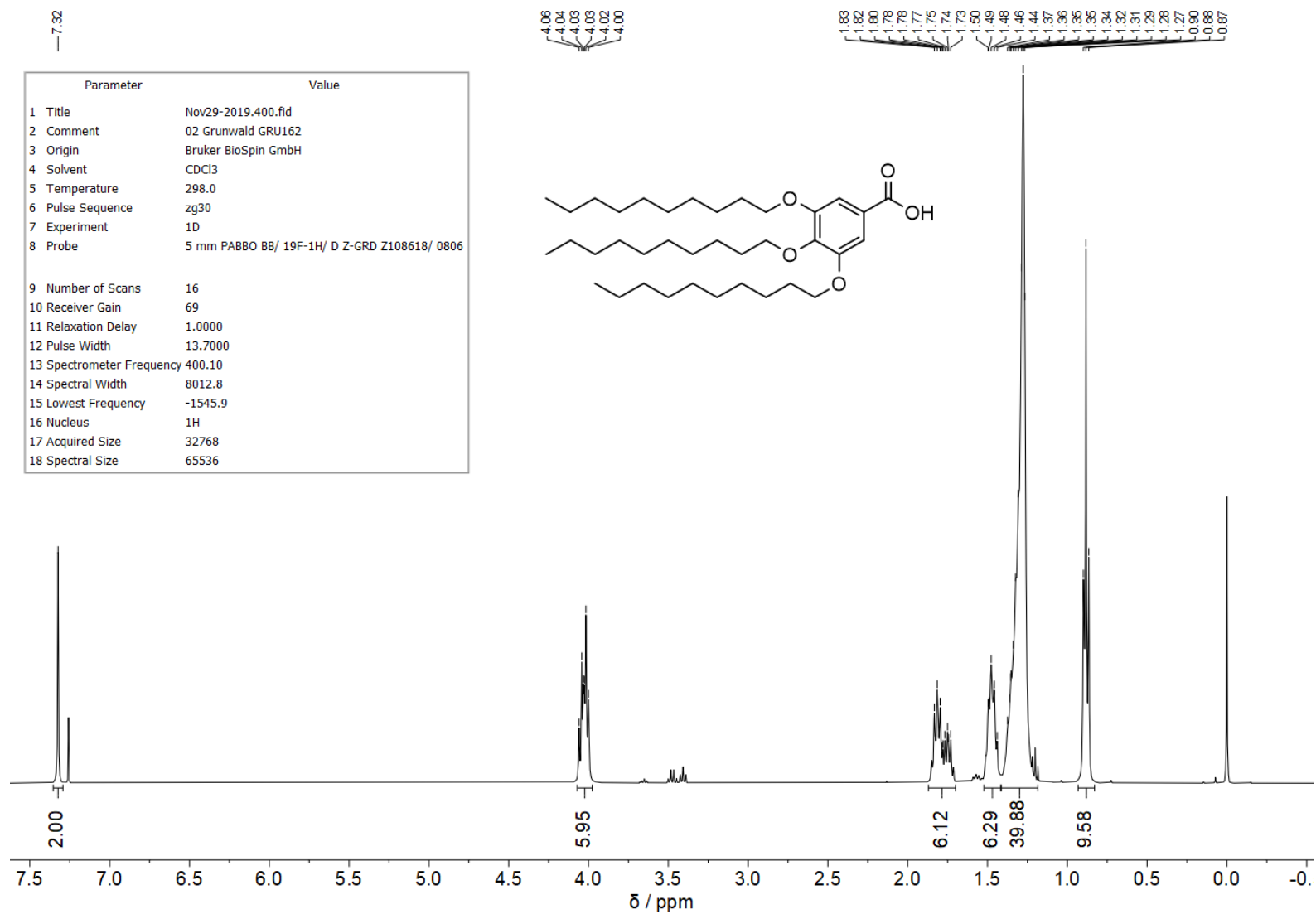


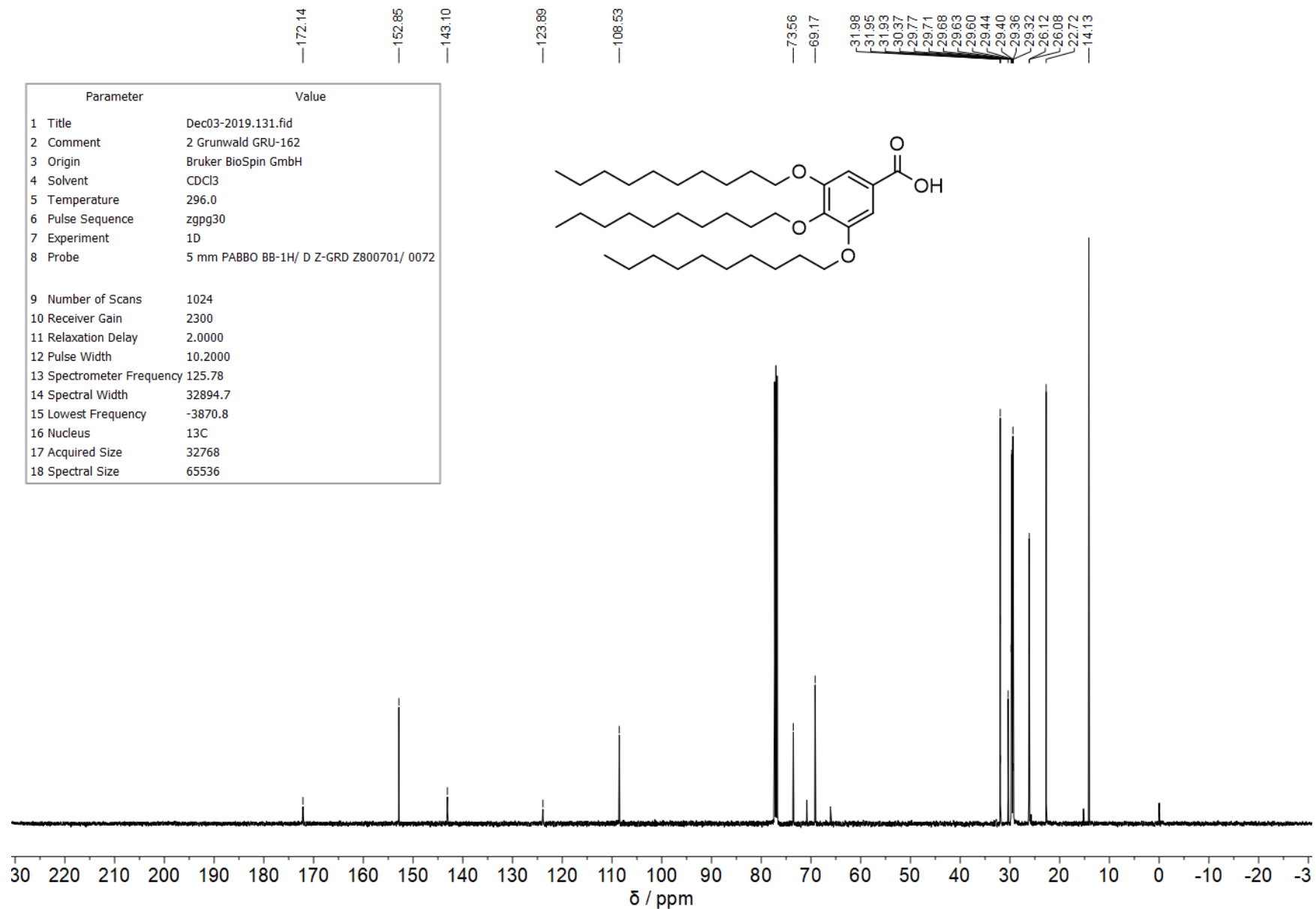


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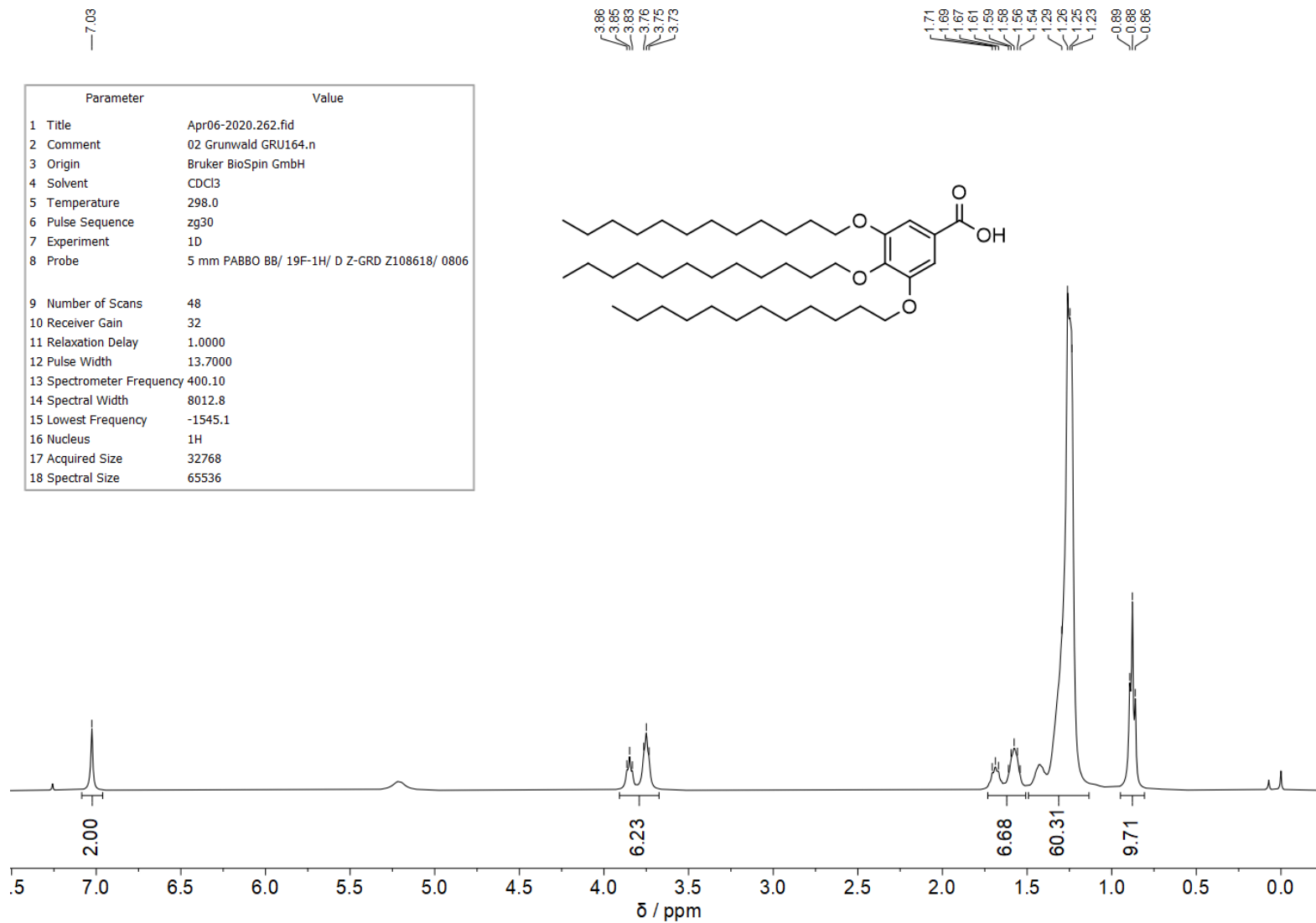


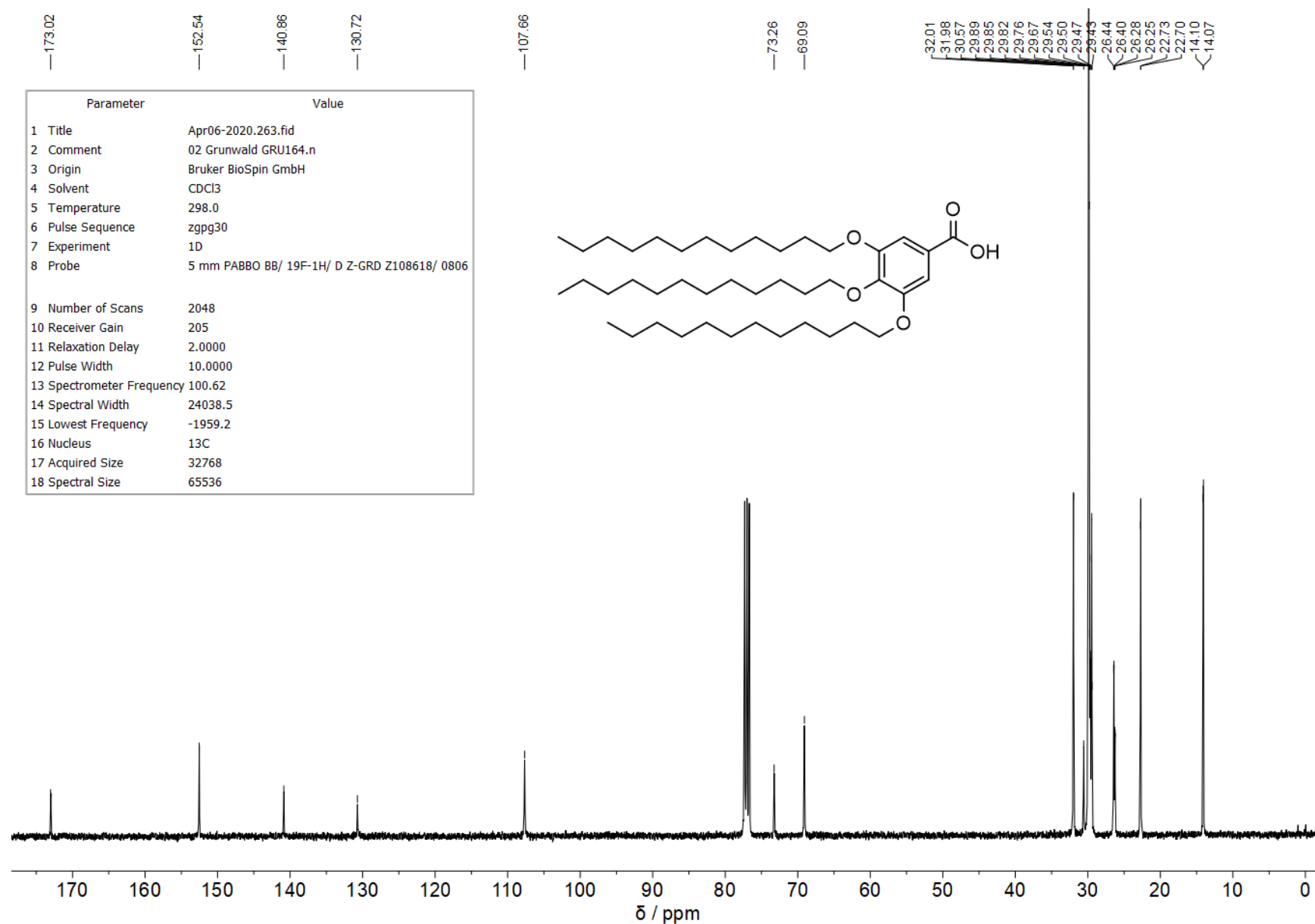


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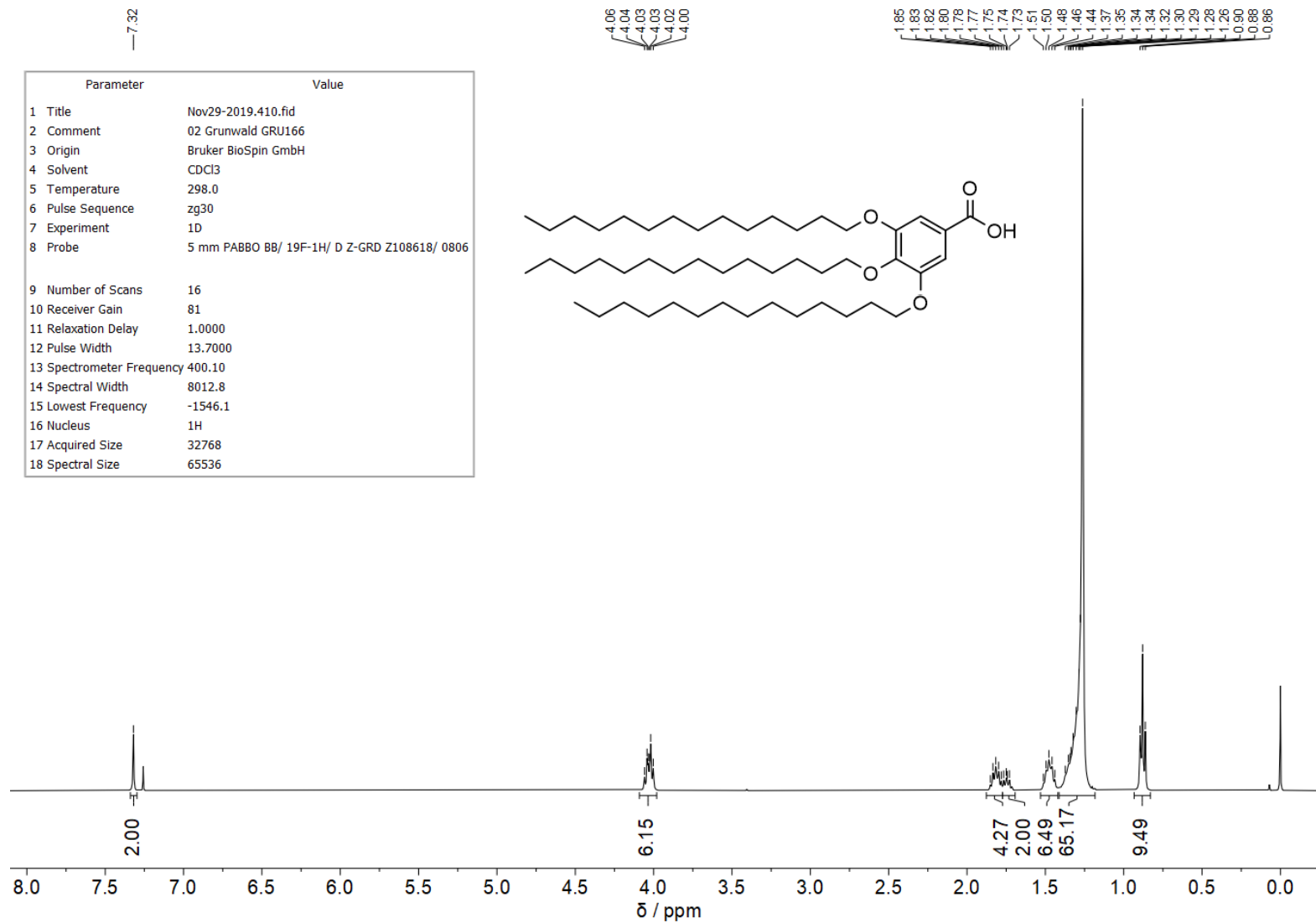


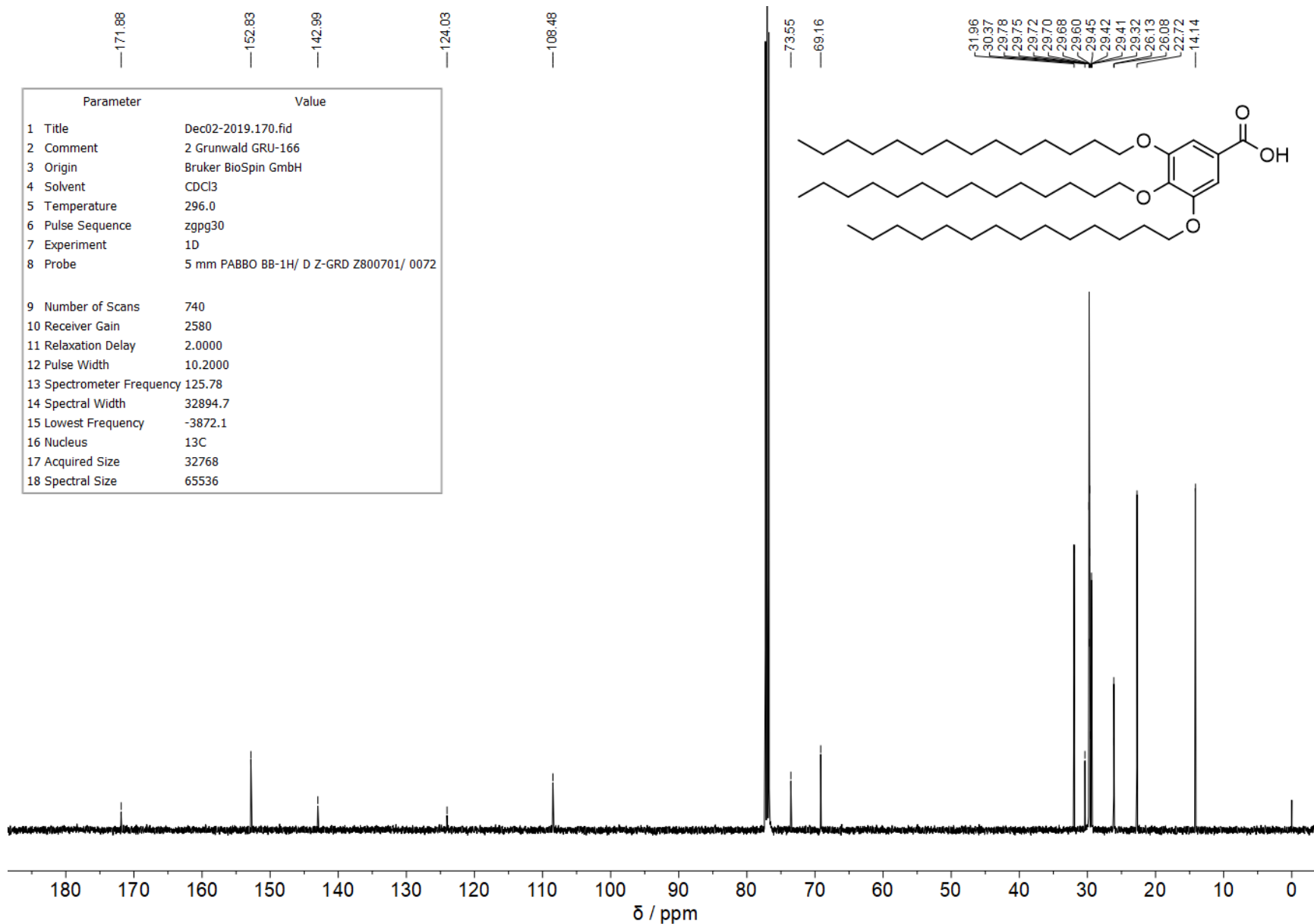
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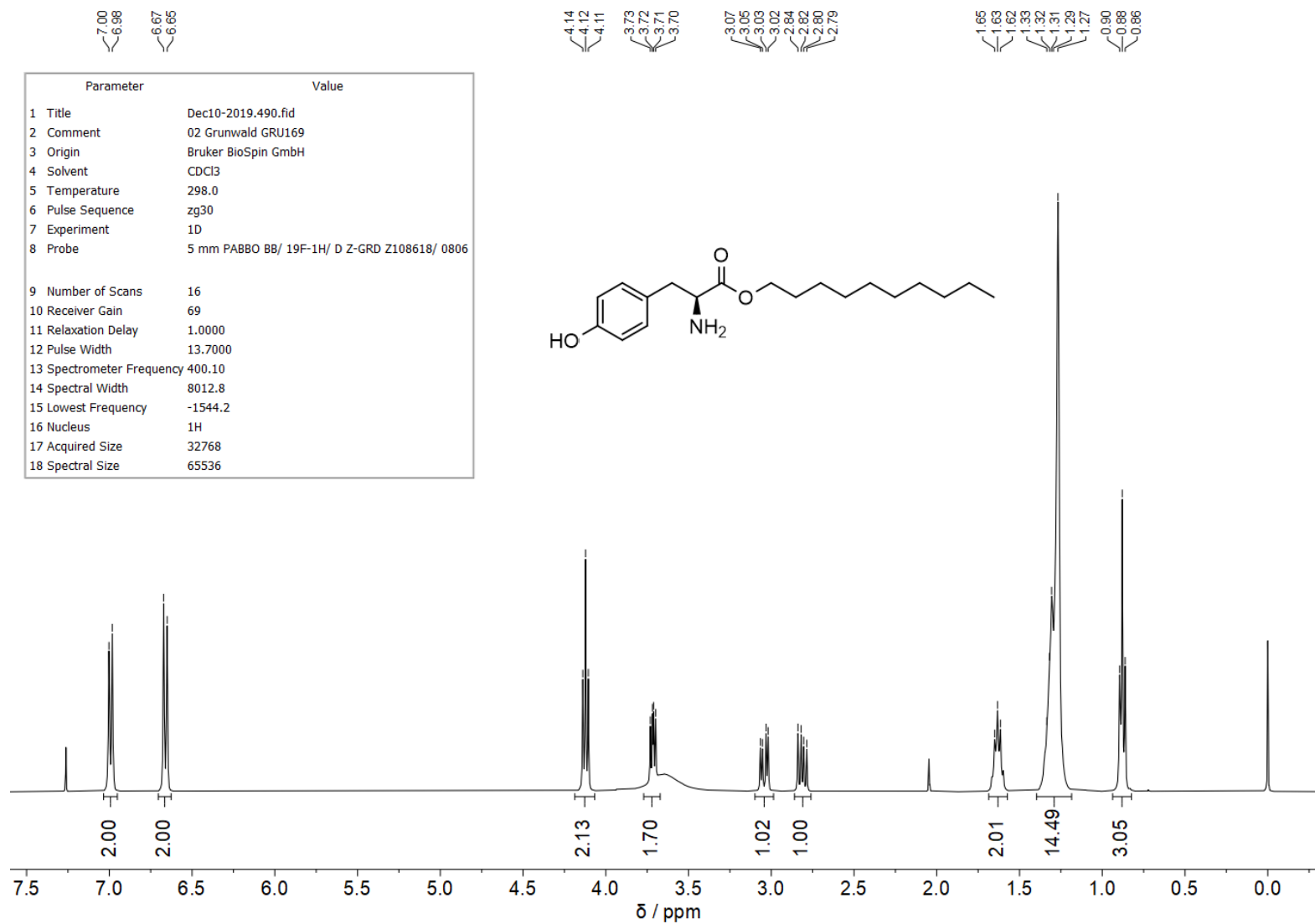


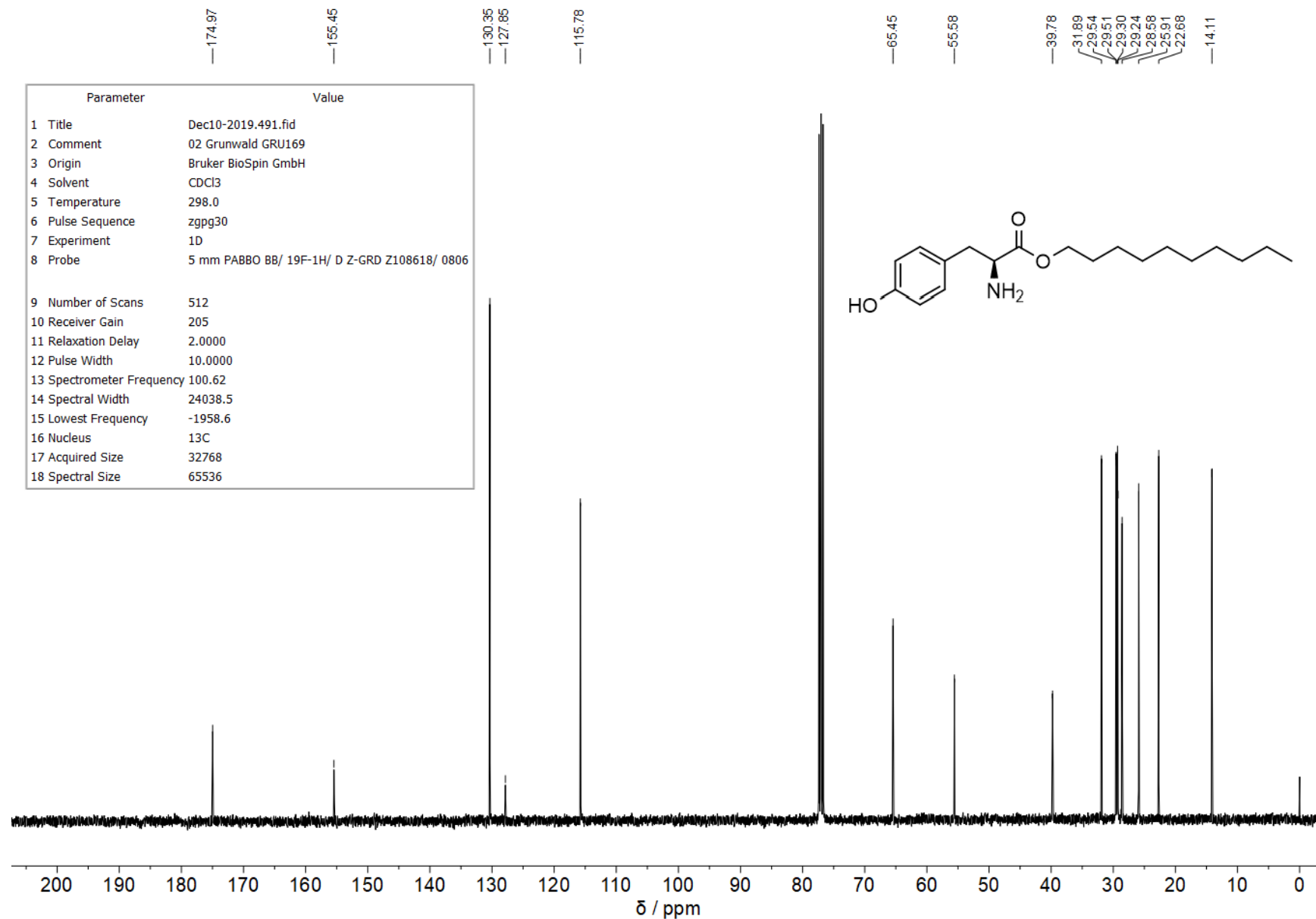
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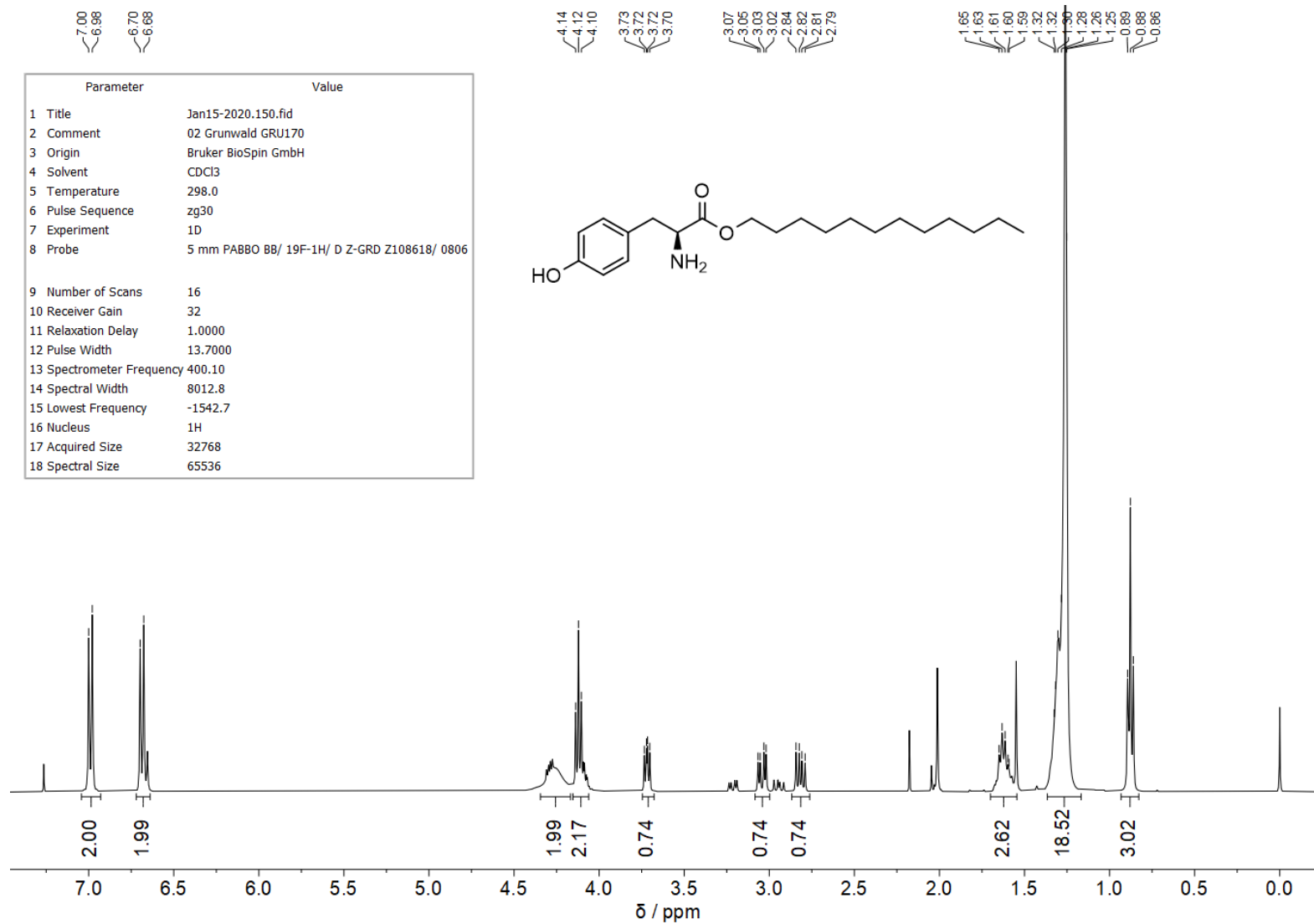
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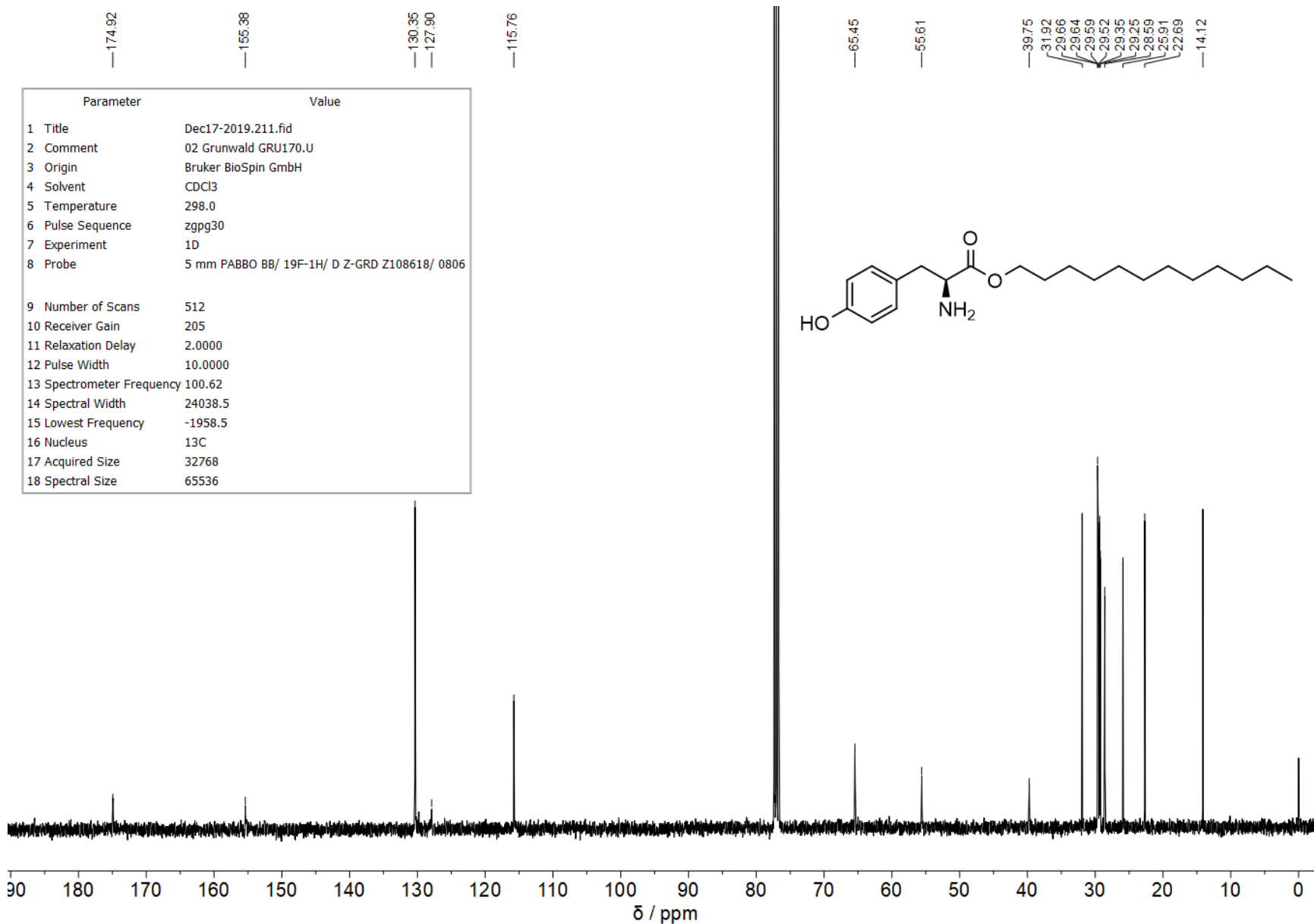




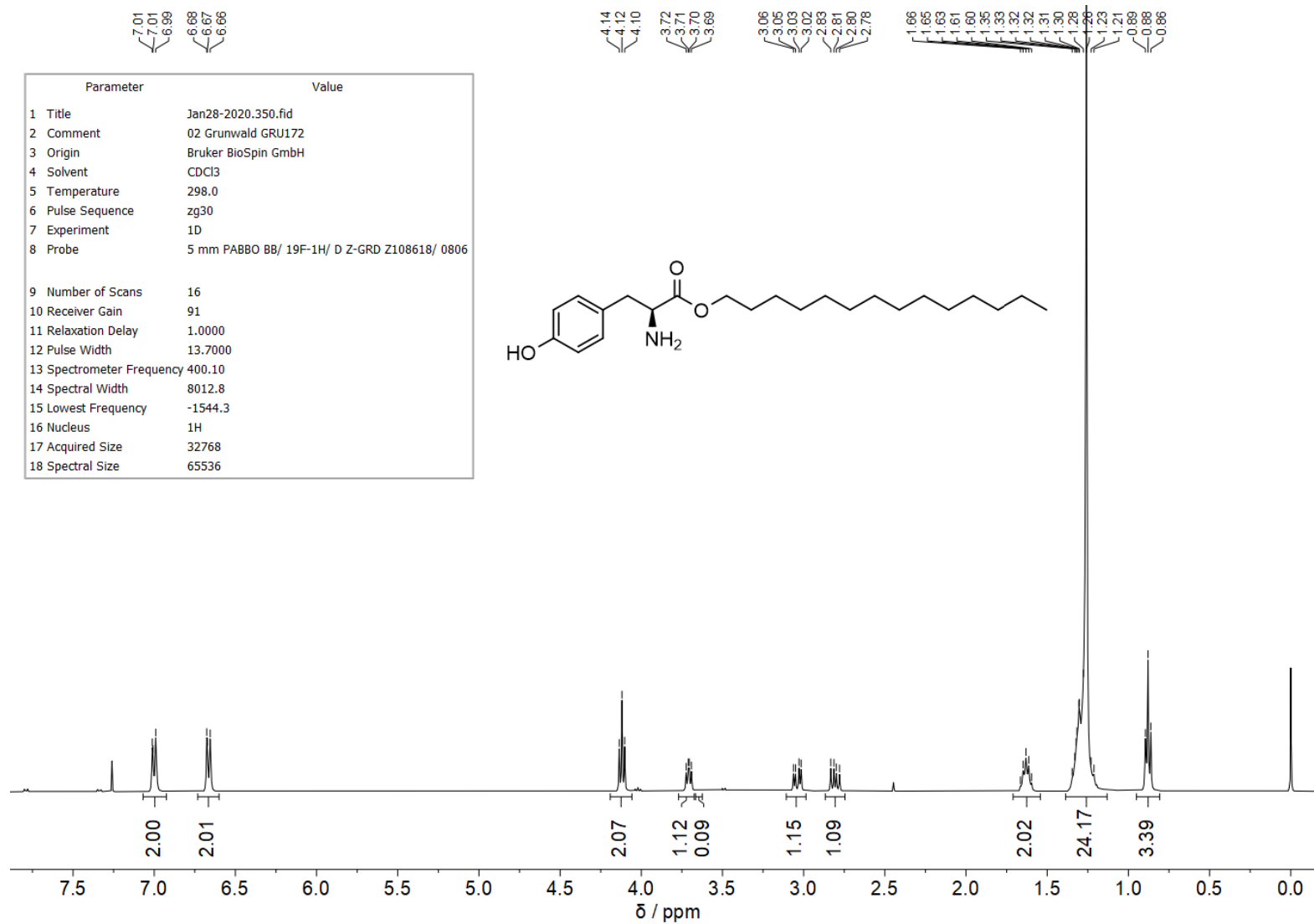
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5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	512
10 Receiver Gain	205
11 Relaxation Delay	2.0000
12 Pulse Width	10.0000
13 Spectrometer Frequency	100.62
14 Spectral Width	24038.5
15 Lowest Frequency	-1958.6
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

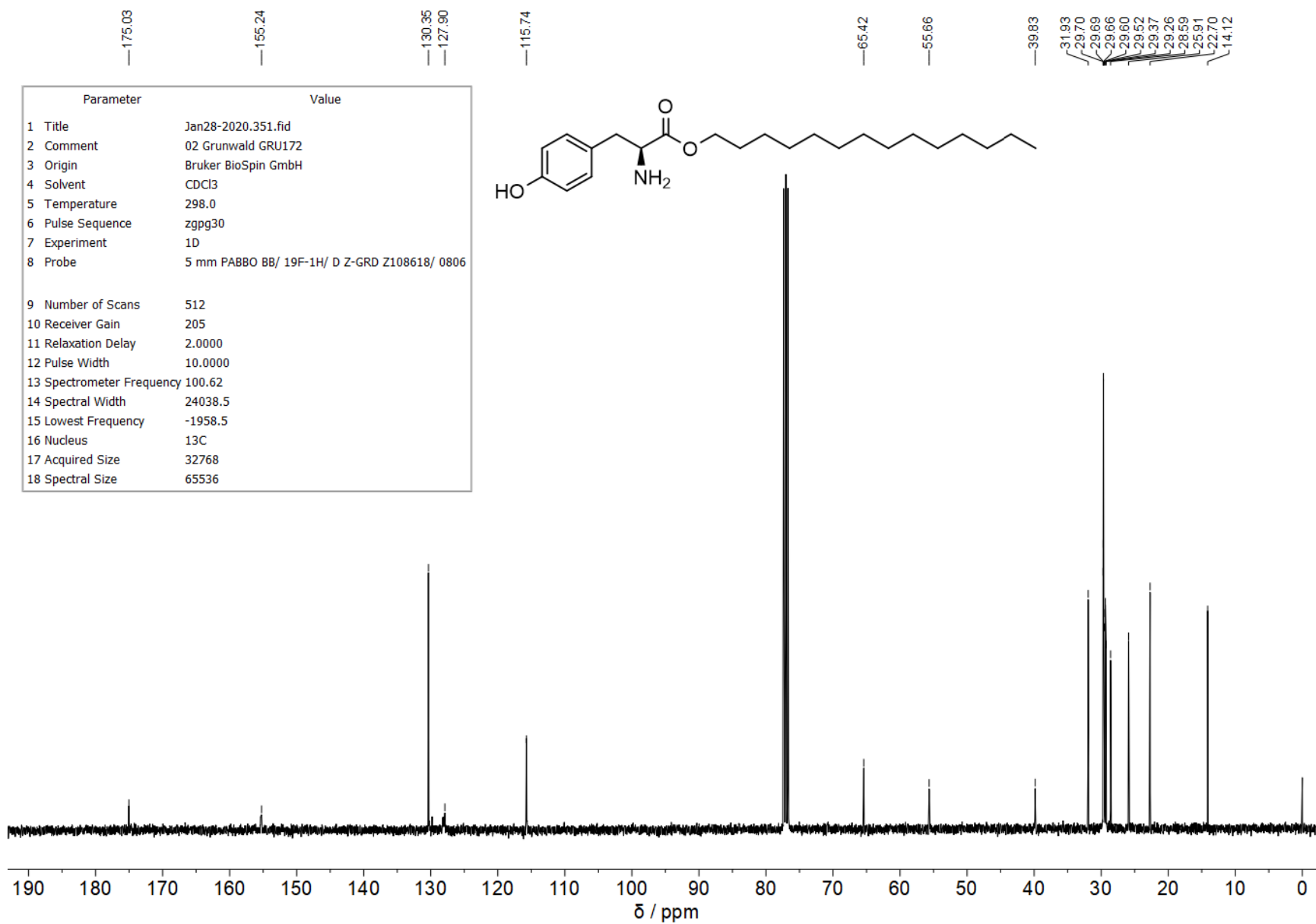
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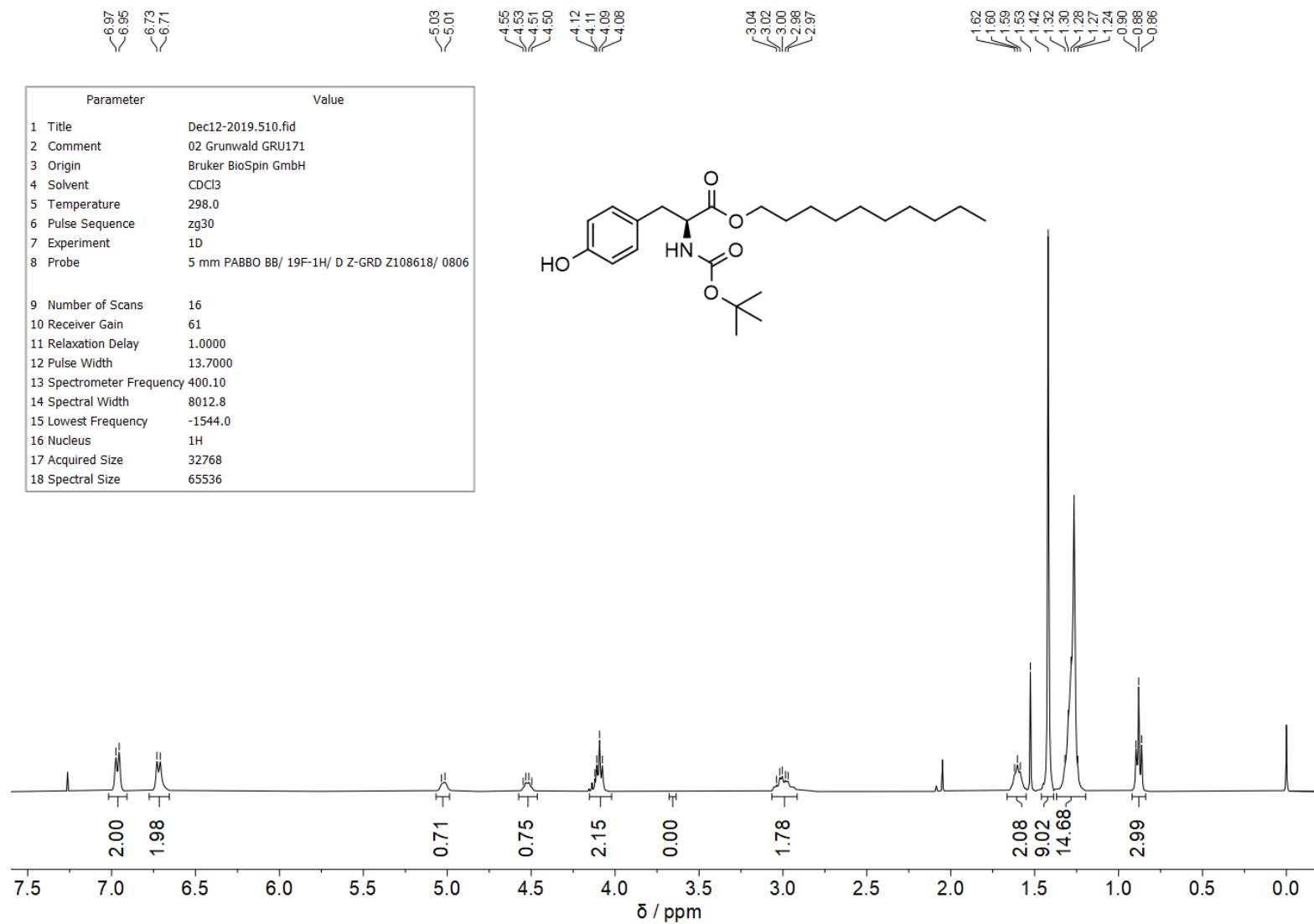


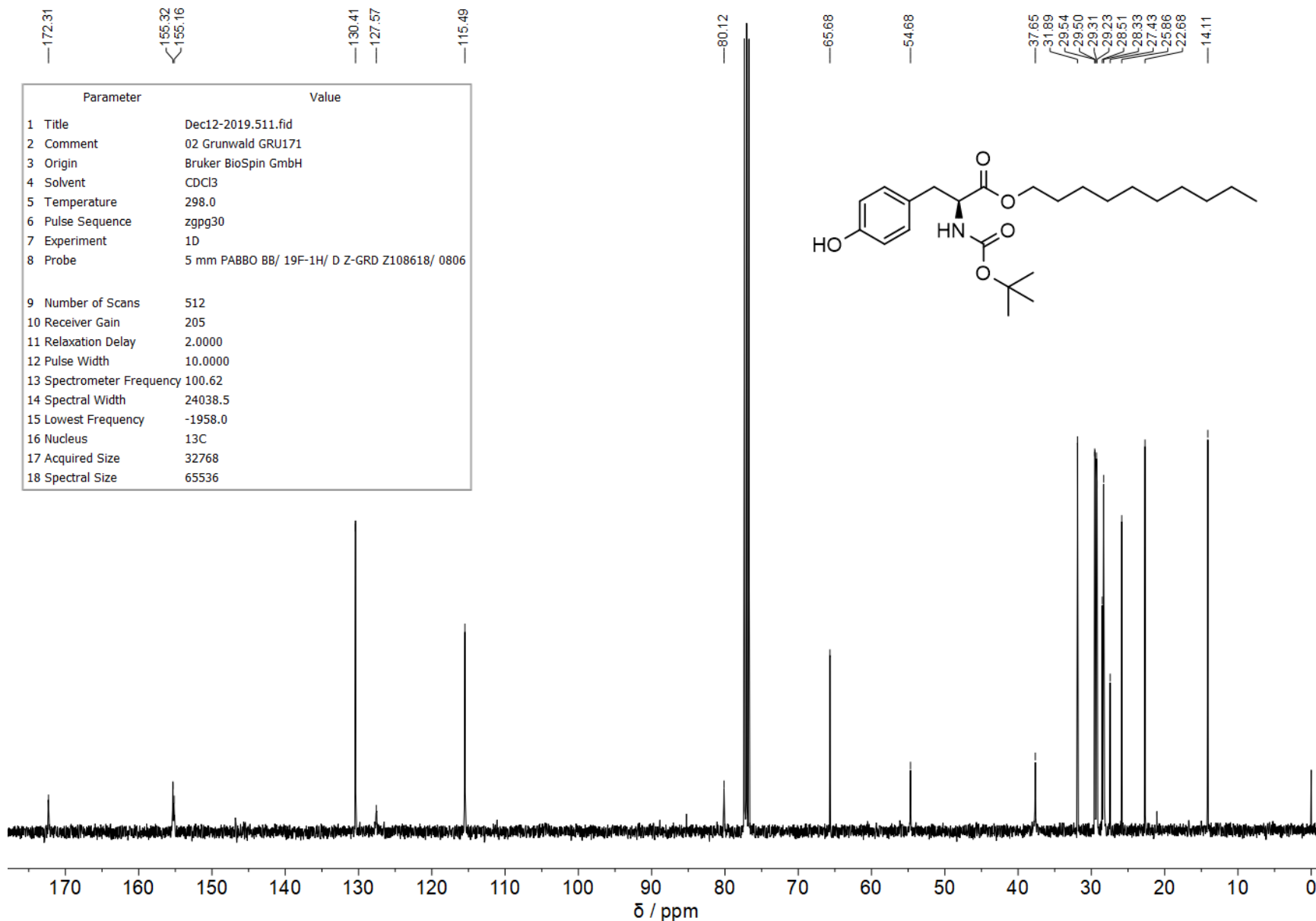


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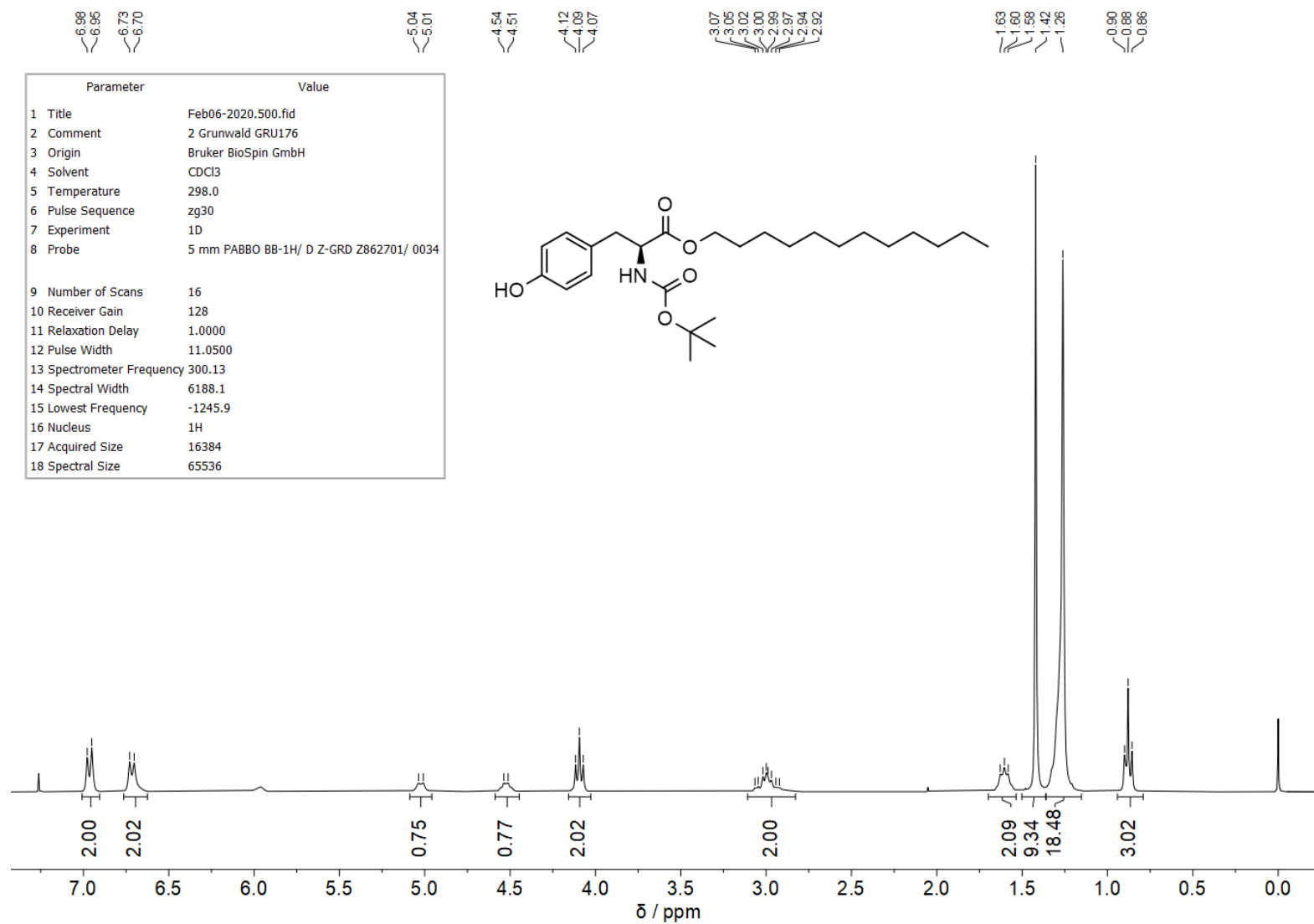


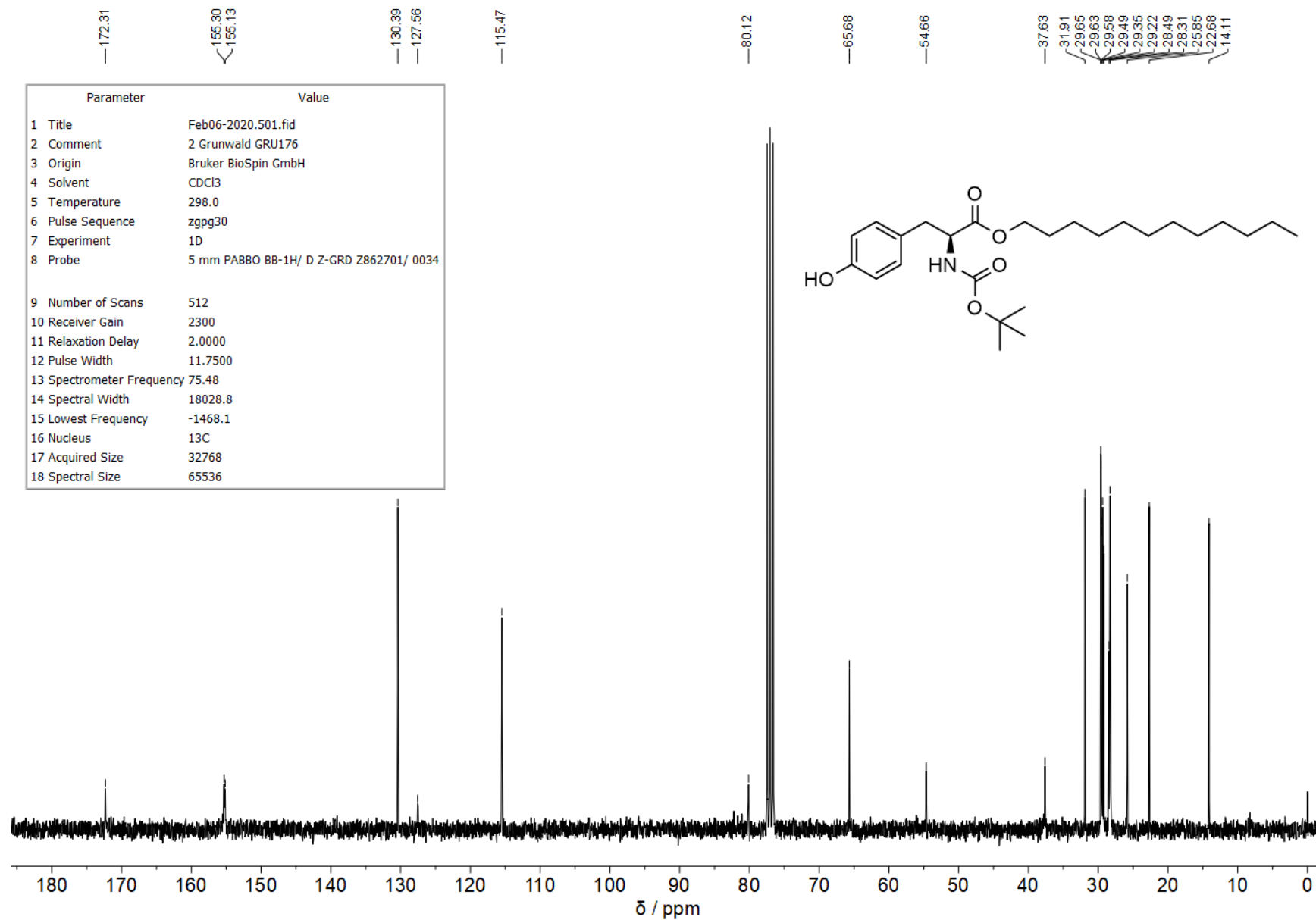


TyrC₁₀Boc

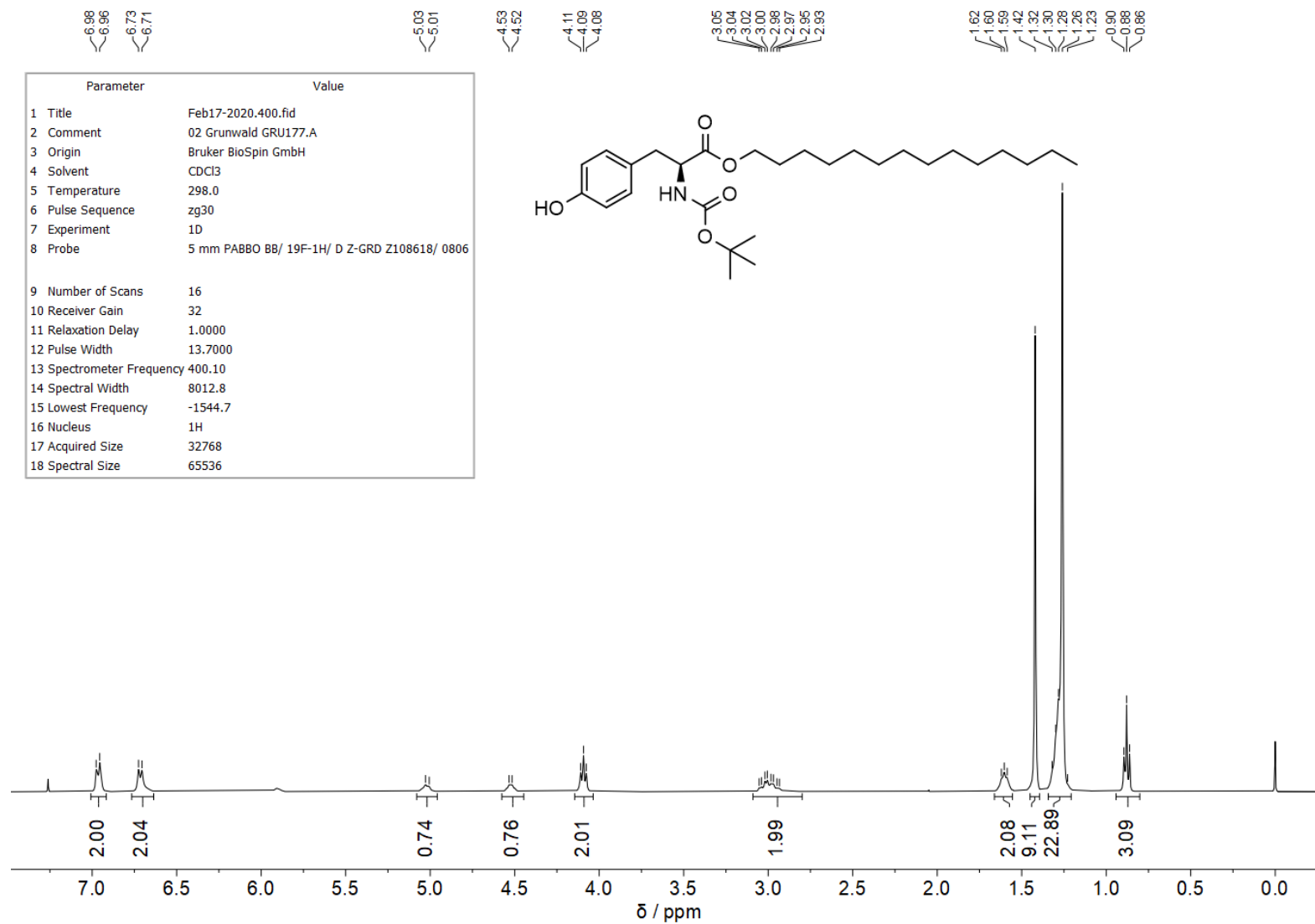


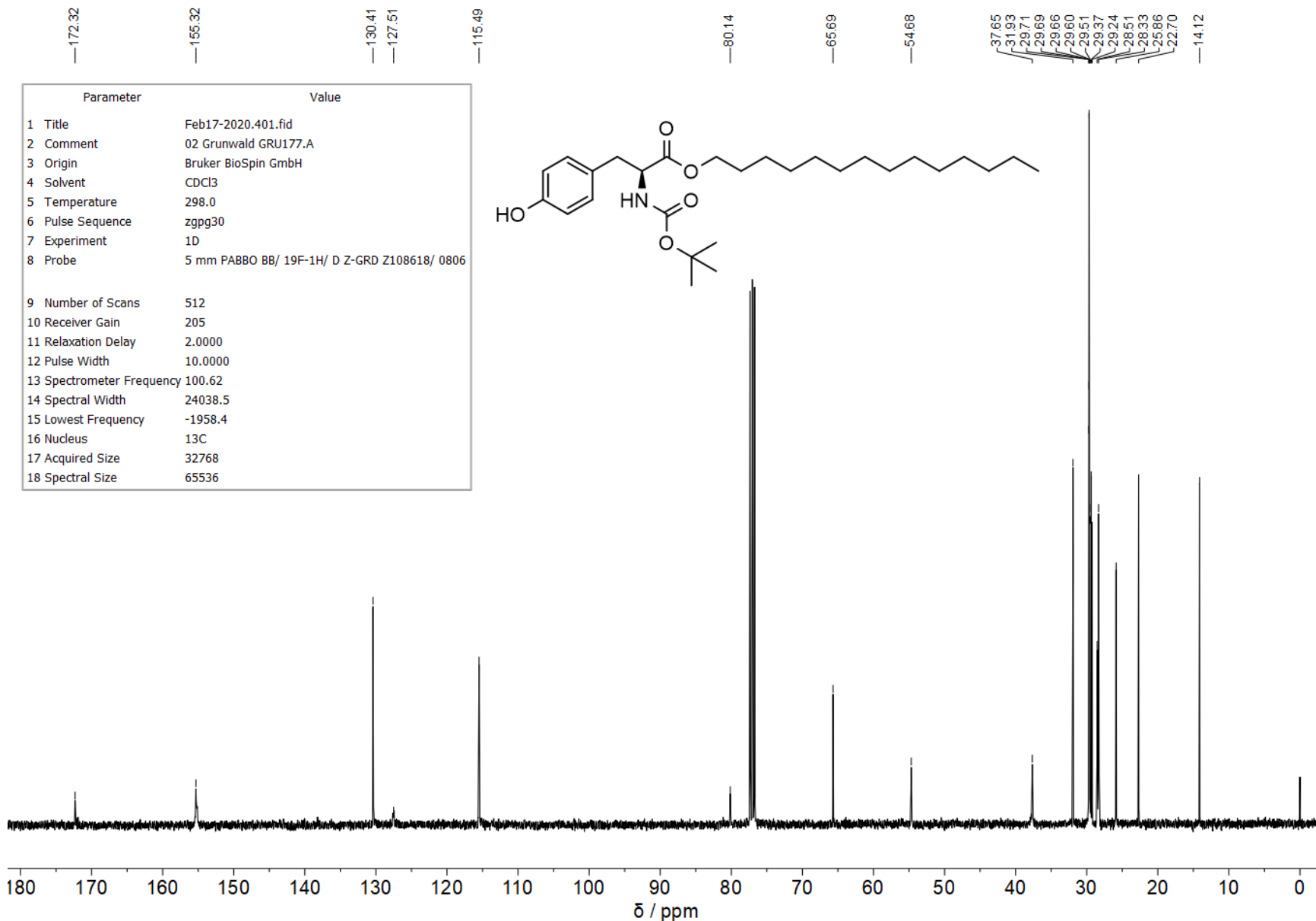
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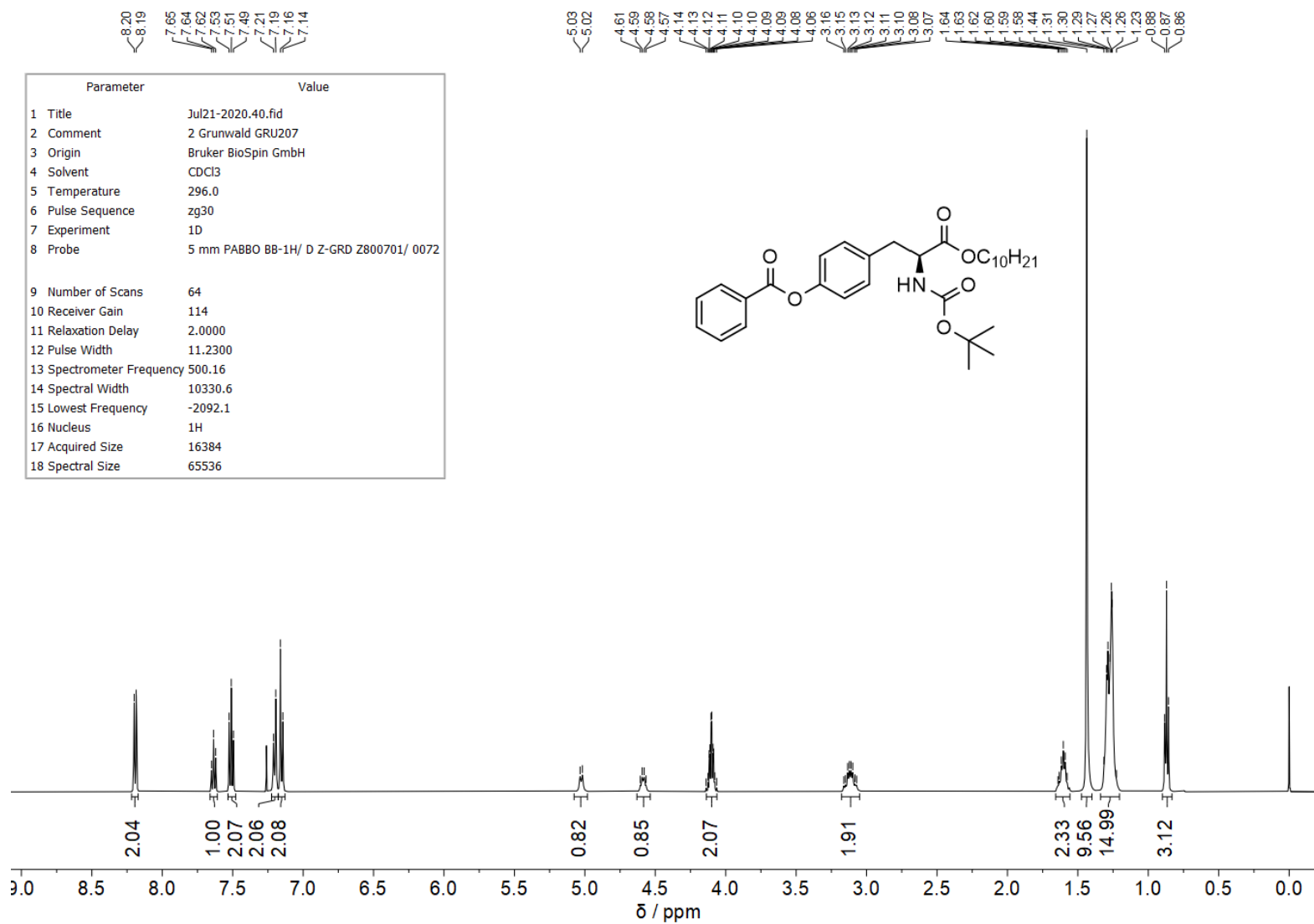


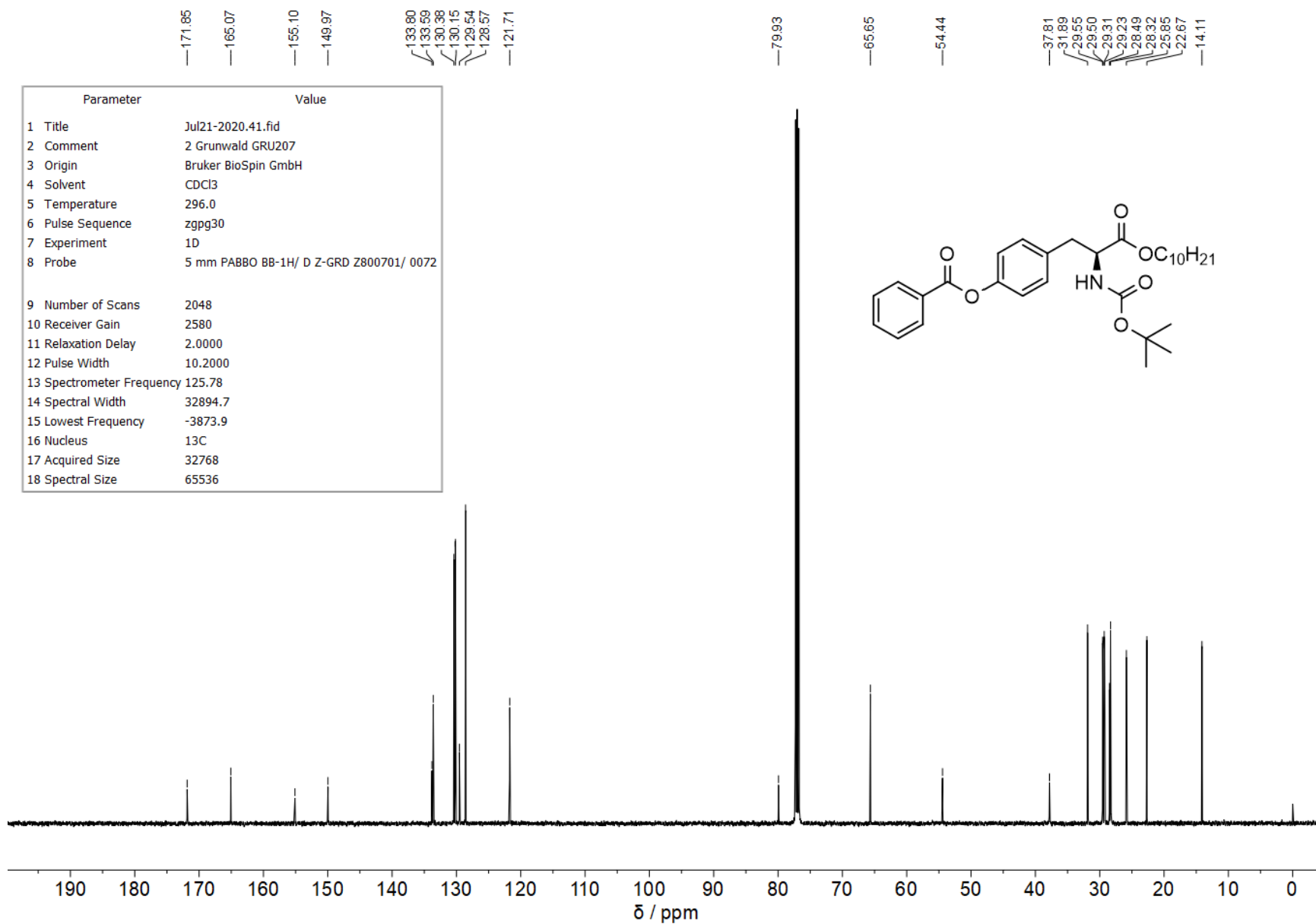
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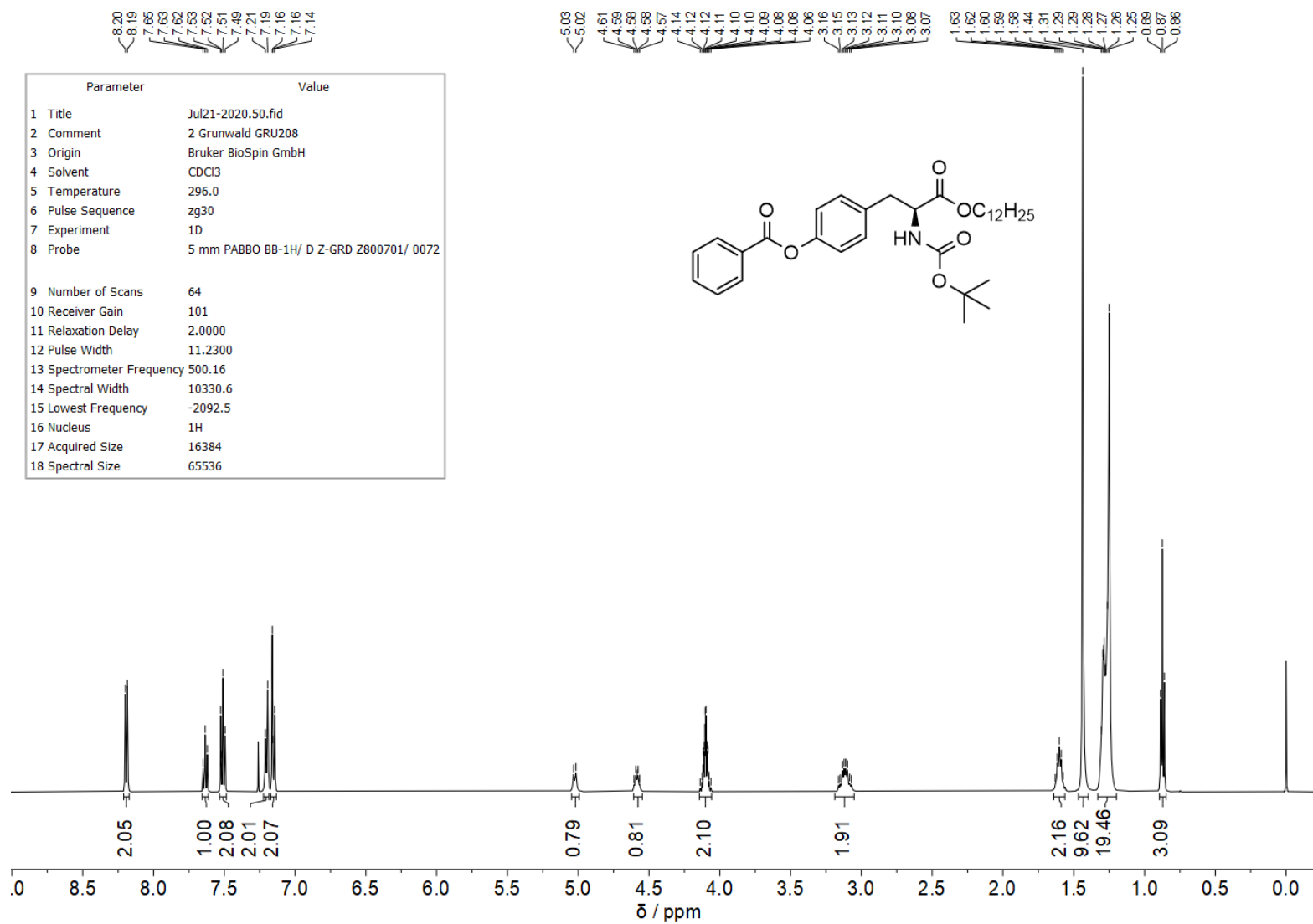


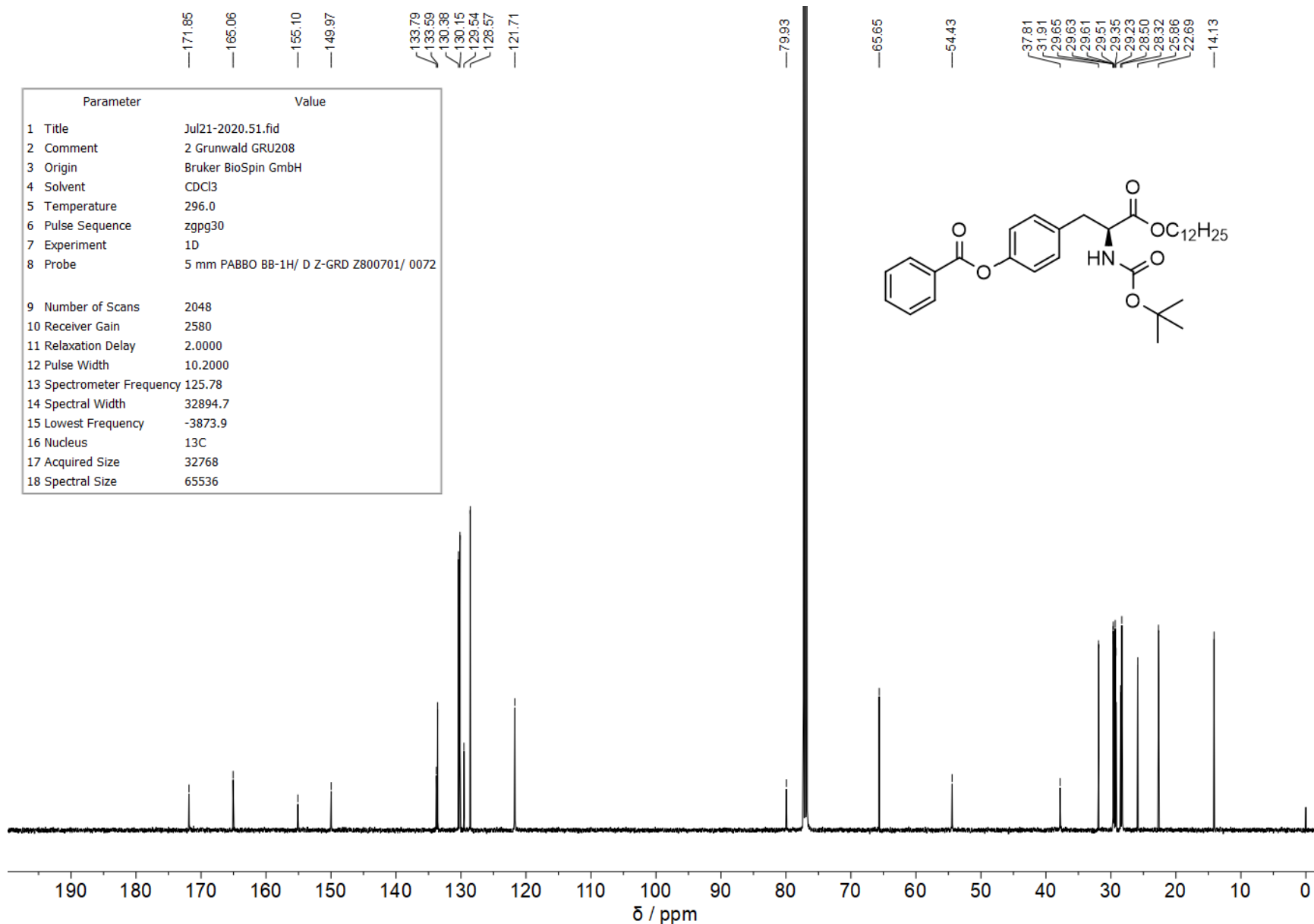
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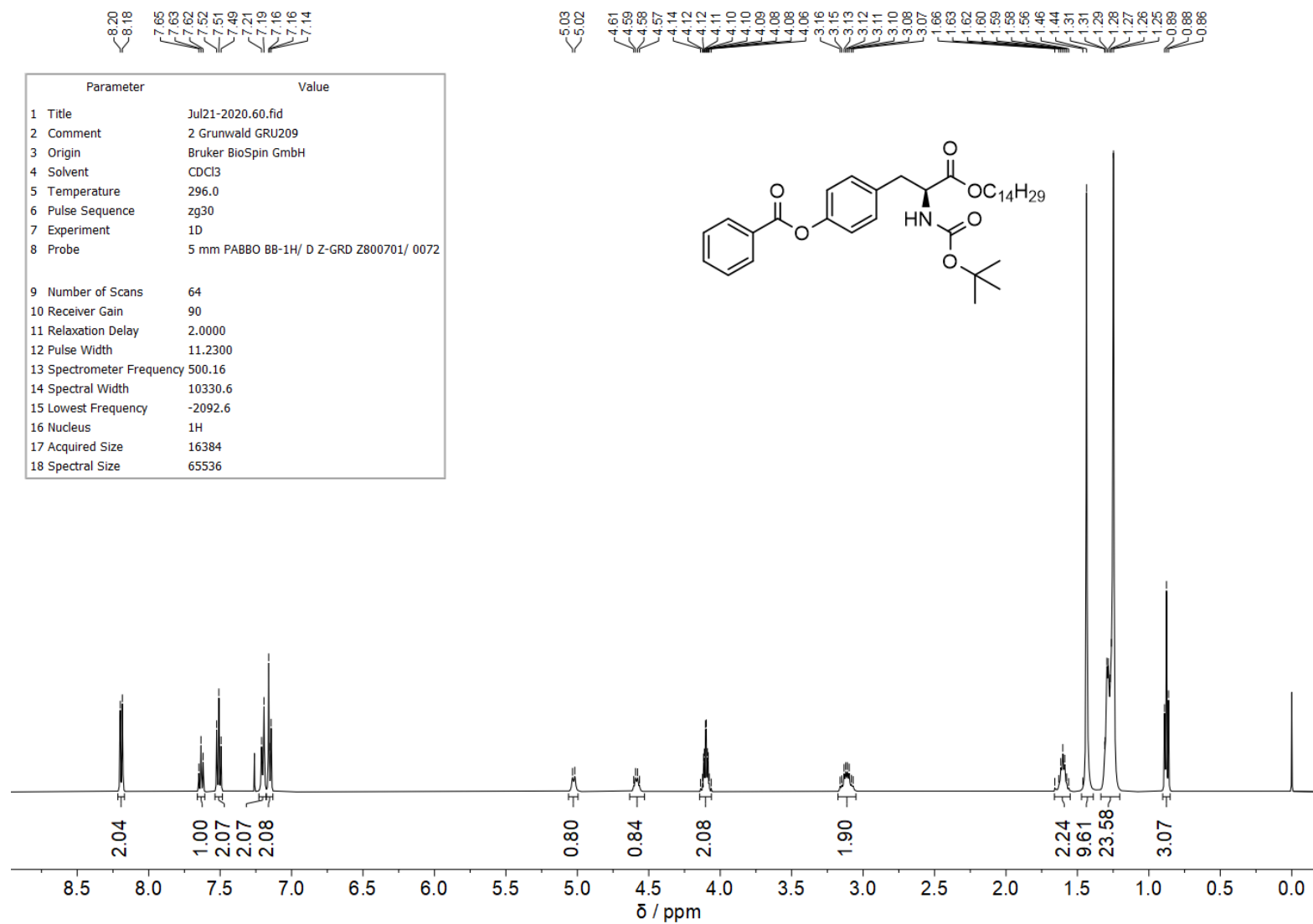


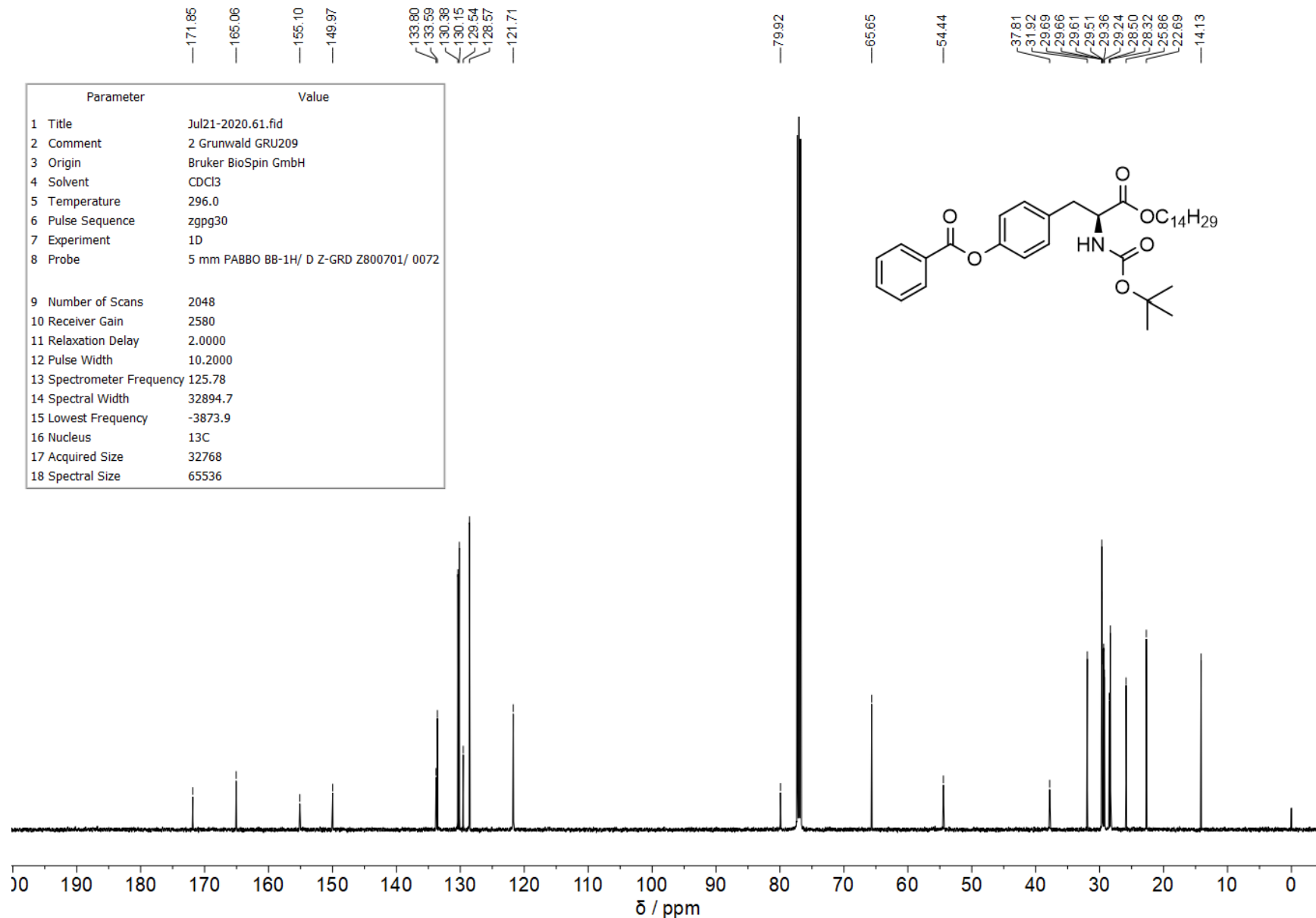
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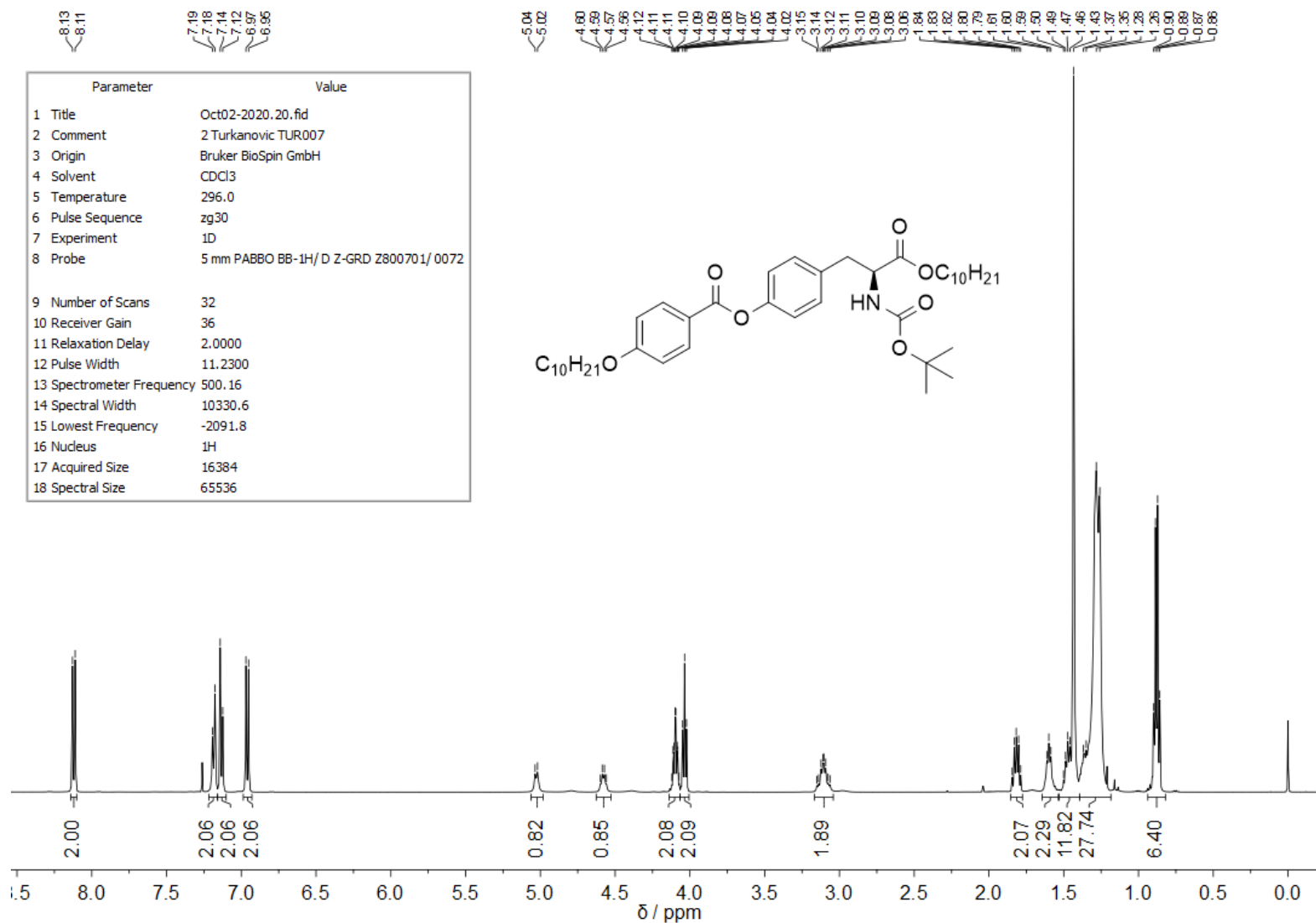


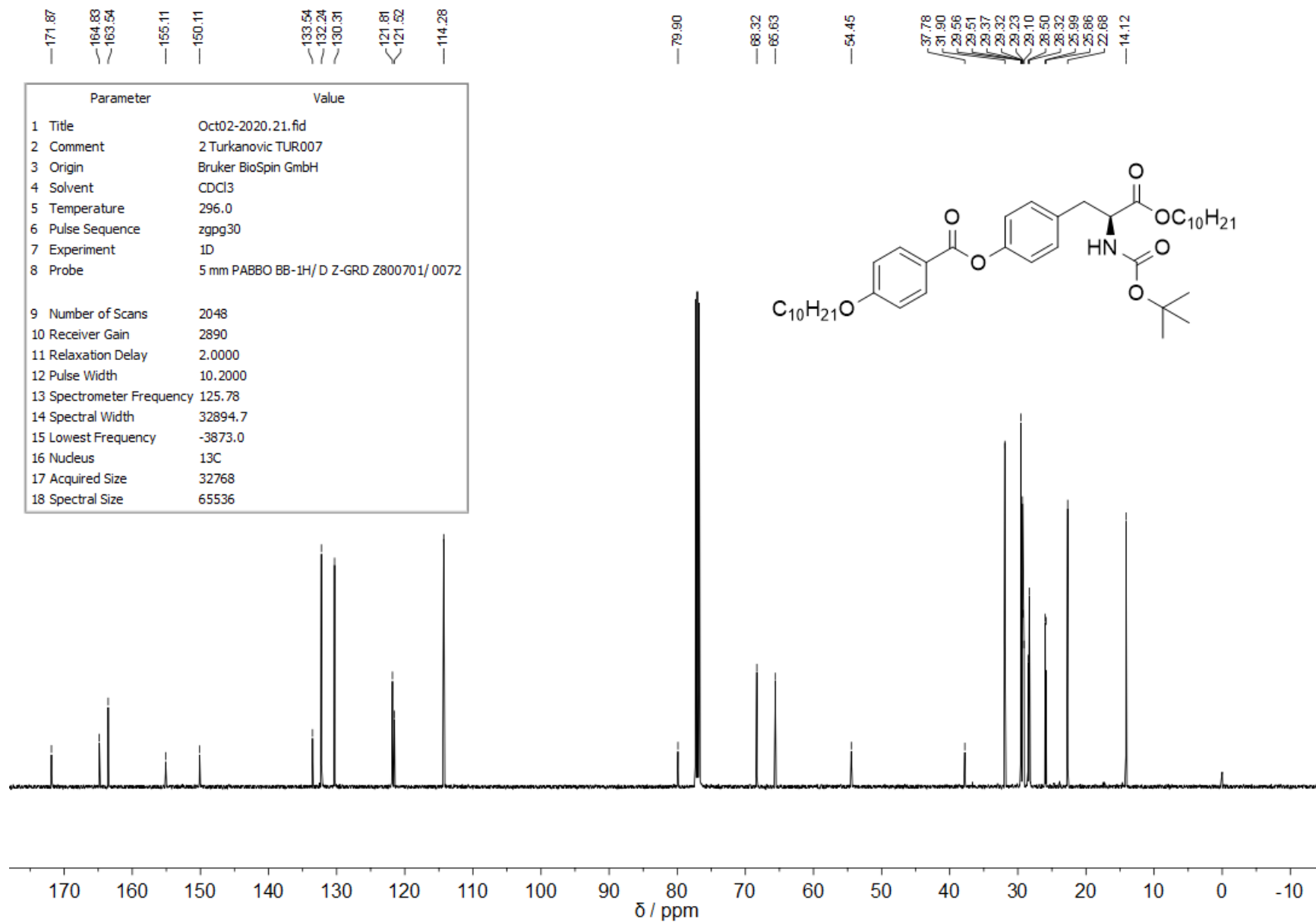


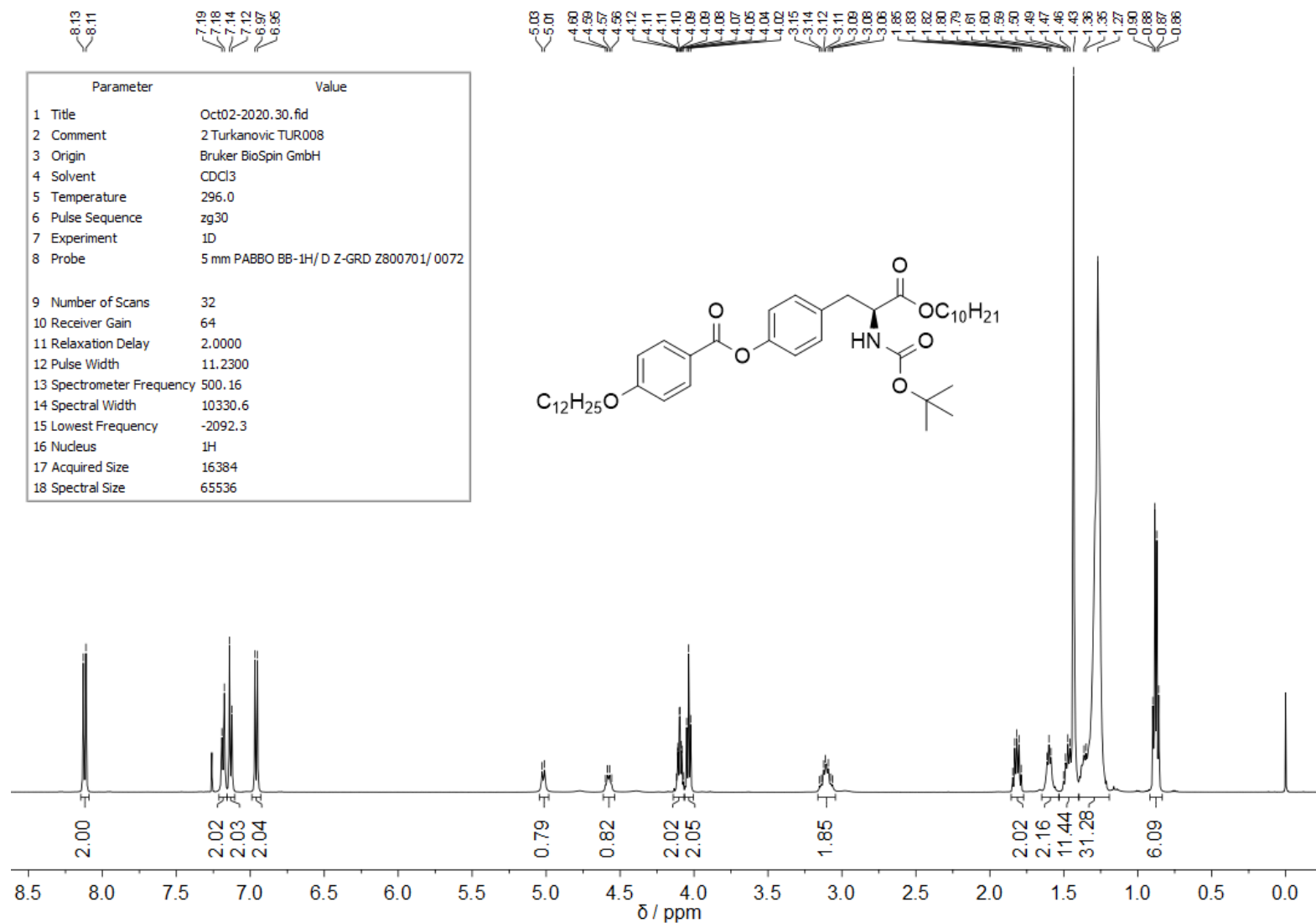
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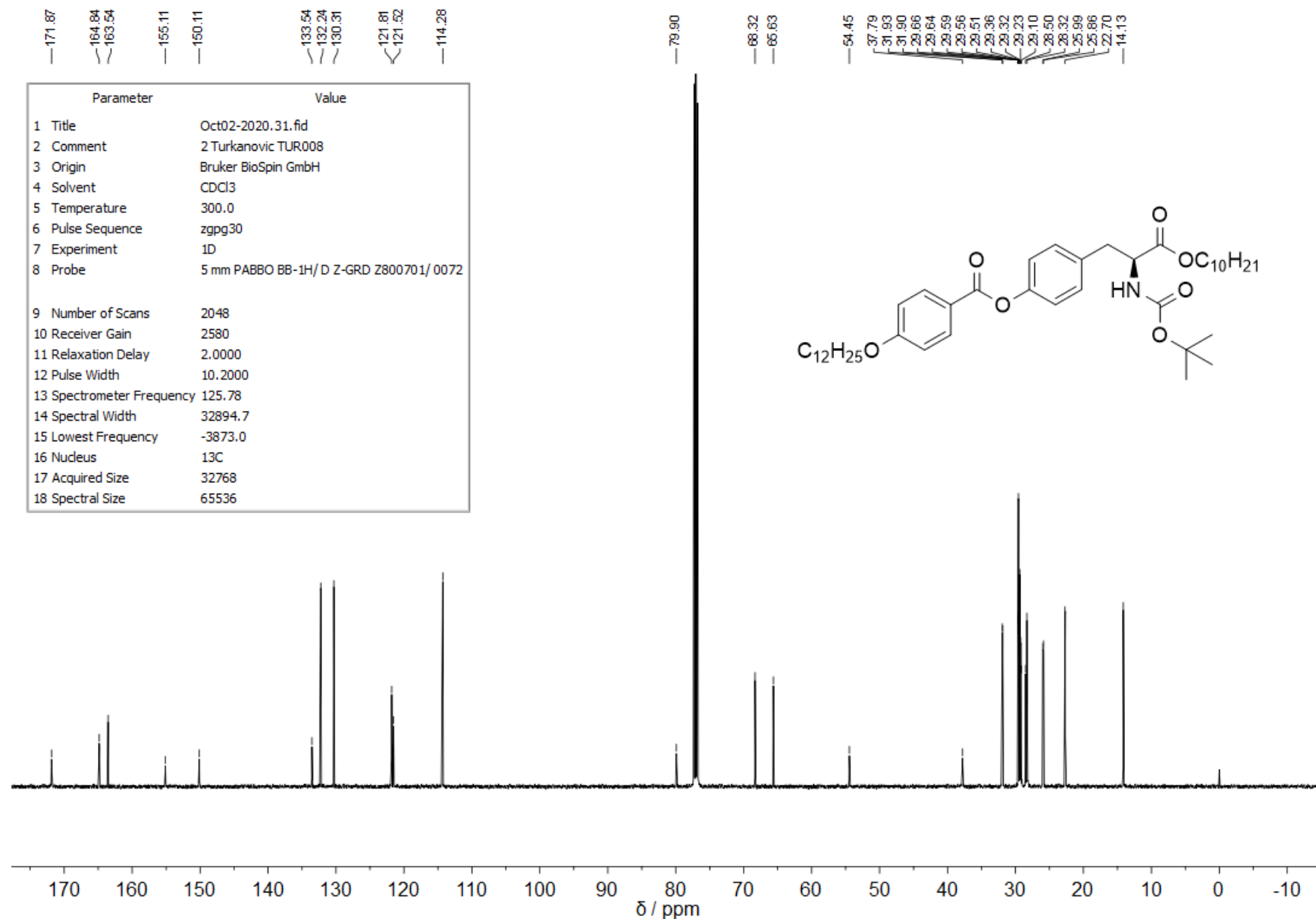


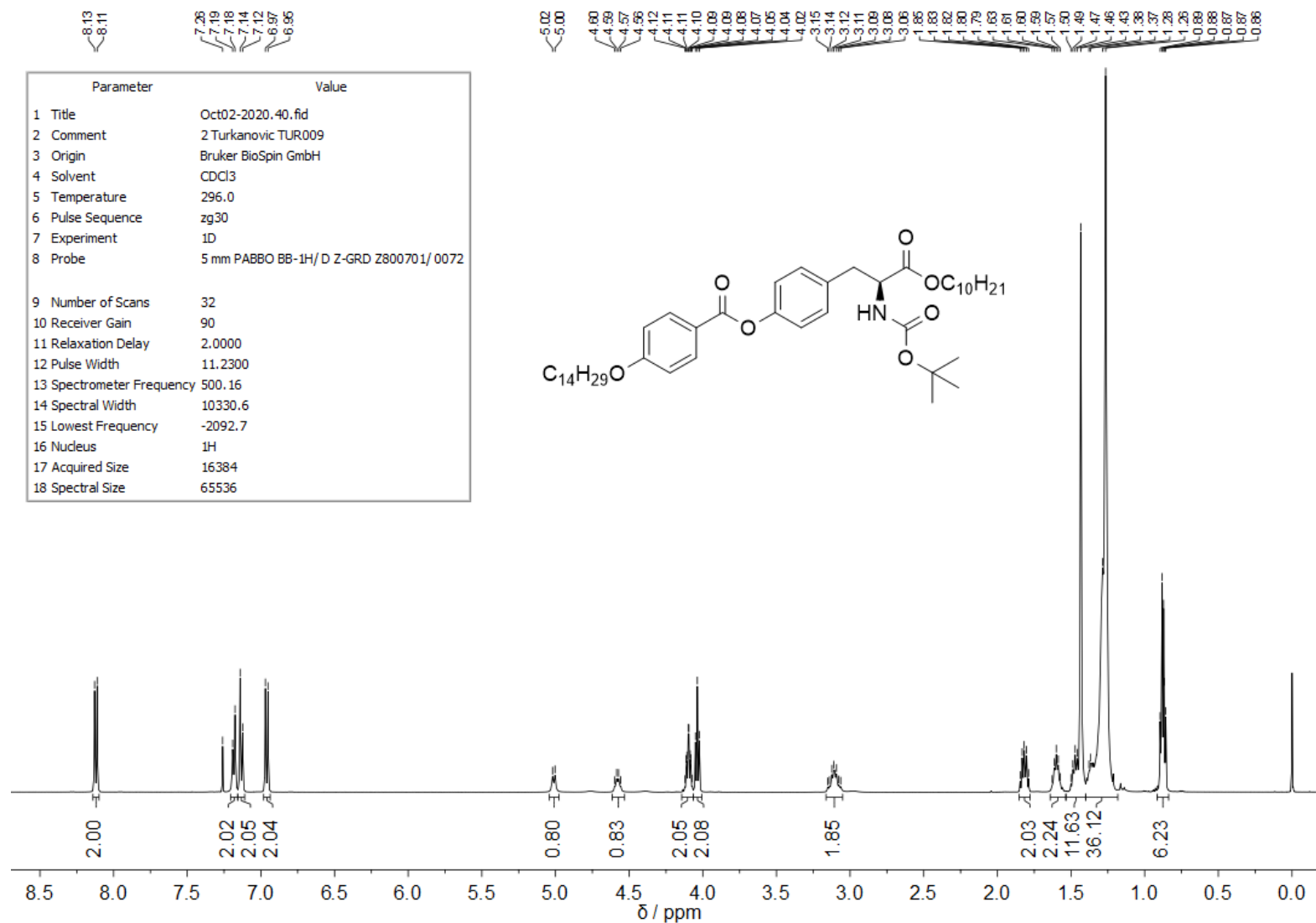


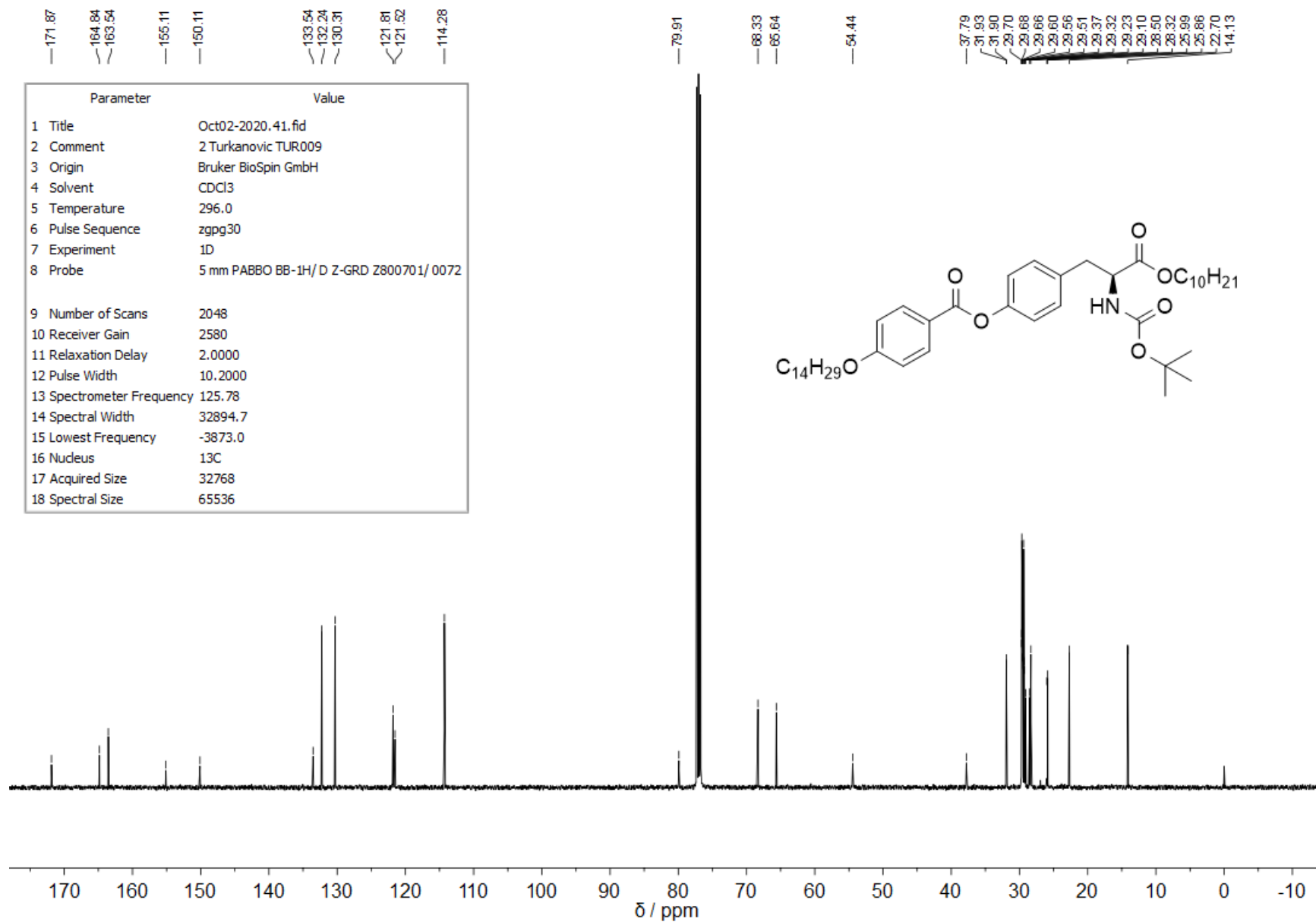
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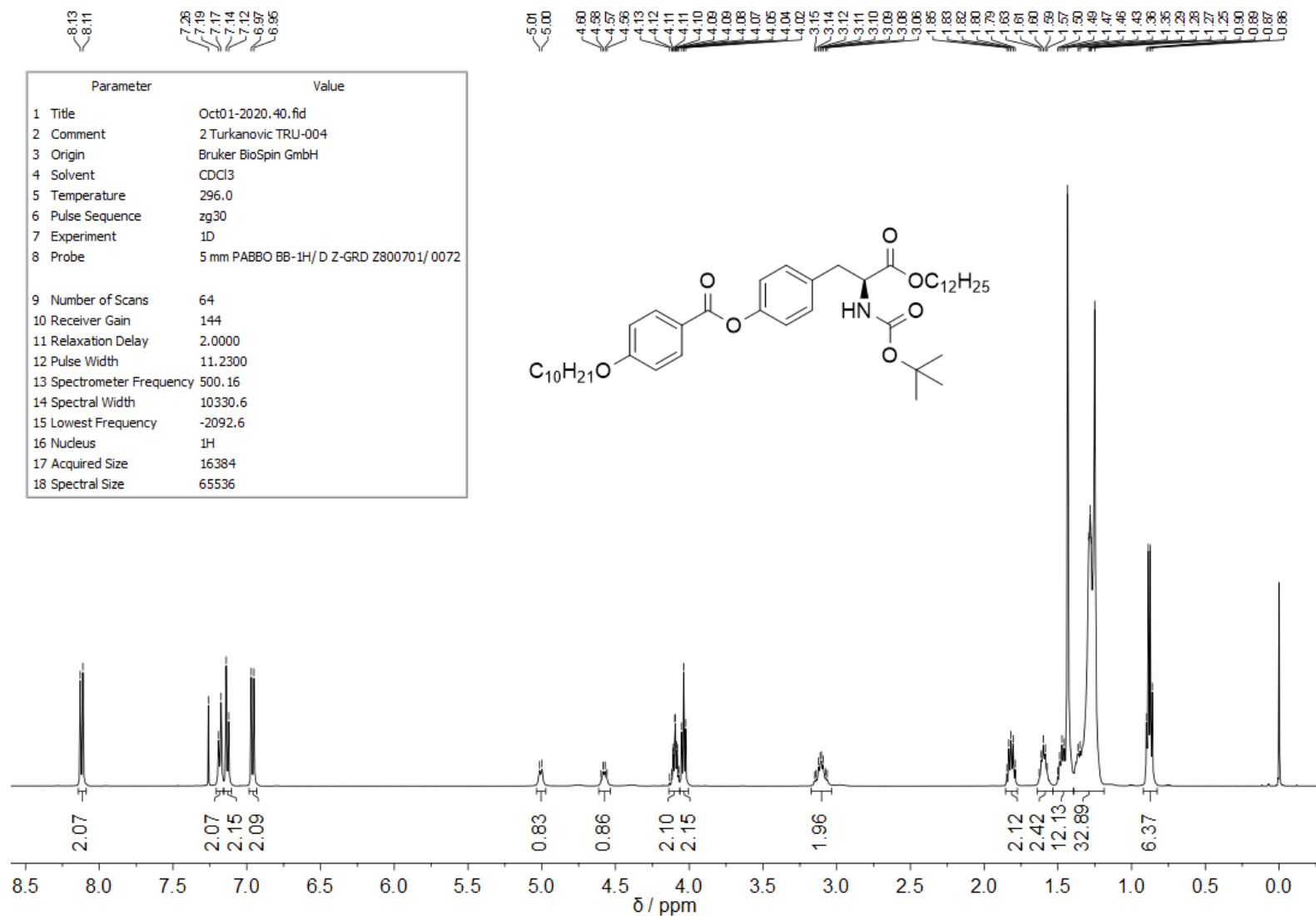


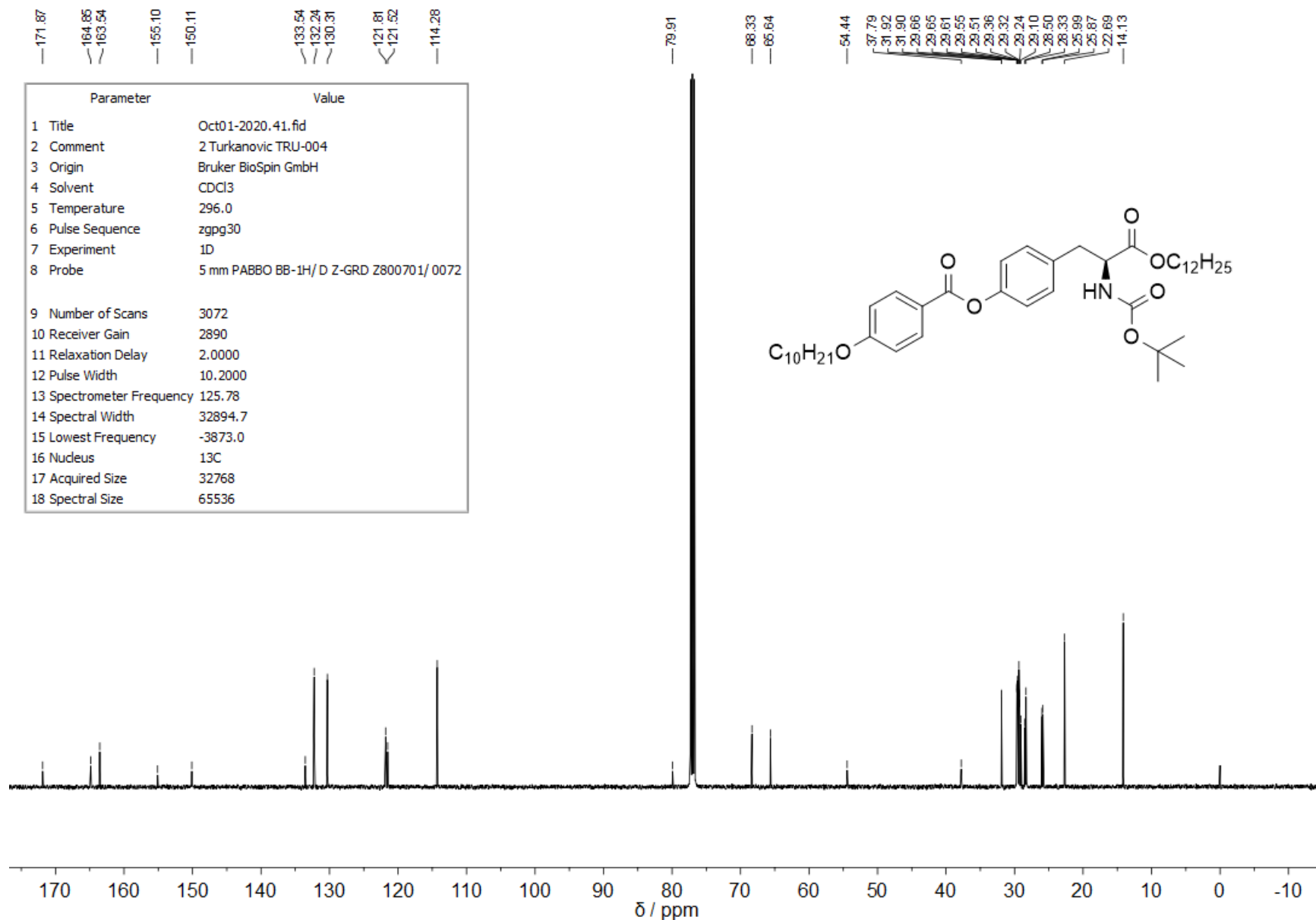
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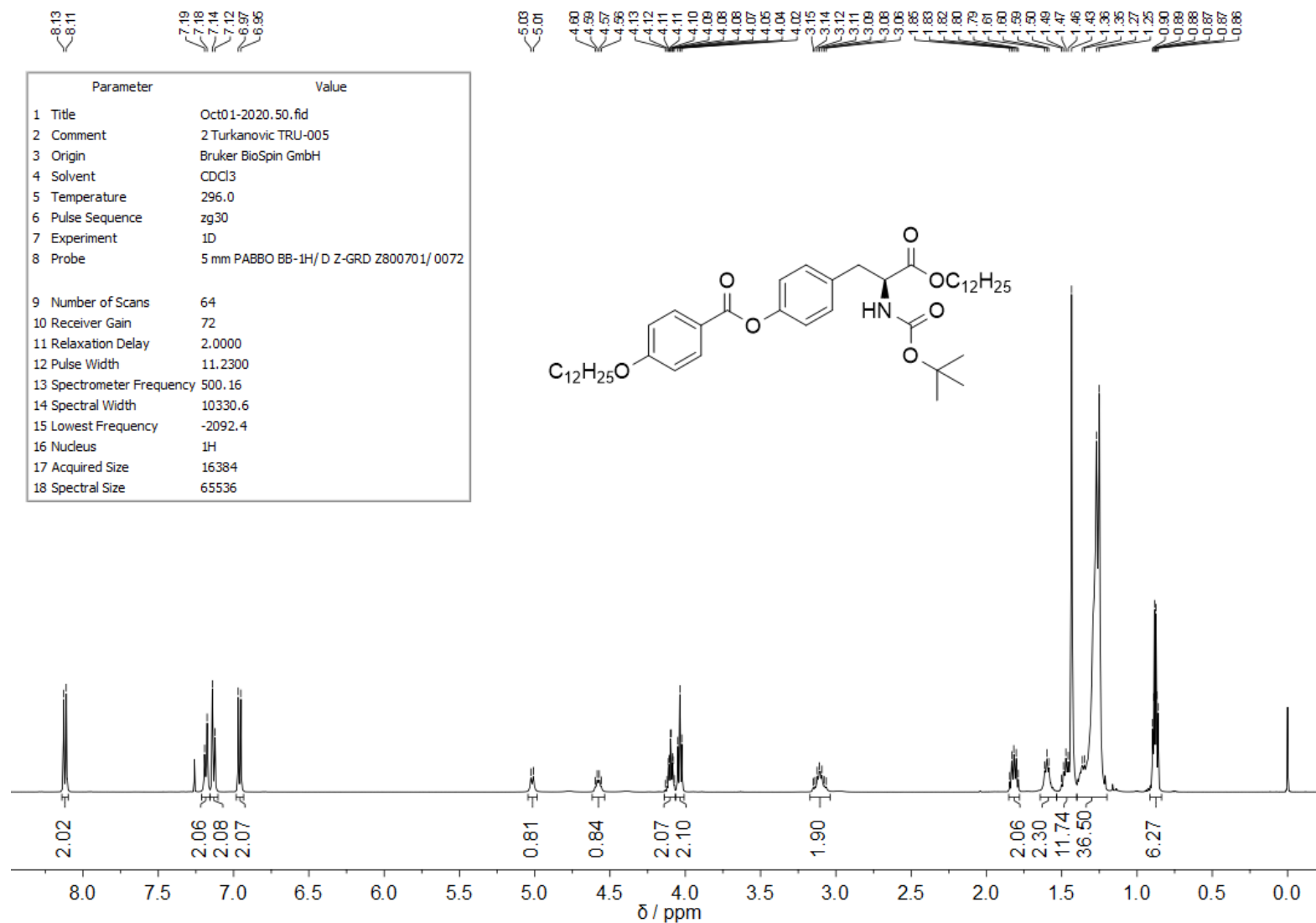


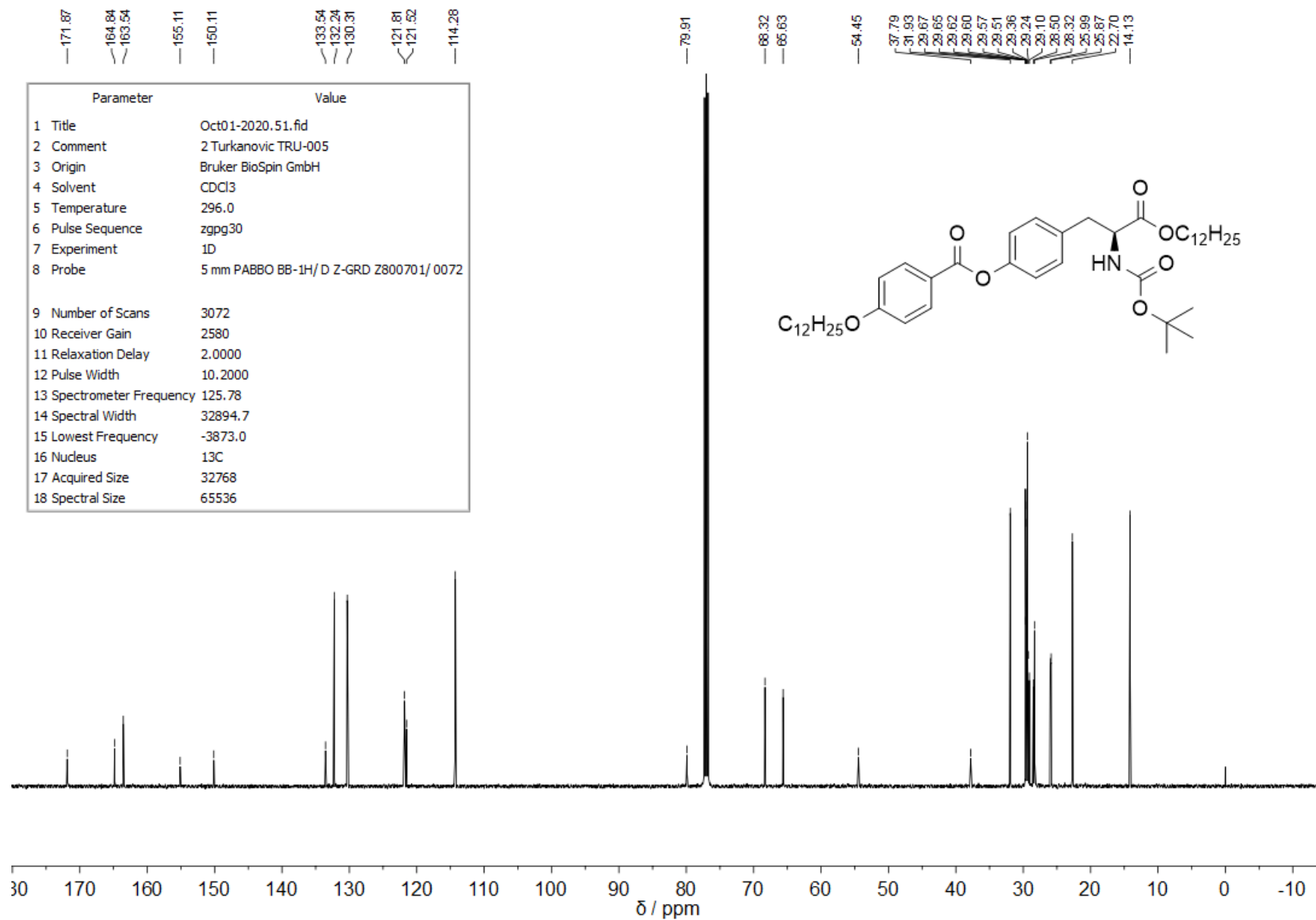
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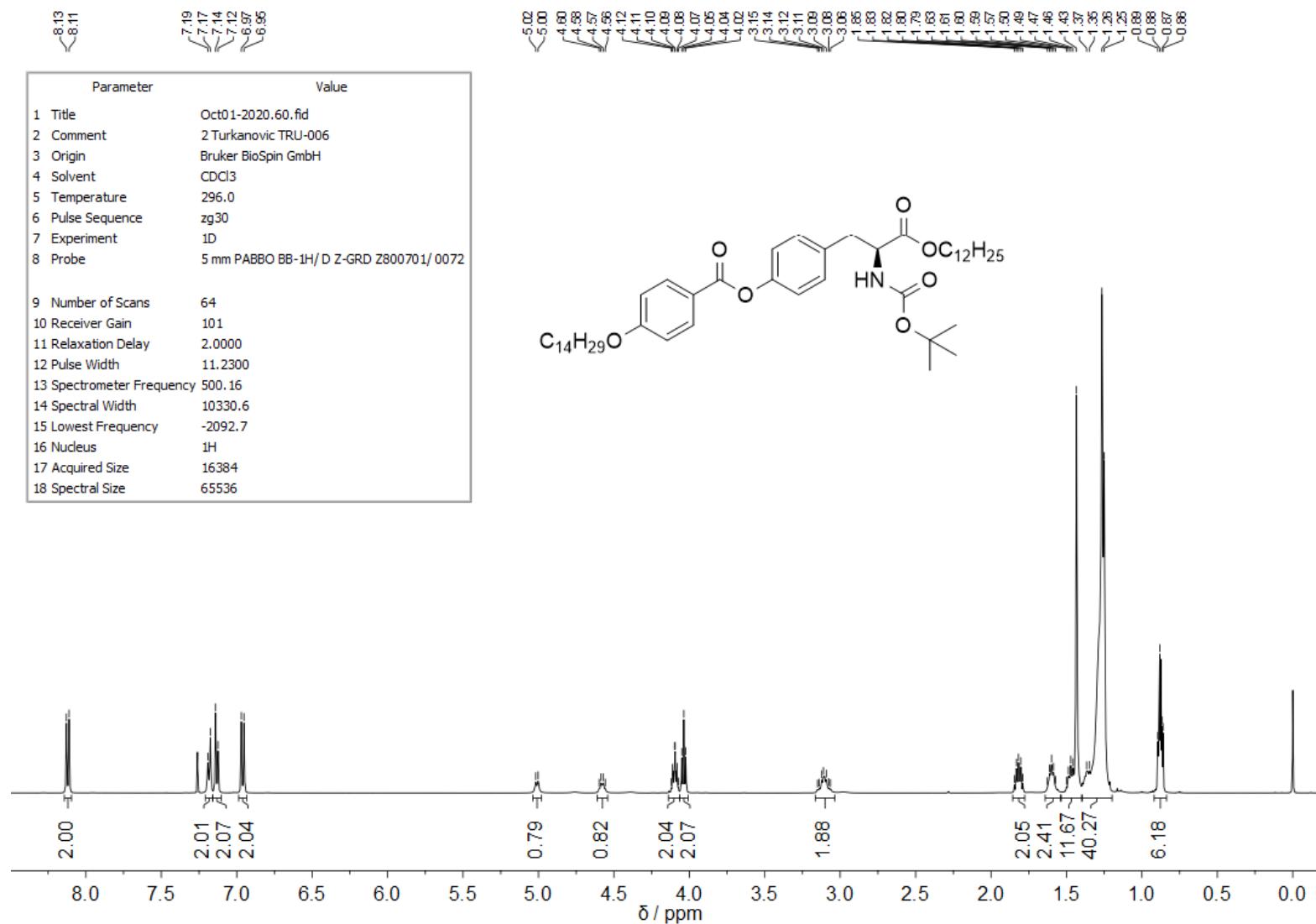


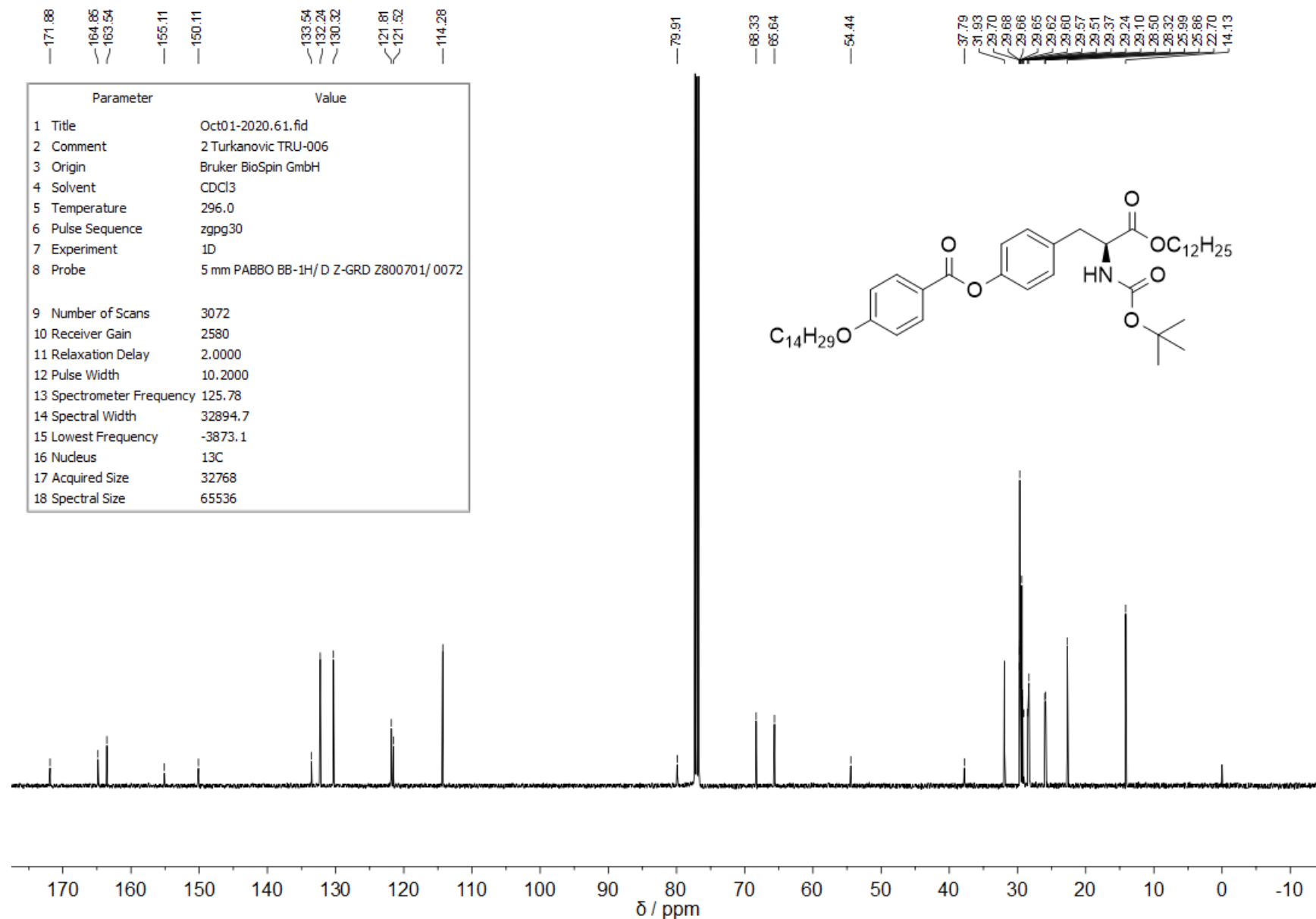
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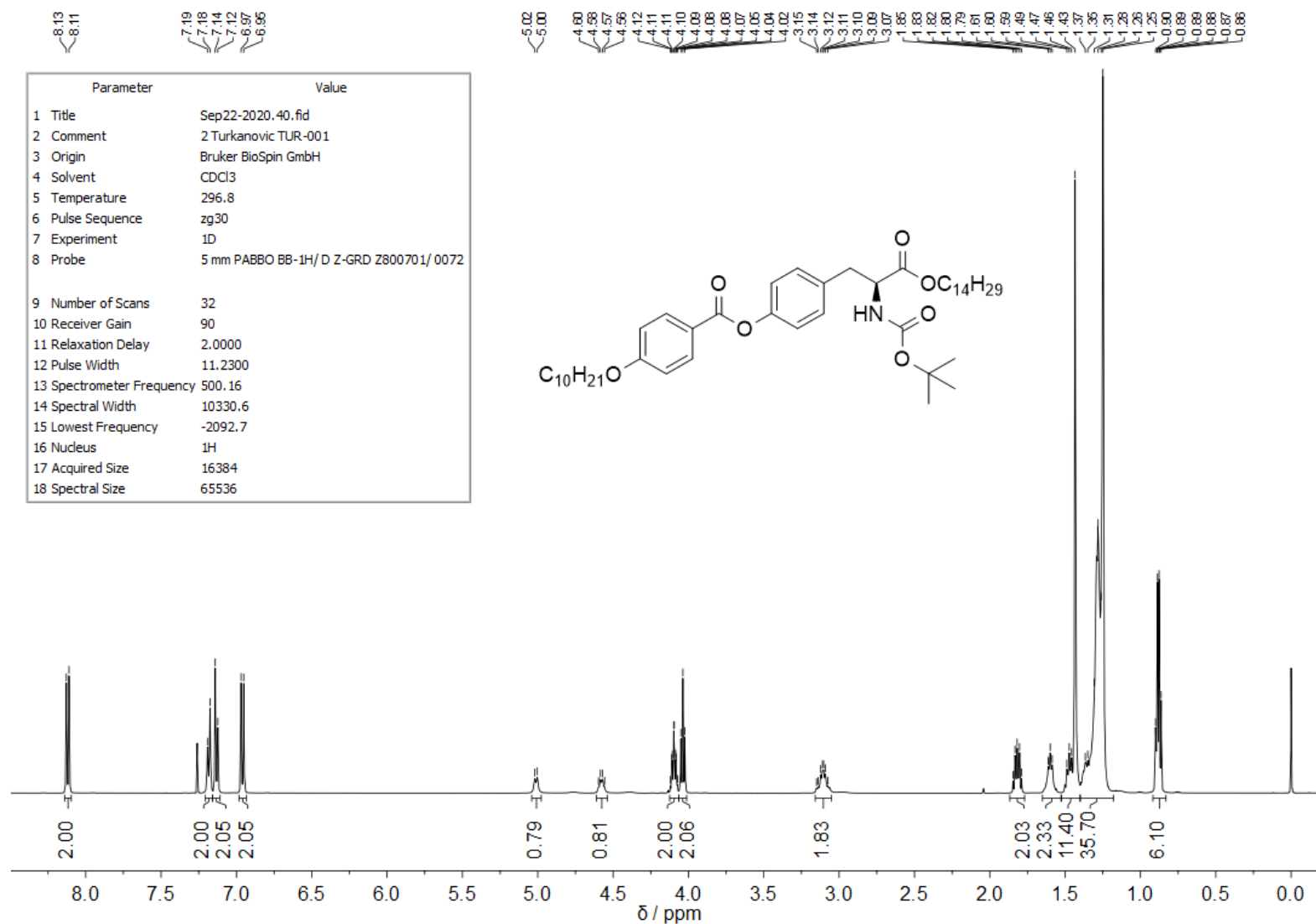


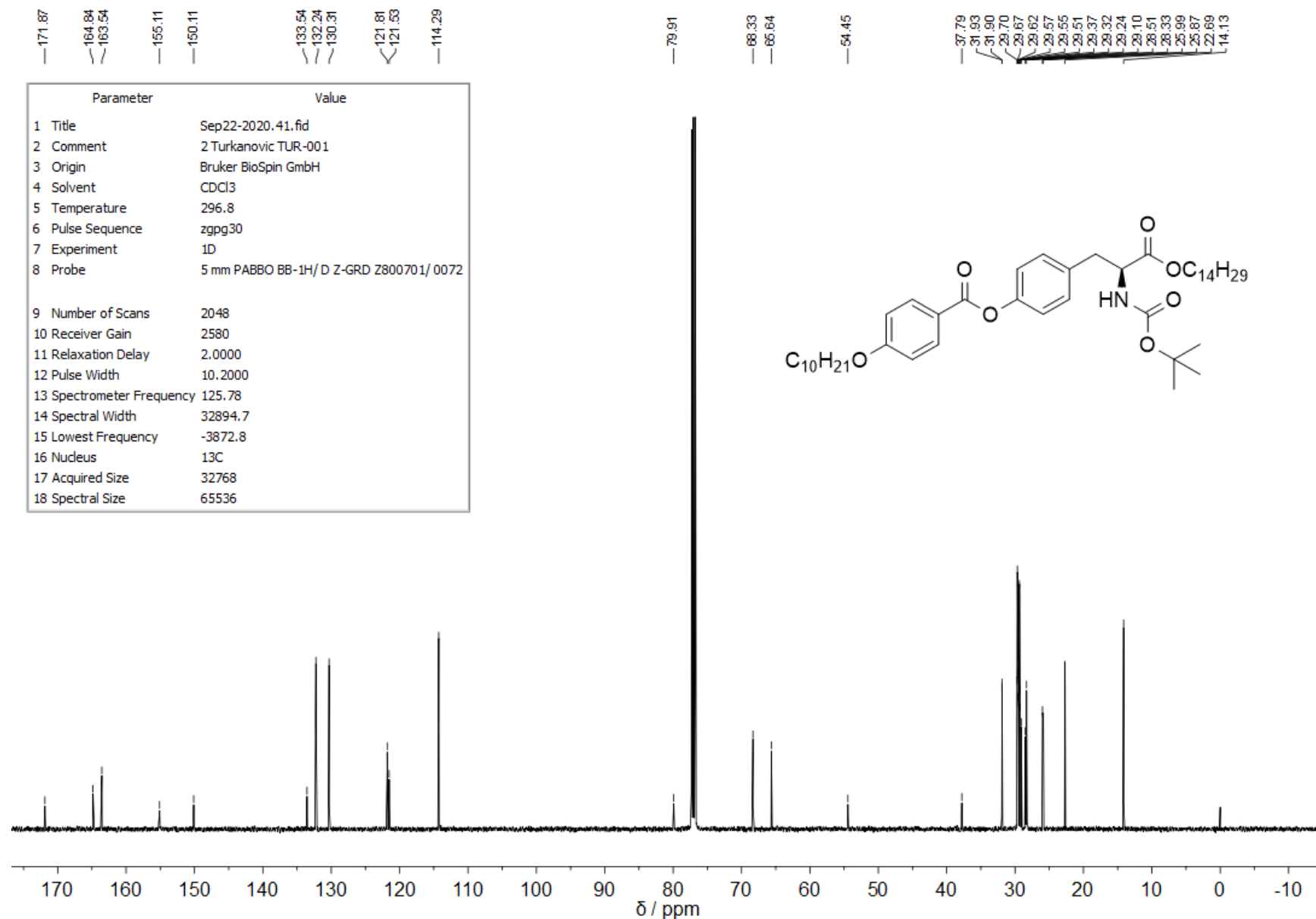
4-C₁₂TyrC₁₂Boc

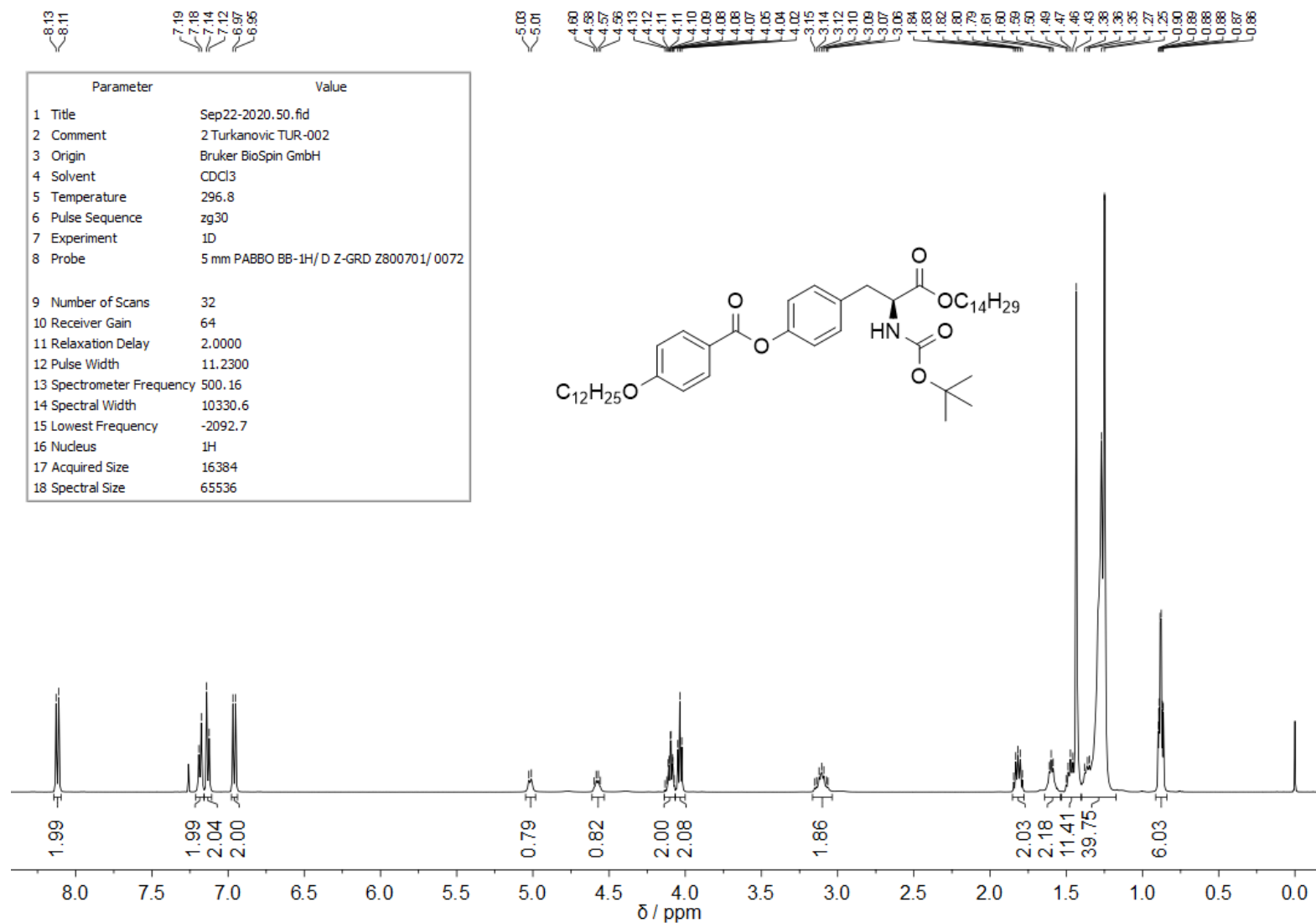


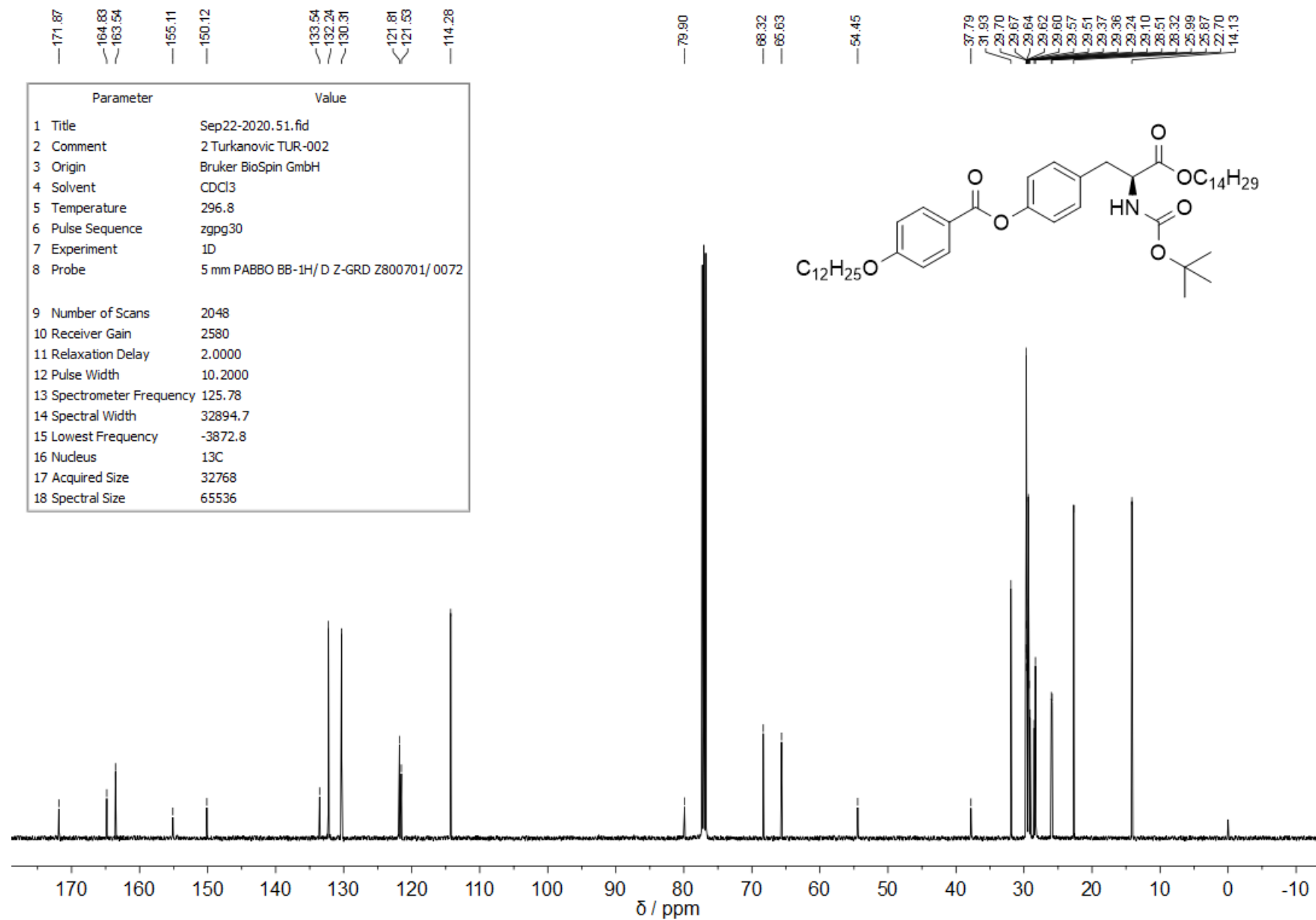
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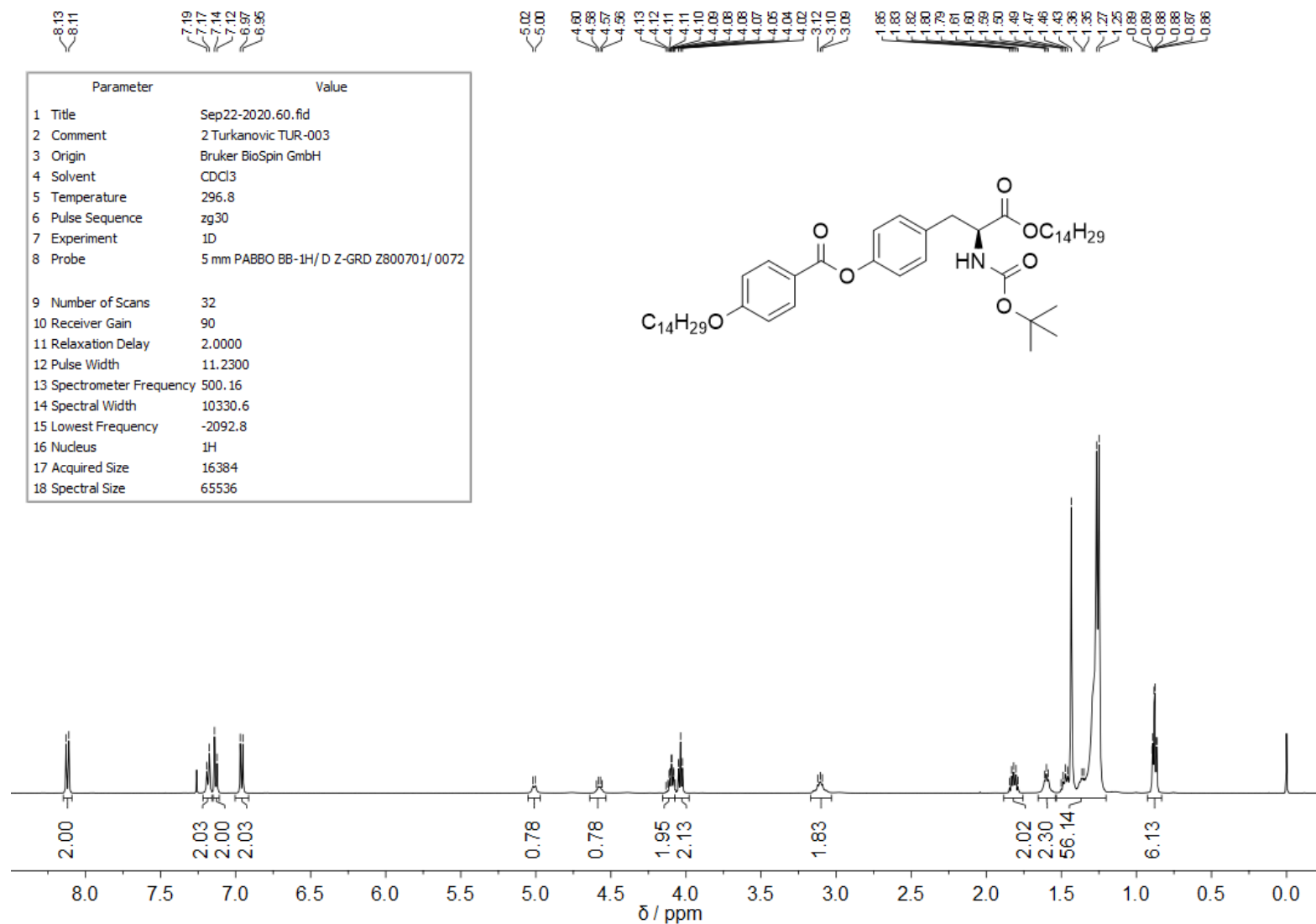


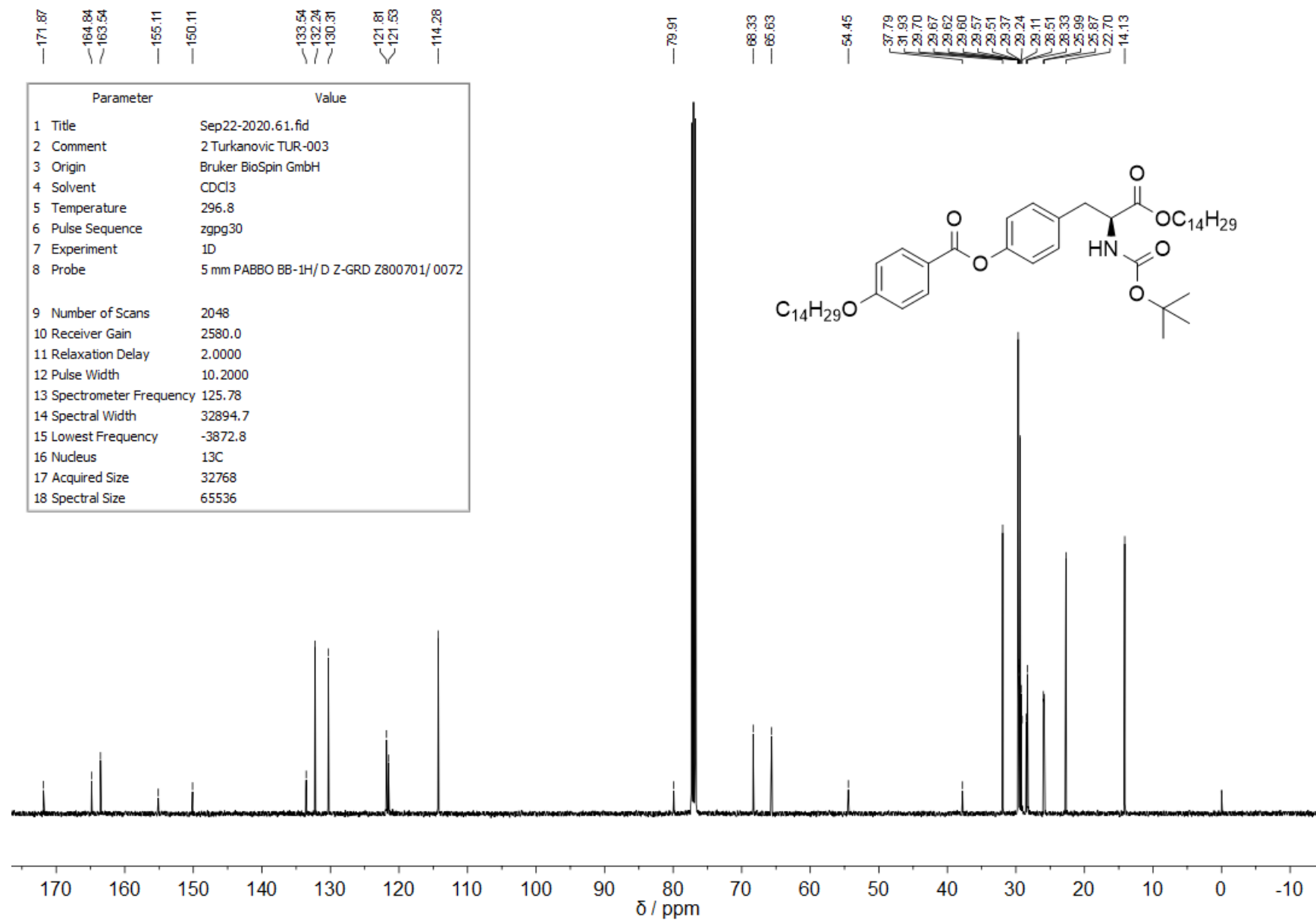
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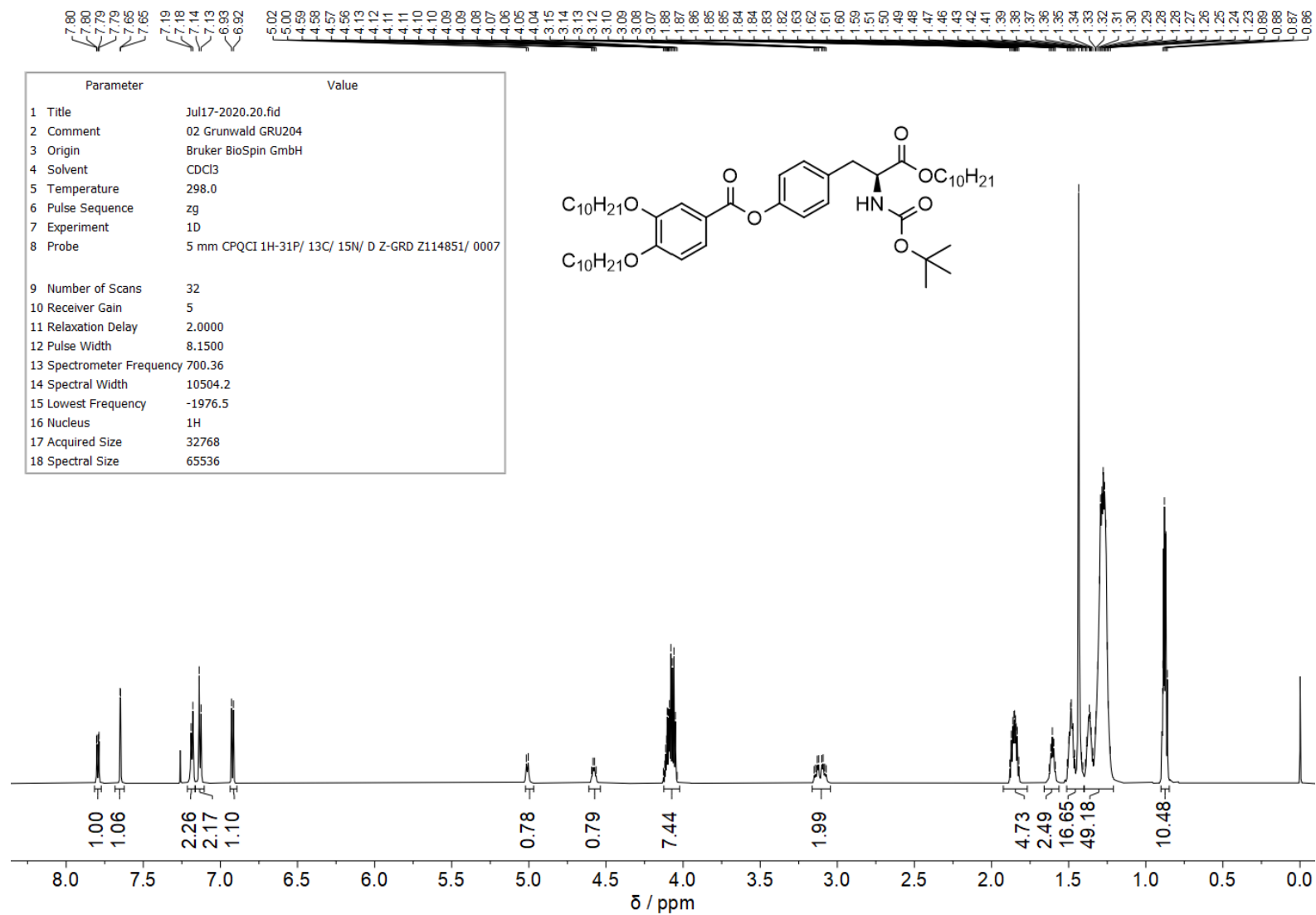


