Supplementary Information for

Base-mediated rearrangement of free aromatic hydroxamic acids (ArCO-NHOH) to anilines

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General. Melting points were determined on a Buchi 535 apparatus and are uncorrected. Infrared (IR) spectra were recorded on a Perkin-Elmer FT-IR PARAGON 1000 spectrometer or a JASCO FT/IR-4100. ^{1}H NMR spectra were recorded on a JEOL JNM AL-400 (400 MHz) spectrometer, or a JEOL JNM EX-270 (270 MHz) spectrometer with tetramethylsilane (TMS) as internal standard. Chemical shifts are reported in ppm from TMS. Data are reported as follows: chemical shift, multiplicity: (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet), coupling constants, integration, and assignment. ^{13}C NMR spectra were recorded on a JEOL JNM AL-400 (100 MHz) spectrometer with complete proton decoupling. Chemical shifts are reported in ppm from TMS with the solvent resonance as the internal standard ($CDCl_3$: δ 77.0). Column chromatography was carried out with Fuji Silysia silica gel BW-127ZH (spherical, 63-210 μm, Fuji Silysia Chemical Industries). Thin-Layer chromatography (TLC) was carried out with Merck TLC plates with silica gel 60 F_{254}.

Materials. Unless otherwise noted, reagents were commercially available and were used without purification. The solvents used were purified by distillation over the drying agents indicated: THF (Na/benzophenone), DMSO, DMF, MeCN (CaH_2), NMP, n-BuOH ($MgSO_4$), toluene ($CaCl_2$), MeOH (Mg).

Synthesis of Hydroxamic Acids 1a-i.[1]

Representative procedure: Separate solutions of hydroxylamine hydrochloride (4.17 g, 0.060 mol) in 30 mL of MeOH, and of potassium hydroxide (6.72 g, 0.12 mol) in 30 mL of MeOH, are prepared. Both are cooled in ice bath, and the one containing alkali is added with shaking to the hydroxylamine solution. After all the alkali has been added, the mixture is allowed to stand in an ice bath for five minutes to ensure complete precipitation of potassium chloride. The mixture was filtered with suction and the filtrate was added to ethyl 4-methylbenzoate (4.77 mL, 0.030 mol) in 100 mL flask. Additional

potassium hydroxide was added to become a basic solution (pH 10). After 12 hrs with stirring at room temperature MeOH was evaporated in vacuo and to the residue was added 20 mL of water to become a clear solution, which was acidified with 2 M HCl to be pH <4. The solid appeared was collected by filtration to give the title compound. Additionally, the filtrate was extracted with ethyl acetate and the organic phase was evaporated and purified by recrystallization from ethyl acetate/hexane to give the additional desired product.

***N*-hydroxy-4-methylbenzamide (1a):**[2,3] Yield 88%. White crystalline solid. IR (KBr) ν 3295, 2760, 1650, 1614, 1564, 1508, 1331, 1038, 839, 739, 538 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 2.34 (s, 3H), 7.24 (d, J = 8.4 Hz, 2H), 7.65 (d, J = 8.4 Hz, 2H), 8.95 (s, 1H), 11.13 (s, 1H).

***N*-hydroxybenzamide (1b):**[2] Yield 90%. White crystalline solid. IR (KBr) ν 3299, 3060, 2758, 1648, 1612, 1562, 1491, 1453, 1435, 1328, 706, 691 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 7.42-7.55 (m, 3H), 7.74-7.77 (m, 2H), 9.04 (s, 1H), 11.21 (s, 1H). The product was also identified in comparison with a commercially available sample.

***N*-hydroxy-2-methylbenzamide (1c):**[3] Yield 55%. White crystalline solid. IR (KBr) ν 3303, 3212, 1625, 1595, 1527, 1482, 1316, 1165, 1022, 901 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 2.33 (s, 3H), 7.18-7.35 (m, 4H), 9.04 (s, 1H), 10.80 (s, 1H).

***N*-hydroxy-3-methylbenzamide (1d):**[3] Yield 61%. white crystalline solid. IR (KBr) ν 3307, 3064, 2914, 1651, 1624, 1580, 1561, 1485, 1459, 810, 725 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 2.34 (s, 3H), 7.33 (d, J = 4.6 Hz, 2H), 7.54 (t, J = 4.6 Hz, 1H), 9.01 (s, 1H), 11.13 (s, 1H).

***N*-hydroxy-4-methoxybenzamide (1e):**[2] Yield 81%. White crystalline solid. IR (KBr) ν 3285, 2971, 2755, 1644, 1610, 1568, 1507, 1443, 1305, 1254, 1024 cm^{-1}; ^1H NMR (400 MHz, DMSO-d_6) δ 3.80 (s, 3H), 6.98 (d, J = 8.4 Hz, 2H), 7.73 (d, J = 8.4 Hz, 2H), 8.91 (s, 1H), 11.06 (s, 1H).

4-chloro-*N*-hydroxybenzamide (1f):[2,3] Yield 95%. White crystalline solid. IR (KBr) ν 3292, 3067, 2745, 1651, 1598, 1561, 1487, 1097, 1013, 847, 746, 538 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 7.53 (d, J = 8.6 Hz, 2H), 7.77 (d, J = 8.6 Hz, 2H), 9.11 (s, 1H), 11.30 (s, 1H).

4-bromo-*N*-hydroxybenzamide (1g):[4] Yield 98%. White crystalline solid. IR (KBr) ν 3290, 3066, 2748, 1649, 1614, 1591, 1558, 1483, 1075, 1011, 526 cm^{-1}; ^1H NMR (270 MHz, DMSO-d_6) δ 7.65-7.72 (m, 4H), 9.13 (s, 1H), 11.24 (s, 1H).

***N*-hydroxy-2-iodobenzamide (1h):** Yield 71%. White solid. IR (KBr) ν 3237, 3039, 2876, 1622, 1542, 1467, 1170, 904, 744 cm^{-1}; ^1H NMR (400 MHz, DMSO-d_6) δ 7.18 (dt, J = 8.0, 1.6 Hz, 1H), 7.29

(dd, *J* = 8.0, 1.6 Hz, 1H), 7.43 (dt, *J* = 8.0, 0.8 Hz, 1H), 7.88 (dd, *J* = 8.0, 0.8 Hz, 1H), 9.20 (s, 1H), 10.91 (s, 1H). ^{13}C NMR (100 MHz, DMSO-d_6) δ 94.4, 127.9, 128.6, 131.1, 139.2, 140.6, 165.7; Anal. Calcd for $C_7H_6INO_2$: C, 31.96; H, 2.30; N, 5.33. Found: C, 31.98; H, 2.39; N, 5.30.

***N*-hydroxy-4-nitrobenzamide (1i):**[5] Yield 90%. Yellow crystalline solid. IR (KBr) ν 3249, 2856, 1654, 1600, 1516, 1358, 1034, 850, 550 cm^{-1}; ^{1}H NMR (400 MHz, DMSO-d_6) δ 7.99 (d, *J* = 5.4 Hz, 2H), 8.31 (d, *J* = 5.4 Hz, 2H), 9.37 (s, 1H), 11.58 (s, 1H).

***N*-hydroxy-2,6-dimethoxybenzamide (1j):** Yield 50%. White crystalline solid. Mp 201.2-201.5 (AcOEt) (lit.[6] 200-201 °C). IR (KBr) ν 3260, 2887, 2835, 1619, 1600, 1475, 1257, 1119, 898, 791 cm^{-1}; ^{1}H NMR (270 MHz, DMSO-d_6) δ 3.36 (s, 6H), 6.66 (d, *J* = 9.5 Hz, 2H), 7.30 (t, *J* = 9.5 Hz, 1H), 8.96 (s, 1H), 10.52 (s, 1H).

