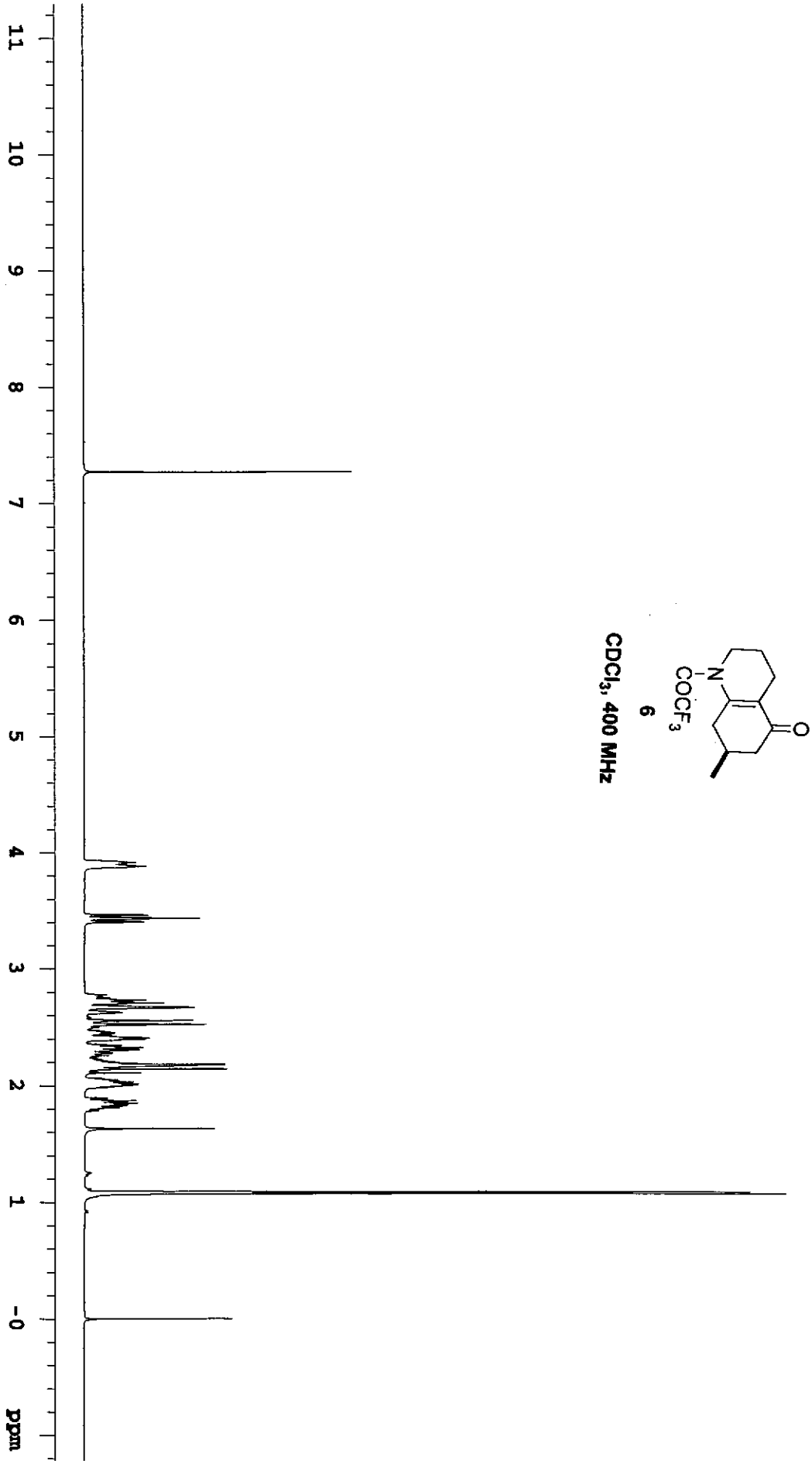
$Mn(OAc)_3$-BASED α'-OXIDATIVE ACETOXYLATION OF *N*-TRIFLUOROACETYL VINYLOGOUS AMIDES

Hong-Yu Lin and Barry B. Snider*

Department of Chemistry MS 015, Brandeis University, 415 South Street, Waltham, Massachusetts 02454-9110, USA; E-mail: snider@brandeis.edu

Supporting Material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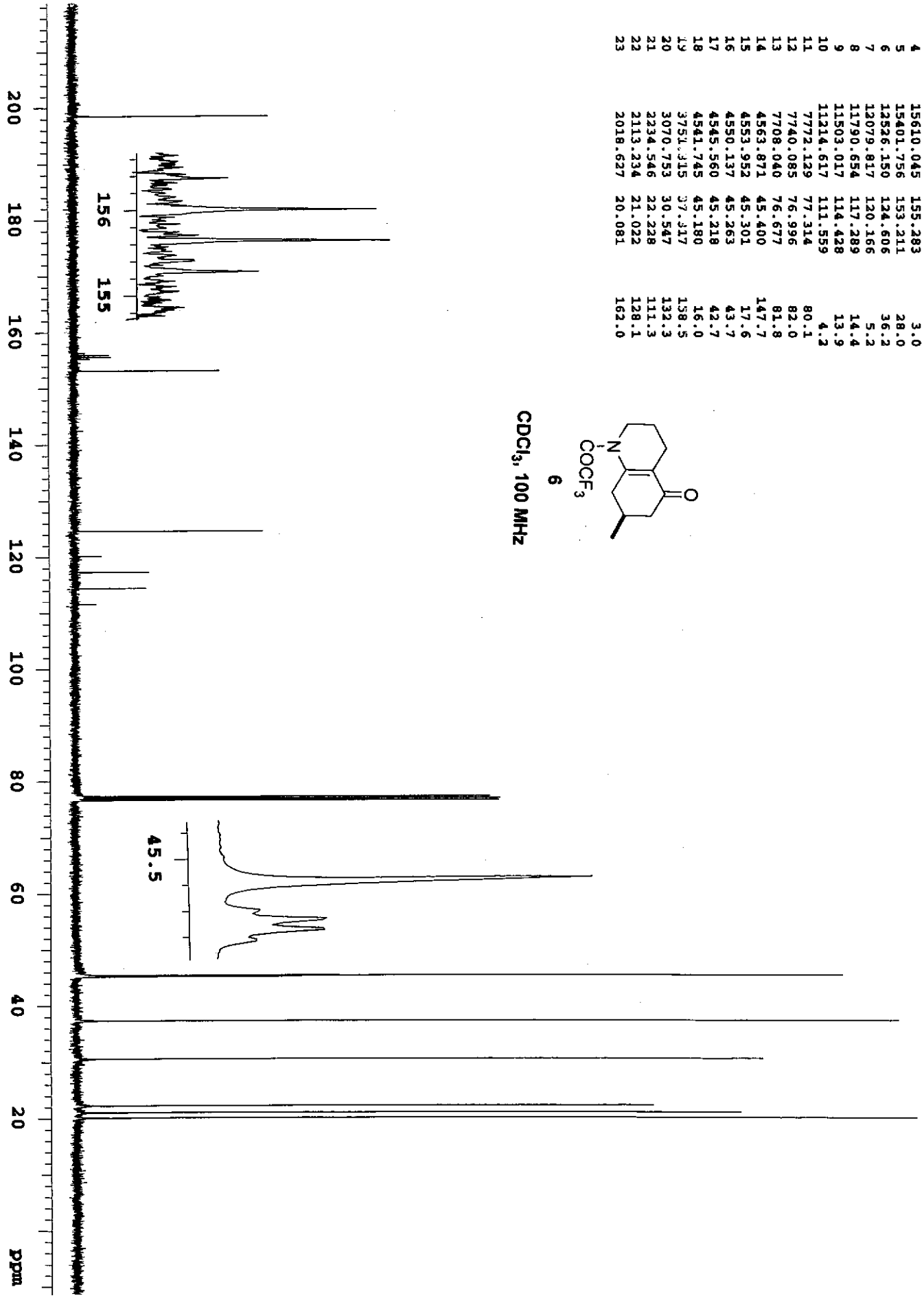
O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5 15401.756 153.211 28.0
6 12526.150 124.606 36.2
7 12079.817 120.166 5.2
8 11790.654 117.289 14.4
9 11503.017 114.428 13.9
10 11214.617 111.559 4.2
11 7772.129 77.314 80.1
12 7740.085 76.996 82.0
13 7708.040 76.677 81.8
14 4563.871 45.400 147.7
15 4553.952 45.301 17.6
16 4550.137 45.263 43.7
17 4545.560 45.218 42.7
18 4541.745 45.180 16.0
19 3751.315 37.317 158.5
20 3070.753 30.547 132.3
21 2234.546 22.228 111.3
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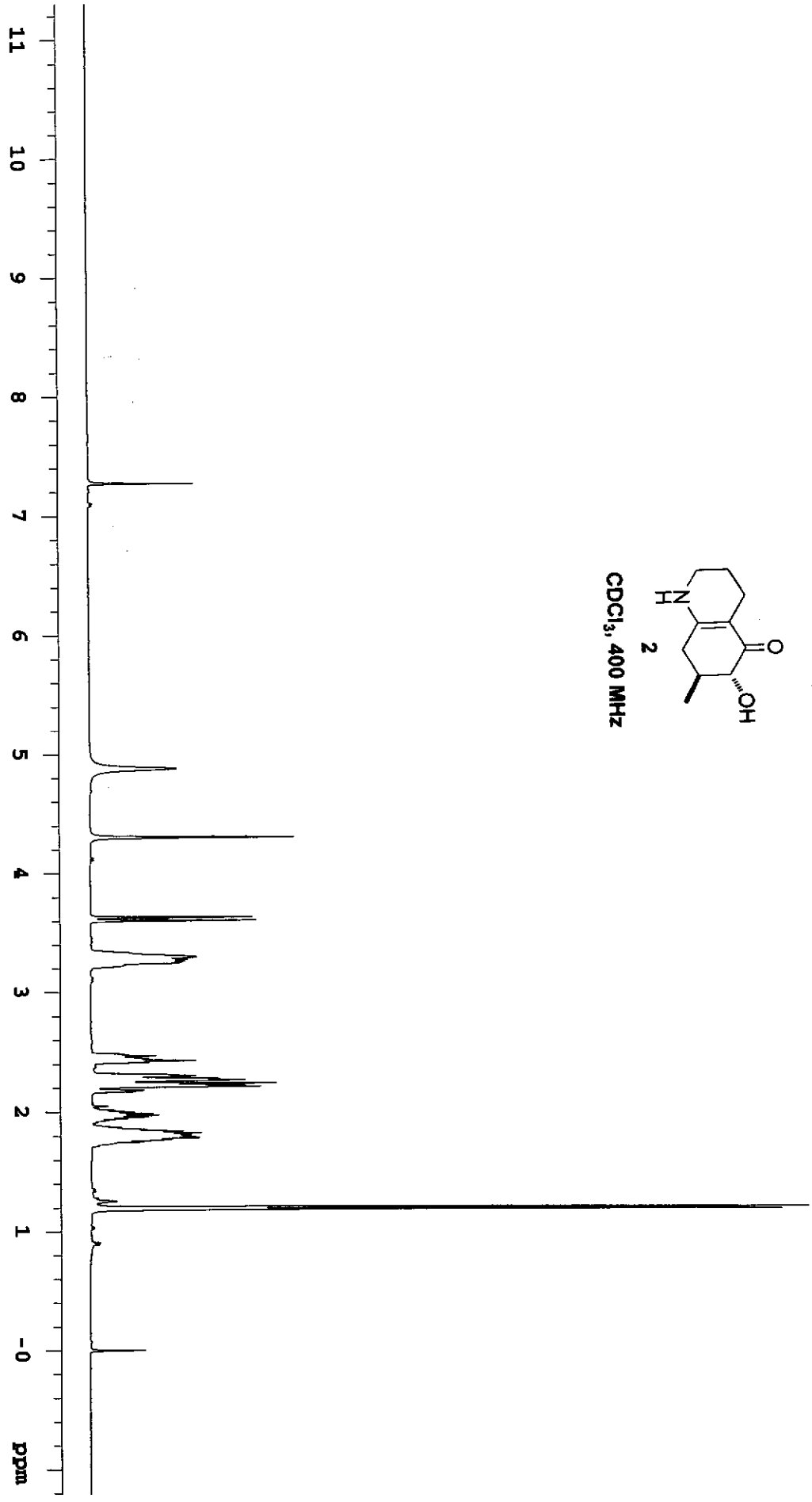
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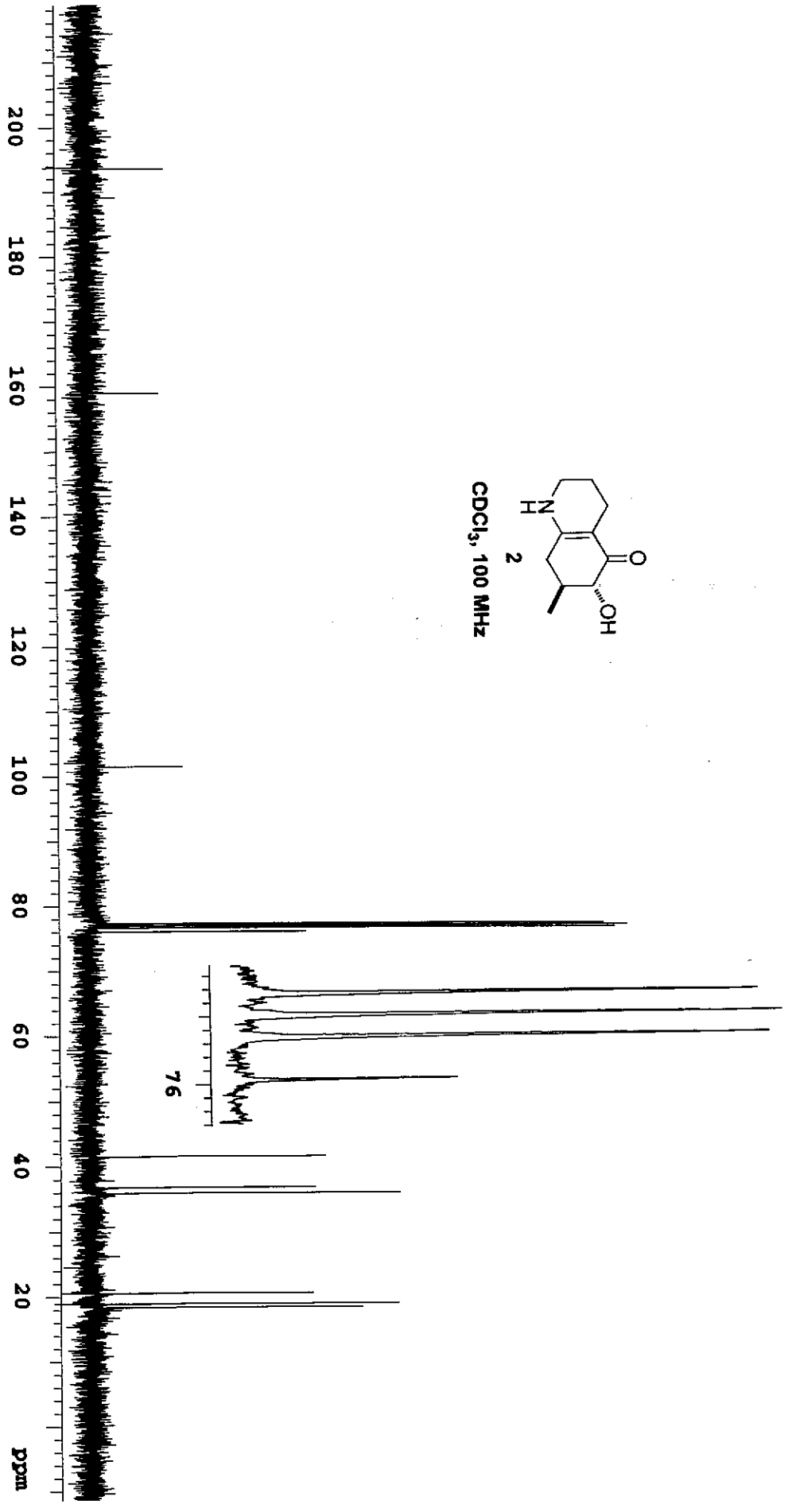

