SUPPORTING INFORMATION

Solid-phase Synthesis of the Aged-Nonapeptide-Nerve-Agent Adduct of Butyrylcholinesterase as Reference Materials for Analytical Verification

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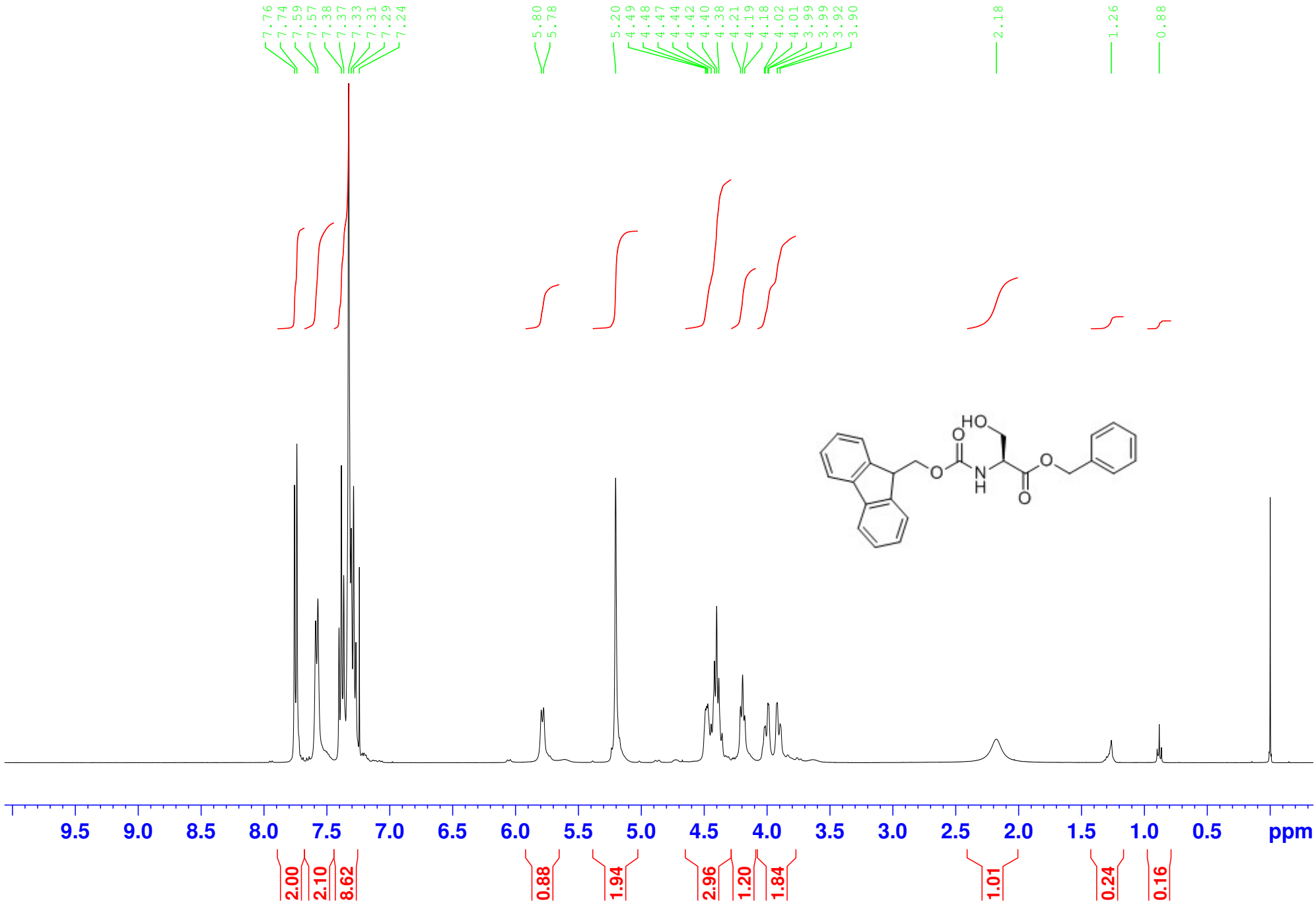
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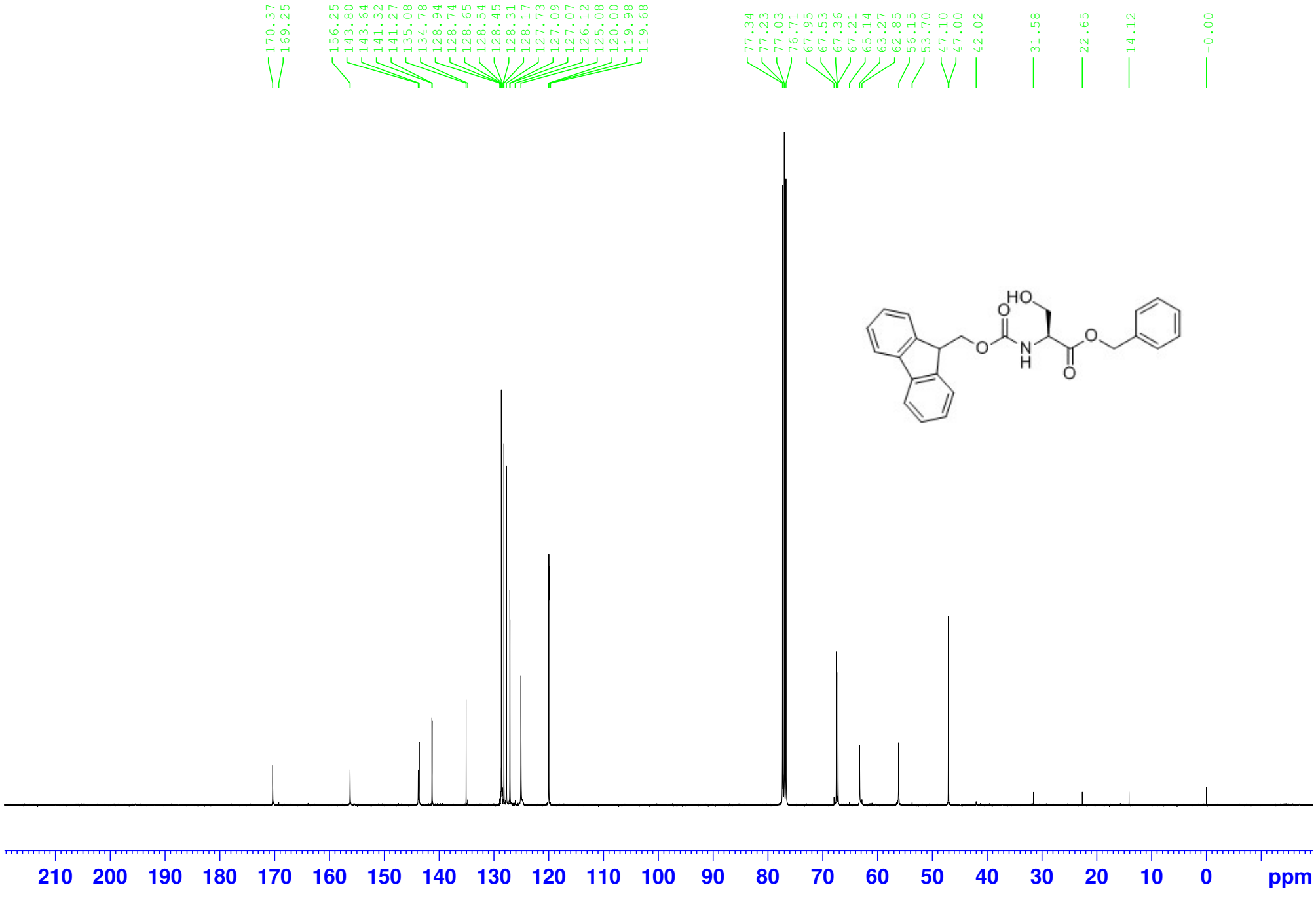
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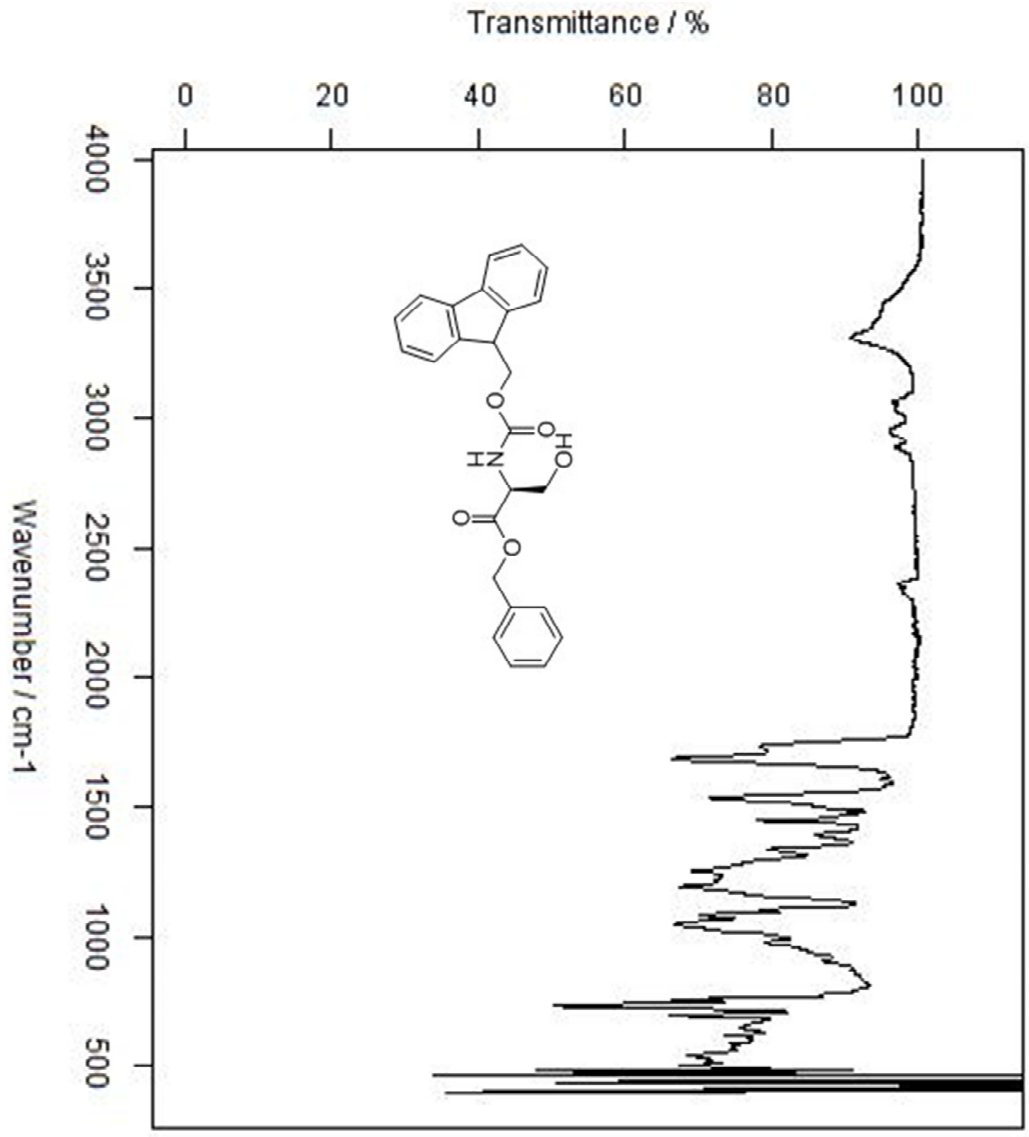
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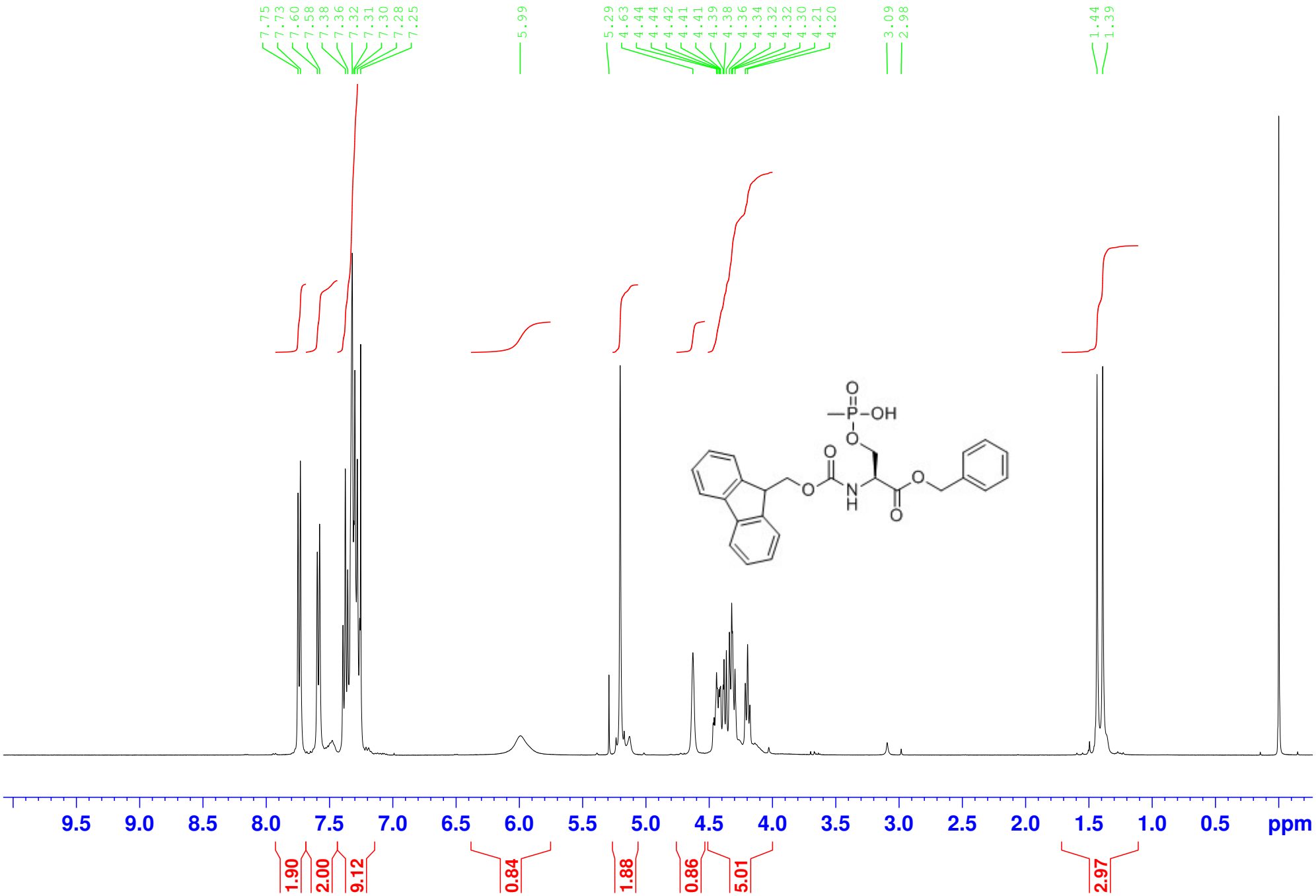
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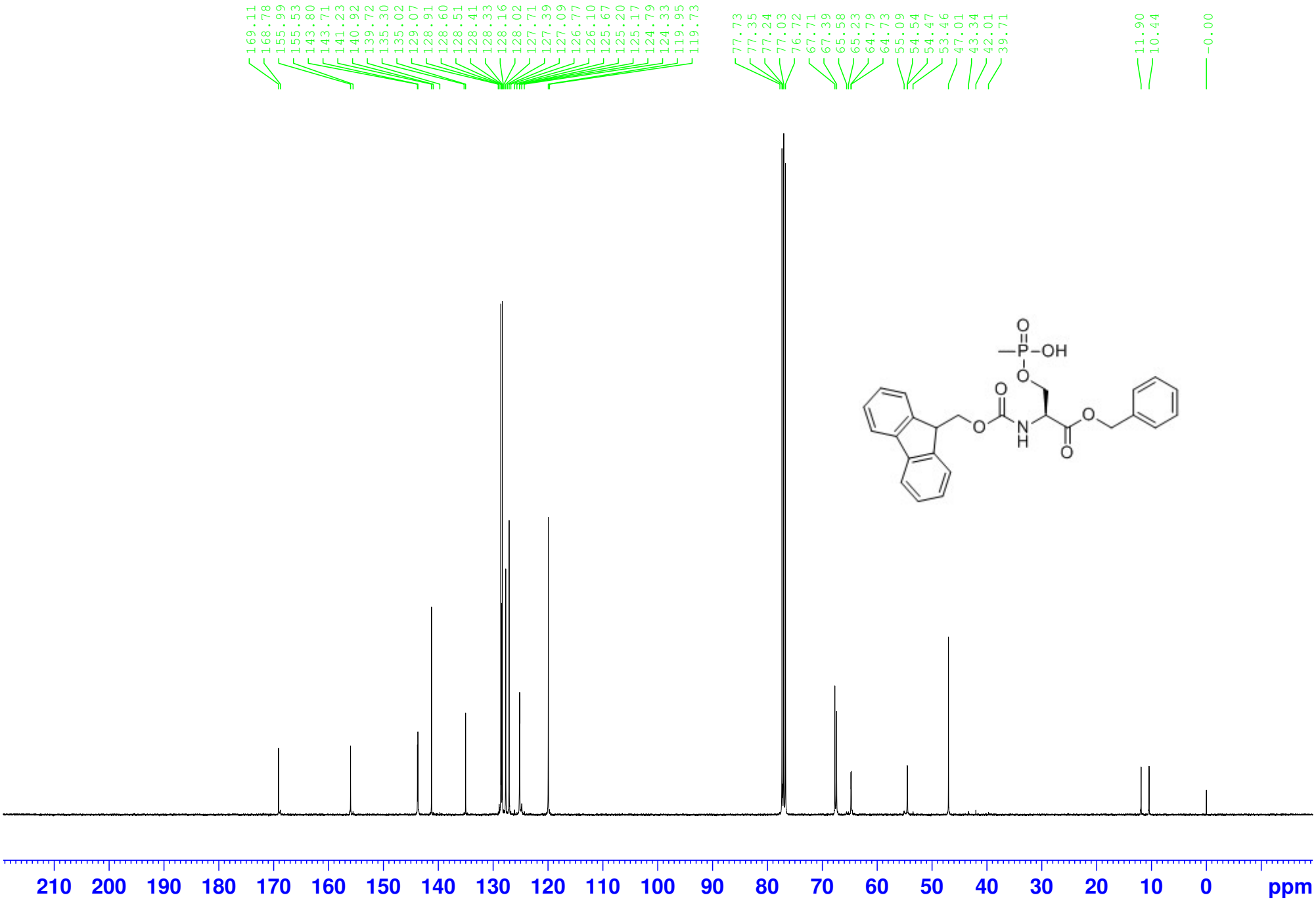