***N*-hydroxy-2,3-dimethoxybenzamide (1k):** Yield 70%. White solid. IR (KBr) ν 3345, 3321, 3089, 2838, 1644, 1577, 1267, 988, 812, 757 cm^{-1}; ^{1}H NMR (400 MHz, DMSO-d_6) δ 3.75 (s, 3H), 3.82 (s, 3H), 6.94 (dd, *J* = 7.2, 1.2 Hz, 1H), 7.07-7.14 (m, 2H), 9.08 (s, 1H), 10.68 (s, 1H). ^{13}C NMR (100 MHz, DMSO-d_6) δ 55.9, 61.0, 114.4, 120.2, 124.0, 129.3, 146.1, 152.5, 163.5; Anal. Calcd for $C_9H_{11}NO_4$: C, 54.82; H, 5.62; N, 7.10. Found: C, 54.97; H, 5.59; N, 6.95.

General Procedure for the base-mediated rearrangement of free hydroxamic acids to amines: A mixture of *N*-hydroxy-4-methylbenzamide (**1a**) (0.363 g, 2.4 mmol), K_2CO_3 (0.332 g, 2.4 mmol), and DMSO (2 mL) was heated to 90 °C and stirred at that temperature for 2 h. The mixture was cooled to rt, and then treated with 2 M HCl (ca. 3 mL). After the mixture became the clear solution, 2 M NaOH (ca. 3 mL) was added and extracted with Et_2O (15 mL x 3). The combined organic layers were dried over anhydrous Na_2SO_4, filtered and evaporated under reduced pressure. The residue was purified by silica gel column chromatography (hexane/Et_2O, 1:1) to yield the pure 4-methylaniline[7] (0.253 g, 98%) as a white crystalline solid.

4-methylaniline (2a):[7] Yield 0.253 g (98%). White crystalline solid. IR (KBr) ν 3418, 3337, 3222, 3010, 2914, 2859, 1622, 1514, 1280, 1268, 810, 508 cm^{-1}; ^{1}H NMR (400 MHz, $CDCl_3$) δ 2.24 (s, 3H), 3.51 (s, 2H), 6.60 (d, *J* = 7.8 Hz, 2H), 6.96 (d, *J* = 7.8 Hz ,2H).

aniline (2b): Yield 0.215 g (96%). Pale yellowish liquid. IR (neat) ν 3429, 3355, 3036, 1621, 1602, 1278, 1175, 755, 693 cm^{-1}; ^{1}H NMR (400 MHz, $CDCl_3$) δ 3.64 (s, 2H), 6.69 (d, *J* = 7.8 Hz, 2H), 6.76 (t, *J* = 7.8 Hz, 1H), 7.13-7.18 (m, 2H). The product was also identified in comparison with a commercially available sample.

2-methylaniline (2c):[7] Yield 0.255 g (99%). Pale brownish liquid. IR (KBr) ν 3452, 3361, 3021, 2931,

1623, 1498, 1669, 1304, 1272, 753 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 2.17 (s, 3H), 3.59 (s, 2H), 6.67 (d, *J* = 7.7 Hz, 1H), 6.71 (dd, *J* = 1.2, 7.7 Hz, 1H), 7.03 (t, *J* = 7.7 Hz, 2H).

3-methylaniline (2d):[8] Yield 0.255 g (99%). Pale brownish liquid. IR (neat) ν 3436, 3352, 3034, 2919, 1623, 1494, 1293, 776, 691 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 2.27 (s, 3H), 3.59 (s, 2H), 6.48-6.60 (m, 3H) 7.05 (t, *J* = 7.6 Hz, 1H).

4-methoxyaniline (2e):[7] Yield 0.291 g (99%). White crystalline solid. IR (KBr) ν 3422, 3347, 2964, 2839, 1509, 1235, 1032, 826, 514 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 3.42 (s, 2H), 3.74 (s, 3H), 6.65 (d, *J* = 9.4 Hz, 2H) 6.70 (d, *J* = 9.4 Hz, 2H).

4-chloroaniline (2f):[9] Yield 0.381 g (90%). Gray crystalline solid. IR (KBr) ν 3472, 3382, 1616, 1494, 1288, 1181, 1089, 821, 639, 505 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 3.65 (s, 2H), 6.60 (d, *J* = 8.4 Hz, 2H) ,7.09 (d, *J* = 8.4 Hz, 2H).

4-bromoaniline (2g):[9,10] Yield 0.380 g (92%). Gray crystalline solid. IR (KBr) ν 3474, 3382, 1612, 1489, 1286, 1180, 1069, 818, 502 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 3.65 (s, 2H), 6.56 (d, *J* = 8.8 Hz, 2H), 7.23 (d, *J* = 8.8 Hz, 2H).

2-iodoaniline (2h):[11] Yield 98%. White solid. IR (KBr) ν 3394, 3290, 3187, 1623, 1474, 1300, 1251, 1146, 1006, 749 cm^{-1}; ^1H NMR (400 MHz, $CDCl_3$) δ 4.08 (s, 2H), 6.47 (t, *J* = 7.2 Hz, 1H), 6.74 (d, *J* = 8.0 Hz, 1H), 7.13 (t, *J* = 7.2 Hz, 1H), 7.63 (d, *J* = 8.0 Hz, 1H).

4-nitroaniline (2i):[7,12] Yield 0.146 g (88%). Yellow crystalline solid. IR (KBr) ν 3482, 3360, 1631, 1587, 1471, 1299, 1114, 840, 753, 490 cm^{-1}; ^1H NMR (270 MHz, $CDCl_3$) δ 4.38 (s, 2H), 6.63 (d, *J* = 5.4 Hz, 2H), 8.08 (d, *J* = 5.4 Hz, 2H).

2,6-dimethoxyaniline (2j):[13] Yield 0.360 g (98%). White solid. IR (KBr) ν 3464, 3373, 2962, 1603, 1505, 1478, 1144, 766, 597 cm^{-1}; ^1H NMR (270 MHz, $CDCl_3$) δ 3.82 (s, 2H), 3.85 (s, 6H), 6.53 (d, *J* = 8.1 Hz, 2H), 6.69 (t, *J* = 8.1 Hz, 1H).

2,3-dimethoxyaniline (2k):[14] Yield 99%. White solid. IR (KBr) ν 3466, 3369, 2938, 1615, 1322, 1265, 1133, 1089, 733 cm^{-1}; ^1H NMR (270 MHz, $CDCl_3$) δ 3.40-4.10 (br s, 2H), 3.83 (s, 3H), 3.84 (s, 3H), 6.34 (d, *J* = 8.1 Hz, 1H), 6.38 (d, *J* = 8.1 Hz, 1H), 6.84 (t, *J* = 7.8 Hz, 1H).

Rearrangement of *N*-hydroxy-4-methylbenzamide (1a) with catalytic amount of K_2CO_3 (0.05 equiv). A mixture of *N*-hydroxy-4-methylbenzamide (**1a**) (0.363 g, 2.4 mmol), K_2CO_3 (0.0166 g, 0.12 mmol), and DMSO (2 mL) was heated to 90 °C and stirred at that temperature for 18 h. The mixture

was cooled to rt, and then treated with 2 M HCl (ca. 3 mL). After the mixture became the clear solution, 2 M NaOH (ca. 2 mL) was added and extracted with Et_2O (15 mL x 3). The combined organic layers were dried over anhydrous Na_2SO_4, filtered and evaporated under reduced pressure. The residue was purified by silica gel column chromatography (hexane/Et_2O, 1:1) to yield the pure 4-methylaniline (0.233 g, 91%). A small amount (0.0025 g, 1%) of *N,N'*-bis(4-methylphenyl)urea was also obtained.

