Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Studies on Highly Regio- and Stereoselective Hydration of 1,2-Allenylic Sulfoxides

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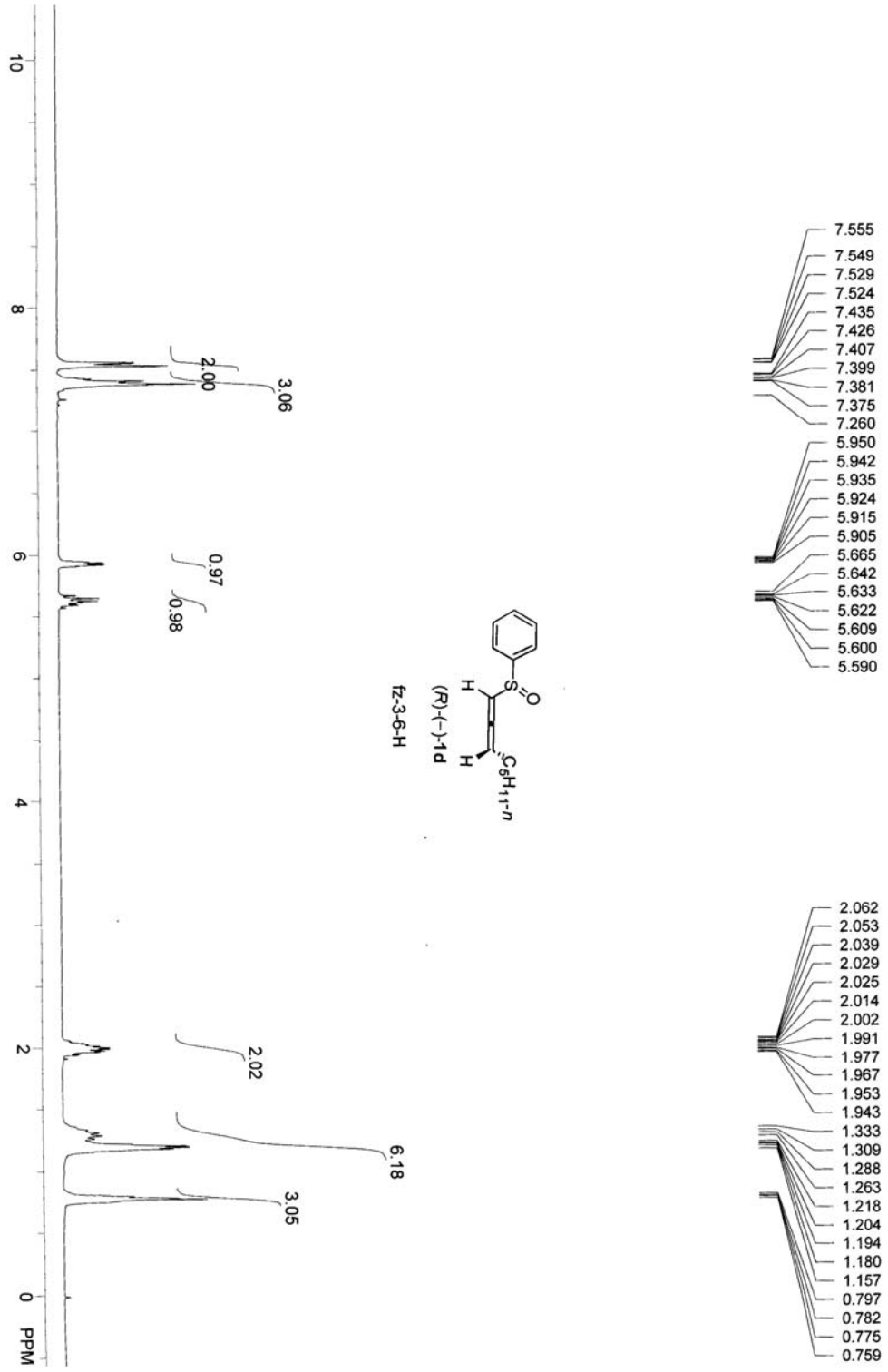
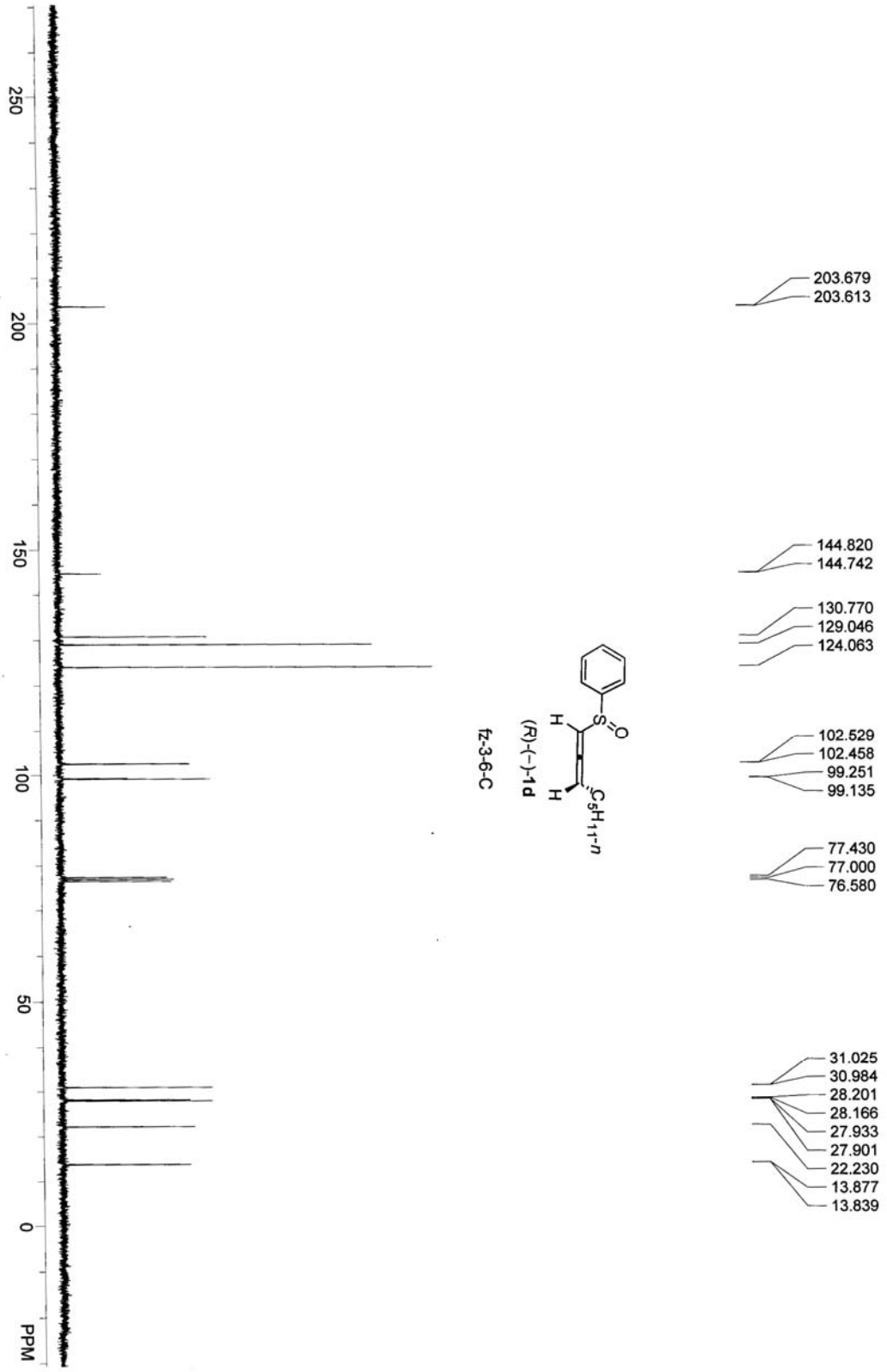
General experimental methods:

^{1}H and ^{13}C nuclear magnetic resonance spectra were recorded on an instrument operated at 300 MHz for ^{1}H NMR and 75 MHz for ^{13}C NMR. Deuterochloroform ($CDCl_3$) was used as solvent in all NMR experiments. Chemical shifts (δ) are given in parts per million (ppm). Infrared spectra were recorded on a FT-IR spectrometer. Mass spectra were carried out in EI mode. HRMS spectra were carried out in EI mode. Thin layer chromatography was performed on pre-coated glassback plates and visualized with UV light at 254 nm. Flash column chromatography was performed on silica gel.

^{1}H NMR, ^{13}C NMR, and HPLC Spectra of the Products





Data File E:\DATA\FZ\FZ000059.D Sample Name: fz-4-2

chiral OD-H; n-Hexane:i-PrOH=95/5; 254 nm; 0.7 ml/min

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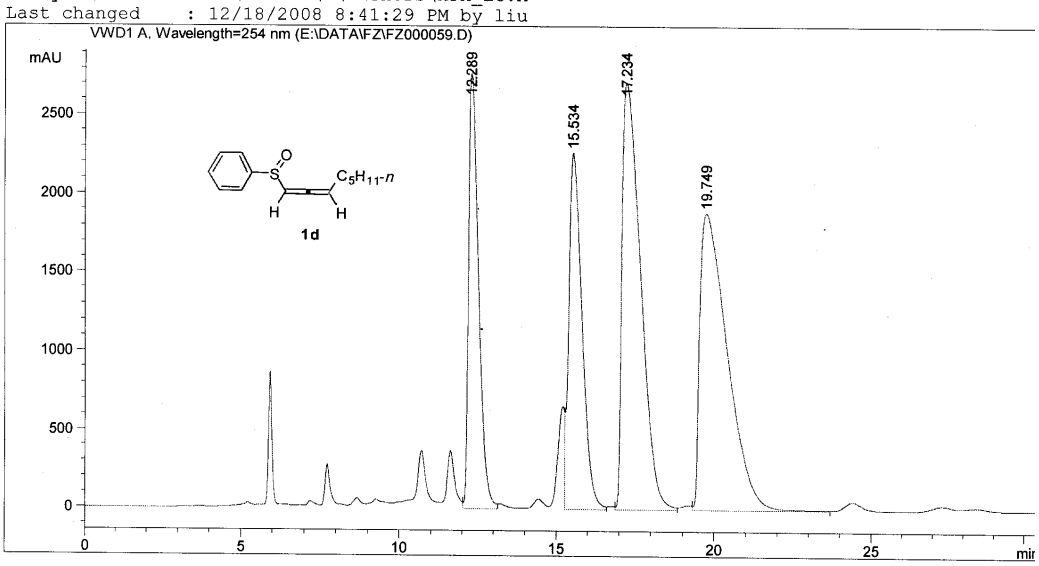


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==========================================================================
                          Area Percent Report
==========================================================================

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Dilution              :      1.0000
Sample Amount         :      1.00000  [ng/ul]   (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]       [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  12.289 VV    0.3407 6.12913e4  2774.19287  17.4190
   2  15.534 VV    0.4429 6.59609e4  2266.53833  18.7461
   3  17.234 VV    0.6518 1.10733e5  2708.01636  31.4702
   4  19.749 VV    0.9458 1.13880e5  1887.07410  32.3648

Totals :                 3.51865e5  9635.82166

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***

Instrument 1 12/20/2008 2:01:21 PM fz
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Page 1 of 1

Data File E:\DATA\FZ\FZ000060.D Sample Name: fz-3-

chiral OD-H; n-Hexane:i-PrOH=95/5; 254 nm; 0.7 ml/min

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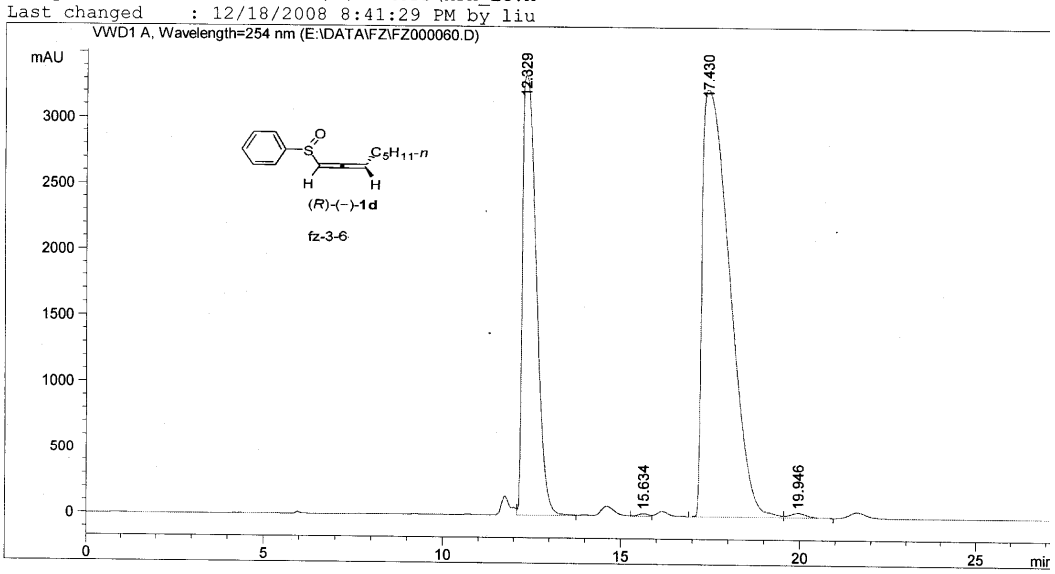

Area Percent Report

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Dilution              :      1.0000
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Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: VWD1 A, Wavelength=254 nm

Peak #	RetTime [min]	Type	Width [min]	Area mAU *s	Height [mAU]	Area %
1	12.329	VV	0.4244	9.00749e4	3349.48584	34.1788
2	15.634	VV	0.3485	547.90356	23.68358	0.2079
3	17.430	VV	0.8330	1.71521e5	3240.49878	65.0836
4	19.946	VV	0.5656	1395.75476	36.97234	0.5296
Totals :				2.63540e5	6650.64054	

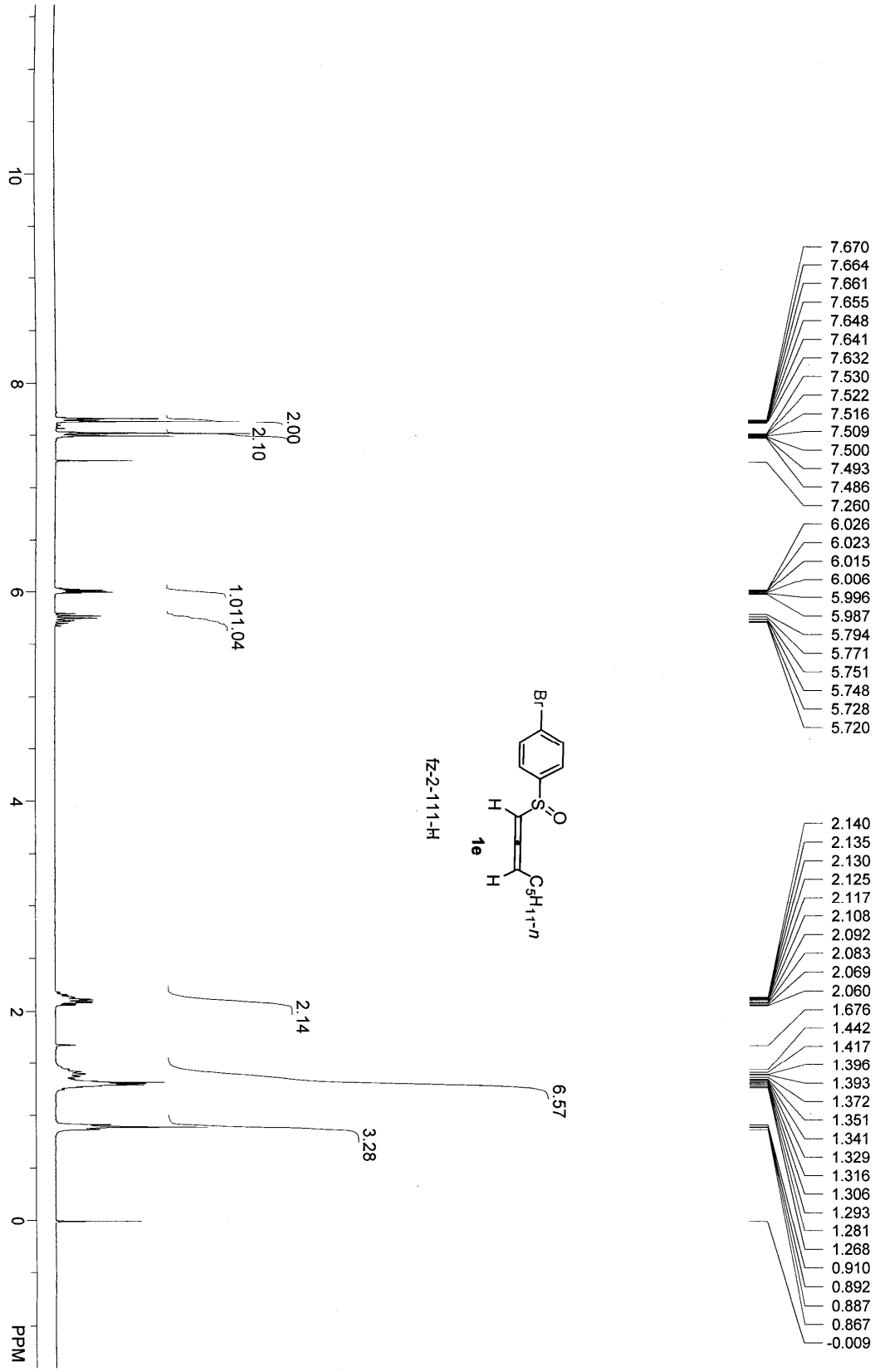
Results obtained with enhanced integrator!

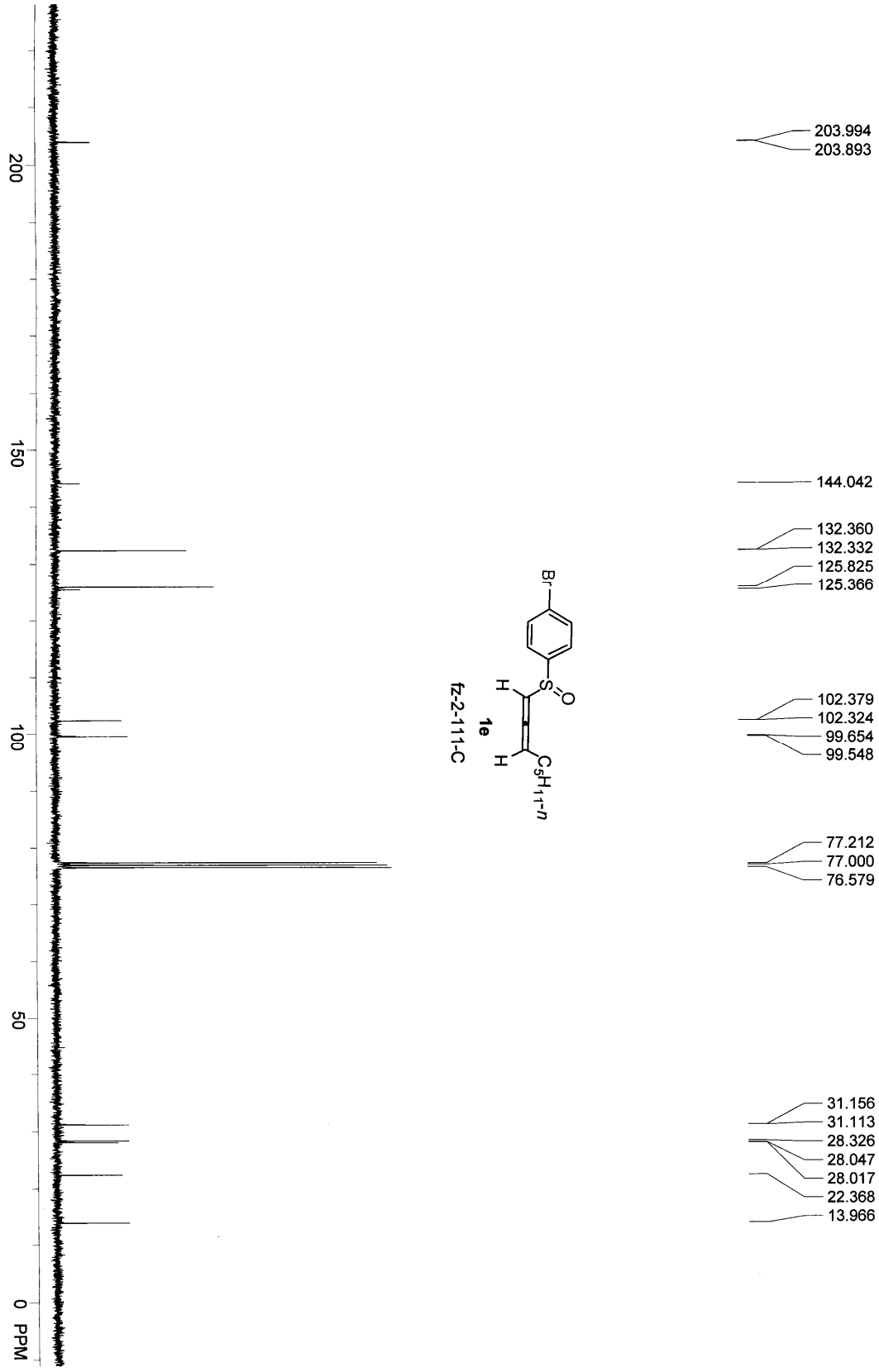
*** End of Report ***

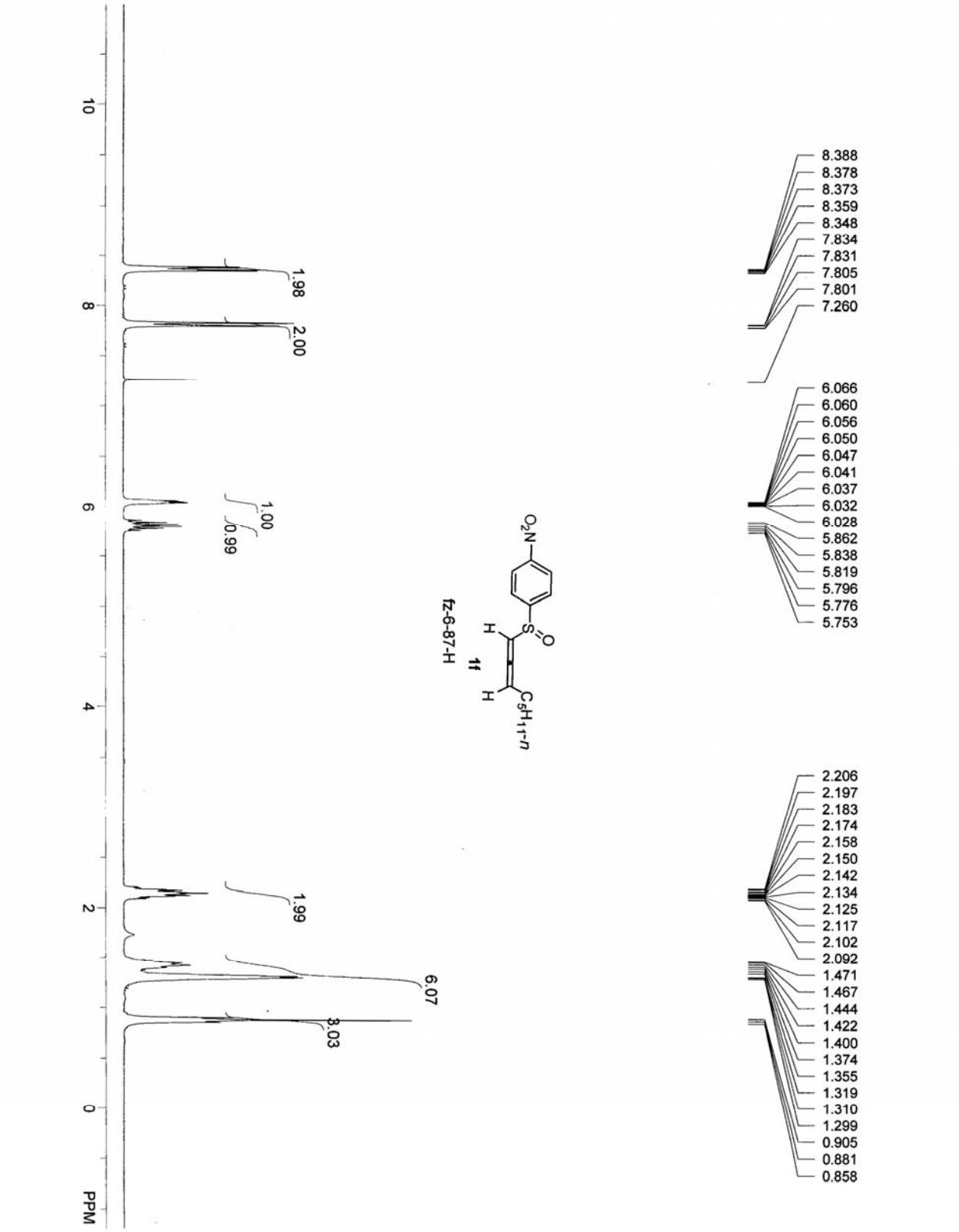
Instrument 1 12/20/2008 2:00:35 PM fz

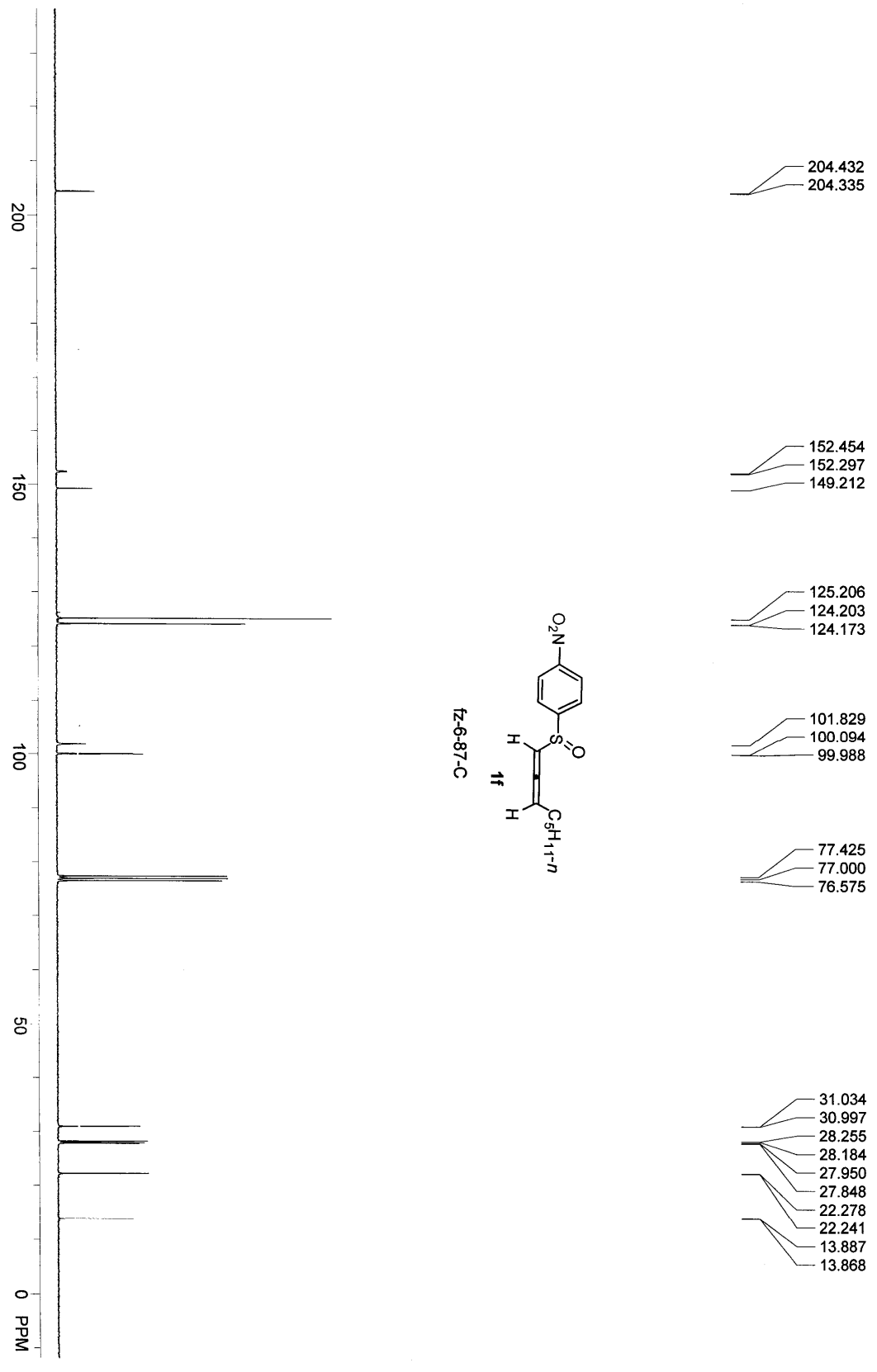
$dr = \frac{(65.0836 + 0.5296)}{(34.1788 + 0.2079)} = \frac{65.6132}{34.3867} = 1.91$

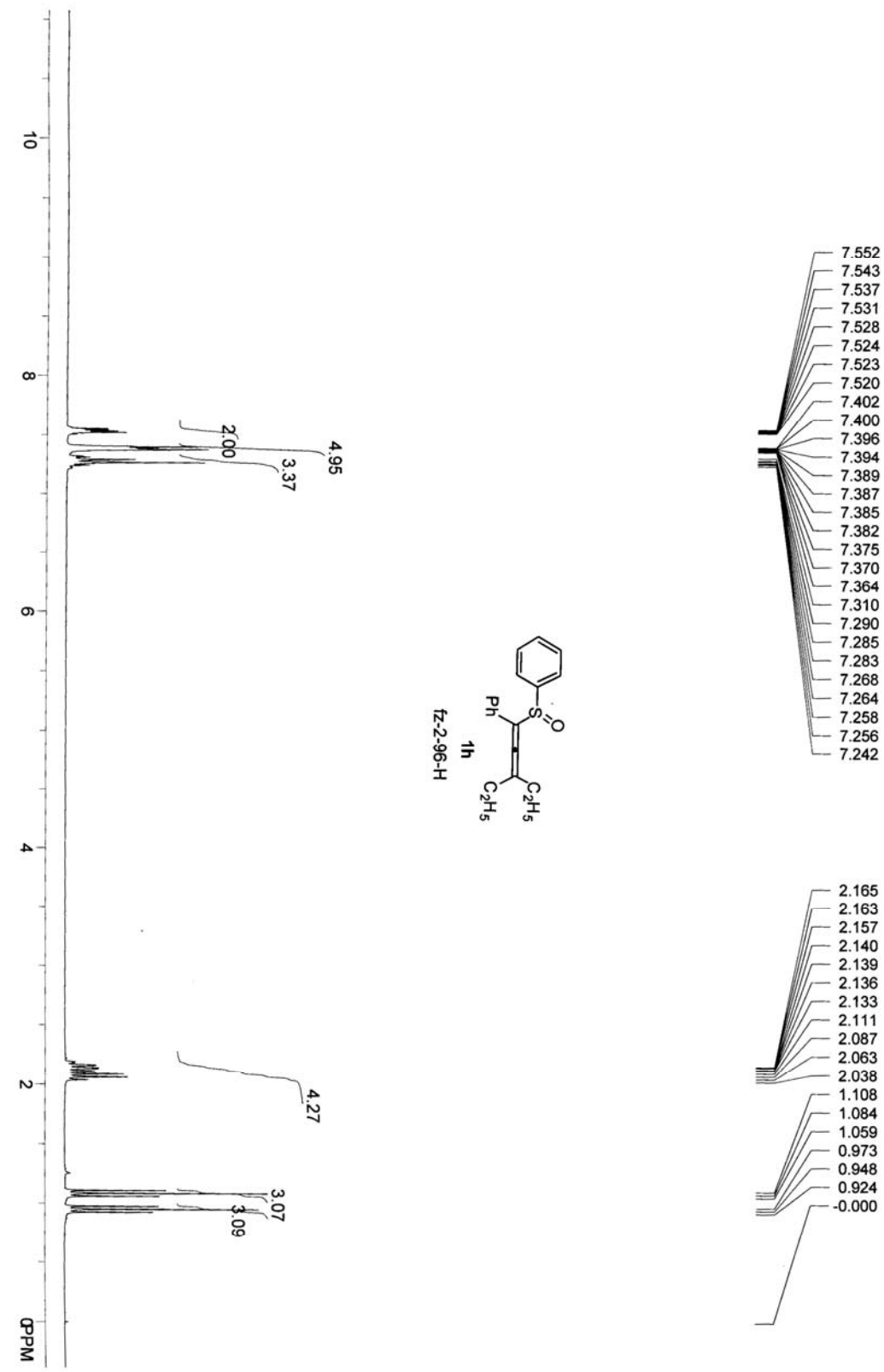
$ee\% = \frac{34.1788 + 65.0836}{34.1788 + 65.0836 + 0.5296 + 0.2079} = 98.5\%$