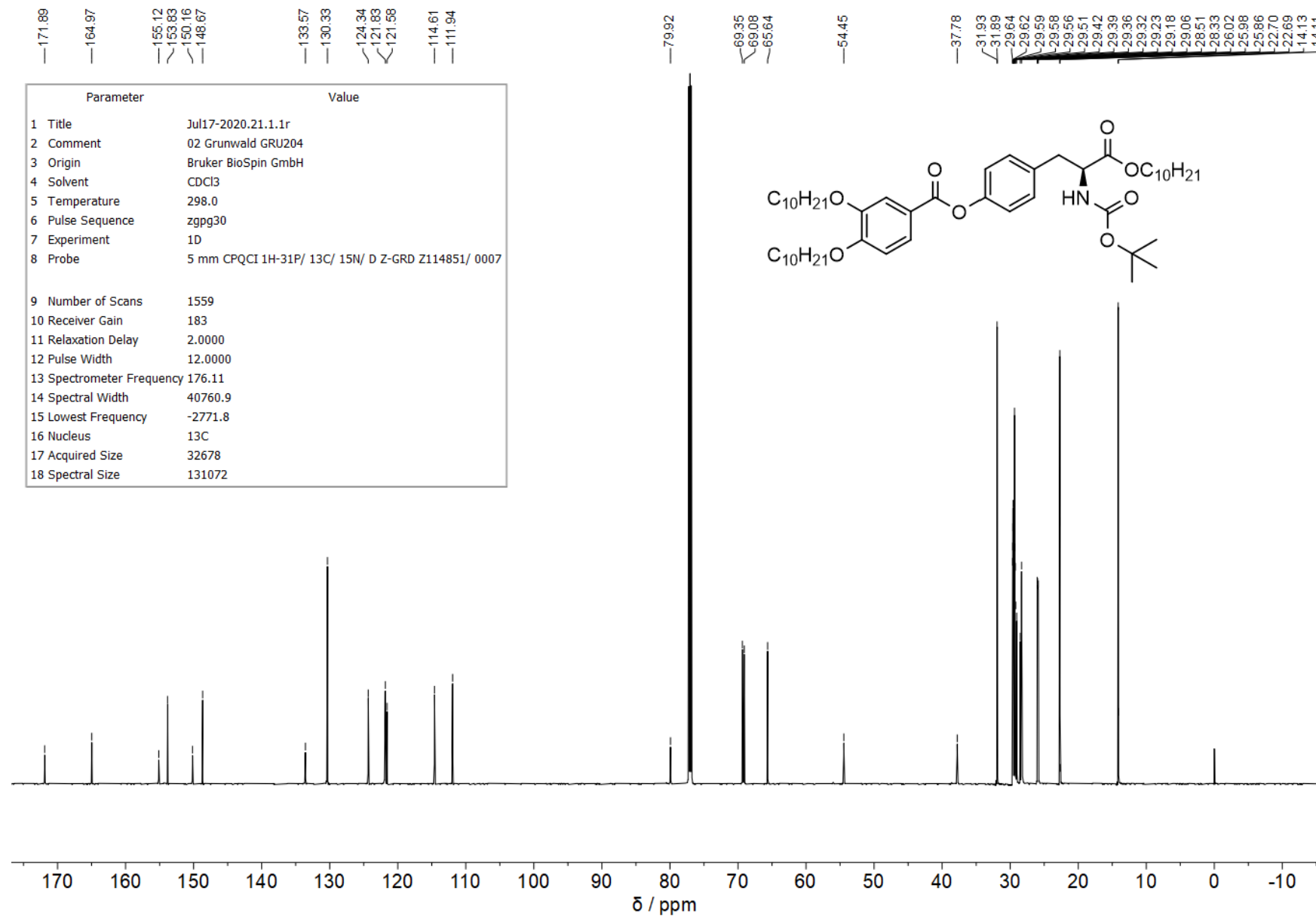
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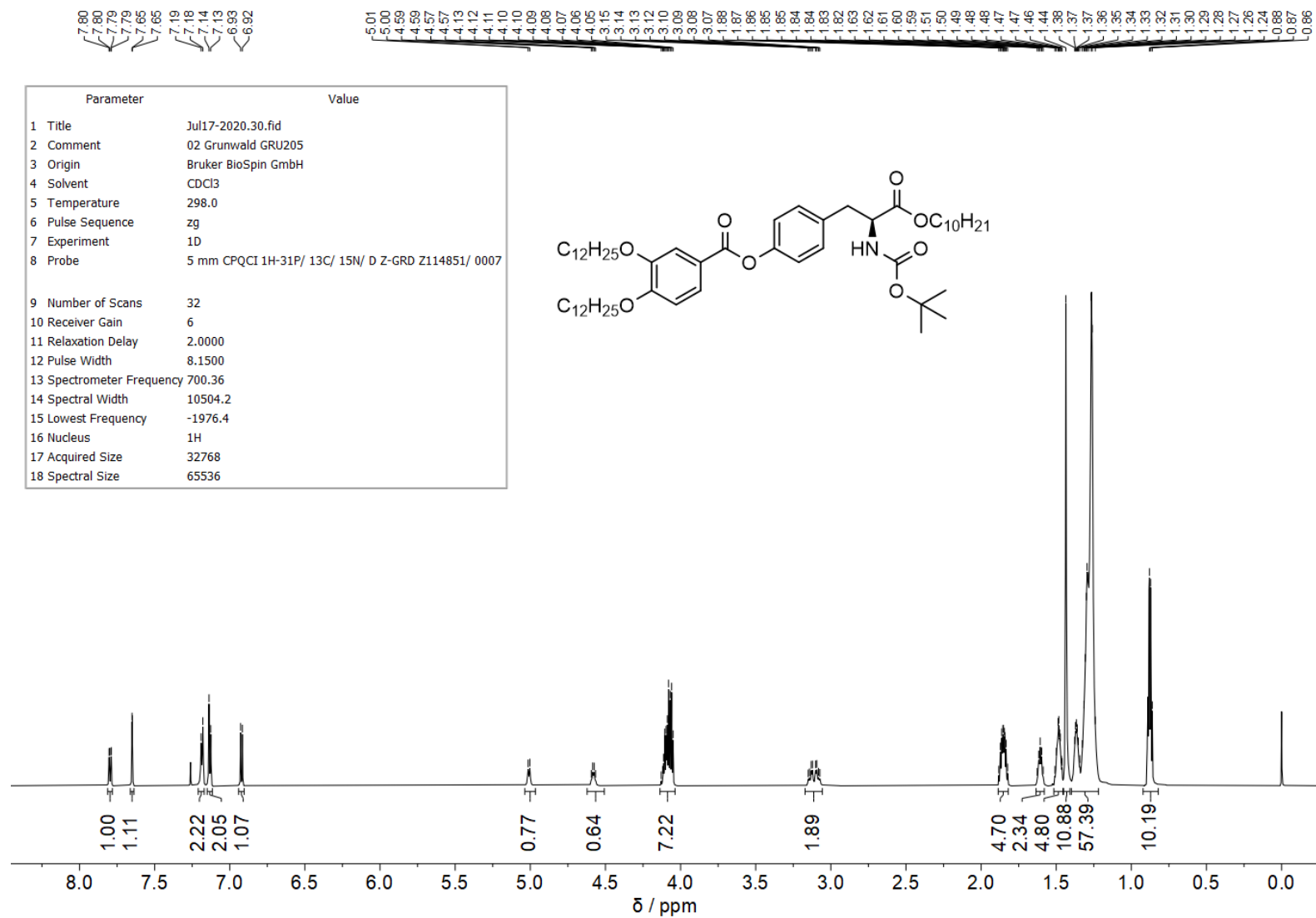


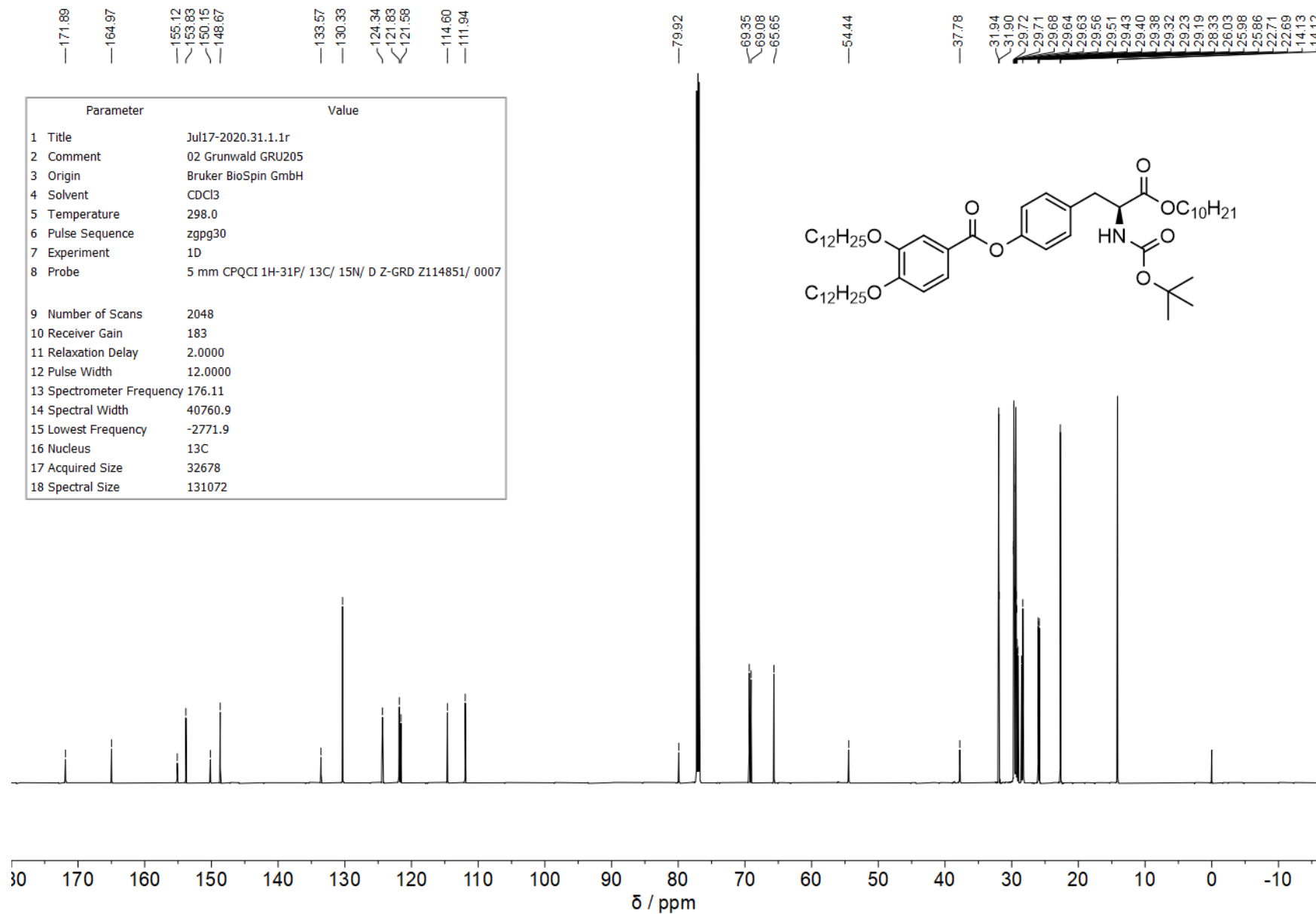
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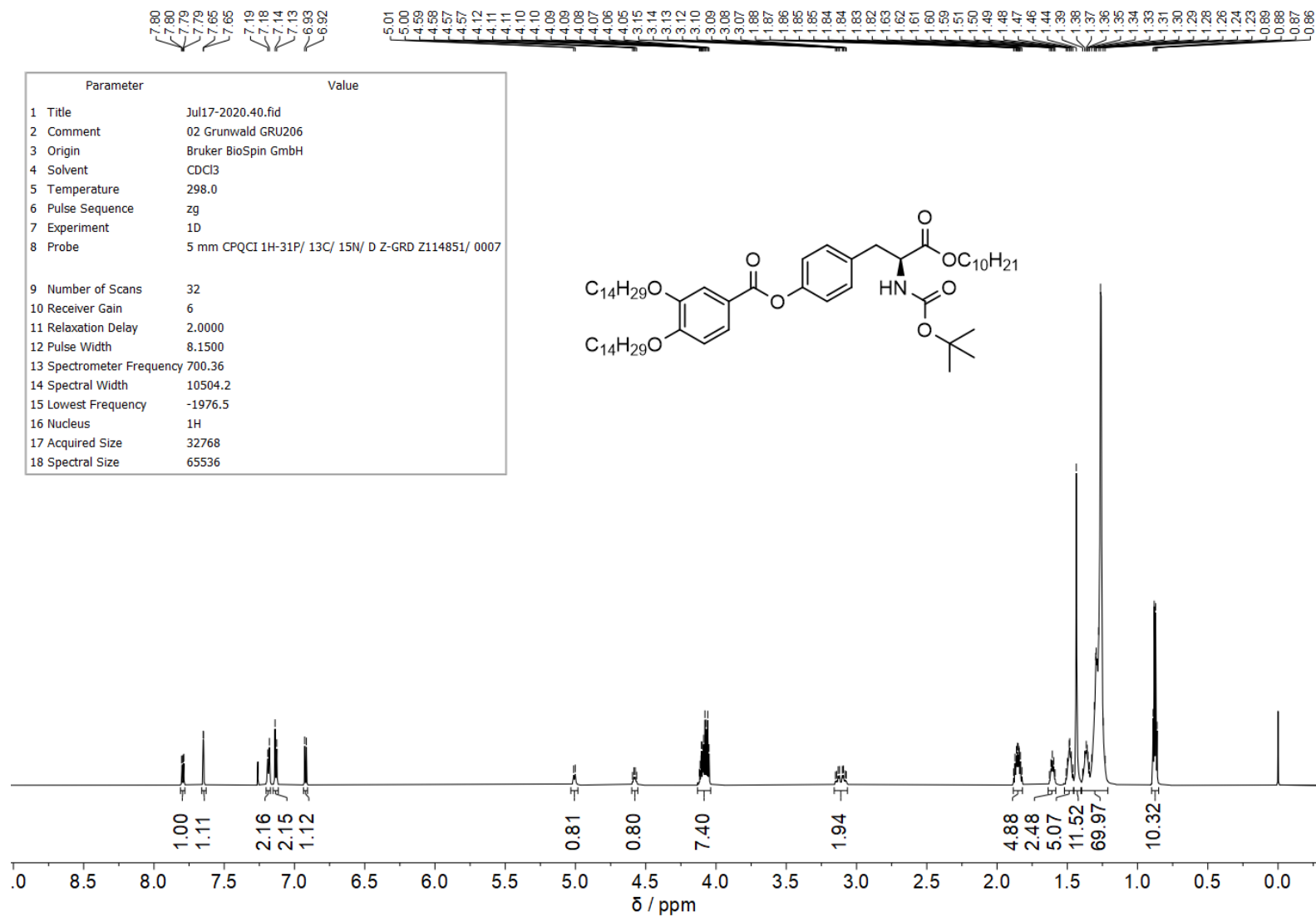


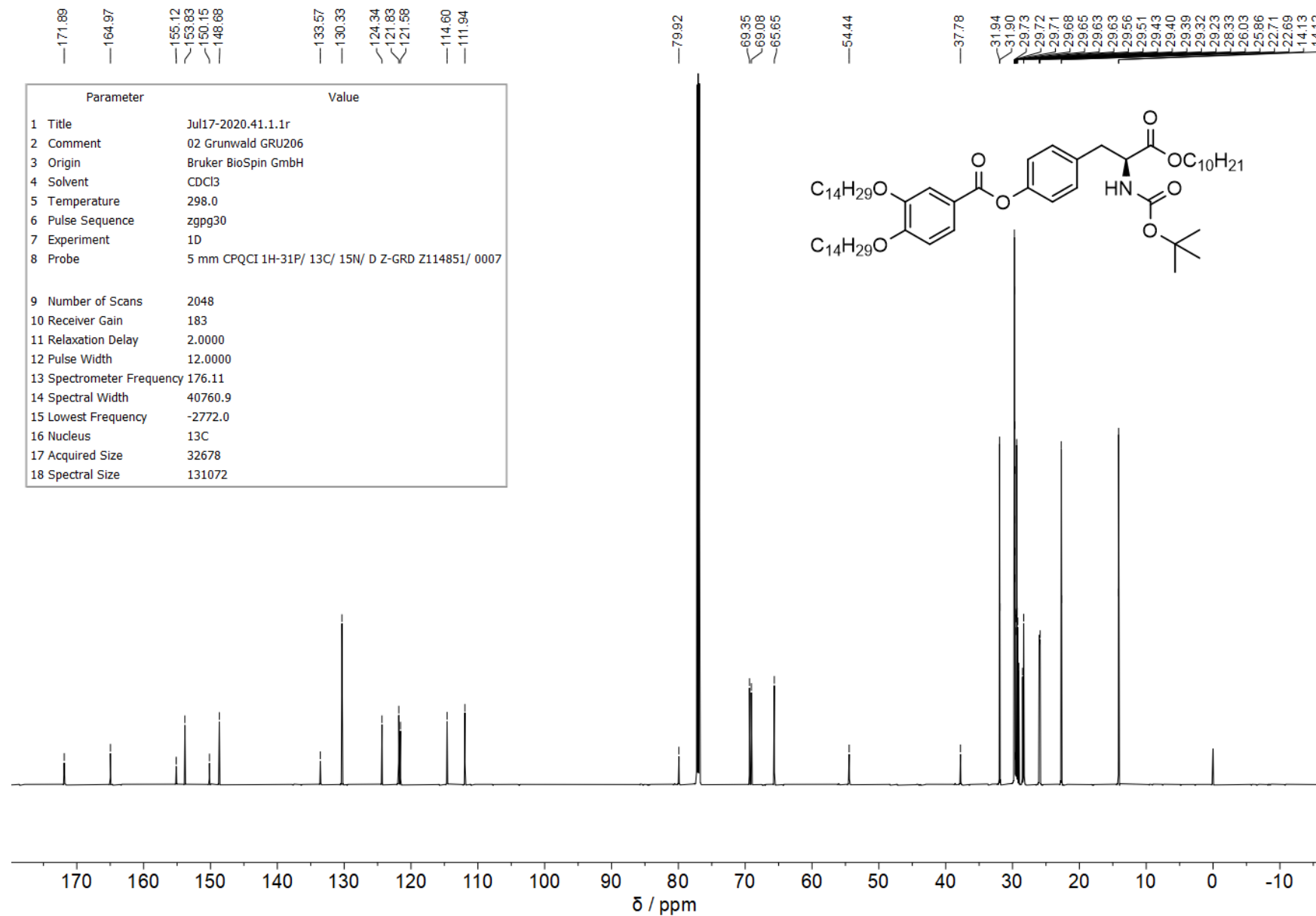
3,4-C₁₀TyrC₁₀Boc

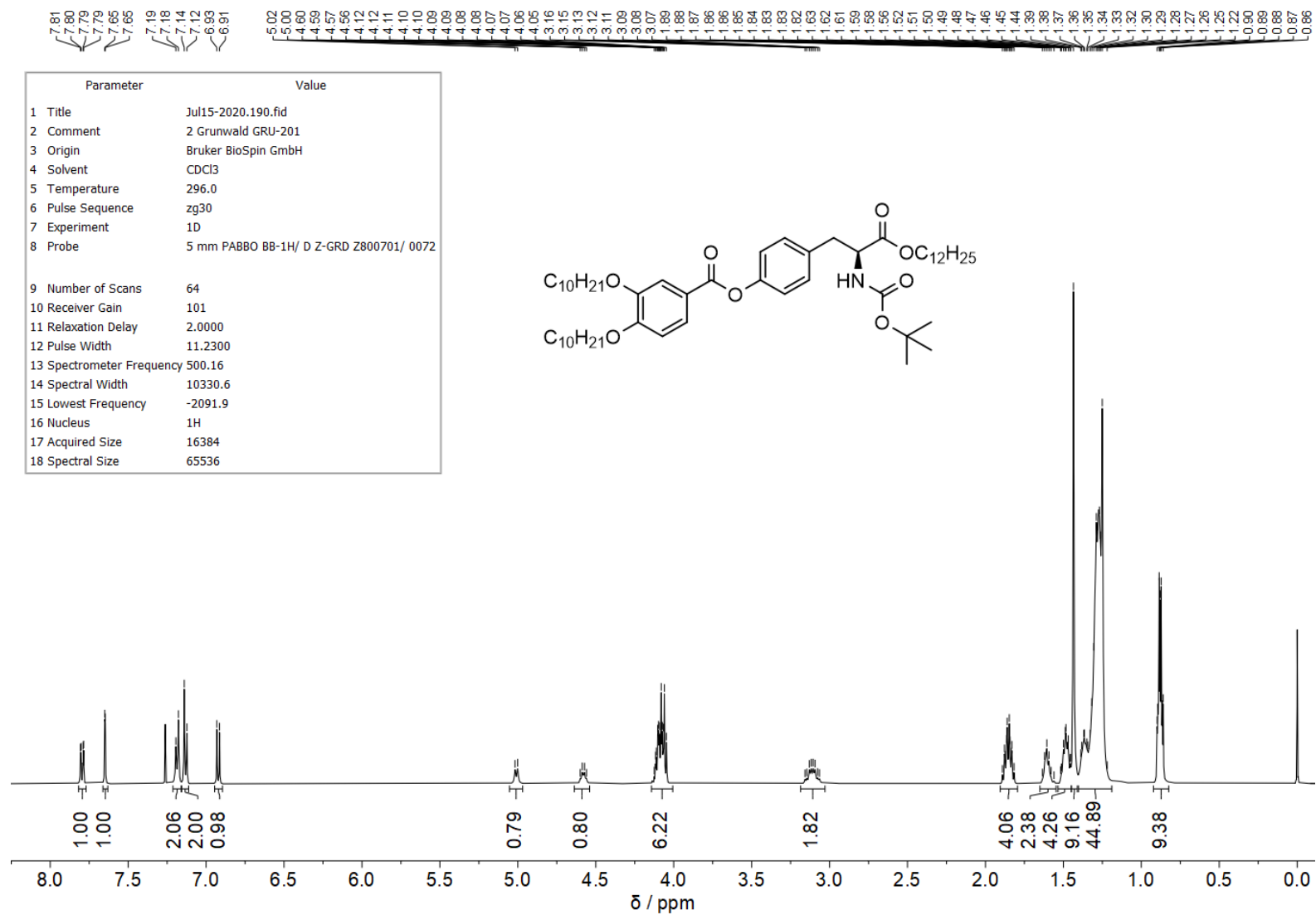


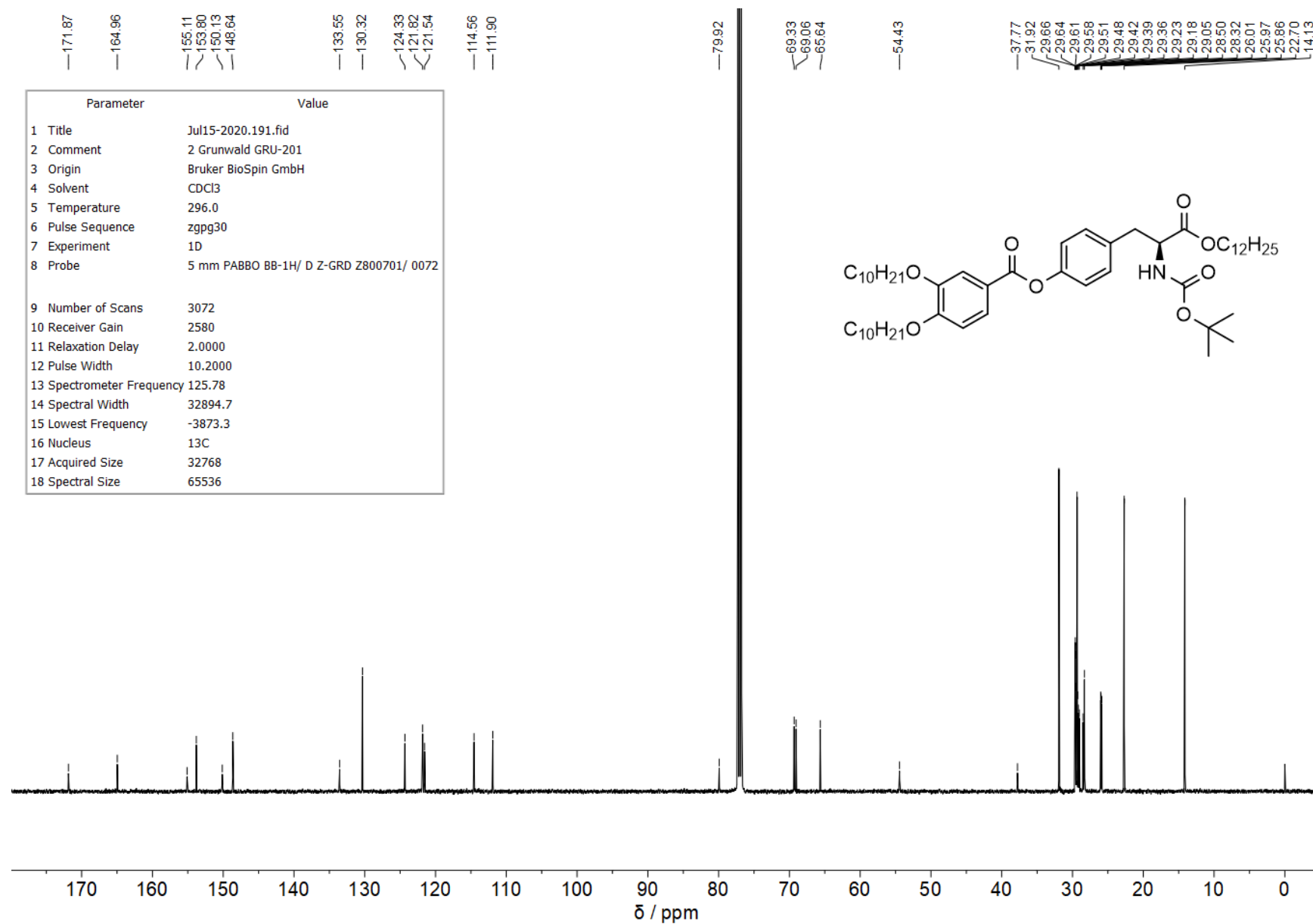
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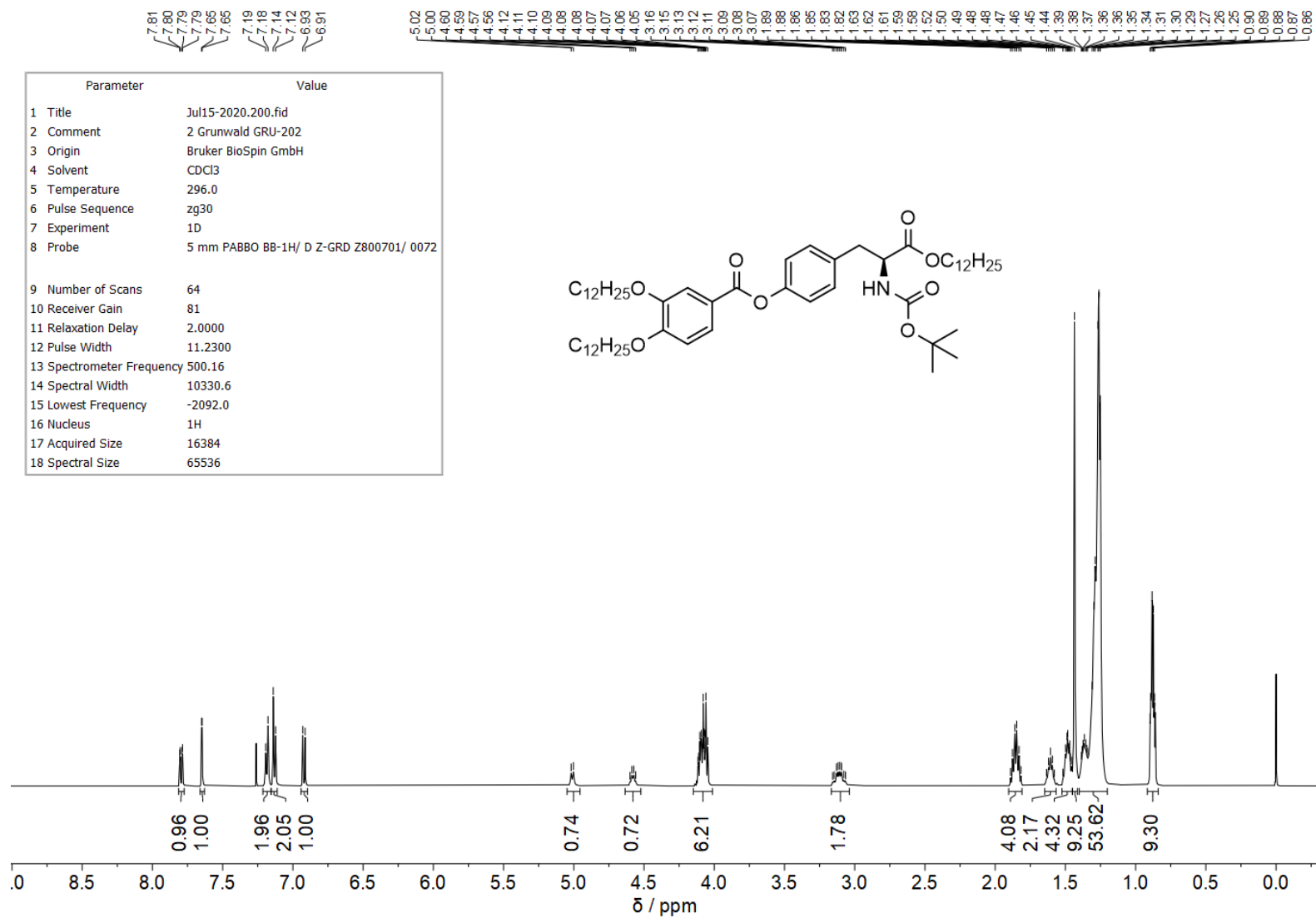


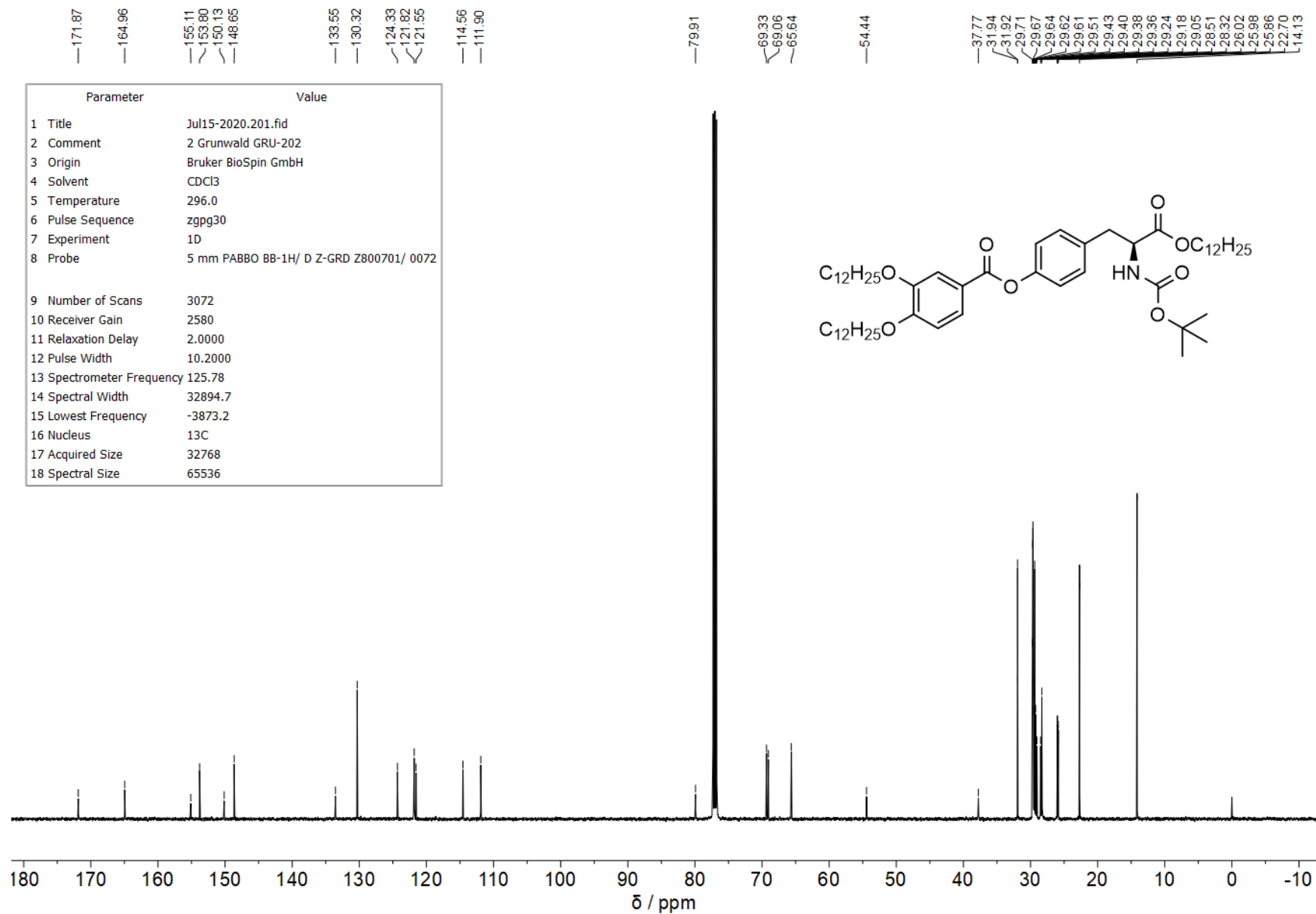
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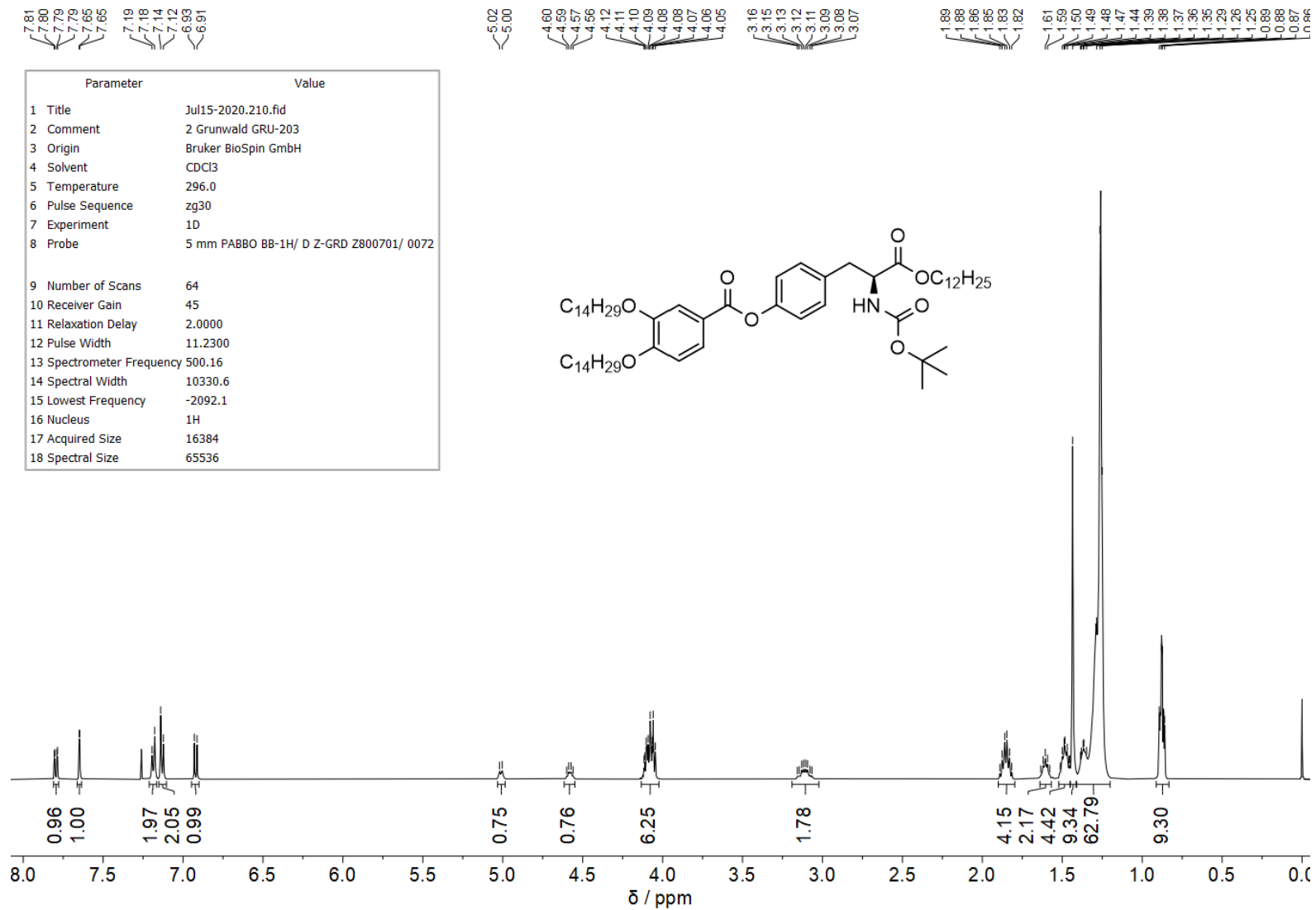


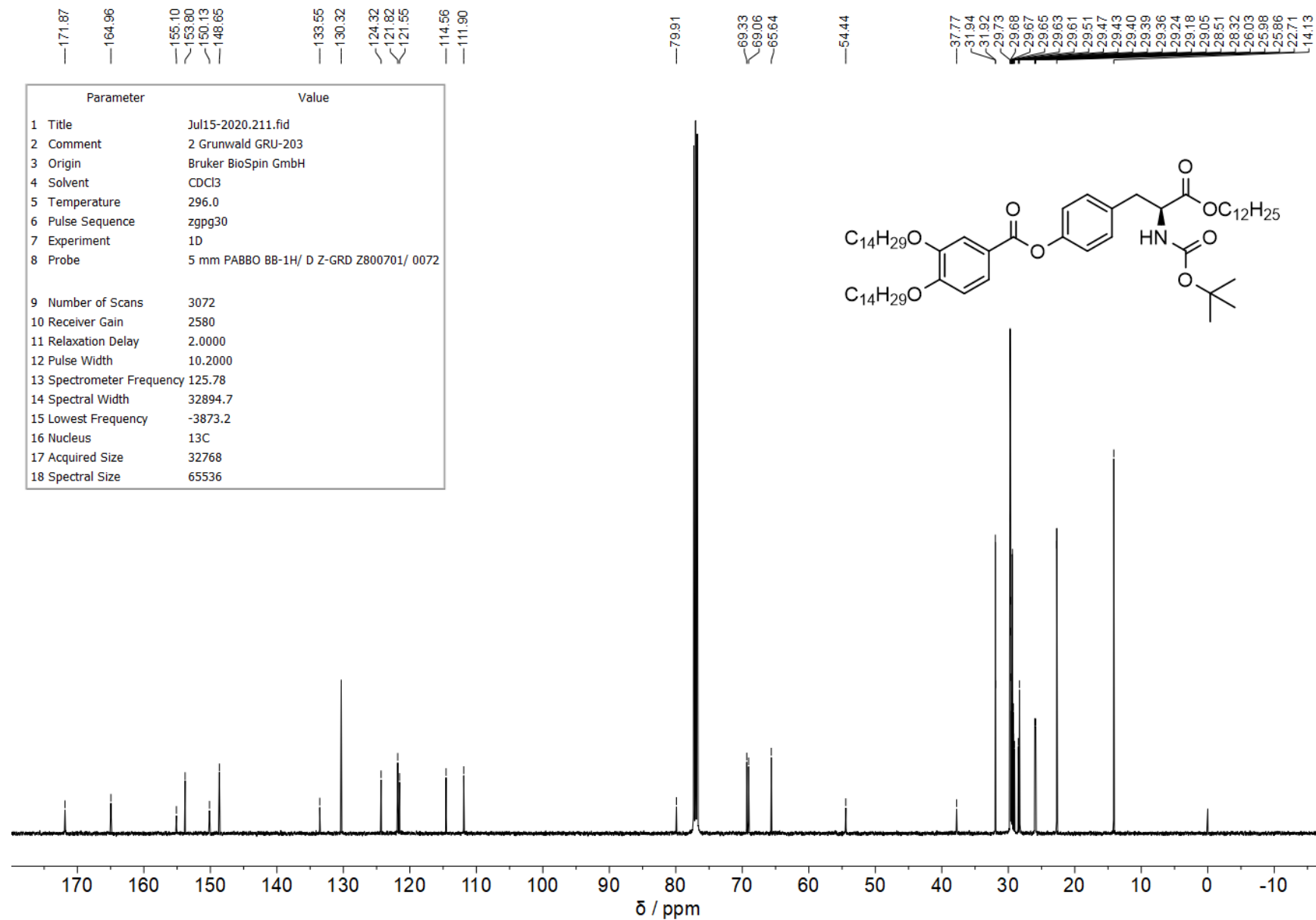
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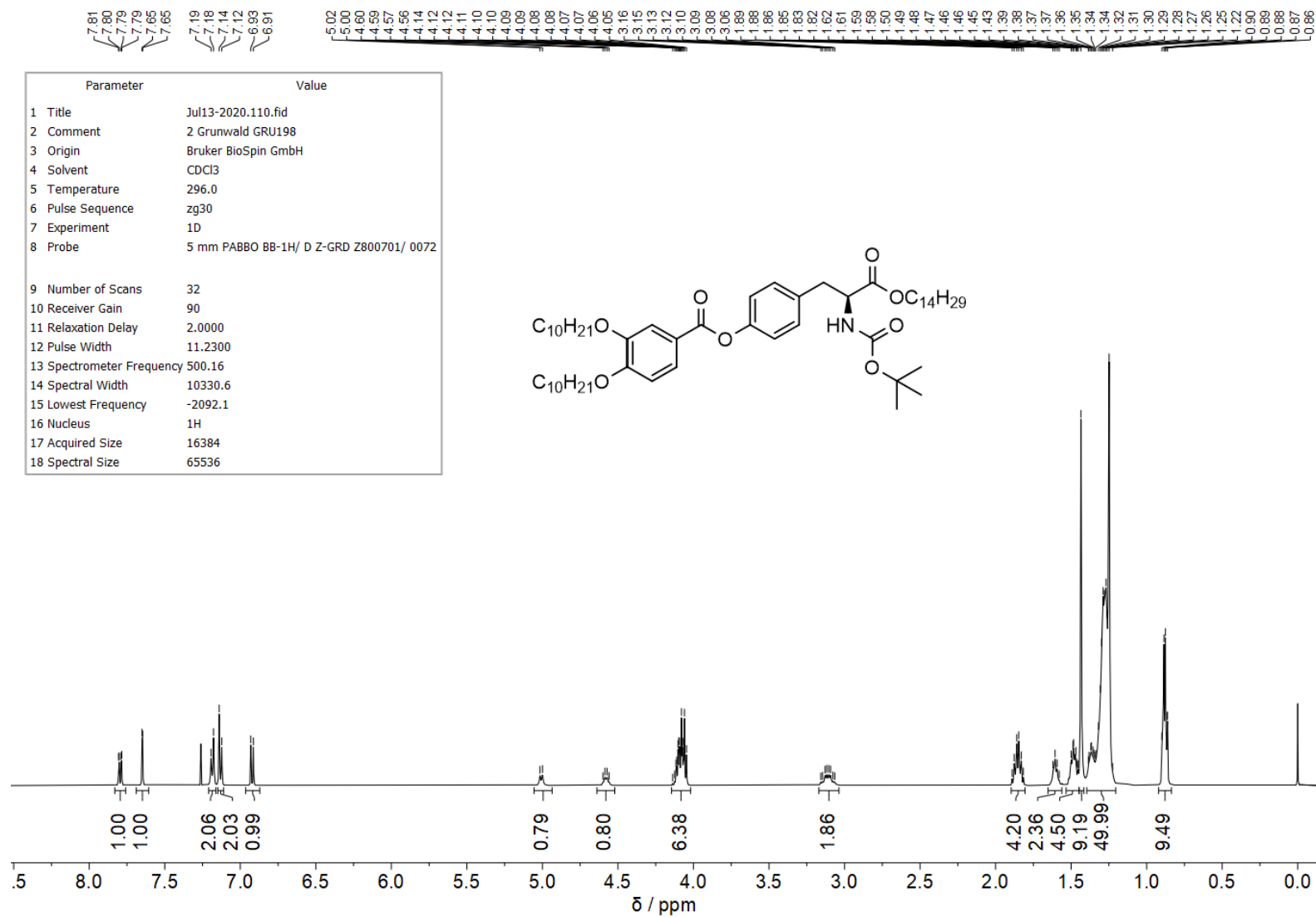


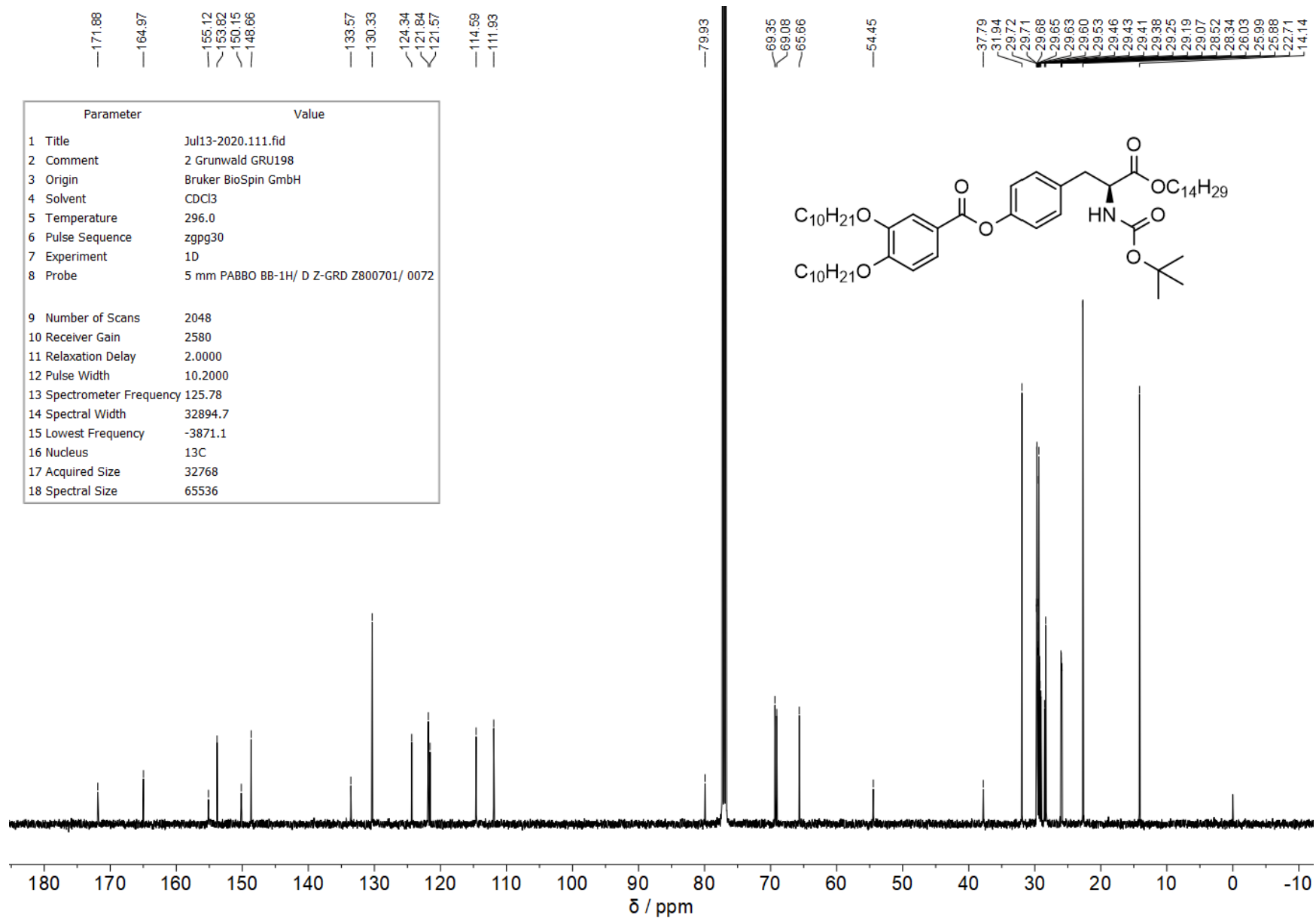
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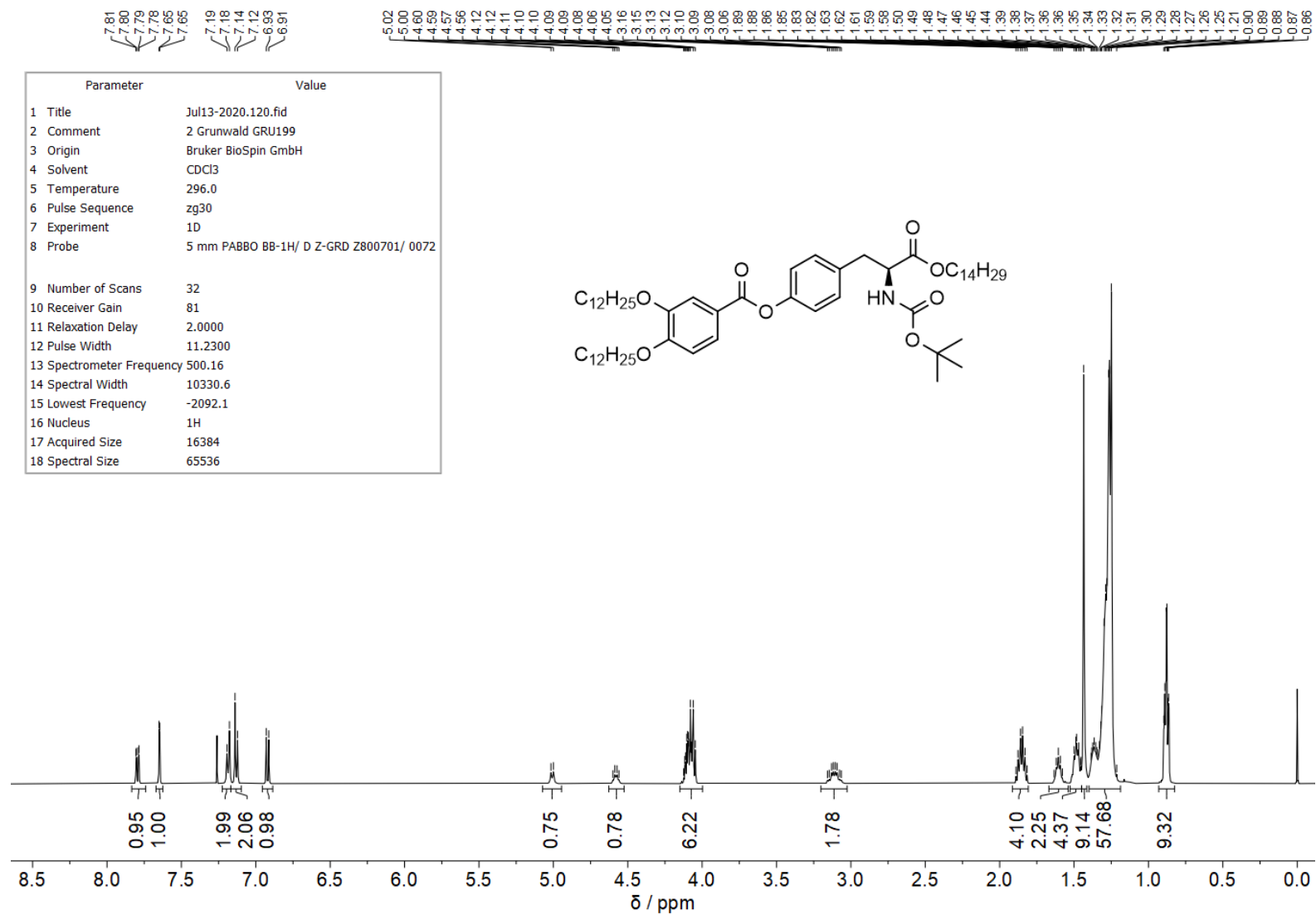


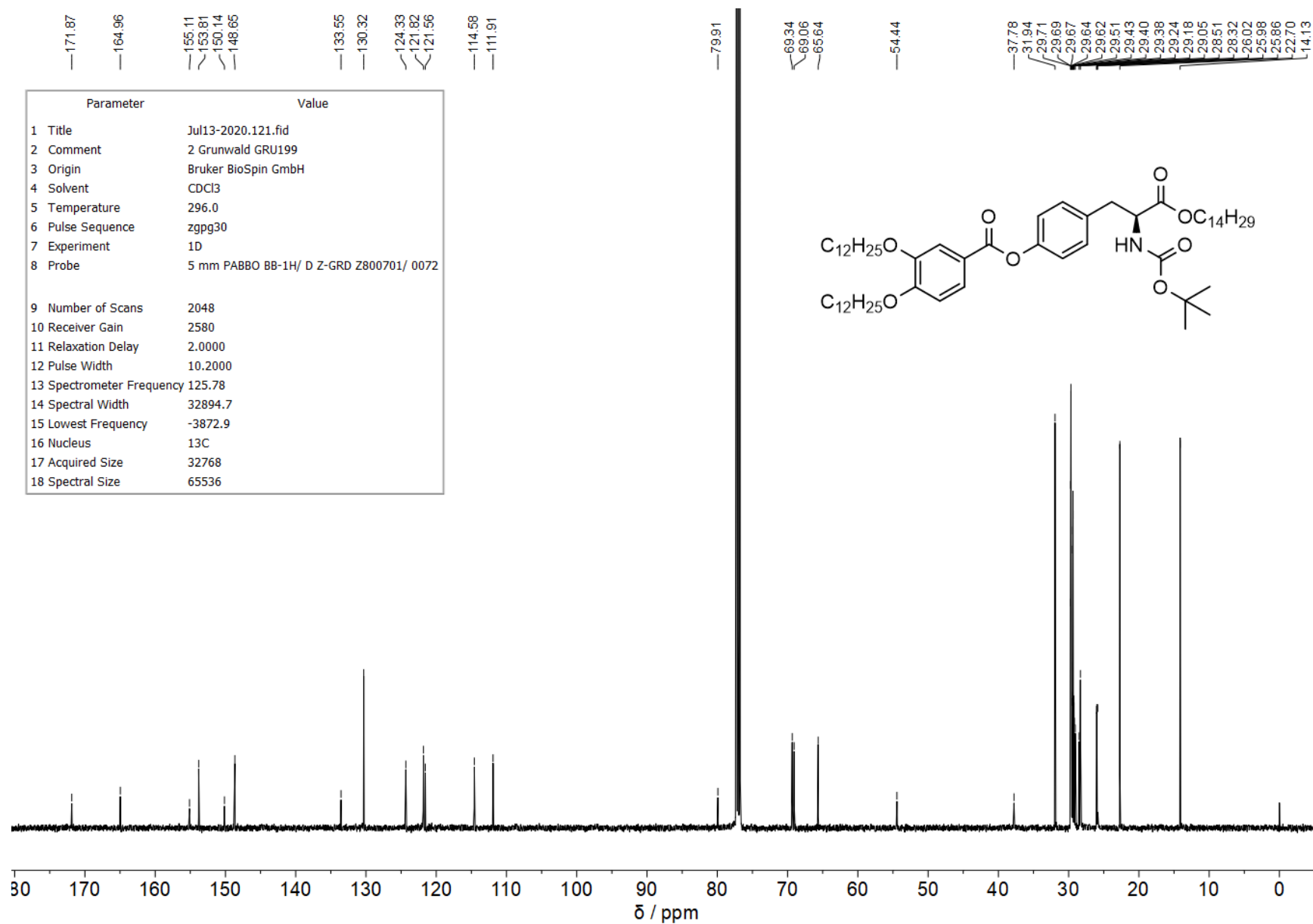
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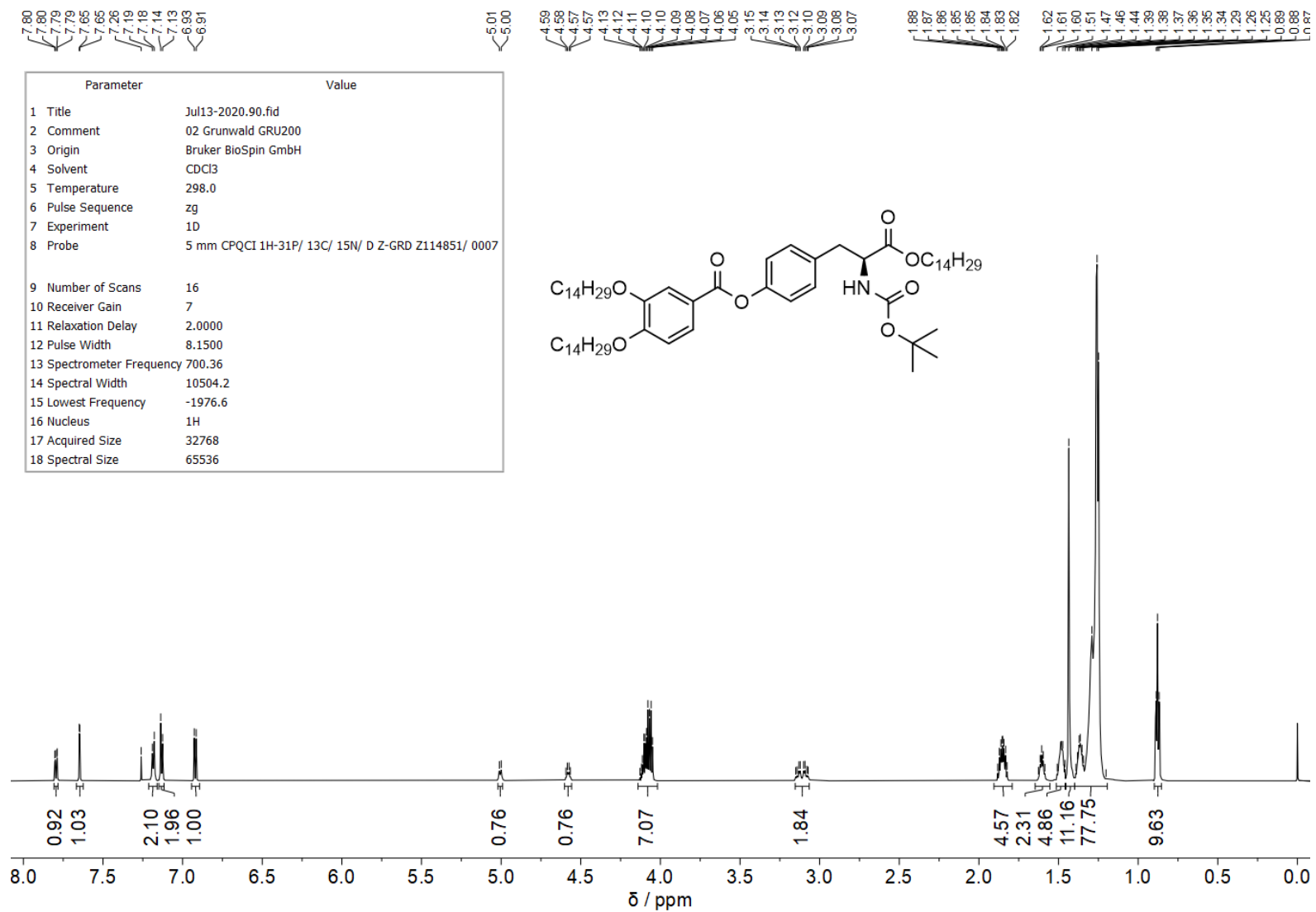
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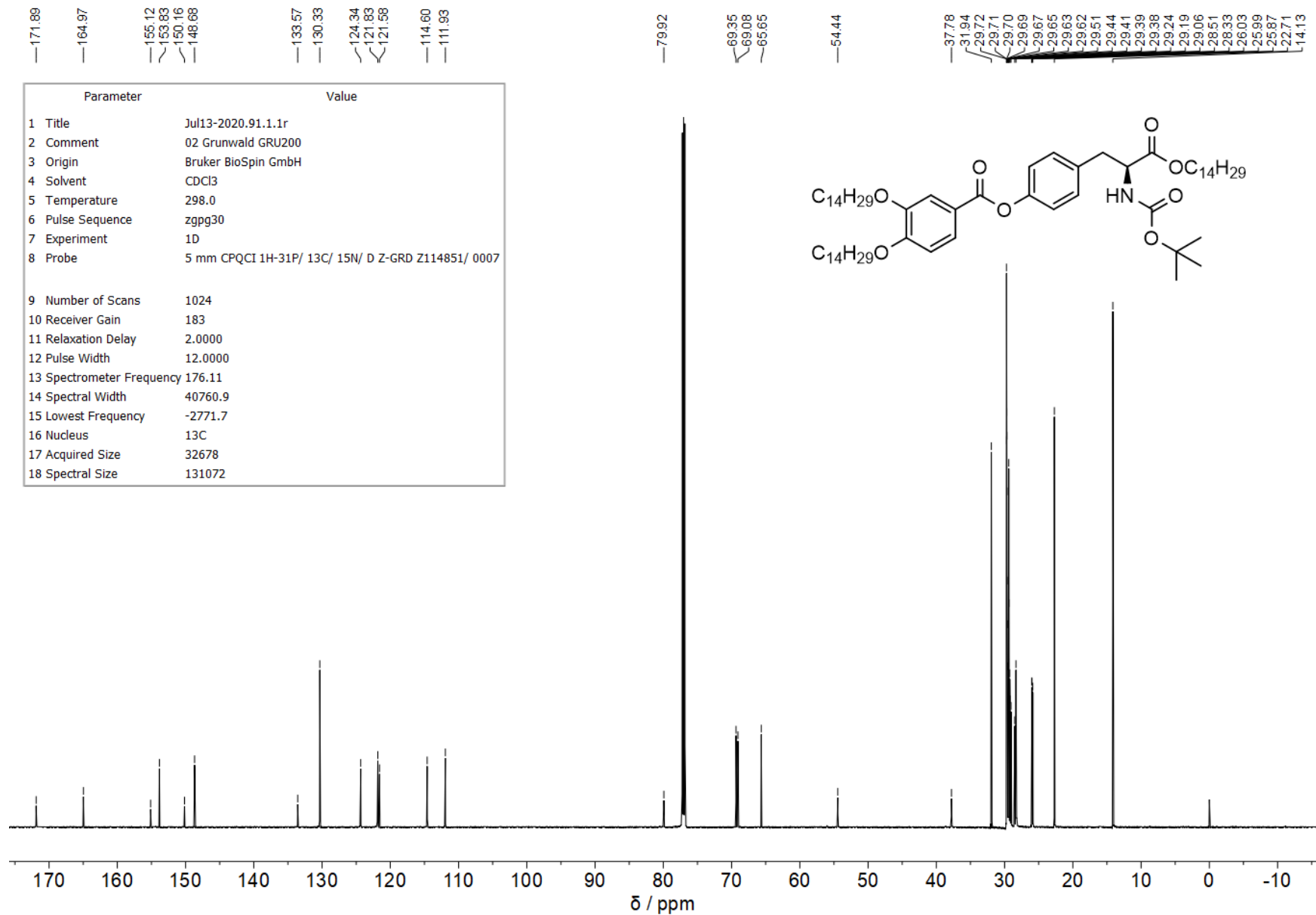


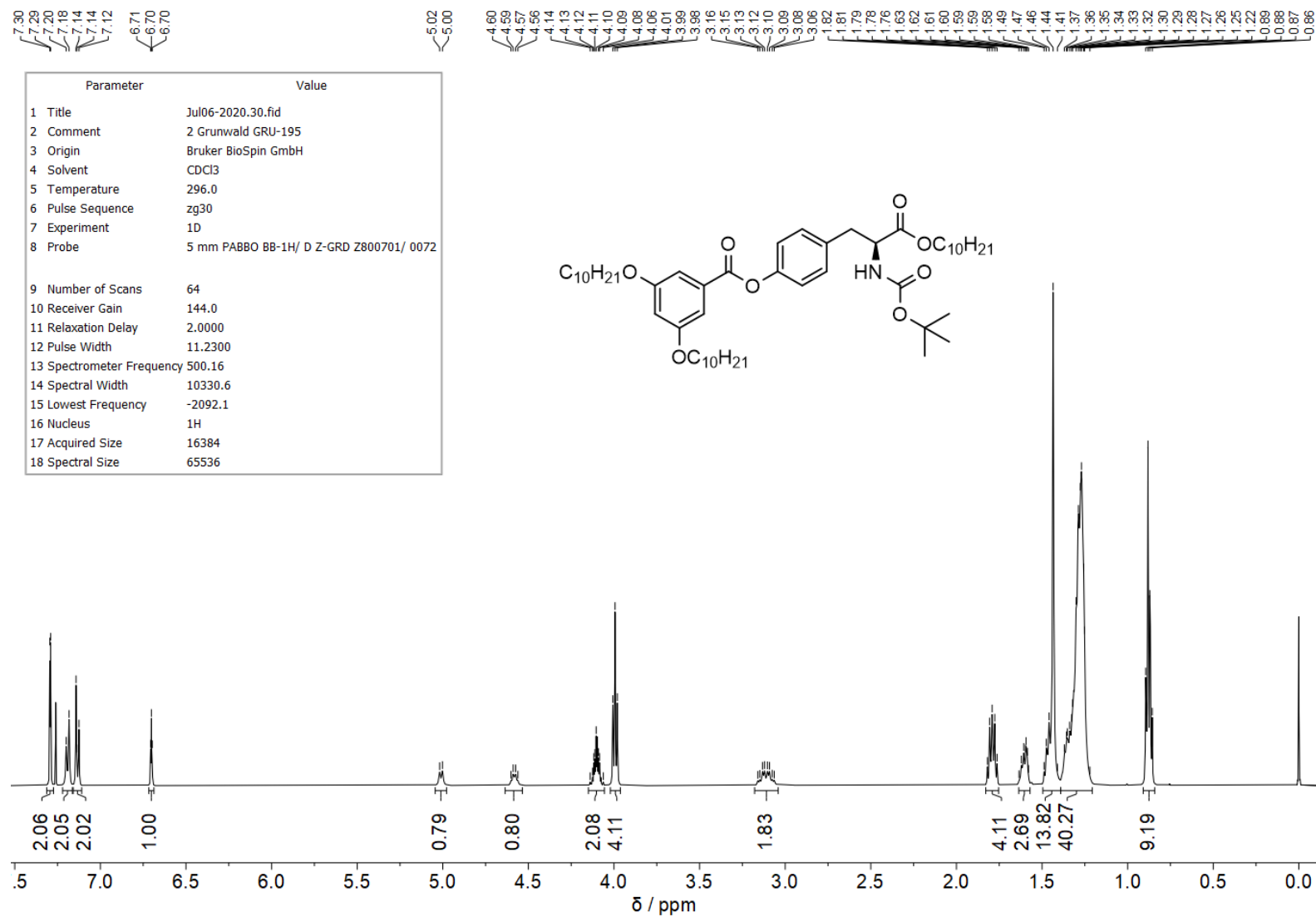
3,4-C₁₂TyrC₁₄Boc

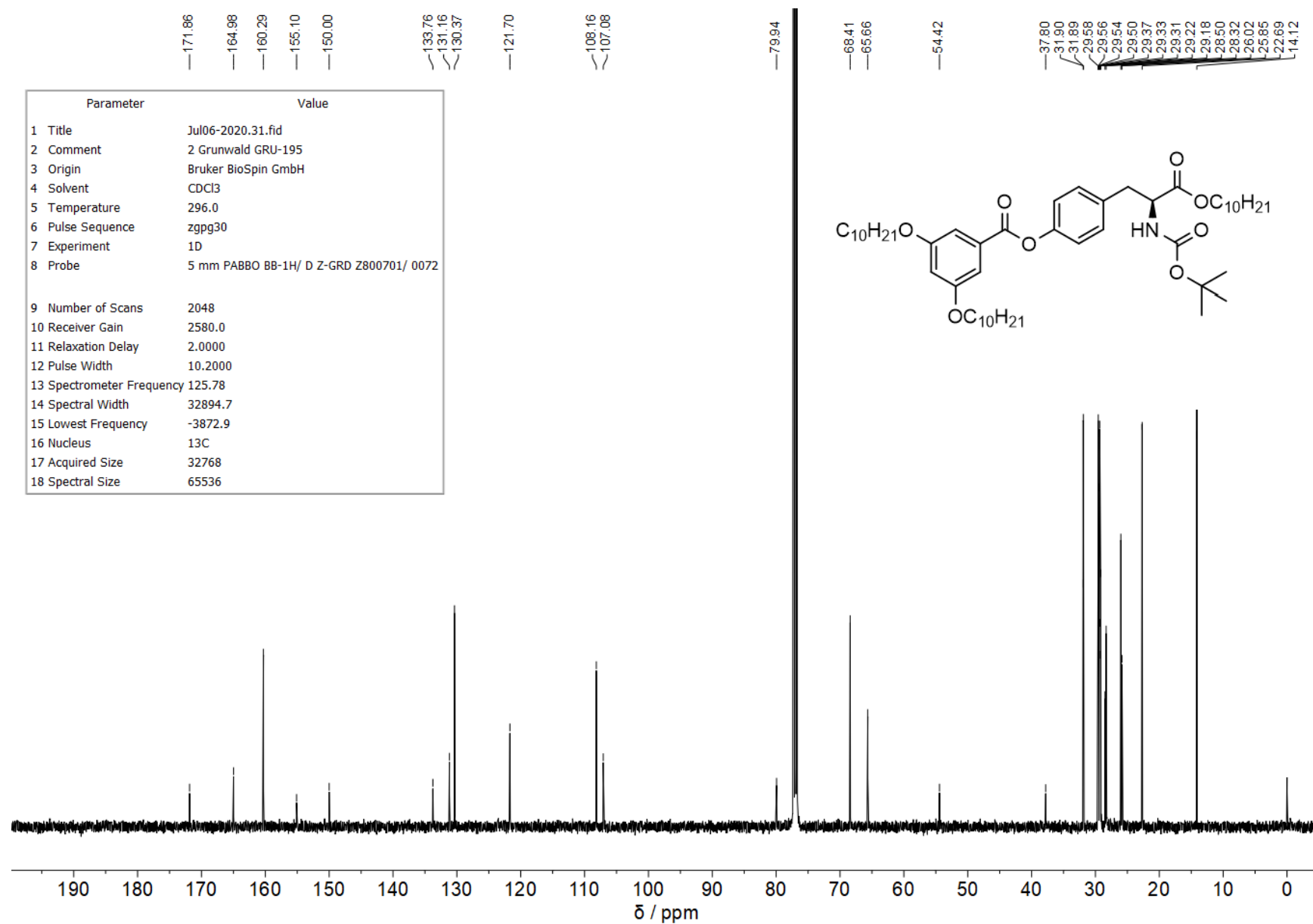


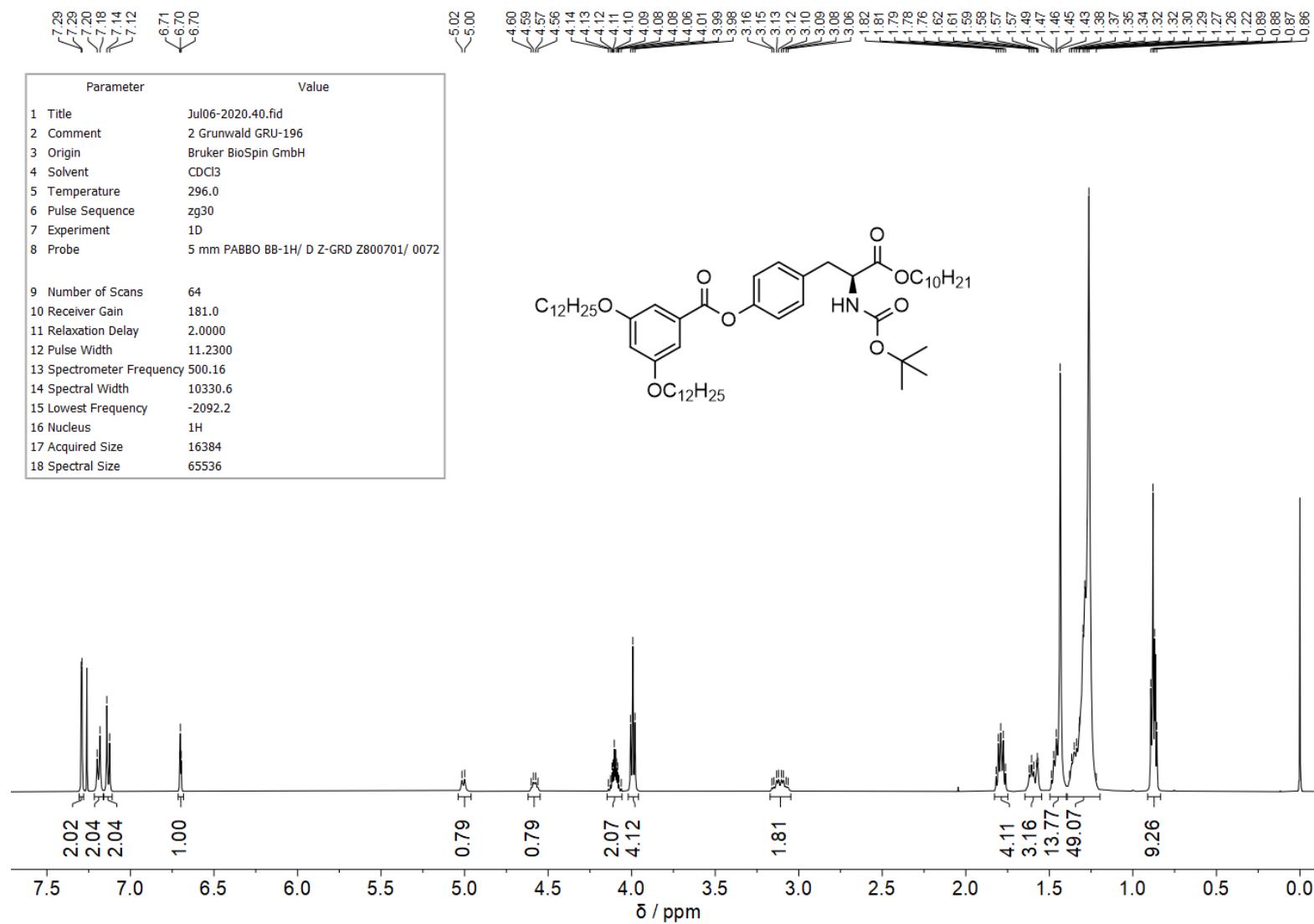
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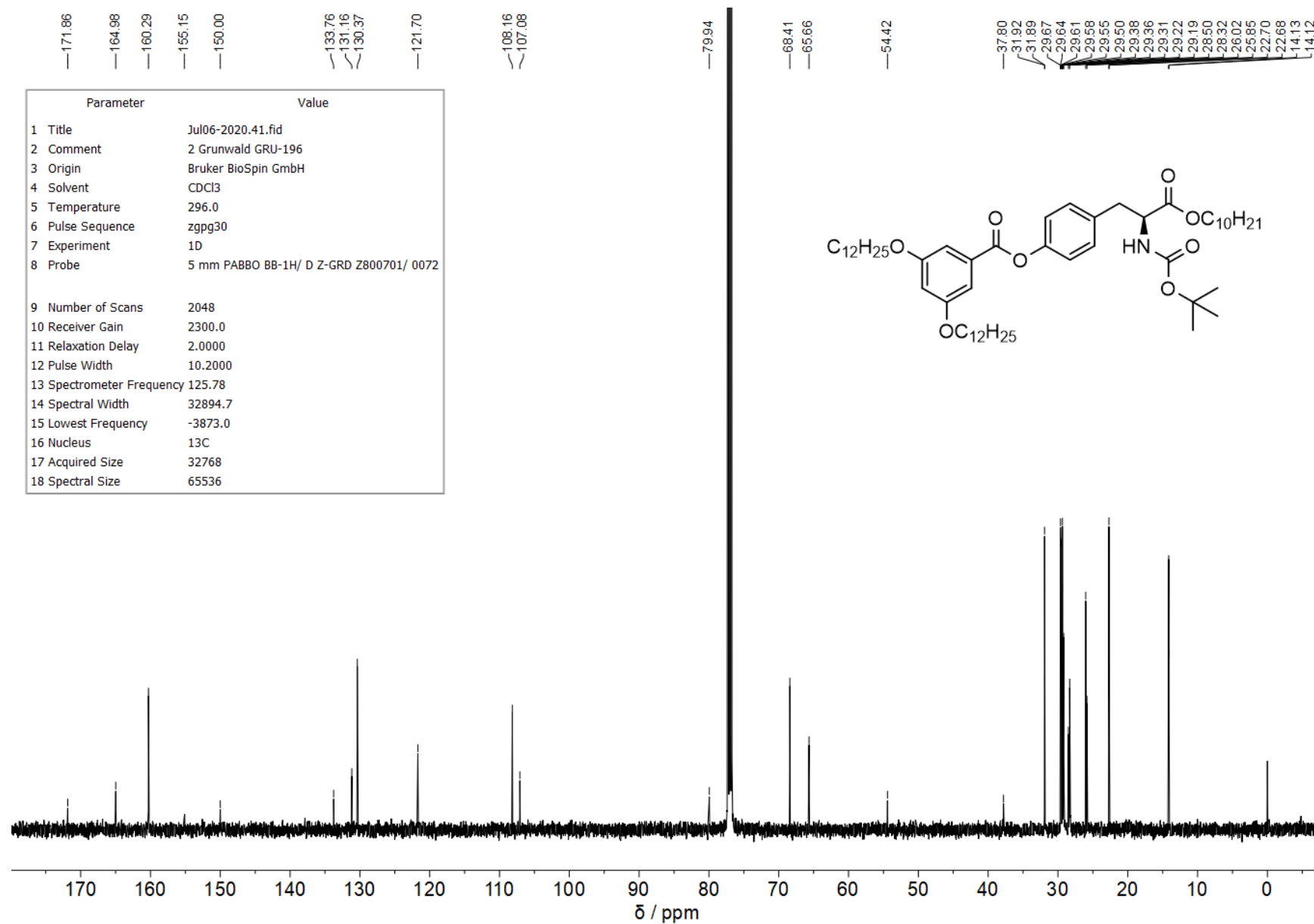


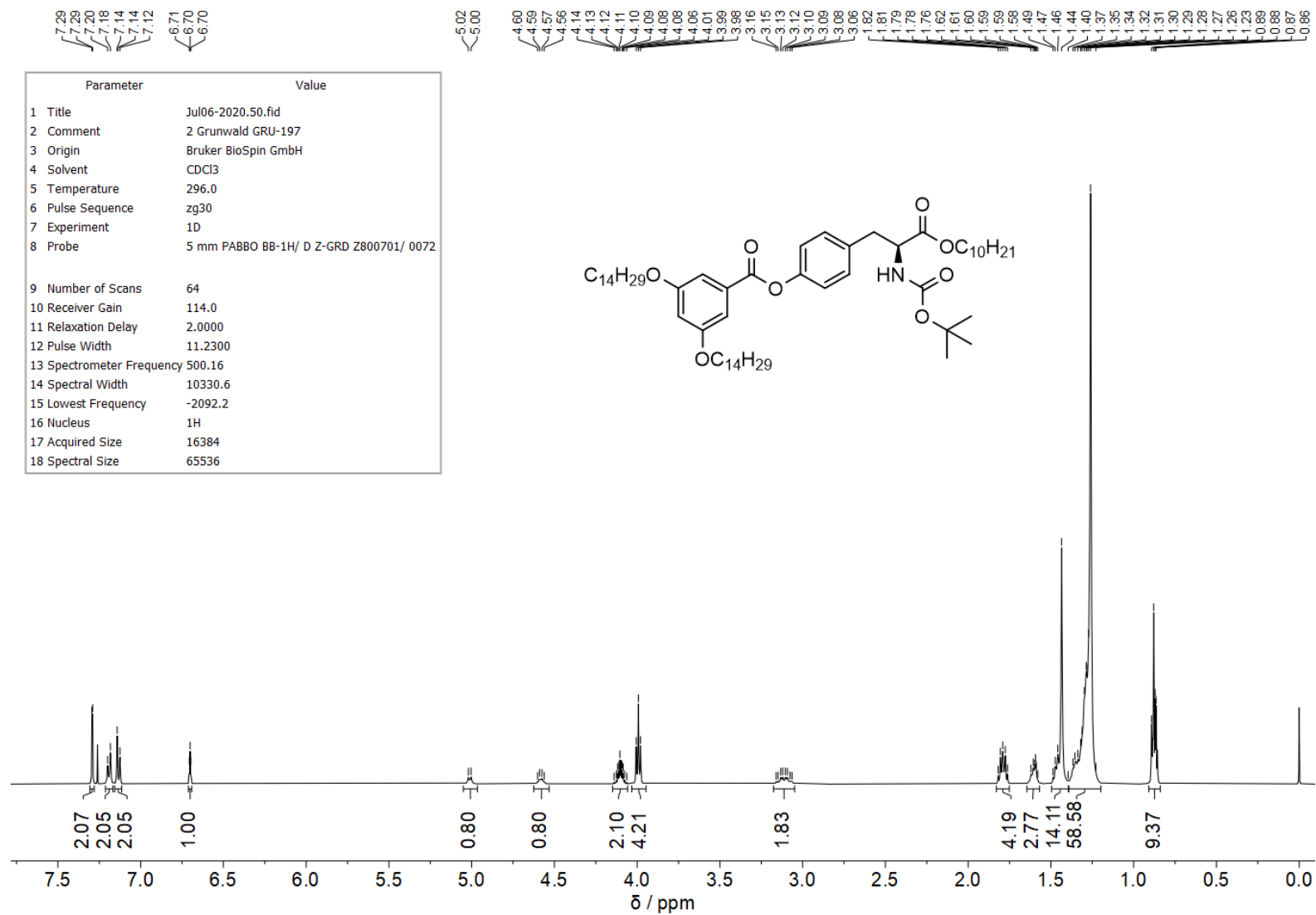


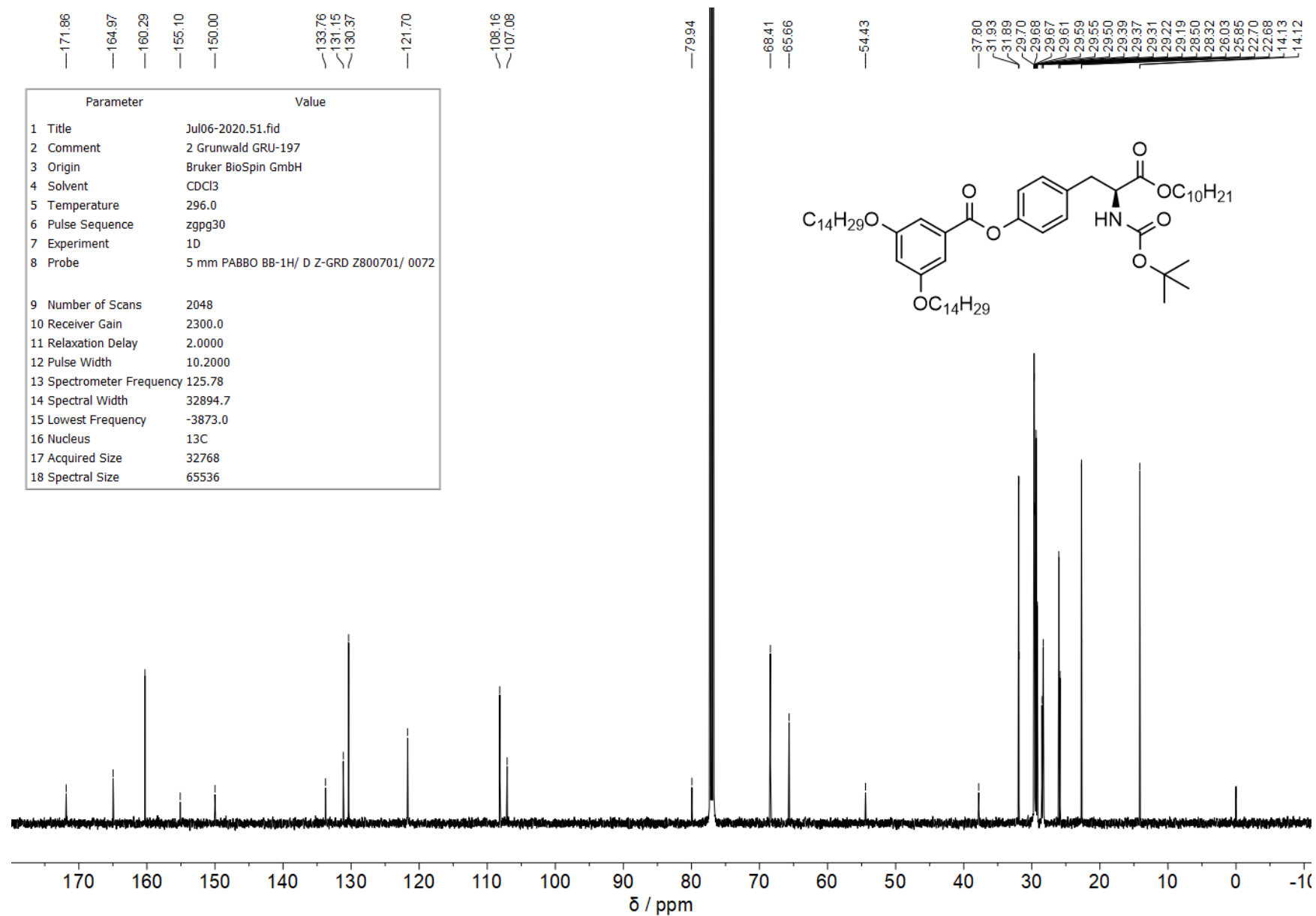
3,5-C₁₀TyrC₁₀Boc

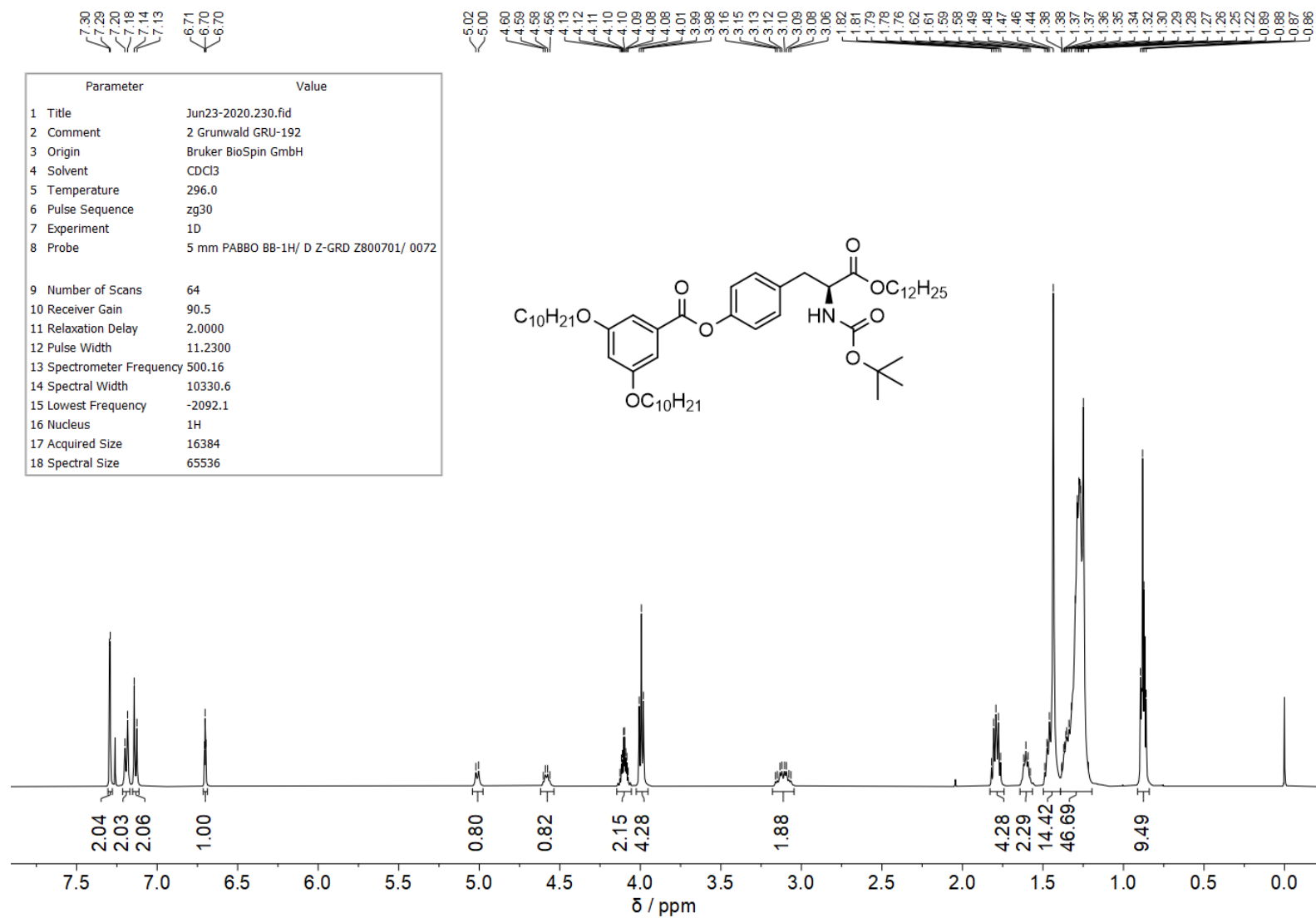


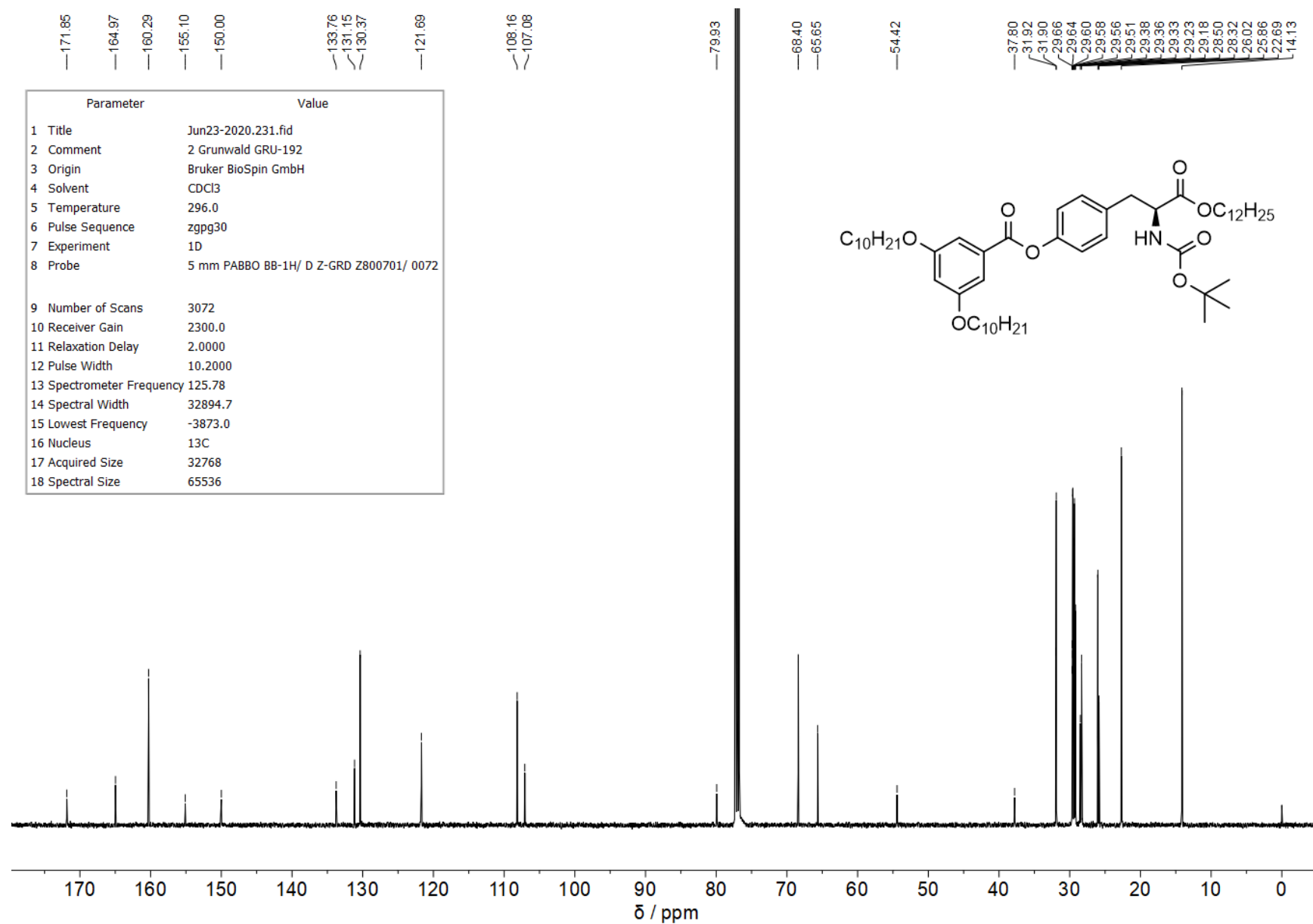
3,5-C₁₂TyrC₁₀Boc

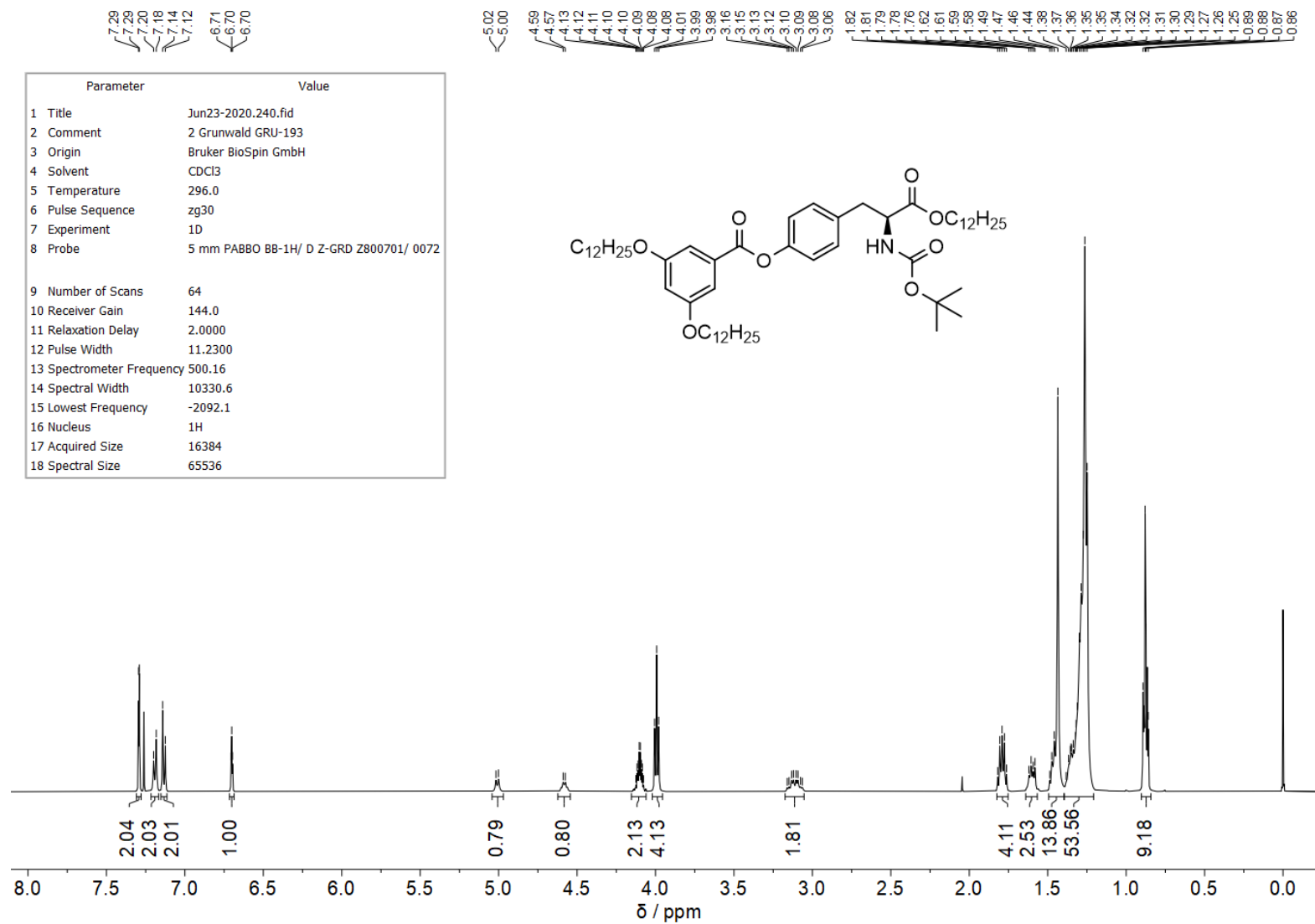


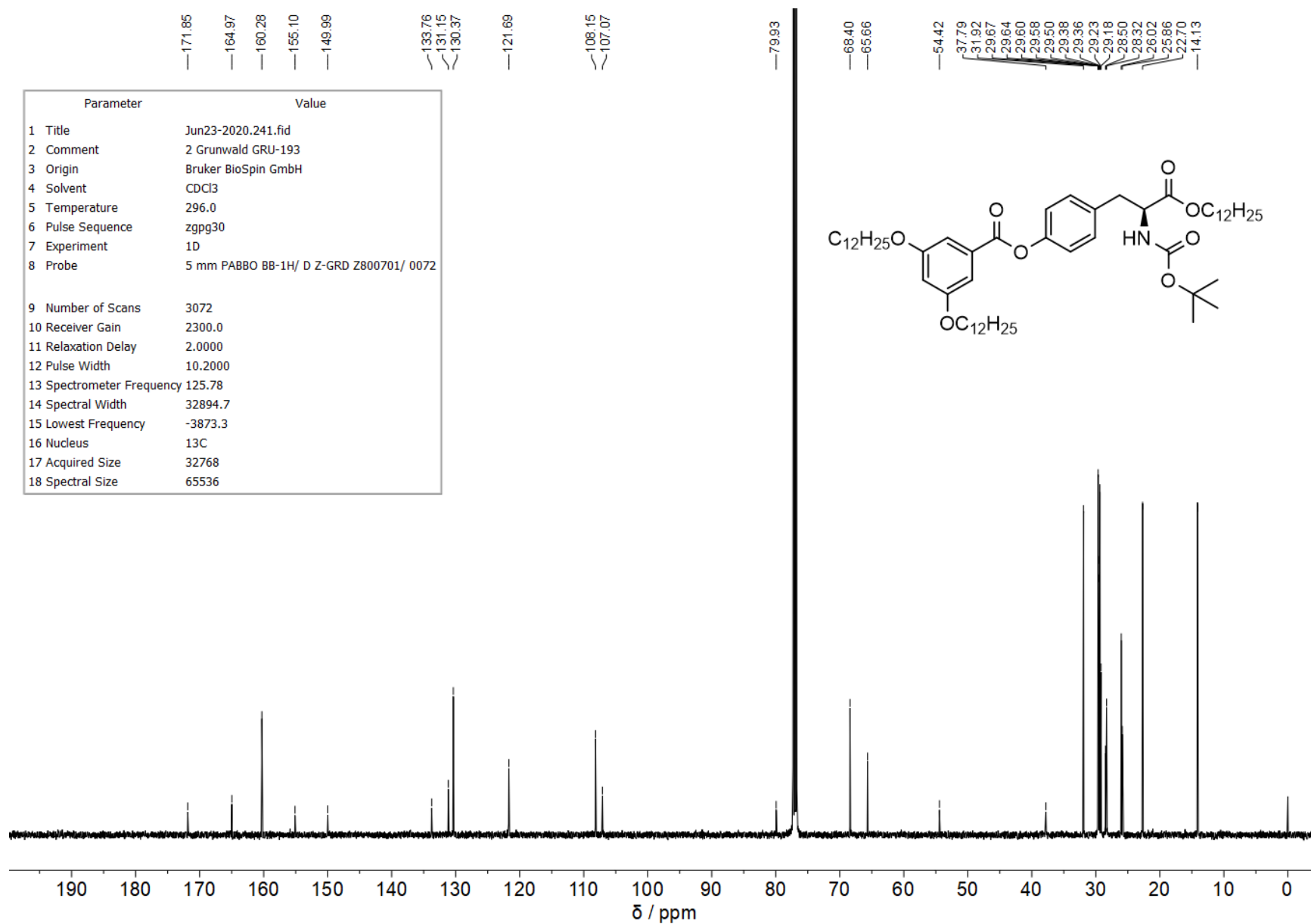
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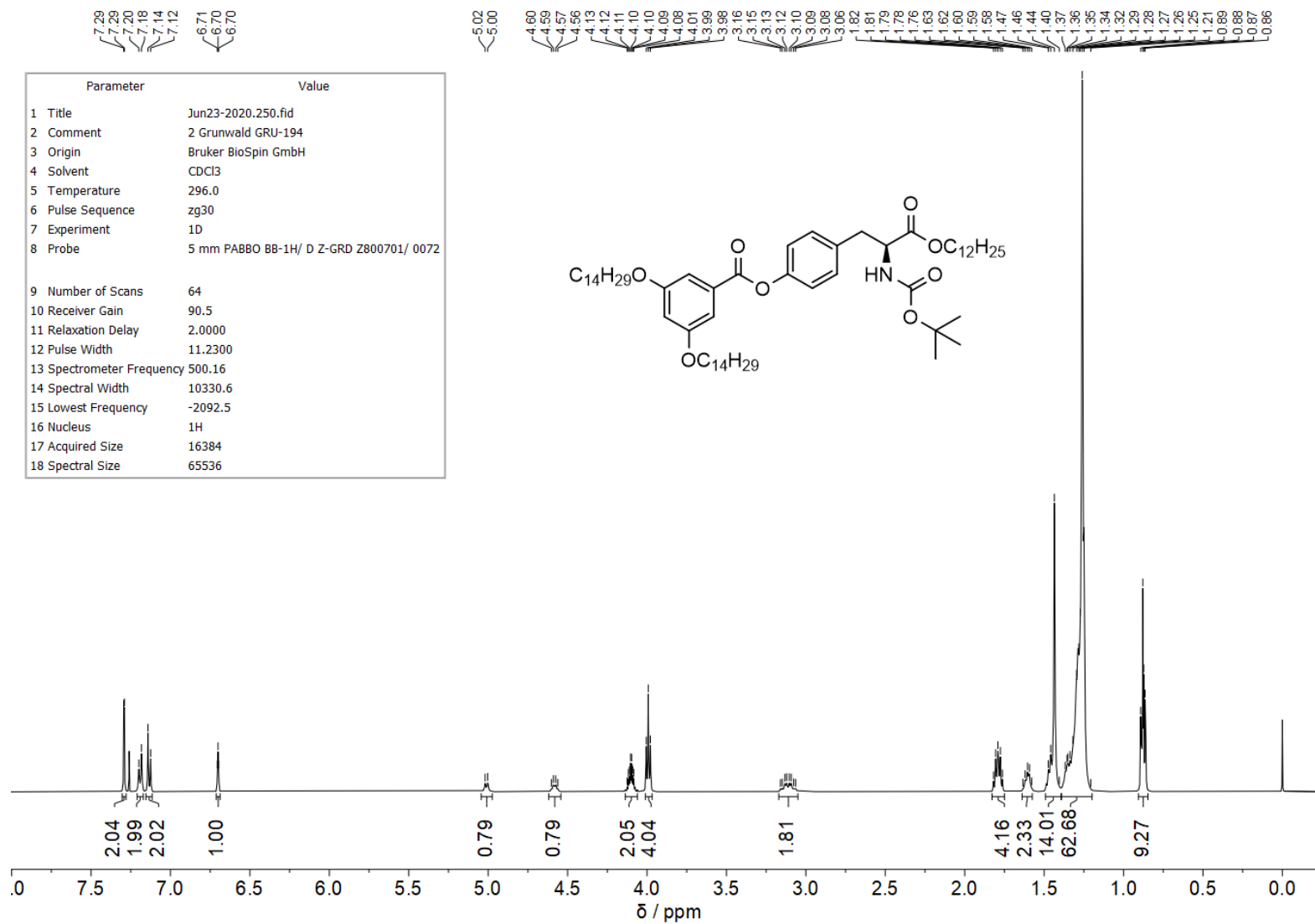


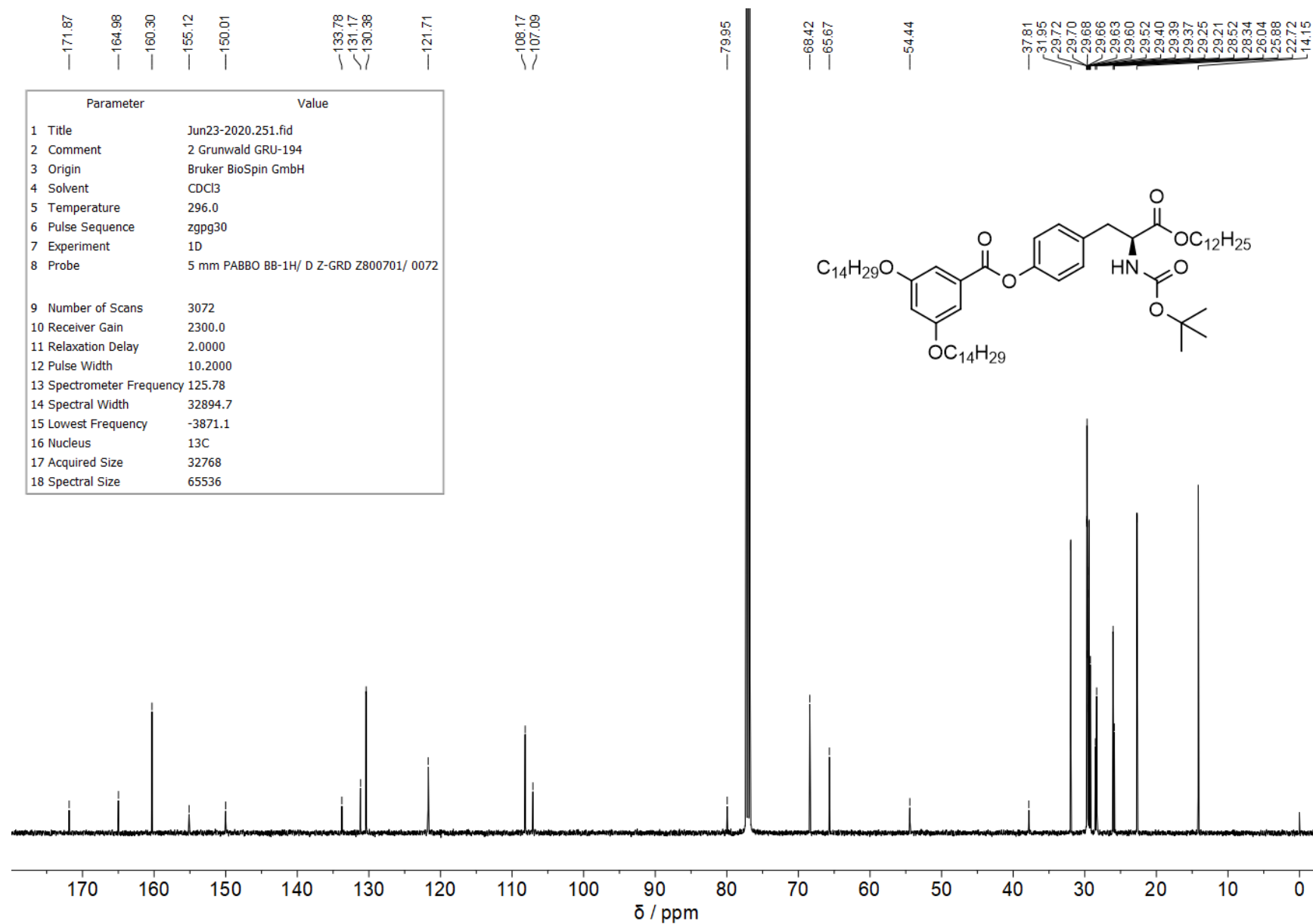
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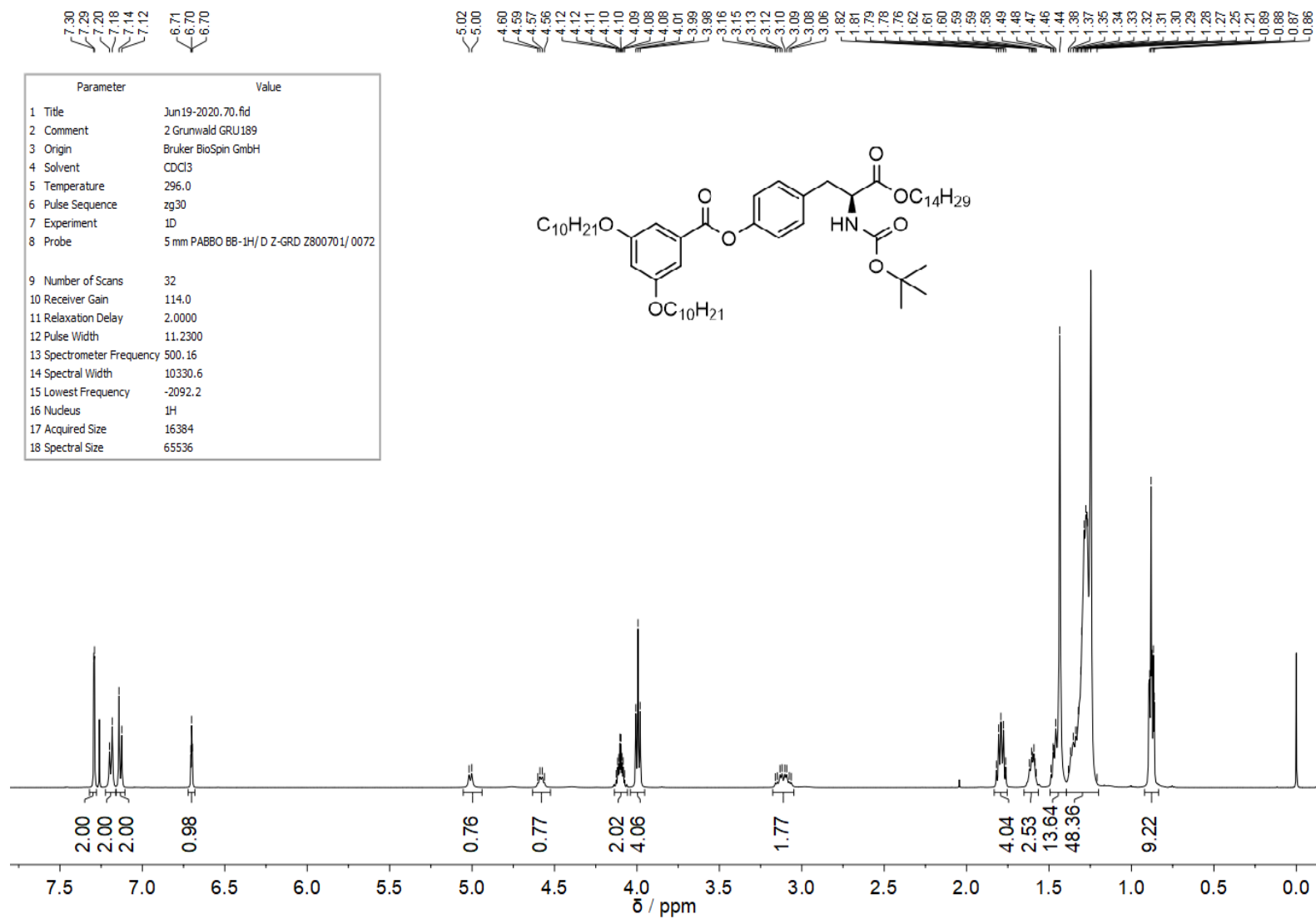


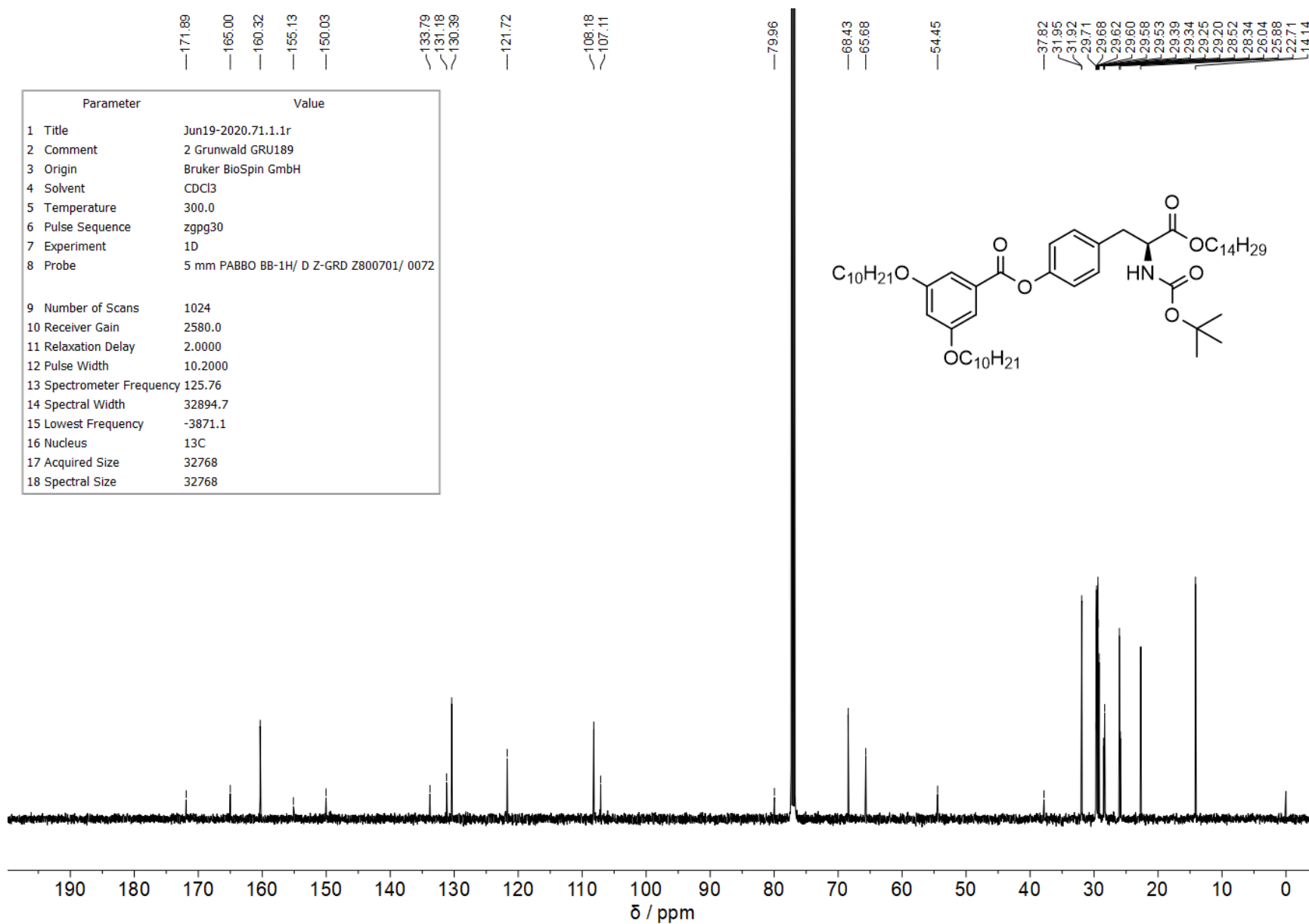
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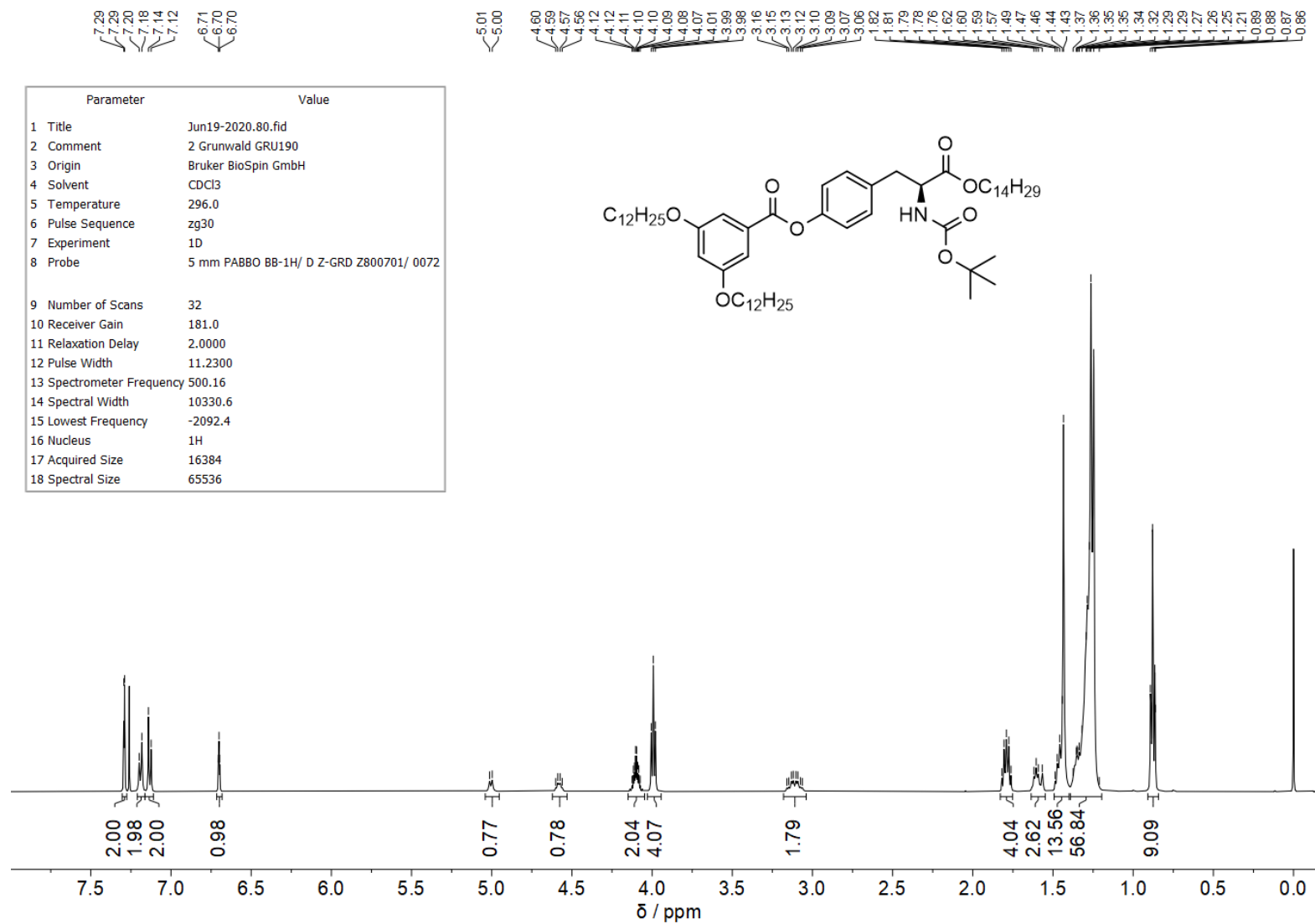


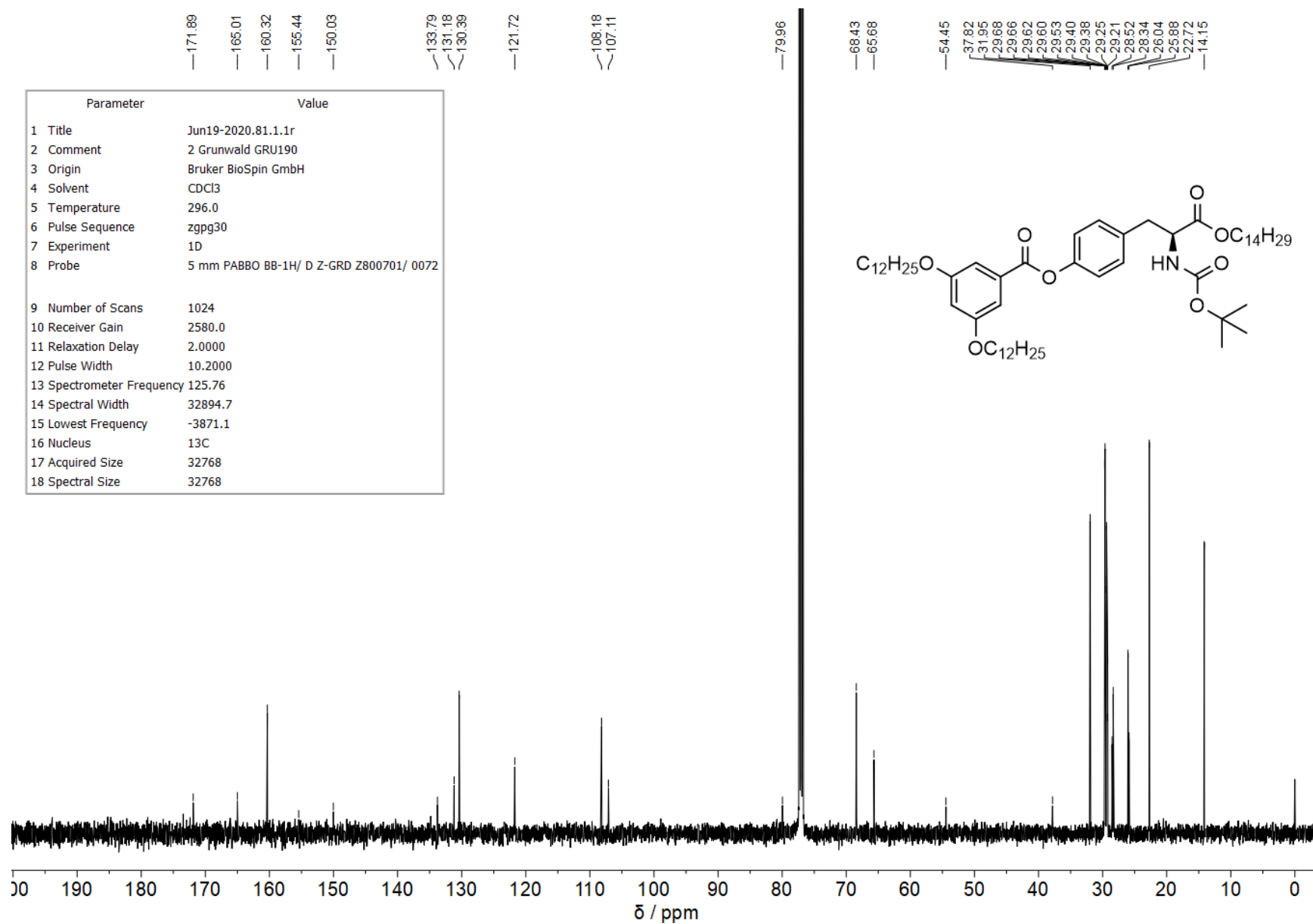
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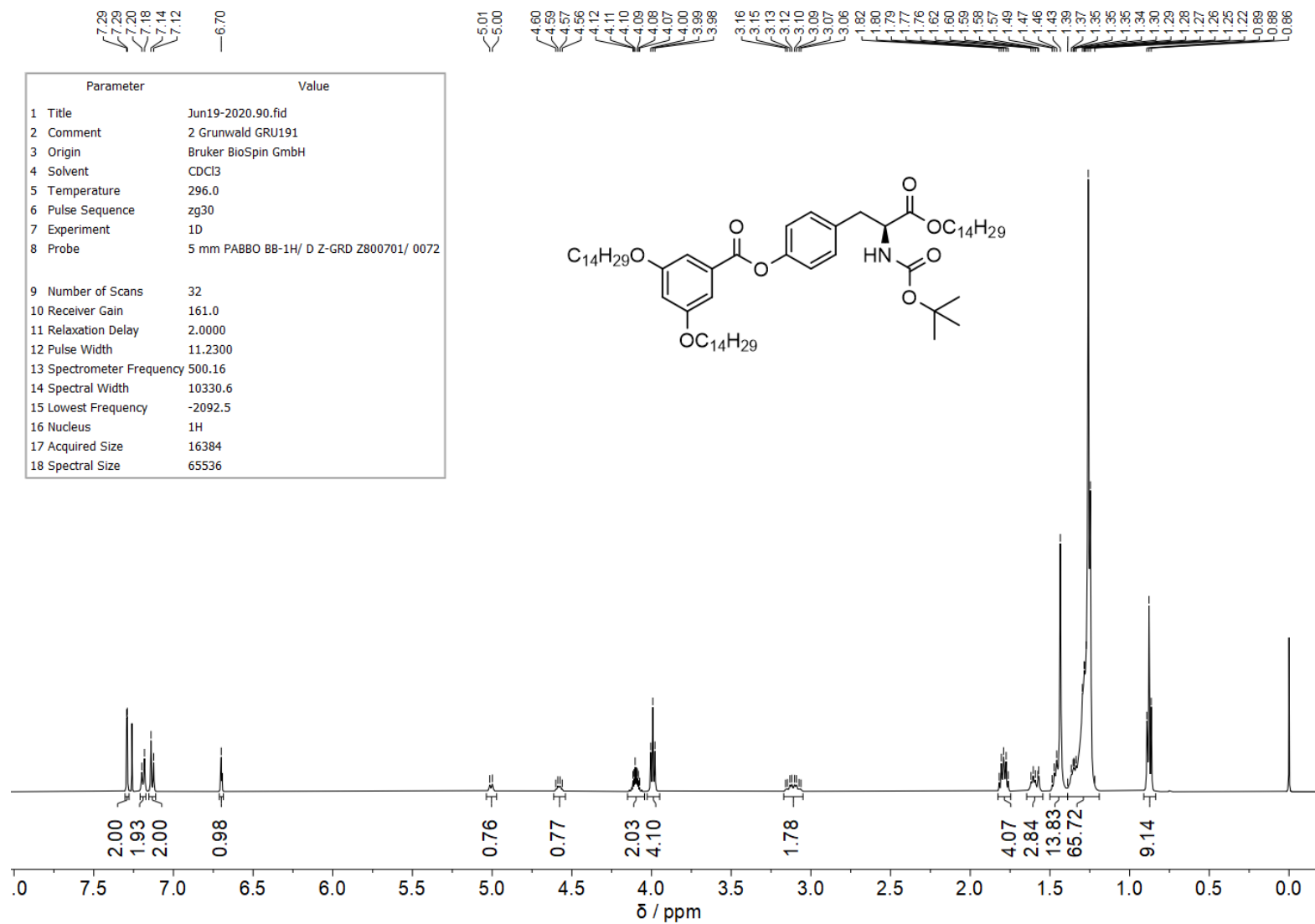


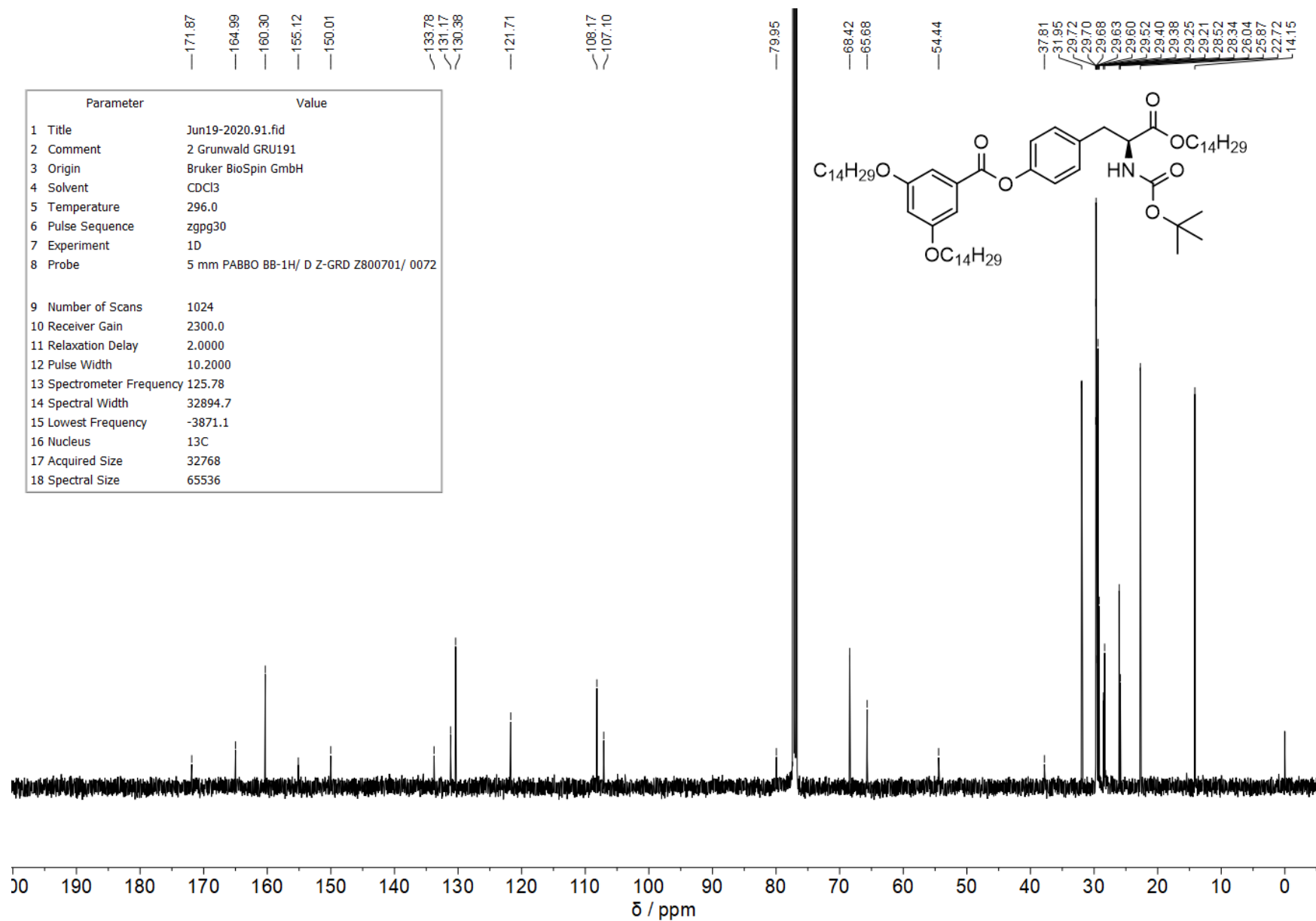
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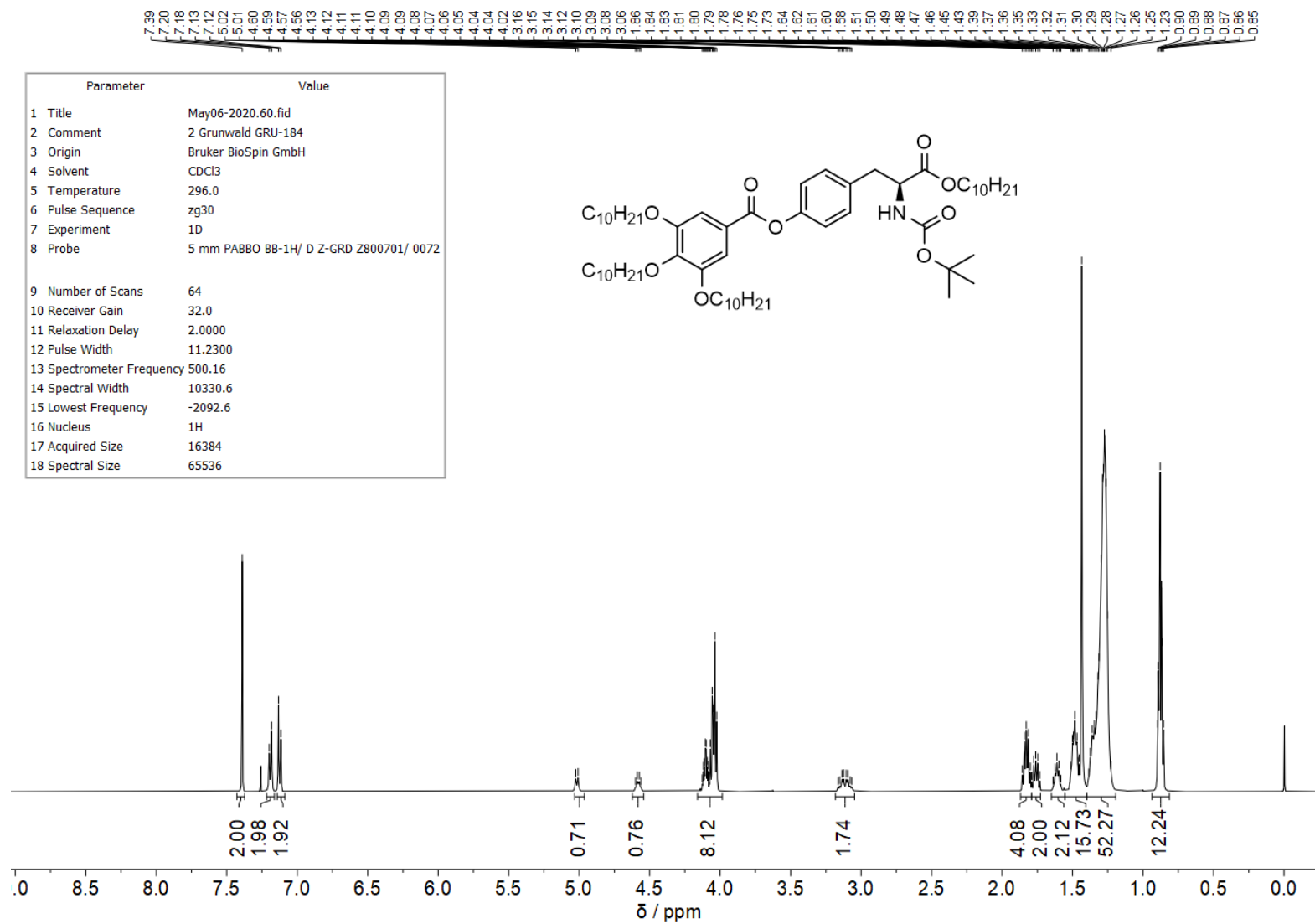


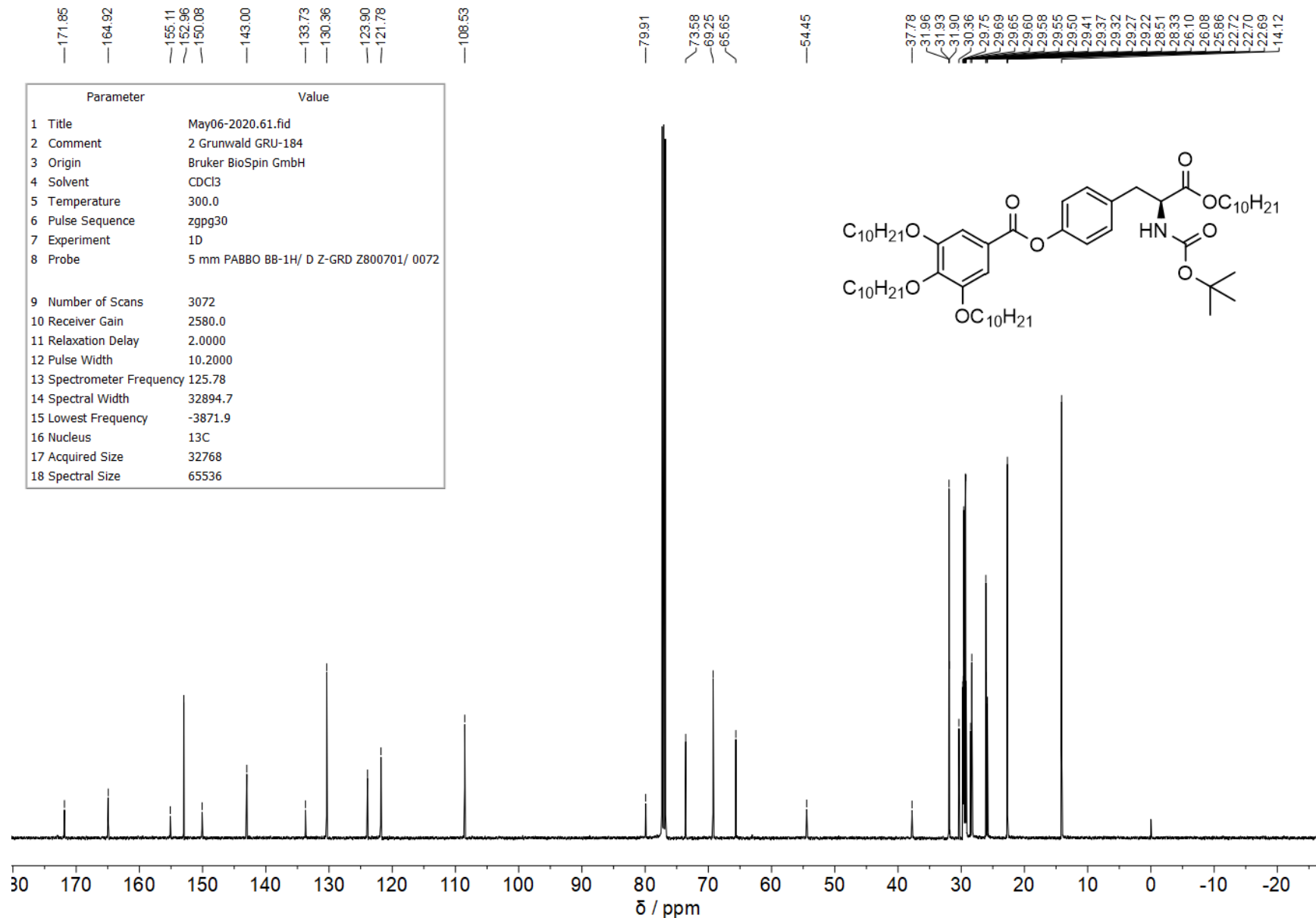
3,5-C₁₂TyrC₁₄Boc



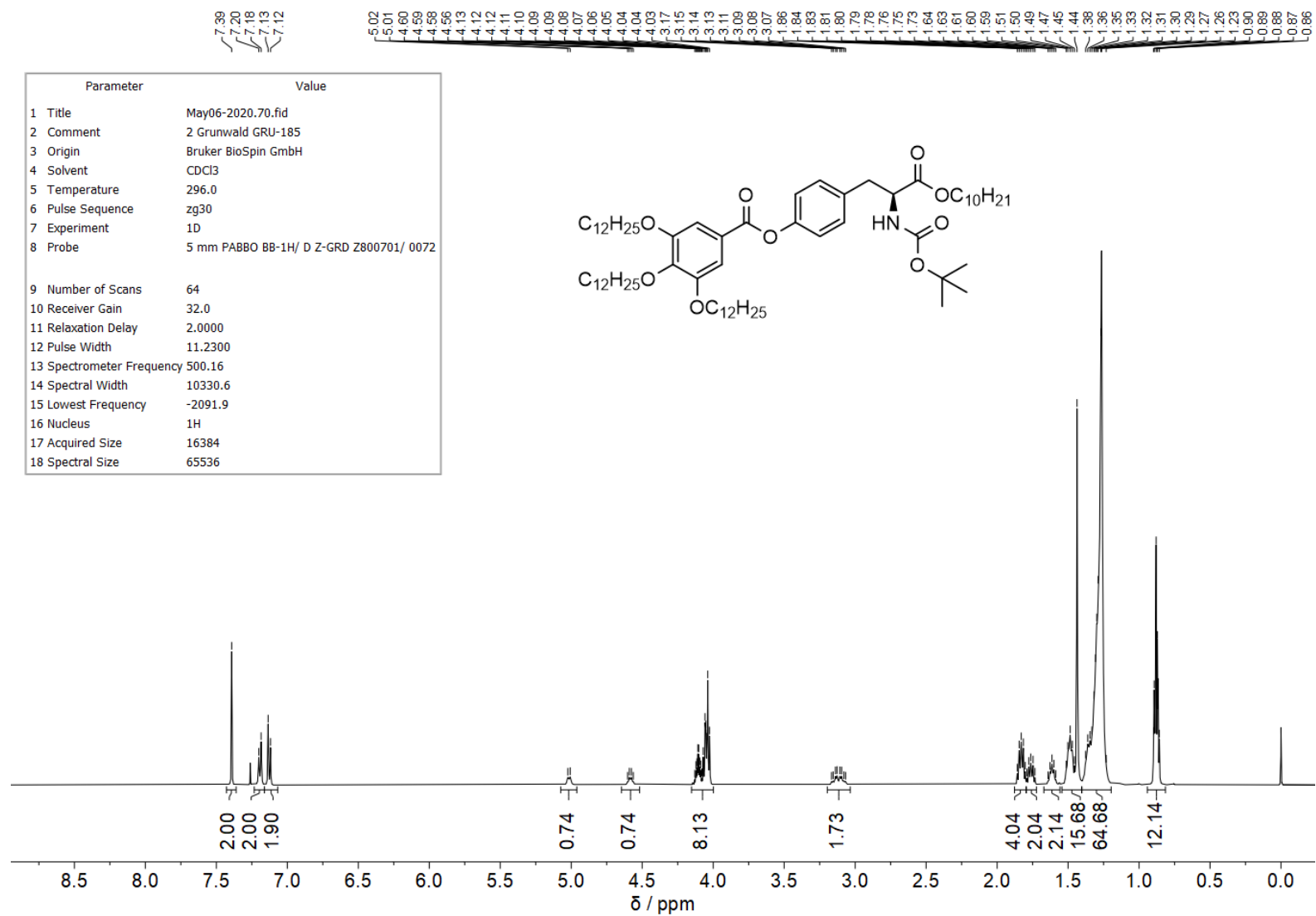
3,5-C₁₄TyrC₁₄Boc



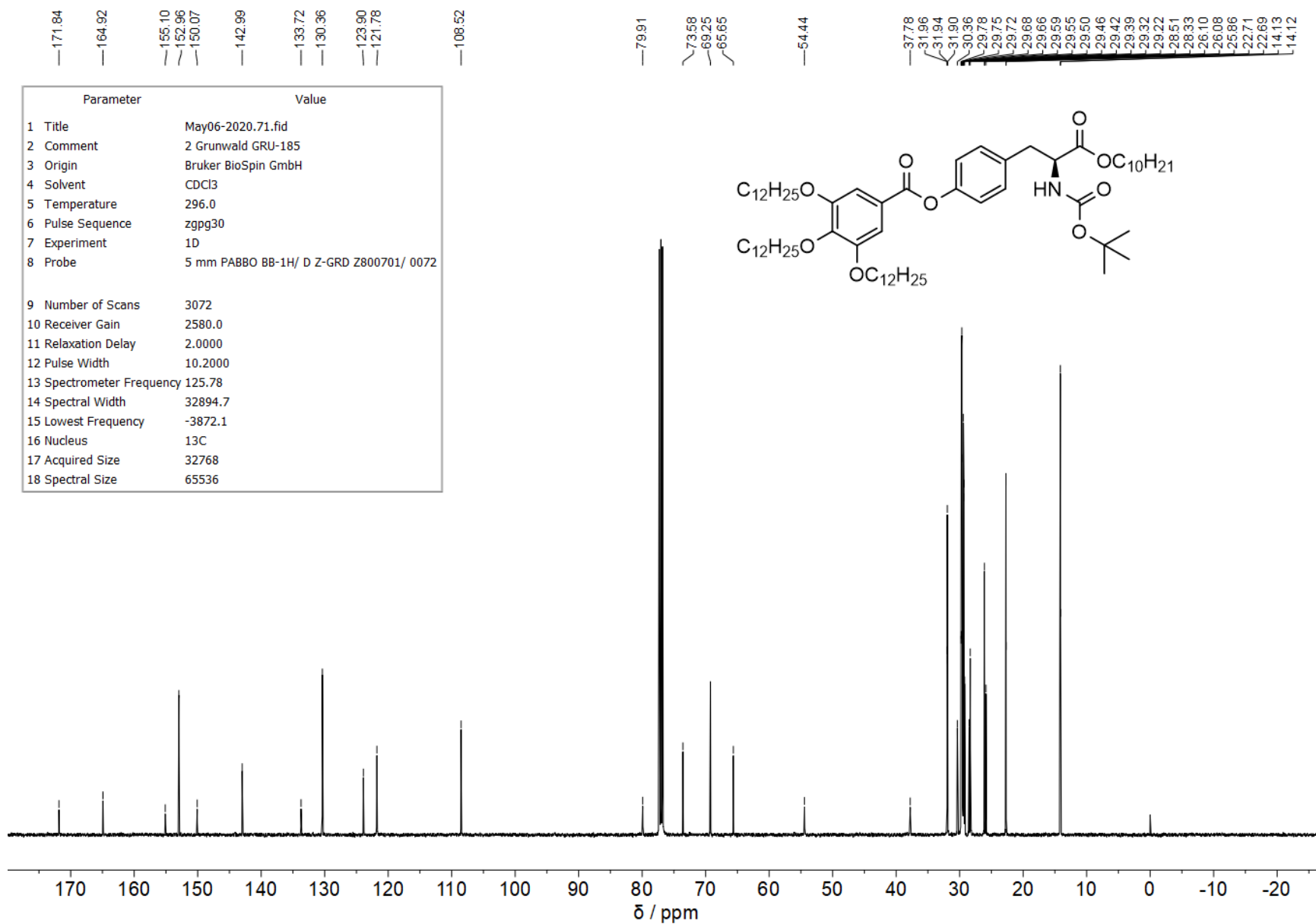
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3,4,5-C₁₂TyrC₁₀Boc

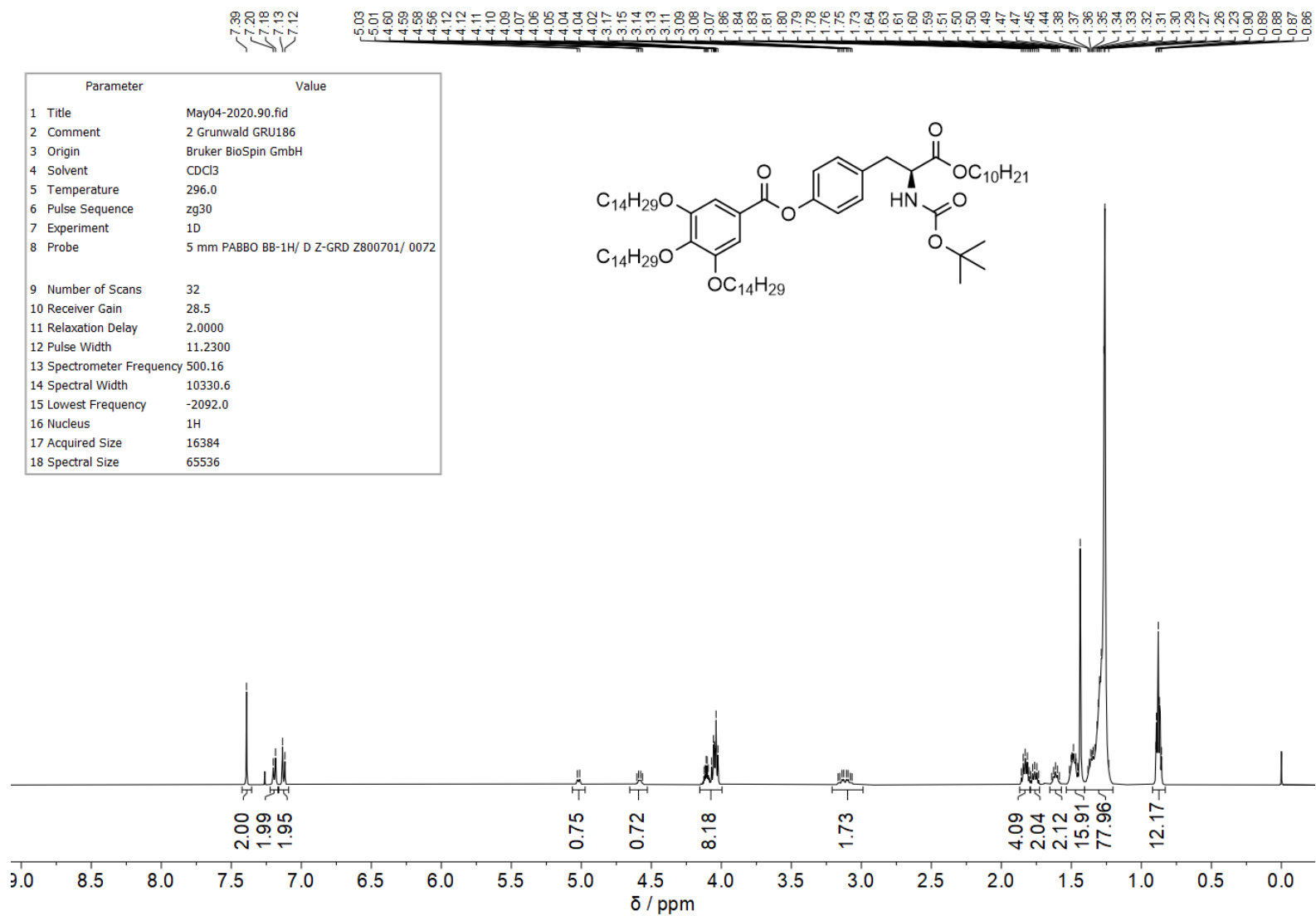


Parameter	Value
1 Title	May06-2020.70.fid
2 Comment	2 Grunwald GRU-185
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	64
10 Receiver Gain	32.0
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2091.9
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

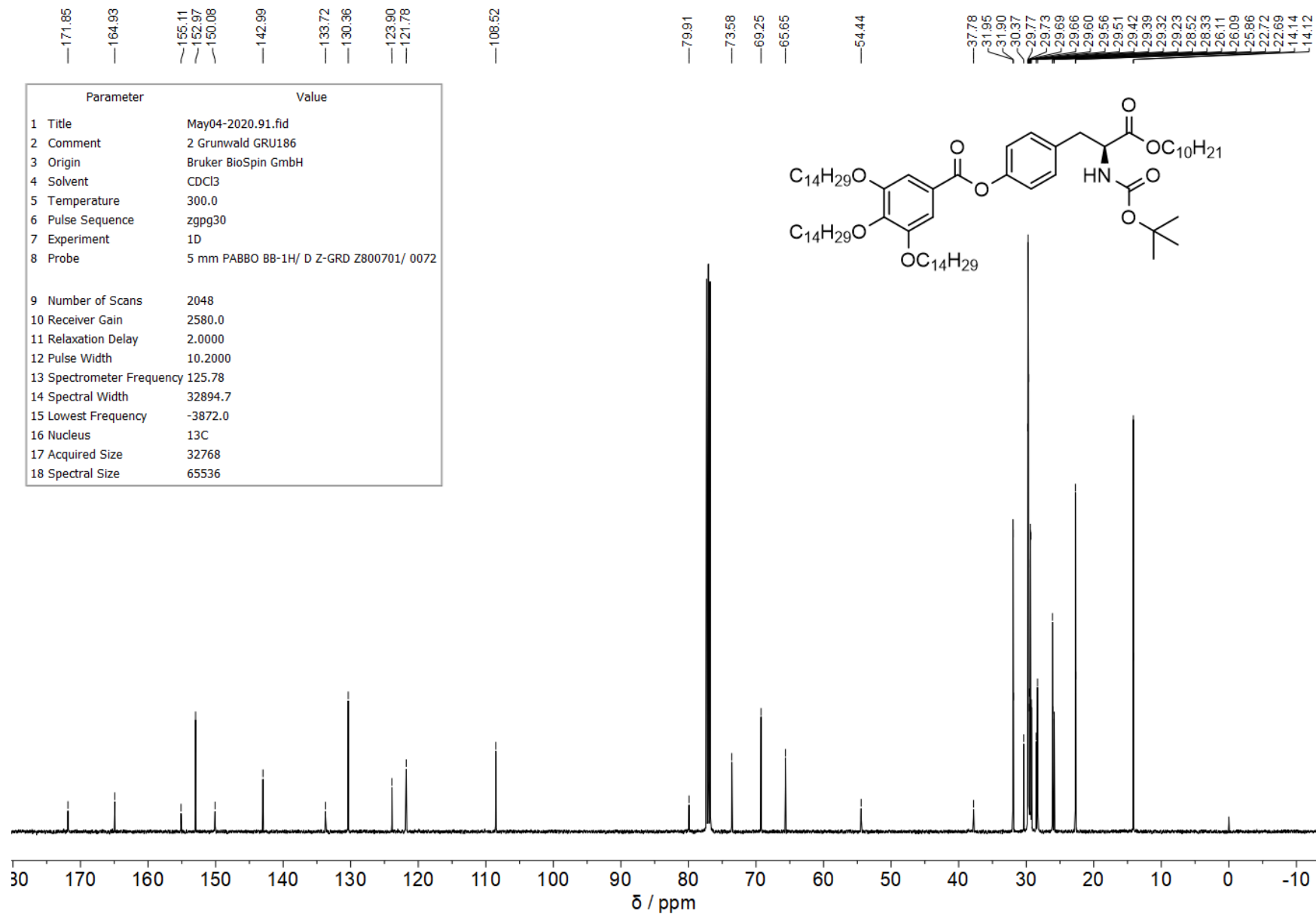


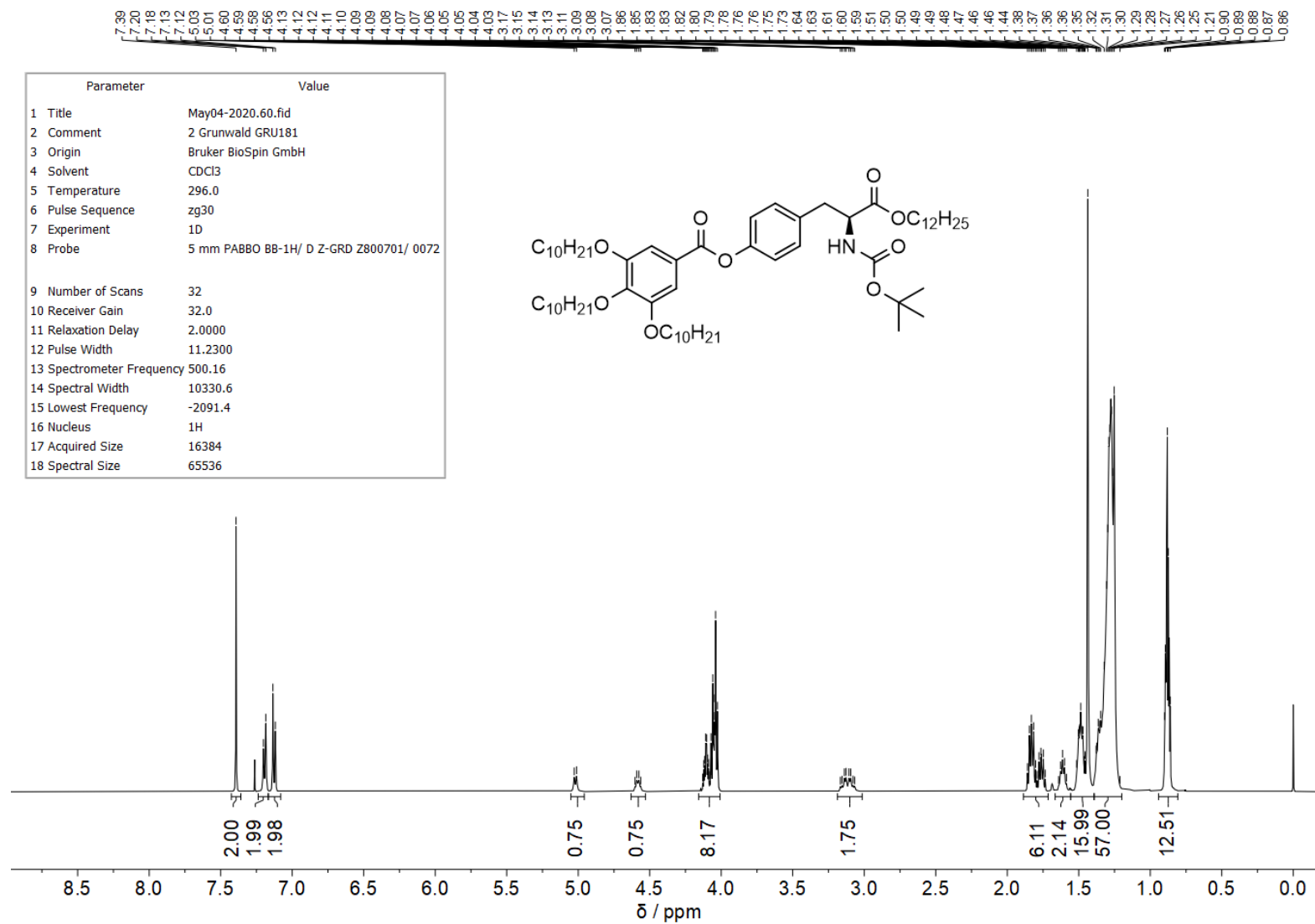
Parameter	Value
1 Title	May06-2020.71.fid
2 Comment	2 Grunwald GRU-185
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	3072
10 Receiver Gain	2580.0
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3872.1
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