Rearrangement of *N*-hydroxy-4-methylbenzamide (1a) with K_2CO_3 (0.5 equiv) in the presence of water. A mixture of *N*-hydroxy-4-methylbenzamide (**1a**) (0.0906 g, 0.6 mmol), K_2CO_3 (0.0415 g, 0.3 mmol), DMSO (2 mL), and H_2O (0.06 ml, 3.3 mmol) was heated to 90 °C and stirred at that temperature for 1 h. The mixture was cooled to rt, and then treated with 2 M HCl (ca. 3 mL). After the mixture became the clear solution, 2 M NaOH (ca. 2 mL) was added and extracted with Et_2O (15 mL x 3). The combined organic layers were dried over anhydrous Na_2SO_4, filtered and evaporated under reduced pressure. The residue was purified by silica gel column chromatography (hexane/Et_2O, 1:1) to yield the pure 4-methylaniline (0.0405 g, 63%). Starting material (**1a**) was recovered (0.0287 g, 32%).

Table S1. The π^* scale[15] for each solvent

	yield (%)	π^*
DMSO	98	1
DMF	92	0.88
NMP	90	0.92
MeCN	21	0.66
MeOH	10	0.6
THF	-	0.55
toluene	12	0.49
BuOH	11	0.47

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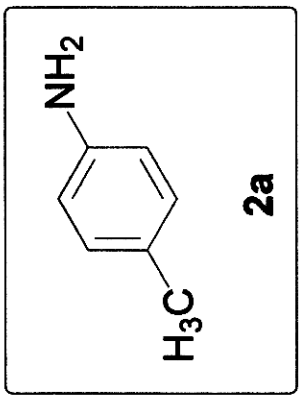

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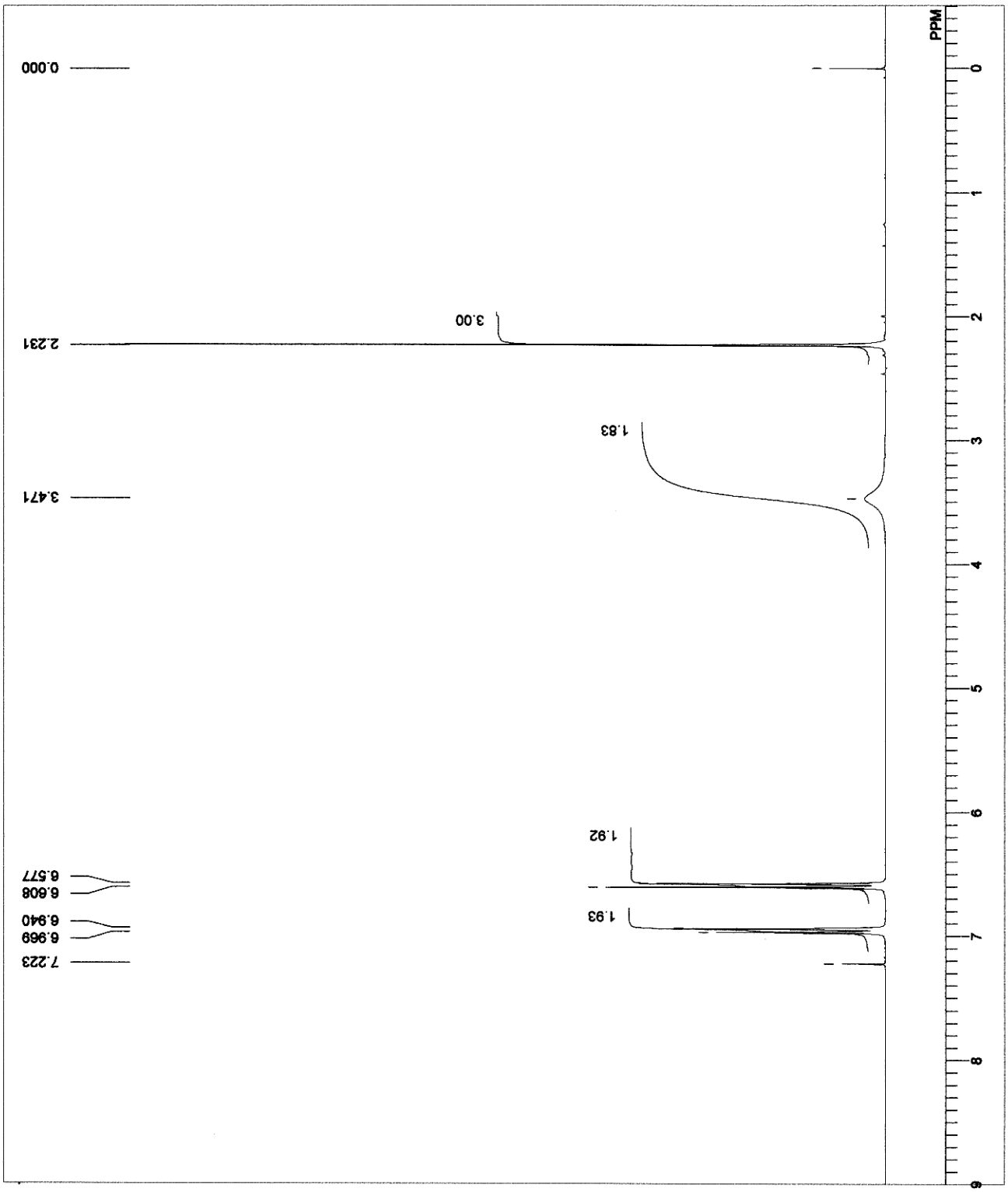