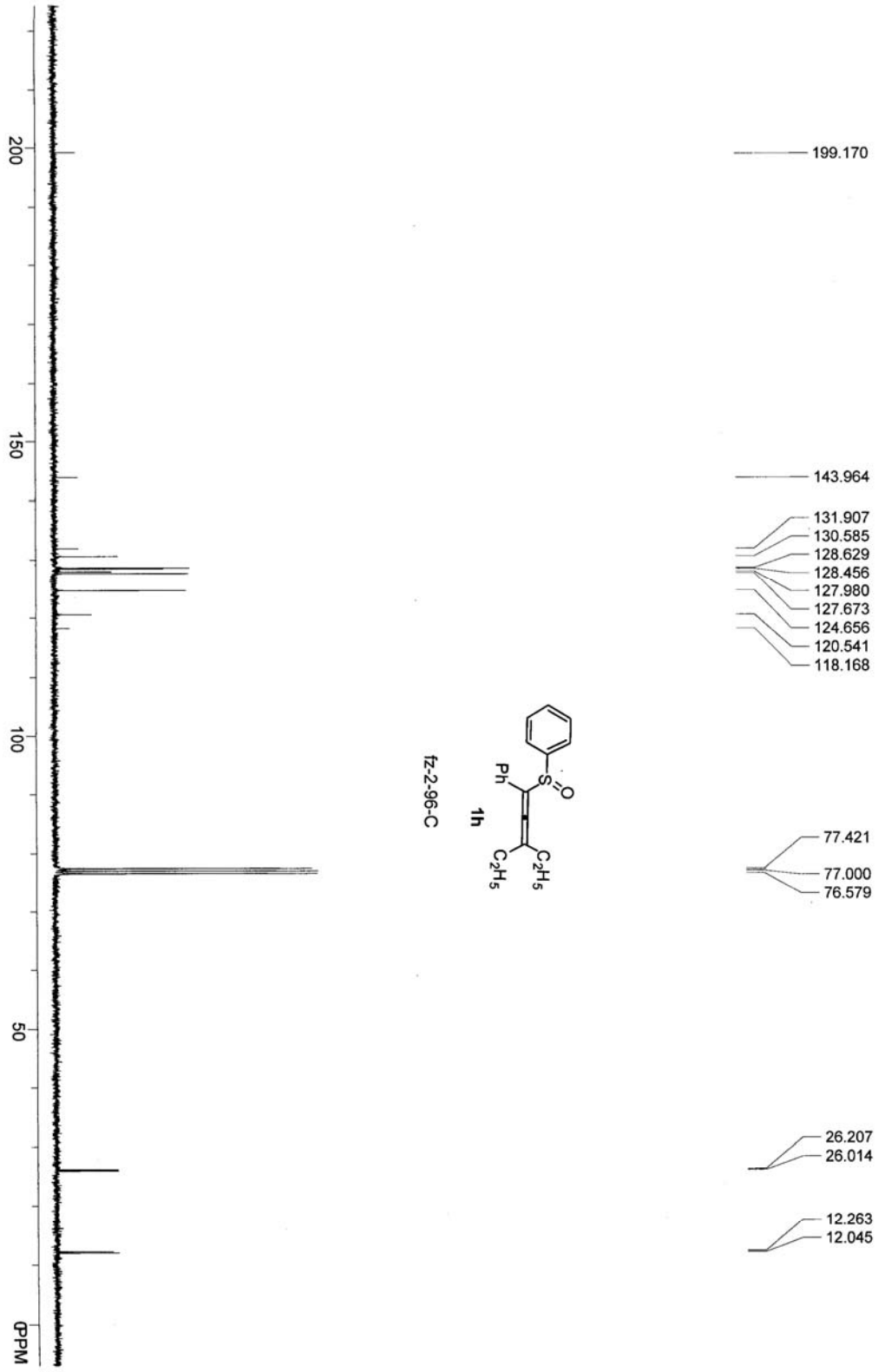


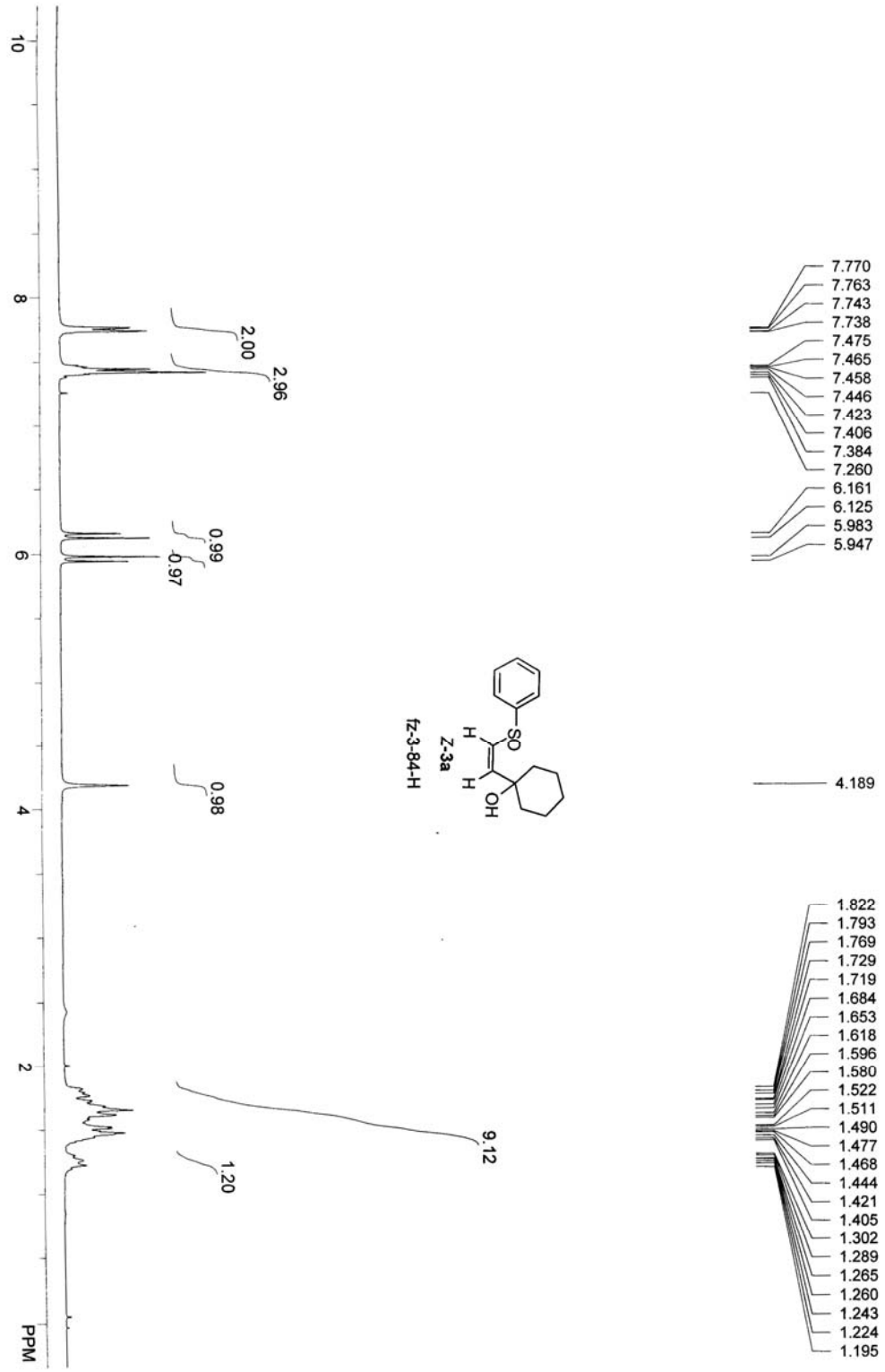


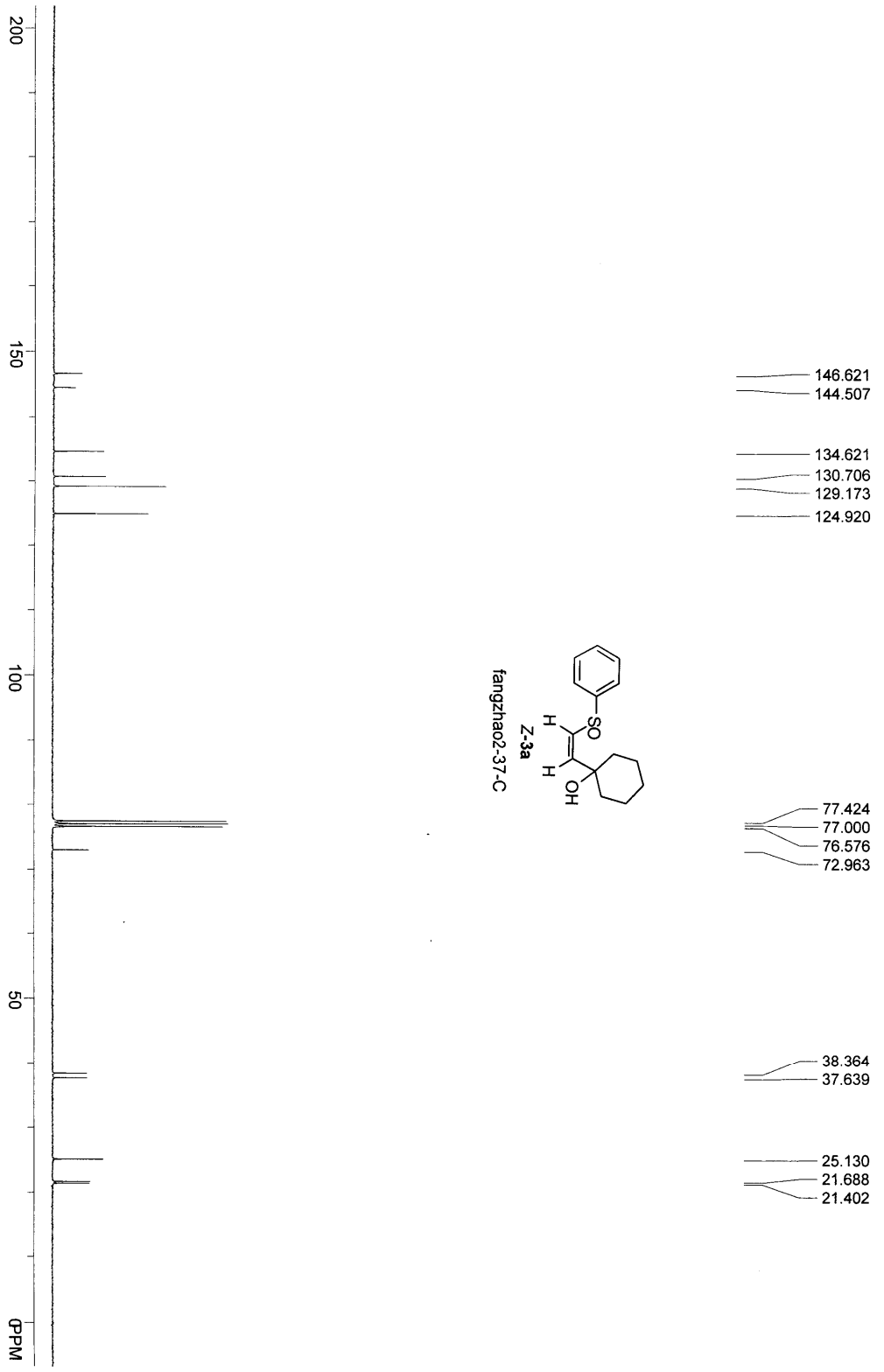








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37.639
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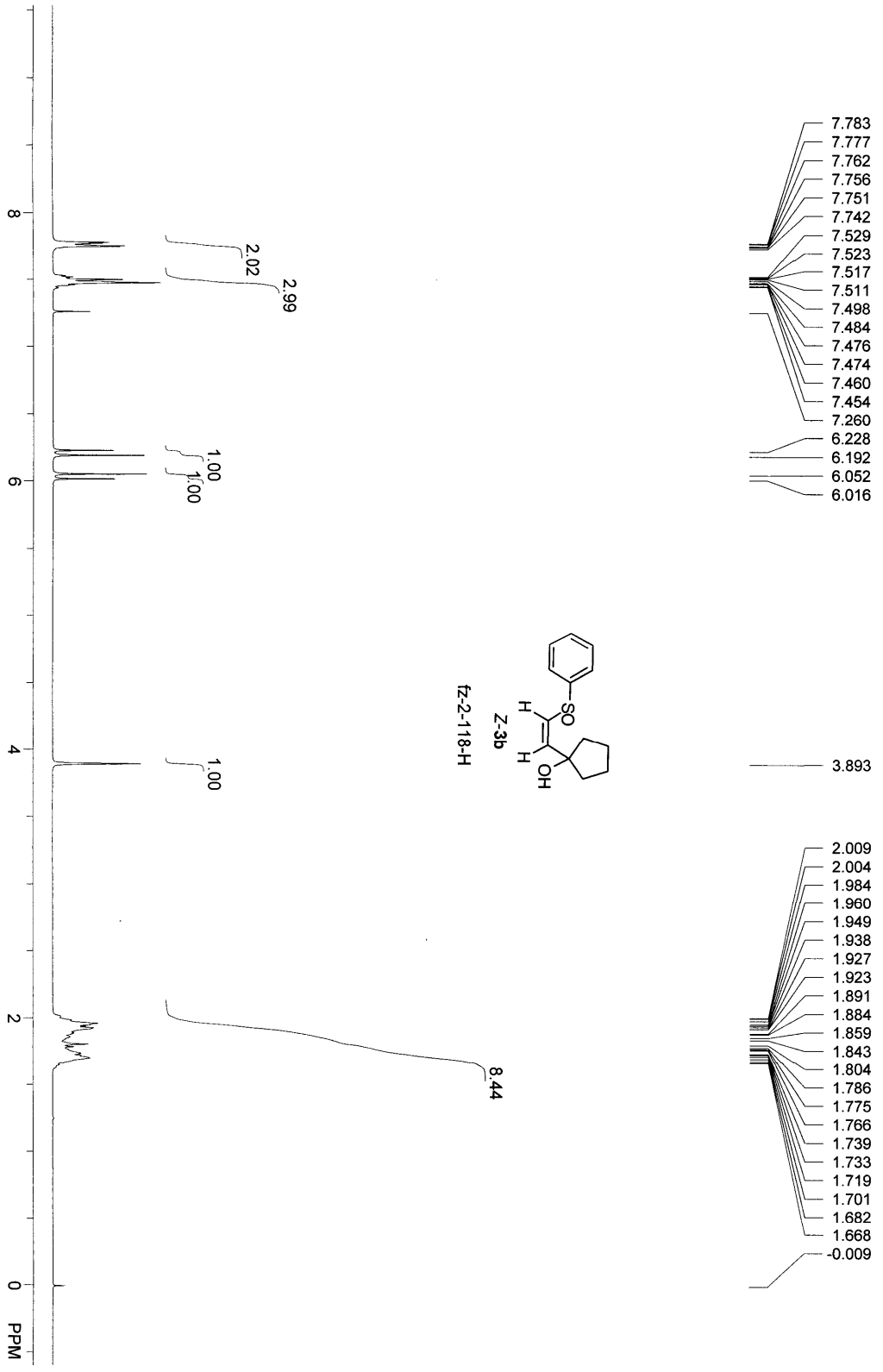
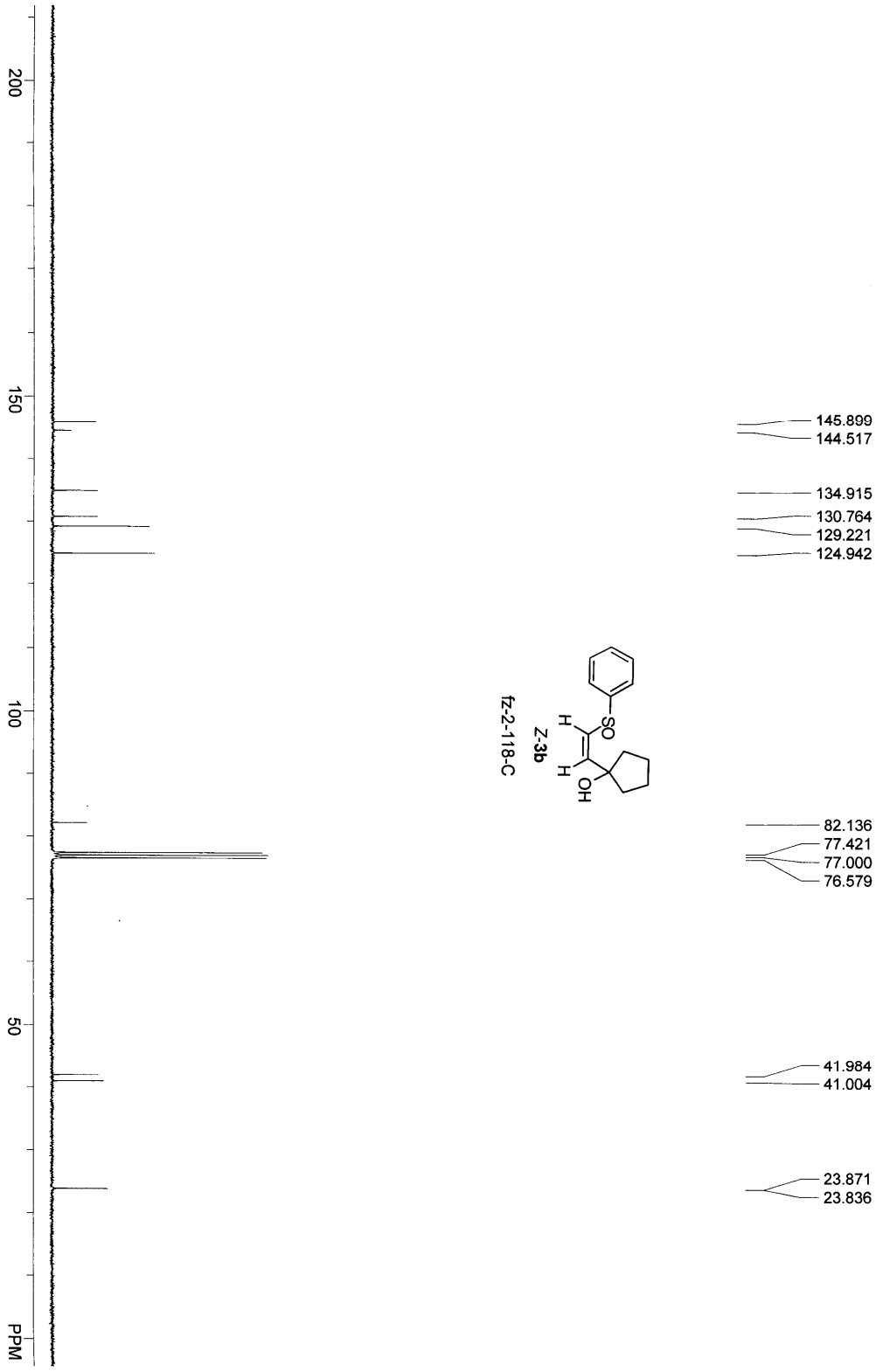
SO
H
H
OH

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41.004
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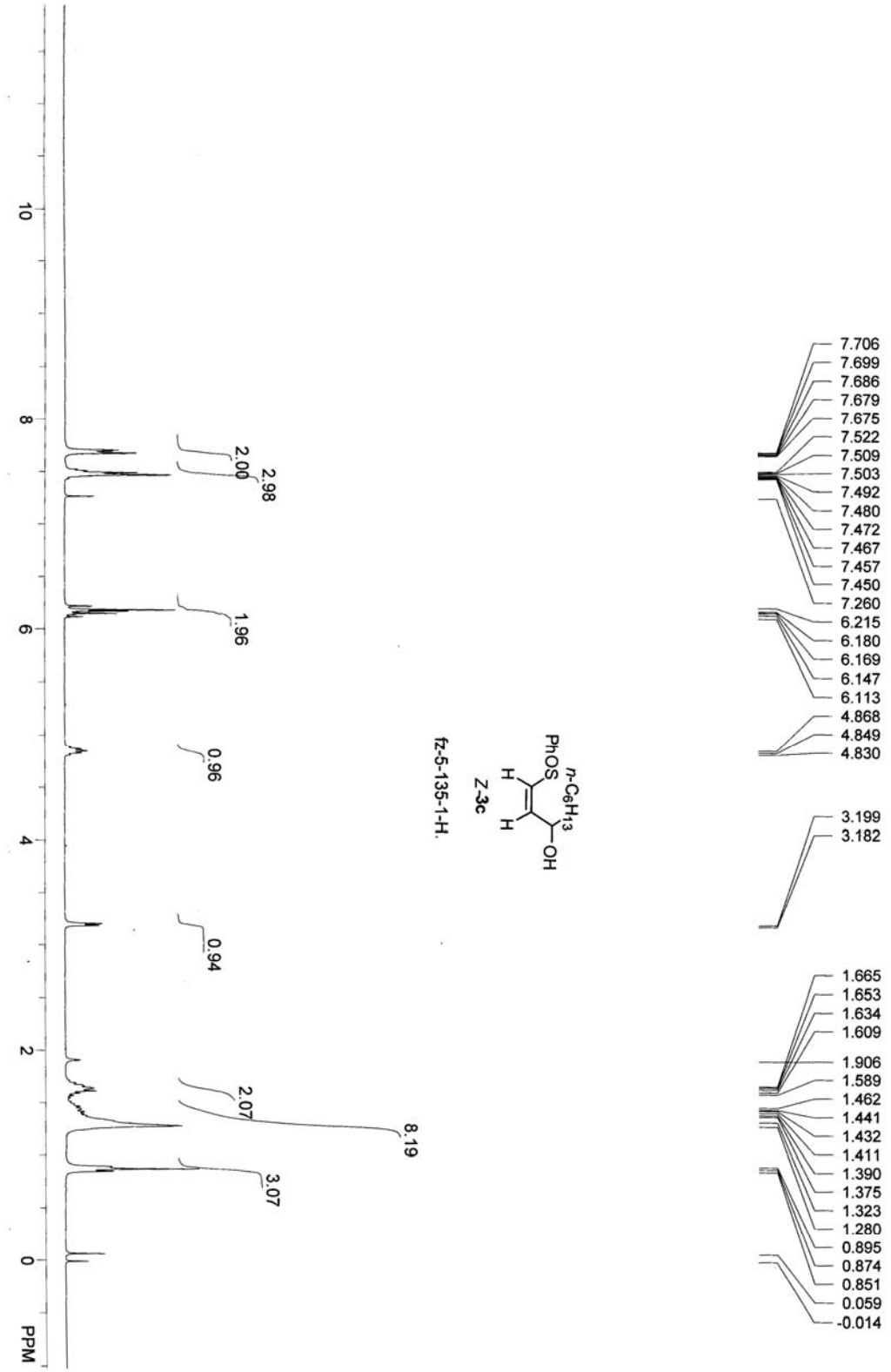
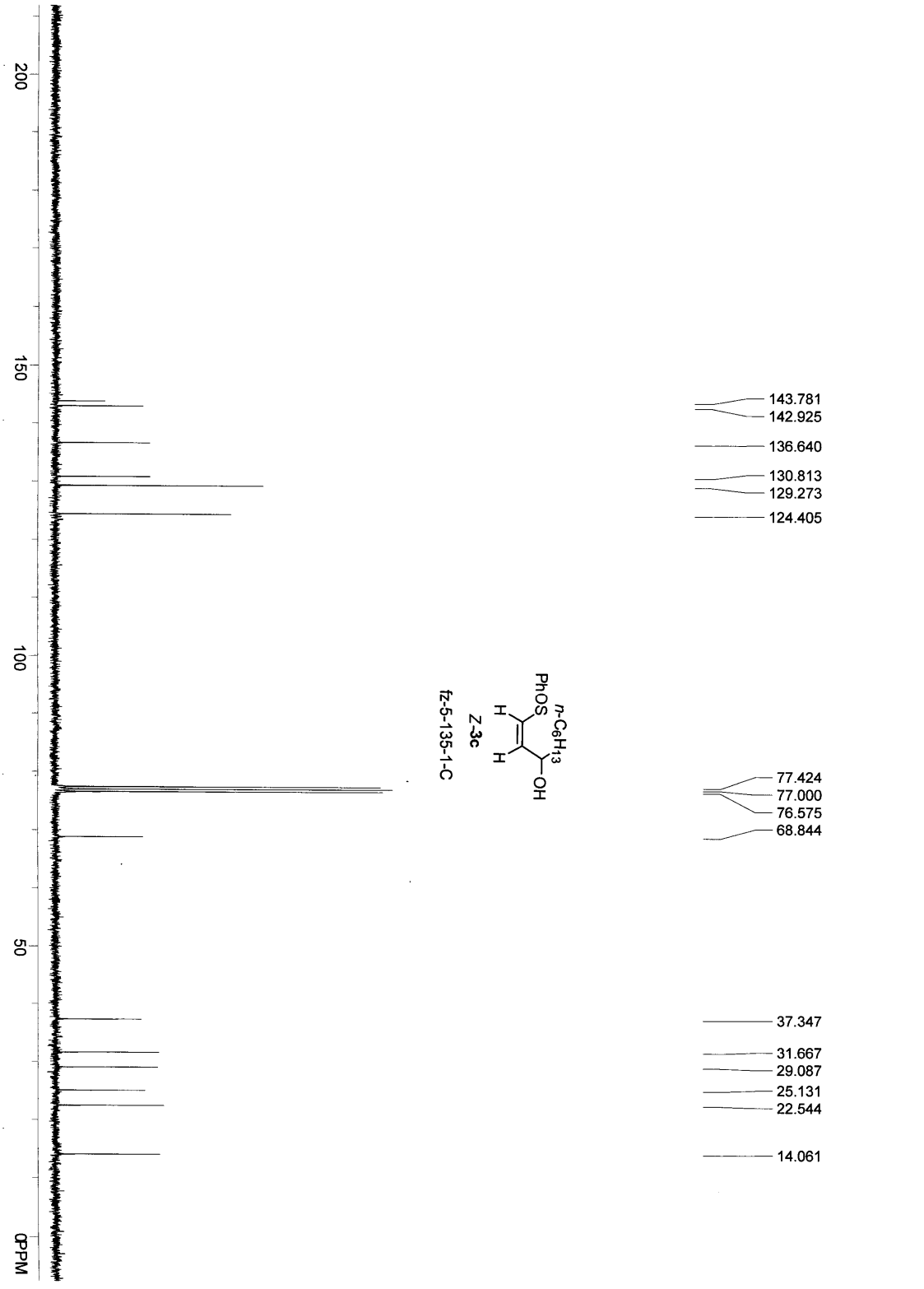
OH

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130.813
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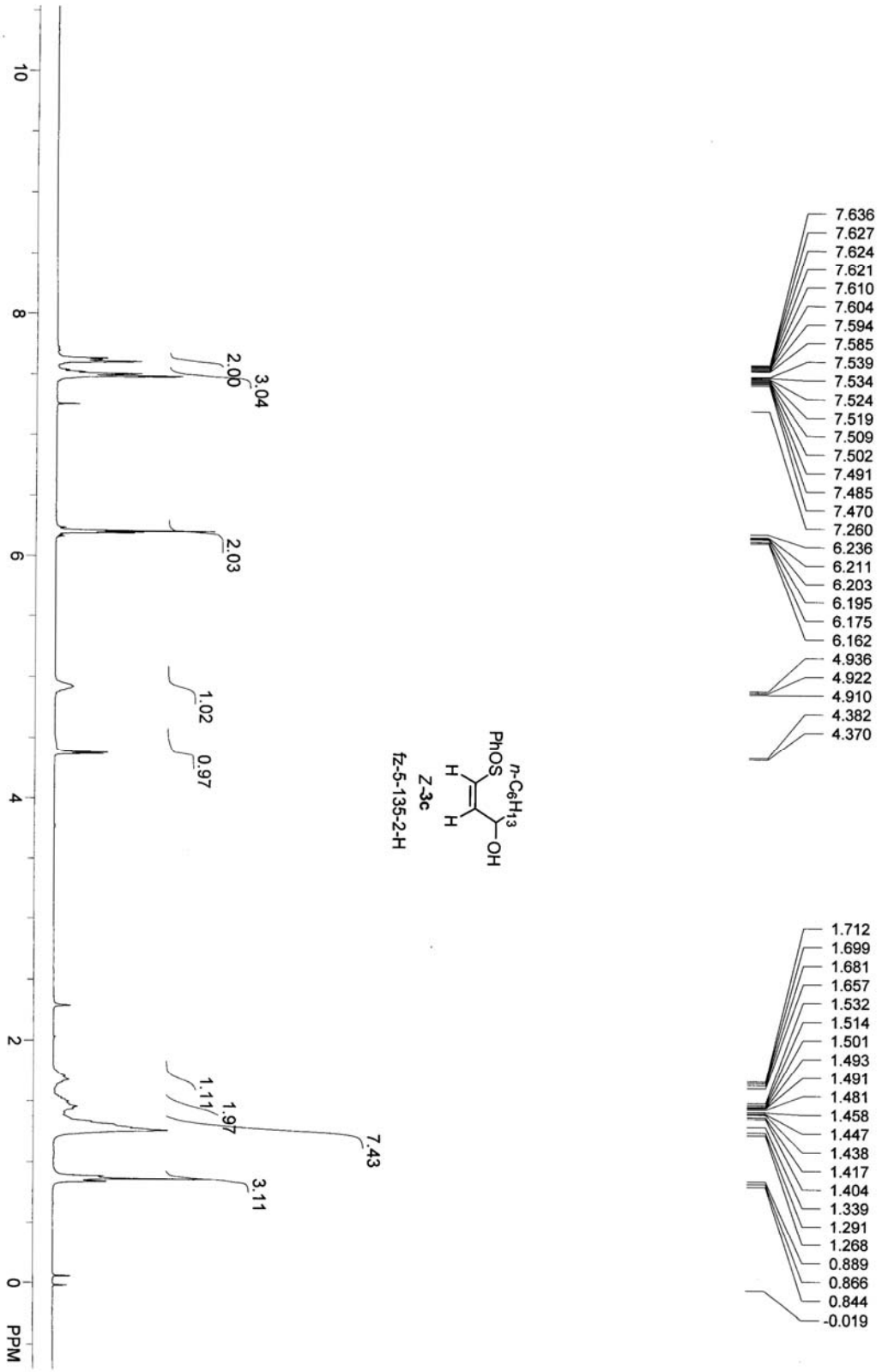

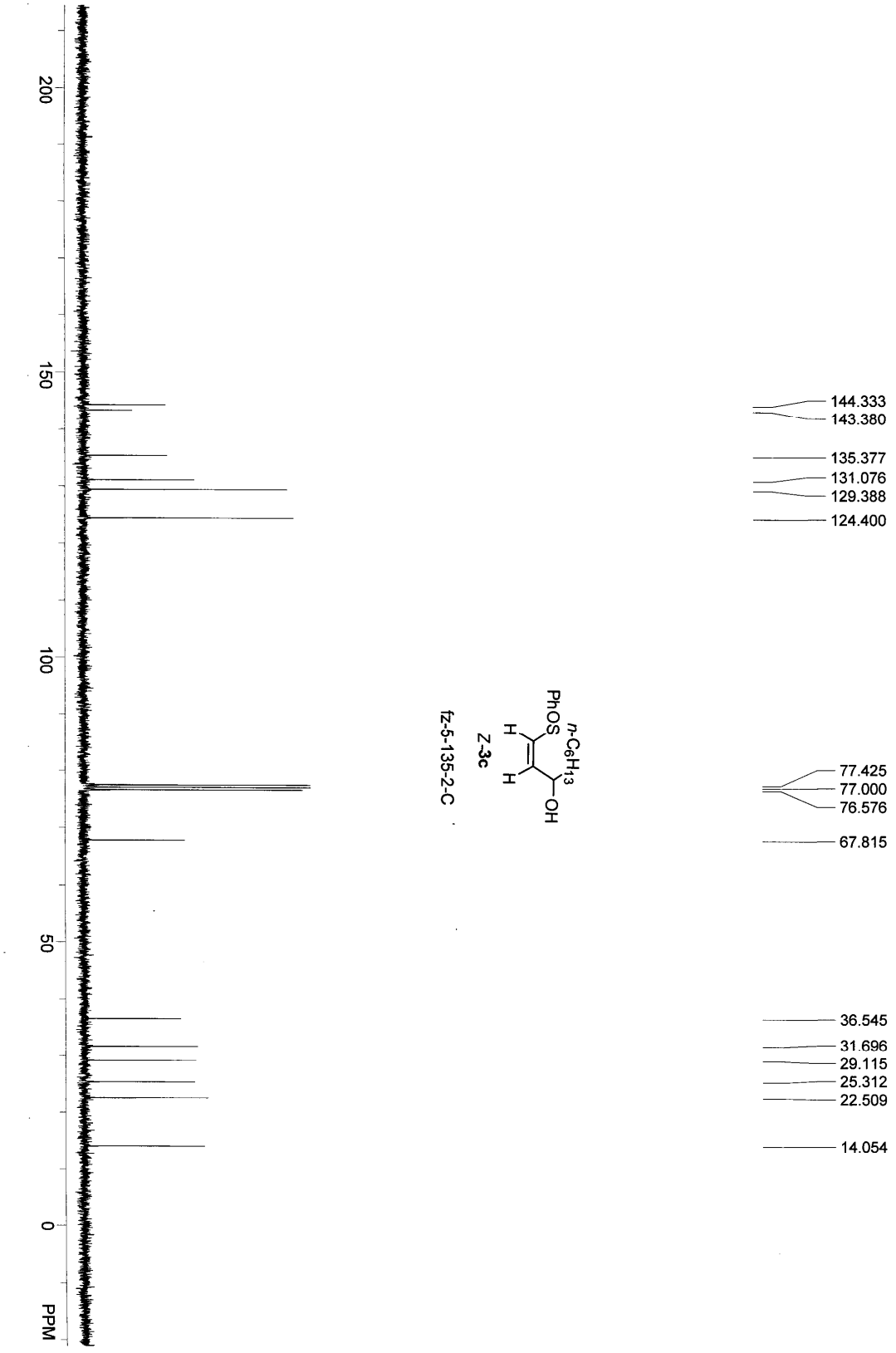
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PPM
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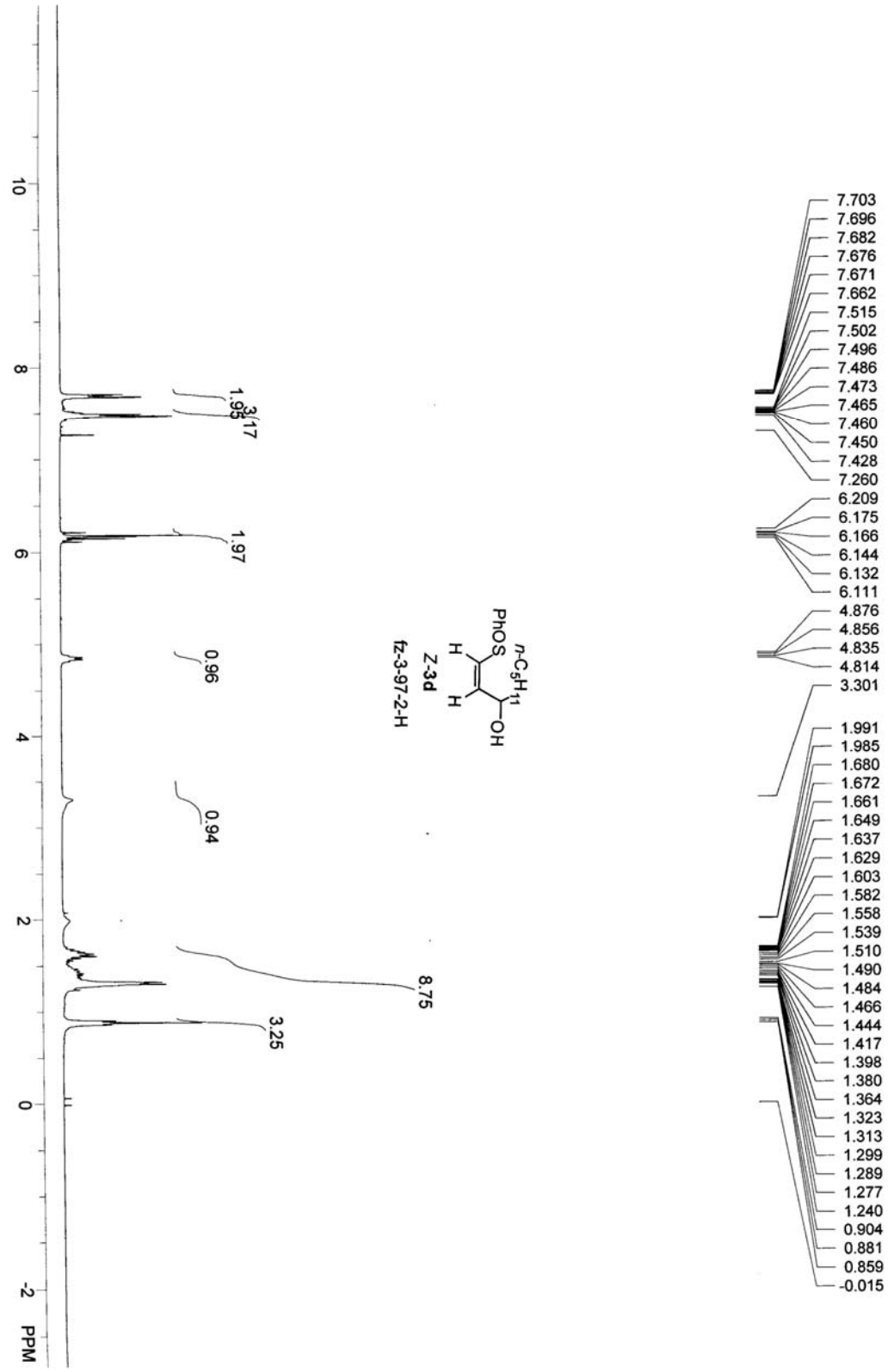

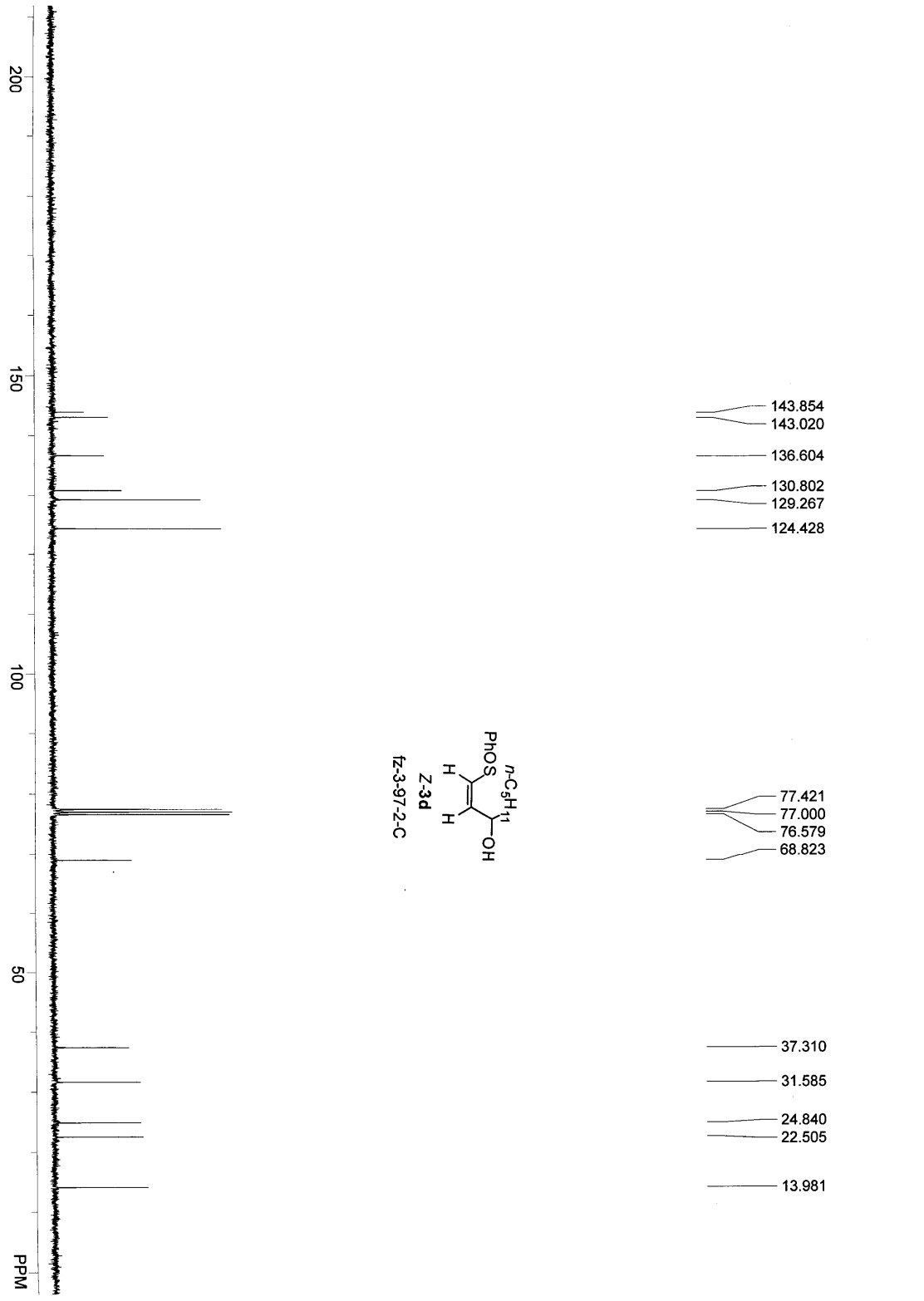
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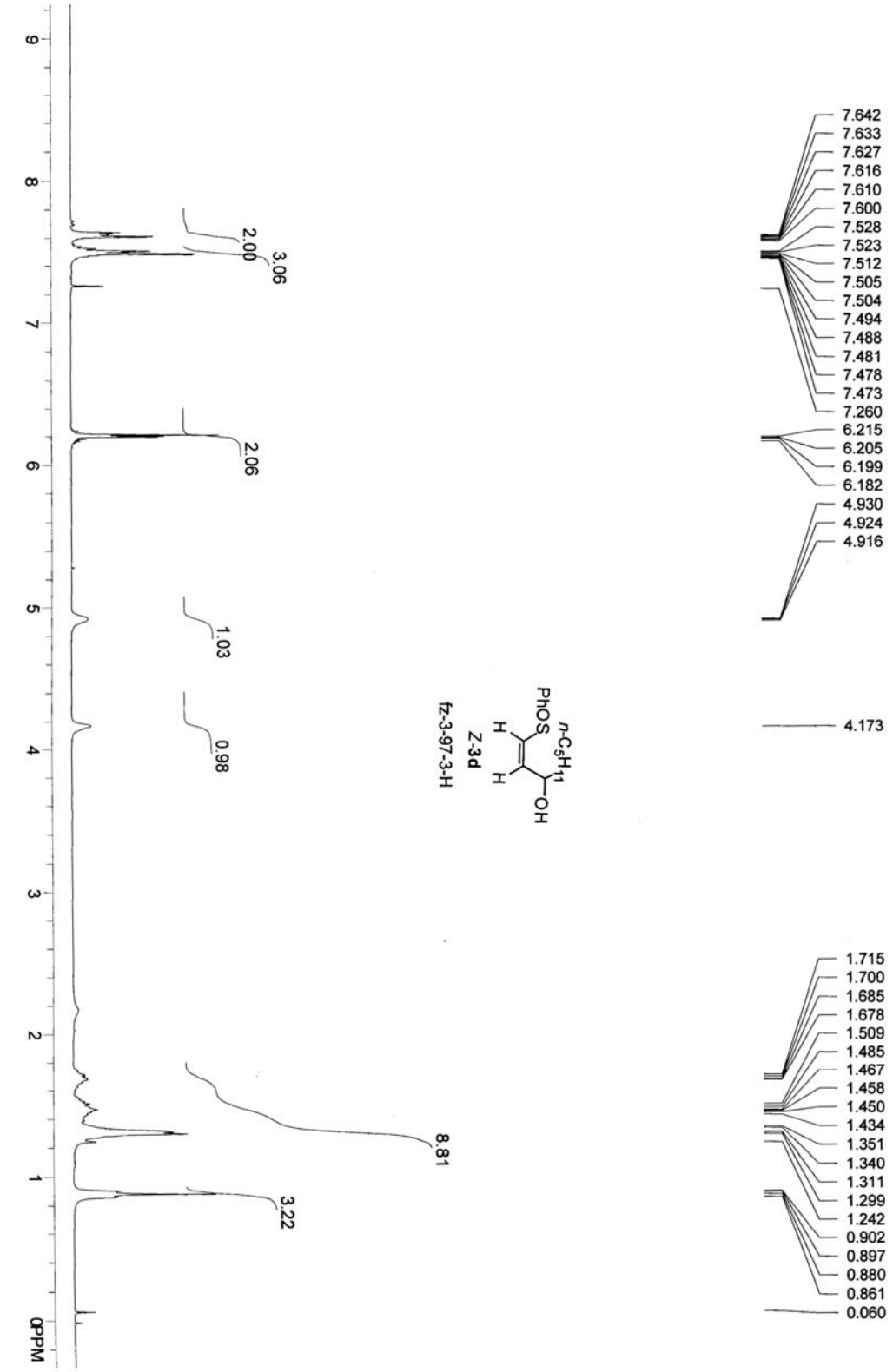