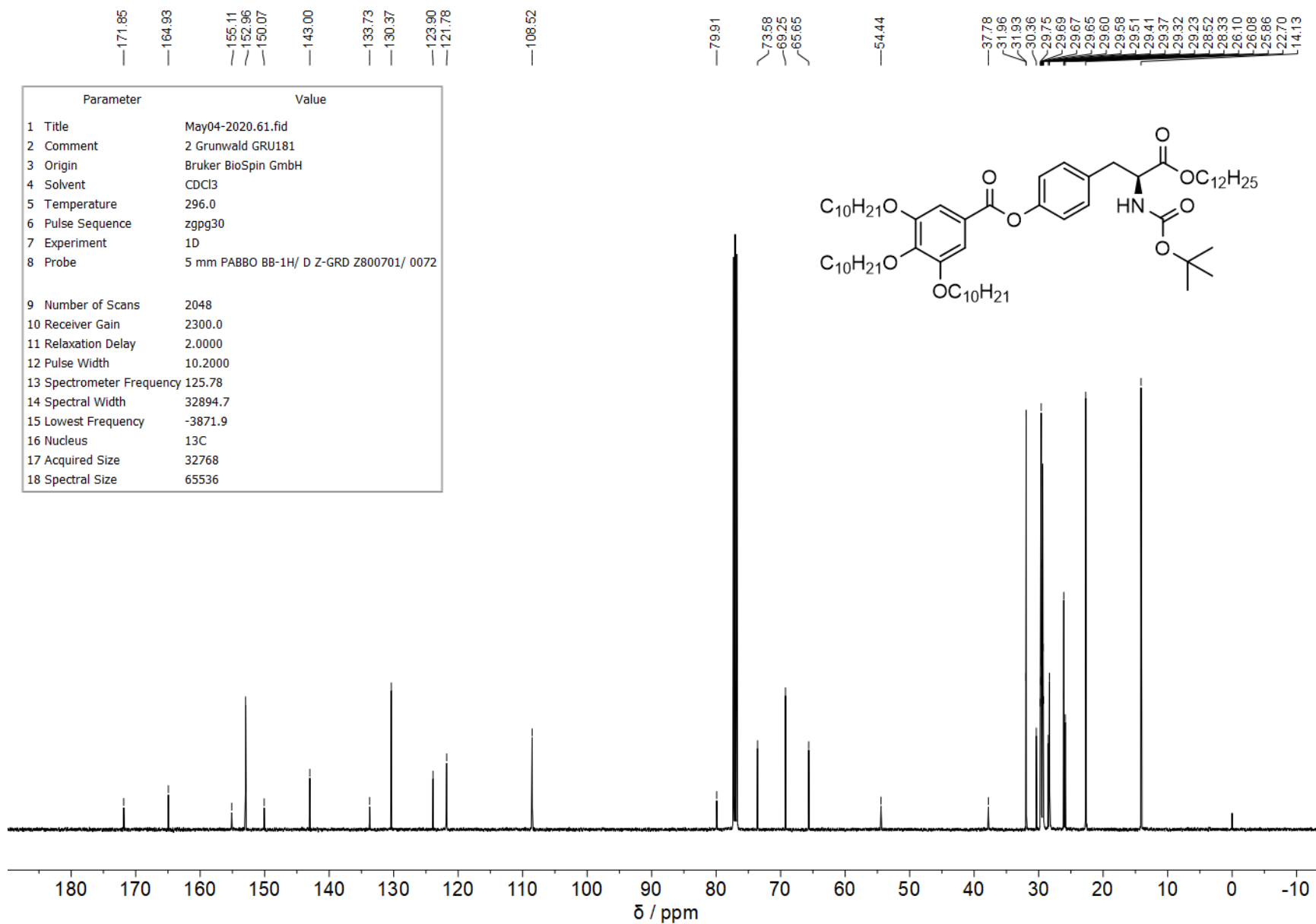
3,4,5-C14TyrC10Boc



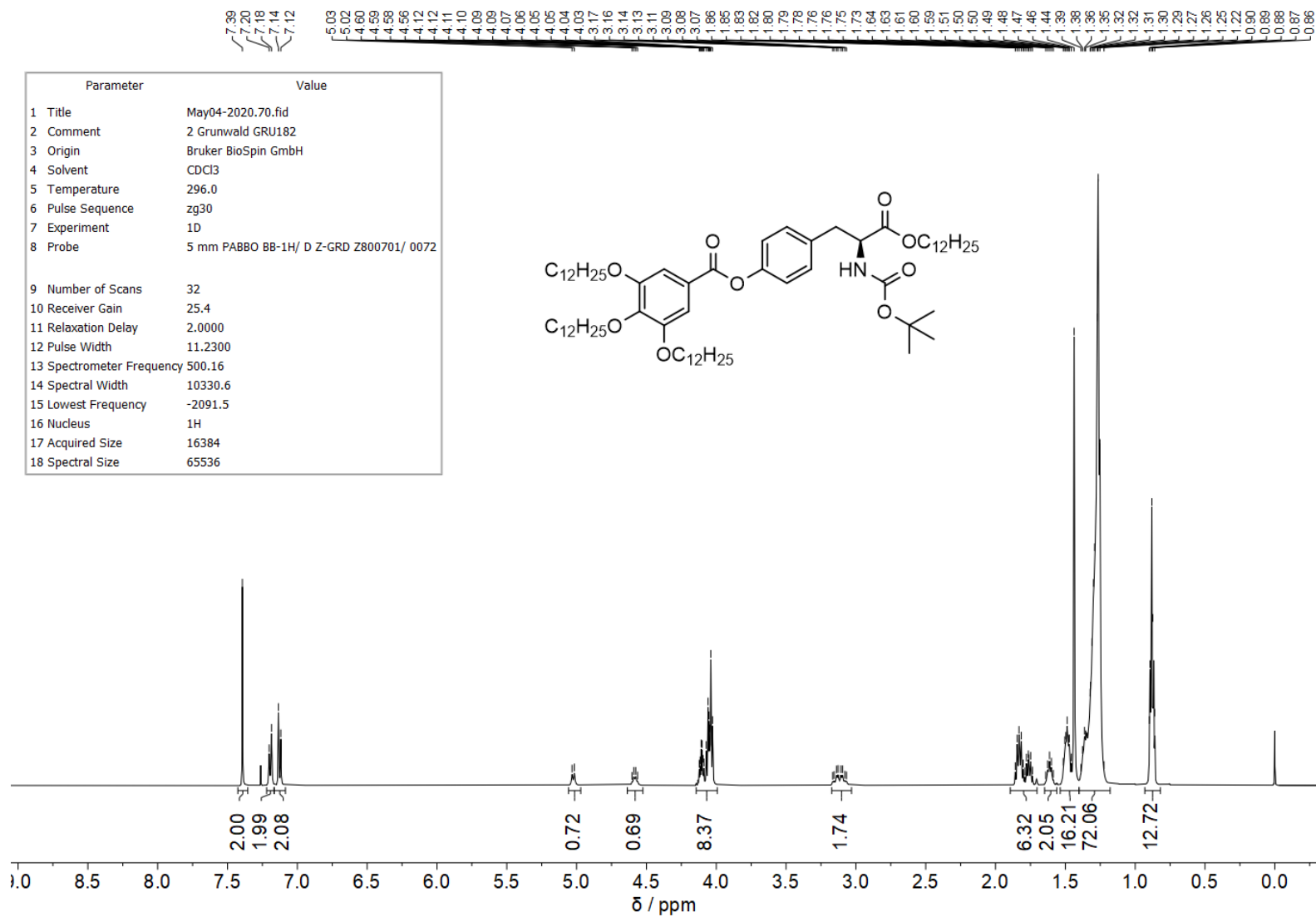
Parameter	Value
1 Title	May04-2020.90.fid
2 Comment	2 Grunwald GRU186
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	32
10 Receiver Gain	28.5
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2092.0
16 Nucleus	1H
17 Acquired Size	16384
18 Spectral Size	65536



3,4,5-C₁₀TyrC₁₂Boc

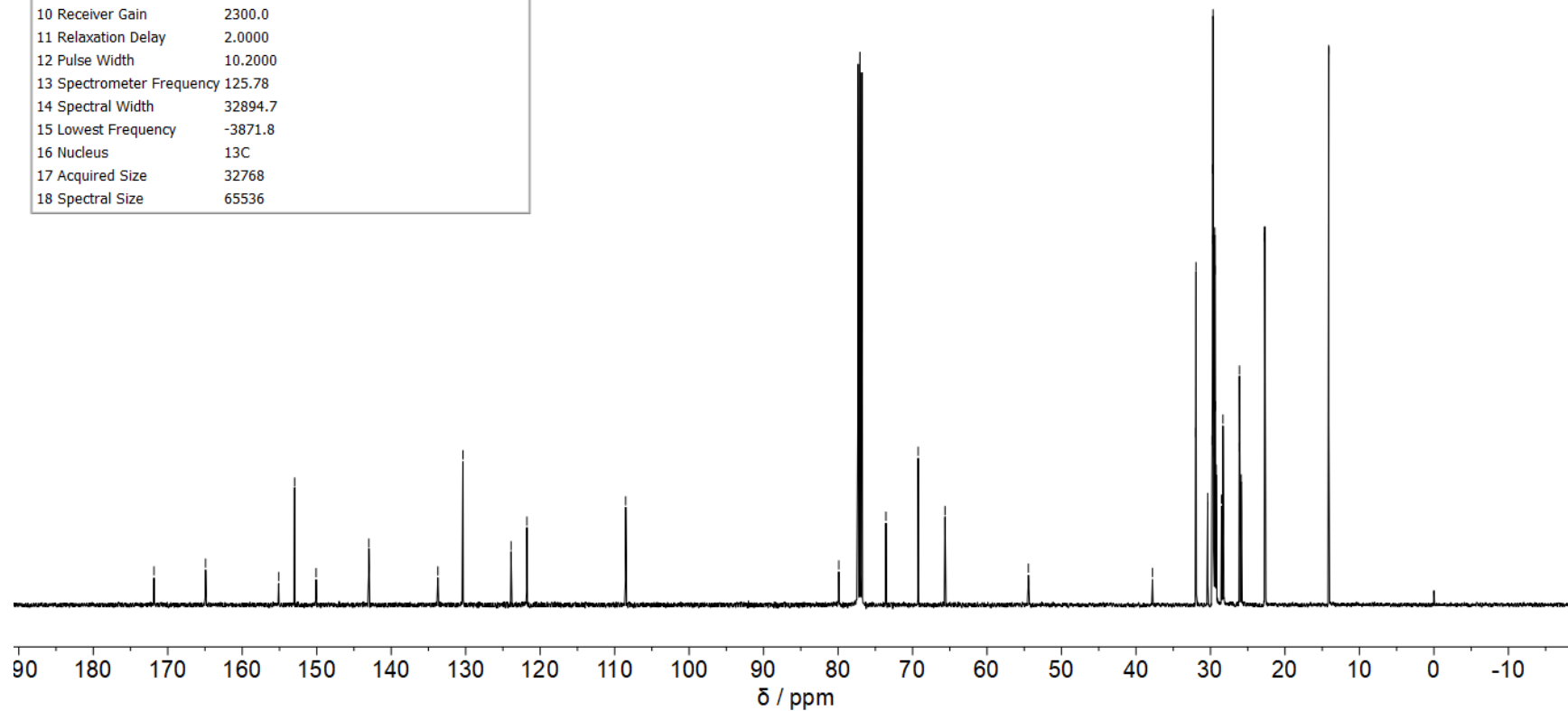
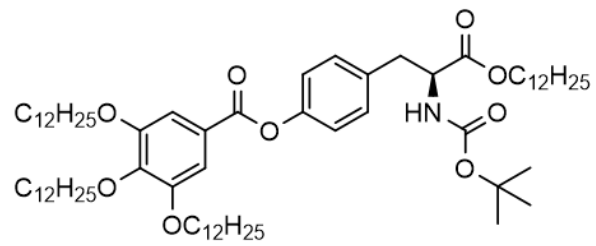


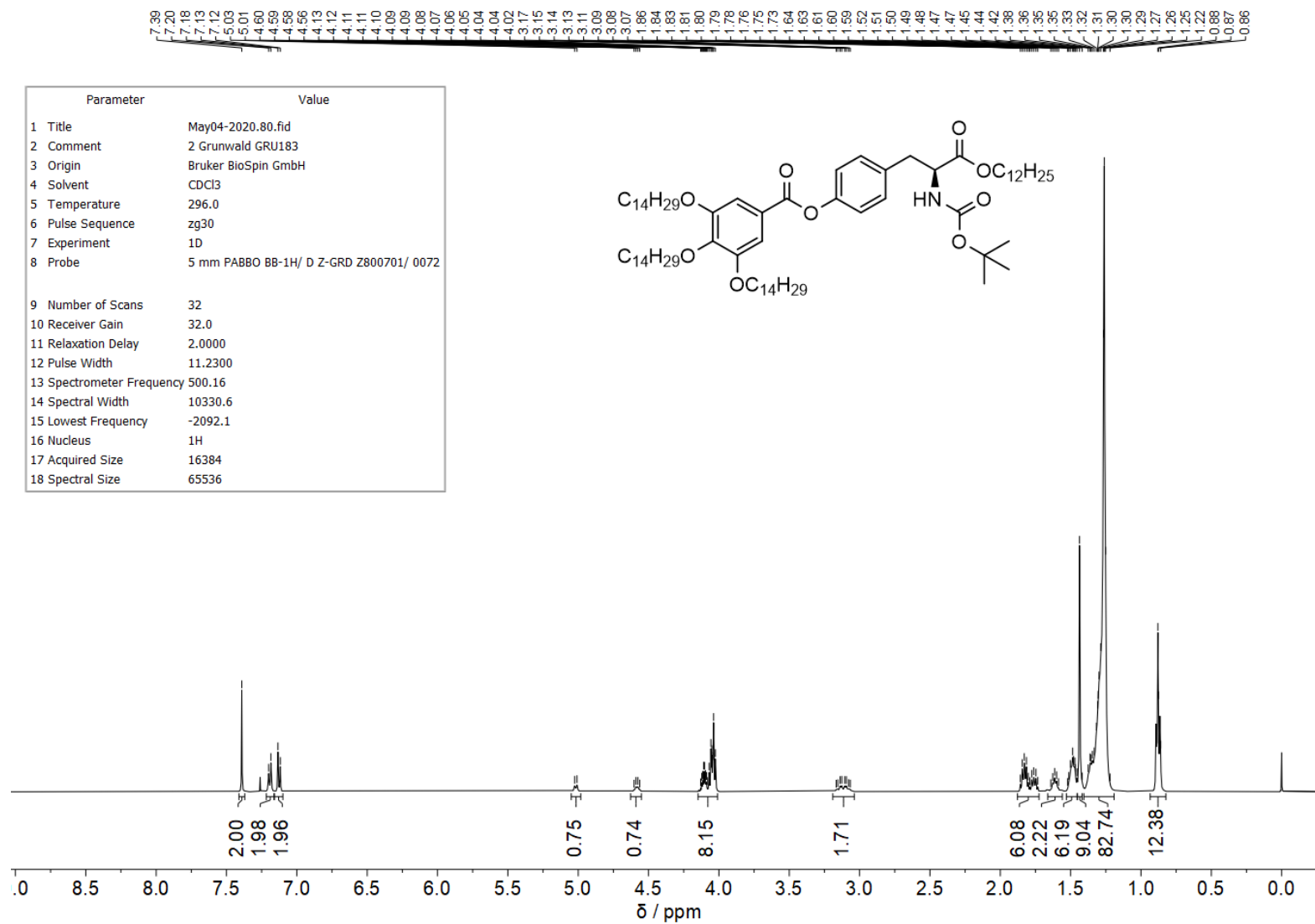
Parameter	Value
1 Title	May04-2020.61.fid
2 Comment	2 Grunwald GRU181
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2300.0
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3871.9
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

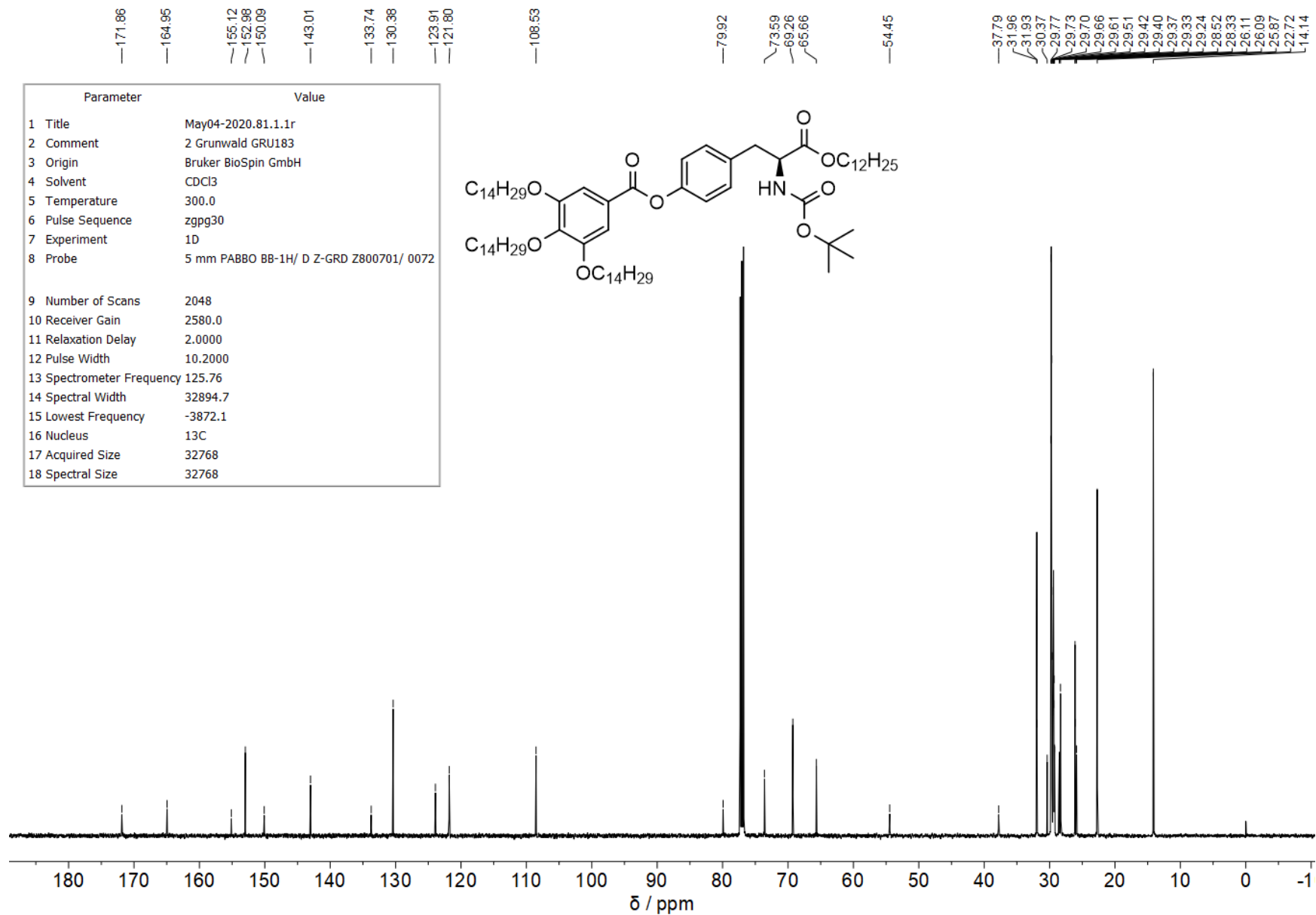
3,4,5-C₁₂TyrC₁₂Boc

171.85 164.93 155.11 152.97 150.08 143.00 133.73 130.36 123.90 121.78 108.52 79.90 73.58 69.25 65.65 54.45 37.78 31.97 31.95 31.93 30.37 29.78 29.76 29.72 29.68 29.66 29.60 29.51 29.42 29.39 29.37 29.32 29.23 28.52 28.53 26.11 26.09 25.87 22.71 14.13

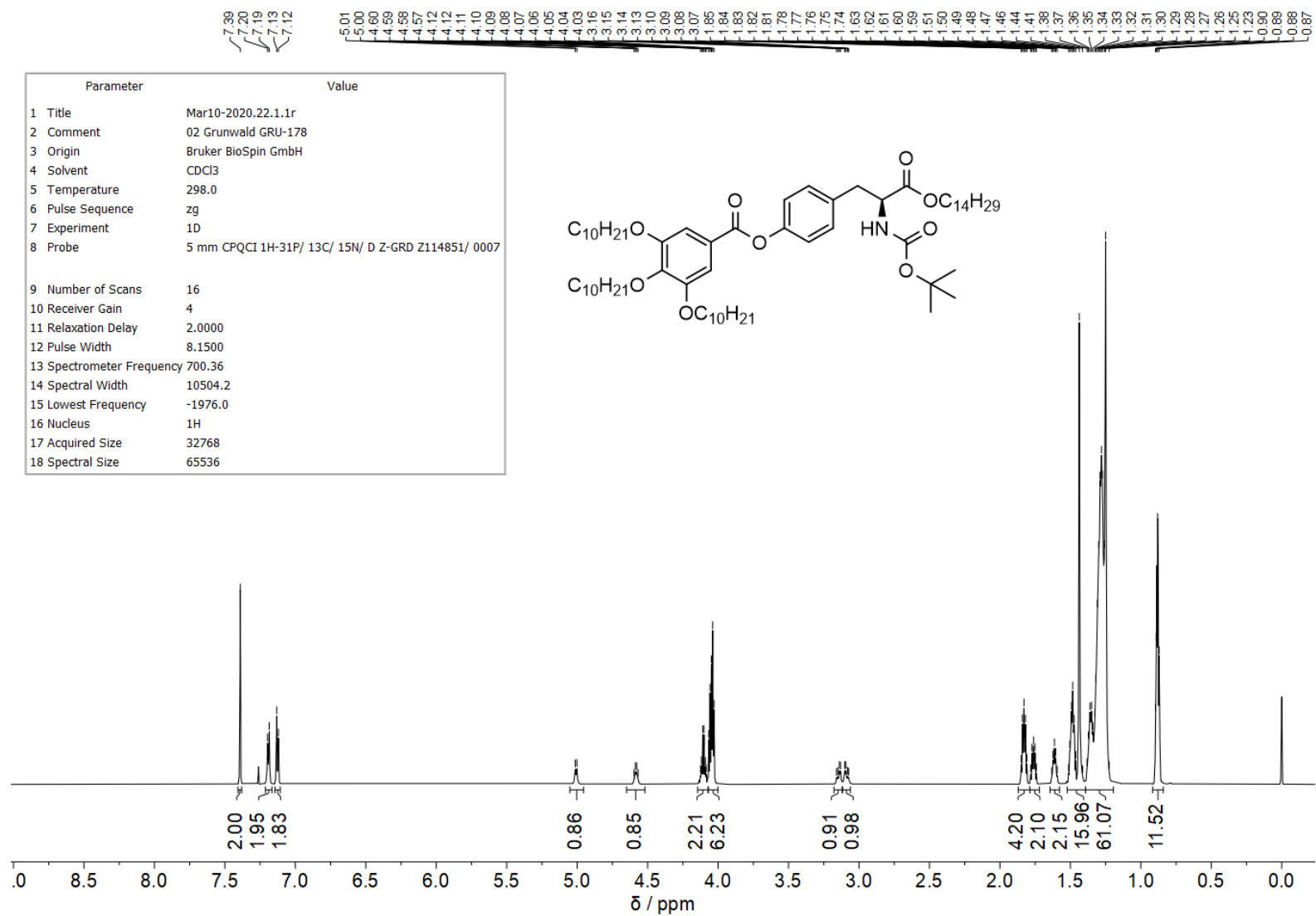
Parameter	Value
1 Title	May04-2020.71.fid
2 Comment	2 Grunwald GRU182
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2300.0
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3871.8
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

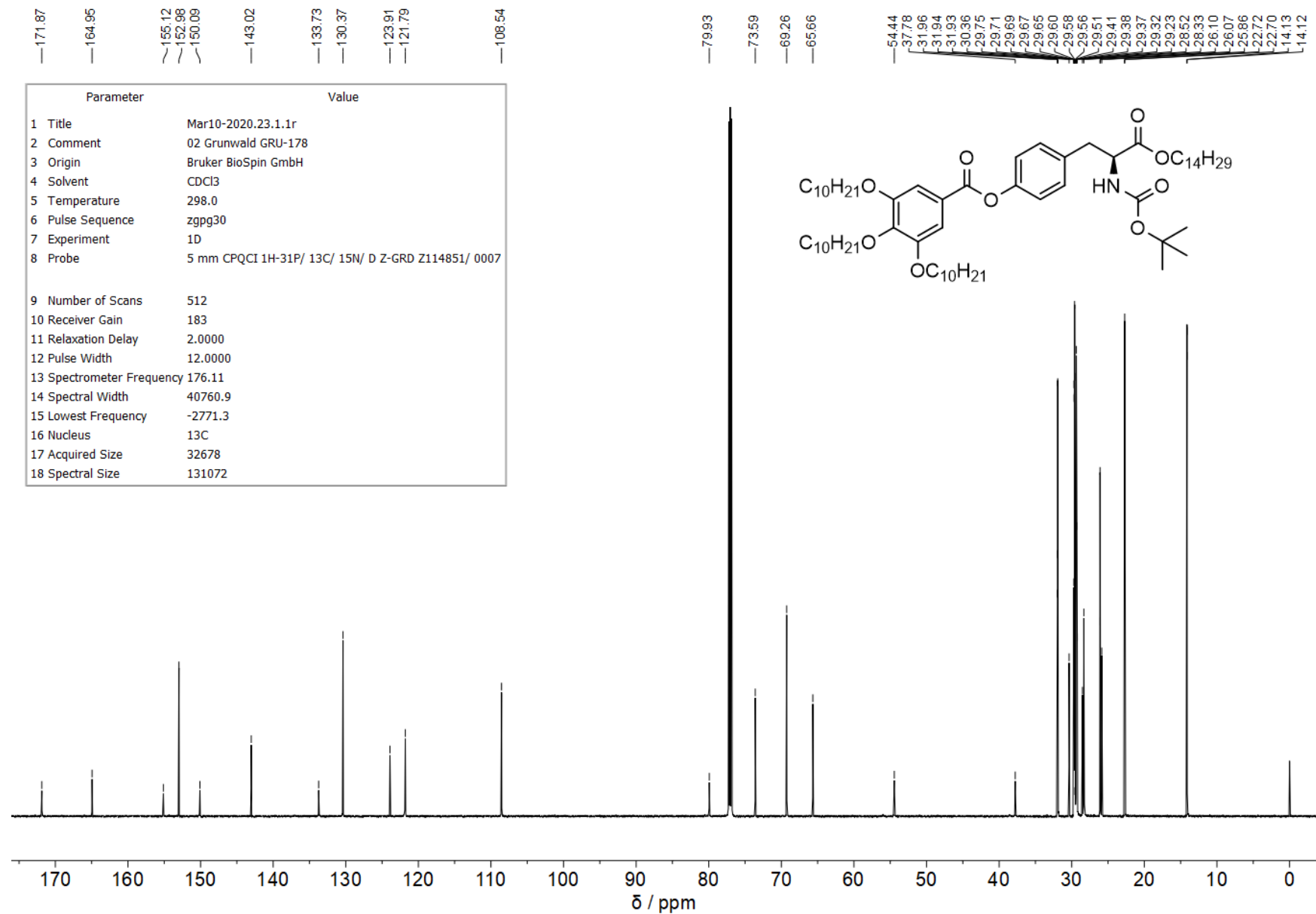


3,4,5-C₁₄TyrC₁₂Boc

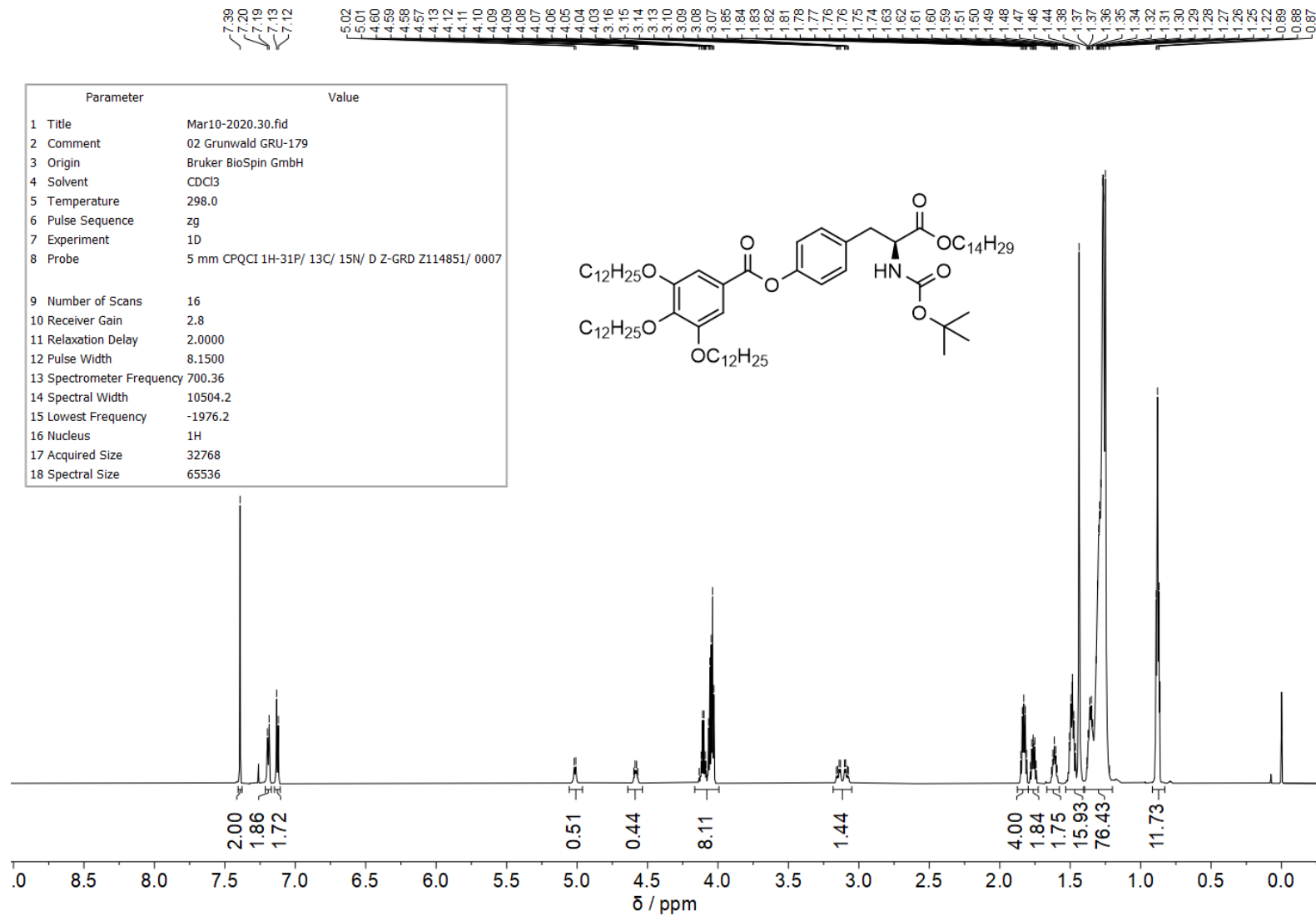


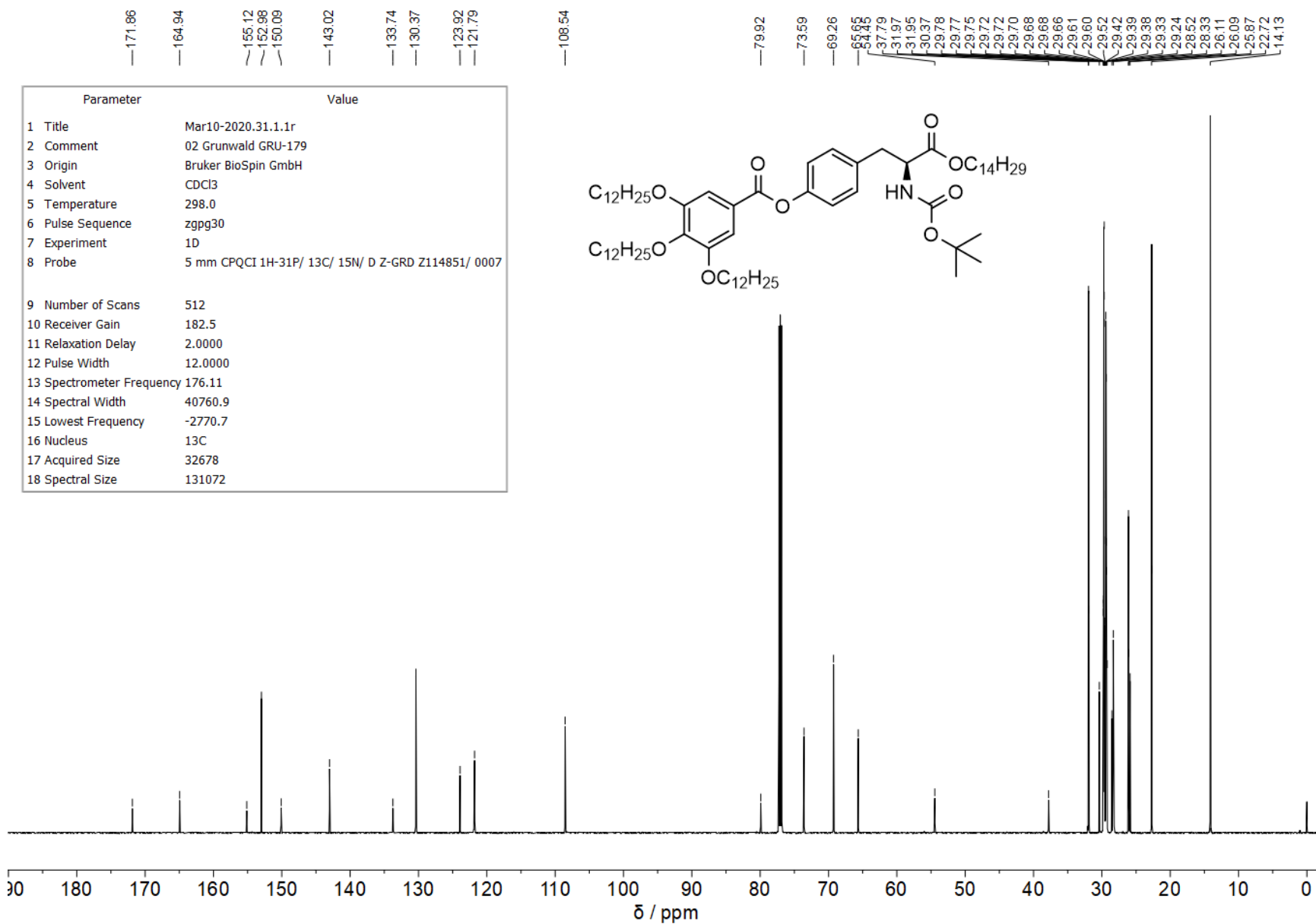
3,4,5-C₁₀TyrC₁₄Boc





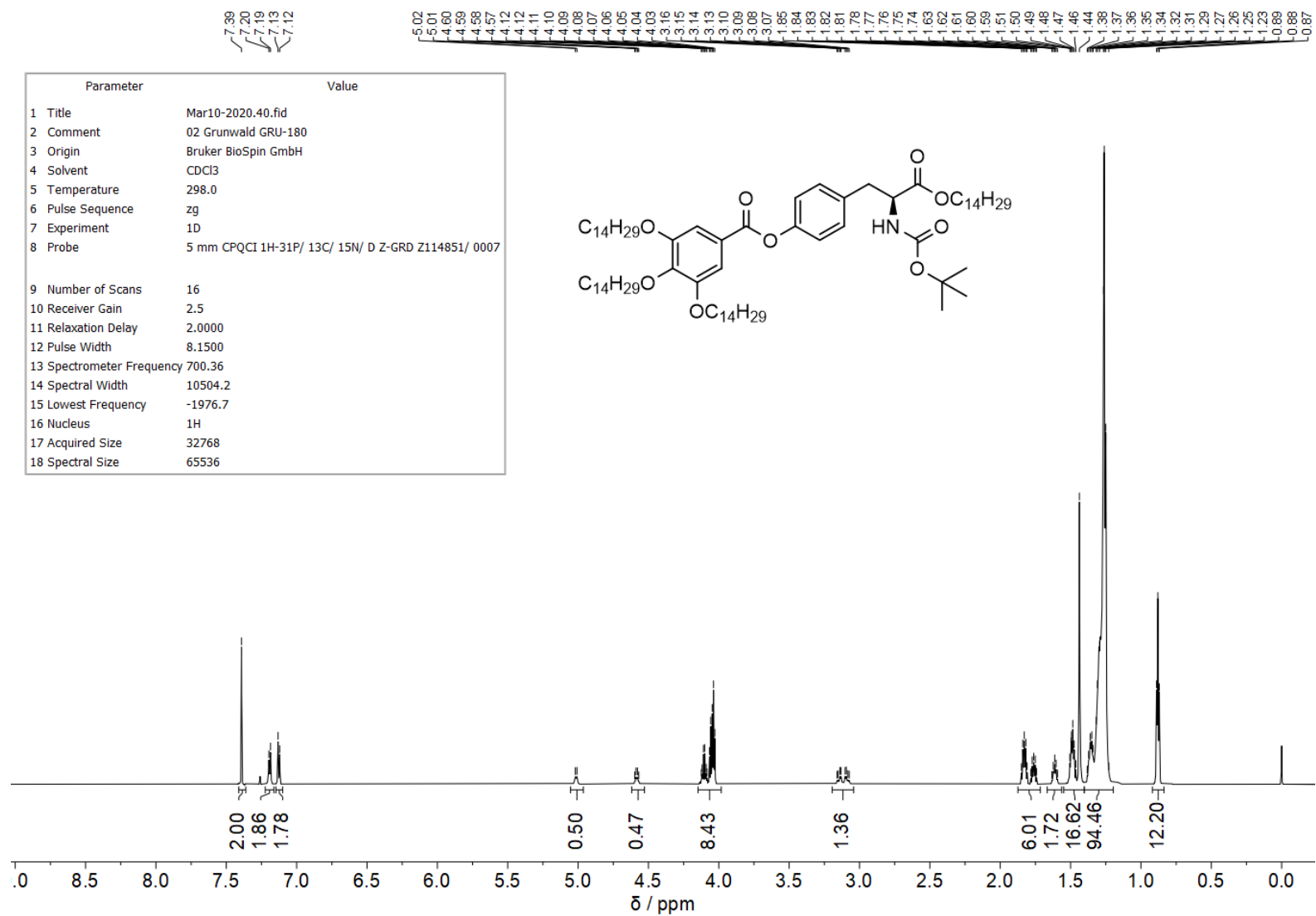
3,4,5-C₁₂TyrC₁₄Boc

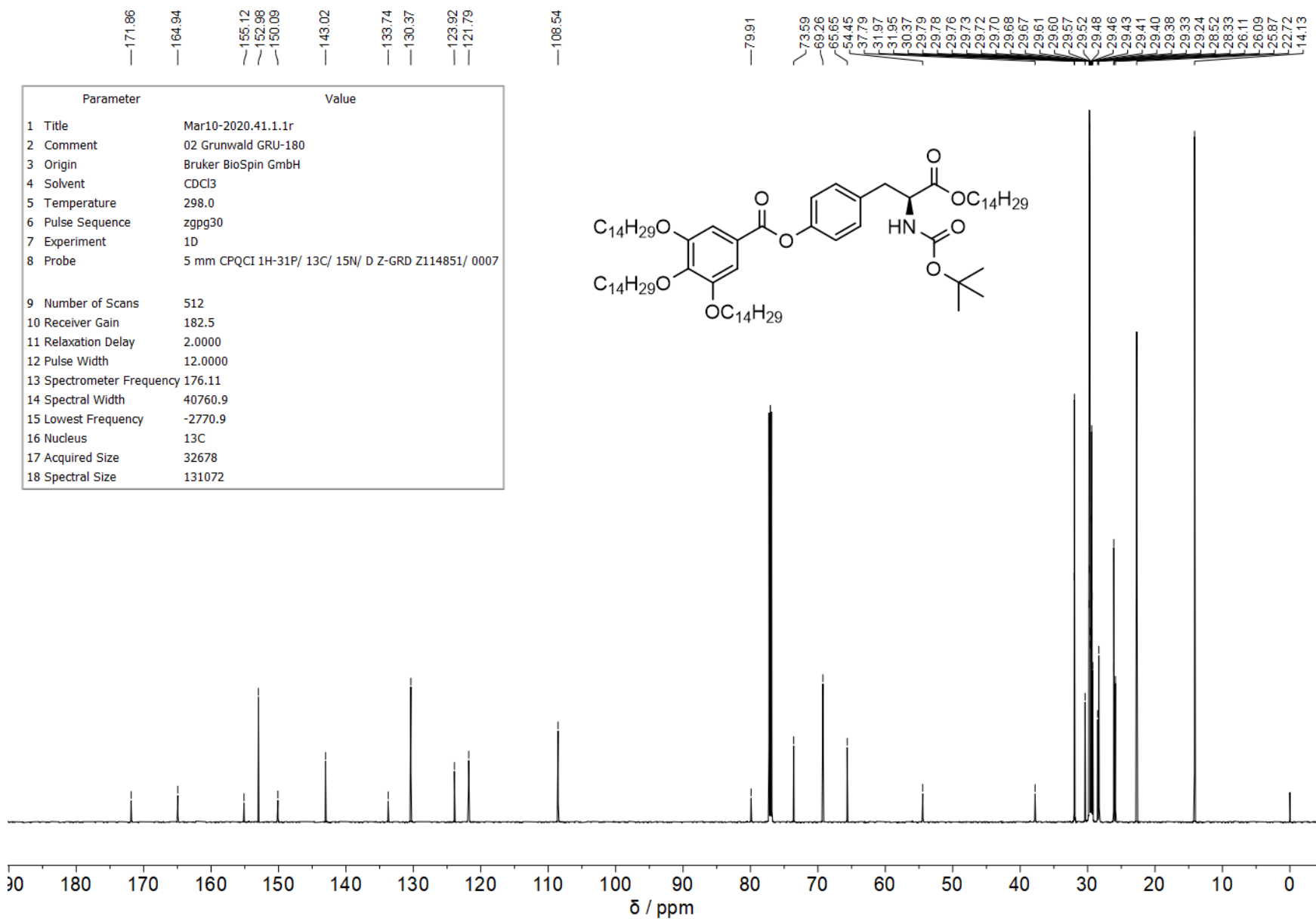




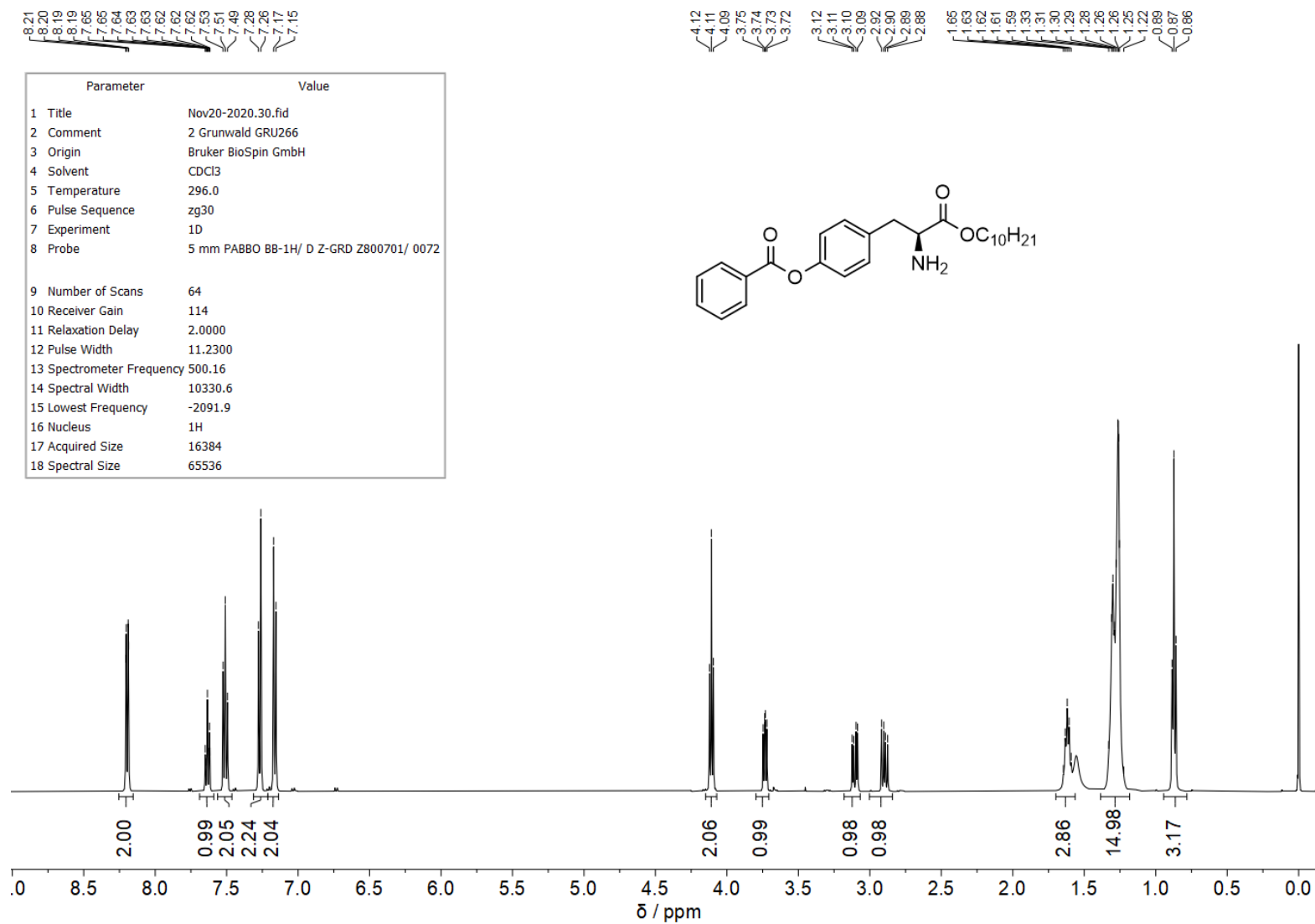
Parameter	Value
1 Title	Mar10-2020.31.1.1r
2 Comment	02 Grunwald GRU-179
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm CPQCI 1H-31P/ 13C/ 15N/ D Z-GRD Z114851/ 0007
9 Number of Scans	512
10 Receiver Gain	182.5
11 Relaxation Delay	2.0000
12 Pulse Width	12.0000
13 Spectrometer Frequency	176.11
14 Spectral Width	40760.9
15 Lowest Frequency	-2770.7
16 Nucleus	13C
17 Acquired Size	32678
18 Spectral Size	131072

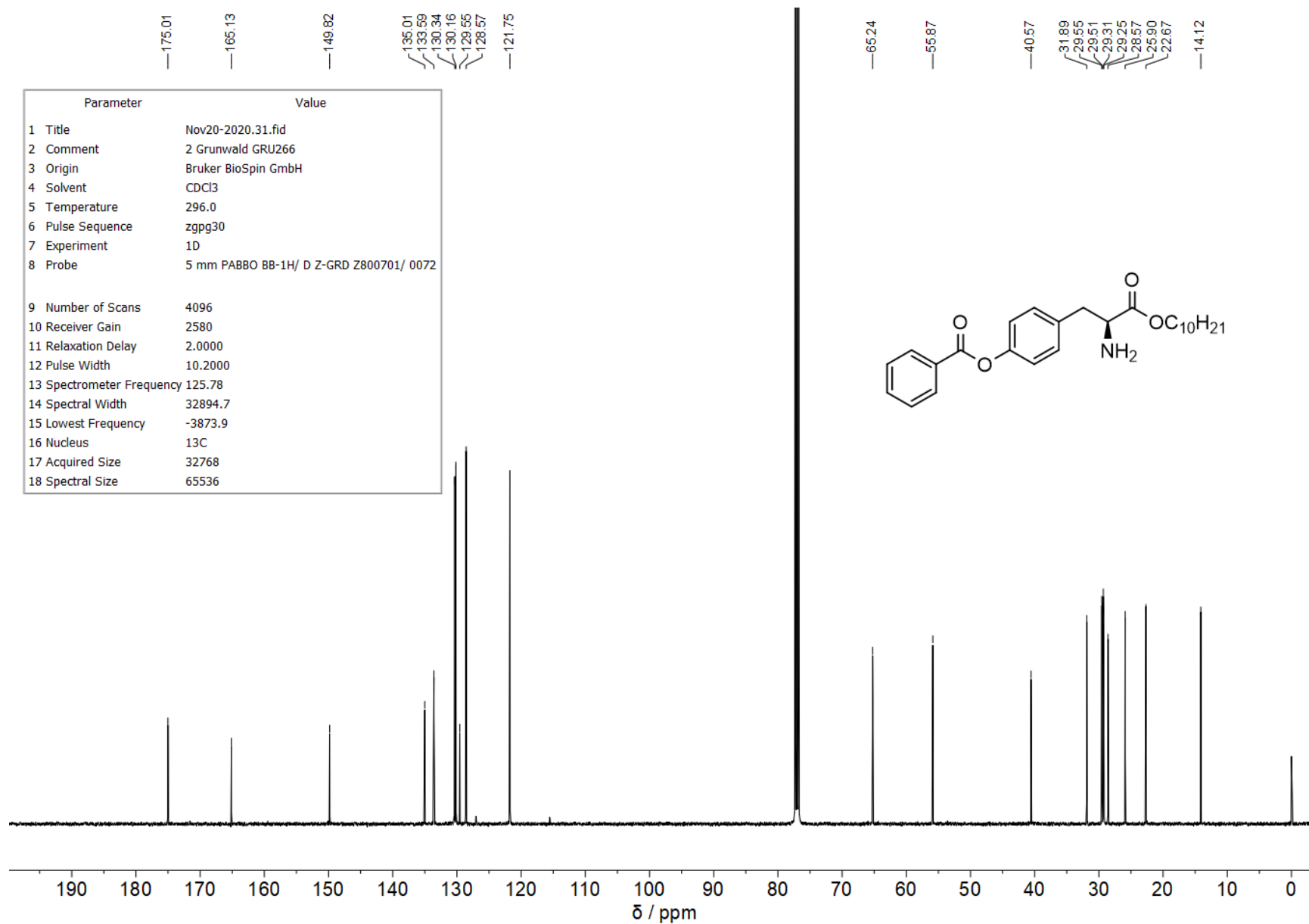
3,4,5-C₁₄TyrC₁₄Boc

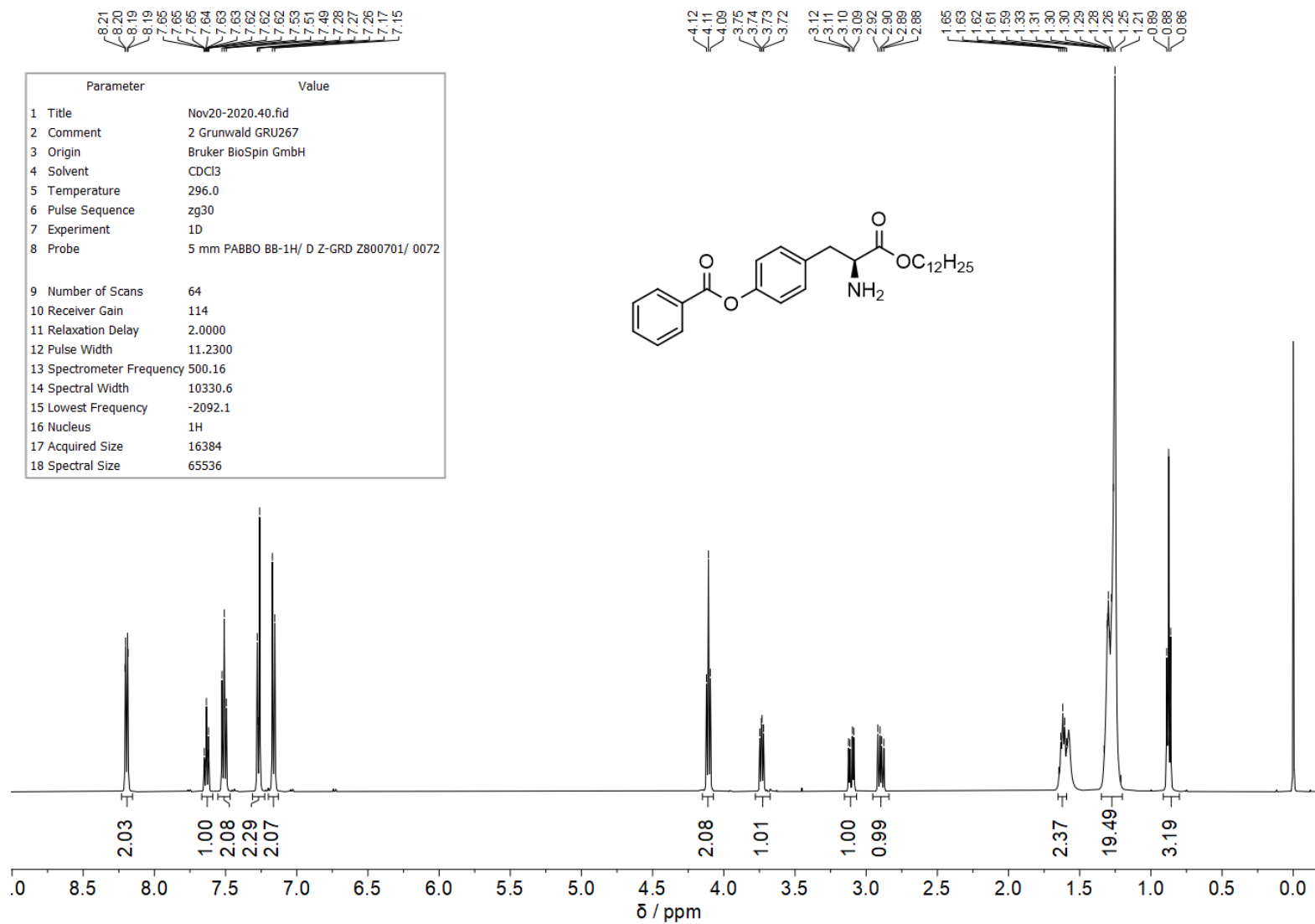


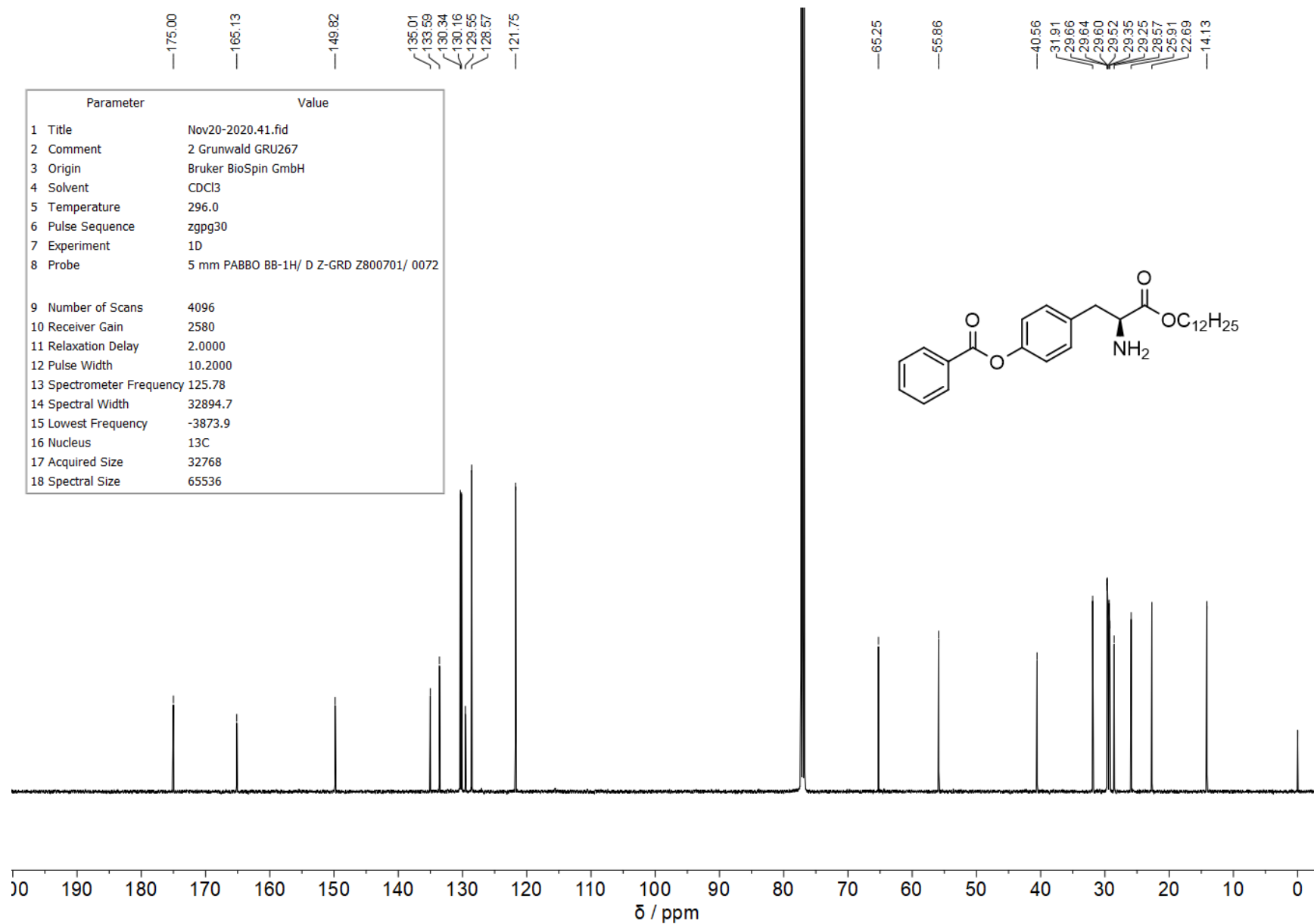


Parameter	Value
1 Title	Mar10-2020.41.1.1r
2 Comment	02 Grunwald GRU-180
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm CPQCI 1H-31P/ 13C/ 15N/ D Z-GRD Z114851/ 0007
9 Number of Scans	512
10 Receiver Gain	182.5
11 Relaxation Delay	2.0000
12 Pulse Width	12.0000
13 Spectrometer Frequency	176.11
14 Spectral Width	40760.9
15 Lowest Frequency	-2770.9
16 Nucleus	13C
17 Acquired Size	32678
18 Spectral Size	131072

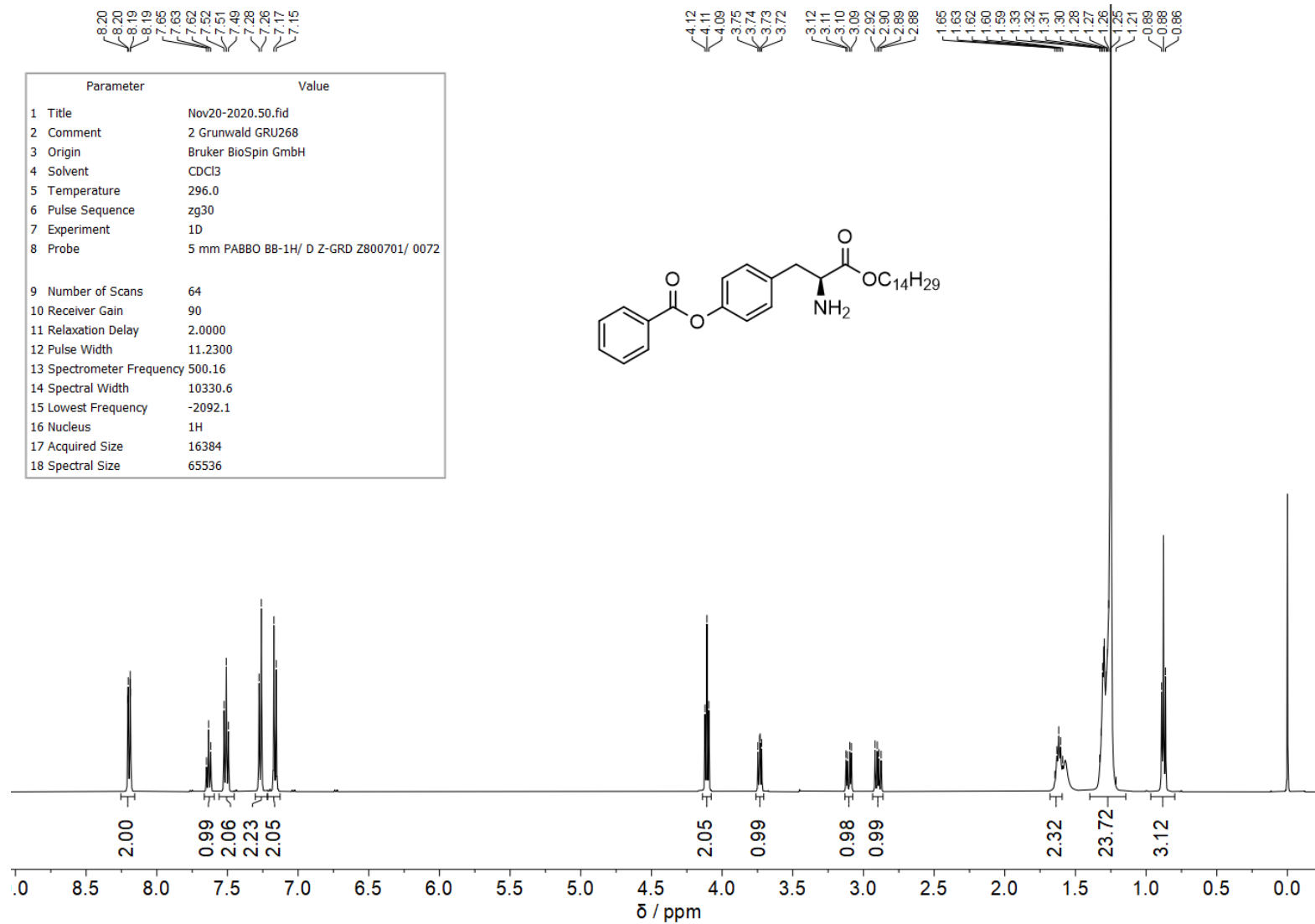
BzTyrC₁₀NH₂

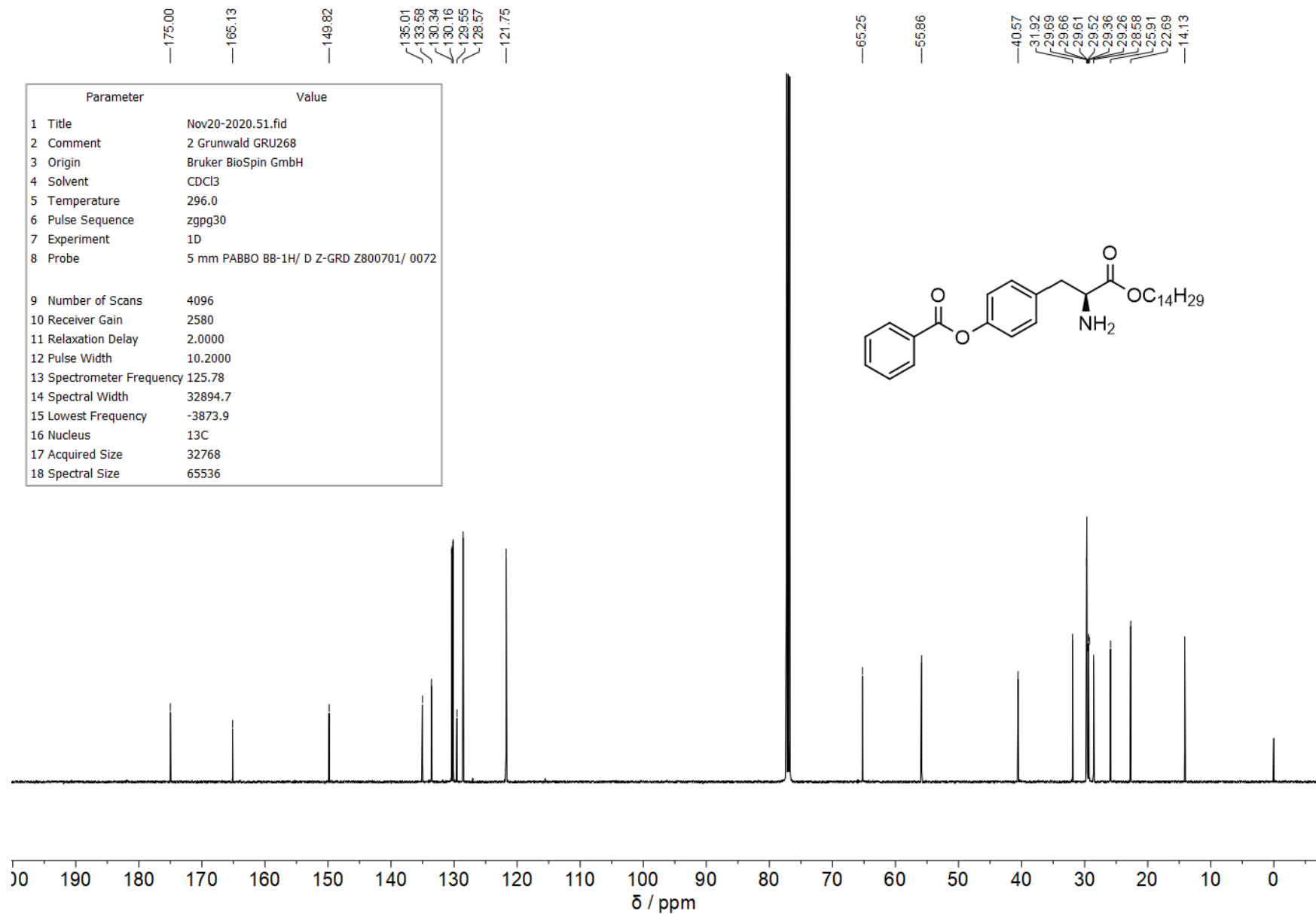


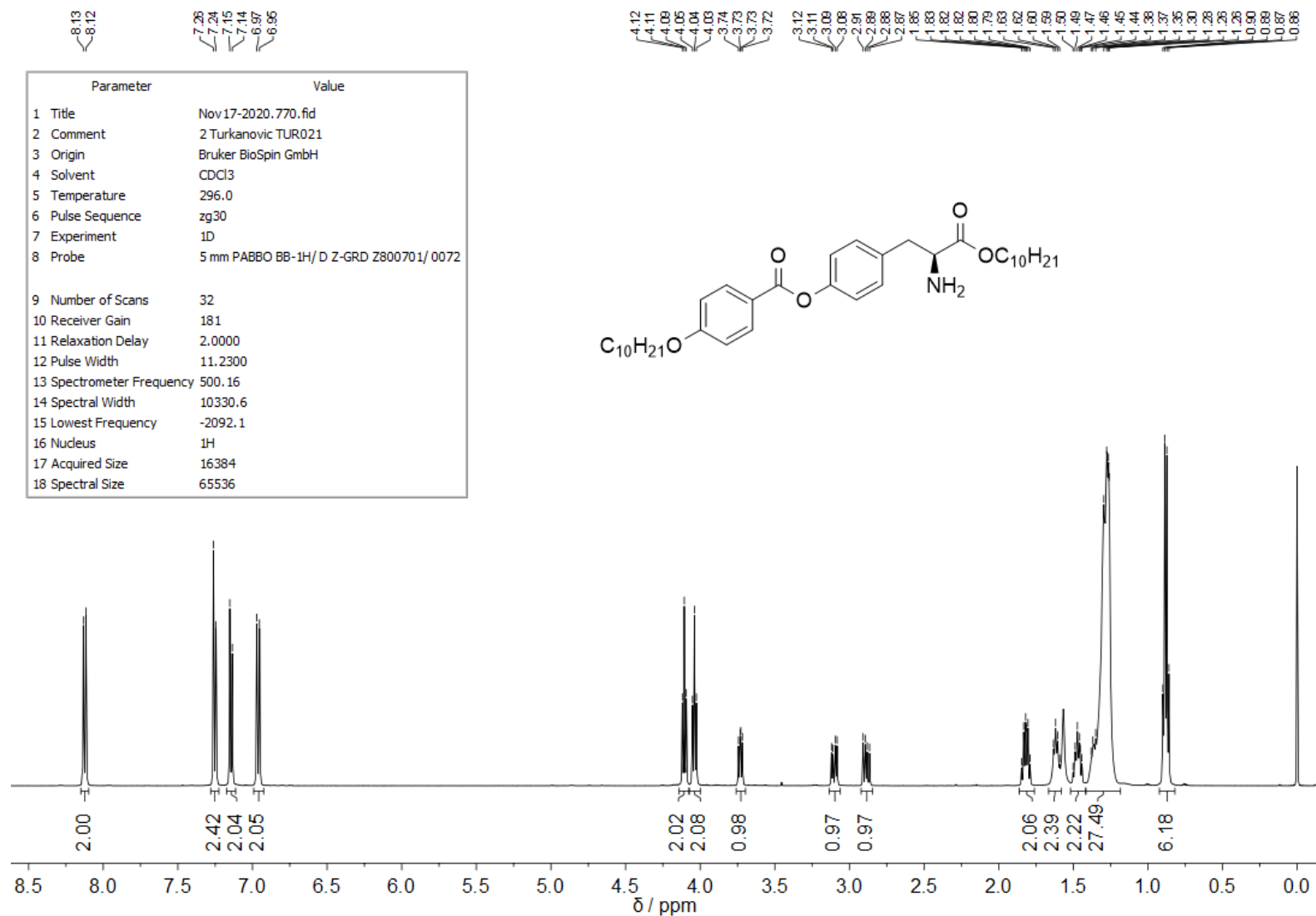
BzTyrC₁₂NH₂

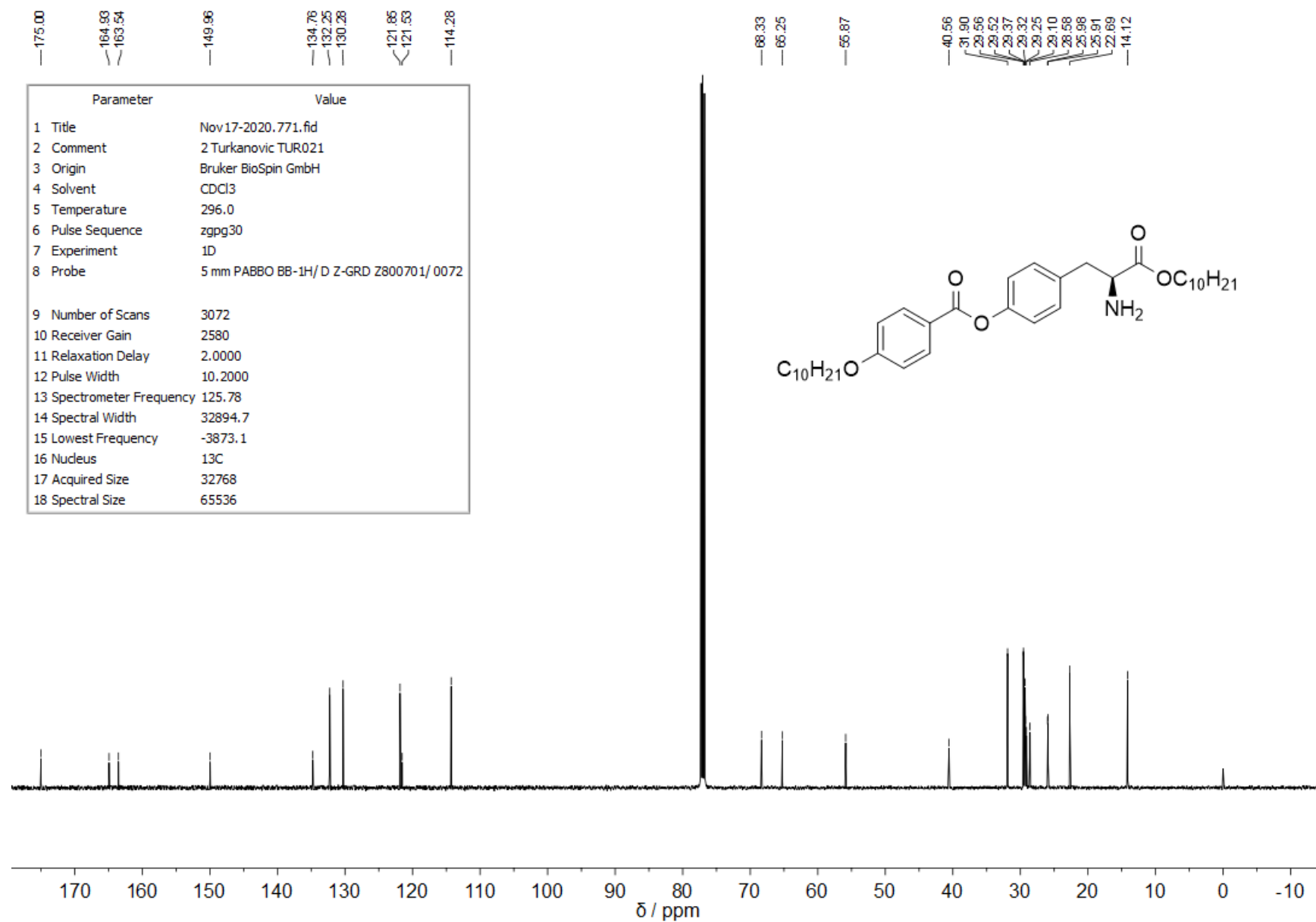


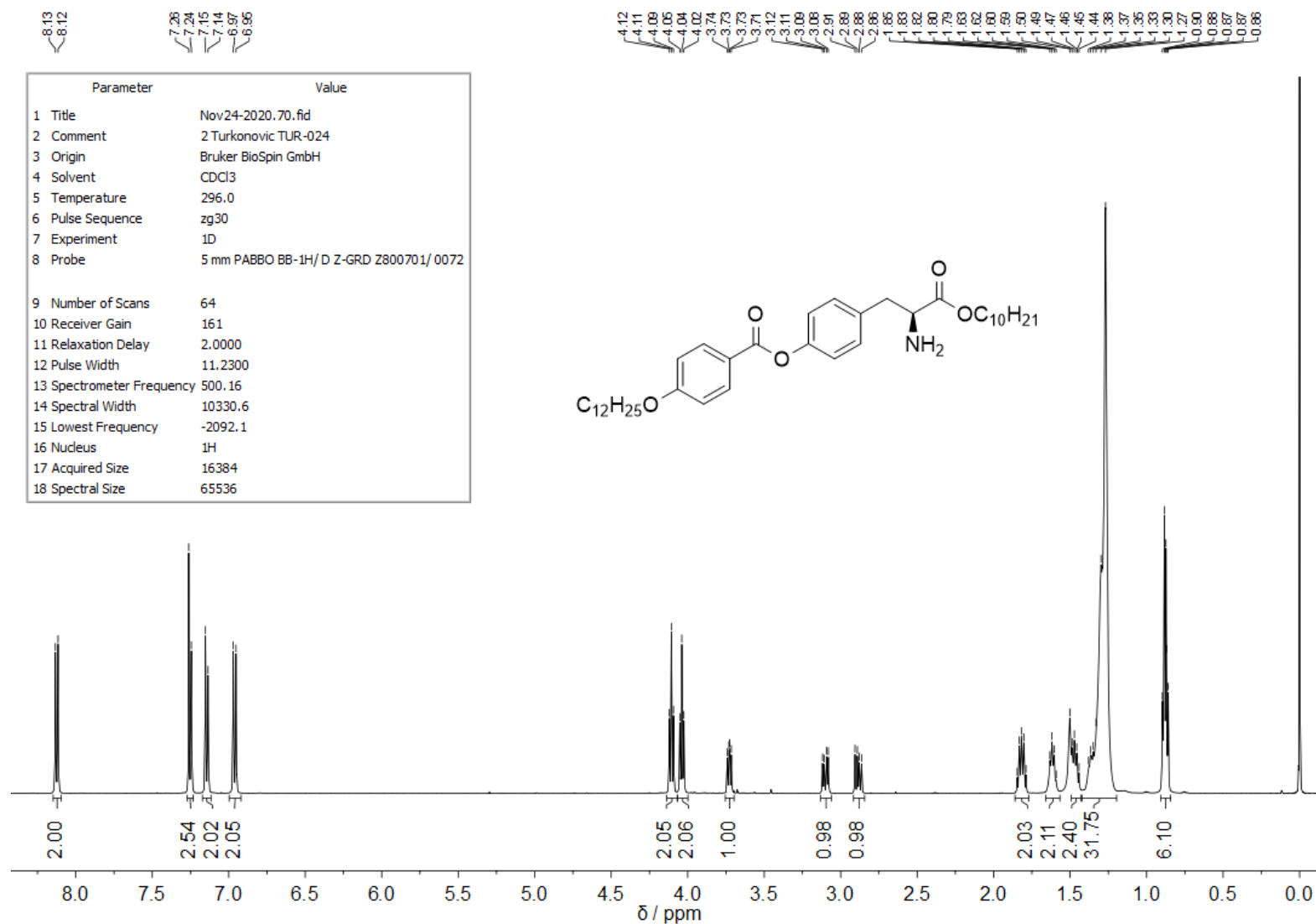
BzTyrC14NH2

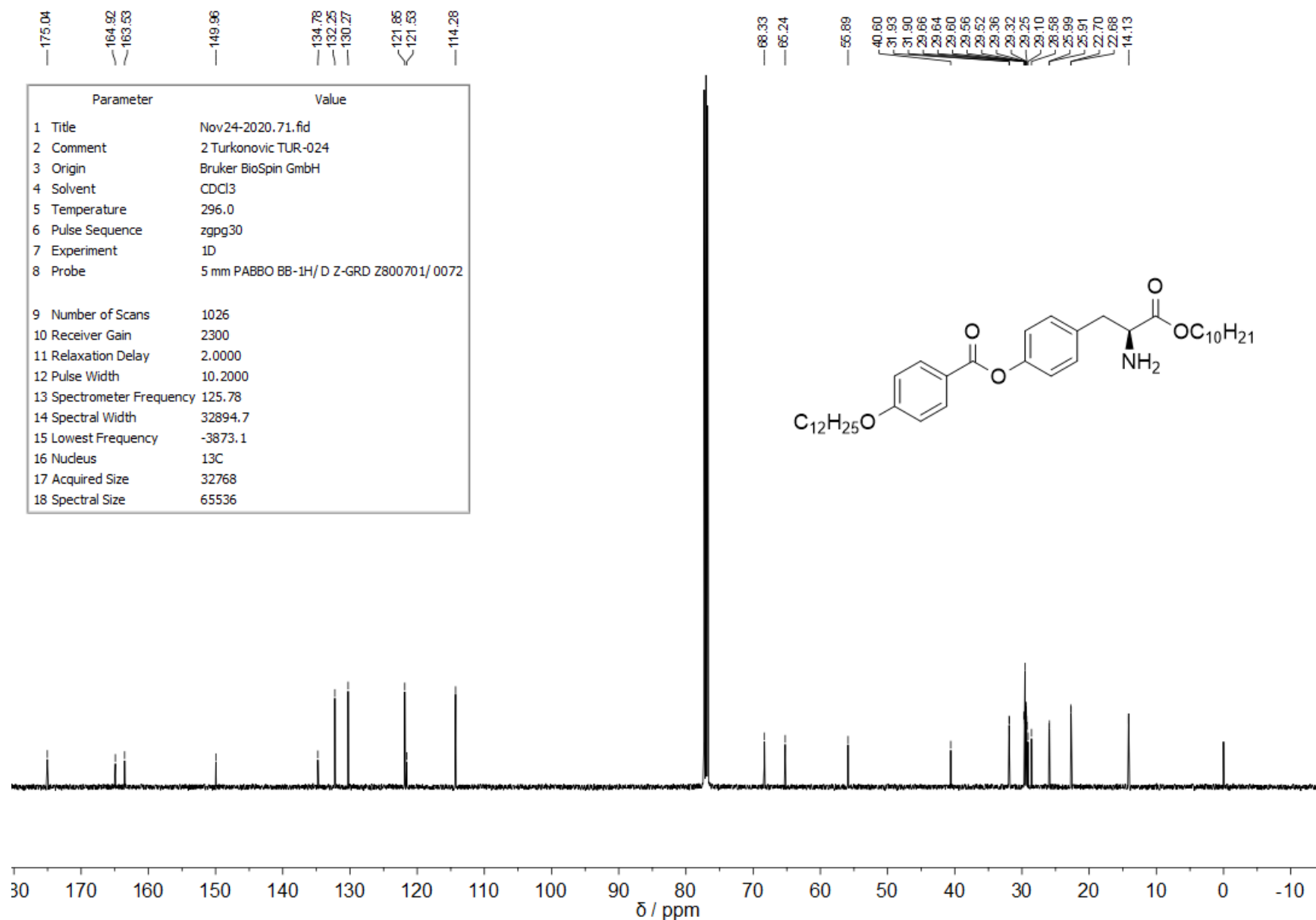


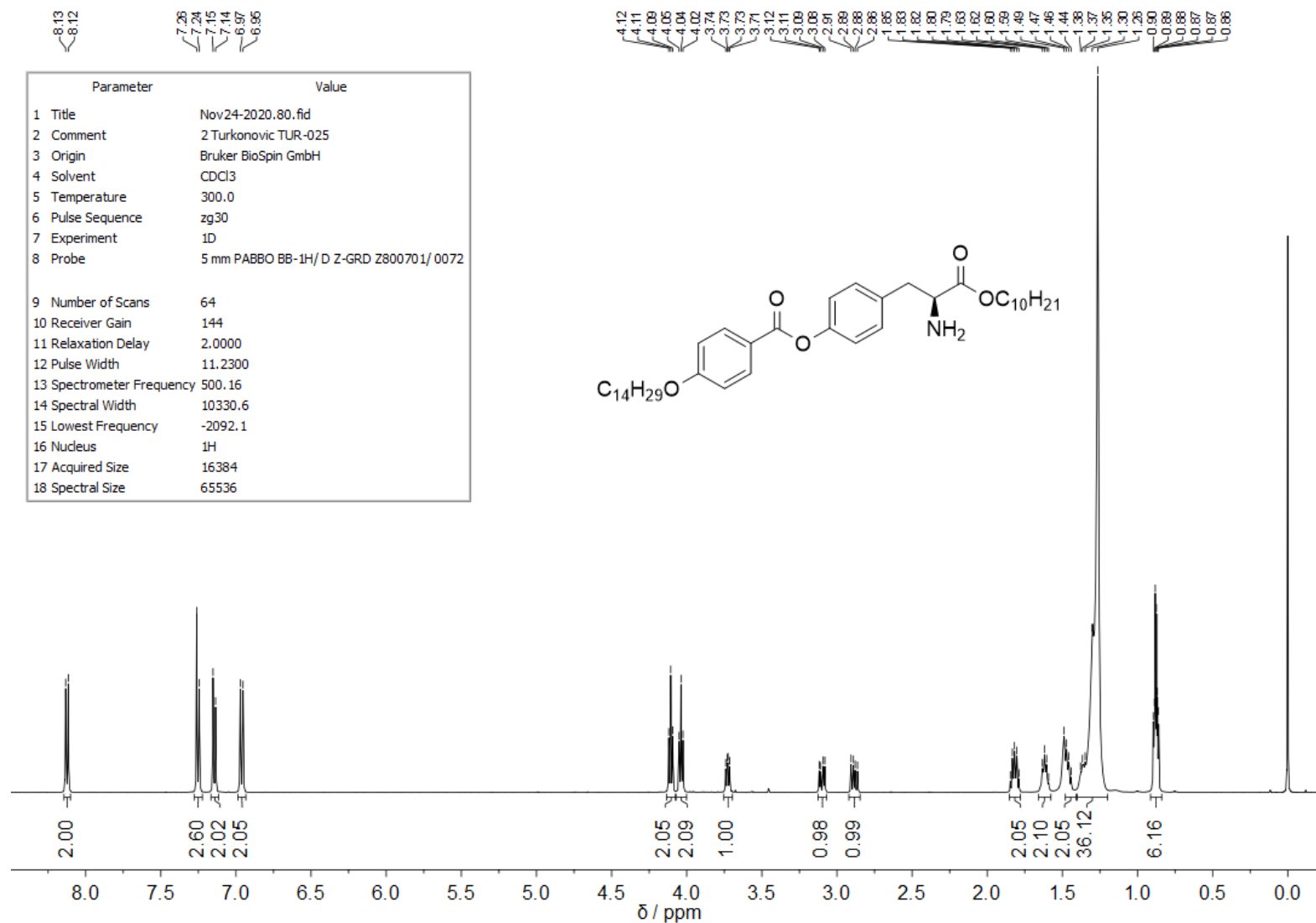


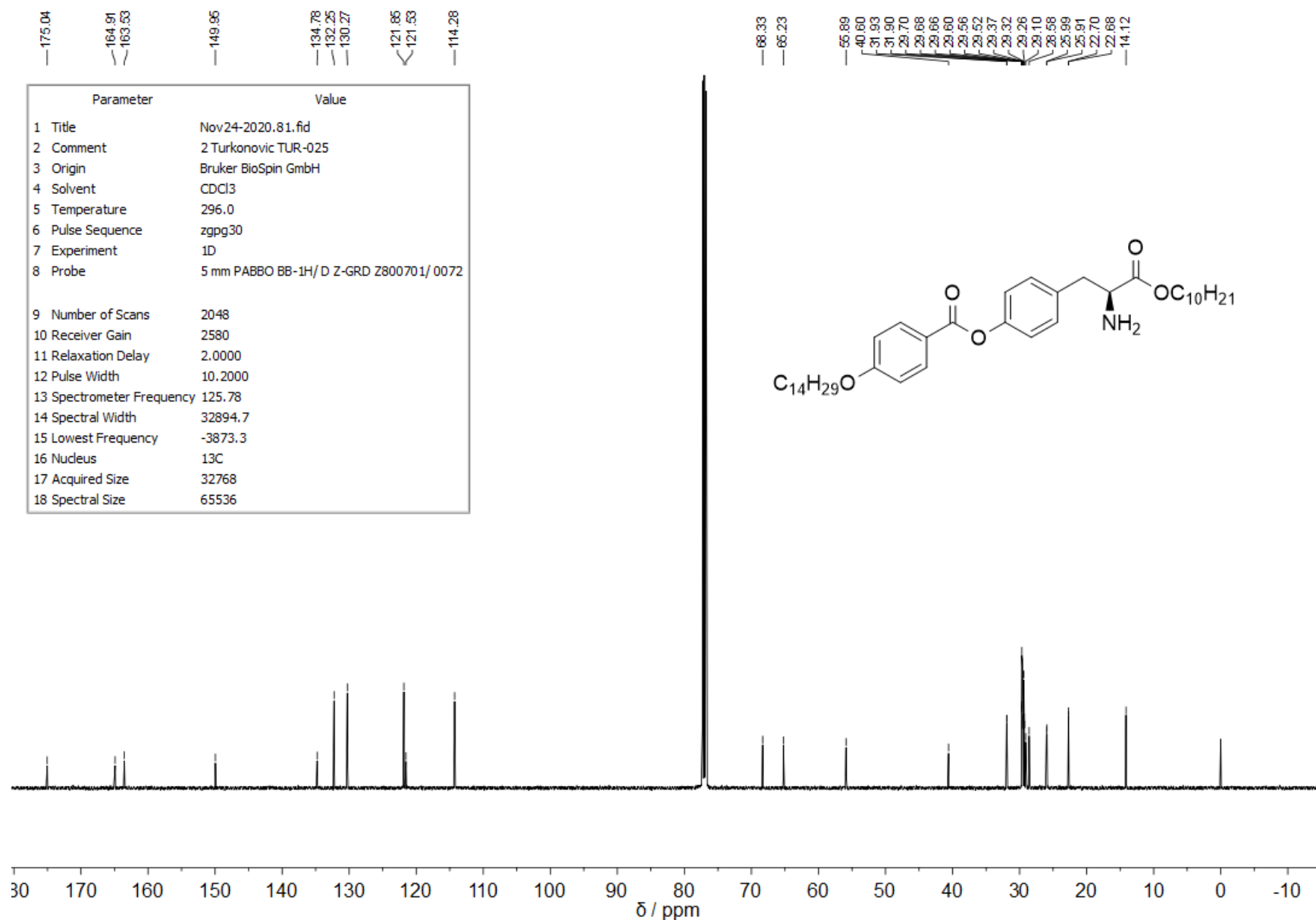
4-C₁₀TyrC₁₀NH₂

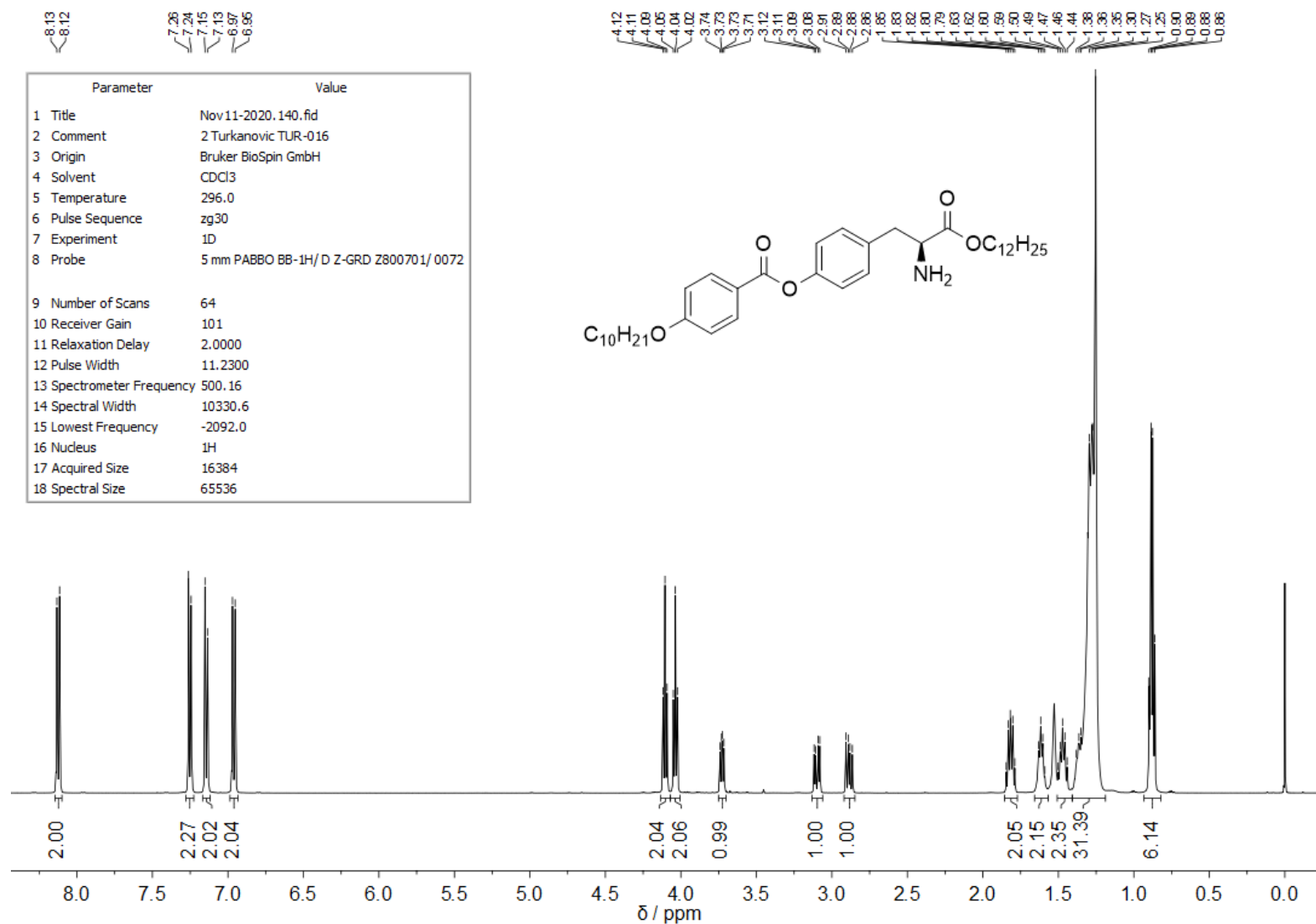


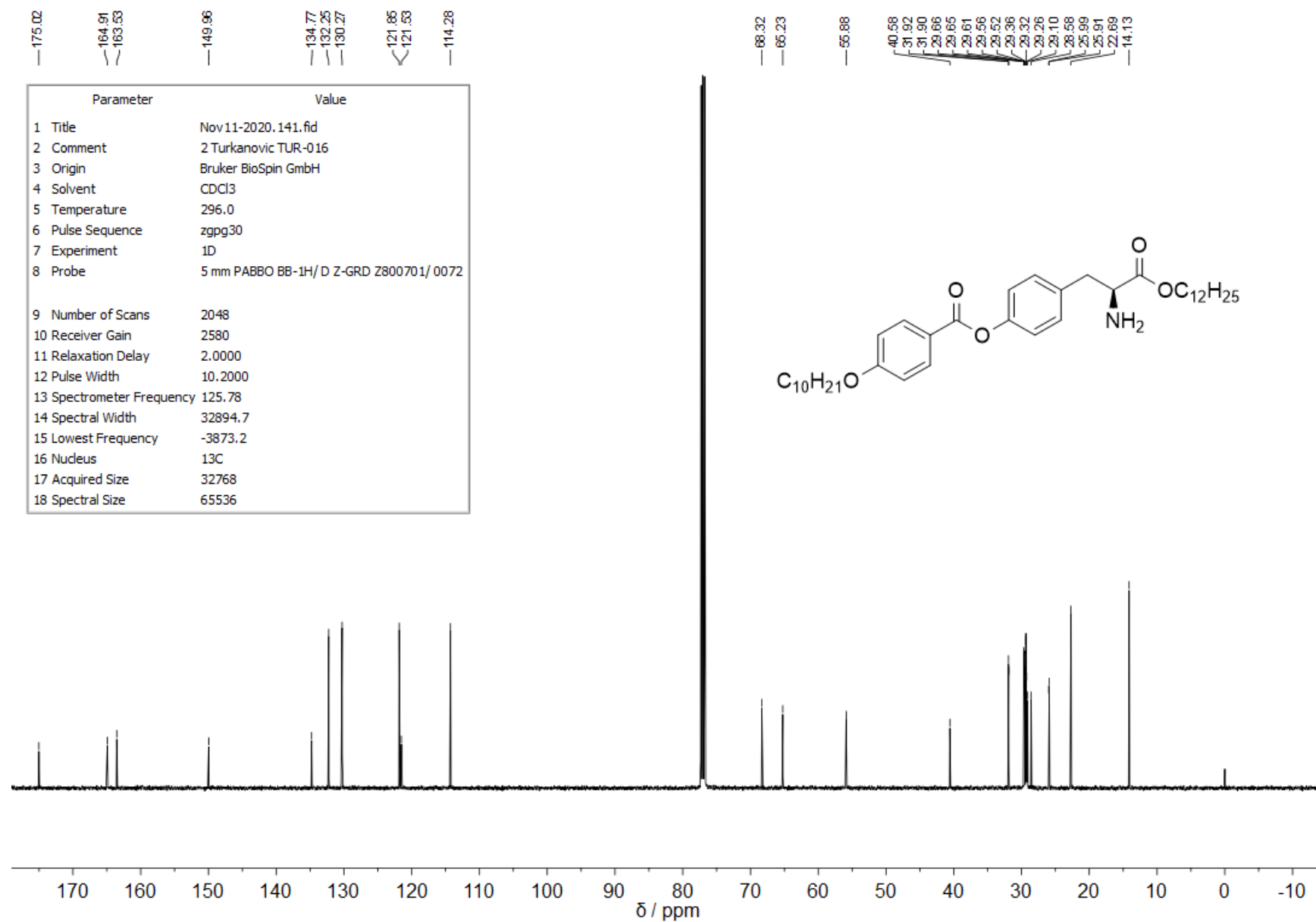
4-C₁₂TyrC₁₀NH₂

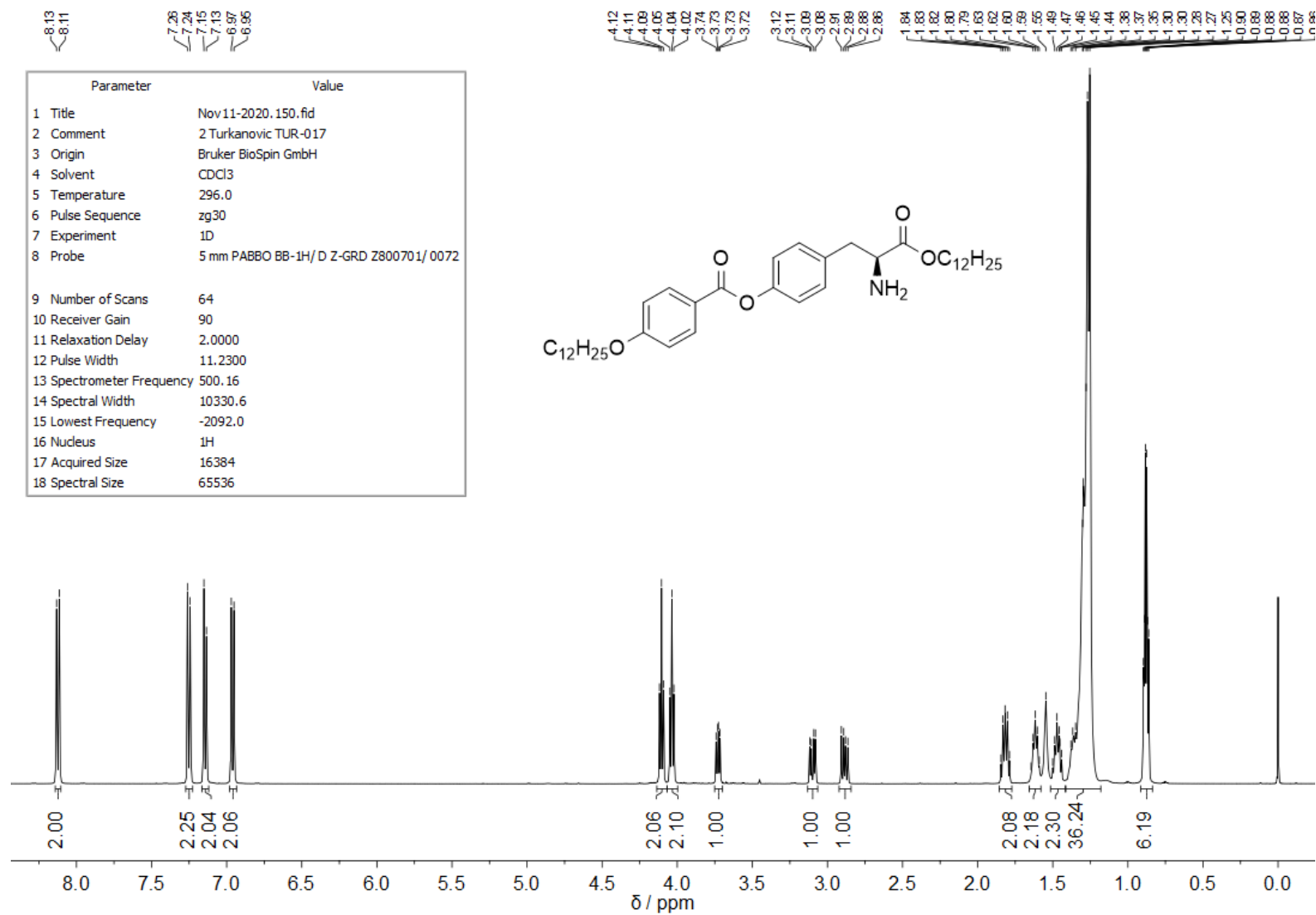


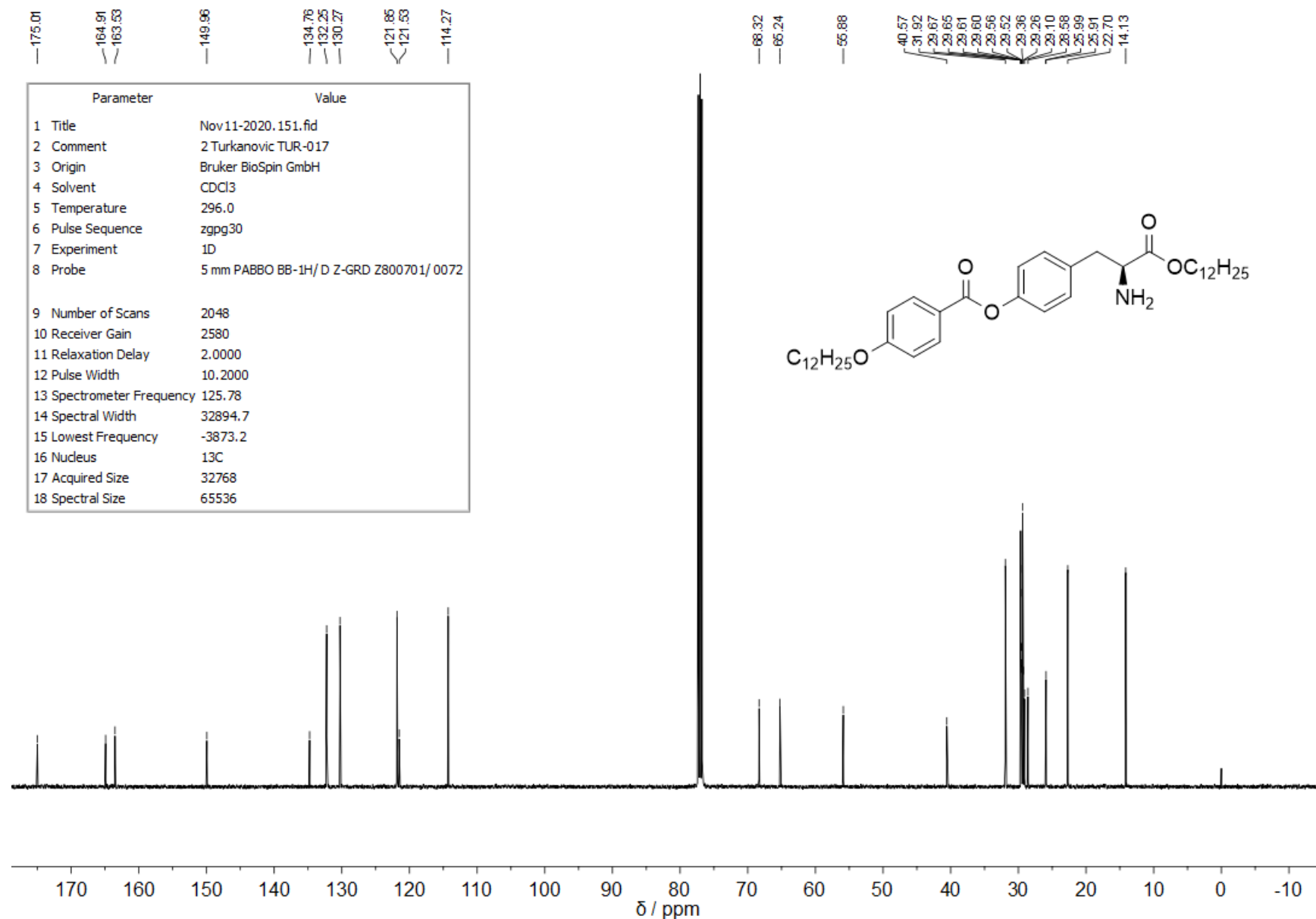
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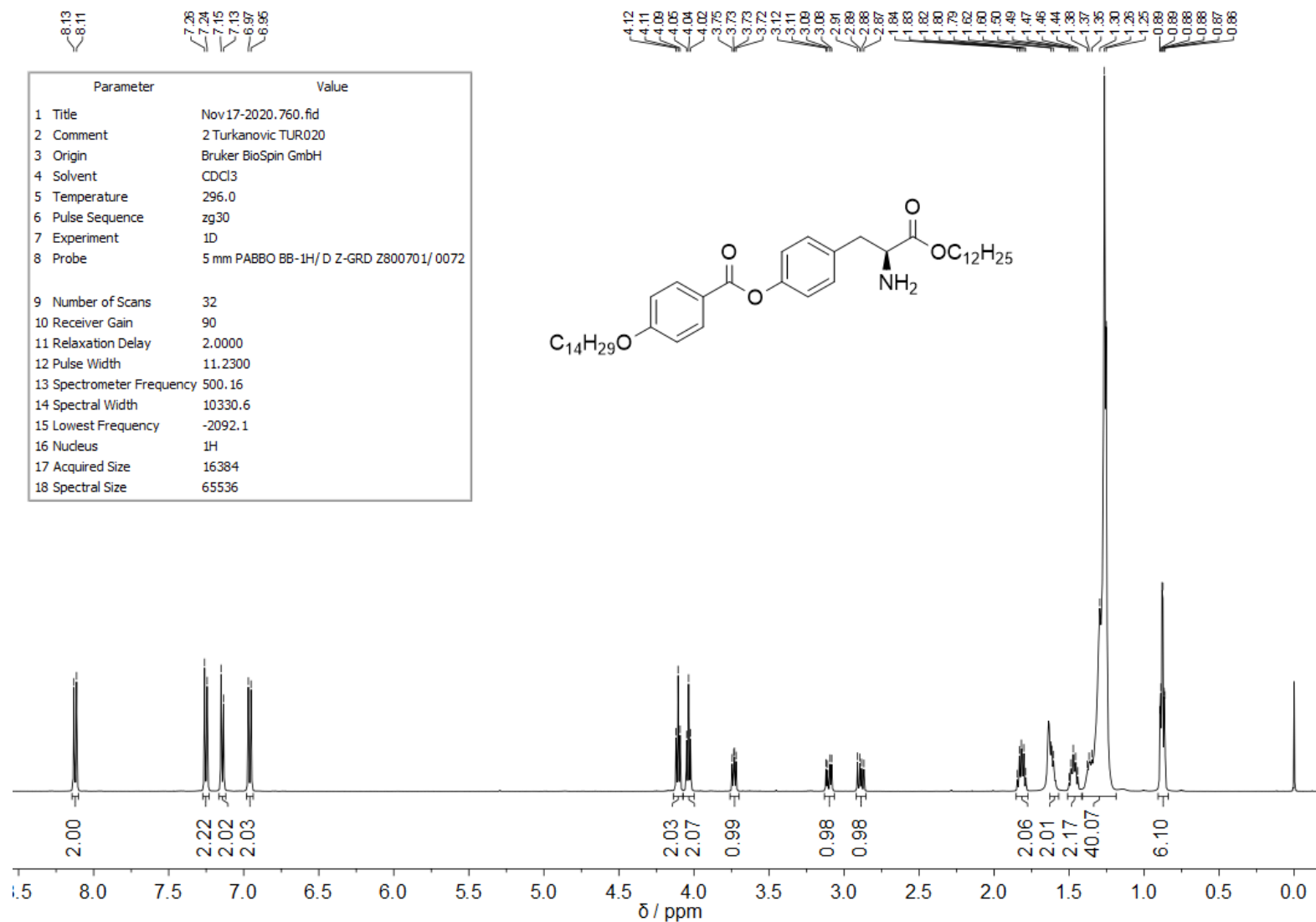


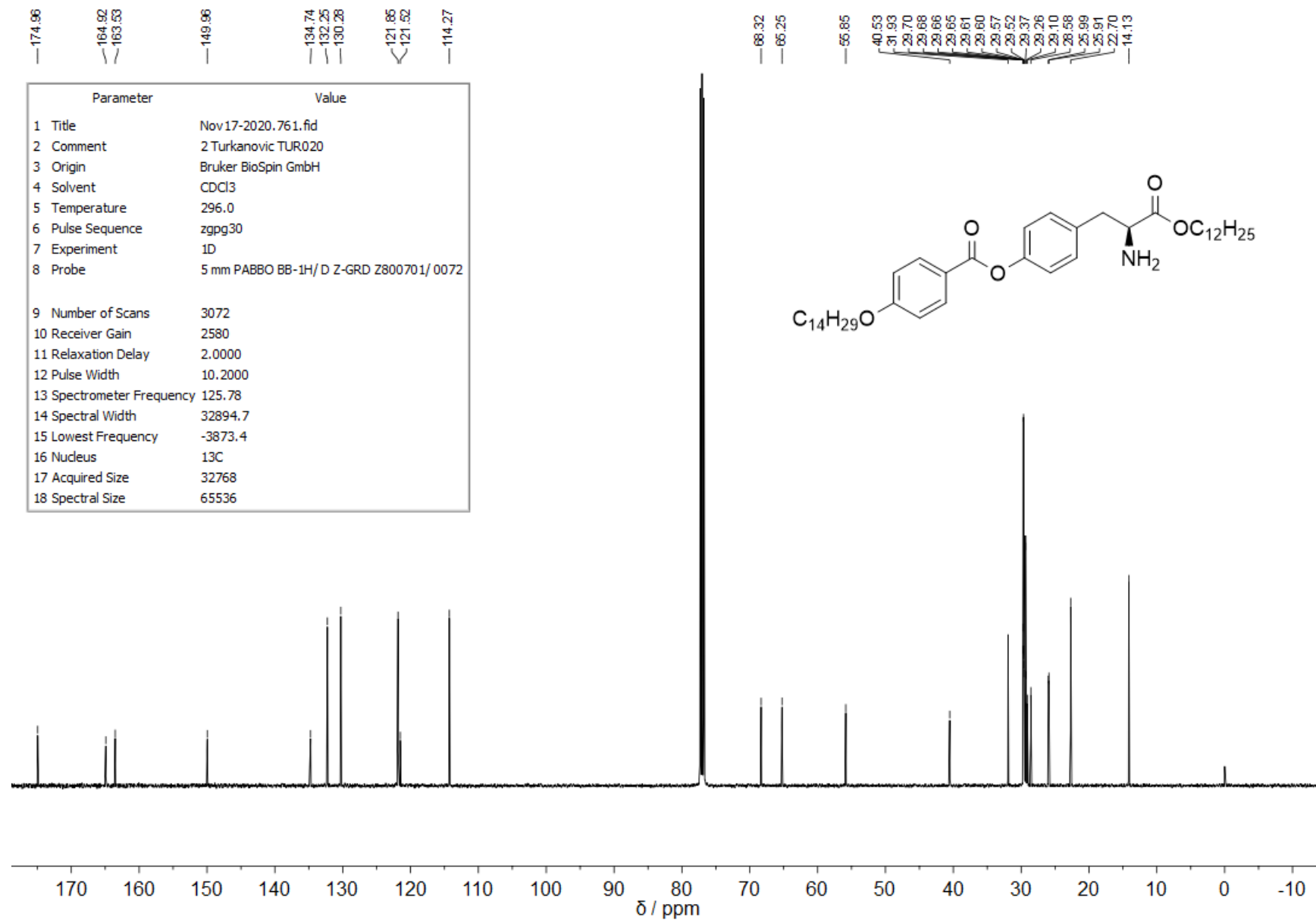
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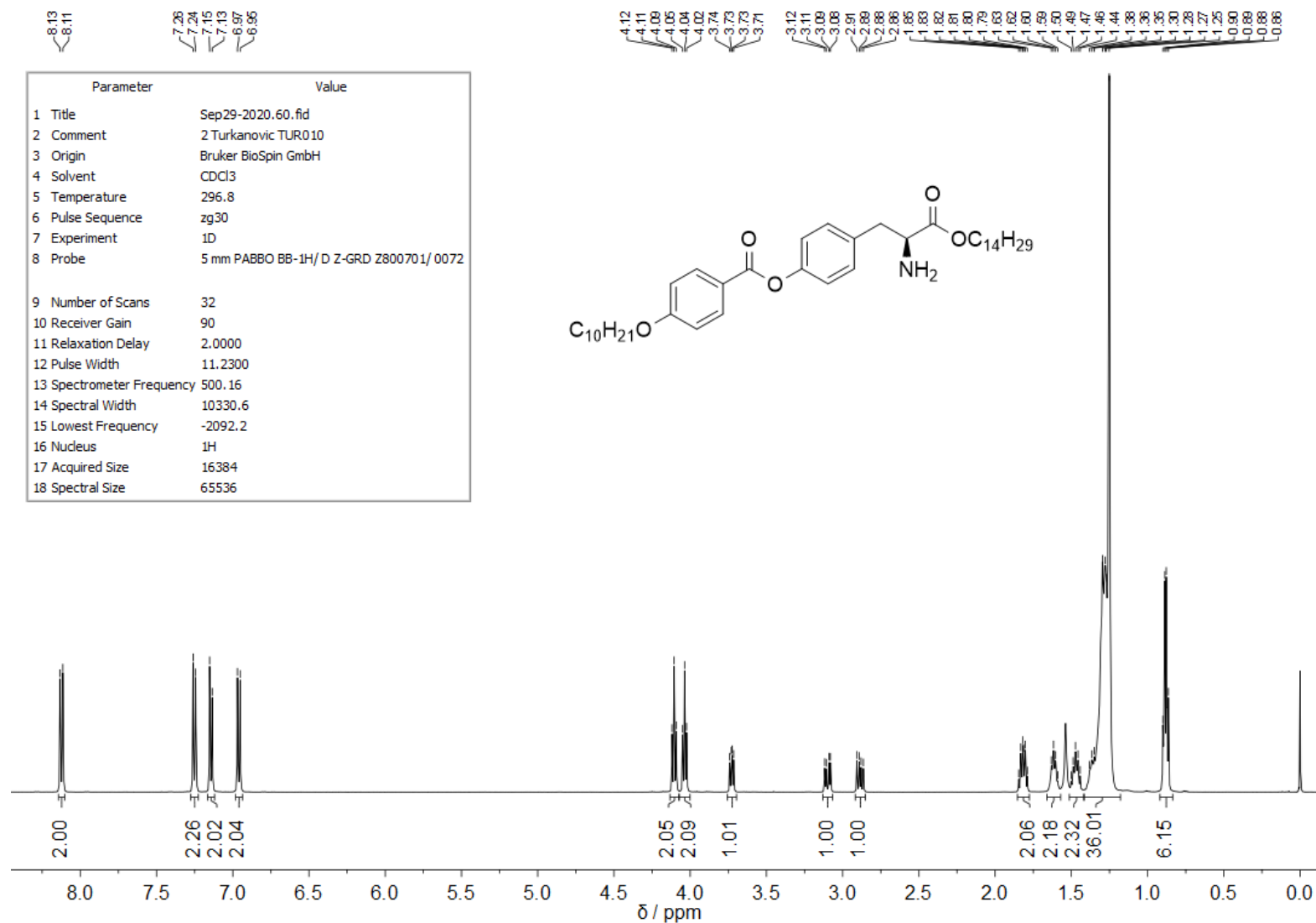


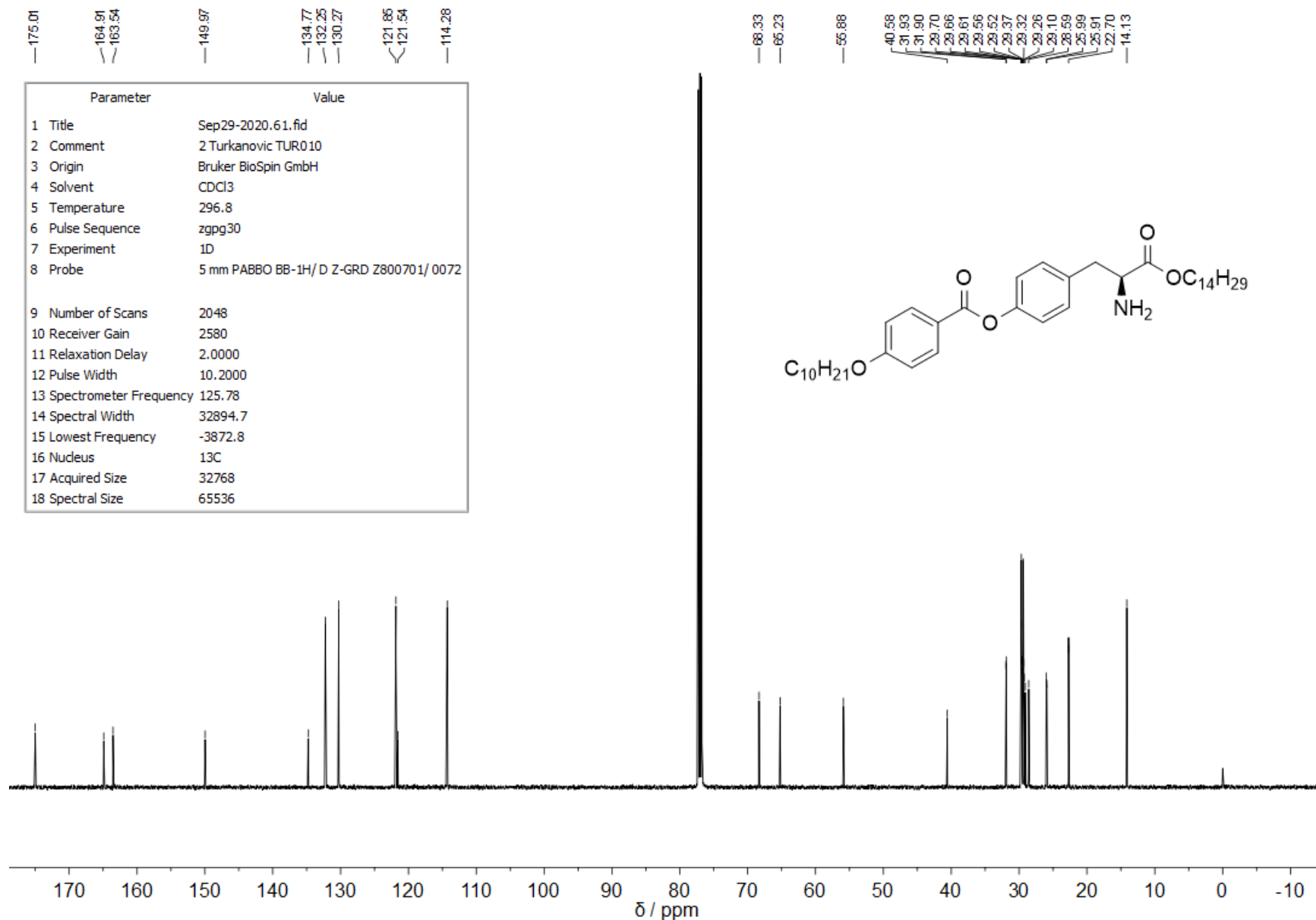
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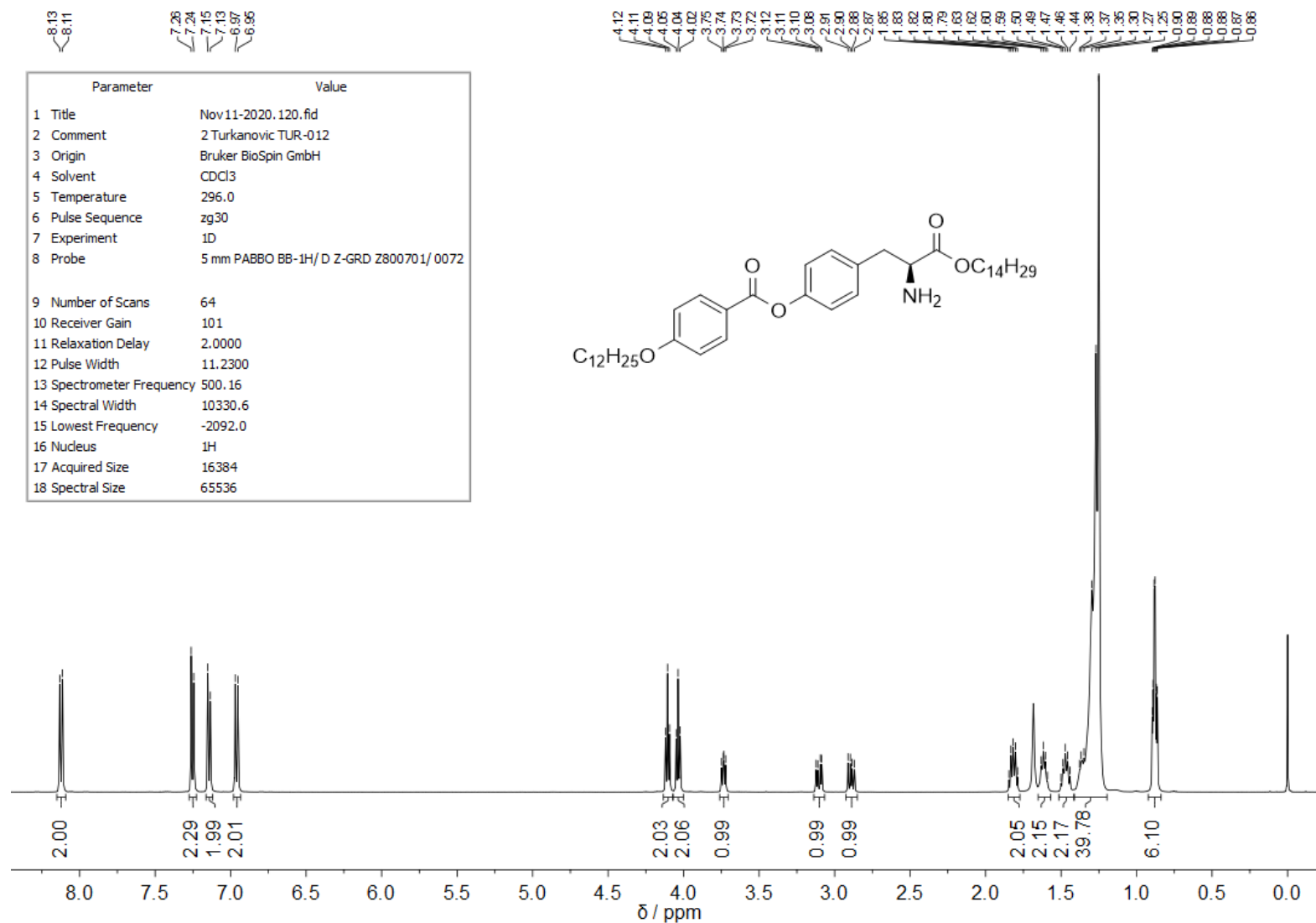


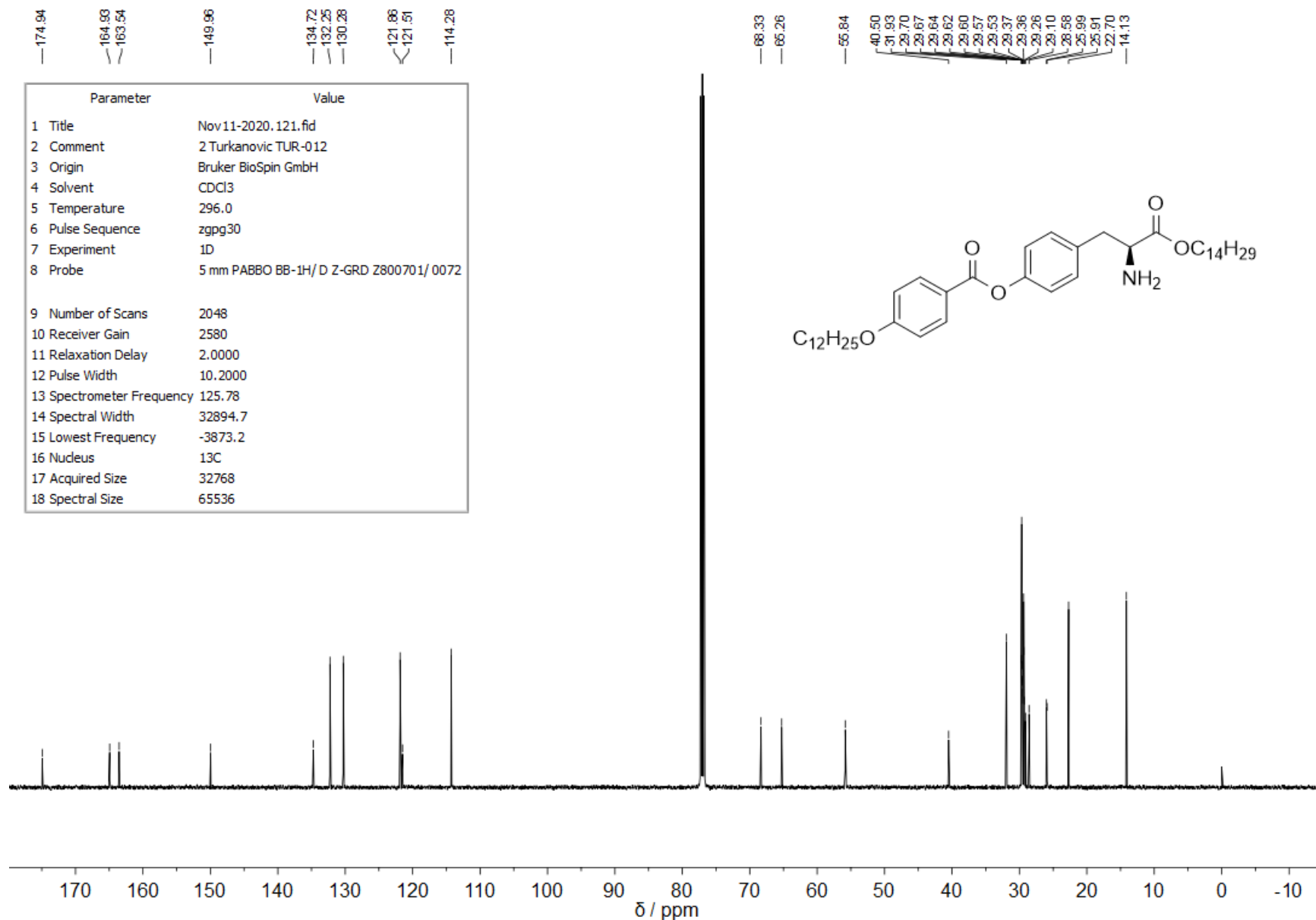
4-C₁₄TyrC₁₂NH₂

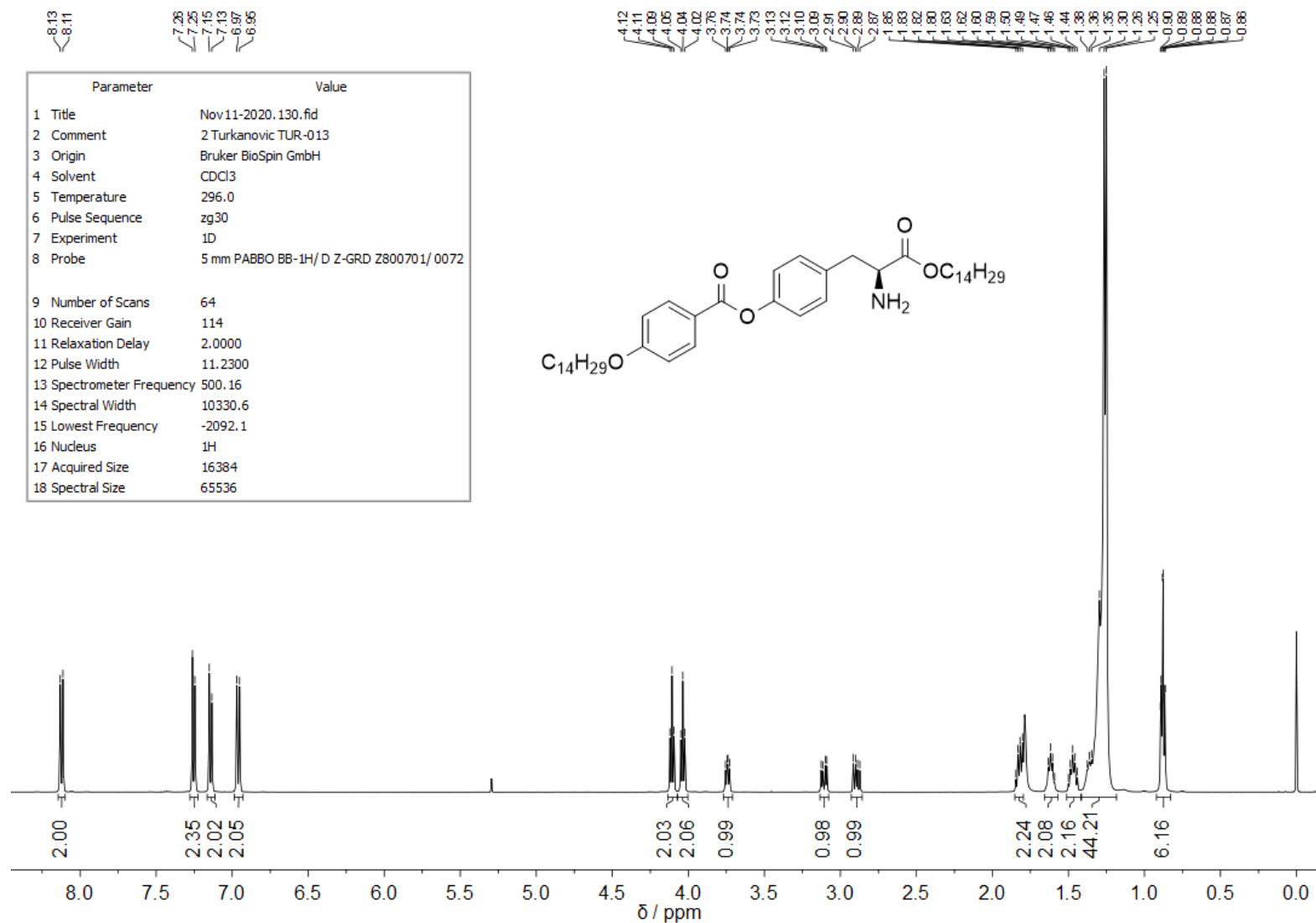


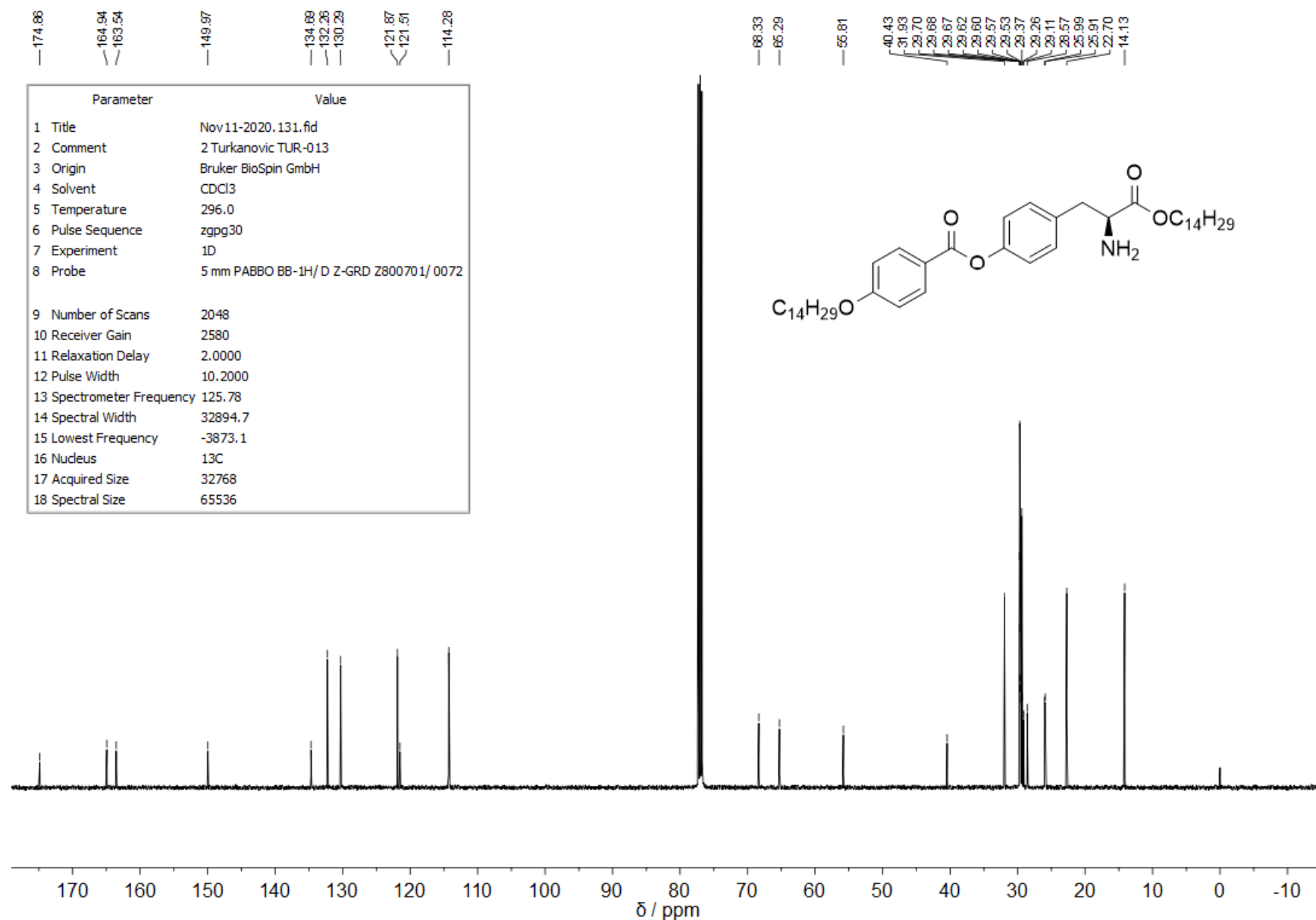
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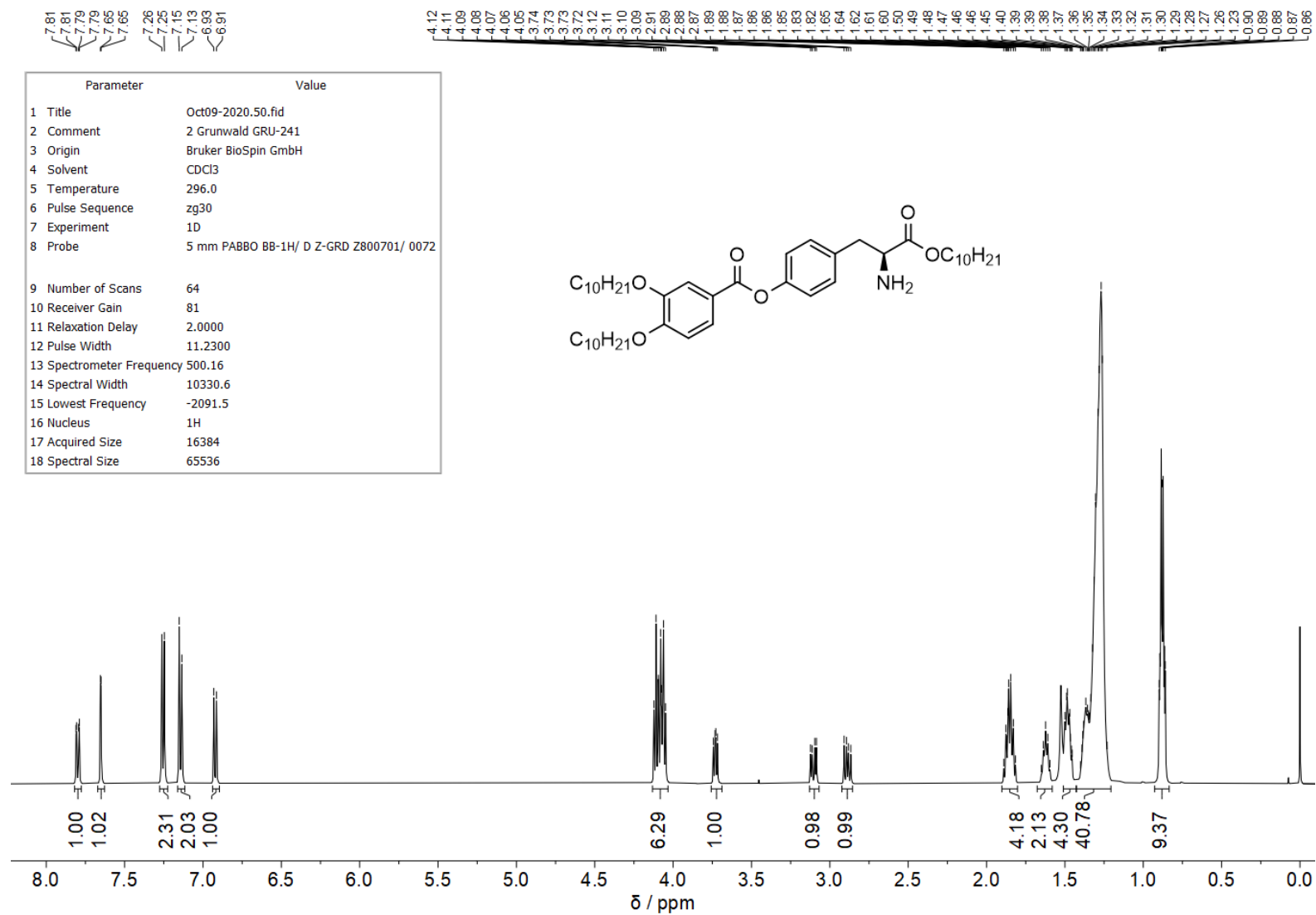


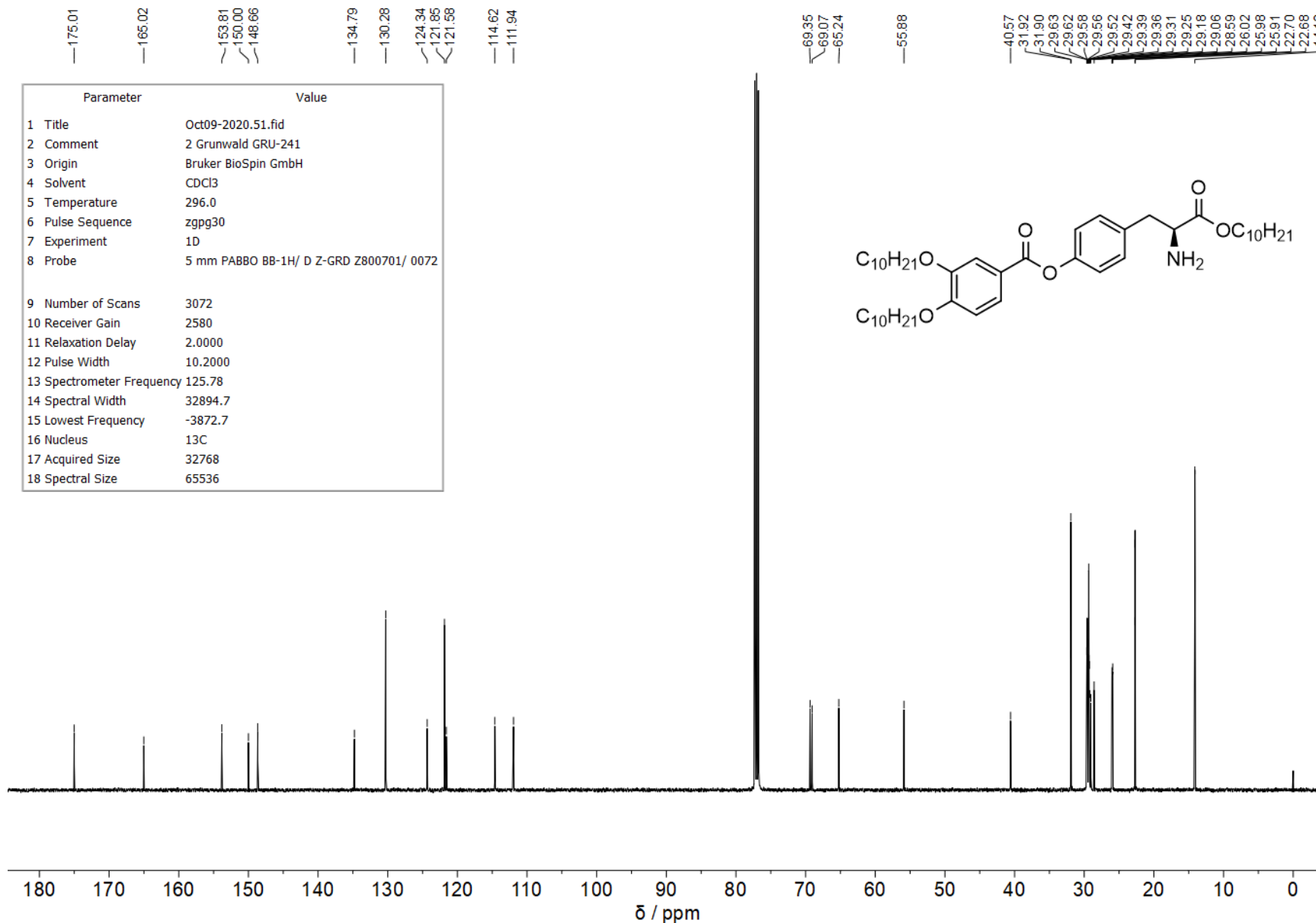
4-C₁₂TyrC₁₄NH₂

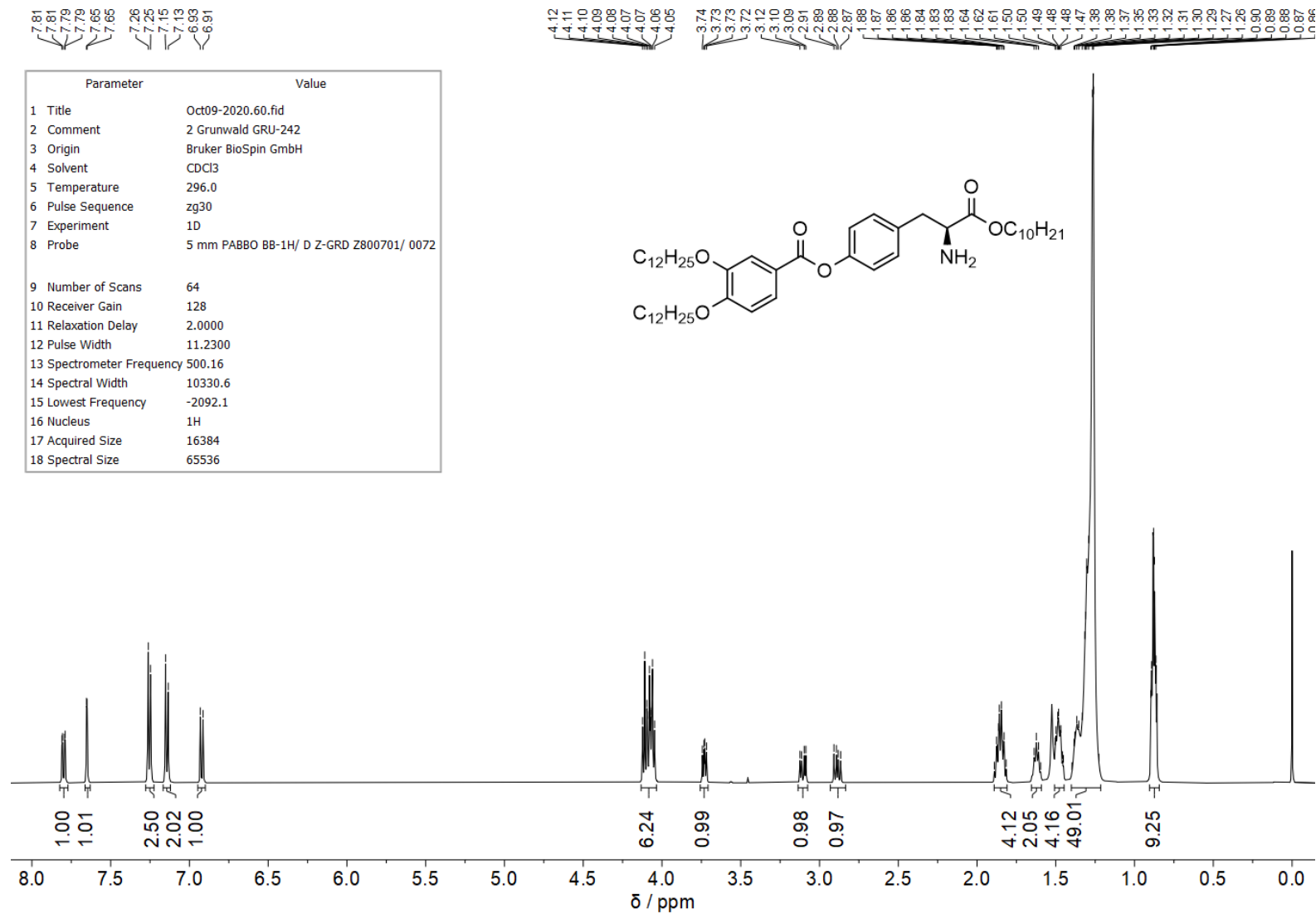


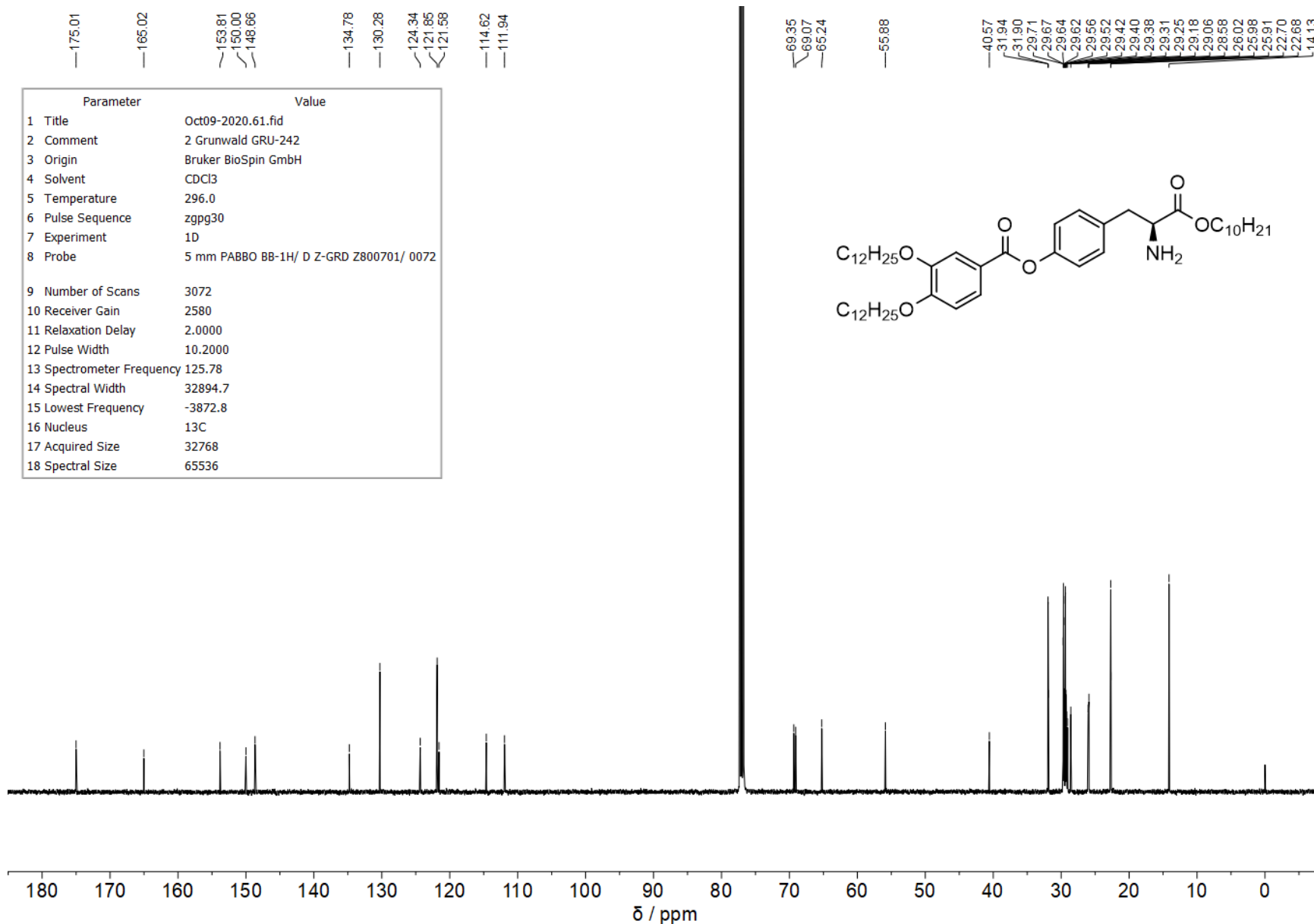
4-C₁₄TyrC₁₄NH₂



3,4-C₁₀TyrC₁₀NH₂



3,4-C₁₂TyrC₁₀NH₂

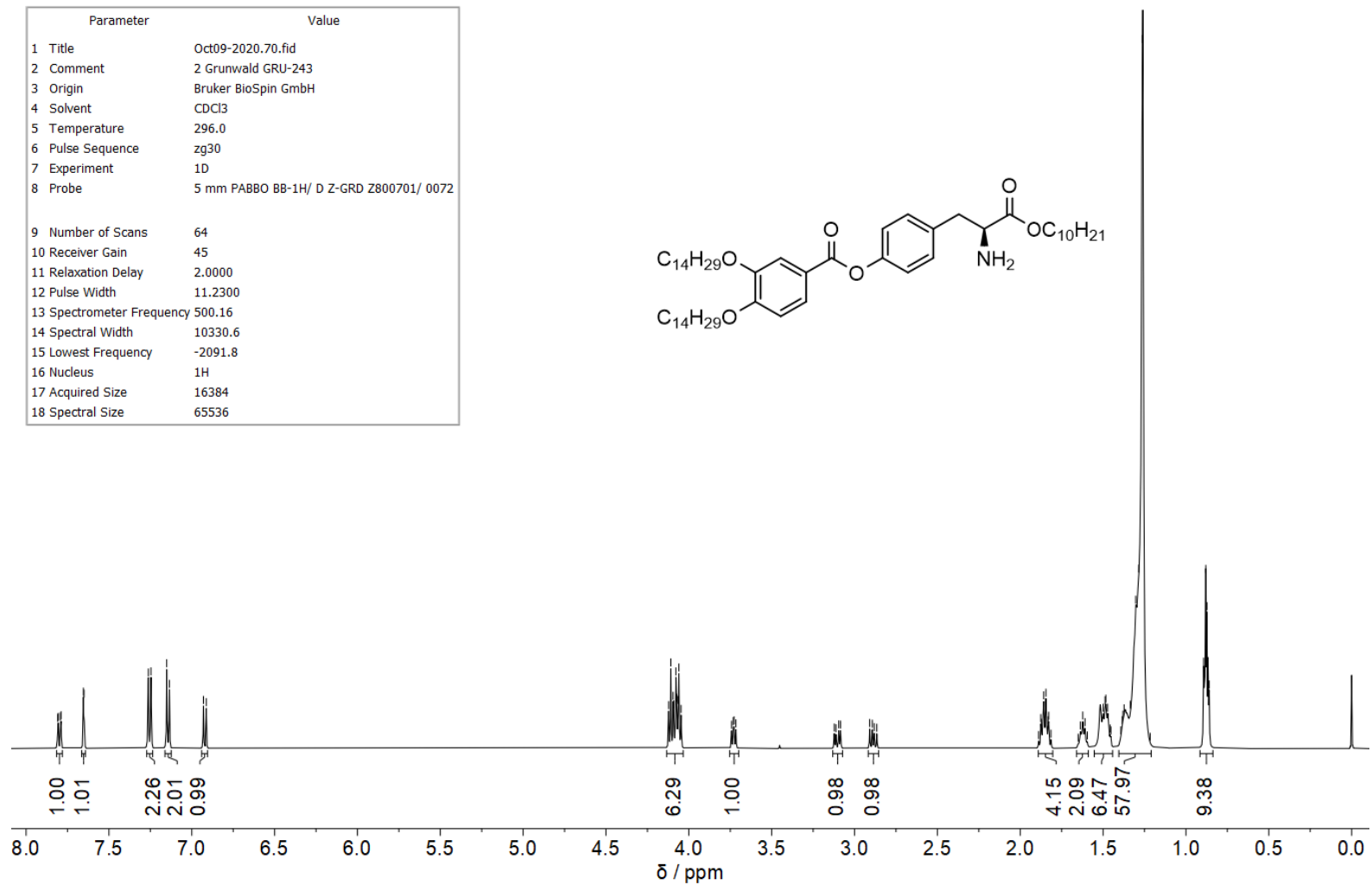
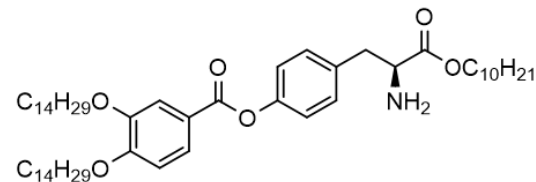


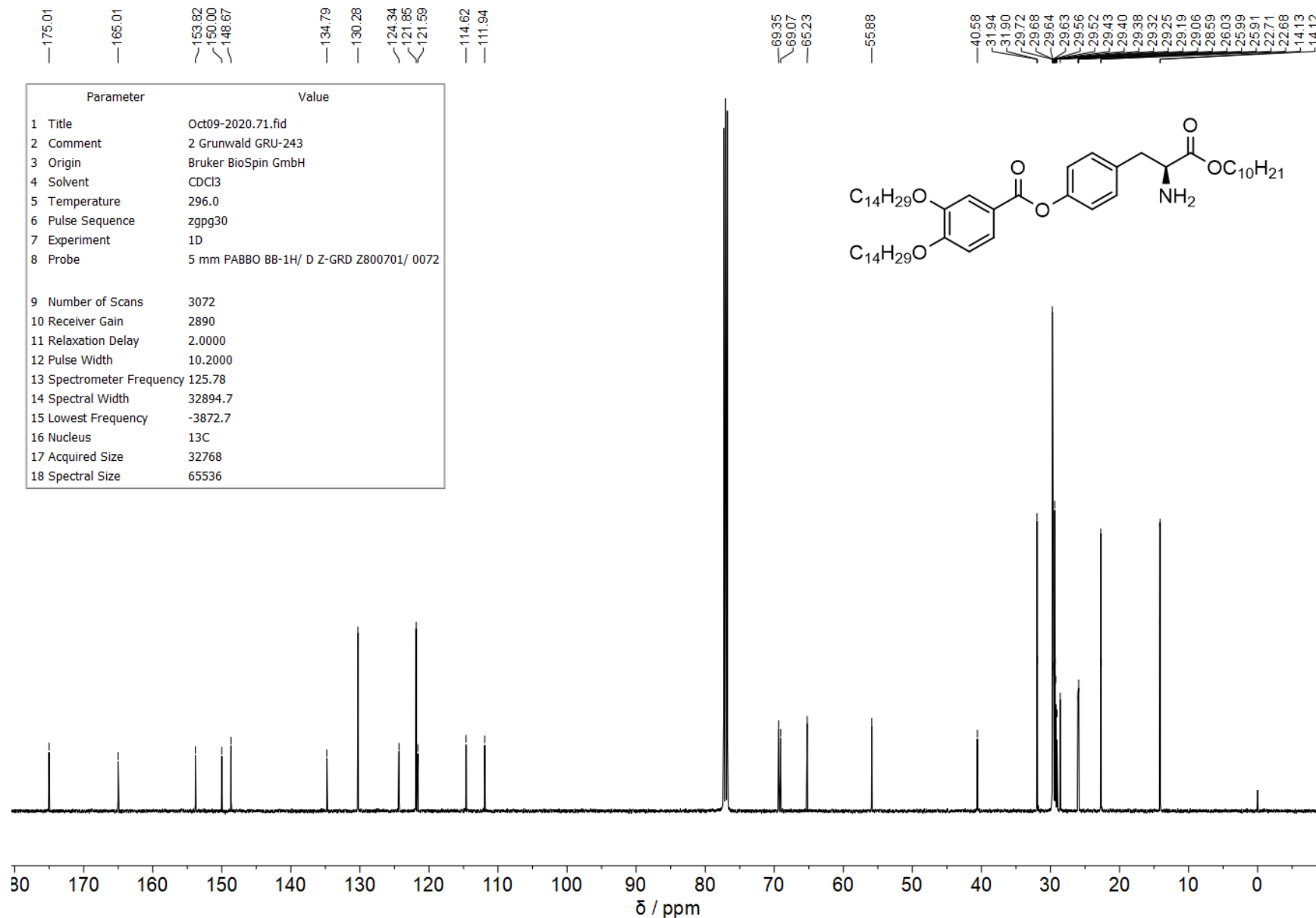
3,4-C₁₄TyrC₁₀NH₂

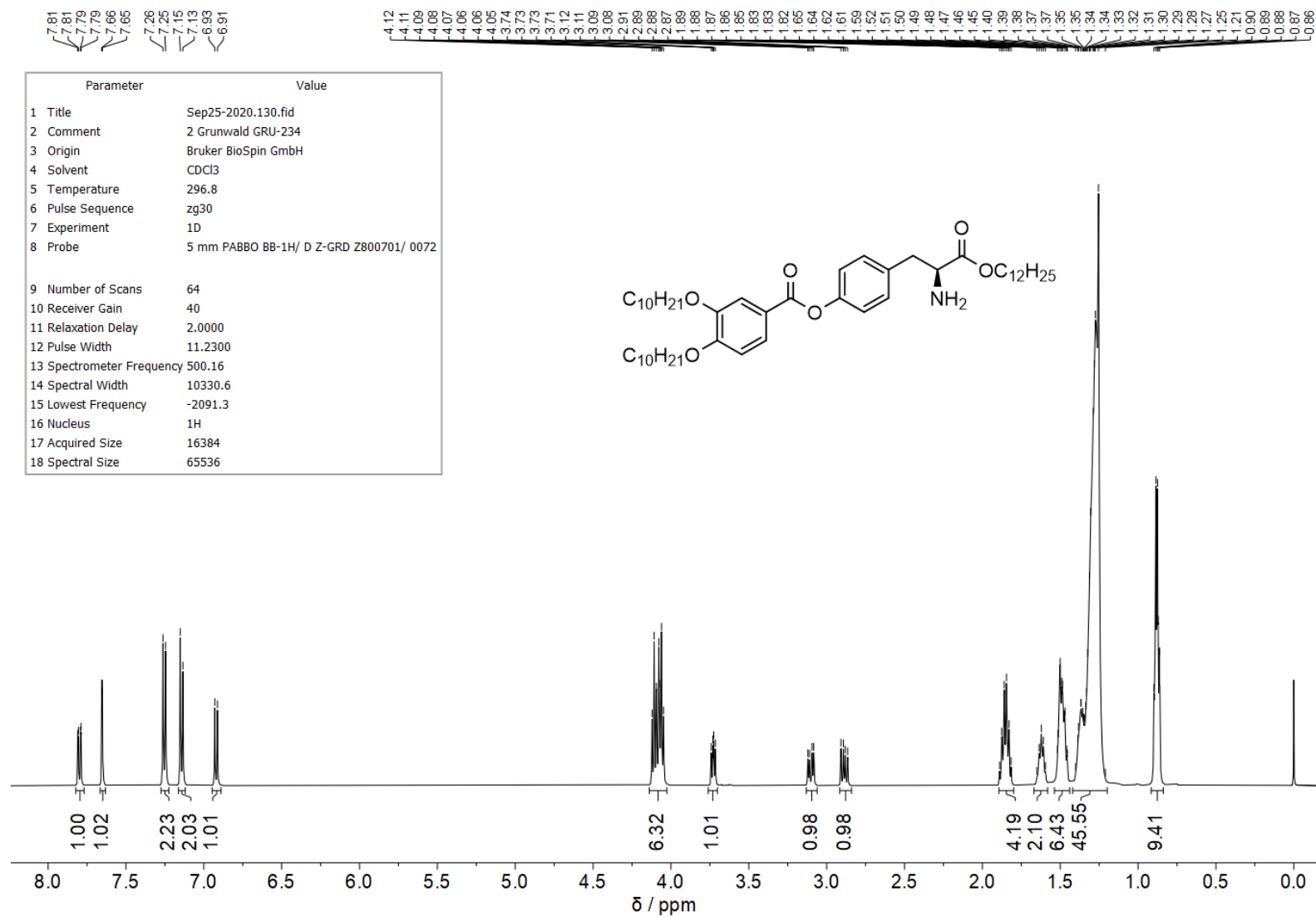
7.81
7.79
7.79
7.65
7.65
7.26
7.25
7.13
6.93
6.91