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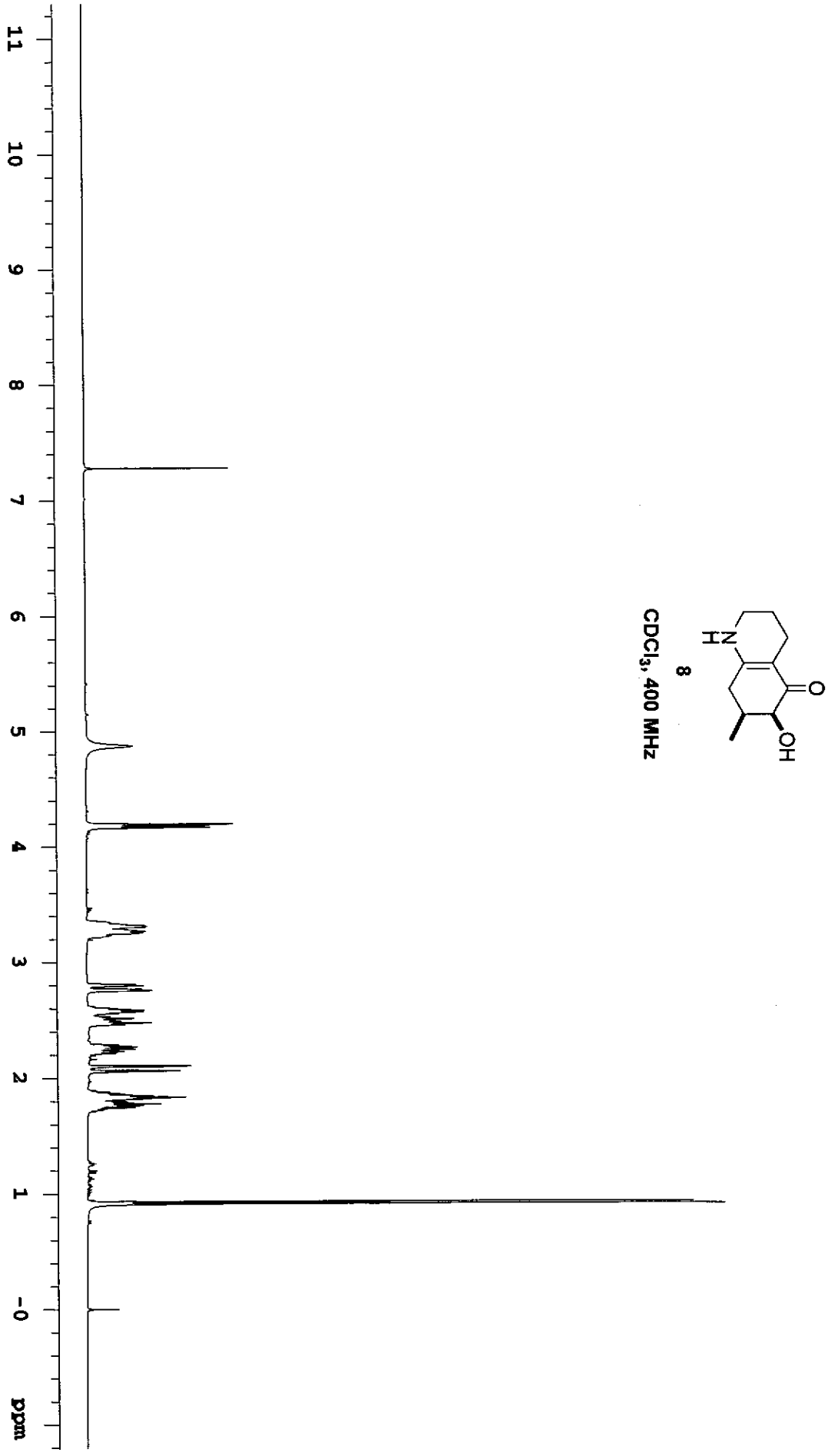
2	15973.650	158.900	11.9
3	10201.074	101.477	15.9
4	7772.564	77.319	86.0
5	7740.519	77.000	90.0
6	7708.475	76.681	87.9
7	7645.149	76.051	36.4
8	4175.957	41.541	39.5
9	3696.817	36.775	37.8
10	3609.839	35.909	52.0
11	2065.602	20.548	37.4
12	1902.328	18.924	51.7
13	1846.632	18.370	45.7