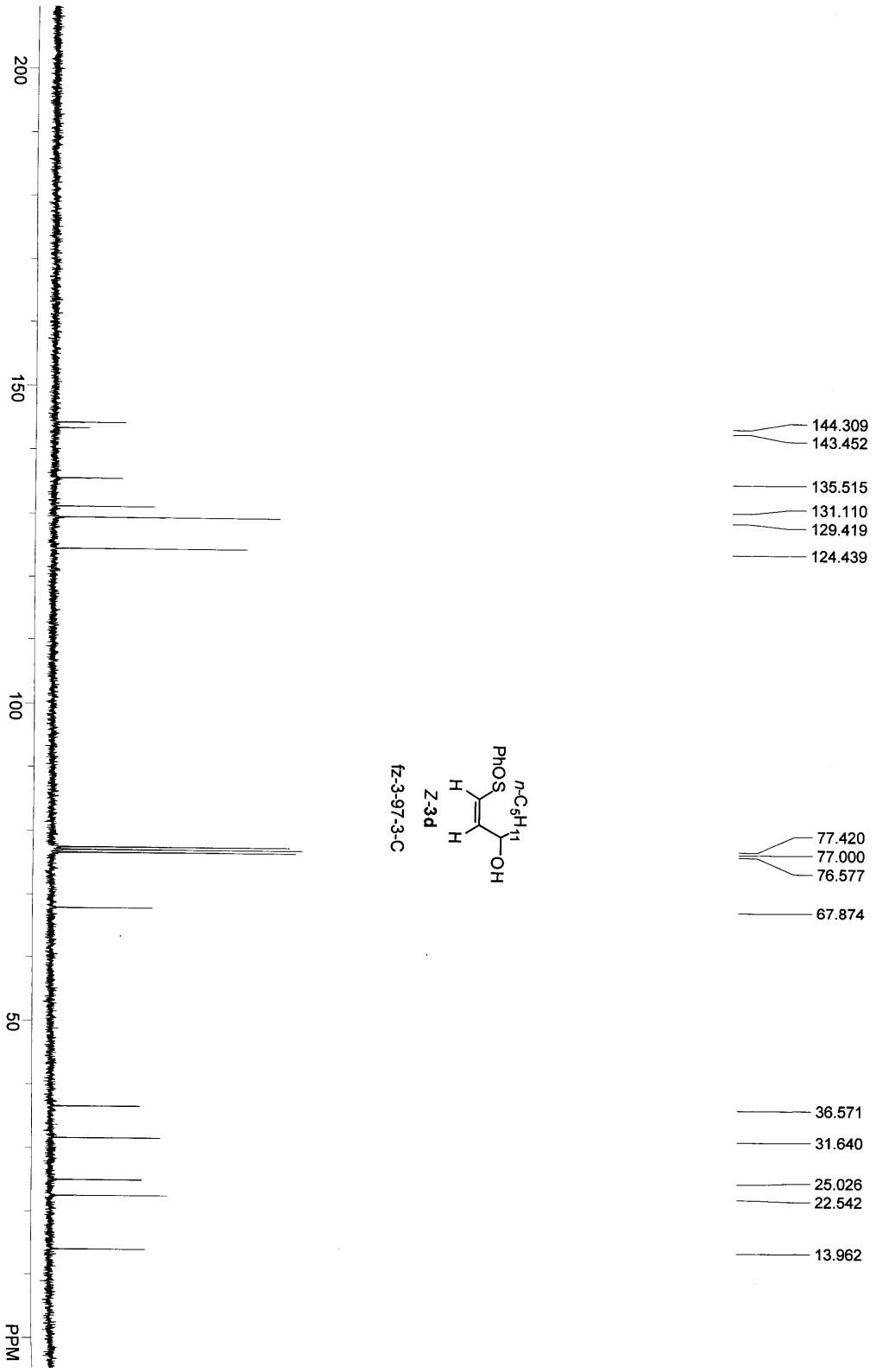
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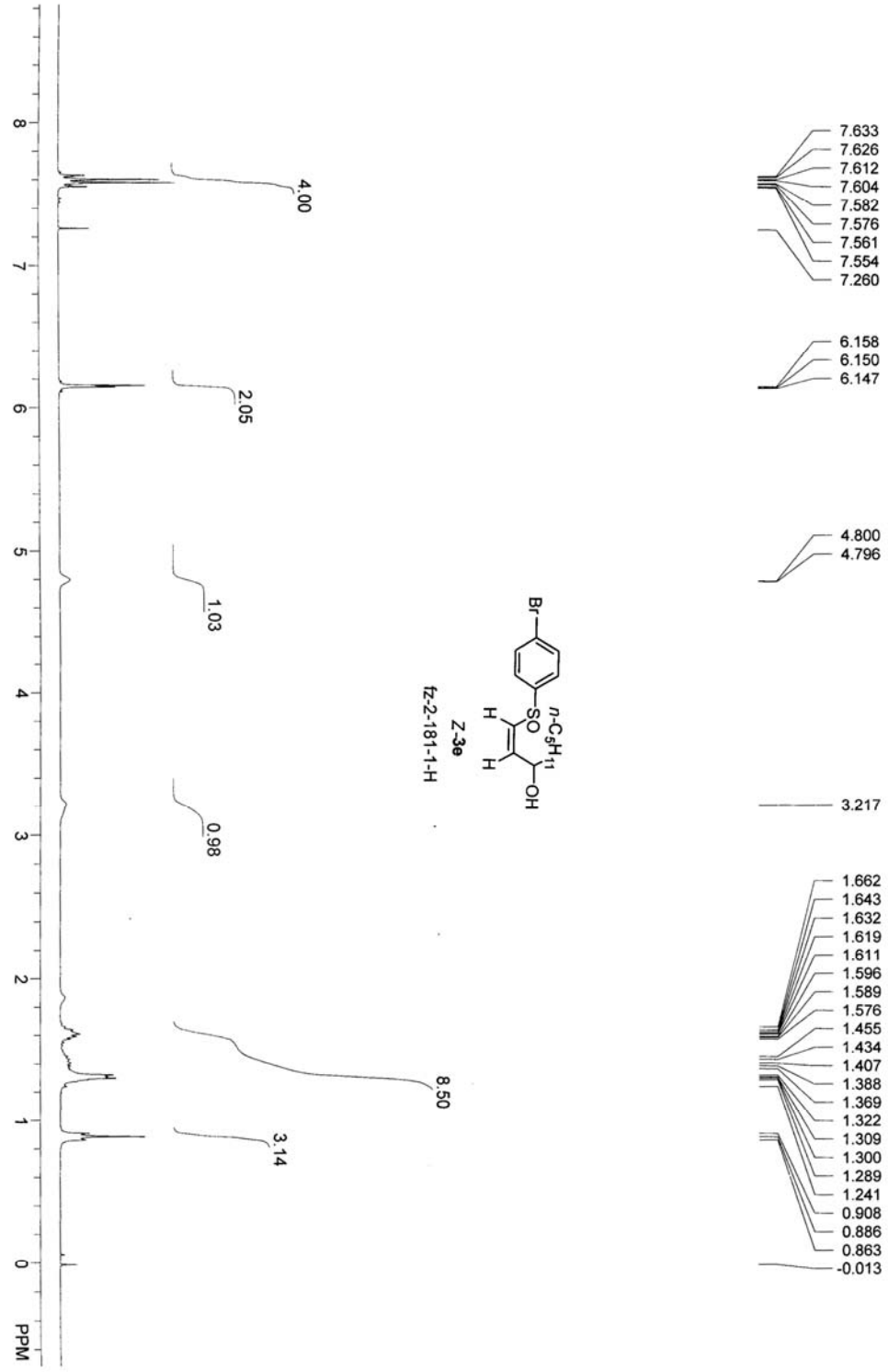

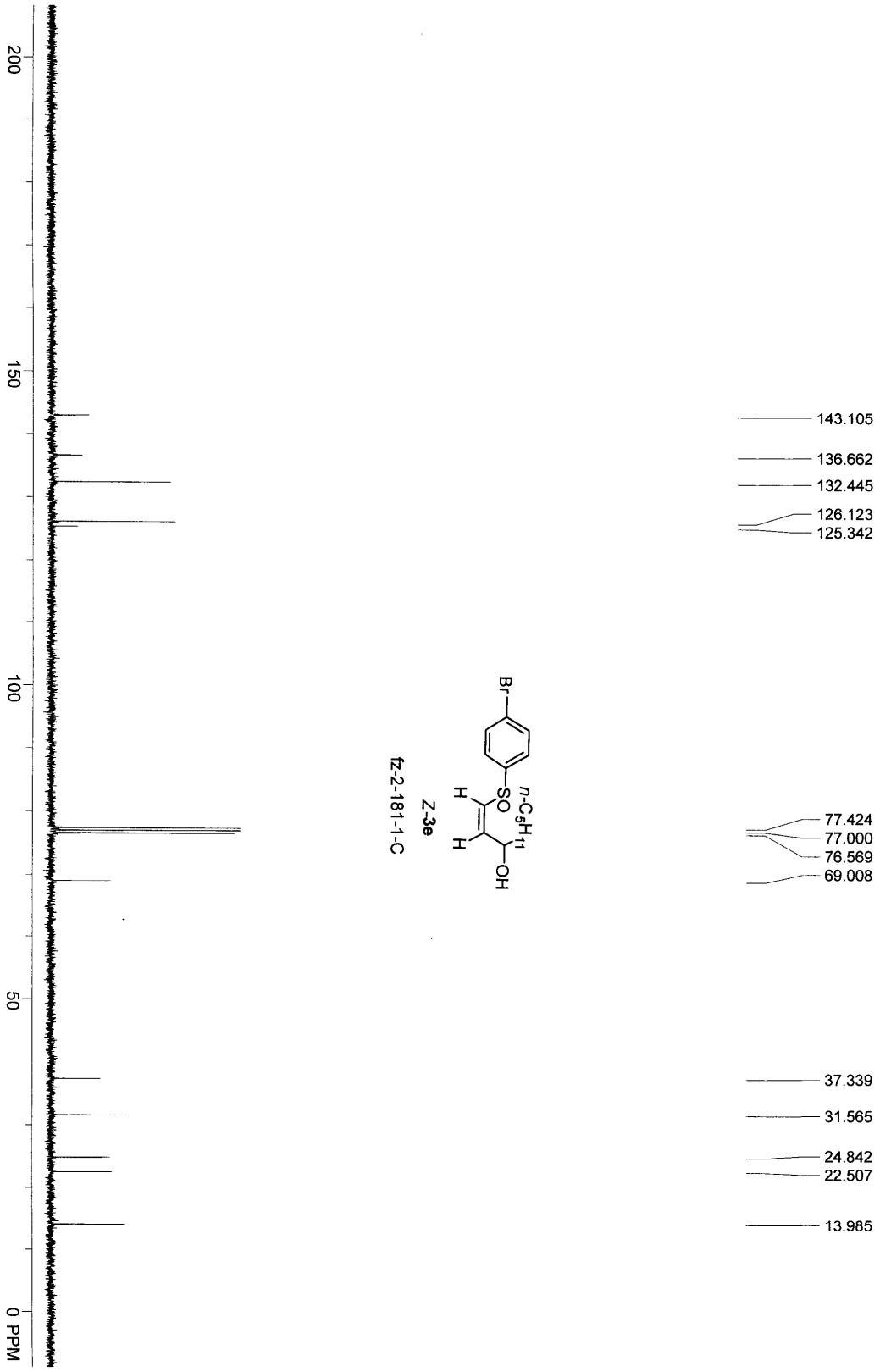
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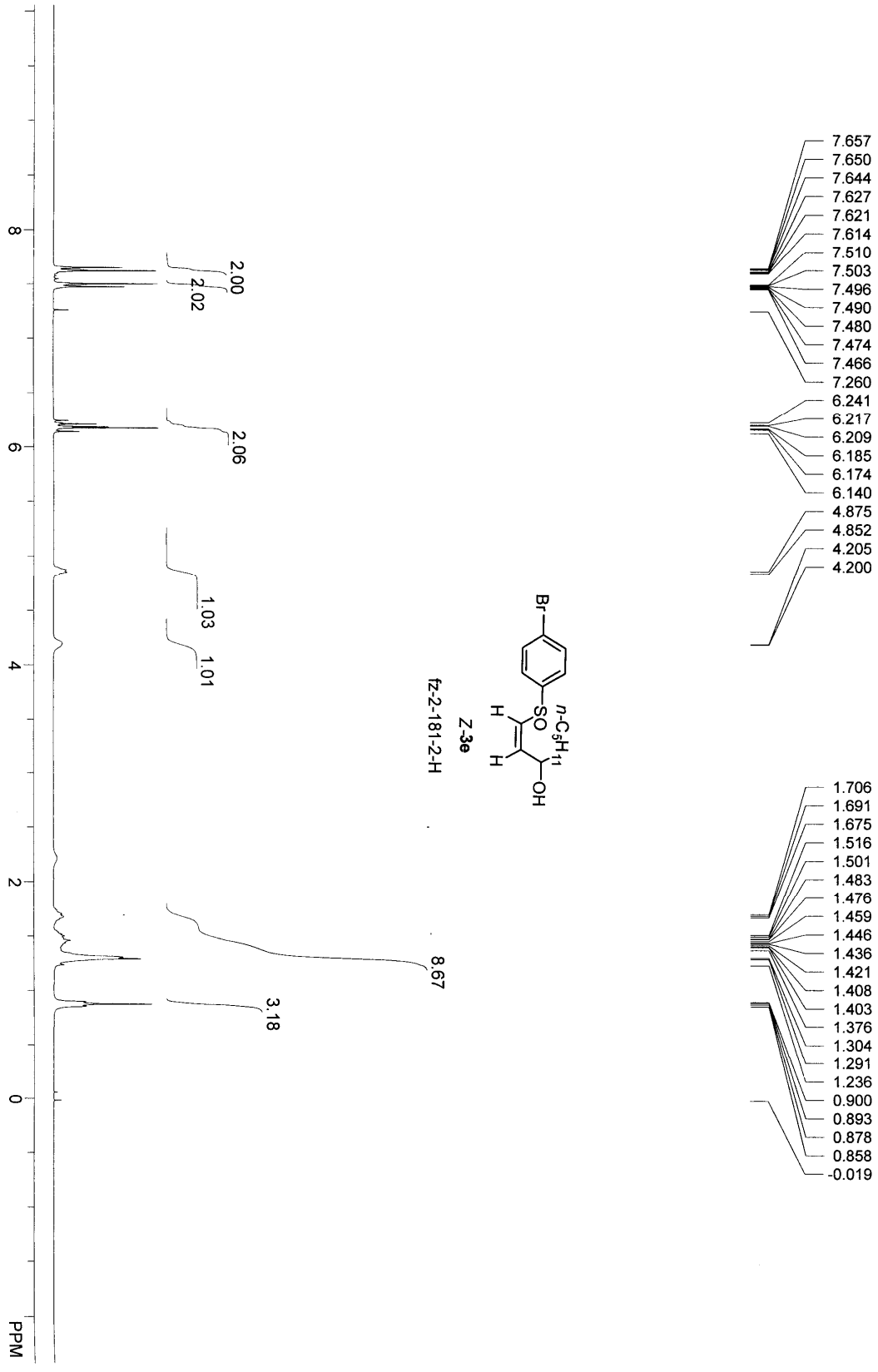