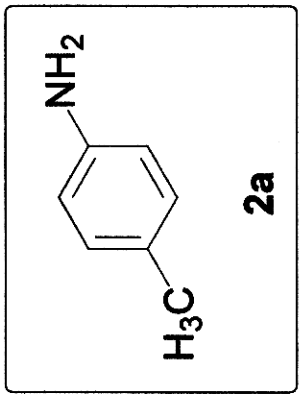

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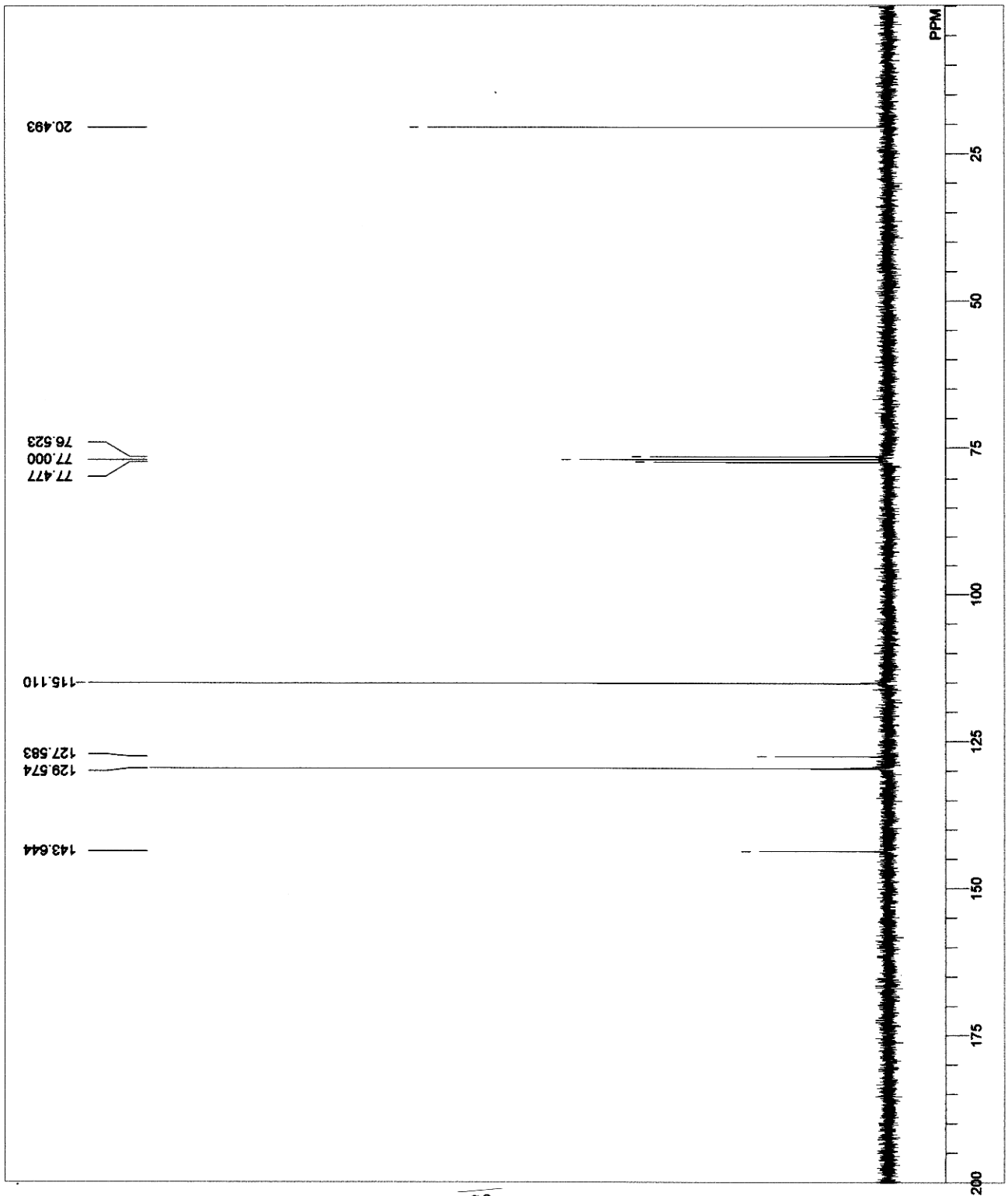

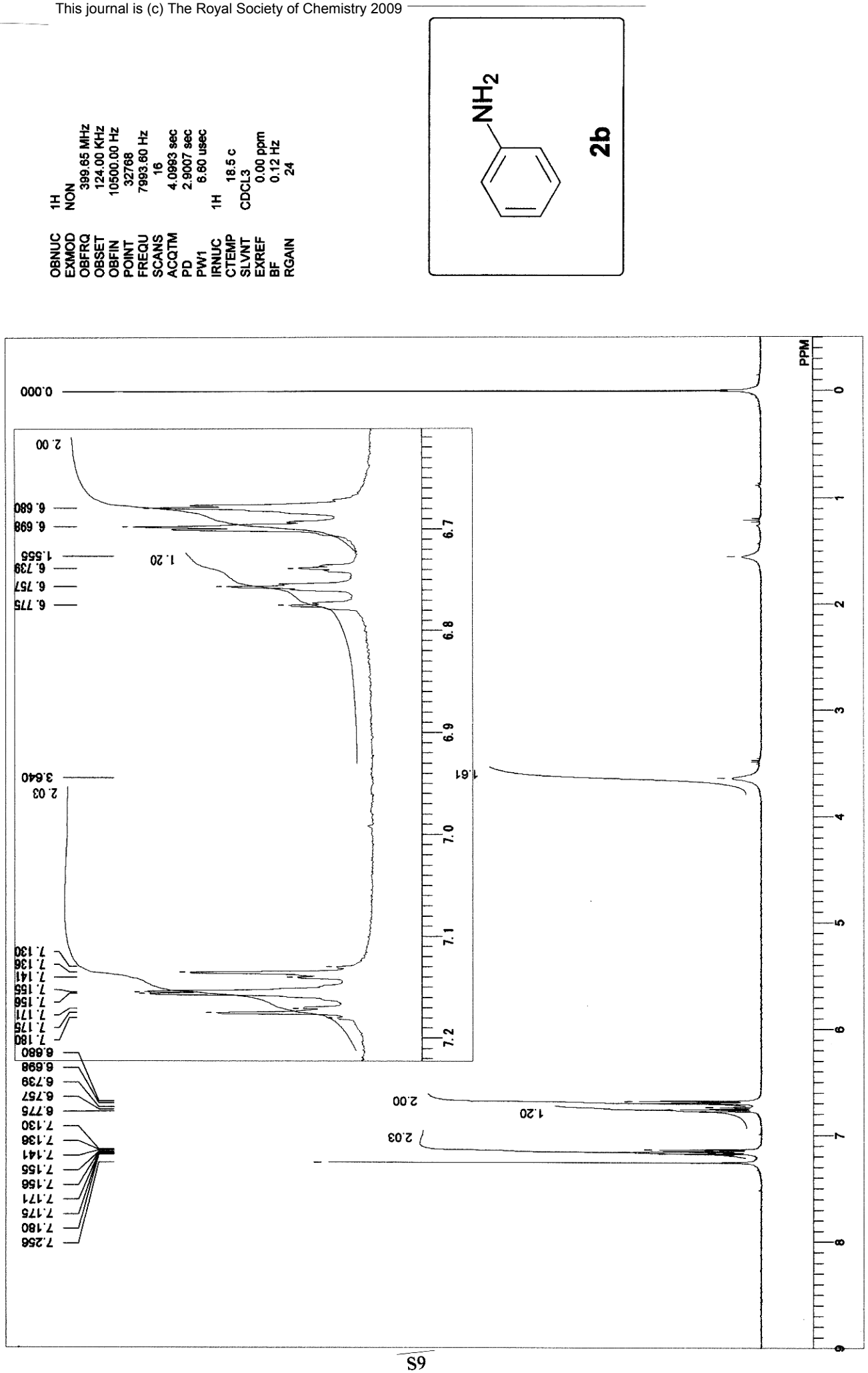
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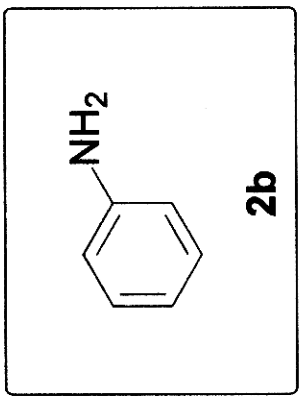