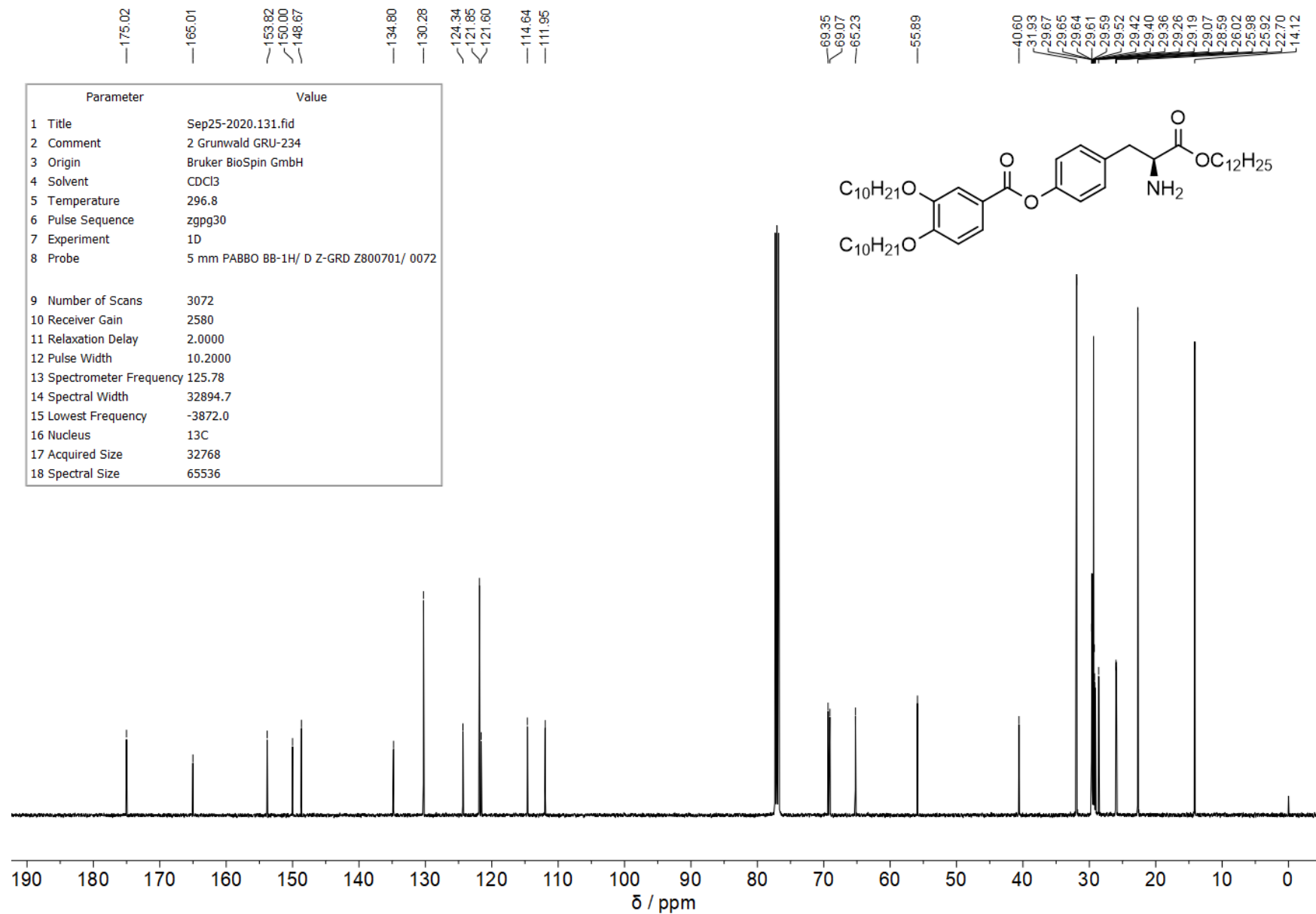
4.12
4.11
4.10
4.09
4.06
4.07
4.06
4.05
3.74
3.73
3.73
3.72
3.12
3.11
3.10
3.08
2.91
2.89
2.88
2.87
1.89
1.88
1.87
1.86
1.84
1.83
1.83
1.81
1.64
1.62
1.61
1.50
1.49
1.48
1.47
1.46
1.45
1.39
1.38
1.36
1.37
1.34
1.30
1.28
1.26
1.089
1.088
1.087
1.086

Parameter	Value
1 Title	Oct09-2020.70.fid
2 Comment	2 Grunwald GRU-243
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	64
10 Receiver Gain	45
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2091.8
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

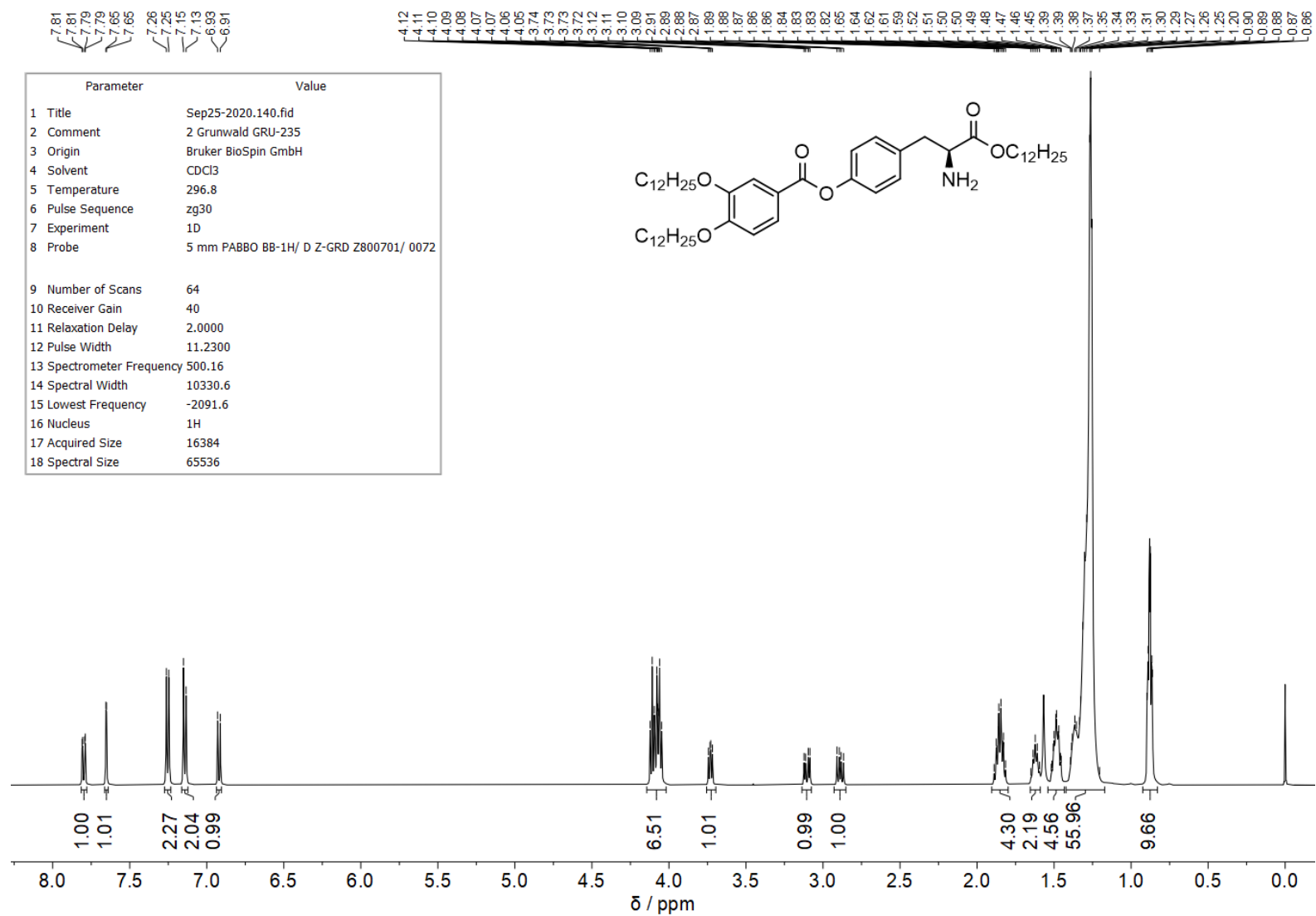


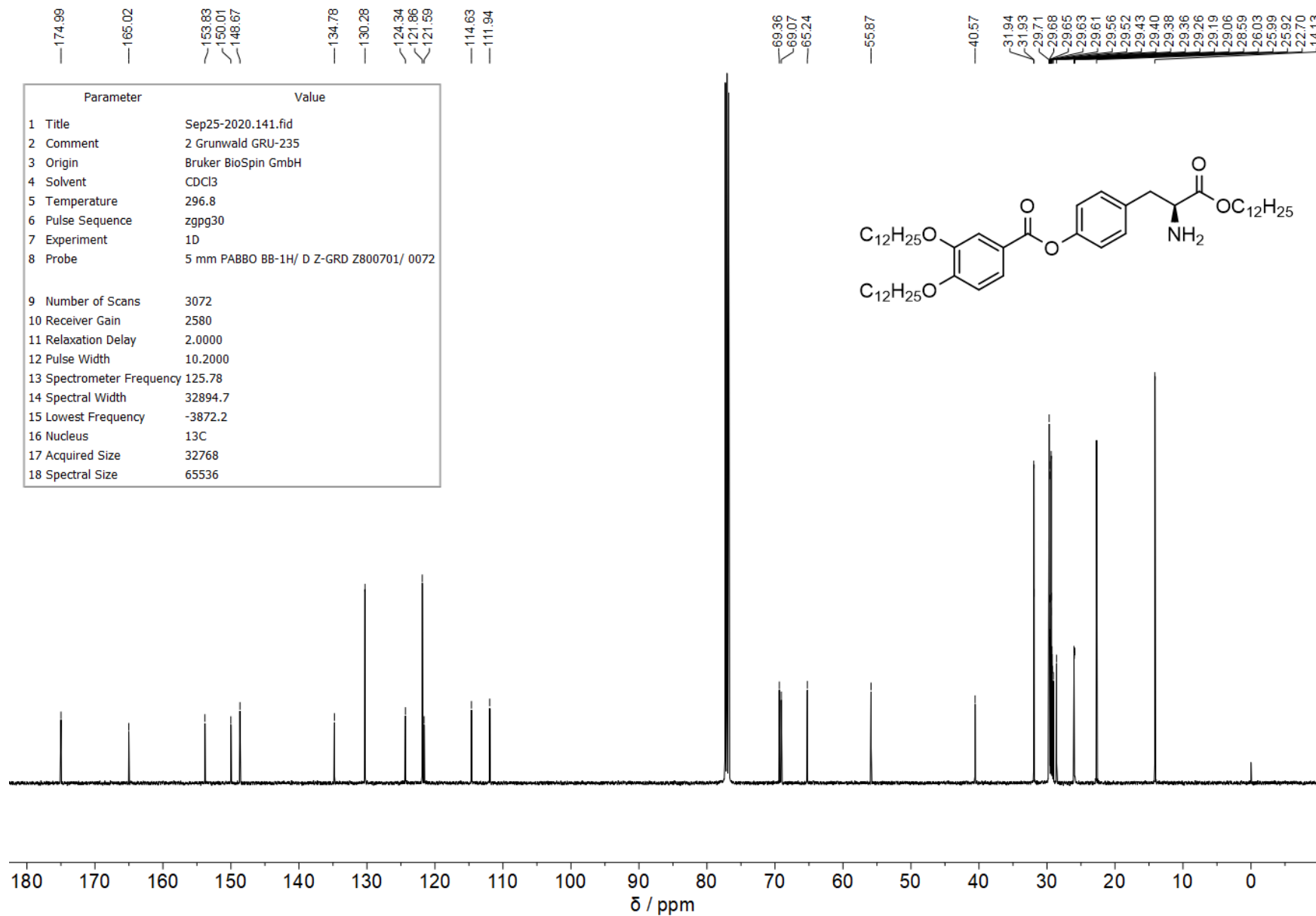


3,4-C₁₀TyrC₁₂NH₂



3,4-C₁₂TyrC₁₂NH₂



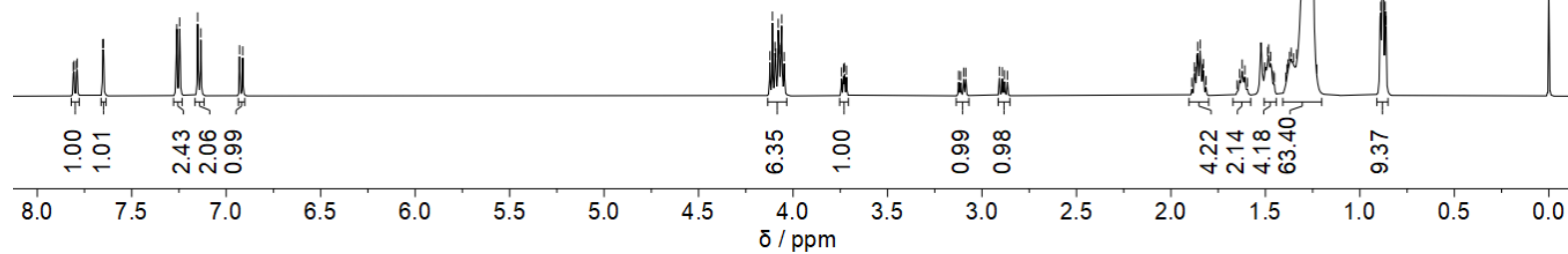
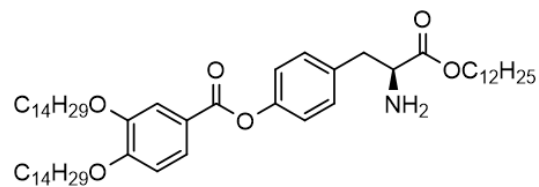


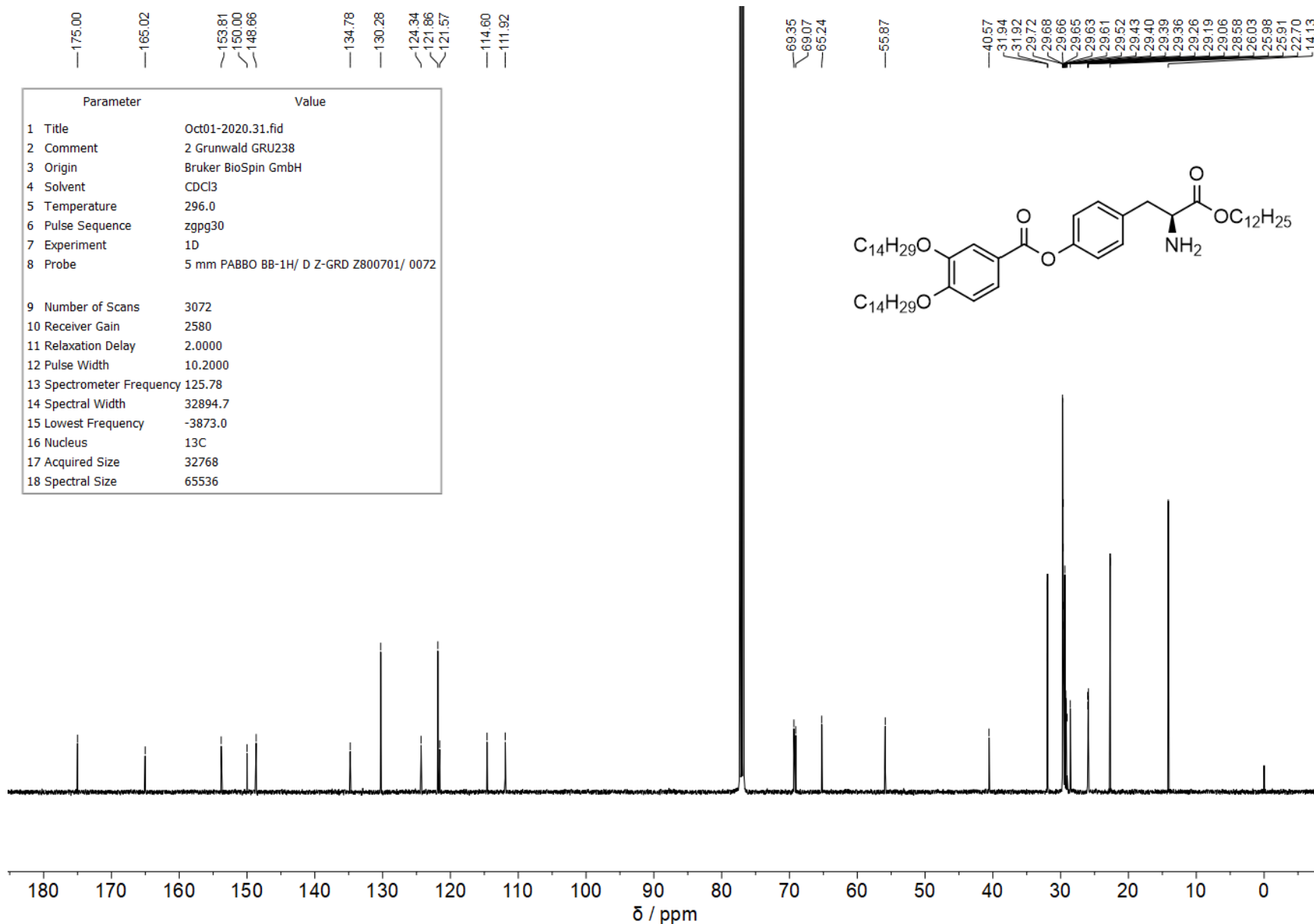
3,4-C₁₄TyrC₁₂NH₂

7.81
7.81
7.79
7.79
7.65
7.65
7.26
7.25
7.15
7.13
6.93
6.91

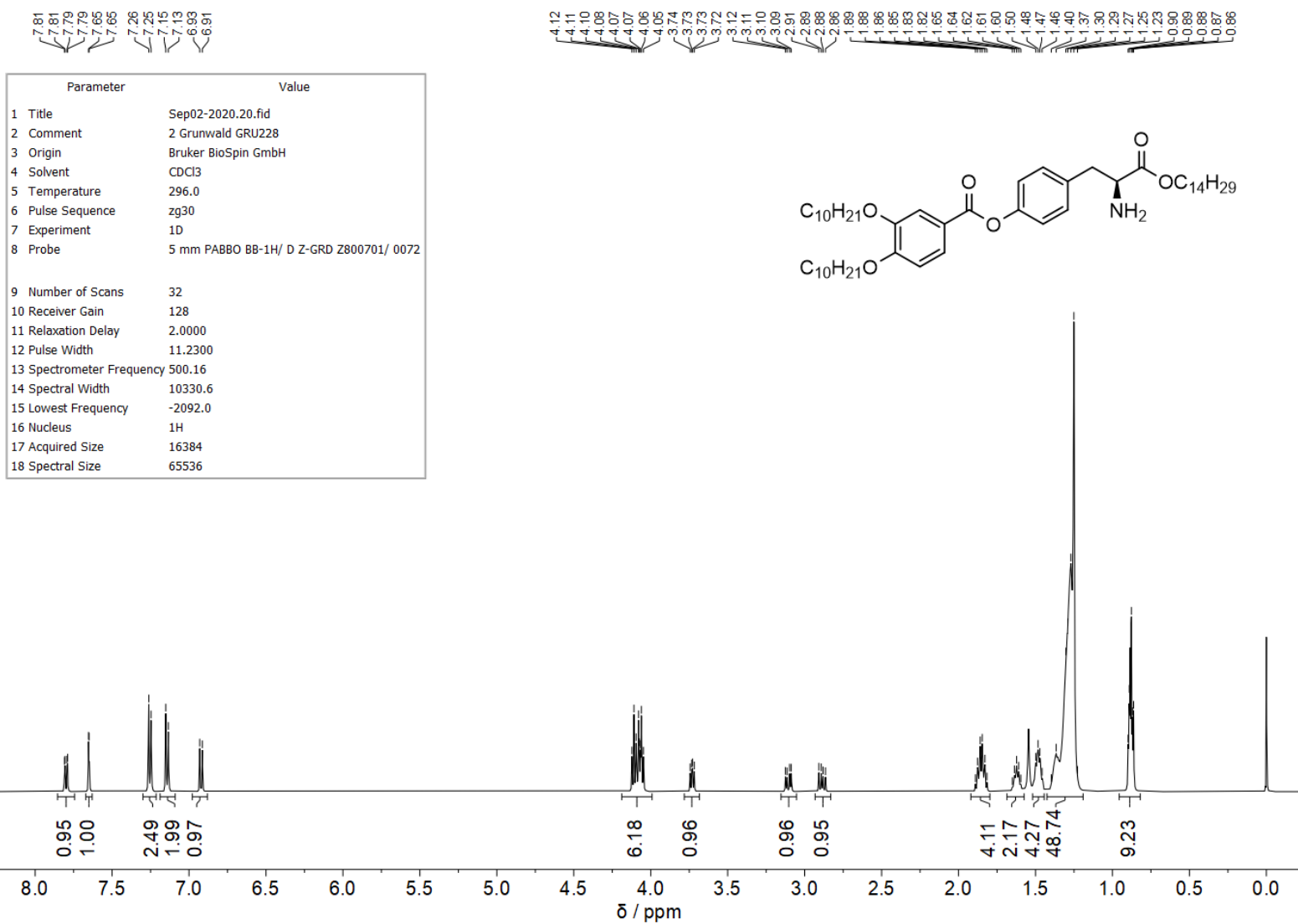
4.12
4.11
4.10
4.09
4.08
4.07
4.07
4.06
4.05
3.74
3.73
3.72
3.12
3.11
3.10
3.09
2.91
2.89
2.88
2.87
1.86
1.87
1.86
1.86
1.84
1.84
1.83
1.83
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1.47
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1.37
1.36
1.35
1.33
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1.25
1.23
1.23
1.089
1.088
1.087
1.086

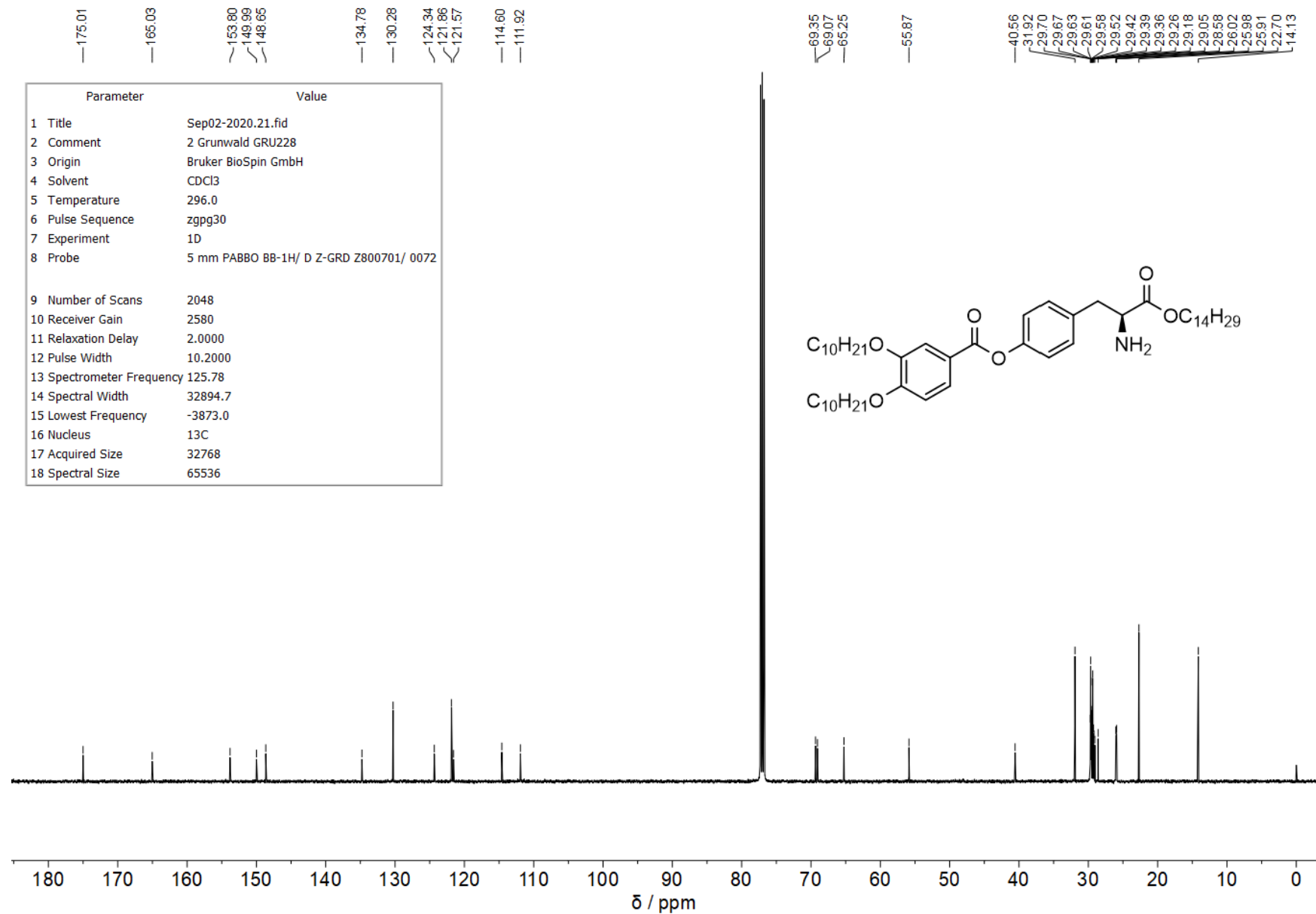
Parameter	Value
1 Title	Oct01-2020.30.fid
2 Comment	2 Grunwald GRU238
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	32
10 Receiver Gain	101
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2092.2
16 Nucleus	1H
17 Acquired Size	16384
18 Spectral Size	65536





3,4-C₁₀TyrC₁₄NH₂



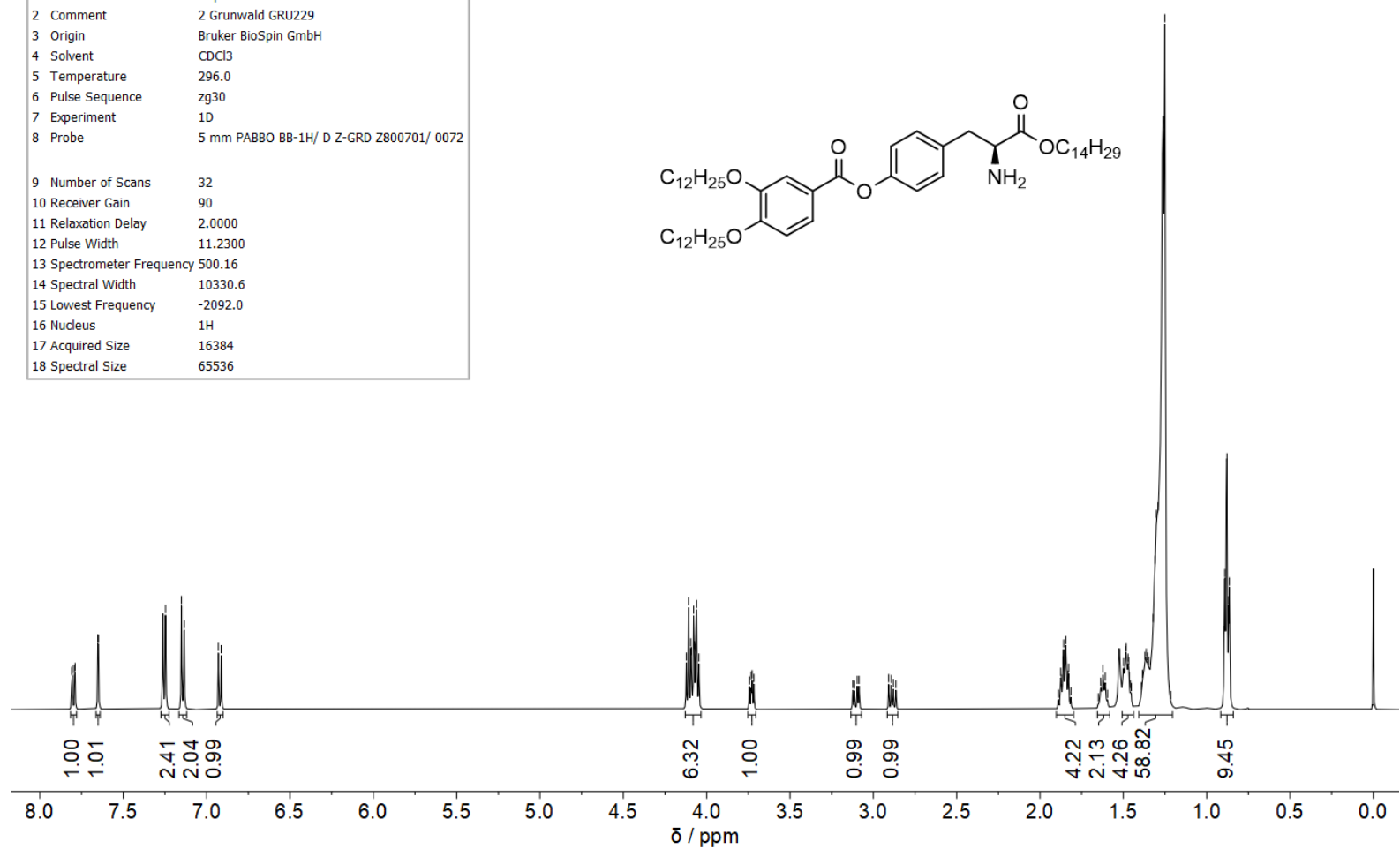
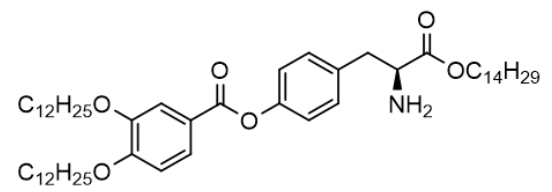


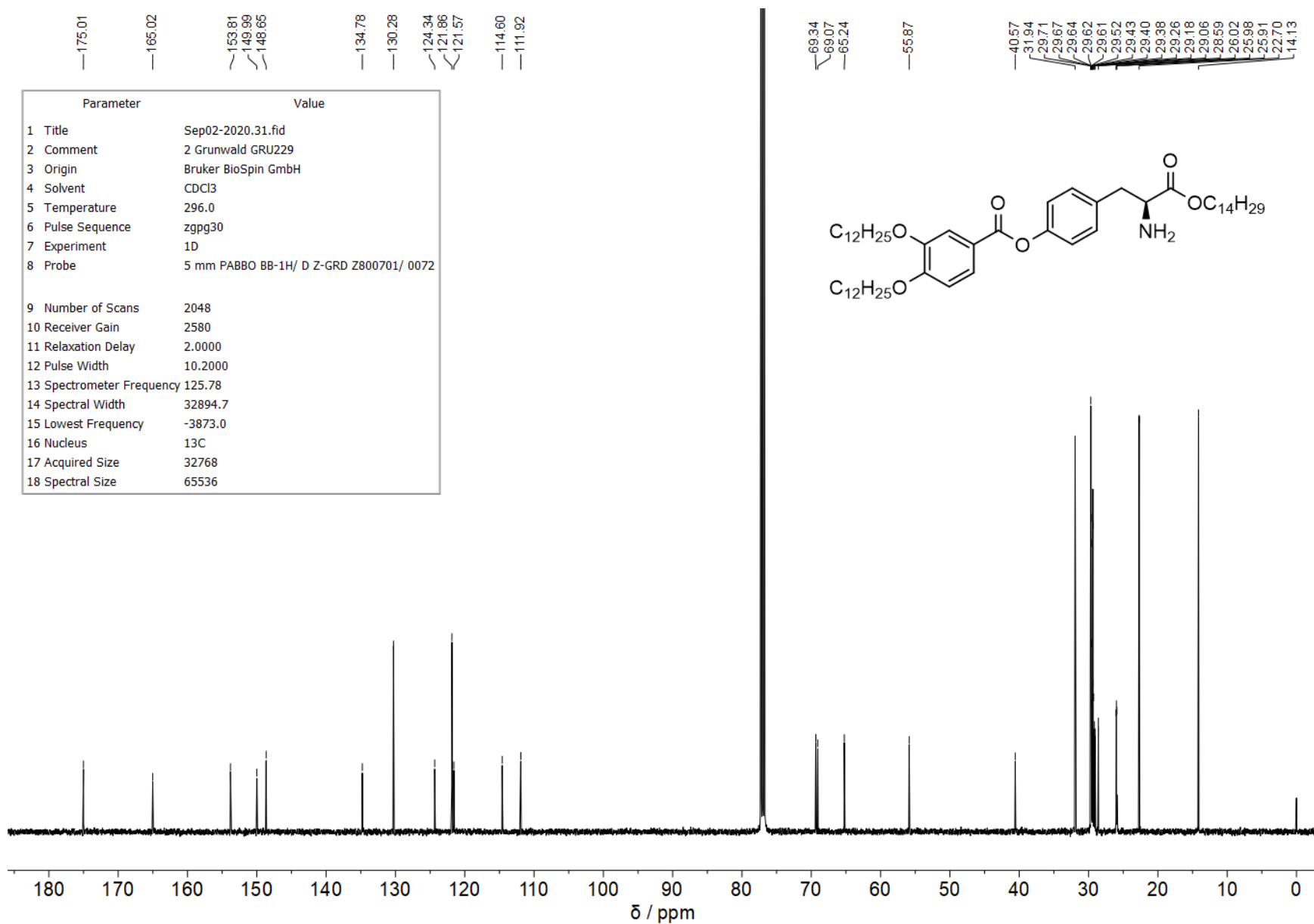
3,4-C₁₂TyrC₁₄NH₂

7.81
7.81
7.79
7.79
7.65
7.65
7.26
7.26
7.15
7.15
6.99
6.99

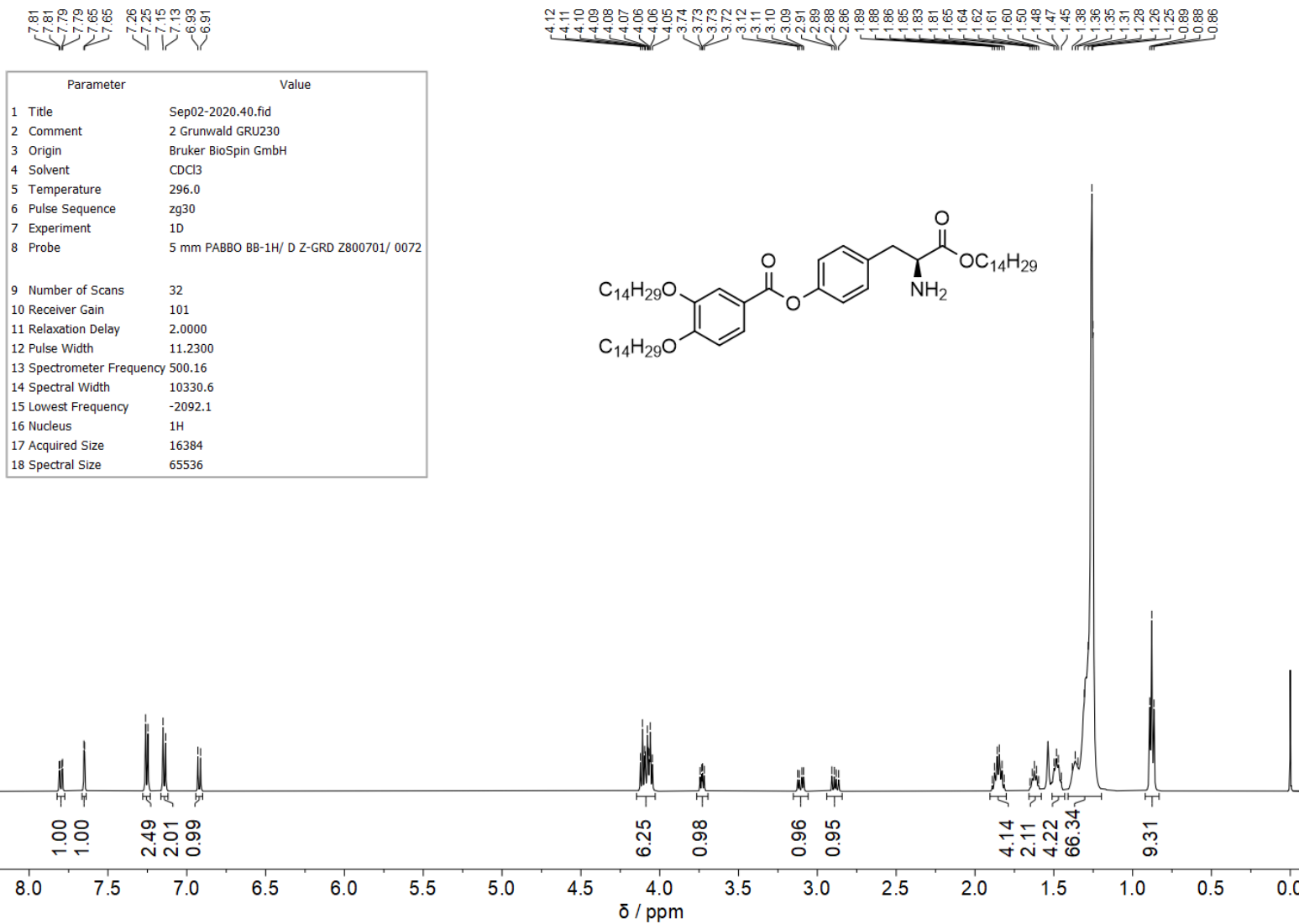
4.12
4.11
4.10
4.09
4.08
4.07
4.07
4.06
4.05
3.74
3.73
3.73
3.72
3.12
3.10
3.09
2.91
2.89
2.88
2.86
1.88
1.87
1.86
1.86
1.85
1.85
1.83
1.83
1.64
1.62
1.61
1.50
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1.48
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1.46
1.38
1.37
1.36
1.35
1.35
1.32
1.31
1.30
1.29
1.26
1.25
1.25
1.00
0.99
0.88
0.87
0.86

Parameter	Value
1 Title	Sep02-2020.30.fid
2 Comment	2 Grunwald GRU229
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	32
10 Receiver Gain	90
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2092.0
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

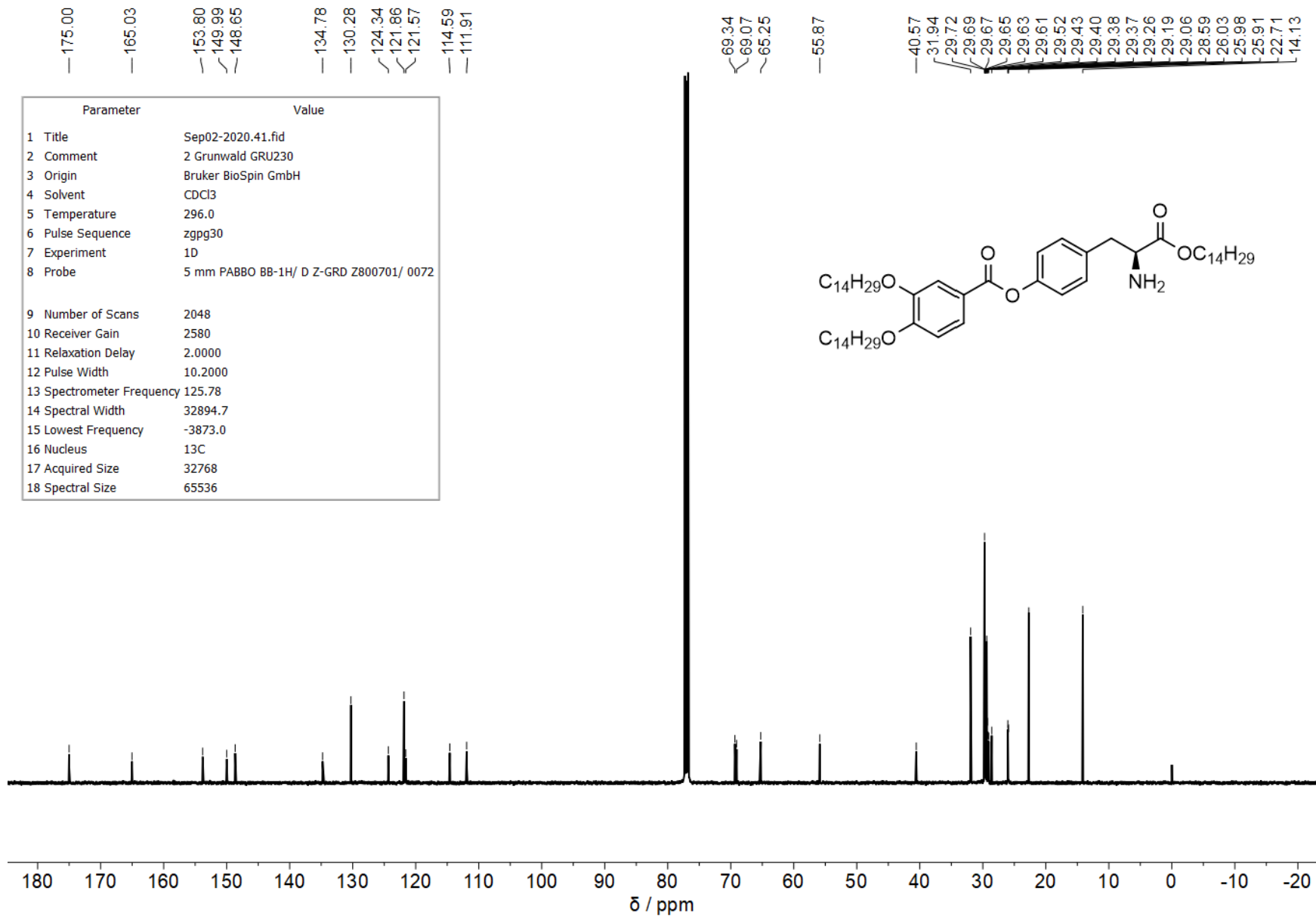


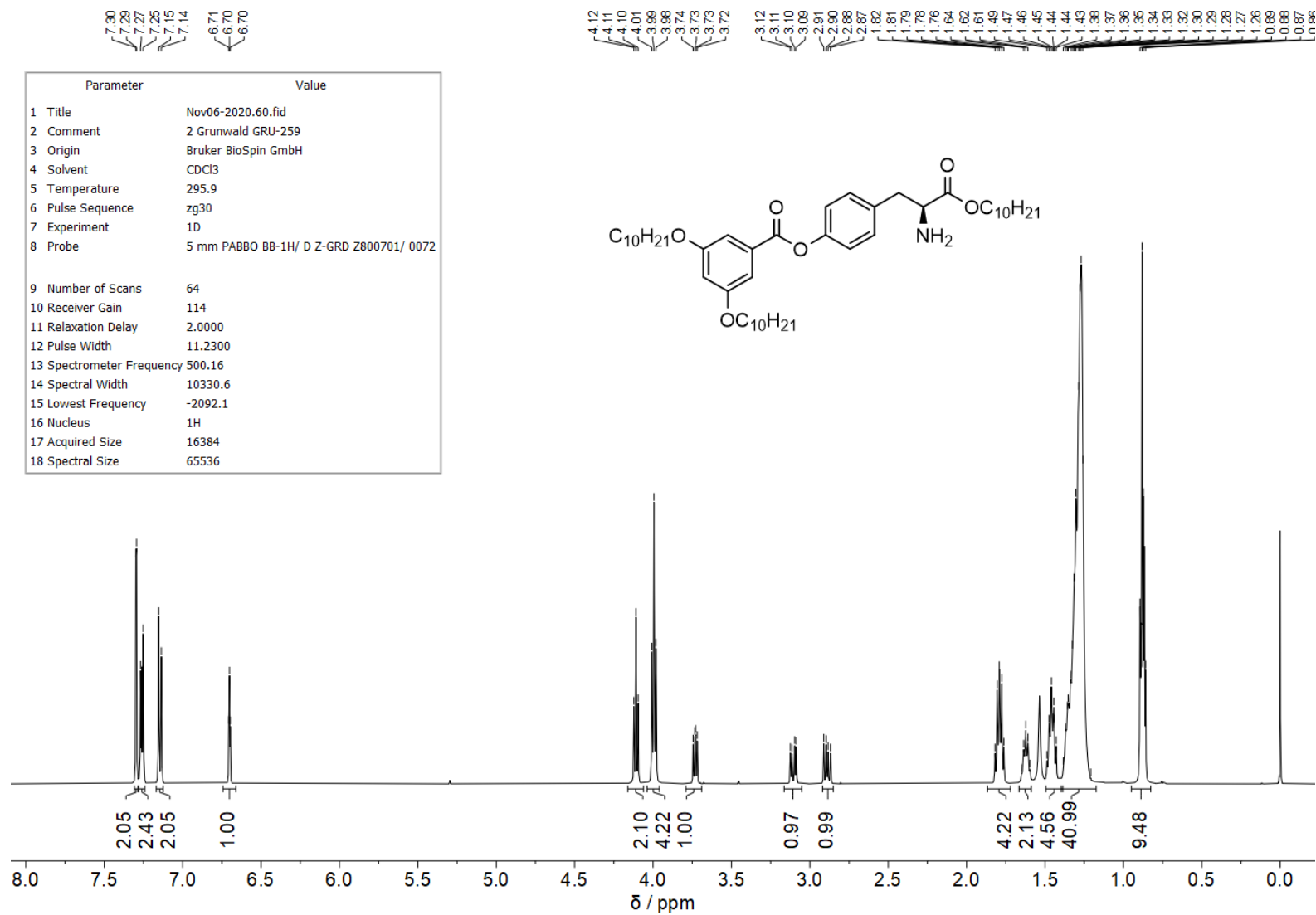


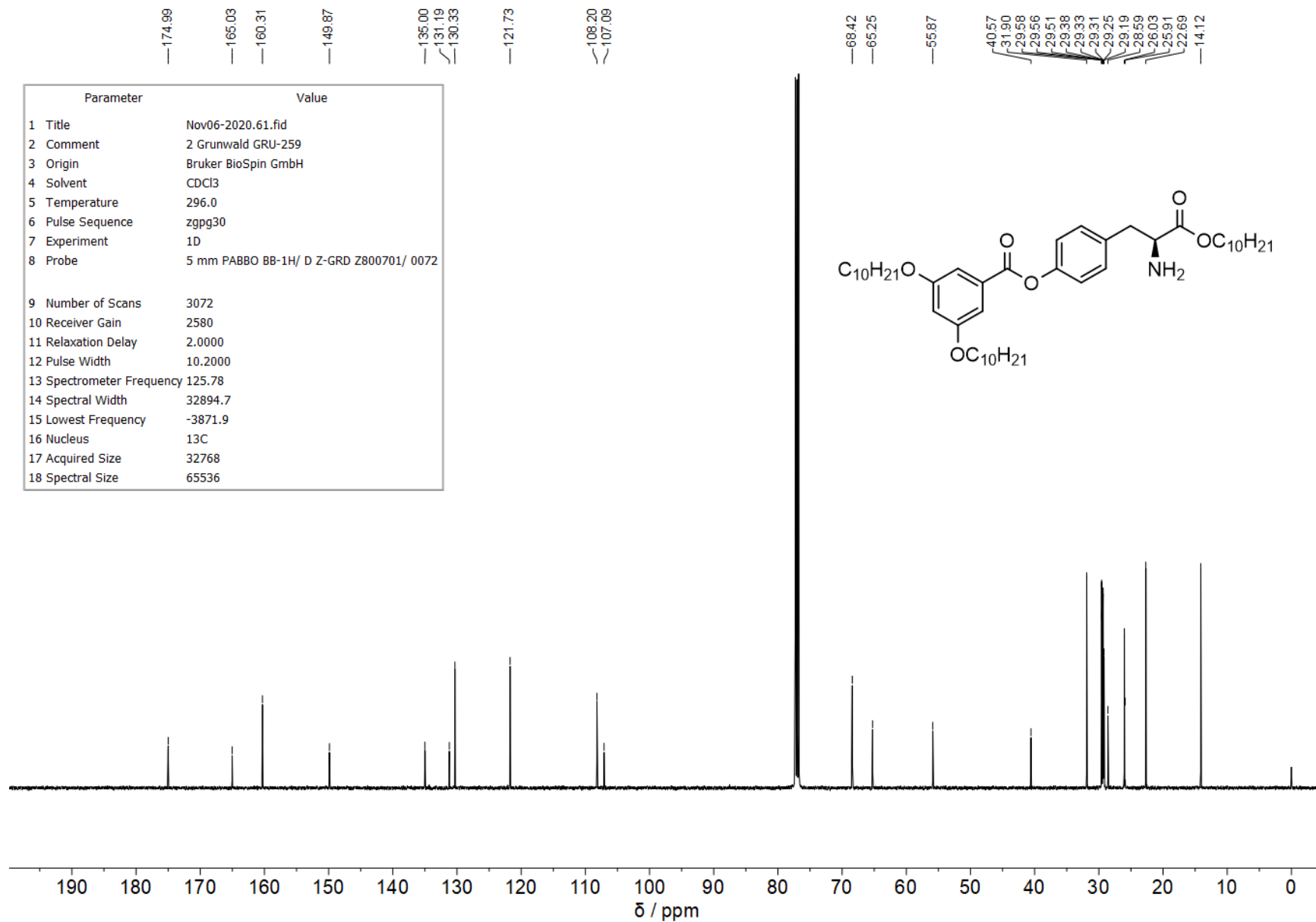
3,4-C₁₄TyrC₁₄NH₂



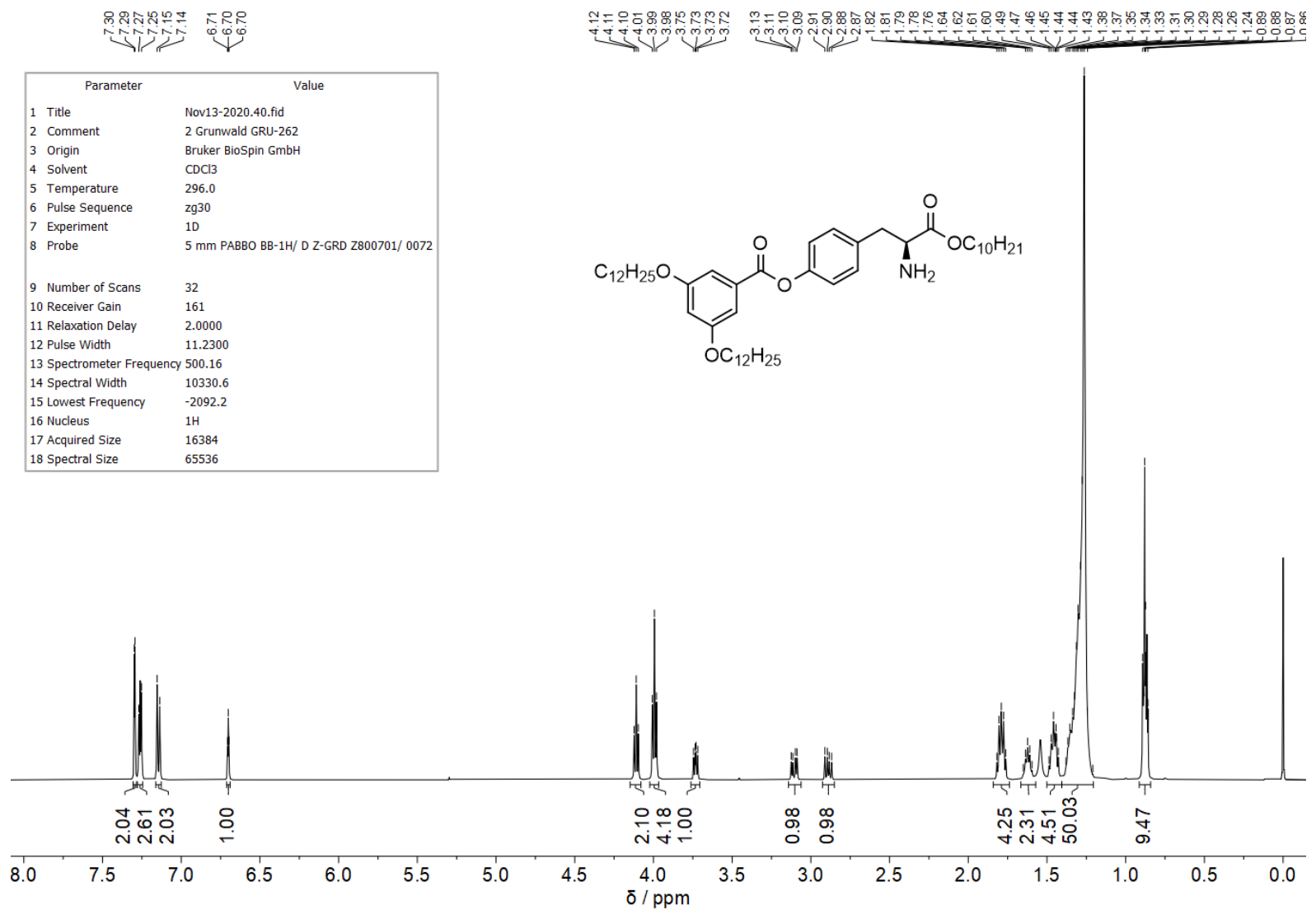
Parameter	Value
1 Title	Sep02-2020.40.fid
2 Comment	2 Grunwald GRU230
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	32
10 Receiver Gain	101
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2092.1
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

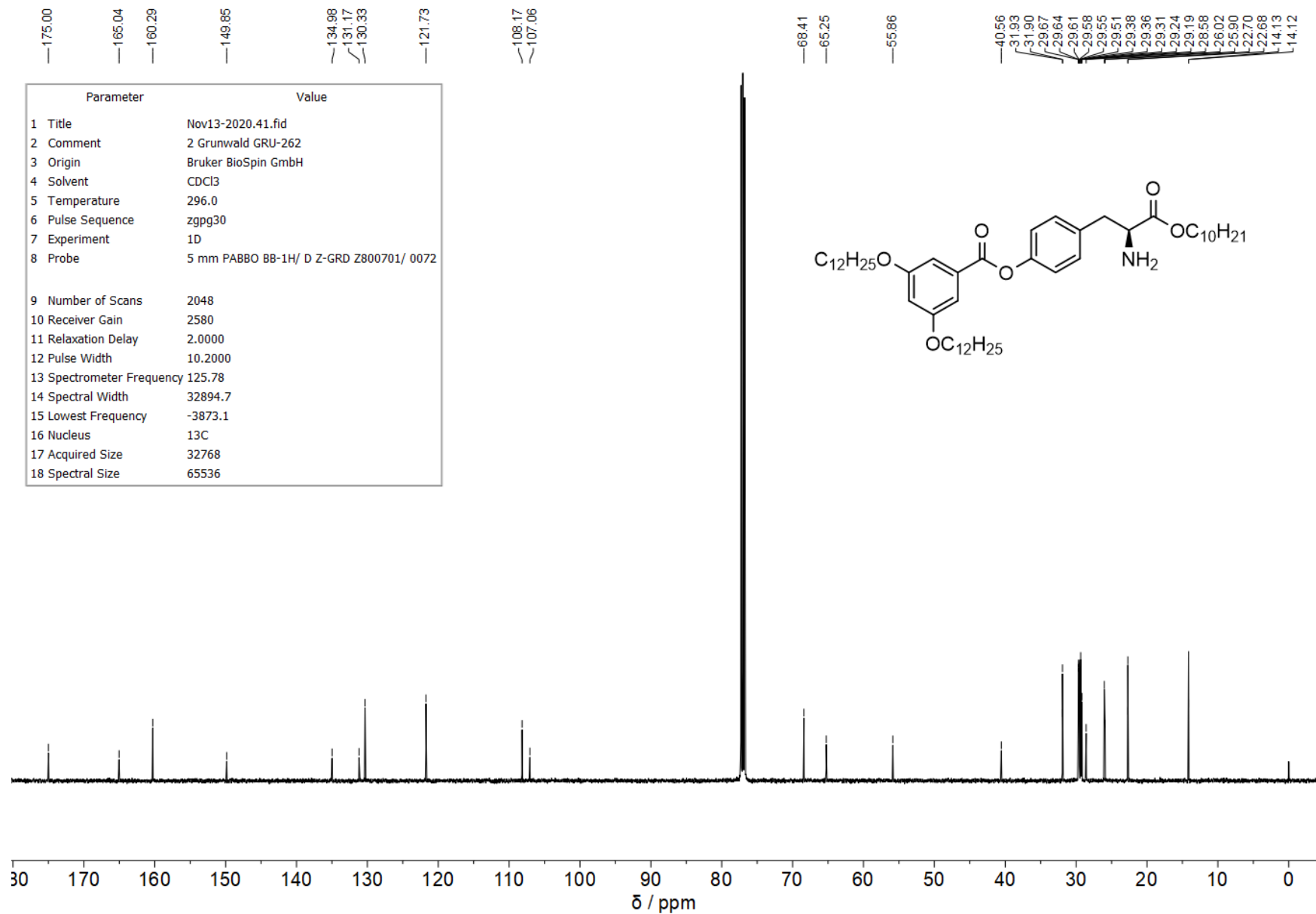


3,5-C₁₀TyrC₁₀NH₂

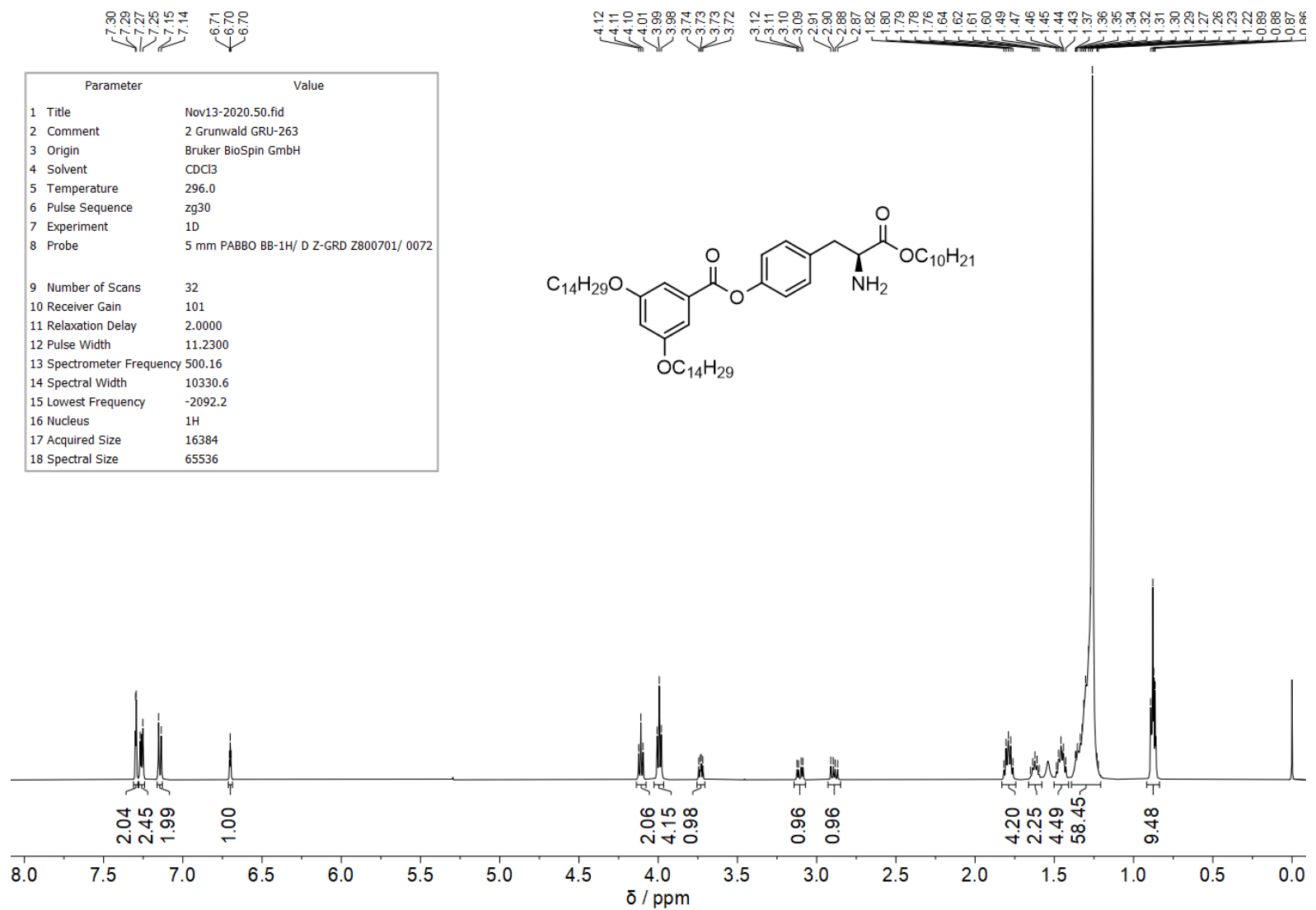


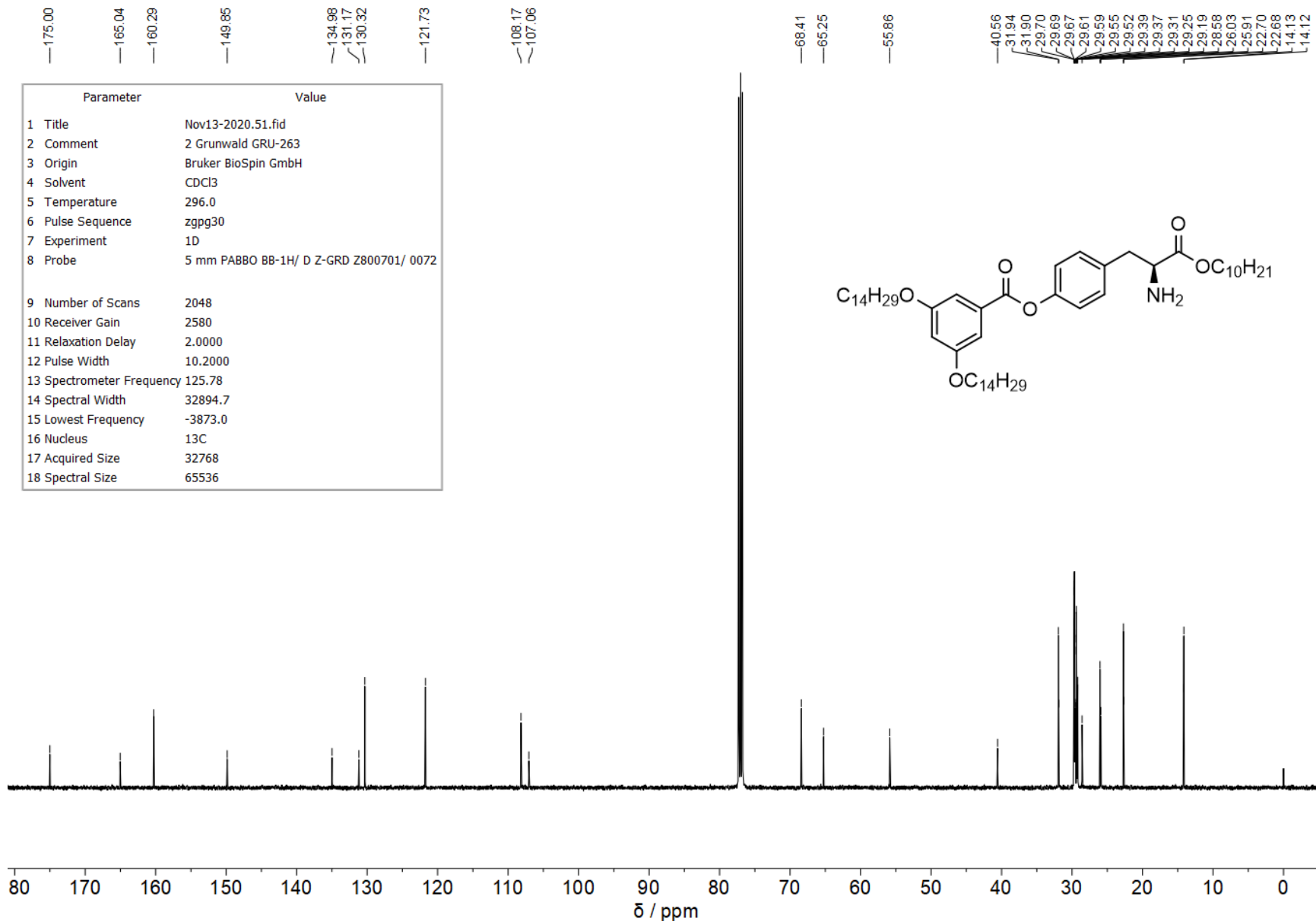
3,5-C₁₂TyrC₁₀NH₂



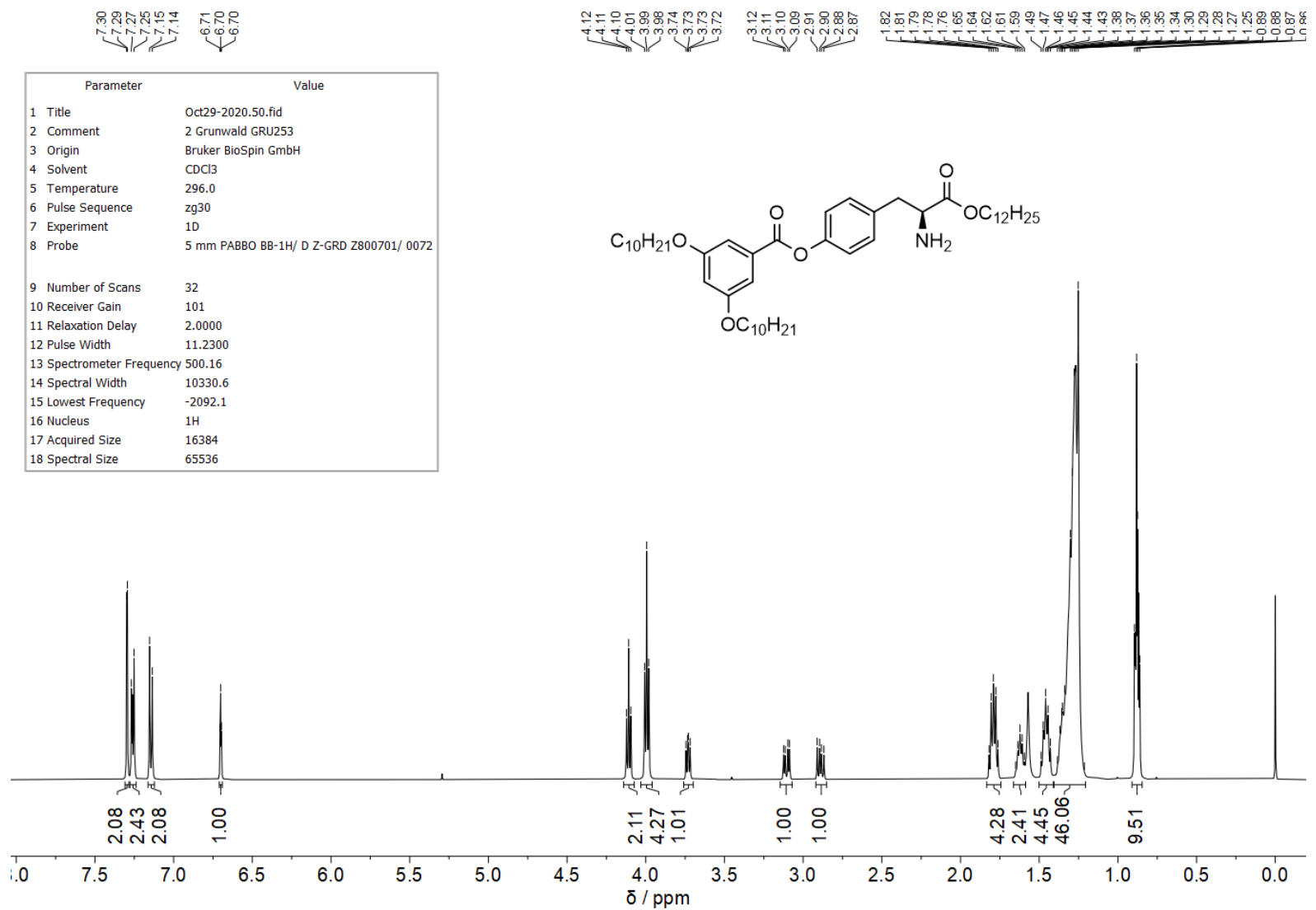


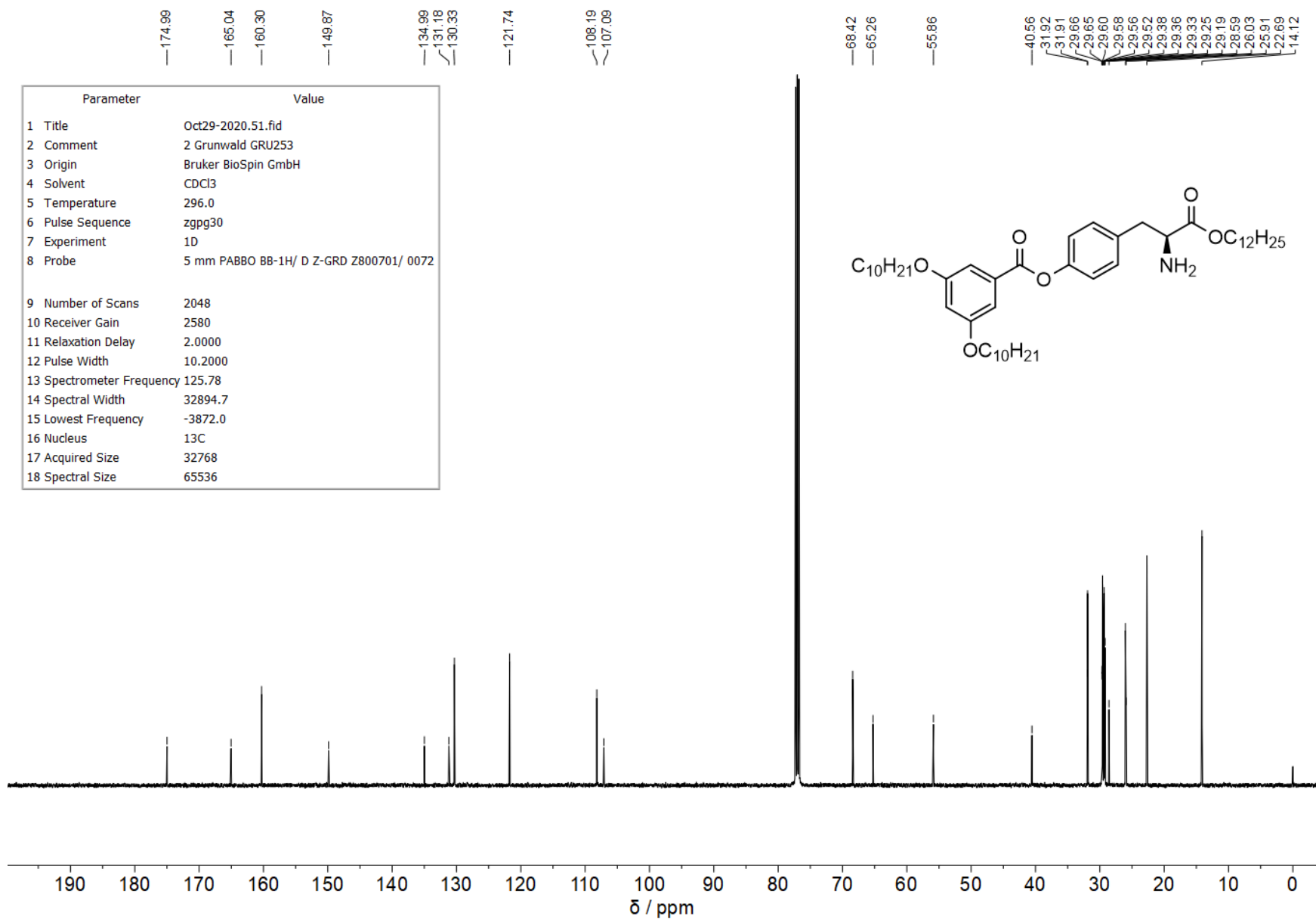
3,5-C₁₄TyrC₁₀NH₂





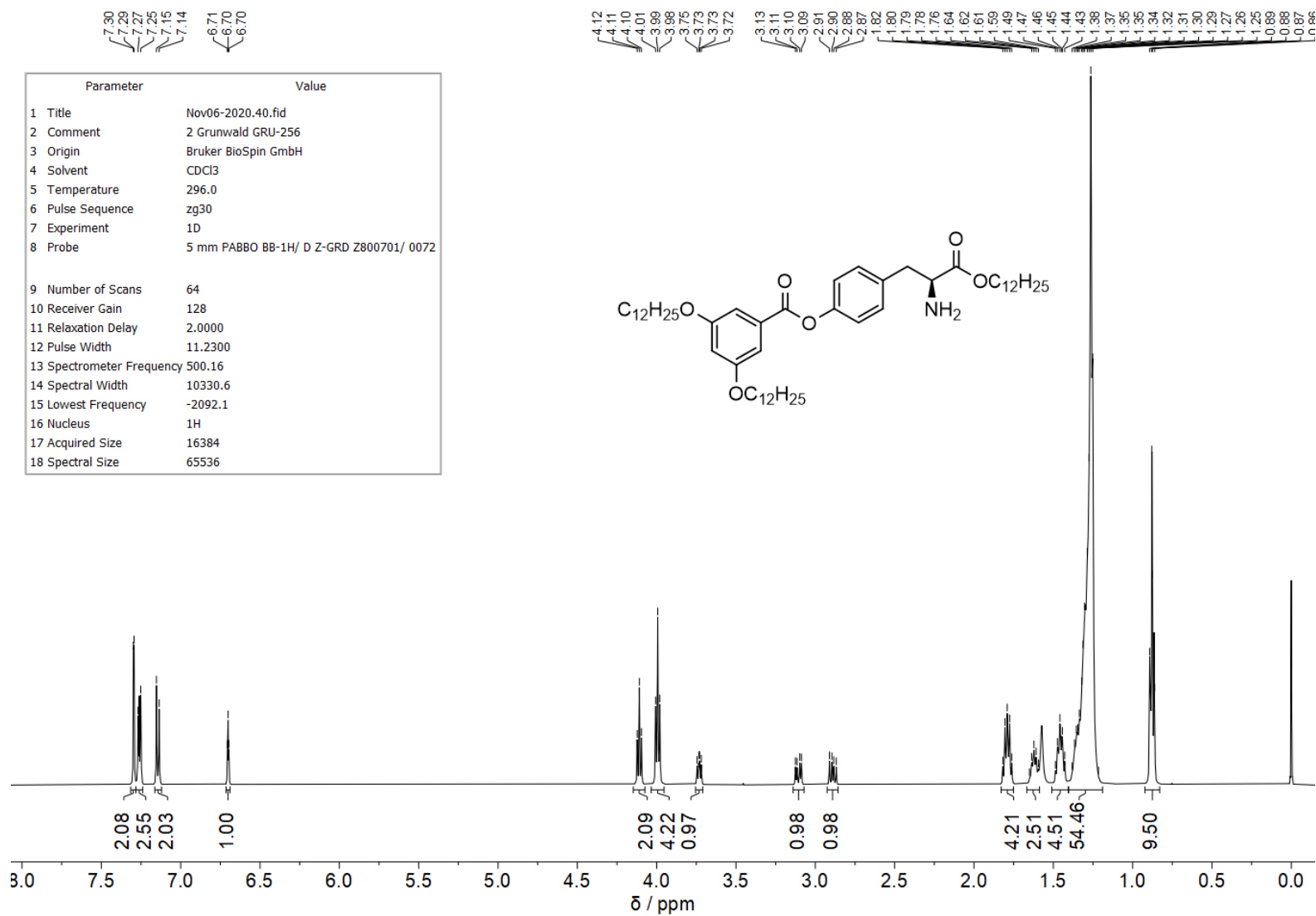
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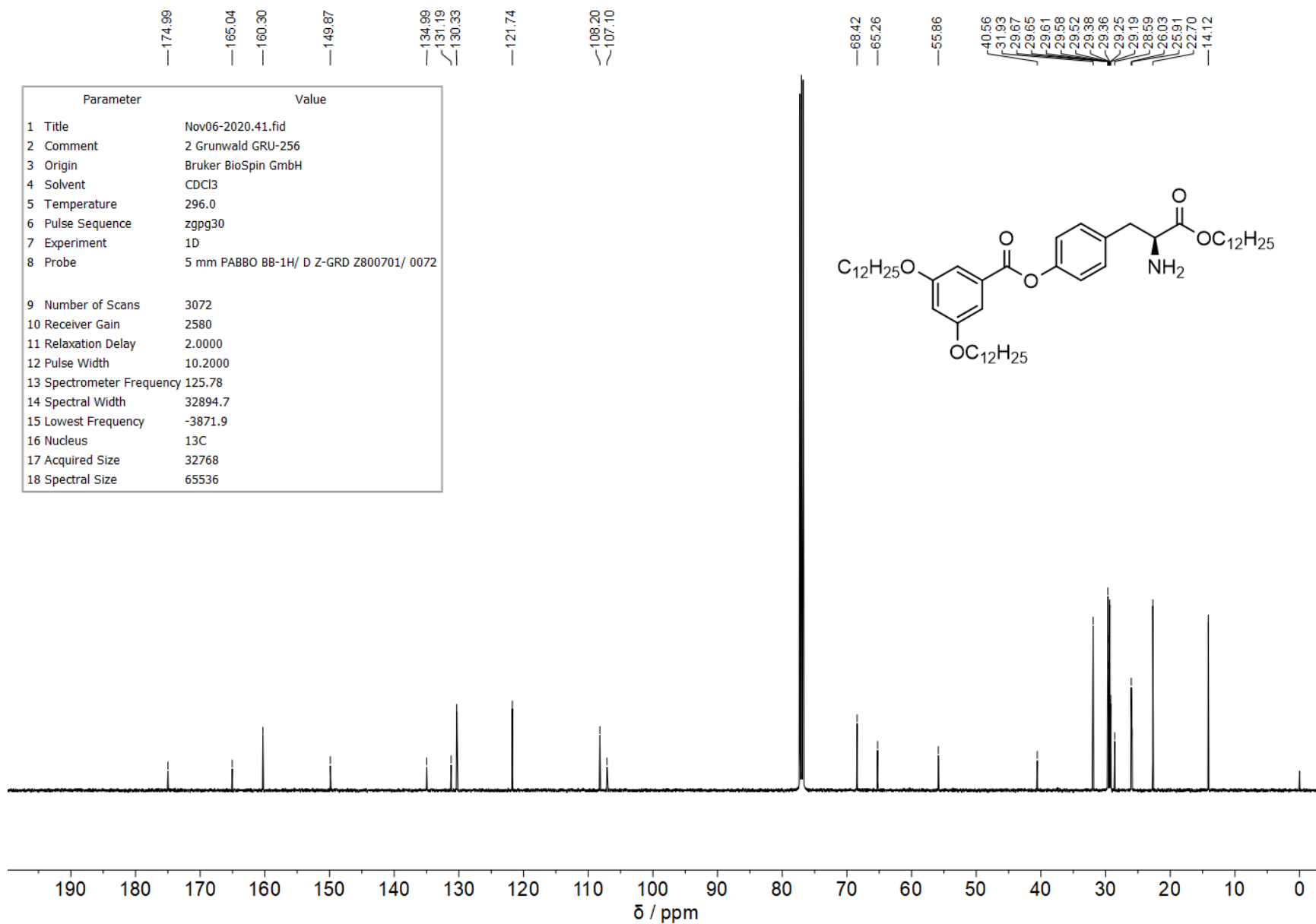




Parameter	Value
1 Title	Oct29-2020.51.fid
2 Comment	2 Grunwald GRU253
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3872.0
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

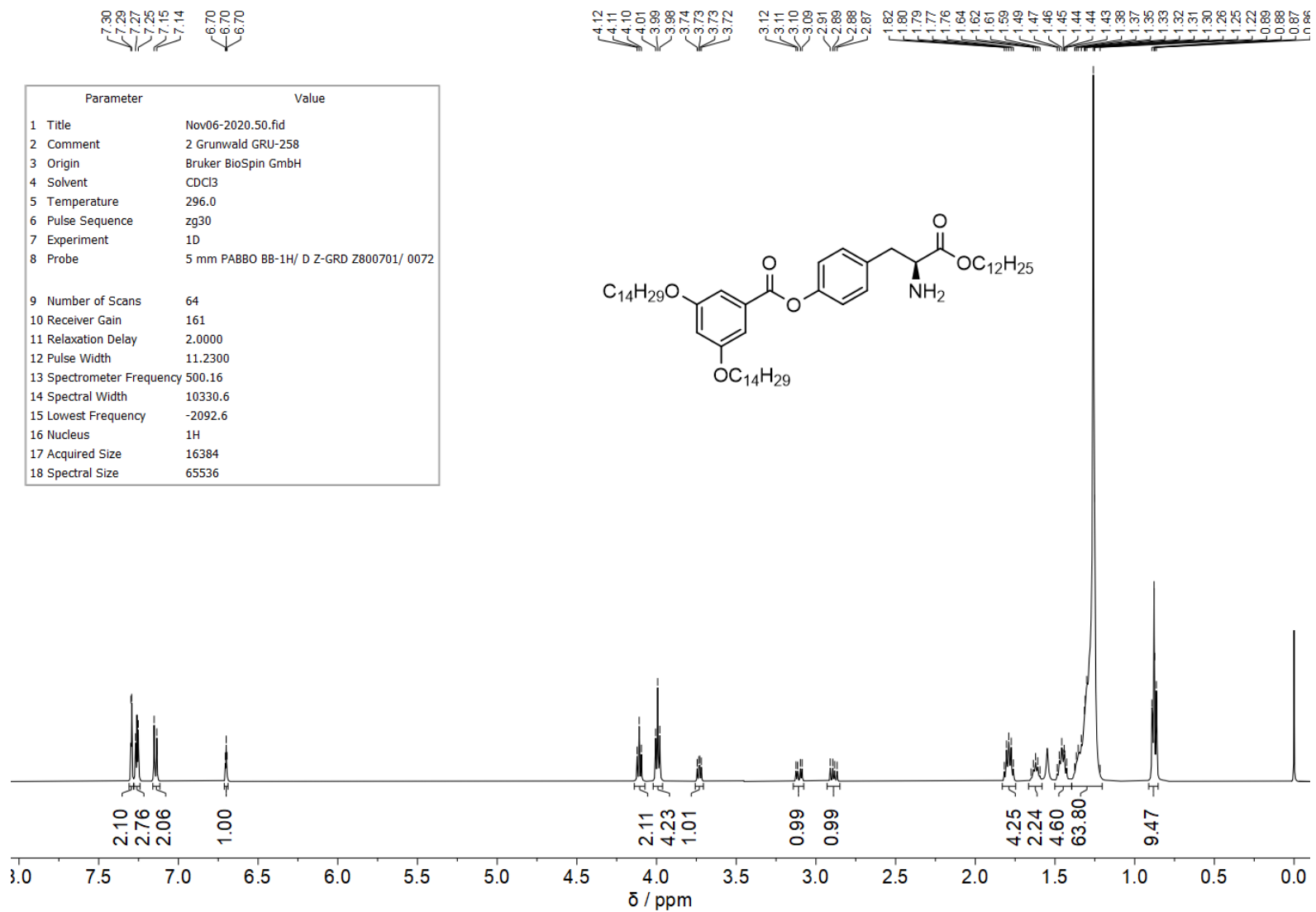
3,5-C₁₂TyrC₁₂NH₂

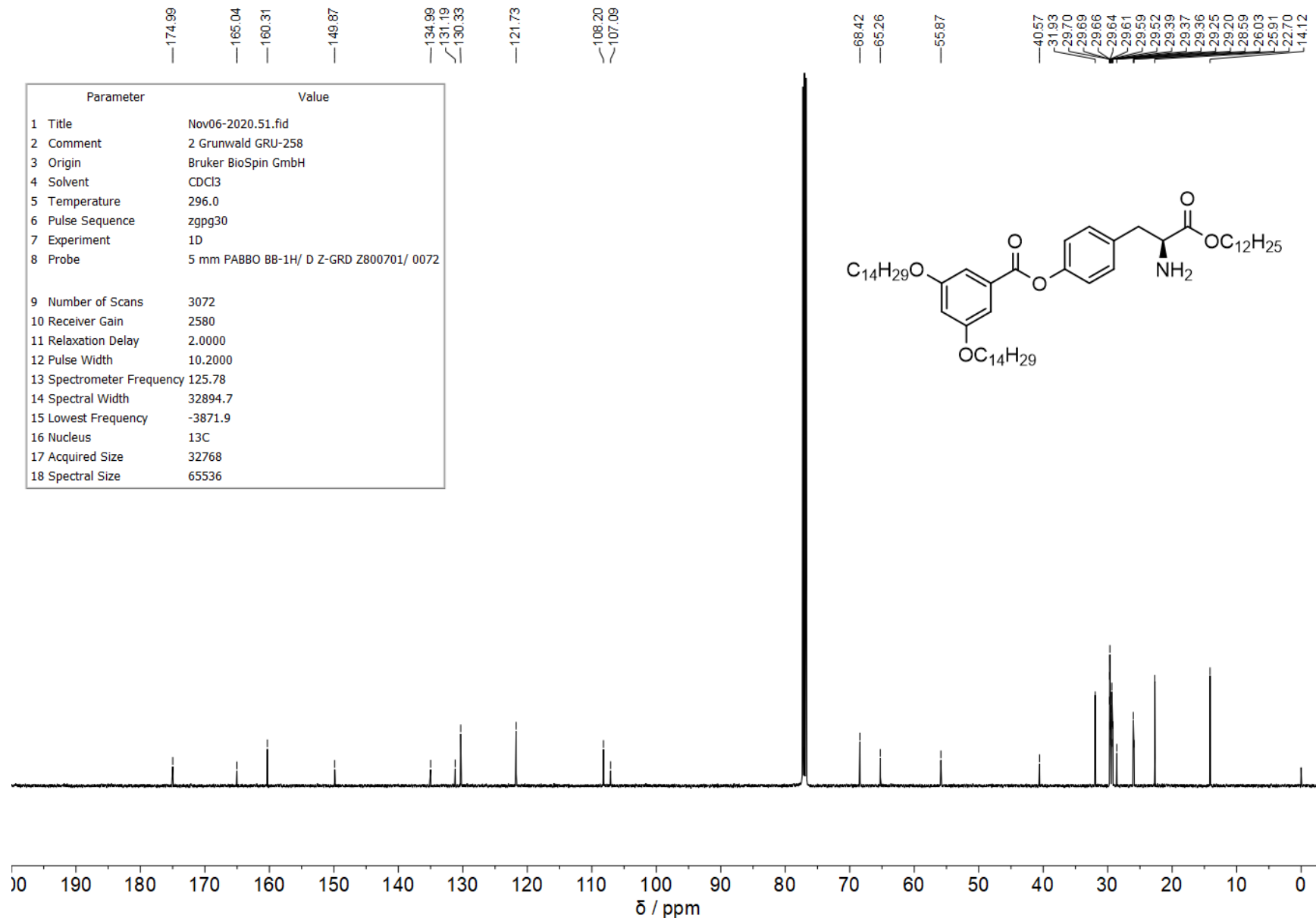




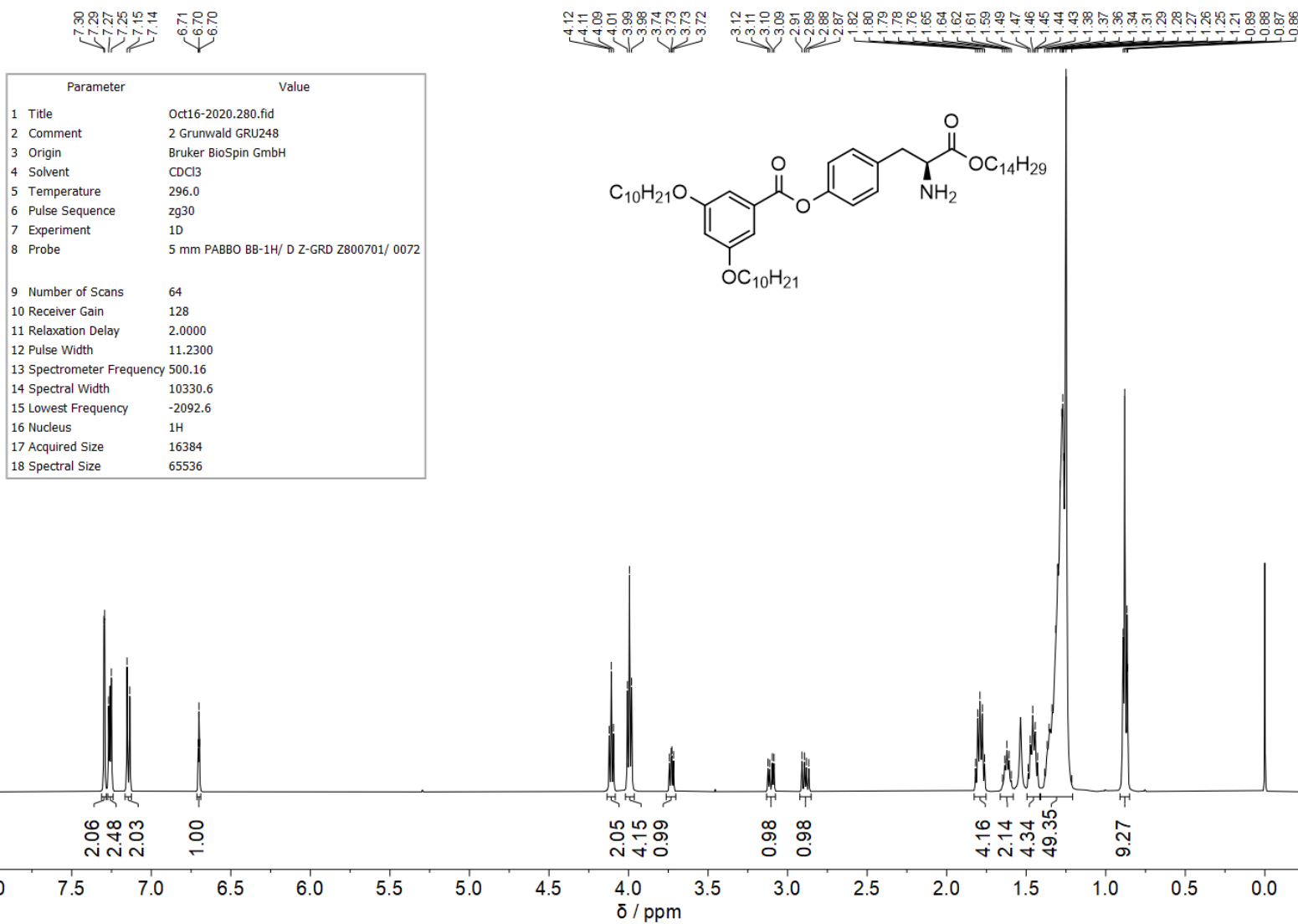
Parameter	Value
1 Title	Nov06-2020.41.fid
2 Comment	2 Grunwald GRU-256
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	3072
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3871.9
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

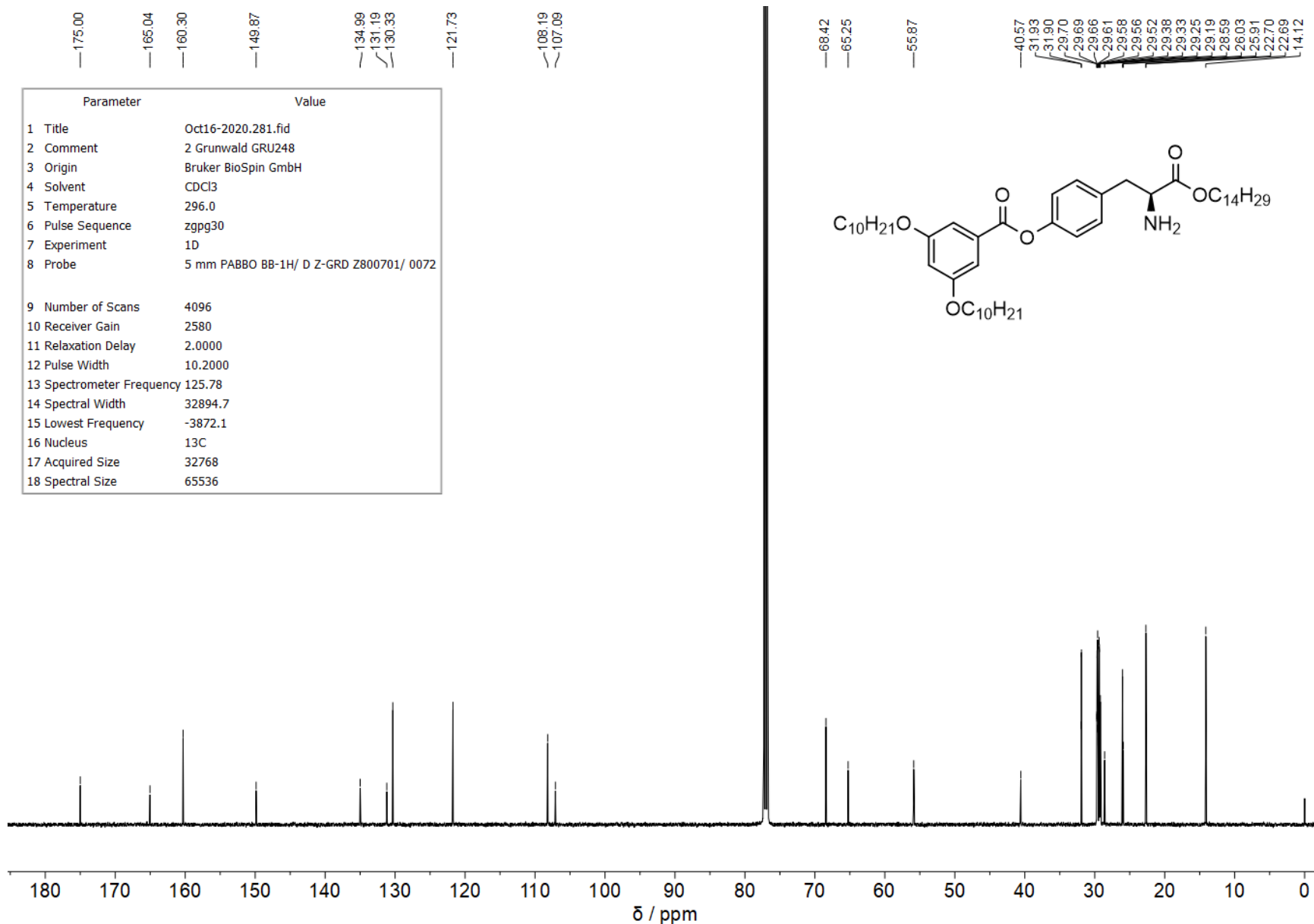
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 160.30
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 134.99
 131.19
 130.33
 121.74
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 107.10
 68.42
 65.26
 55.86
 40.56
 31.93
 29.67
 29.65
 29.61
 29.58
 29.52
 29.38
 29.36
 29.25
 29.19
 28.59
 26.03
 25.91
 22.70
 14.12

3,5-C₁₄TyrC₁₂NH₂

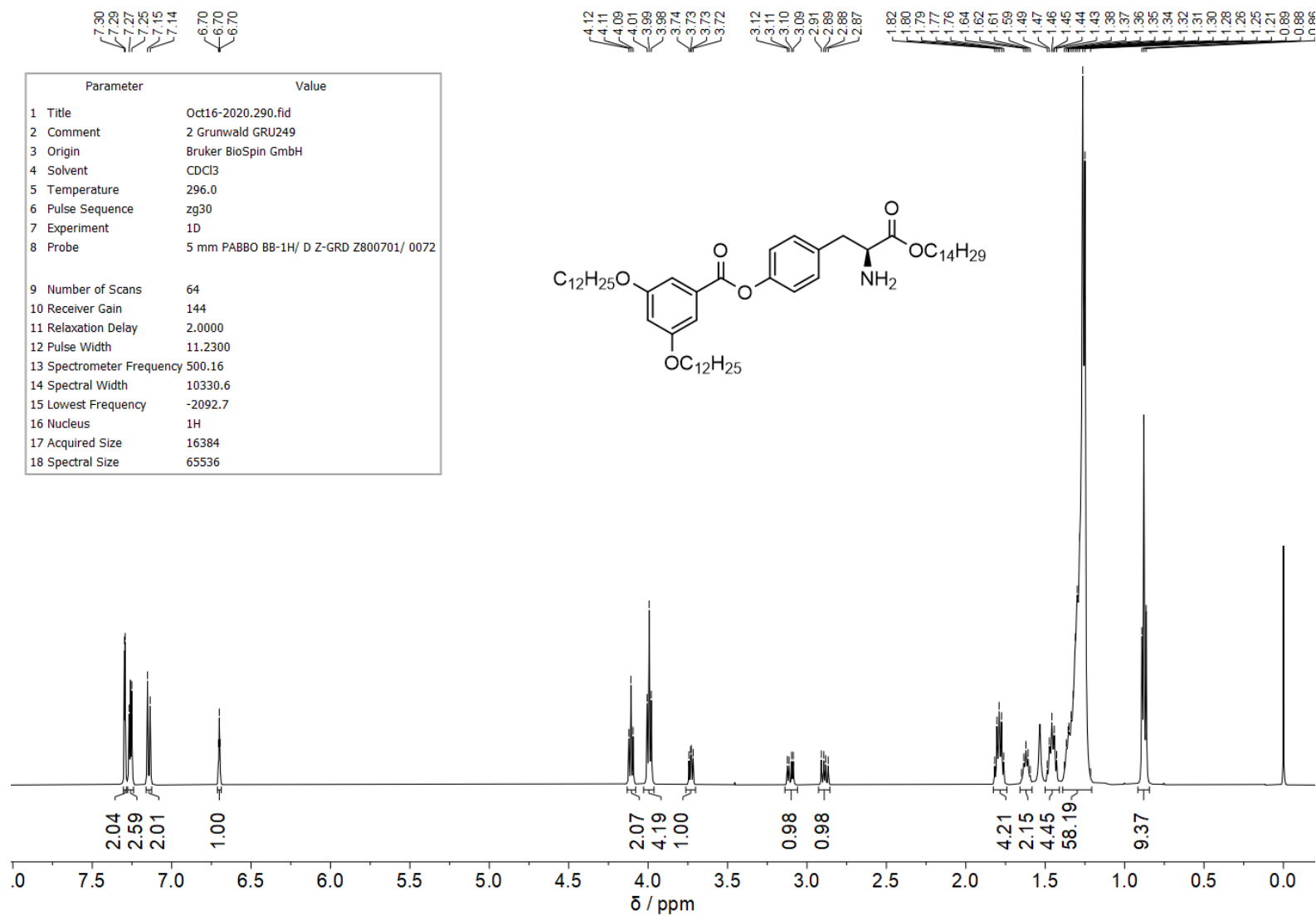


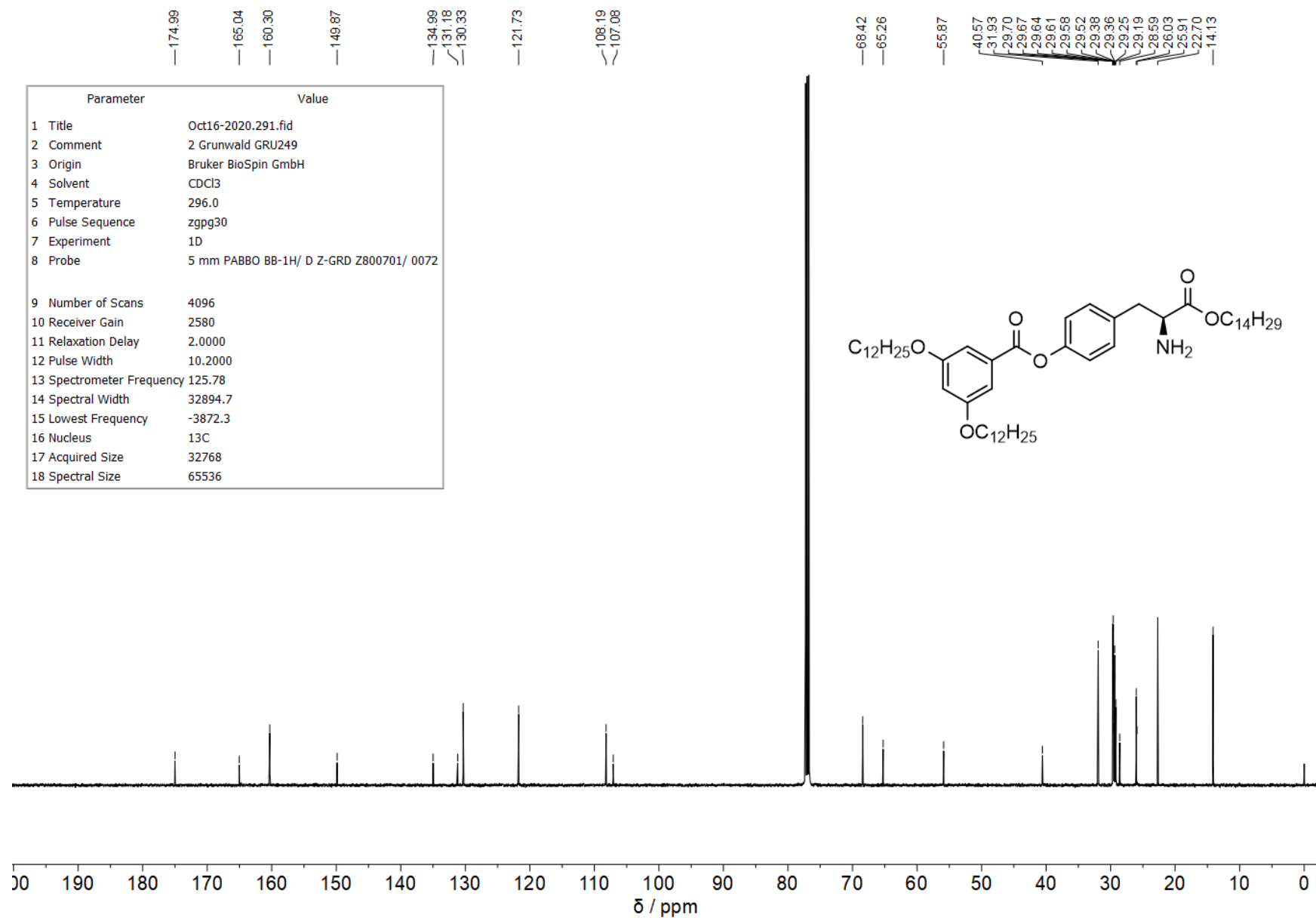
3,5-C₁₀TyrC₁₄NH₂



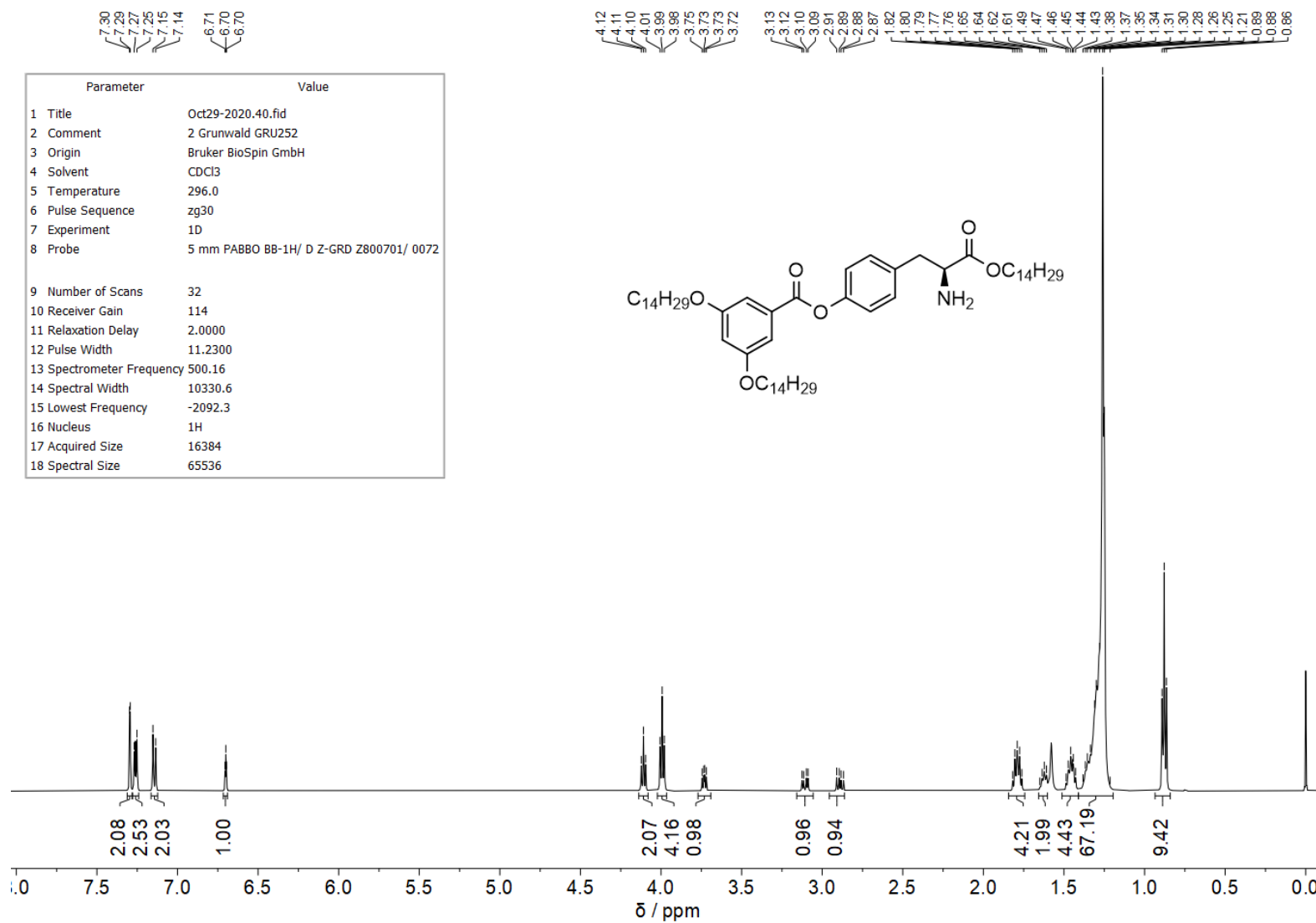


3,5-C₁₂TyrC₁₄NH₂

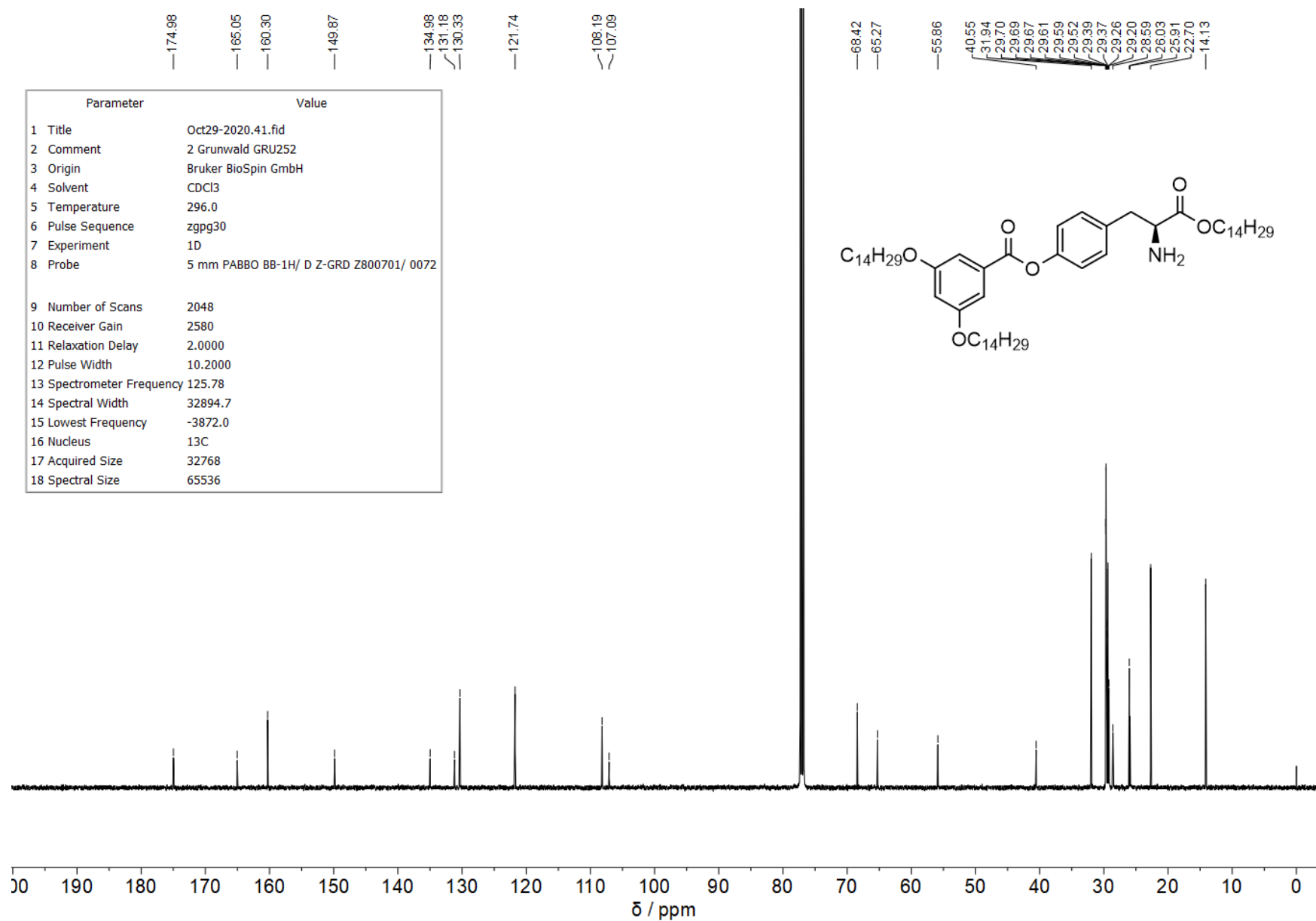


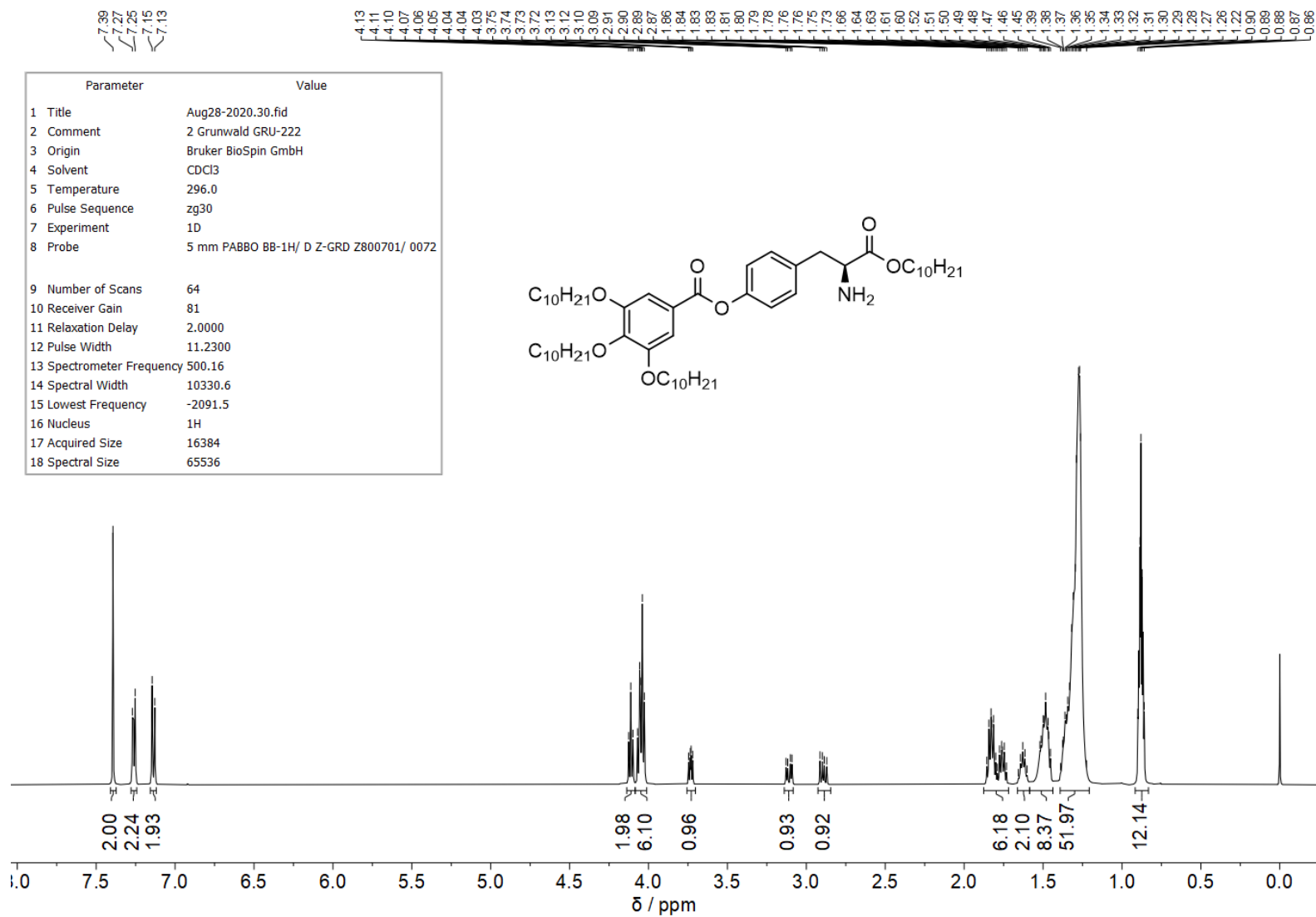


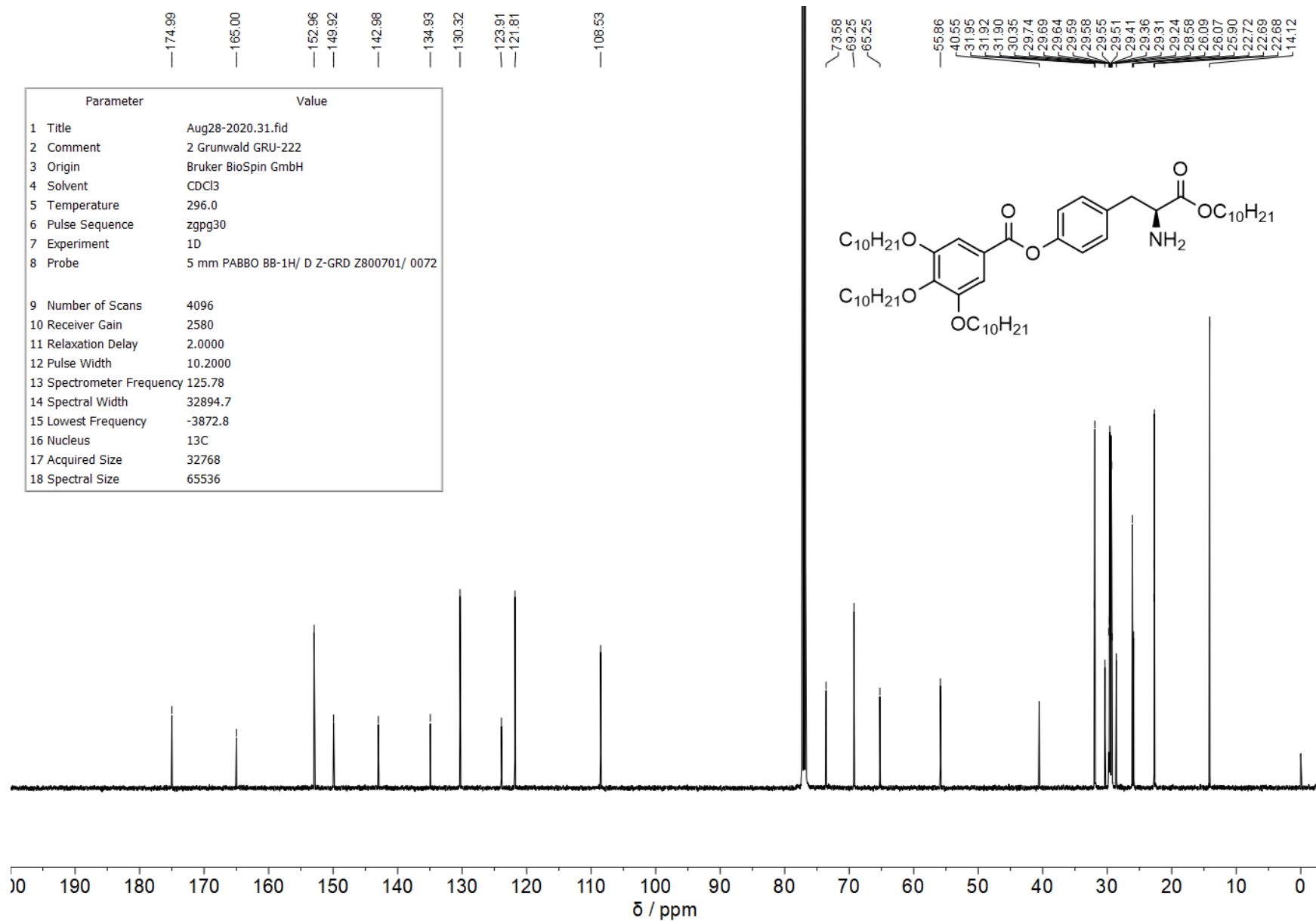
3,5-C₁₄TyrC₁₄NH₂

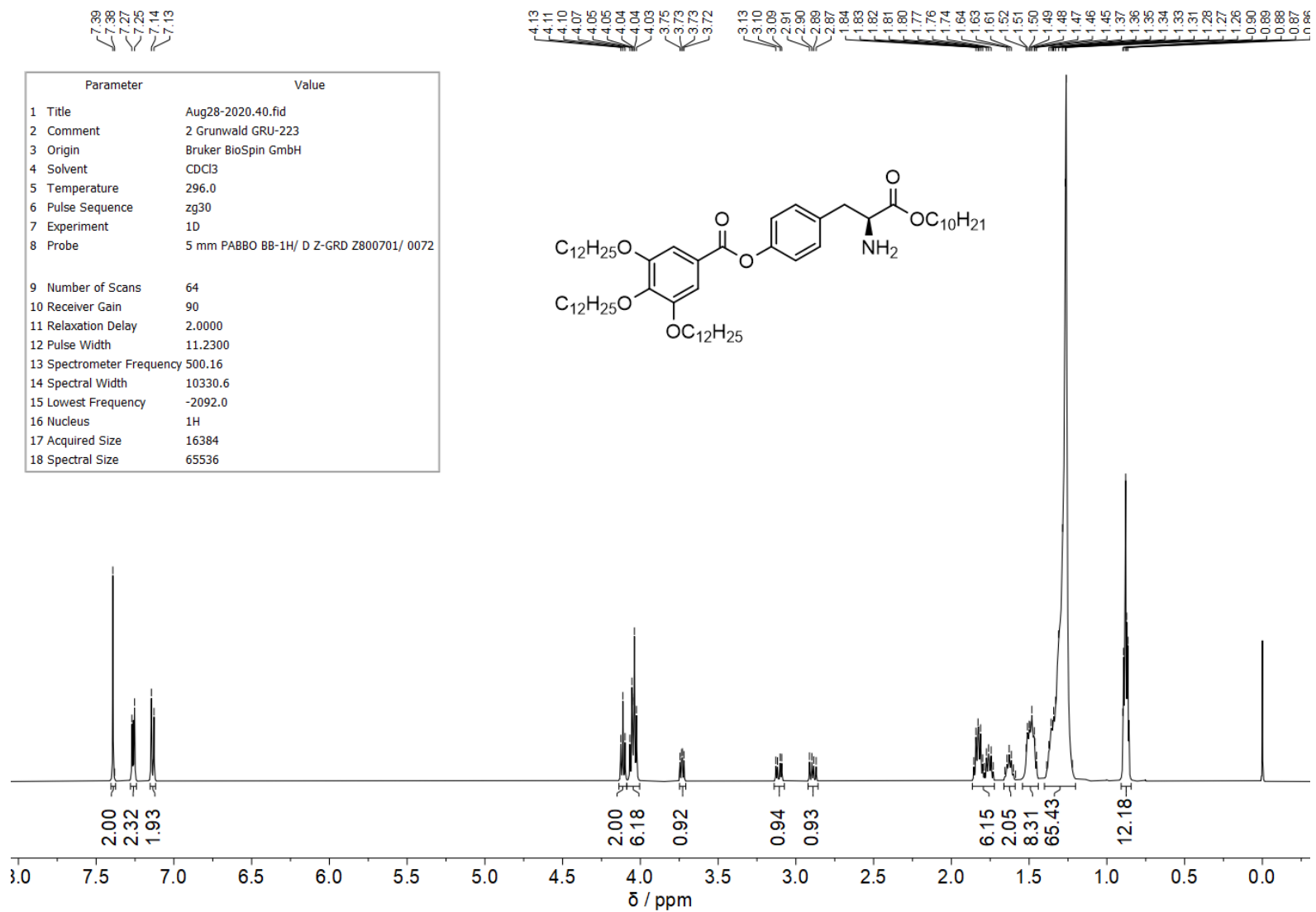


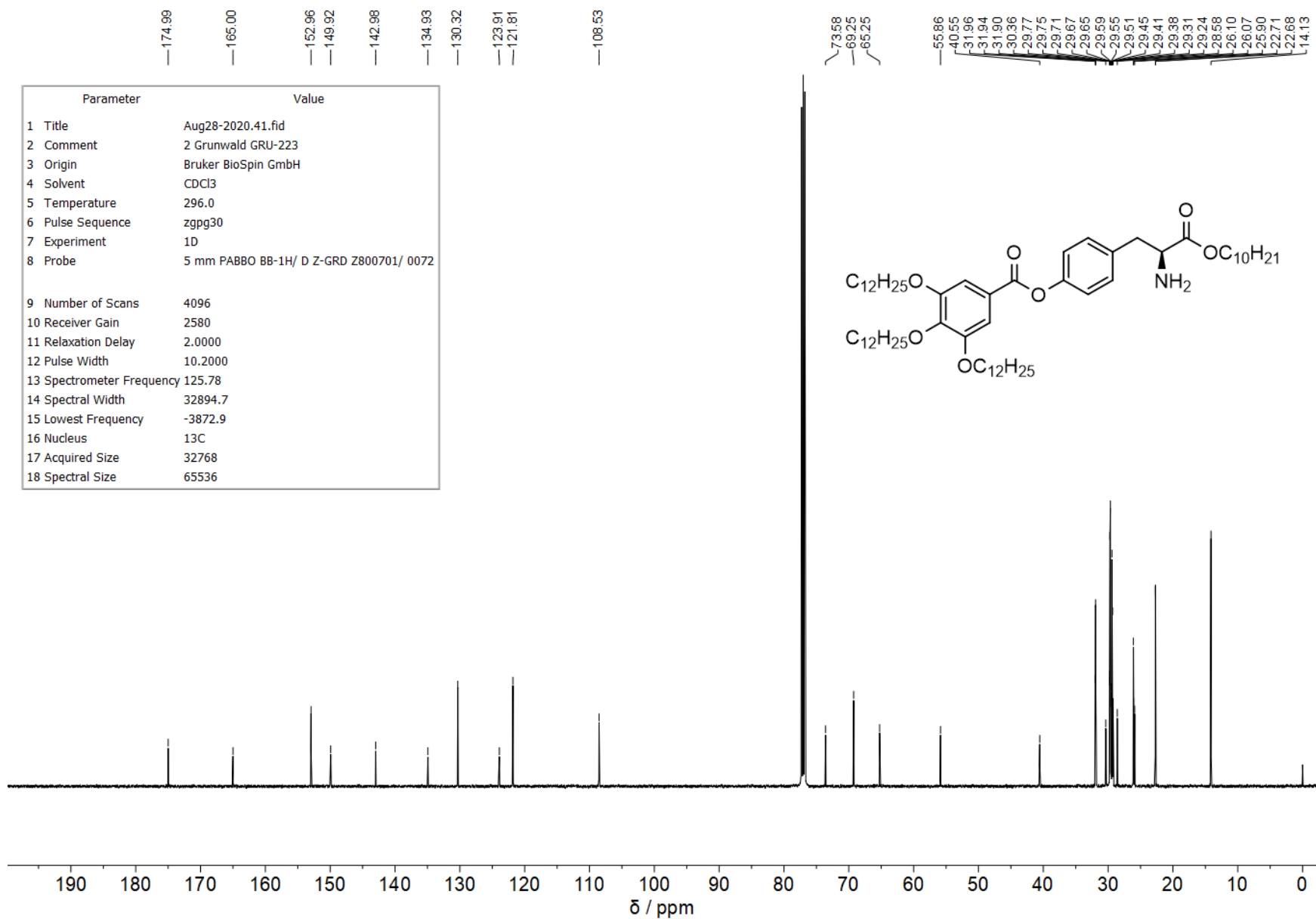
Parameter	Value
1 Title	Oct29-2020.40.fid
2 Comment	2 Grunwald GRU252
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	32
10 Receiver Gain	114
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2092.3
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