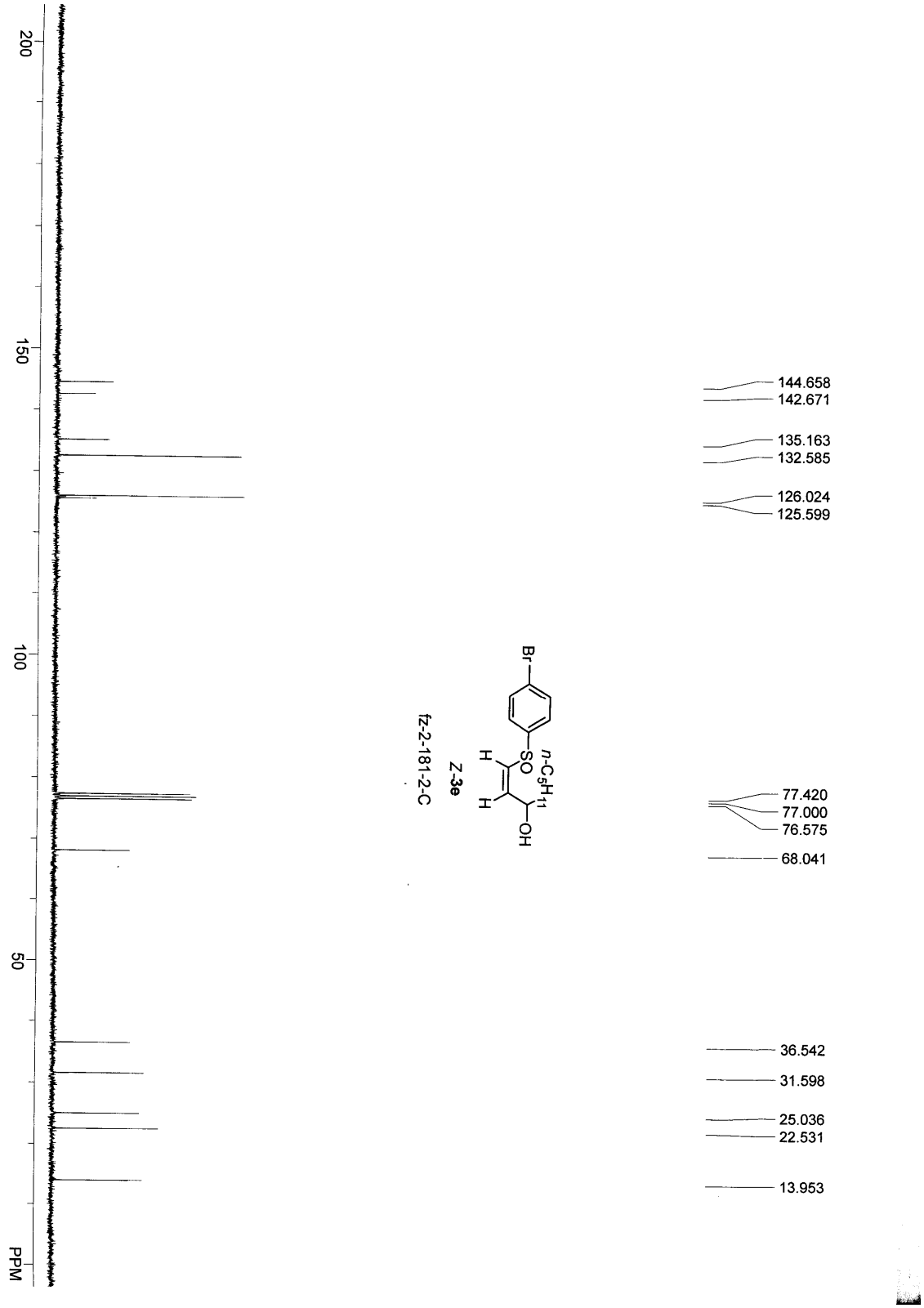

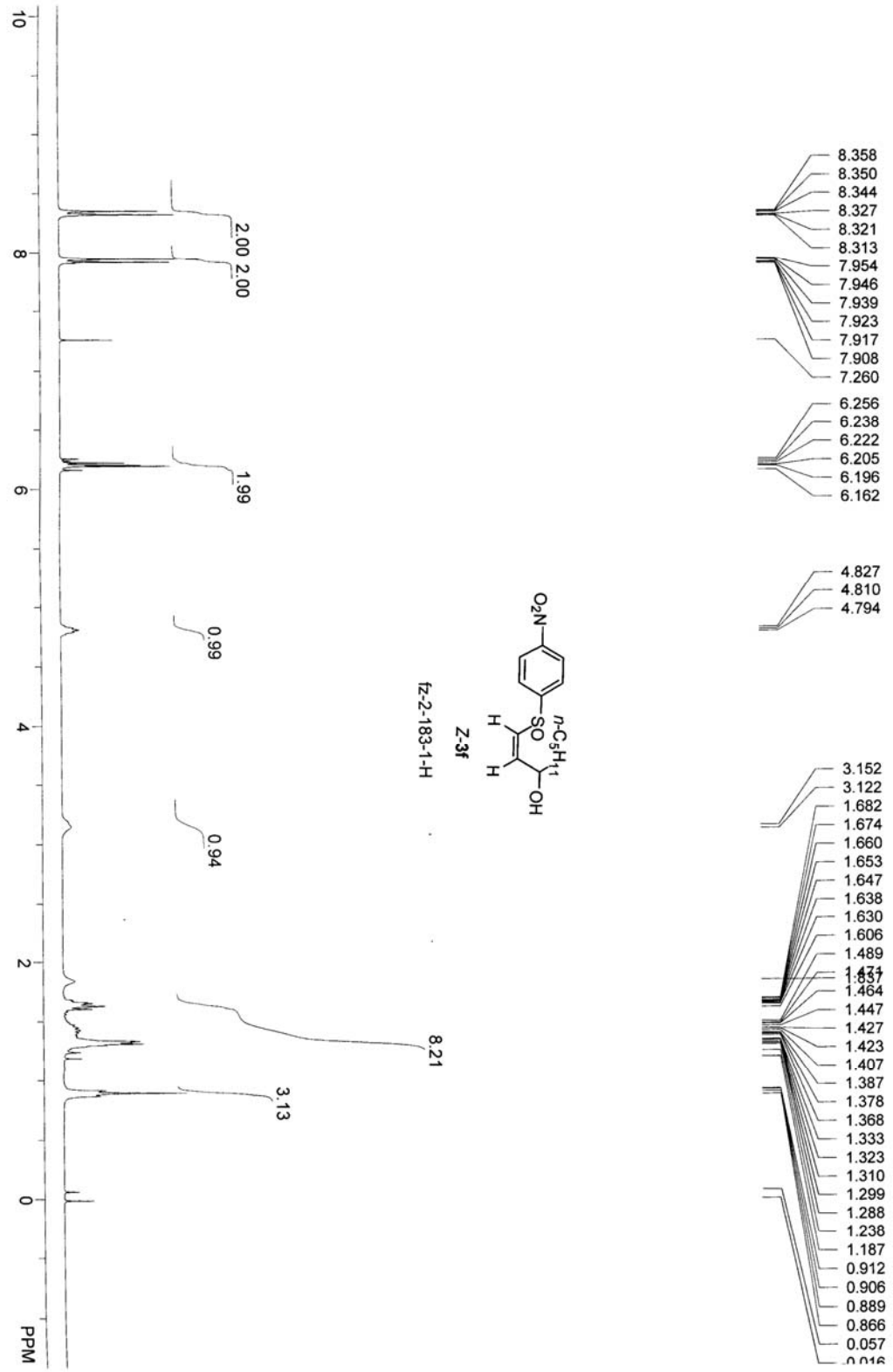

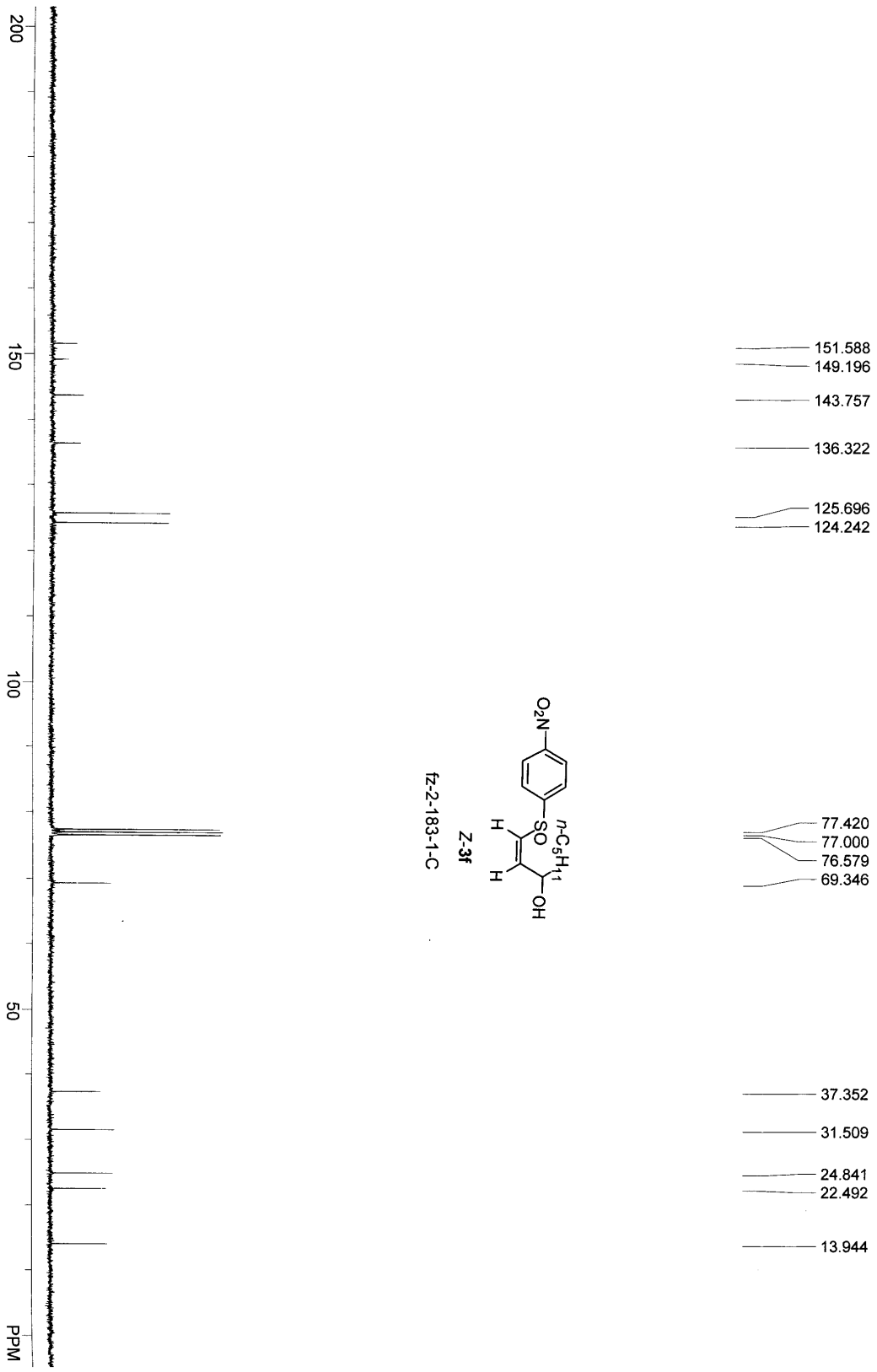

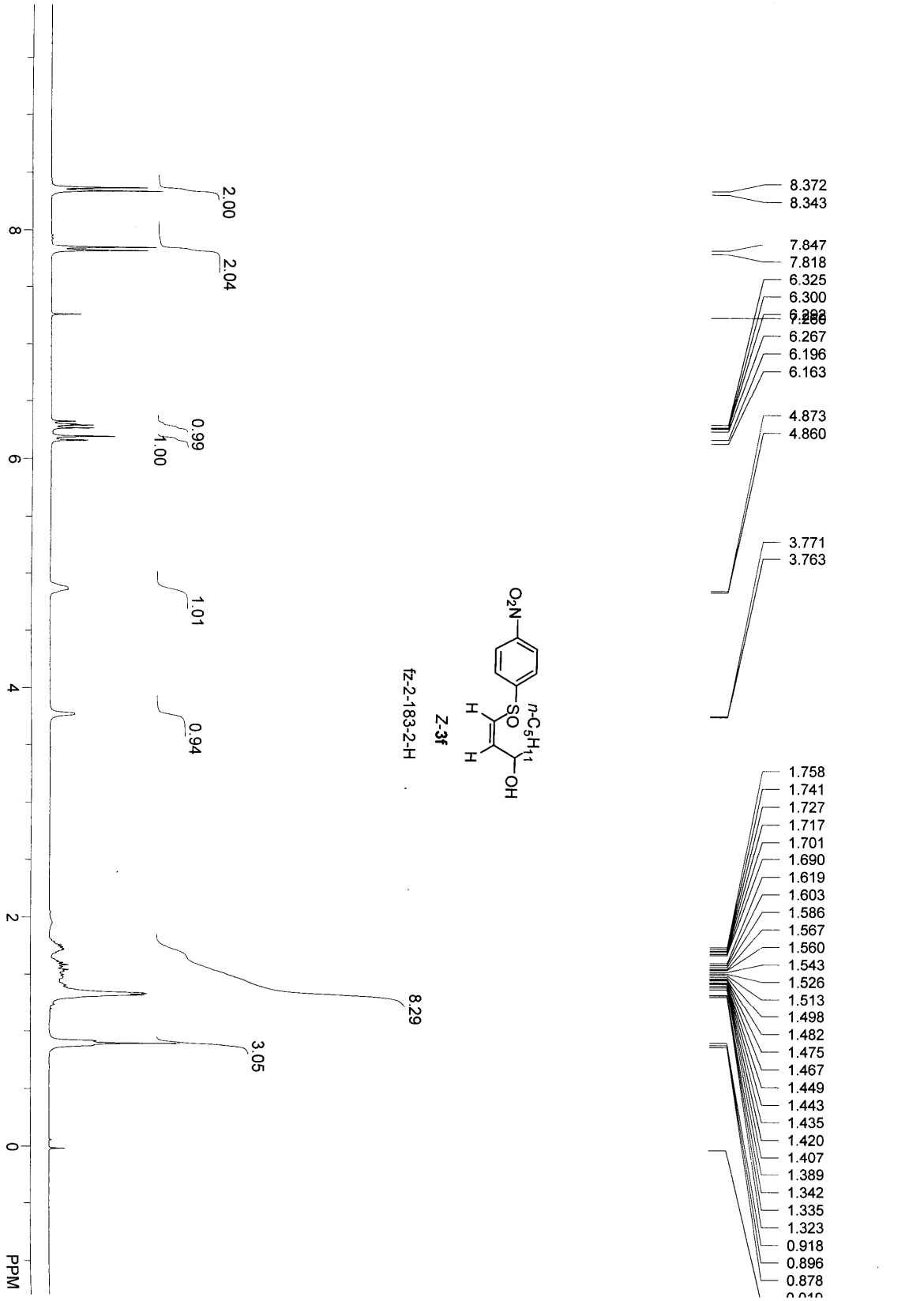

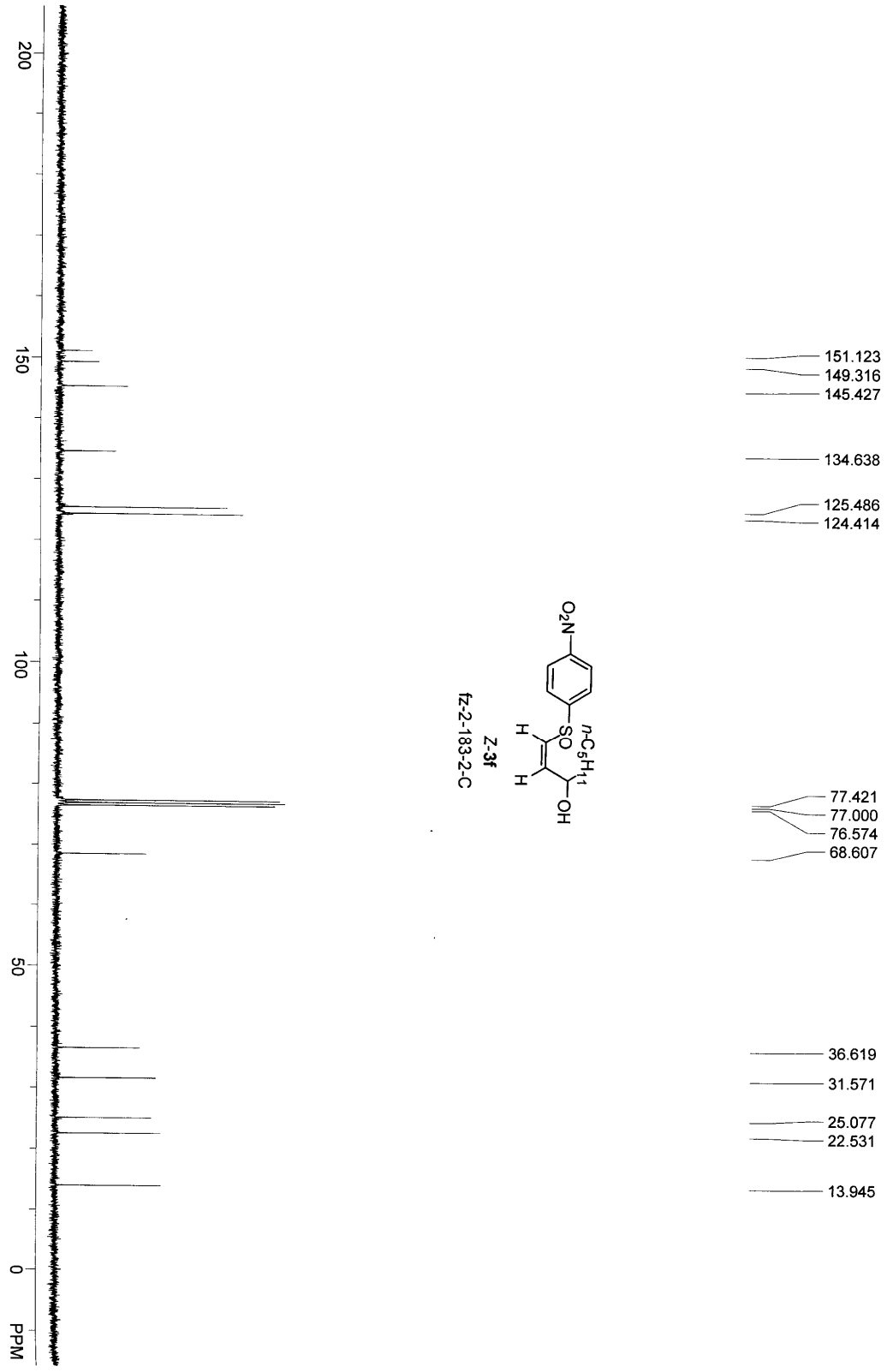

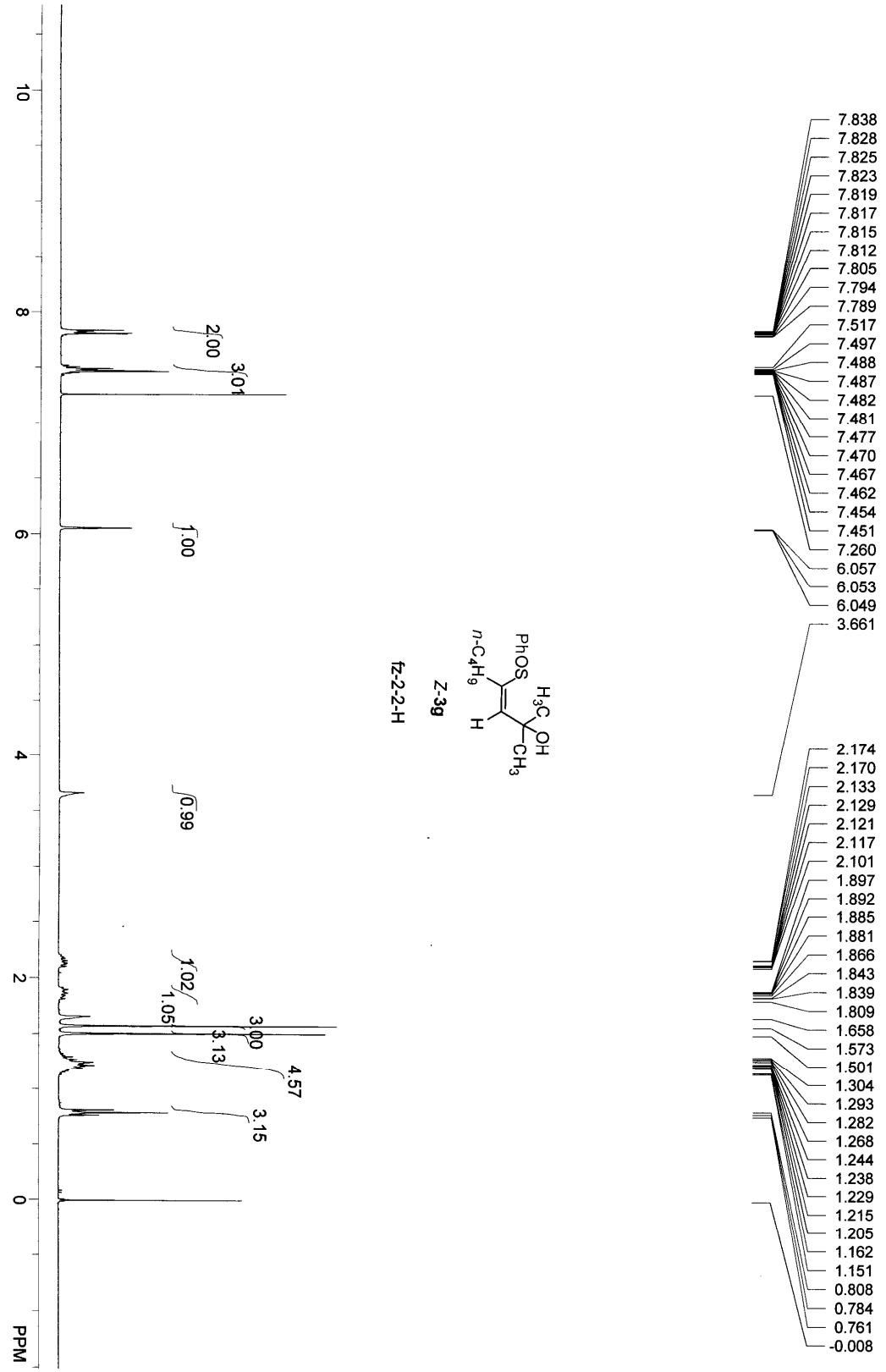

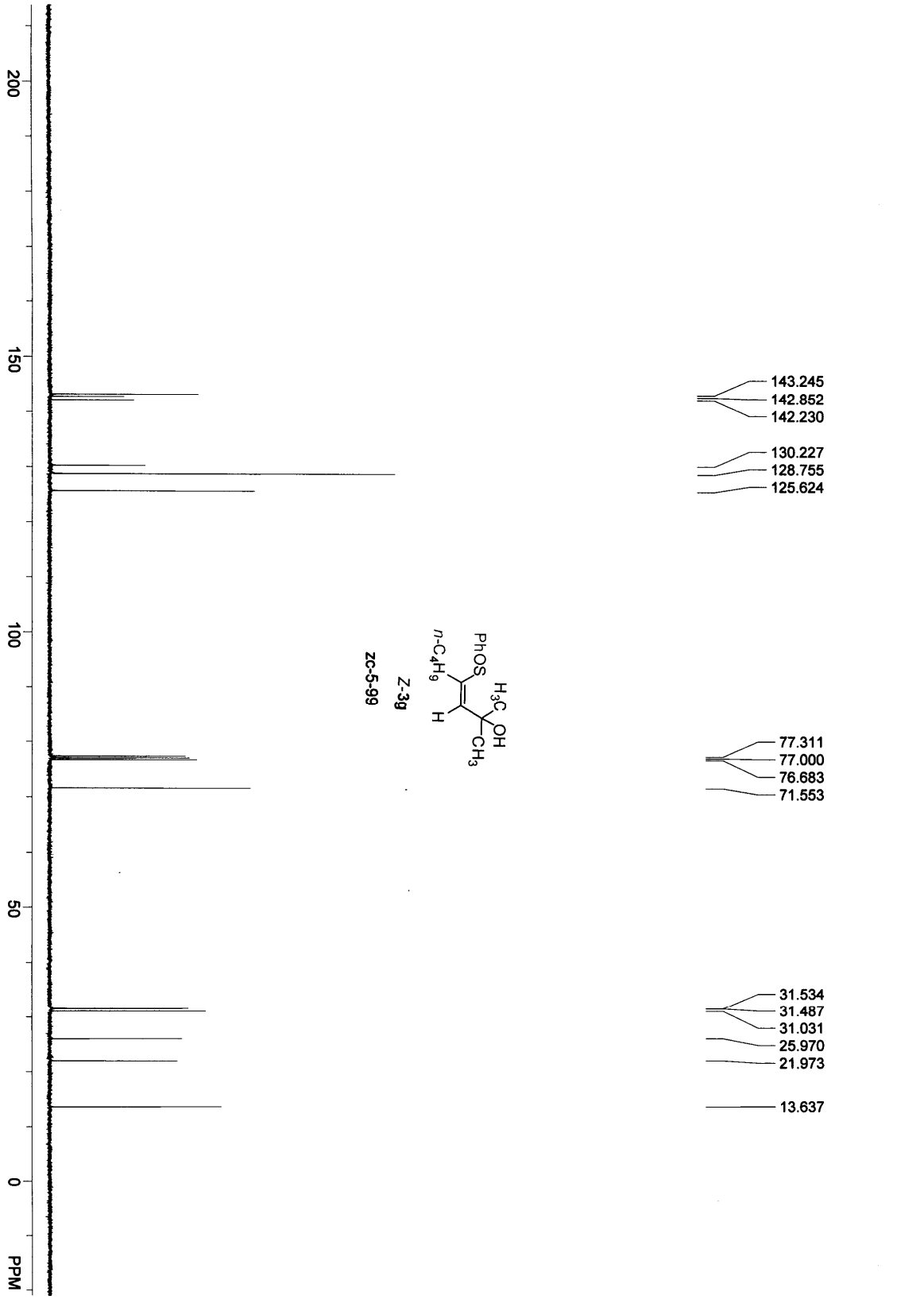

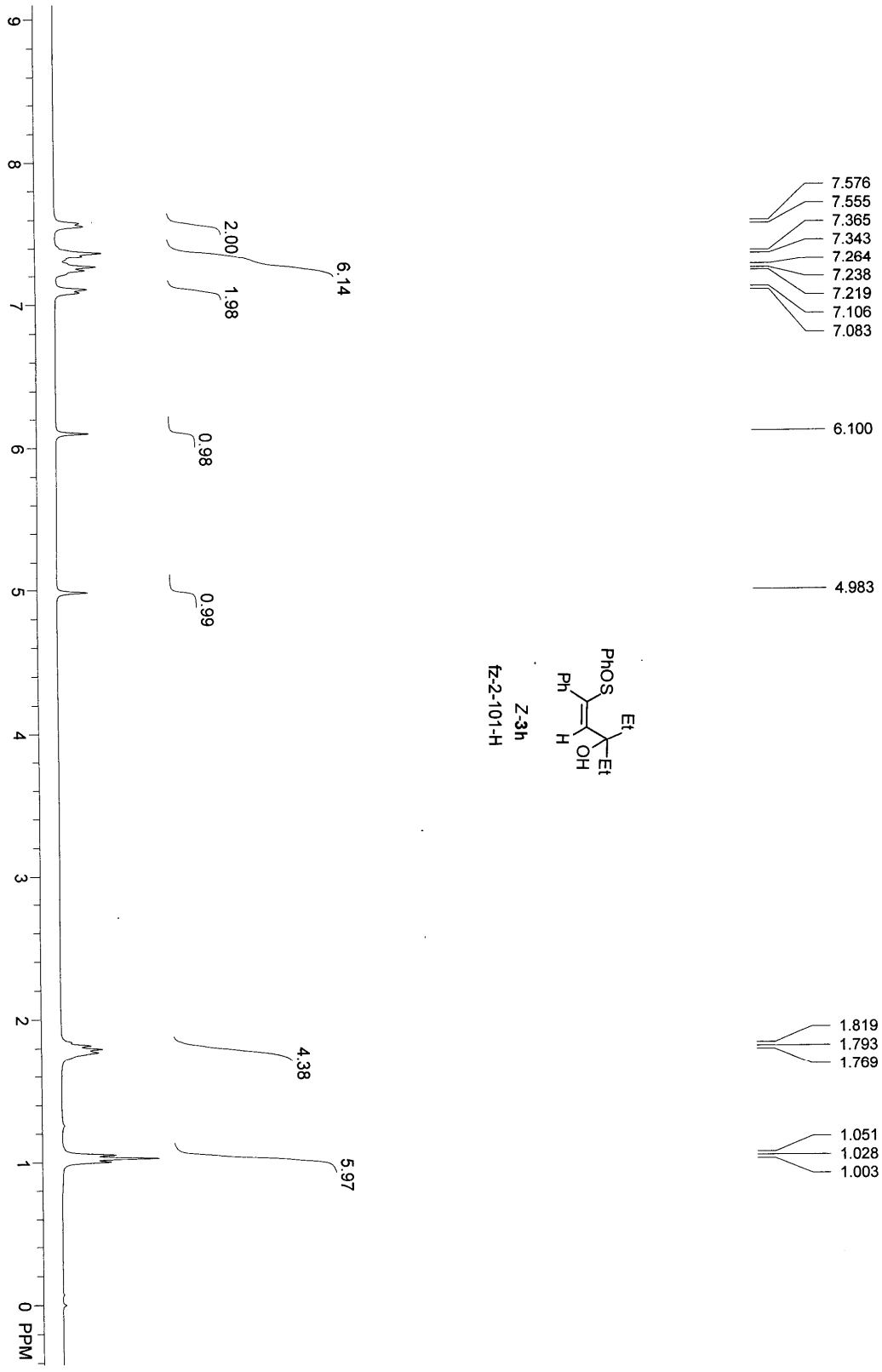

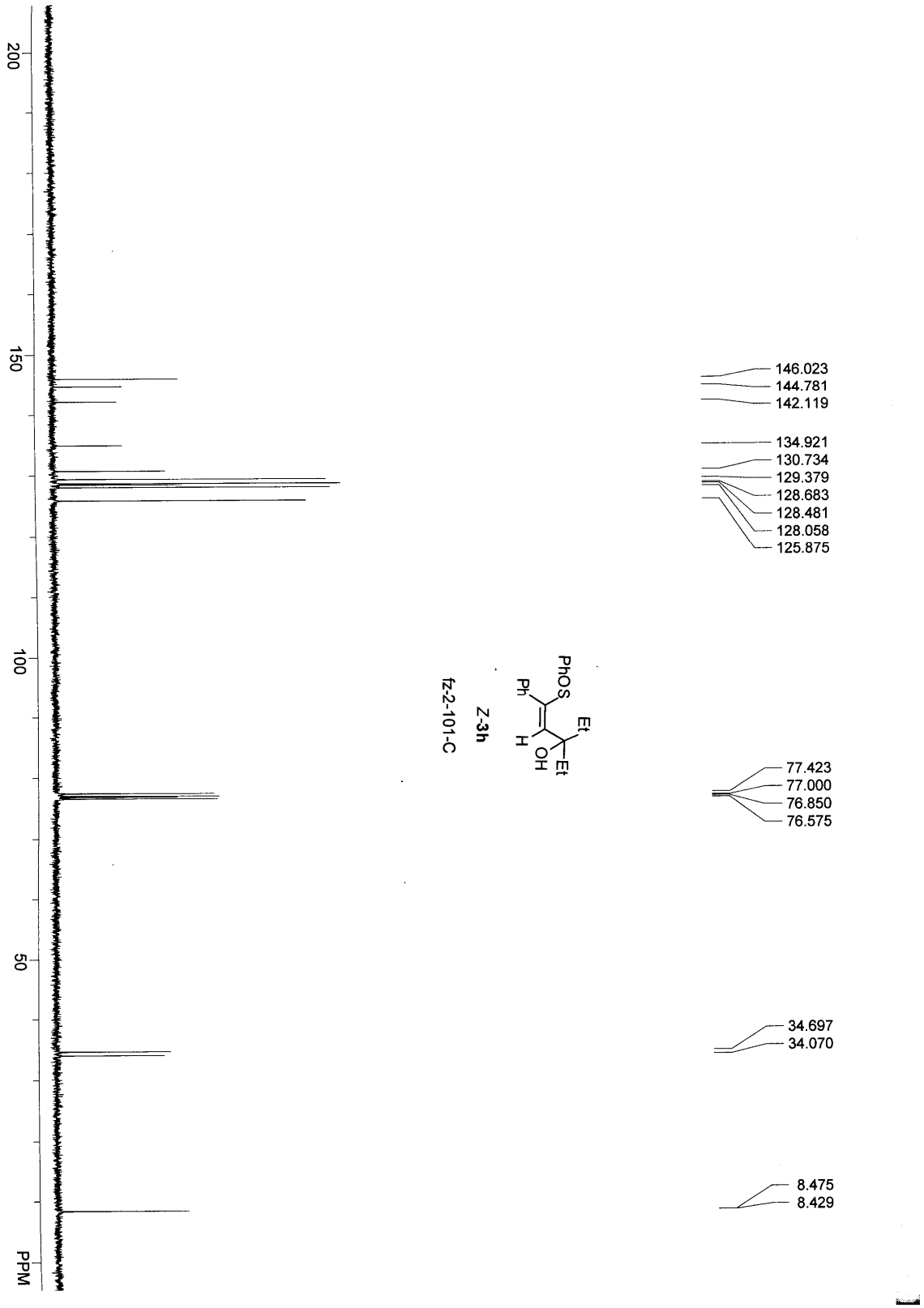
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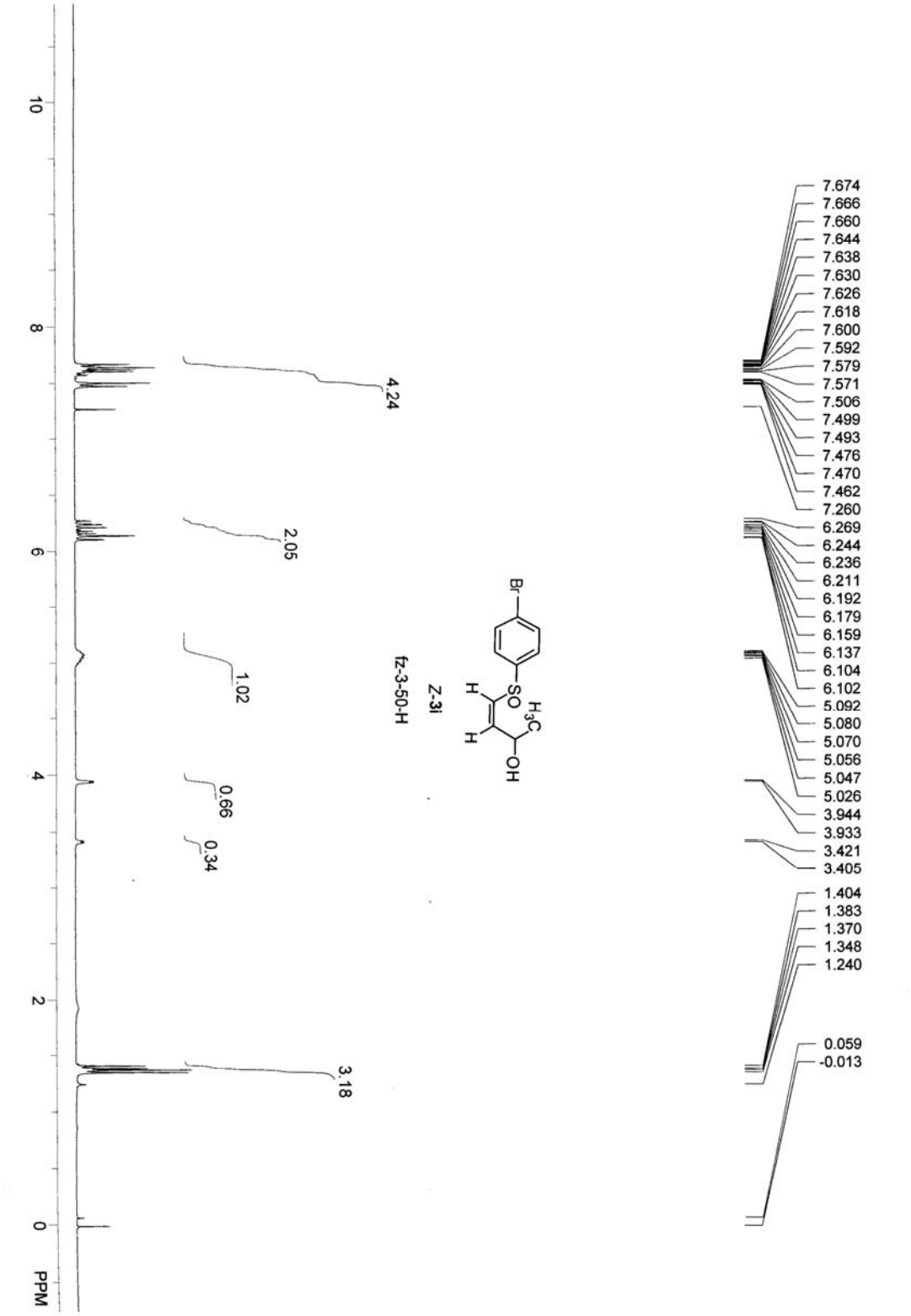

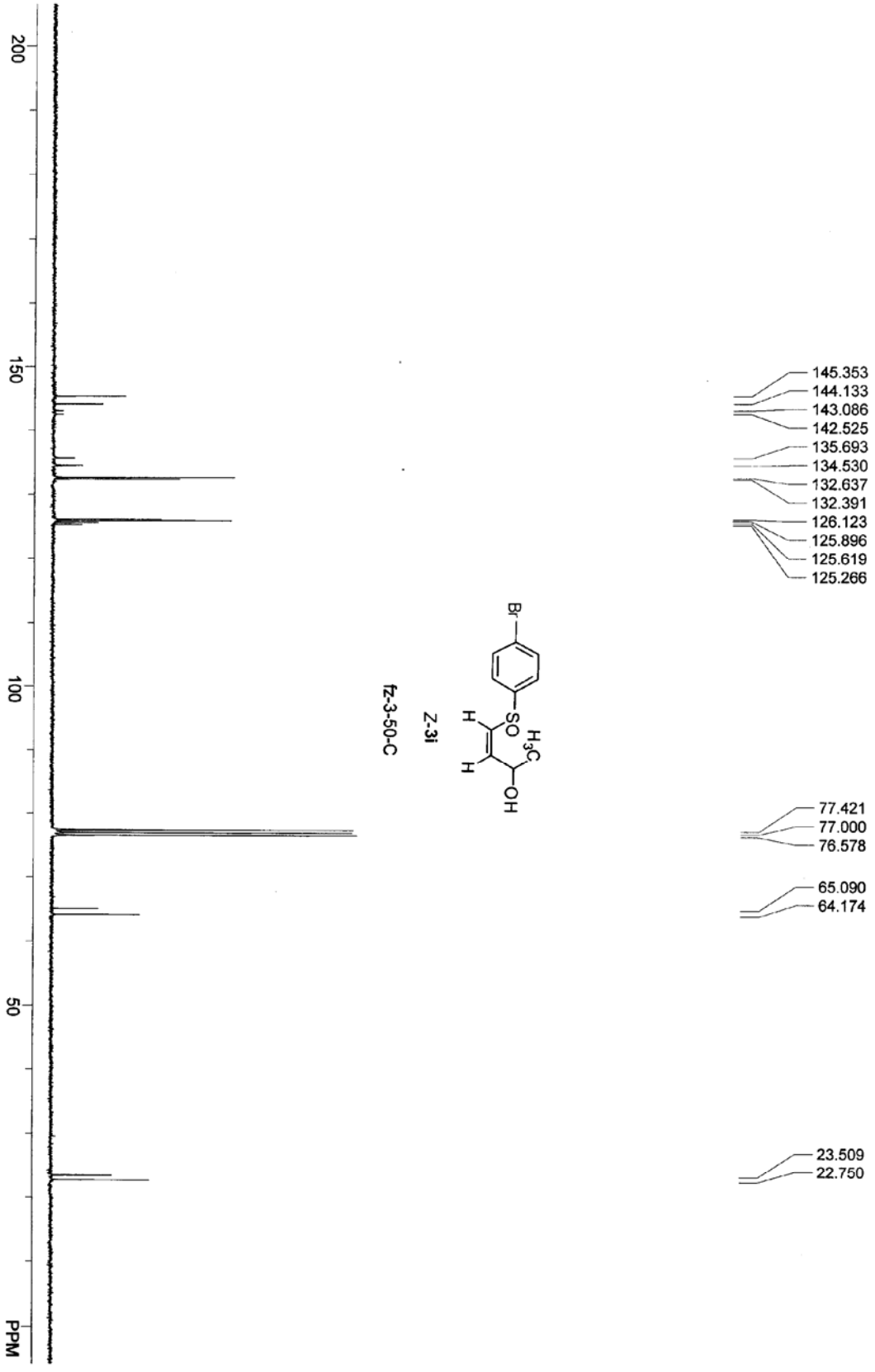

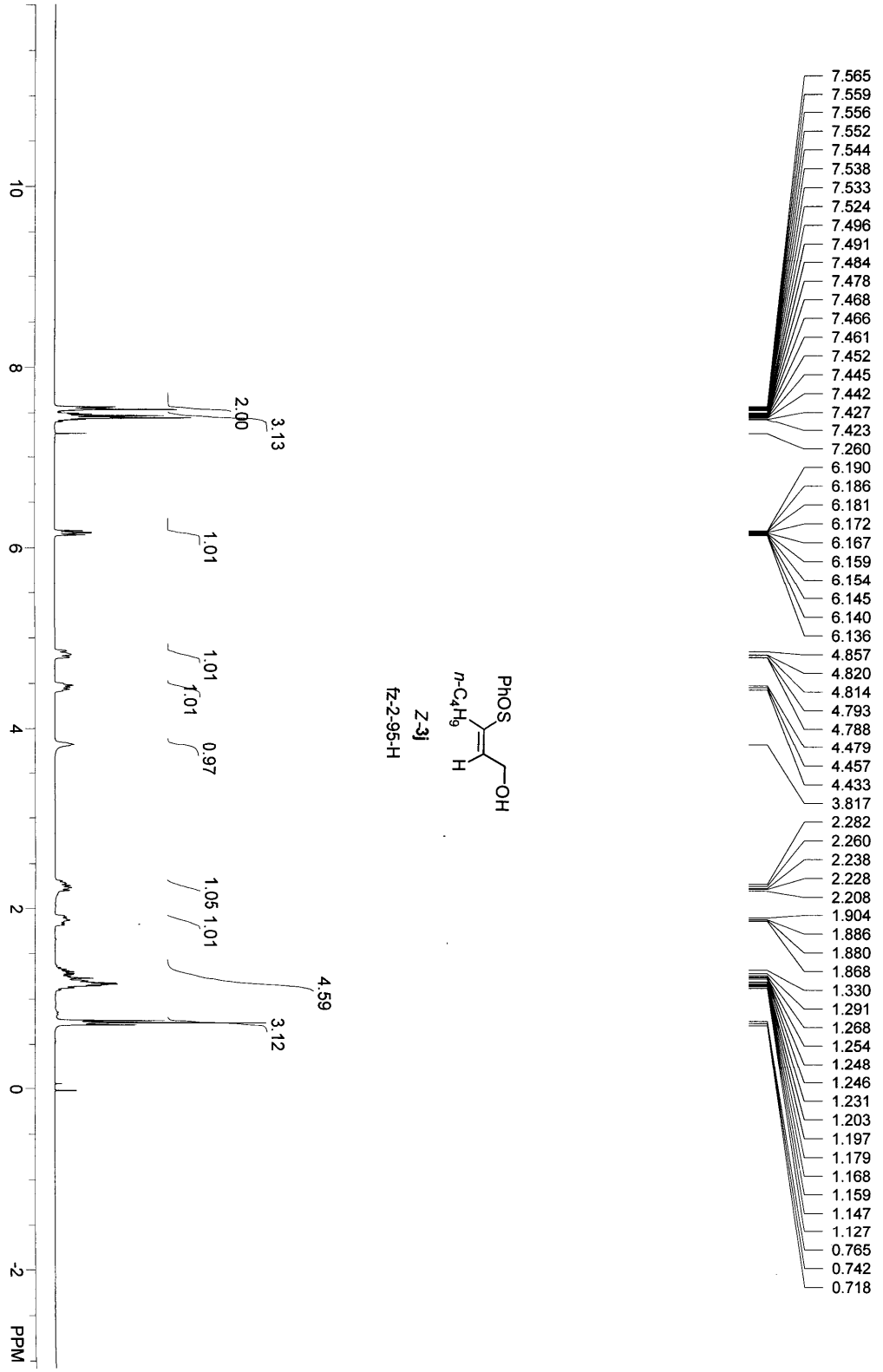

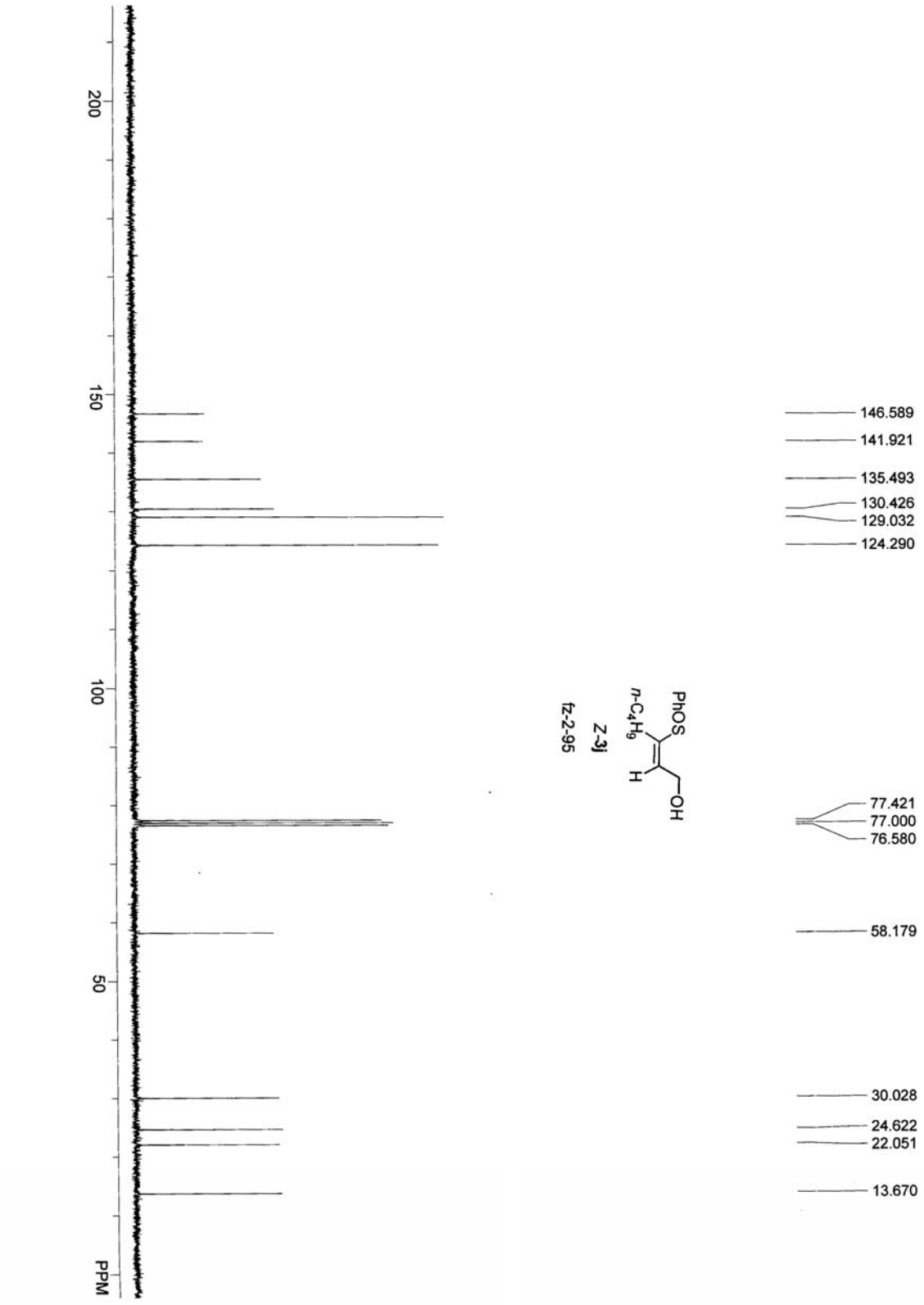
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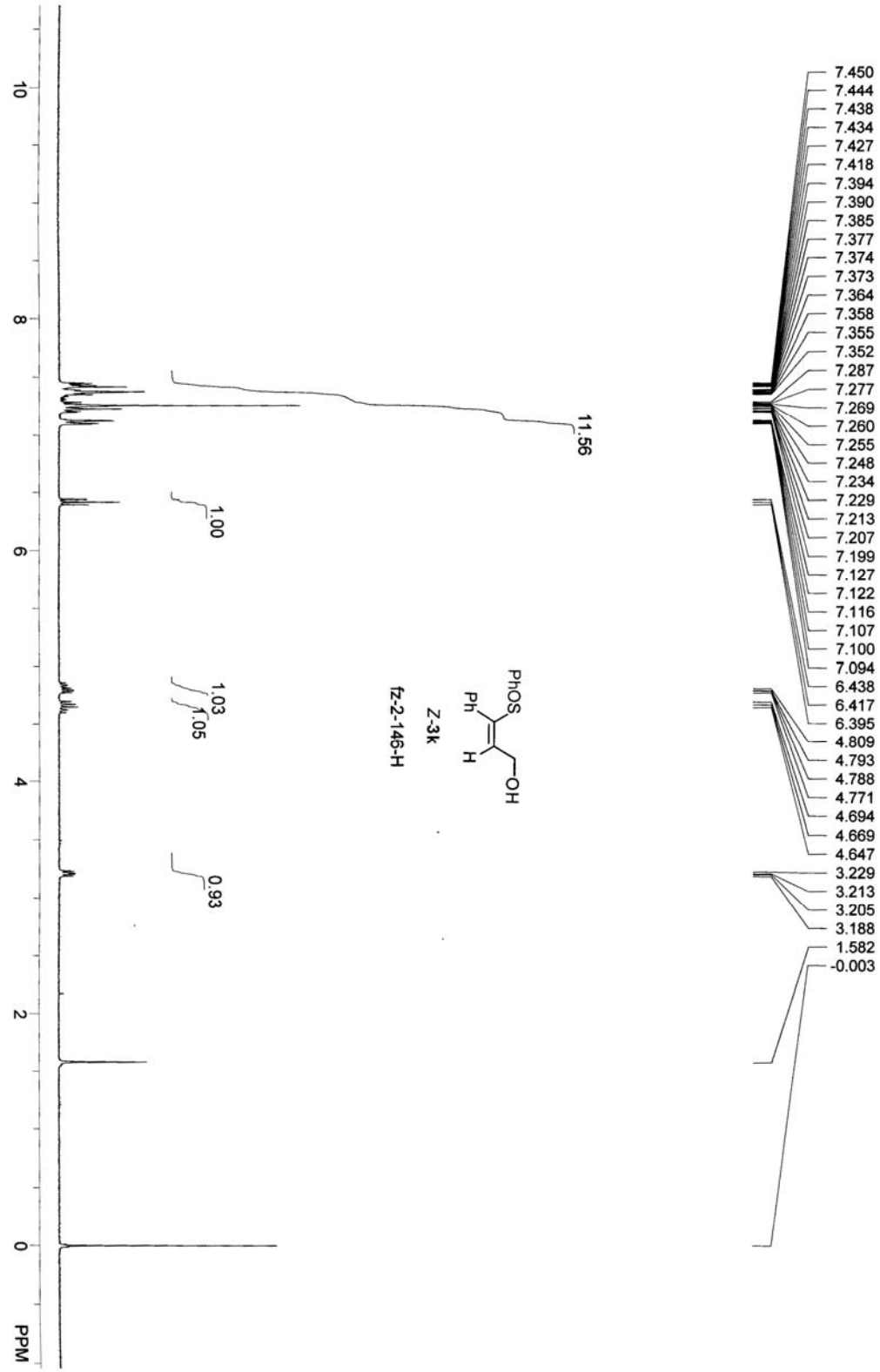

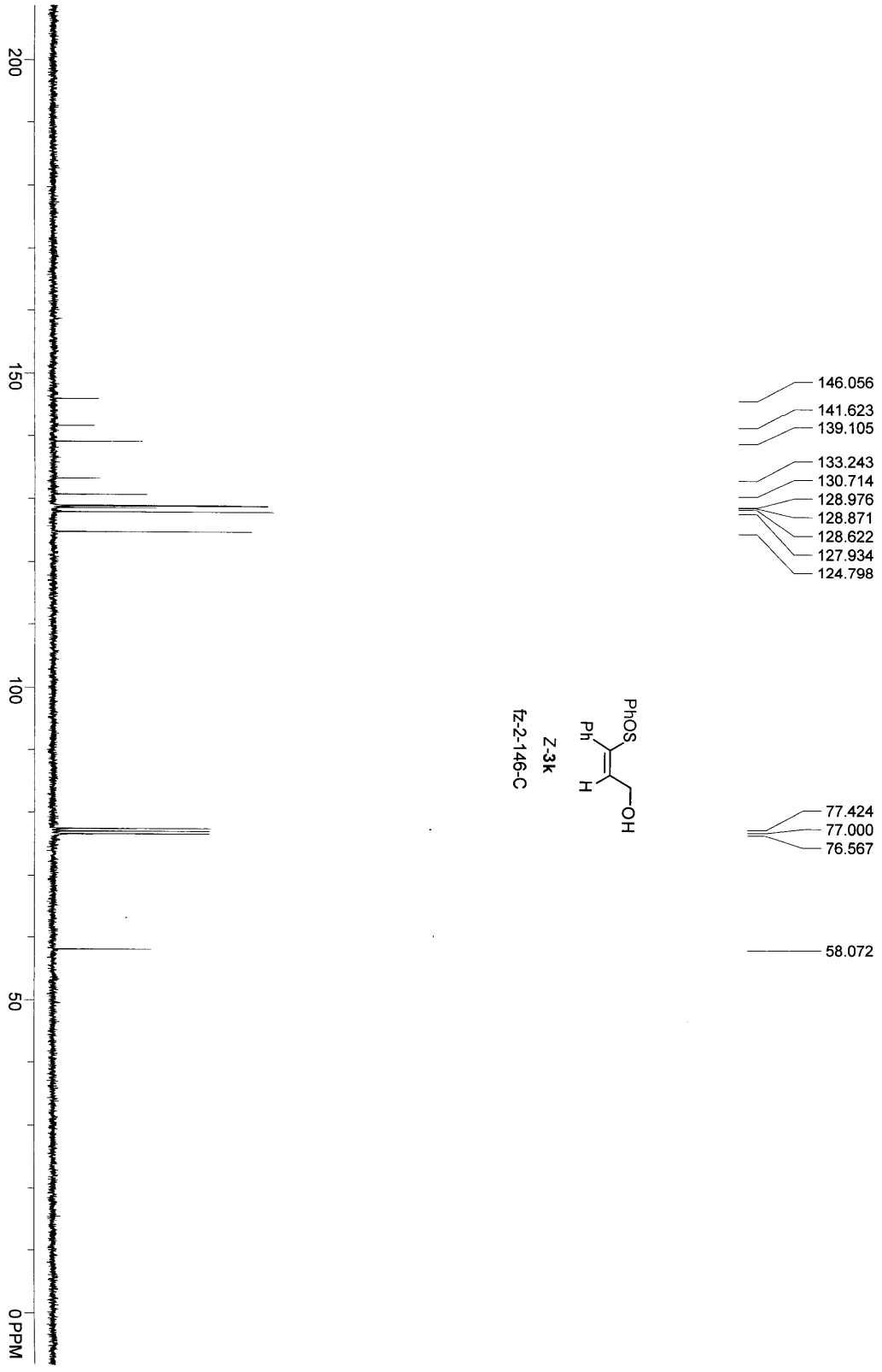
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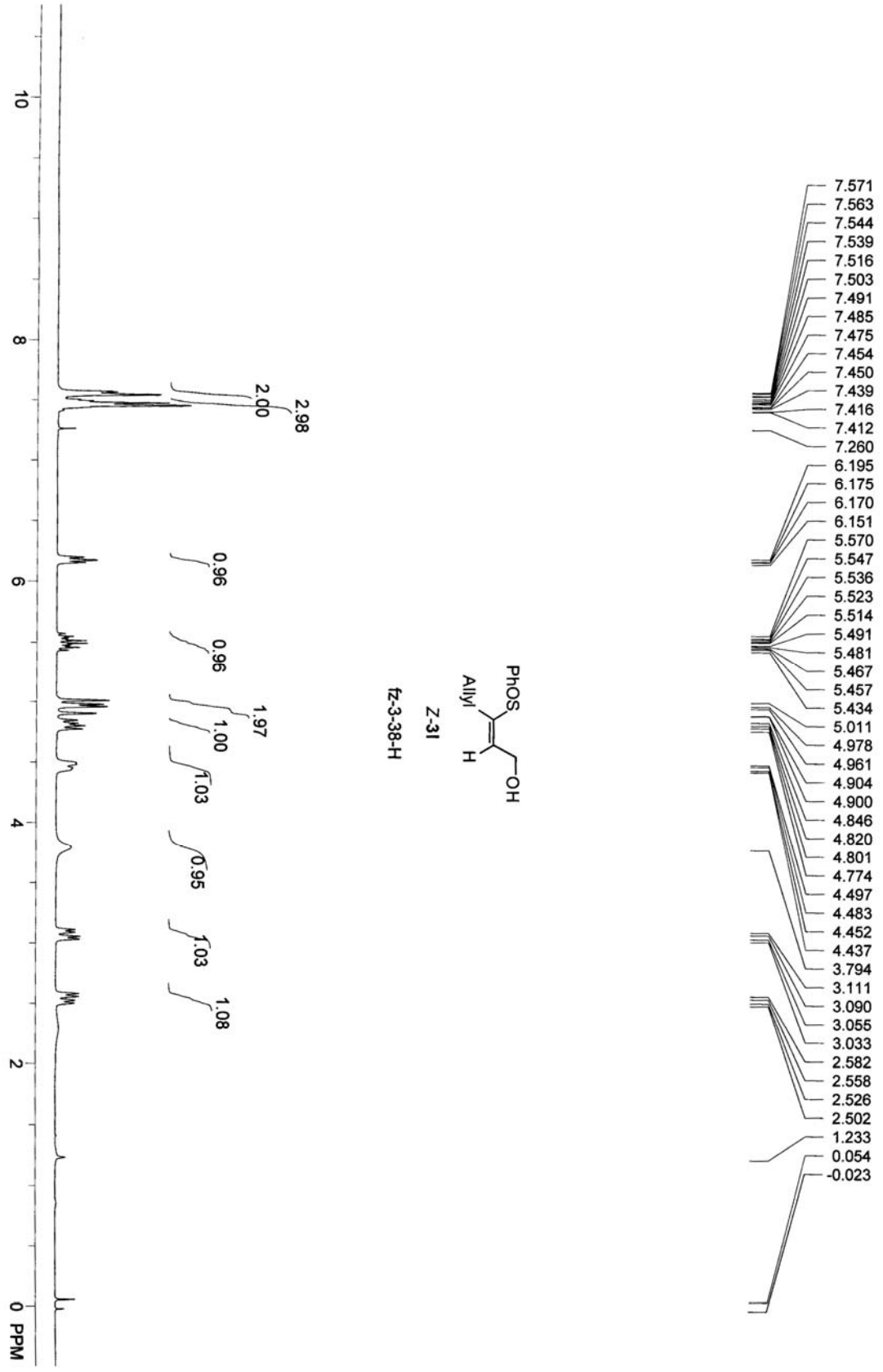