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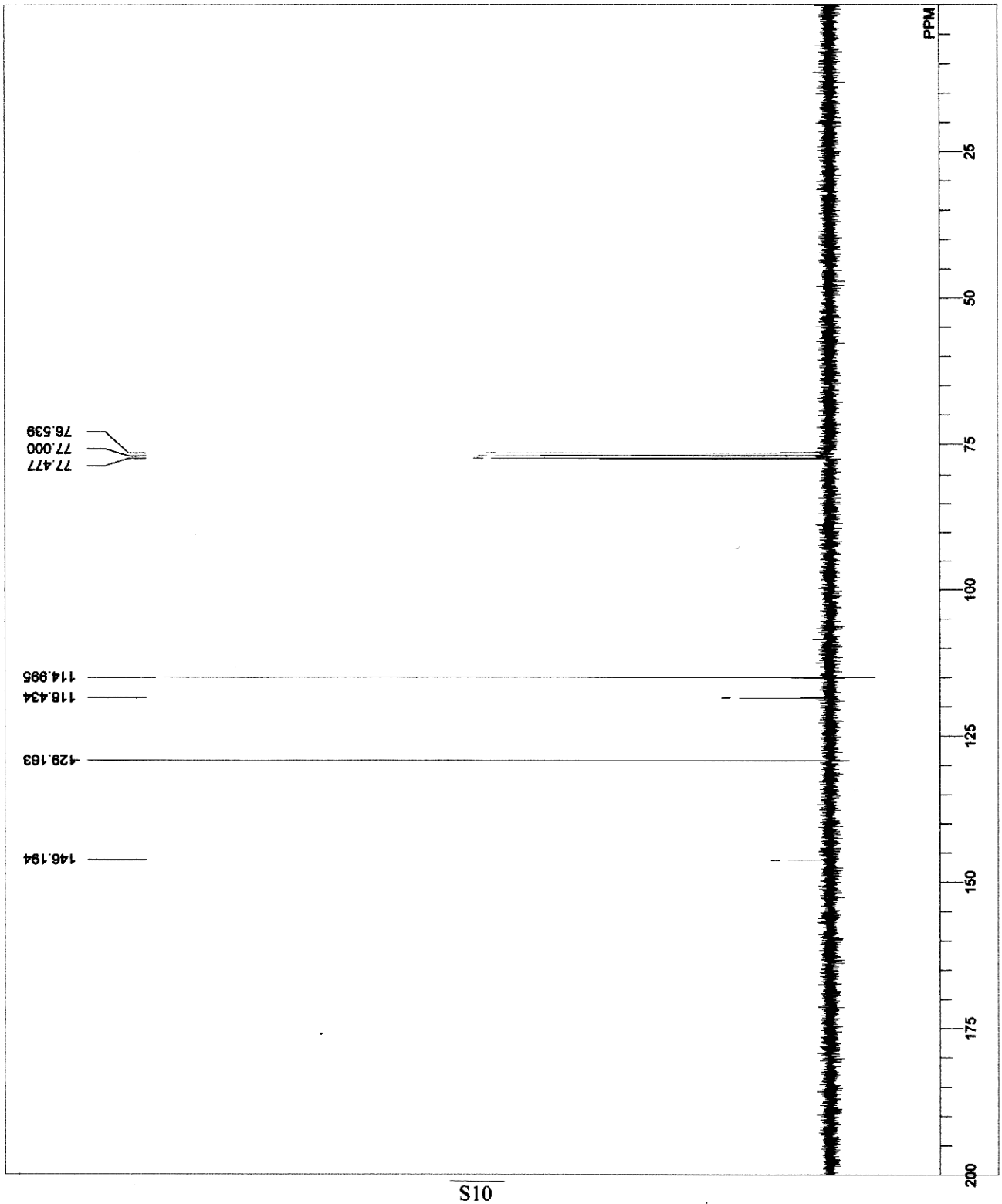

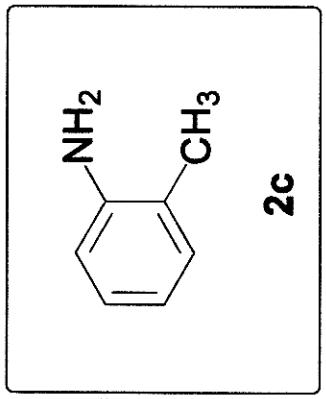

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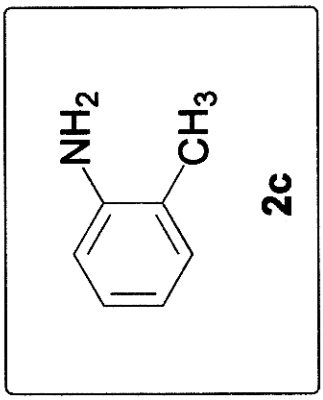

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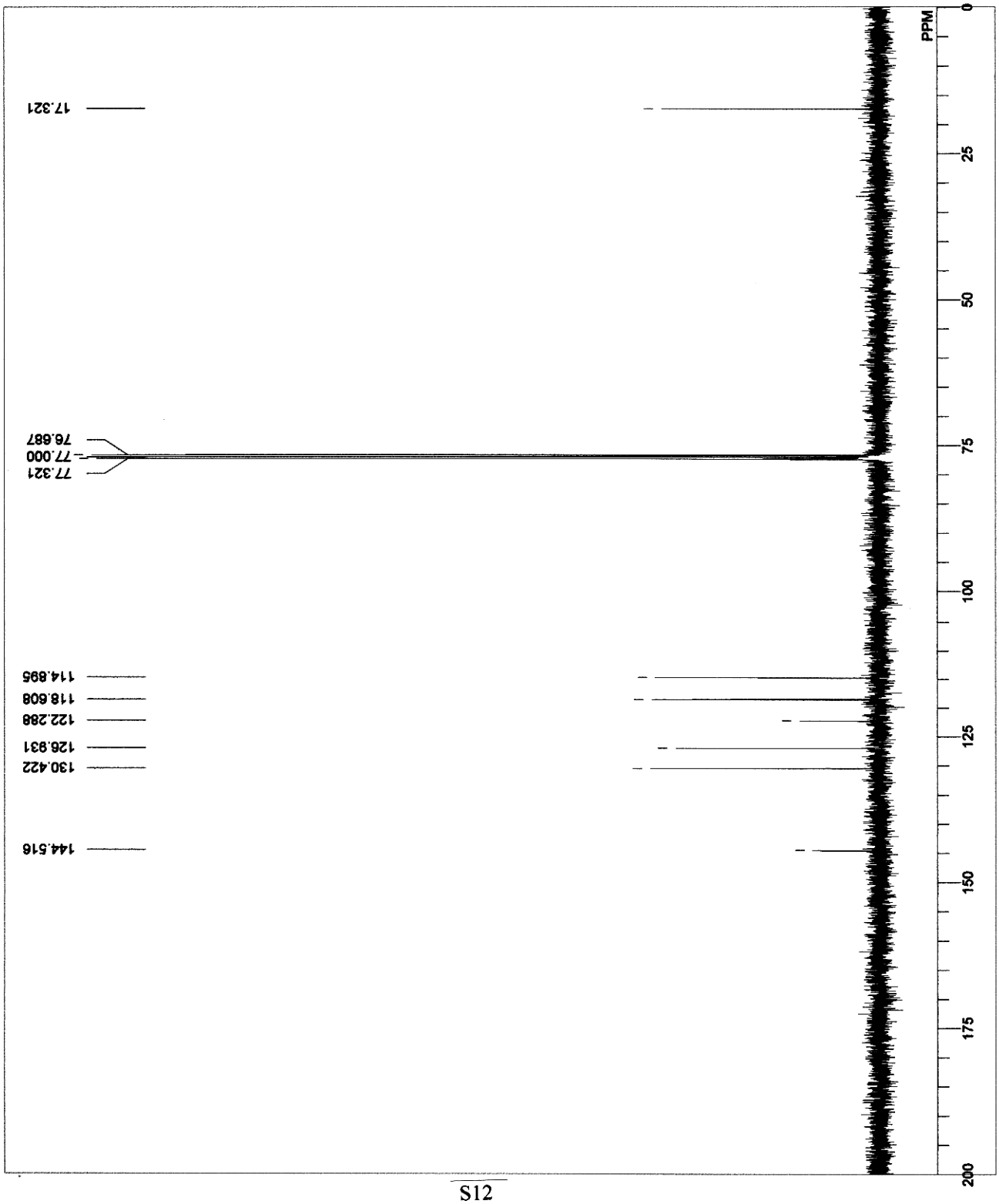