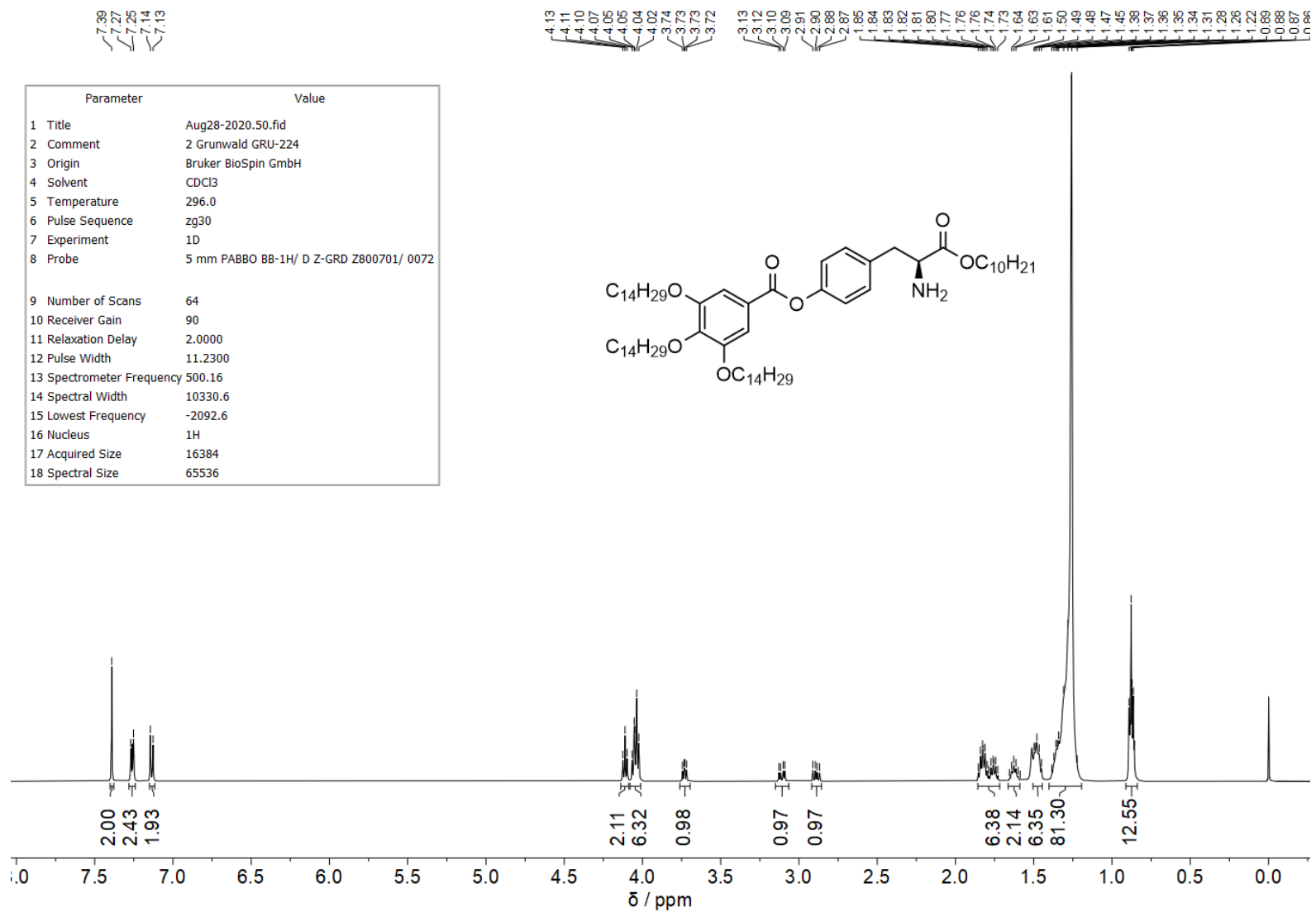


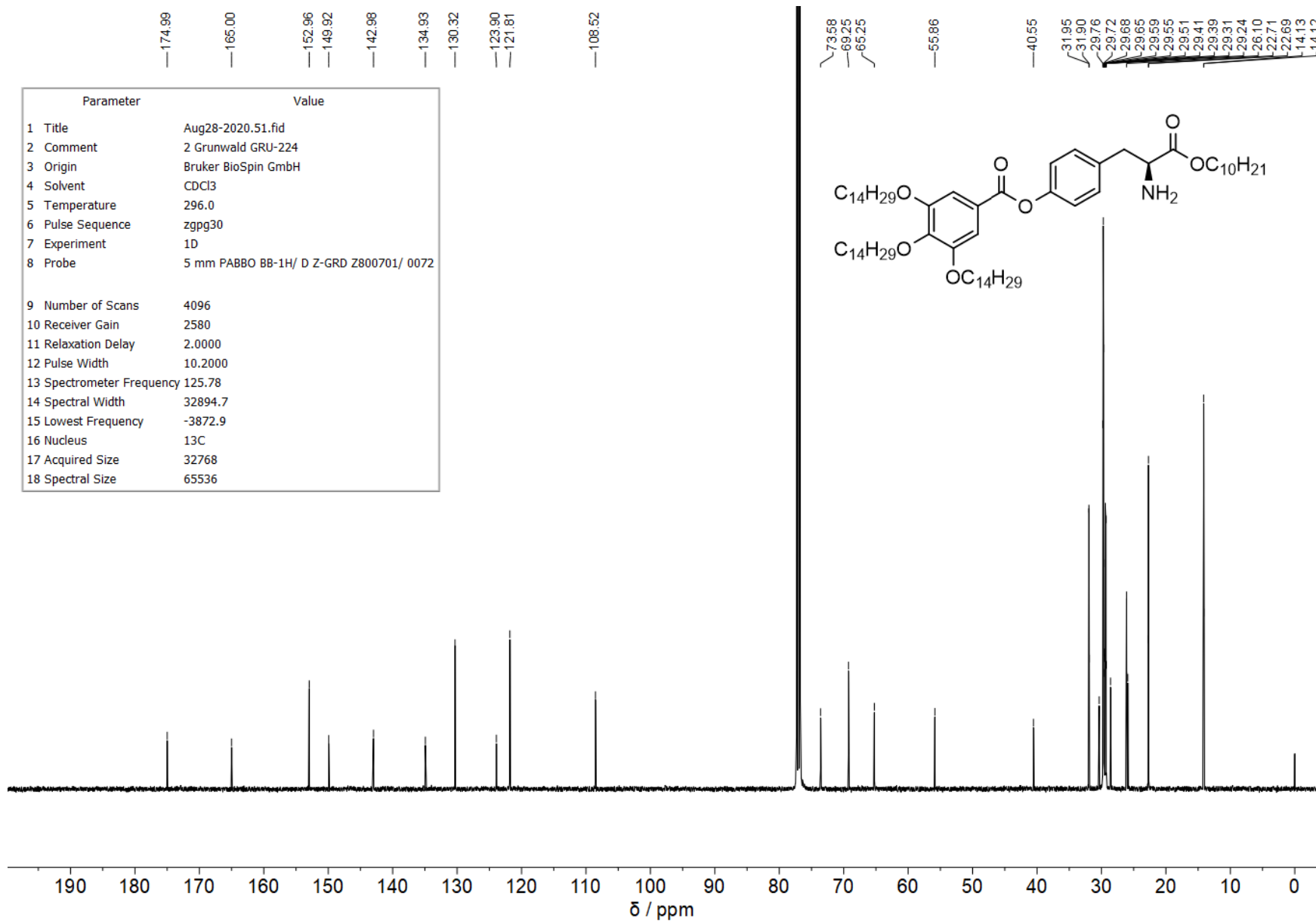
3,4,5-C₁₀TyrC₁₀NH₂



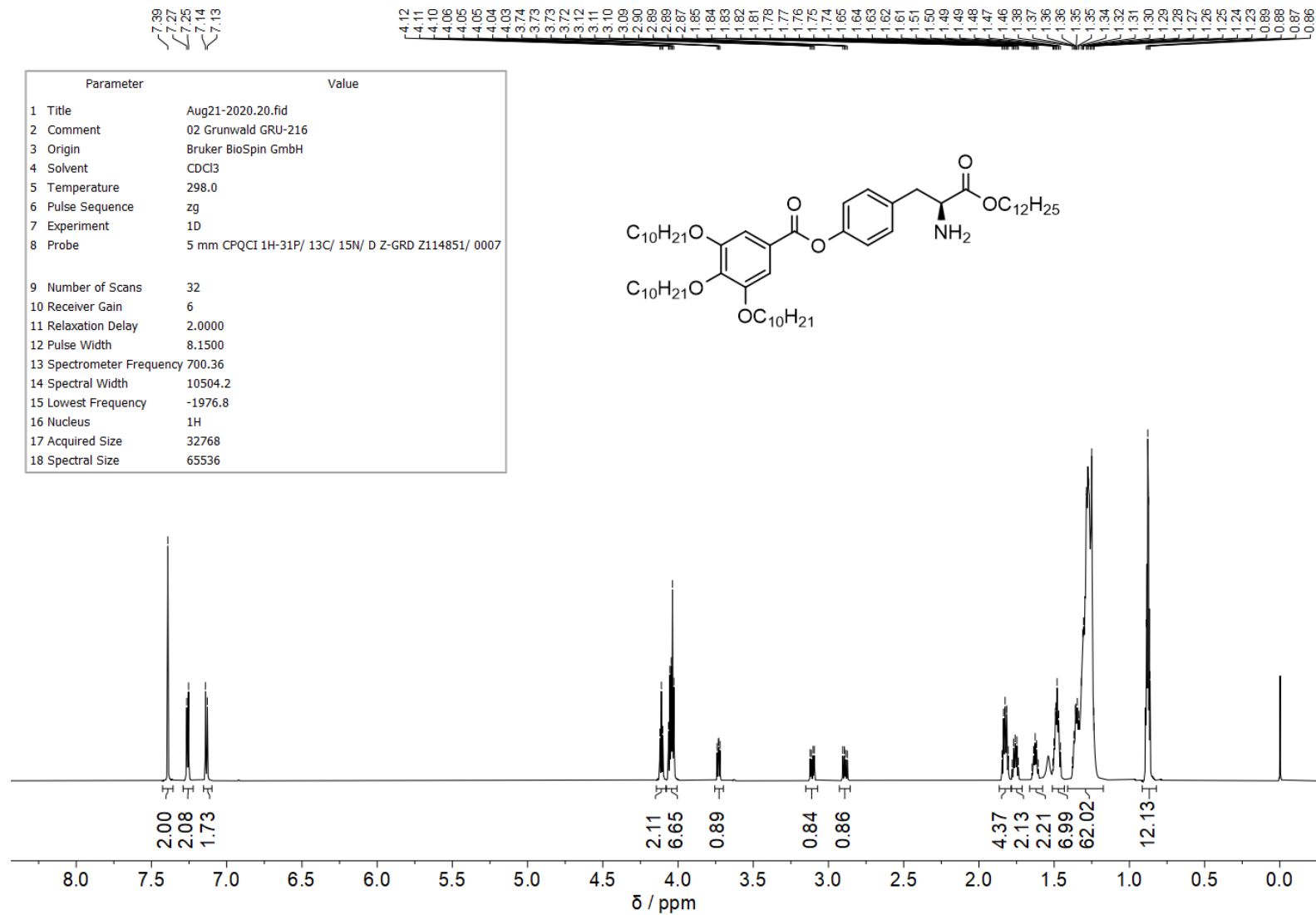
3,4,5-C₁₂TyrC₁₀NH₂

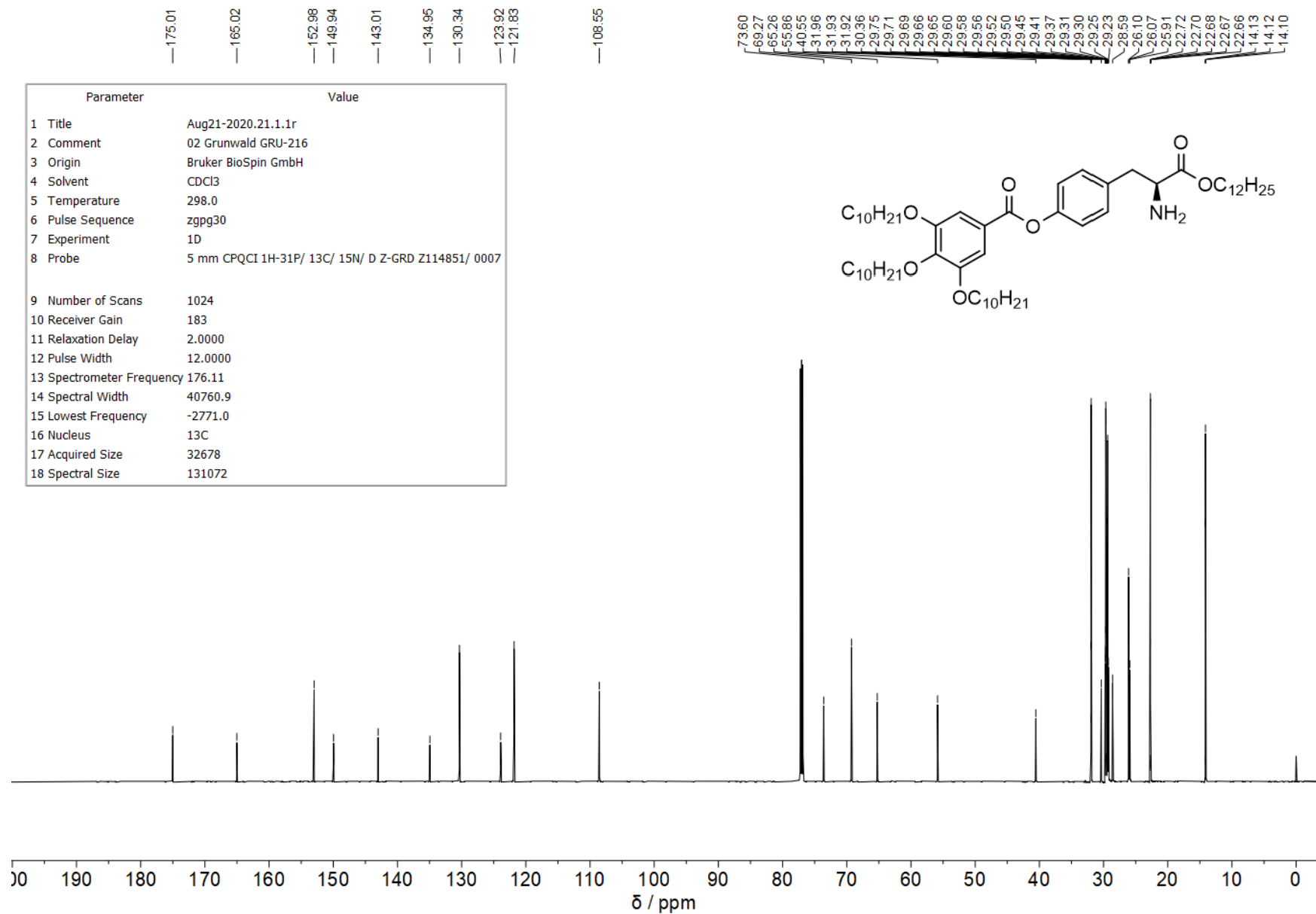


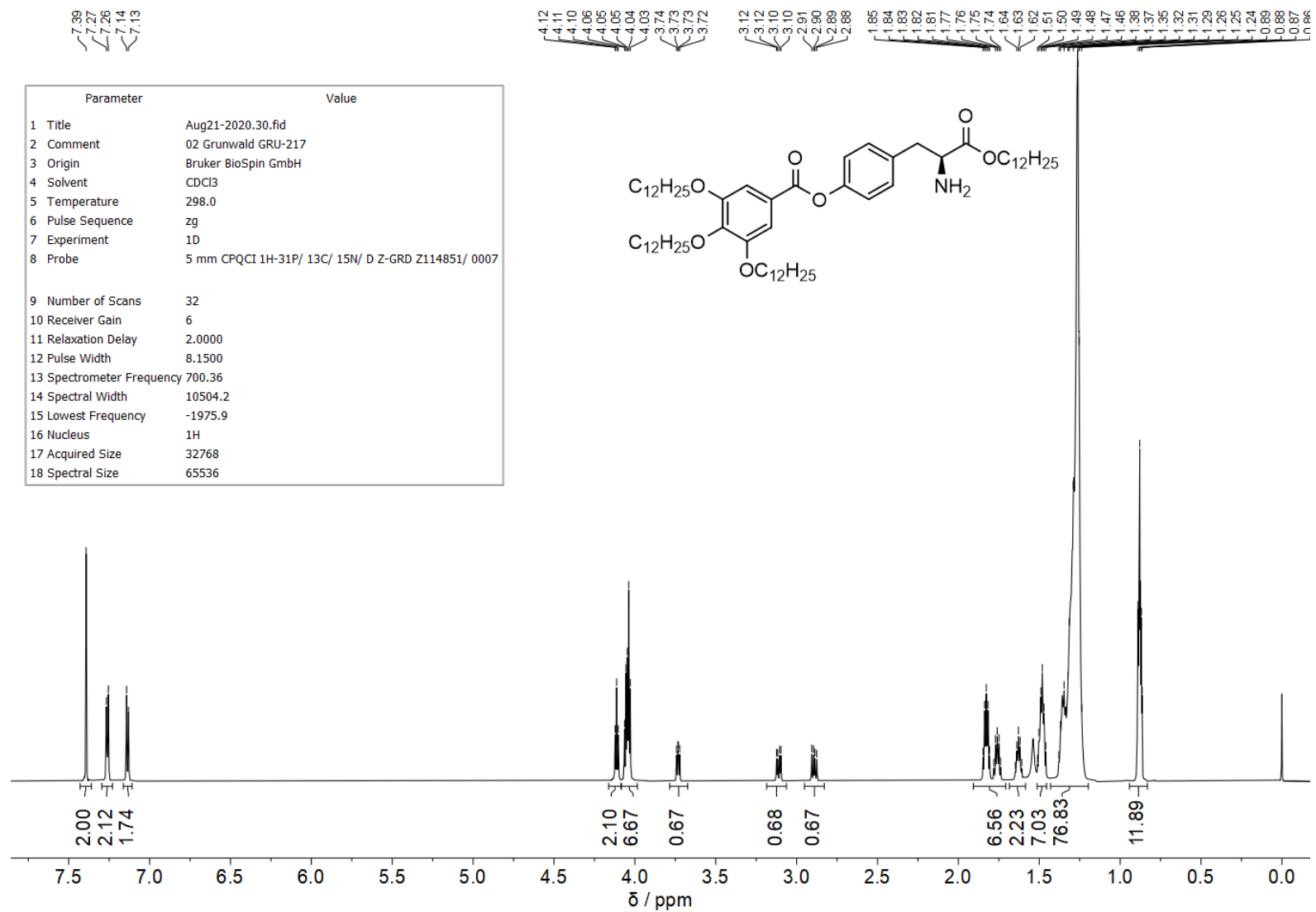
3,4,5-C₁₄TyrC₁₀NH₂

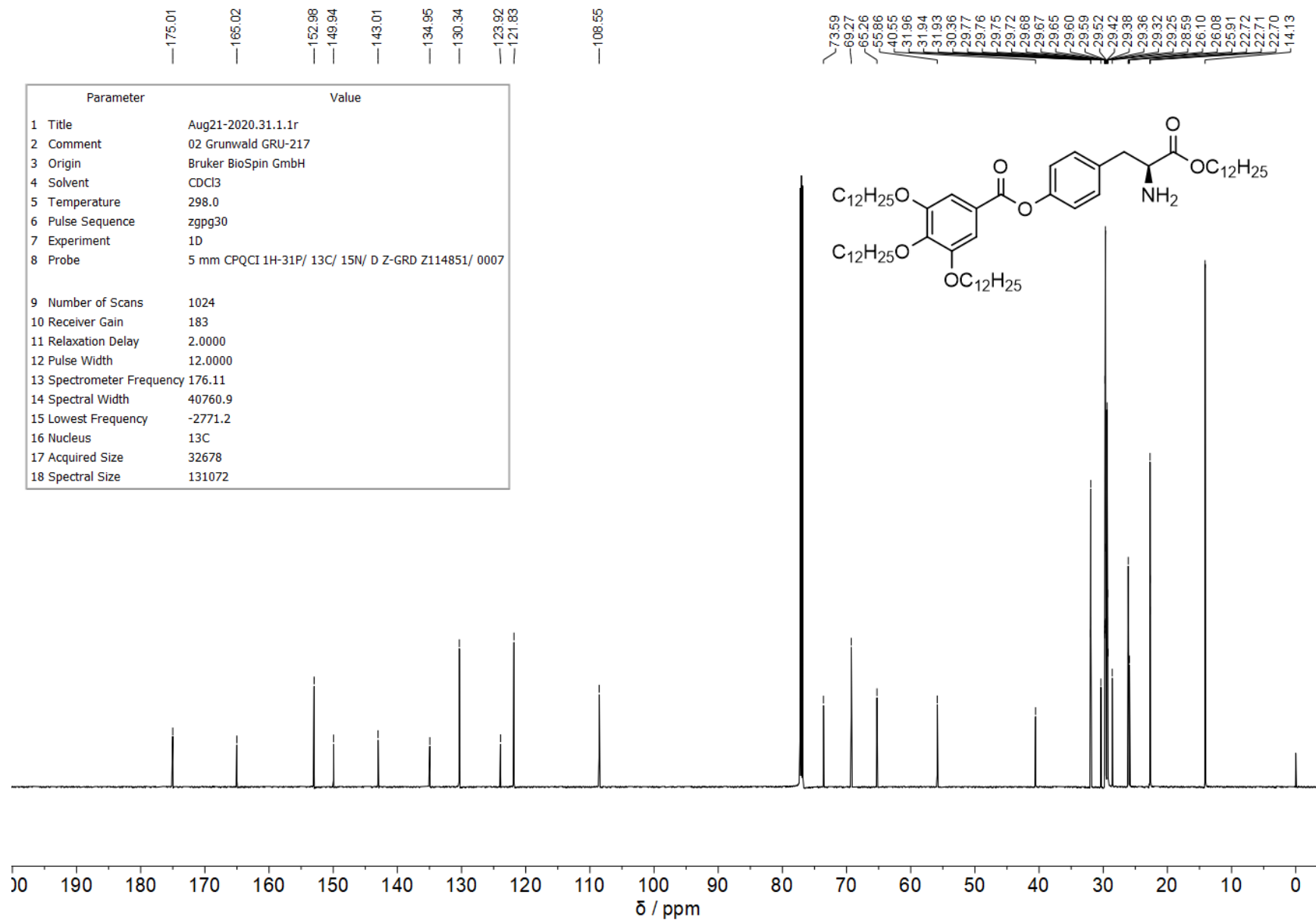


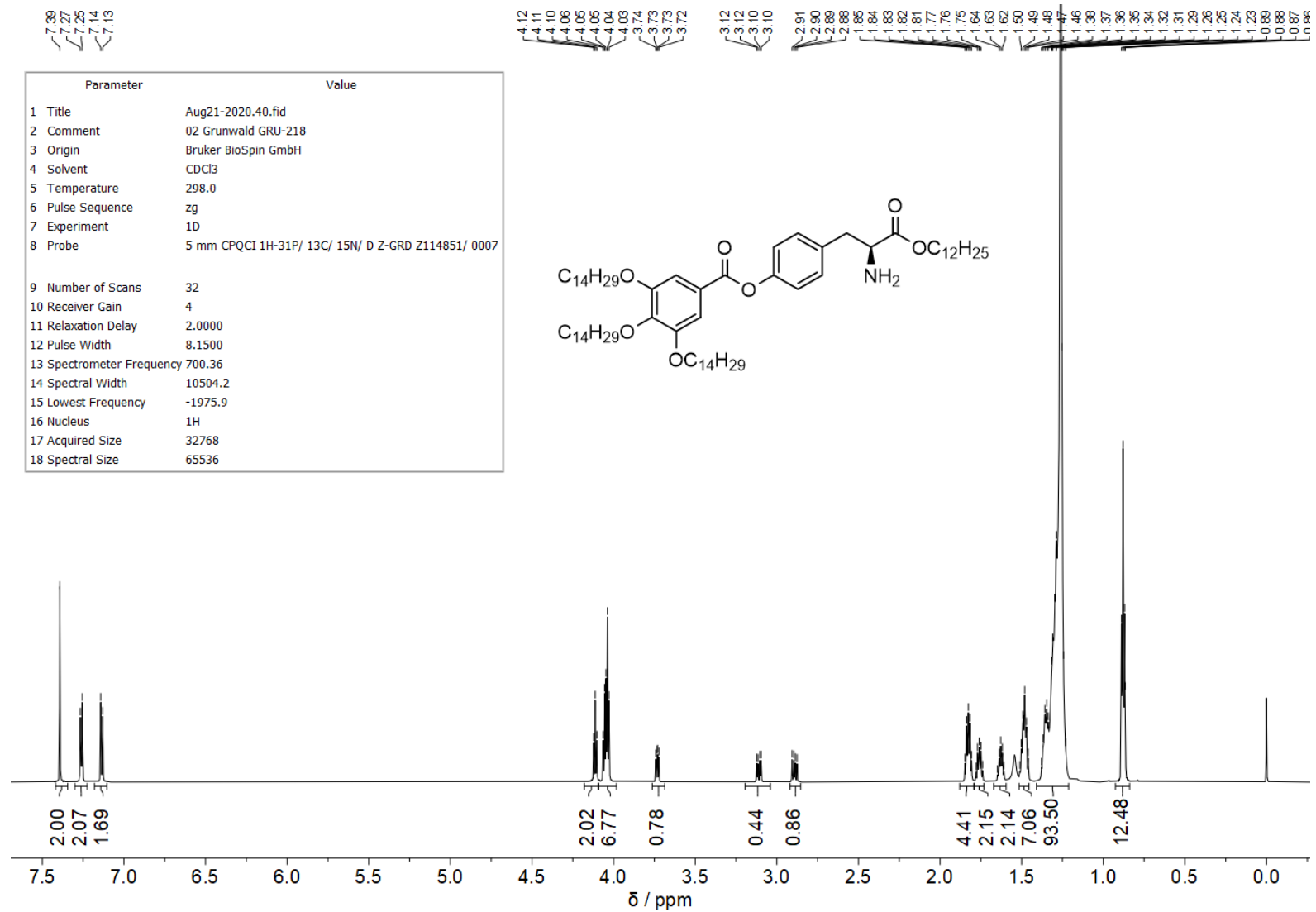
3,4,5-C₁₀TyrC₁₂NH₂

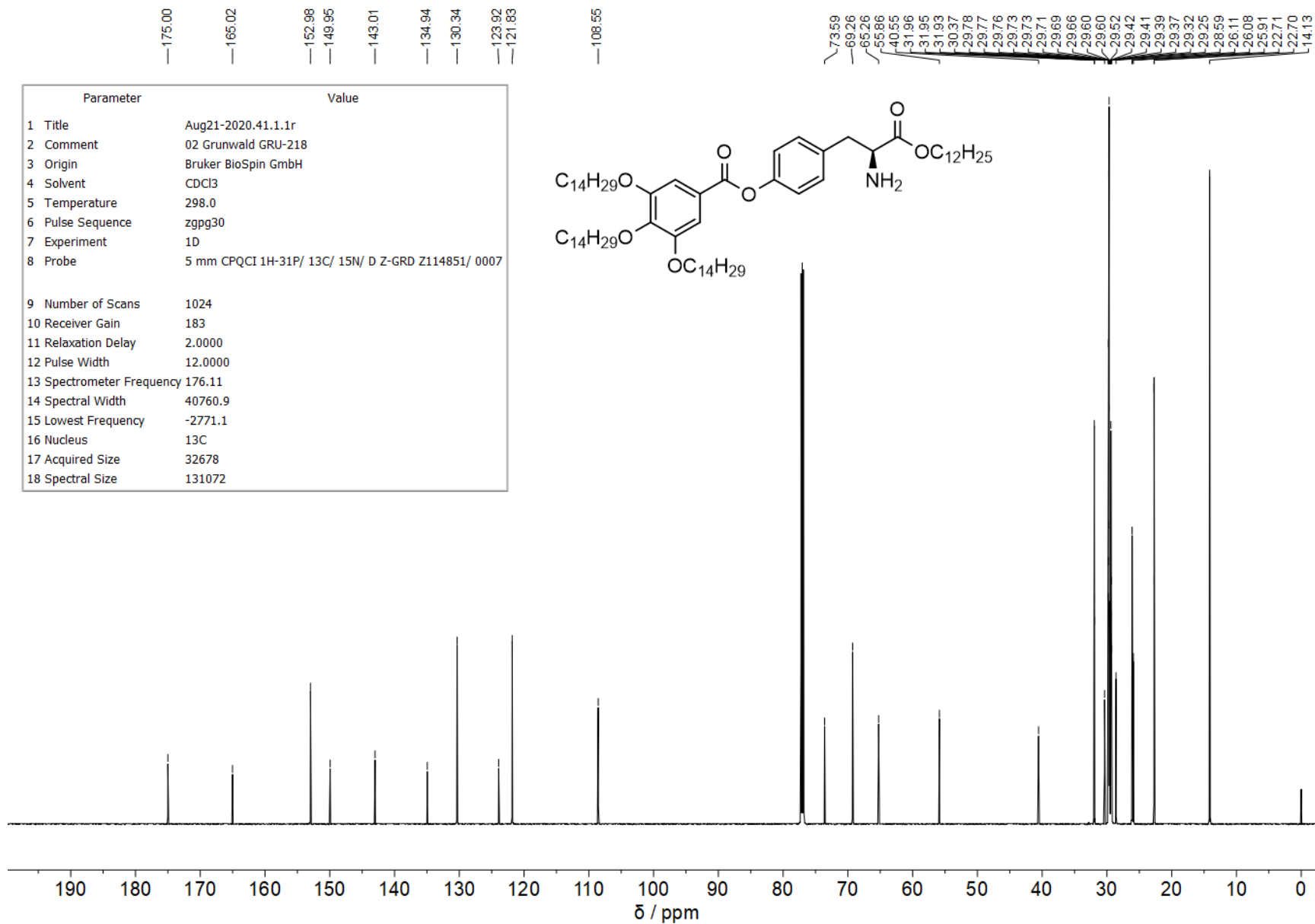


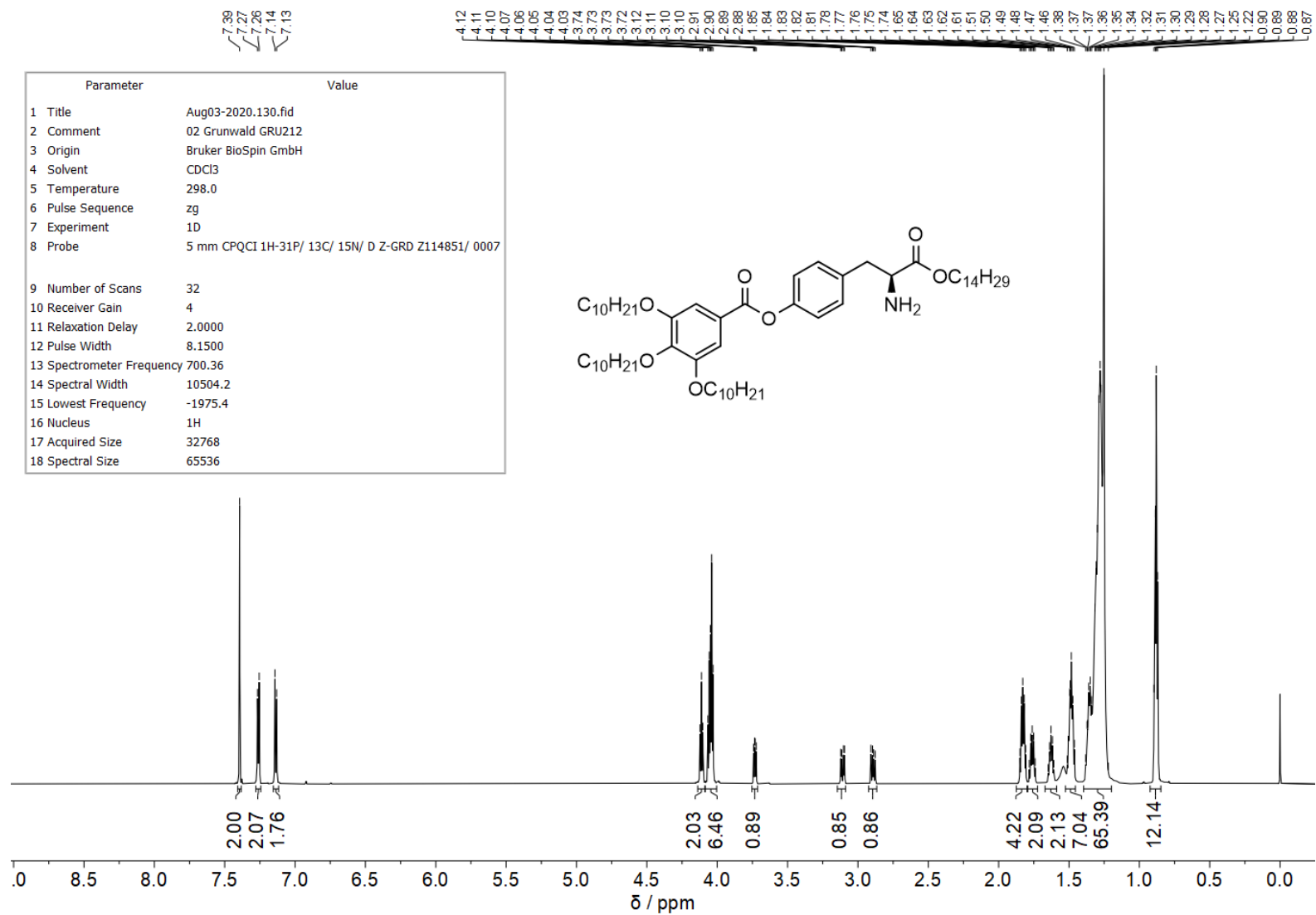


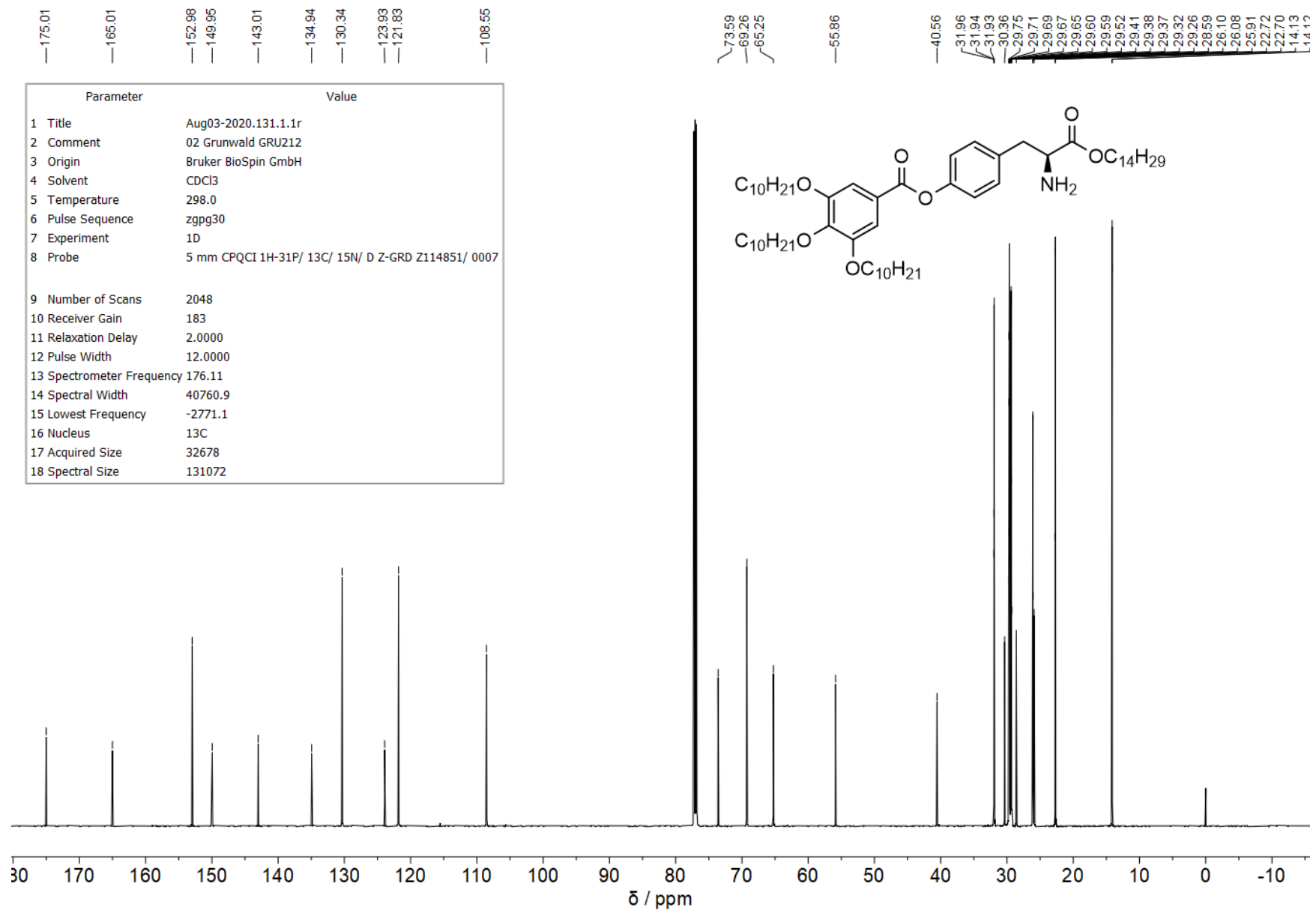
3,4,5-C₁₂TyrC₁₂NH₂

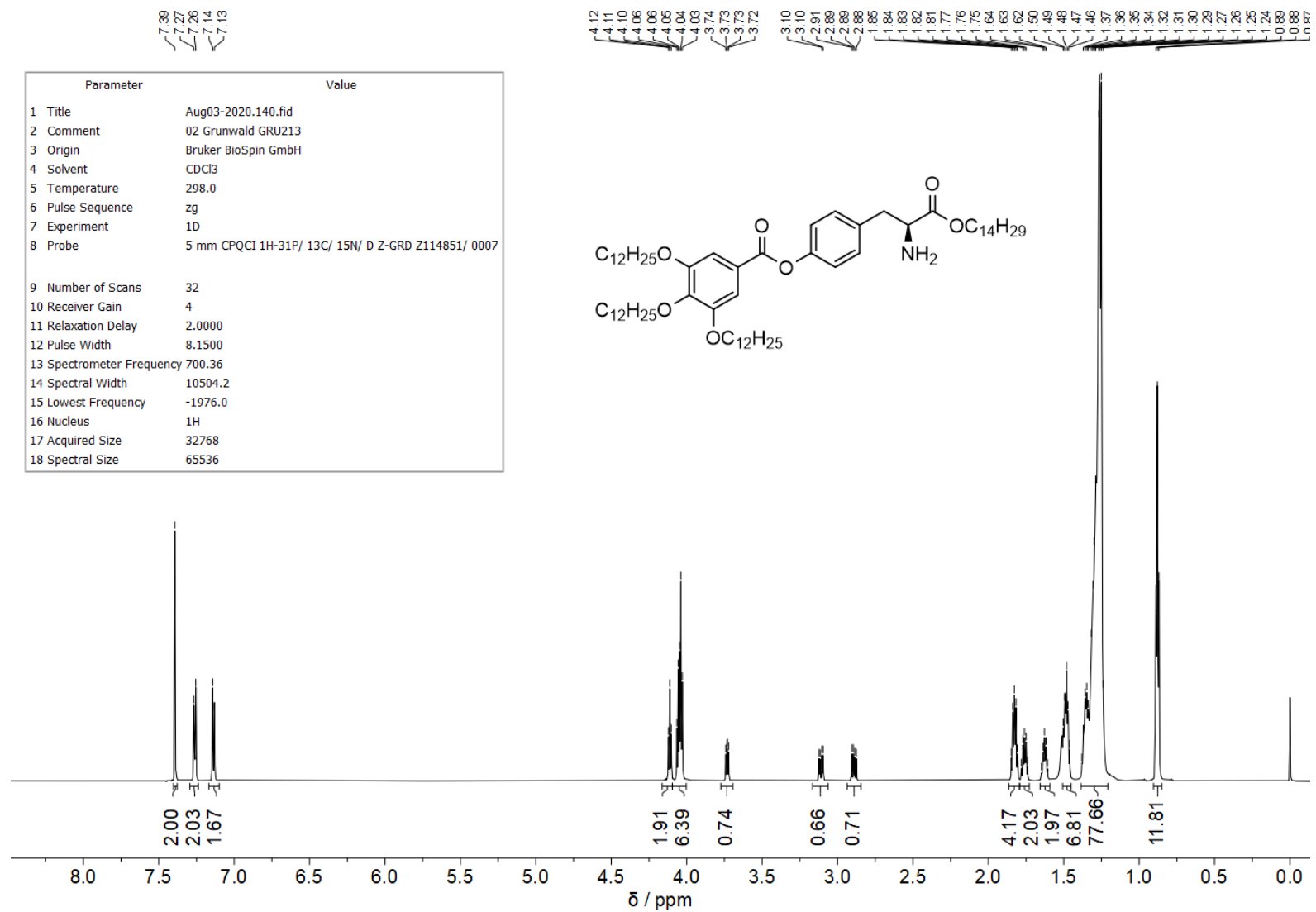


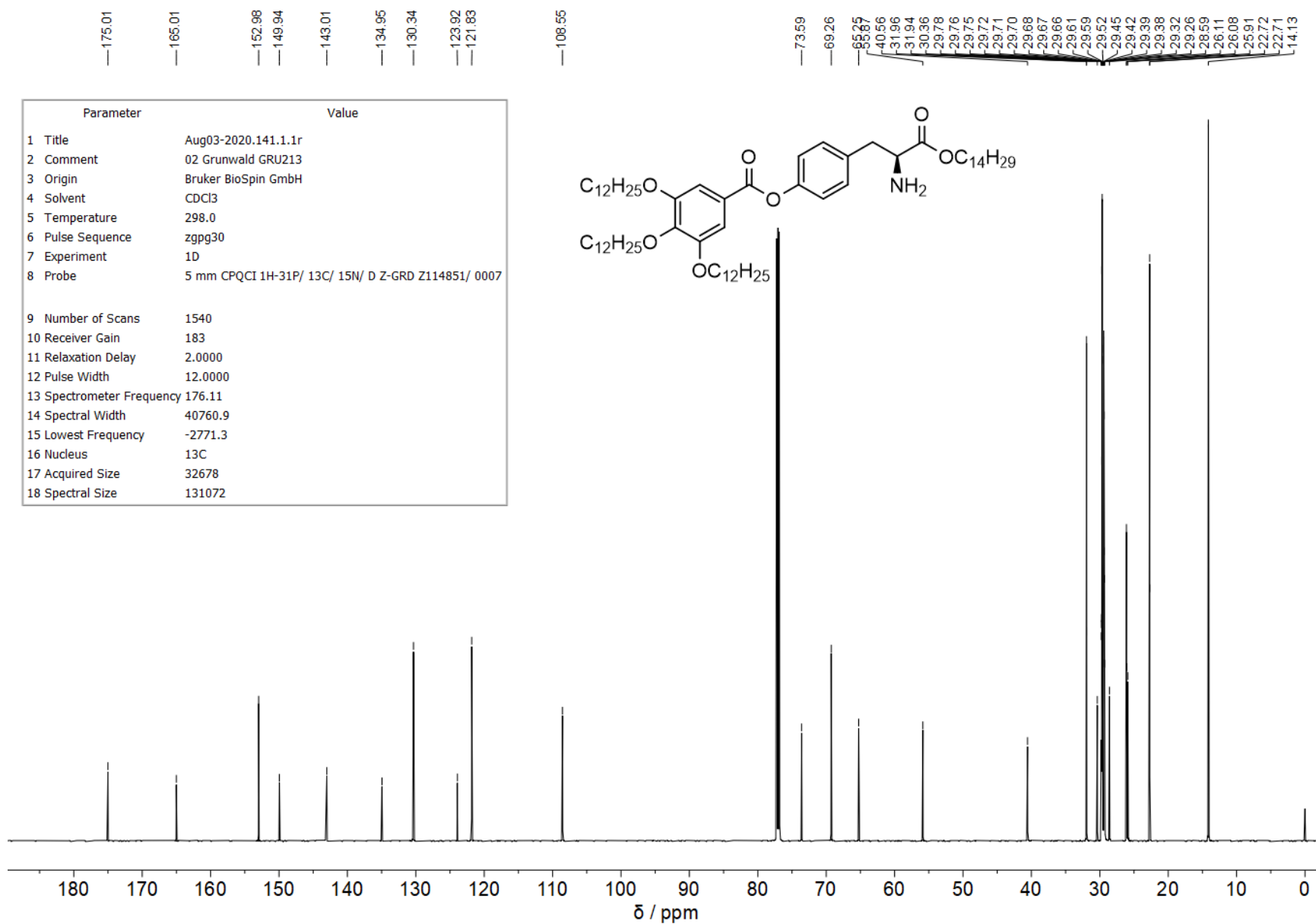
3,4,5-C₁₄TyrC₁₂NH₂



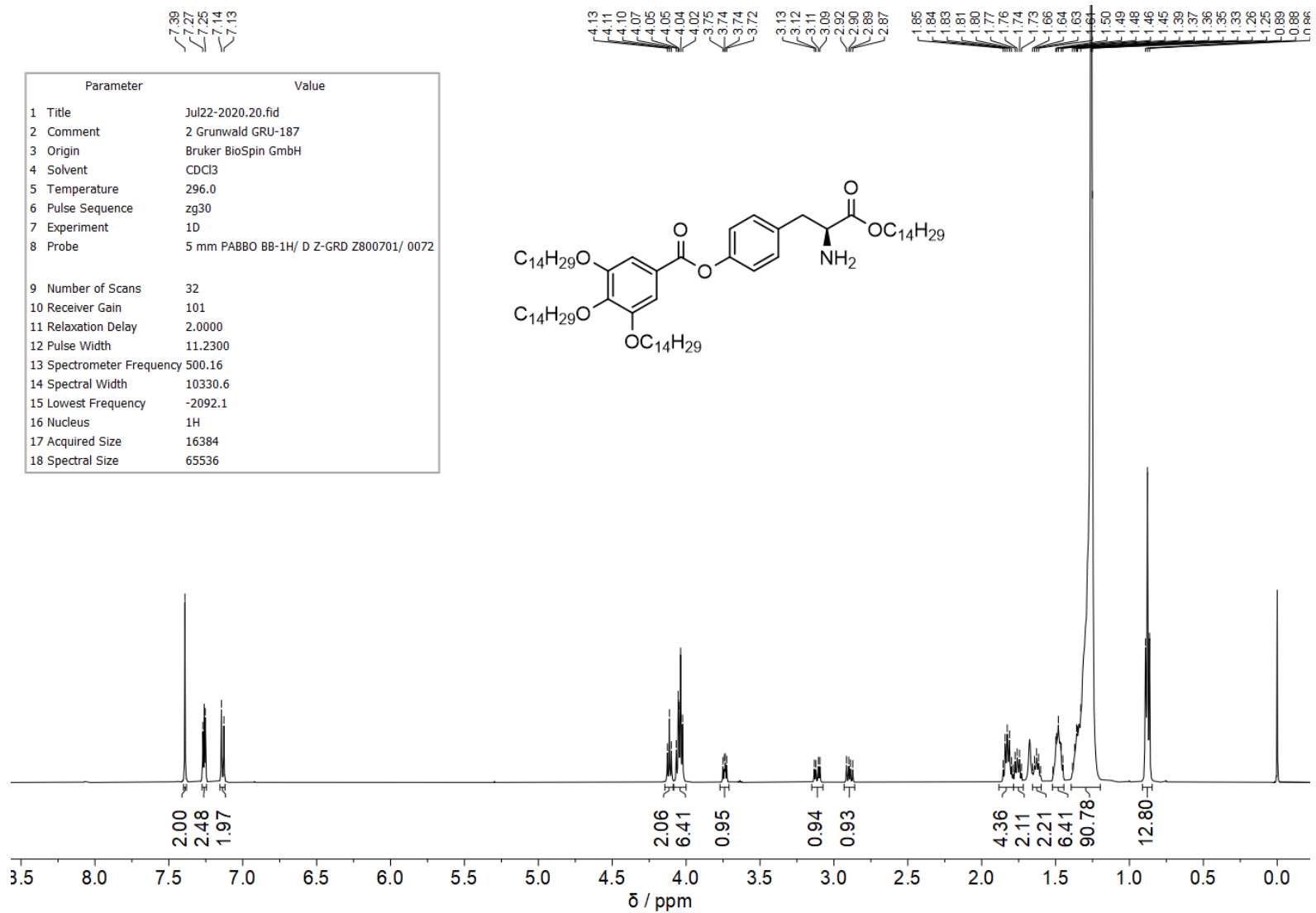
3,4,5-C₁₀TyrC₁₄NH₂

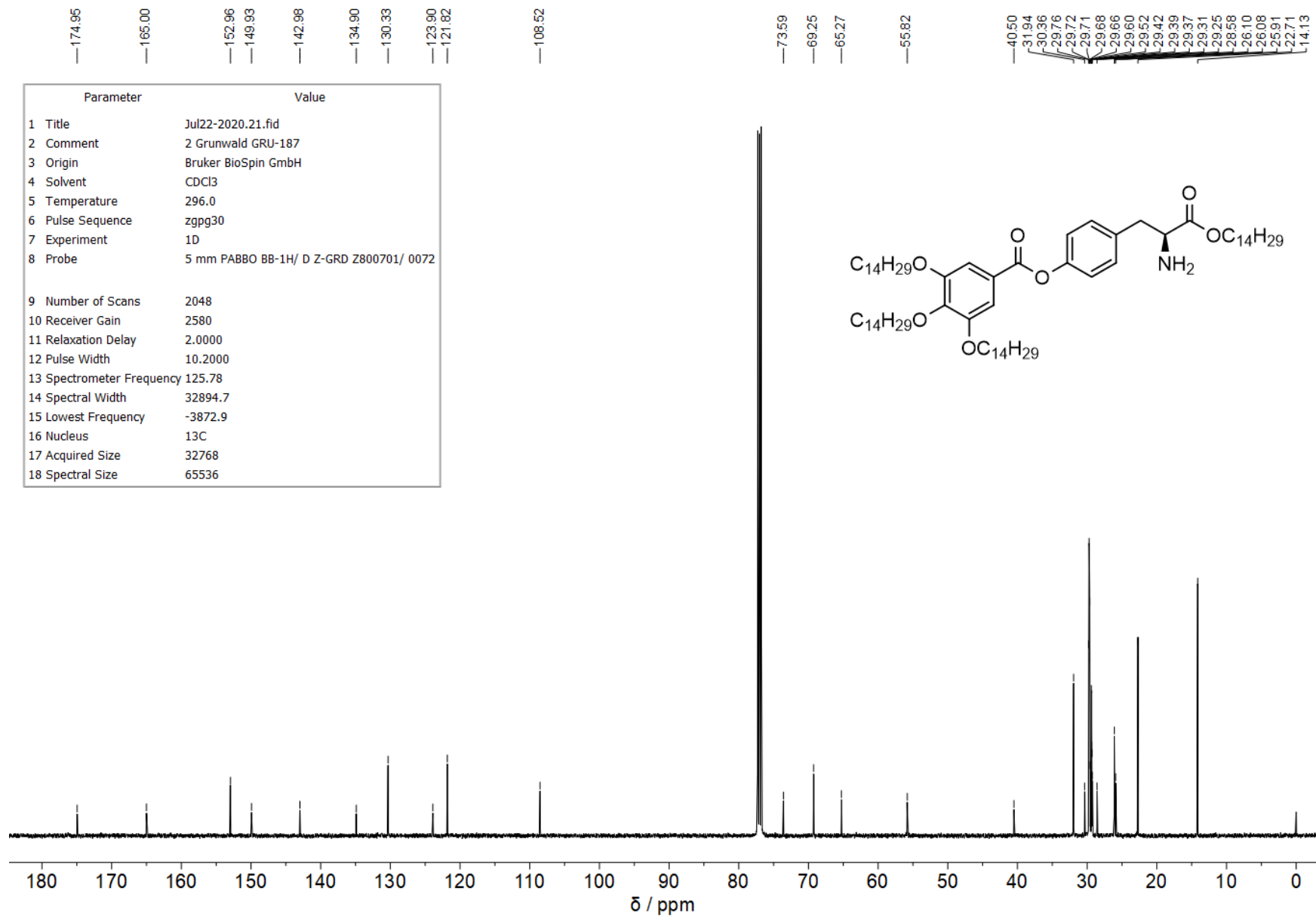


3,4,5-C₁₂TyrC₁₄NH₂

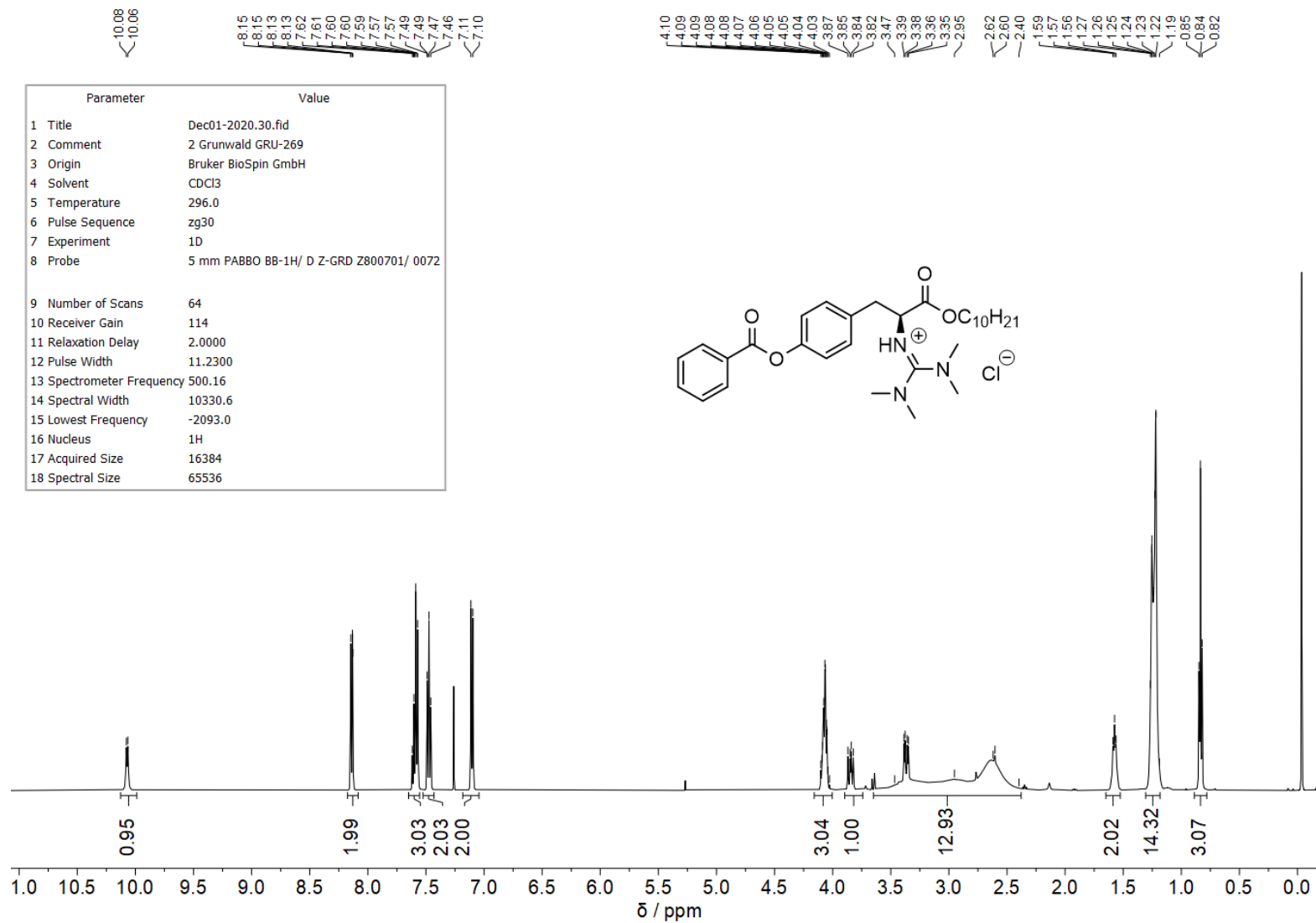


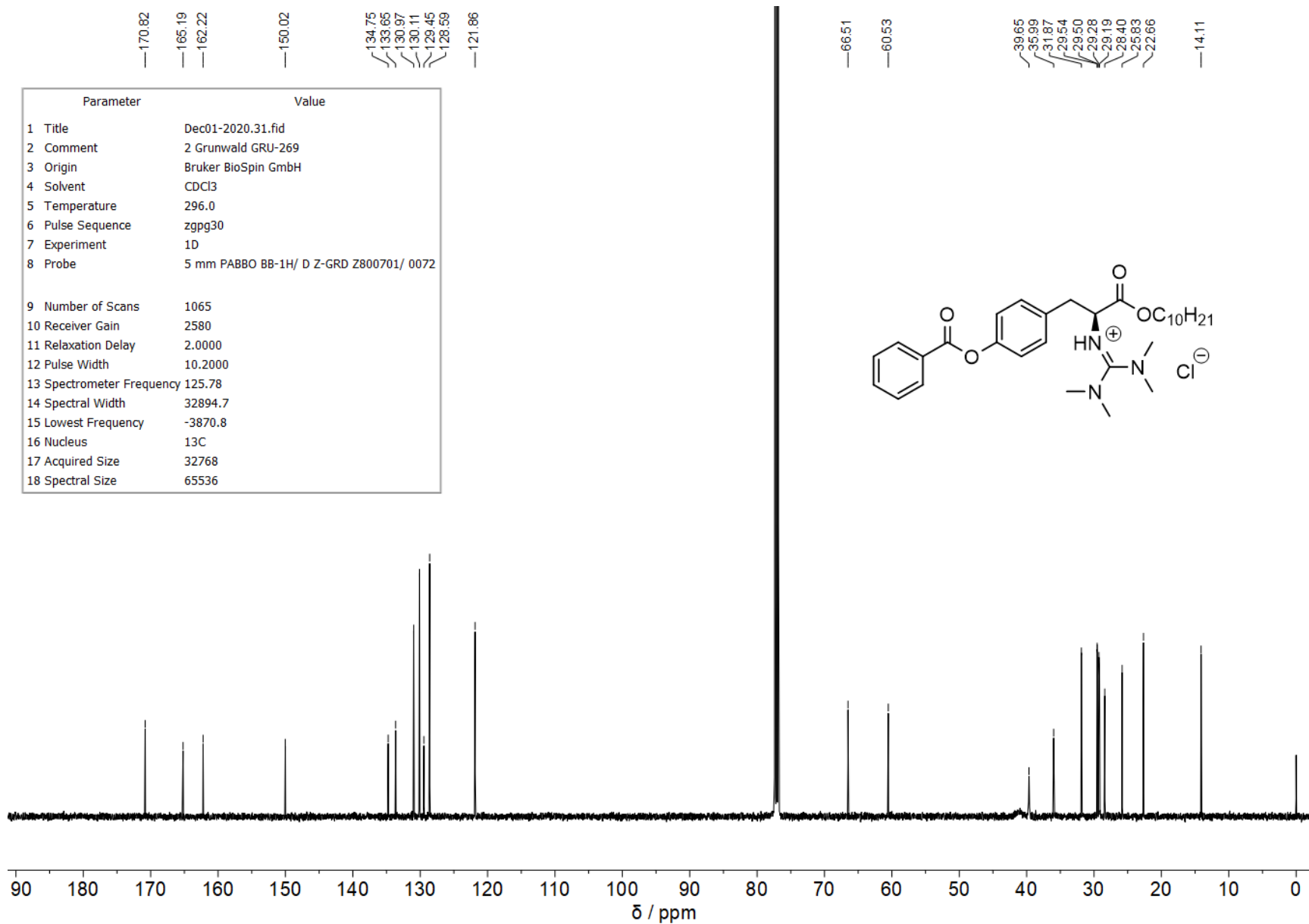
Parameter	Value
1 Title	Aug03-2020.141.1.1r
2 Comment	02 Grunwald GRU213
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm CPQCI 1H-31P/ 13C/ 15N/ D Z-GRD Z114851/ 0007
9 Number of Scans	1540
10 Receiver Gain	183
11 Relaxation Delay	2.0000
12 Pulse Width	12.0000
13 Spectrometer Frequency	176.11
14 Spectral Width	40760.9
15 Lowest Frequency	-2771.3
16 Nucleus	13C
17 Acquired Size	32678
18 Spectral Size	131072

3,4,5-C₁₄TyrC₁₄NH₂

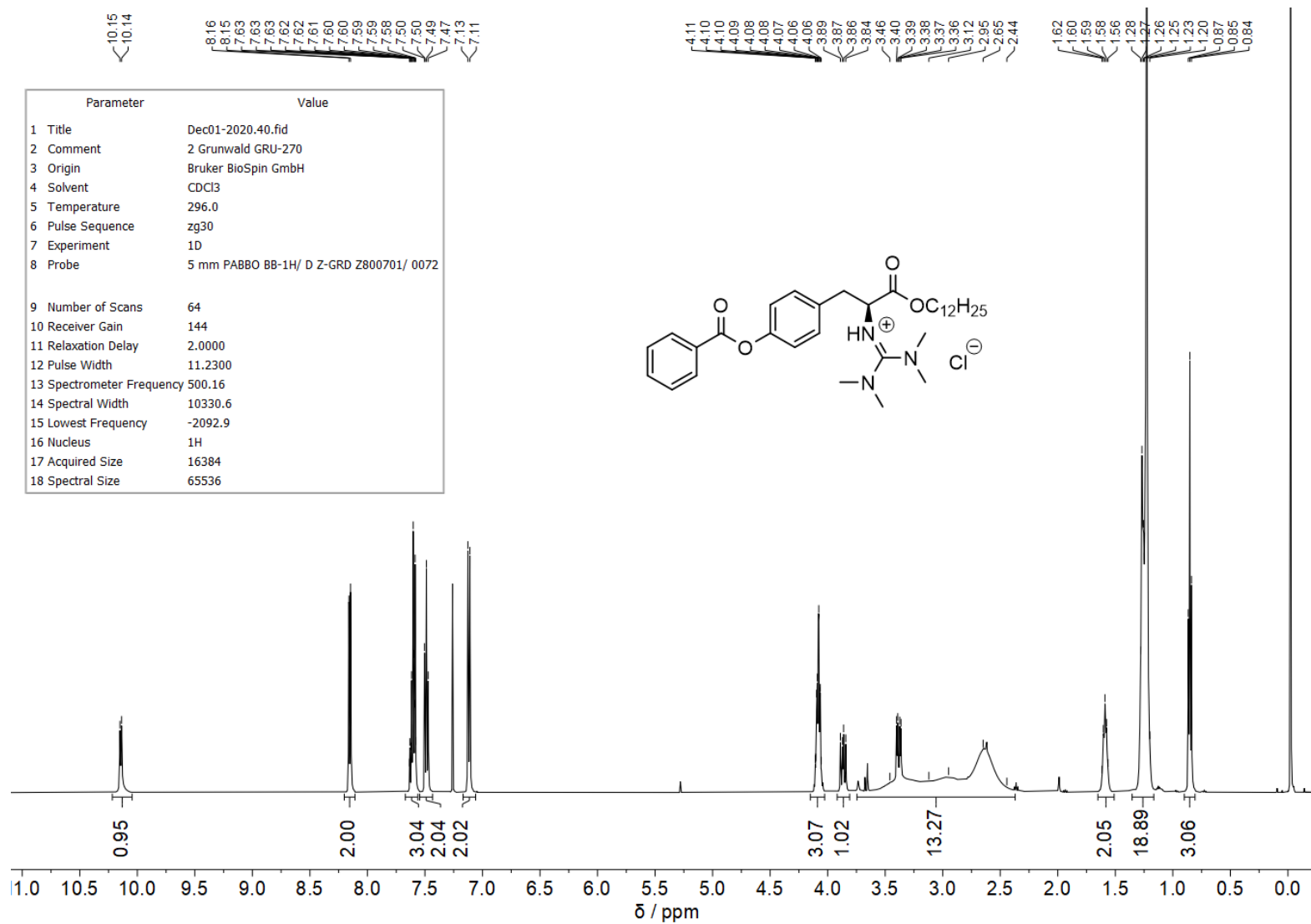


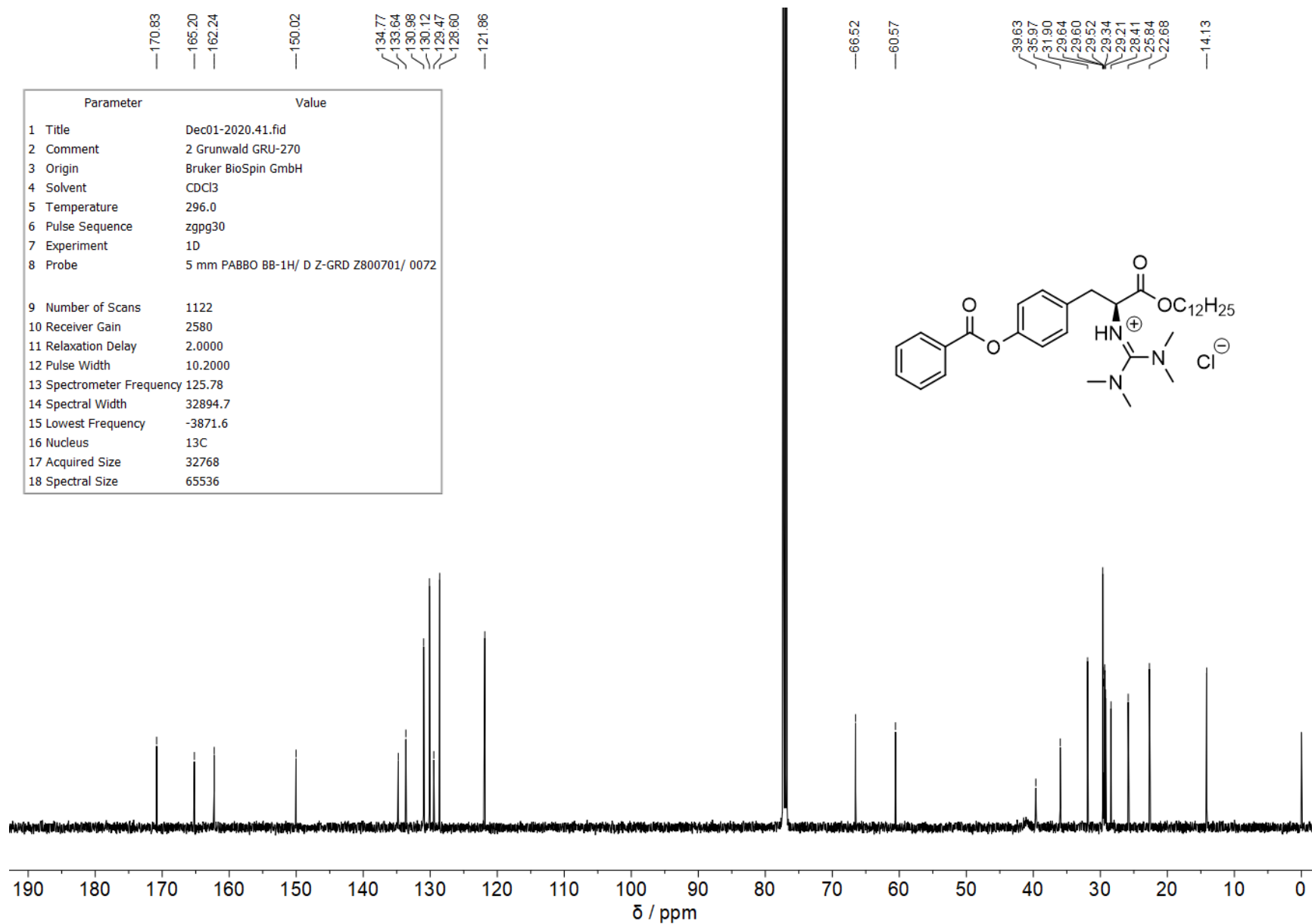
BzTyrC₁₀Cl



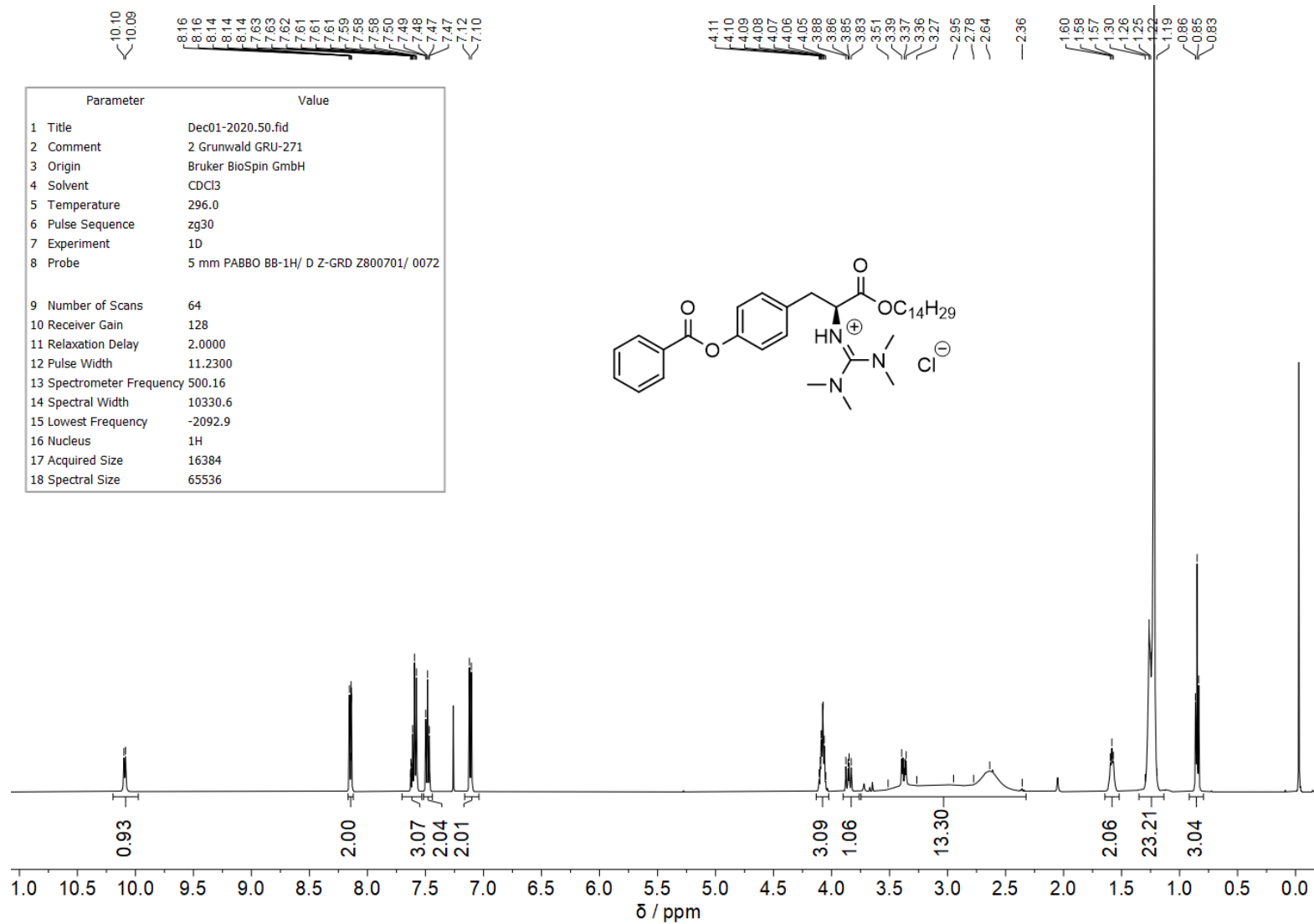


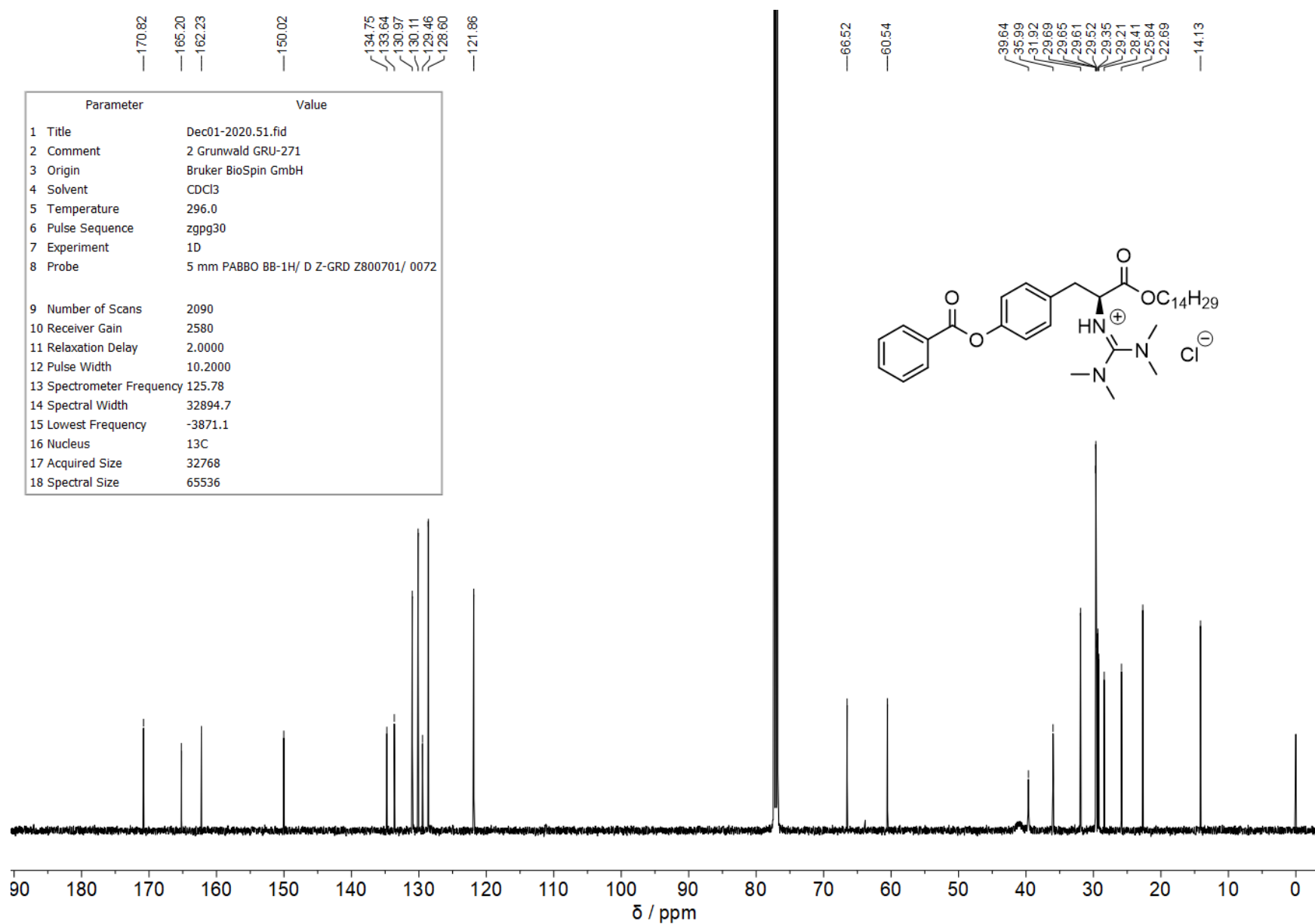
BzTyrC12Cl

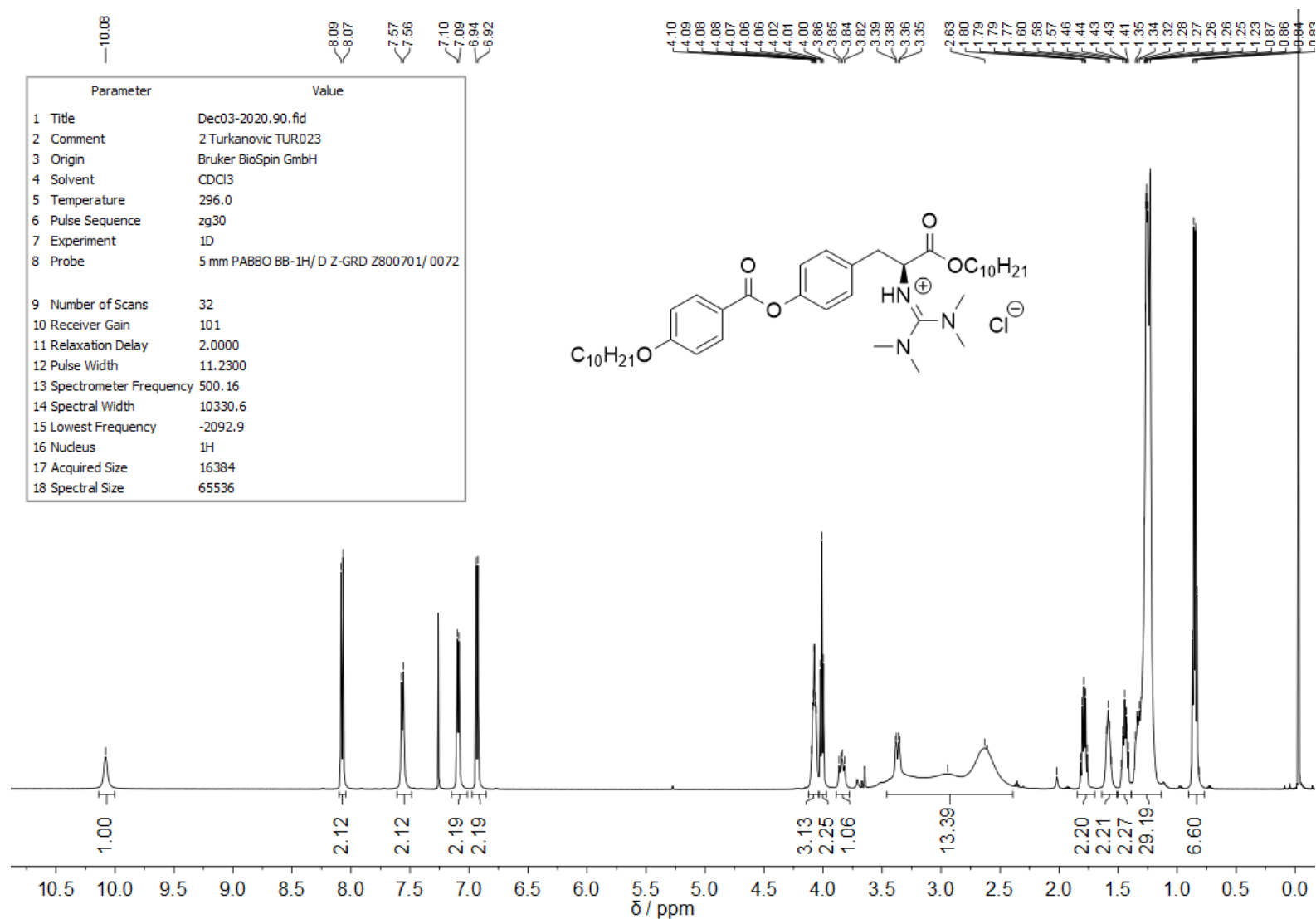


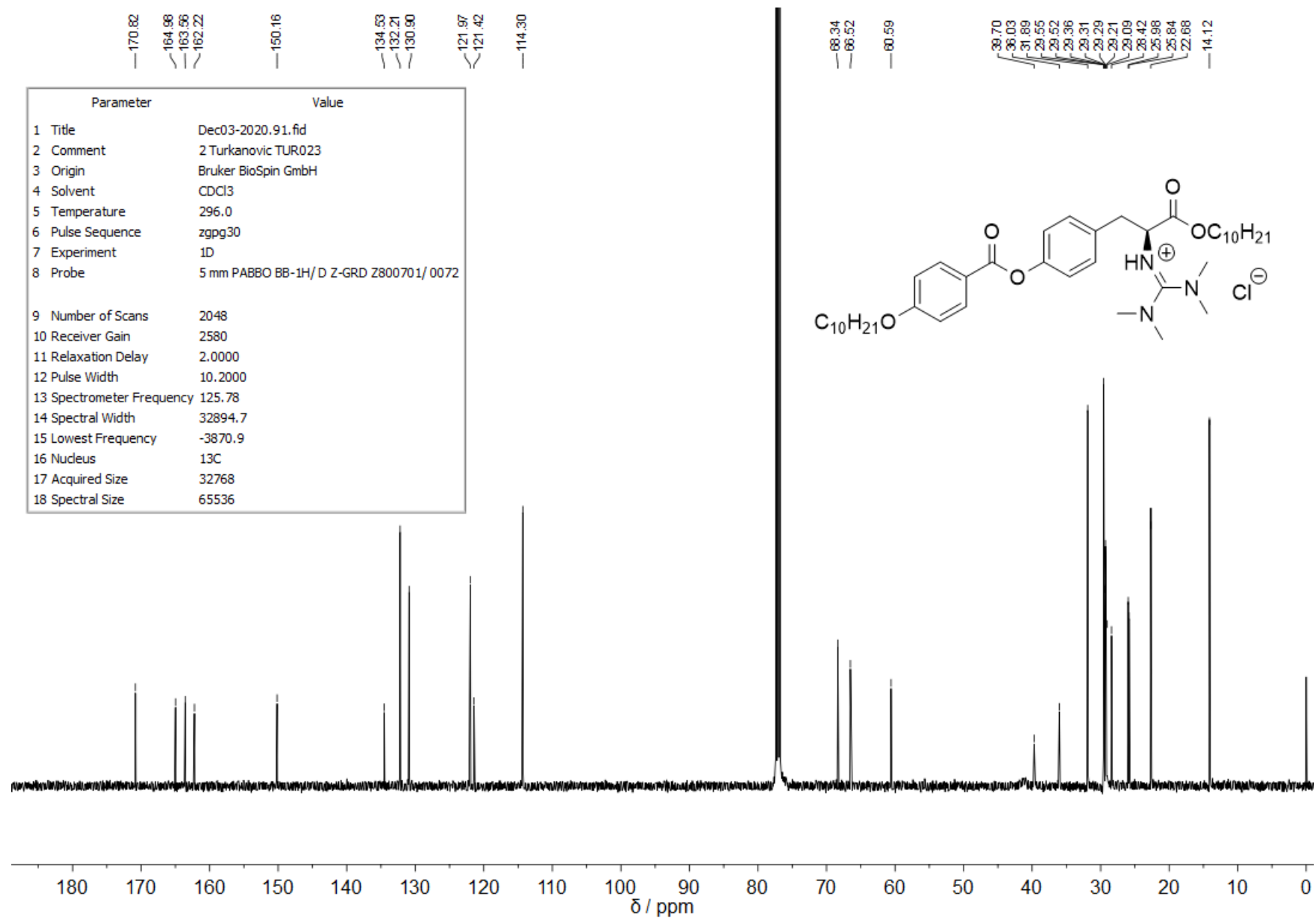


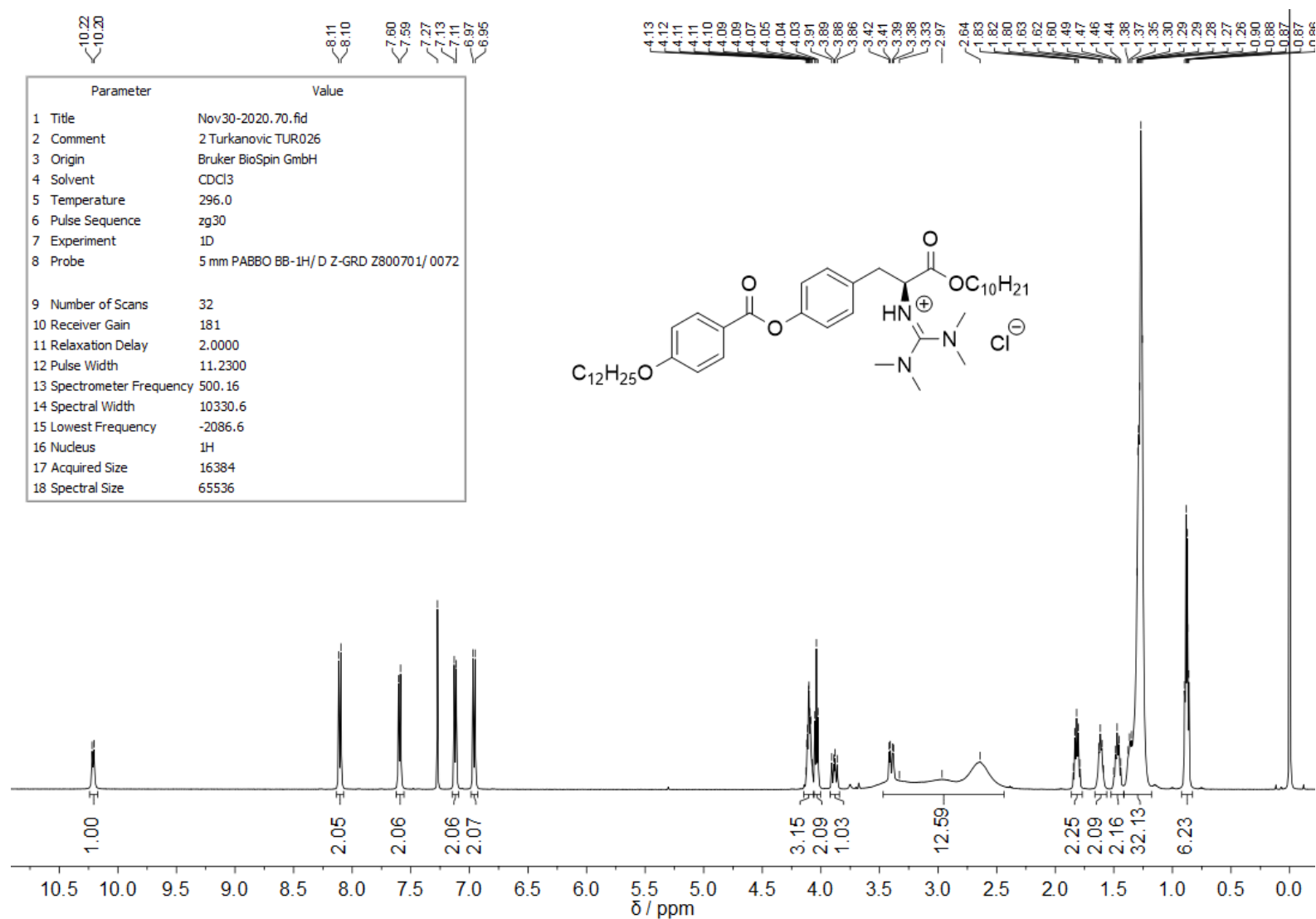
BzTyrC14Cl

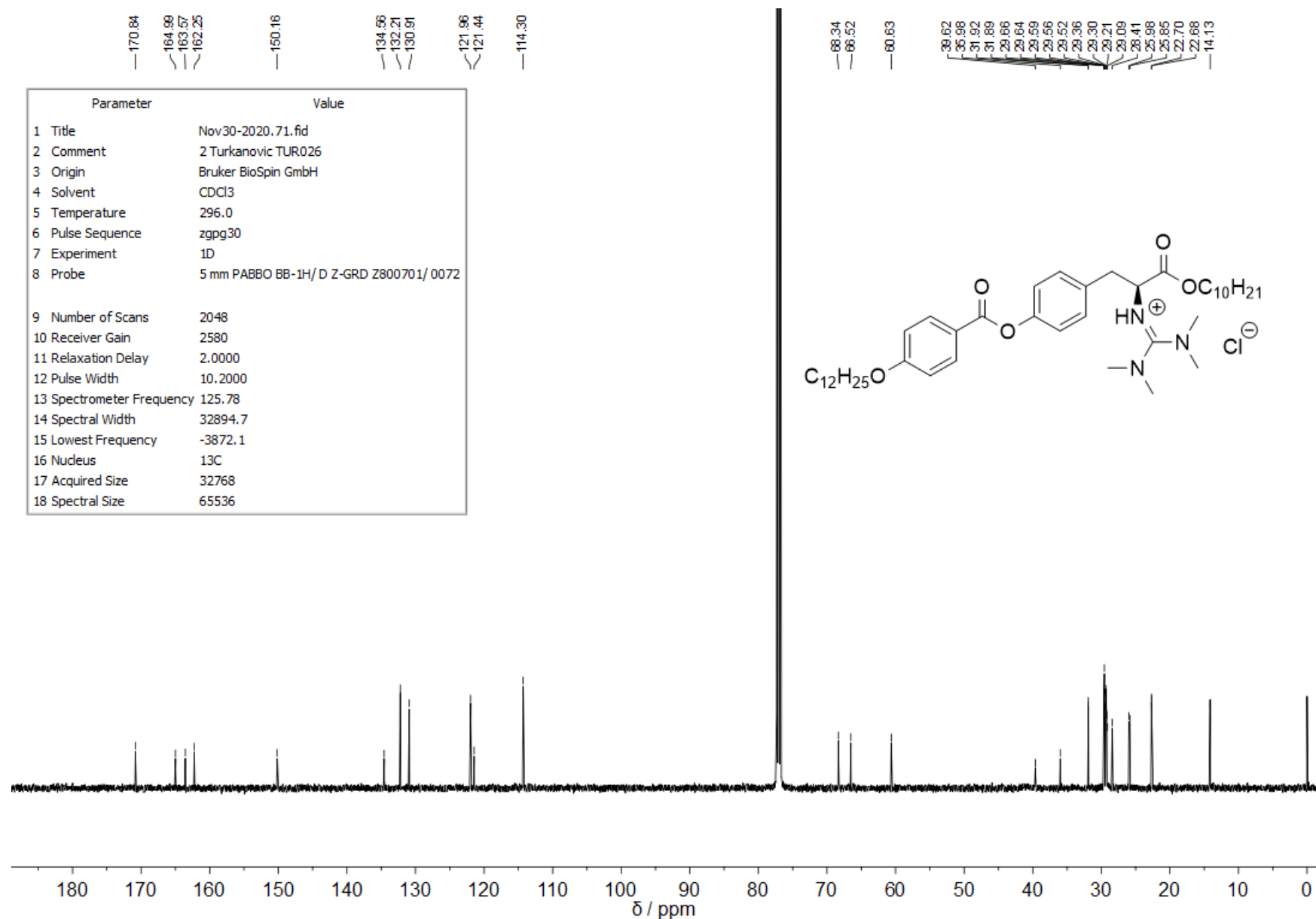


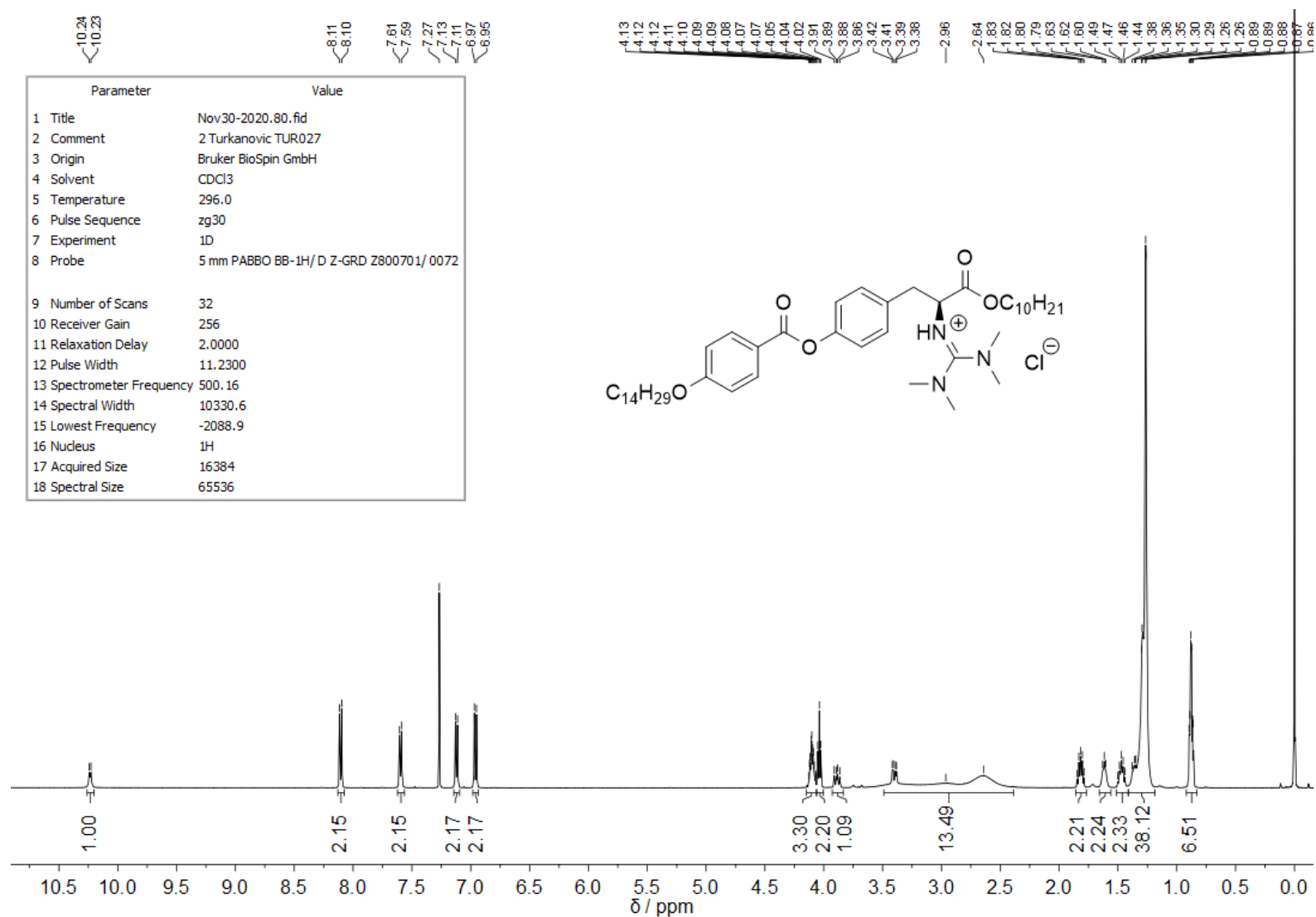


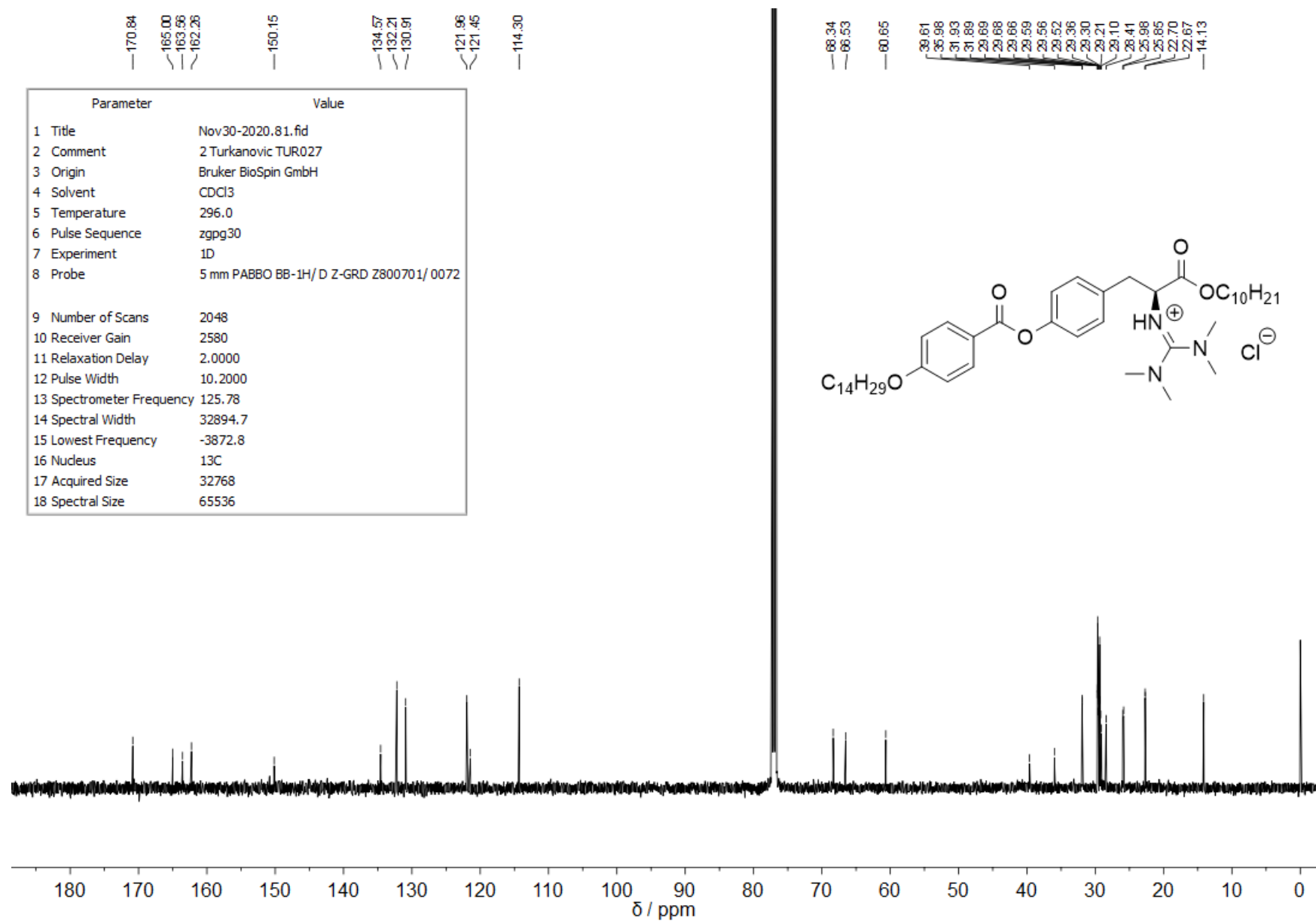
4-C₁₀TyrC₁₀Cl

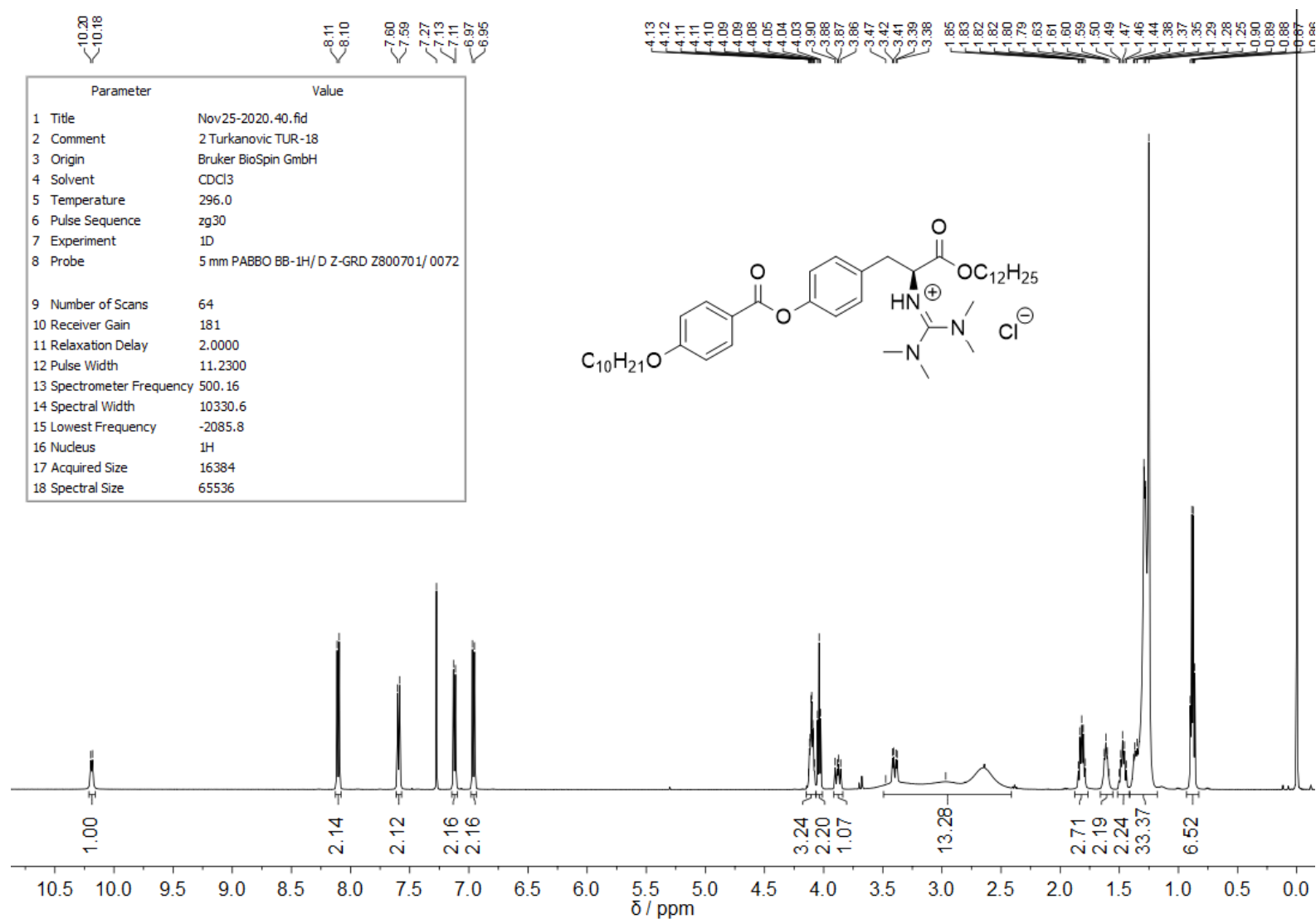


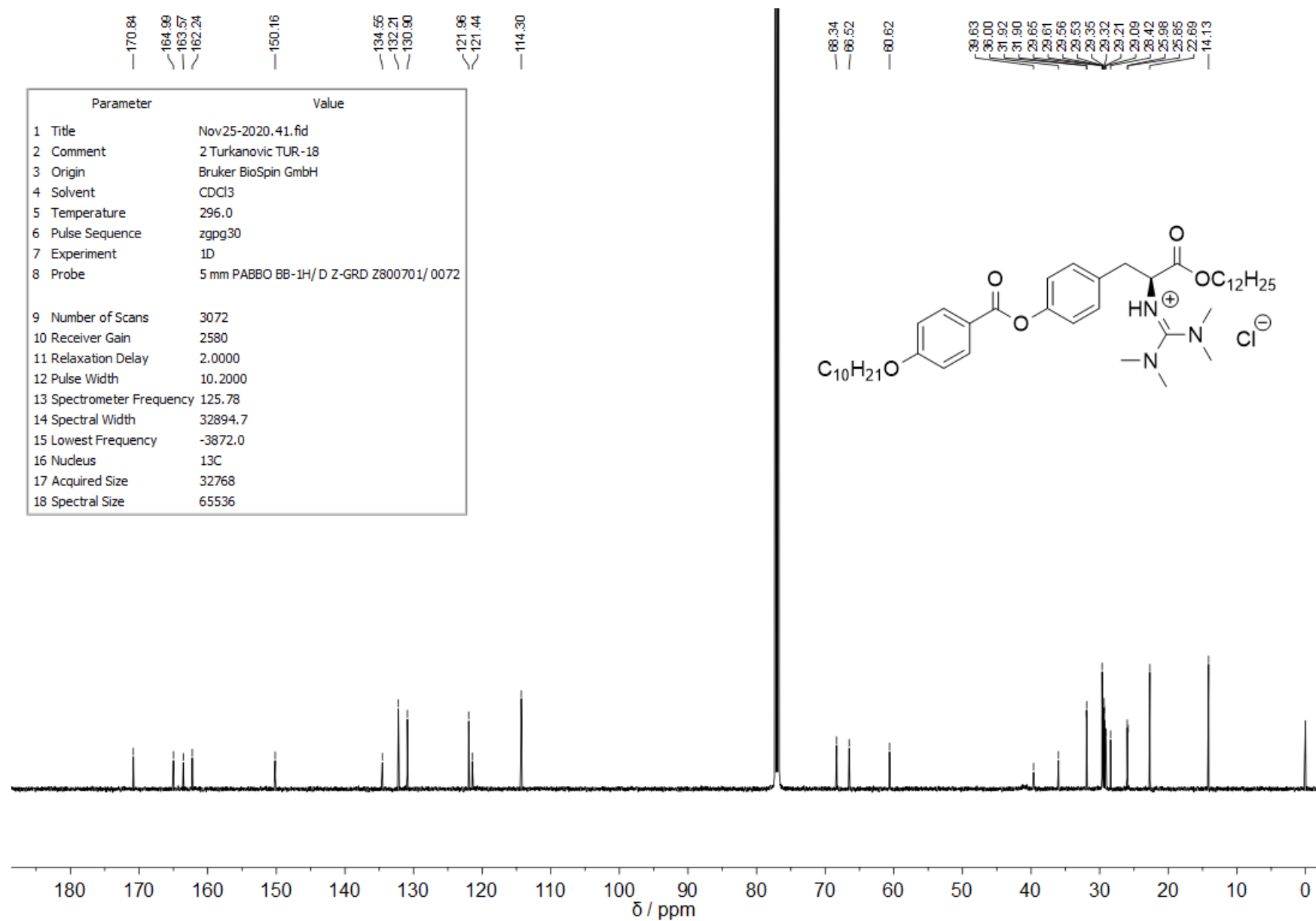
4-C₁₂TyrC₁₀Cl

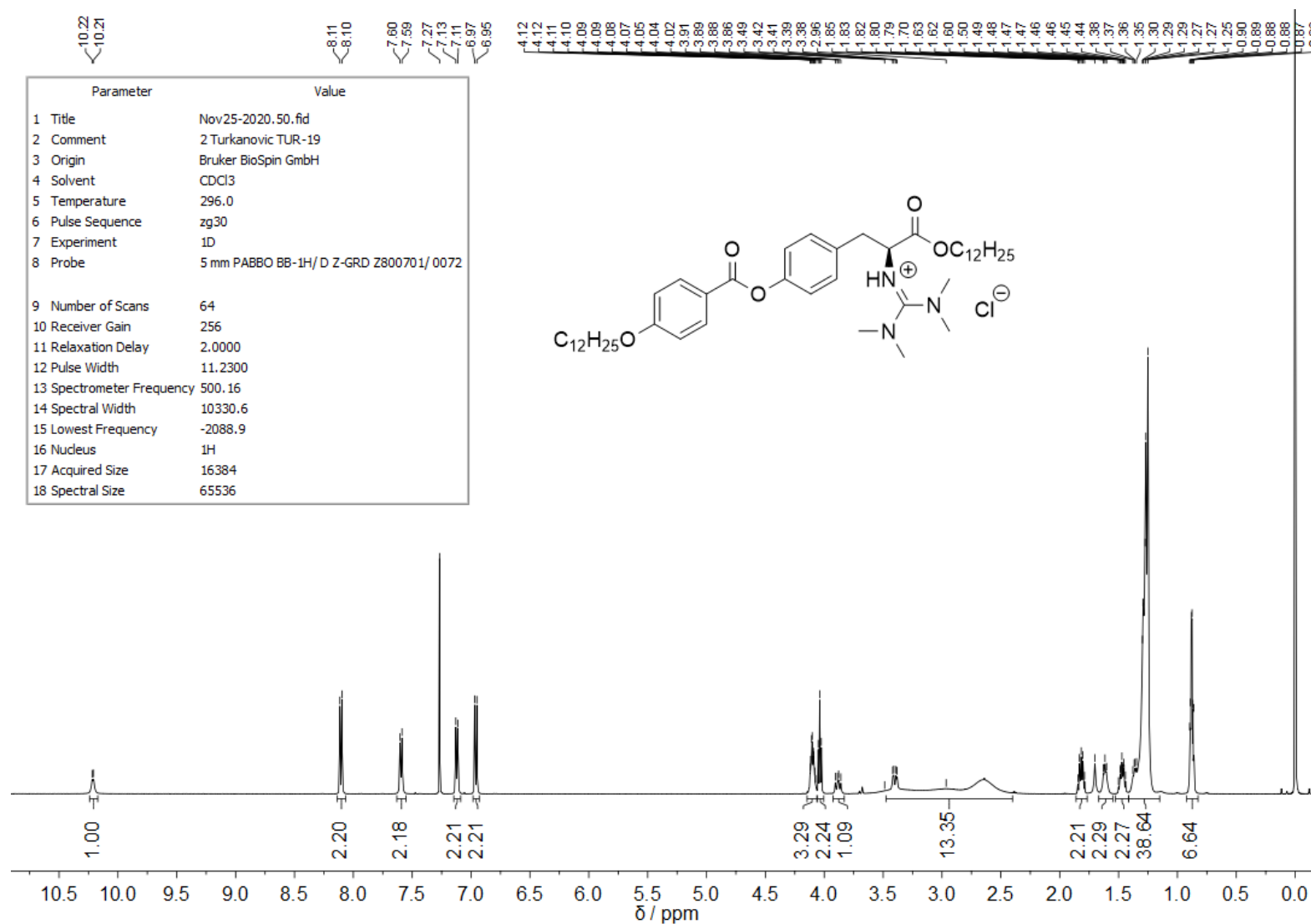


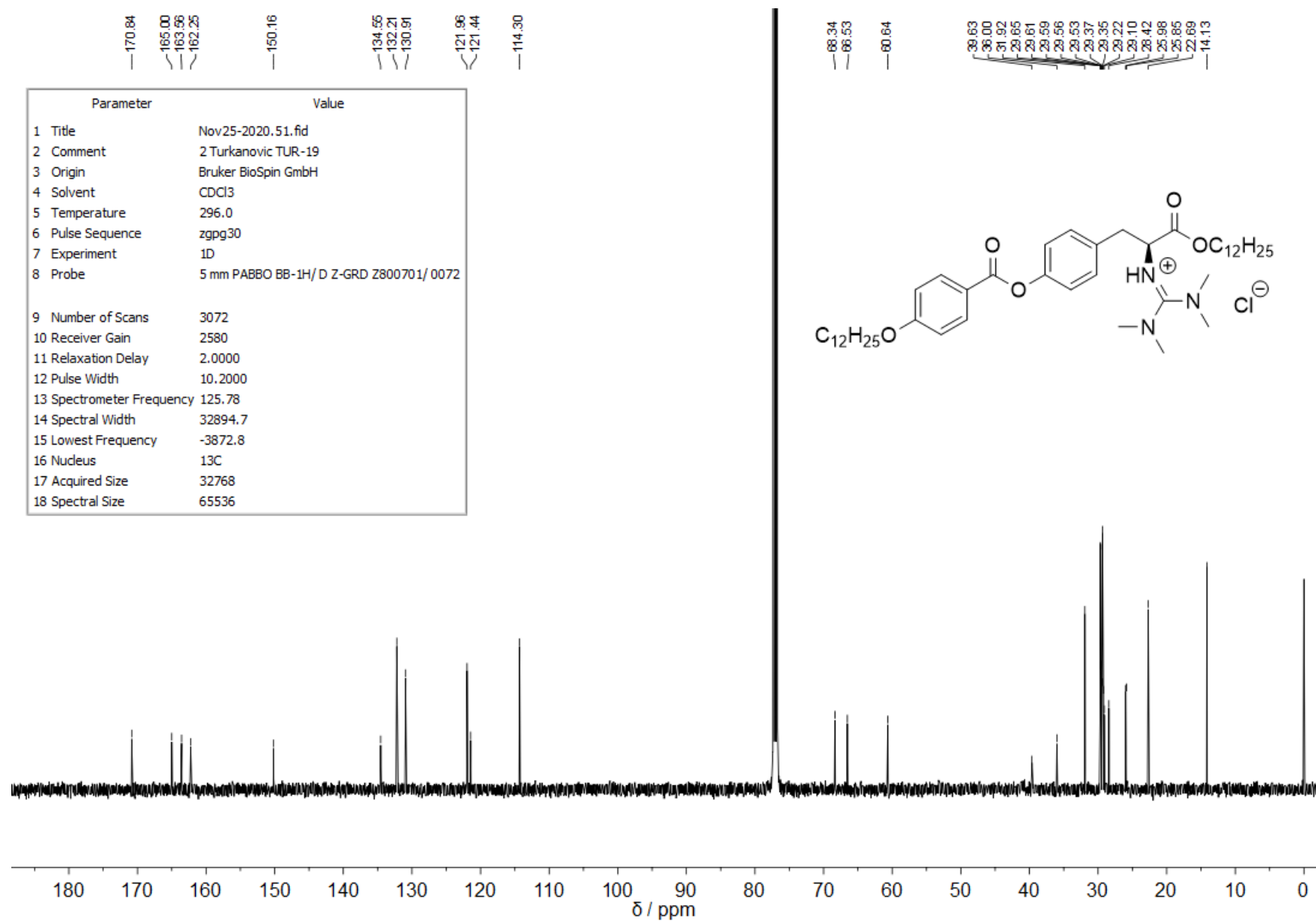
4-C₁₄TyrC₁₀Cl

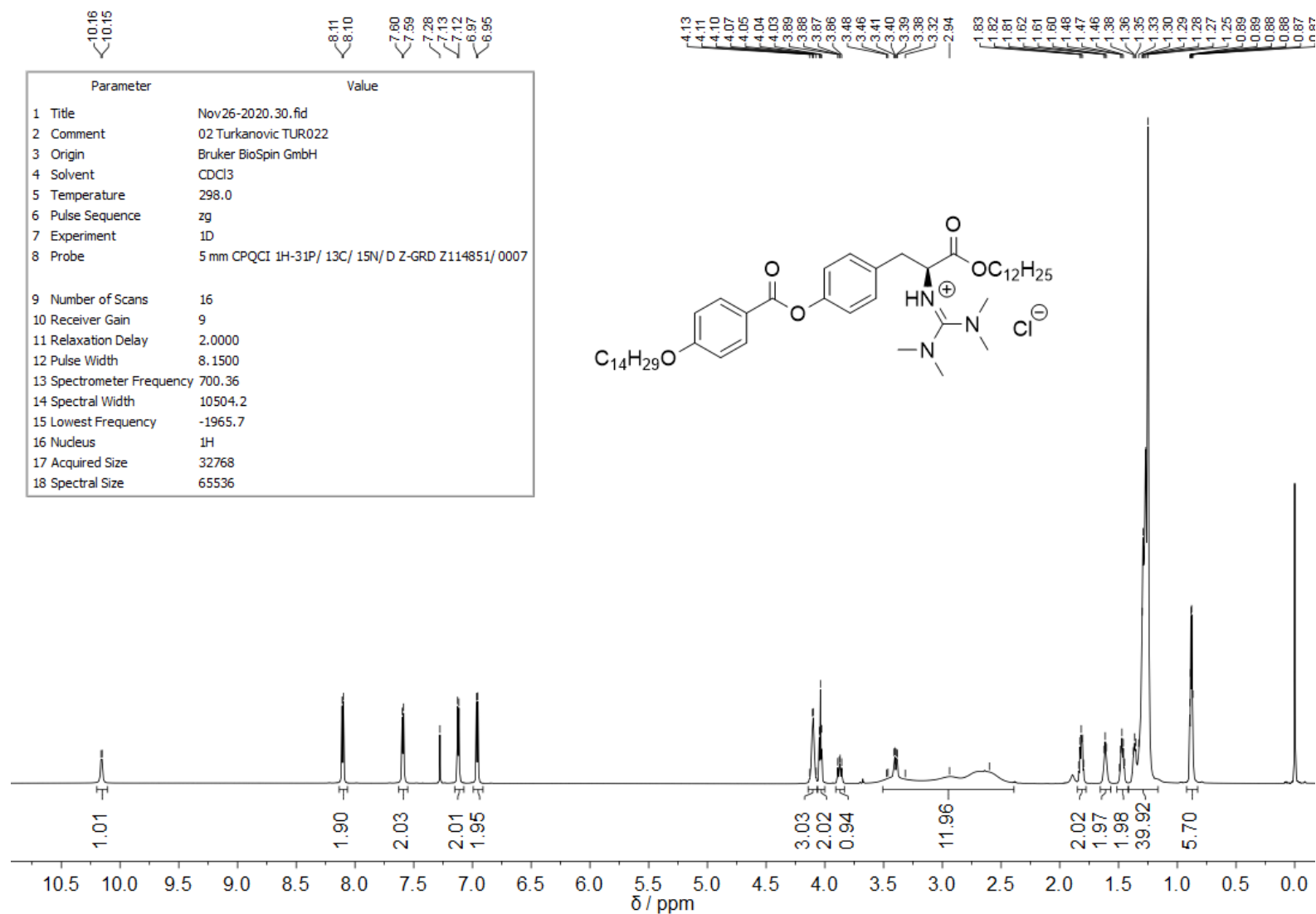


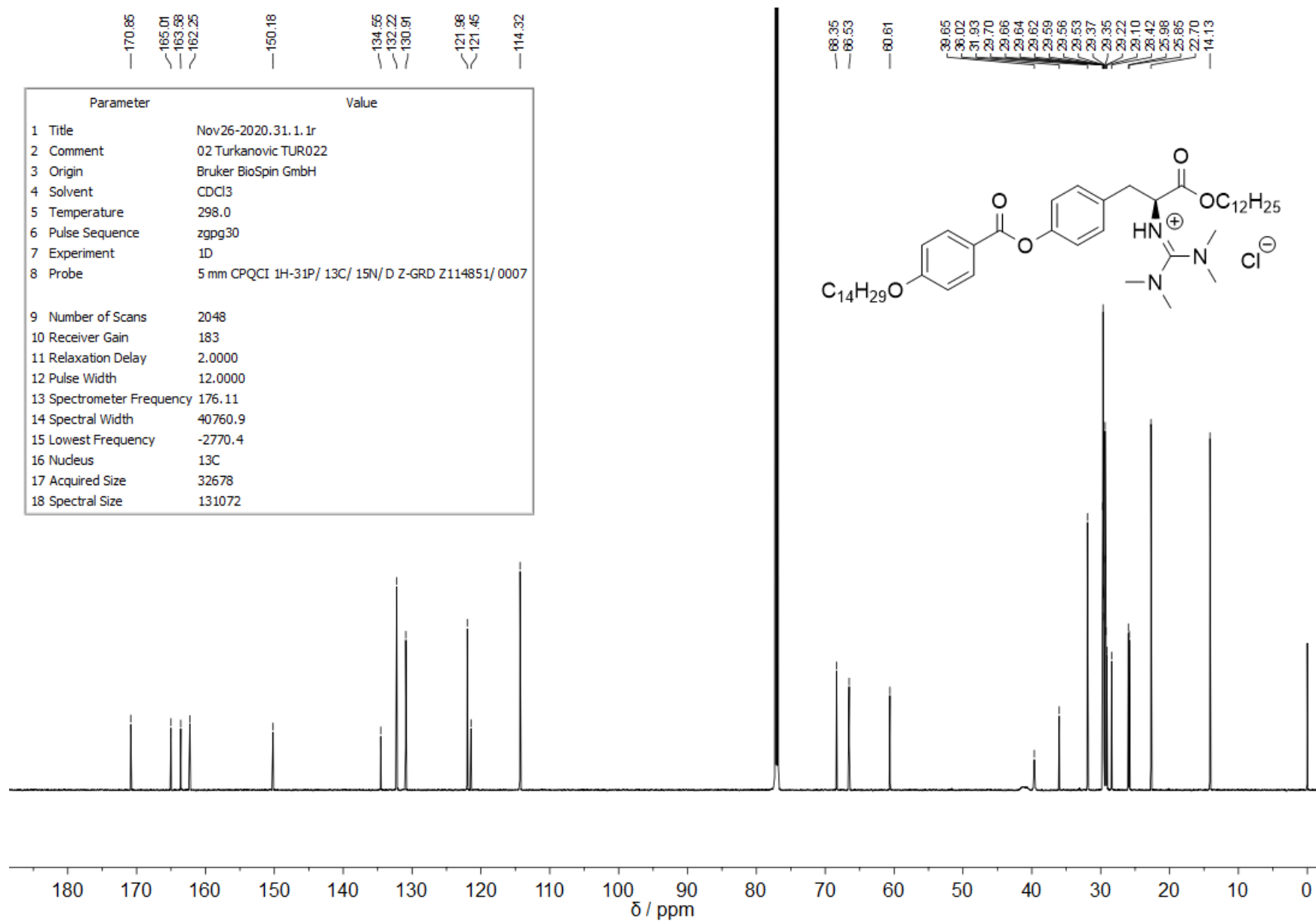
4-C₁₀TyrC₁₂Cl



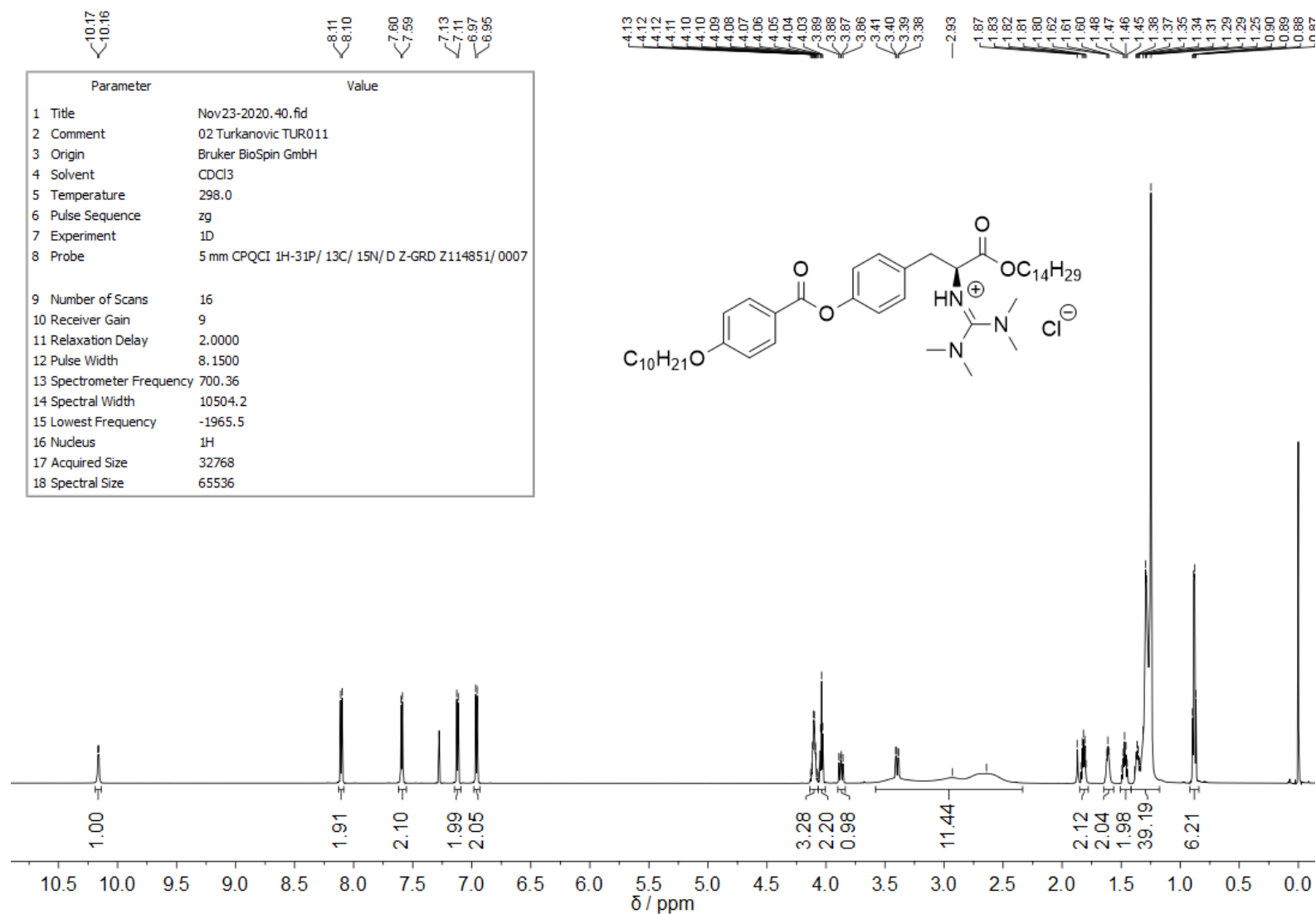
4-C₁₂TyrC₁₂Cl

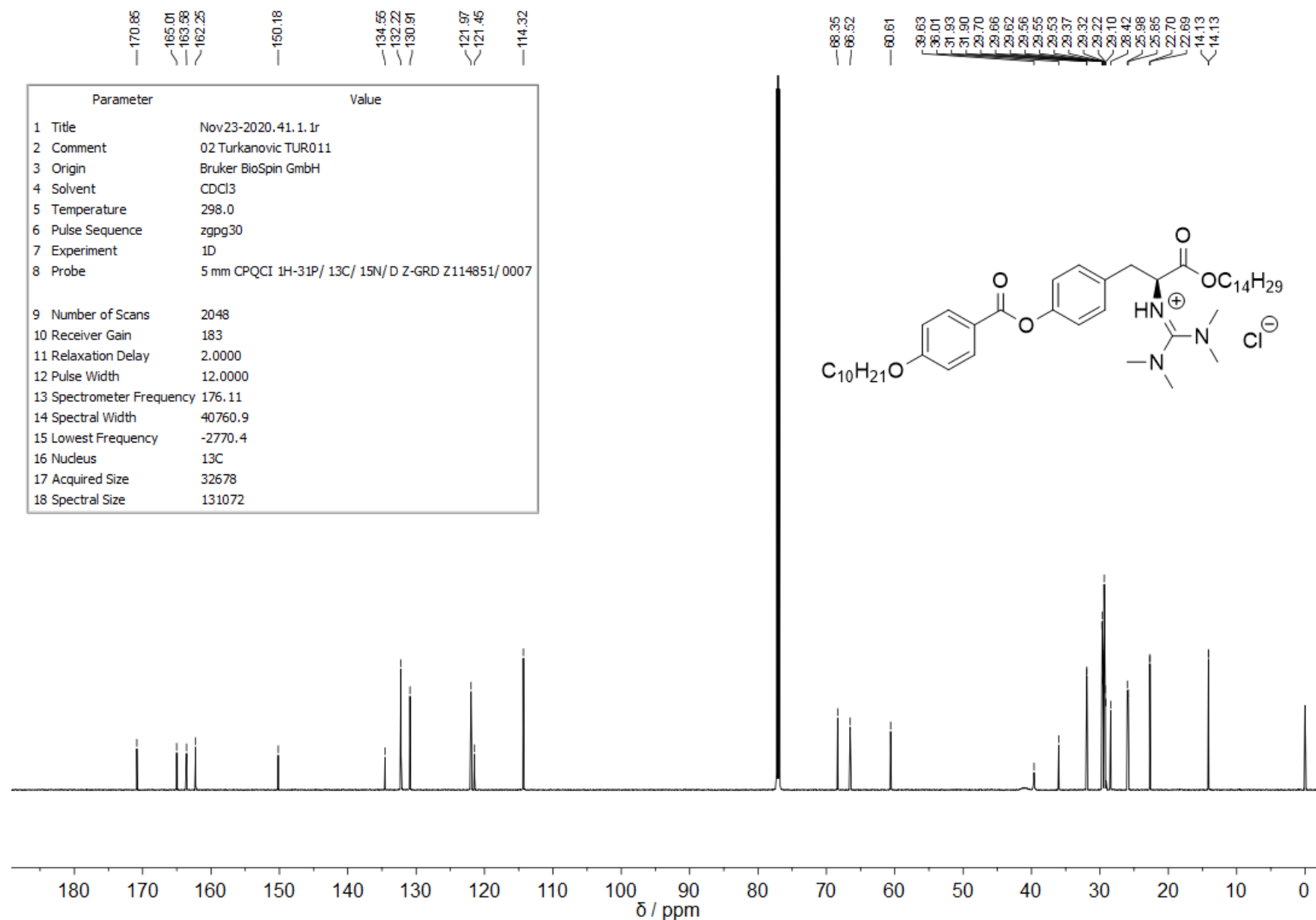


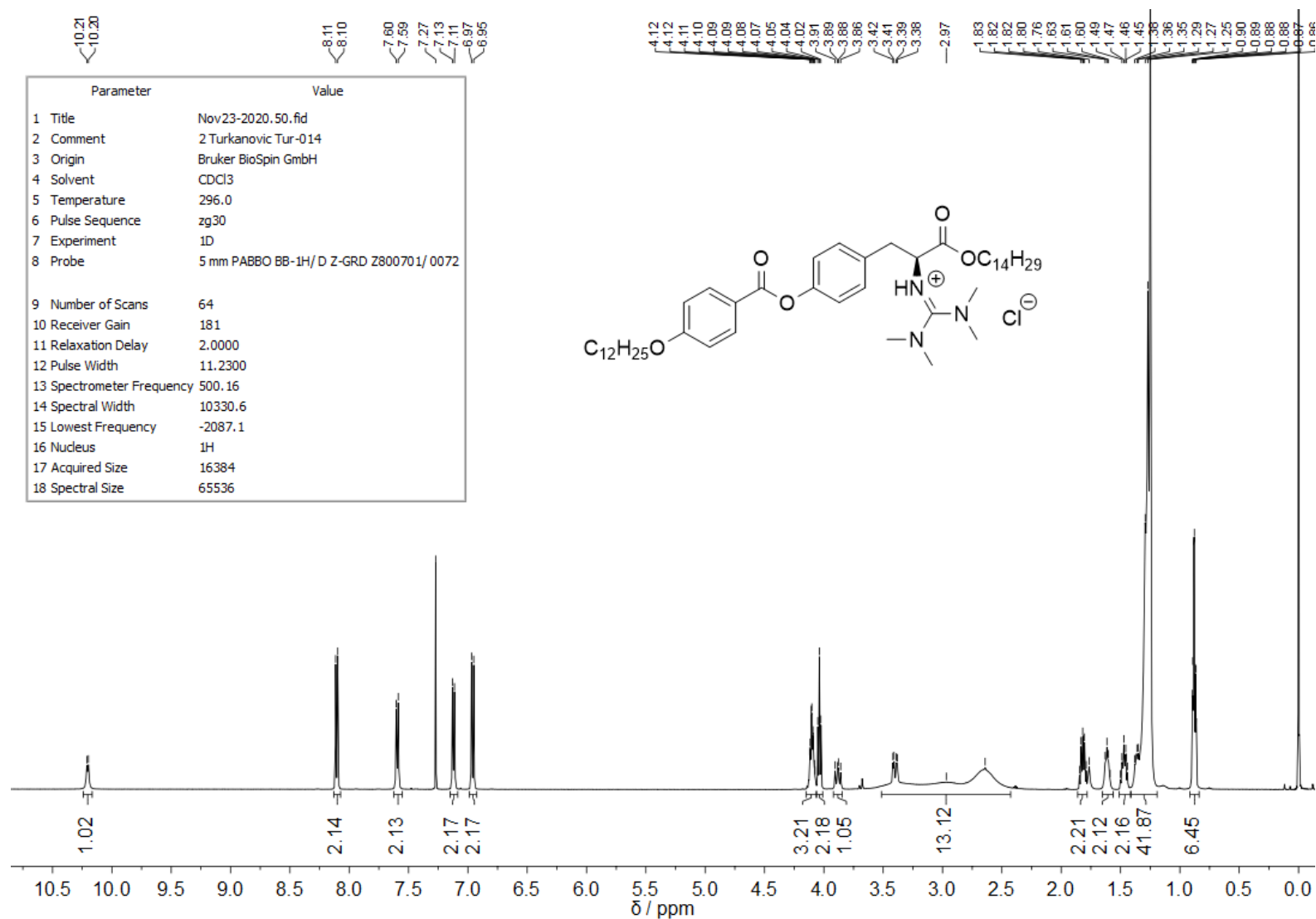
4-C₁₄TyrC₁₂Cl

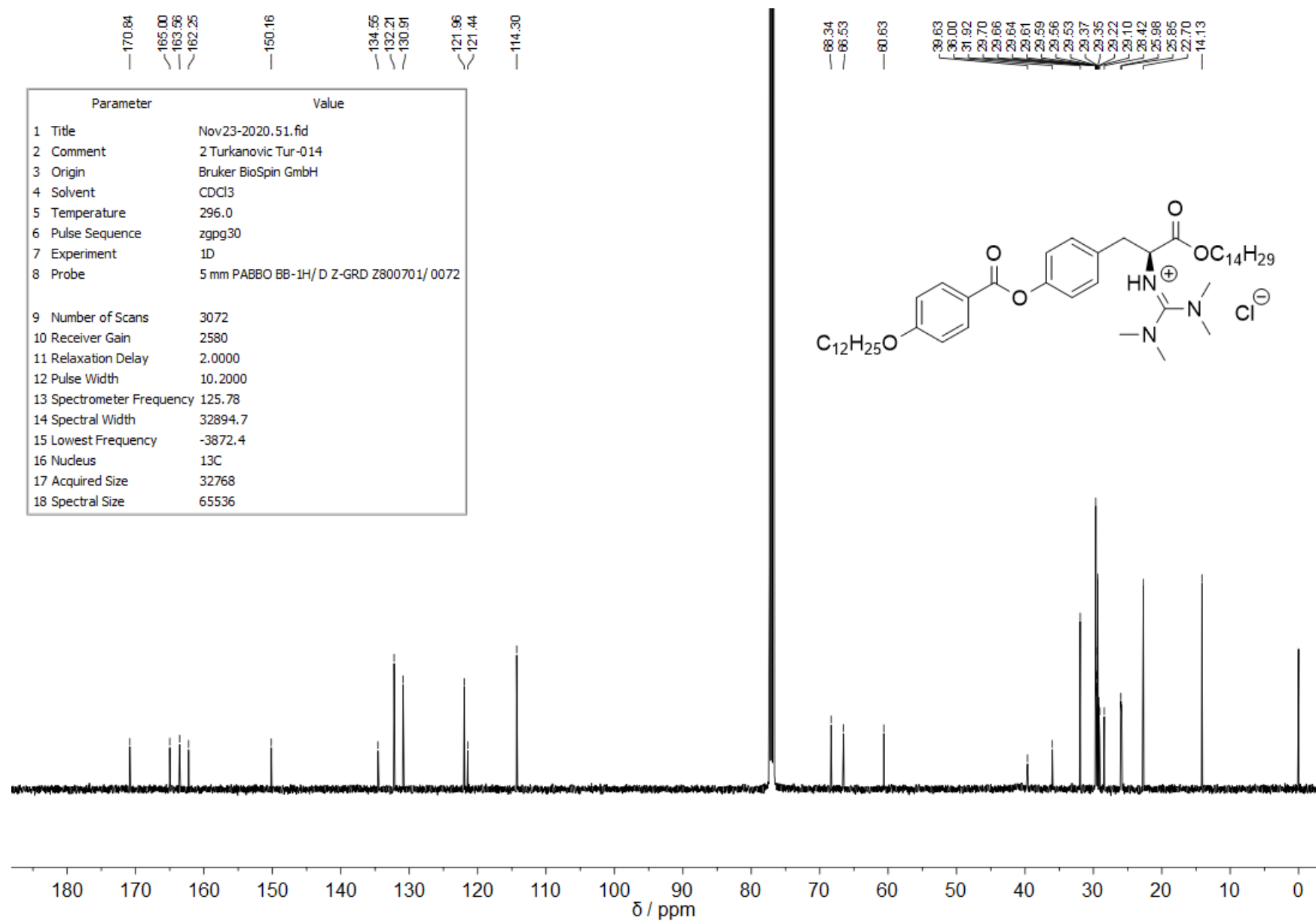


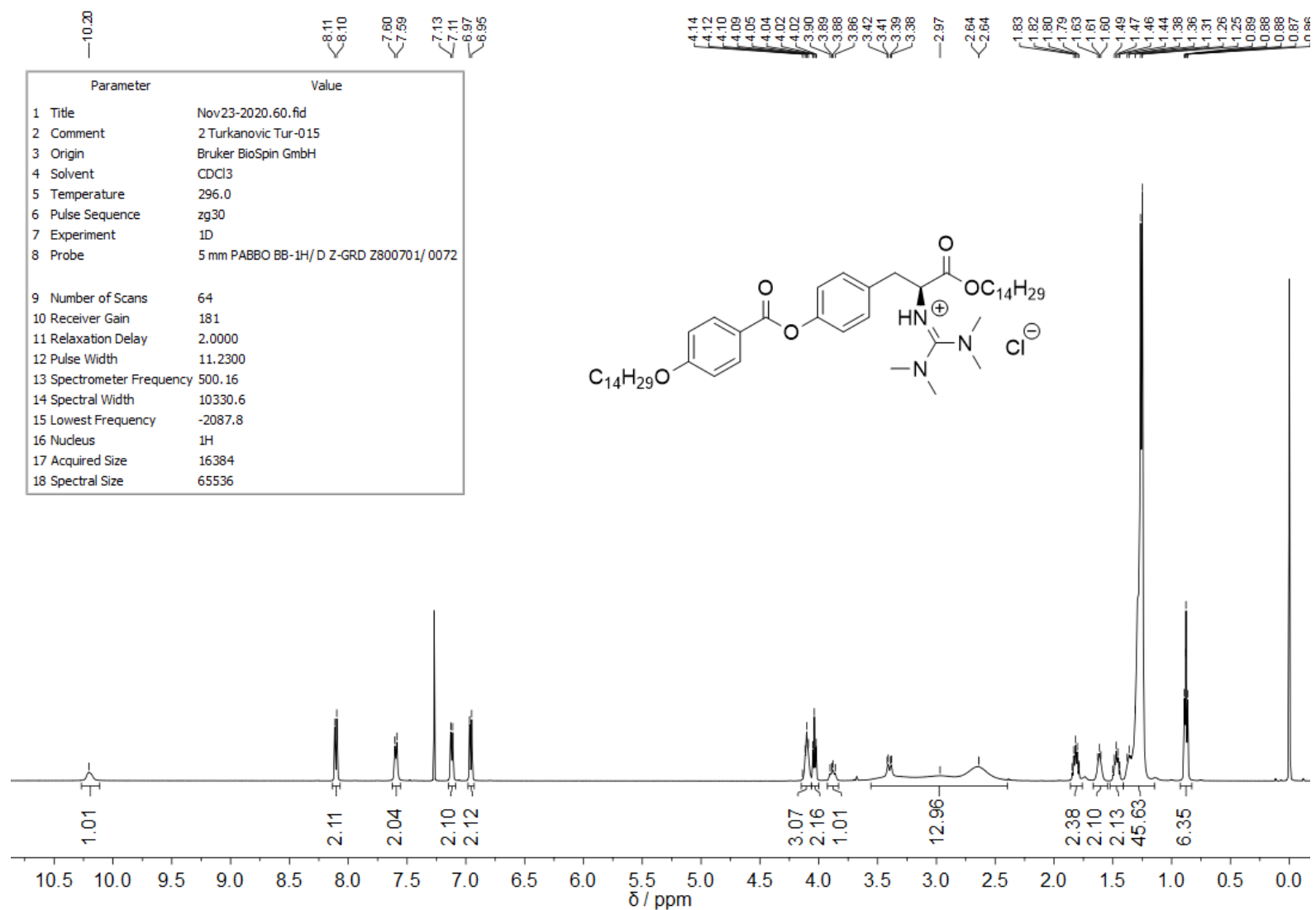
4-C₁₀TyrC₁₄Cl

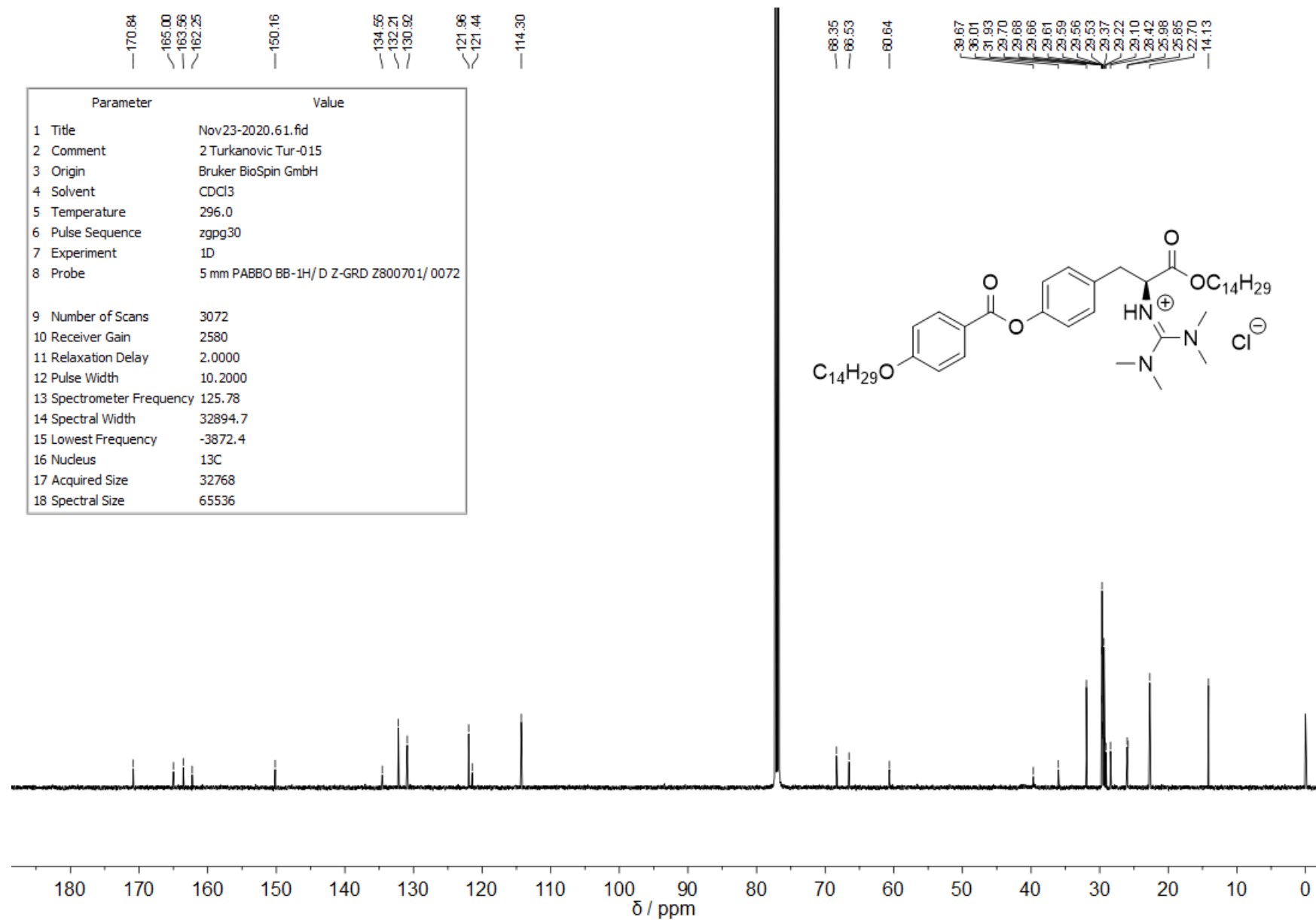




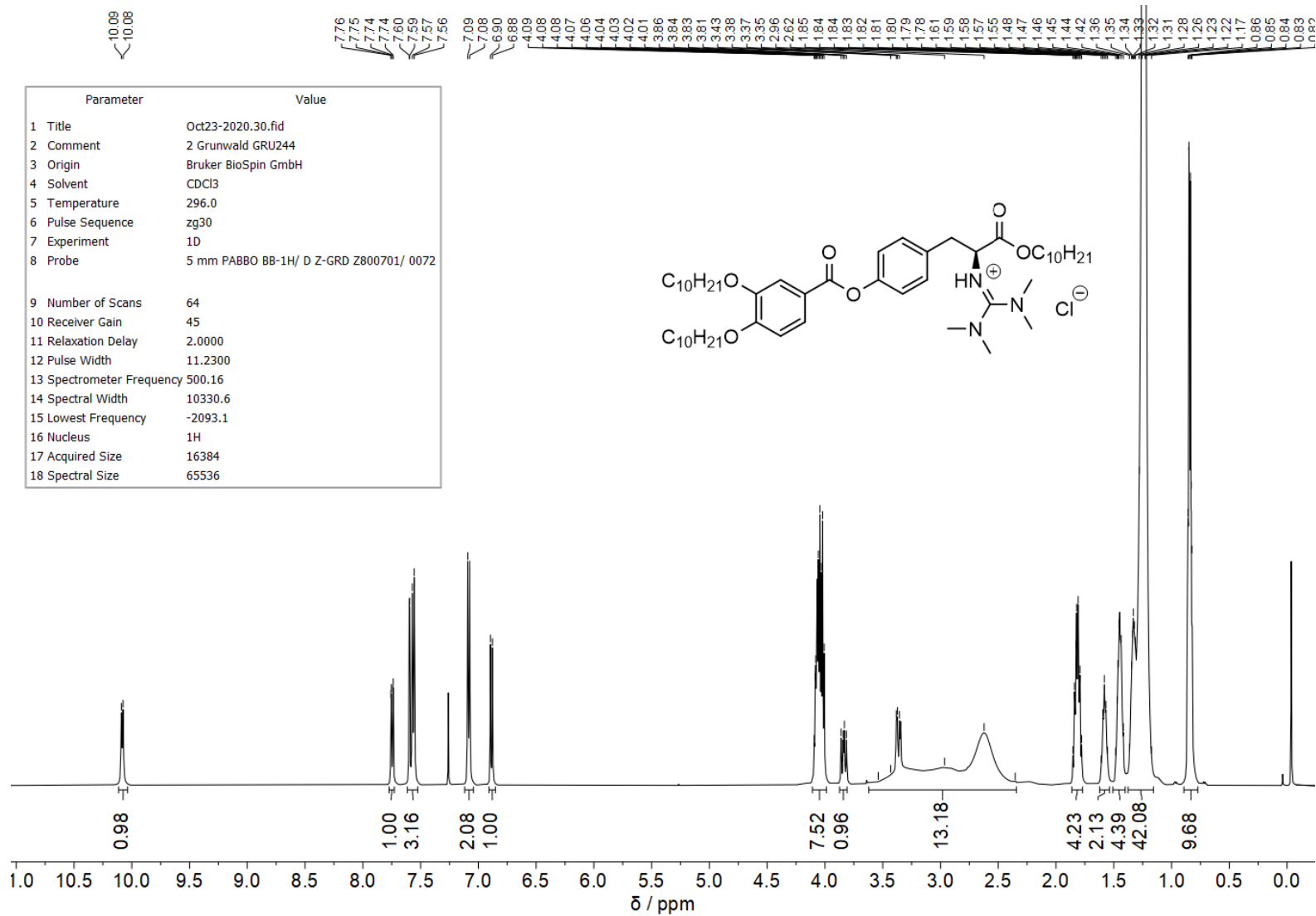
4-C₁₂TyrC₁₄Cl

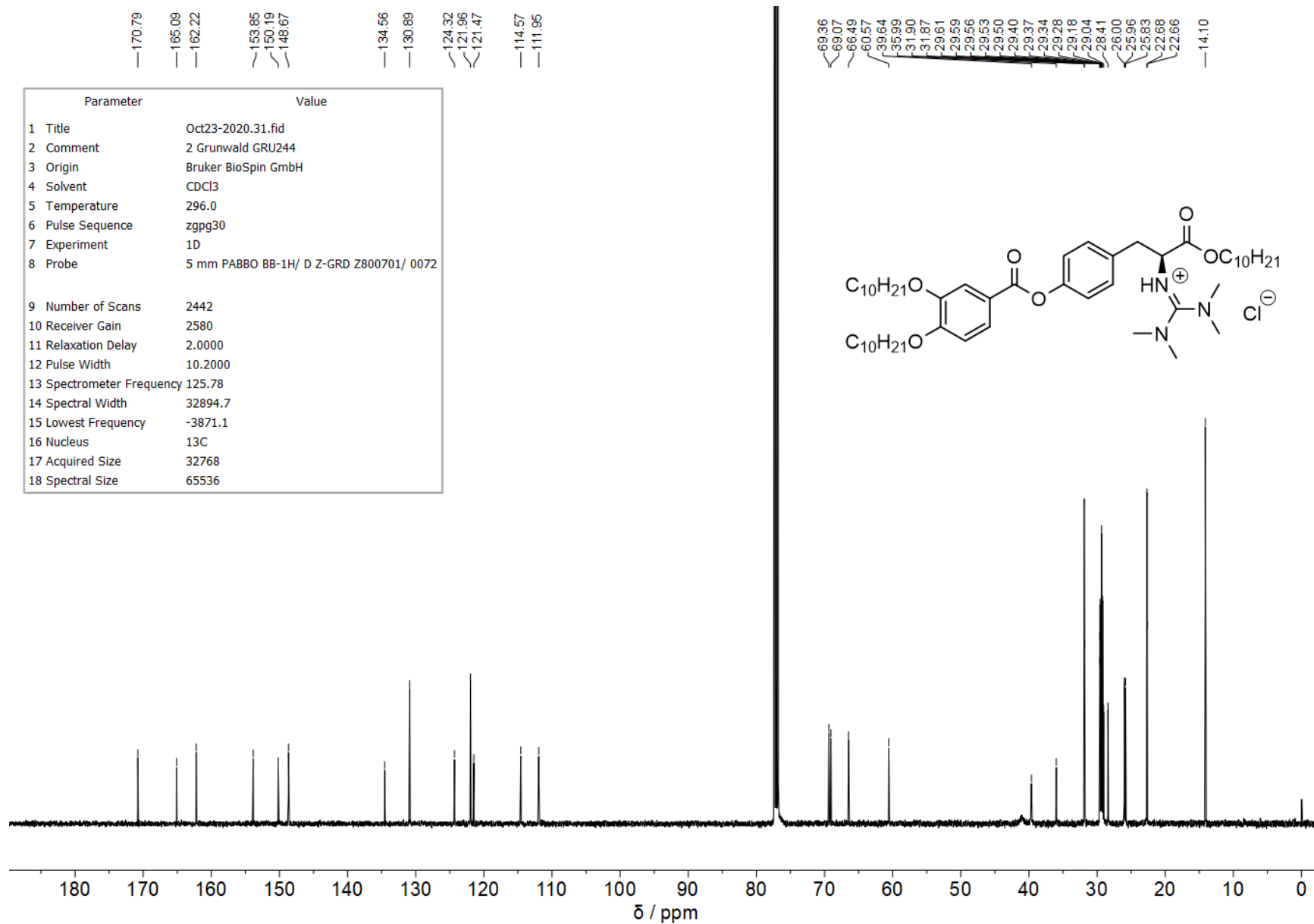


4-C₁₄TyrC₁₄Cl

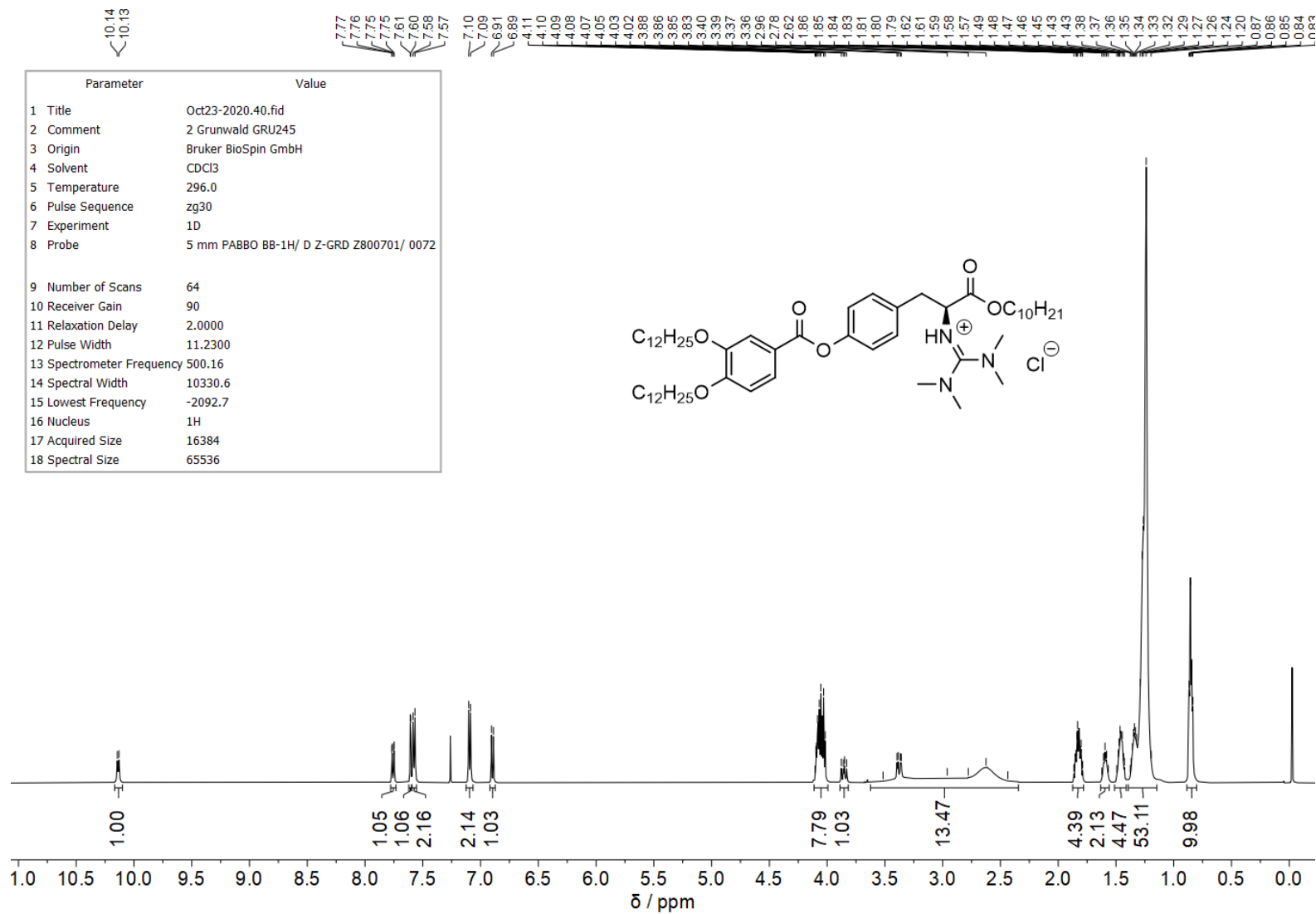


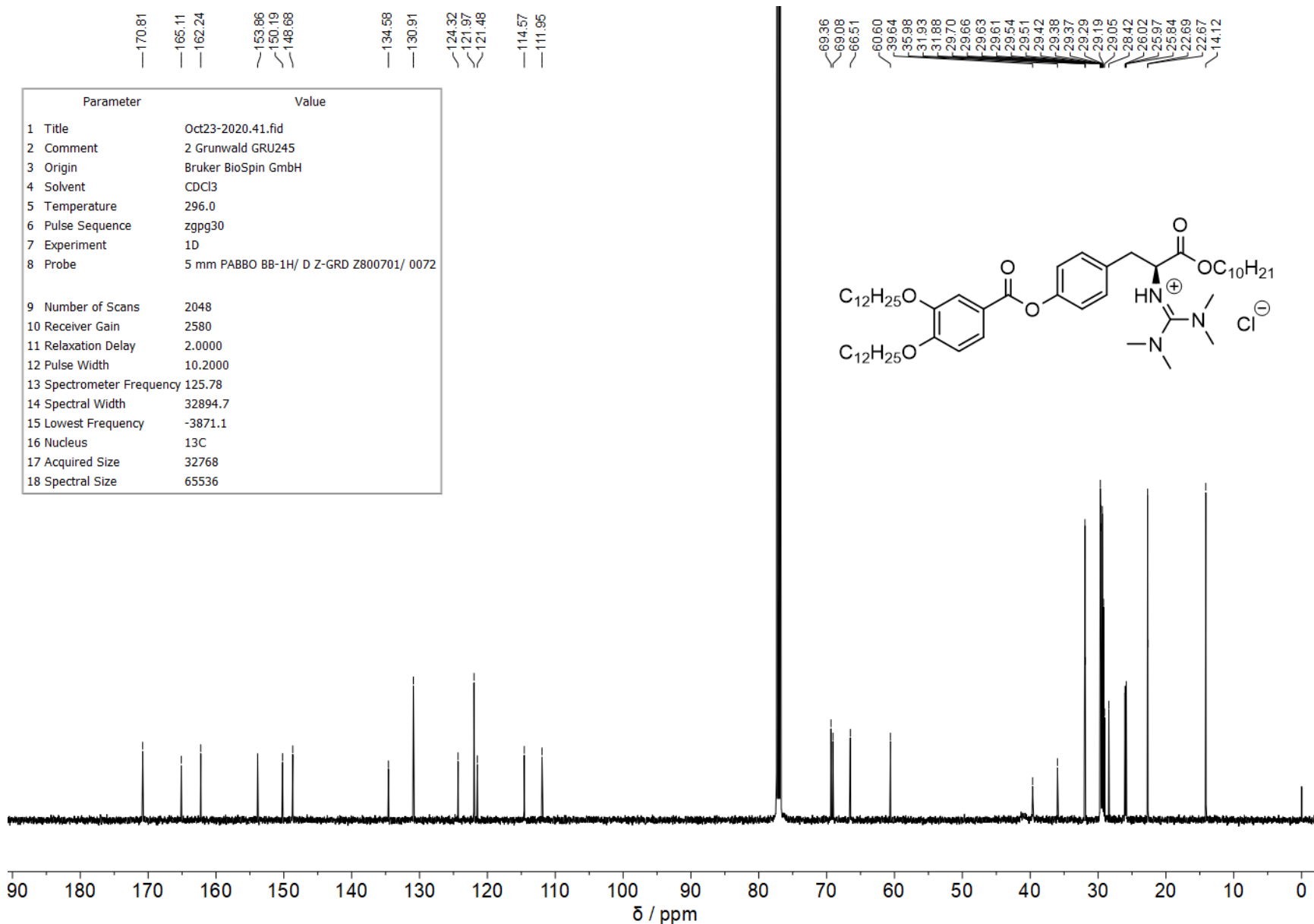
3,4-C₁₀TyrC₁₀Cl



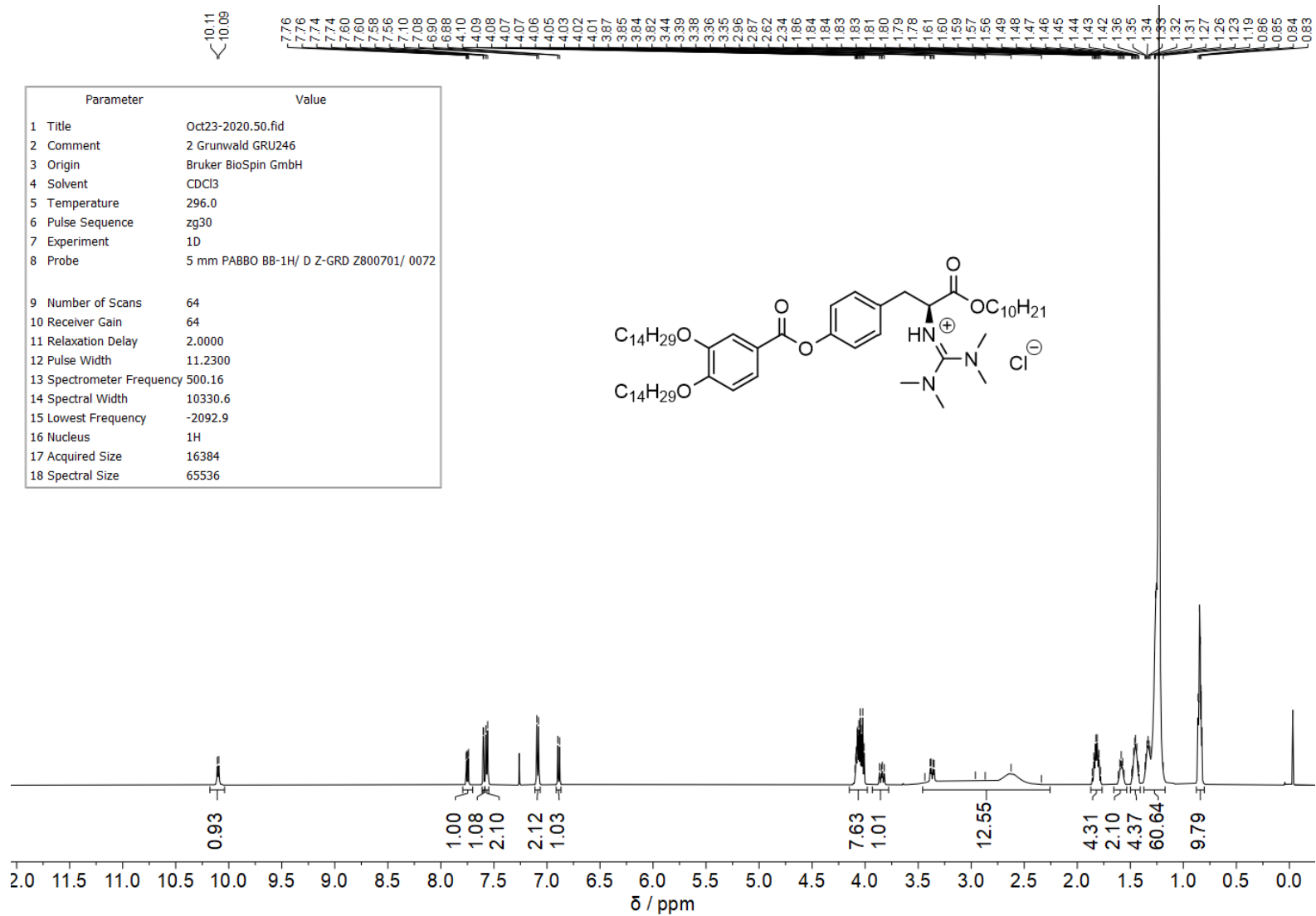


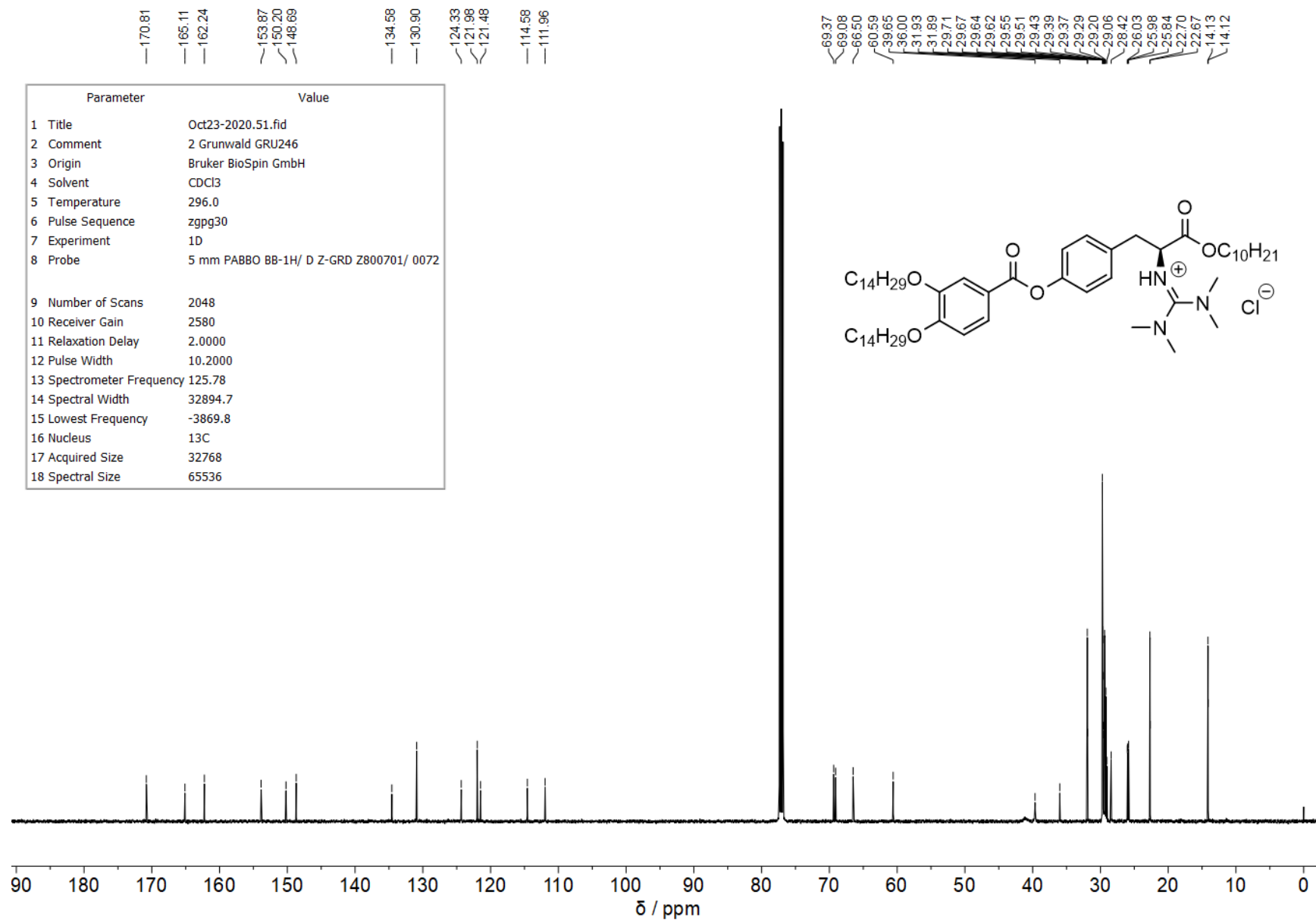
3,4-C₁₂TyrC₁₀Cl



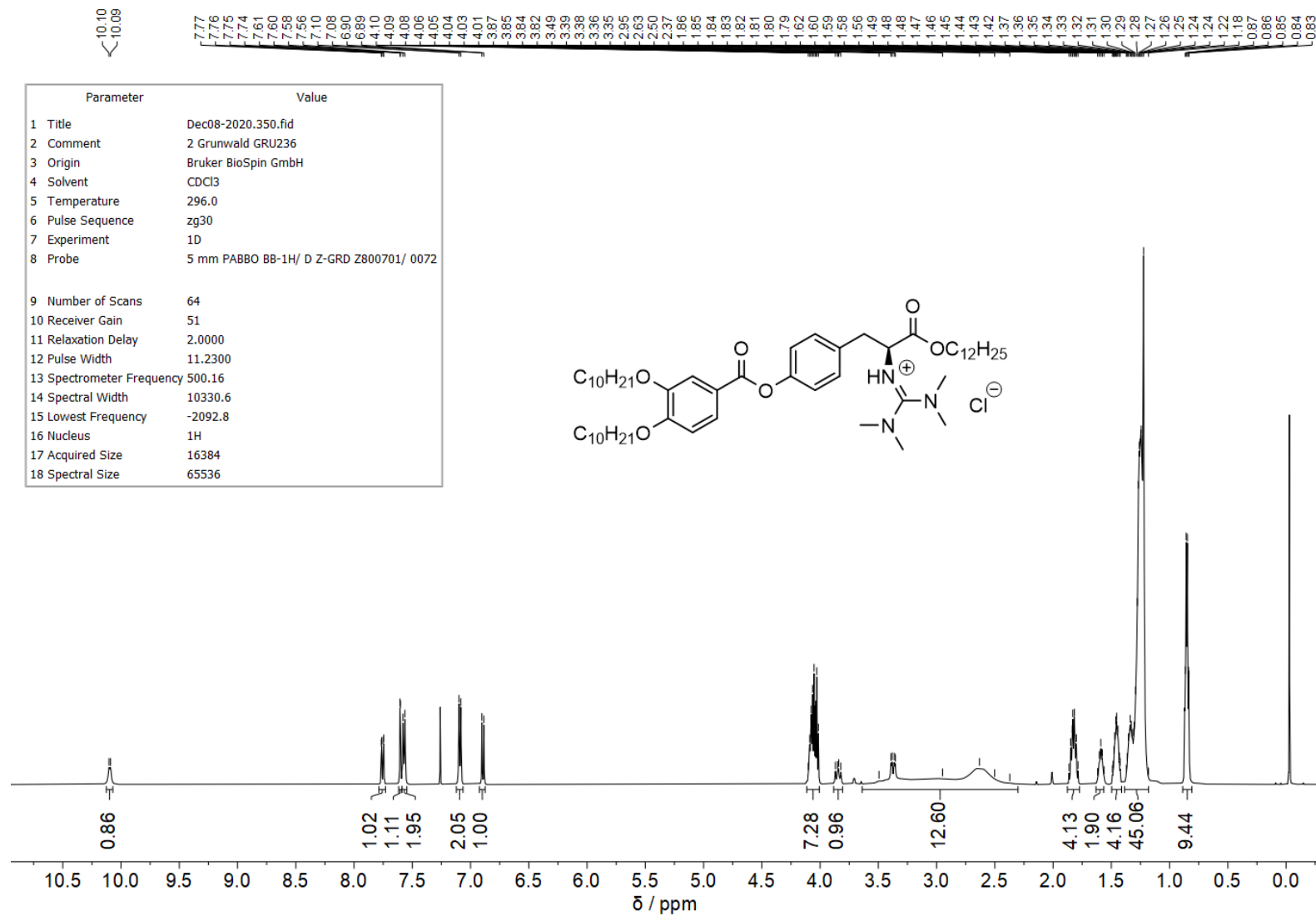


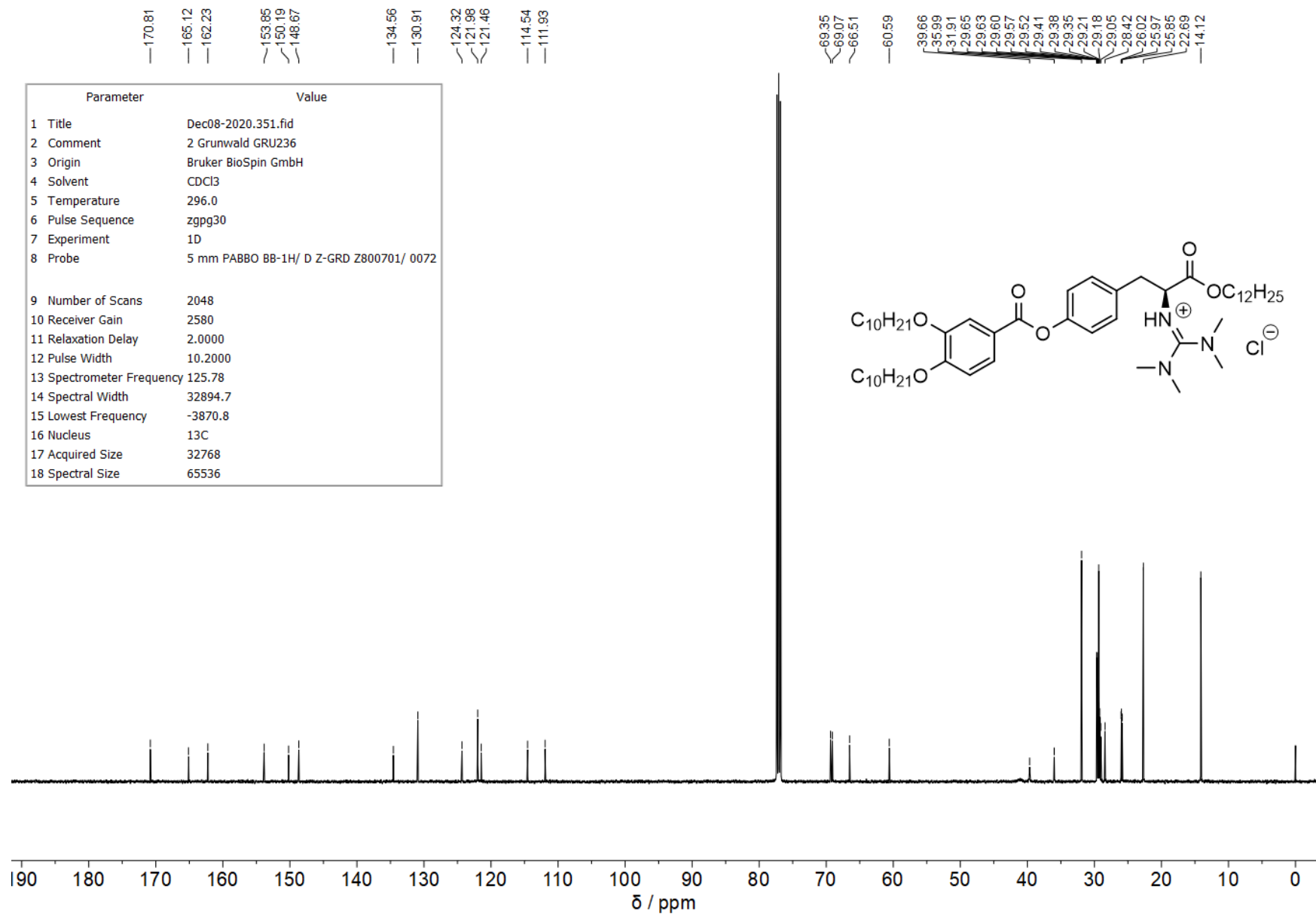
3,4-C₁₄TyrC₁₀Cl



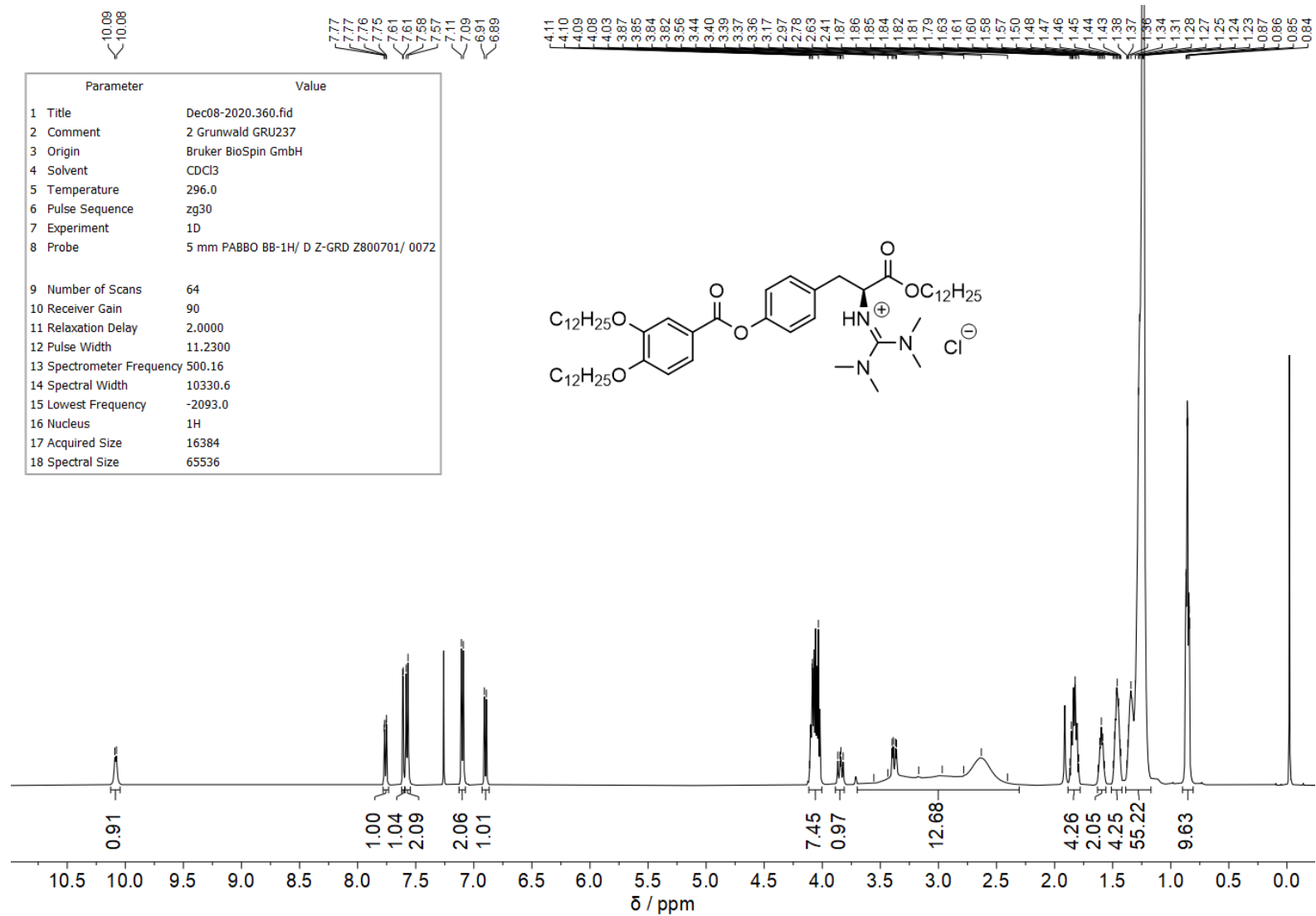


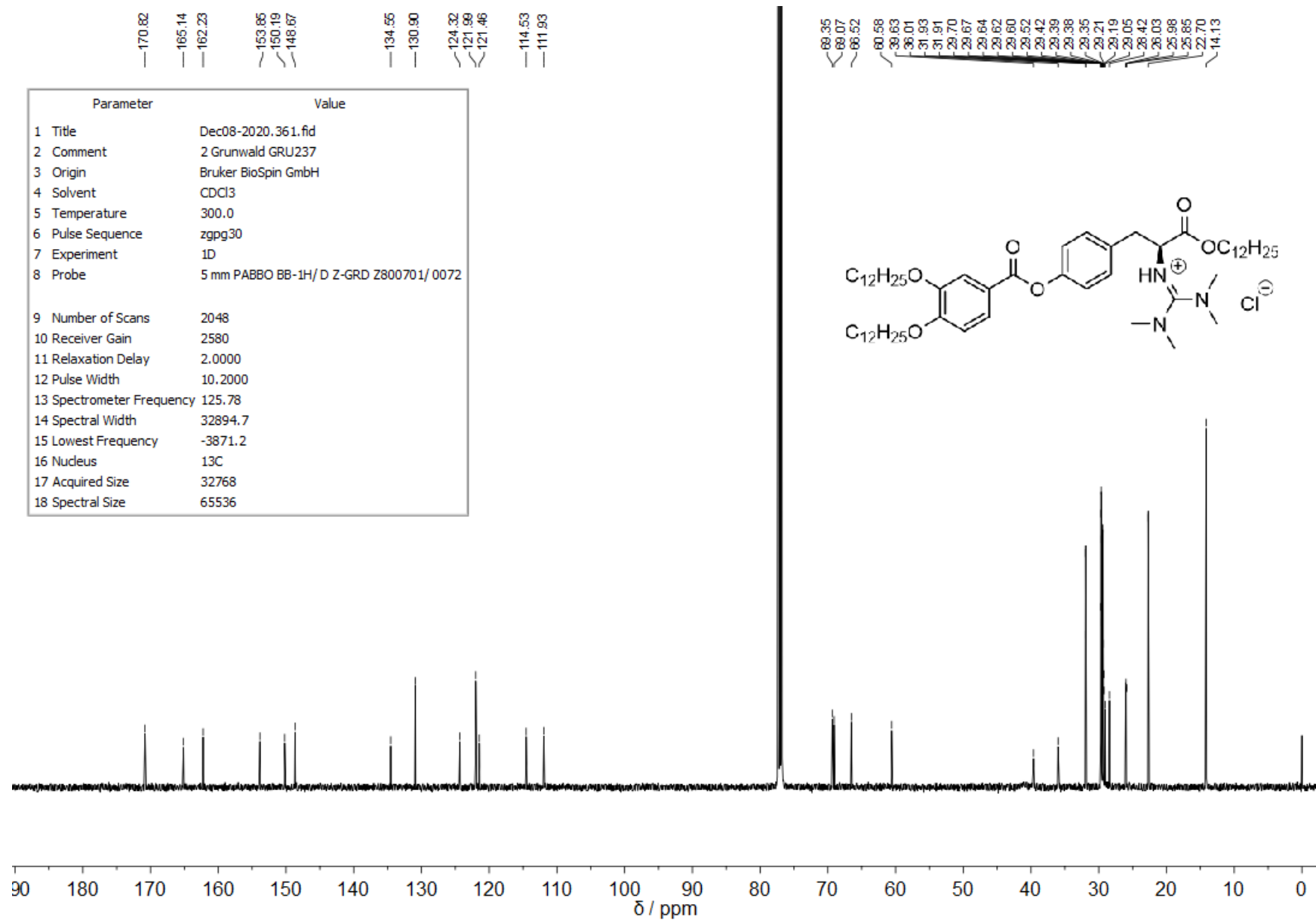
3,4-C₁₀TyrC₁₂Cl



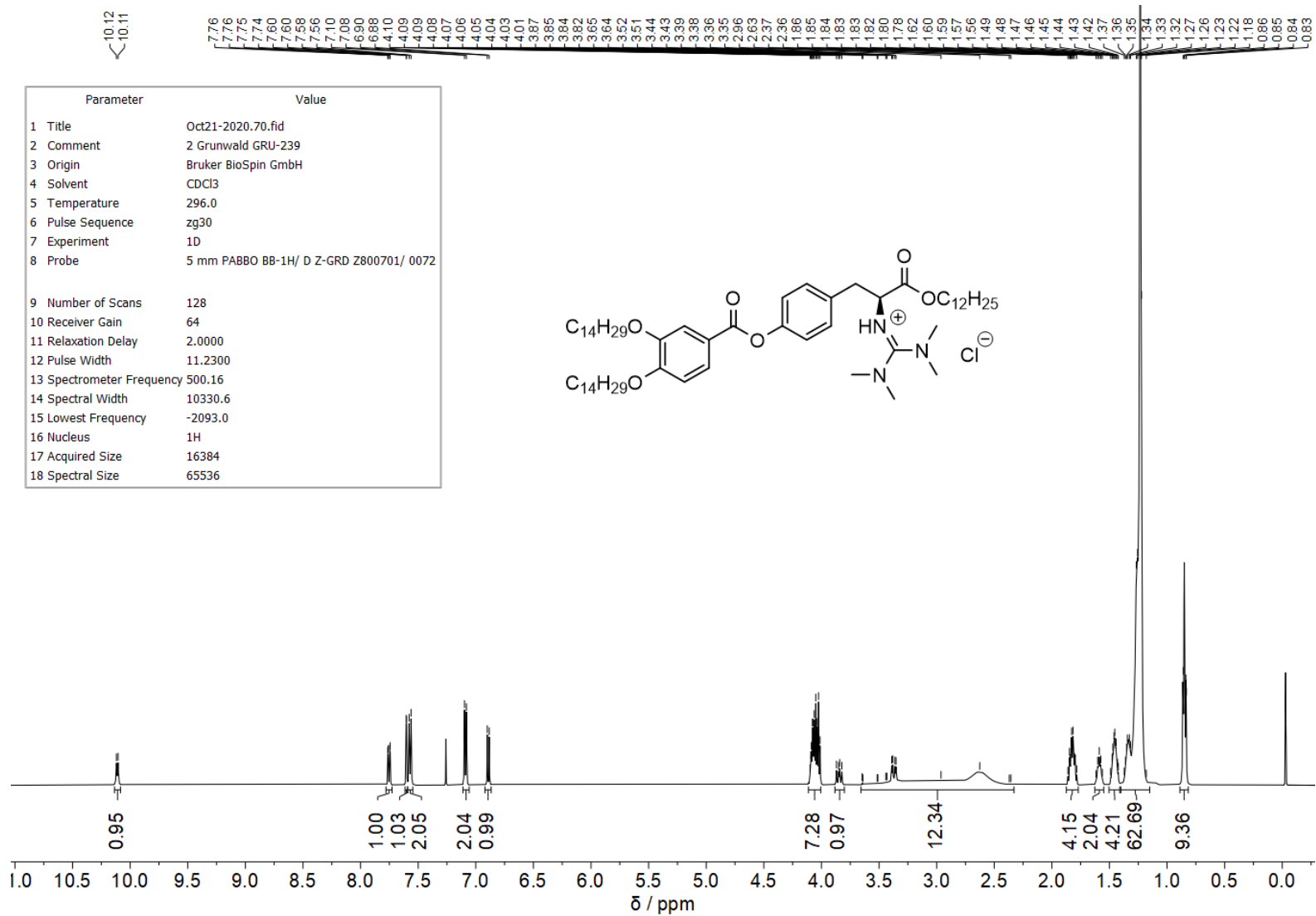


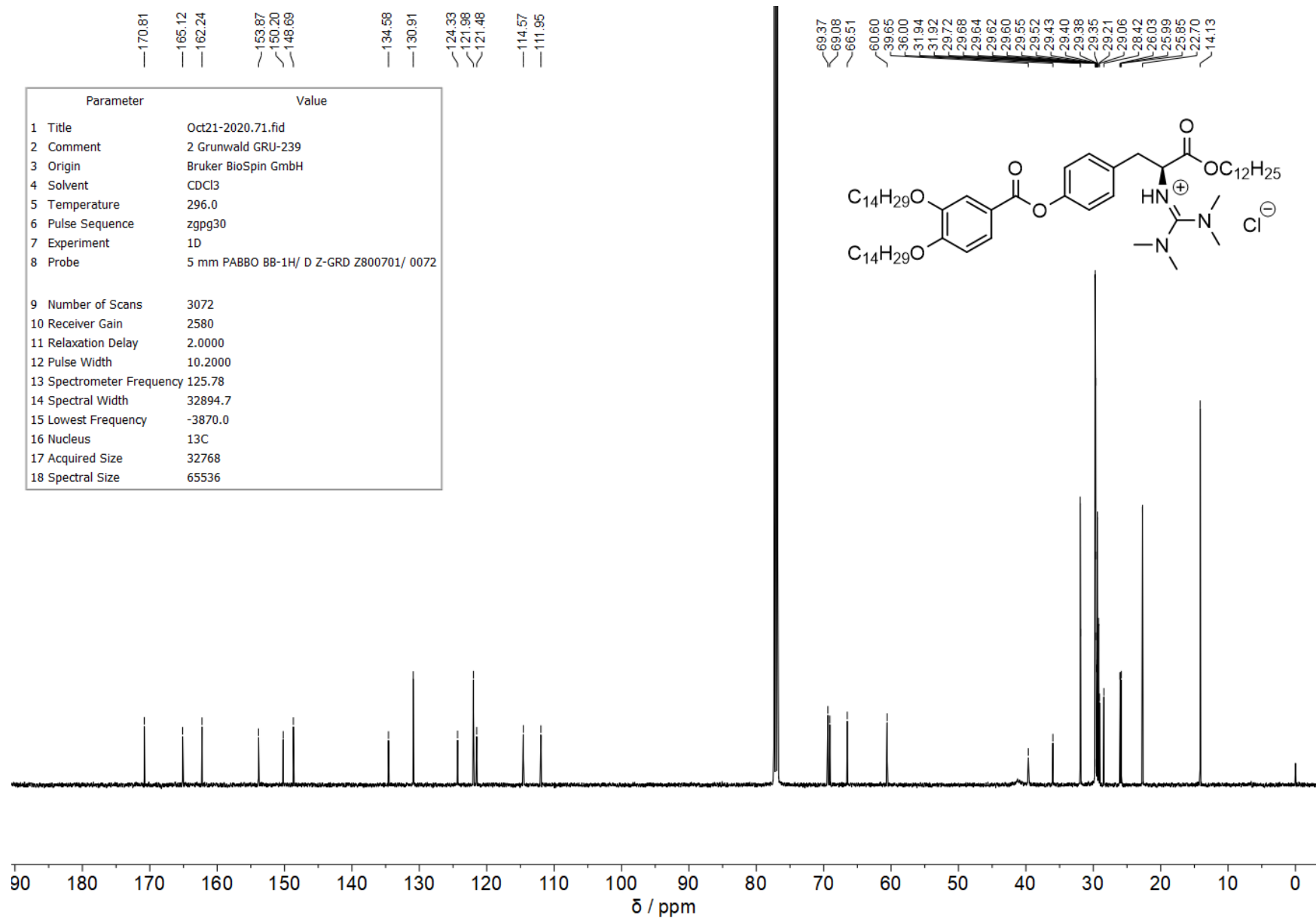
3,4-C12TyrC12Cl



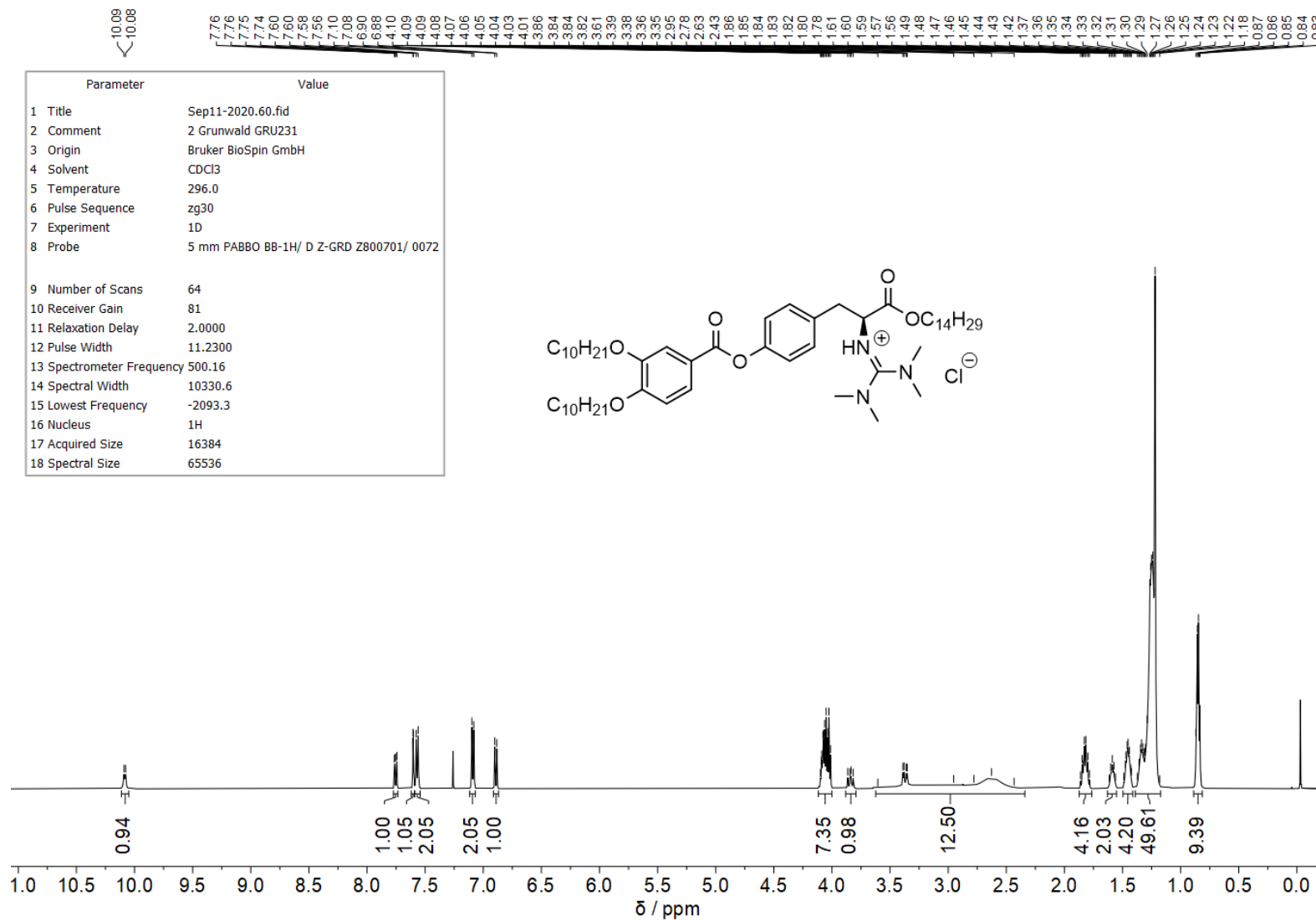


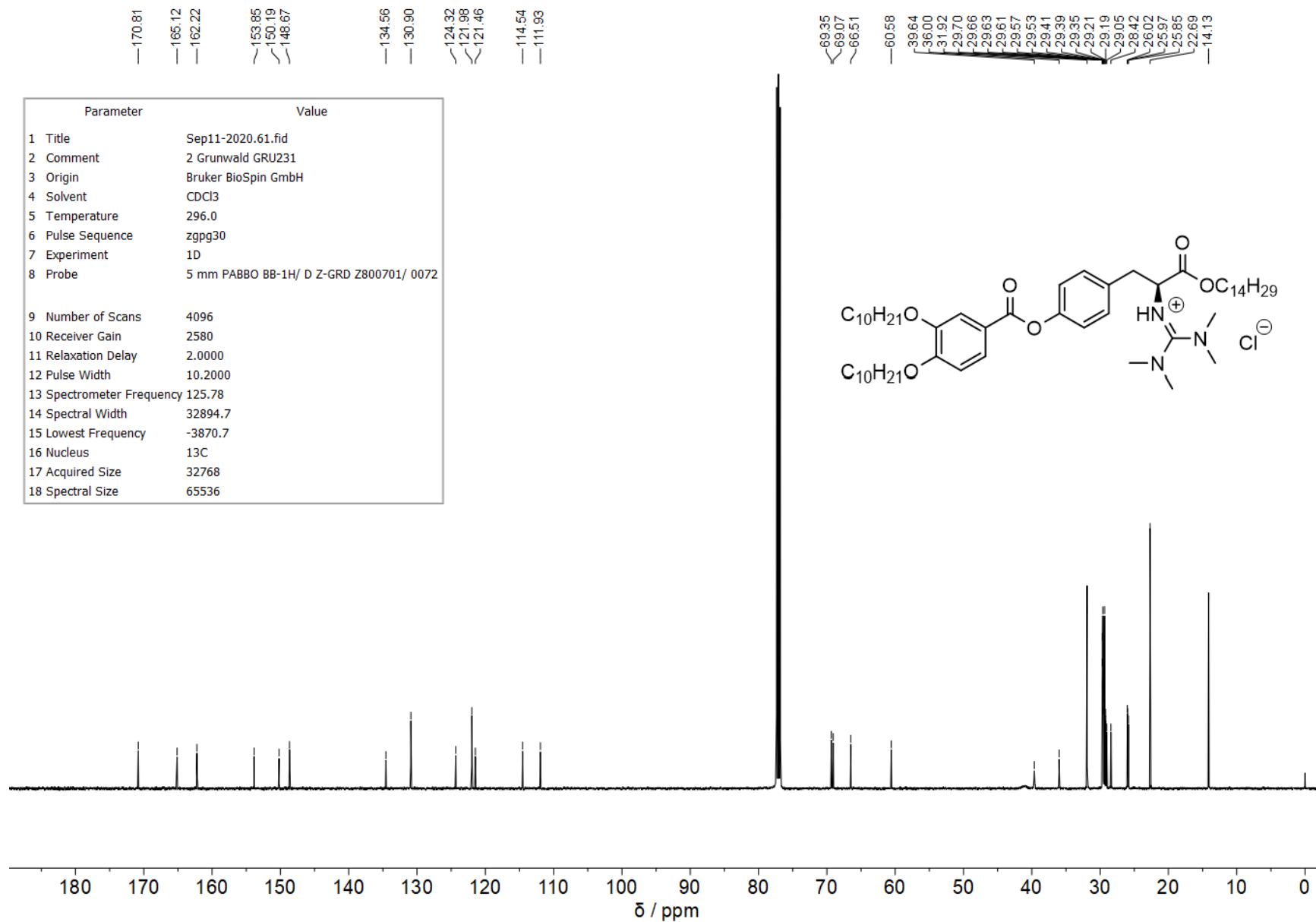
3,4-C₁₄TyrC₁₂Cl



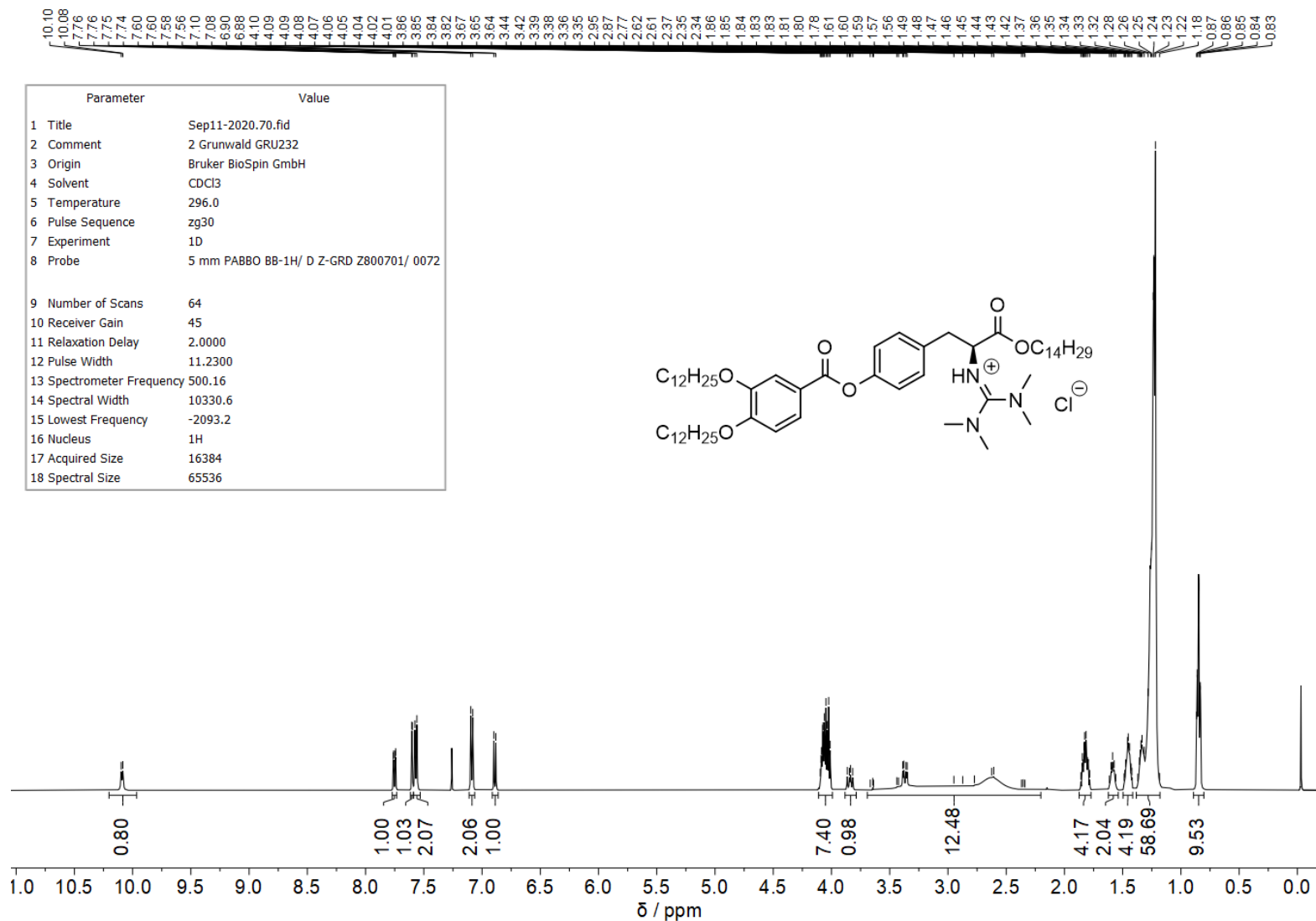


3,4-C₁₀TyrC₁₄Cl

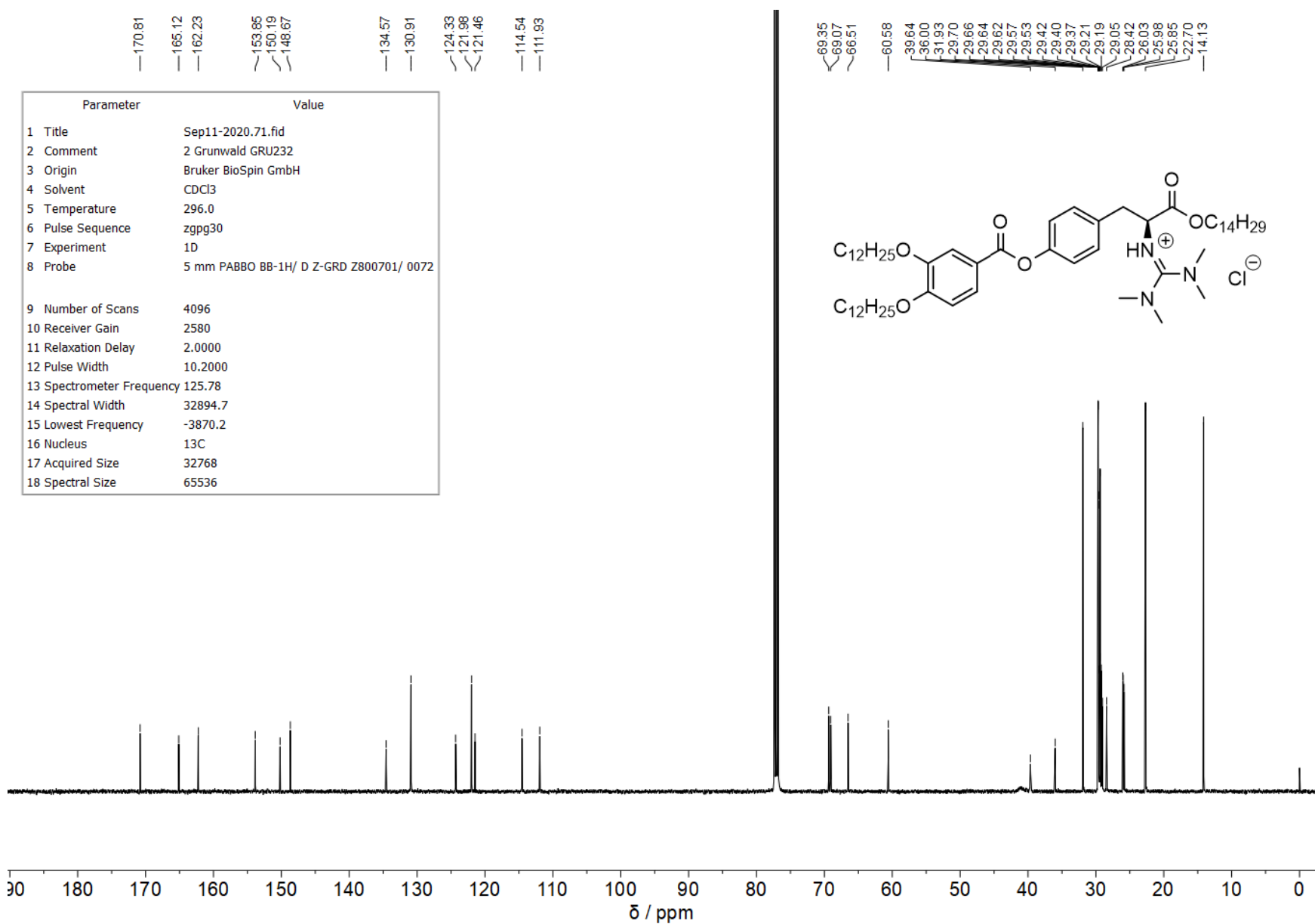




3,4-C₁₂TyrC₁₄Cl

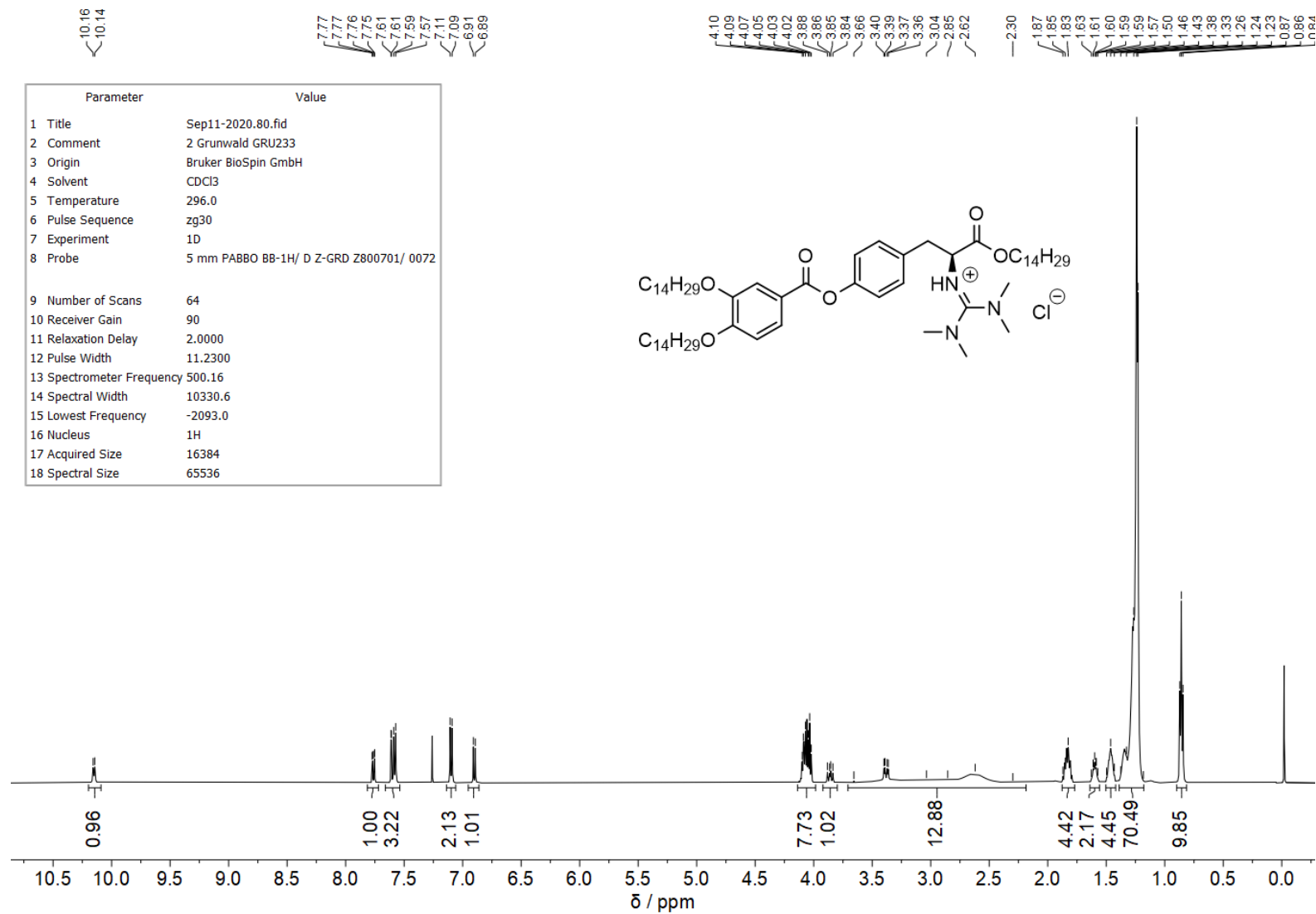


Parameter	Value
1 Title	Sep11-2020.70.fid
2 Comment	2 Grunwald GRU232
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	64
10 Receiver Gain	45
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2093.2
16 Nucleus	1H
17 Acquired Size	16384
18 Spectral Size	65536