2

$CDCl_3$, 100 MHz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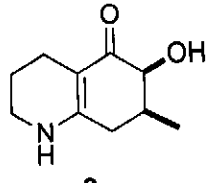
ppm
CDCl3, 400 MHz
8
H
N
O
OH

INDEX	FREQUENCY	PPM	HEIGHT
1	19311.940	192.108	16.0
2	15781.712	156.991	19.1
3	10163.254	101.101	20.1
4	7771.366	77.307	118.6
5	7740.085	76.996	119.0
6	7708.040	76.677	120.0
7	7352.500	73.140	67.8
8	4174.760	41.529	61.0
9	3507.167	34.888	70.2
10	3349.234	33.317	73.9
11	2070.509	20.597	63.0
12	1871.375	18.616	78.1
13	1164.872	11.588	54.0



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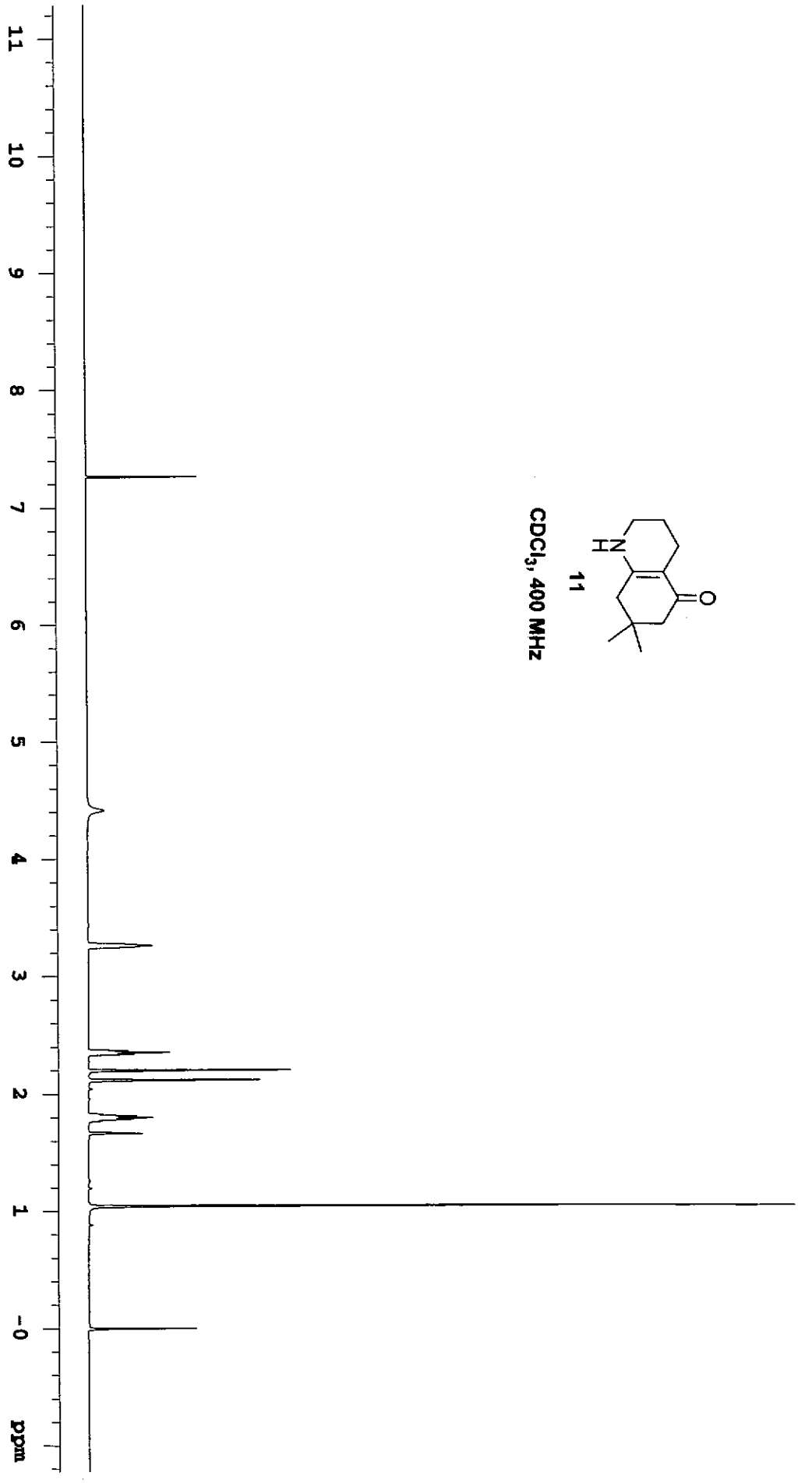
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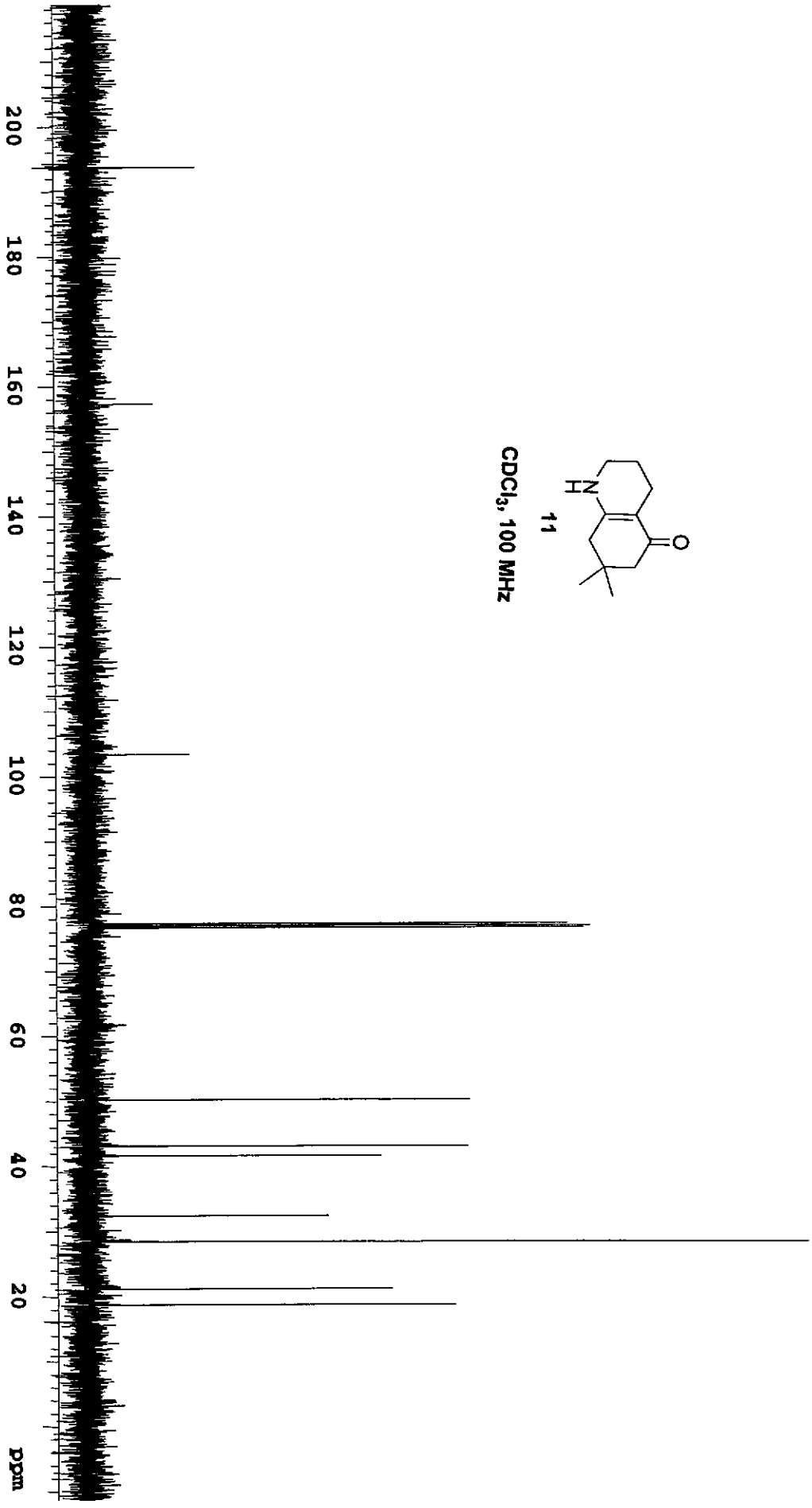