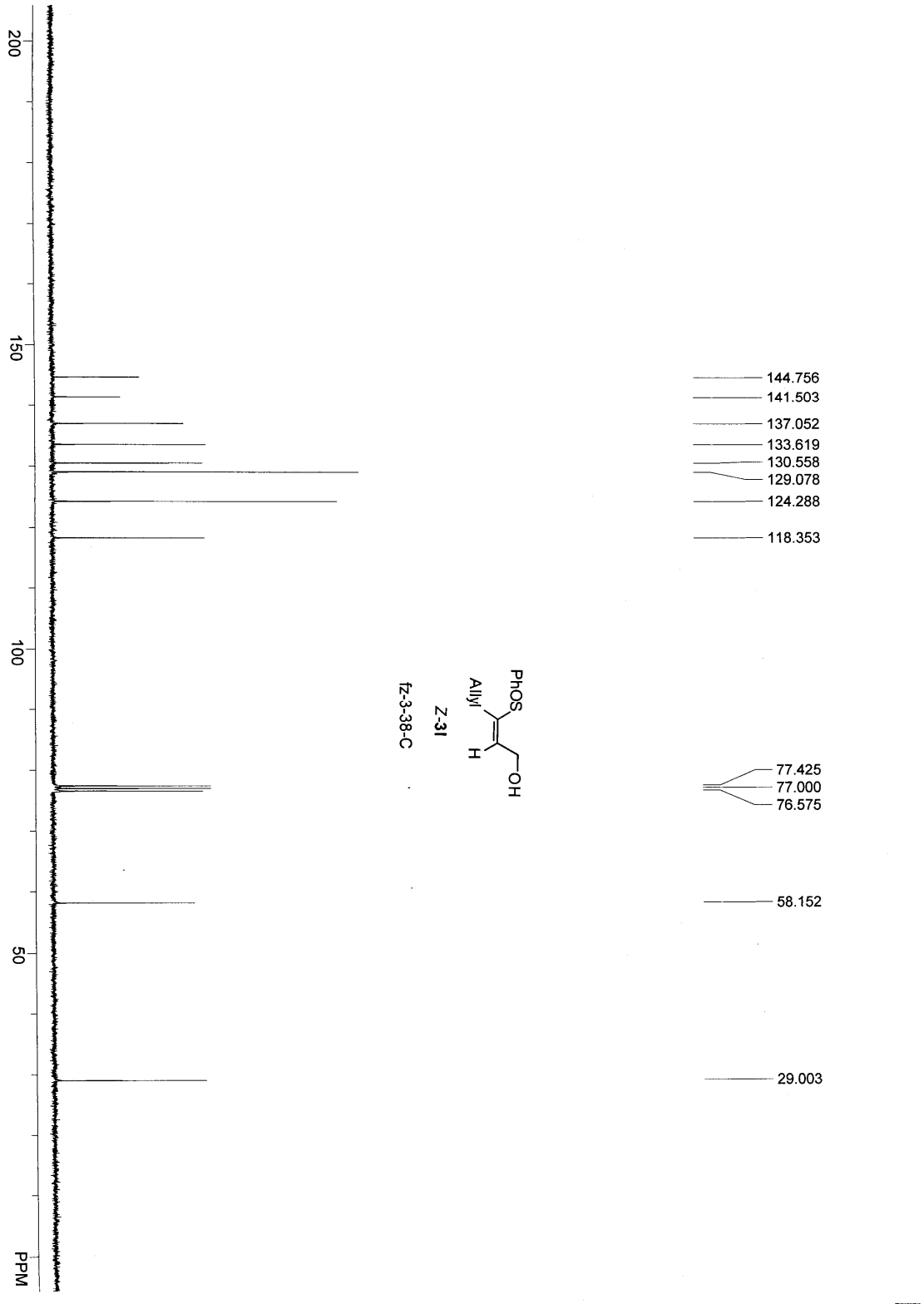

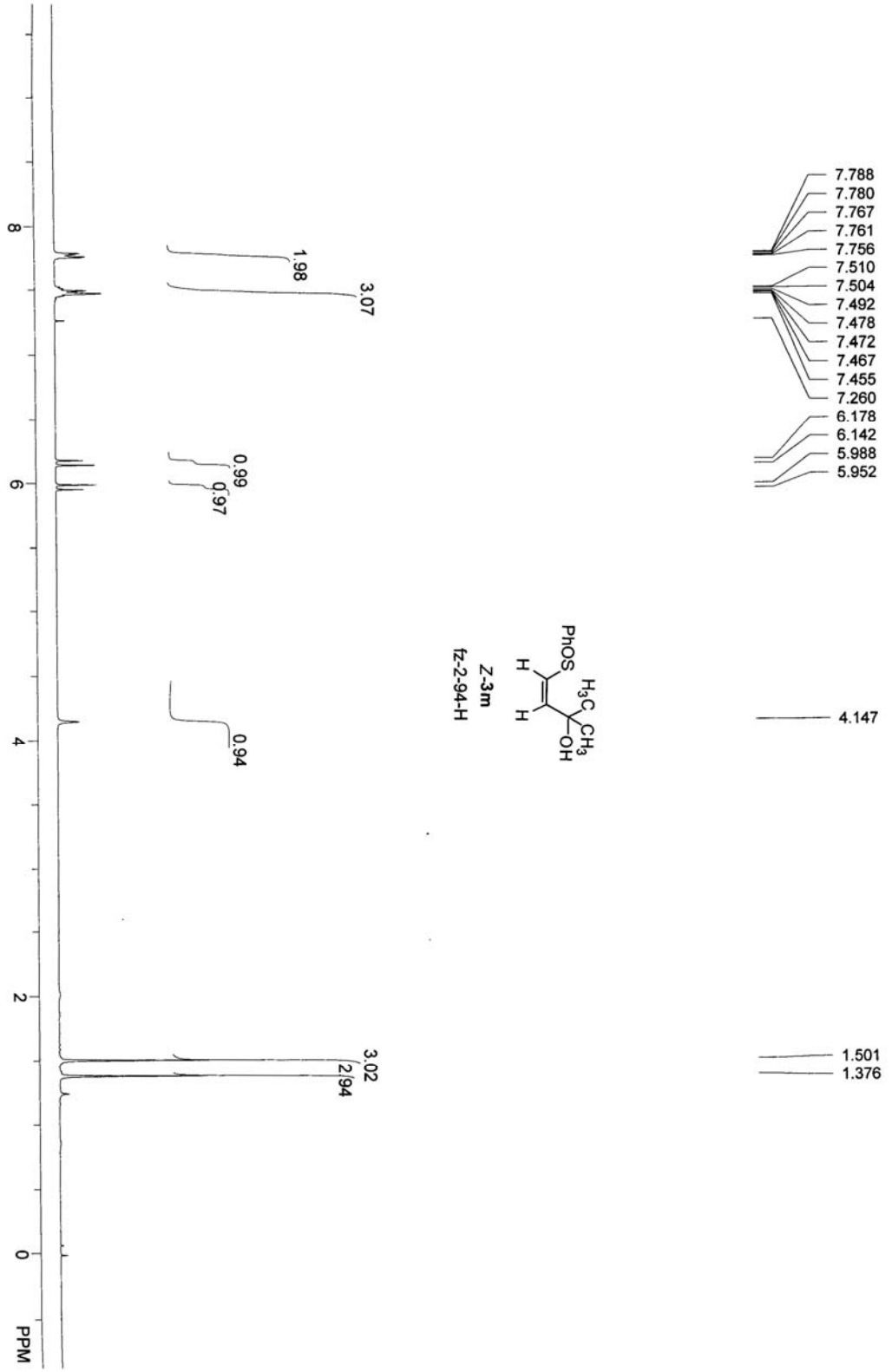
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5.952
4.147
1.501
1.376
1.98
3.07
0.99
0.97
0.94
3.02
2.94
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H
H3C
CH3
OH
Z-3m
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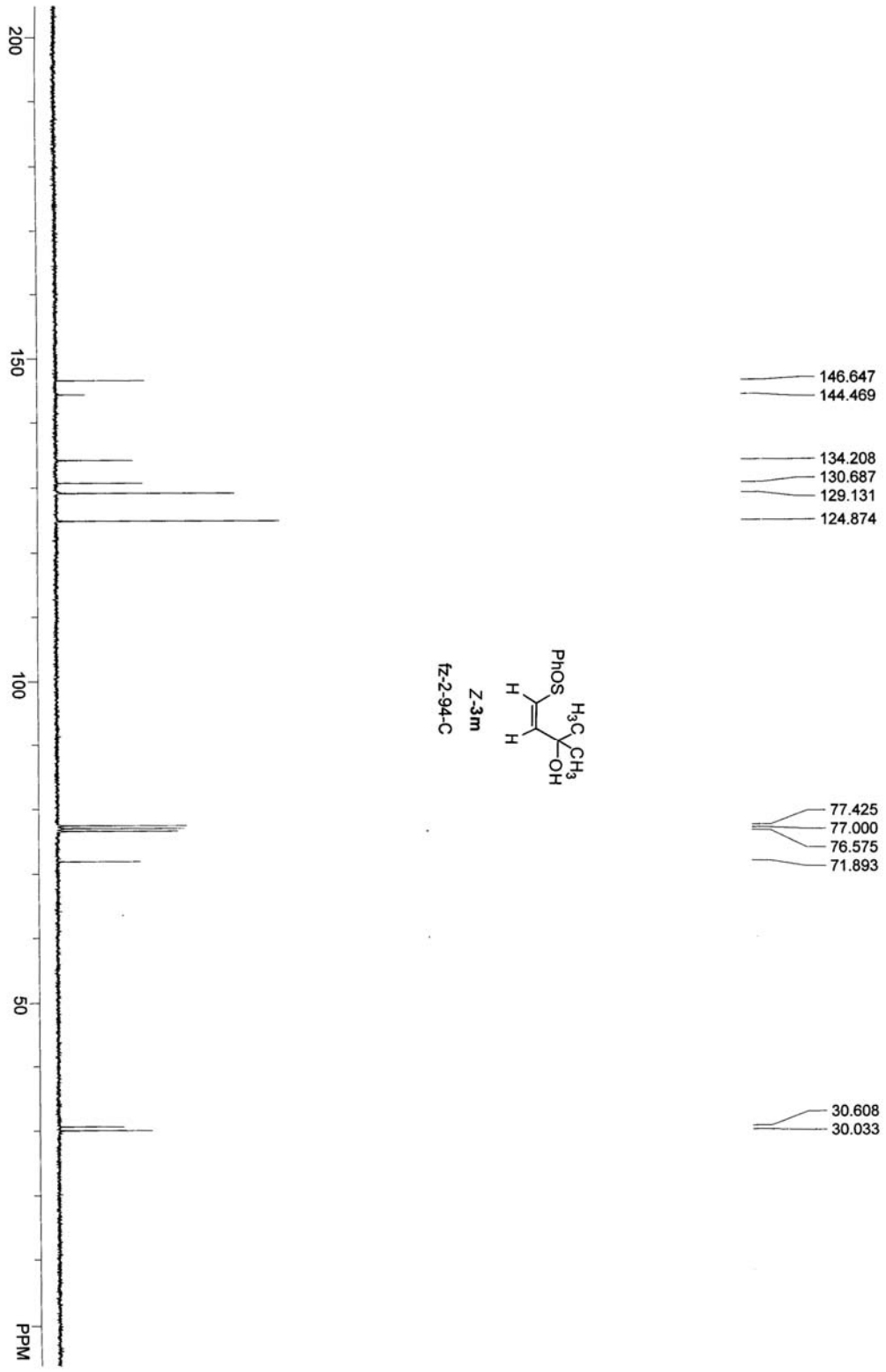
8
6
4
2
0
PPM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100
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PPM
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134.208
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129.131
124.874
77.425
77.000
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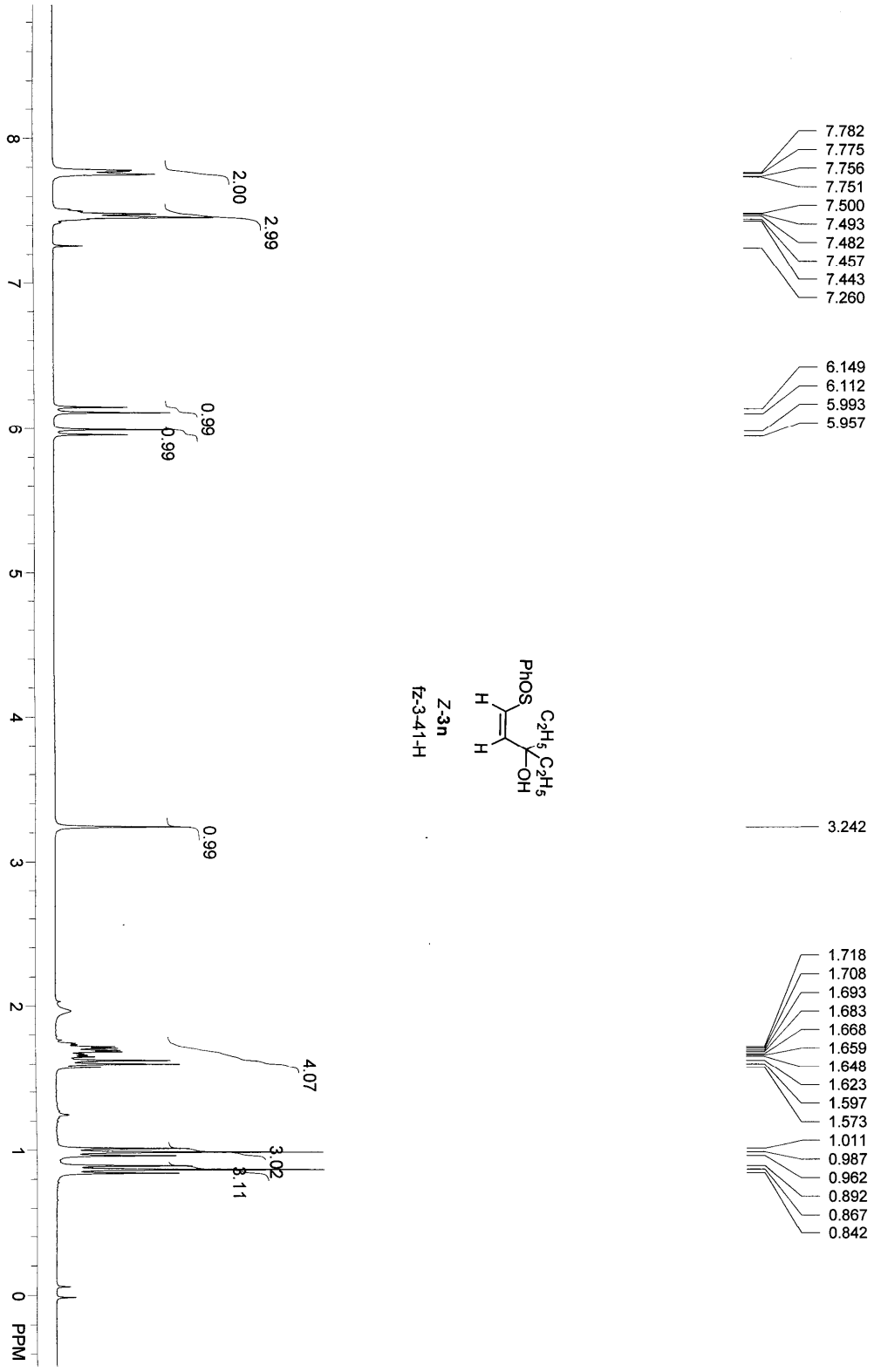
30.608
30.033
fz-2-94-C
Z-3m
PhOS
H
H
H3C
CH3
OH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7.751
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7.443
7.260
6.149
6.112
5.993
5.957
3.242
1.718
1.708
1.693
1.683
1.668
1.659
1.648
1.623
1.597
1.573
1.011
0.987
0.962
0.892
0.867
0.842
2.00
2.99
0.99
0.99
0.99
4.07
3.02
3.11
8
7
6
5
4
3
2
1
0
PPM
PhOS
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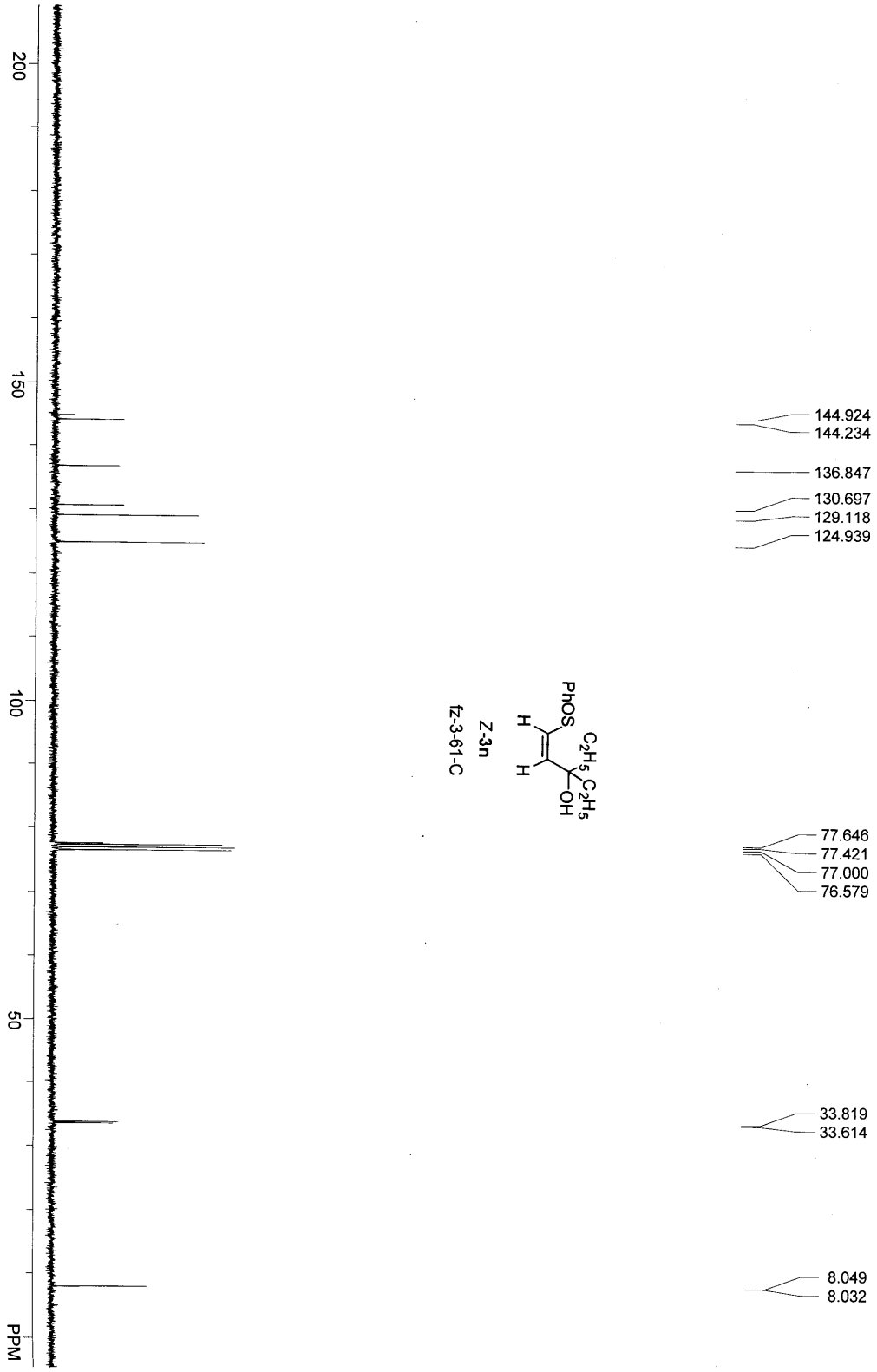
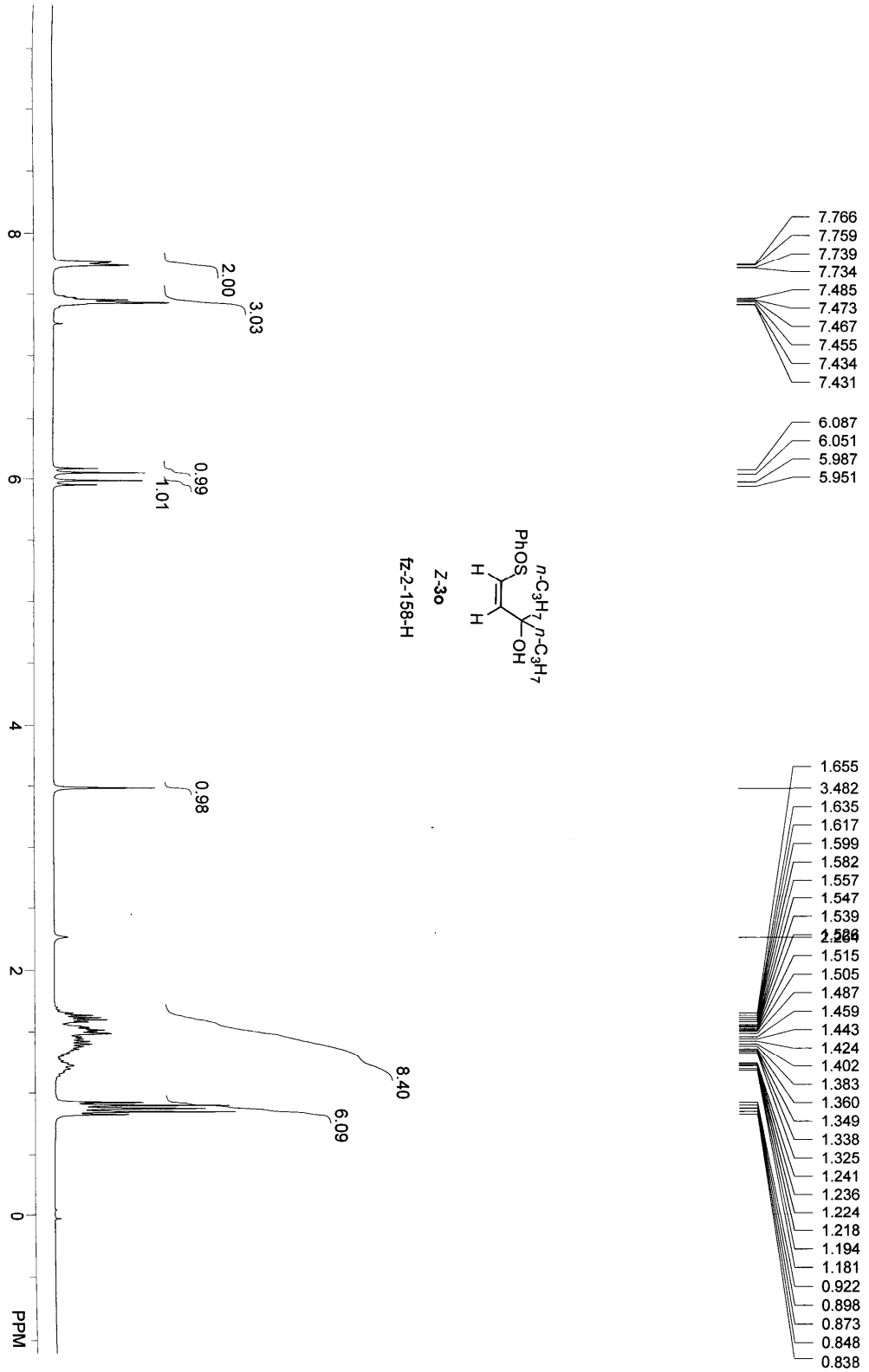
C2H5
C2H5
OH
Z-3n
fz-3-41-H