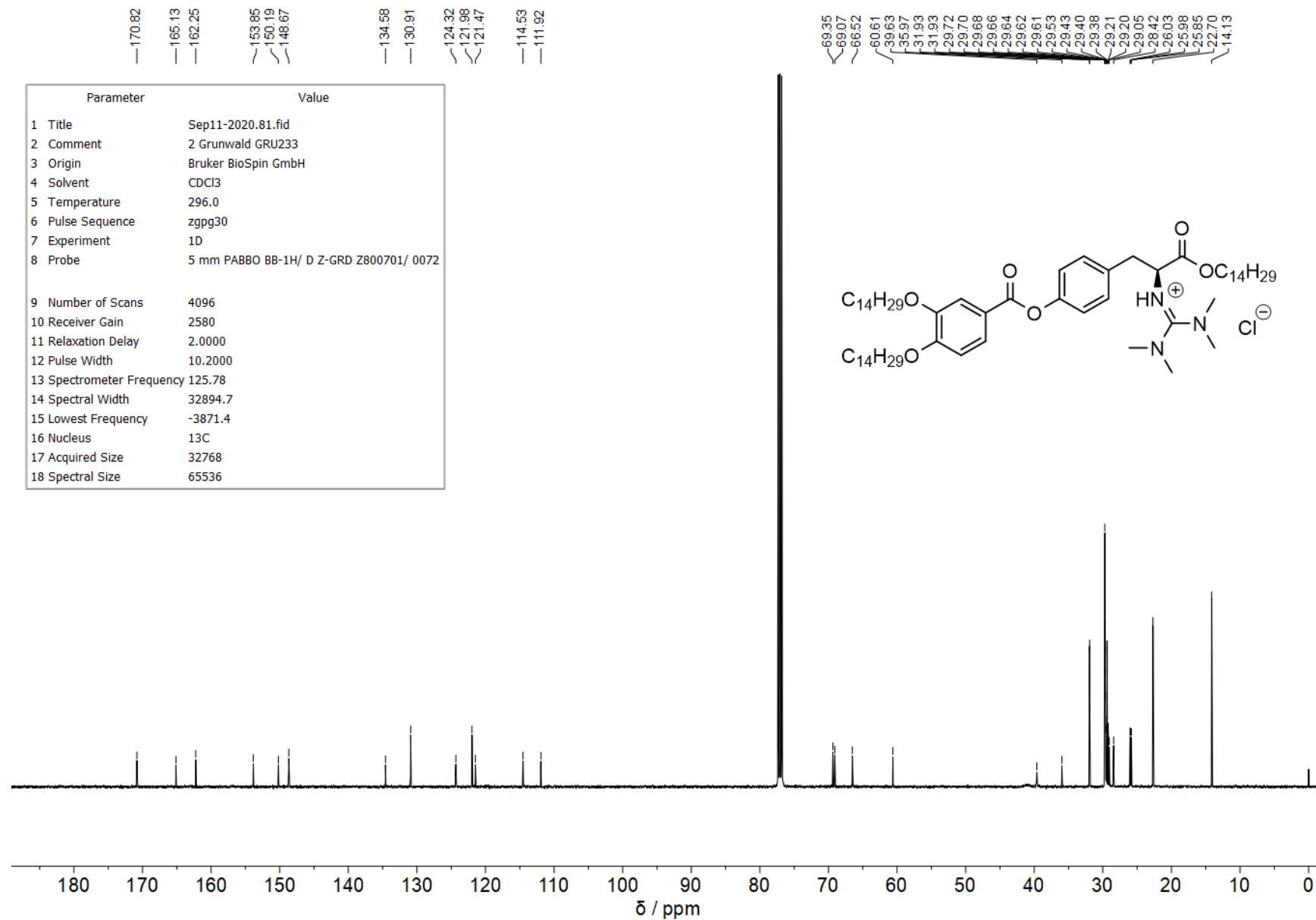


Parameter	Value
1 Title	Sep11-2020.71.fid
2 Comment	2 Grunwald GRU232
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	4096
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3870.2
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

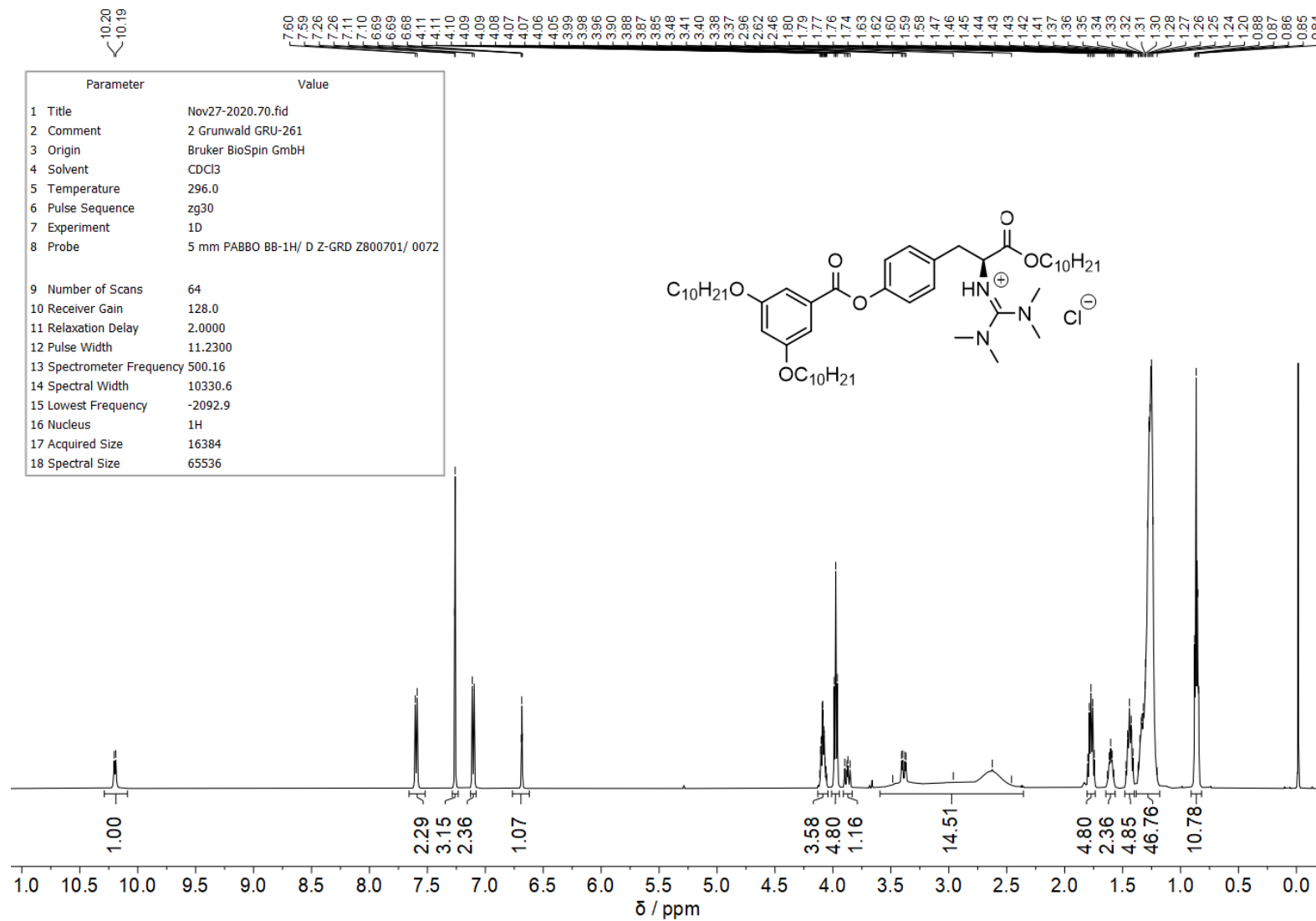
3,4-C₁₄TyrC₁₄Cl

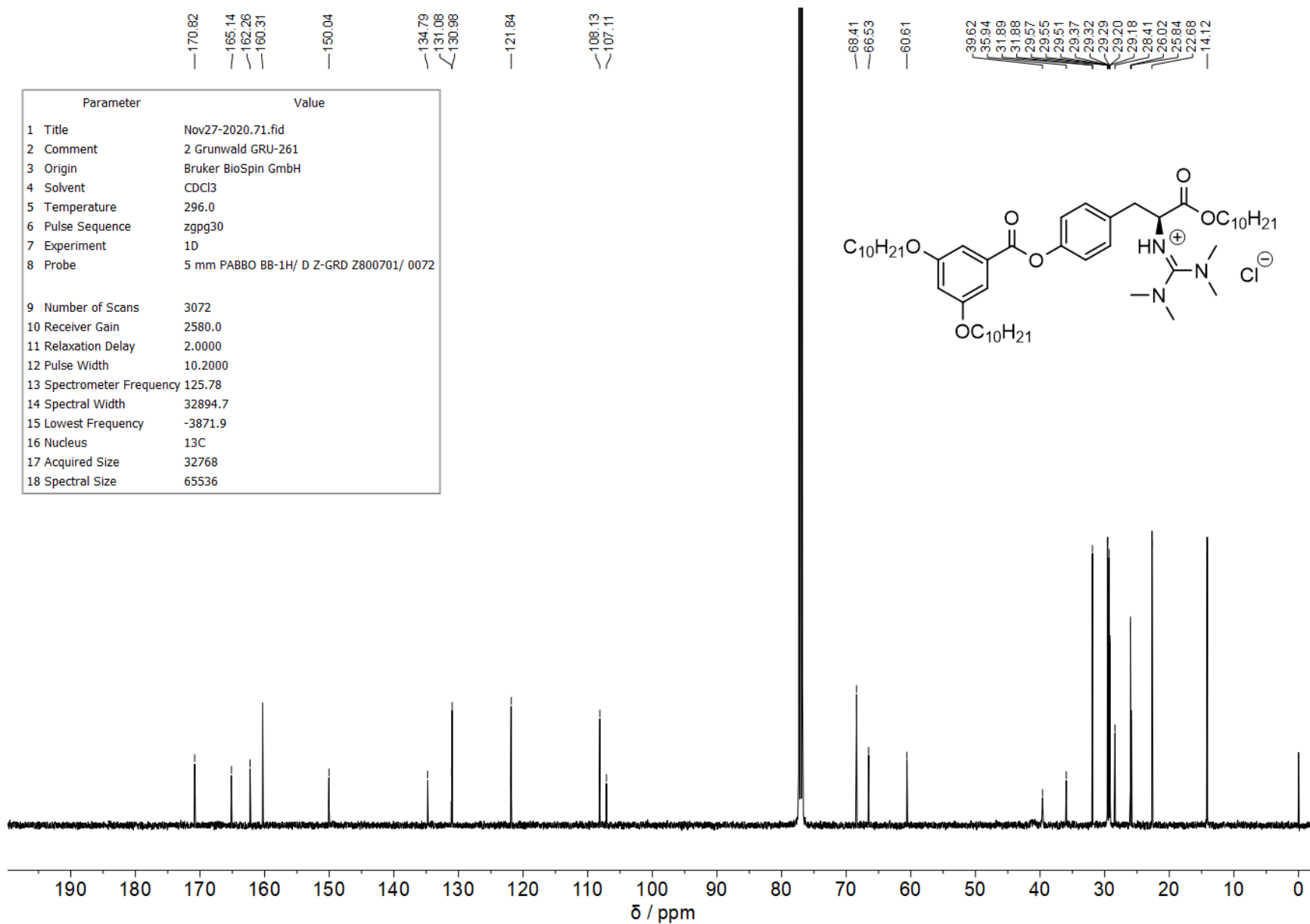


Parameter	Value
1 Title	Sep11-2020.80.fid
2 Comment	2 Grunwald GRU233
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	64
10 Receiver Gain	90
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2093.0
16 Nucleus	1H
17 Acquired Size	16384
18 Spectral Size	65536

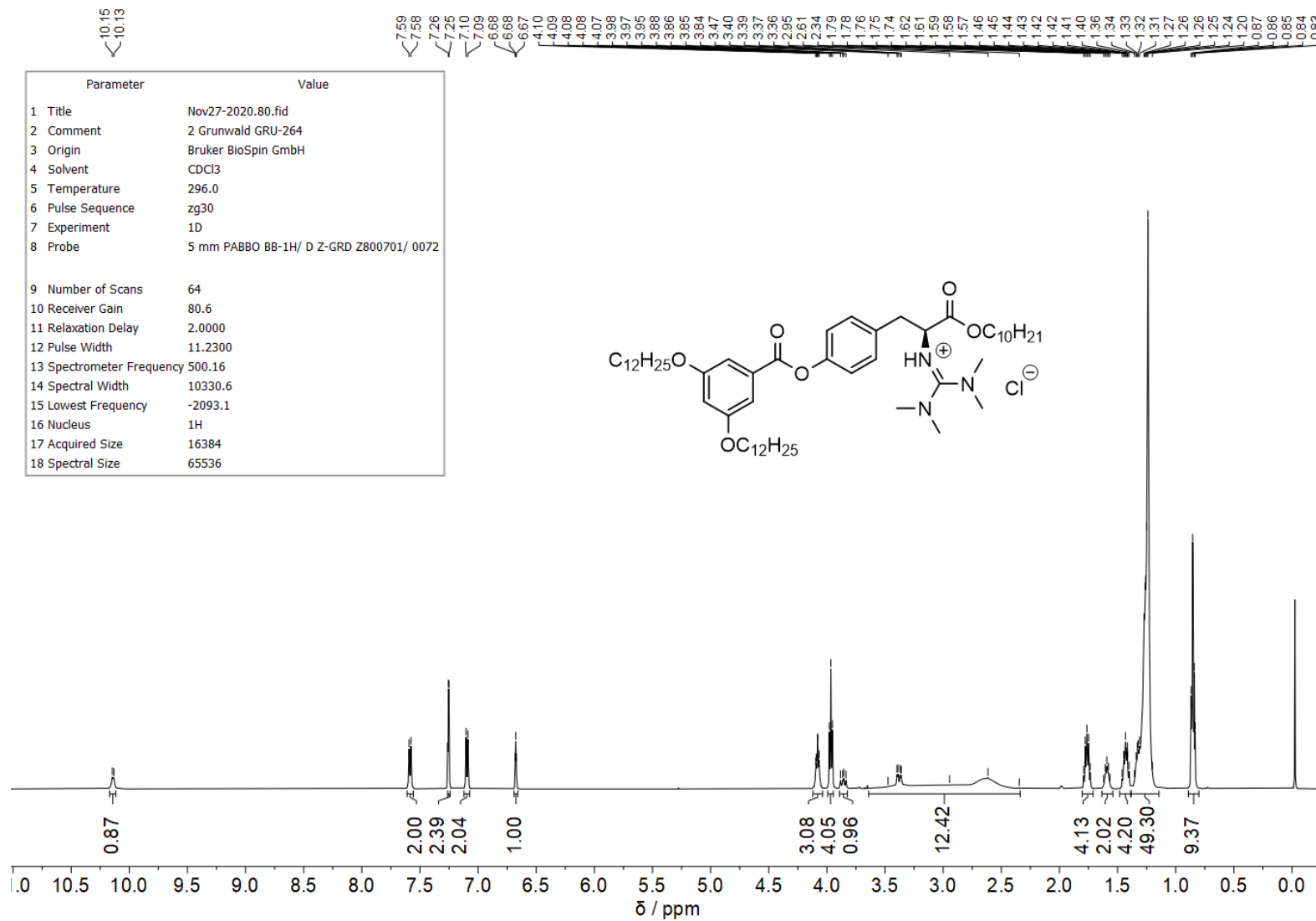


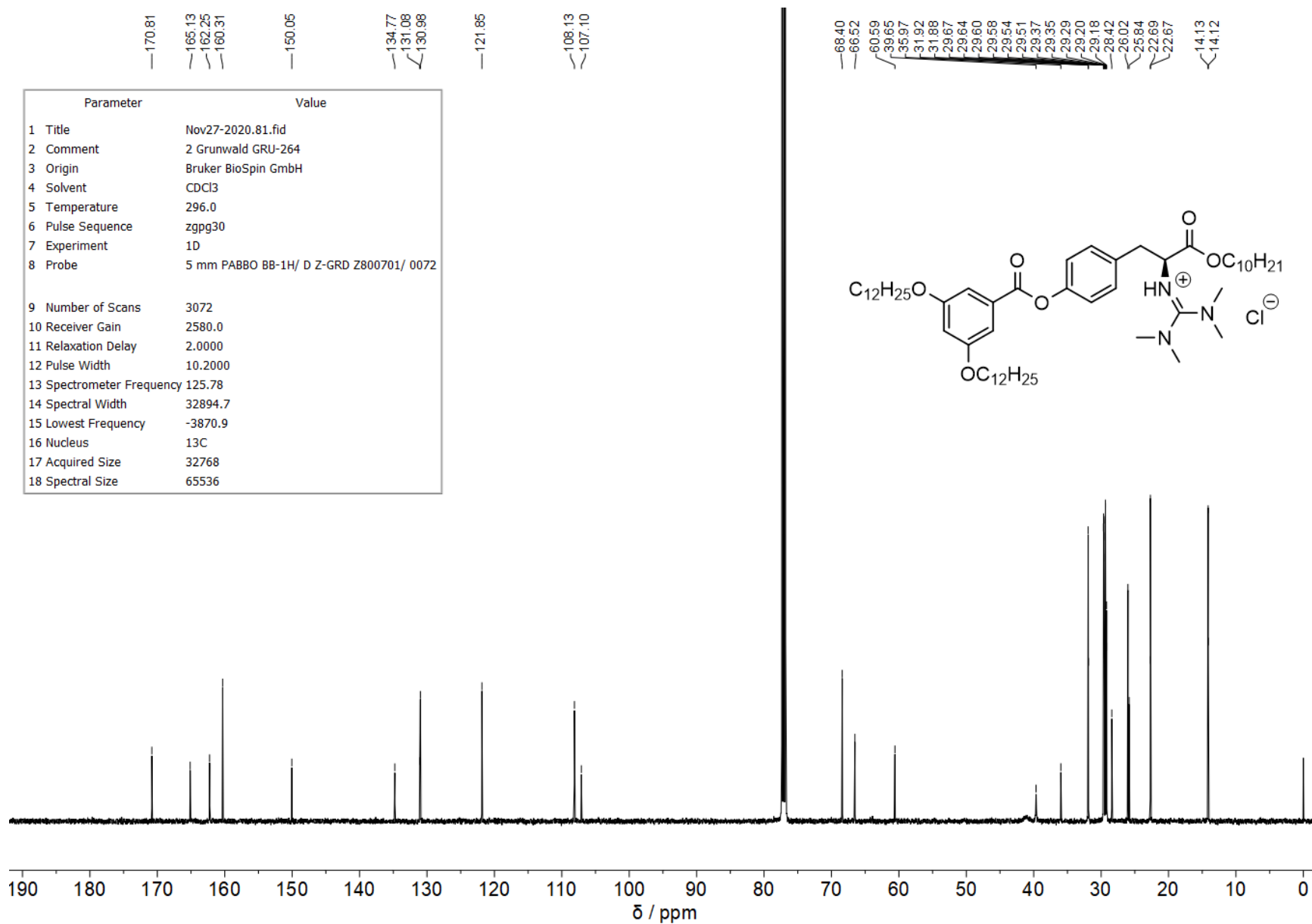
3,5-C₁₀TyrC₁₀Cl



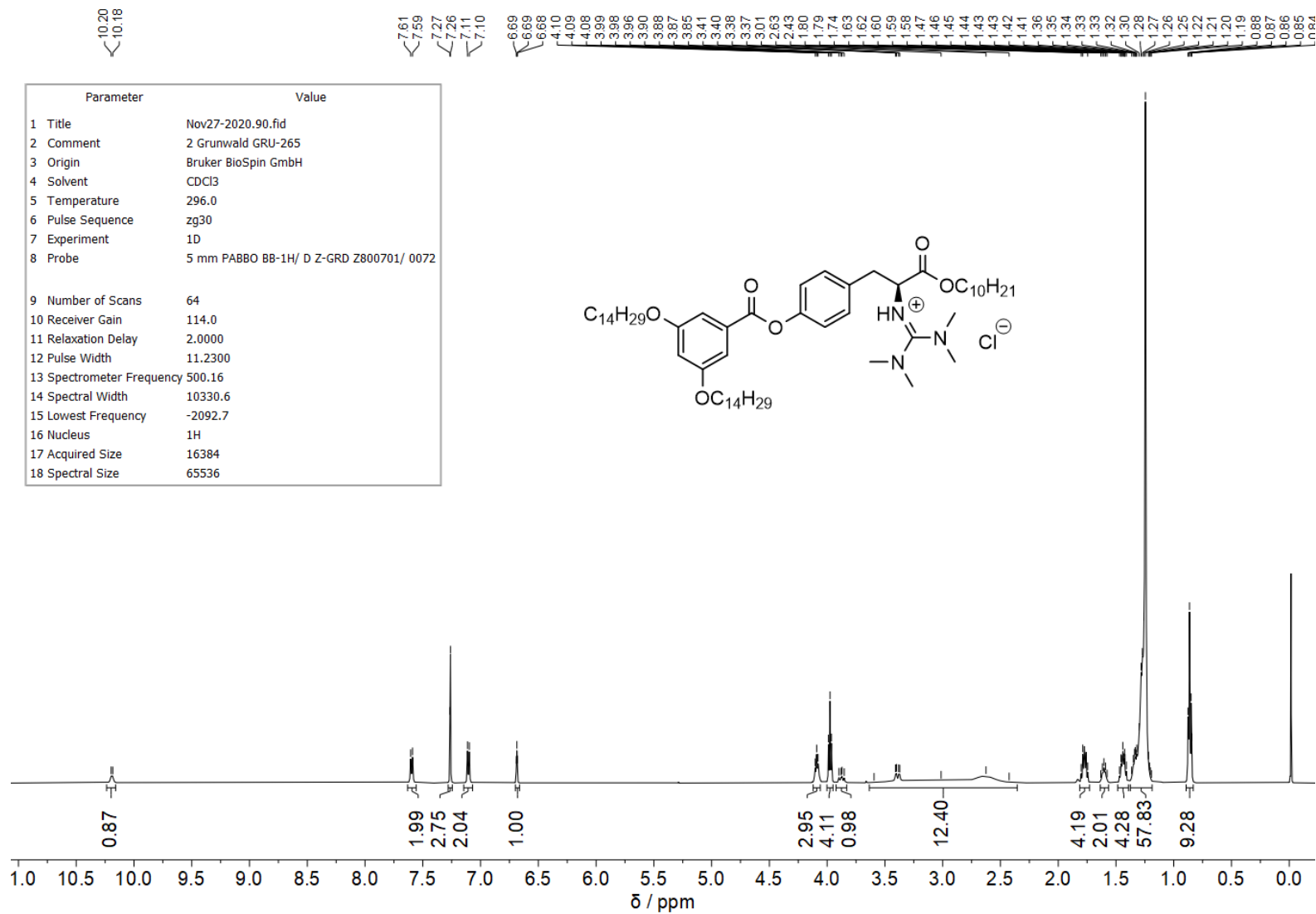


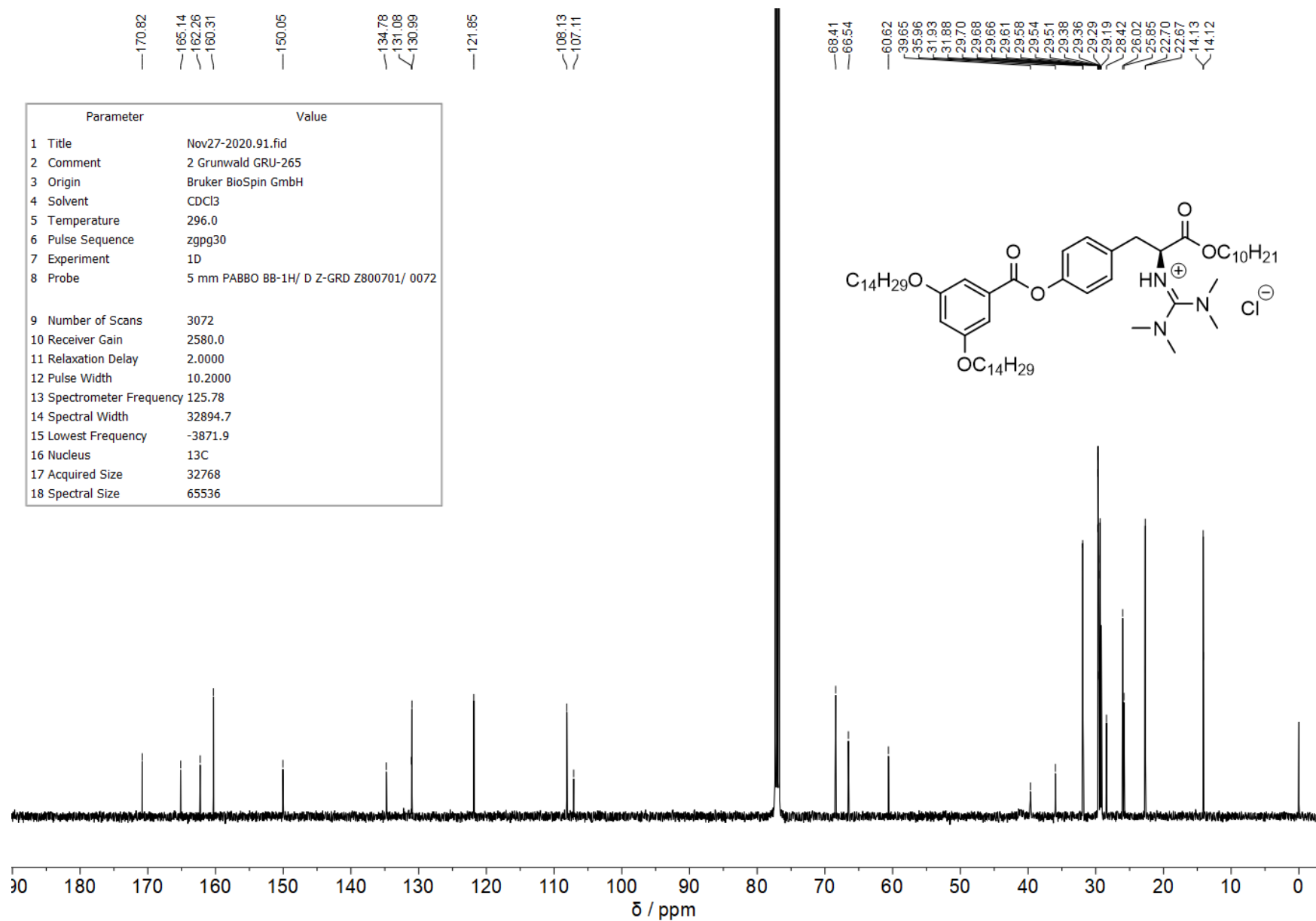
3,5-C₁₂TyrC₁₀Cl



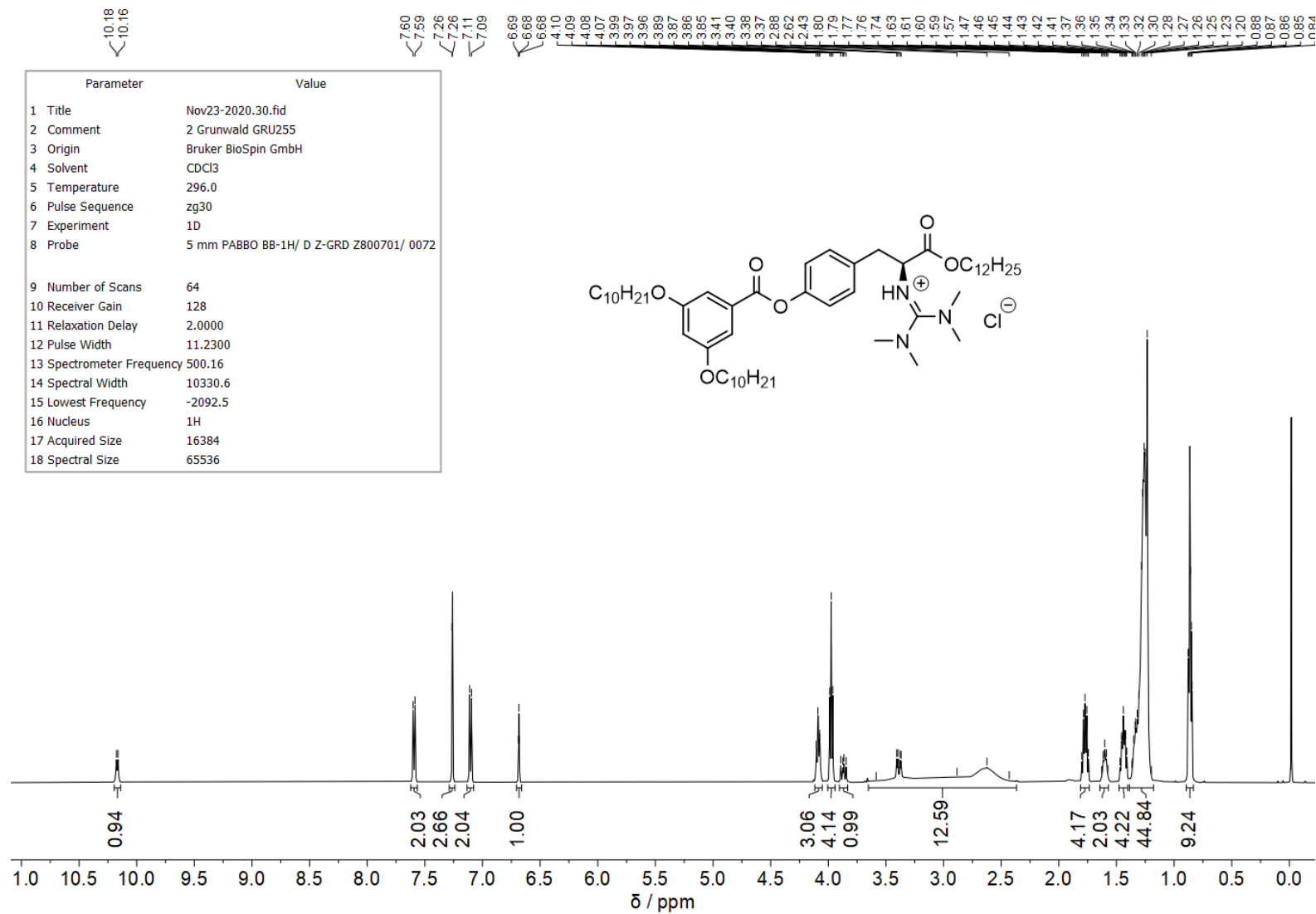


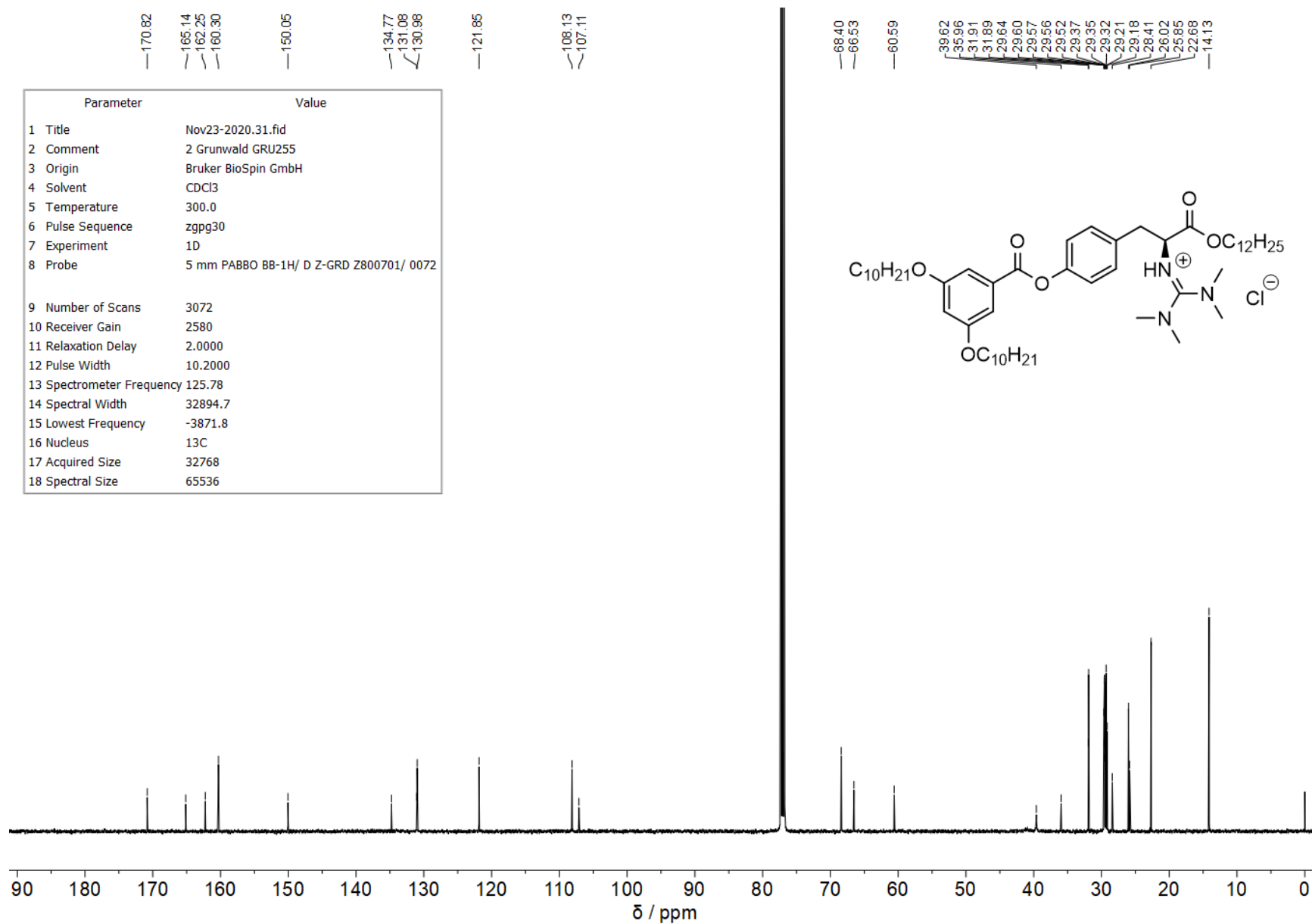
3,5-C₁₄TyrC₁₀Cl



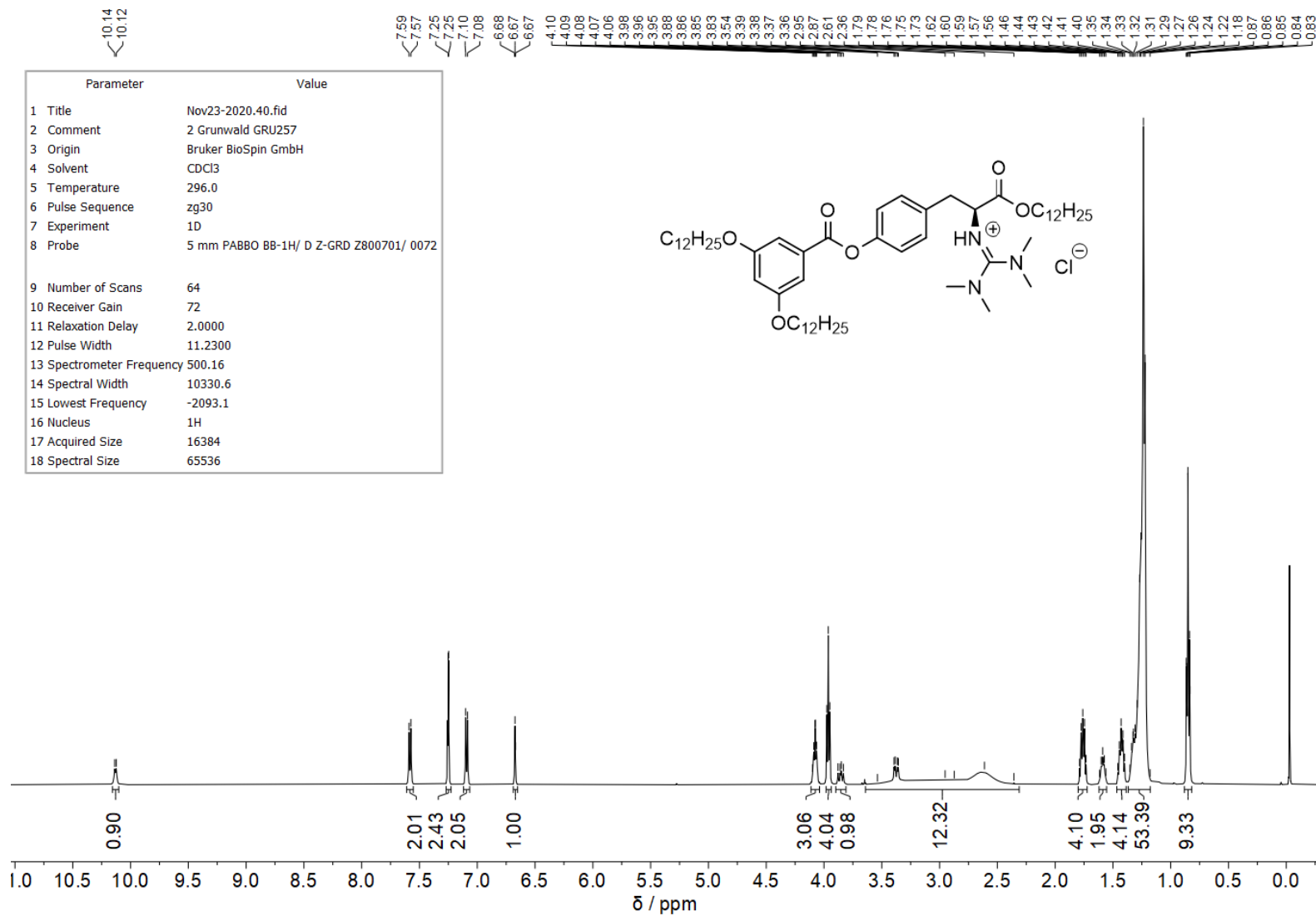


3,5-C₁₀TyrC₁₂Cl

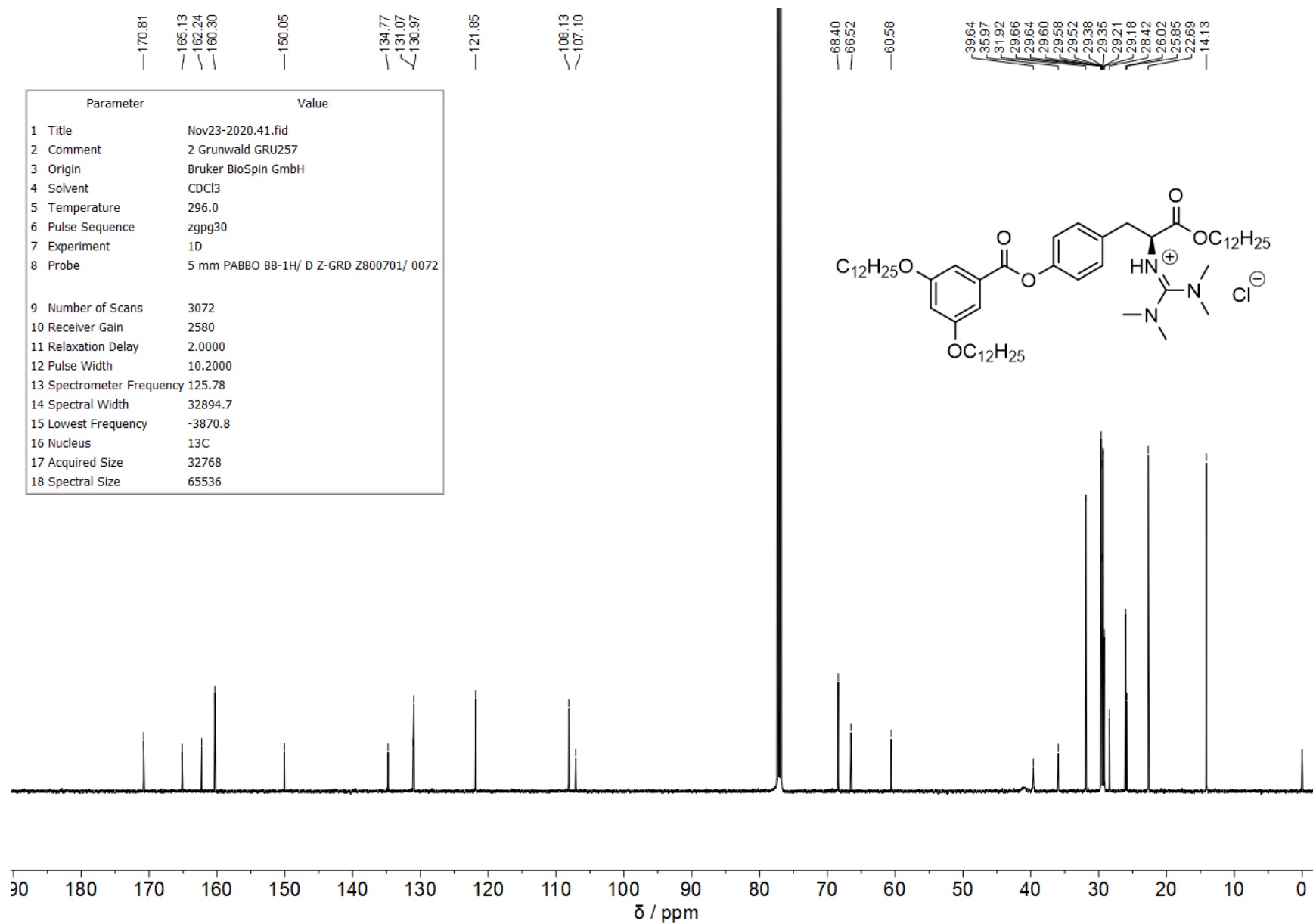


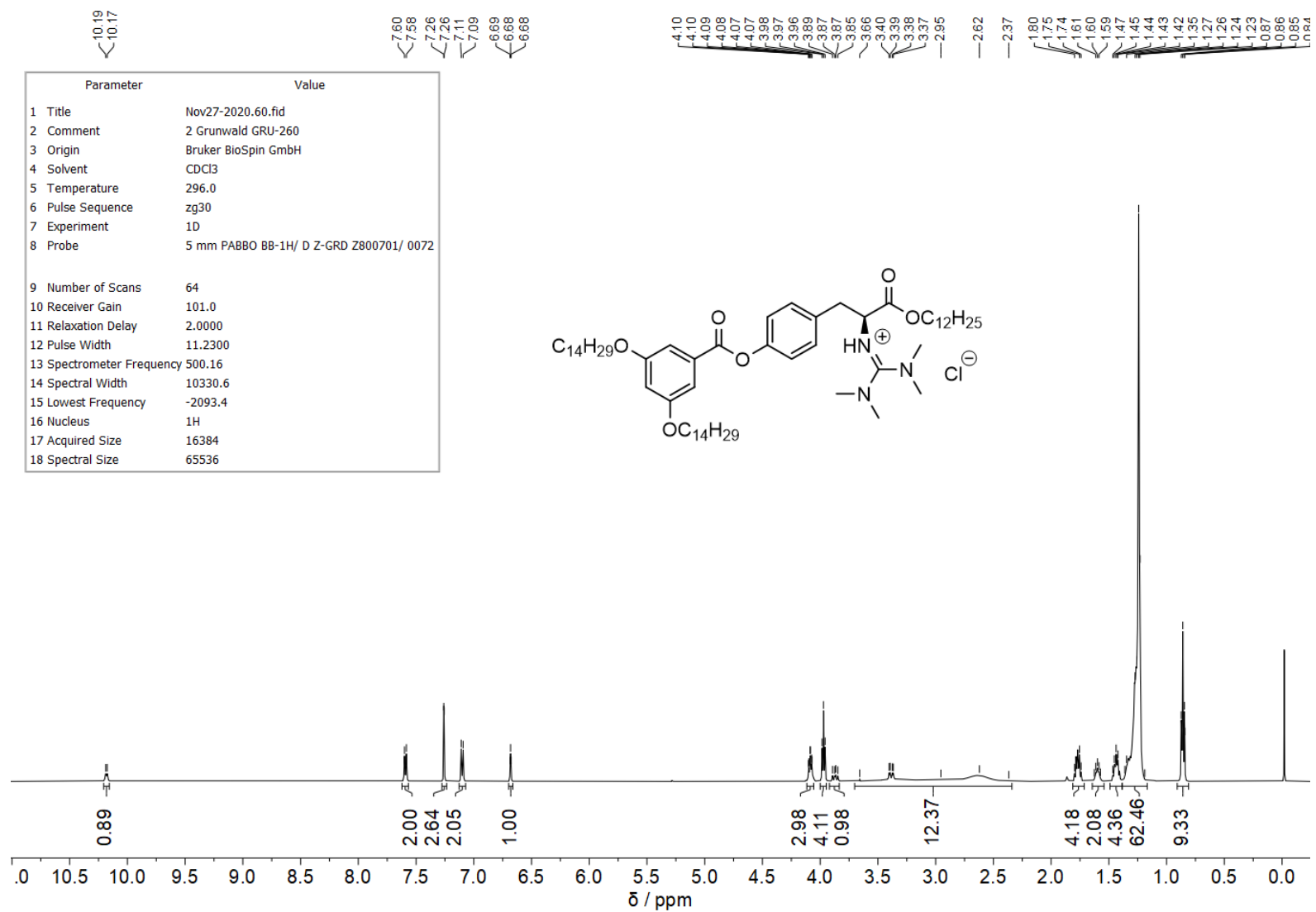


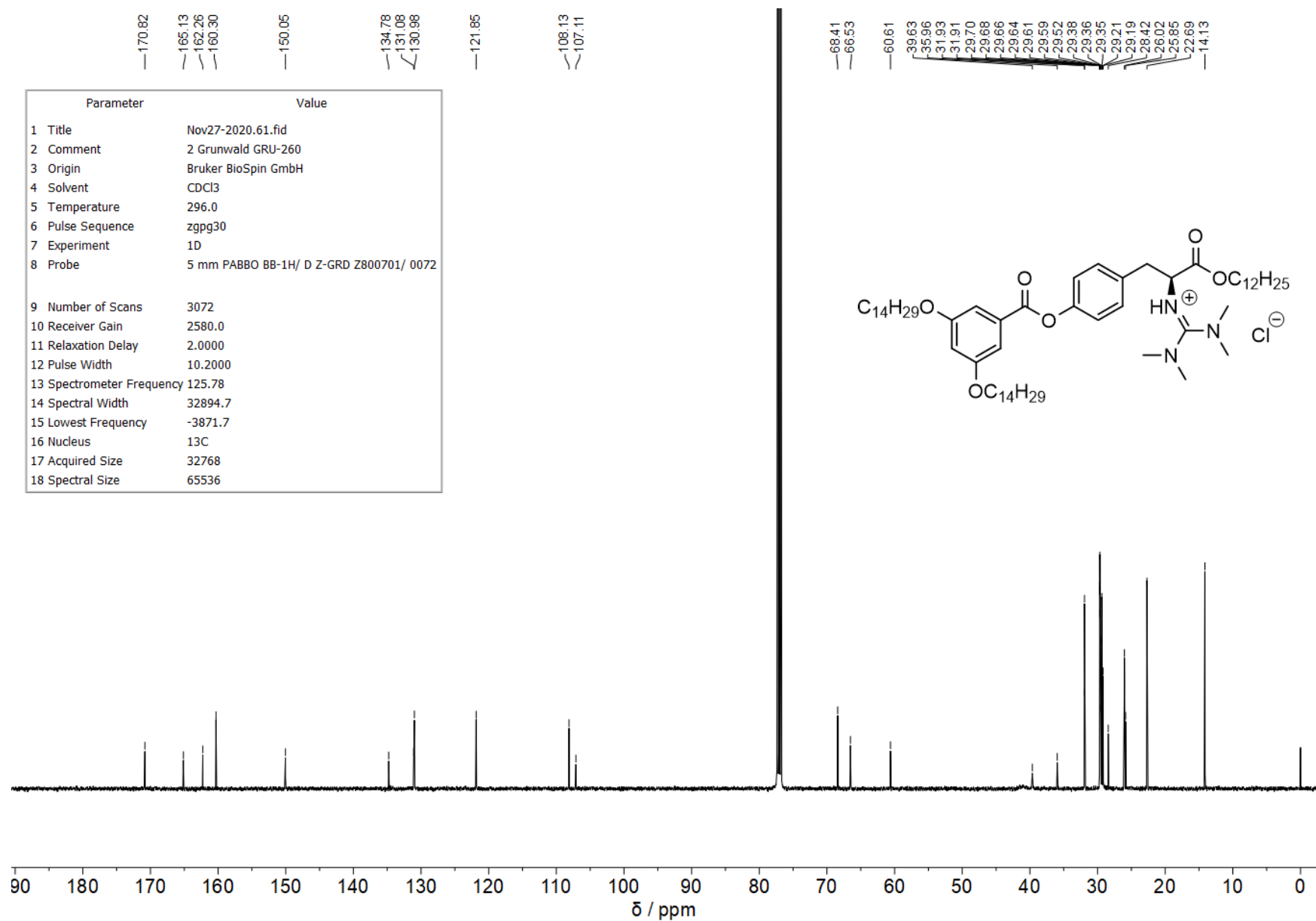
3,5-C₁₂TyrC₁₂Cl



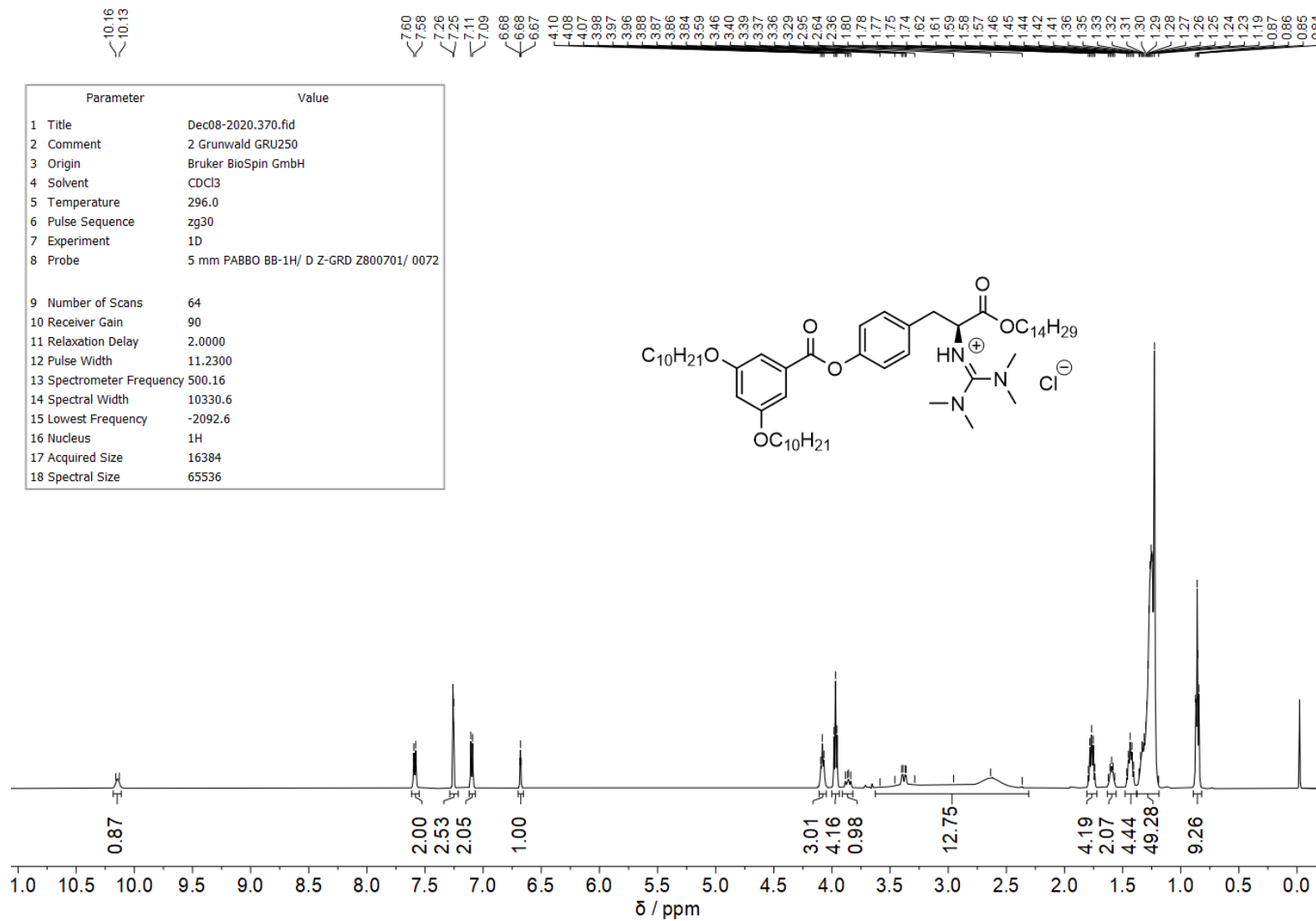
Parameter	Value
1 Title	Nov23-2020.40.fid
2 Comment	2 Grunwald GRU257
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	64
10 Receiver Gain	72
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2093.1
16 Nucleus	¹ H
17 Acquired Size	16384
18 Spectral Size	65536

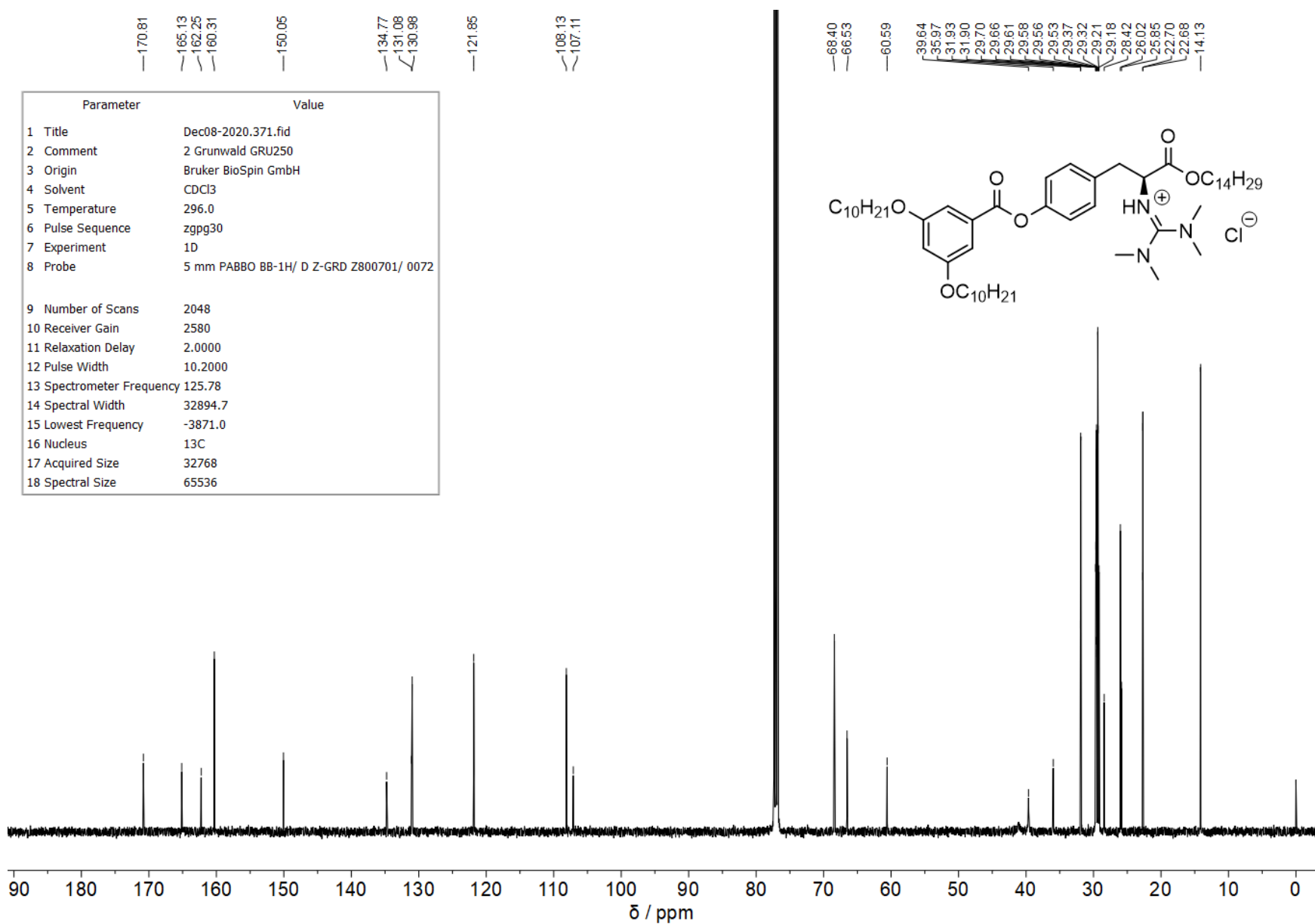


3,5-C₁₄TyrC₁₂Cl

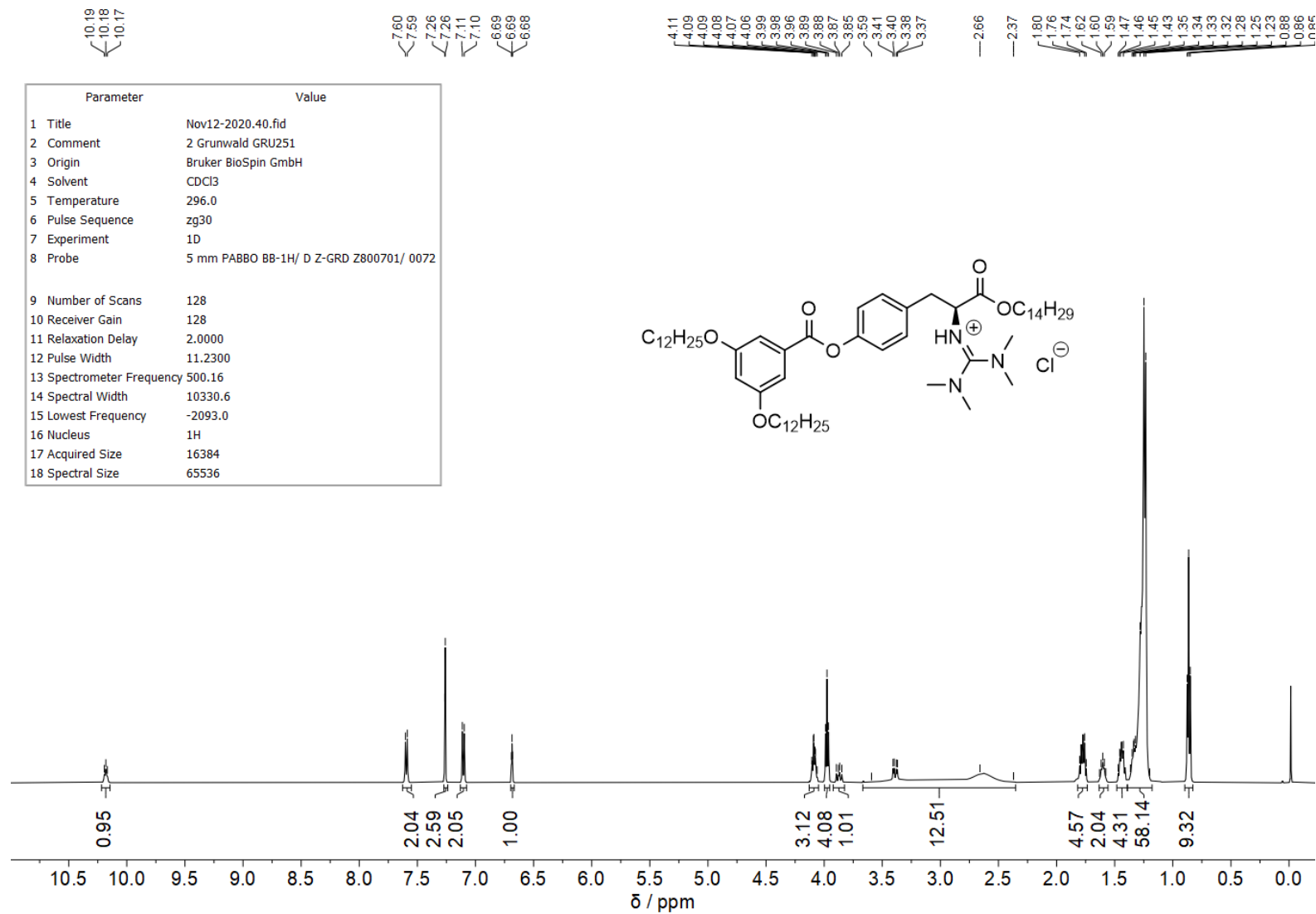


3,5-C₁₀TyrC₁₄Cl

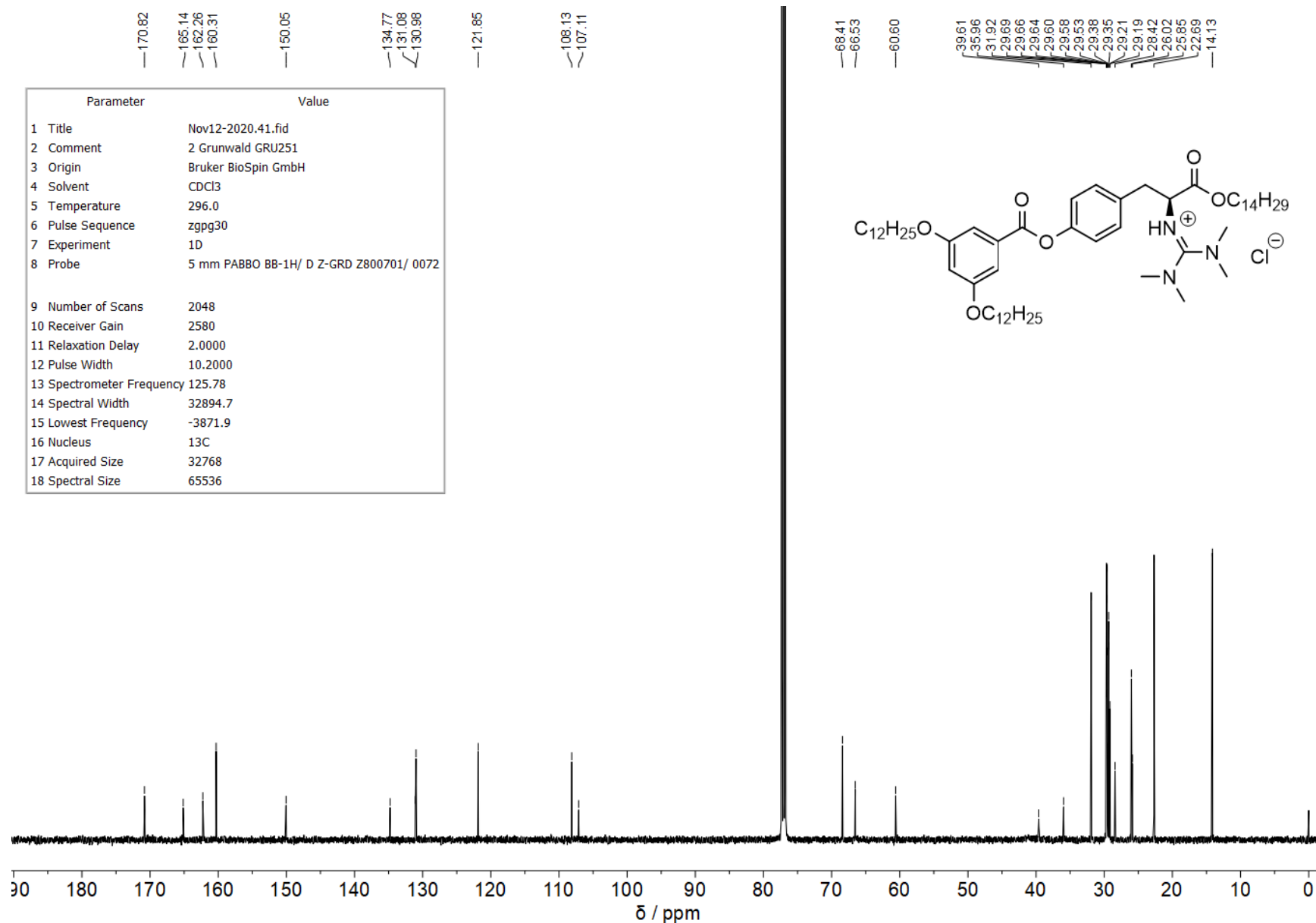




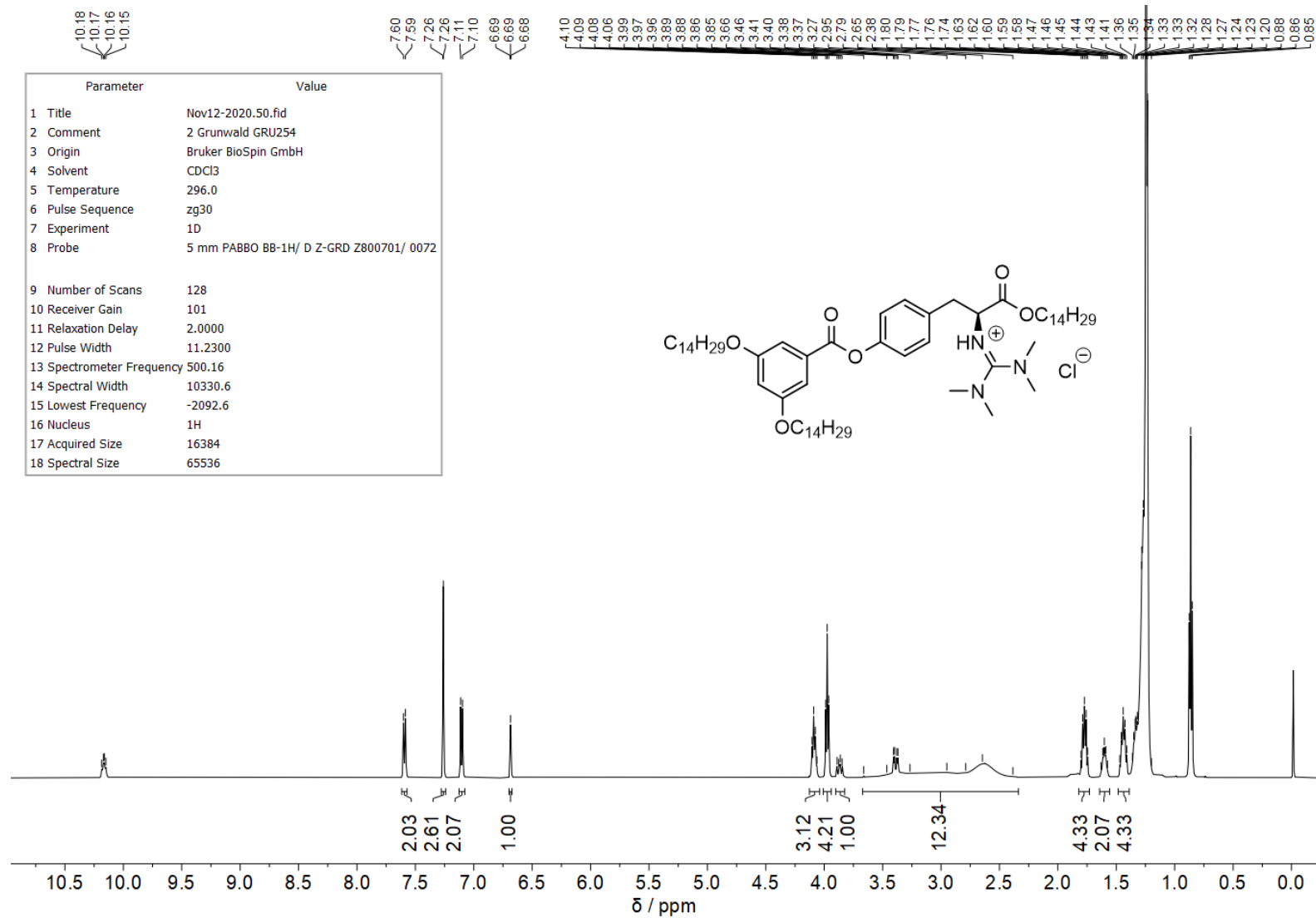
3,5-C₁₂TyrC₁₄Cl

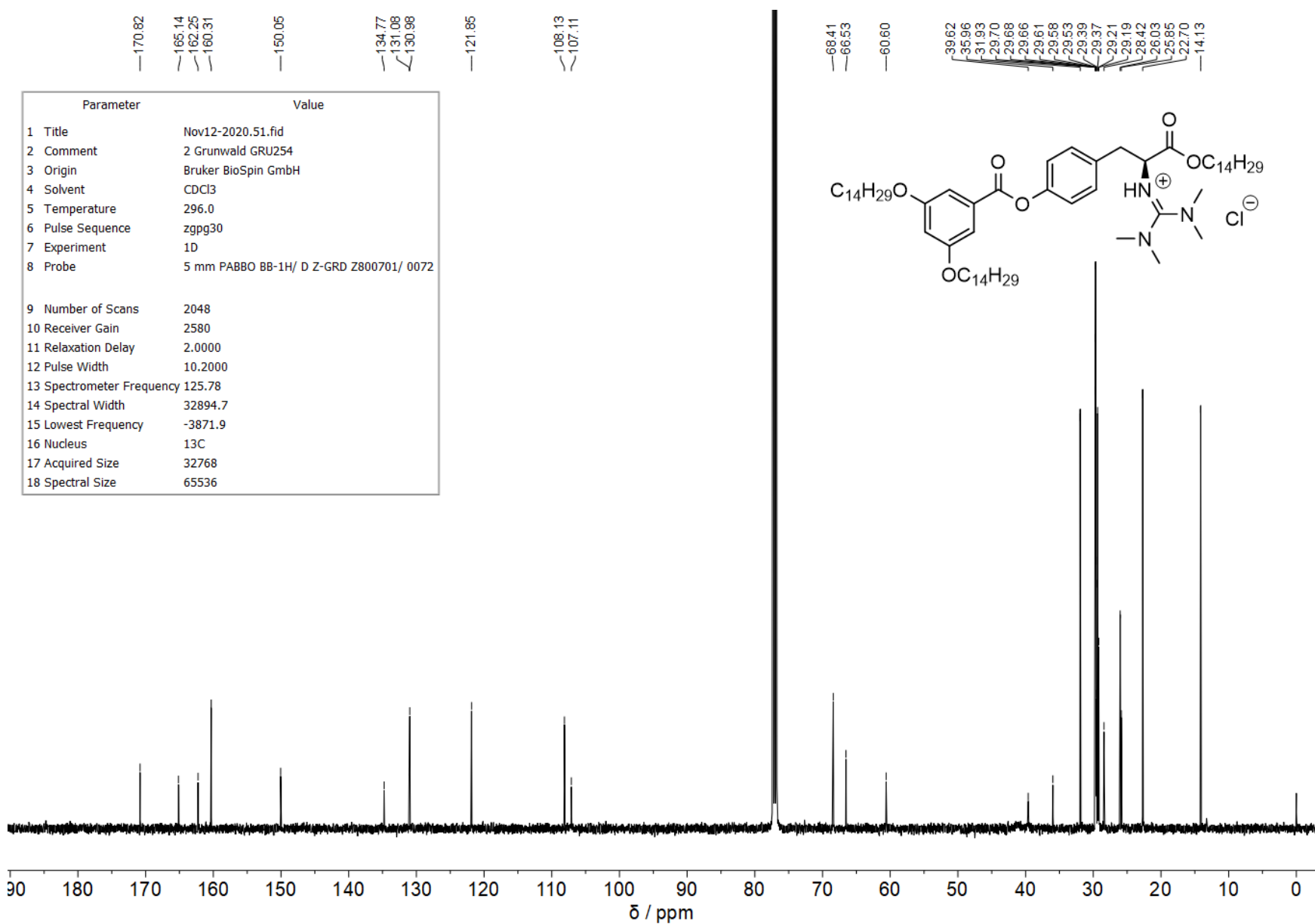


Parameter	Value
1 Title	Nov12-2020.40.fid
2 Comment	2 Grunwald GRU251
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl ₃
5 Temperature	296.0
6 Pulse Sequence	zg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	128
10 Receiver Gain	128
11 Relaxation Delay	2.0000
12 Pulse Width	11.2300
13 Spectrometer Frequency	500.16
14 Spectral Width	10330.6
15 Lowest Frequency	-2093.0
16 Nucleus	1H
17 Acquired Size	16384
18 Spectral Size	65536

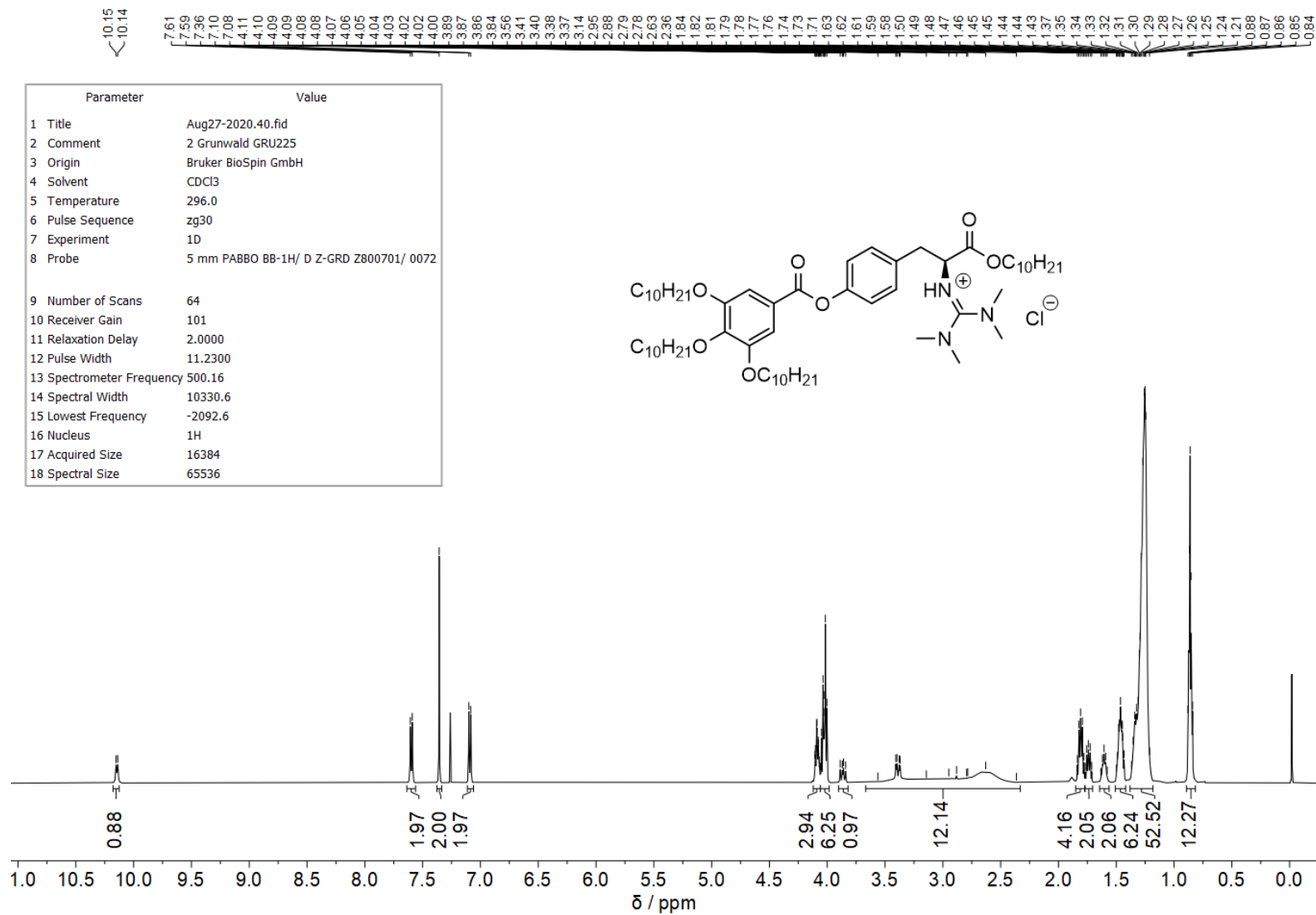


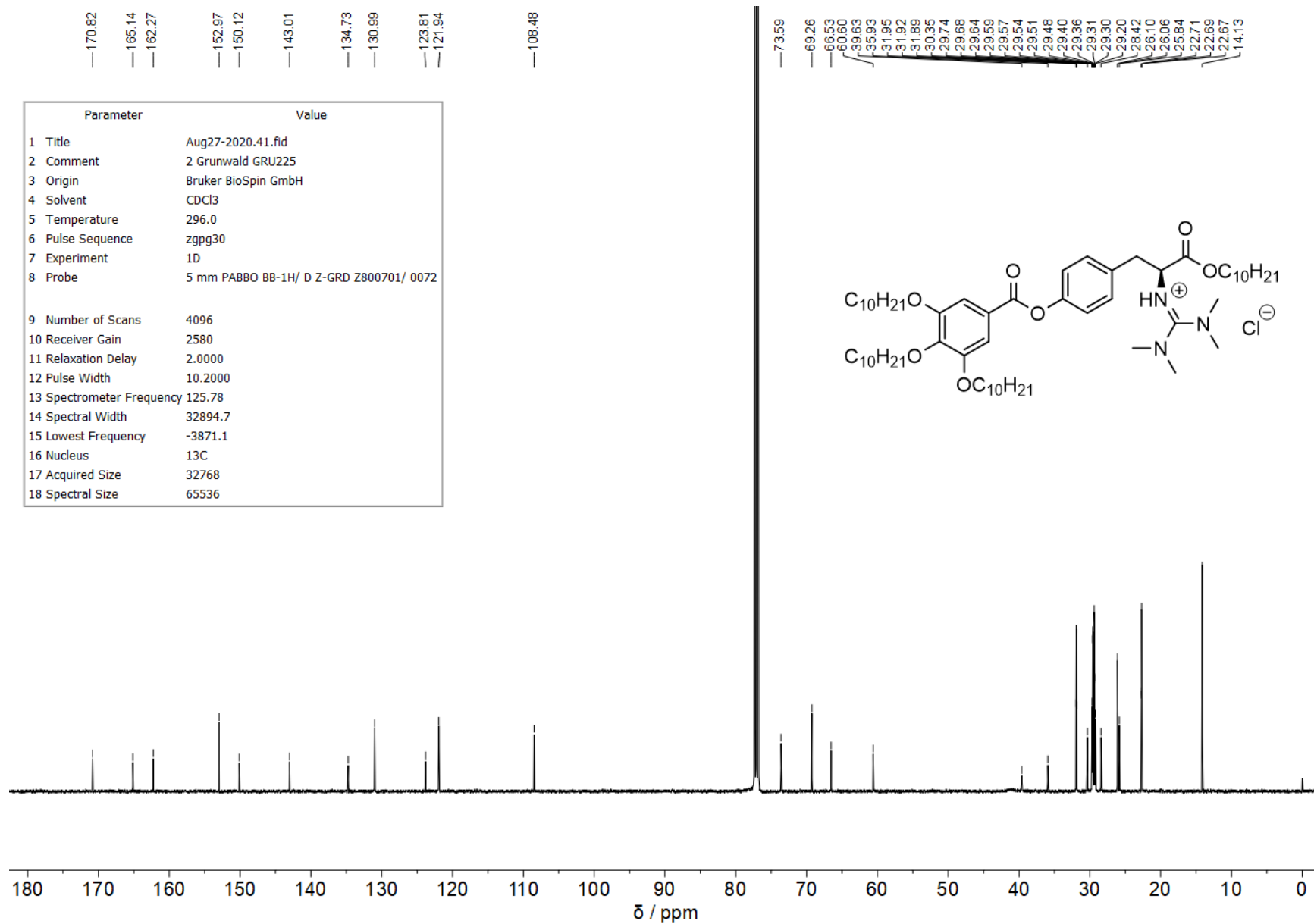
Parameter	Value
1 Title	Nov12-2020.41.fid
2 Comment	2 Grunwald GRU251
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3871.9
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

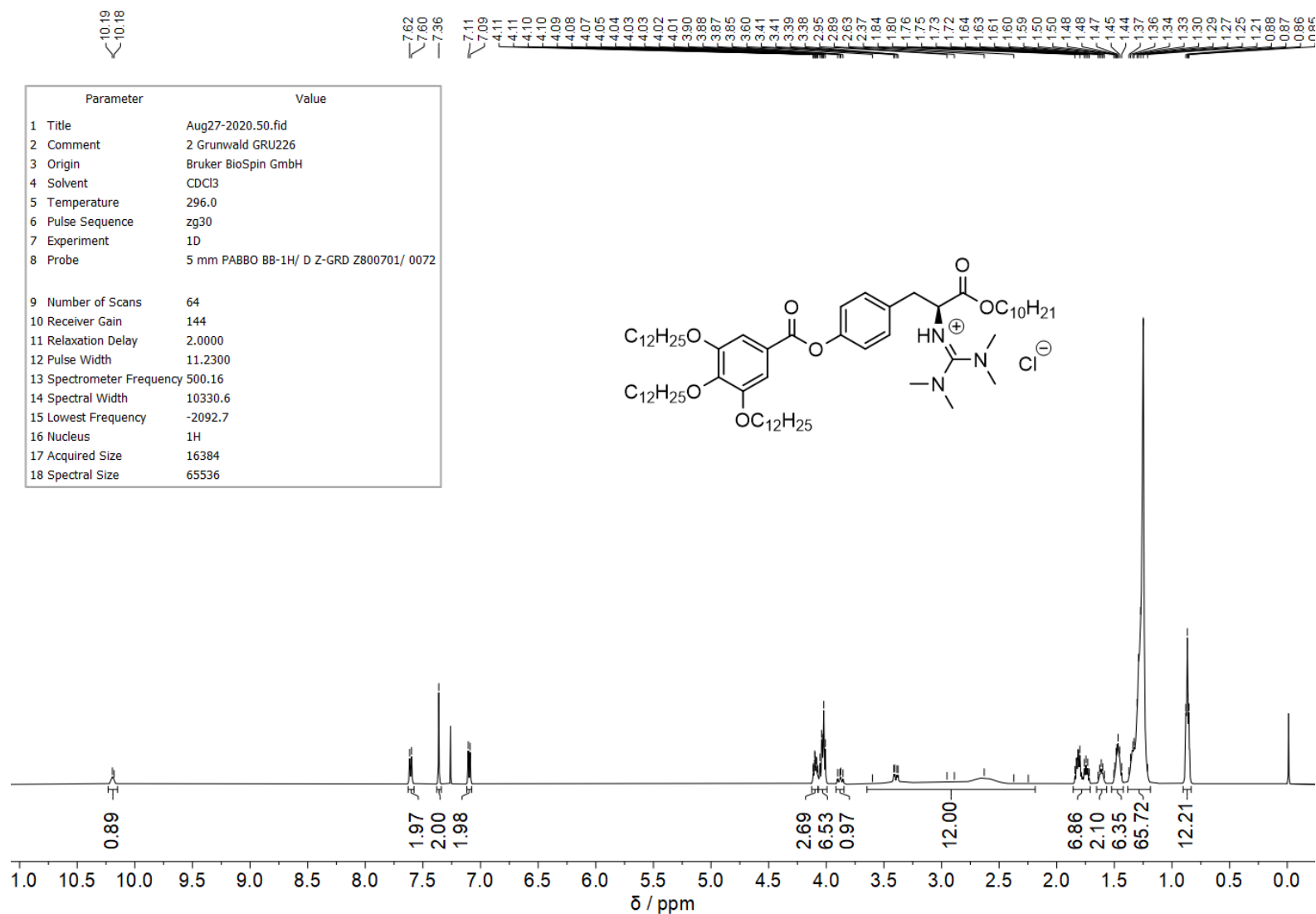
3,5-C₁₄TyrC₁₄Cl

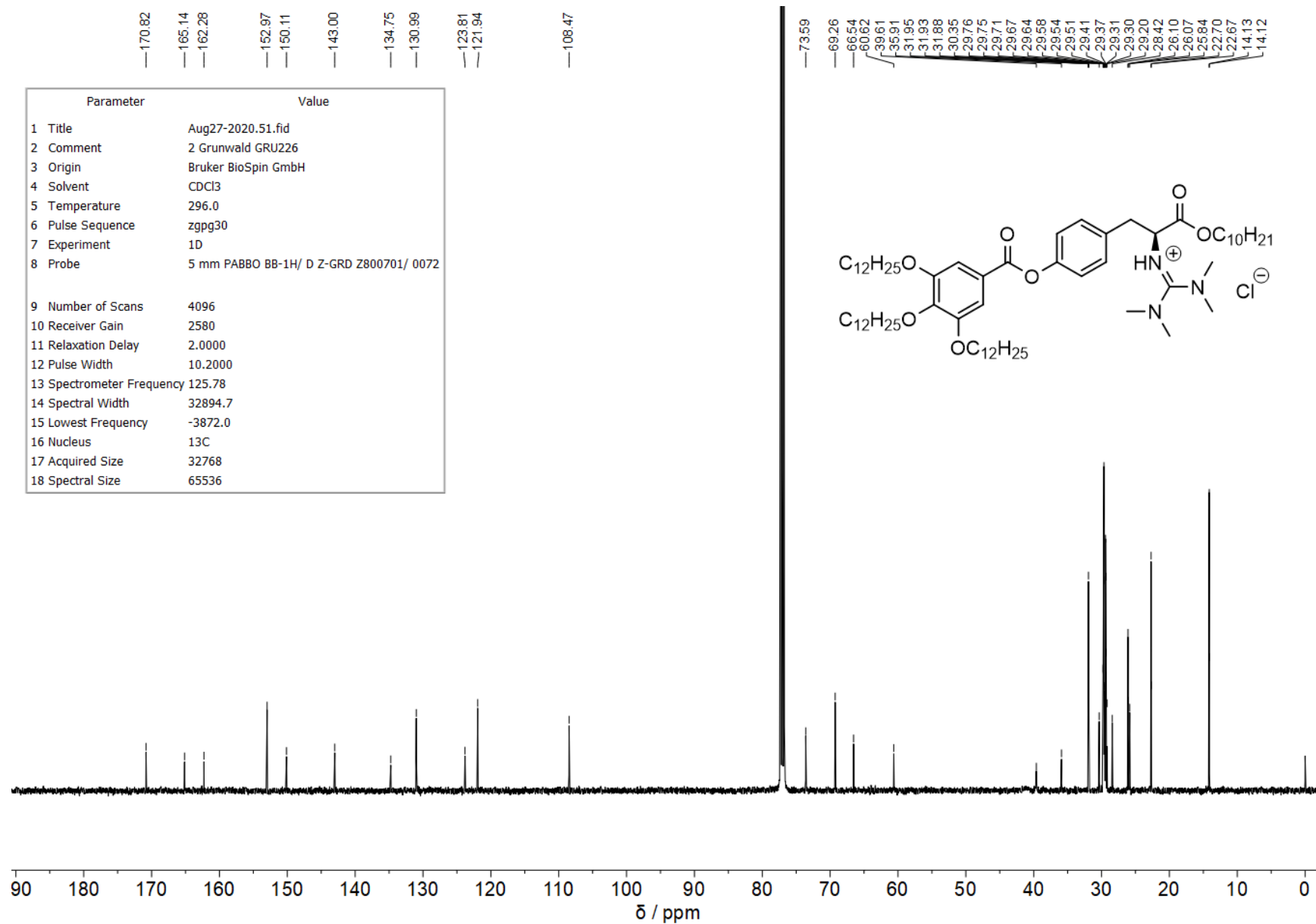


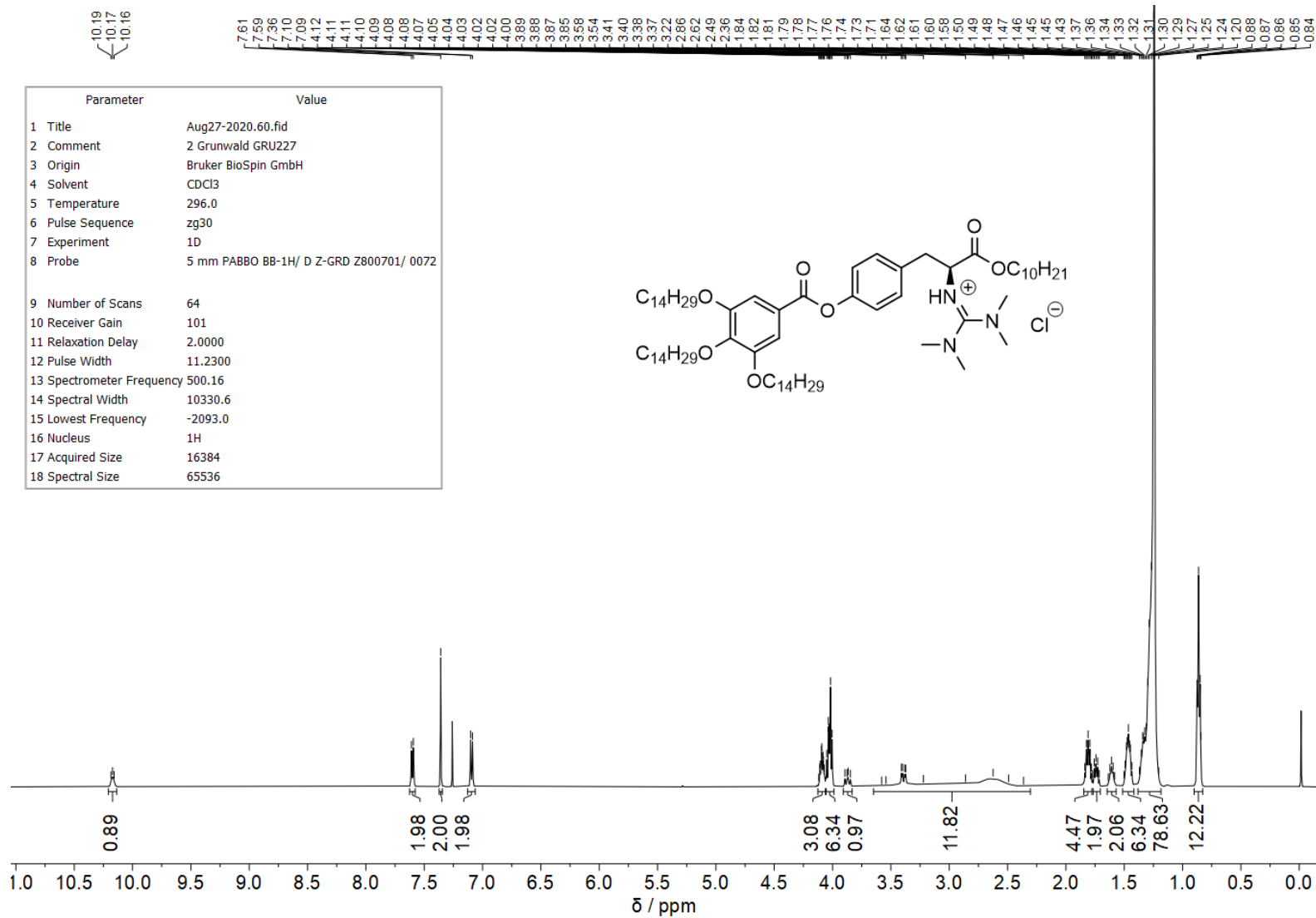
Parameter	Value
1 Title	Nov12-2020.51.fid
2 Comment	2 Grunwald GRU254
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3871.9
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

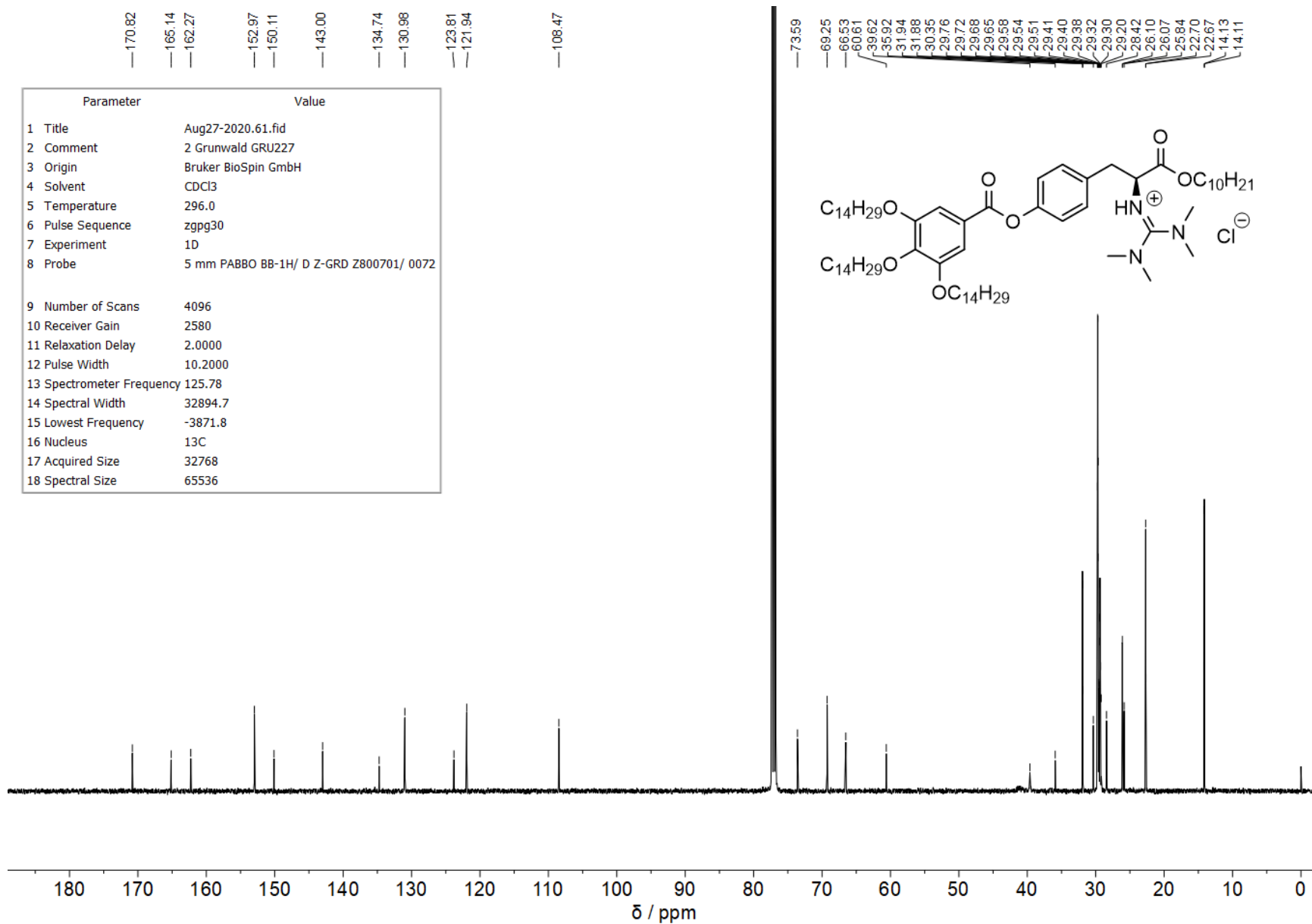
3,4,5-C₁₀TyrC₁₀Cl

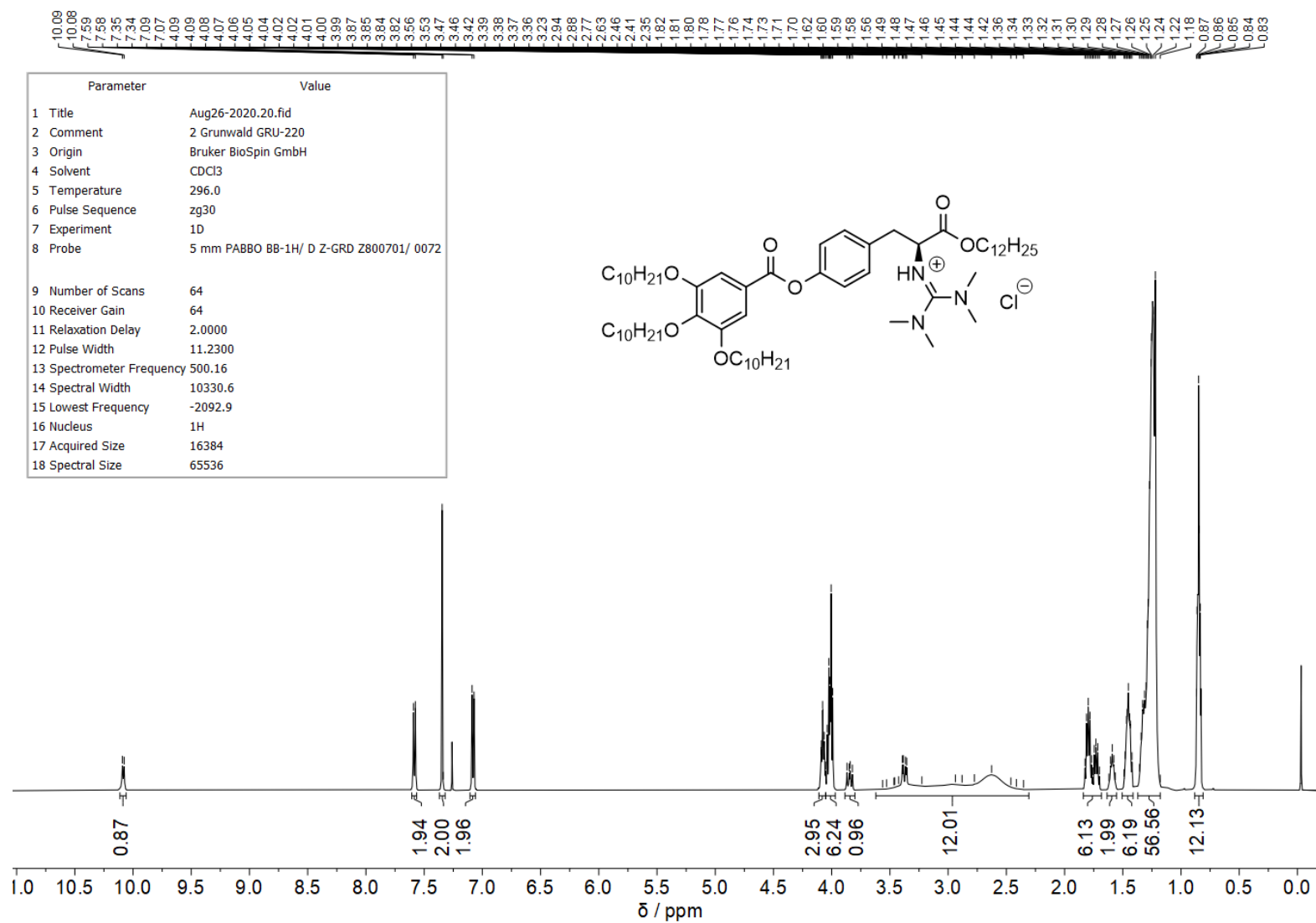


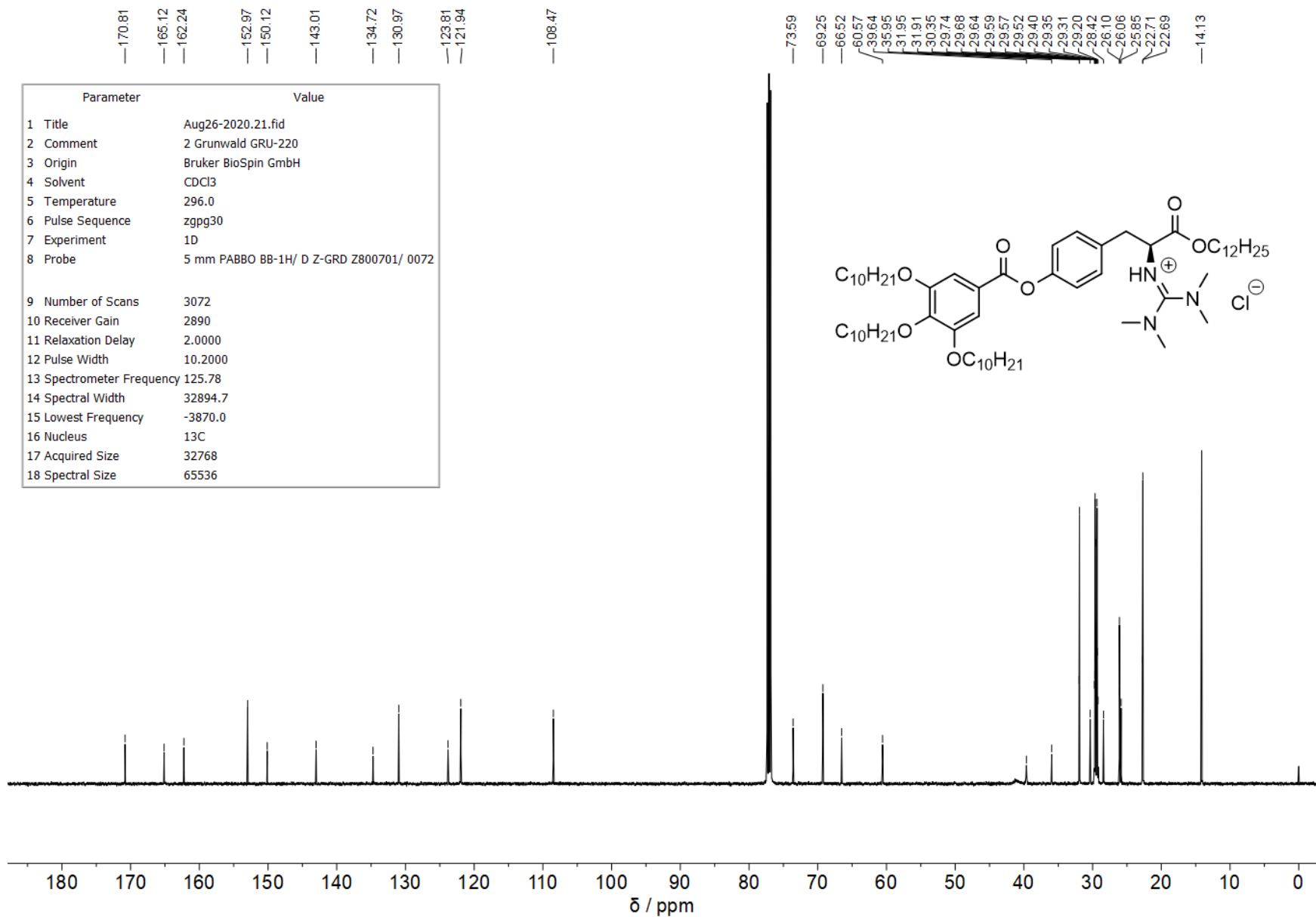
3,4,5-C₁₂TyrC₁₀Cl



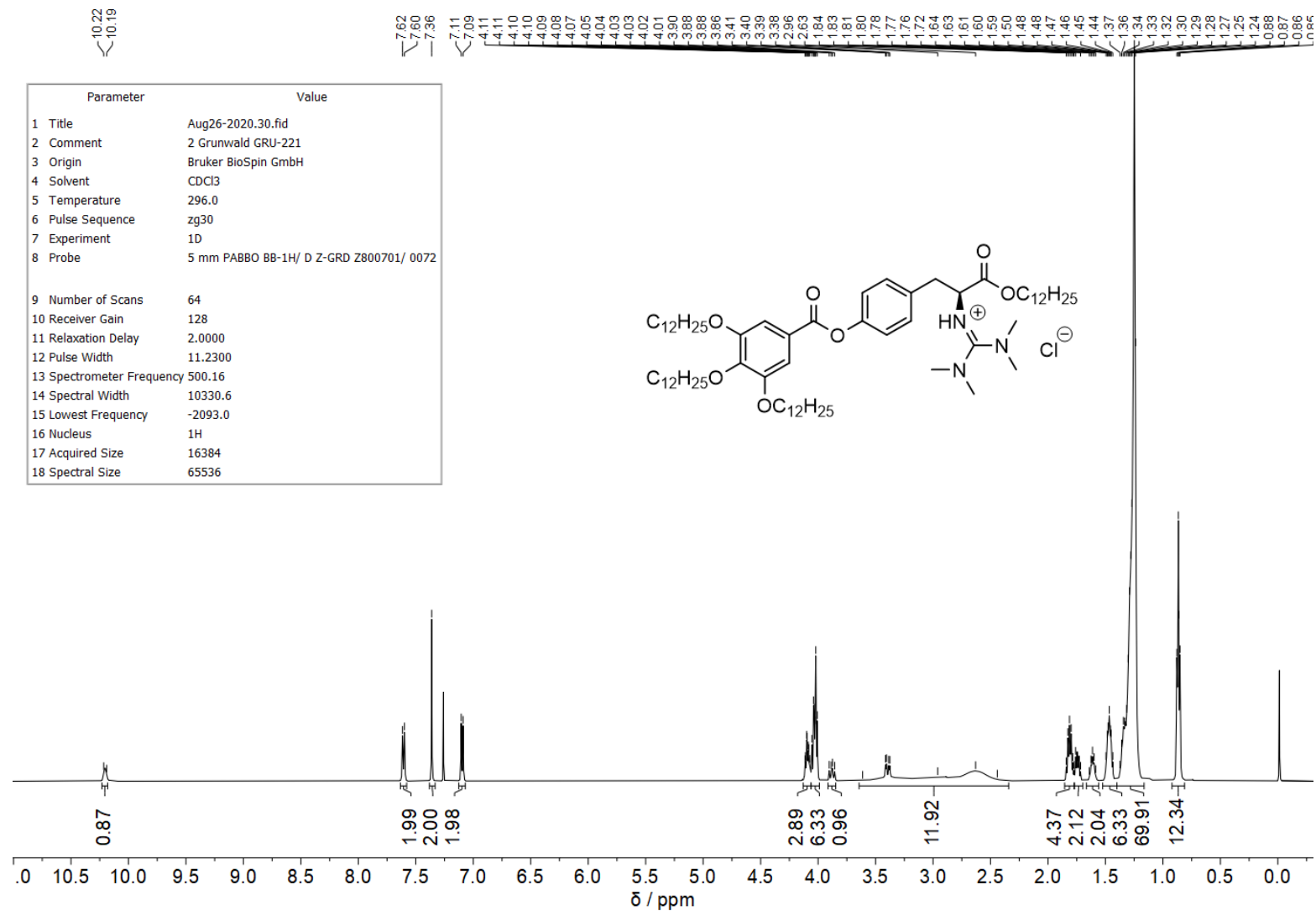
3,4,5-C₁₄TyrC₁₀Cl

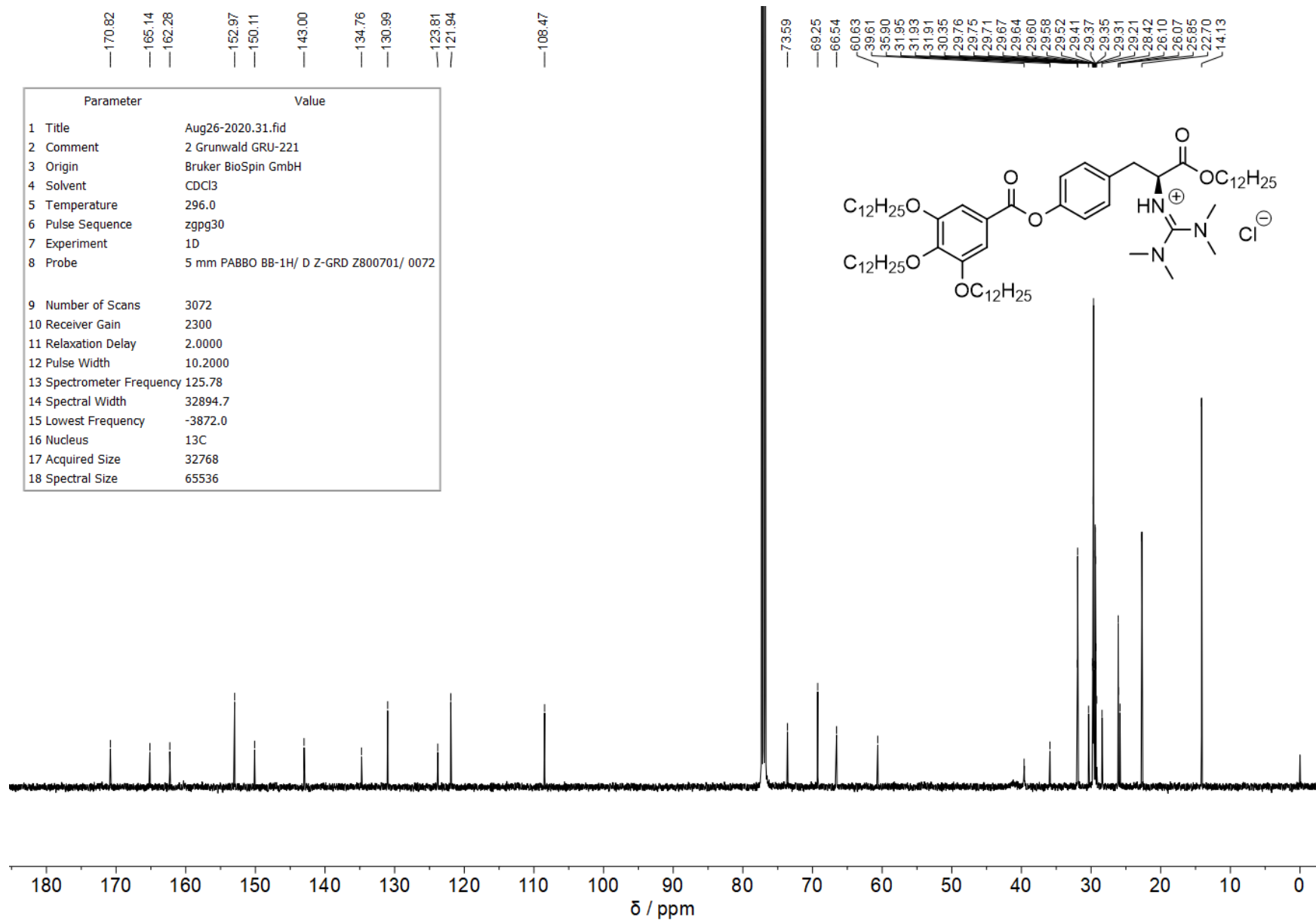


3,4,5-C₁₀TyrC₁₂Cl

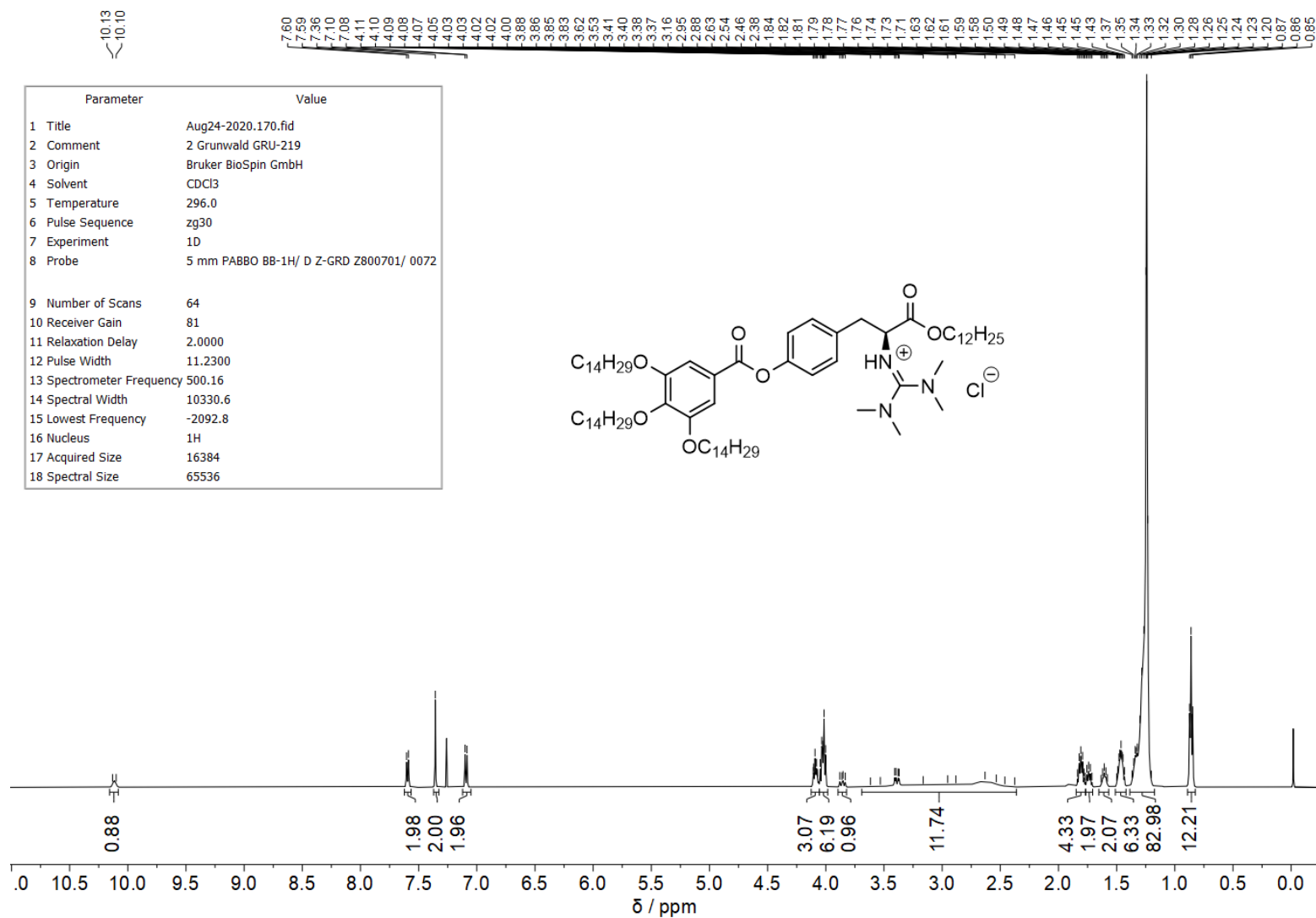


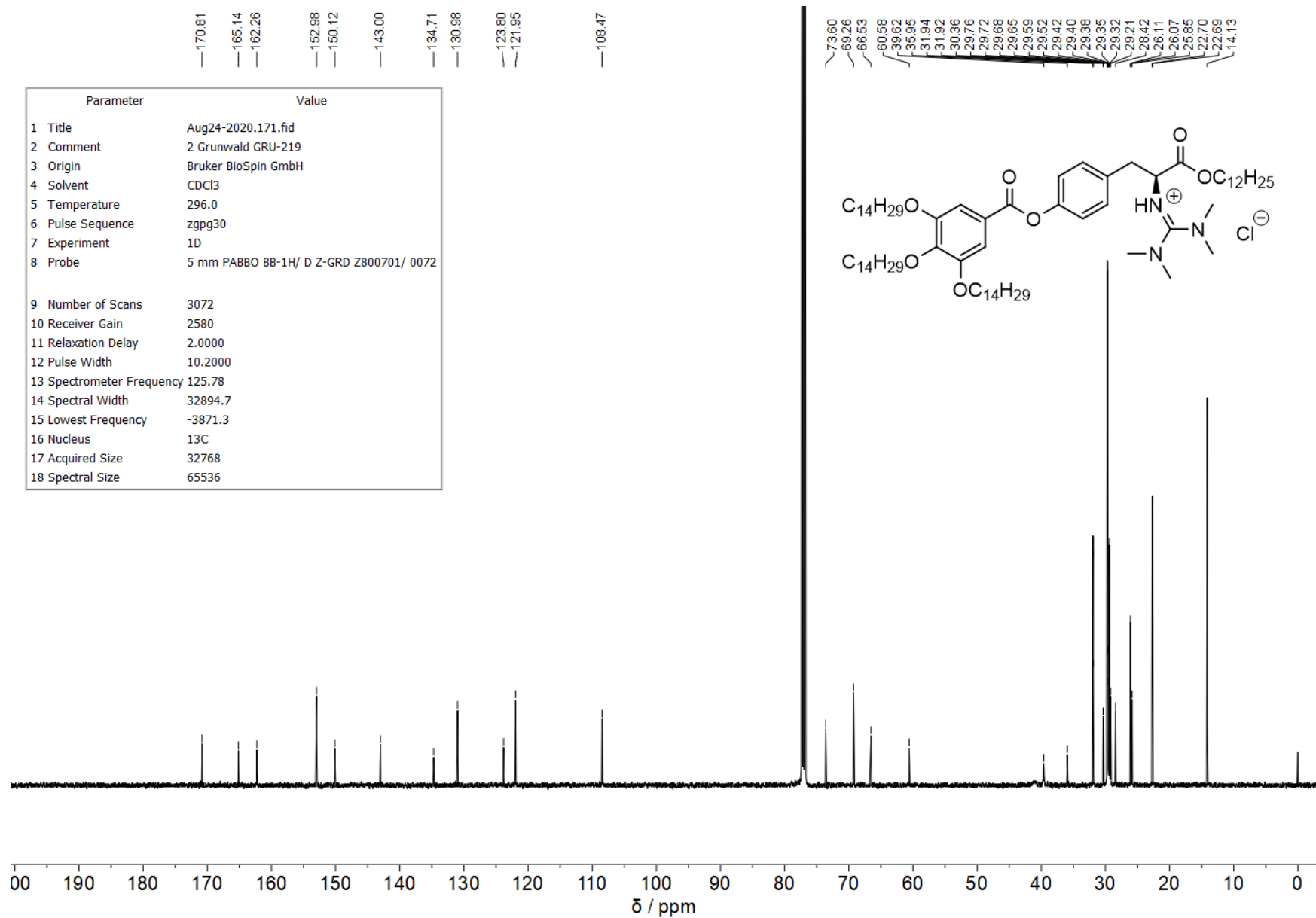
3,4,5-C12TyrC12Cl

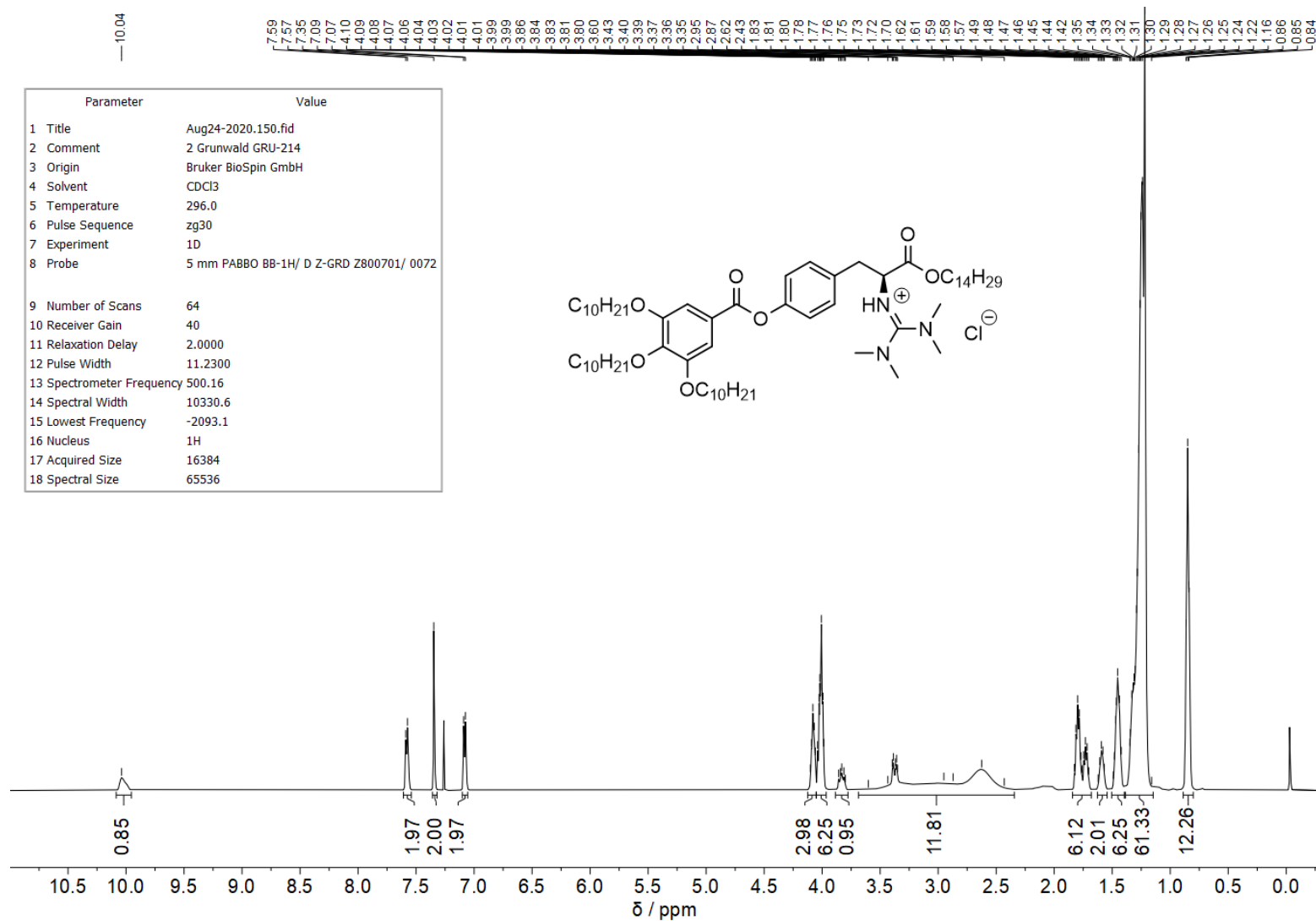


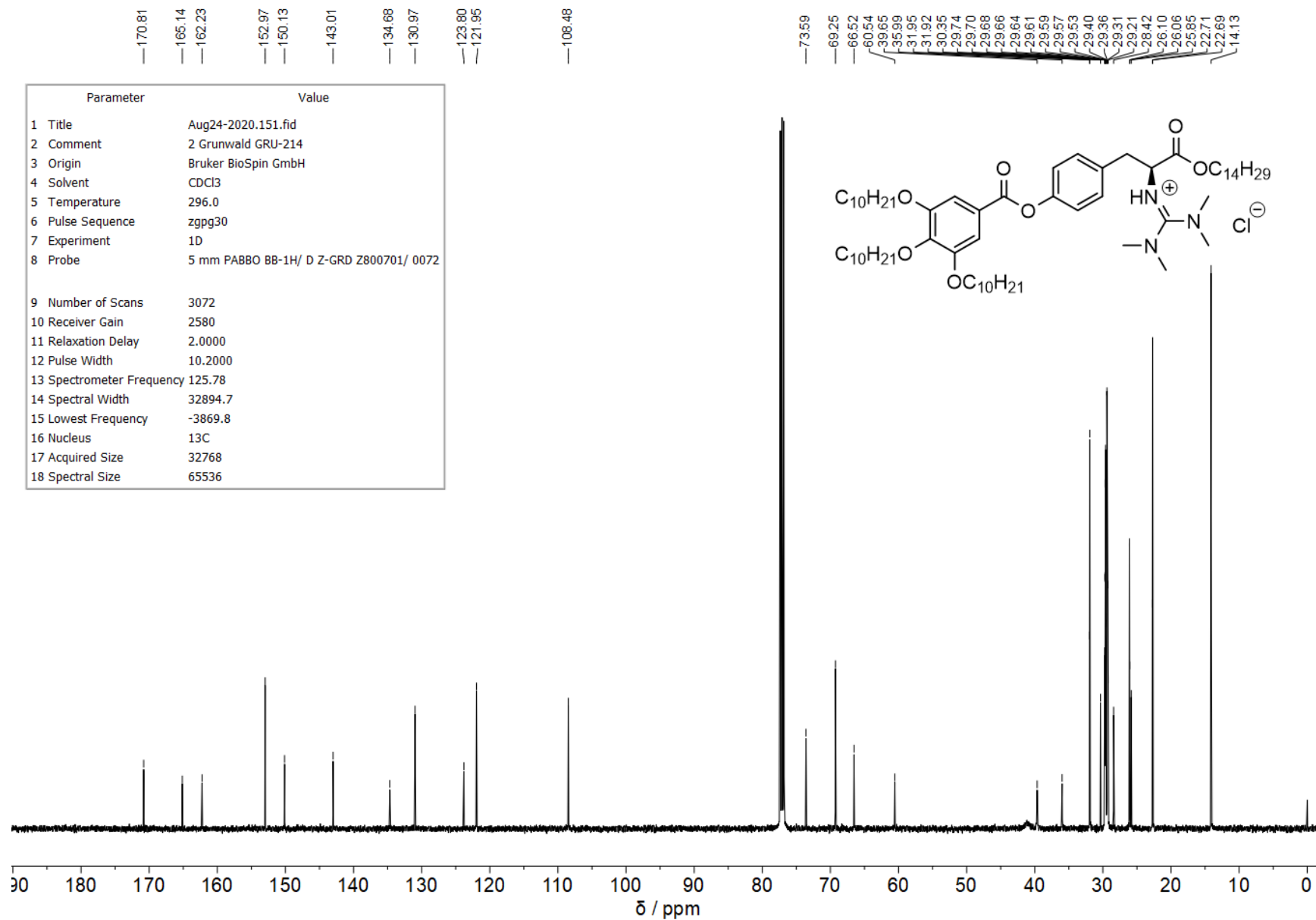


3,4,5-C14TyrC12Cl

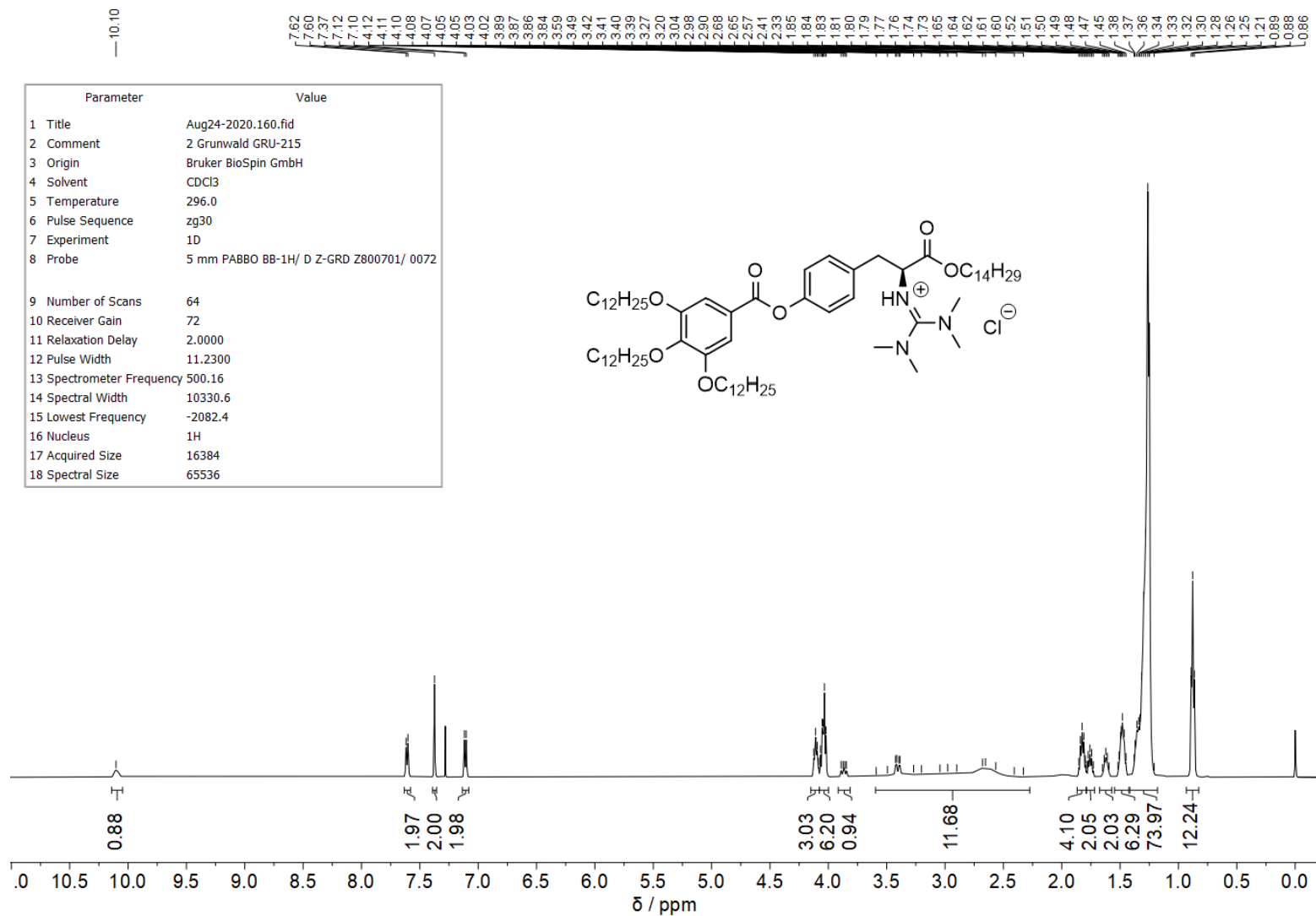


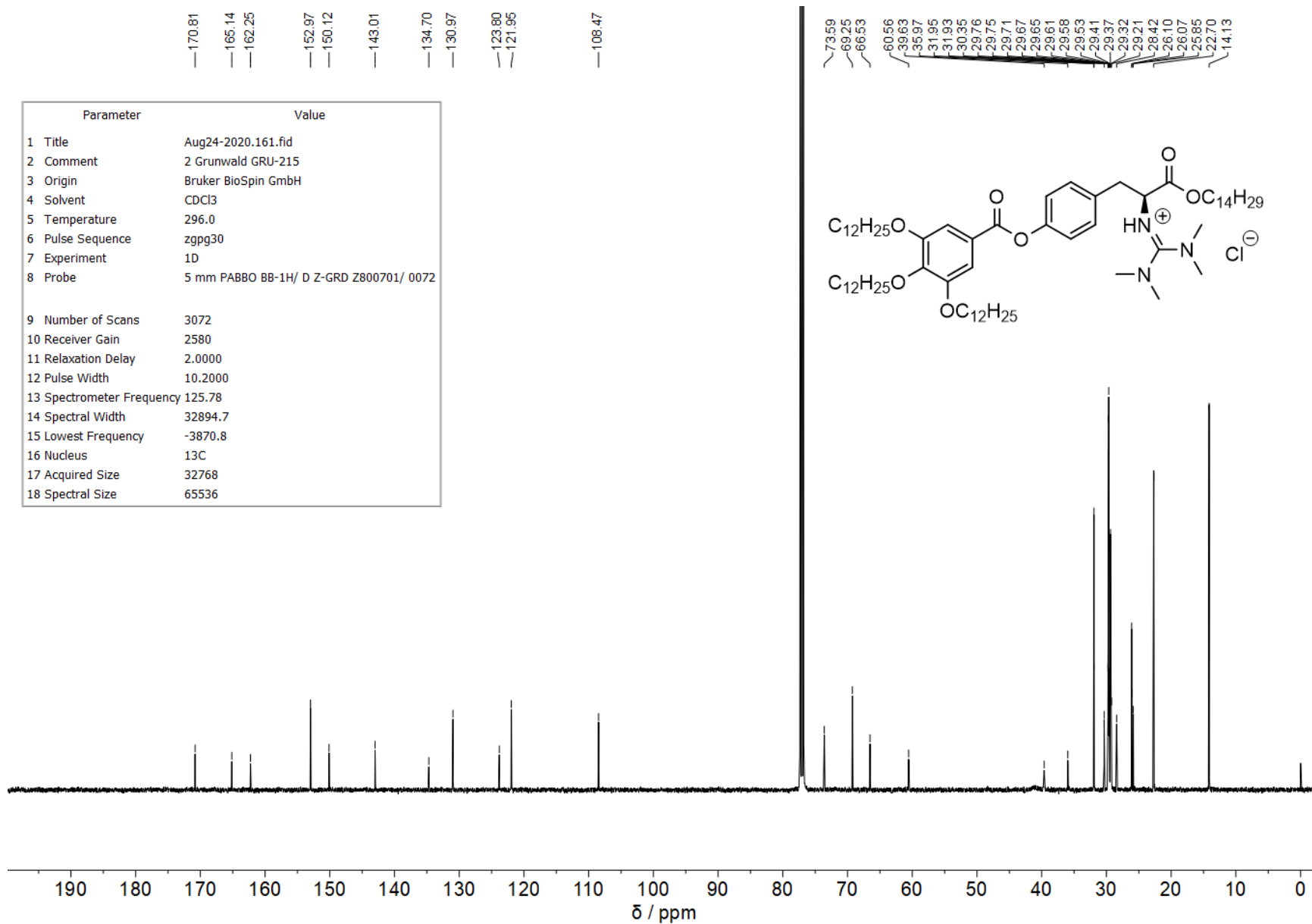


3,4,5-C₁₀TyrC₁₄Cl

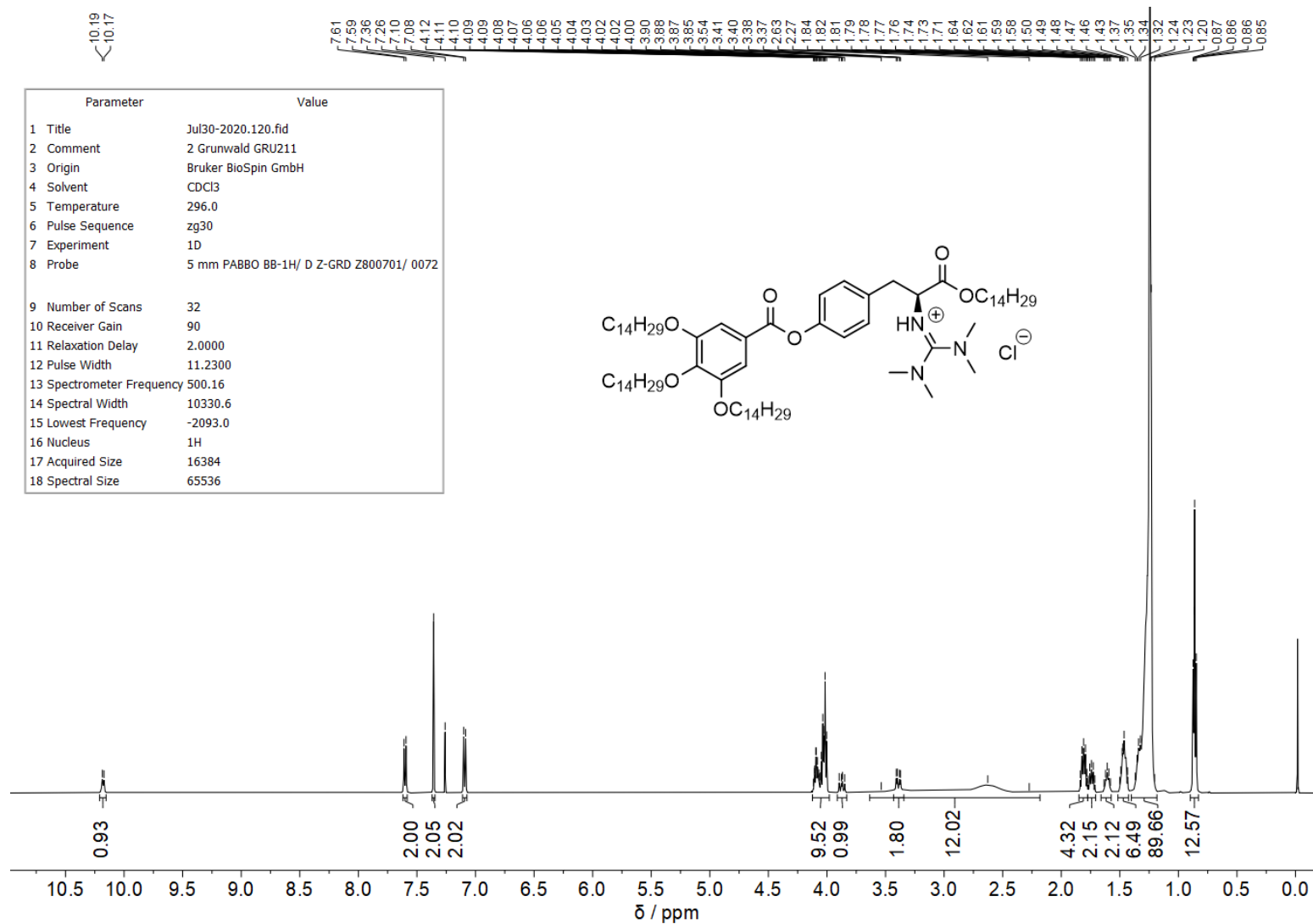


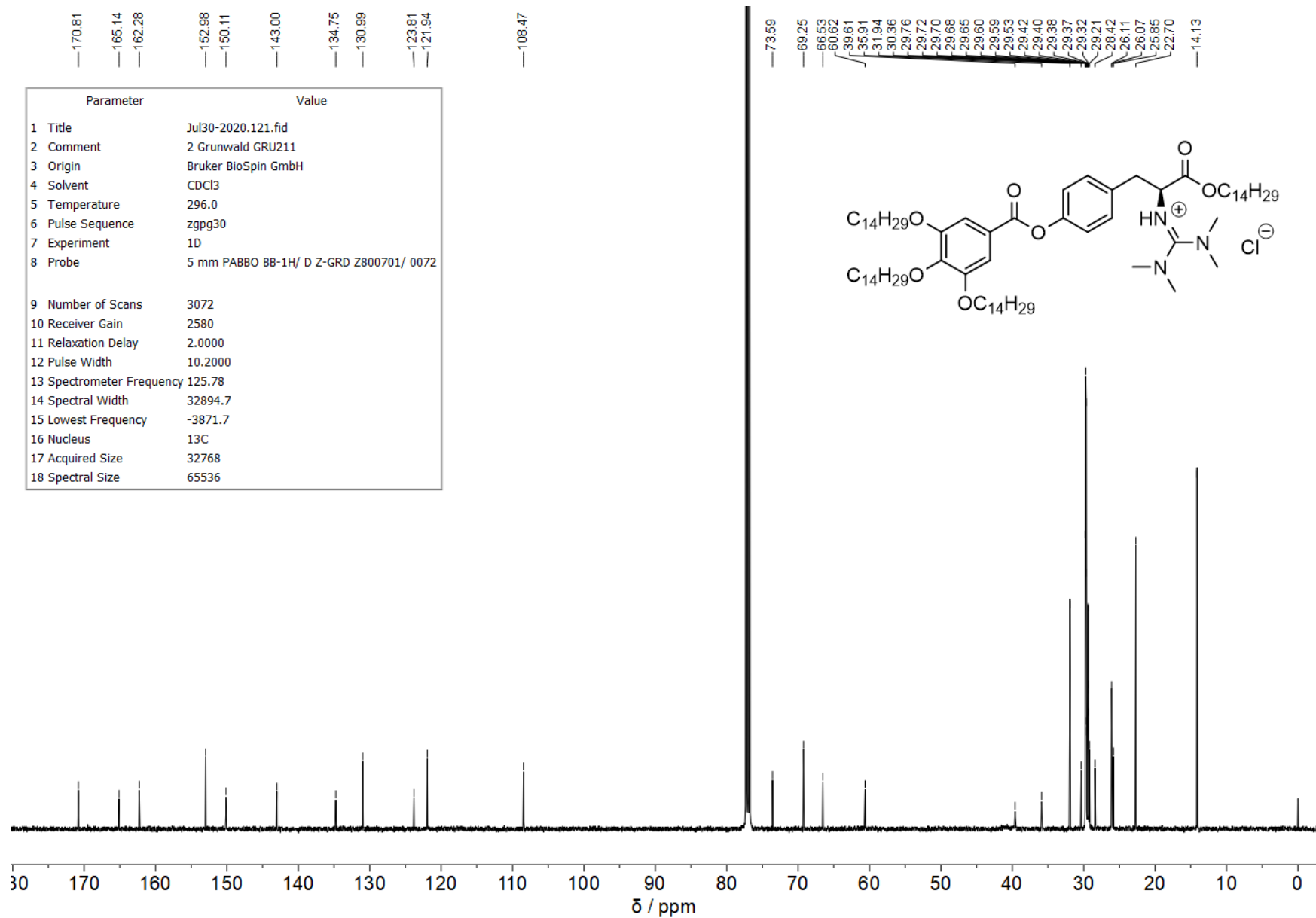
3,4,5-C12TyrC14Cl



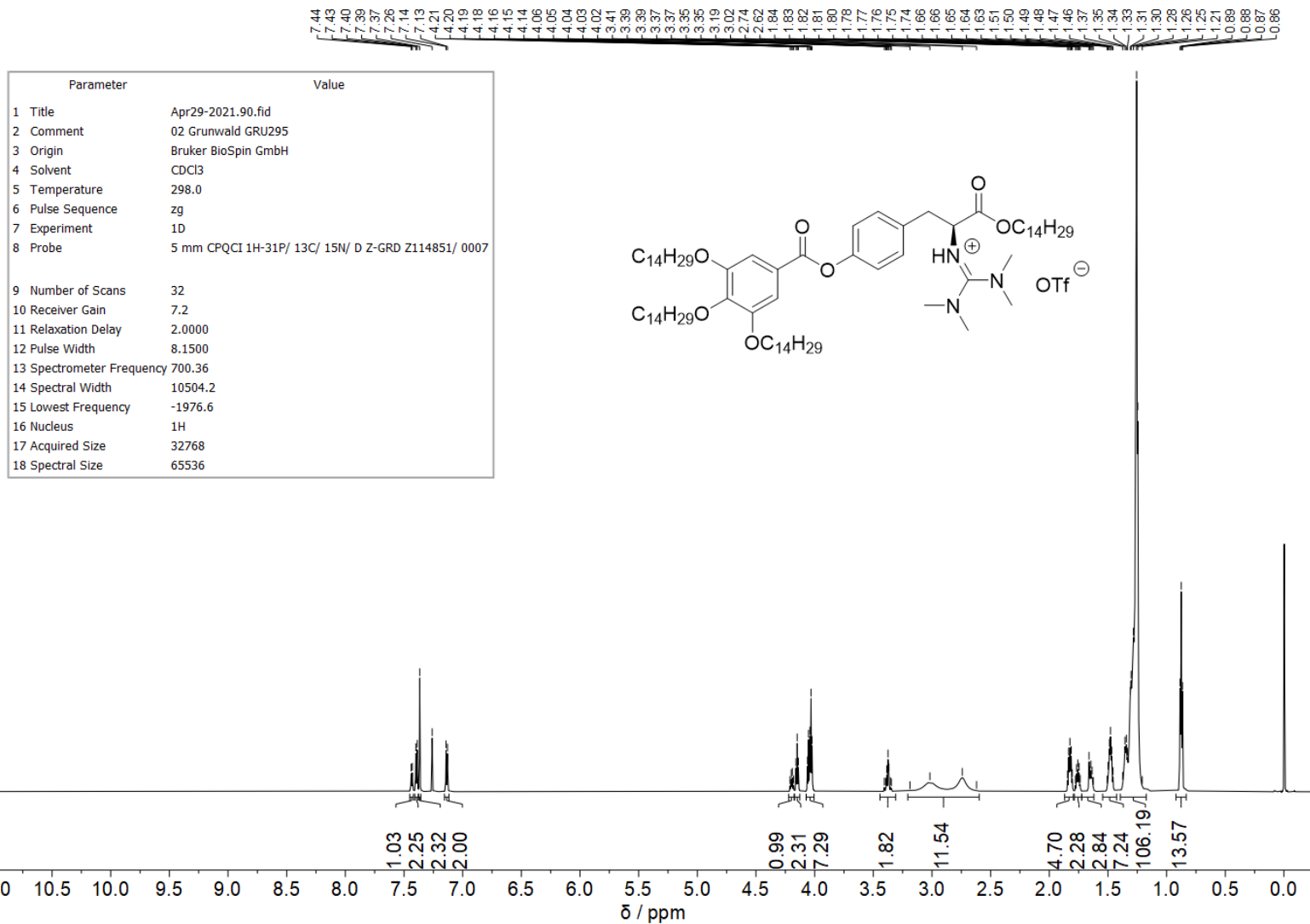


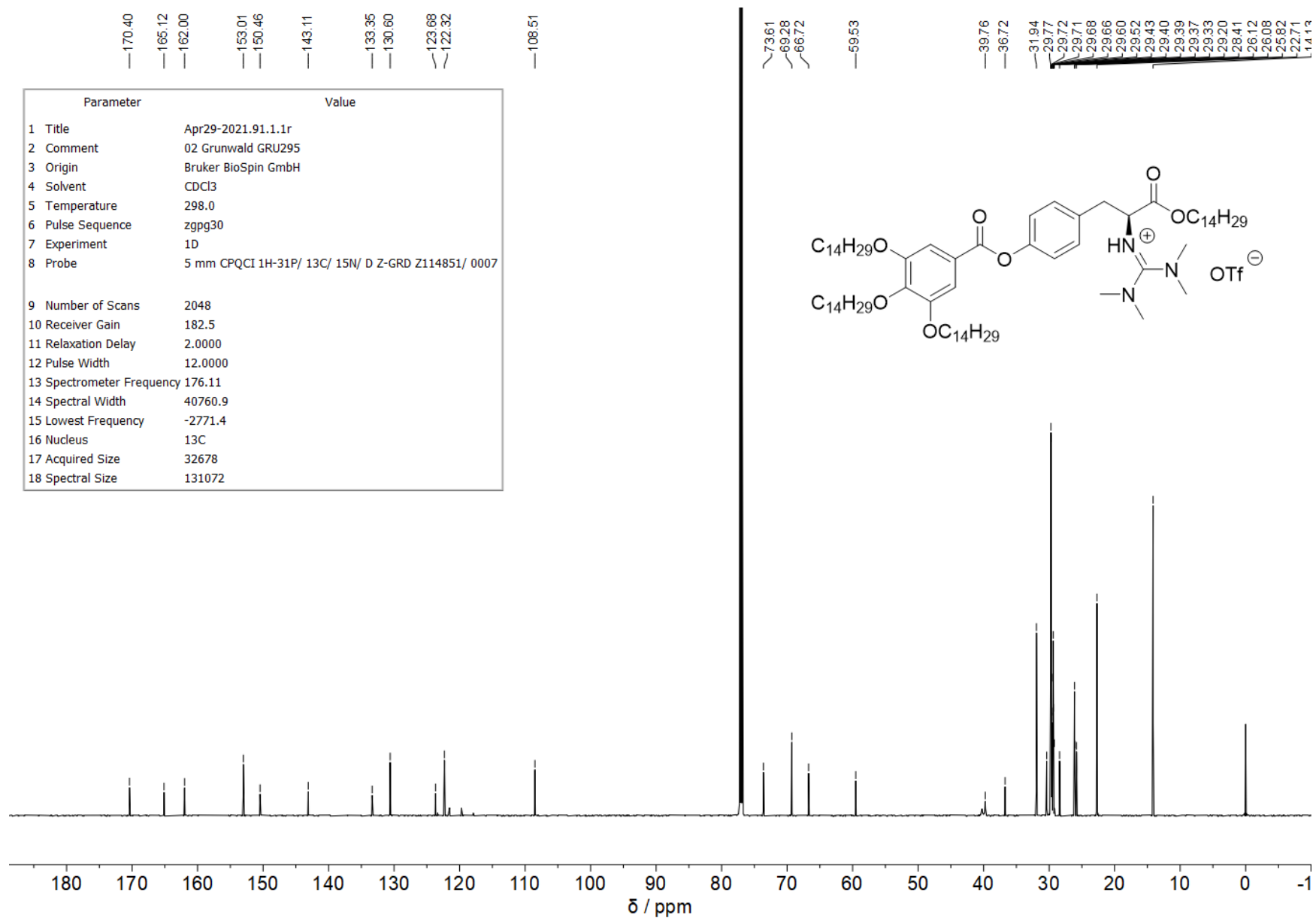
3,4,5-C14TyrC14Cl





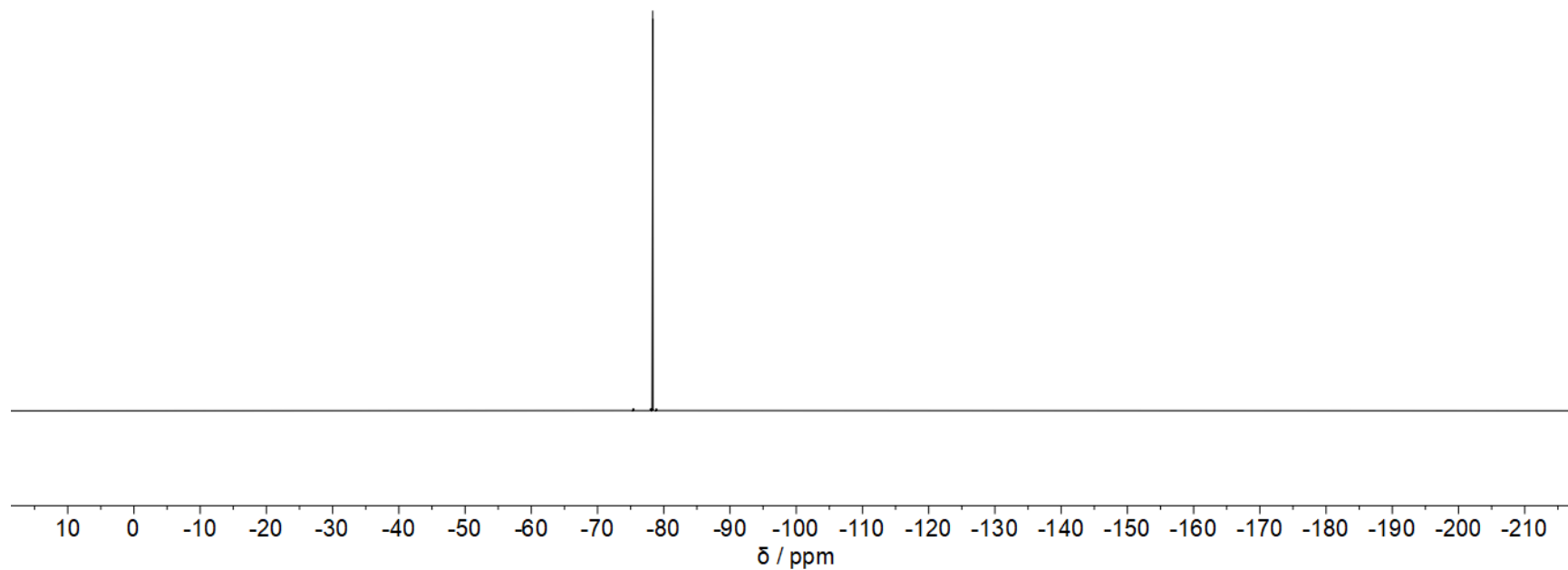
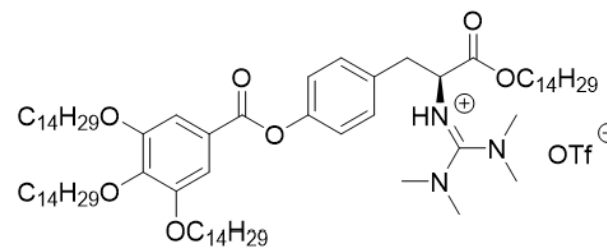
3,4,5-C₁₄TyrC₁₄OTf