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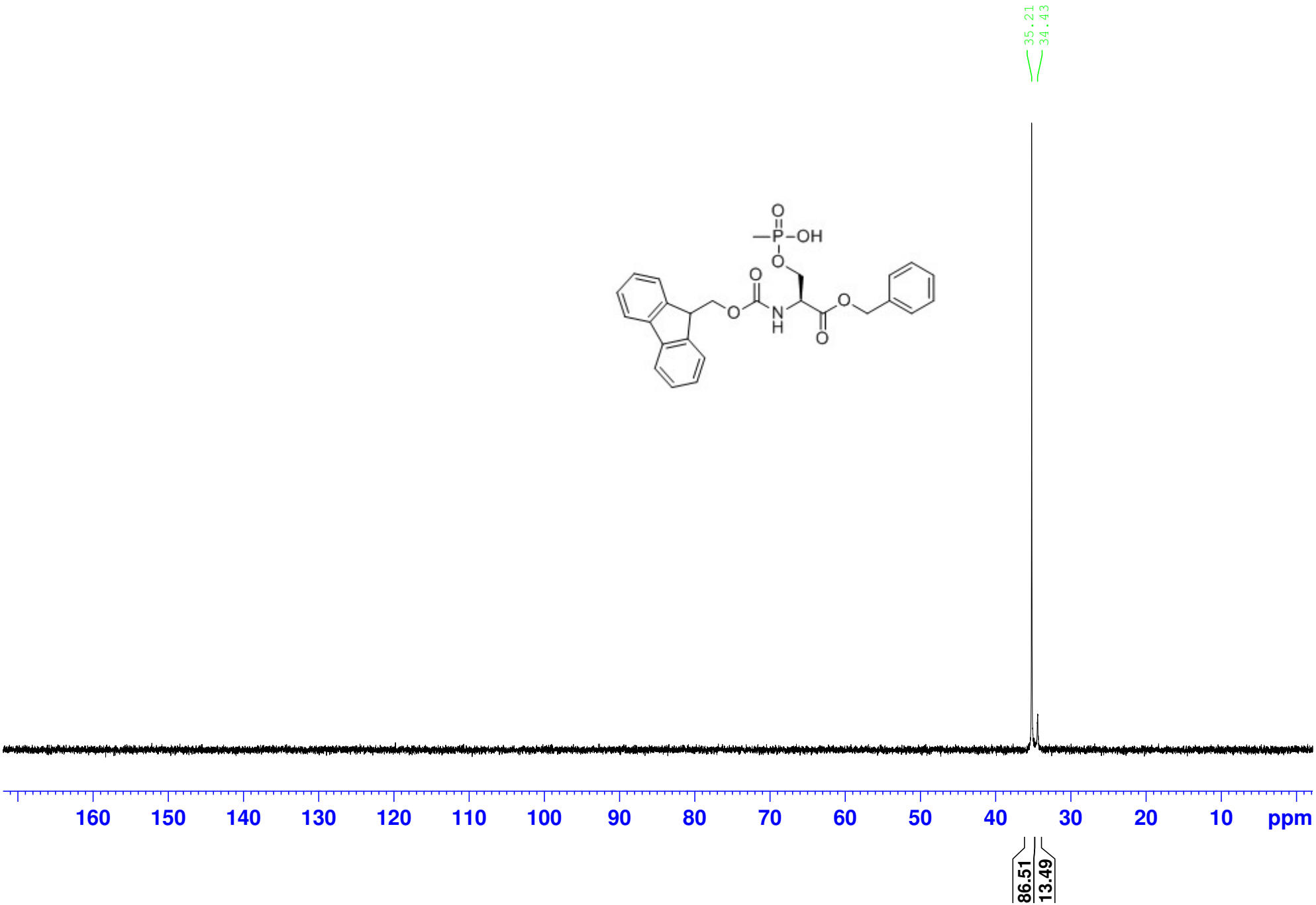
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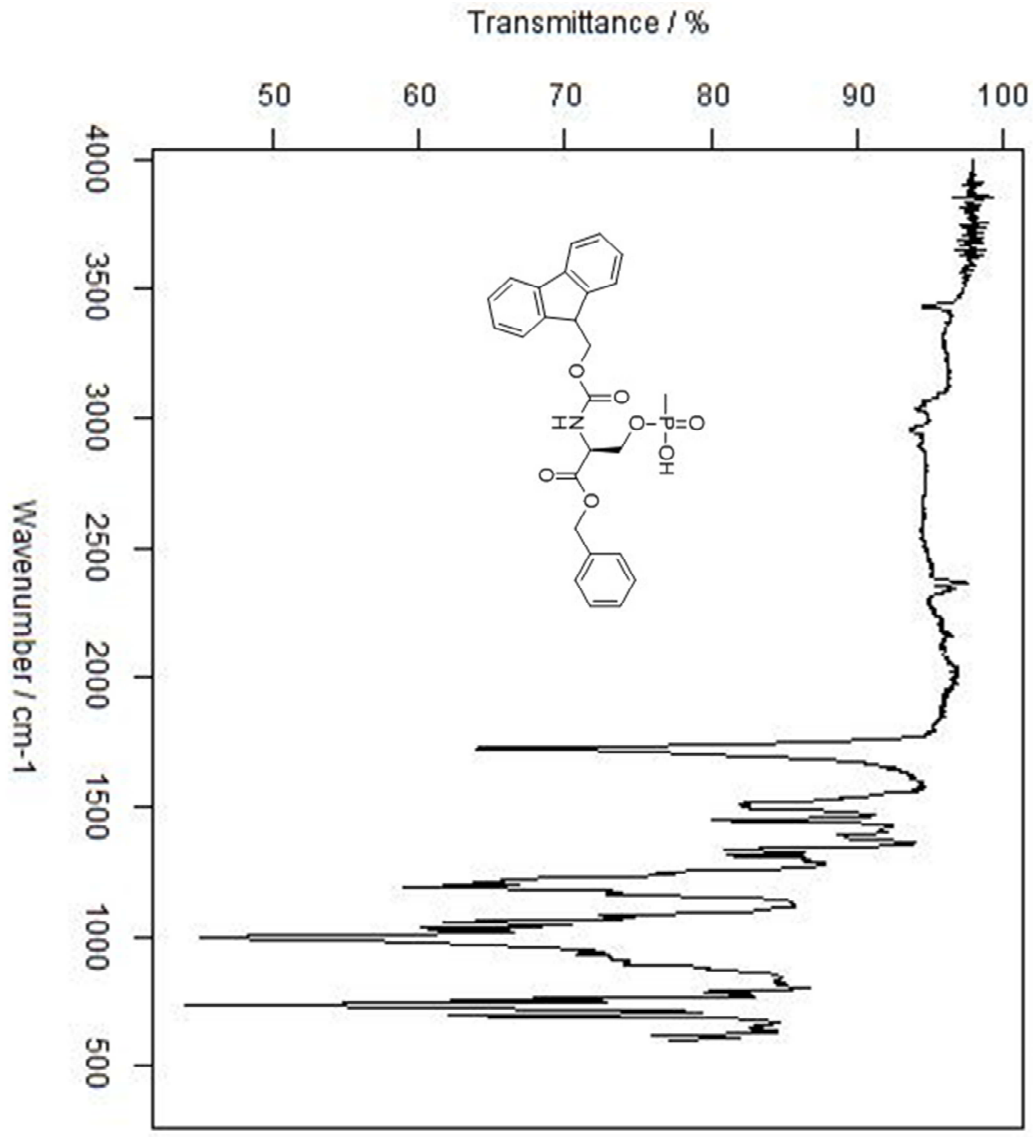
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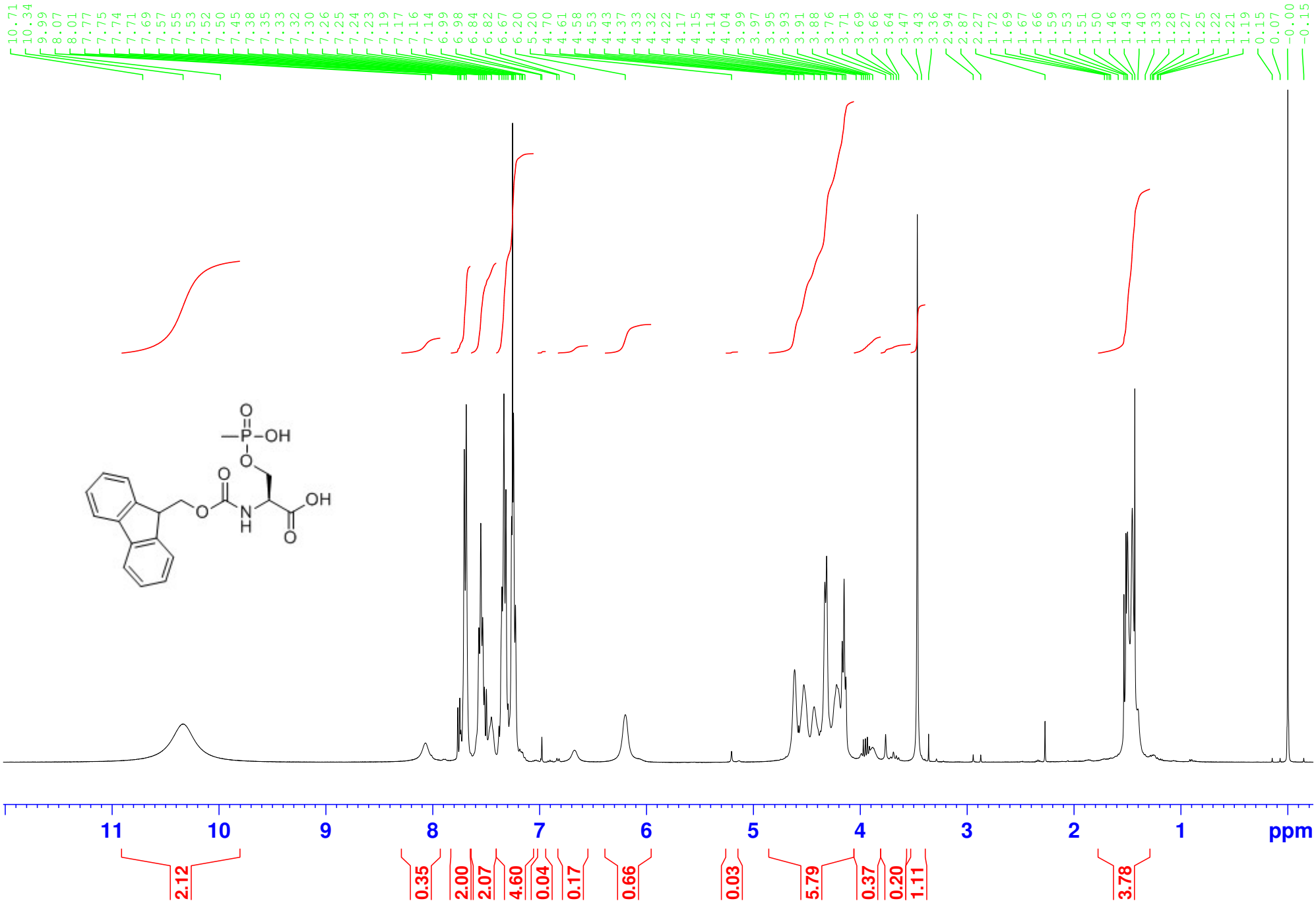
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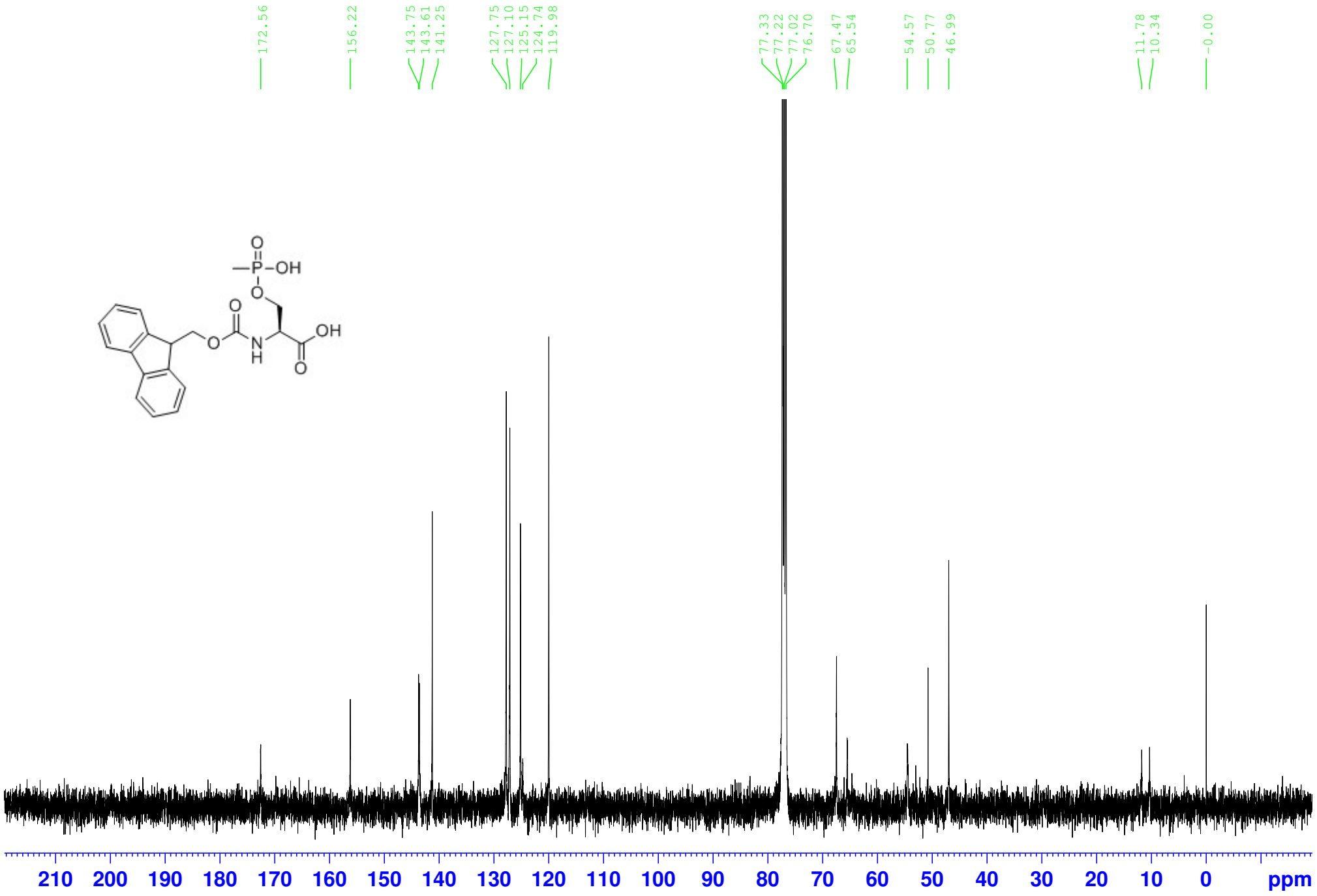
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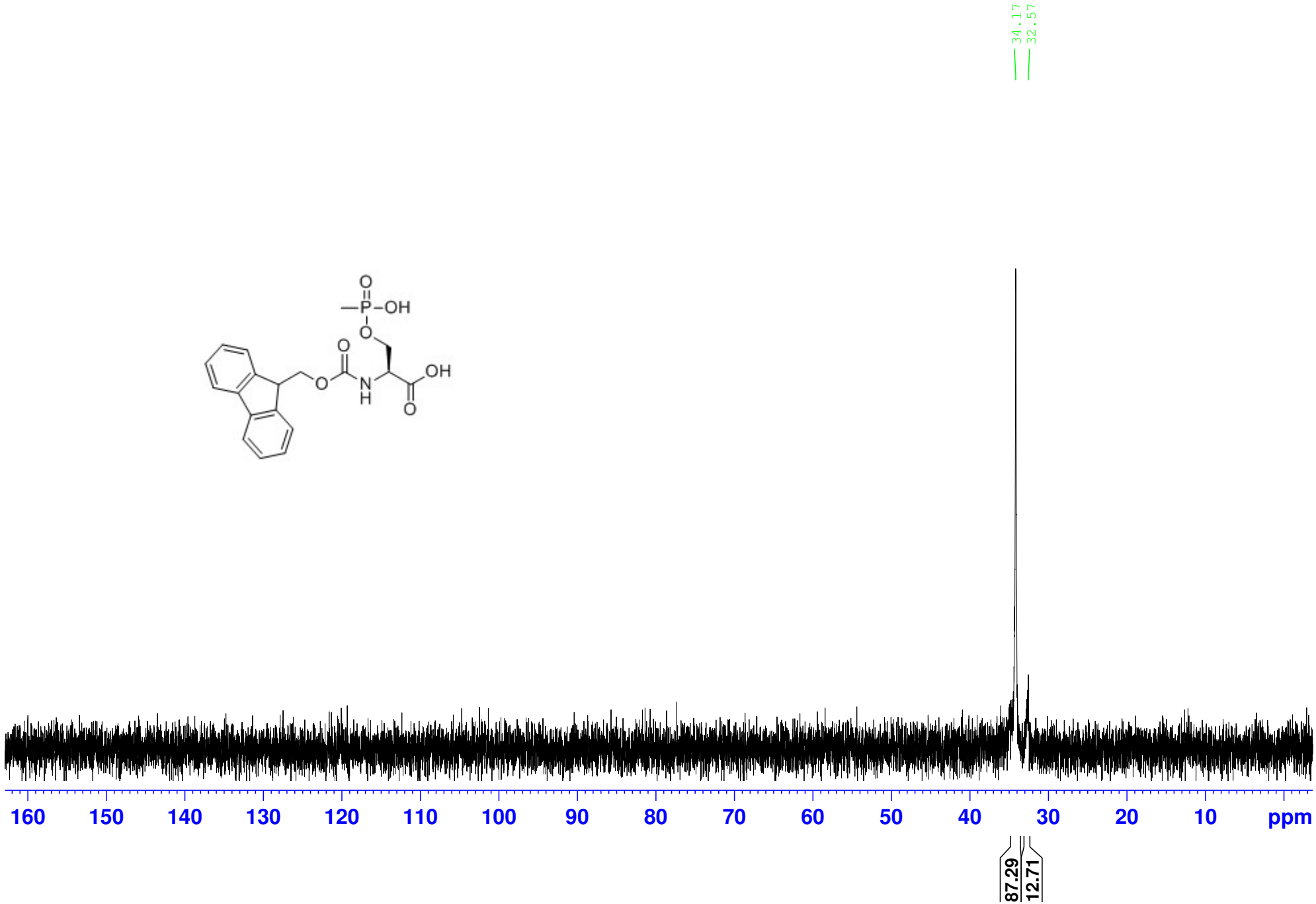
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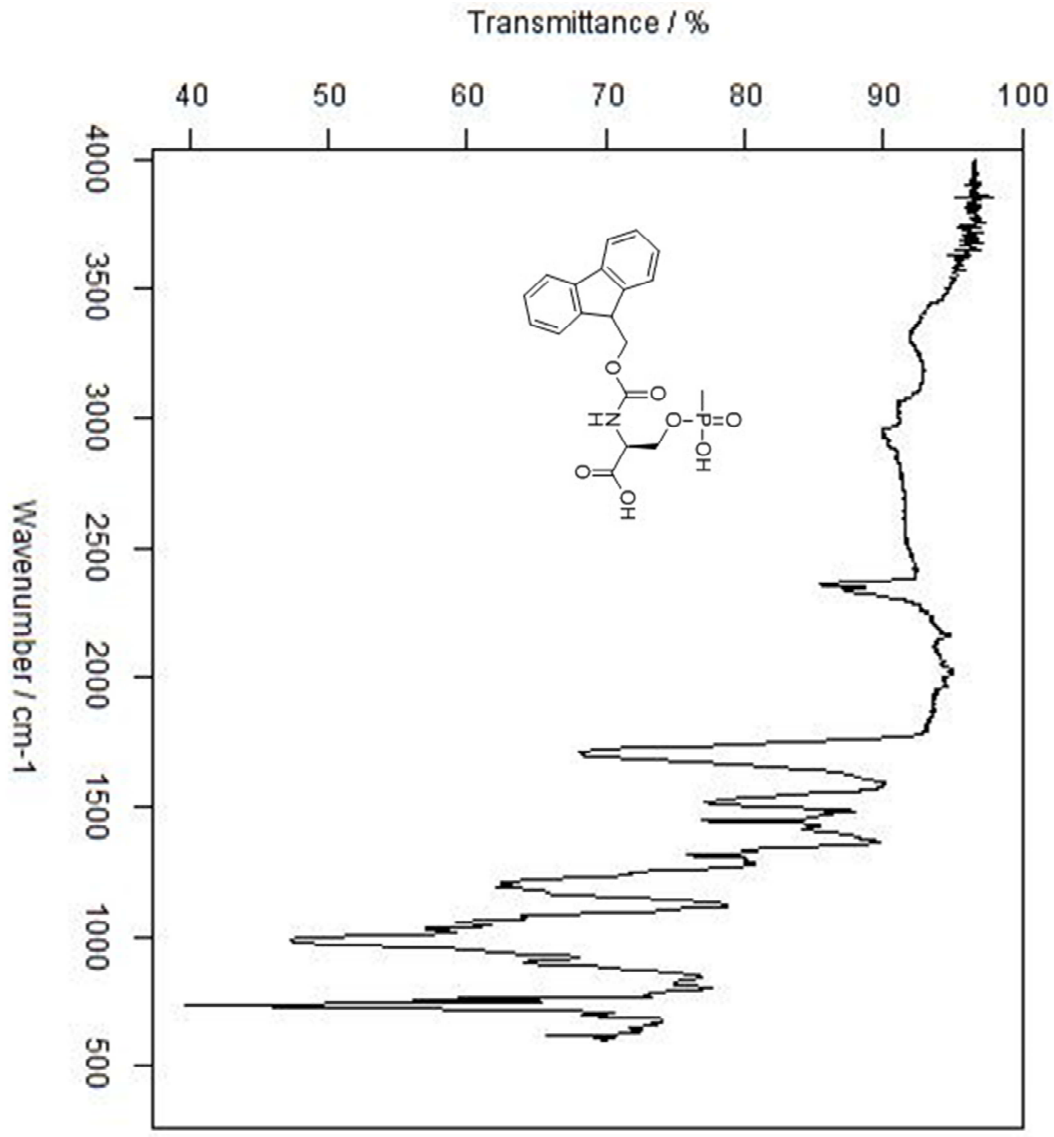