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7.485
7.473
7.467
7.455
7.434
7.431
6.087
6.051
5.987
5.951
1.655
3.482
1.635
1.617
1.599
1.582
1.557
1.547
1.539
1.515
1.505
1.487
1.459
1.443
1.424
1.402
1.383
1.360
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1.338
1.325
1.241
1.236
1.224
1.218
1.194
1.181
0.922
0.898
0.873
0.848
0.838
2.00
3.03
0.99
1.01
0.98
8.40
6.09
8
6
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PPM
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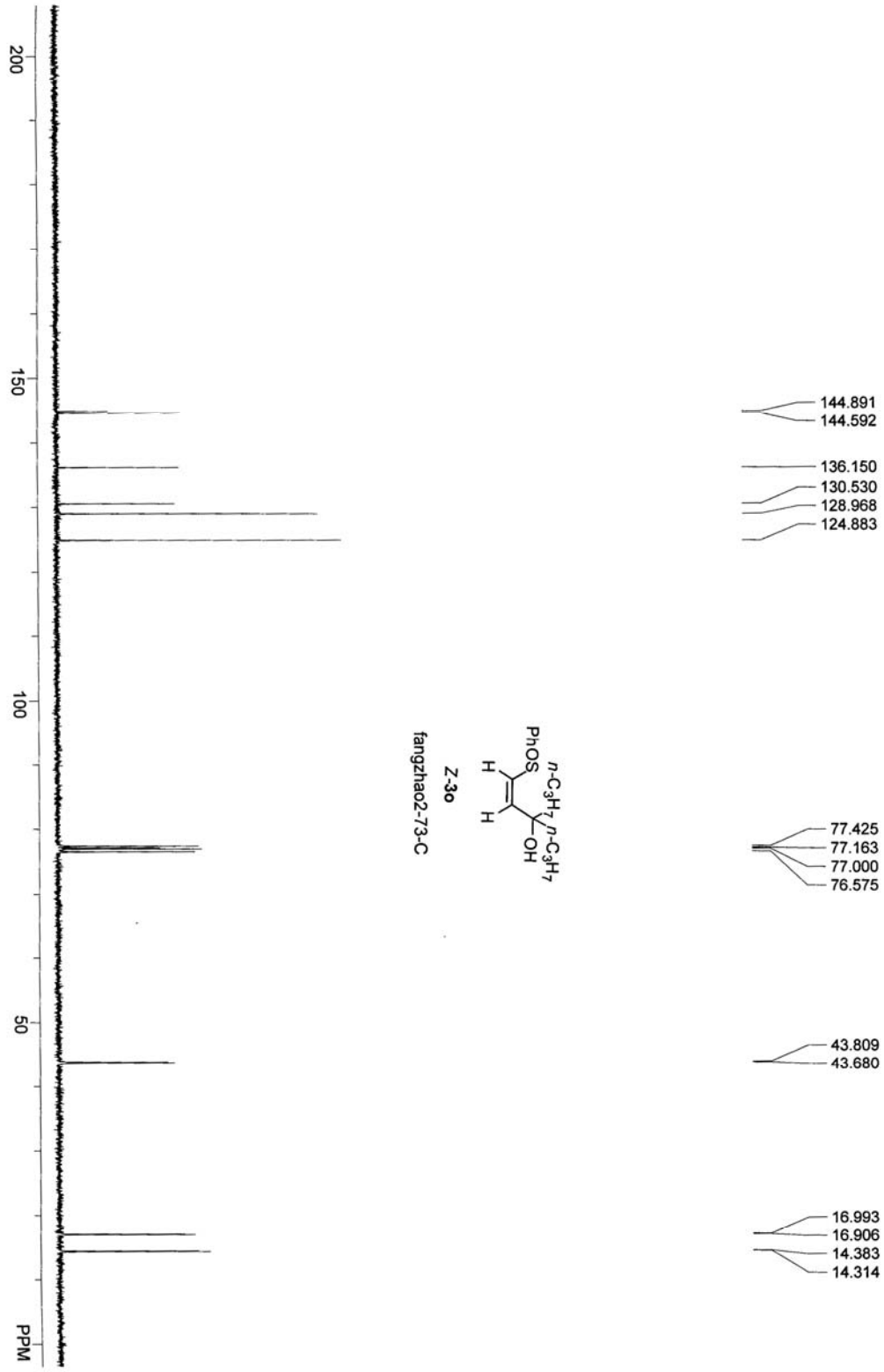
OH
H
H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128.968
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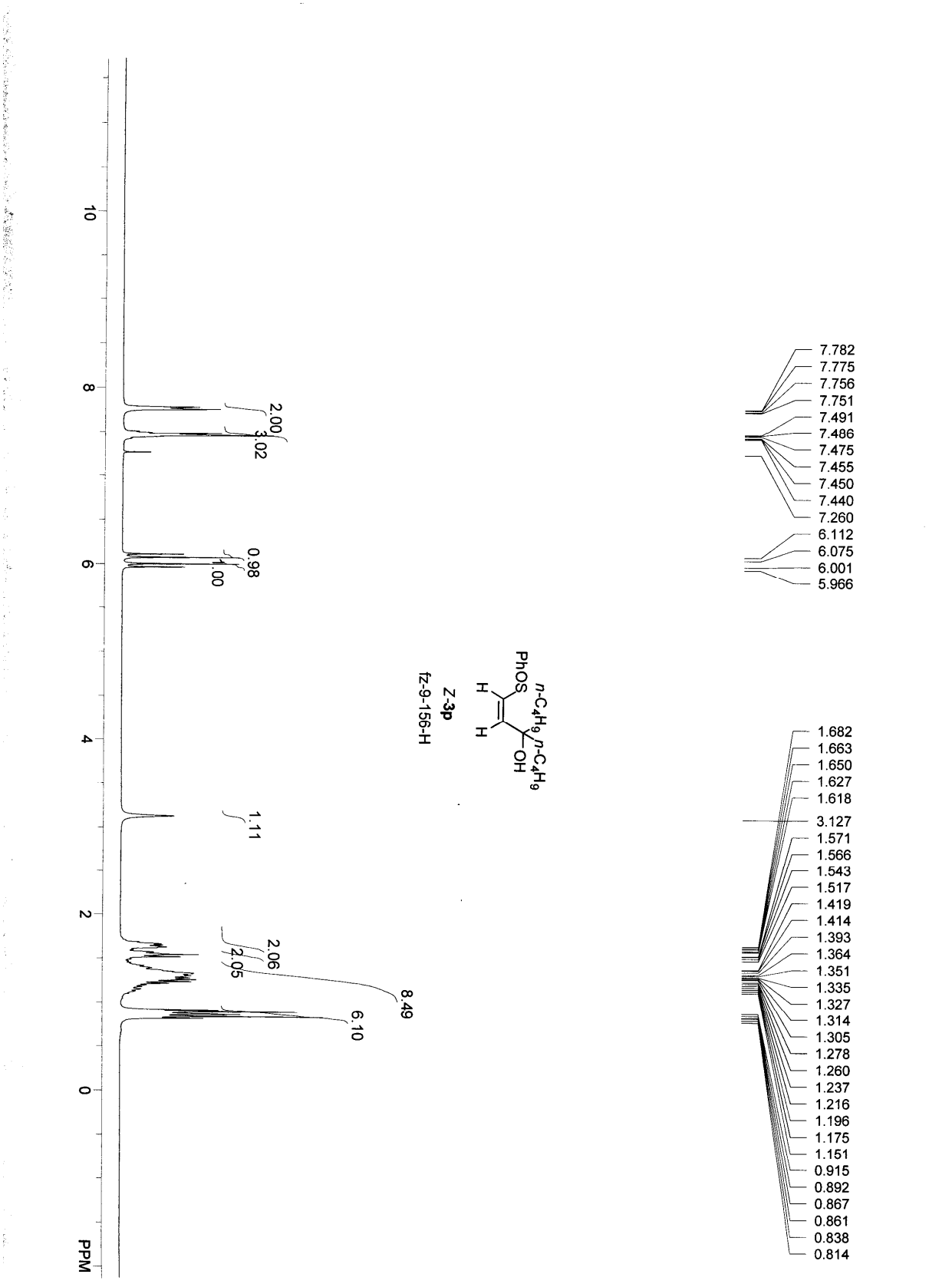
76.575
43.809
43.680
16.993
16.906
14.383
14.314
fangzhao2-73-C
Z-3o
PhOS
n-C3H7
n-C3H7
OH
H
H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7.455
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7.260
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6.075
6.001
5.966
1.682
1.663
1.650
1.627
1.618
3.127
1.571
1.566
1.543
1.517
1.419
1.414
1.393
1.364
1.351
1.335
1.327
1.314
1.305
1.278
1.260
1.237
1.216
1.196
1.175
1.151
0.915
0.892
0.867
0.861
0.838
0.814
PhOS
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n-C4H9
OH
H
H
Z-3p
fz-9-156-H
2.00
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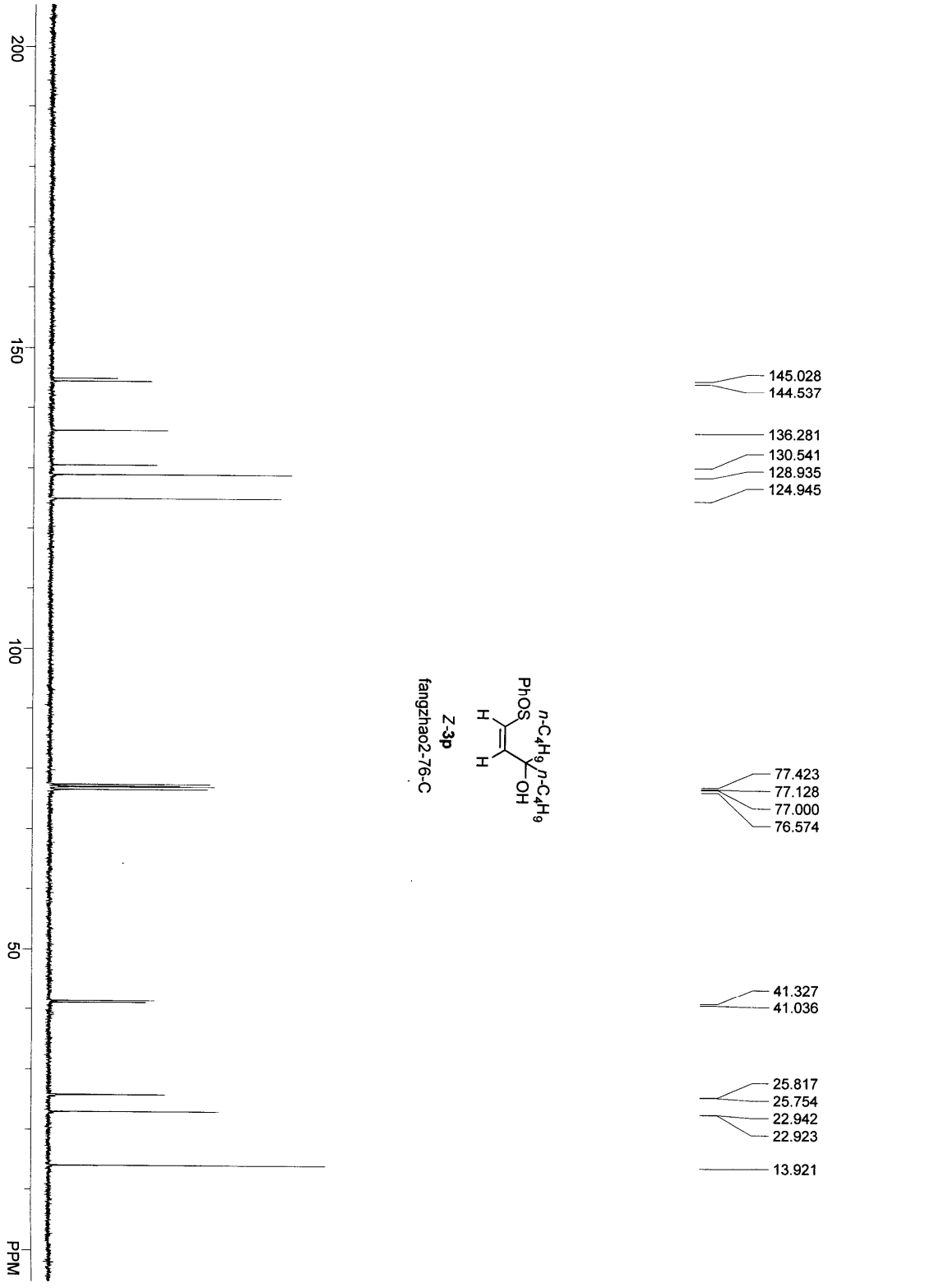
1.00
1.11
2.06
2.05
8.49
6.10
10
8
6
4
2
0
PPM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100
50
PPM
Z-3p
fangzhao2-76-C
PhOS
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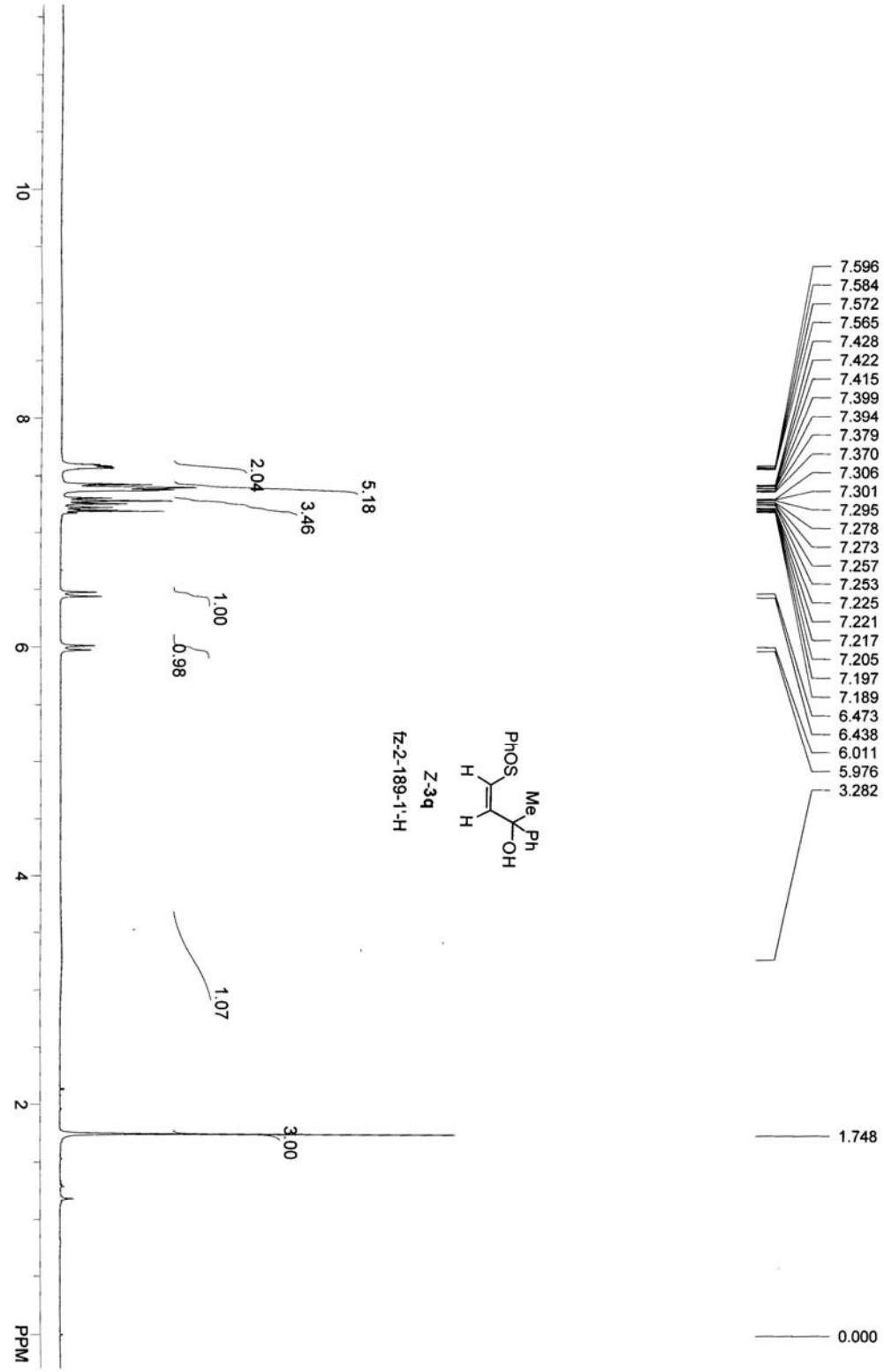
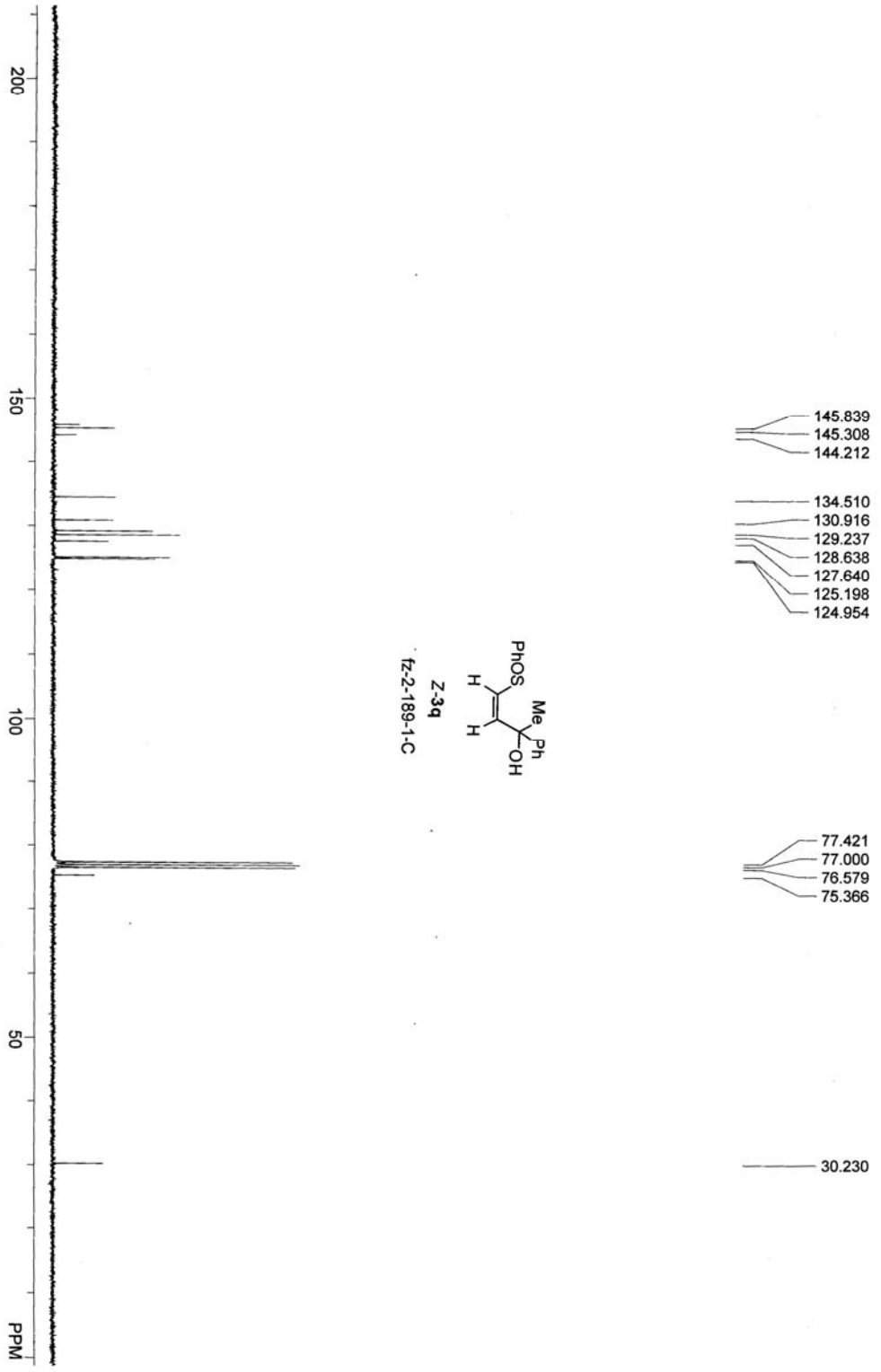
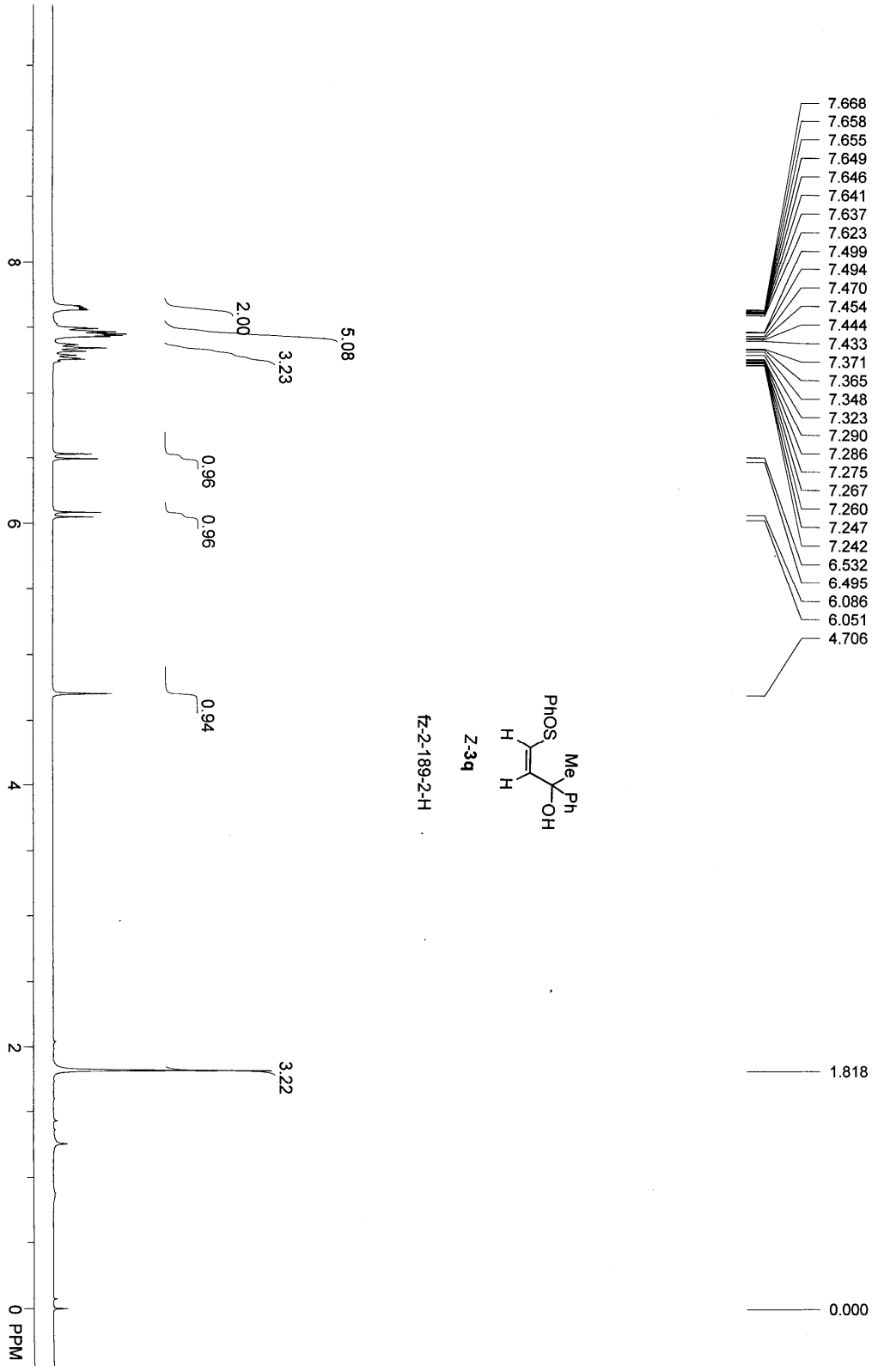
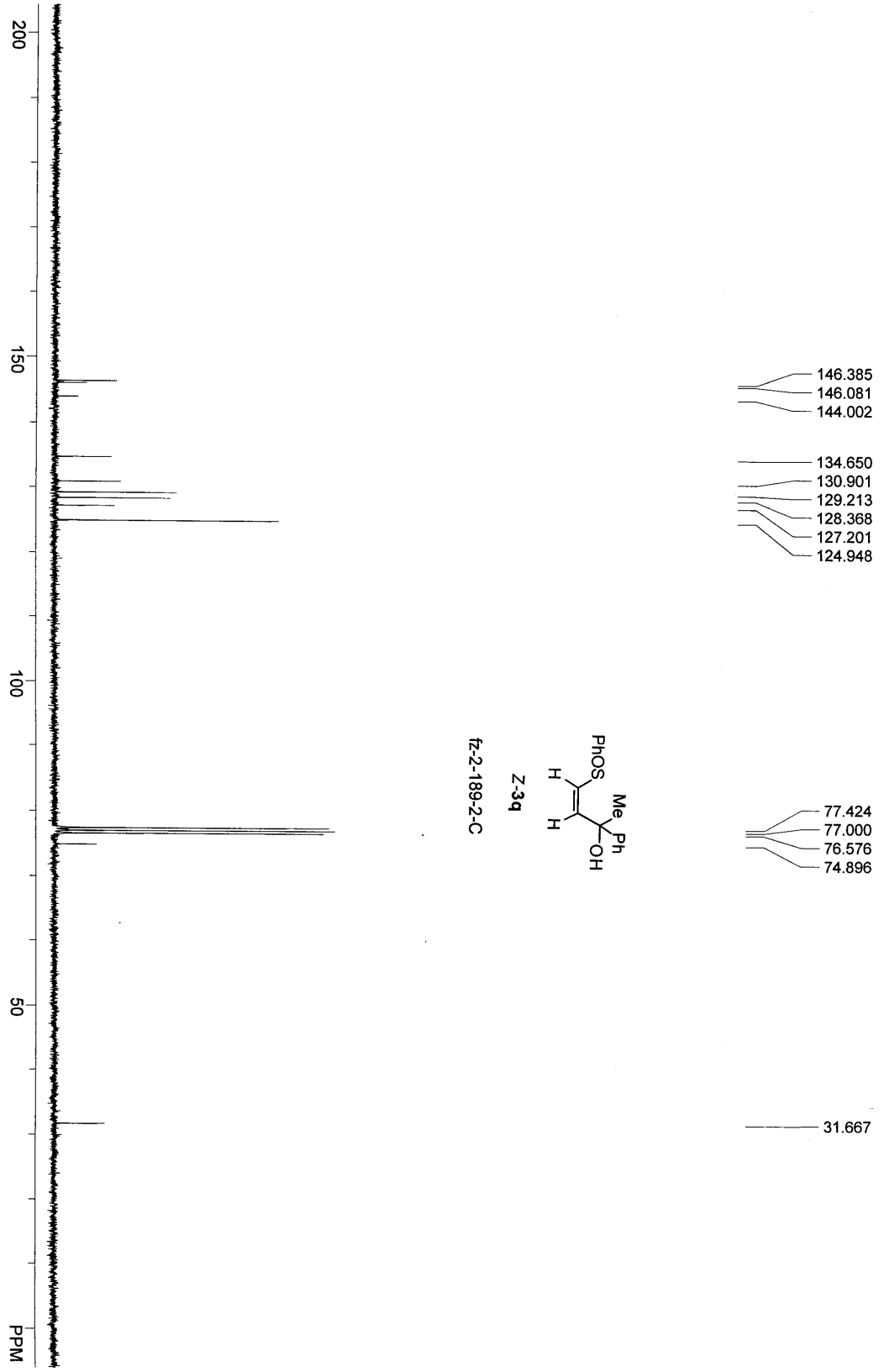
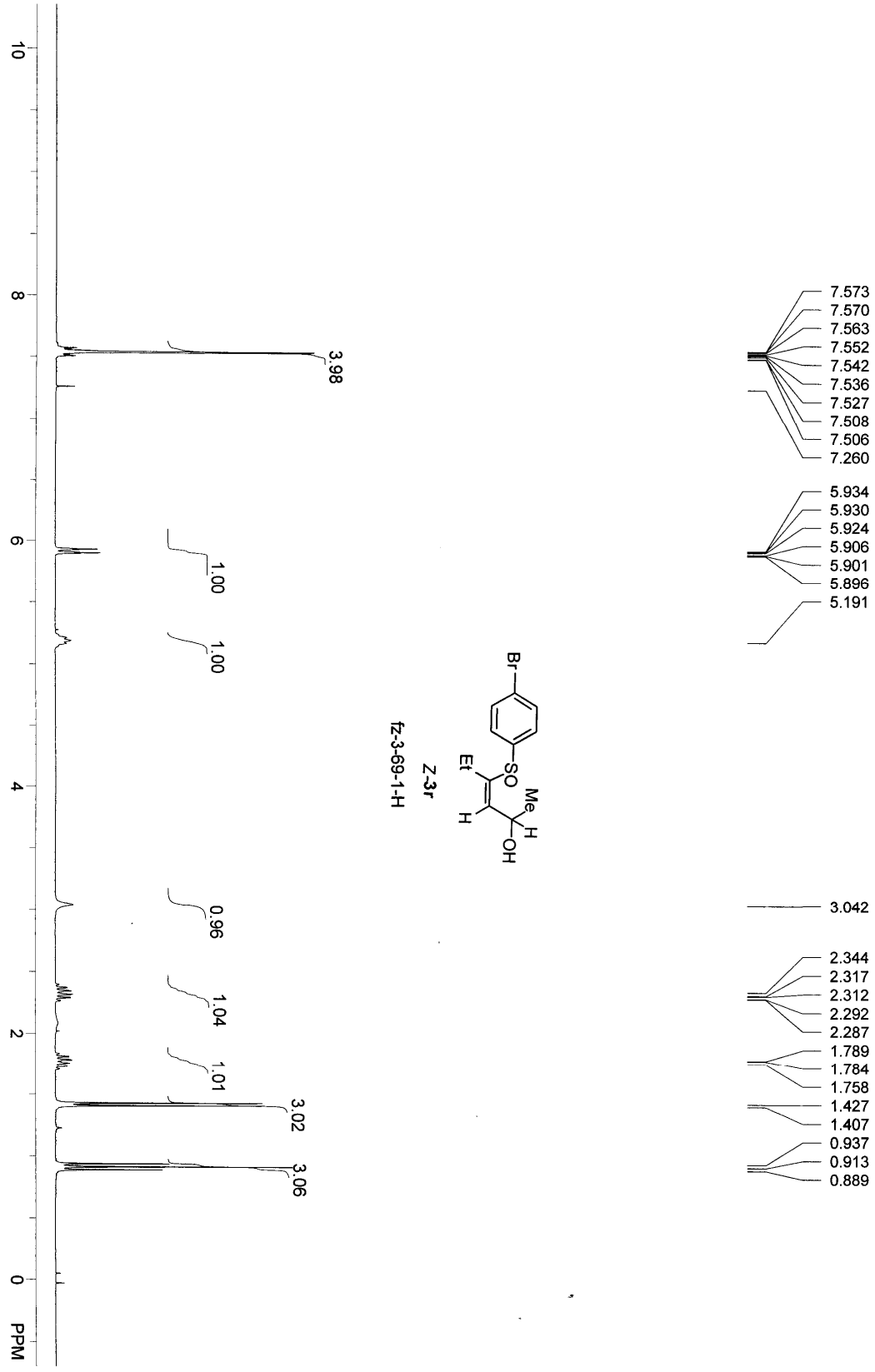
n-C4H9
OH
H
H
145.028
144.537
136.281
130.541
128.935
124.945
77.423
77.128
77.000
76.574
41.327
41.036
25.817
25.754
22.942
22.923
13.921

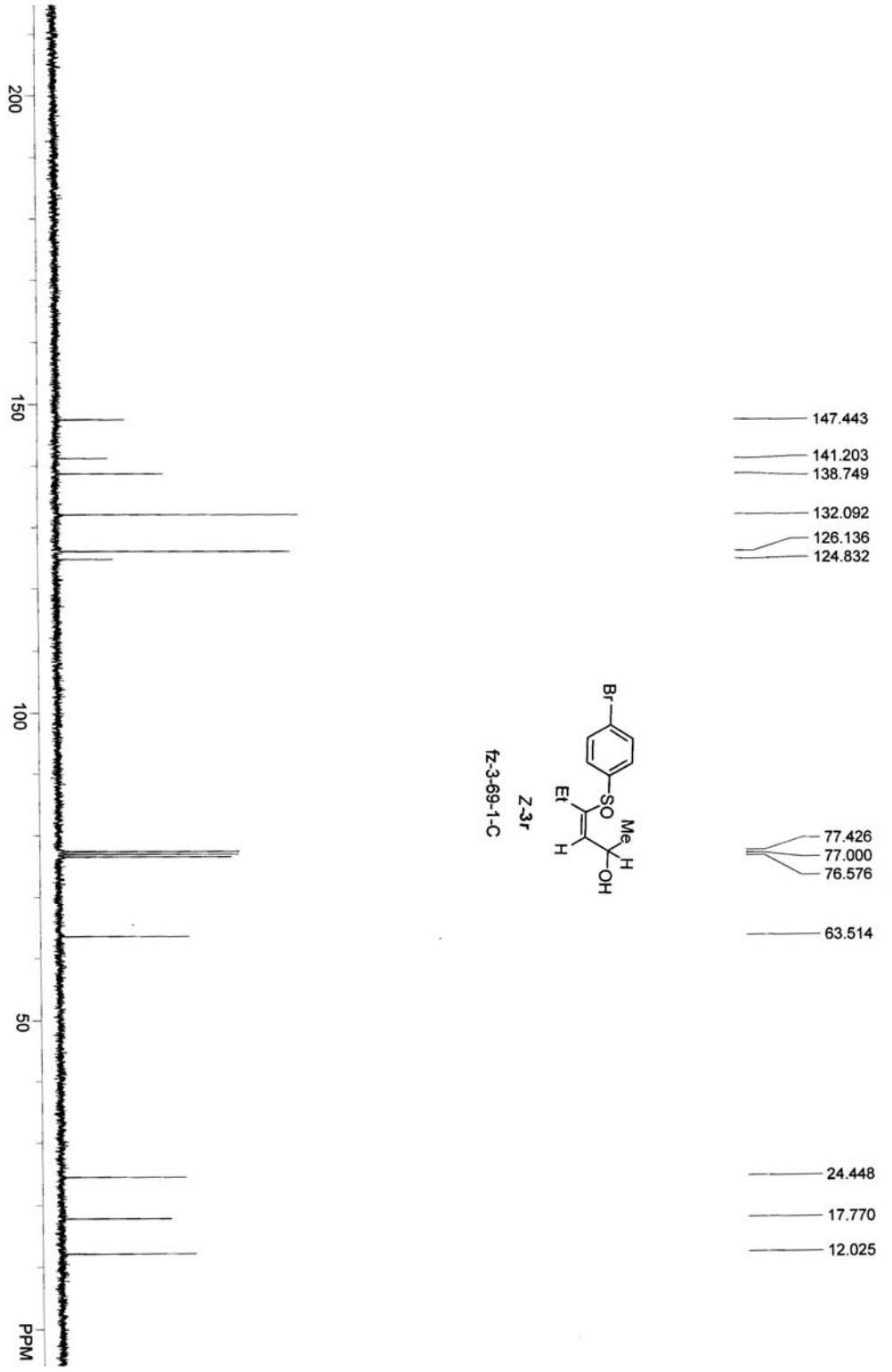











200
150
100
50
PPM
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138.749
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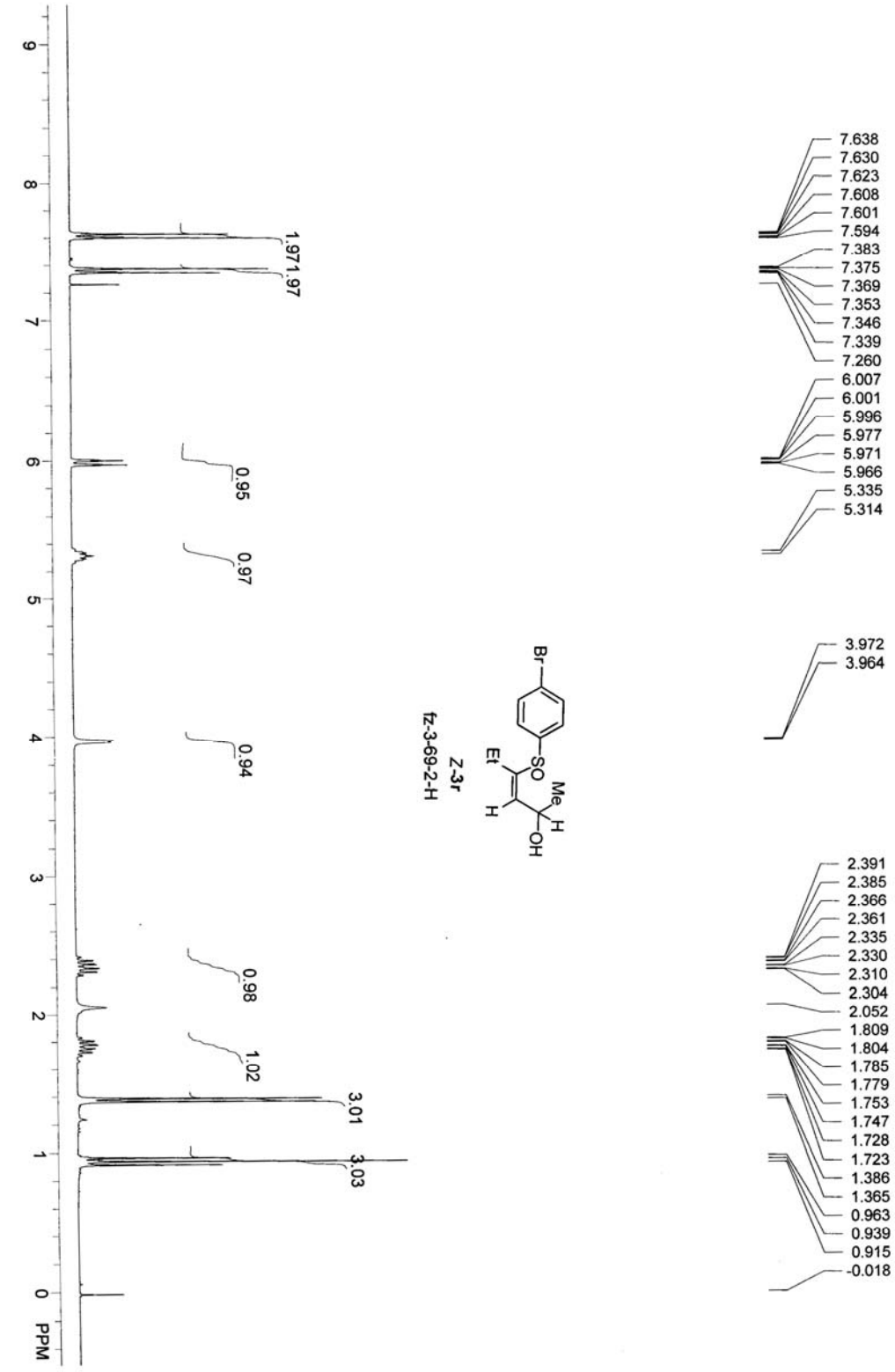
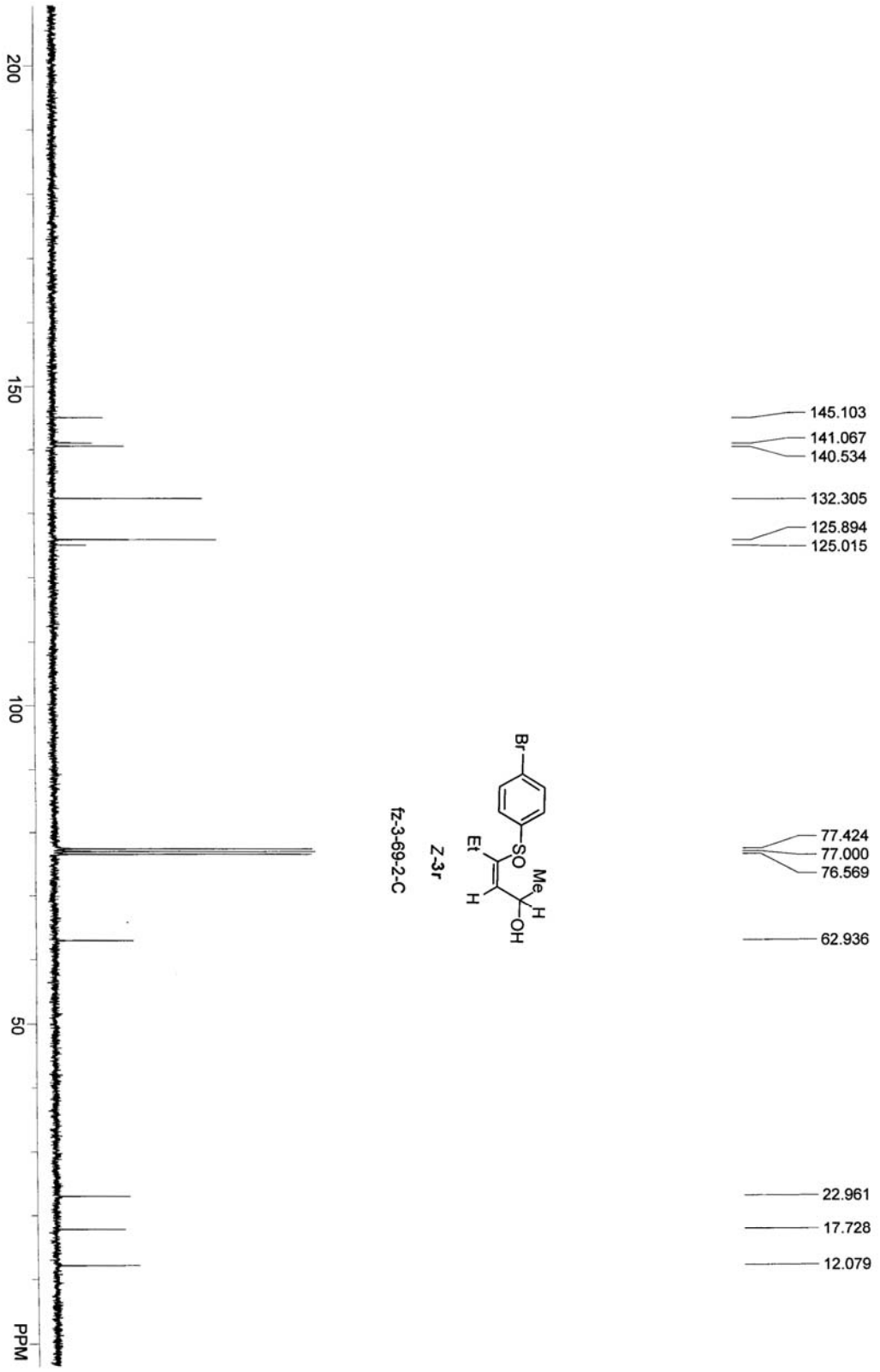
126.136
124.832
77.426
77.000
76.576
63.514
24.448
17.770
12.025
Br
SO
Et
H
Me
H
OH
Z-3r
fz-3-69-1-C




200
150
100
50
PPM
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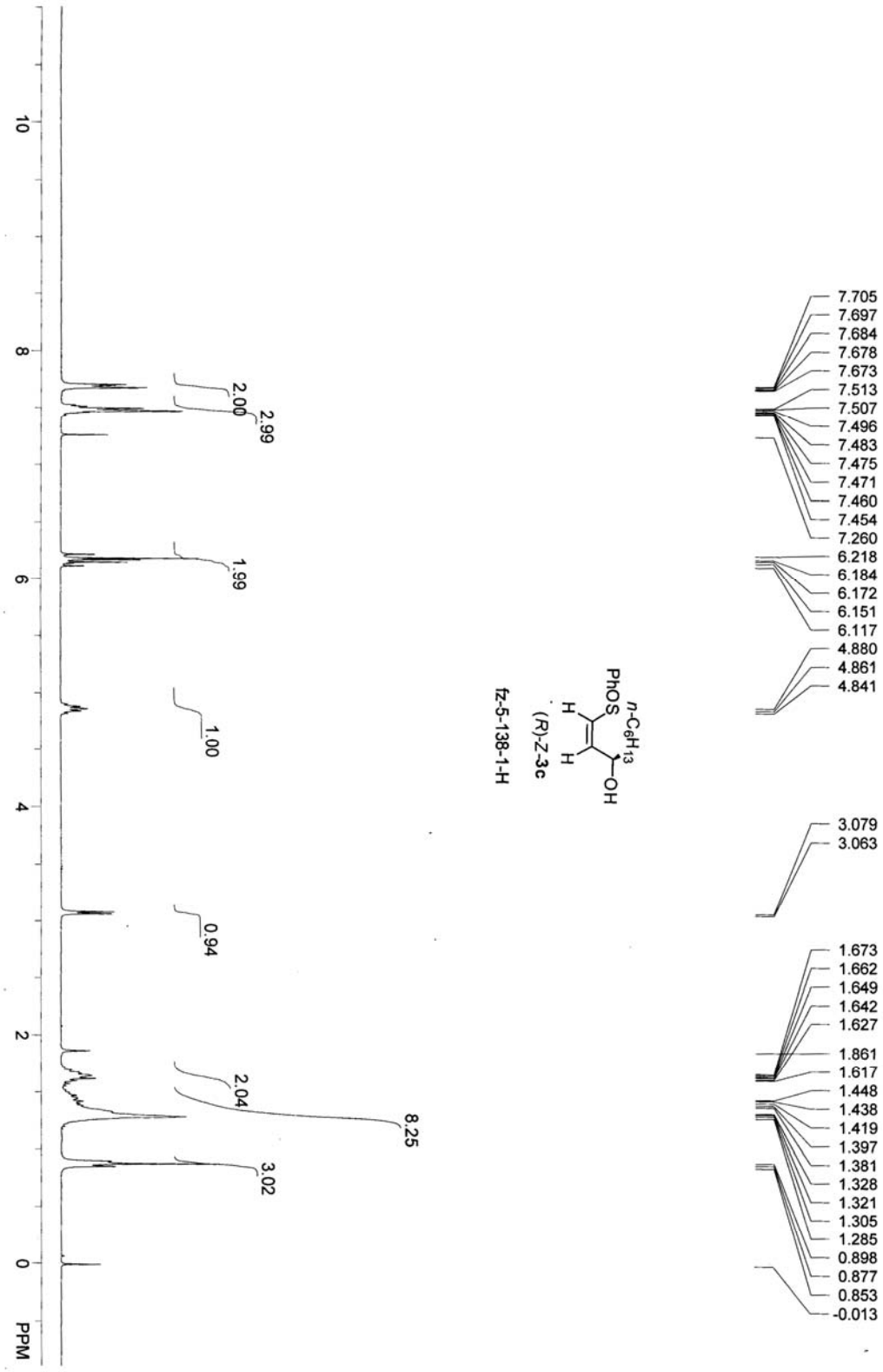
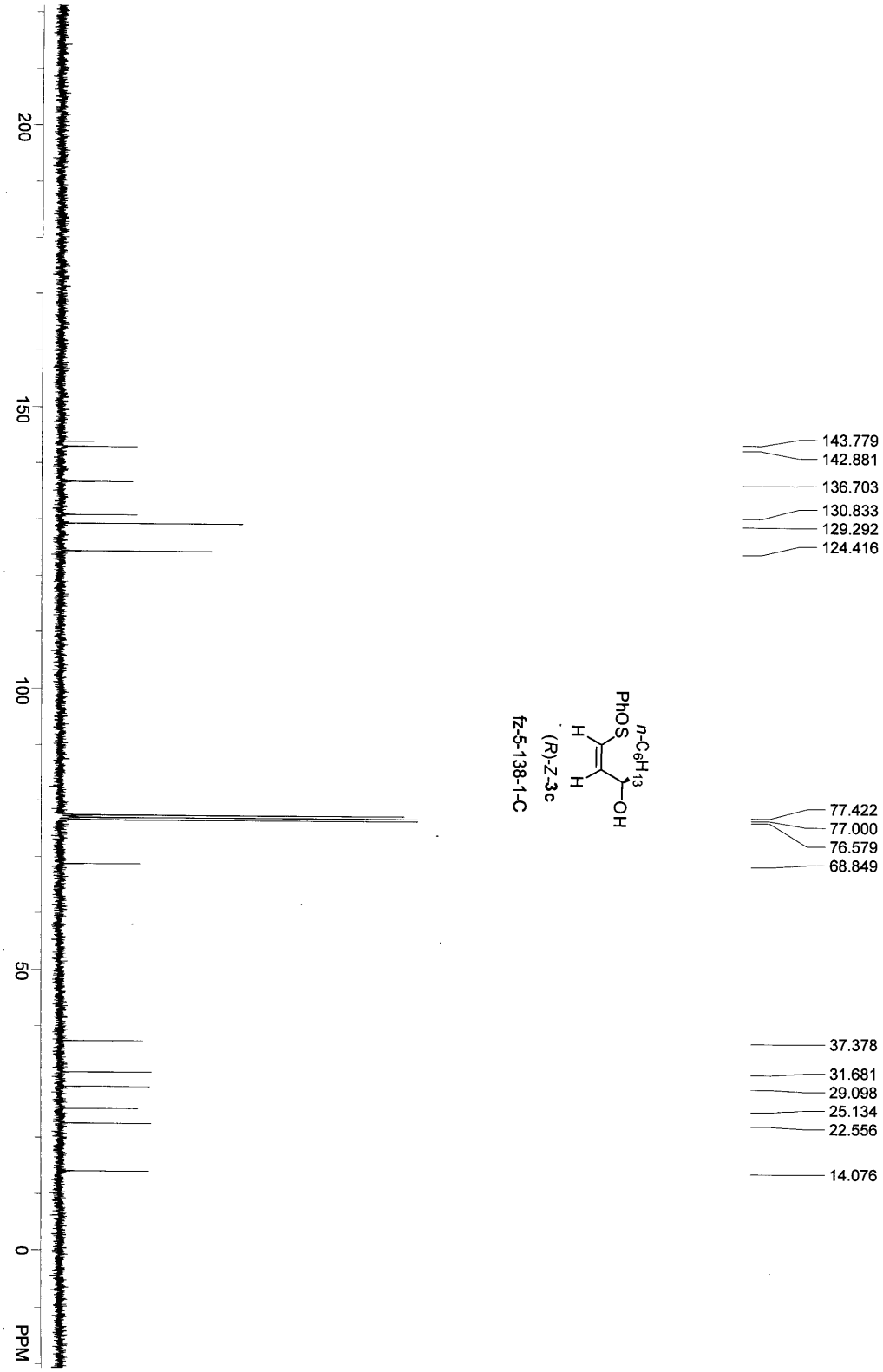
141.067
140.534
132.305
125.894
125.015
77.424
77.000
76.569
62.936
22.961
17.728
12.079
fz-3-69-2-C
Z-3r
Br
SO
Et
H
Me
H
OH