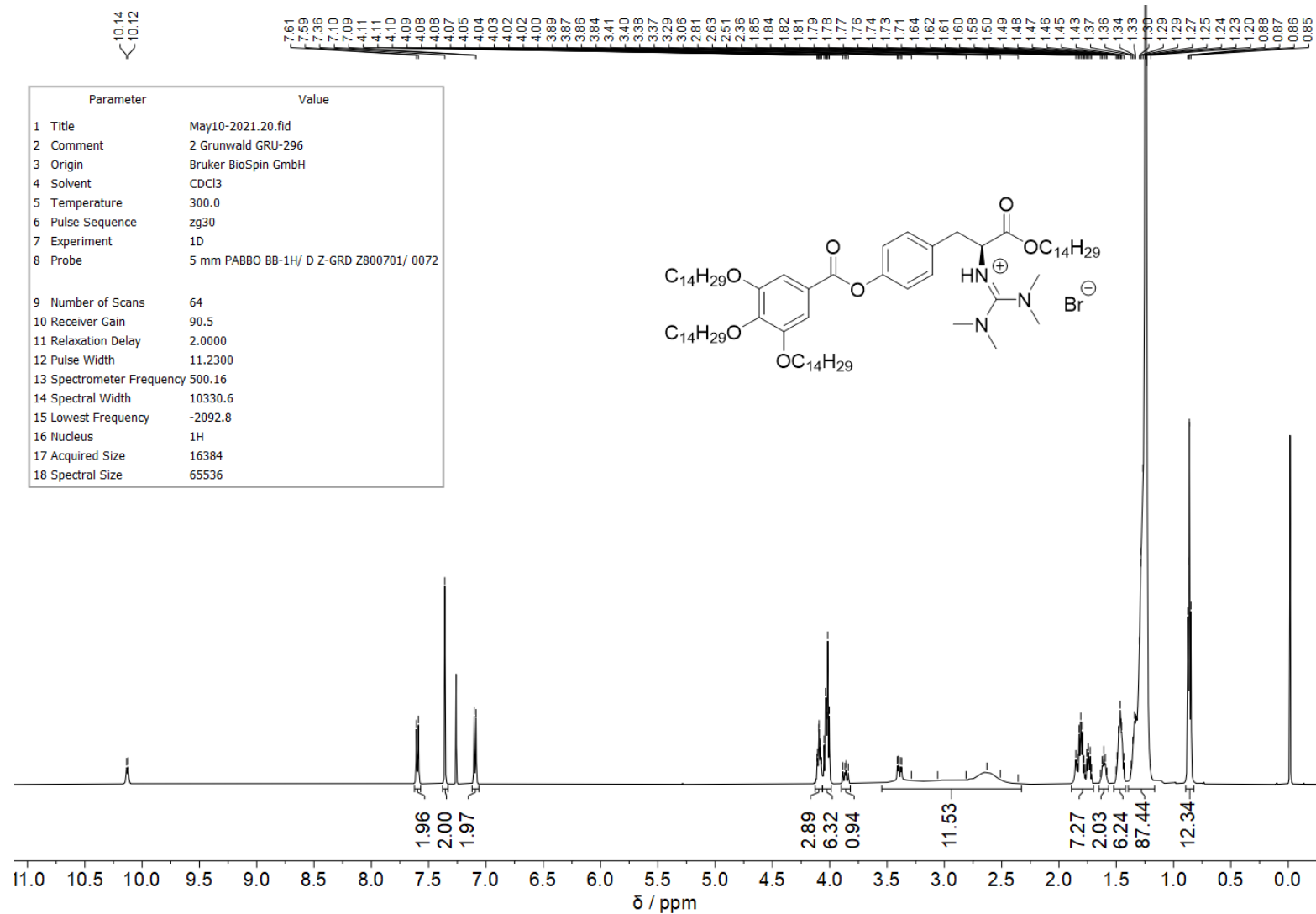


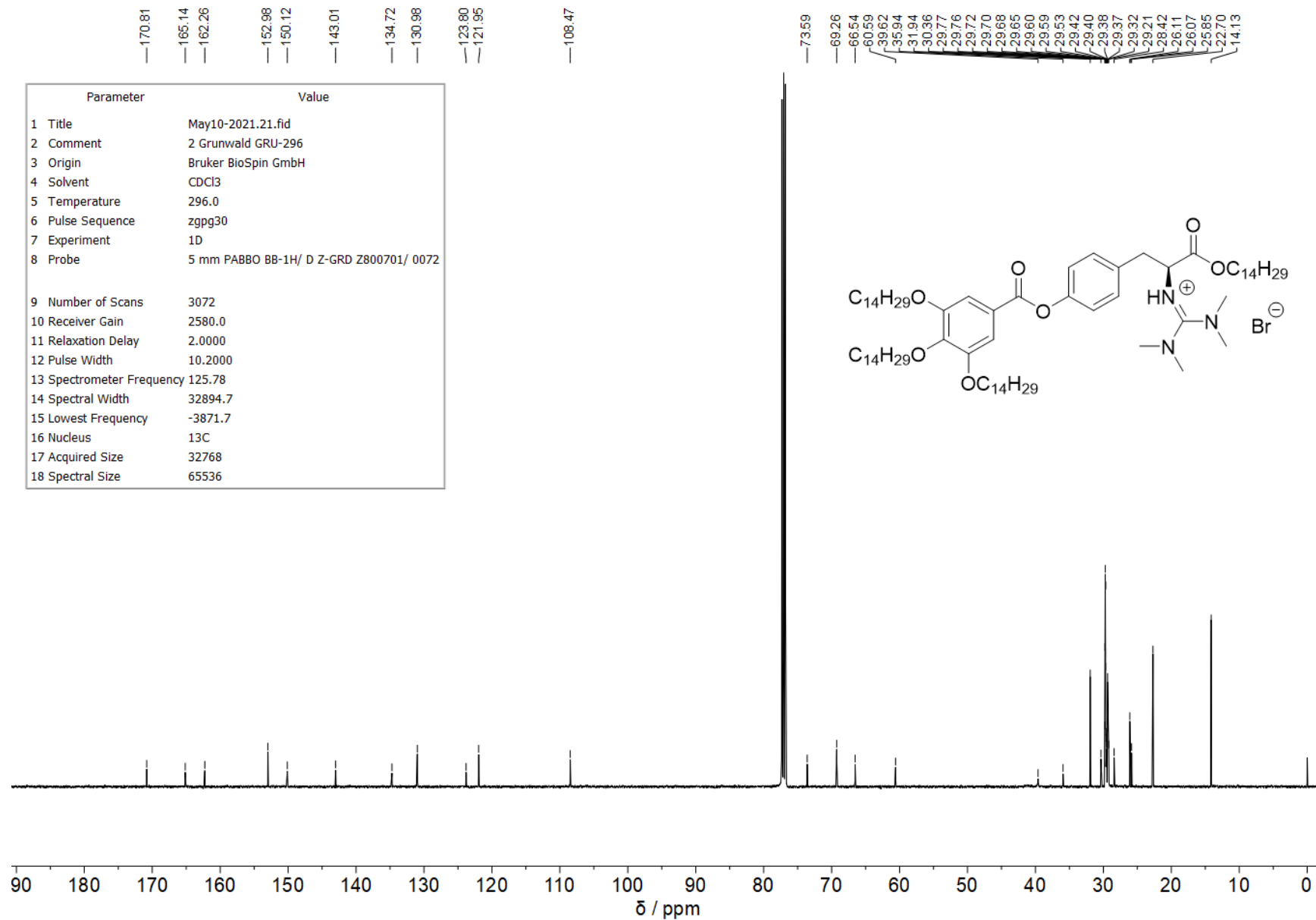
Parameter	Value
1 Title	May10-2021.212.fid
2 Comment	02 Grunwald GRU-295
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	32
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

-78.33

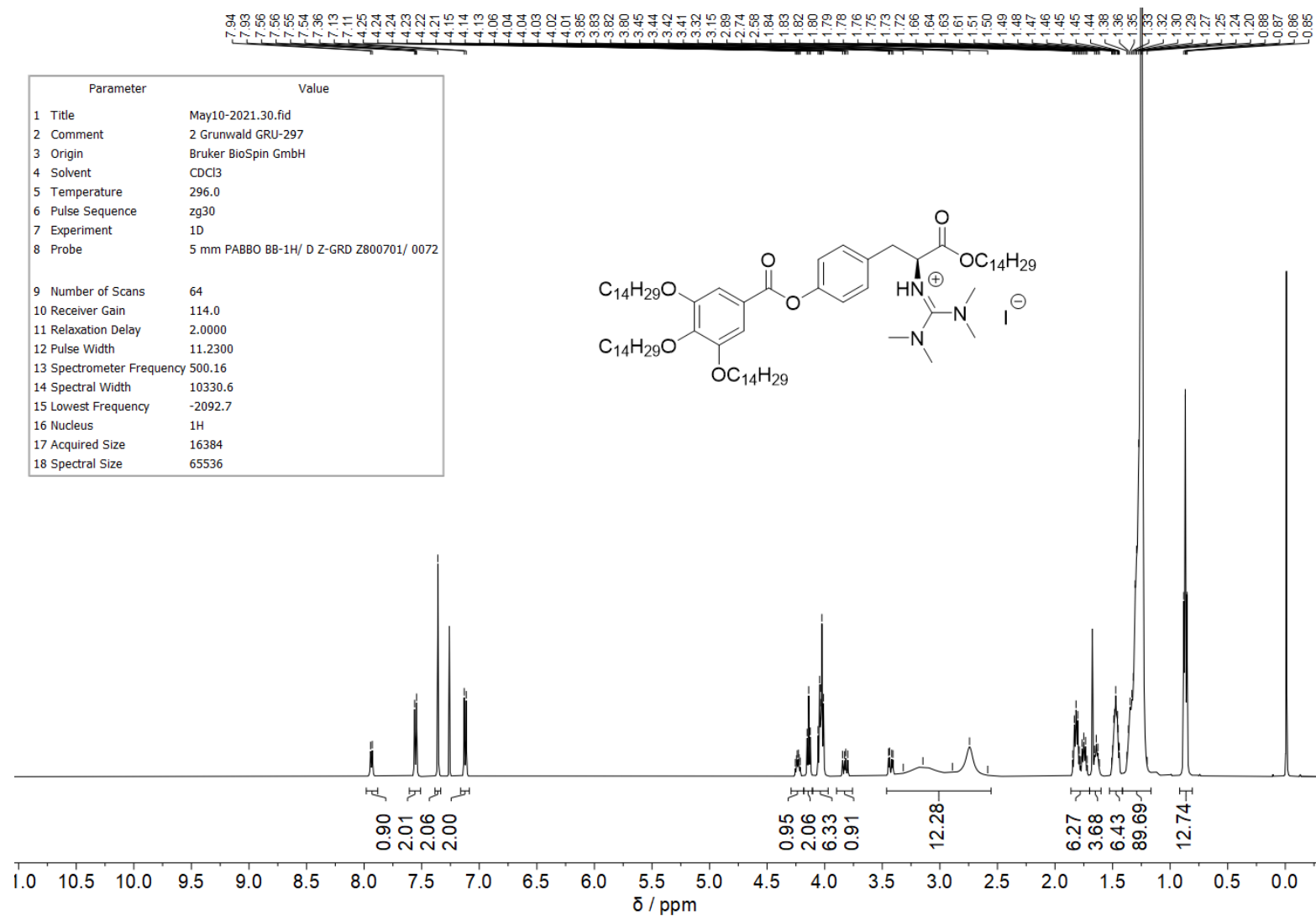


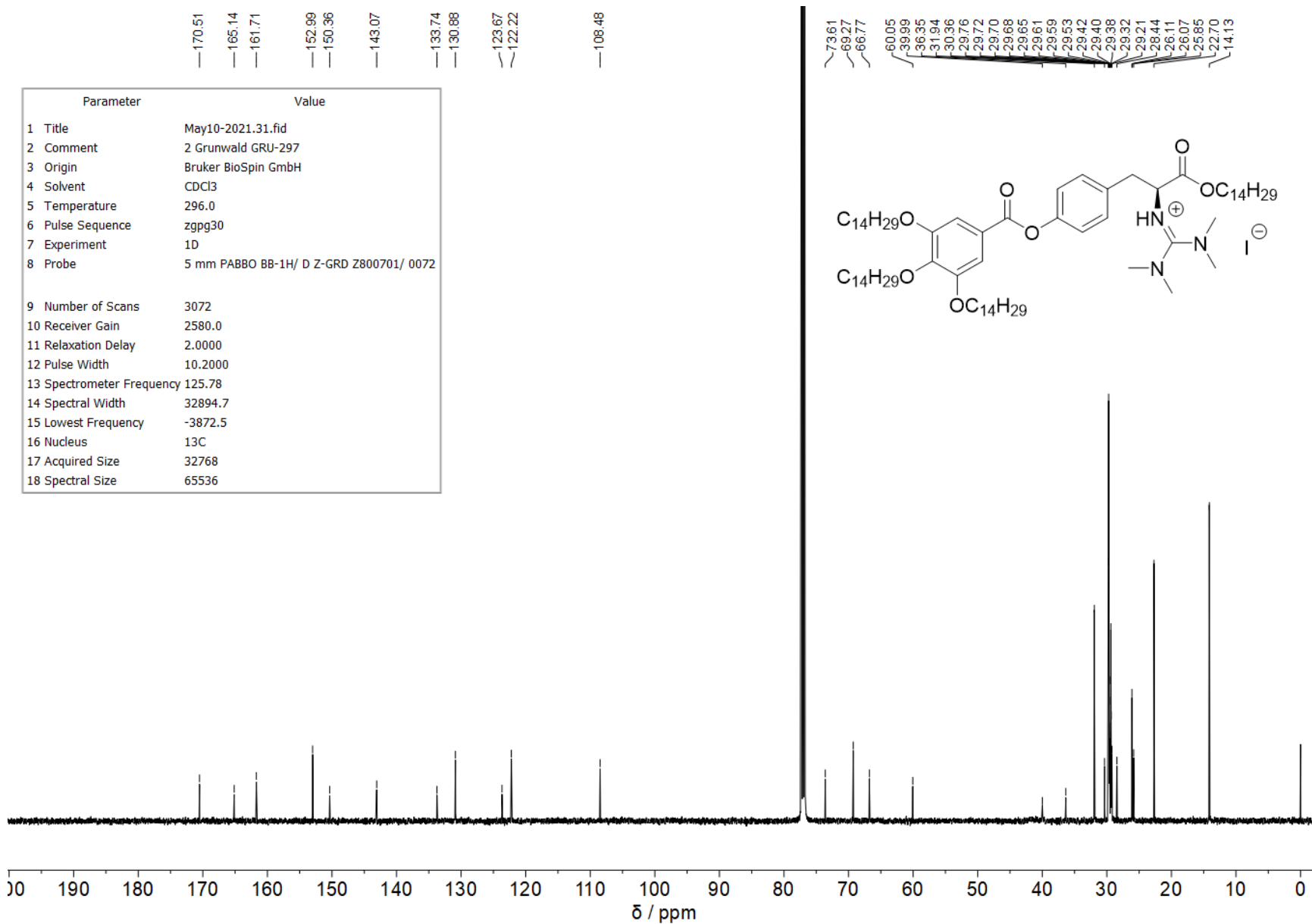
3,4,5-C₁₄TyrC₁₄Br

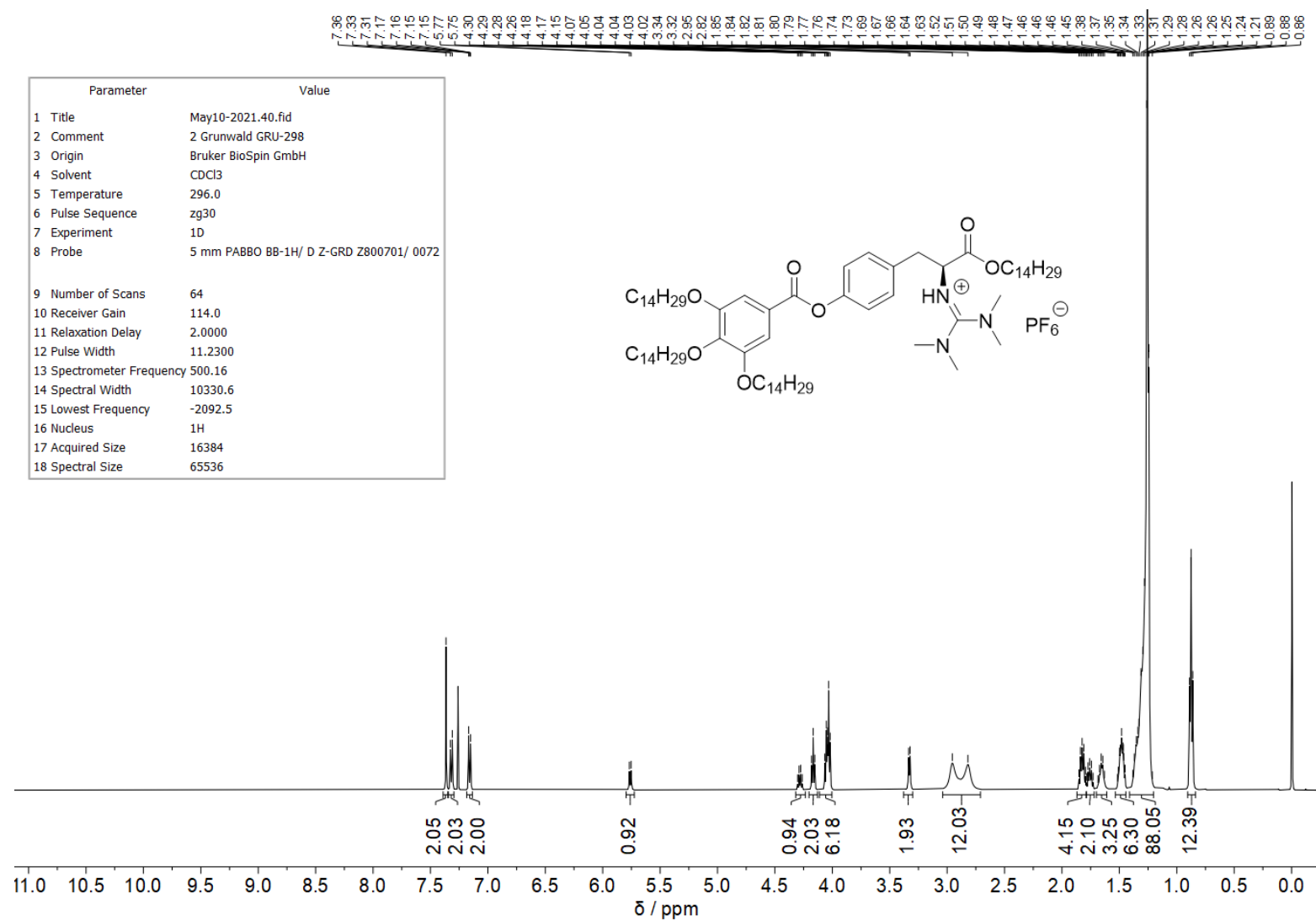


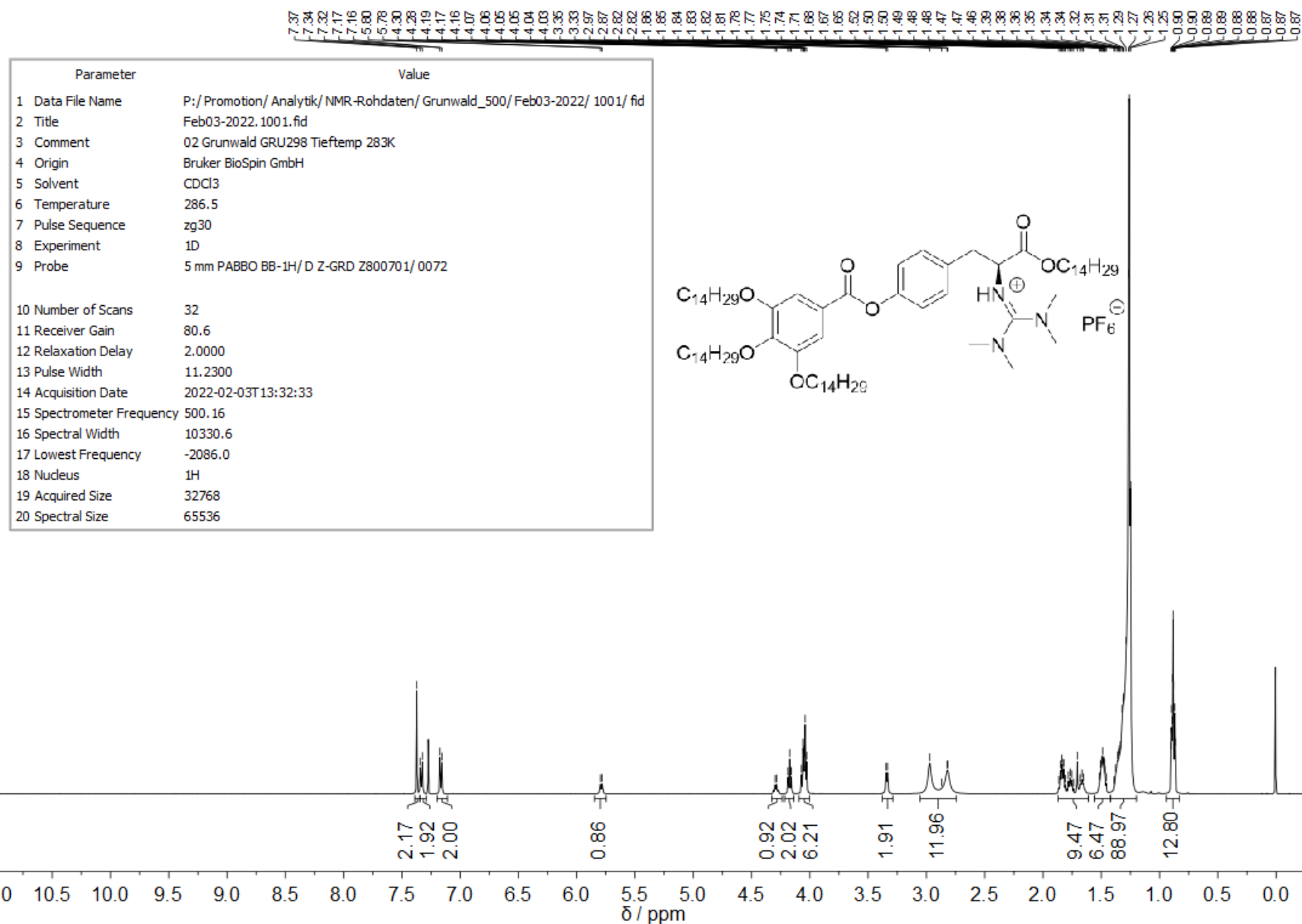


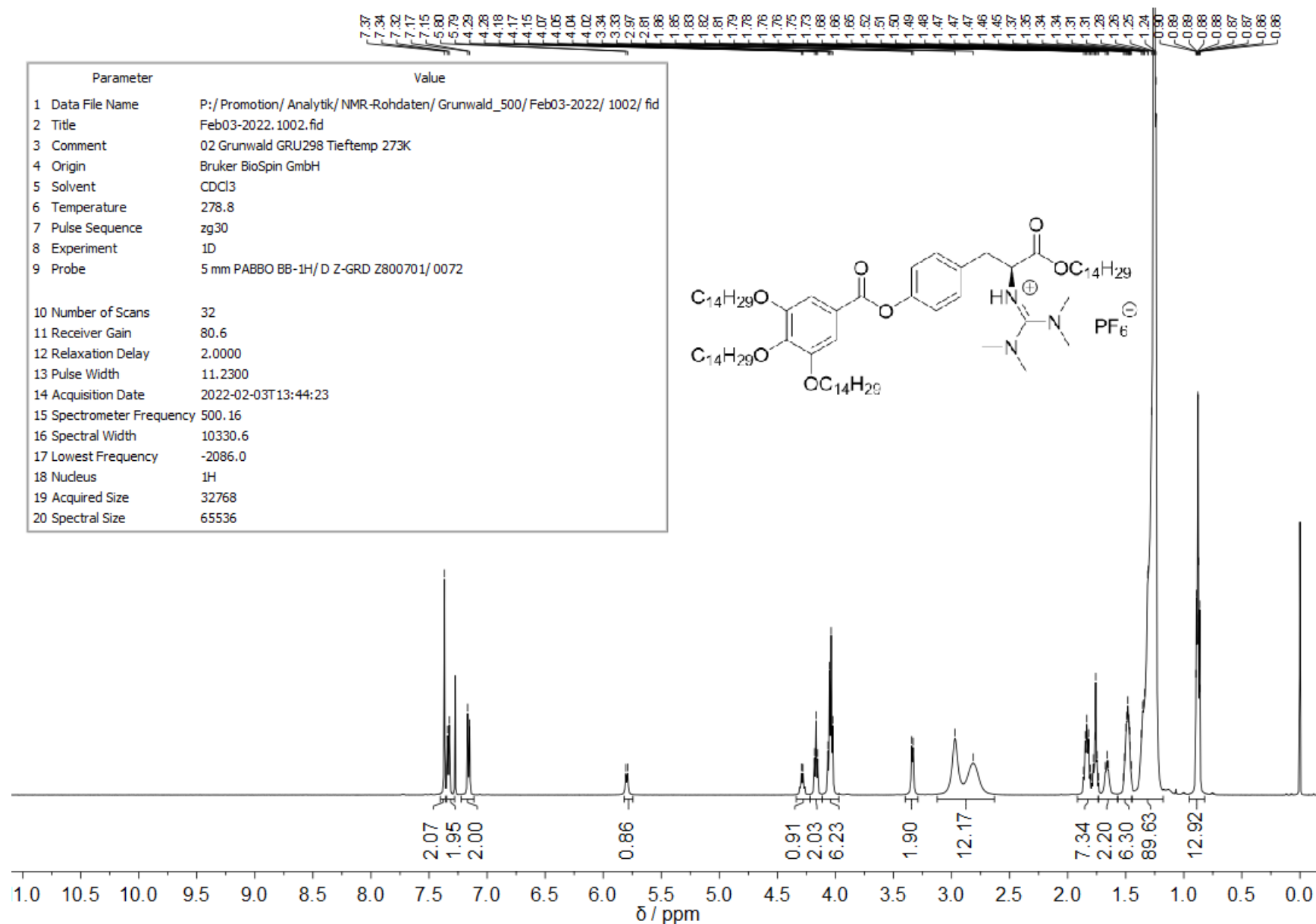
3,4,5-C14TyrC14I

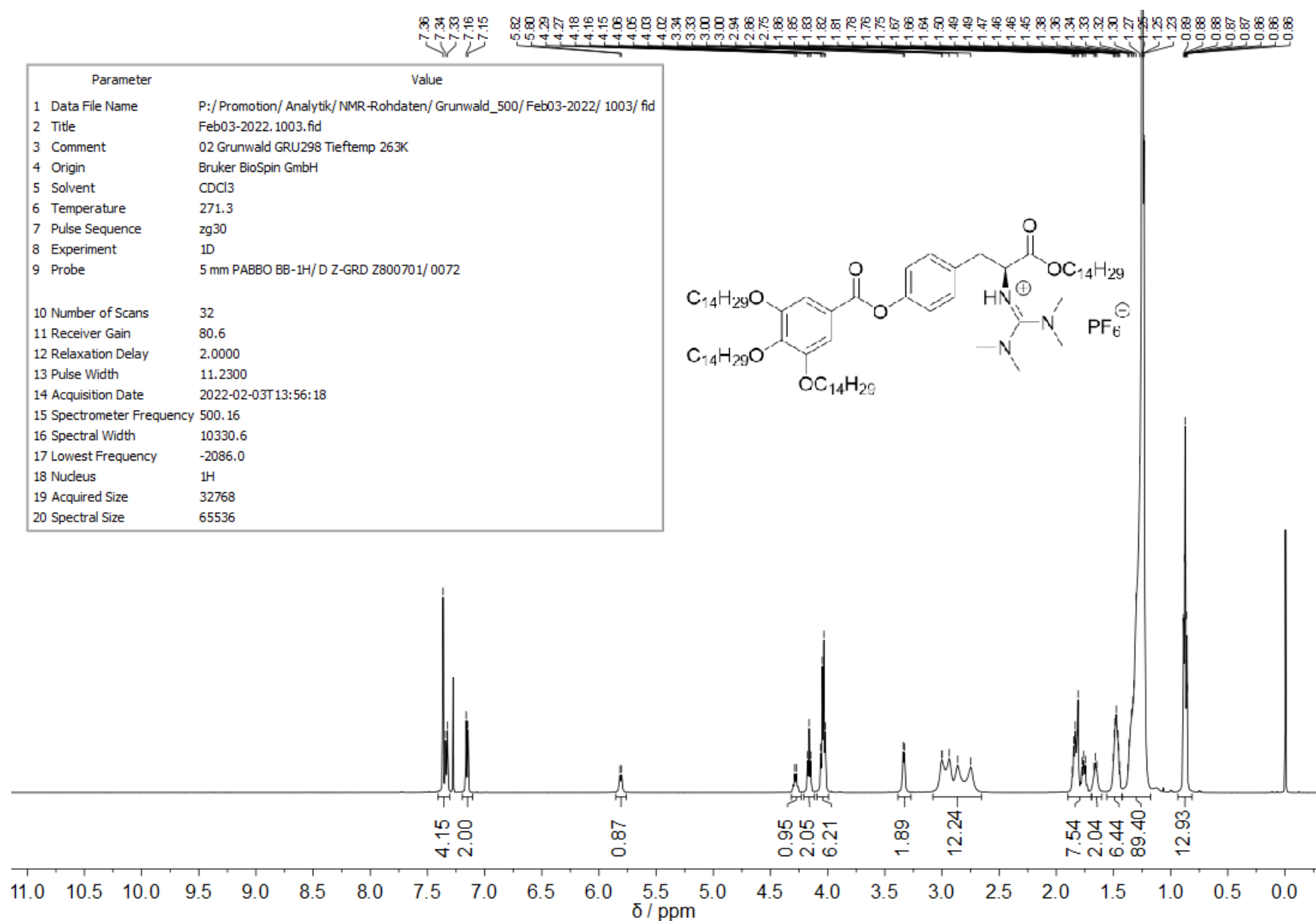


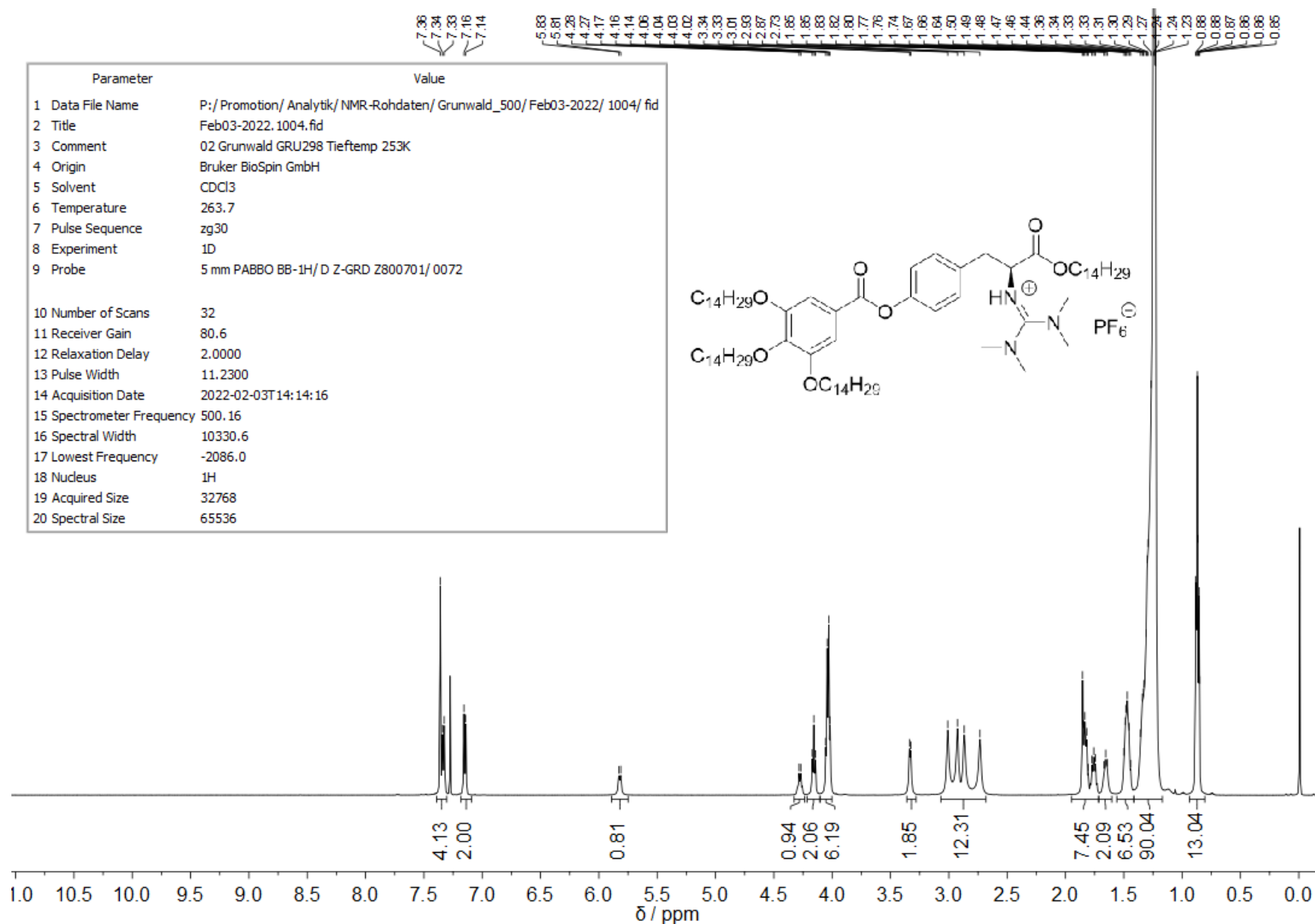


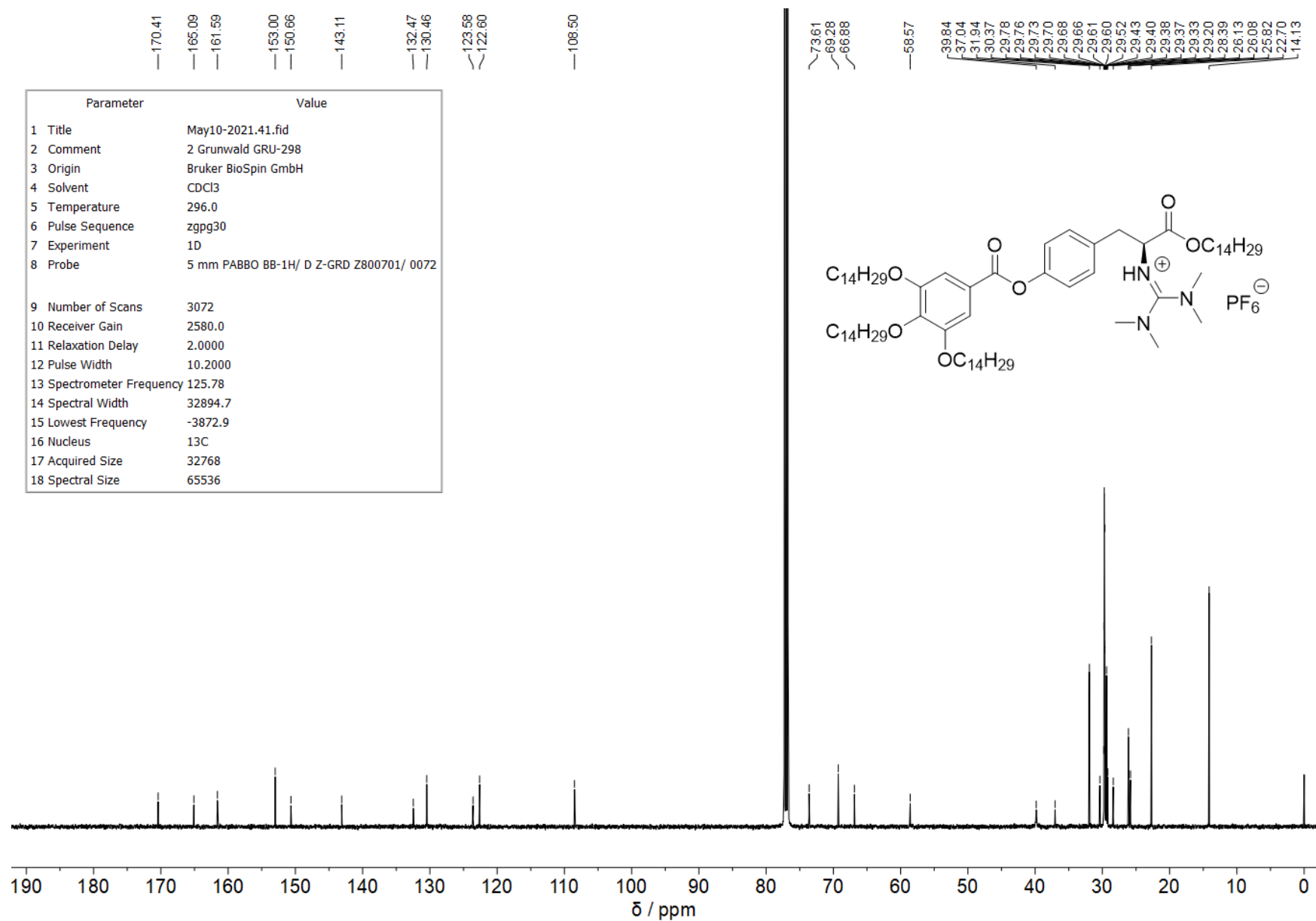
3,4,5-C₁₄TyrC₁₄PF₆



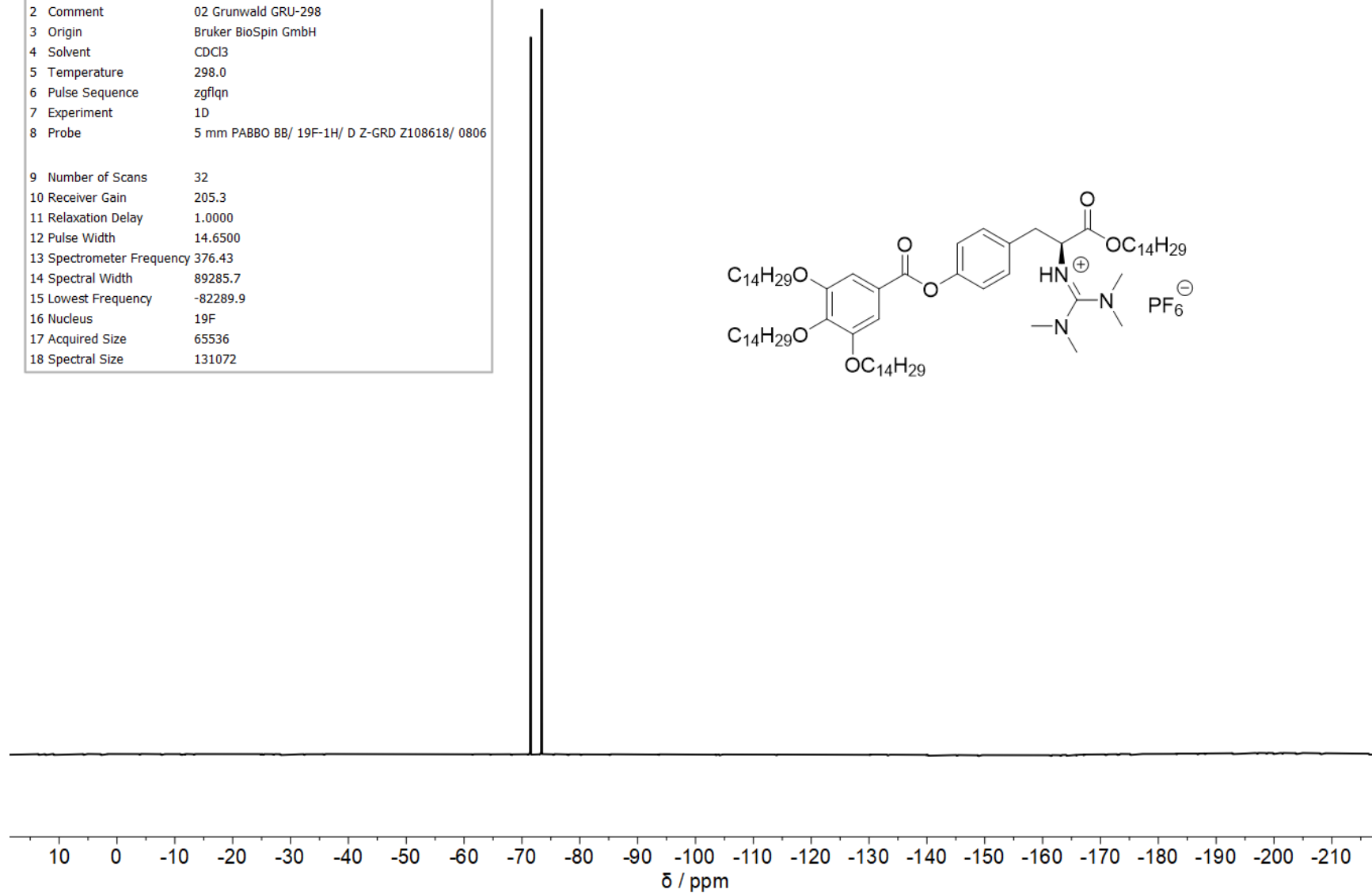
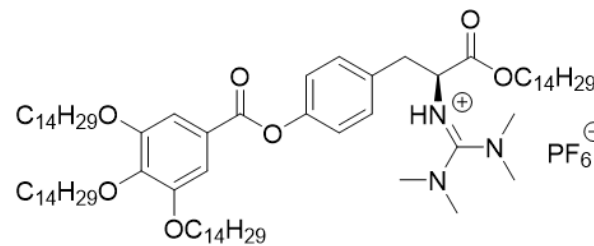


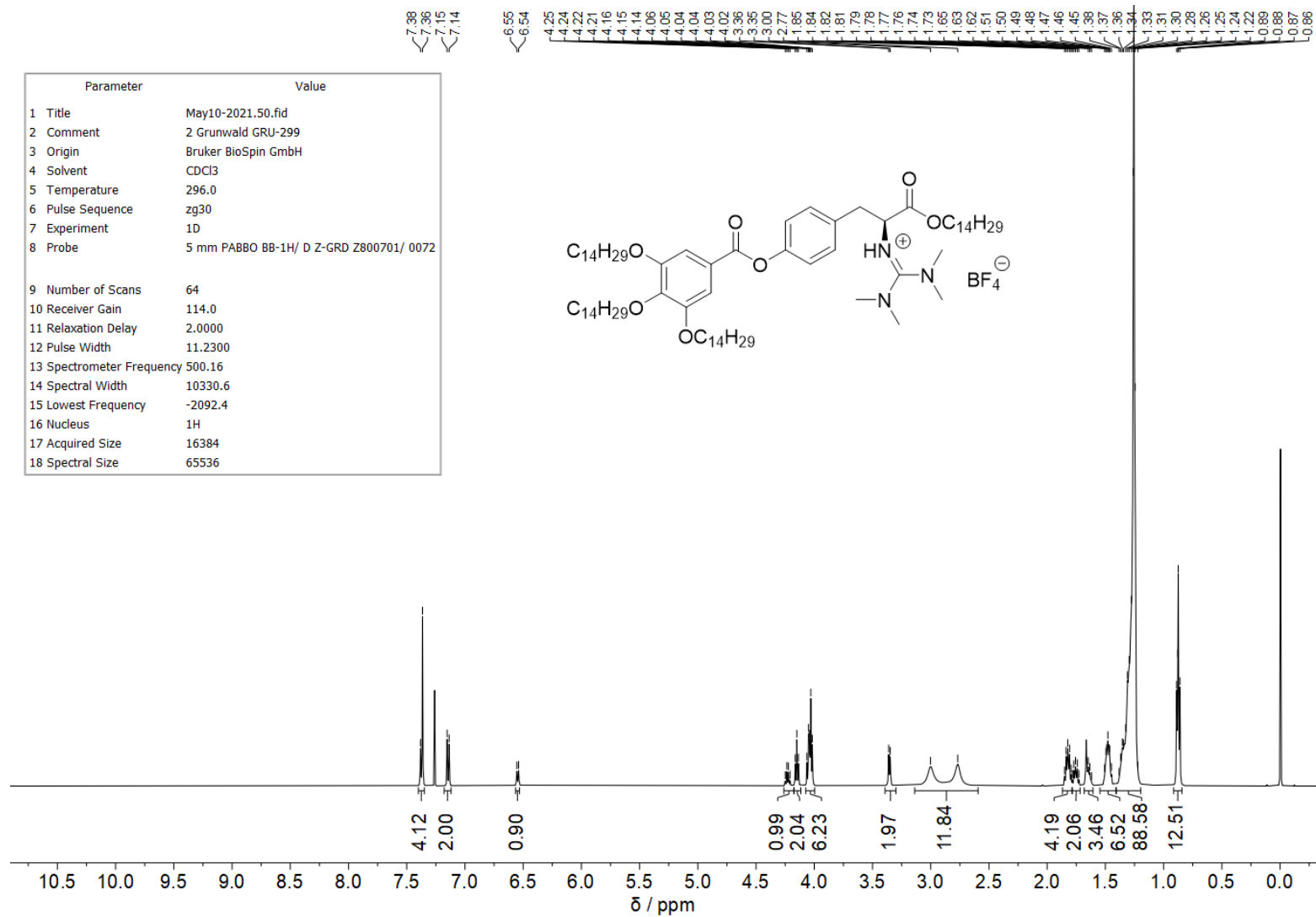


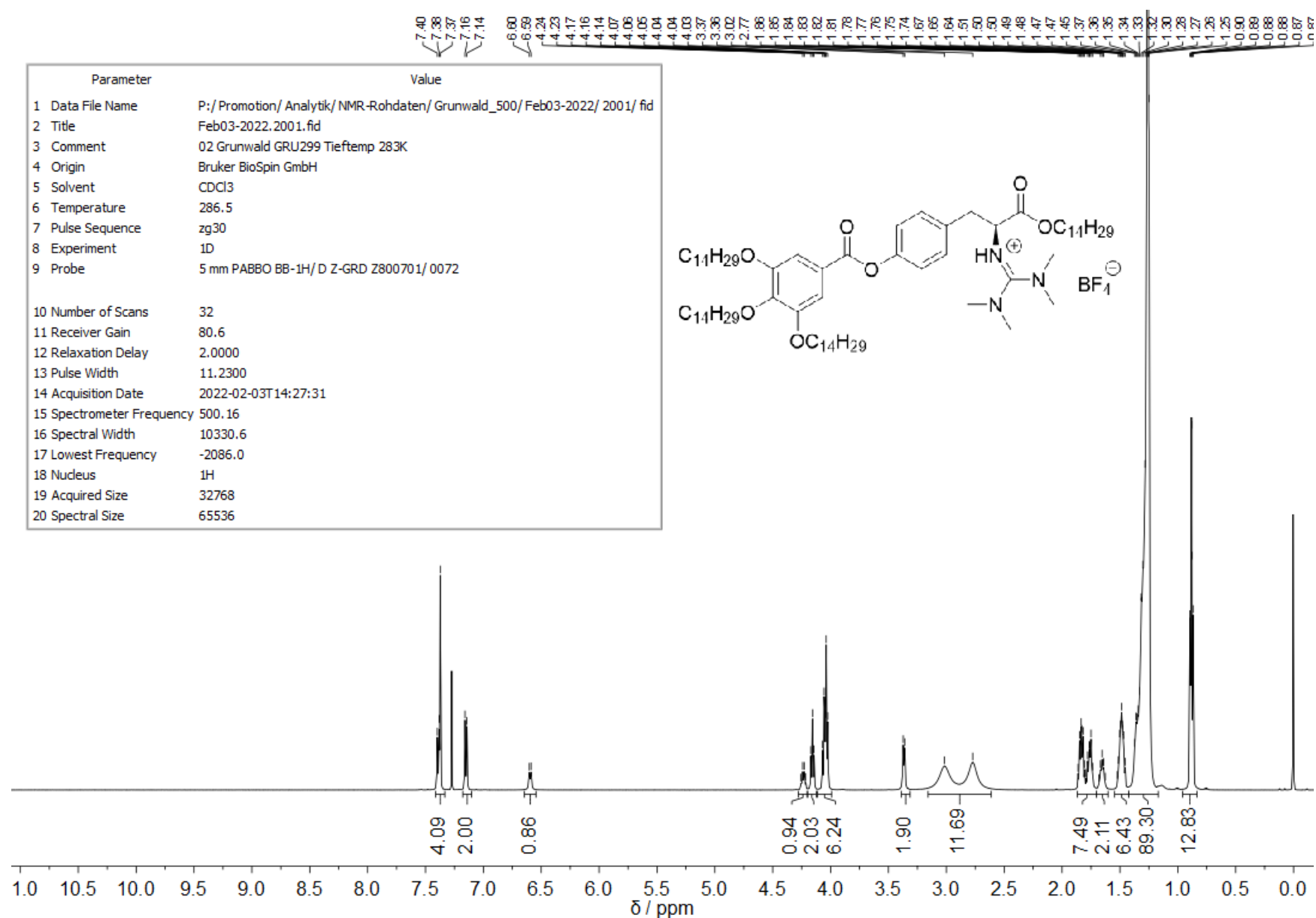


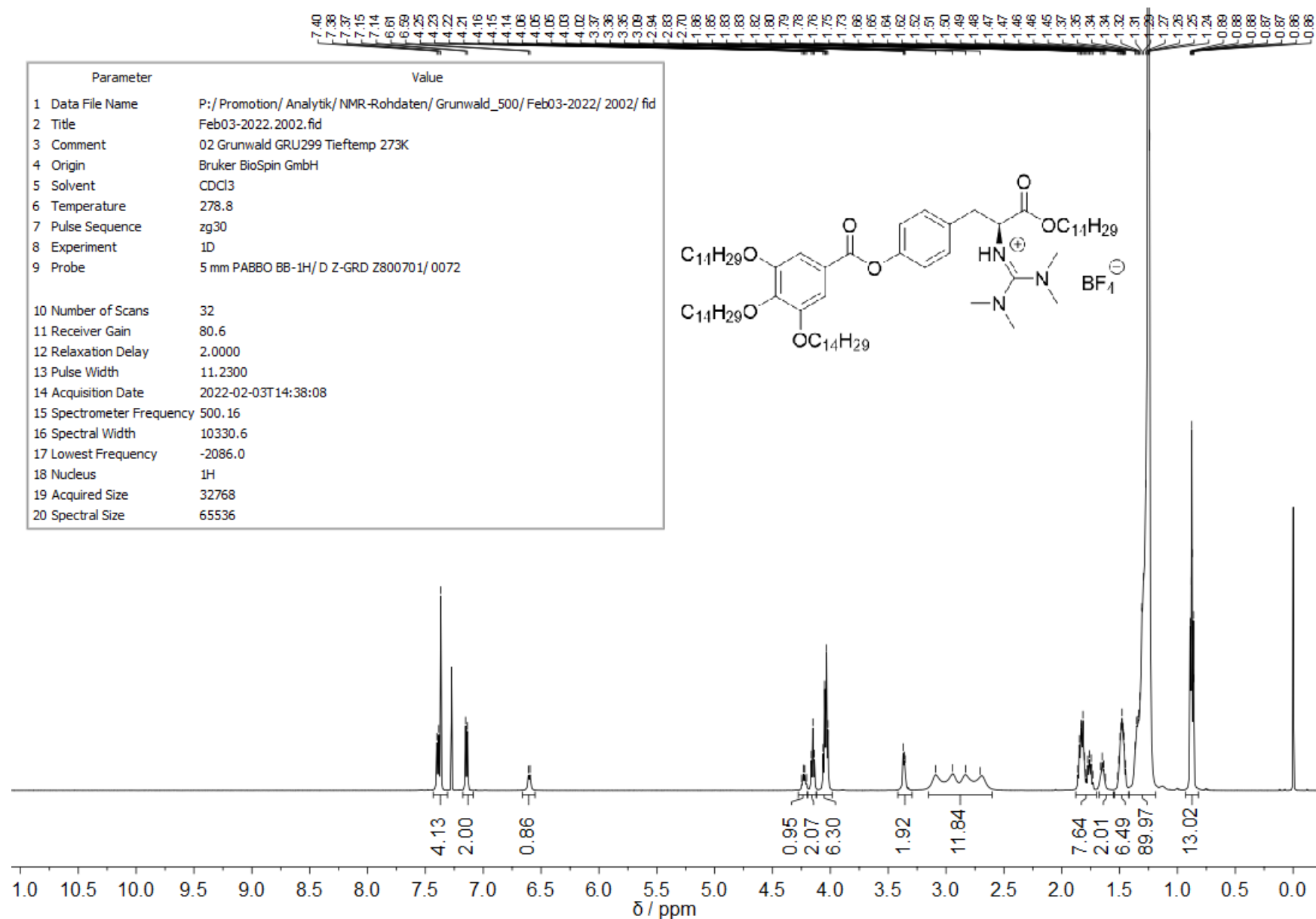


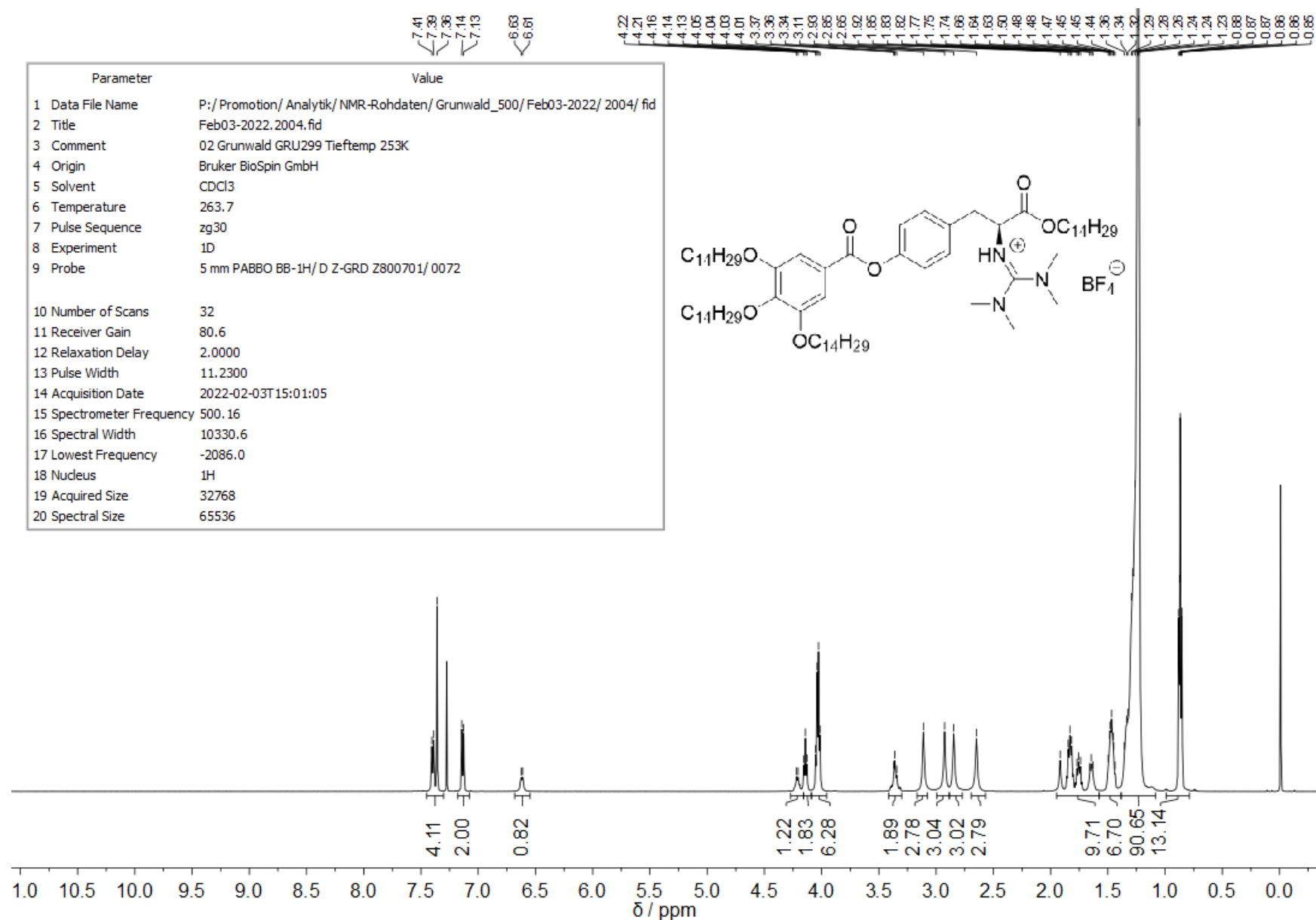
Parameter	Value
1 Title	May10-2021.220.fid
2 Comment	02 Grunwald GRU-298
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	32
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

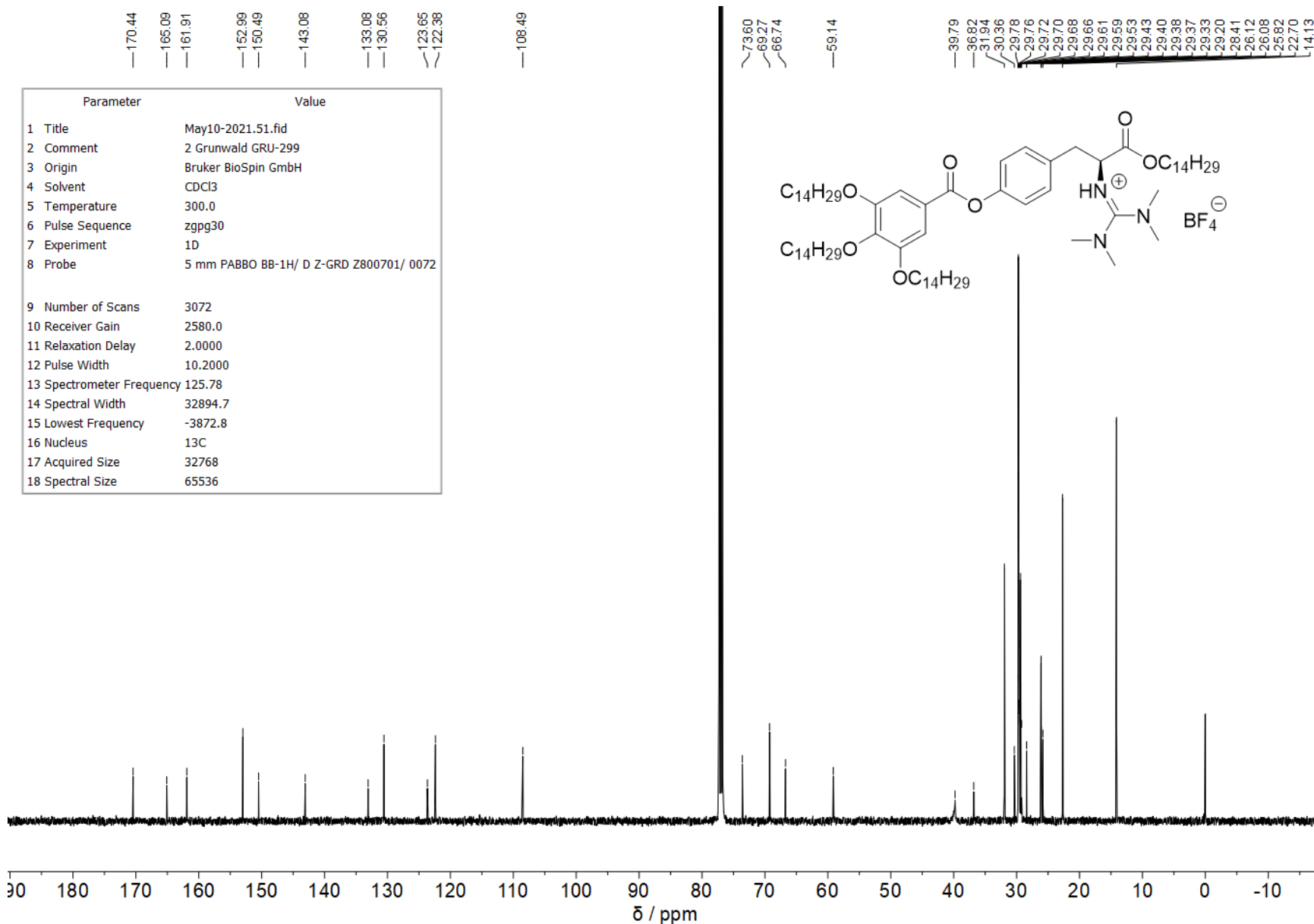


3,4,5-C₁₄TyrC₁₄BF₄

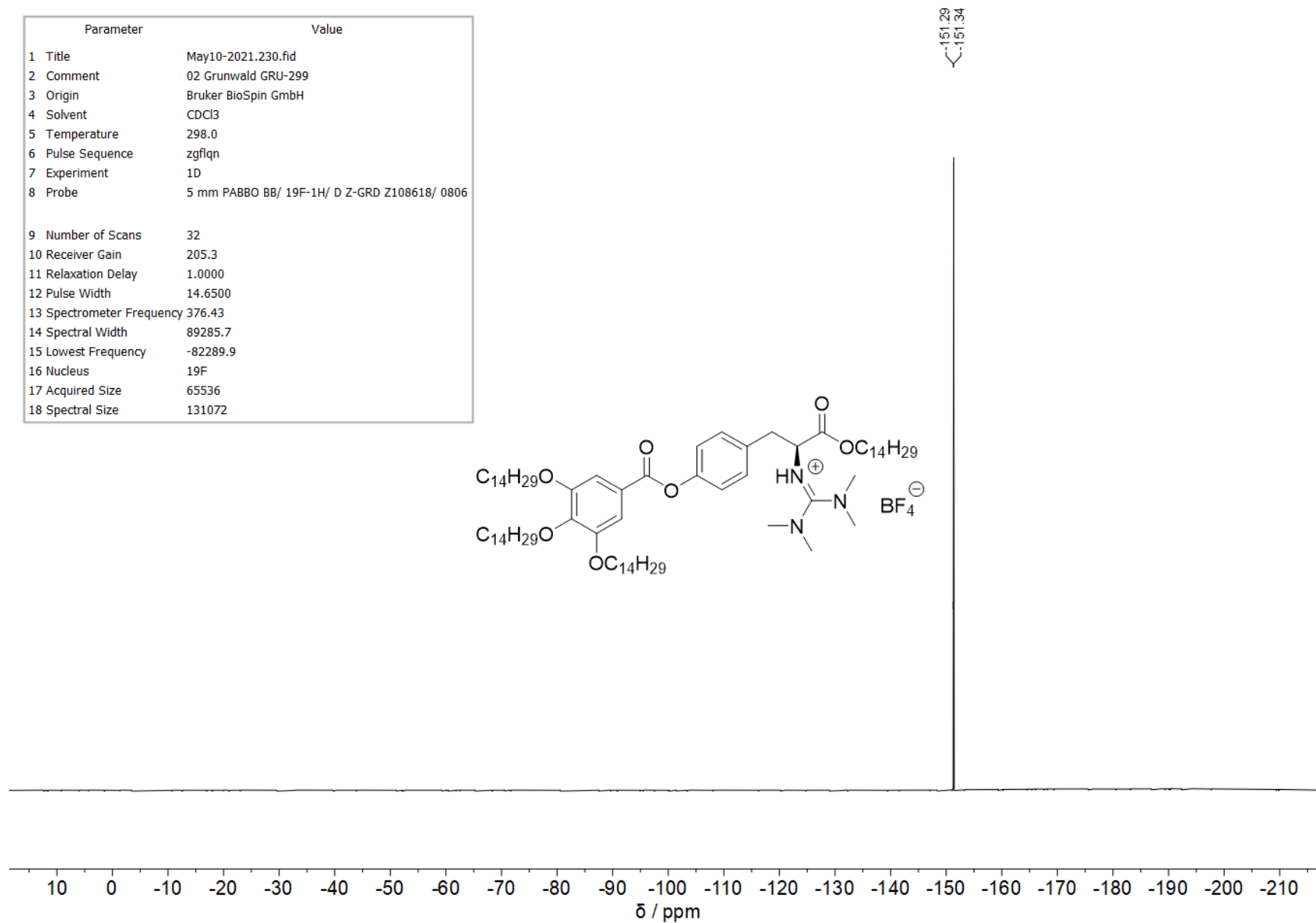
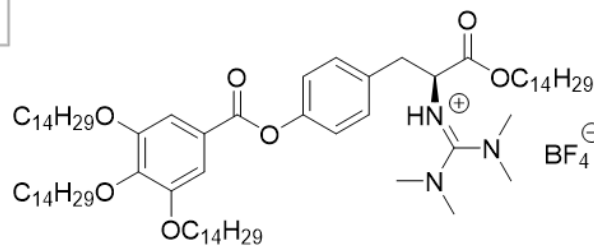




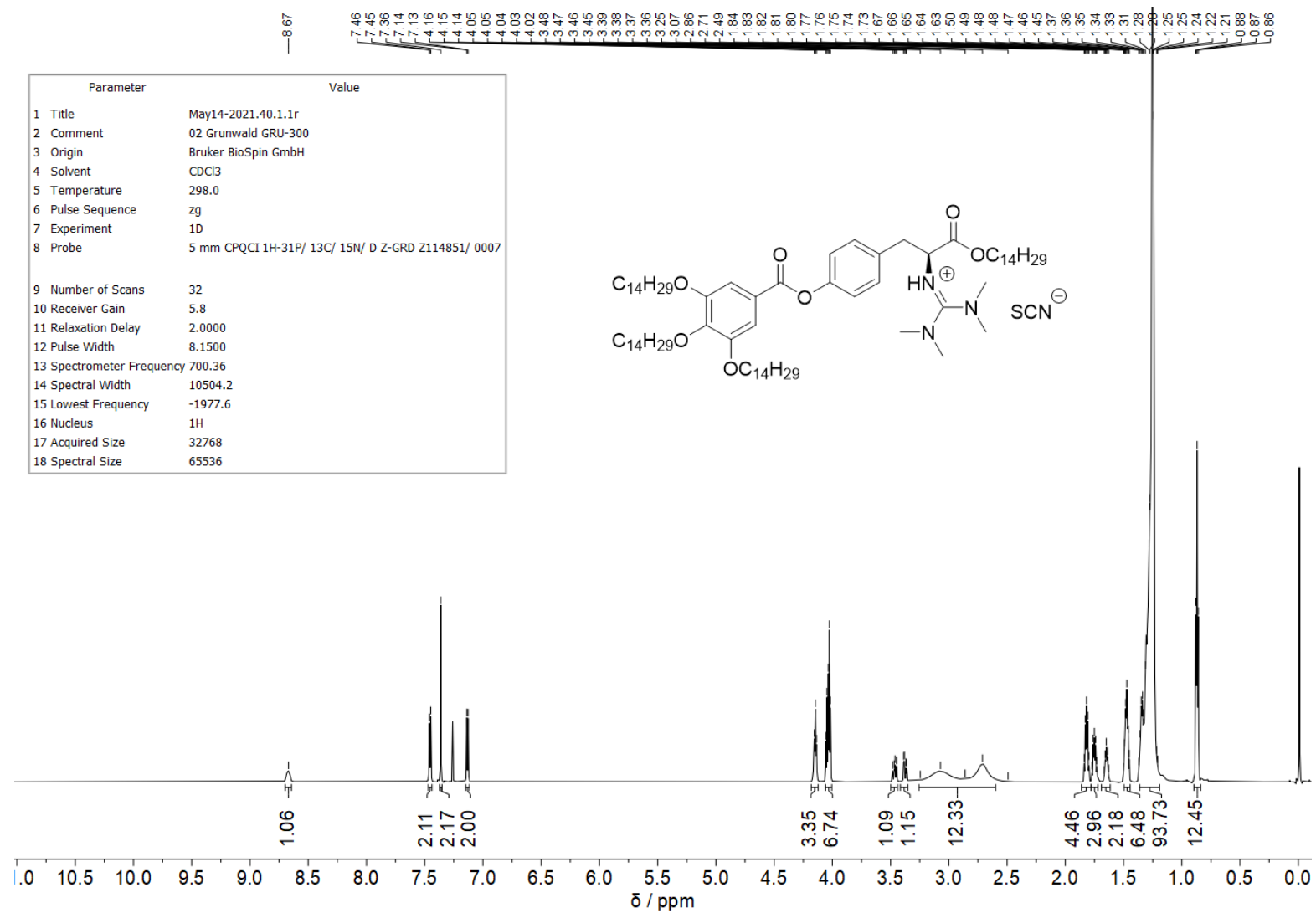


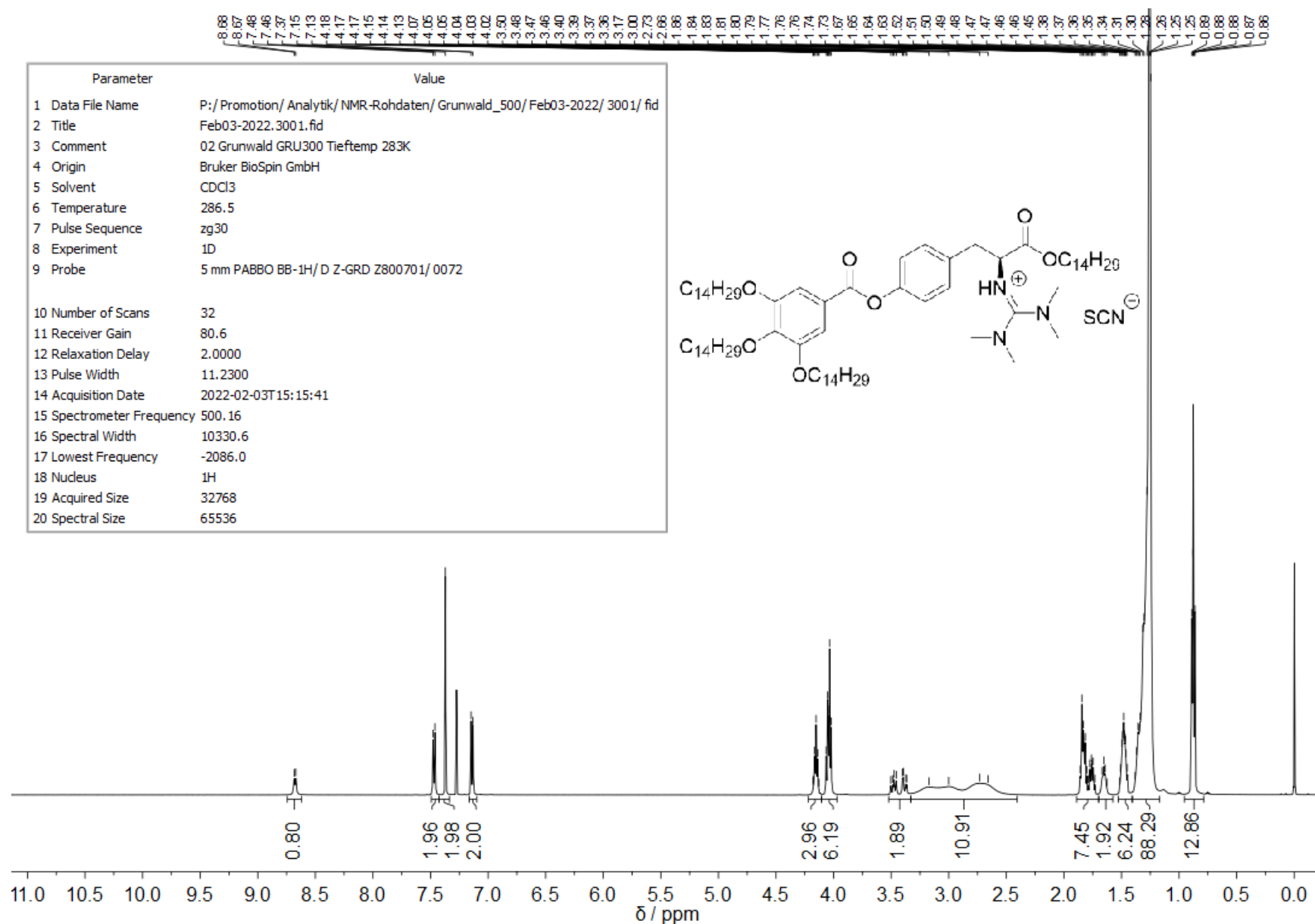


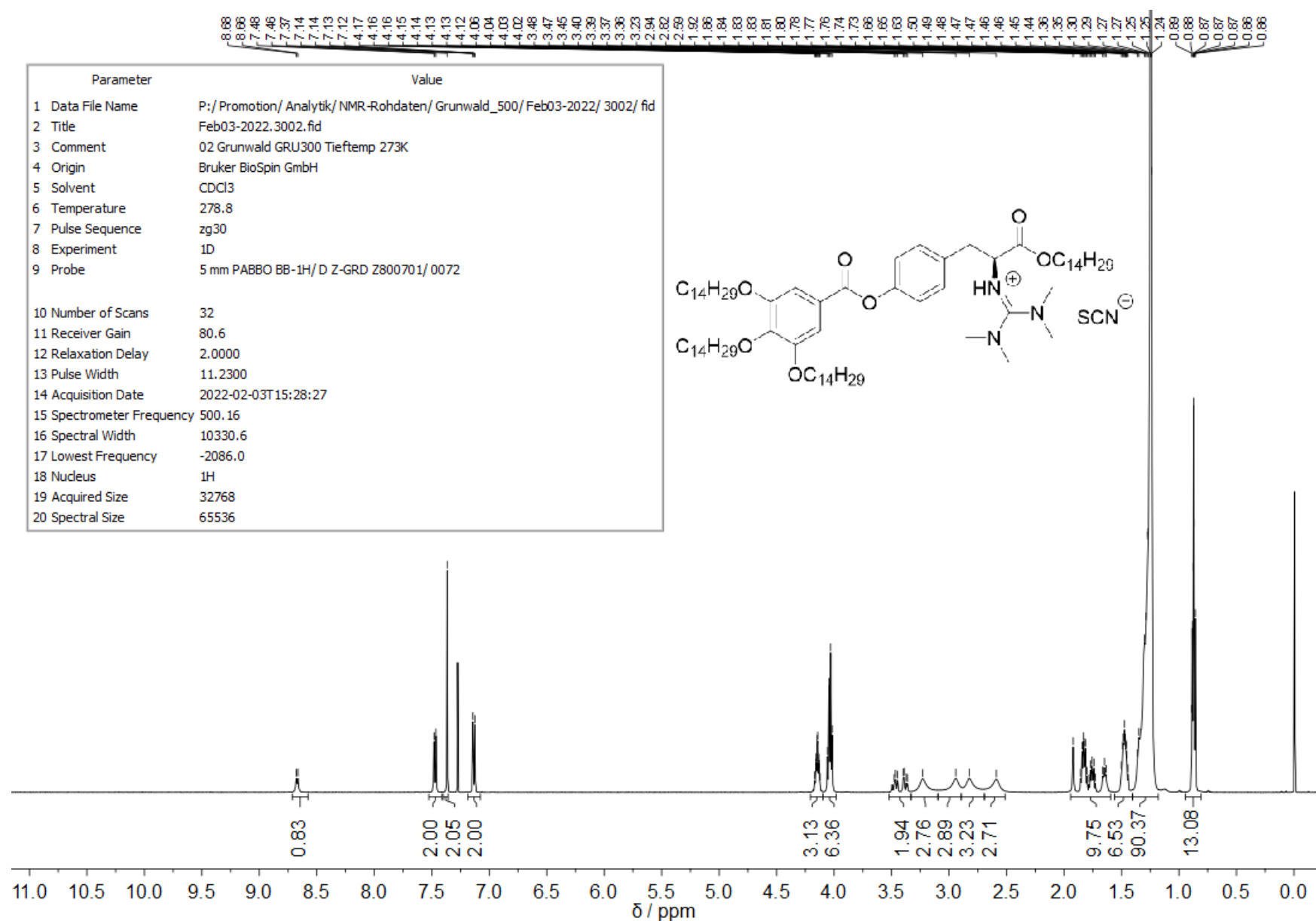
Parameter	Value
1 Title	May10-2021.230.fid
2 Comment	02 Grunwald GRU-299
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	32
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

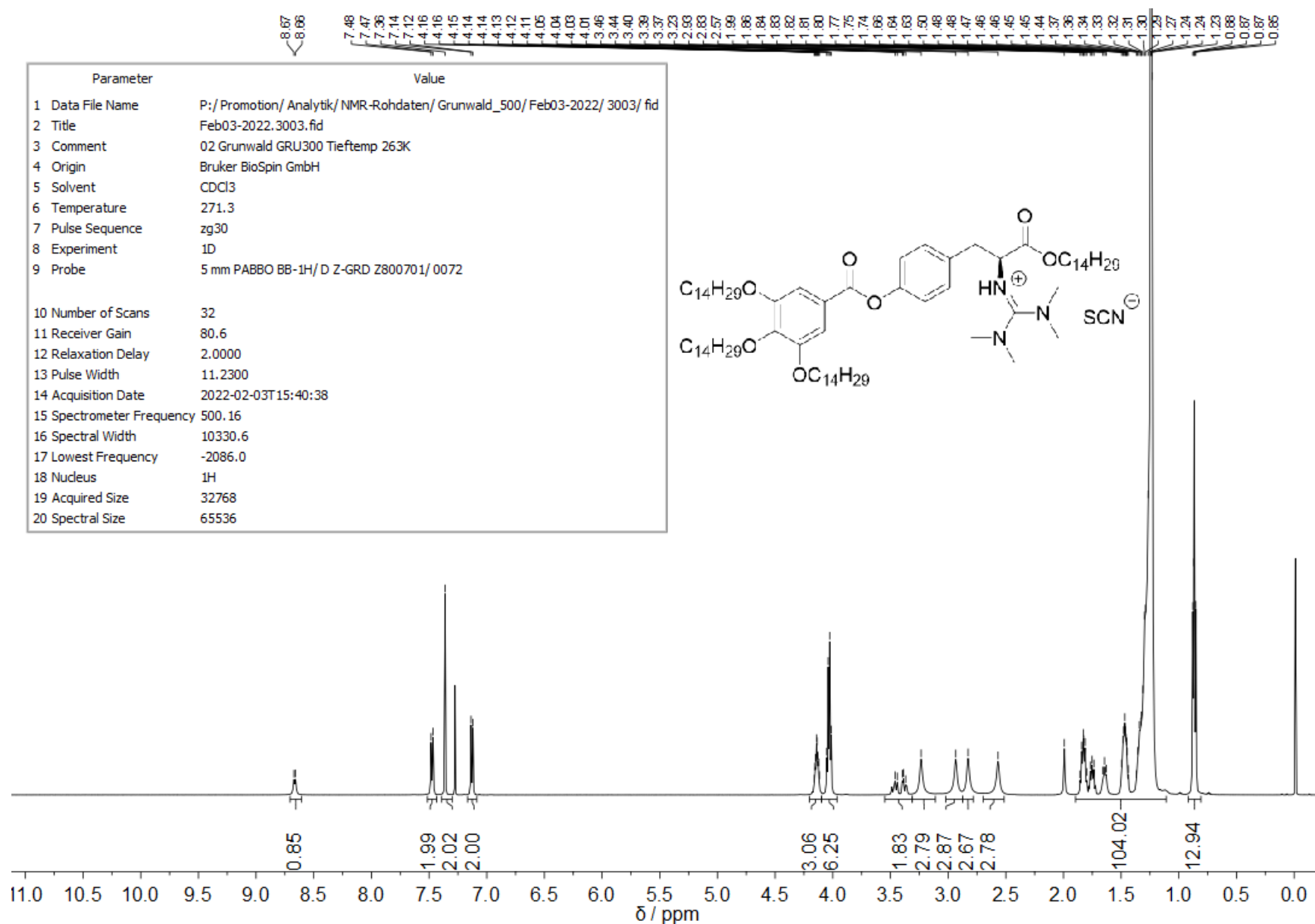


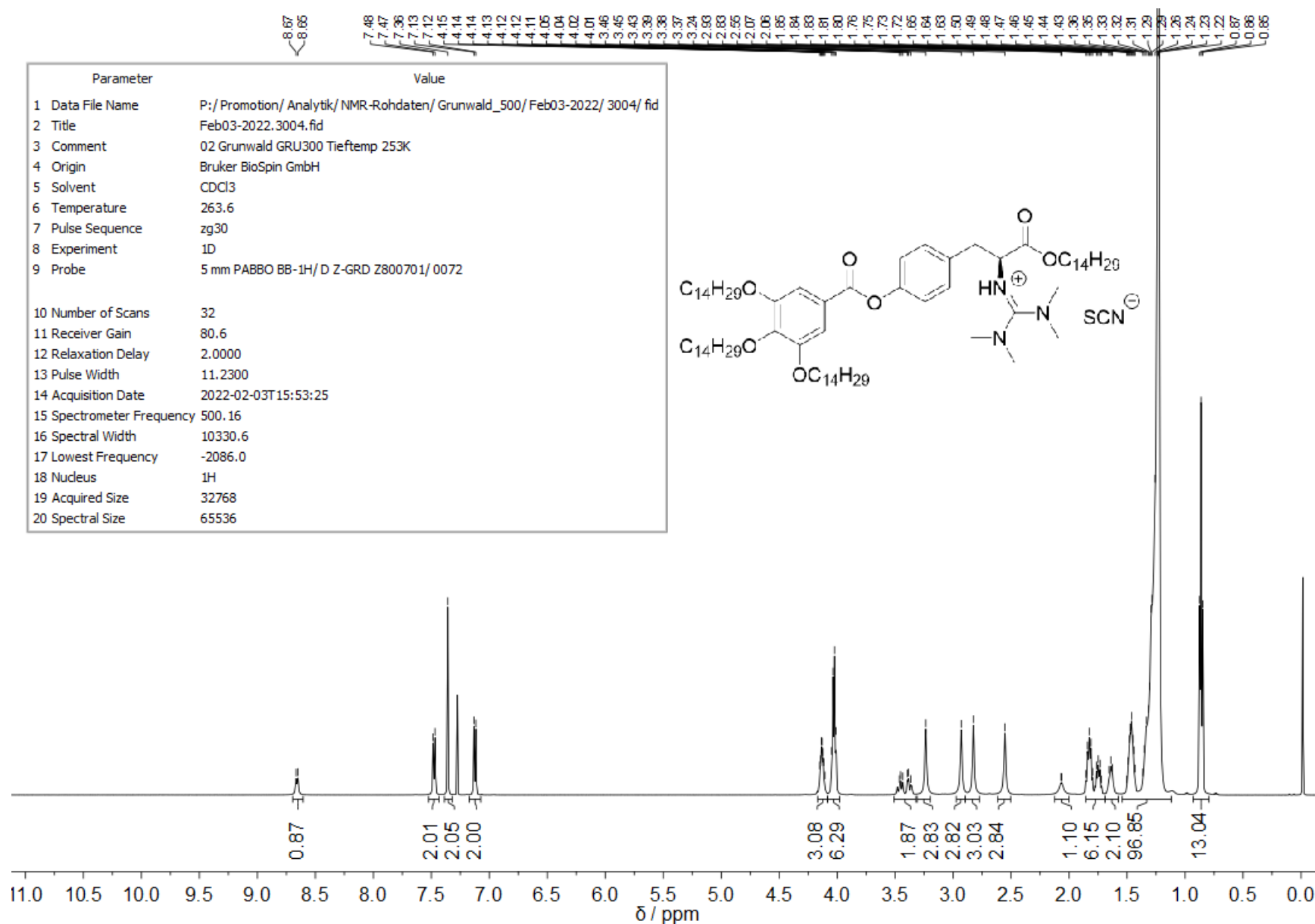
3,4,5-C14TyrC14SCN

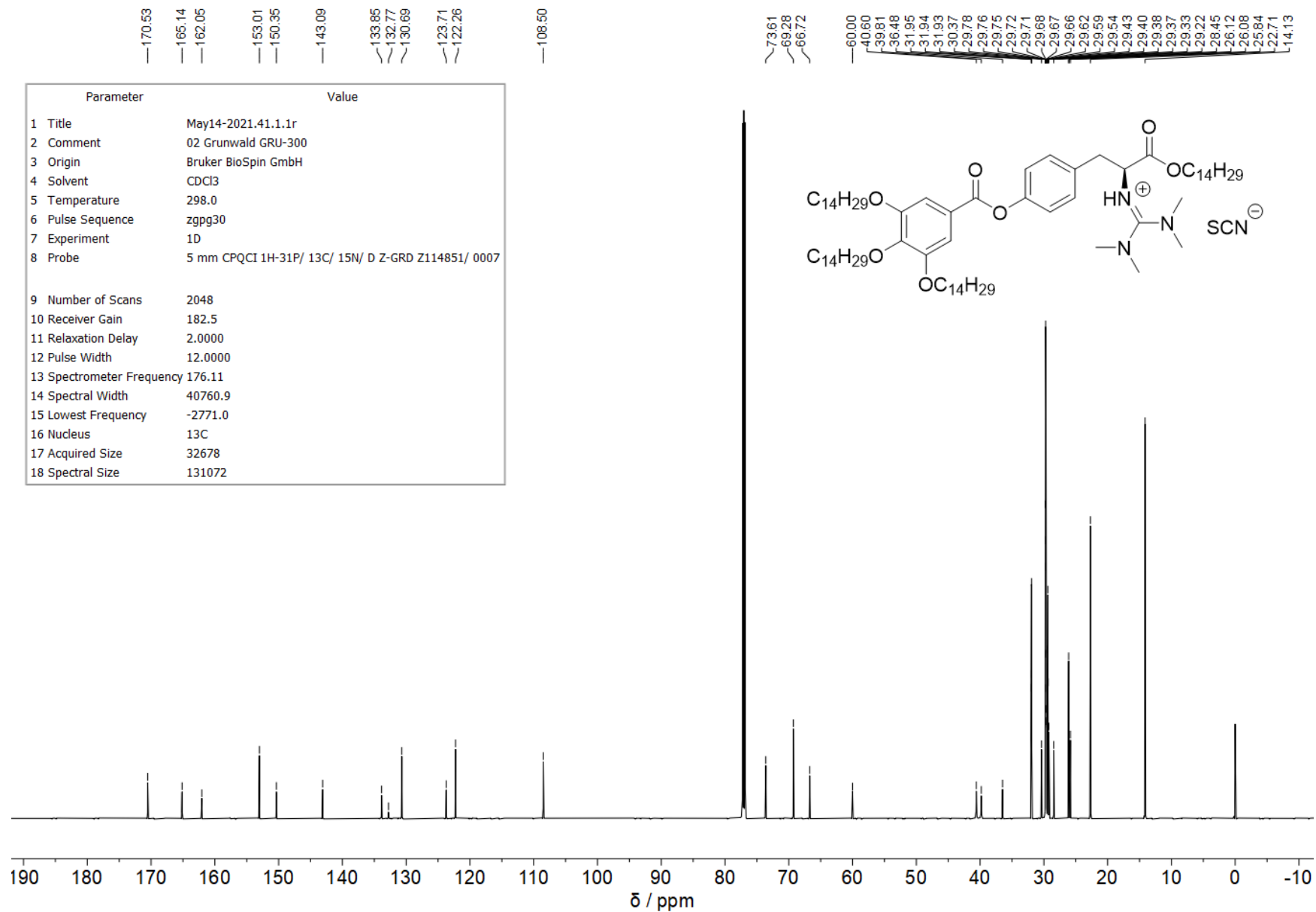




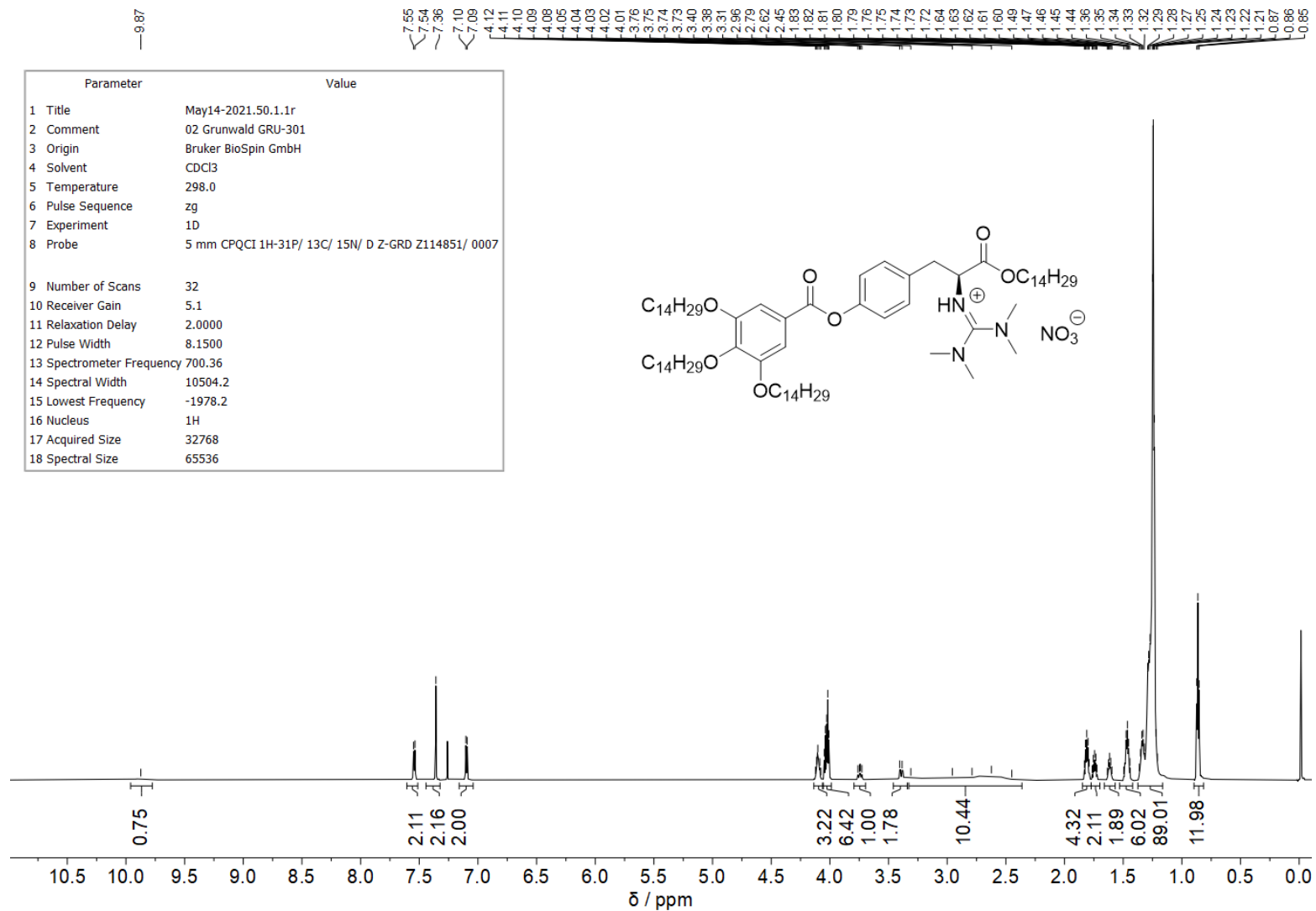


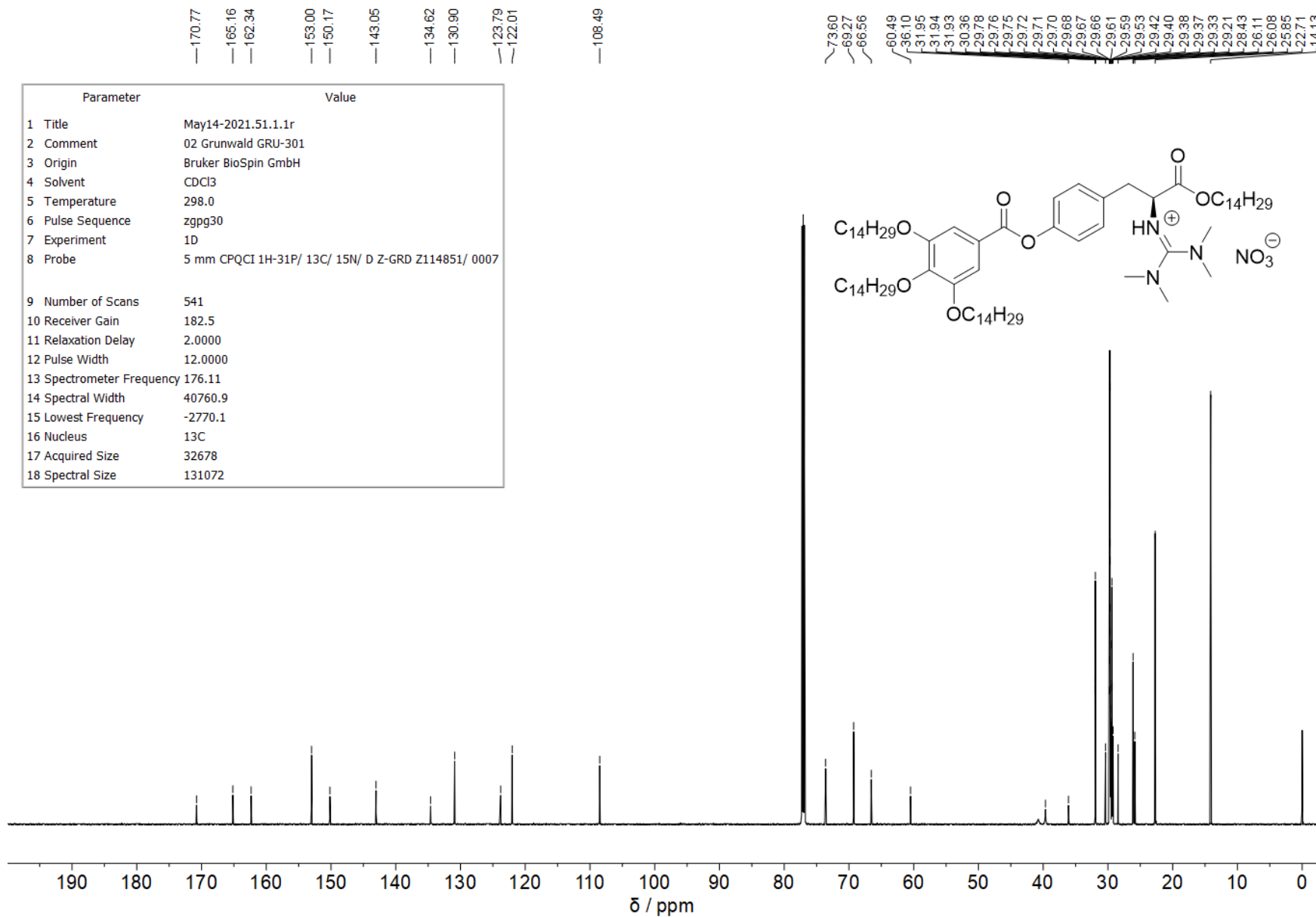




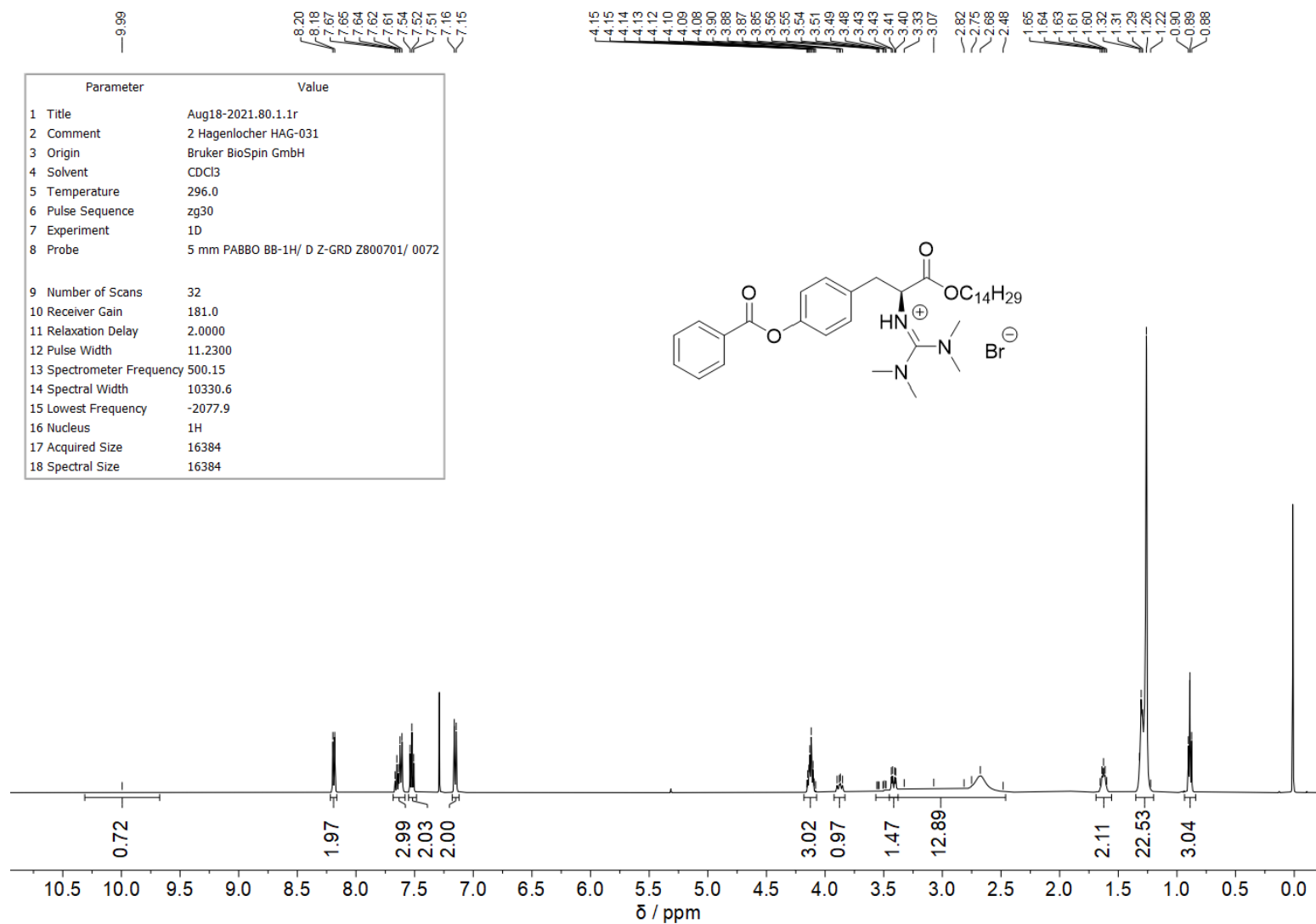


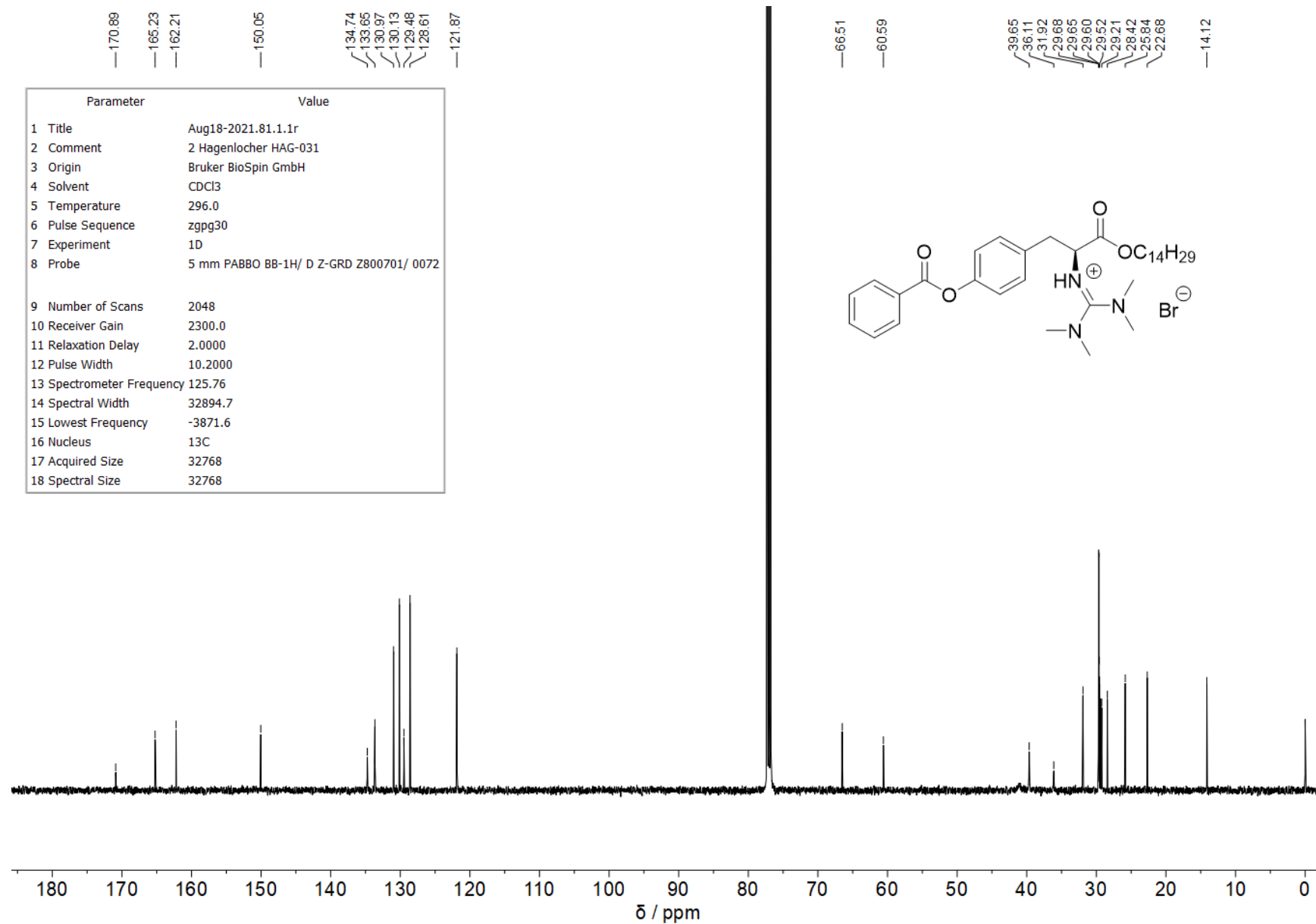
3,4,5-C14TyrC14NO3



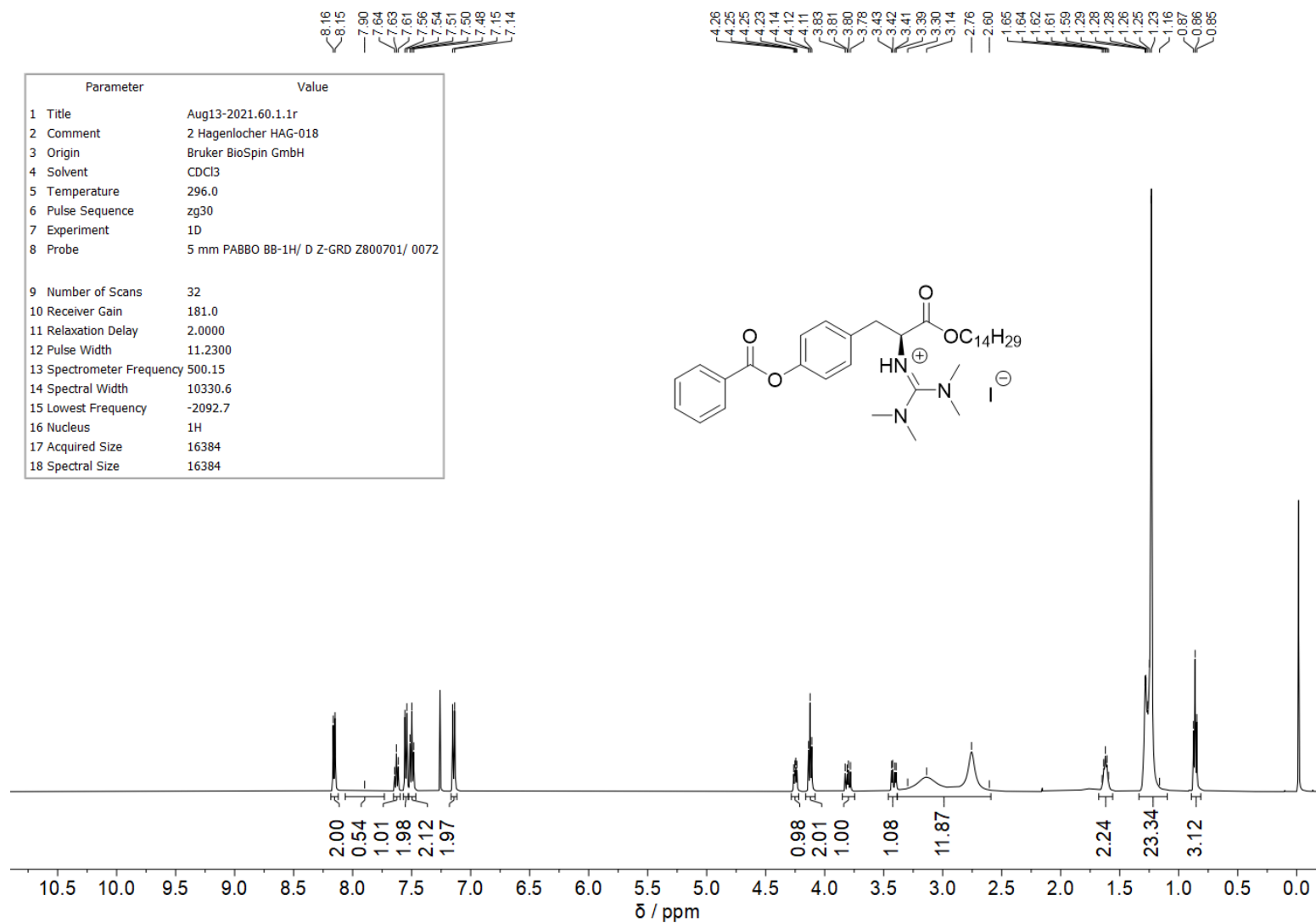


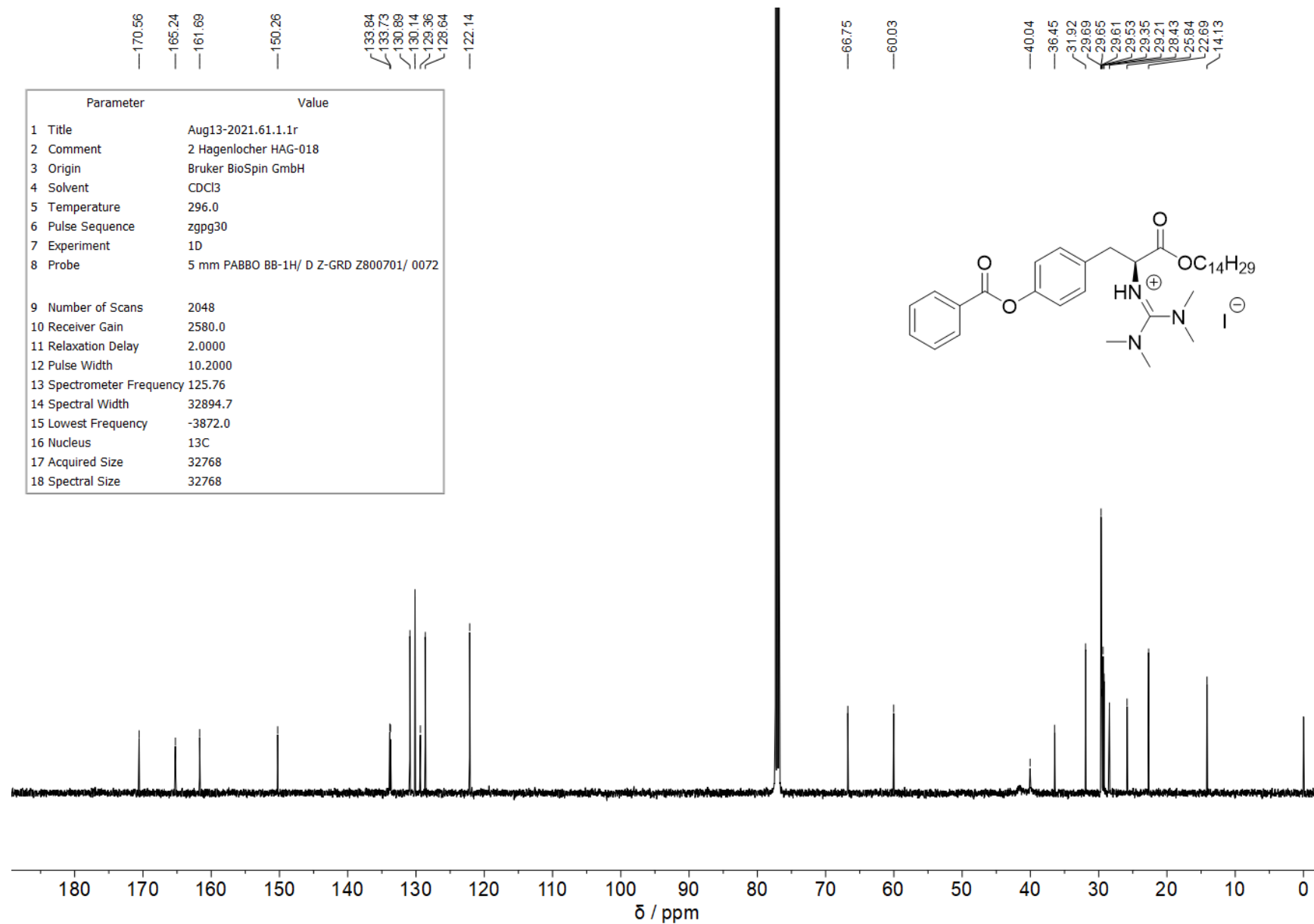
BzTyrC14Br



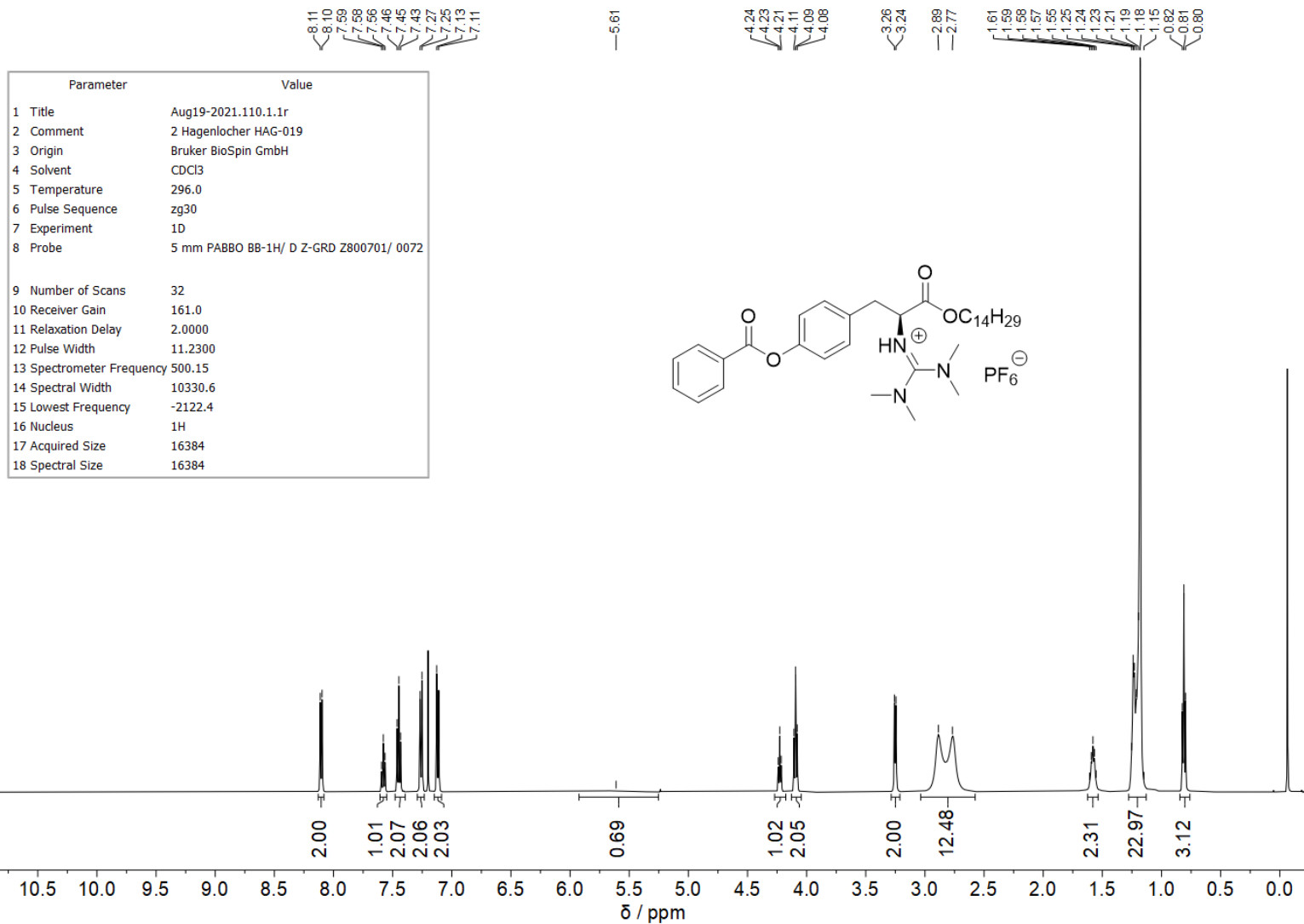


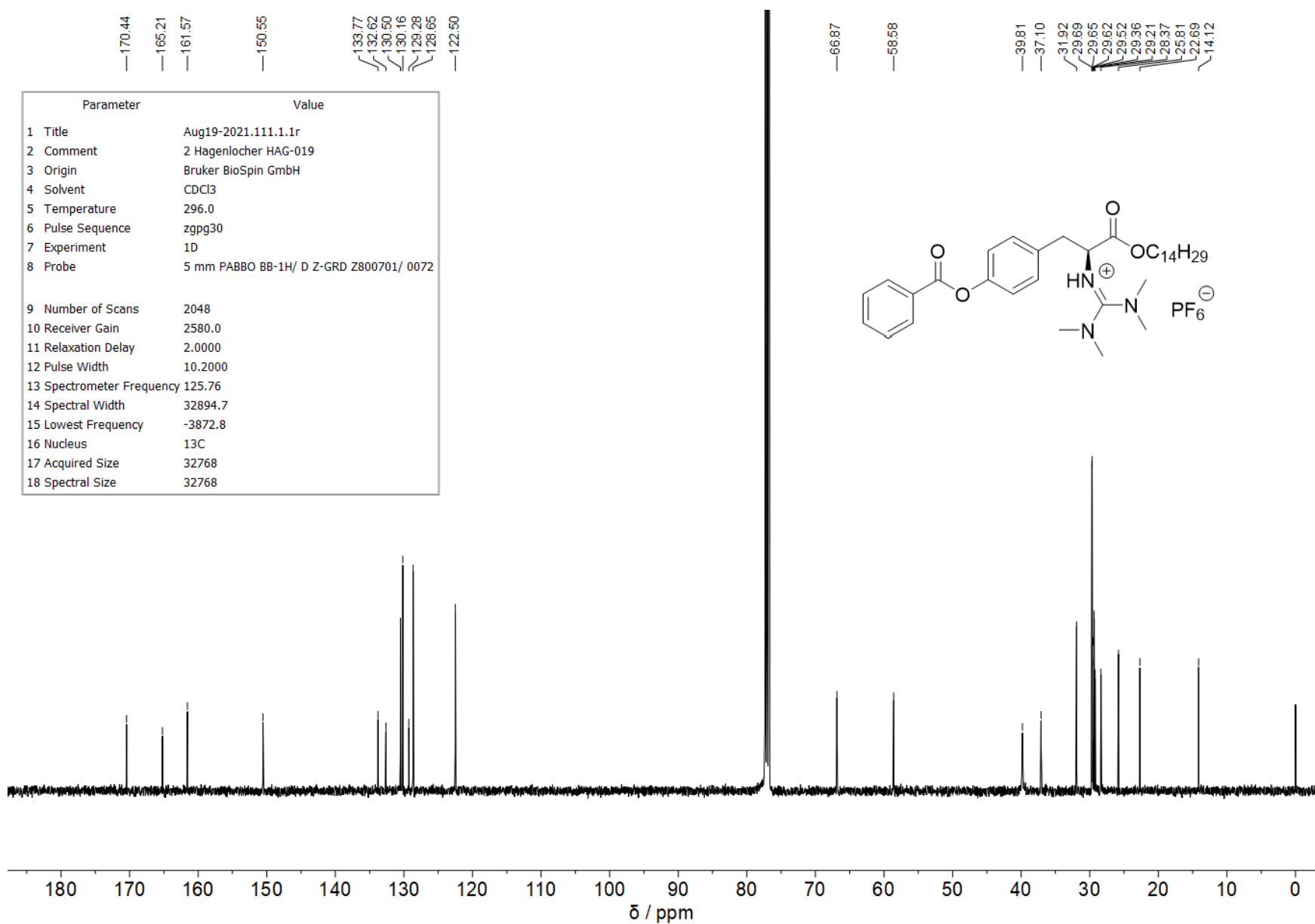
BzTyrC14I





BzTyrC14PF6

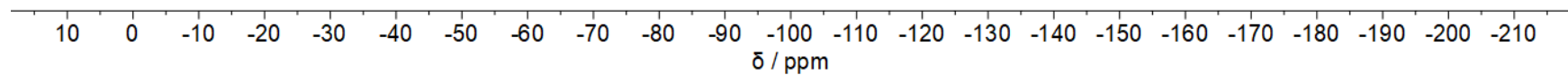
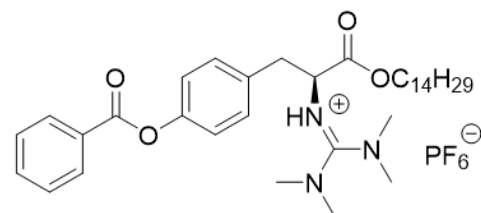




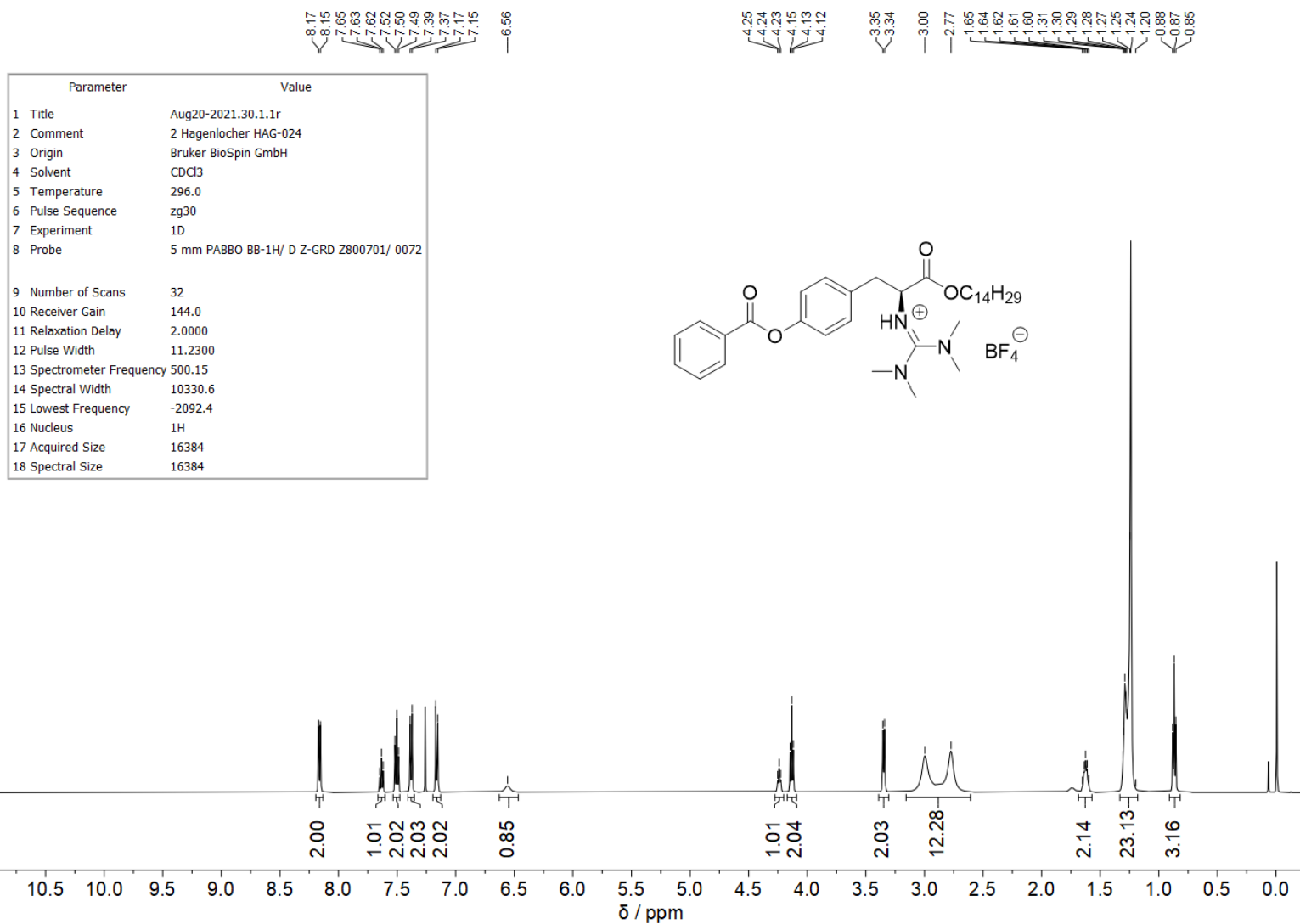
Parameter	Value
1 Title	Aug19-2021.111.1.1r
2 Comment	2 Hagenlocher HAG-019
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	296.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	2048
10 Receiver Gain	2580.0
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.76
14 Spectral Width	32894.7
15 Lowest Frequency	-3872.8
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	32768

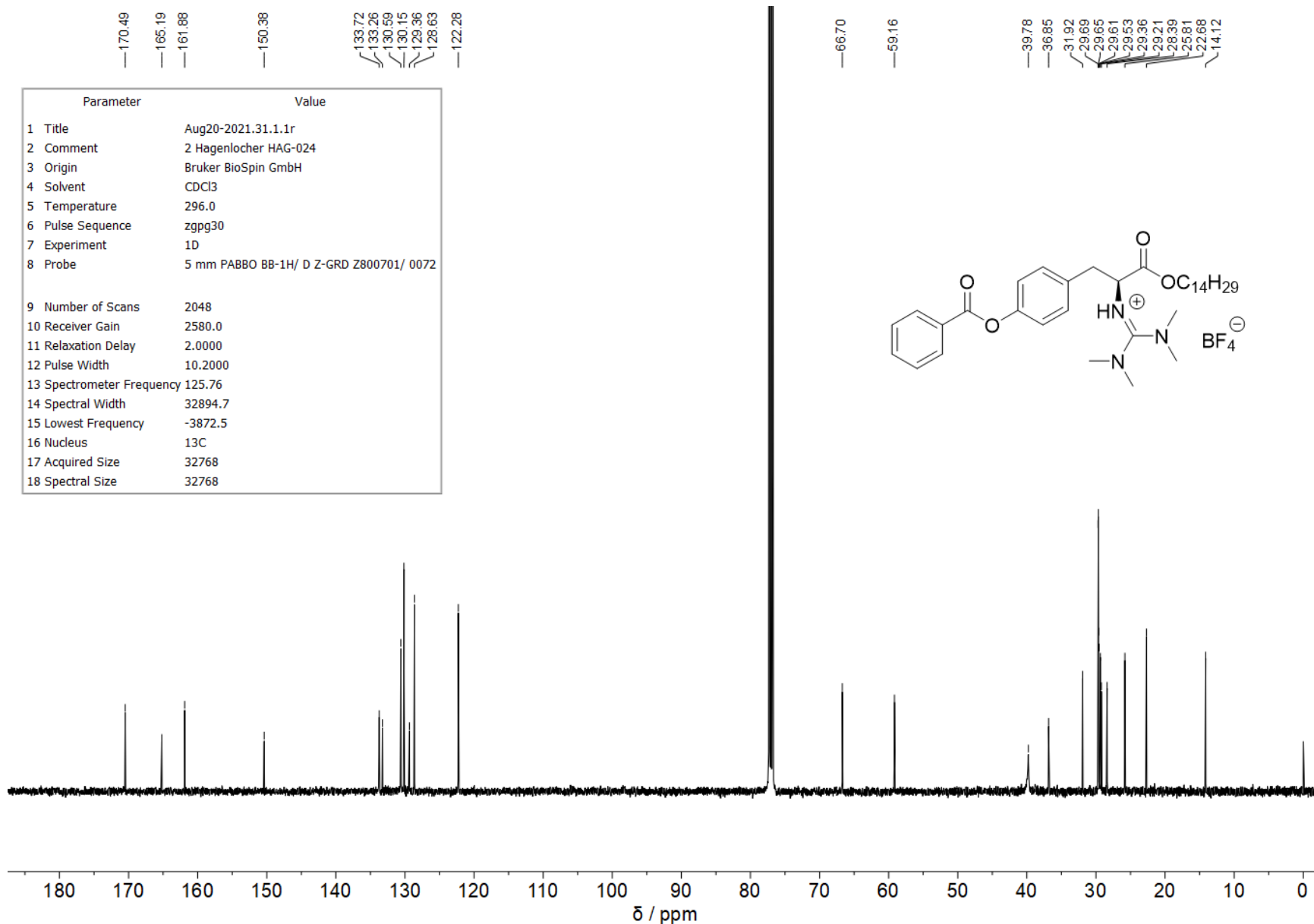
Parameter	Value
1 Title	Oct12-2021.120.fid
2 Comment	02 Hagenlocher HAG019
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

71.47
73.36

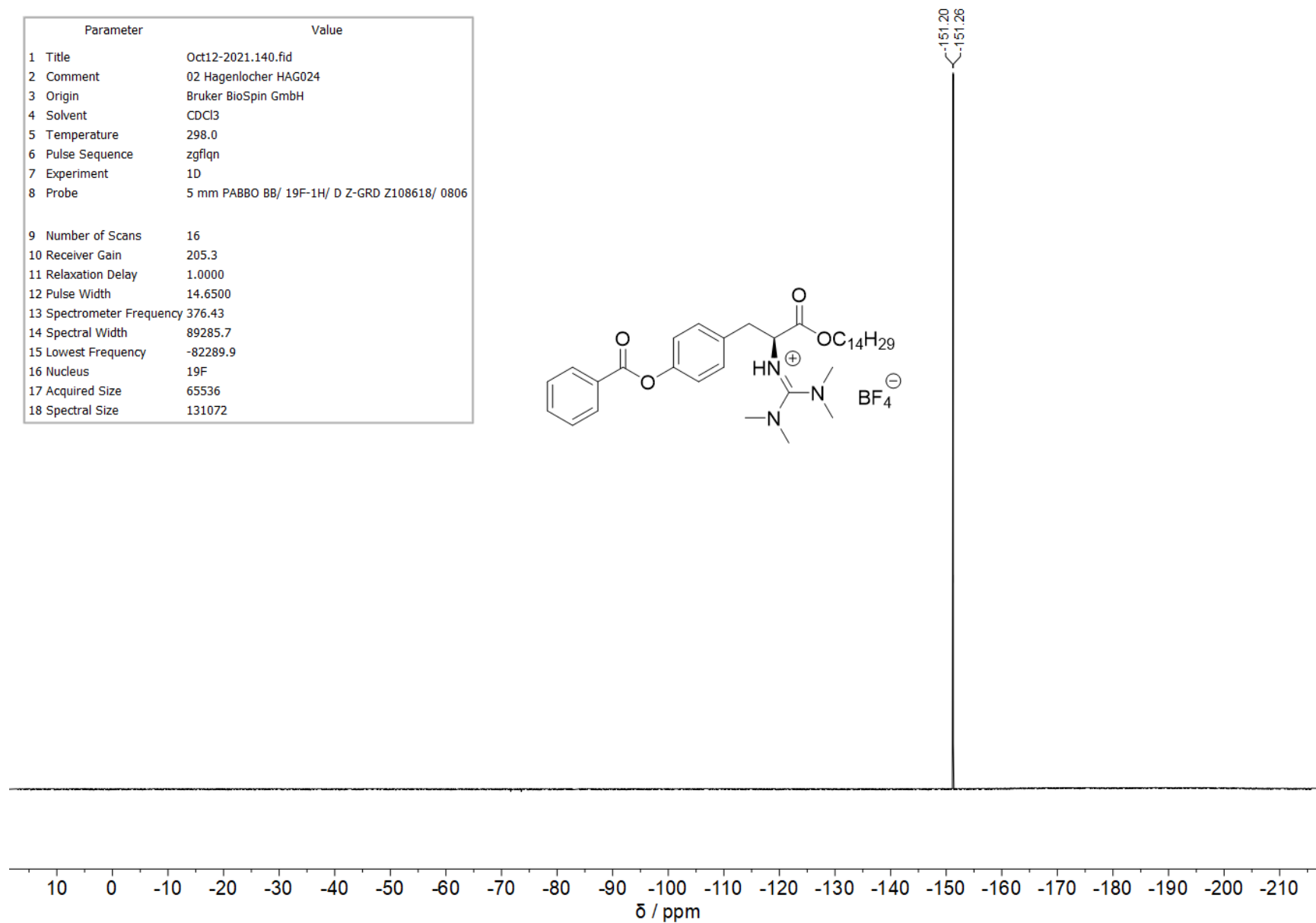
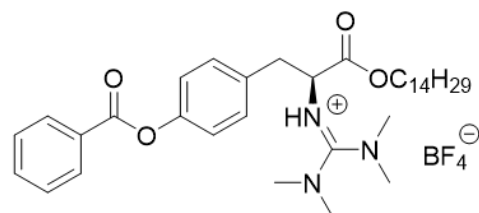


BzTyrC14BF4

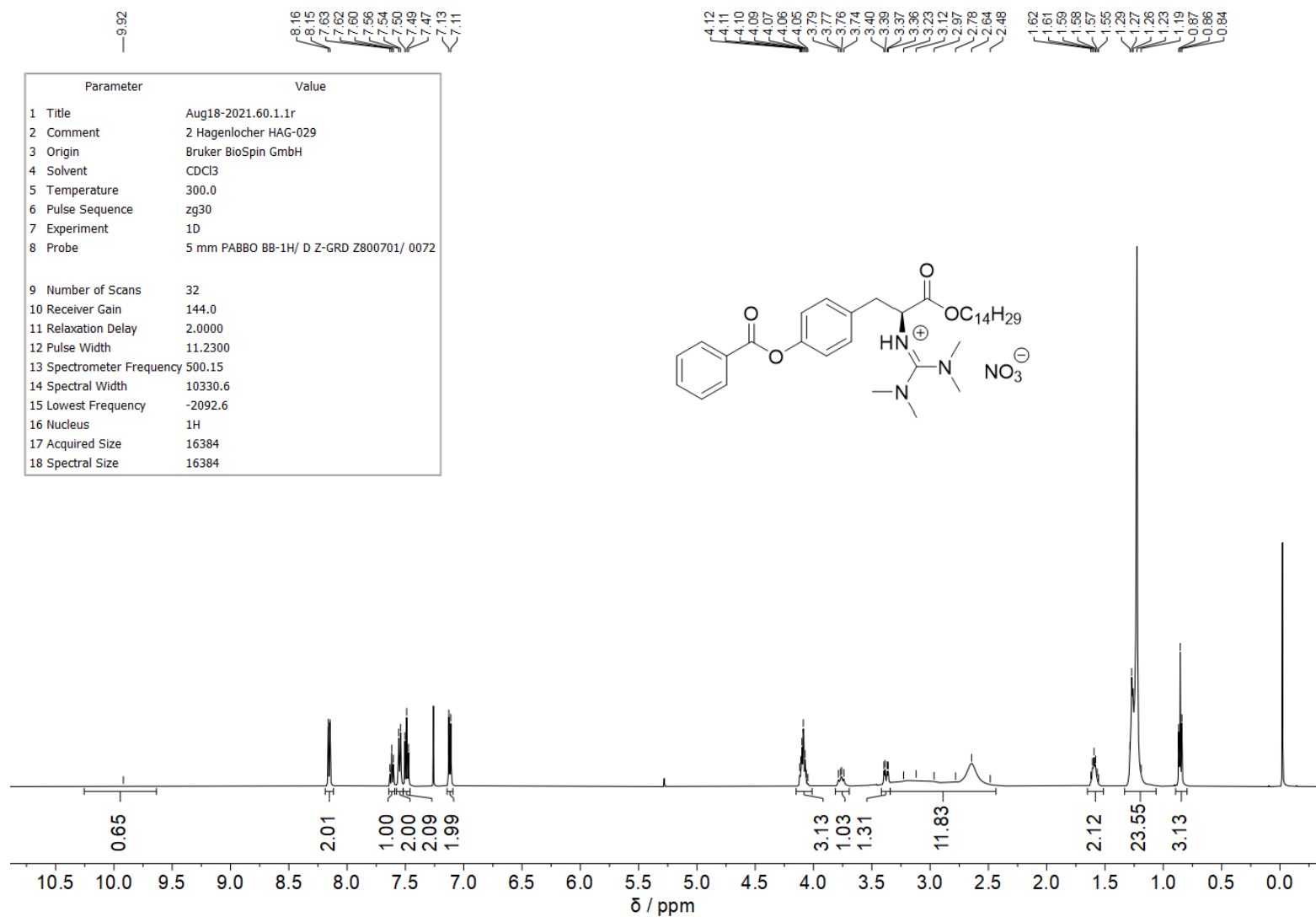


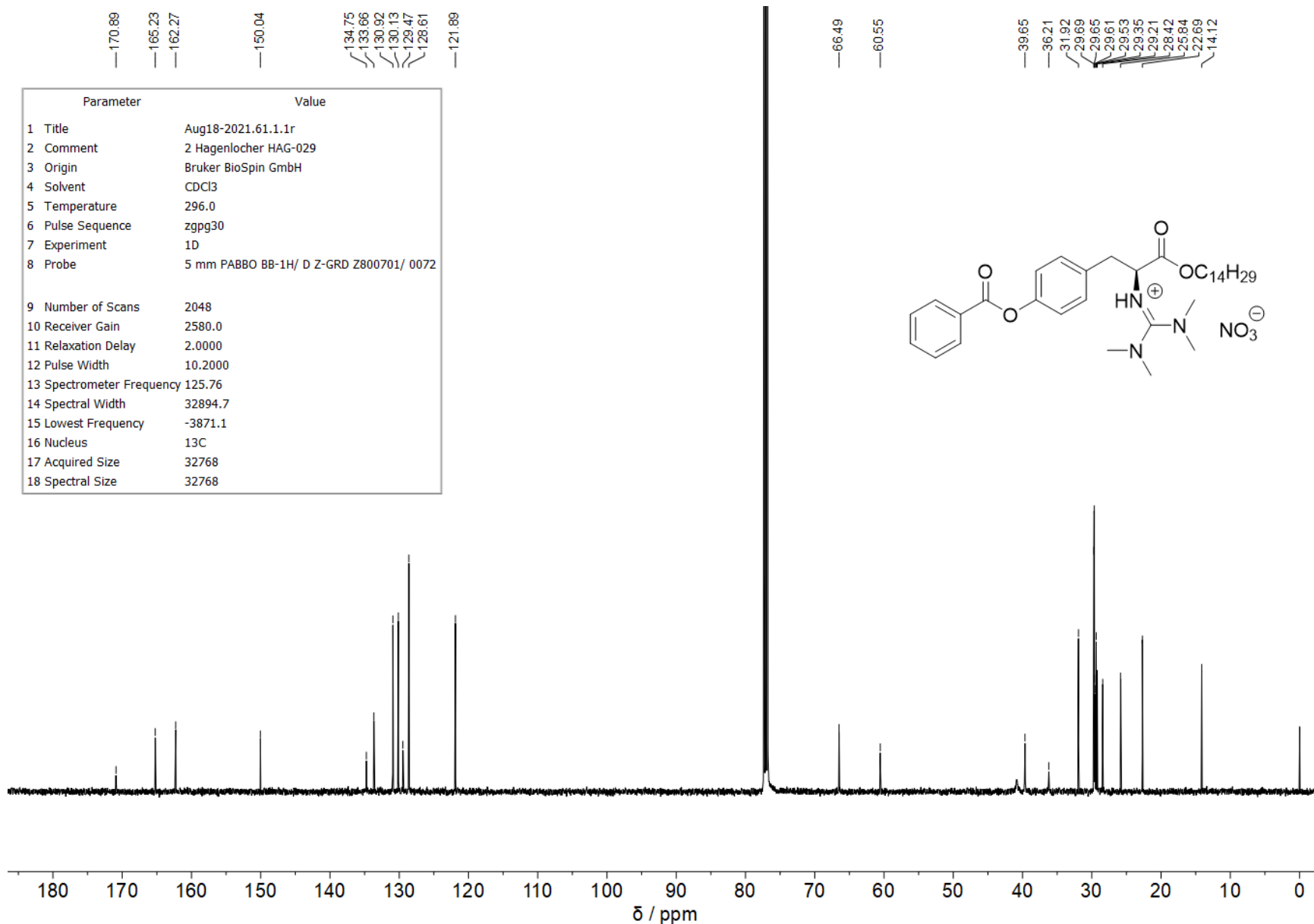


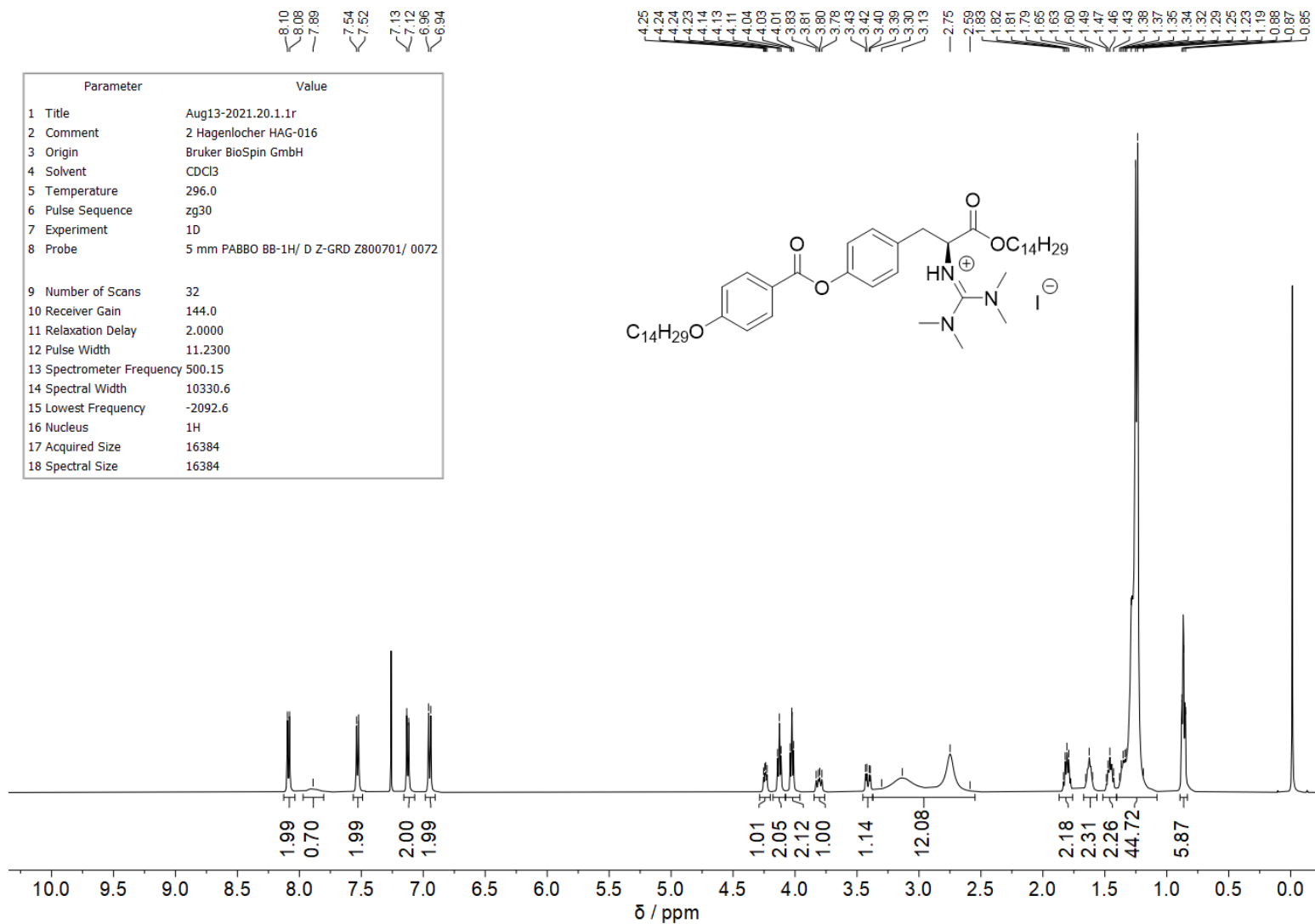
Parameter	Value
1 Title	Oct12-2021.140.fid
2 Comment	02 Hagenlocher HAG024
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