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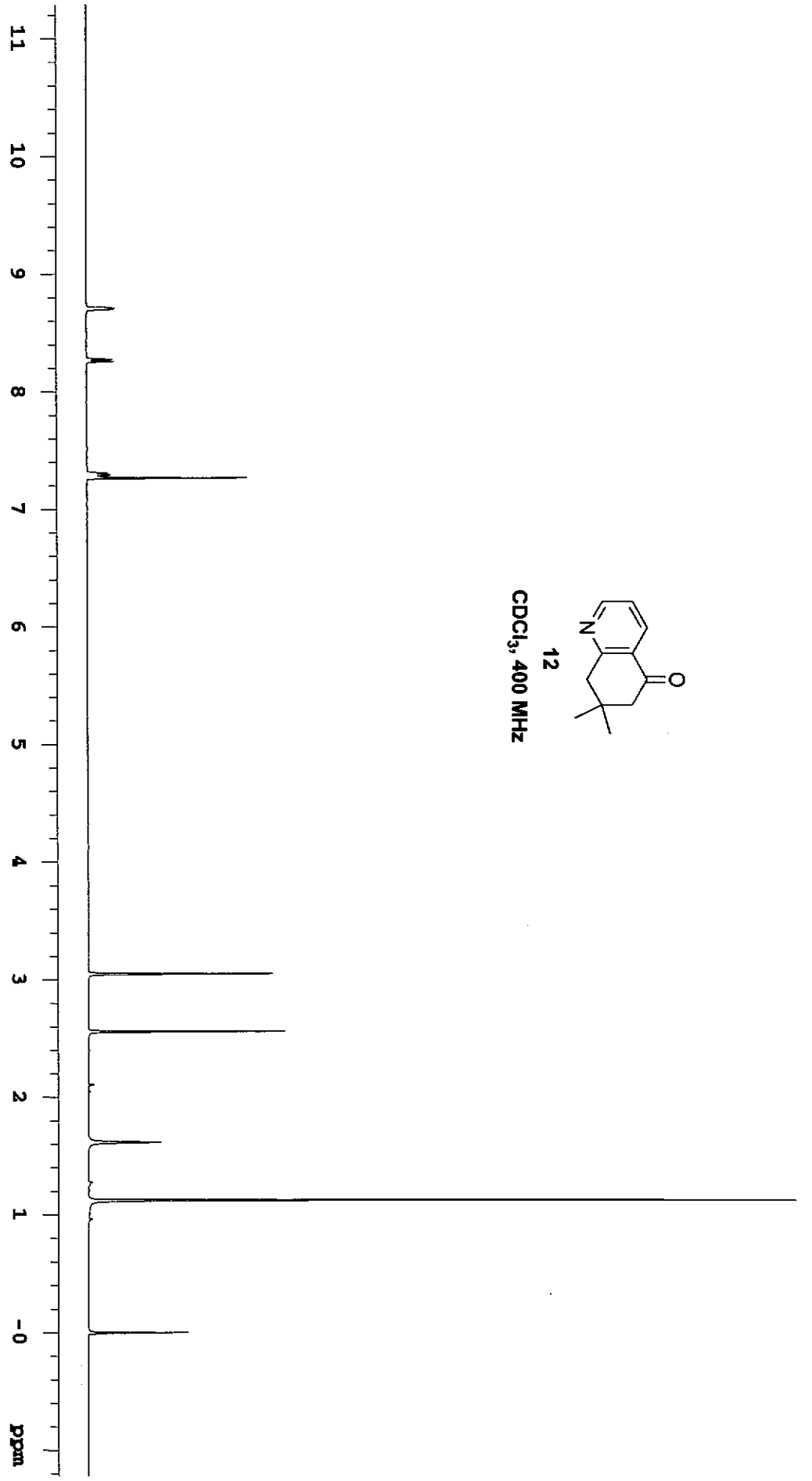
2	15808.415	157.257	11.4
3	10392.143	103.377	17.3
4	7772.129	77.314	80.5
5	7740.084	76.996	84.2
6	7708.040	76.677	83.1
7	5045.300	50.189	64.0
8	4329.641	43.070	63.8
9	4181.626	41.597	49.3
10	3252.338	32.353	40.5
11	2853.308	28.384	120.0
12	2122.390	21.113	51.2
13	1879.005	18.692	61.8