200
150
100
50
0
PPM
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142.881
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130.833
129.292
124.416
77.422
77.000
76.579
68.849
37.378
31.681
29.098
25.134
22.556
14.076
PhOS
n-C6H13
OH
H
H
(R)-Z-3c
fz-5-138-1-C

Data File D:\HPCHEM\1\DATA\FZ\FZ000124.D Sample Name: fz-5-135-1

OJ-H; hexane/i-PrOH=95:5; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 3/1/2009 11:02:08 AM
Sample Name     : fz-5-135-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 3/1/2009 10:34:17 AM by fz
                  (modified after loading)
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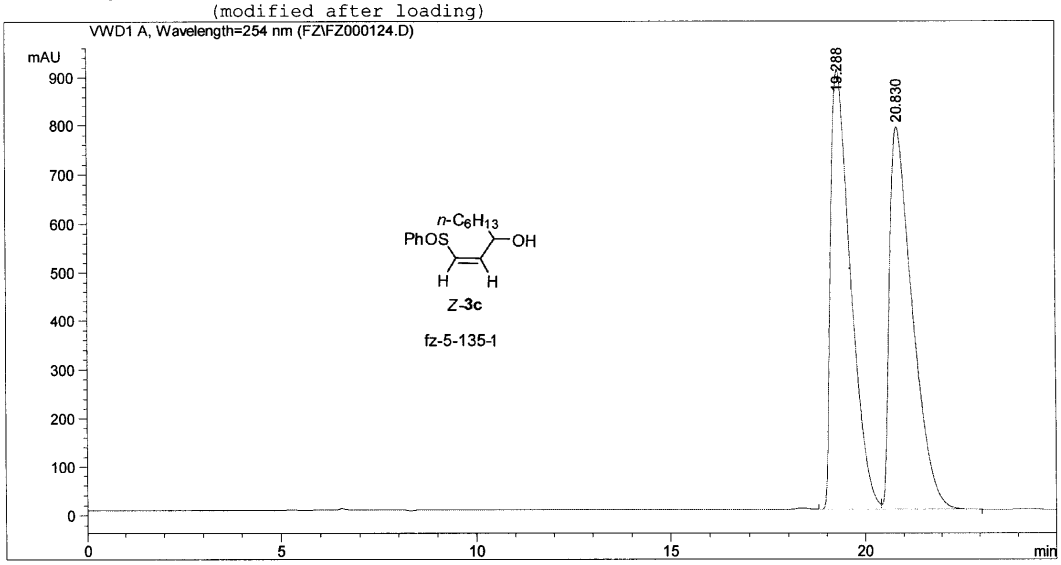


```
==========================================================================
                          Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s    [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  19.288 VV    0.5474 3.24940e4   904.28009  49.7787
   2  20.830 VB    0.6274 3.27829e4   784.40448  50.2213

Totals :                  6.52770e4  1688.68457

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***
```

Instrument 1 3/1/2009 12:18:44 PM fz Page 1 of 1

Data File D:\HPCHEM\1\DATA\FZ\FZ000125.D Sample Name: fz-5-138-1

OJ-H; hexane/i-PrOH=95:5; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 3/1/2009 12:18:20 PM
Sample Name     : fz-5-138-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 3/1/2009 10:34:17 AM by fz
                  (modified after loading)
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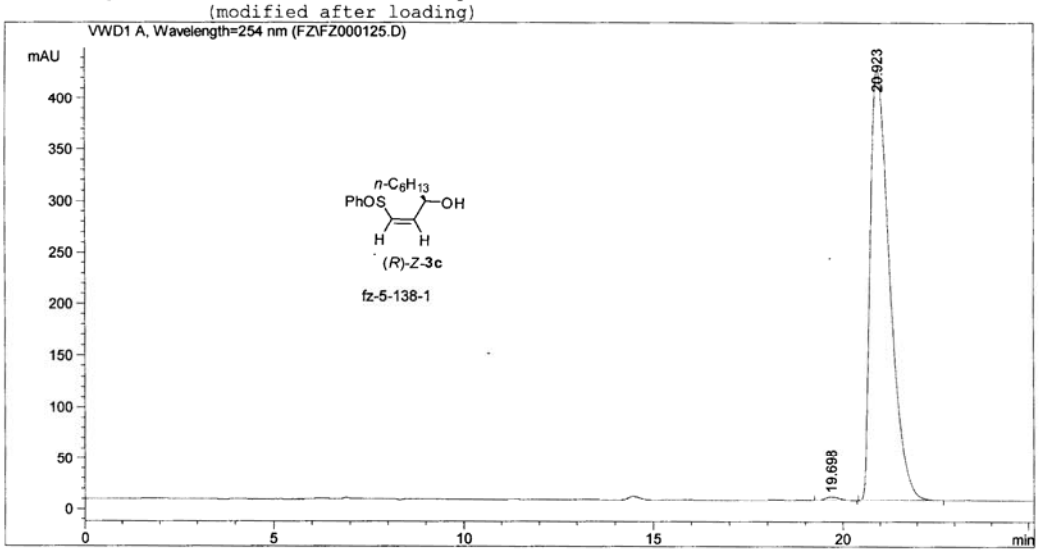



```
==========================================================================
                          Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs

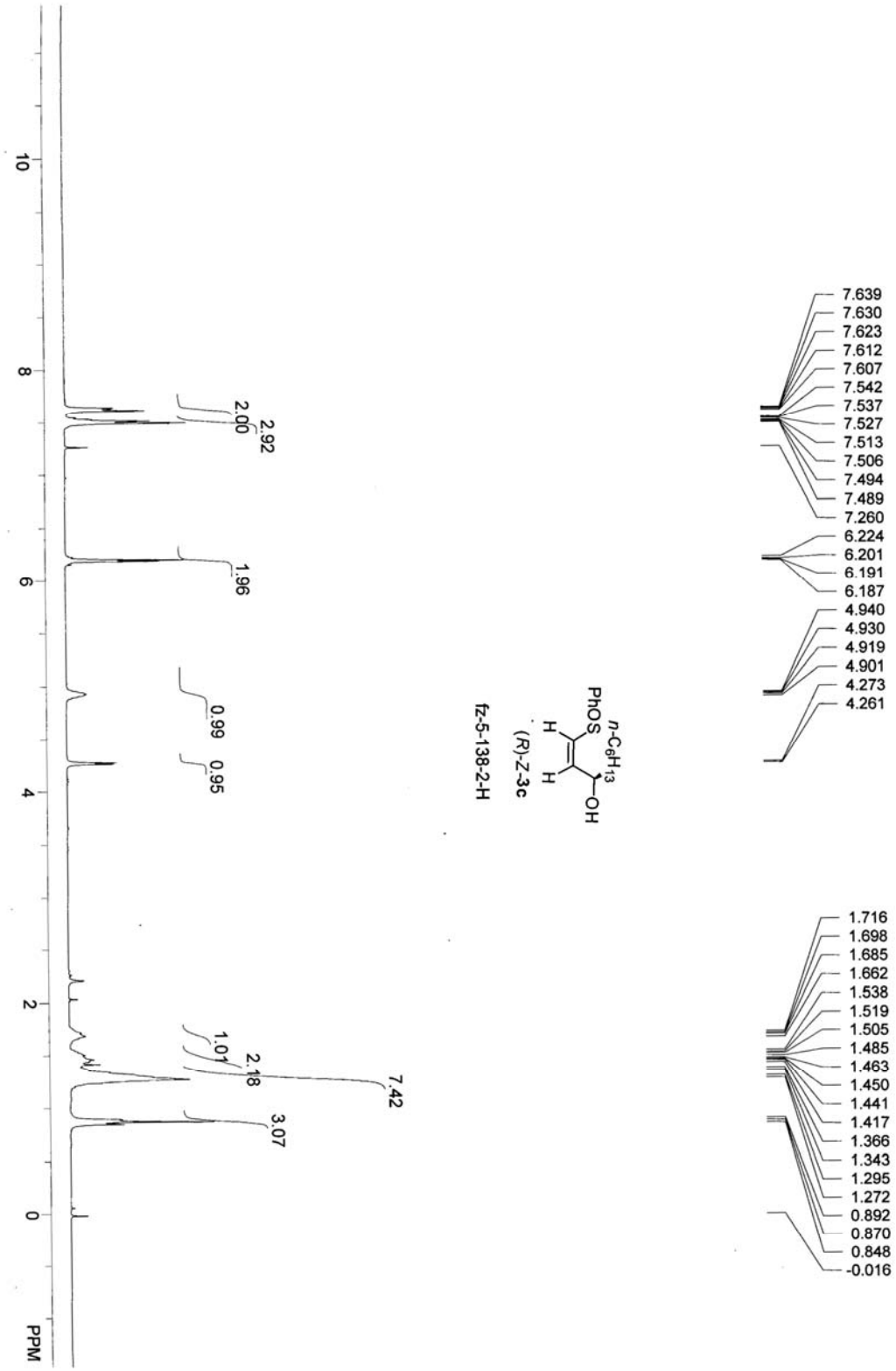

Signal 1: VWD1 A, Wavelength=254 nm

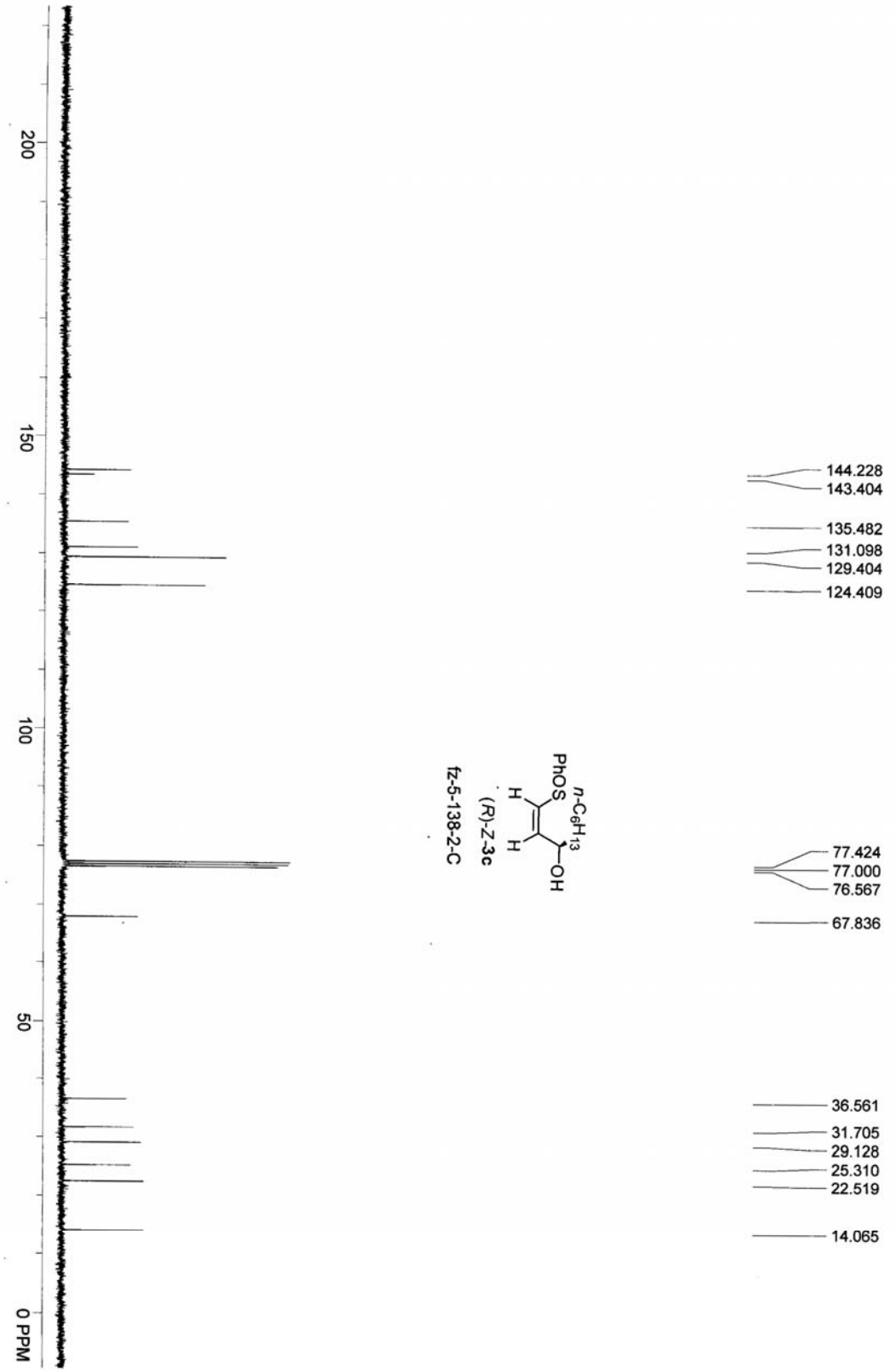
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  19.698 BP    0.3847   86.11472    3.34642   0.5620
   2  20.923 BB    0.5565 1.52356e4   419.24820  99.4380

Totals :                  1.53217e4   422.59462

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***
```

Instrument 1 3/1/2009 12:44:53 PM fz Page 1 of 1


7.639
7.630
7.623
7.612
7.607
7.542
7.537
7.527
7.513
7.506
7.494
7.489
7.260
6.224
6.201
6.191
6.187
4.940
4.930
4.919
4.901
4.273
4.261
1.716
1.698
1.685
1.662
1.538
1.519
1.505
1.485
1.463
1.450
1.441
1.417
1.366
1.343
1.295
1.272
0.892
0.870
0.848
-0.016
PhOS
n-C6H13
OH
H
H
(R)-Z-3c
fz-5-138-2-H
10
8
6
4
2
0
PPM
2.92
2.00
1.96
0.99
0.95
1.01
2.18
7.42
3.07



Data File D:\HPCHEM\1\DATA\FZ\FZ000126.D Sample Name: fz-5-135-2

OJ-H; hexane/i-PrOH=95:5; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 3/1/2009 12:47:39 PM
Sample Name     : fz-5-135-2                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 3/1/2009 10:34:17 AM by fz
                  (modified after loading)
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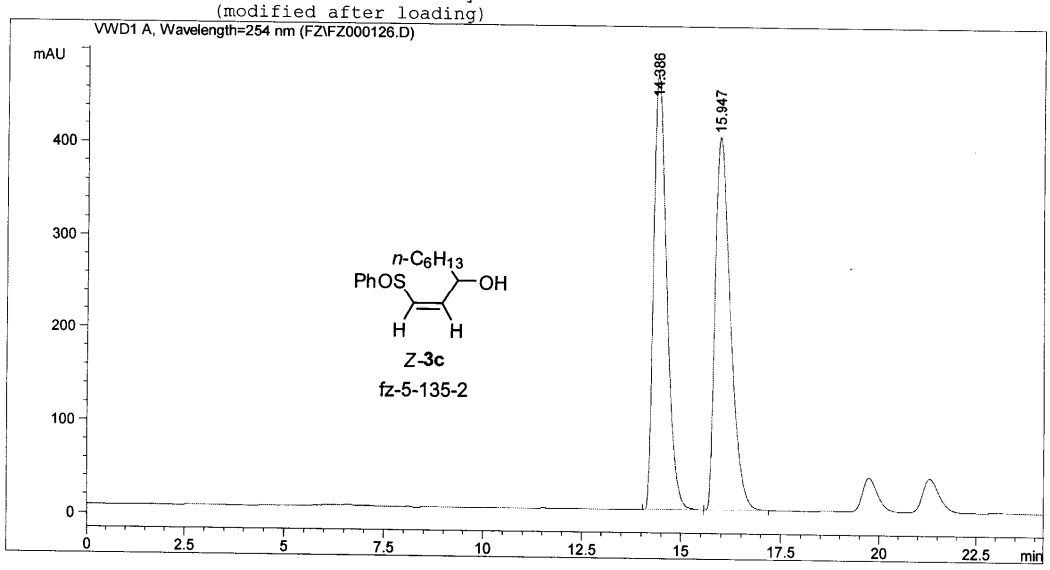


```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area       Height      Area
  #   [min]        [min]  mAU   *s   [mAU   ]       %
----|-------|----|-------|----------|----------|--------|
   1  14.386 PB    0.3508 1.07082e4   469.04782  50.0115
   2  15.947 BB    0.4077 1.07032e4   400.78946  49.9885

Totals :                 2.14114e4   869.83728

 Results obtained with enhanced integrator!
==========================================================================
                        *** End of Report ***
```

Instrument 1 3/1/2009 1:12:33 PM fz

Data File D:\HPCHEM\1\DATA\FZ\FZ000127.D Sample Name: fz-5-138-2

OJ-H; hexane/i-PrOH=95:5; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 3/1/2009 1:15:01 PM
Sample Name     : fz-5-138-2                    Location :   -
Acq. Operator   : fz
Acq. Method     : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 3/1/2009 10:34:17 AM by fz
                  (modified after loading)
Analysis Method : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 3/1/2009 2:39:31 PM by fz
                  (modified after loading)
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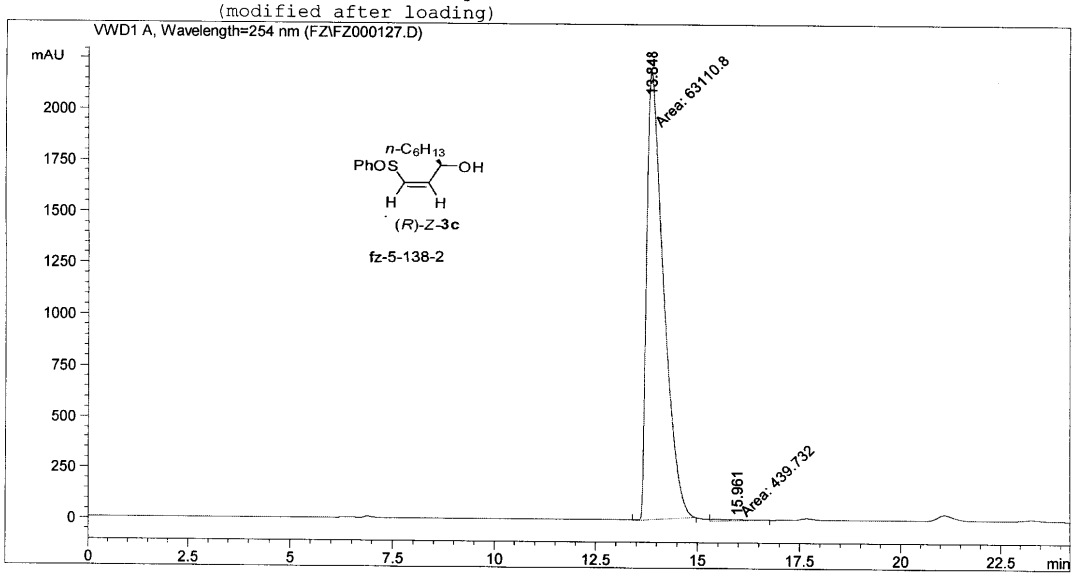



```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs

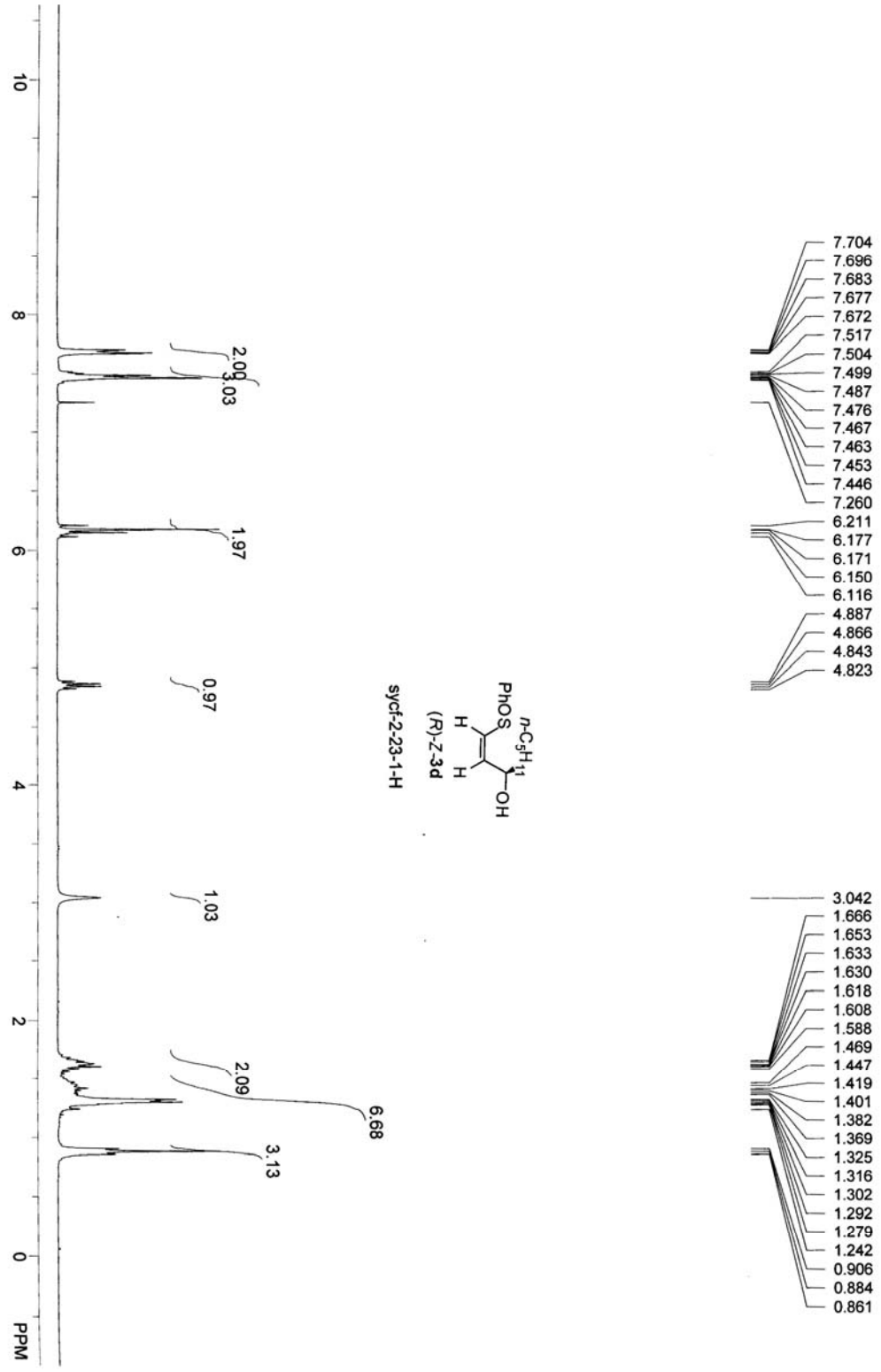

Signal 1: VWD1 A, Wavelength=254 nm

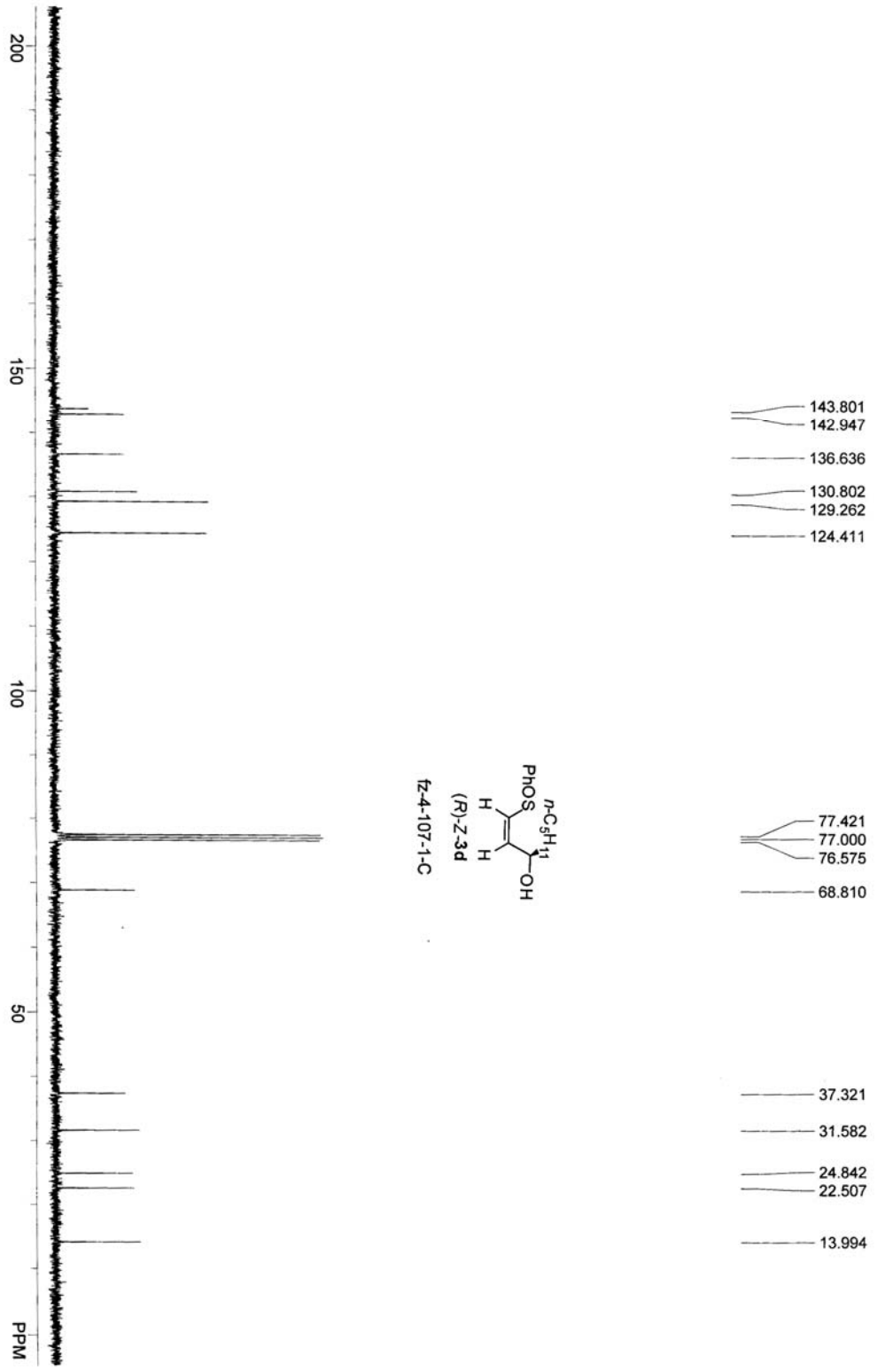
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s    [mAU   ]     %
----|-------|----|-------|----------|----------|--------|
   1  13.848 MM    0.4815 6.31108e4  2184.57861  99.3081
   2  15.961 MM    0.7864  439.73233    7.10781   0.6919

Totals :                  6.35505e4  2191.68643

 Results obtained with enhanced integrator!
==========================================================================
                        *** End of Report ***
```

Instrument 1 3/1/2009 2:41:32 PM fz

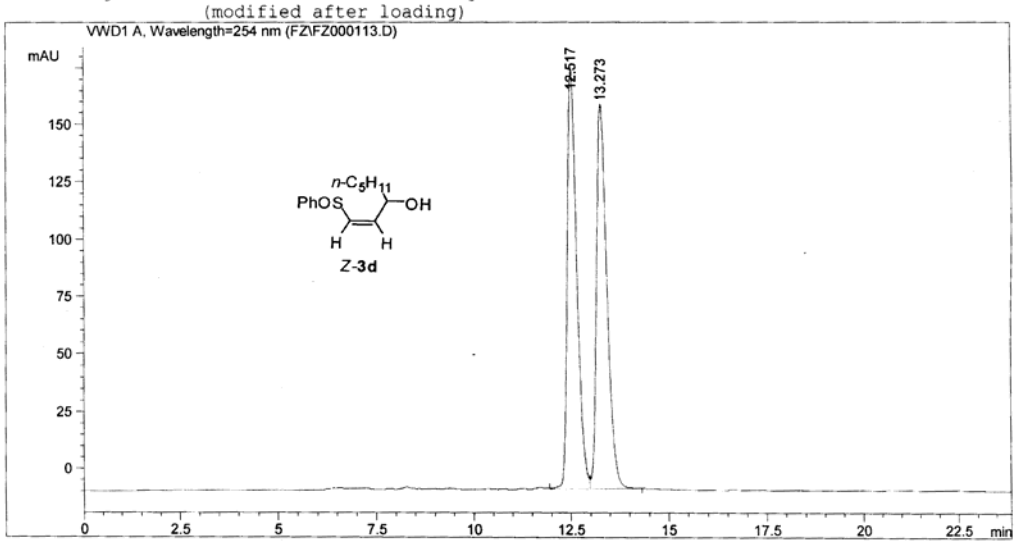




Data File D:\HPCHEM\1\DATA\FZ\FZ000113.D Sample Name: fz-4-106-1

OJ-H column; Hexane:iPrOH = 90:10; 0.5ml/min; 254nm

```
==========================================================================
Injection Date  : 12/20/2008 12:43:46 PM
Sample Name     : fz-4-106-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\METHODS\XFX_LC.M
Last changed    : 12/20/2008 11:42:12 AM by fz
                  (modified after loading)
```




```
==========================================================================
                          Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  12.517 VV    0.2600 3133.24756  183.82214  50.1613
   2  13.273 VB    0.2838 3113.10132  167.52574  49.8387

Totals :                  6246.34888  351.34789

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***
```

Instrument 1 12/20/2008 1:53:45 PM fz Page 1 of 1

Data File D:\HPCHEM\1\DATA\FZ\FZ000114.D Sample Name: fz-4-107-1

OJ-H column; Hexane:iPrOH = 90:10; 0.5ml/min; 254nm

```
==========================================================================
Injection Date  : 12/20/2008 1:10:06 PM
Sample Name     : fz-4-107-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\METHODS\XFX_LC.M
Last changed    : 12/20/2008 11:42:12 AM by fz
                  (modified after loading)
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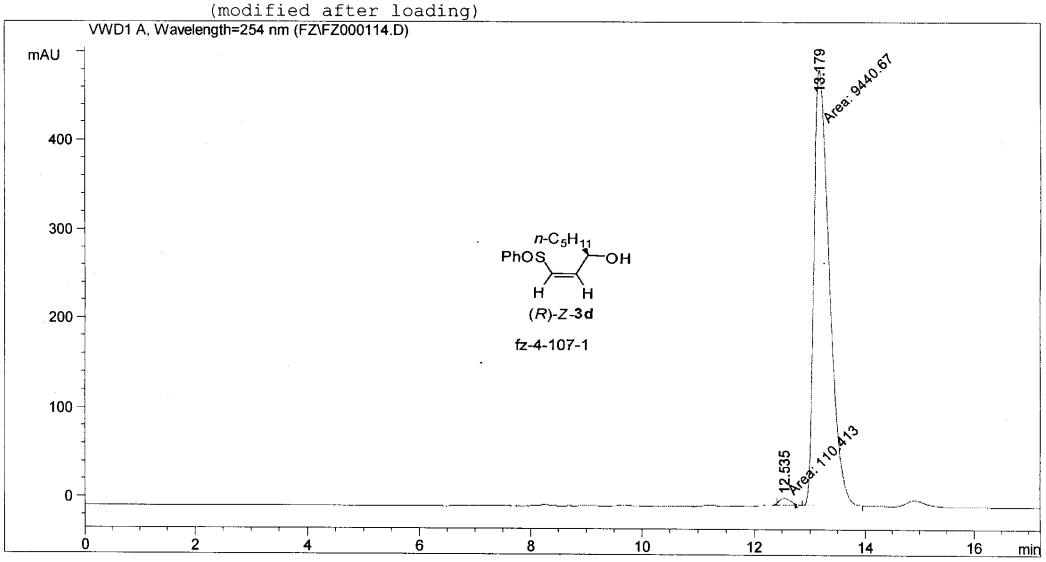
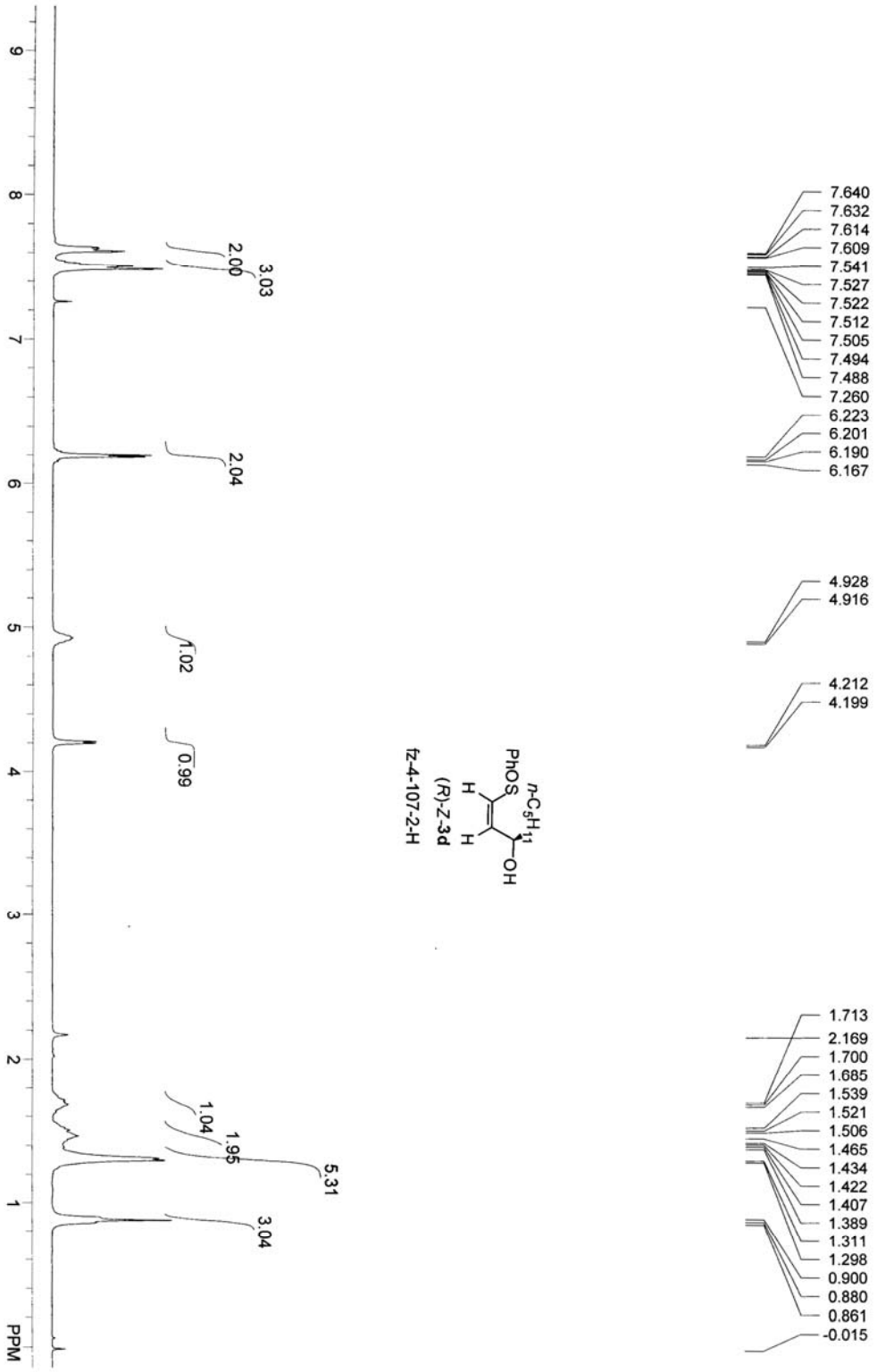
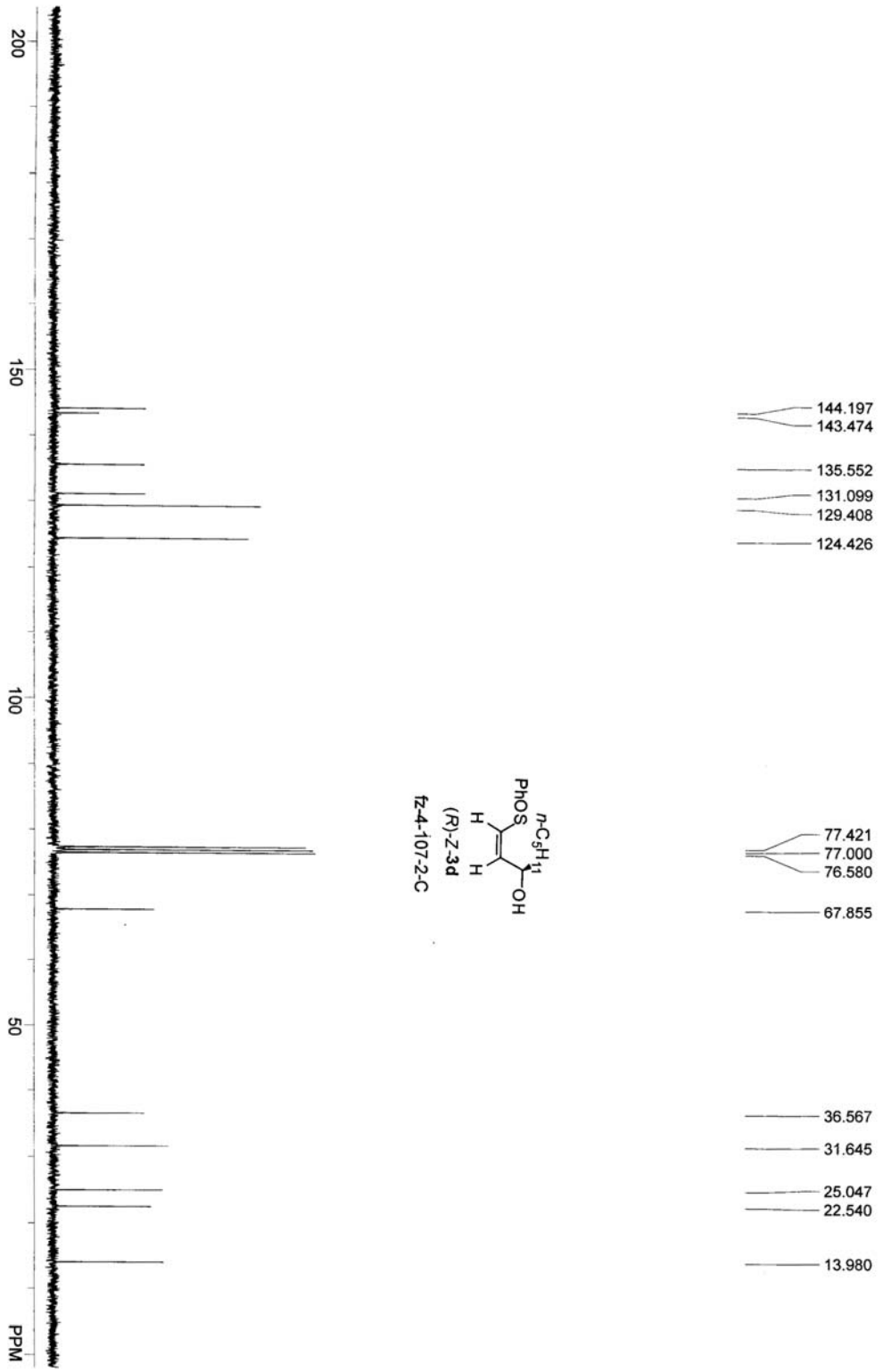