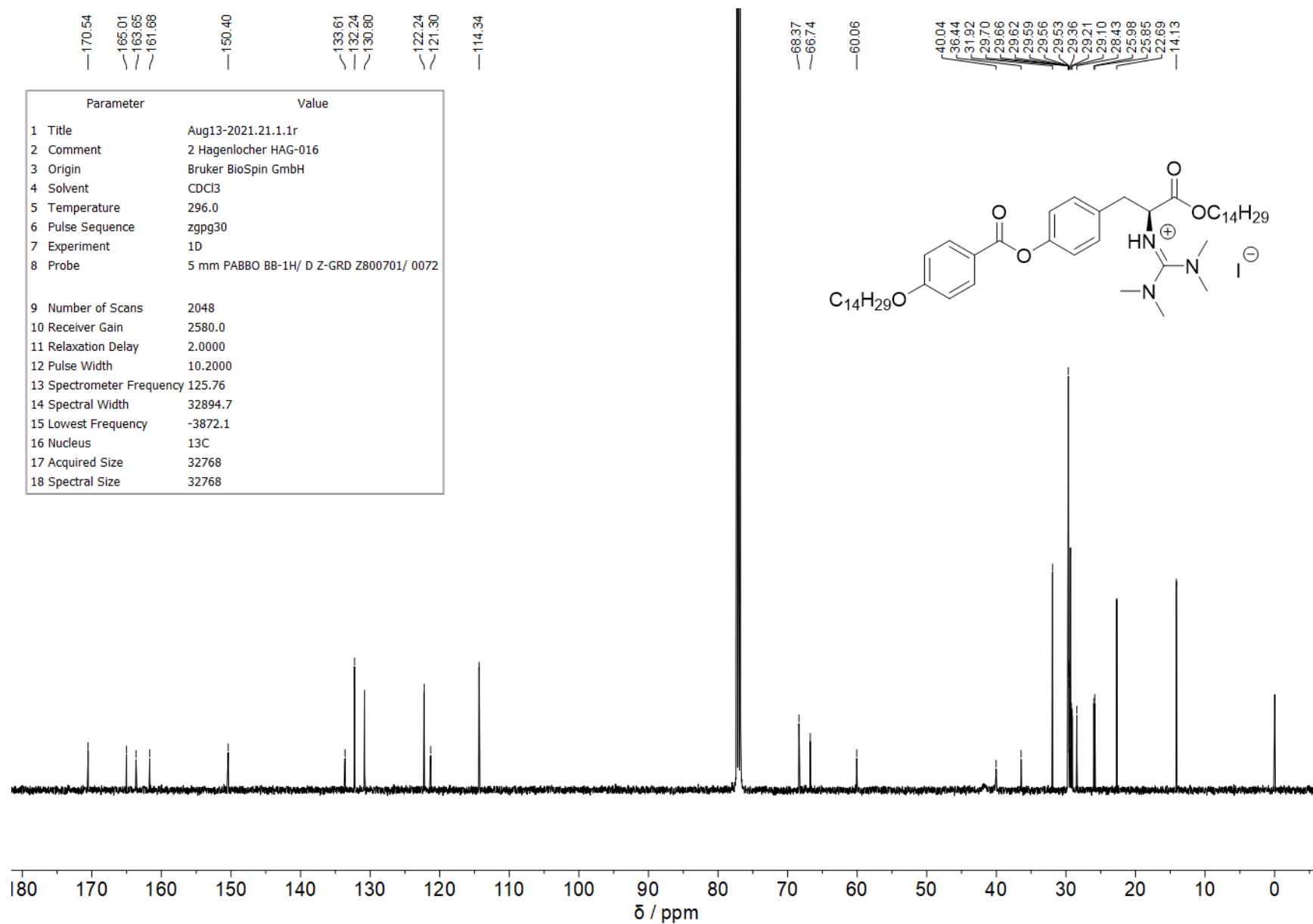


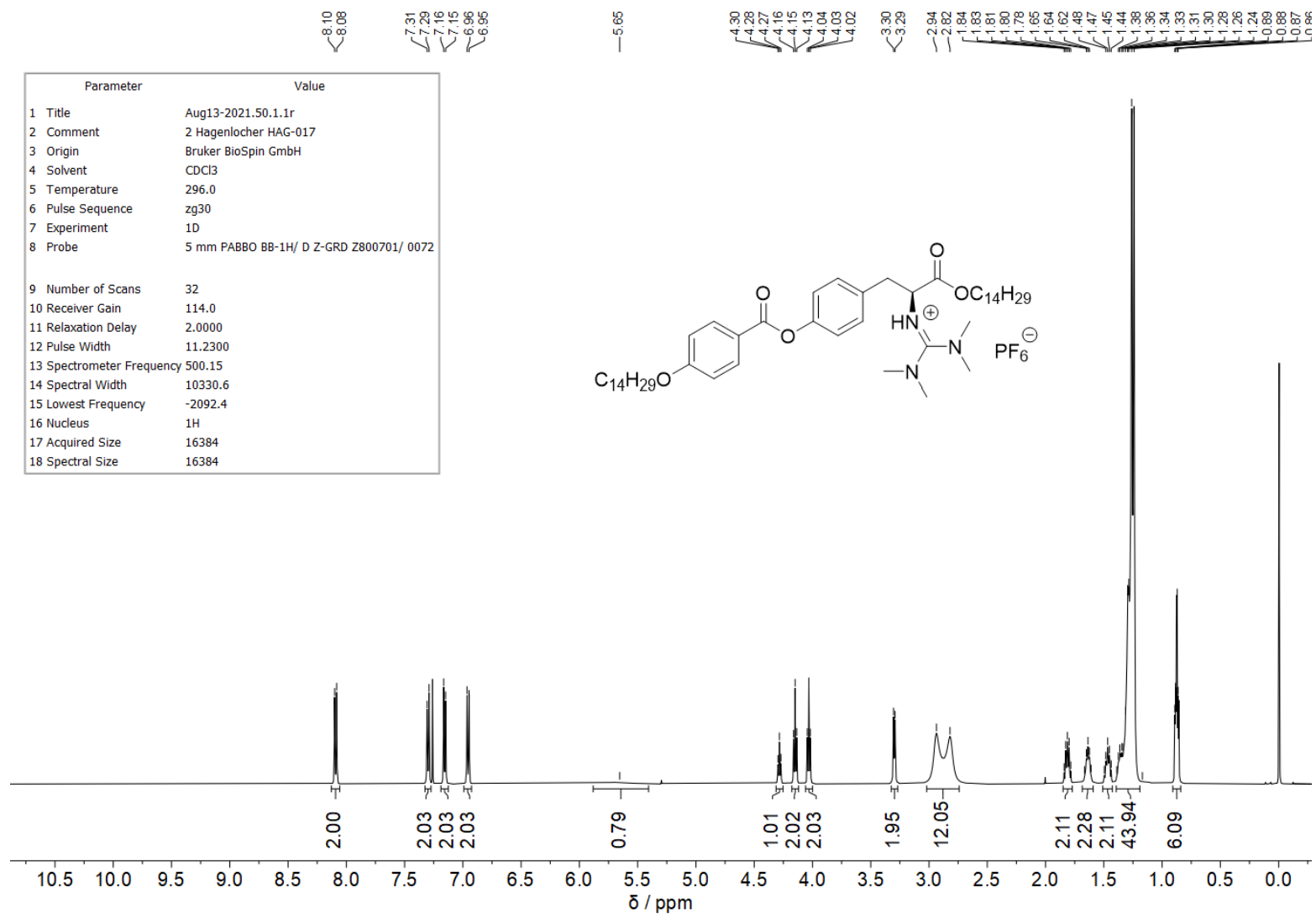
BzTyrC14NO3

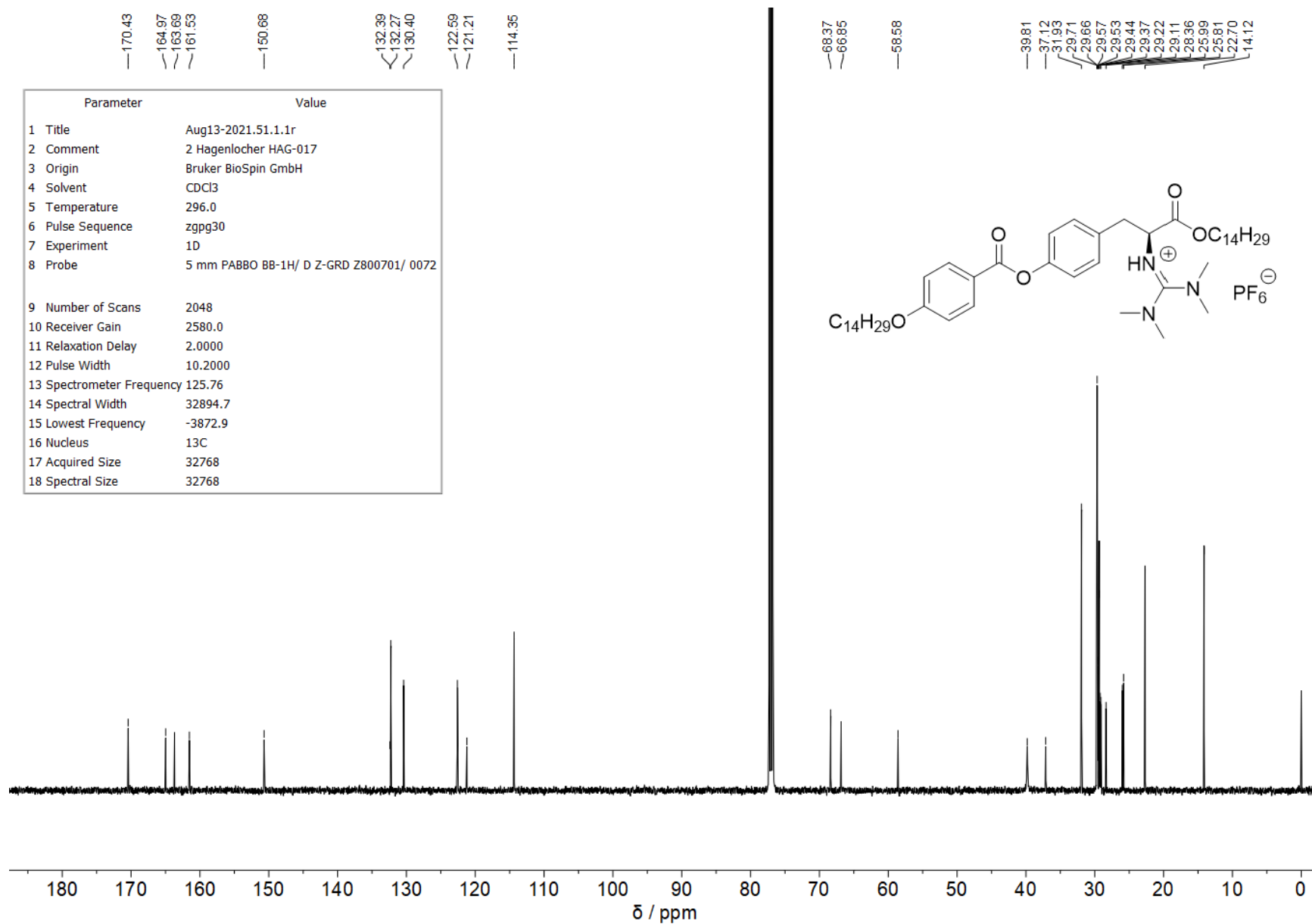




4-C₁₄TyrC₁₄I

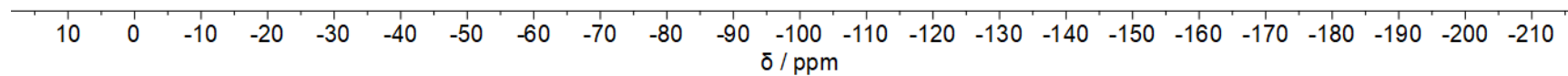
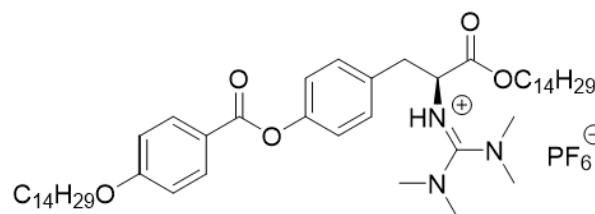


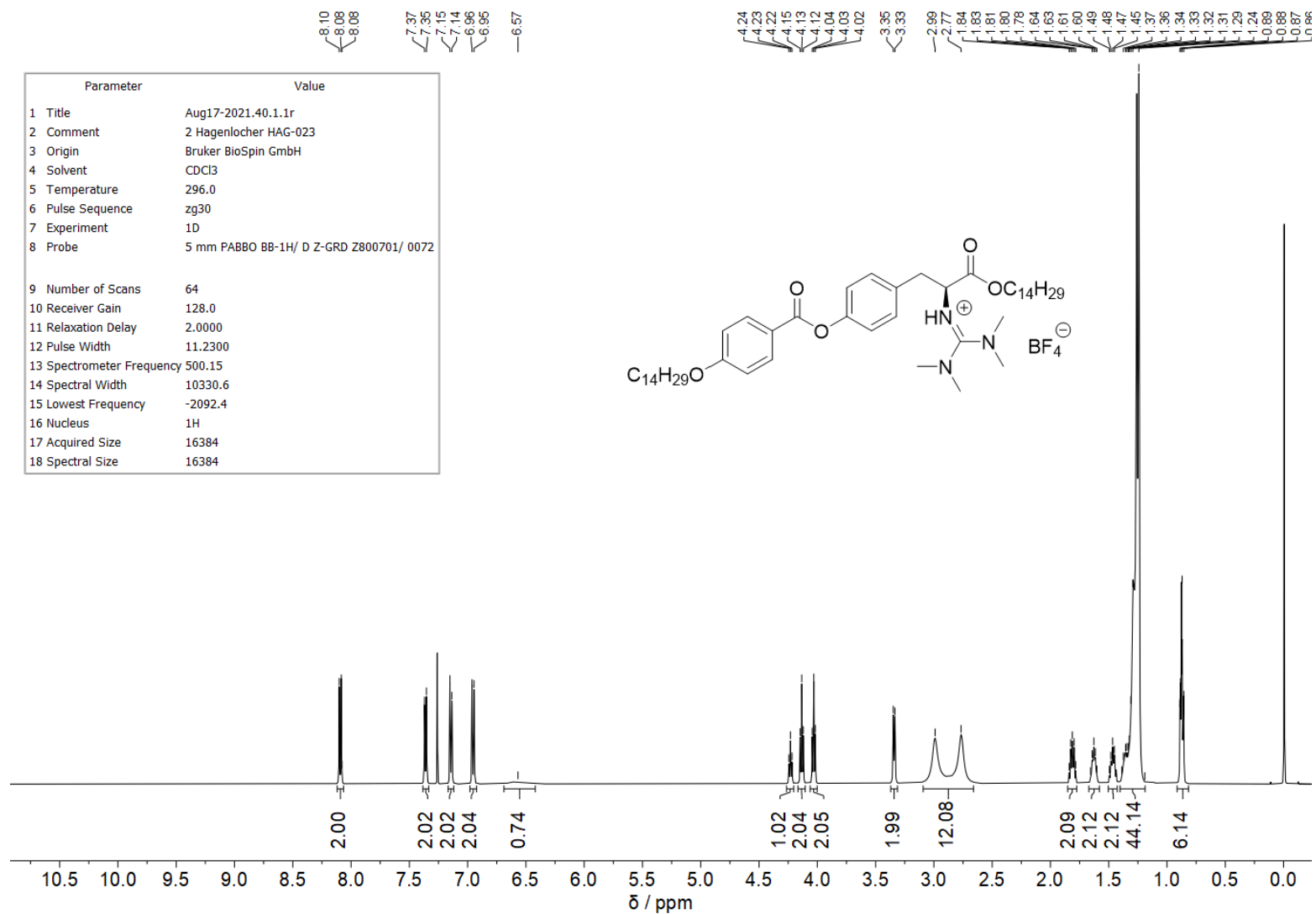
4-C₁₄TyrC₁₄PF₆

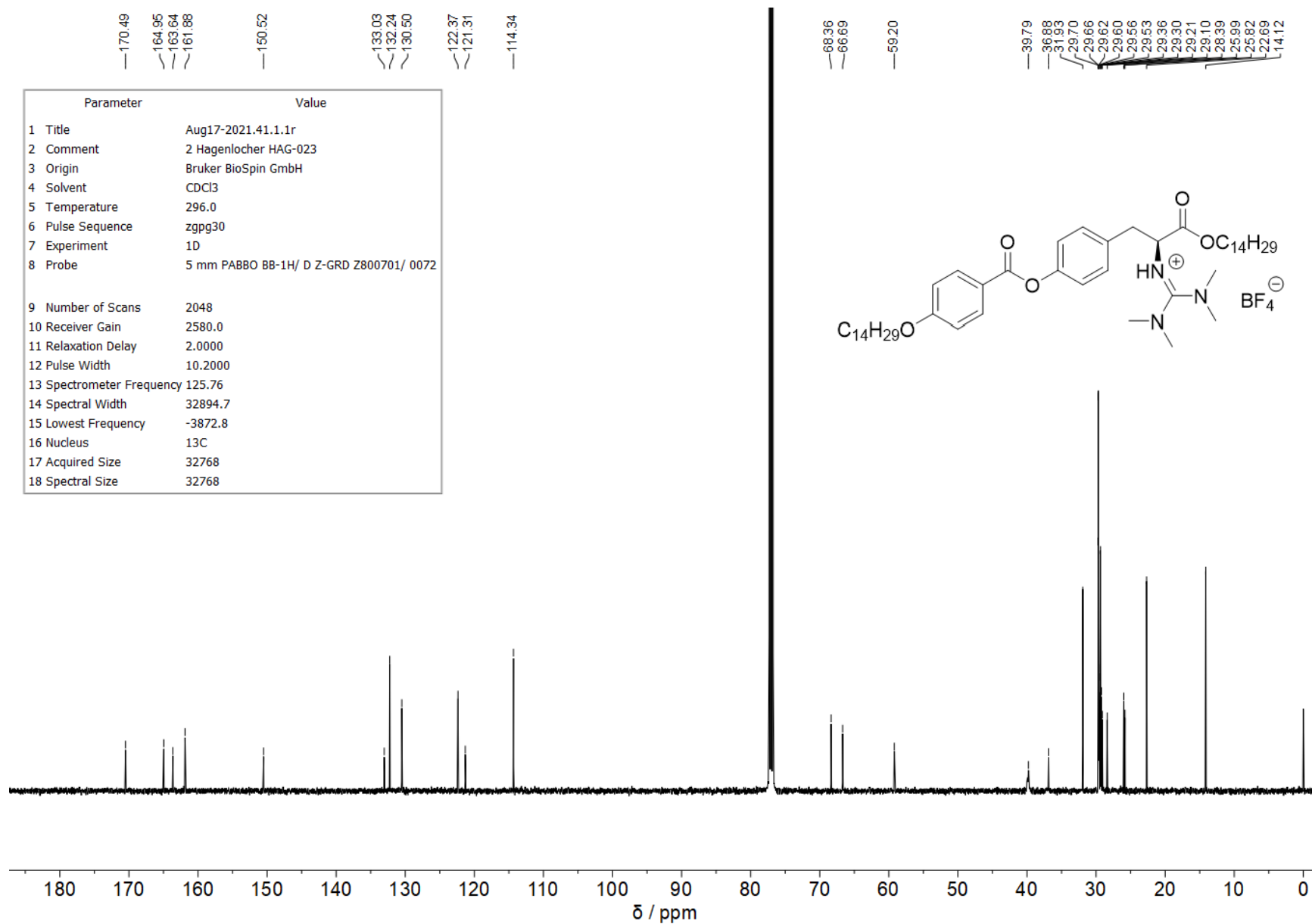


Parameter	Value
1 Title	Oct12-2021.130.fid
2 Comment	02 Hagenlocher HAG017
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

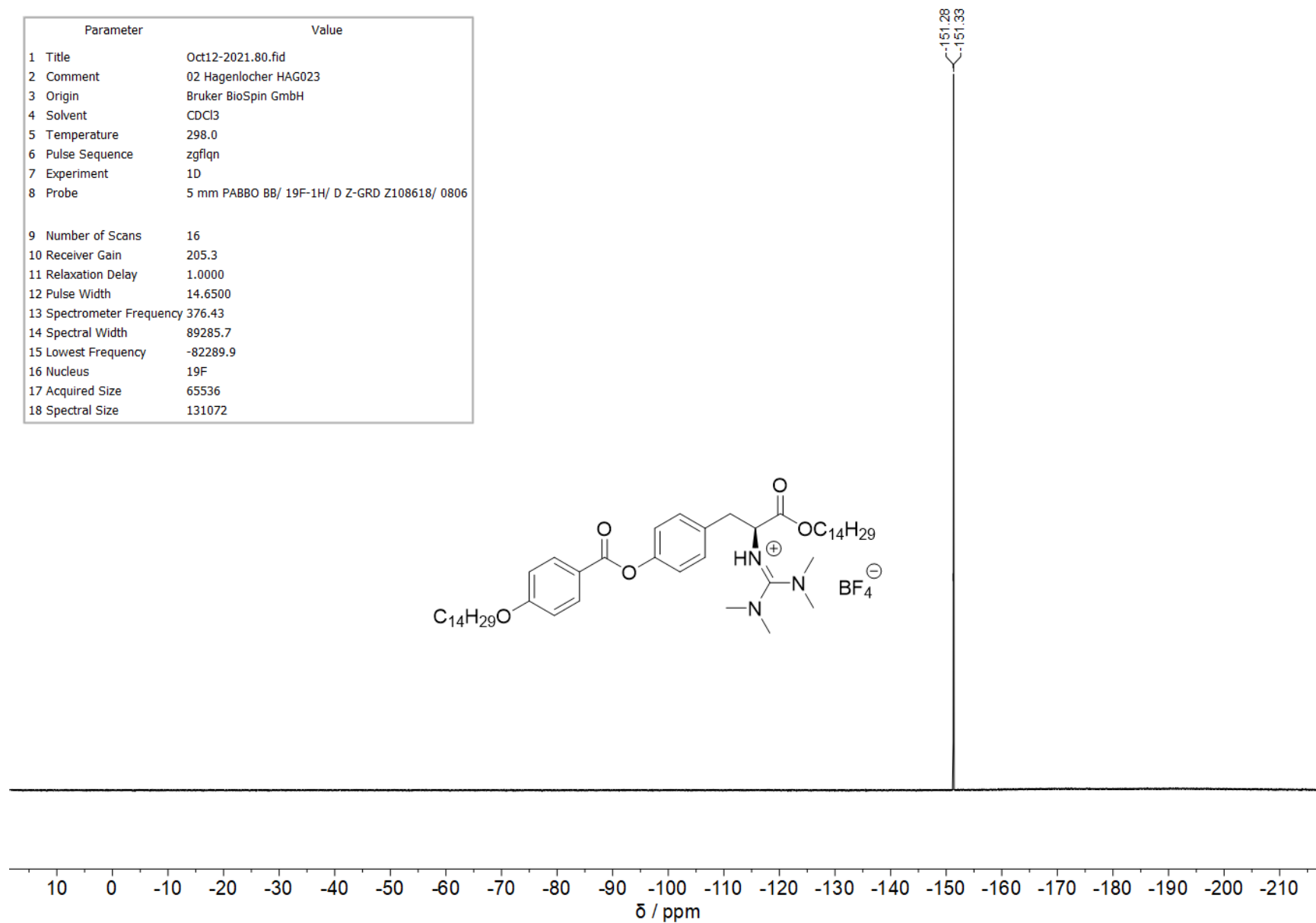
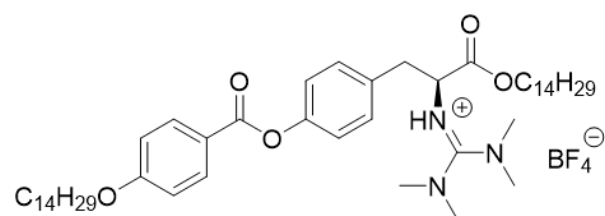
71.50
73.39

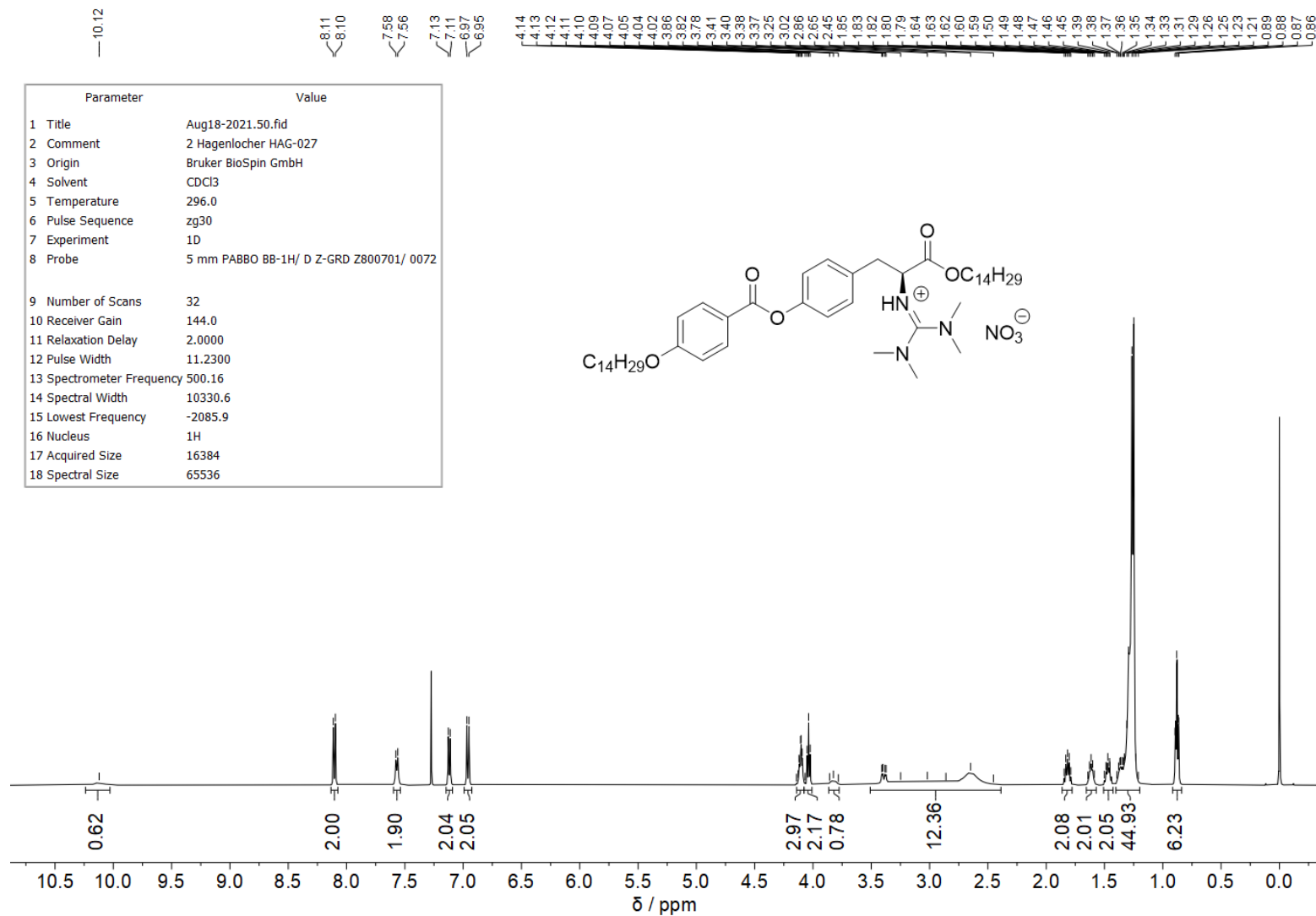


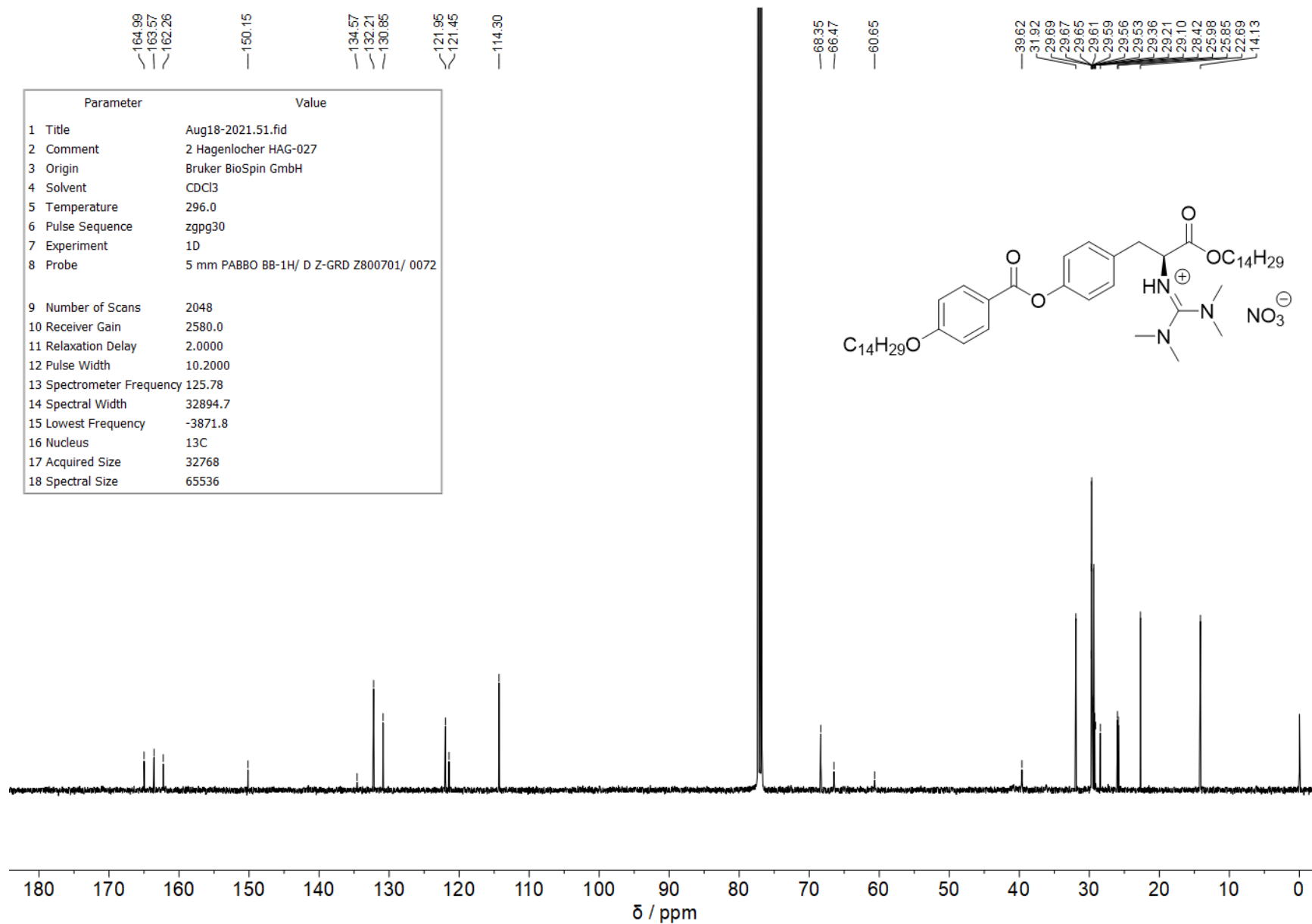
4-C₁₄TyrC₁₄BF₄



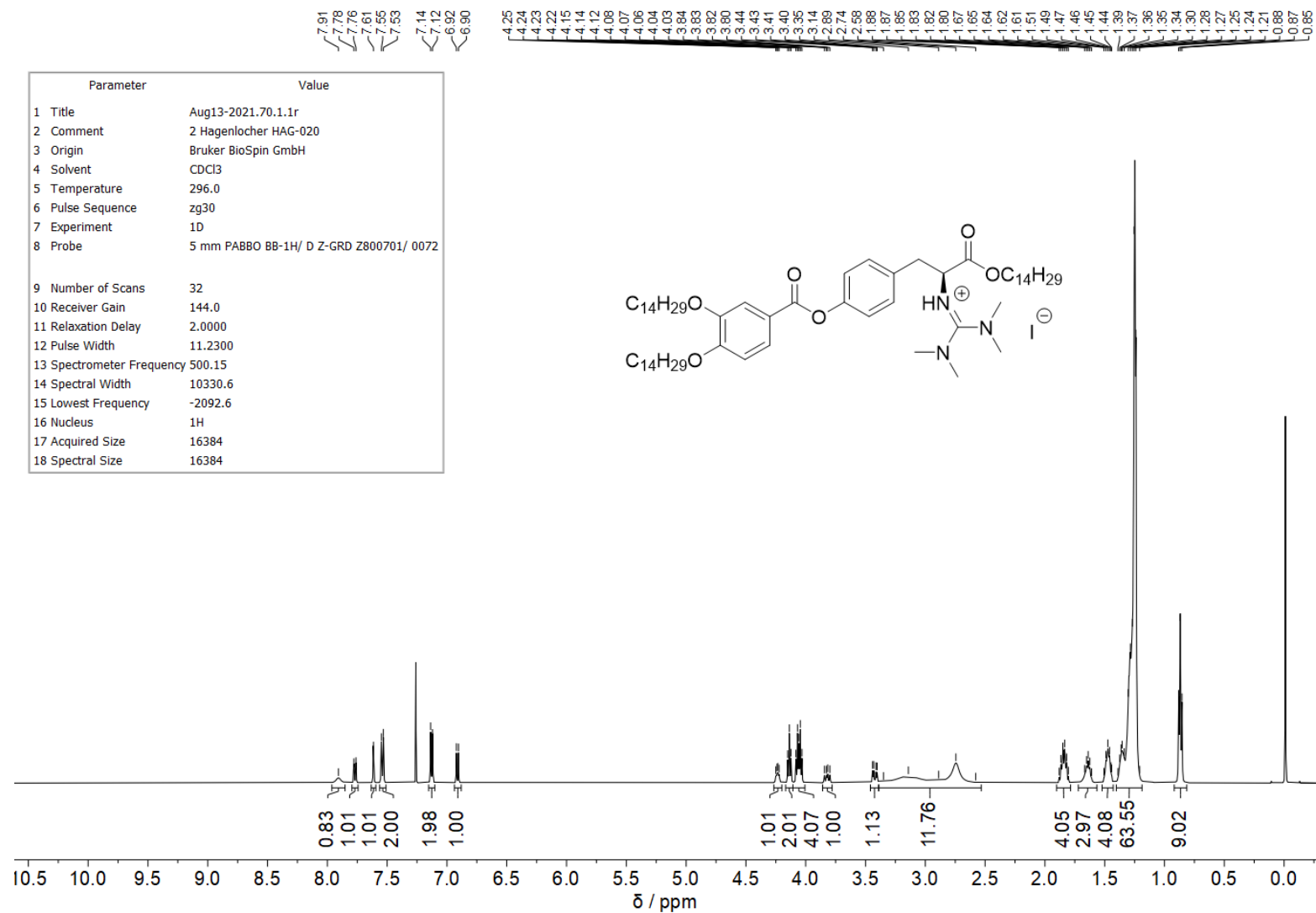
Parameter	Value
1 Title	Oct12-2021.80.fid
2 Comment	02 Hagenlocher HAG023
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

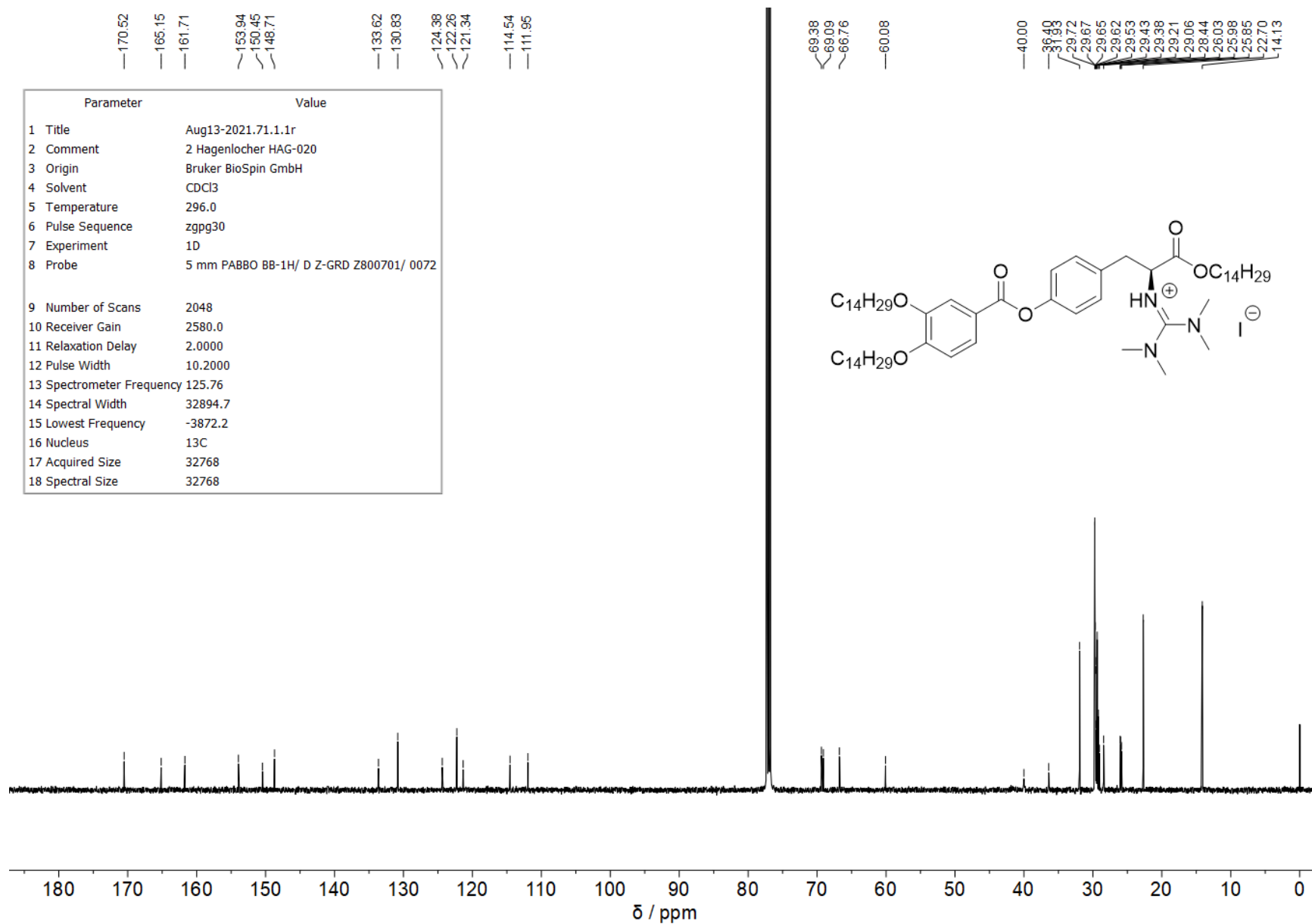


4-C₁₄TyrC₁₄NO₃

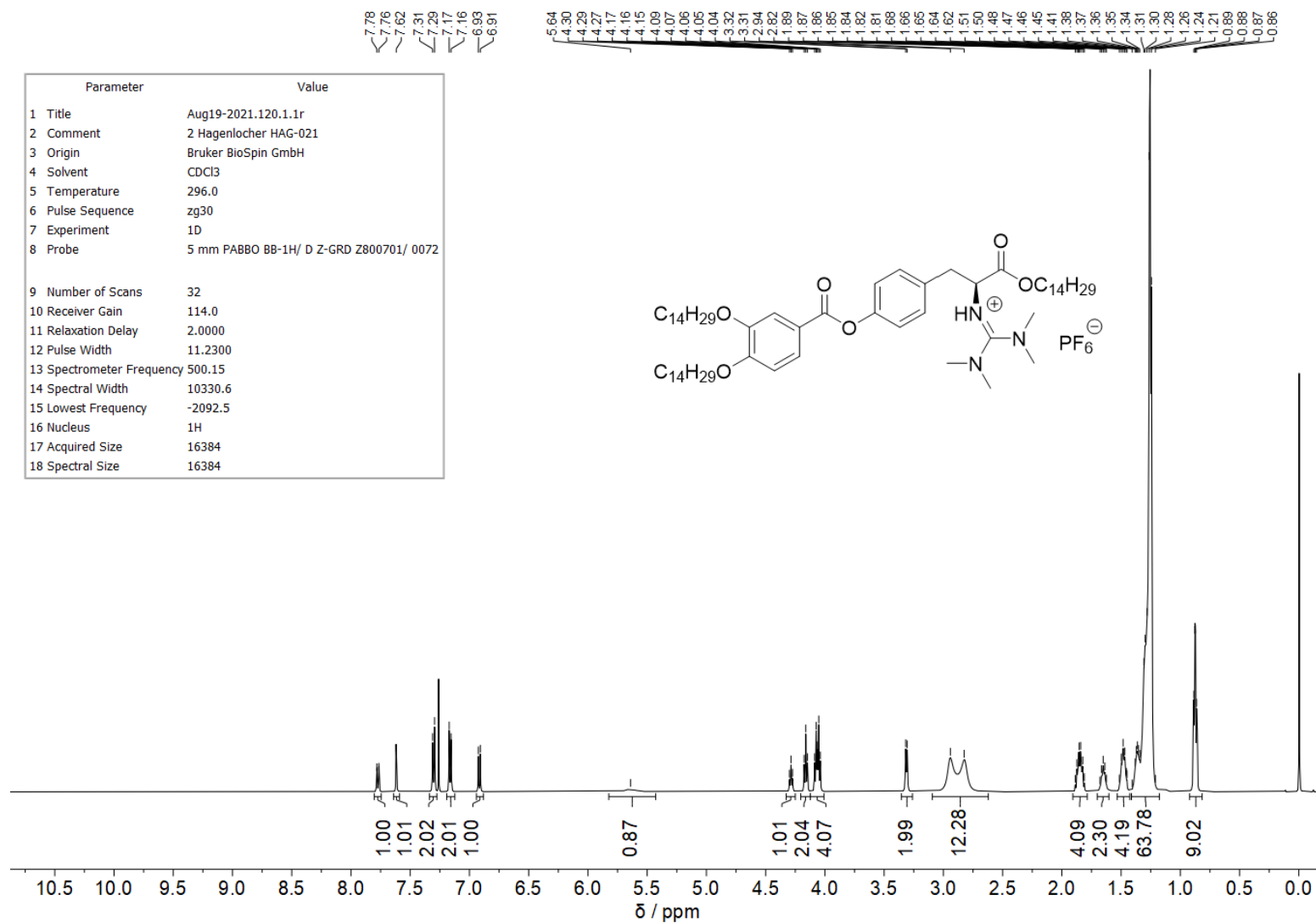


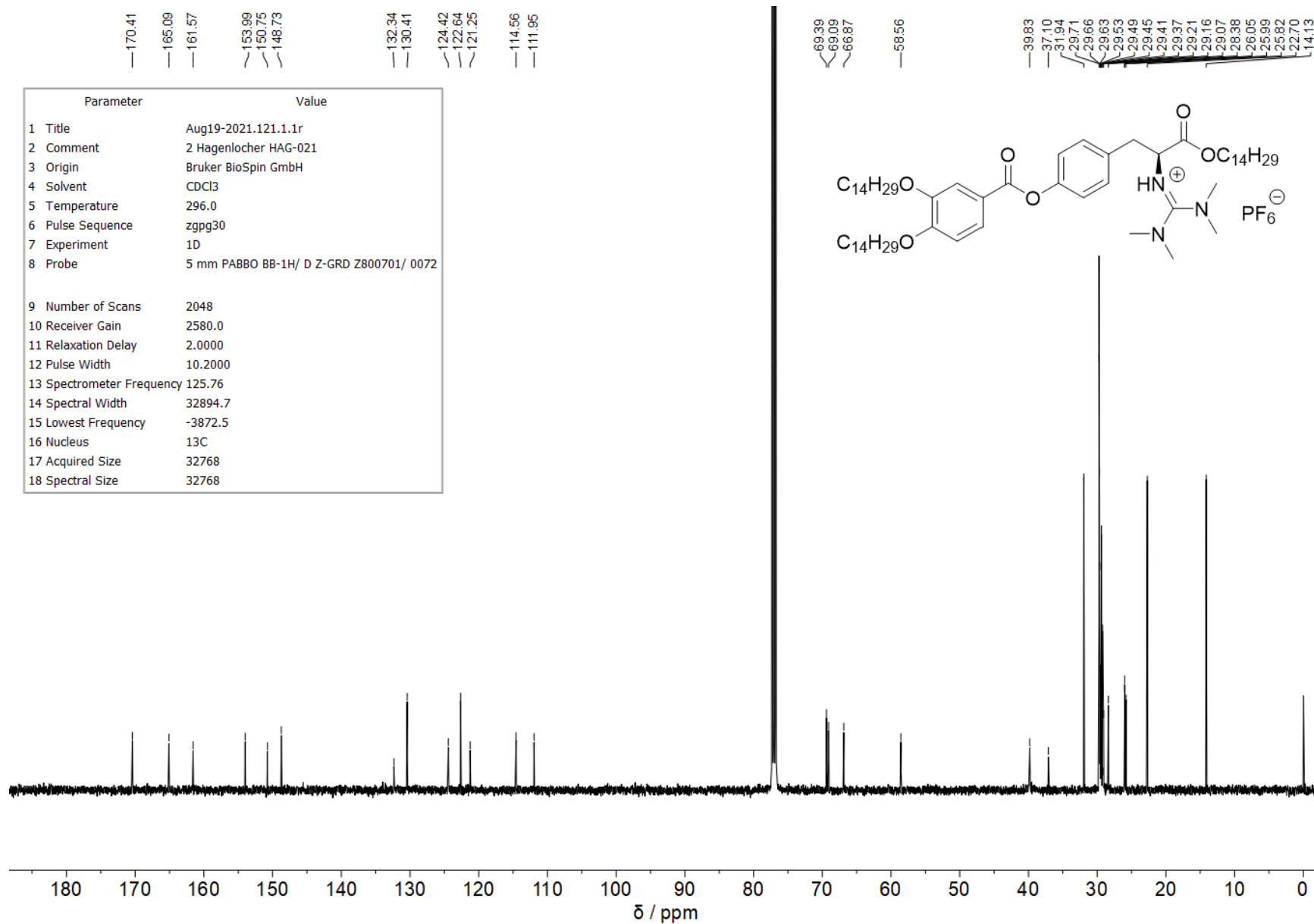
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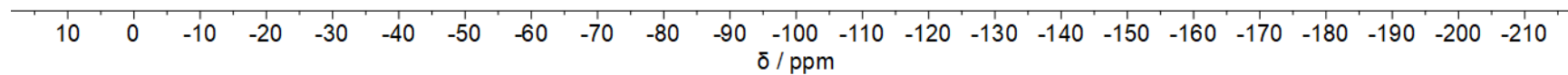
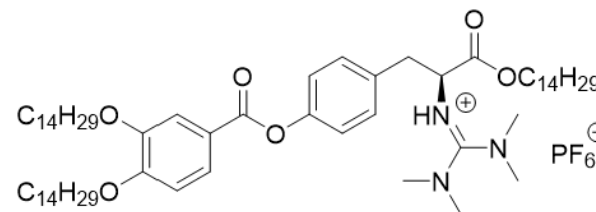
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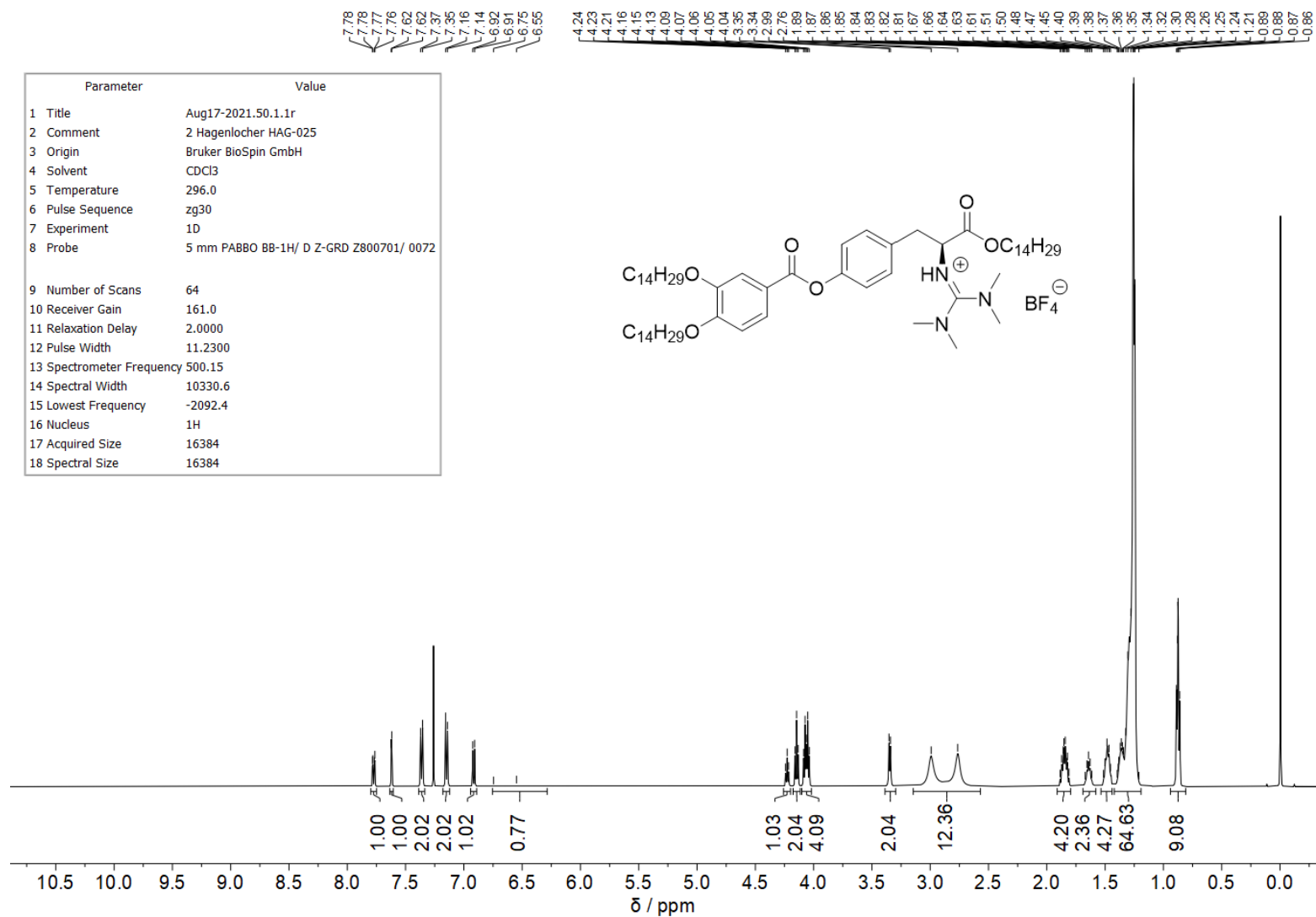


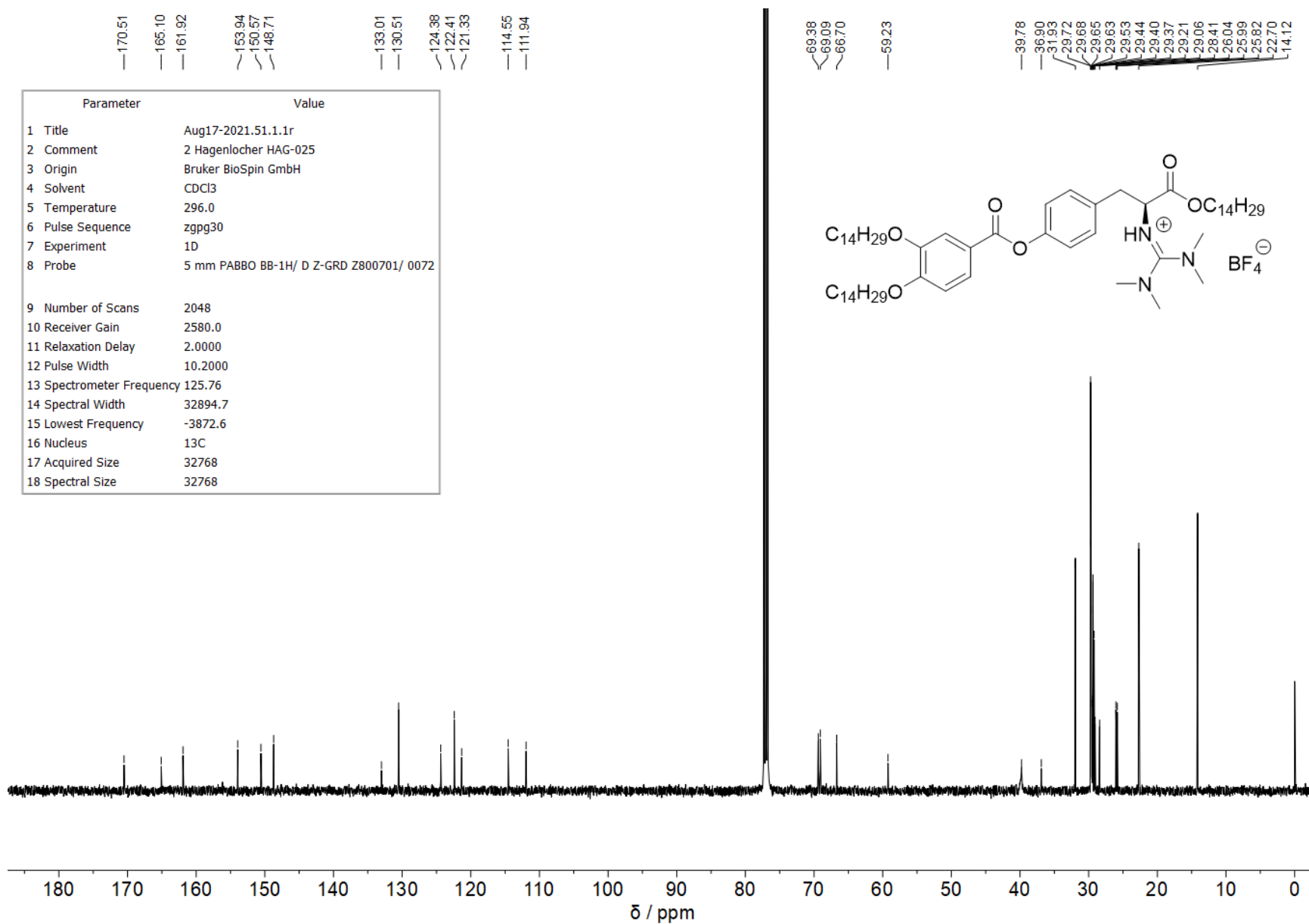


Parameter	Value
1 Title	Oct12-2021.100.fid
2 Comment	02 Hagenlocher HAG021
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgq
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

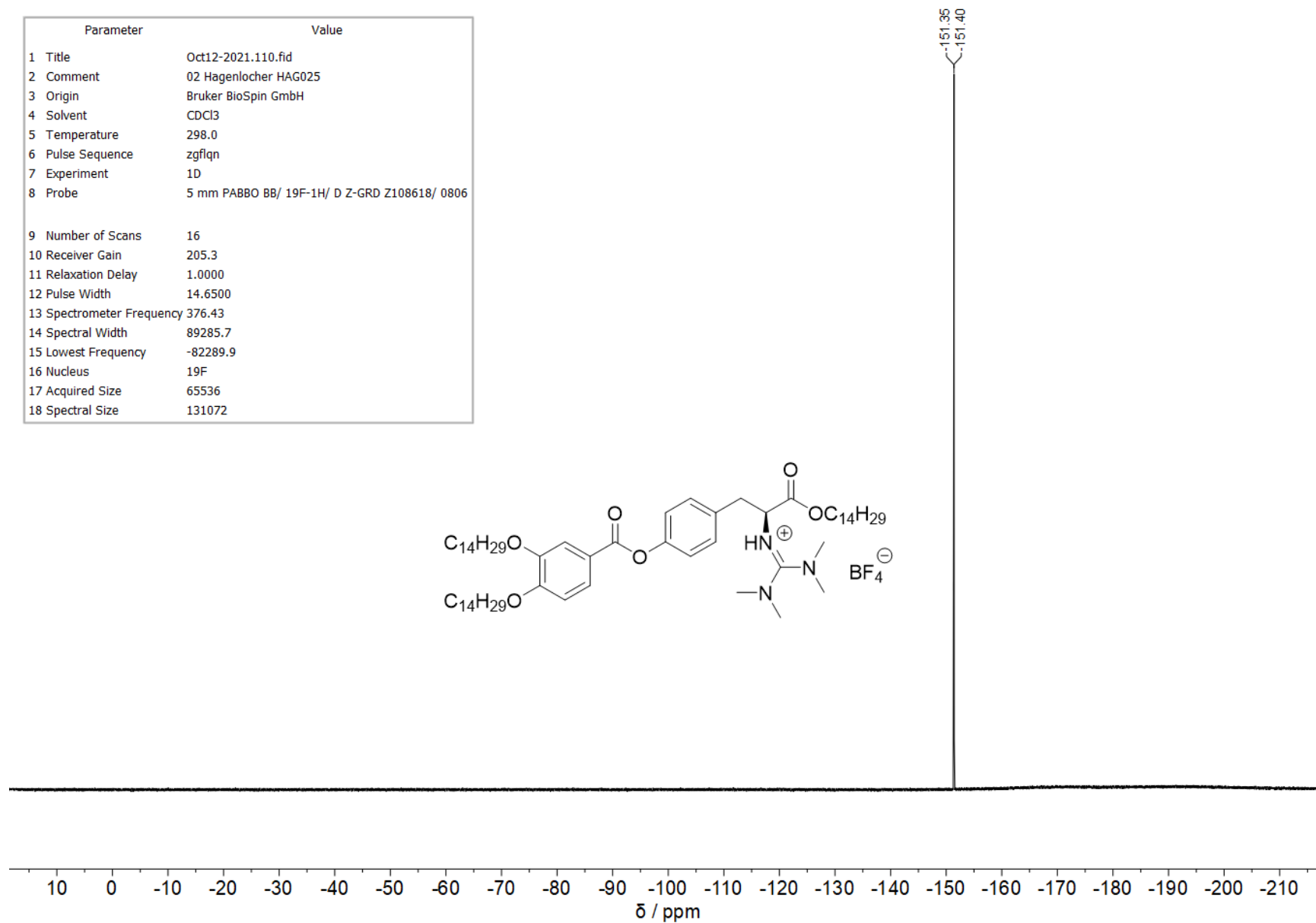
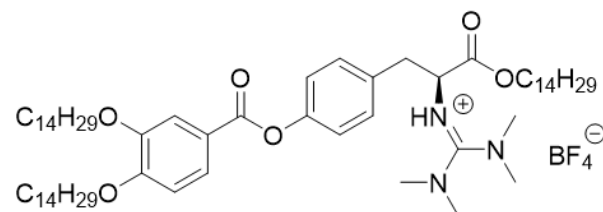
71.54
73.43



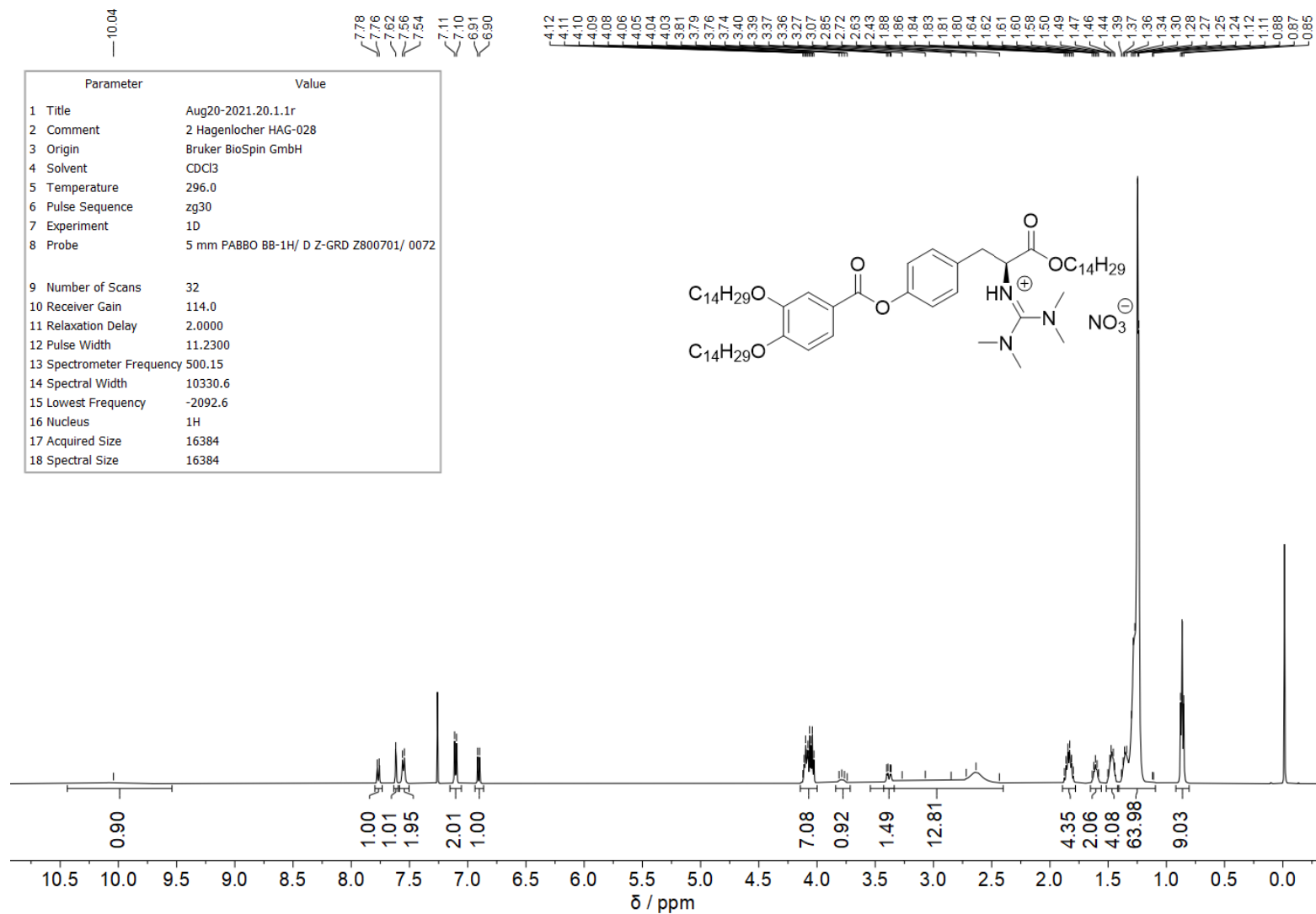
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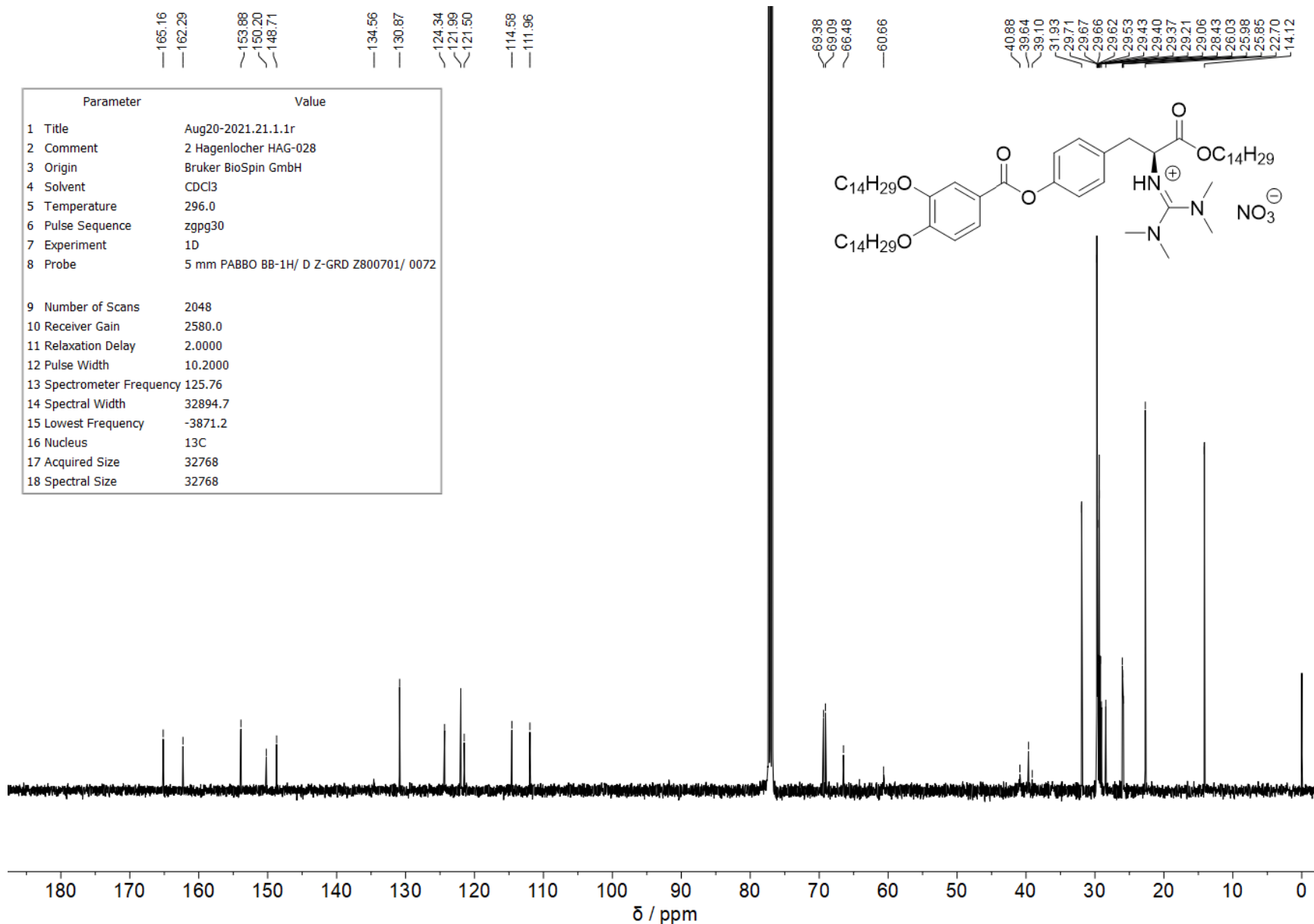


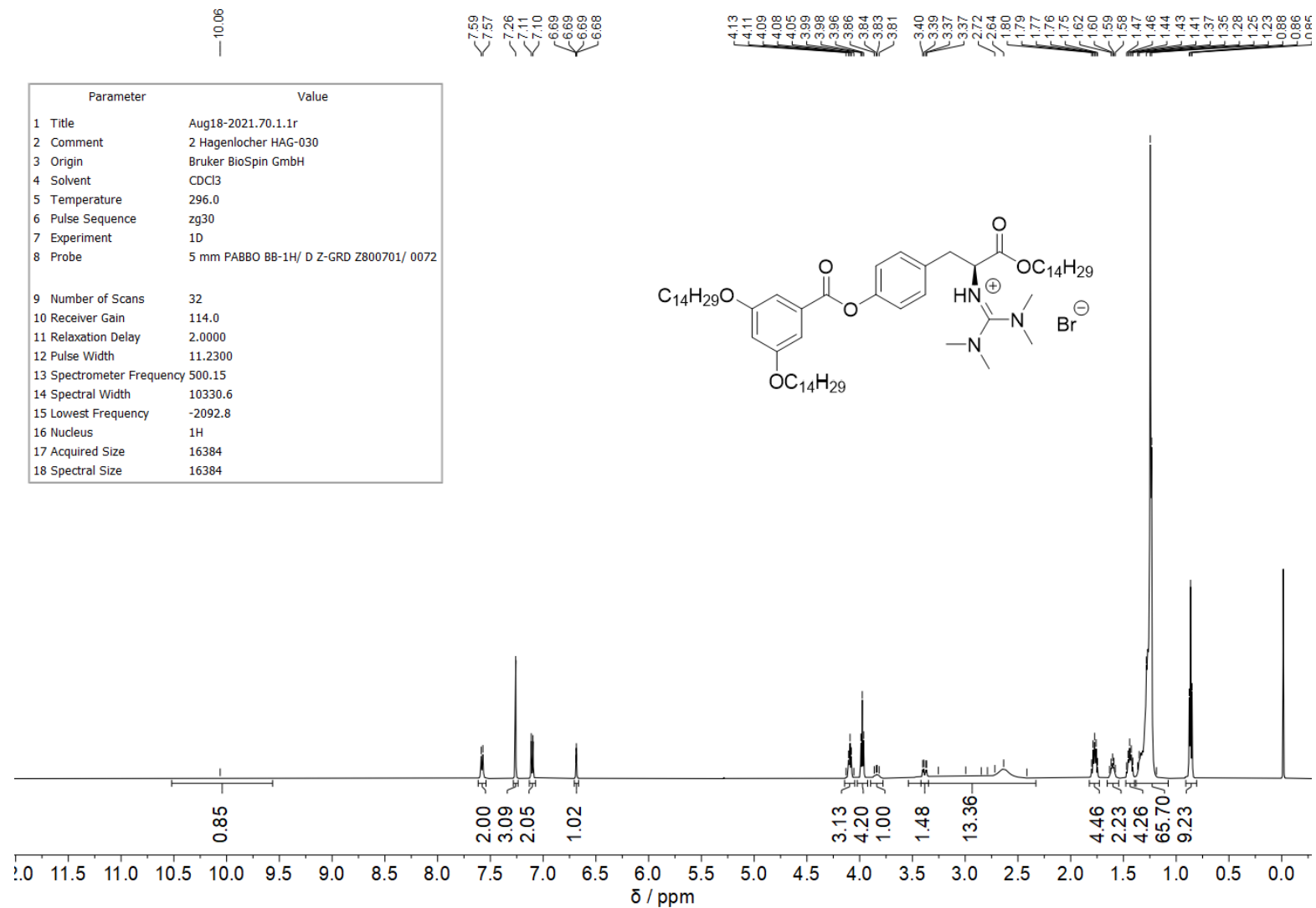
Parameter	Value
1 Title	Oct12-2021.110.fid
2 Comment	02 Hagenlocher HAG025
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

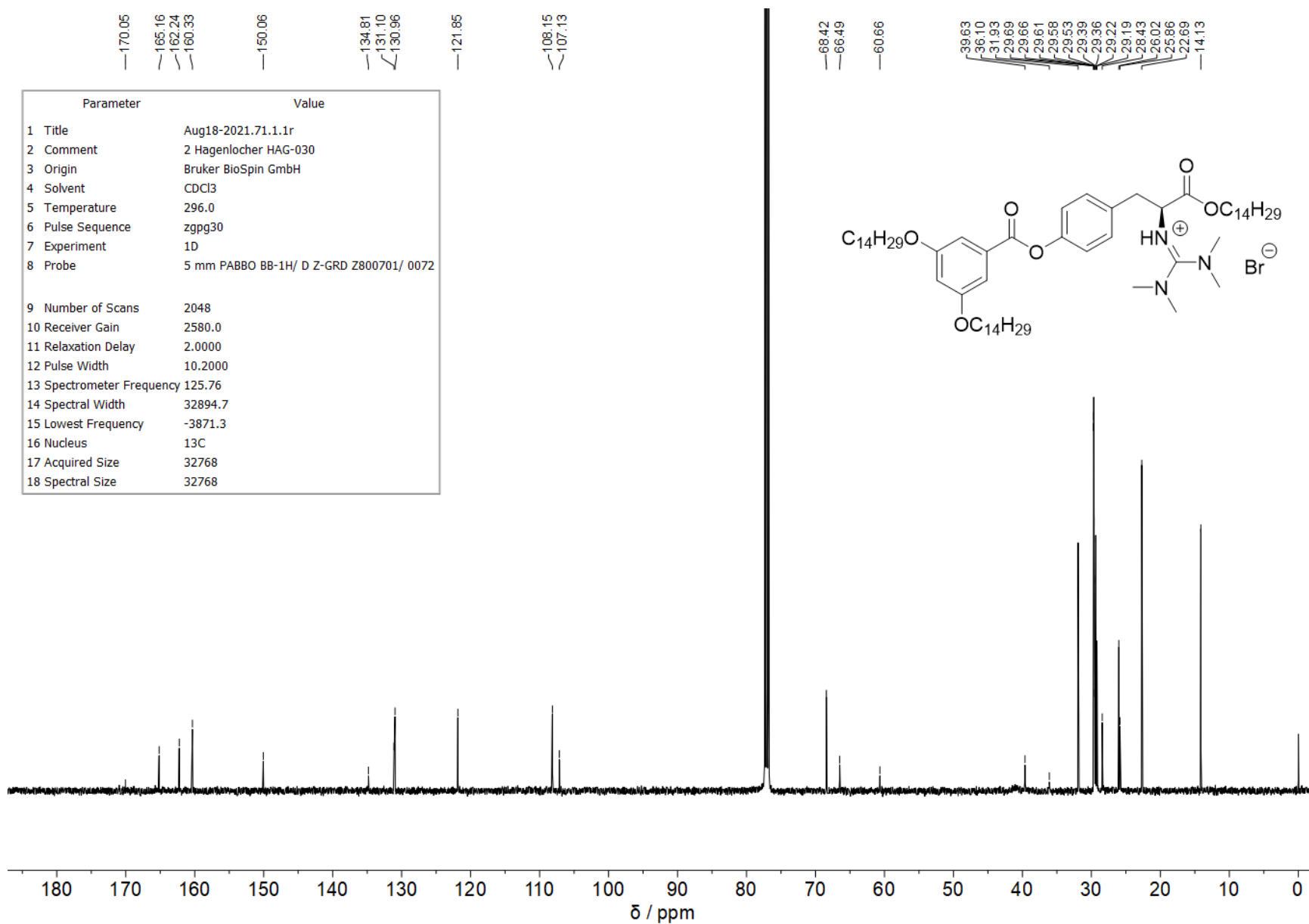


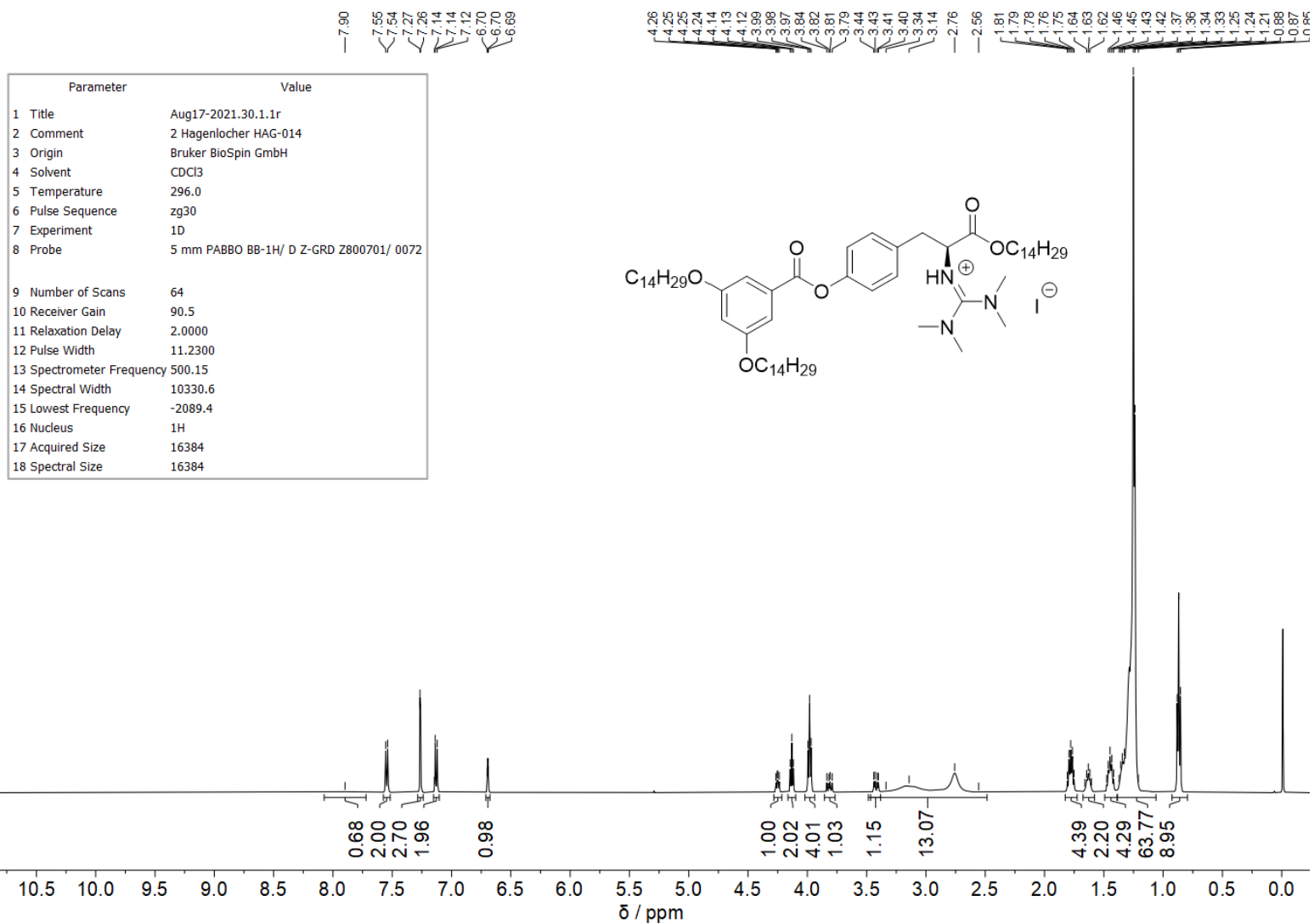
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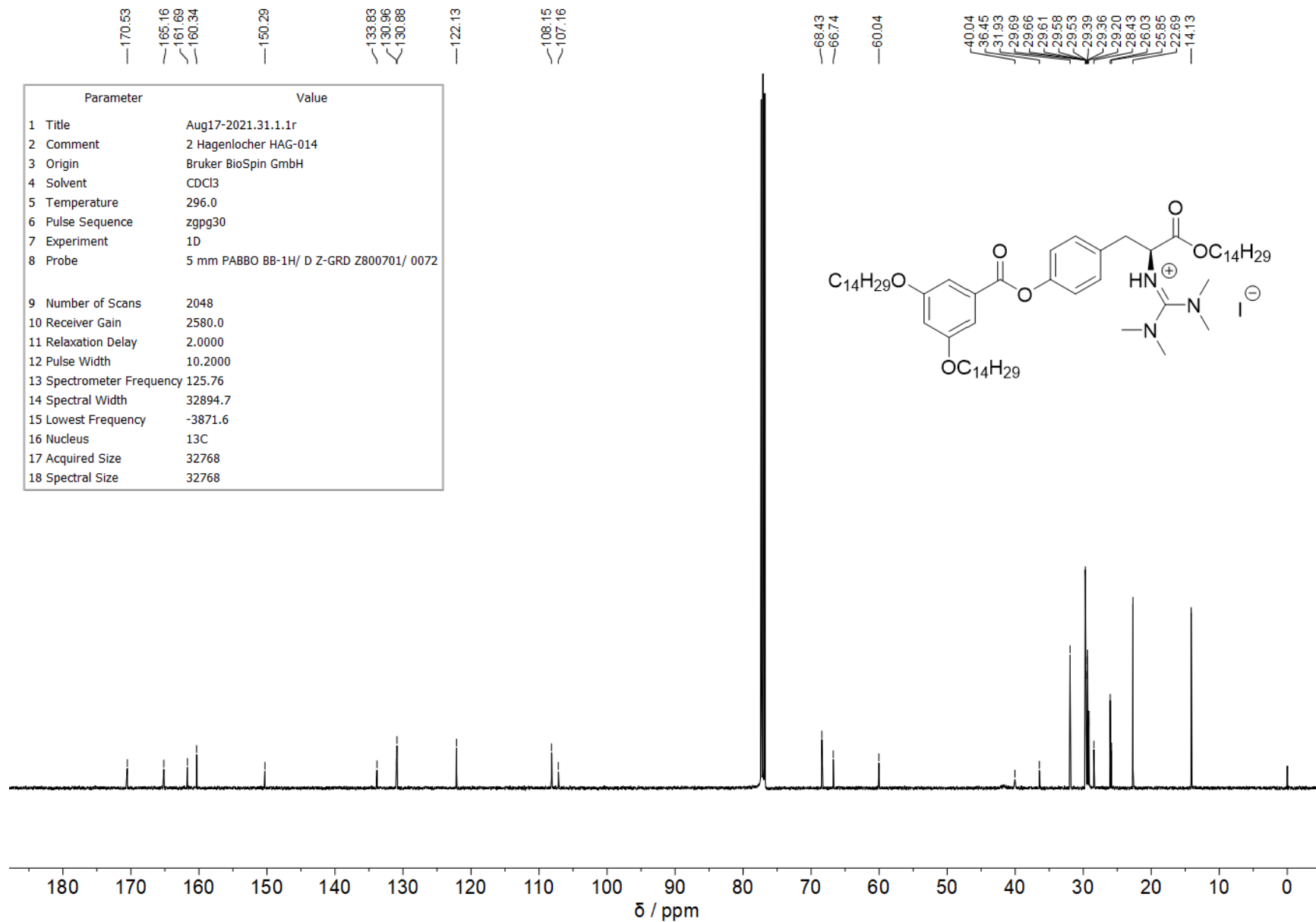


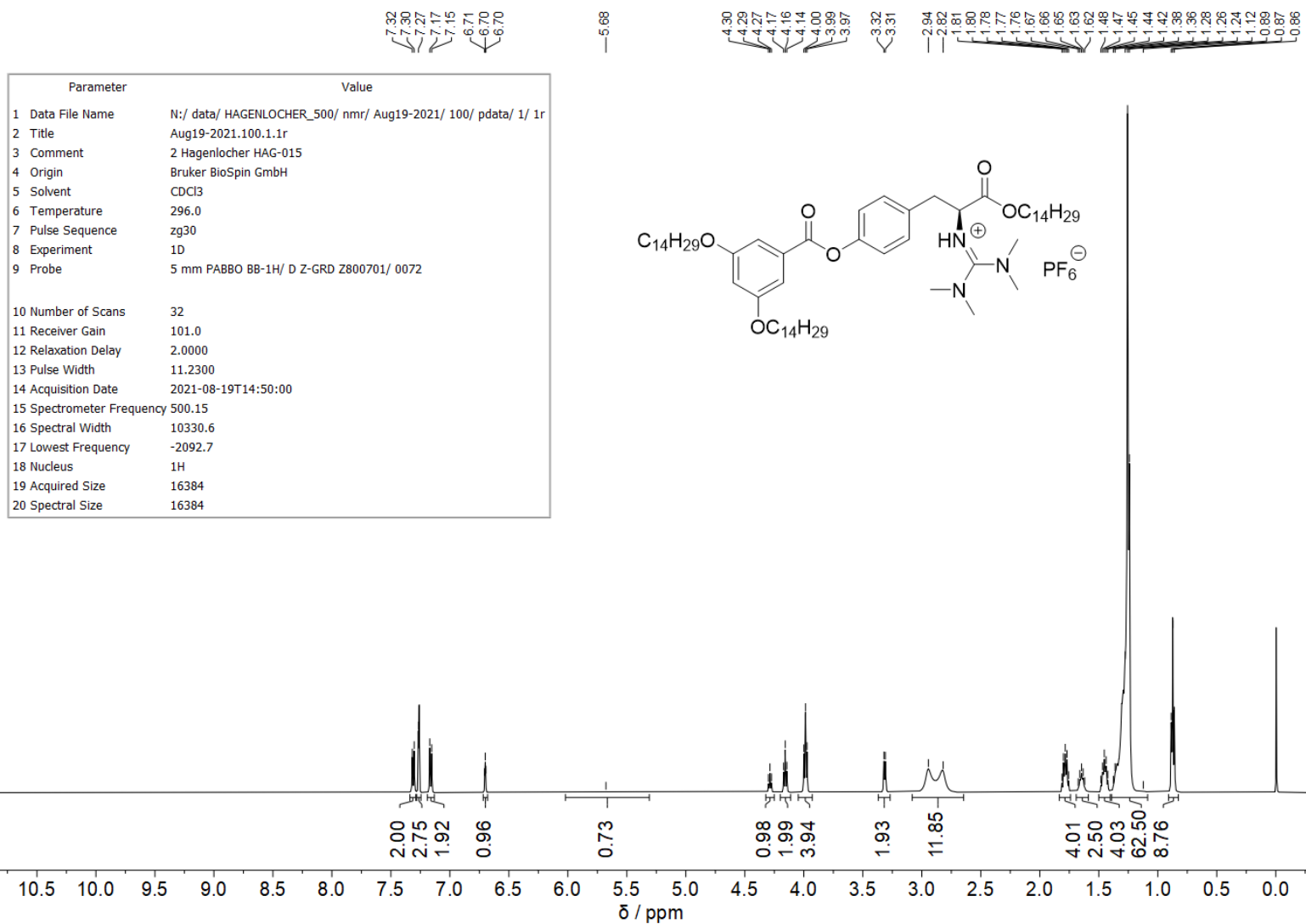


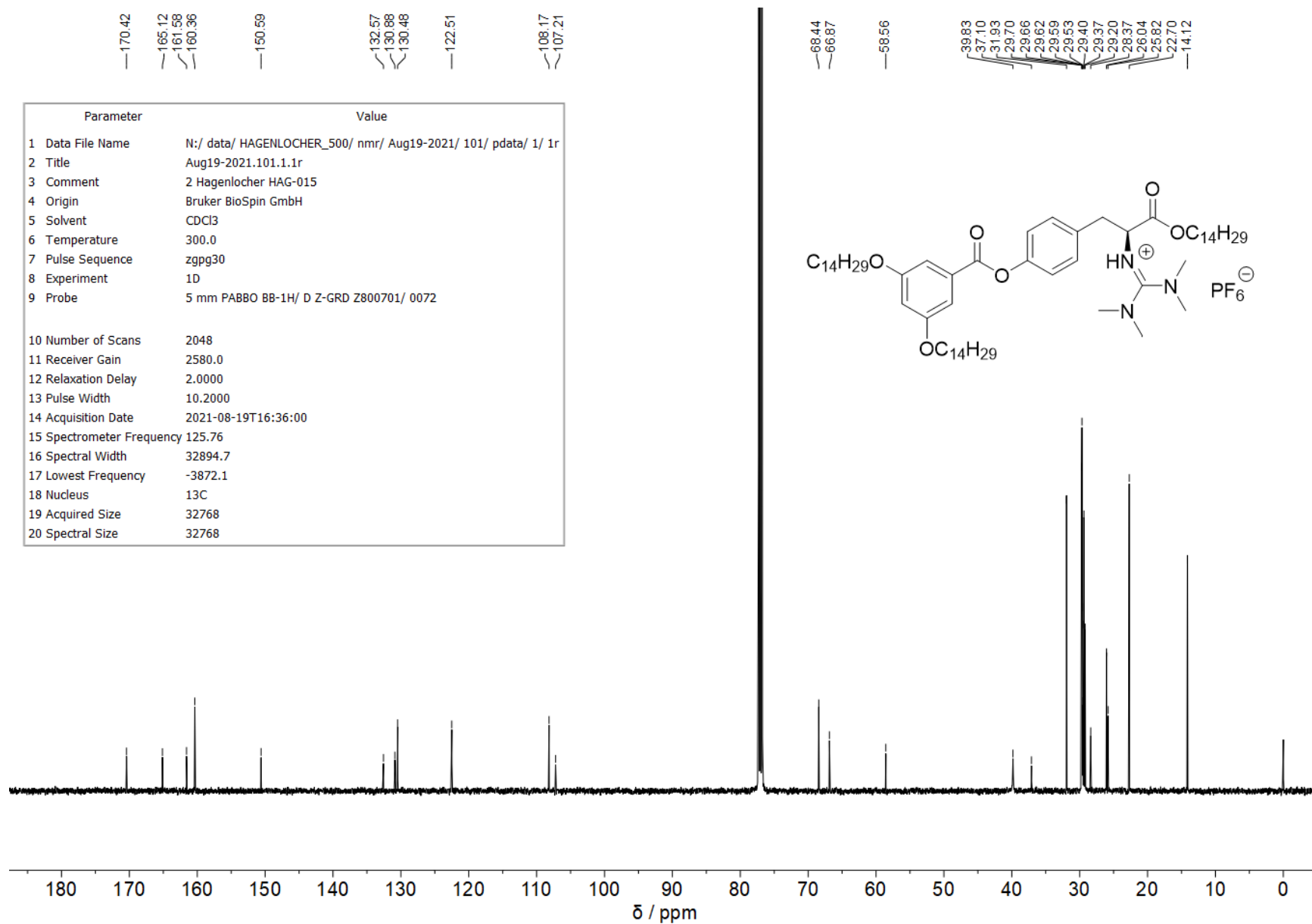
3,5-C₁₄TyrC₁₄Br



3,5-C₁₄TyrC₁₄I

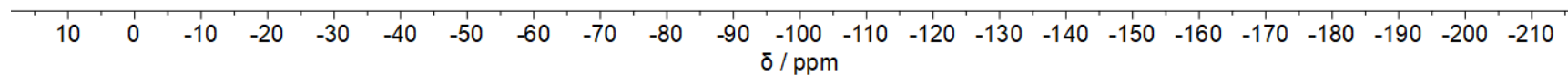
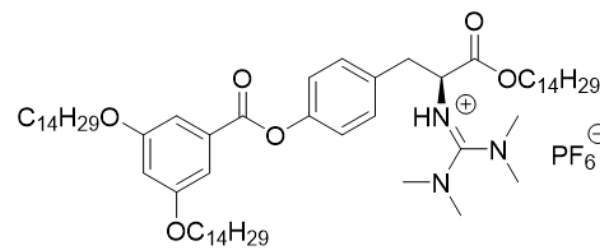


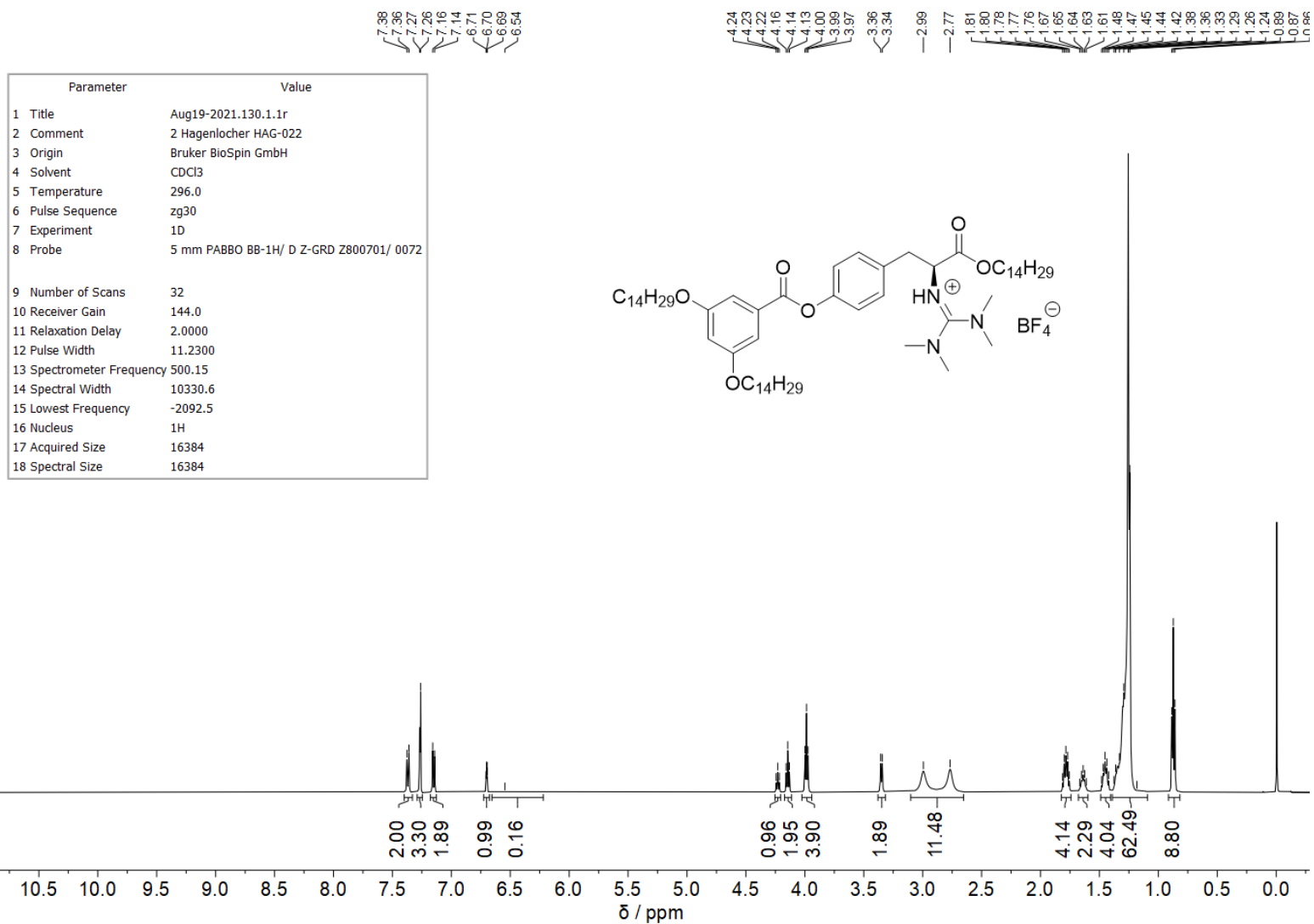
3,5-C₁₄TyrC₁₄PF₆

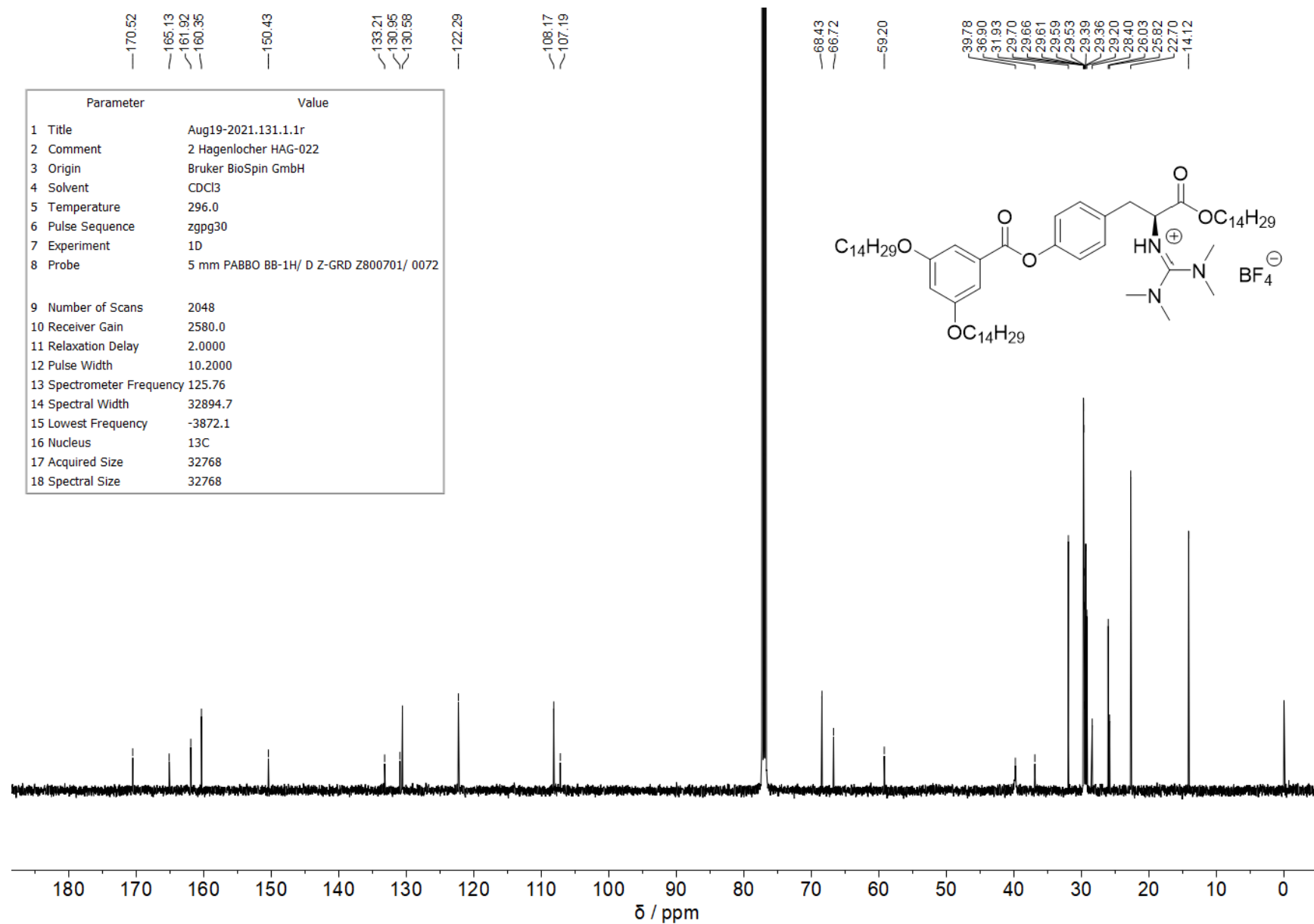


Parameter	Value
1 Title	Oct12-2021.90.fid
2 Comment	02 Hagenlocher HAG015
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

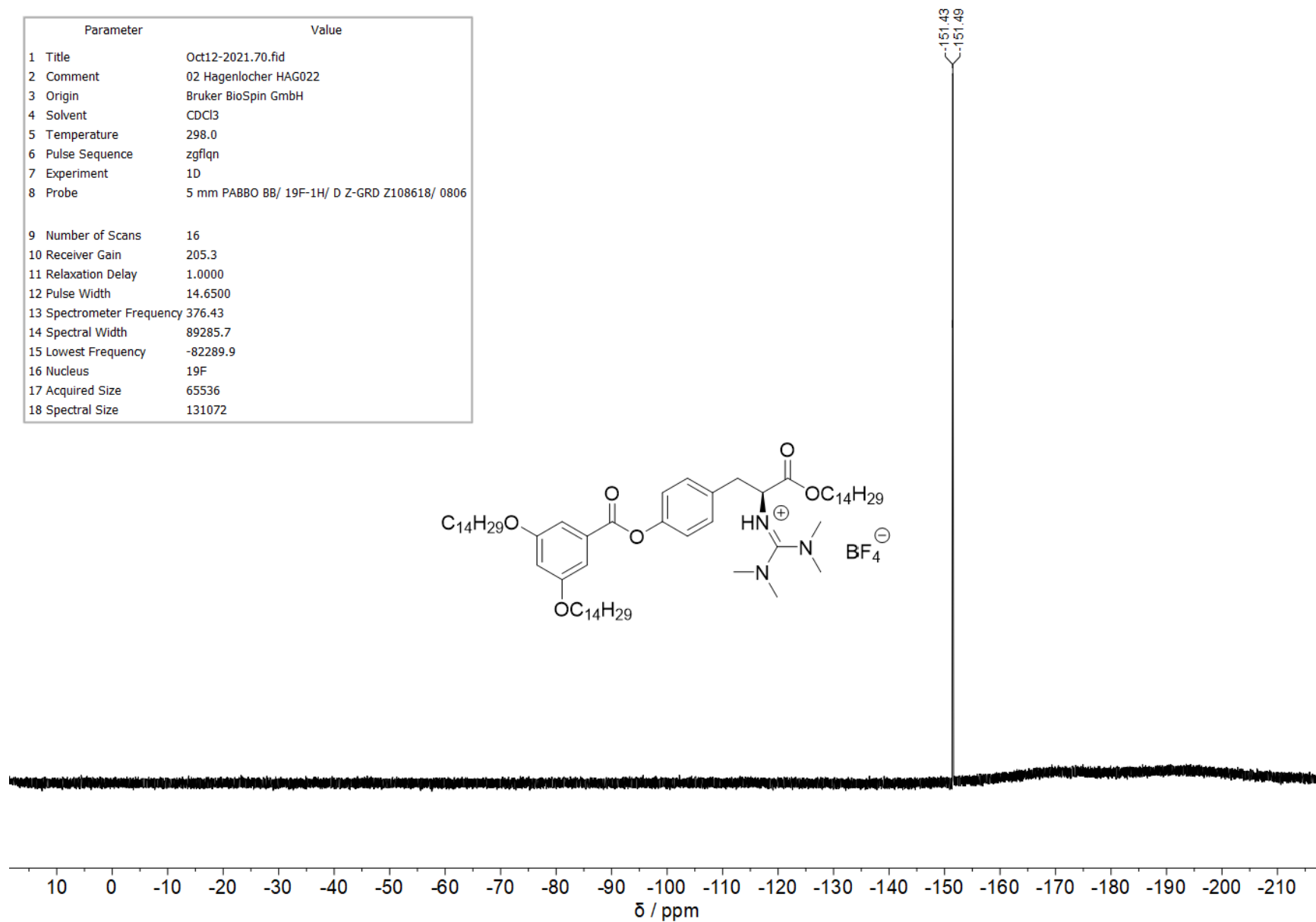
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-73.41

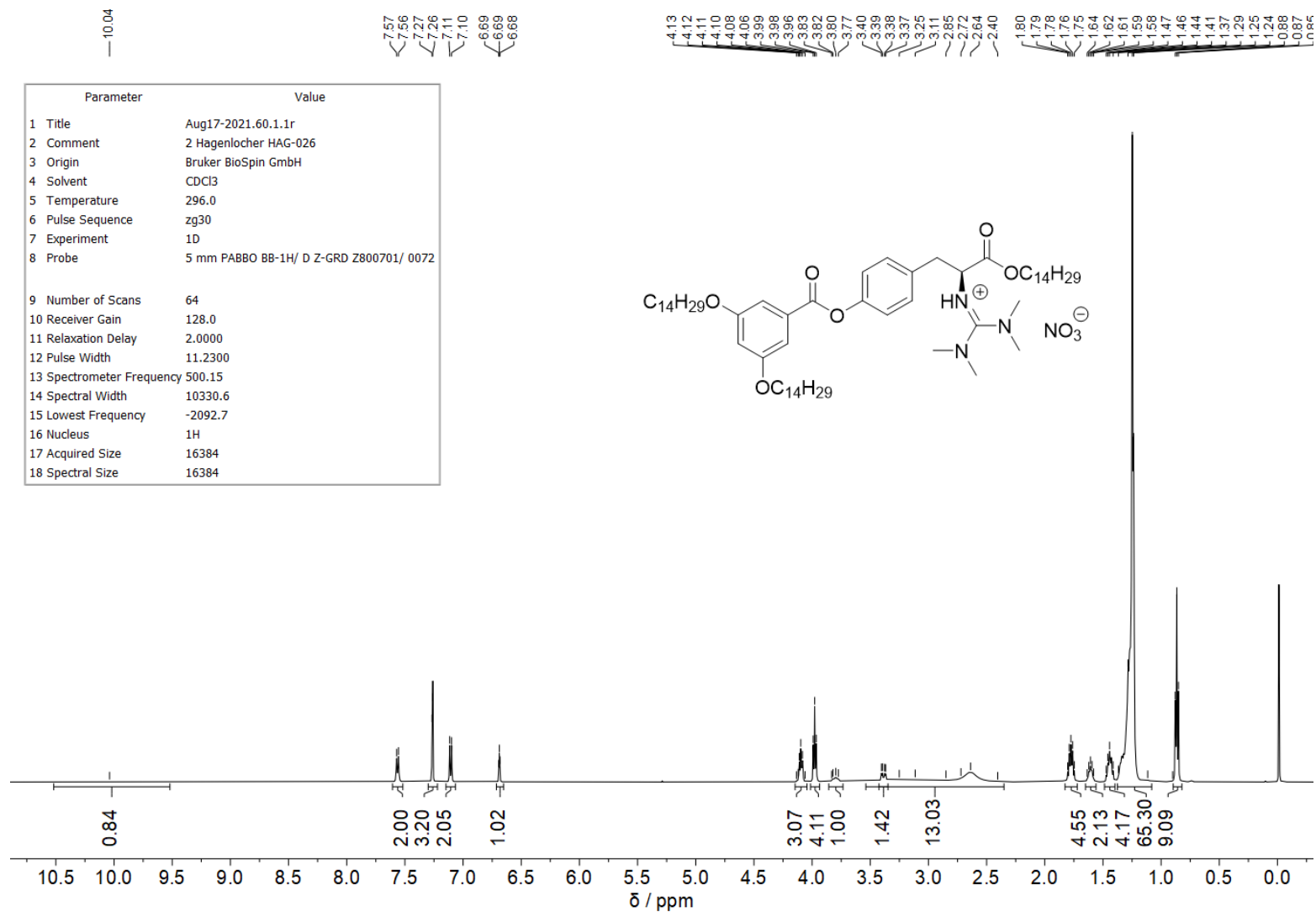


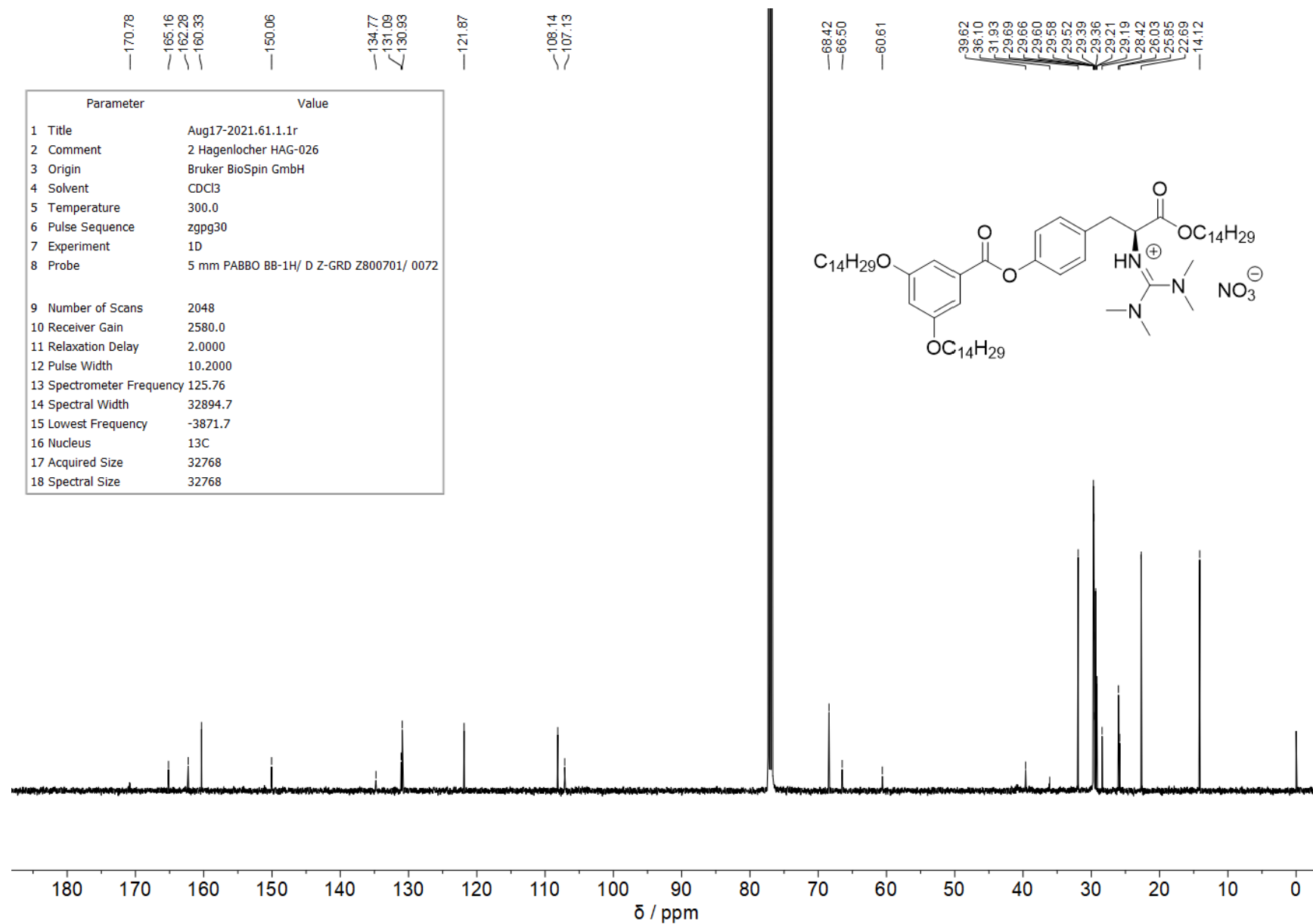
3,5-C₁₄TyrC₁₄BF₄



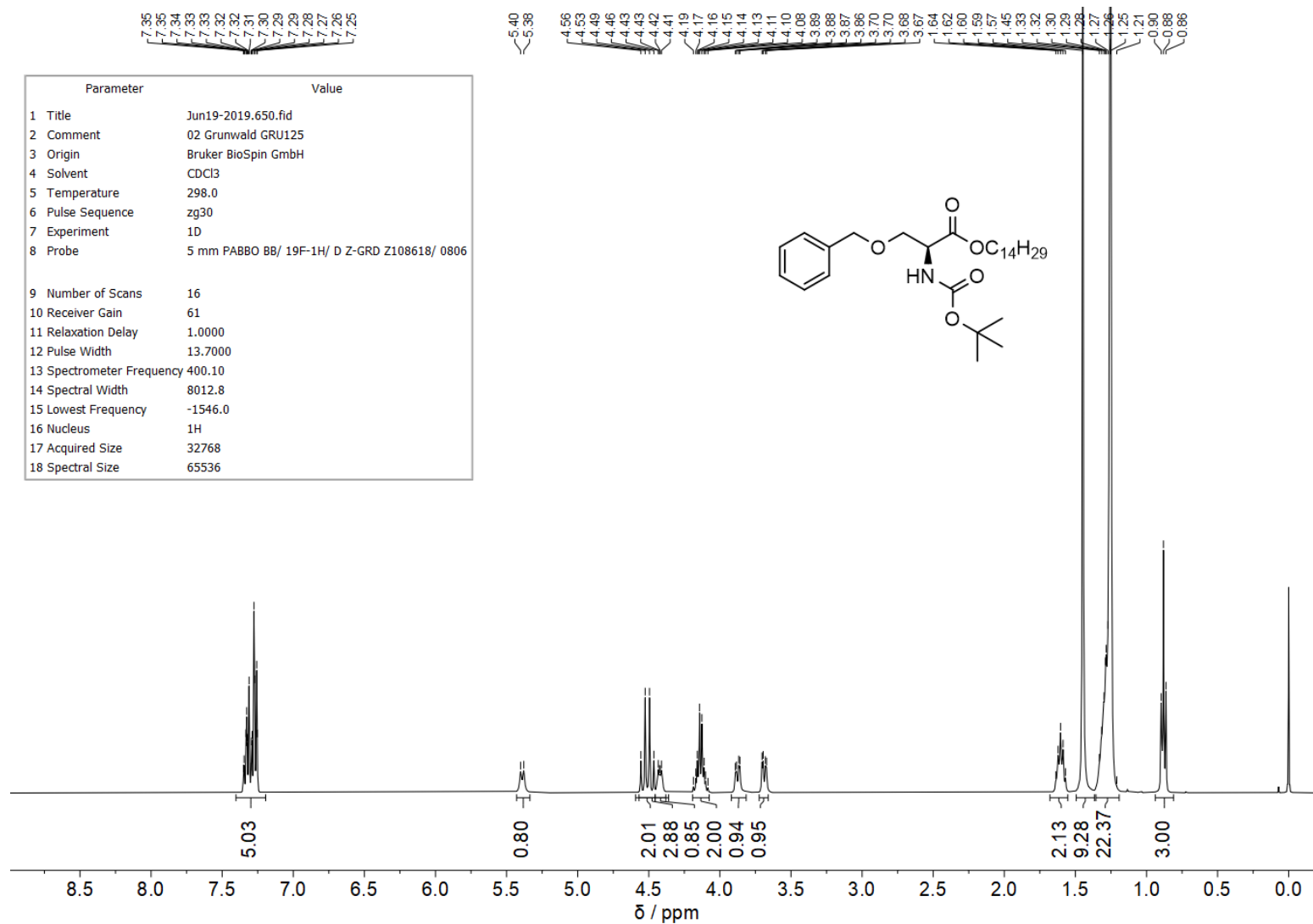
Parameter	Value
1 Title	Oct12-2021.70.fid
2 Comment	02 Hagenlocher HAG022
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgfgqn
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	16
10 Receiver Gain	205.3
11 Relaxation Delay	1.0000
12 Pulse Width	14.6500
13 Spectrometer Frequency	376.43
14 Spectral Width	89285.7
15 Lowest Frequency	-82289.9
16 Nucleus	19F
17 Acquired Size	65536
18 Spectral Size	131072

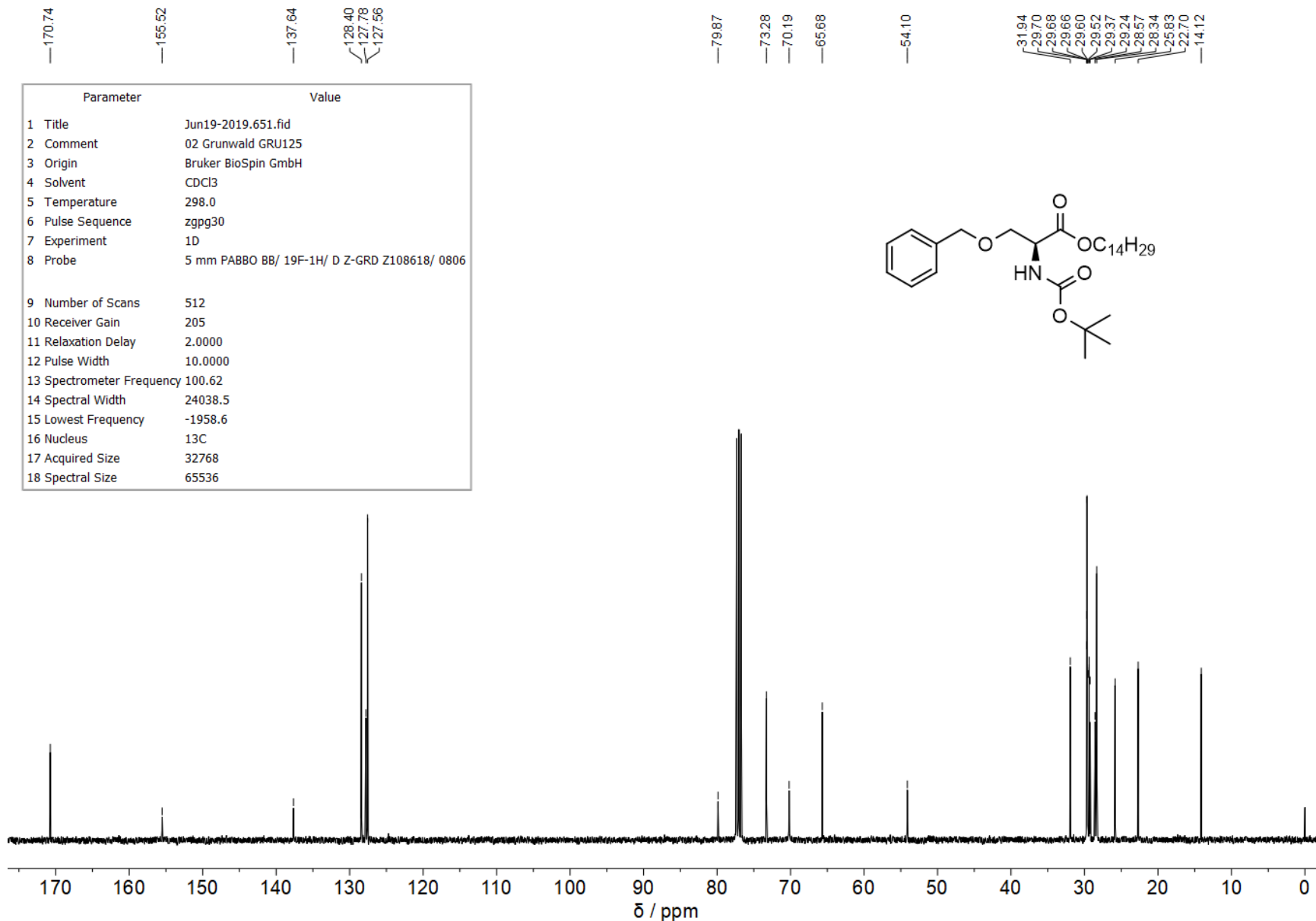


3,5-C₁₄TyrC₁₄NO₃

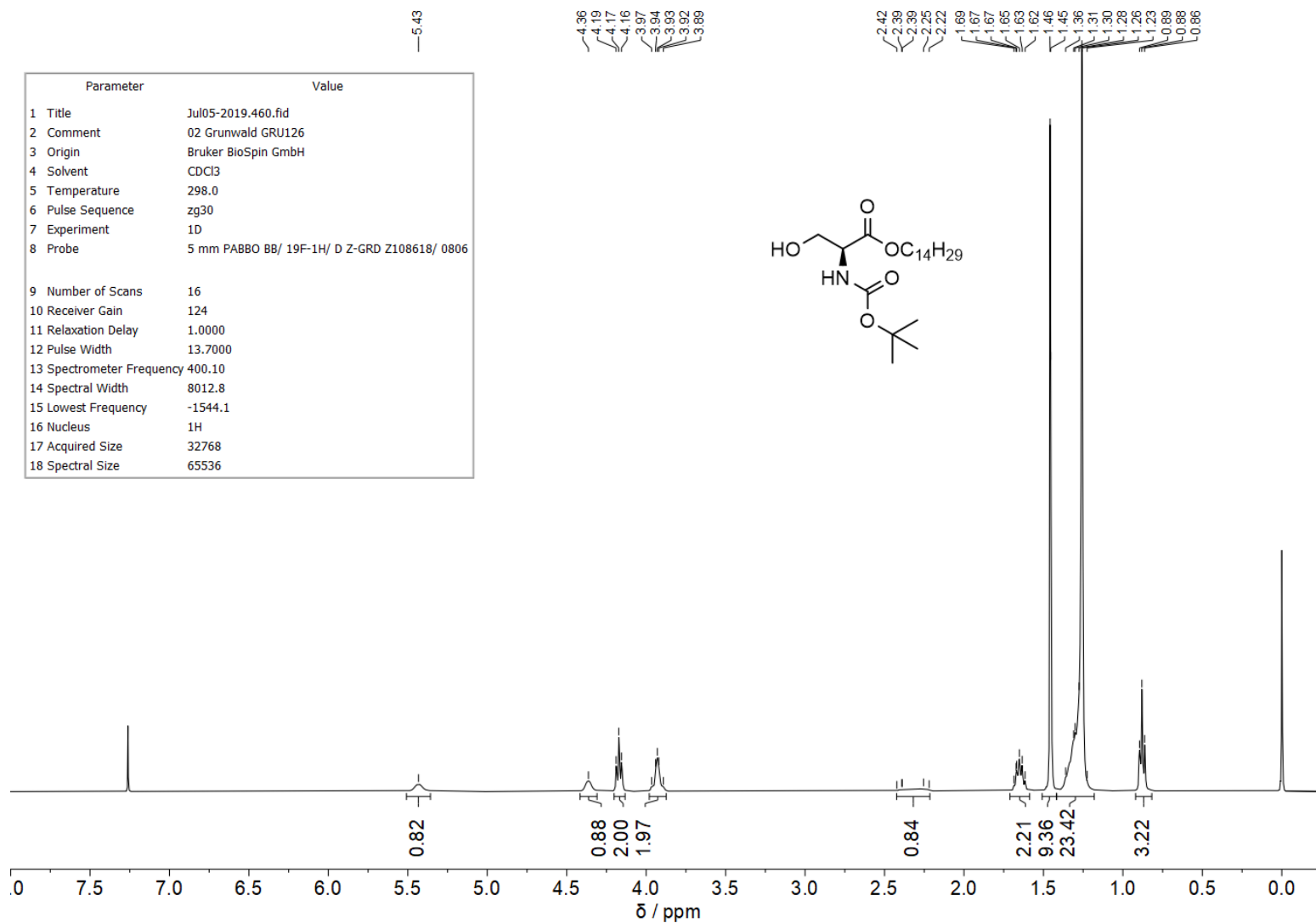


BnSerC14Boc

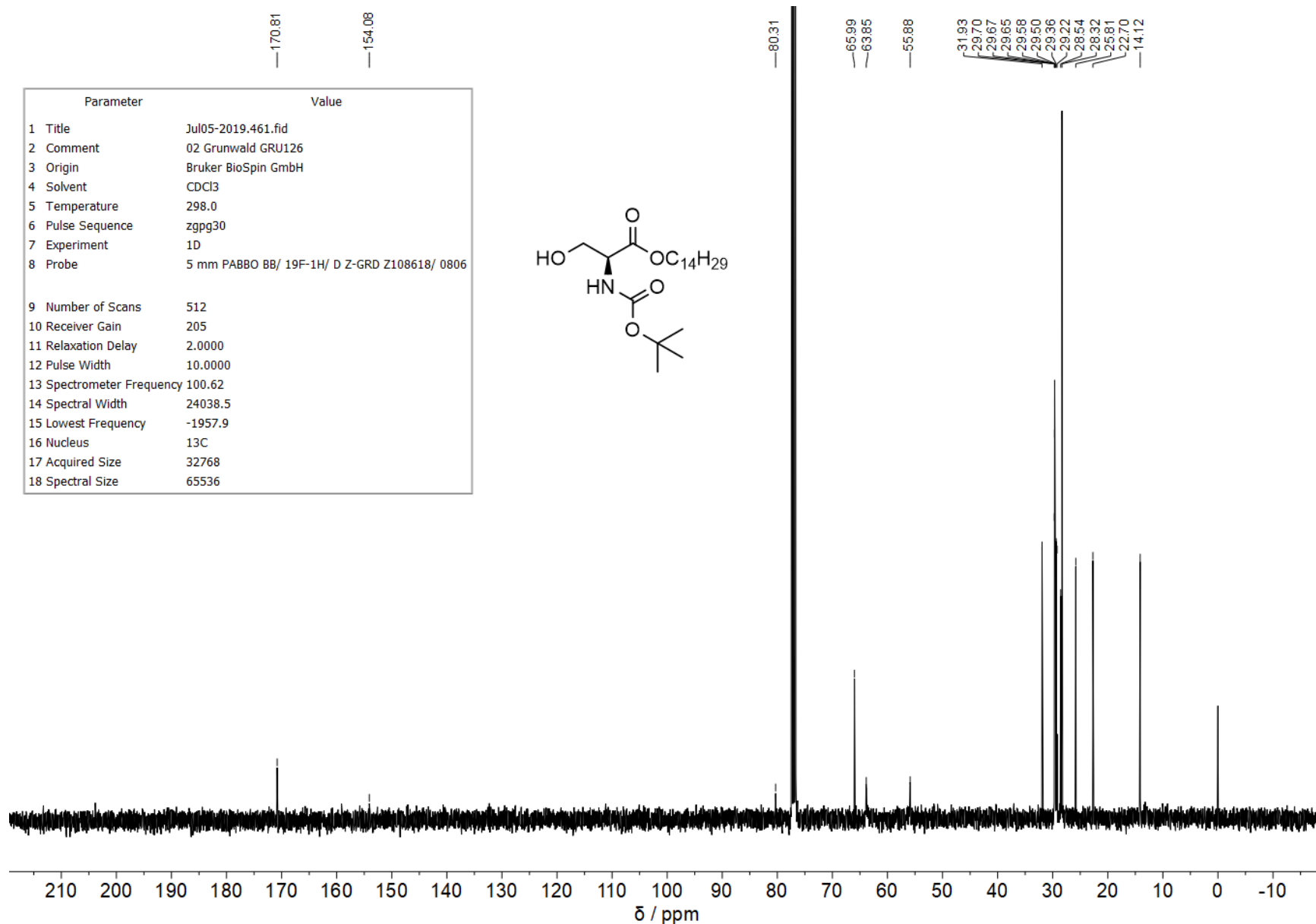
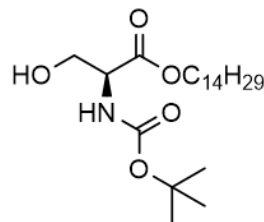




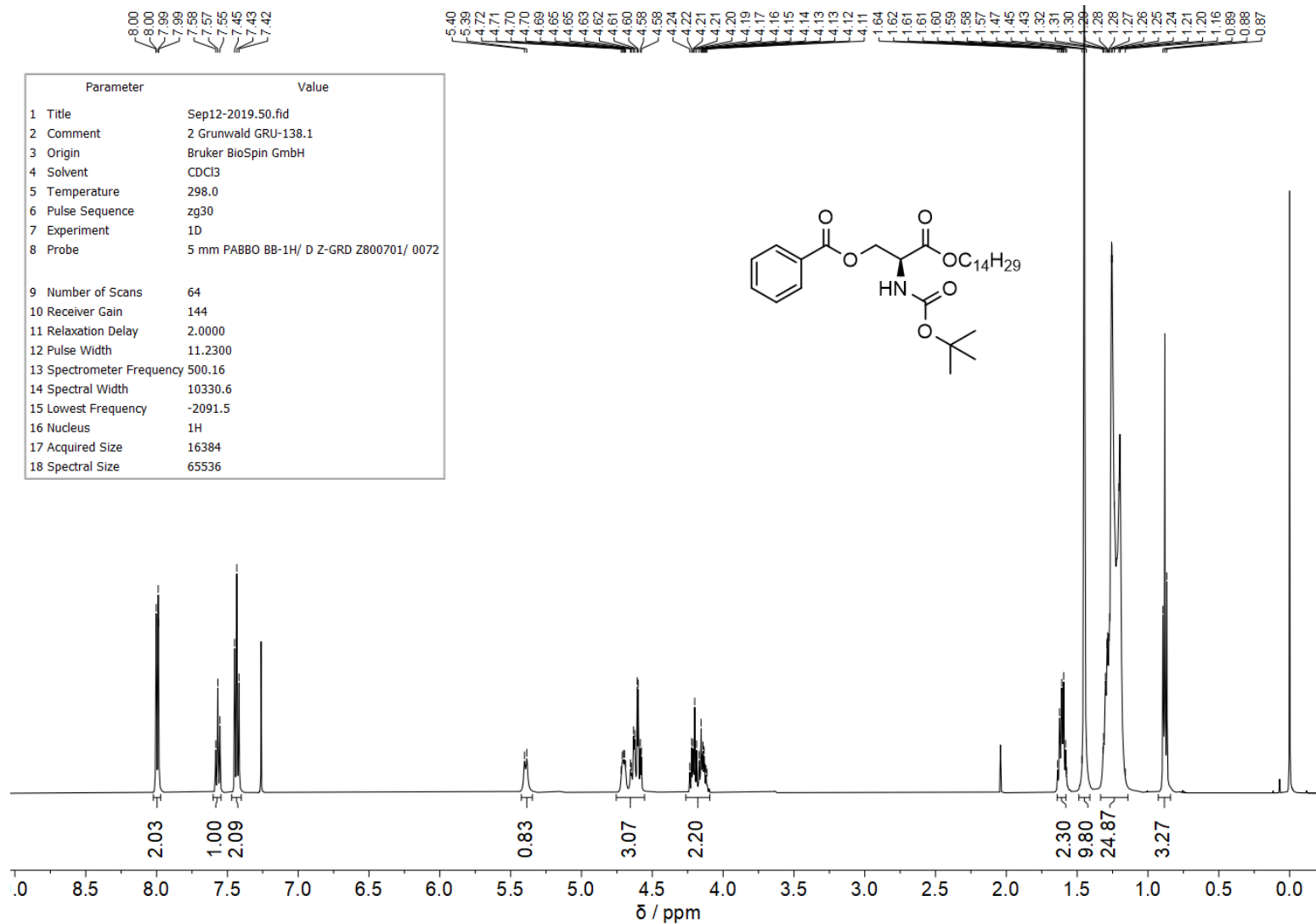
SerC14Boc

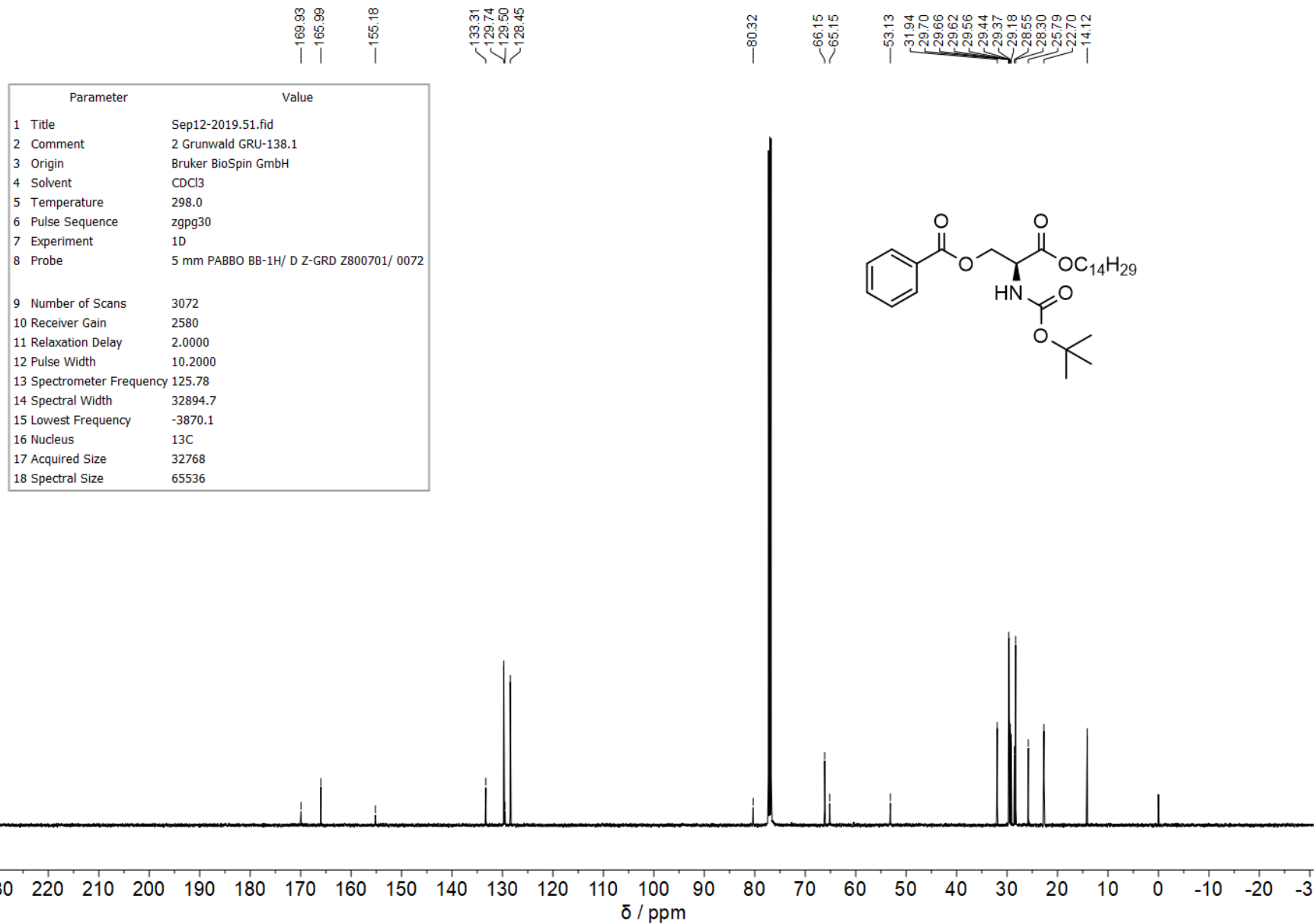


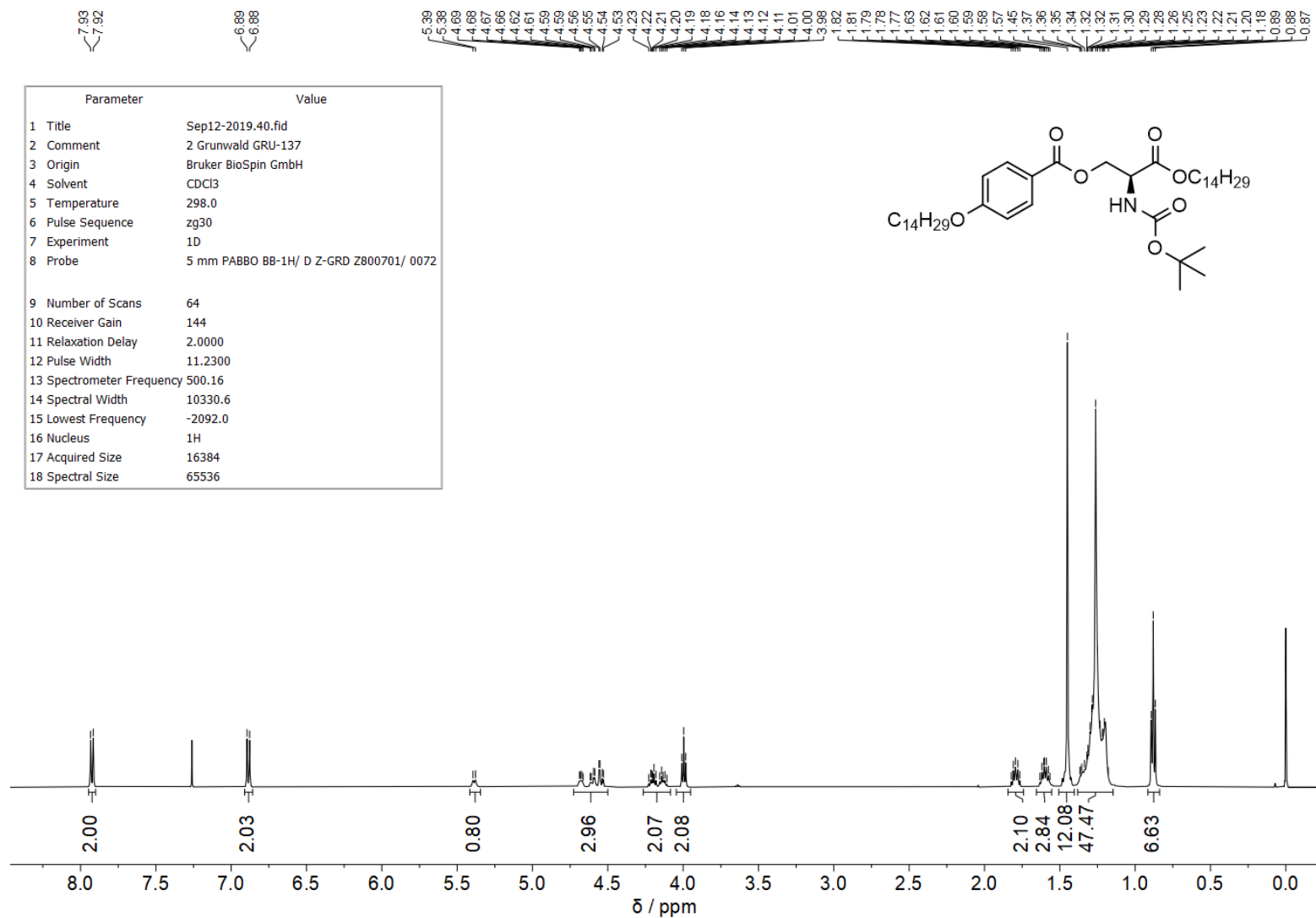
Parameter	Value
1 Title	Jul05-2019.461.fid
2 Comment	02 Grunwald GRU126
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	512
10 Receiver Gain	205
11 Relaxation Delay	2.0000
12 Pulse Width	10.0000
13 Spectrometer Frequency	100.62
14 Spectral Width	24038.5
15 Lowest Frequency	-1957.9
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536



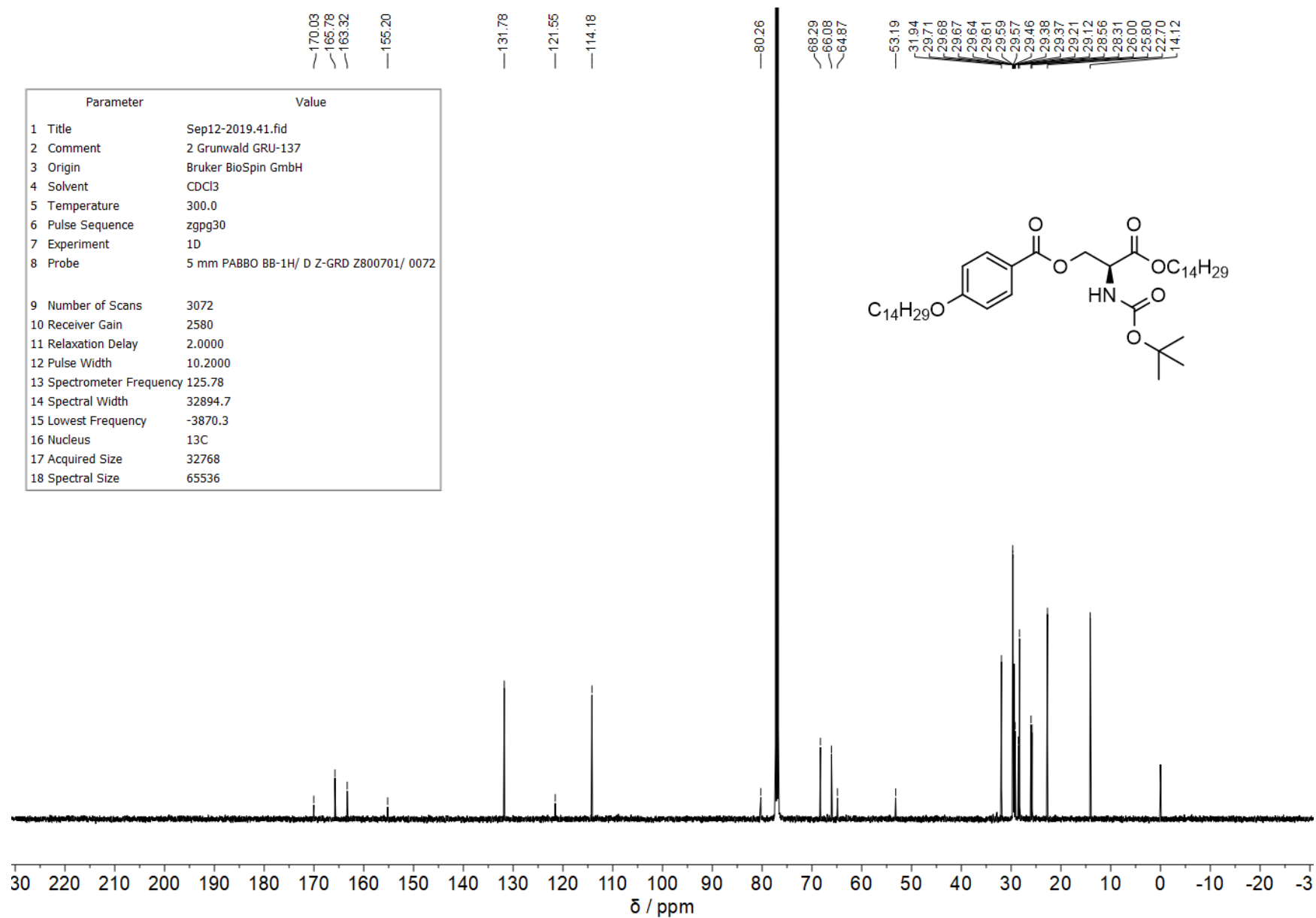
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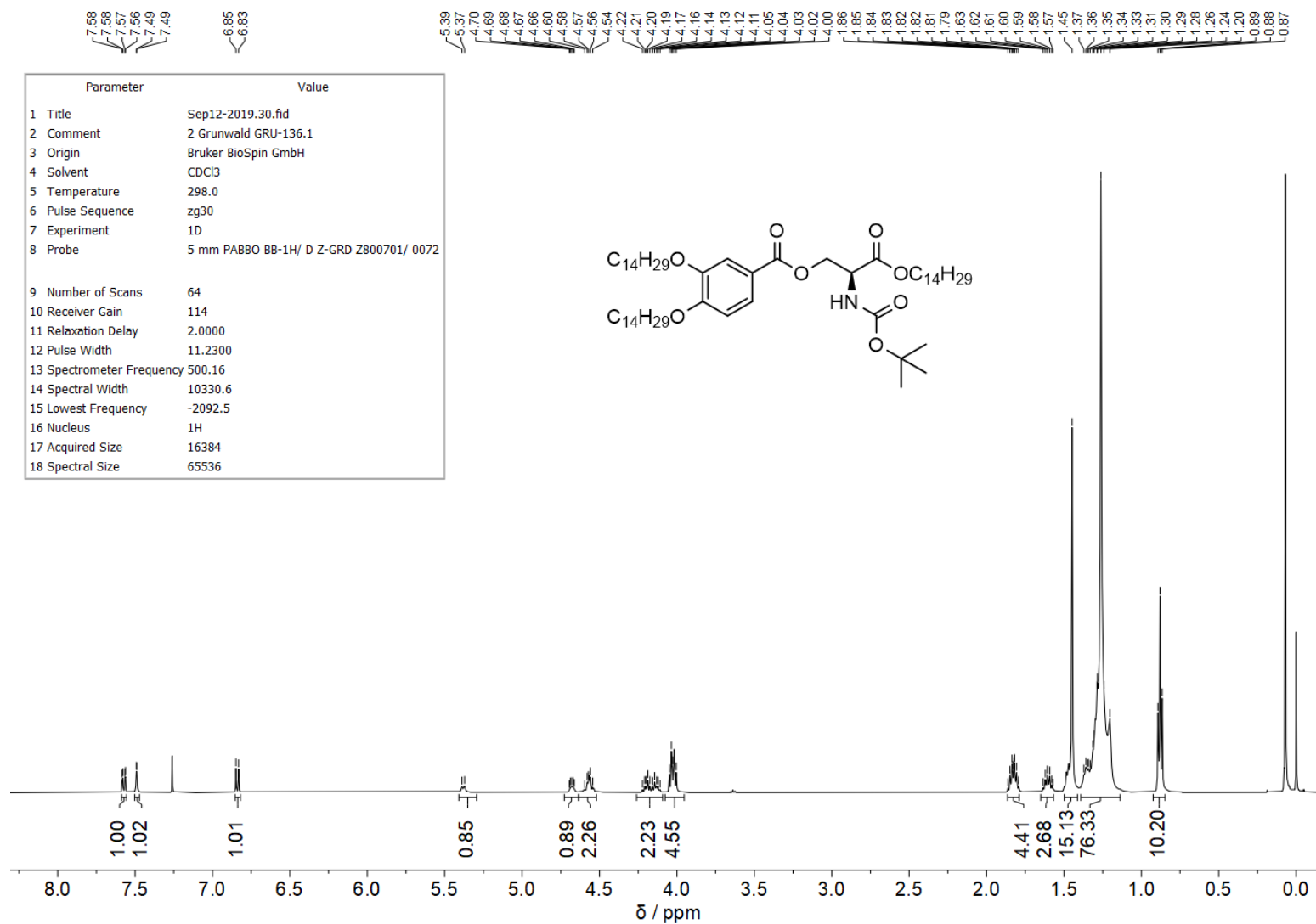


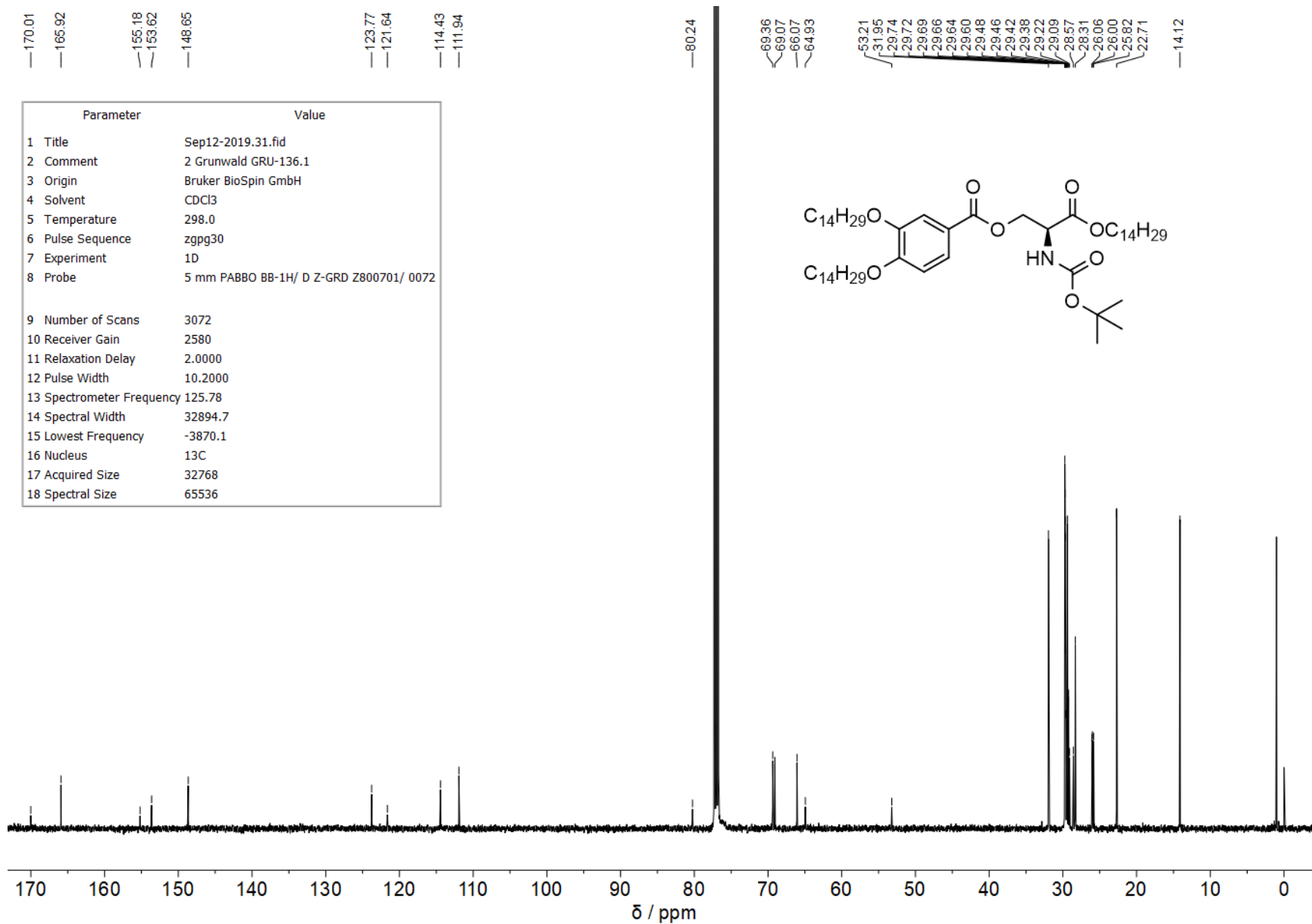
4-C₁₄SerC₁₄Boc

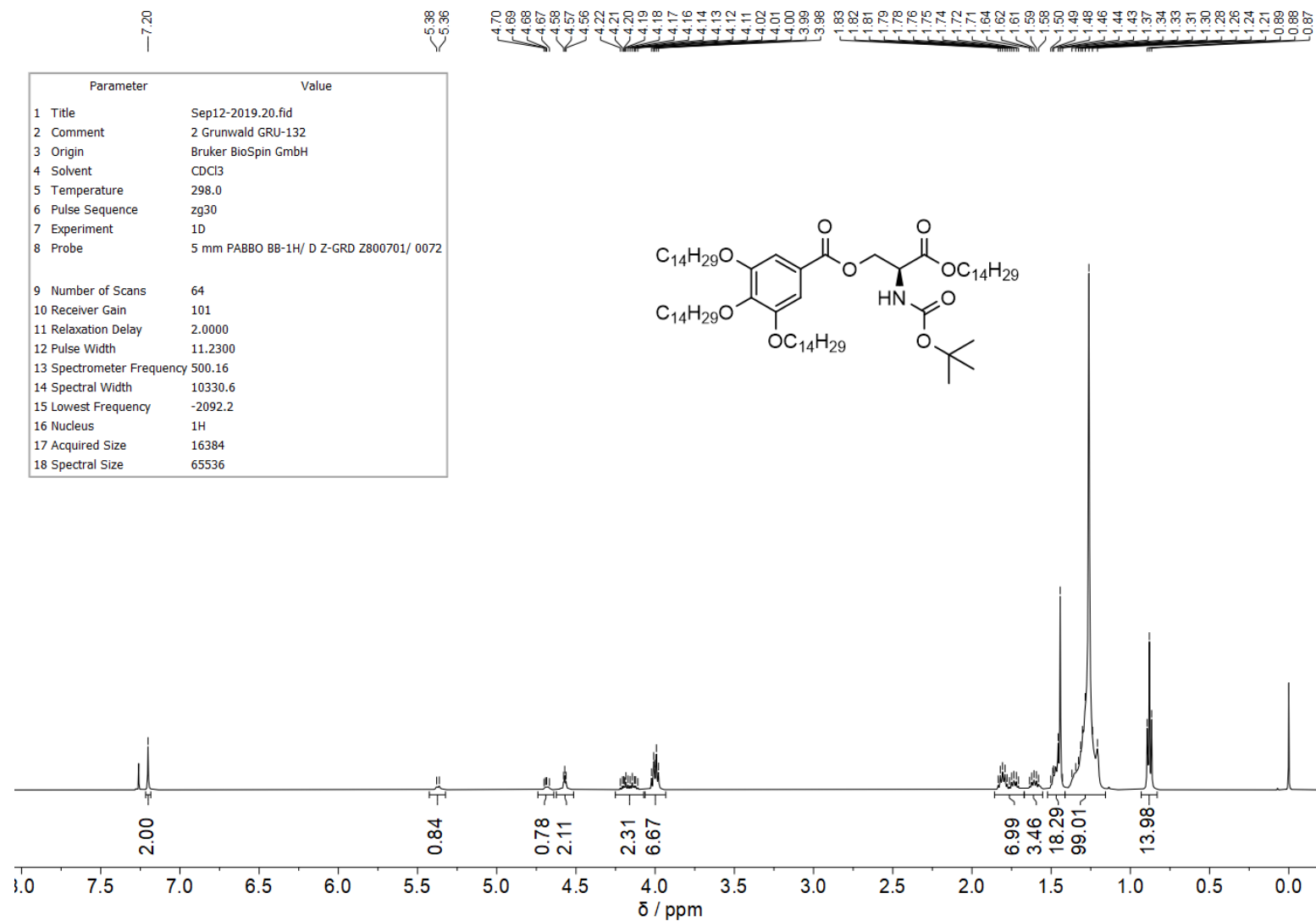
Parameter	Value
1 Title	Sep12-2019.41.fid
2 Comment	2 Grunwald GRU-137
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	300.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB-1H/ D Z-GRD Z800701/ 0072
9 Number of Scans	3072
10 Receiver Gain	2580
11 Relaxation Delay	2.0000
12 Pulse Width	10.2000
13 Spectrometer Frequency	125.78
14 Spectral Width	32894.7
15 Lowest Frequency	-3870.3
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

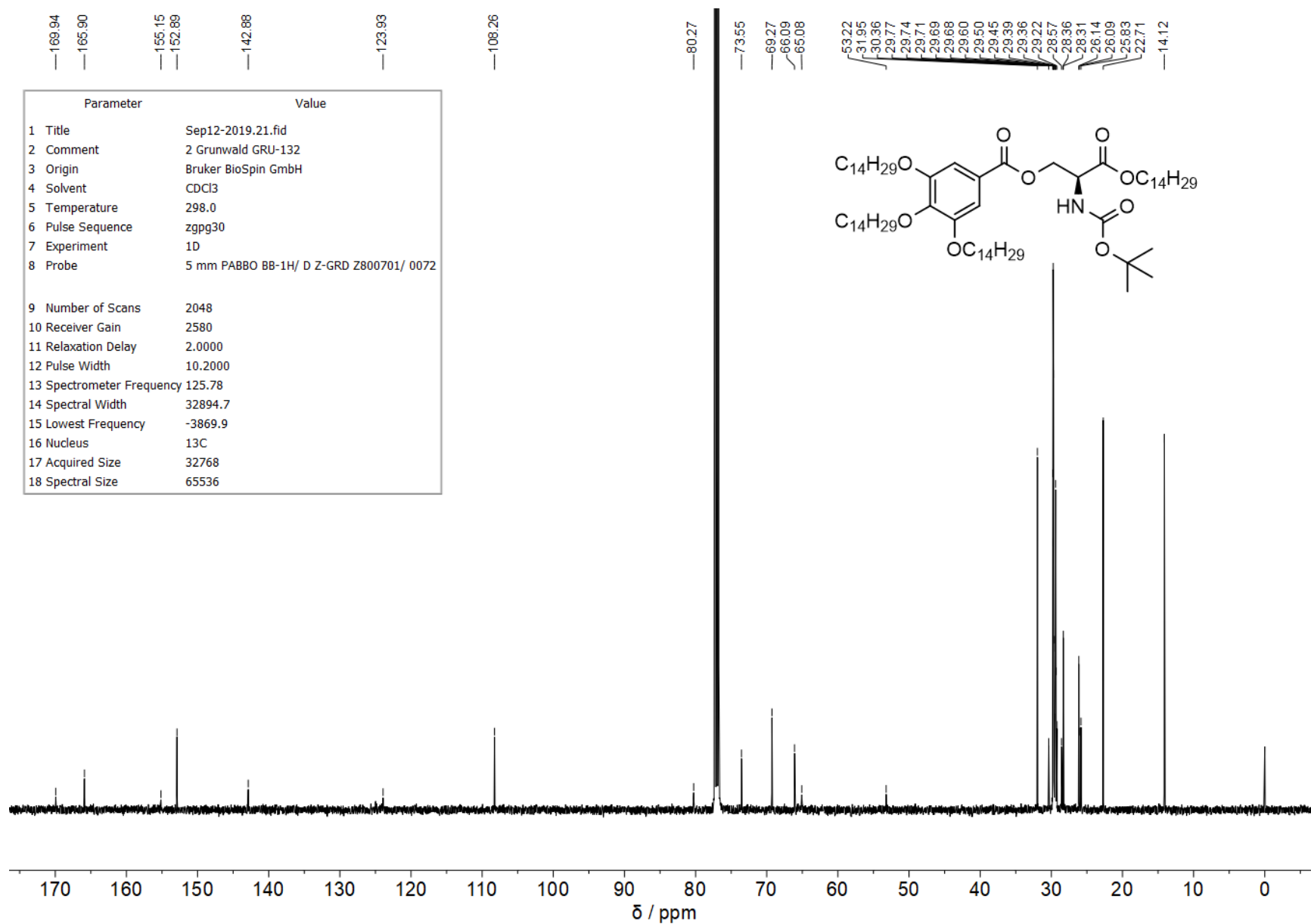


170.03
165.78
163.32
155.20
131.78
121.55
114.18
80.26
68.29
66.08
64.87
53.19
31.94
29.71
29.68
29.67
29.64
29.61
29.59
29.57
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29.38
29.37
29.21
29.12
28.56
28.31
26.00
25.80
22.70
14.12

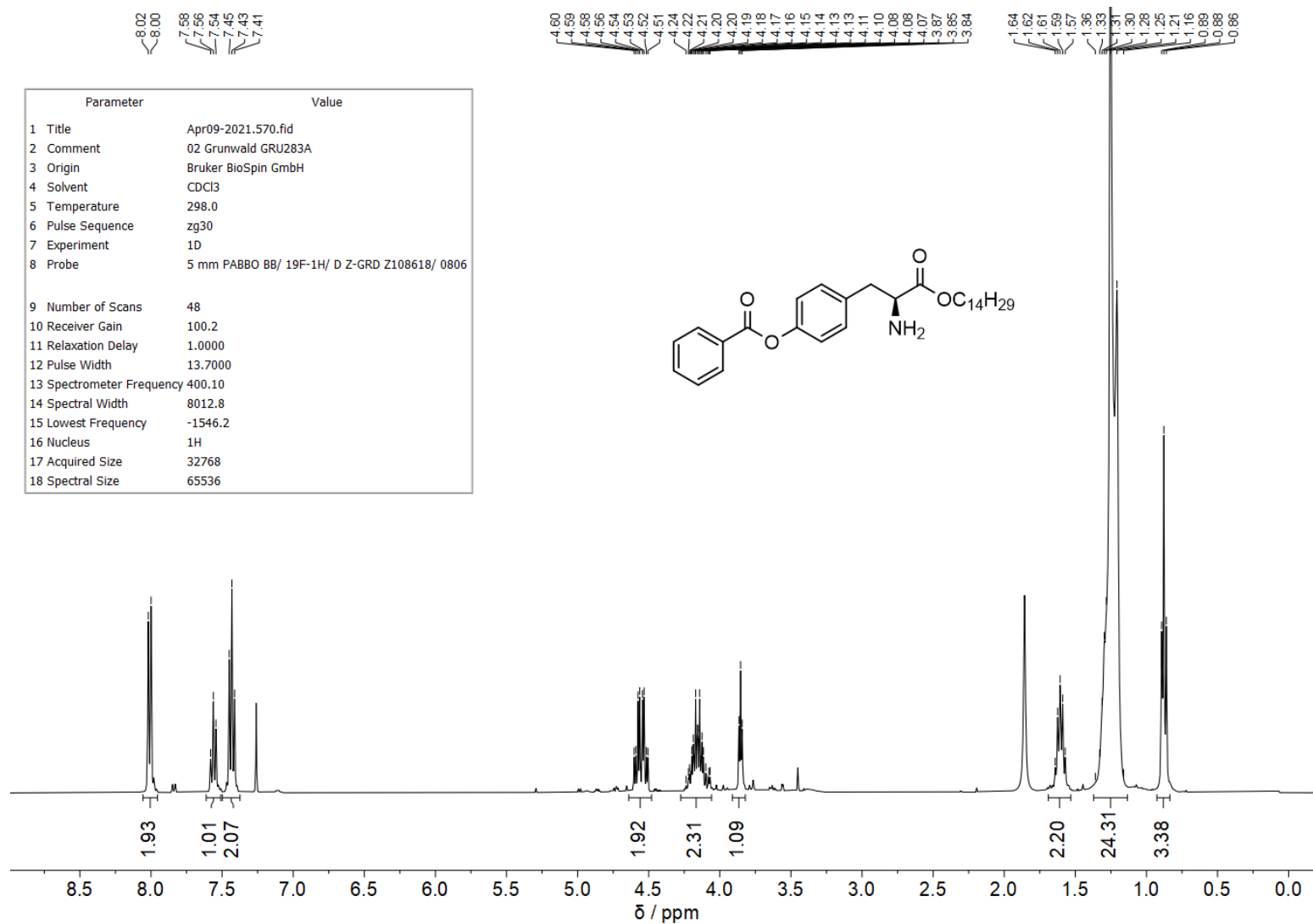
3,4-C₁₄SerC₁₄Boc

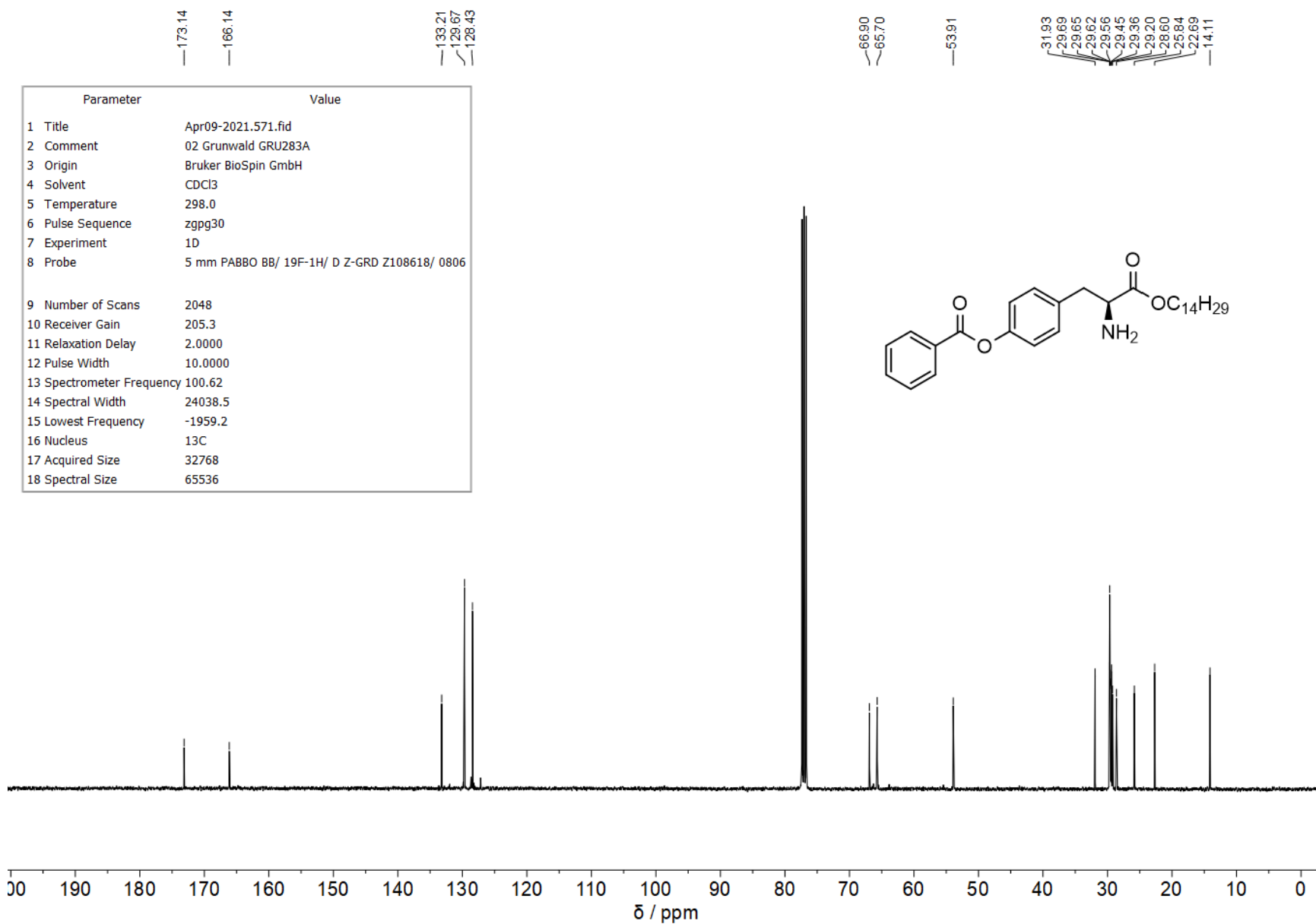


3,4,5-C₁₄SerC₁₄Boc



BzSerC14NH2





Parameter	Value
1 Title	Apr09-2021.571.fid
2 Comment	02 Grunwald GRU283A
3 Origin	Bruker BioSpin GmbH
4 Solvent	CDCl3
5 Temperature	298.0
6 Pulse Sequence	zgpg30
7 Experiment	1D
8 Probe	5 mm PABBO BB/ 19F-1H/ D Z-GRD Z108618/ 0806
9 Number of Scans	2048
10 Receiver Gain	205.3
11 Relaxation Delay	2.0000
12 Pulse Width	10.0000
13 Spectrometer Frequency	100.62
14 Spectral Width	24038.5
15 Lowest Frequency	-1959.2
16 Nucleus	13C
17 Acquired Size	32768
18 Spectral Size	65536

ElimSerC₁₄Cl