11

$CDCl_3$, 100 MHz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ppm
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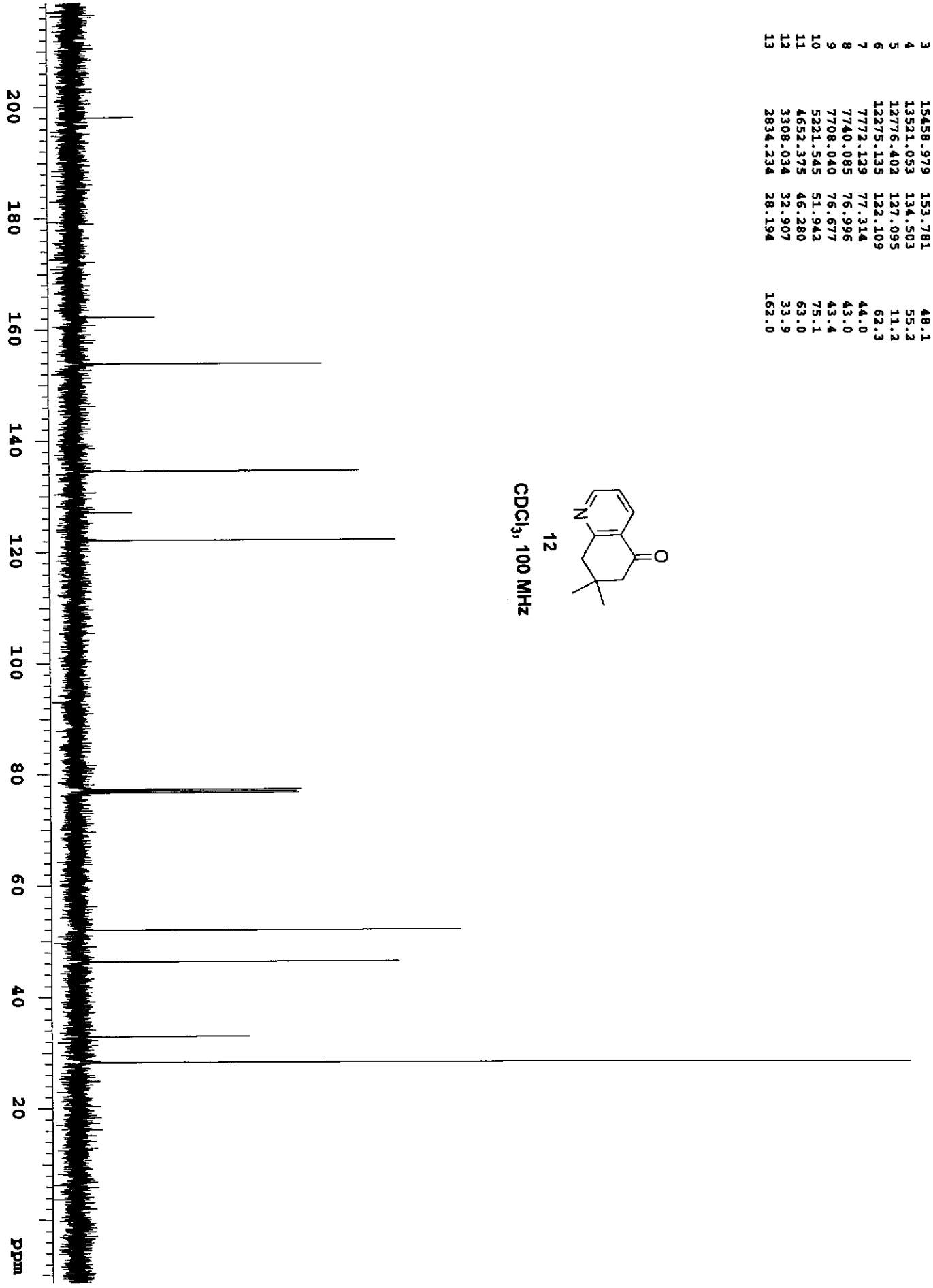
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3 15458.979 153.781 48.1
4 13521.053 134.503 55.2
5 12776.402 127.095 11.2
6 12275.135 122.109 62.3
7 7772.129 77.314 44.0
8 7740.085 76.996 43.0
9 7708.040 76.677 43.4
10 5221.545 51.942 75.1
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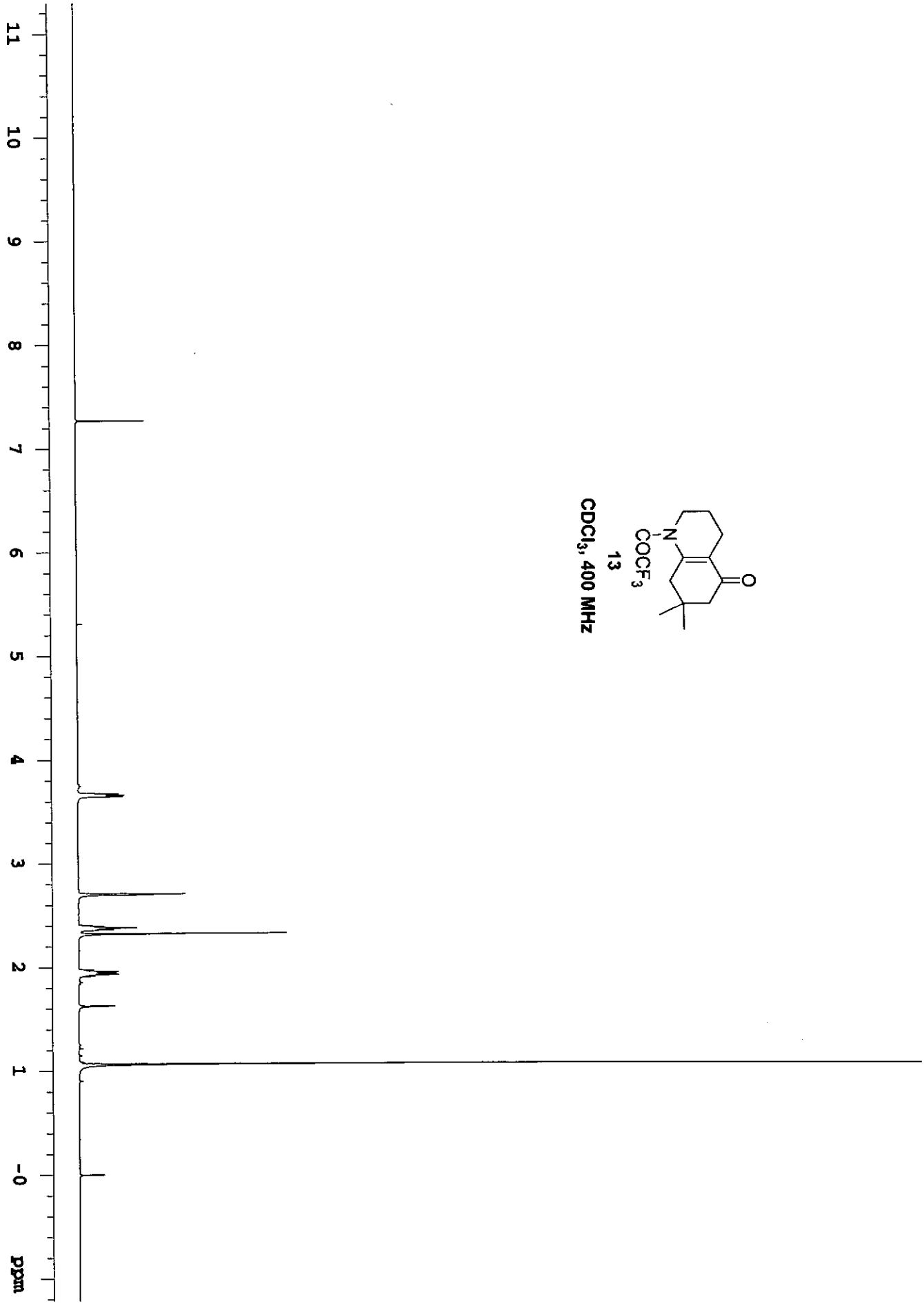
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ppm
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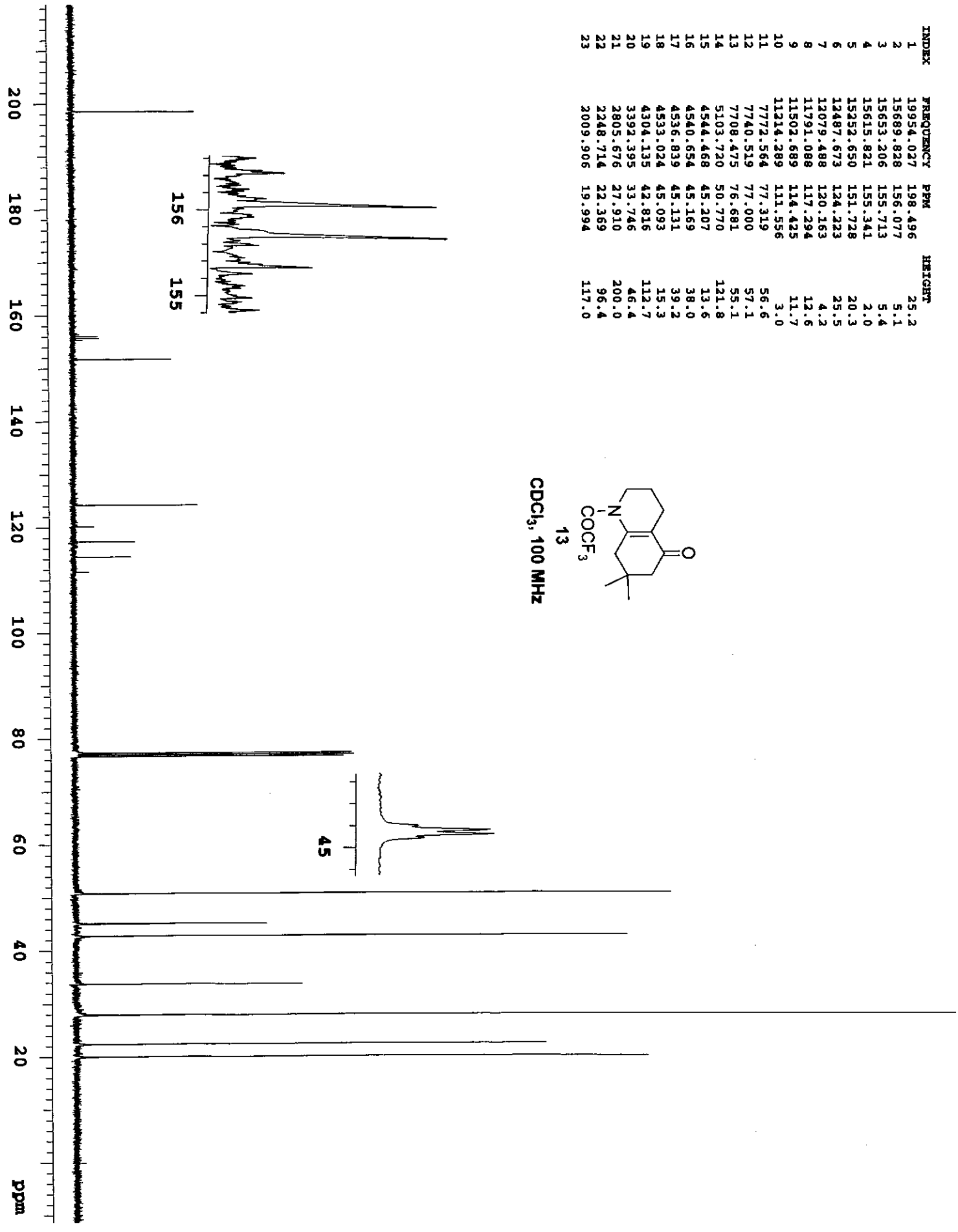
COCF3
N
O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5 15352.650 151.728 20.3
6 12487.673 124.223 25.5
7 12079.488 120.163 4.2
8 11791.088 117.294 12.6
9 11502.689 114.425 11.7
10 11214.289 111.556 3.0
11 7772.564 77.319 56.6
12 7740.519 77.000 57.1
13 7708.475 76.681 55.1
14 5103.720 50.770 121.8
15 4544.468 45.207 13.6
16 4540.654 45.169 38.0
17 4536.839 45.131 39.2
18 4533.024 45.093 15.3
19 4304.135 42.816 112.7
20 3392.395 33.746 46.4
21 2805.676 27.910 200.0
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N
COCF3
O
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45
200
180
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140