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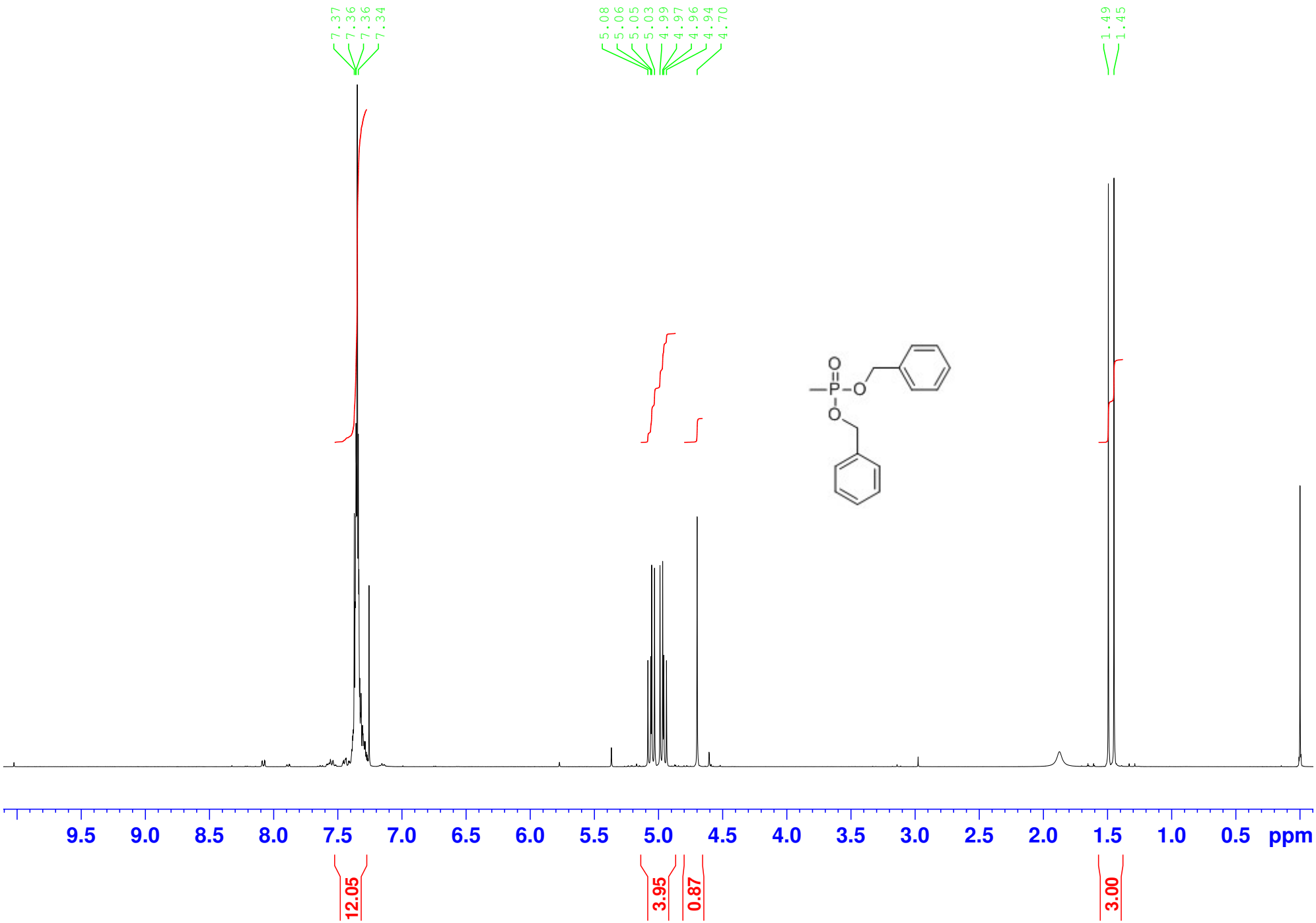
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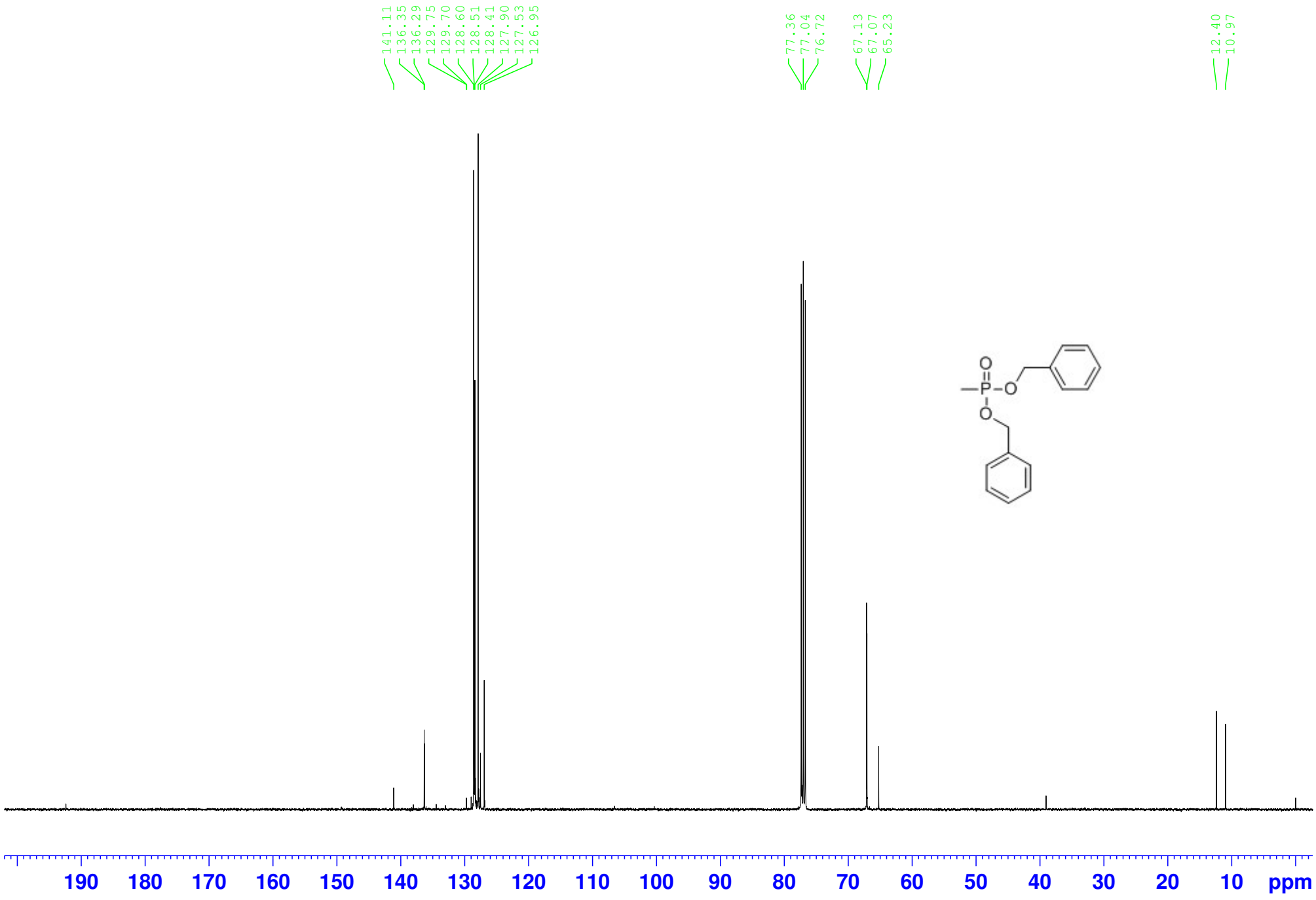
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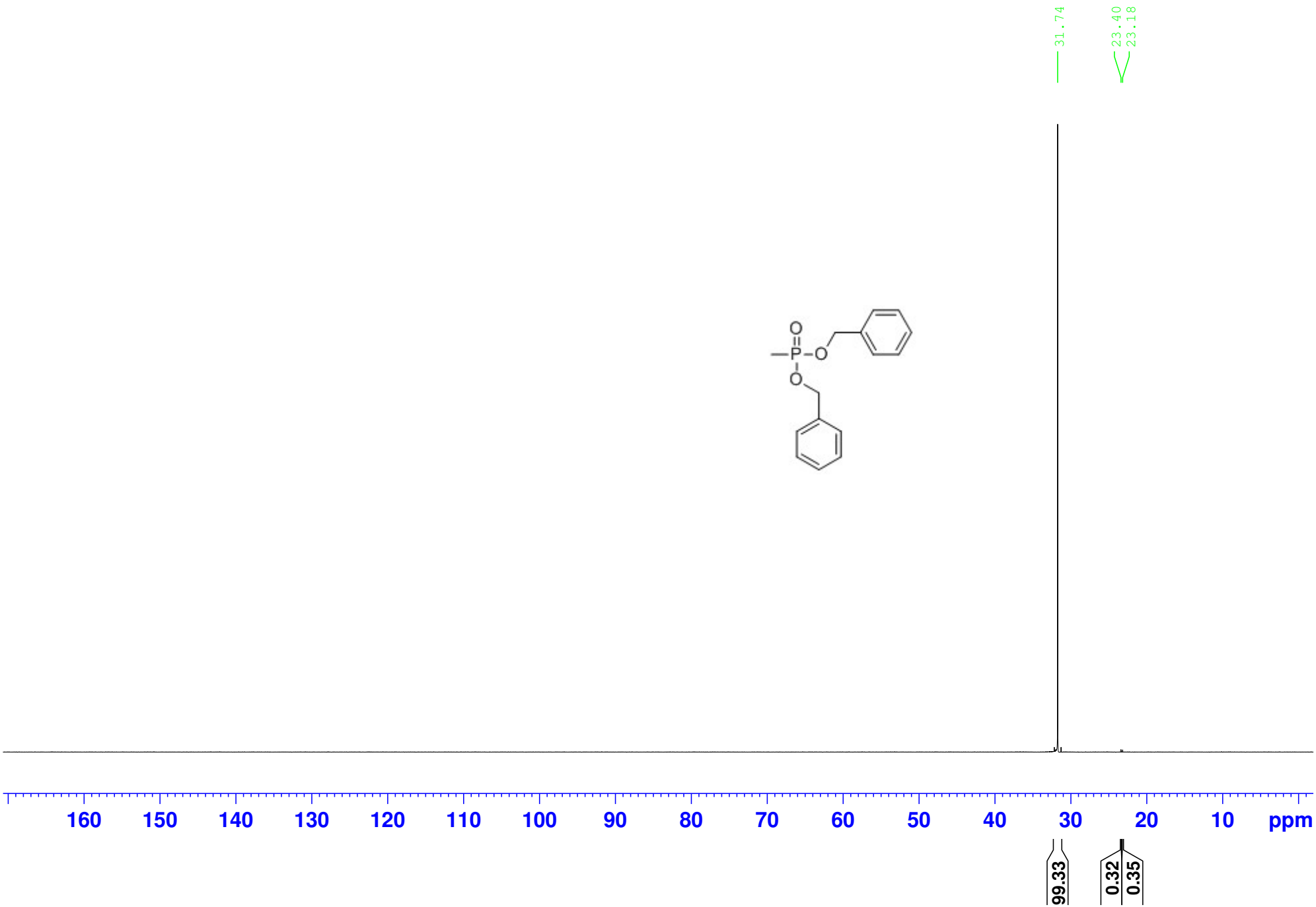
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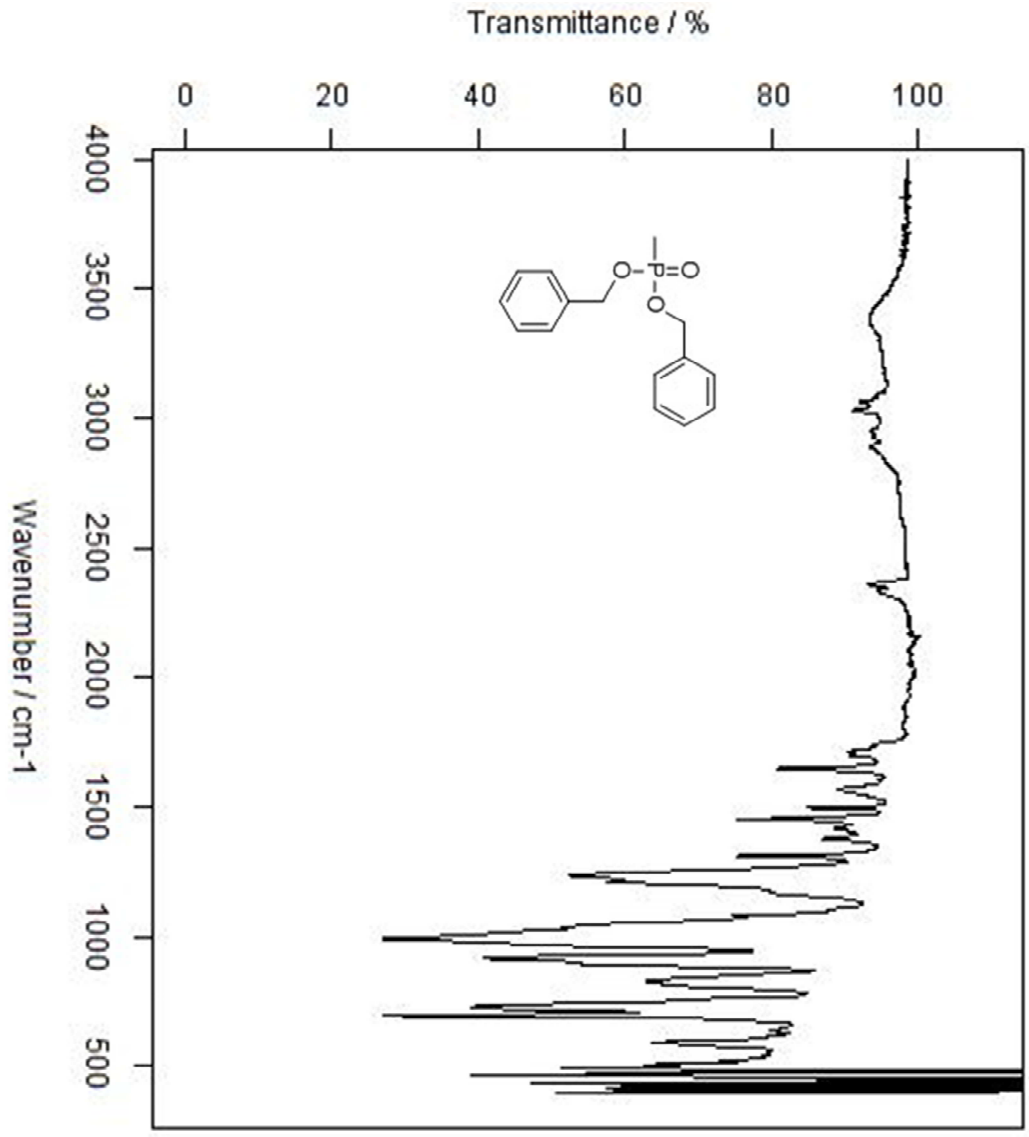
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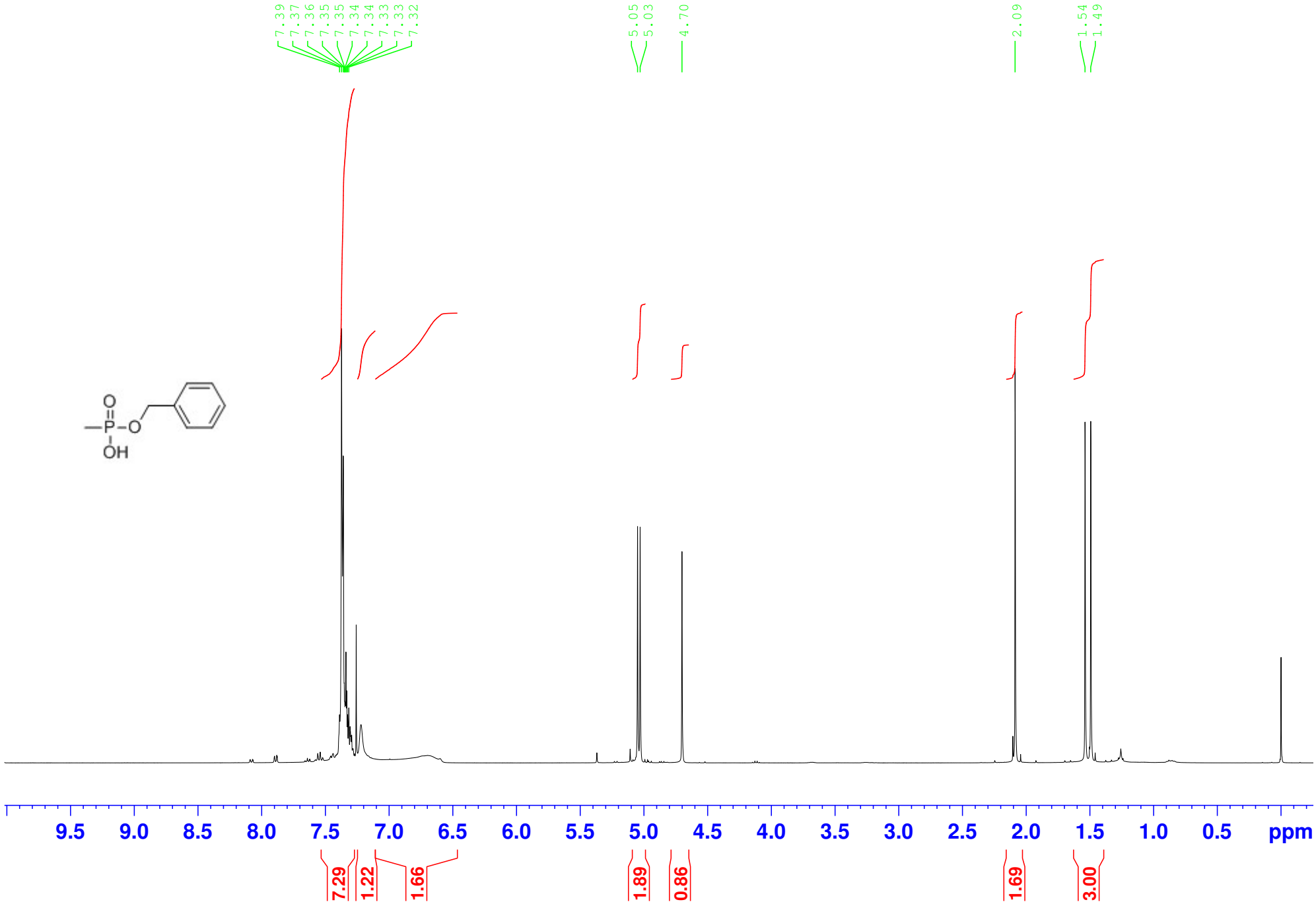
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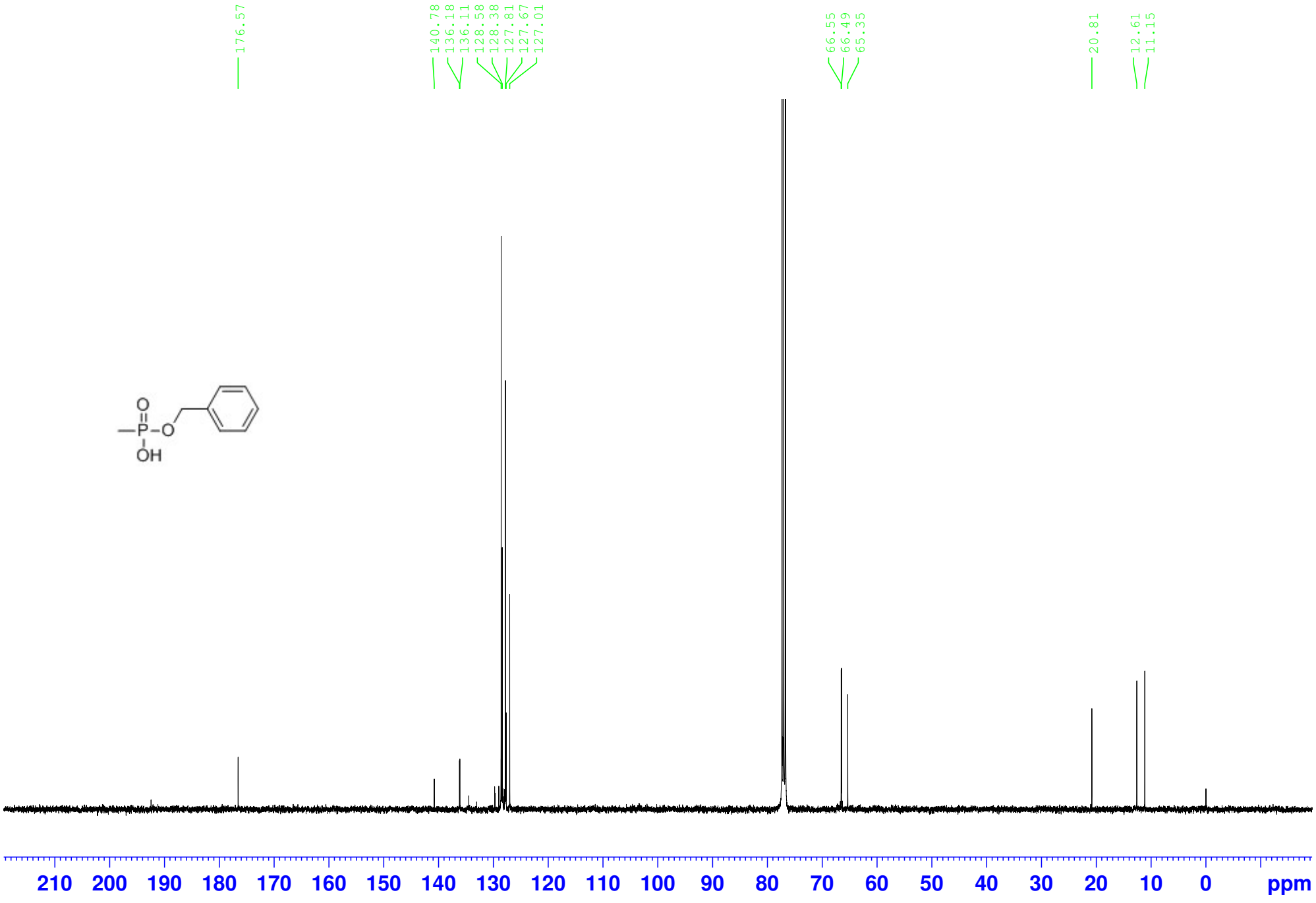
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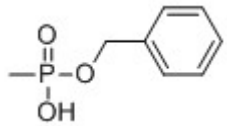