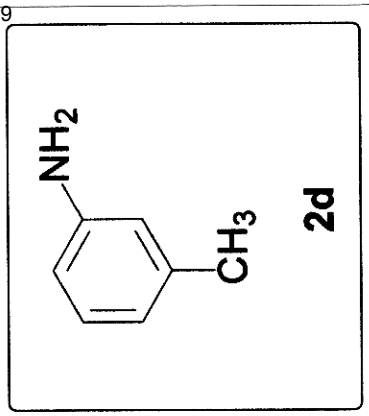

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OBSET	112.00 KHz
OBFIN	5800.00 Hz
POINT	16384
FREQU	5405.40 Hz
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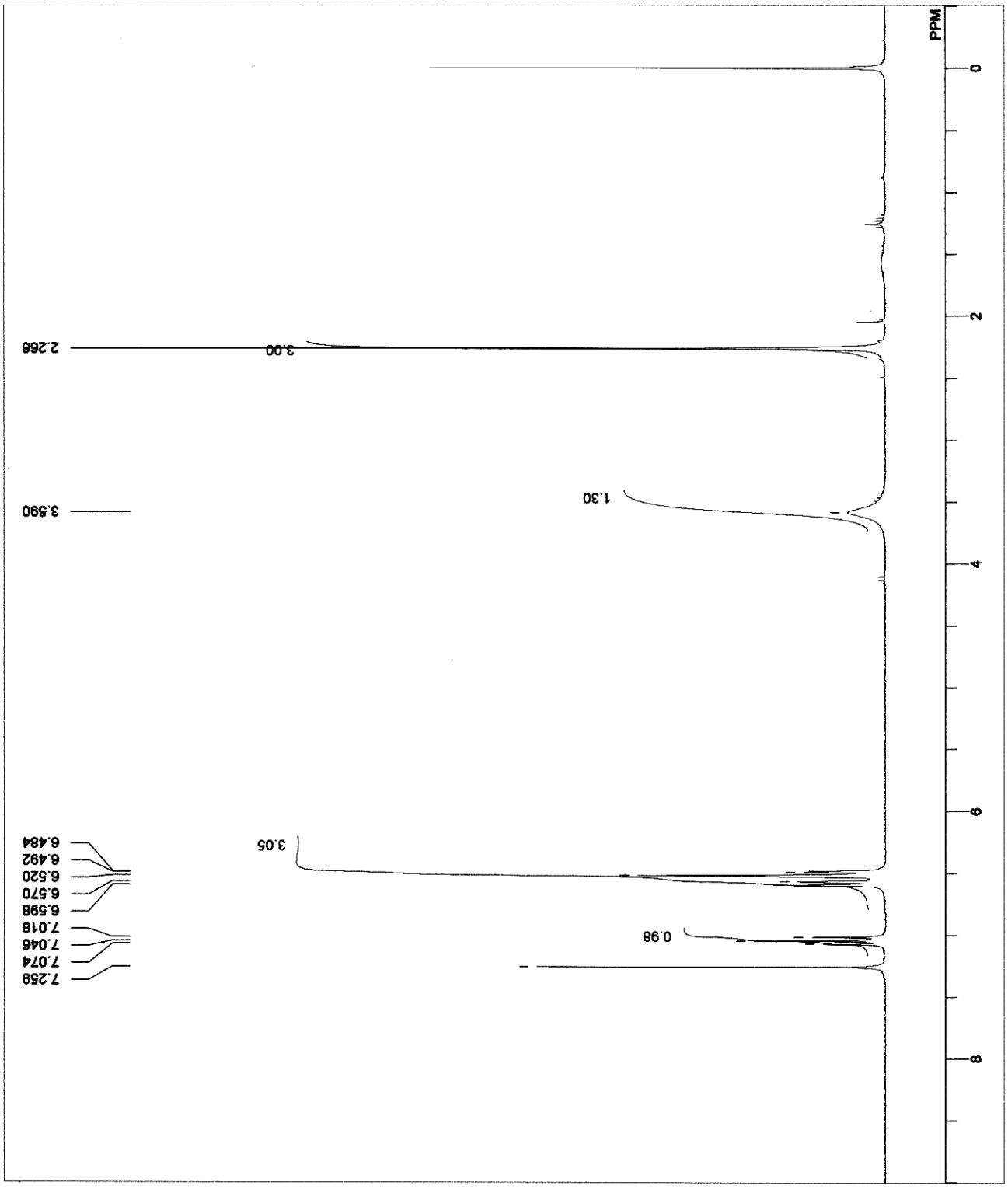
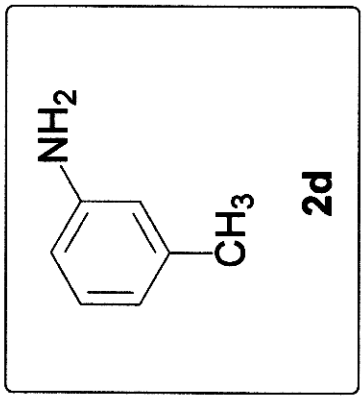
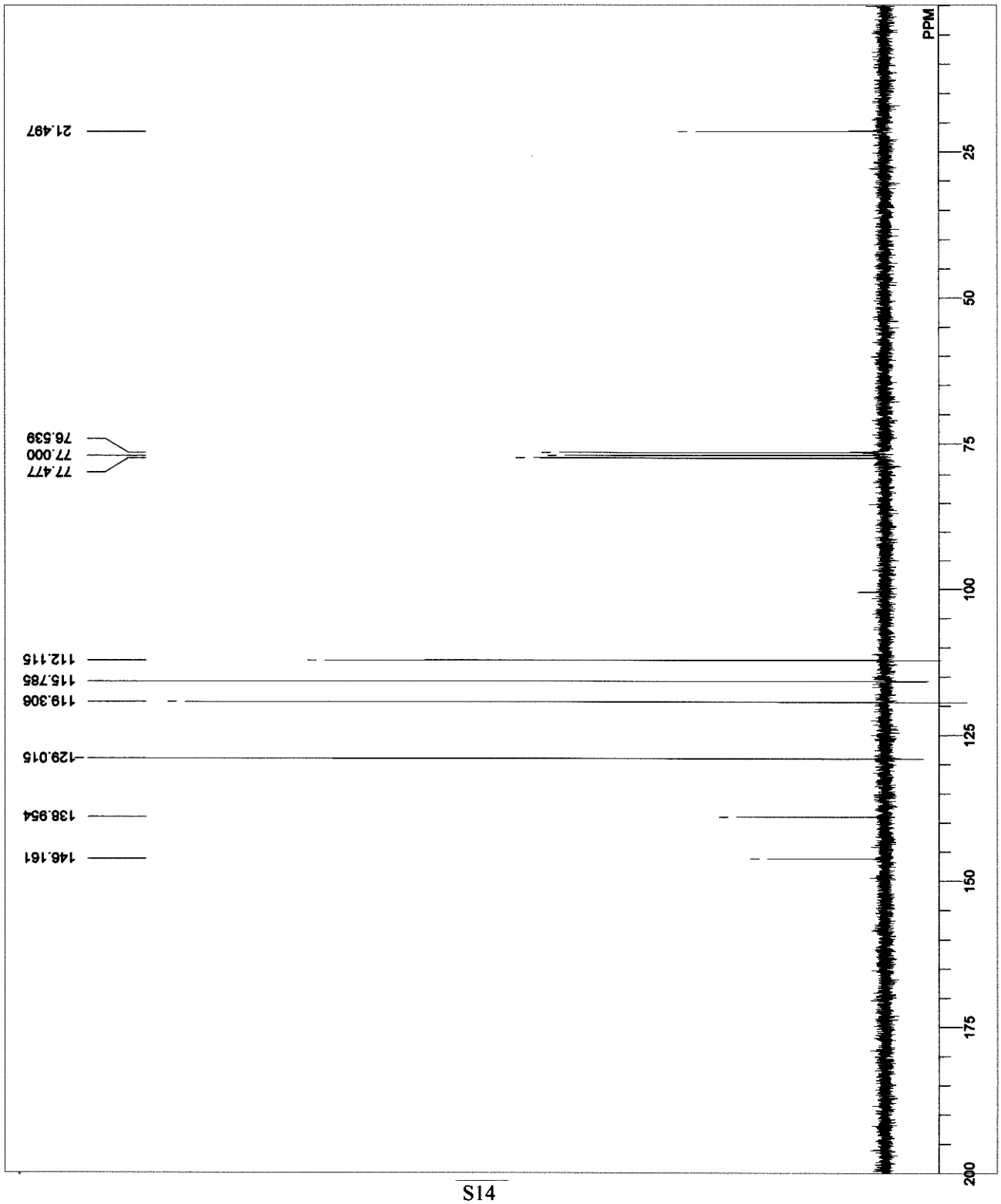
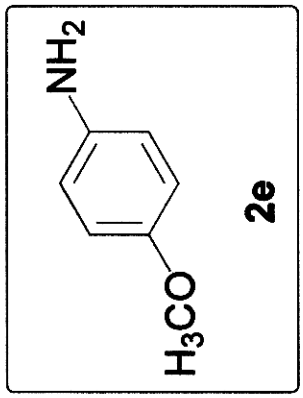
IRNUC	1H
CTEMP	19.0 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	0.10 Hz
RGAIN	22