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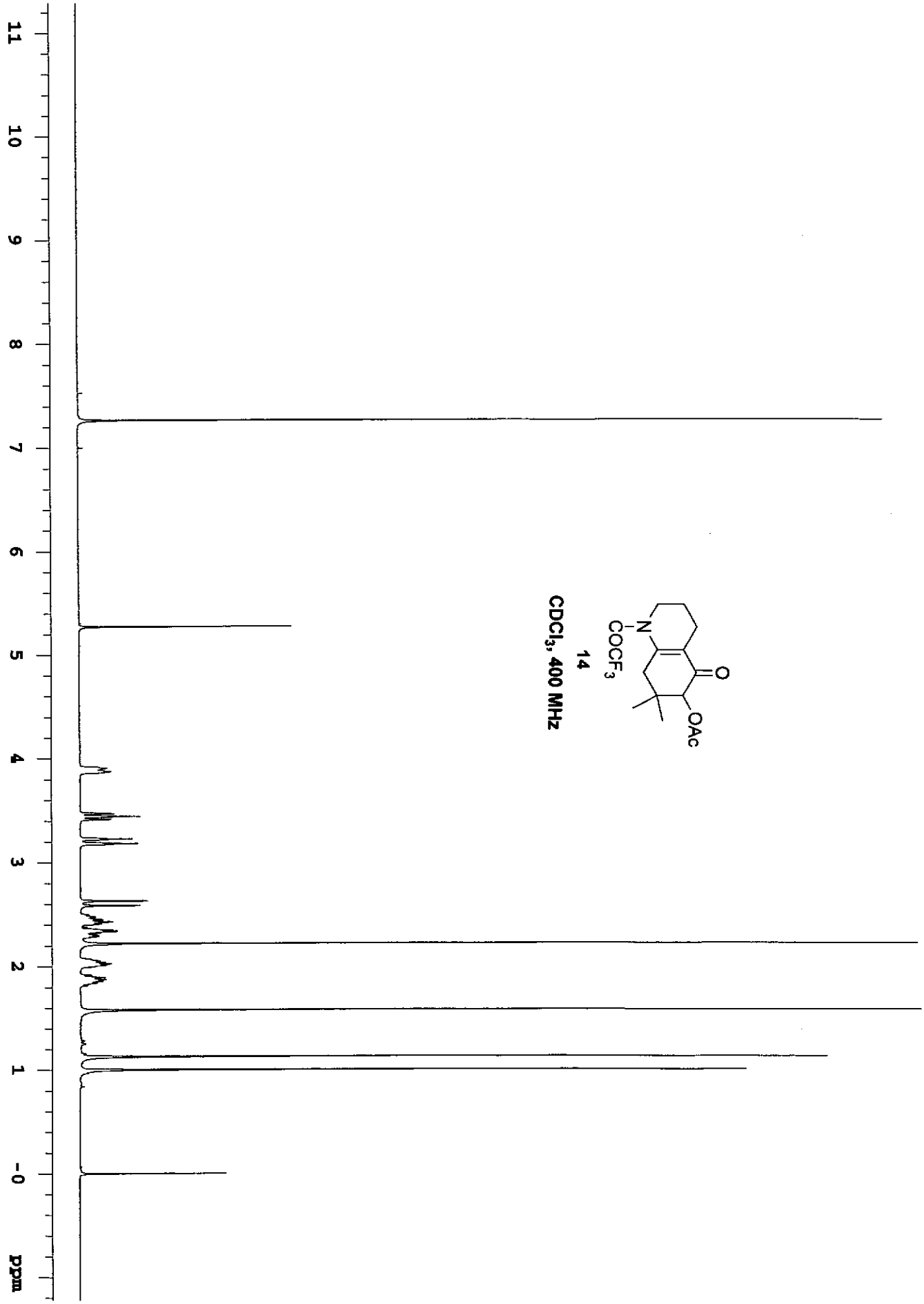
ppm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ppm
CDCl3, 400 MHz
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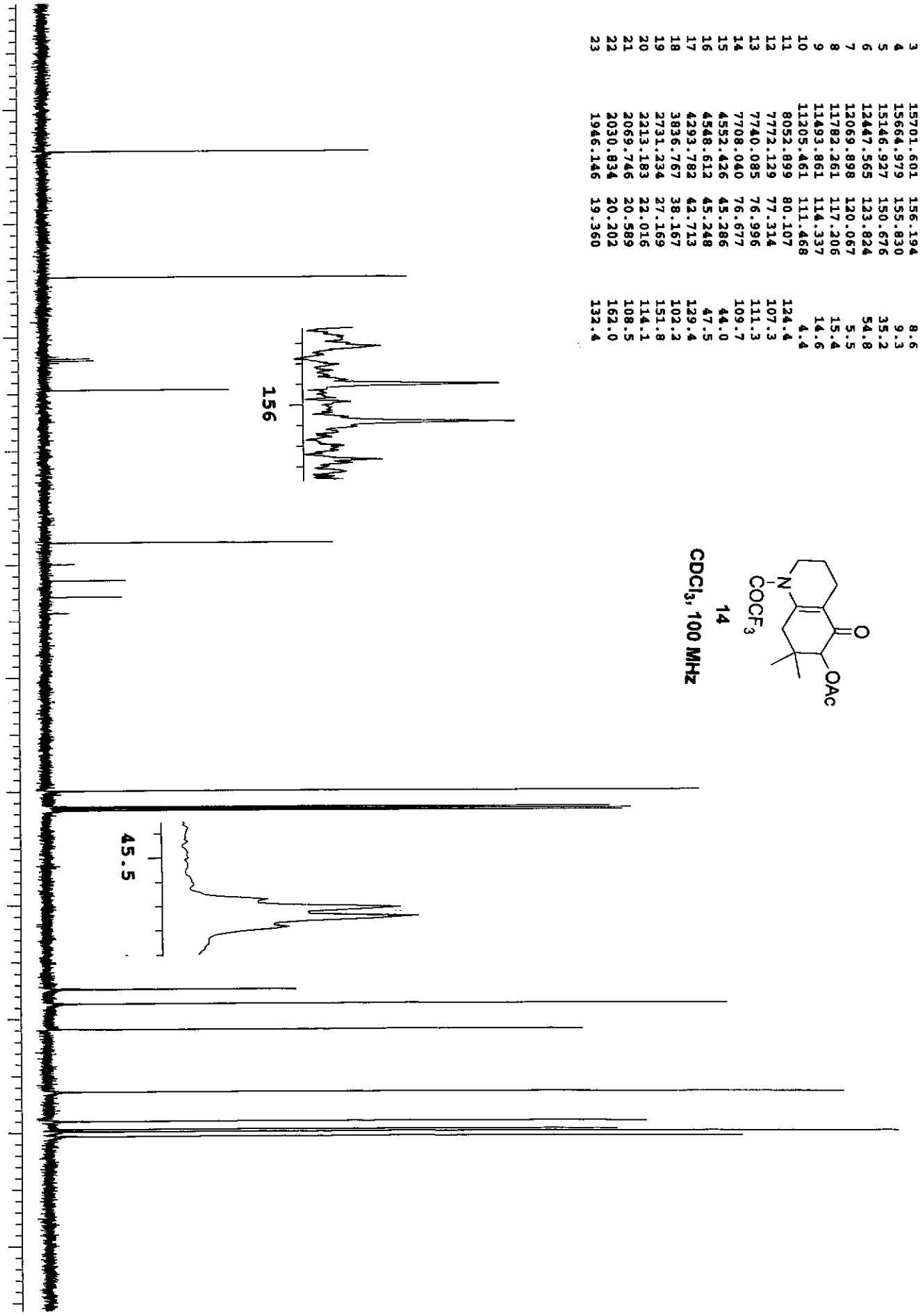
COCF3
O
OAc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5 15146.927 150.676 35.2
6 12447.565 123.824 54.8
7 12069.898 120.067 5.5
8 11782.261 117.206 15.4
9 11493.861 114.337 14.6
10 11205.461 111.468 4.4
11 8052.899 80.107 124.4
12 7772.129 77.314 107.3
13 7740.085 76.996 111.3
14 7708.040 76.677 109.7
15 4552.426 45.286 44.0
16 4548.612 45.248 47.5
17 4293.782 42.713 129.4
18 3836.767 38.167 102.2
19 2731.234 27.169 151.8
20 2213.183 22.016 114.1
21 2069.746 20.589 108.5
22 2030.834 20.202 162.0
23 1946.146 19.360 132.4
156
45.5
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COCF3
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OAc
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CDCl3, 100 MHz
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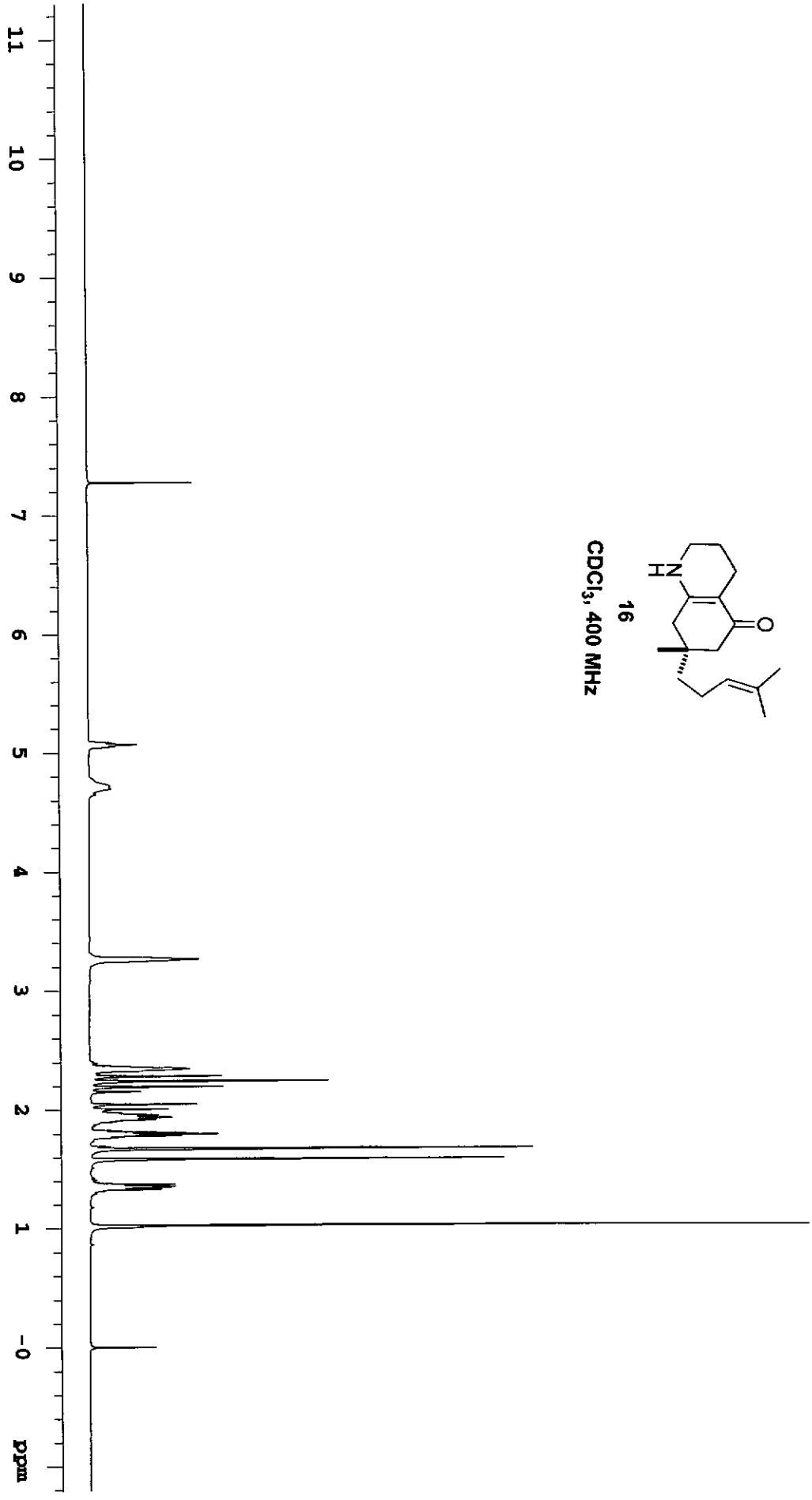
140
120
100
80
60
40
20
ppm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6
5
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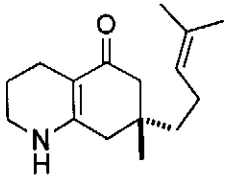
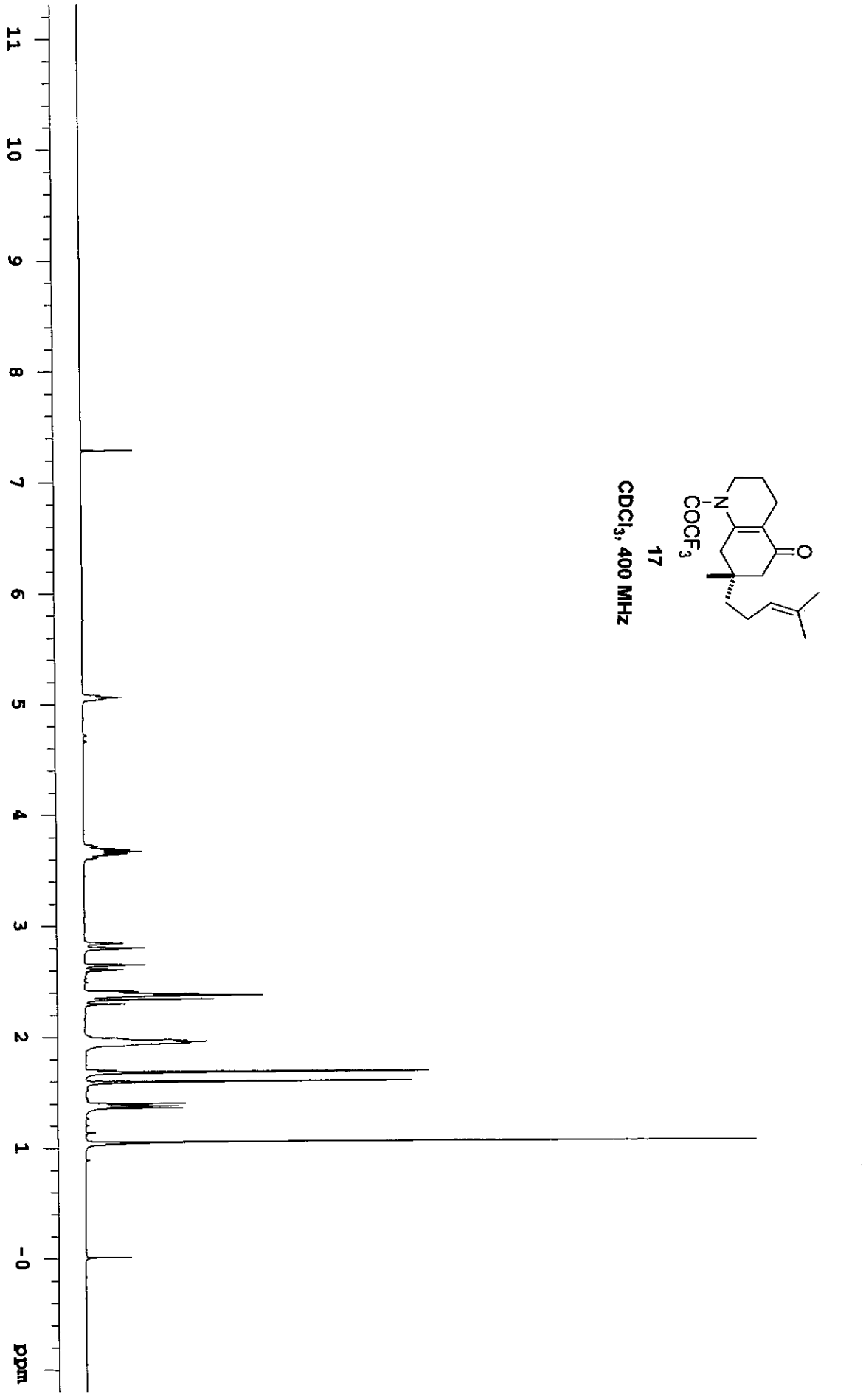
3
2
1
0
ppm
16
CDCl3, 400 MHz
HN
O