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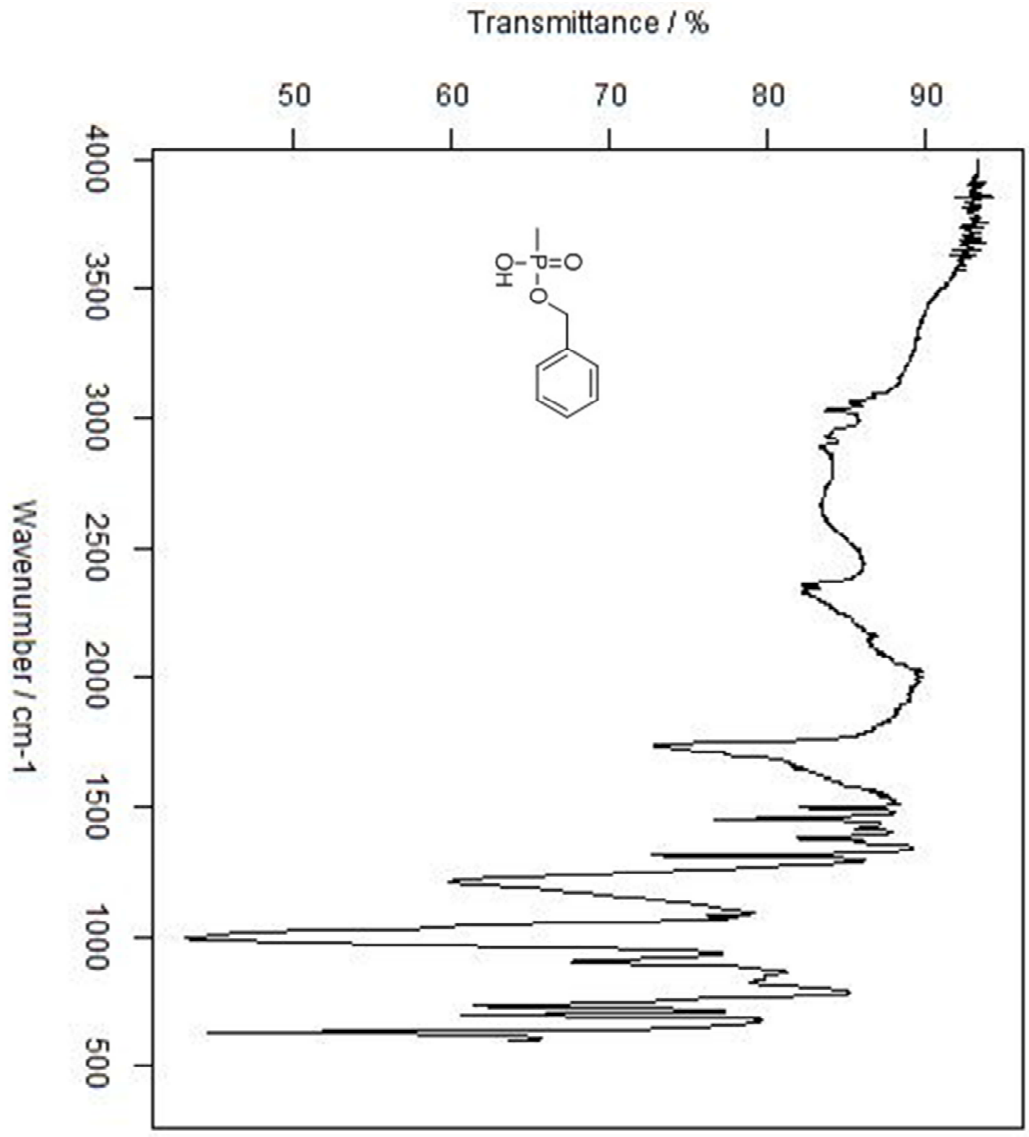
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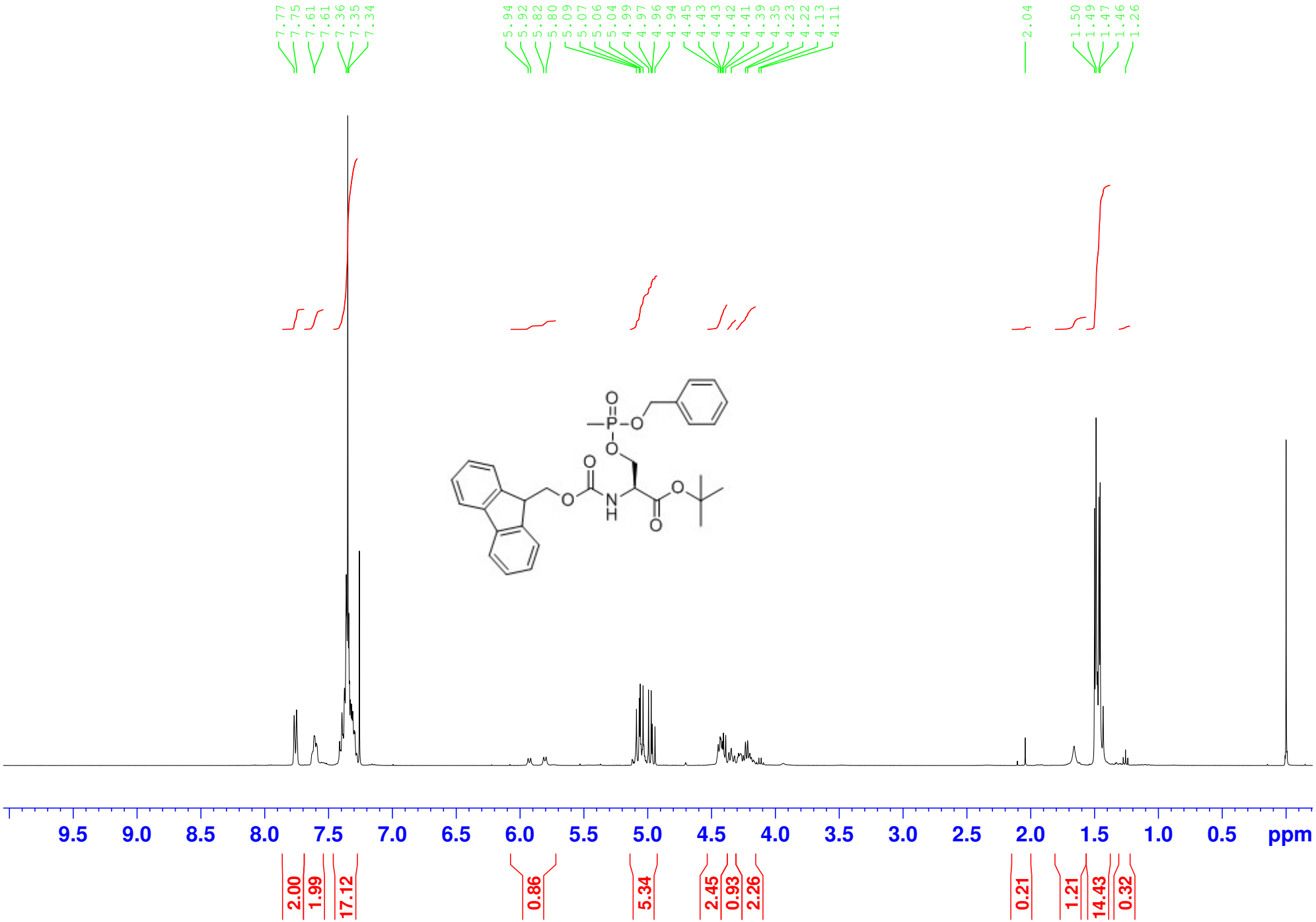
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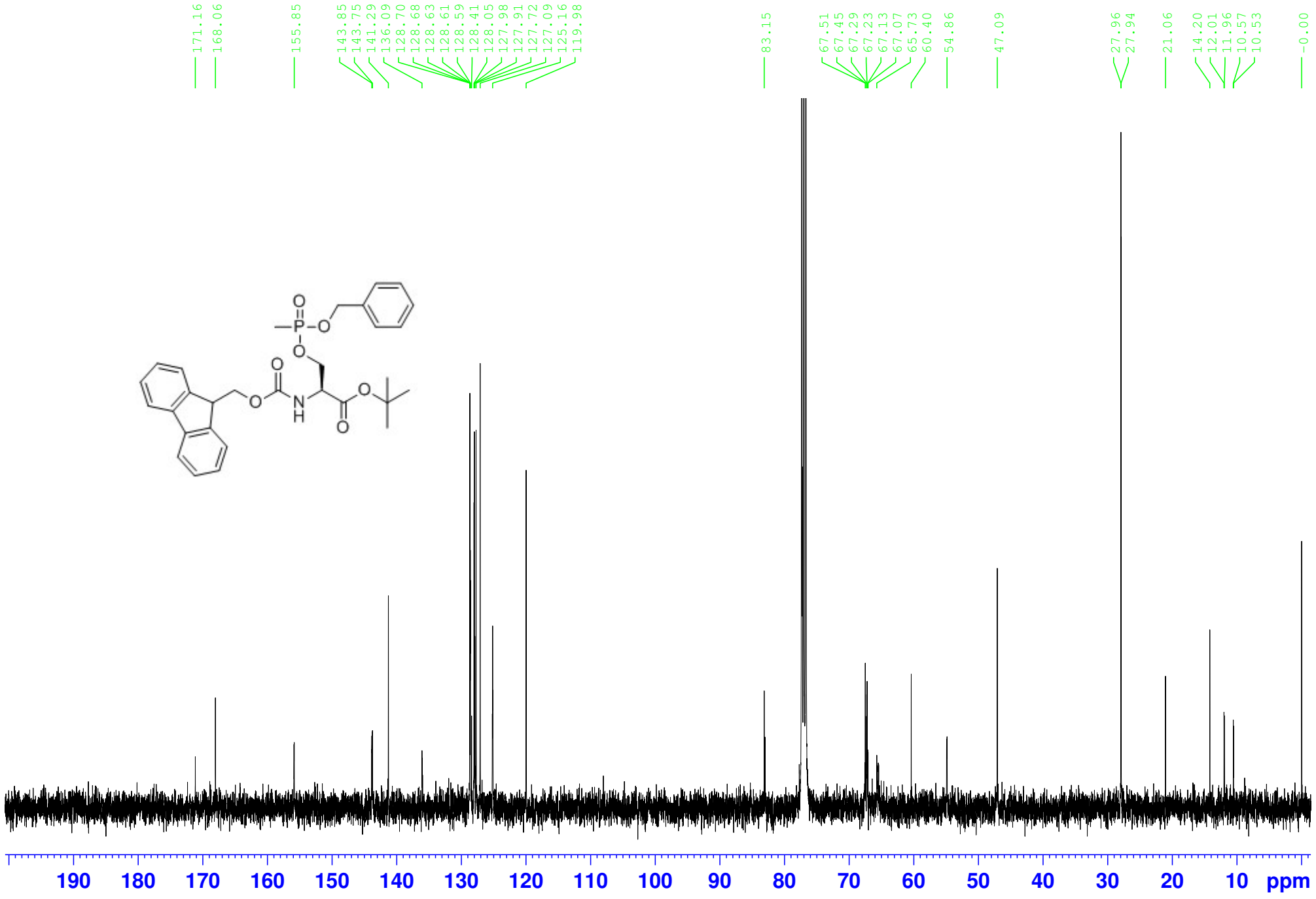
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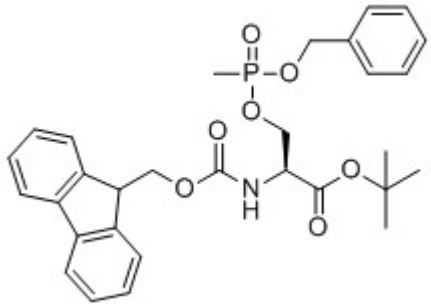