```
==========================================================================
                          Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  12.535 MM    0.2250  110.41331    8.17980   1.1560
   2  13.179 MM    0.3221 9440.66602  488.53577  98.8440

Totals :                  9551.07933  496.71556

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***
```

Instrument 1 12/20/2008 1:53:16 PM fz Page 1 of 1

ee% = 98.8440 - 1.1560
= 97.69%

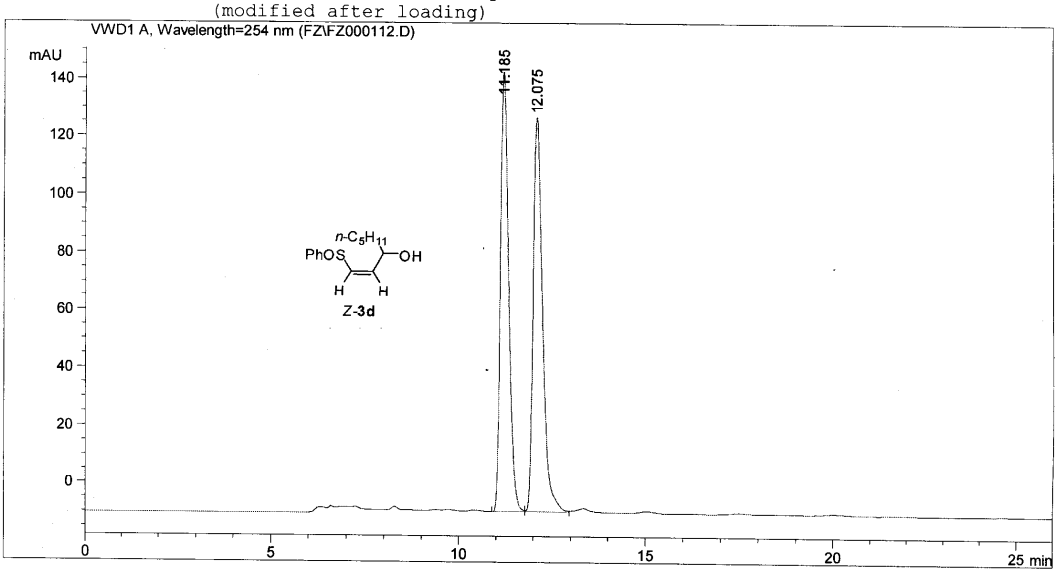




Data File D:\HPCHEM\1\DATA\FZ\FZ000112.D Sample Name: fz-4-106-2

OJ-H column; Hexane:iPrOH = 90:10; 0.5ml/min; 254nm

```
==========================================================================
Injection Date  : 12/20/2008 12:16:01 PM
Sample Name     : fz-4-106-2                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\METHODS\XFX_LC.M
Last changed    : 12/20/2008 11:42:12 AM by fz
                  (modified after loading)
```



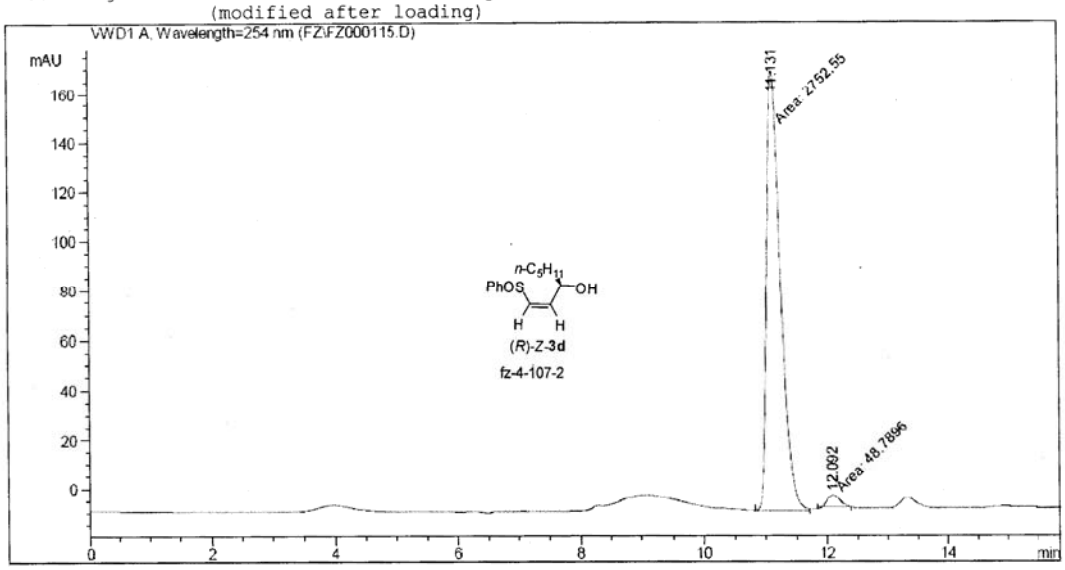

```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  11.185 BV    0.2348 2344.03174  152.35619  49.3969
   2  12.075 VB    0.2679 2401.27148  136.46500  50.6031

Totals :                  4745.30322  288.82118

 Results obtained with enhanced integrator!
==========================================================================
                        *** End of Report ***
```

Instrument 1 12/20/2008 1:54:07 PM fz

Data File D:\HPCHEM\1\DATA\FZ\FZ000115.D Sample Name: fz-4-107-2

OJ-H column; Hexane:iPrOH = 90:10; 0.5ml/min; 254nm

```
Injection Date  : 12/20/2008 1:30:29 PM
Sample Name     : fz-4-107-2                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\METHODS\XFX_LC.M
Last changed    : 12/20/2008 11:42:12 AM by fz
                  (modified after loading)
```



Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: VWD1 A, Wavelength=254 nm

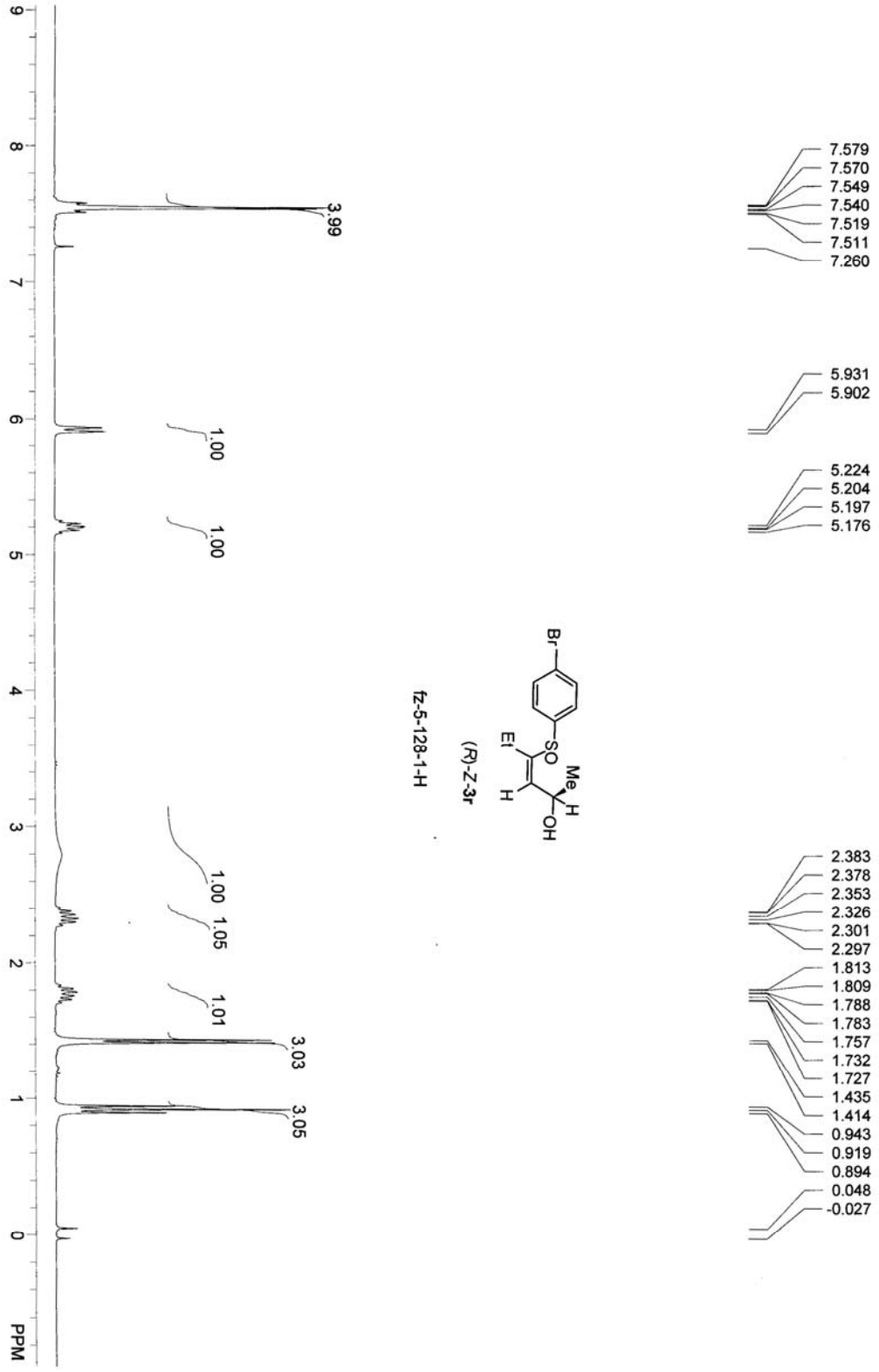
Peak #	RetTime [min]	Type	Width [min]	Area mAU *s	Height [mAU]	Area %
1	11.131	MM	0.2569	2752.55225	178.55991	98.2583
2	12.092	MM	0.1940	48.78958	4.19074	1.7417
Totals :				2801.34182	182.75065	

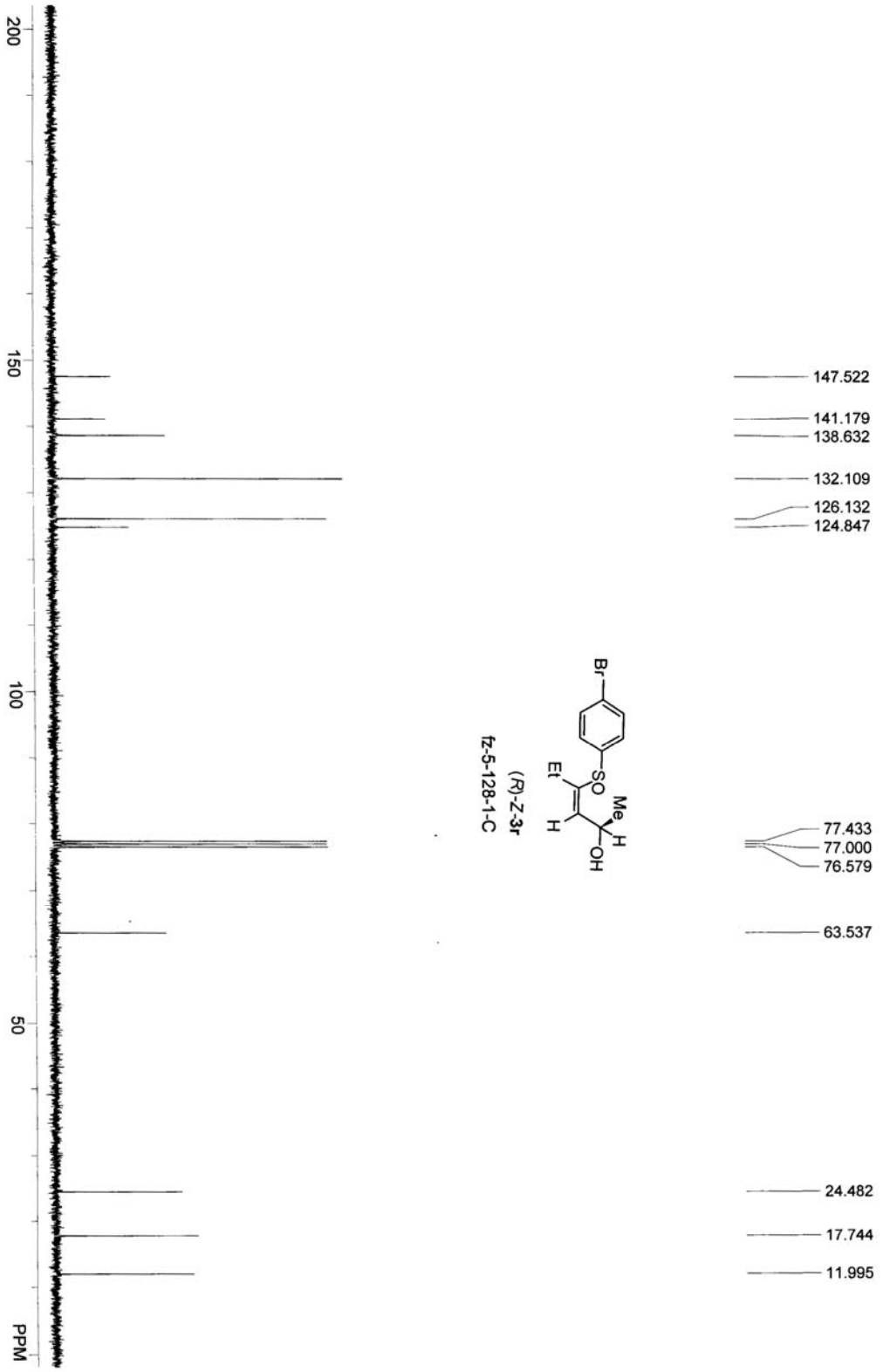
Results obtained with enhanced integrator!

*** End of Report ***

Instrument 1 12/20/2008 1:51:18 PM fz Page 1 of 1

ee% = 98.2583 - 1.7417
= 96.5%

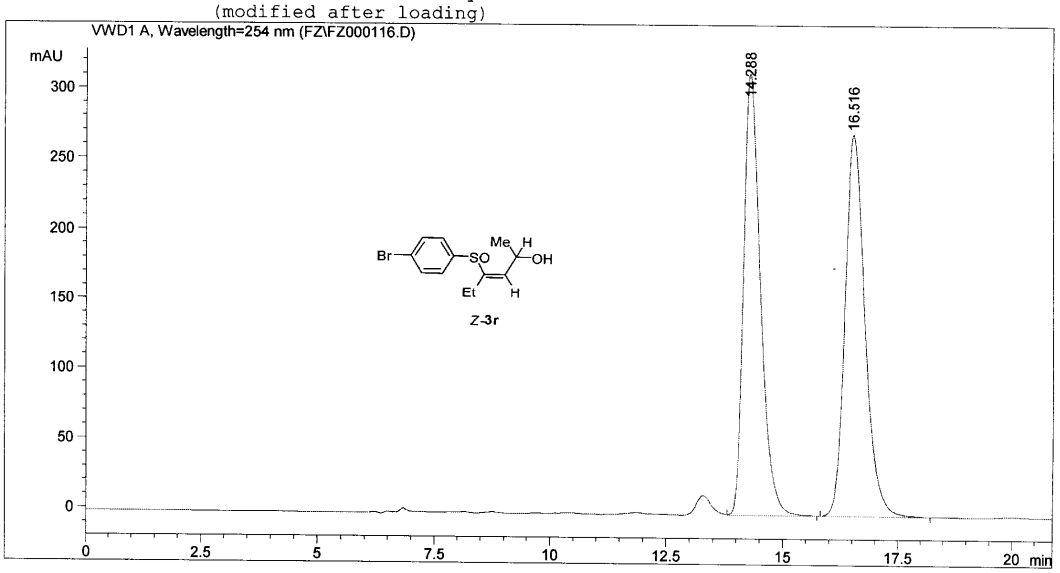



200
150
100
50
PPM
147.522
141.179
138.632
132.109
126.132
124.847
77.433
77.000
76.579
63.537
24.482
17.744
11.995
Br
SO
Et
H
Me
H
OH
(R)-Z-3r
fz-5-128-1-C

Data File D:\HPCHEM\1\DATA\FZ\FZ000116.D Sample Name: fz-5-119-1

OJ-H; hexane/i-PrOH=90:10; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 2/24/2009 10:15:12 AM
Sample Name     : fz-5-119-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 2/24/2009 9:56:29 AM by xfx
                  (modified after loading)
```



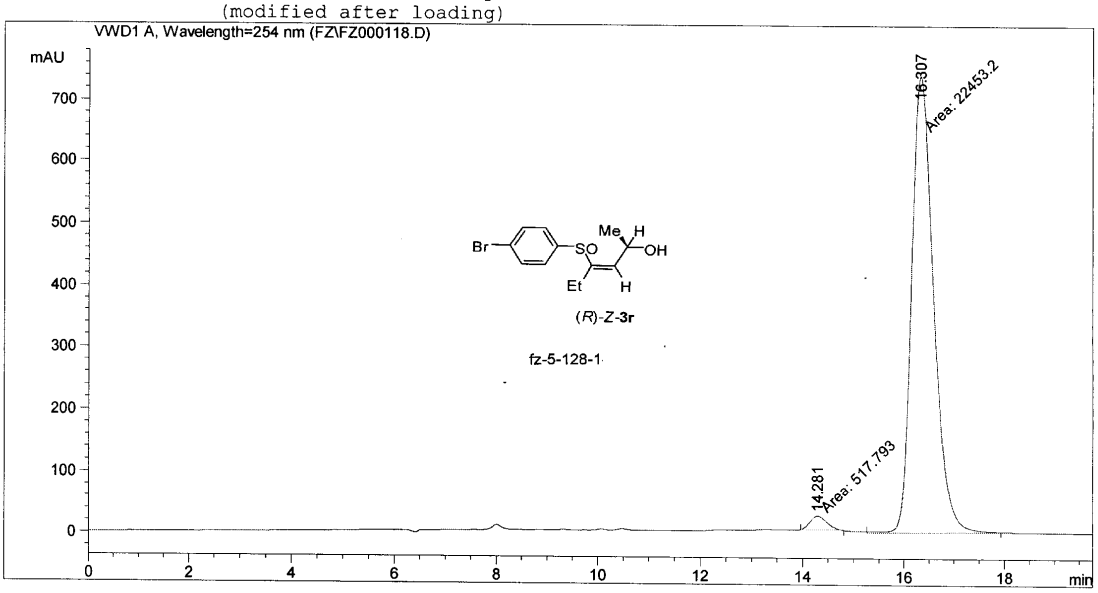

```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  14.288 VB    0.3864 7987.59619  314.68600  49.1776
   2  16.516 BB    0.4622 8254.73926  271.70612  50.8224

Totals :                  1.62423e4   586.39212

 Results obtained with enhanced integrator!
==========================================================================
                        *** End of Report ***
```

Instrument 1 2/24/2009 1:04:43 PM fz

Data File D:\HPCHEM\1\DATA\FZ\FZ000118.D Sample Name: fz-5-128-1

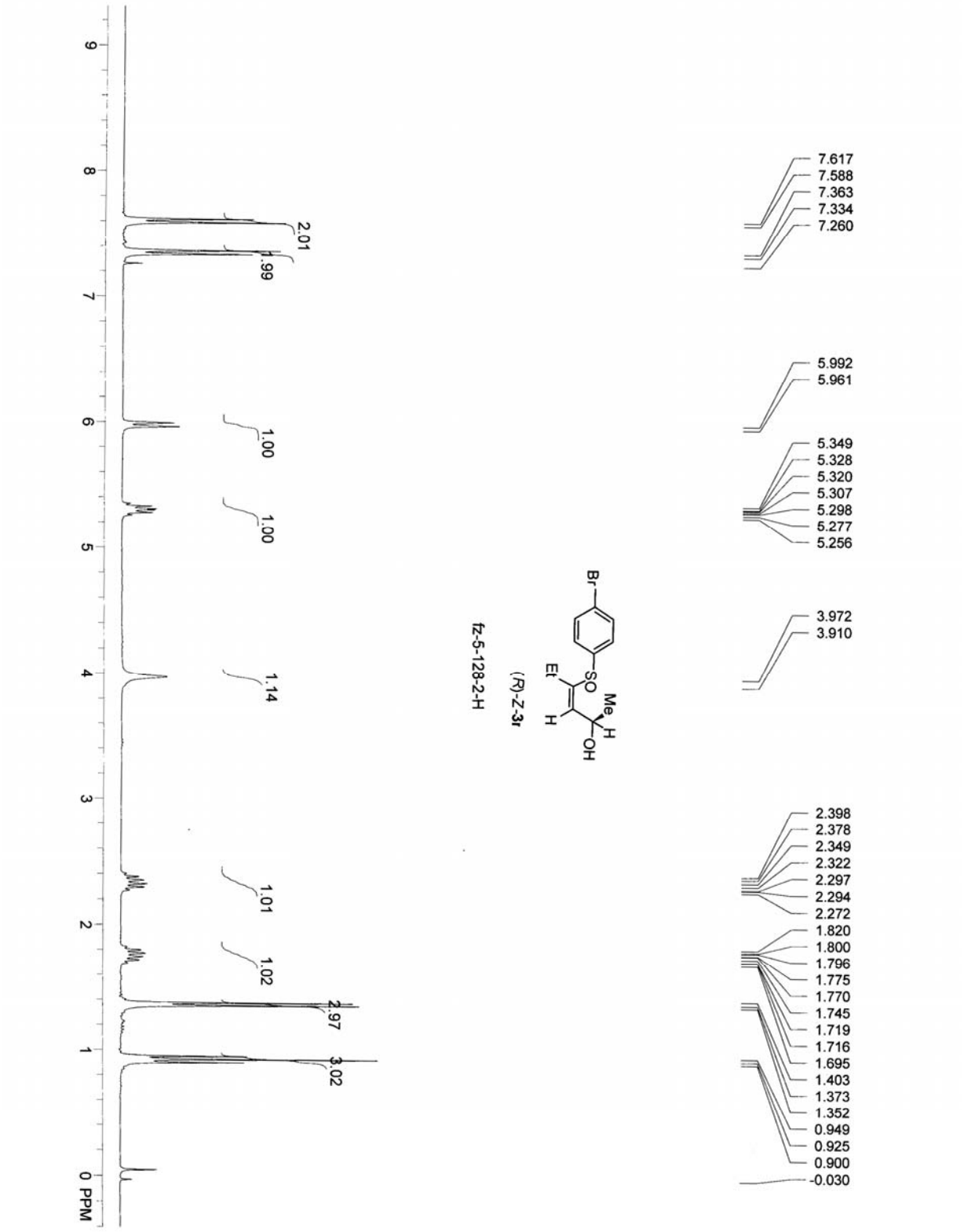
OJ-H; hexane/i-PrOH=90:10; 0.5 mL/min; 254nm

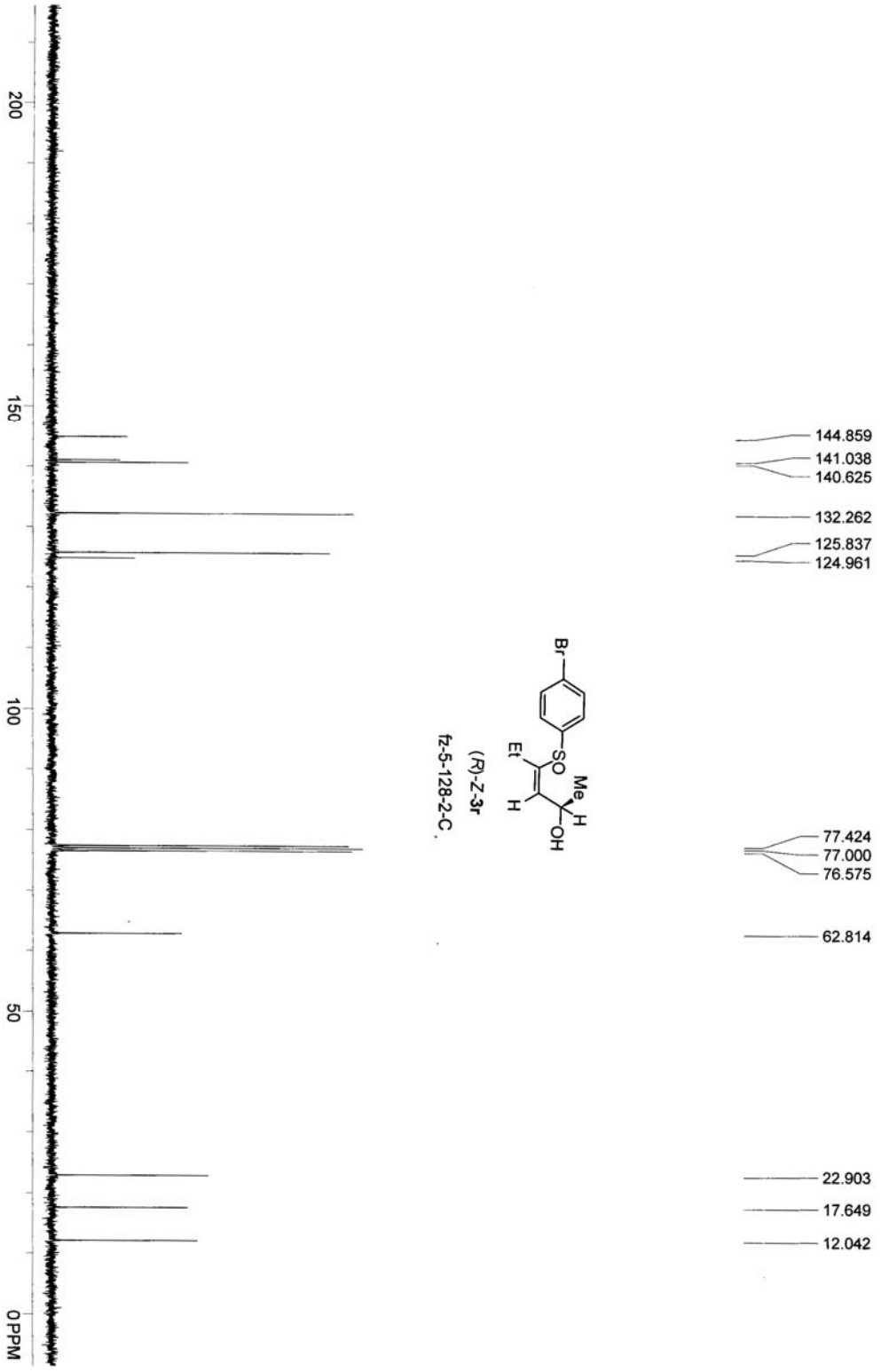
```
==========================================================================
Injection Date  : 2/24/2009 11:02:58 AM
Sample Name     : fz-5-128-1                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 2/24/2009 9:56:29 AM by xfx
                  (modified after loading)
```




```
==========================================================================
                          Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  14.281 MM    0.3826  517.79327   22.55390   2.2541
   2  16.307 MM    0.5078 2.24532e4   736.90546  97.7459

Totals :                  2.29709e4   759.45935

 Results obtained with enhanced integrator!
==========================================================================
                          *** End of Report ***
```

ee: 97.7459 - 2.2541 = 95.49%

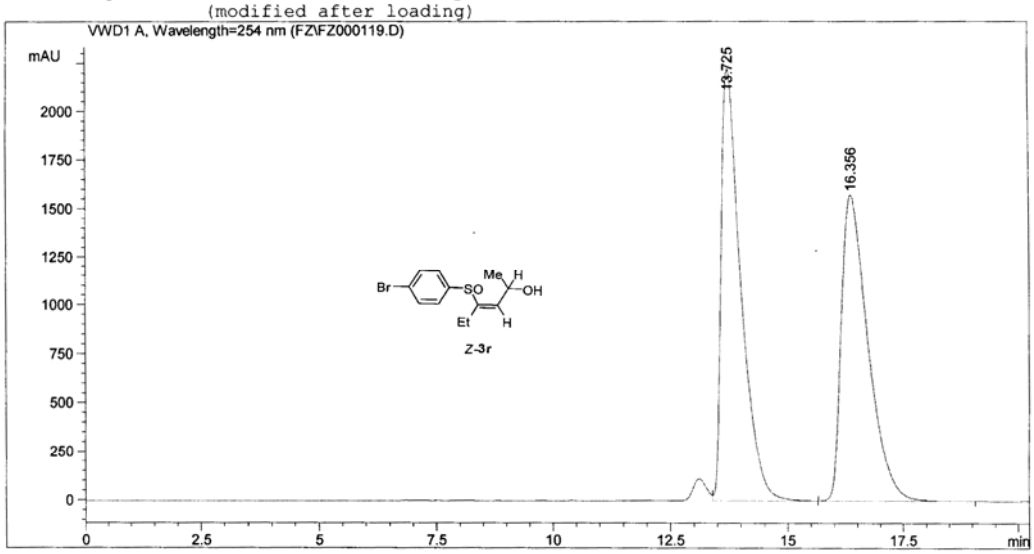




Data File D:\HPCHEM\1\DATA\FZ\FZ000119.D Sample Name: fz-5-119-2

OJ-H; hexane/i-PrOH=90:10; 0.5 mL/min; 254nm

```
==========================================================================
Injection Date  : 2/24/2009 12:13:00 PM
Sample Name     : fz-5-119-2                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 2/24/2009 9:56:29 AM by xfx
                  (modified after loading)
```

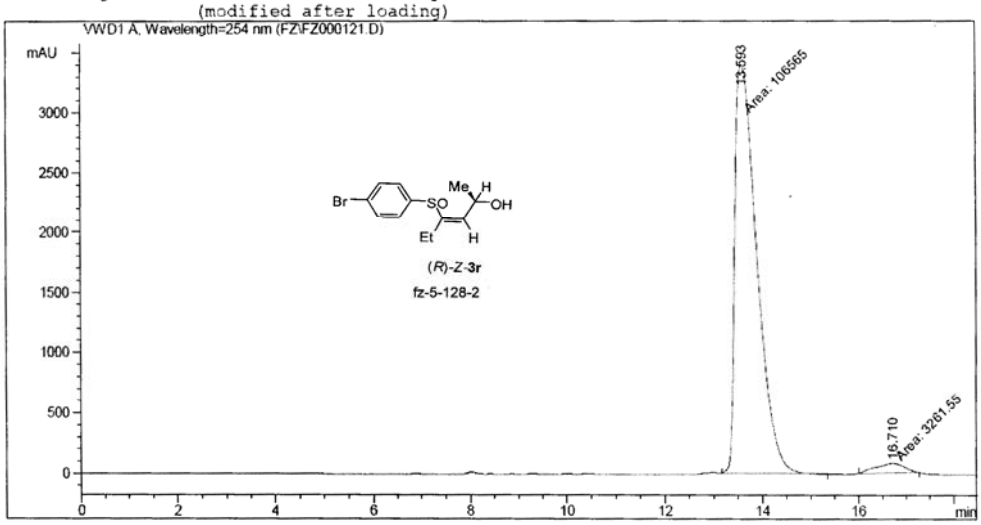



```
==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  13.725 VB    0.4319 6.48742e4  2224.86621  50.6855
   2  16.356 BB    0.6061 6.31193e4  1574.22498  49.3145

Totals :                  1.27994e5  3799.09119

 Results obtained with enhanced integrator!
==========================================================================
                        *** End of Report ***
```

Data File D:\HPCHEM\1\DATA\FZ\FZ000121.D Sample Name: fz-5-128-2

OJ-H; hexane/i-PrOH=90:10; 0.5 mL/min; 254nm

```
Injection Date  : 2/24/2009 1:00:52 PM
Sample Name     : fz-5-128-2                    Location :   -
Acq. Operator   : fz
Method          : D:\HPCHEM\1\DATA\LJ\LJ000012.D\DEF_XFX.M
Last changed    : 2/24/2009 9:56:29 AM by xfx
                  (modified after loading)
```



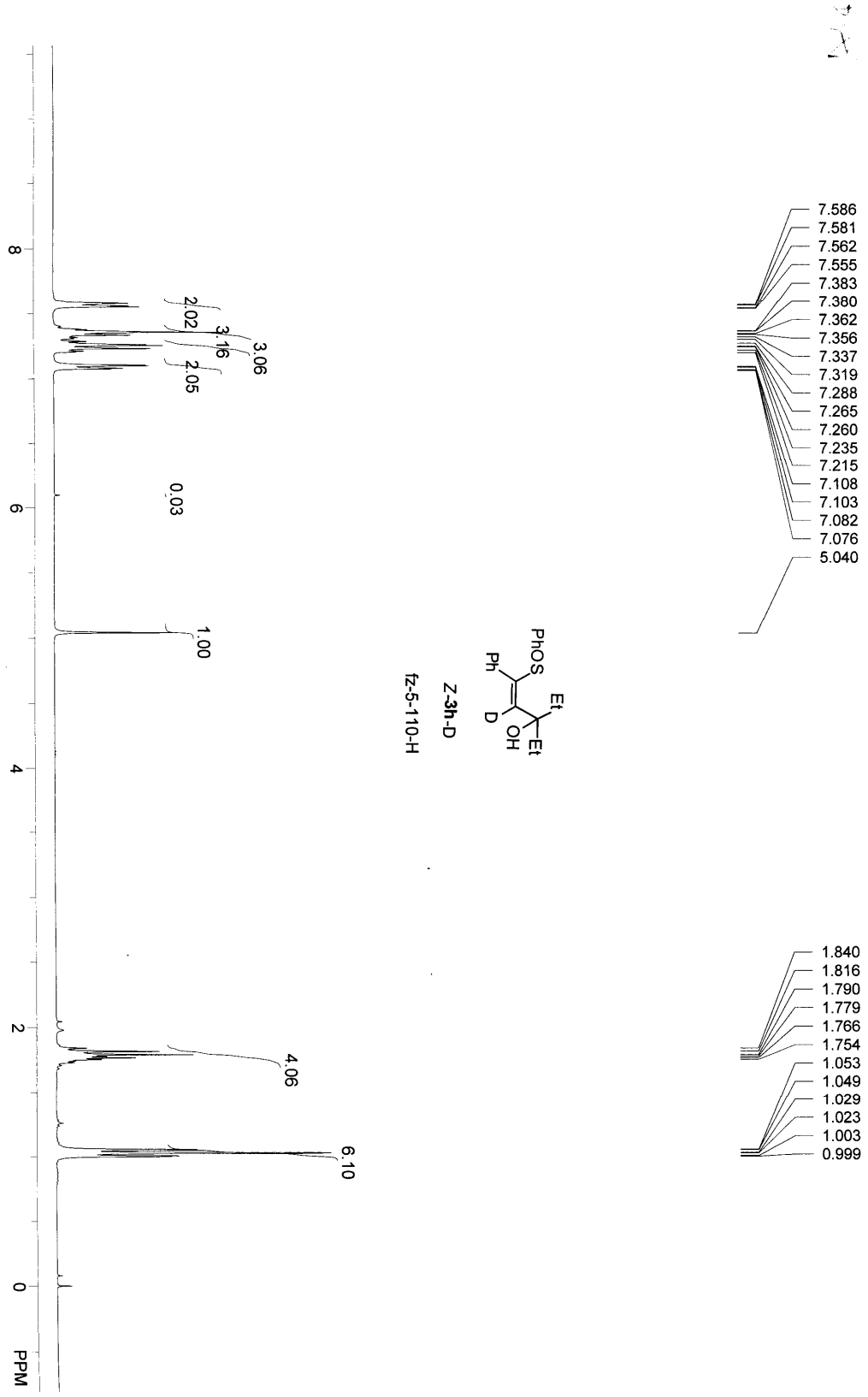
Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=254 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  mAU   *s   [mAU   ]      %
----|-------|----|-------|----------|----------|--------|
   1  13.593 MM    0.5230 1.06565e5  3396.19458  97.0303
   2  16.710 MM    0.6987 3261.54688   77.79647   2.9697

Totals :                 1.09826e5  3473.99105

 Results obtained with enhanced integrator!
```

*** End of Report ***

ee: 97.03 - 2.97 = 94.1

Instrument 1 2/24/2009 1:21:05 PM fz Page 1 of 1


7.586
7.581
7.562
7.555
7.383
7.380
7.362
7.356
7.337
7.319
7.288
7.265
7.260
7.235
7.215
7.108
7.103
7.082
7.076
5.040
1.840
1.816
1.790
1.779
1.766
1.754
1.053
1.049
1.029
1.023
1.003
0.999
PhOS
Ph
Et
D
OH
Et
Z-3h-D
fz-5-110-H
8
6
4
2
0
PPM
2.02
3.16
3.06
2.05
0.03
1.00
4.06
6.10