INDEX	FREQUENCY	PPM	HEIGHT
1	19450.800	193.490	19.4
2	15803.838	157.211	13.2
3	13227.313	131.581	25.0
4	12492.579	124.272	60.5
5	10404.350	103.499	20.6
6	7772.129	77.314	117.7
7	7740.085	76.996	120.0
8	7708.040	76.677	110.6
9	4875.922	48.504	84.5
10	4192.308	41.704	71.3
11	4182.389	41.605	69.4
12	4174.760	41.529	63.3
13	3515.560	34.972	49.6
14	2577.879	25.644	60.3
15	2492.427	24.794	81.0
16	2251.331	22.395	77.1
17	2120.864	21.098	62.7
18	1878.242	18.684	75.3
19	1763.034	17.538	30.8



16

$CDCl_3$, 100 MHz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O
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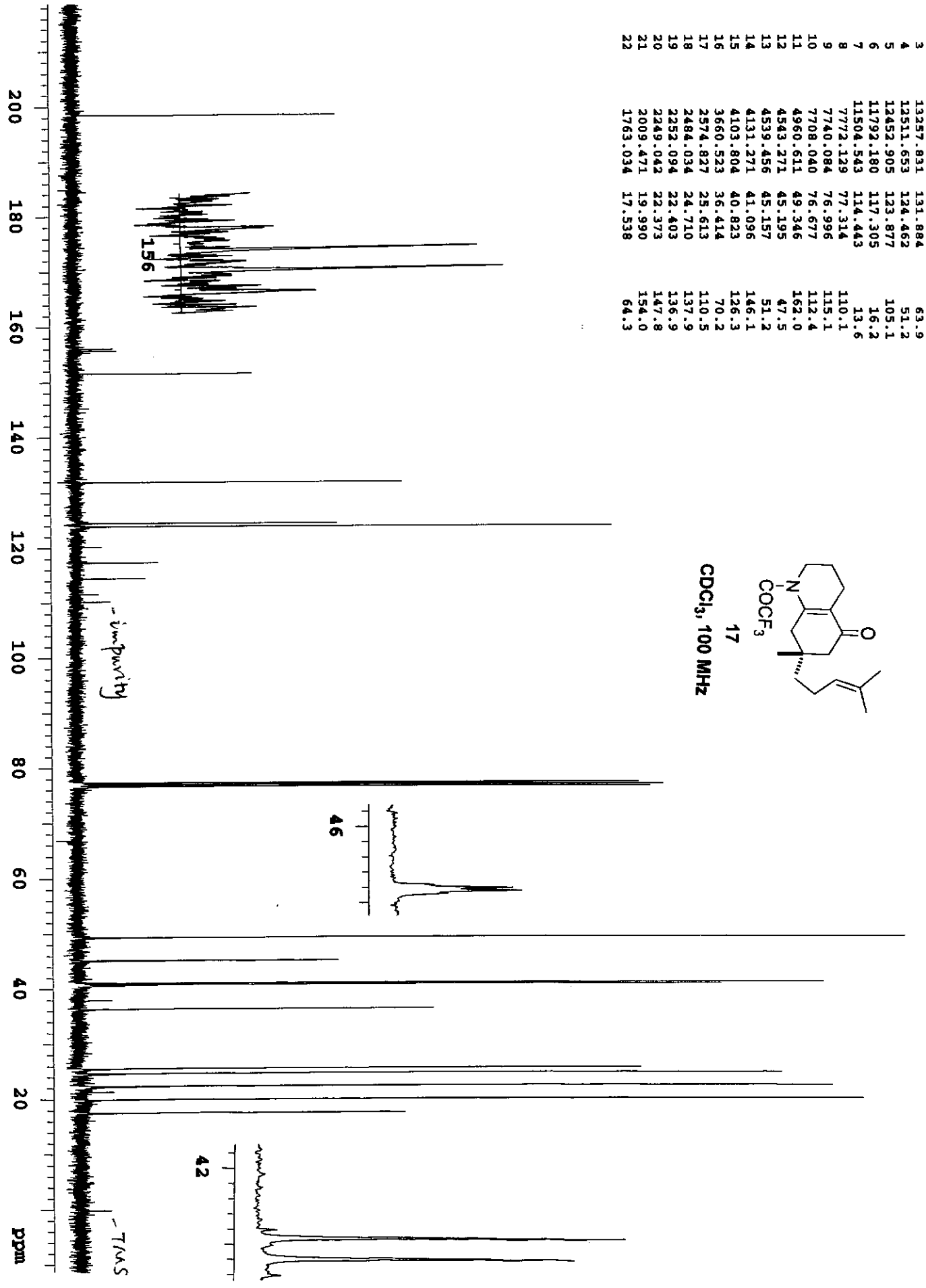
CDCl3, 400 MHz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7 11504.543 114.443 13.6
8 7772.129 77.314 110.1
9 7740.084 76.996 115.1
10 7708.040 76.677 112.4
11 4960.611 49.346 162.0
12 4543.271 45.195 47.5
13 4539.456 45.157 51.2
14 4131.271 41.096 146.1
15 4103.804 40.823 126.3
16 3660.523 36.414 70.2
17 2574.827 25.613 110.5
18 2484.034 24.710 137.9
19 2252.094 22.403 136.9
20 2249.042 22.373 147.8
21 2009.471 19.990 154.0
22 1763.034 17.538 64.3
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COCF3
O
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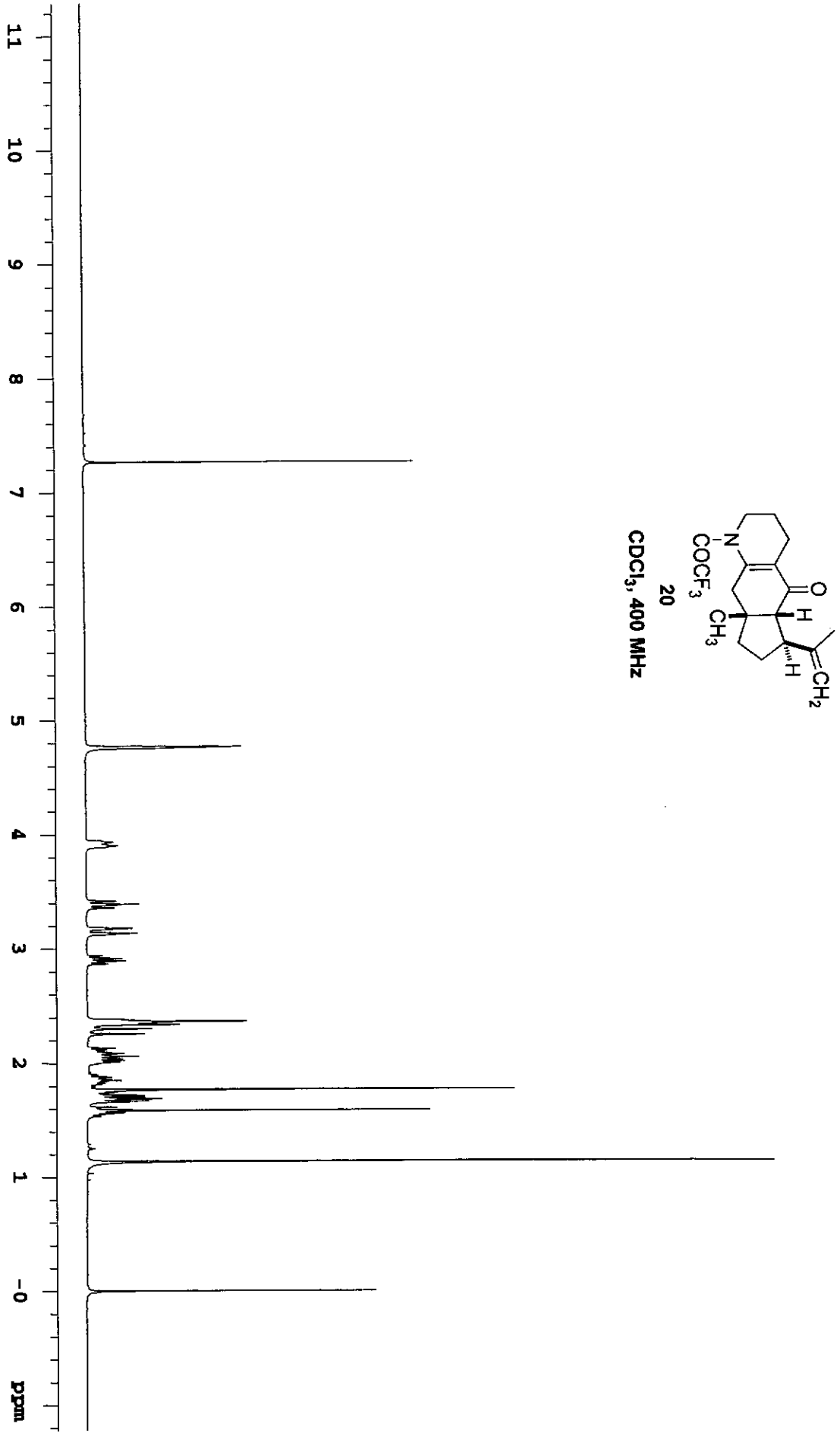
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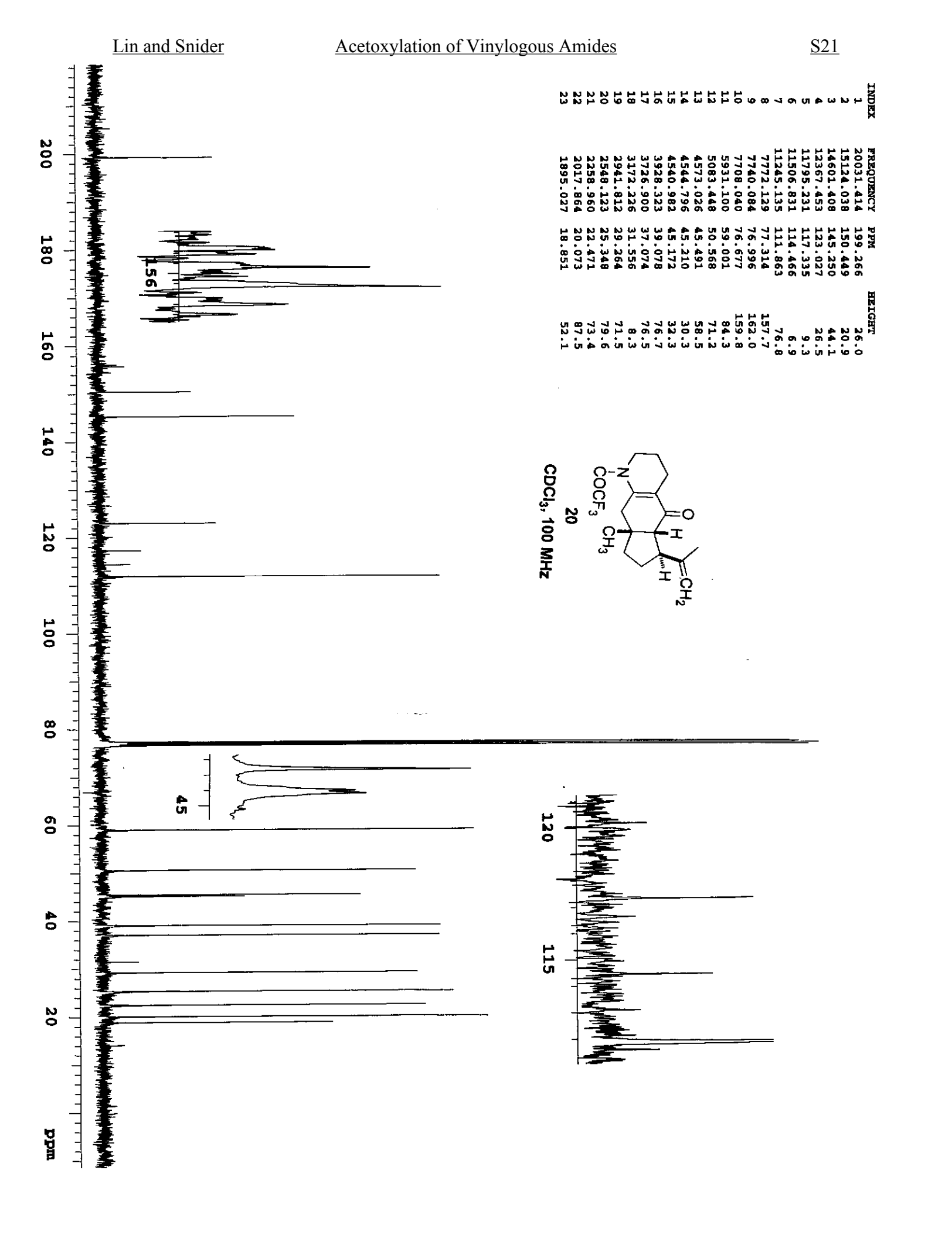
CDCl3, 400 MHz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5 11795.231 117.335 9.3
6 11506.831 114.466 6.9
7 11245.135 111.863 76.8
8 7772.129 77.314 157.7
9 7740.084 76.996 162.0
10 7708.040 76.677 159.8
11 5931.100 59.001 84.3
12 5083.448 50.568 71.2
13 4573.026 45.491 58.5
14 4544.796 45.210 30.3
15 4540.982 45.172 32.3
16 3928.323 39.078 76.7
17 3726.900 37.074 76.5
18 3172.226 31.556 8.3
19 2941.812 29.264 71.5
20 2548.123 25.348 79.6
21 2258.960 22.471 73.4
22 2017.864 20.073 87.5
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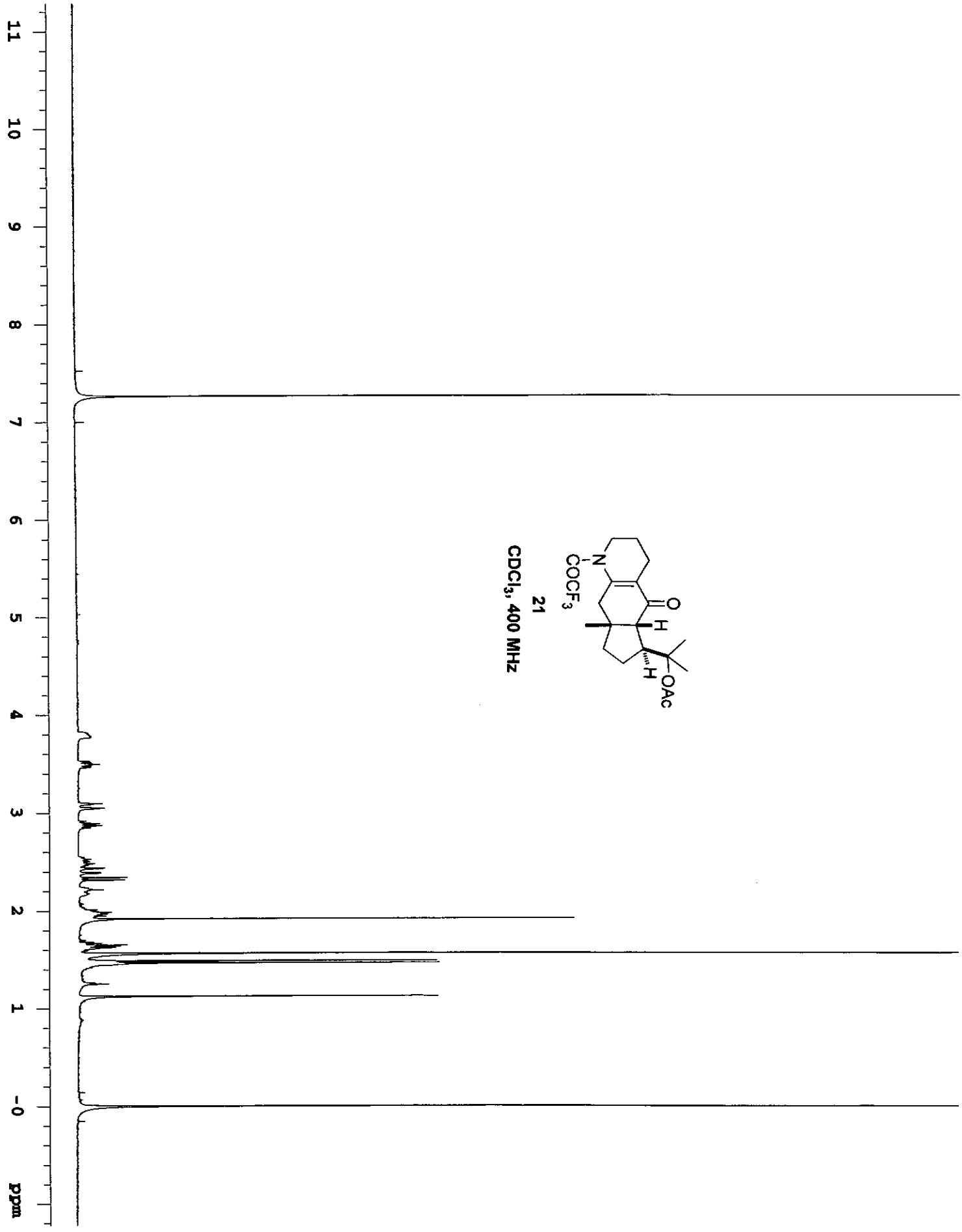
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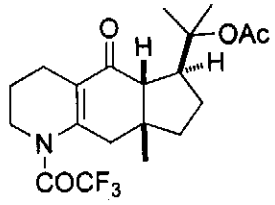
H
OAc
21
CDCl3, 400 MHz