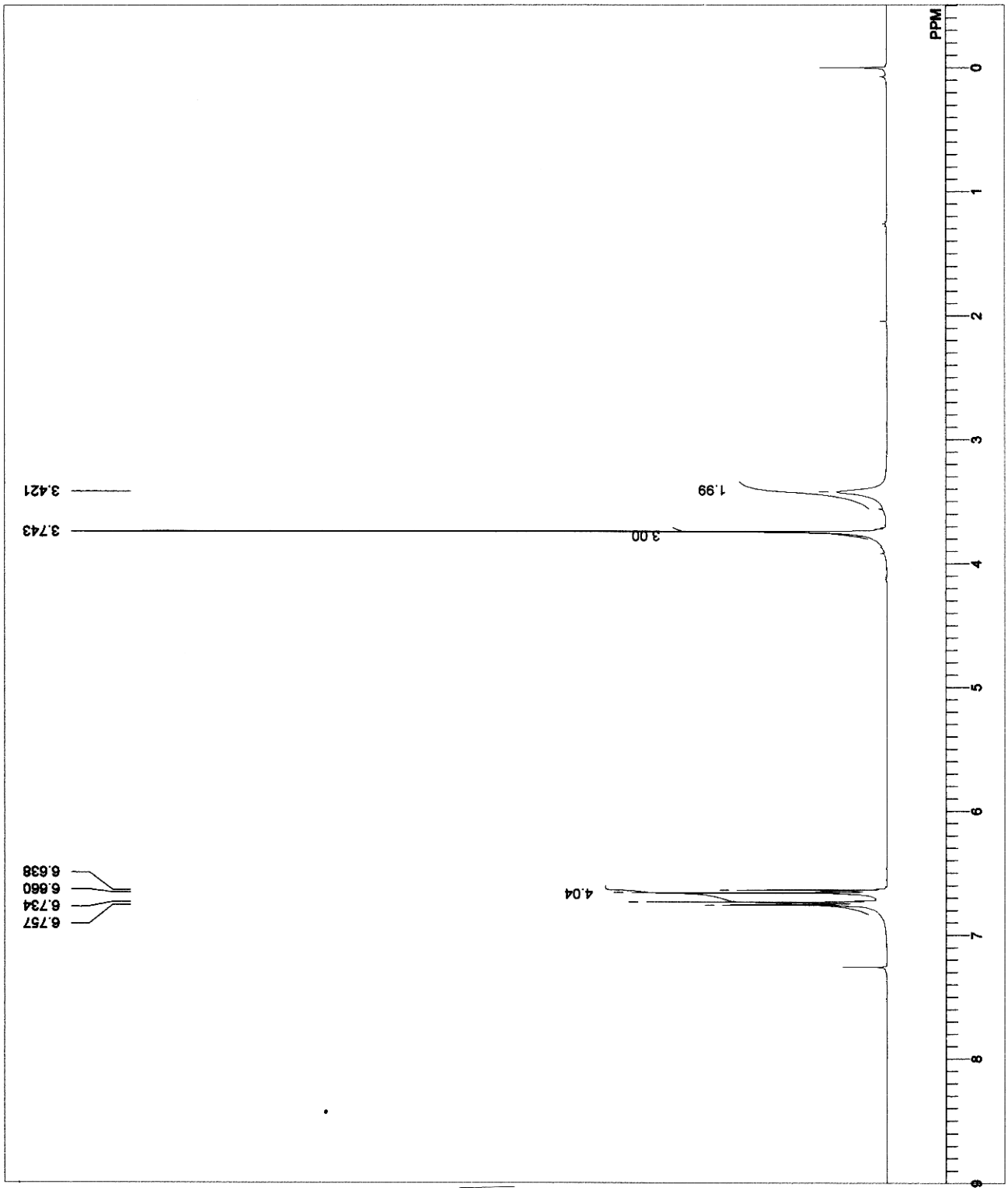


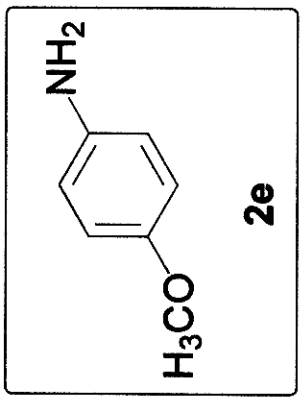
OBNUC	13C
EXMOD	BCM
OBFRQ	67.80 MHz
OBSET	135.00 KHz
OBFIN	5200.00 Hz
POINT	16384
FREQU	18315.00 Hz
SCANS	482
ACQTM	0.8946 sec
PD	2.1050 sec
PW1	4.70 usec
IRNUC	1H
CTEMP	20.7 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	0.12 Hz
RGAIN	28