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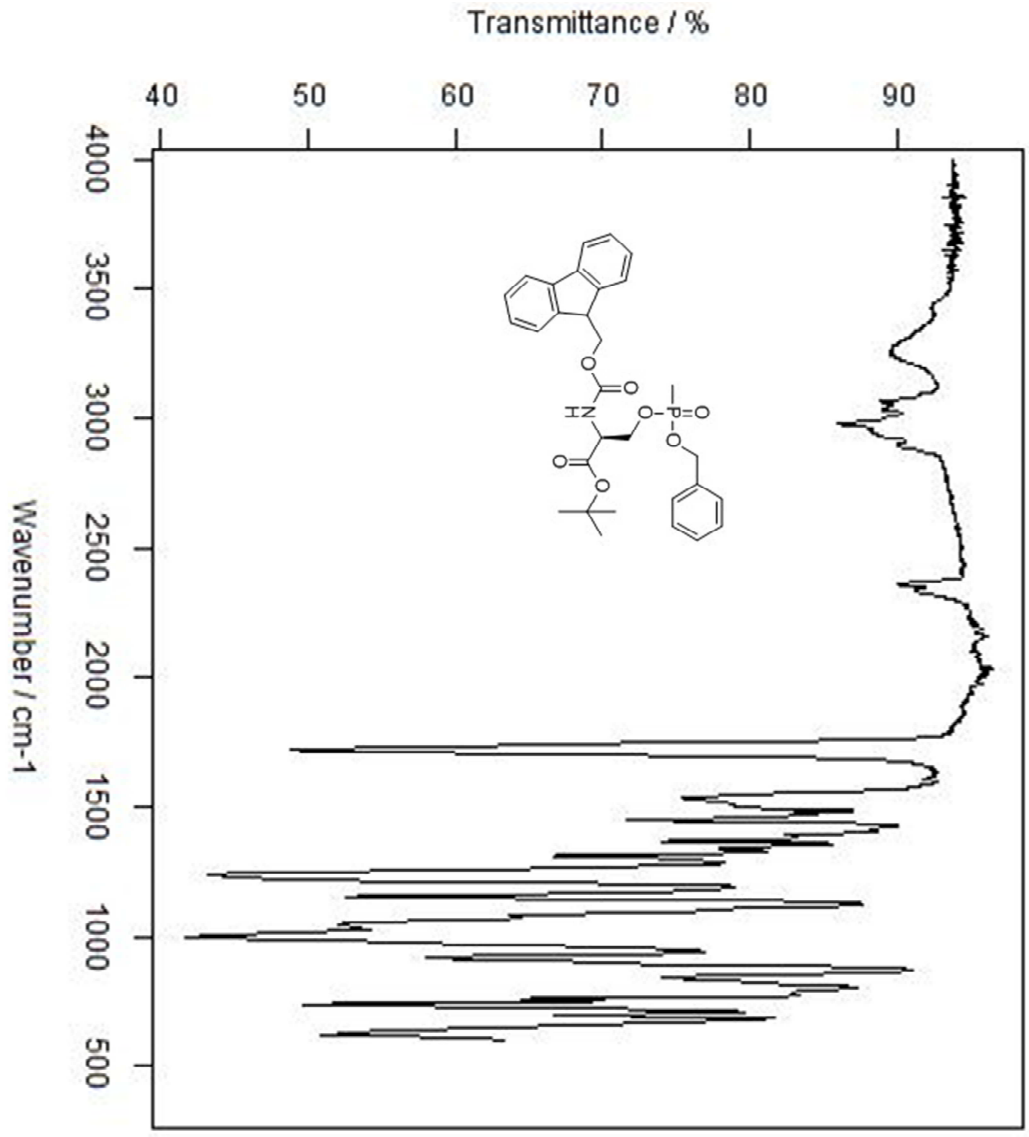
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Wavenumber / cm-1
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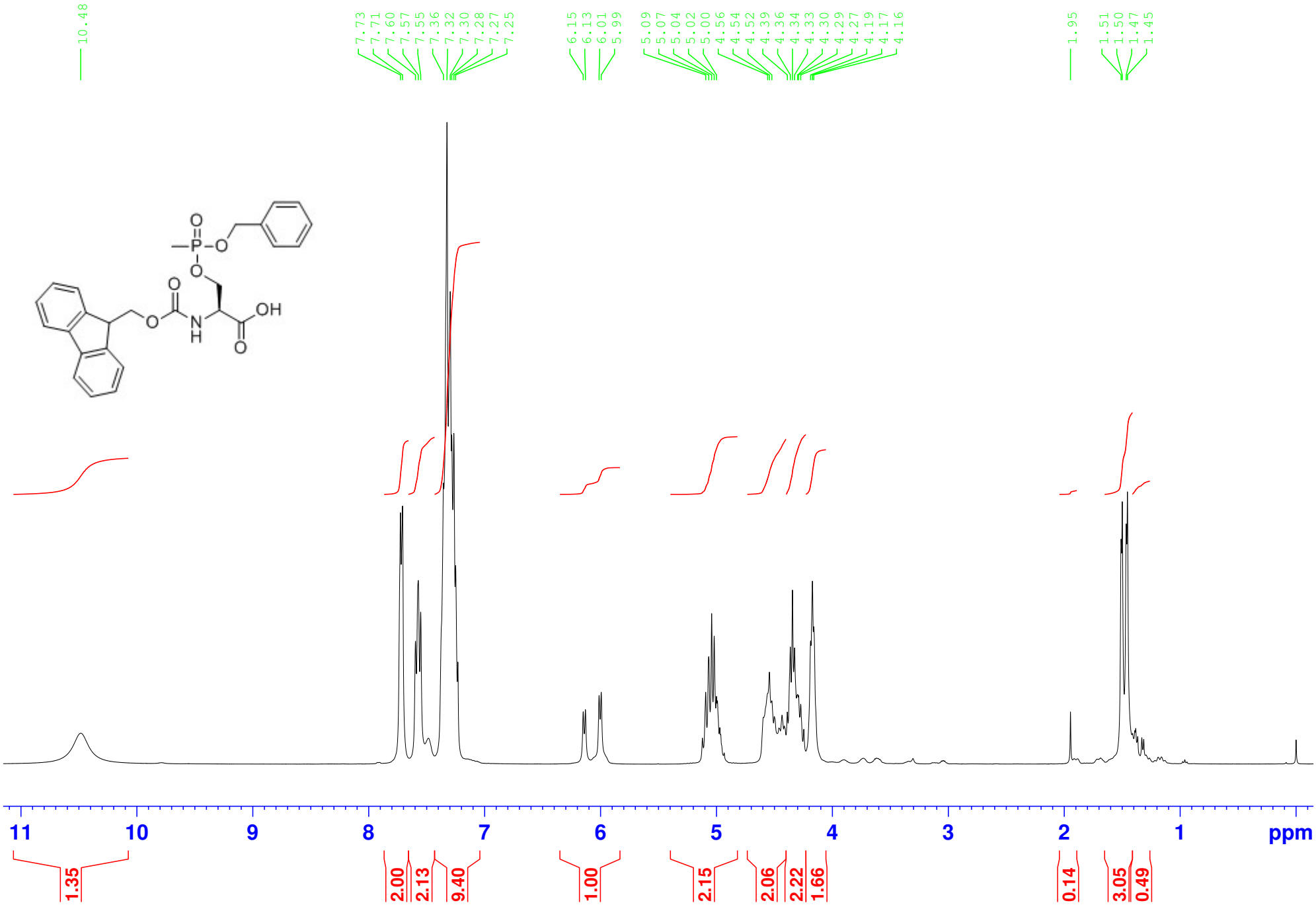
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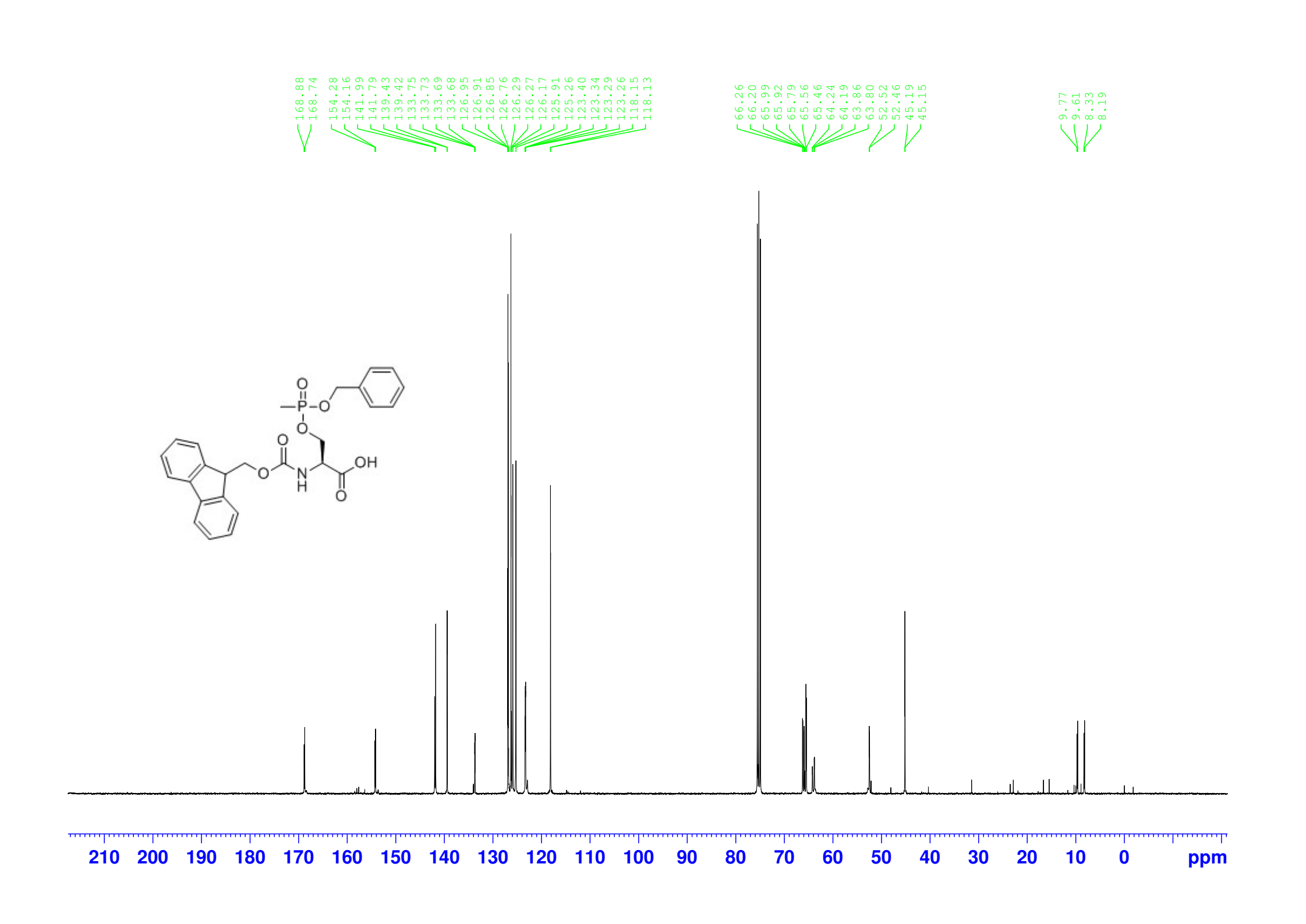
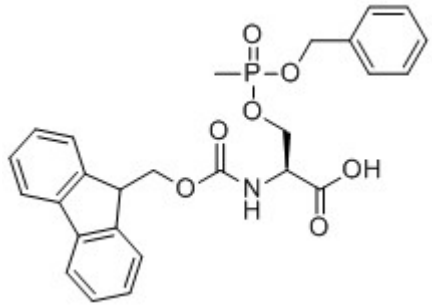
0.49