Acetoxylation of Vinylogous Amides

Lin and Snider

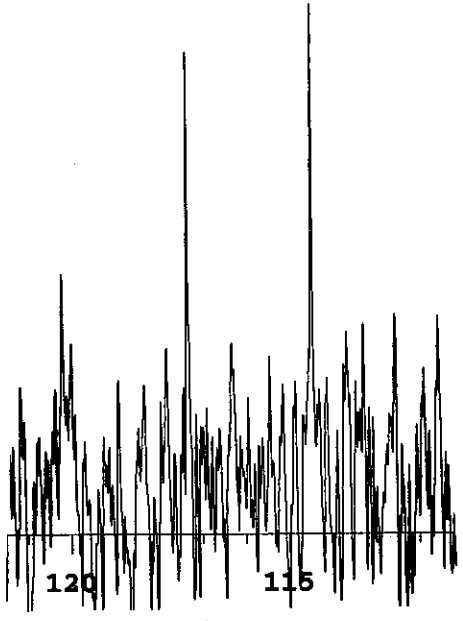
INDEX	FREQUENCY	PPM	HEIGHT	
1	20237.607	201.338	28.3	
2	17138.282	170.504	25.9	
3	15036.744	149.596	23.5	
4	12376.547	123.131	35.0	
5	11795.000	117.345	11.2	
6	11506.770	114.478	10.9	
7	8422.705	83.795	53.2	
8	7770.795	77.309	1911.7	
9	7759.775	77.200	100.6	- $CHCl_3$
10	7739.429	76.997	1842.0	
11	7707.215	76.677	1970.6	
12	5770.985	57.414	80.5	
13	5203.002	51.763	80.1	
14	4616.368	45.927	48.7	
15	4547.702	45.244	23.0	
16	4544.311	45.210	23.2	
17	3891.554	38.716	75.5	
18	3674.533	36.557	94.3	
19	2614.015	26.006	75.9	
20	2547.892	25.348	82.7	
21	2504.657	24.918	99.4	
22	2316.460	23.046	76.6	
23	2263.052	22.514	76.9	
24	2254.575	22.430	51.4	
25	2059.595	20.490	86.5	
26	-2.099	-0.021	81.6	- TMS

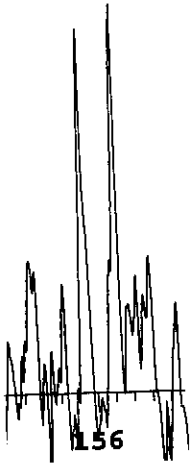


21

$CDCl_3$, 100 MHz

46





- TMS