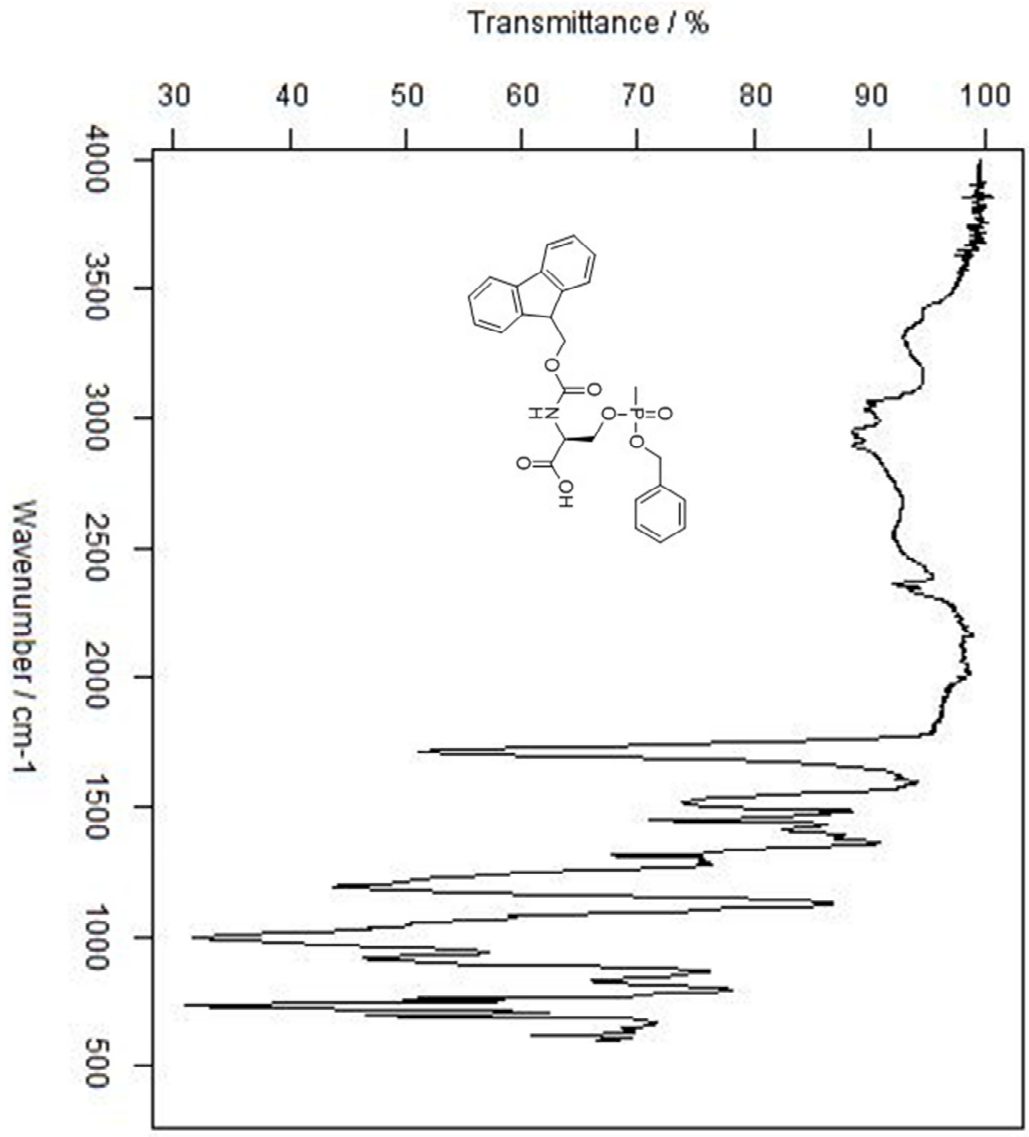

168.88
168.74
154.28
154.16
141.99
141.79
139.43
139.42
133.75
133.73
133.69
133.68
126.95
126.91
126.85
126.76
126.29
126.27
126.17
125.91
125.26
123.40
123.34
123.29
123.26
118.15
118.13
66.26
66.20
65.99
65.92
65.79
65.56
65.46
64.24
64.19
63.86
63.80
52.52
52.46
45.19
45.15
9.77
9.61
8.33
8.19
O
P
O
O
O
O
N
H
OH
O
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm

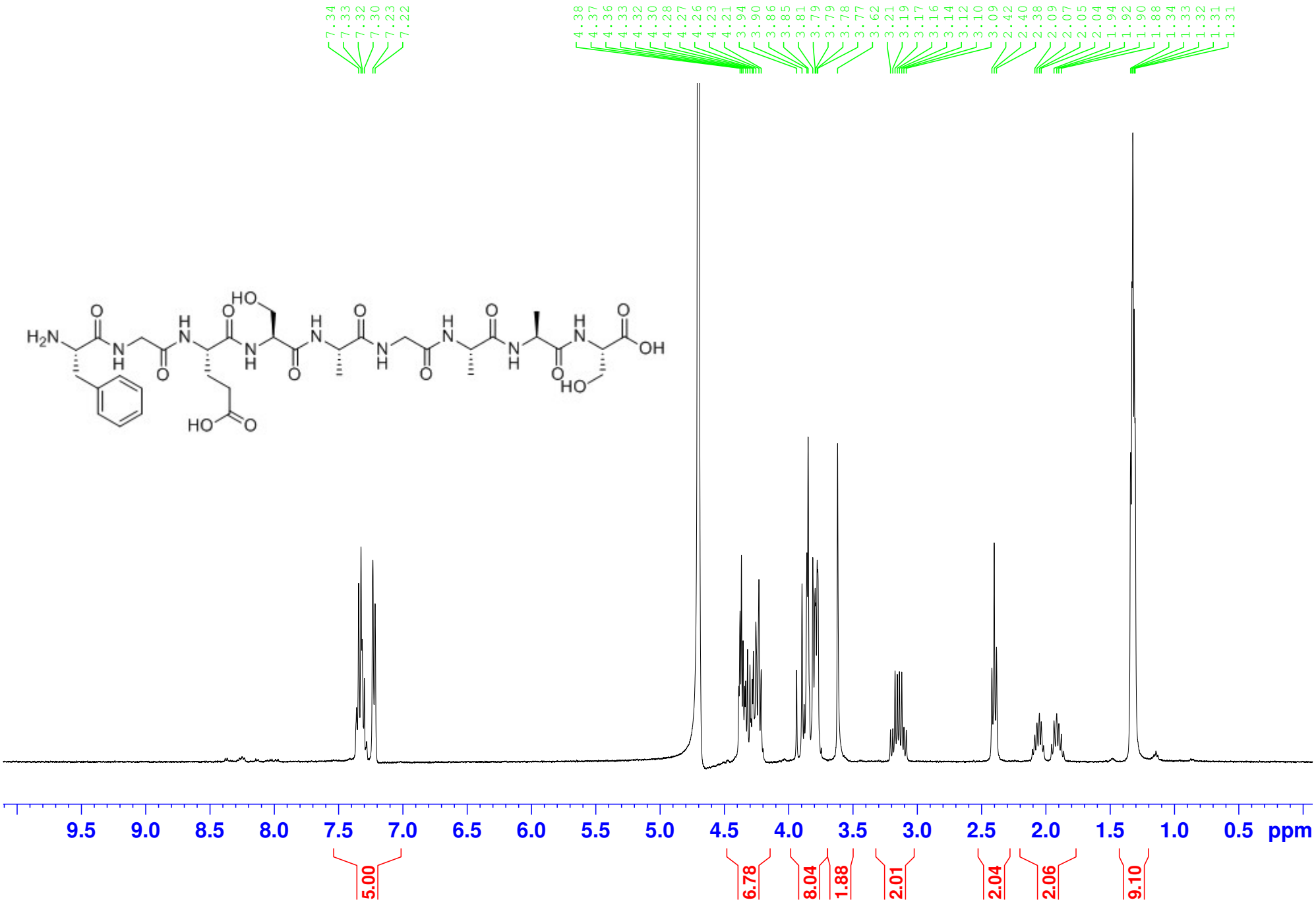


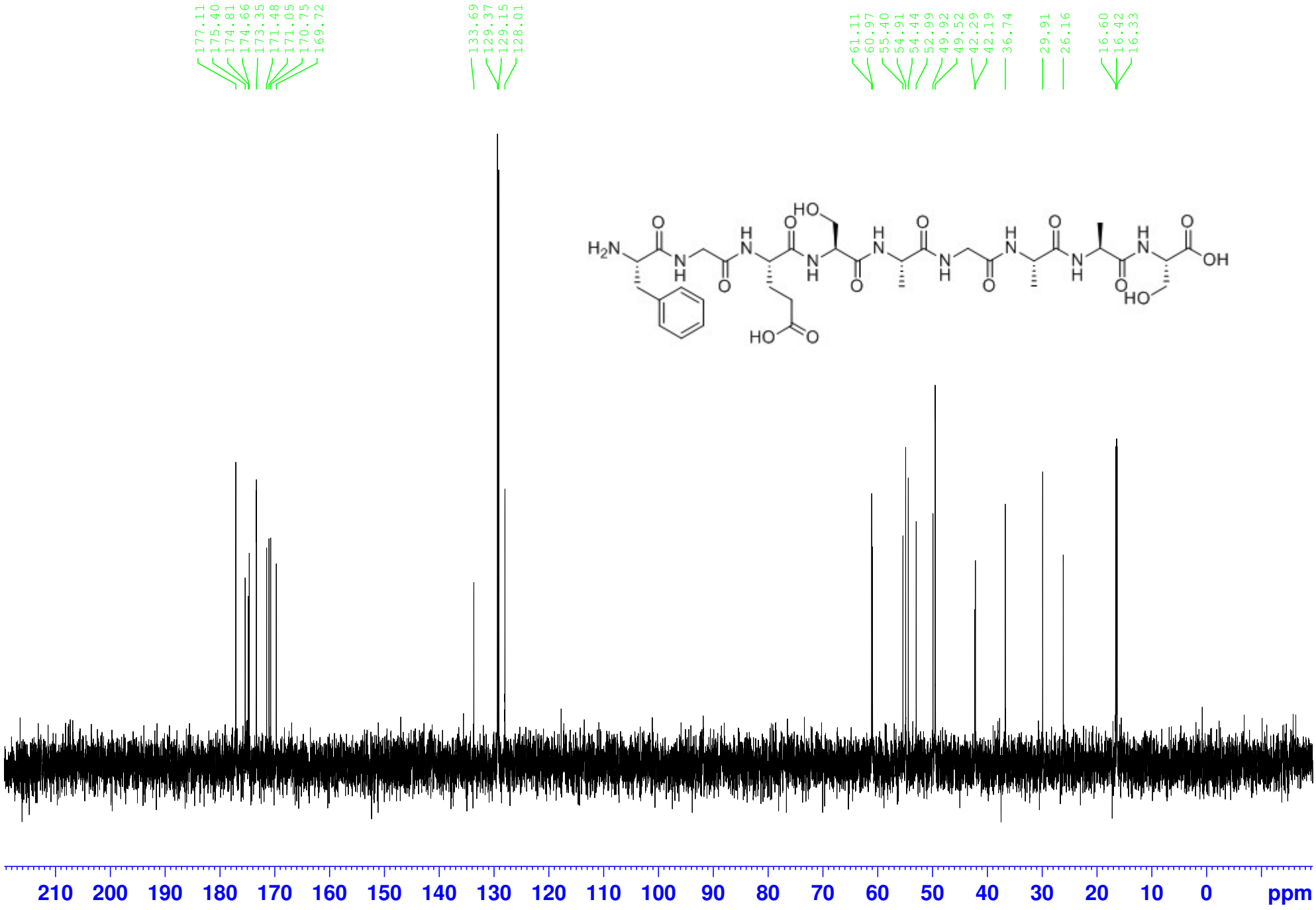
33.57
32.93
32.49

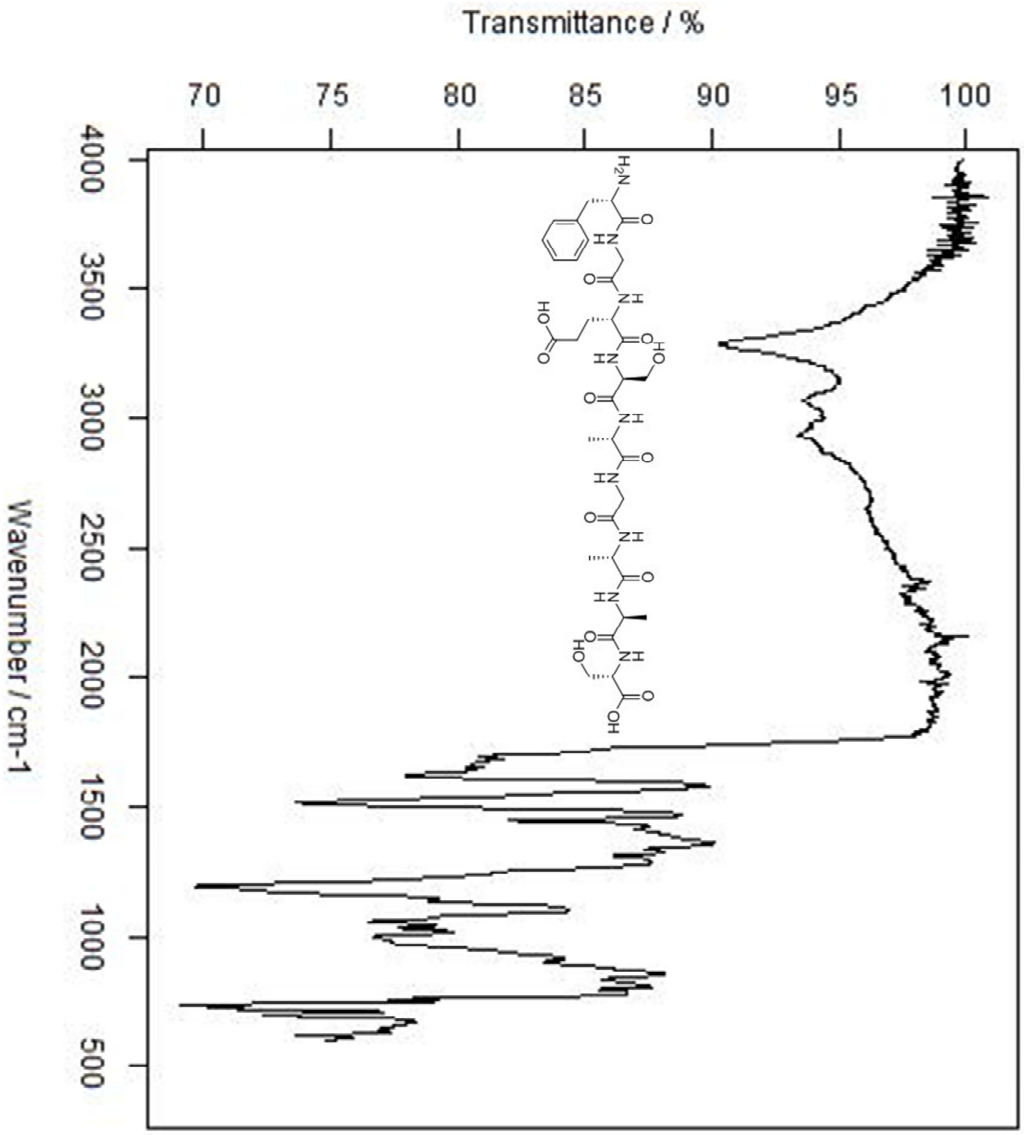
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ppm

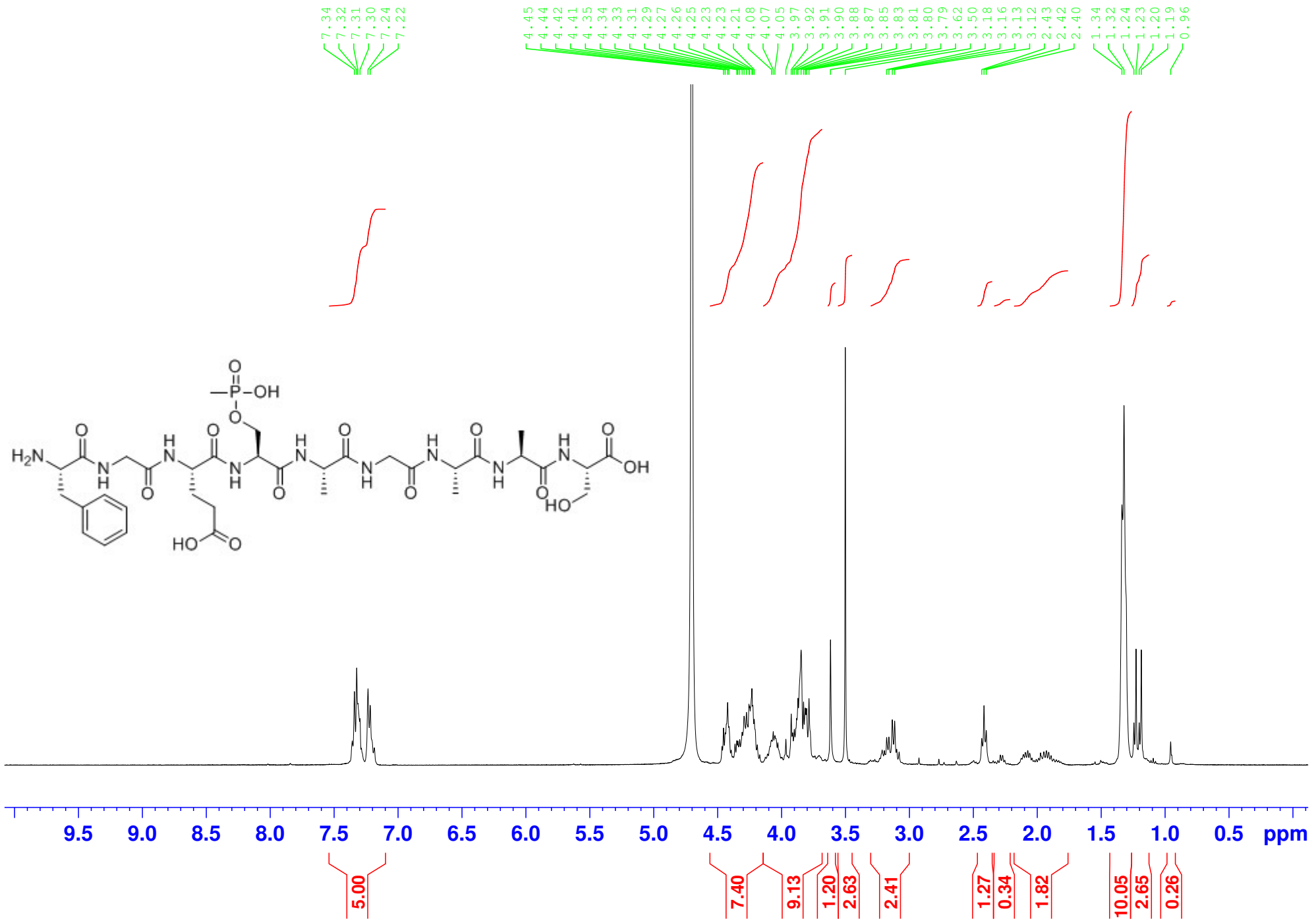
54.34
41.01
4.64

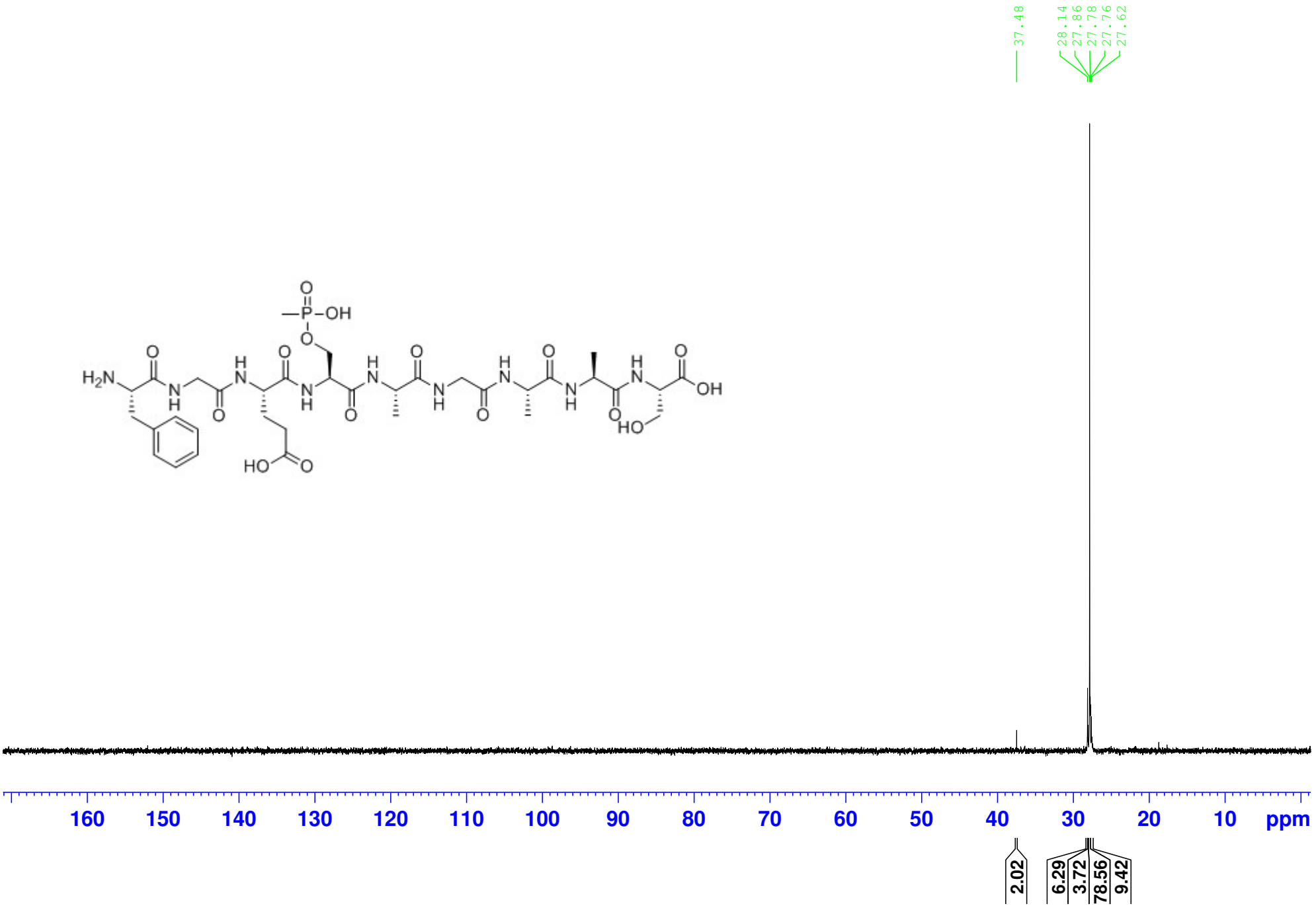

Transmittance / %
30
40
50
60
70
80
90
100
Wavenumber / cm-1
4000
3500
3000
2500
2000
1500
1000
500
HN
O
OH
P

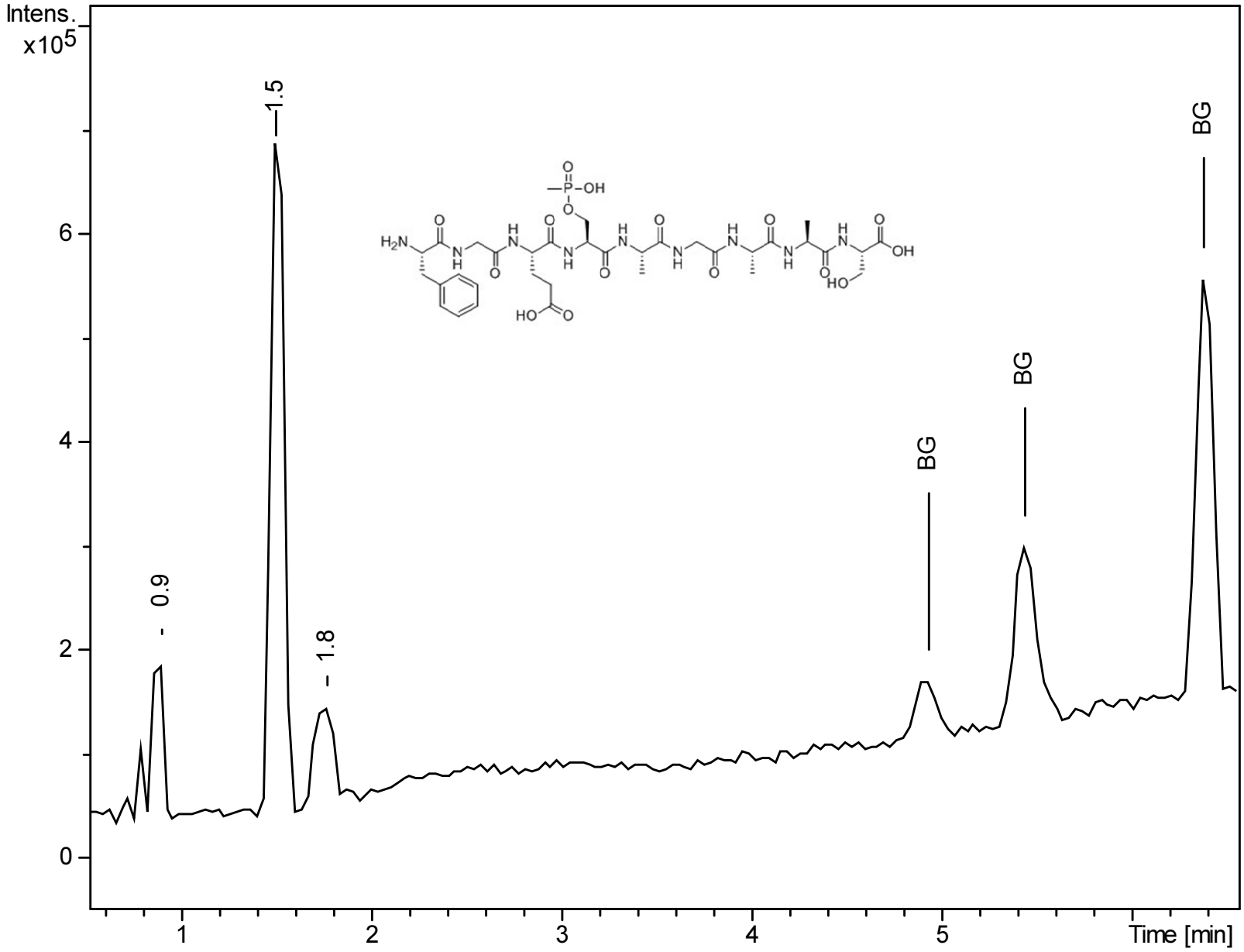

7.34
7.33
7.32
7.30
7.23
7.22
4.38
4.37
4.36
4.33
4.32
4.30
4.28
4.27
4.26
4.23
4.21
3.94
3.90
3.86
3.85
3.81
3.79
3.79
3.78
3.77
3.62
3.21
3.19
3.17
3.16
3.14
3.12
3.10
3.09
2.42
2.40
2.38
2.09
2.07
2.05
2.04
1.94
1.92
1.90
1.88
1.34
1.33
1.32
1.31
1.31
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
ppm
5.00
6.78
8.04
1.88
2.01
2.04
2.06
9.10

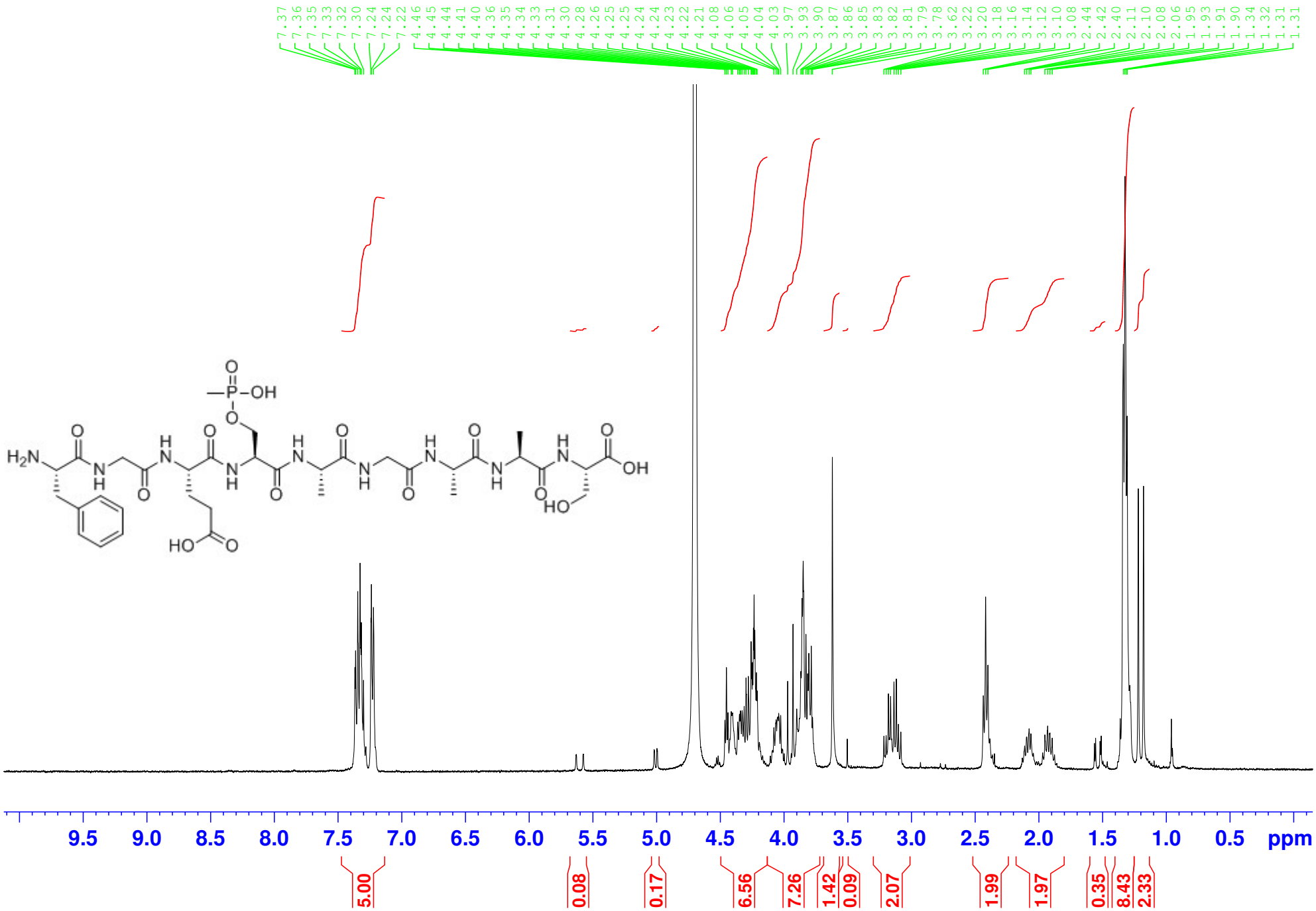

177.11
175.40
174.81
174.66
173.35
171.48
171.05
170.75
169.72
133.69
129.37
129.15
128.01
61.11
60.97
55.40
54.91
54.44
52.99
49.92
49.52
42.29
42.19
36.74
29.91
26.16
16.60
16.42
16.33
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm

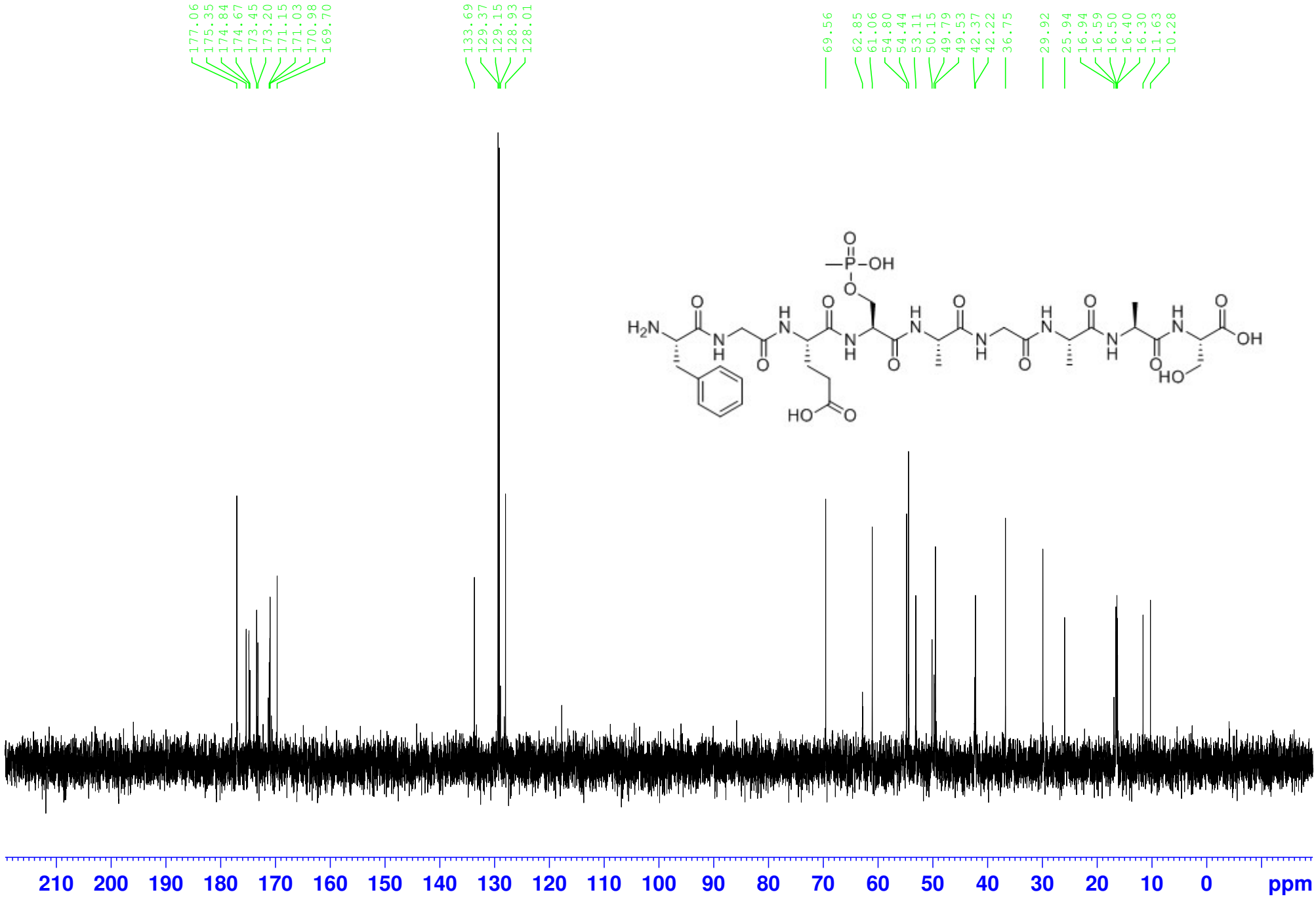

Transmittance / %
70
75
80
85
90
95
100
Wavenumber / cm-1
4000
3500
3000
2500
2000
1500
1000
500

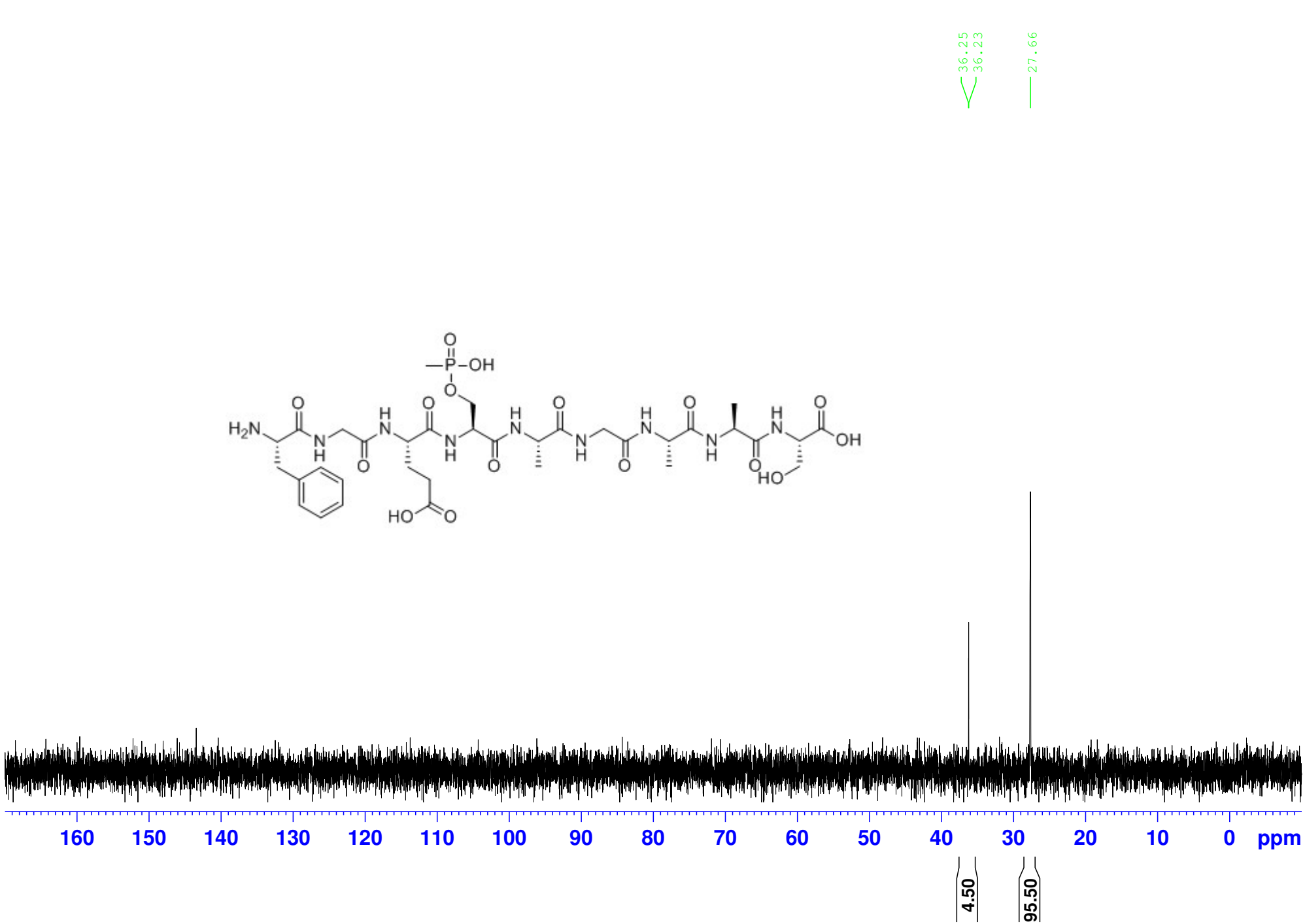

7.34
7.32
7.31
7.30
7.24
7.22
4.45
4.44
4.42
4.41
4.35
4.34
4.33
4.31
4.29
4.27
4.26
4.25
4.23
4.23
4.21
4.08
4.07
4.05
3.97
3.92
3.91
3.90
3.88
3.87
3.85
3.83
3.81
3.80
3.79
3.62
3.50
3.18
3.16
3.13
3.12
2.43
2.42
2.40
1.34
1.32
1.24
1.23
1.20
1.19
0.96
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
ppm
5.00
7.40
9.13
1.20
2.63
2.41
1.27
0.34
1.82
10.05
2.65
0.26

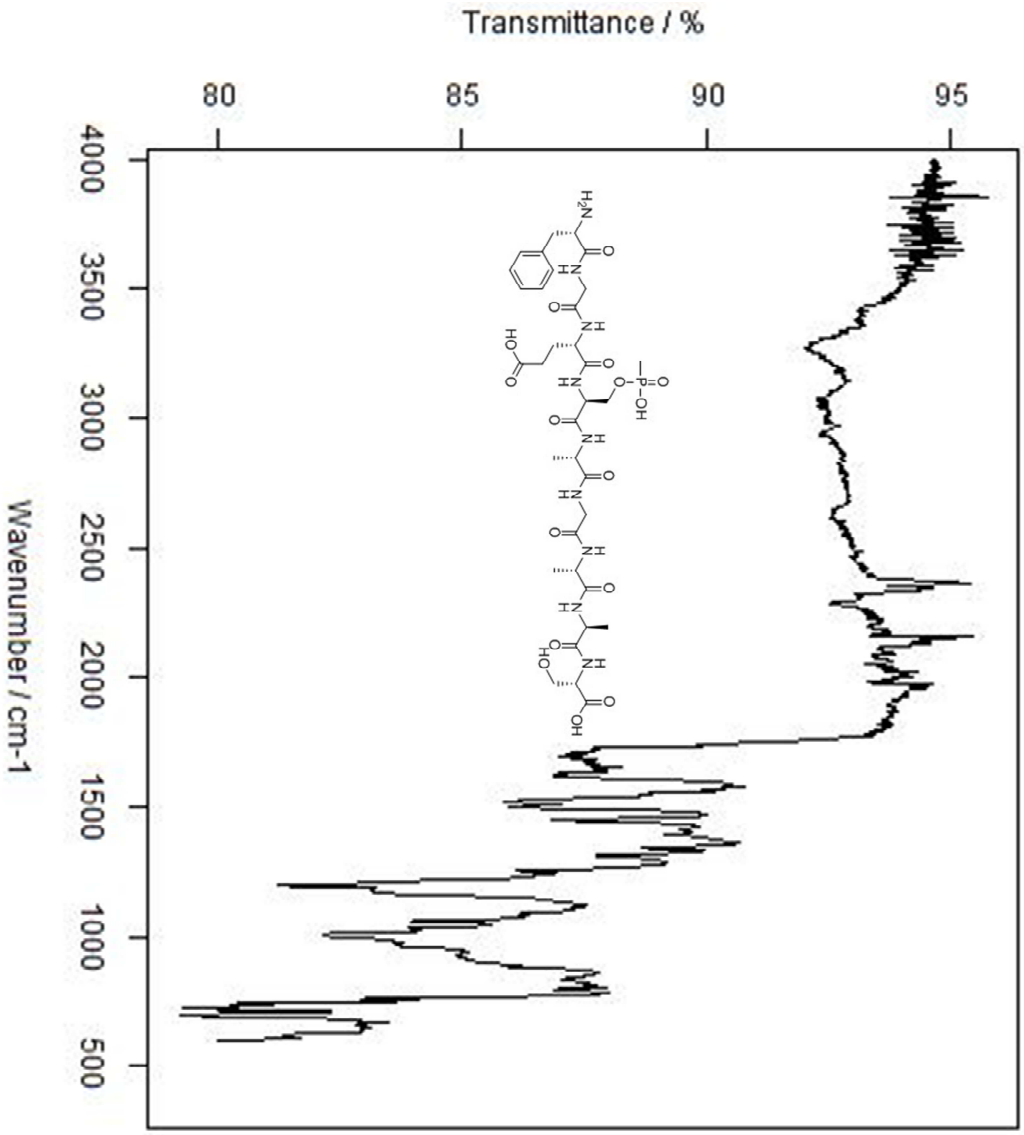

37.48
28.14
27.86
27.78
27.76
27.62
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
ppm
2.02
6.29
3.72
78.56
9.42

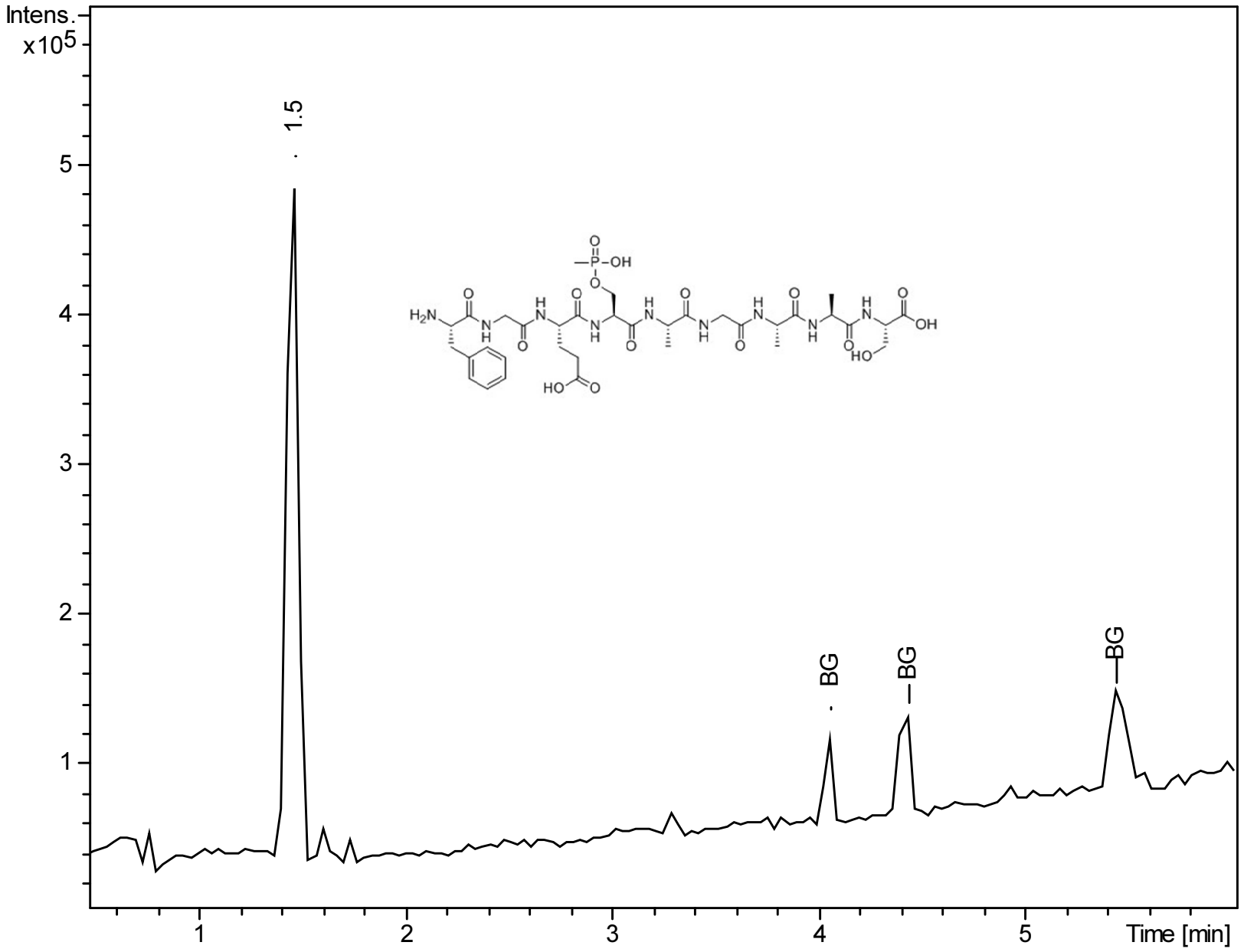

Intens.
x10^5
6
4
2
0
1.5
0.9
1.8
BG
BG
BG
1
2
3
4
5
Time [min]


7.37 7.36 7.35 7.33 7.32 7.30 7.24 7.24 7.22 4.46 4.45 4.44 4.41 4.40 4.36 4.35 4.34 4.33 4.31 4.30 4.28 4.26 4.25 4.25 4.24 4.24 4.23 4.22 4.21 4.08 4.06 4.05 4.04 4.03 3.97 3.93 3.90 3.87 3.86 3.85 3.83 3.82 3.81 3.79 3.78 3.62 3.22 3.20 3.18 3.16 3.14 3.12 3.10 3.08 2.44 2.42 2.40 2.11 2.10 2.08 2.06 1.95 1.93 1.91 1.90 1.34 1.32 1.31 1.31
H2N
O
N
H
HO
P
OH
9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 ppm
5.00 0.08 0.17 6.56 7.26 1.42 0.09 2.07 1.99 1.97 0.35 8.43 2.33


177.06
175.35
174.84
174.67
173.45
173.20
171.15
171.03
170.98
169.70
133.69
129.37
129.15
128.93
128.01
69.56
62.85
61.06
54.80
54.44
53.11
50.15
49.79
49.53
42.37
42.22
36.75
29.92
25.94
16.94
16.59
16.50
16.40
16.30
11.63
10.28
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm


36.25
36.23
27.66
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm
4.50
95.50


Transmittance / %
80
85
90
95
Wavenumber / cm-1
4000
3500
3000
2500
2000
1500
1000
500


Intens.
x10^5
5
4
3
2
1
1.5
BG
BG
BG
1
2
3
4
5
Time [min]