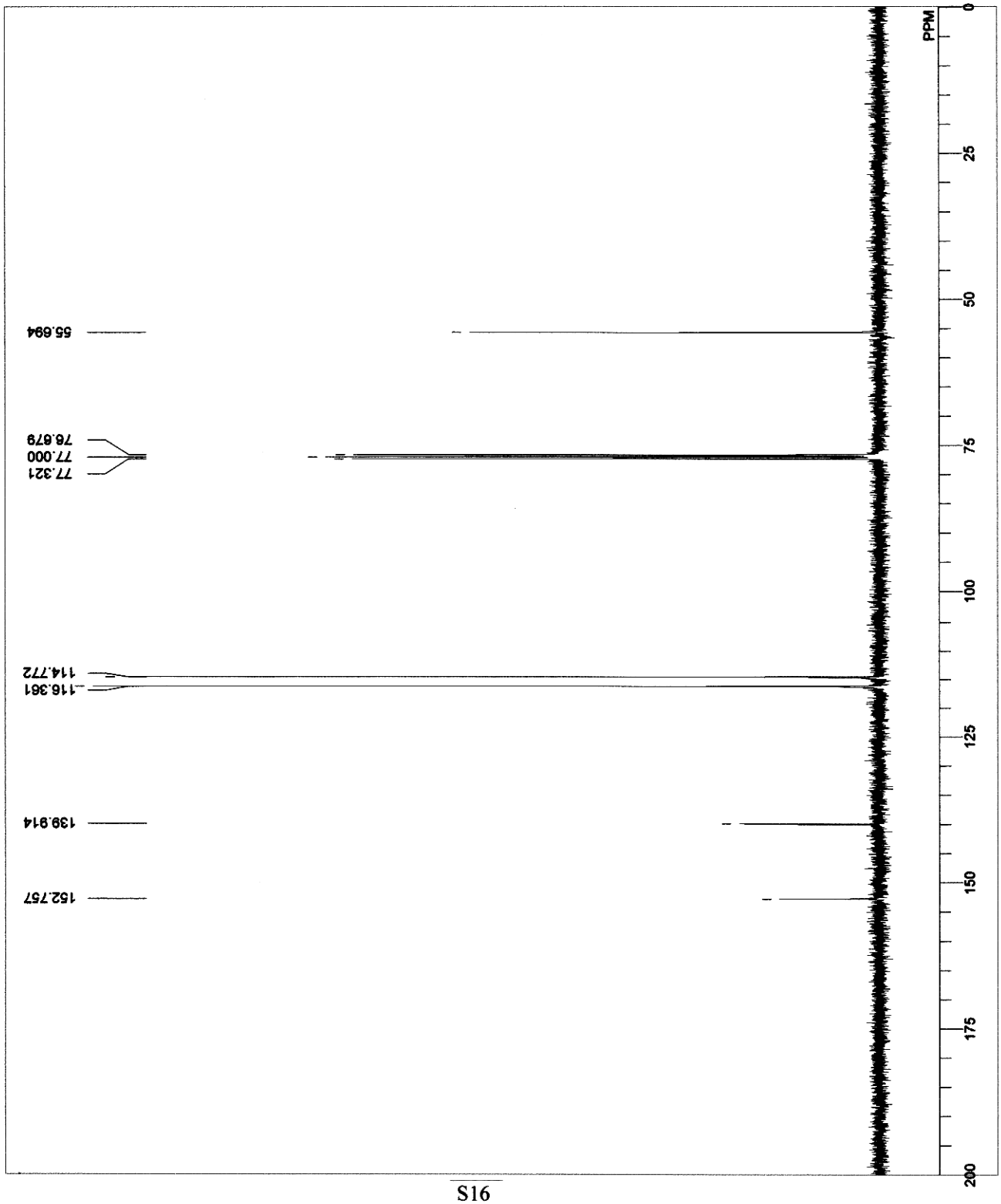


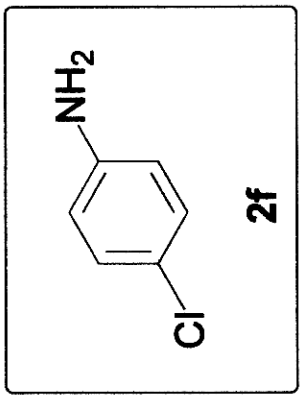
OBNUC	1H
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	20000.00 Hz
SCANS	16
ACQTM	1.6384 sec
PD	2.9010 sec
PW1	6.60 usec
IRNUC	1H
CTEMP	19.3 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	0.12 Hz
RGAIN	17



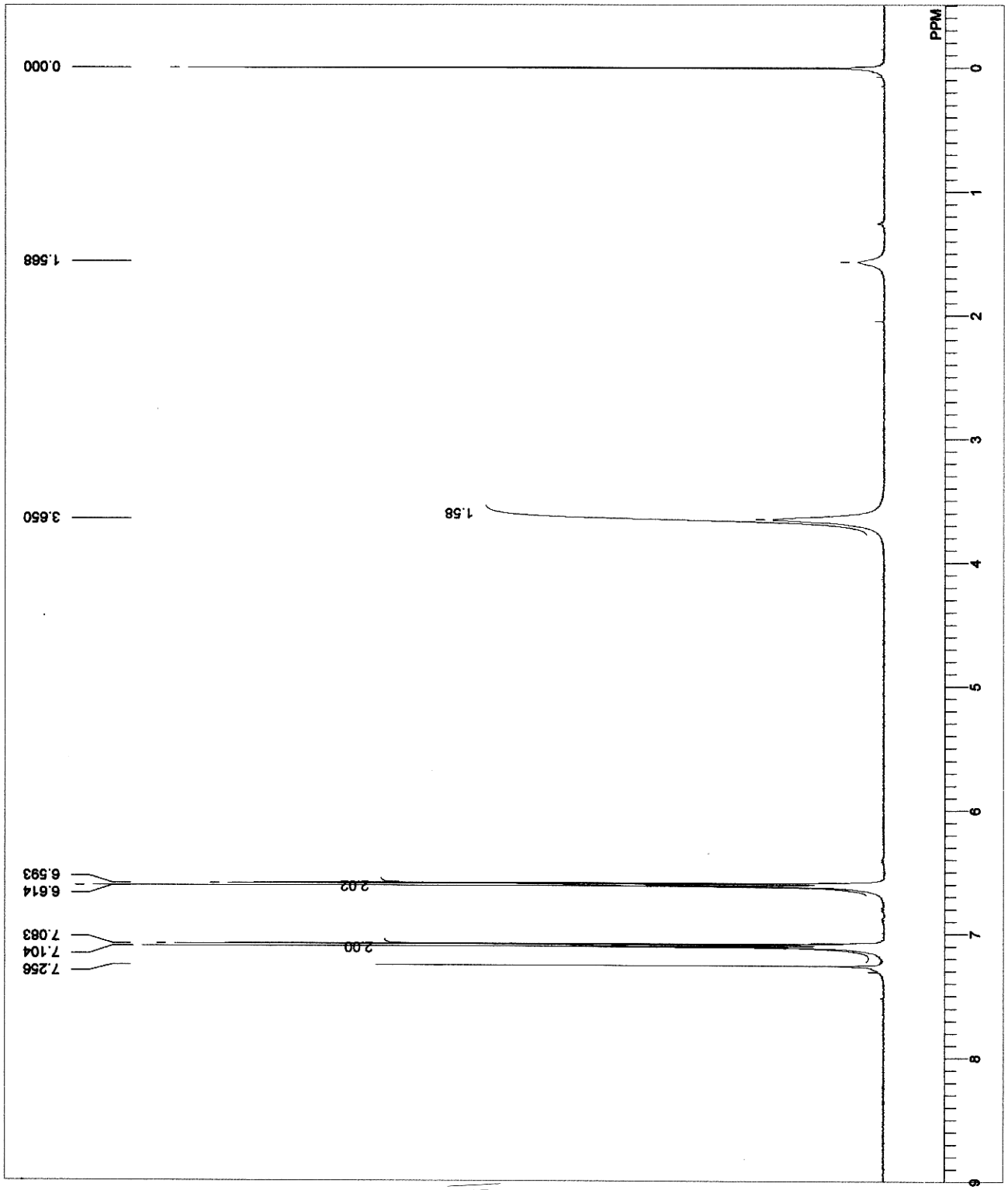


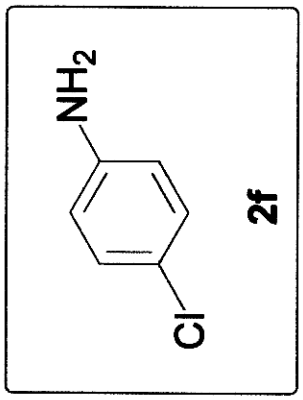
OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	410
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	22.2 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.00 Hz
RGAIN	29



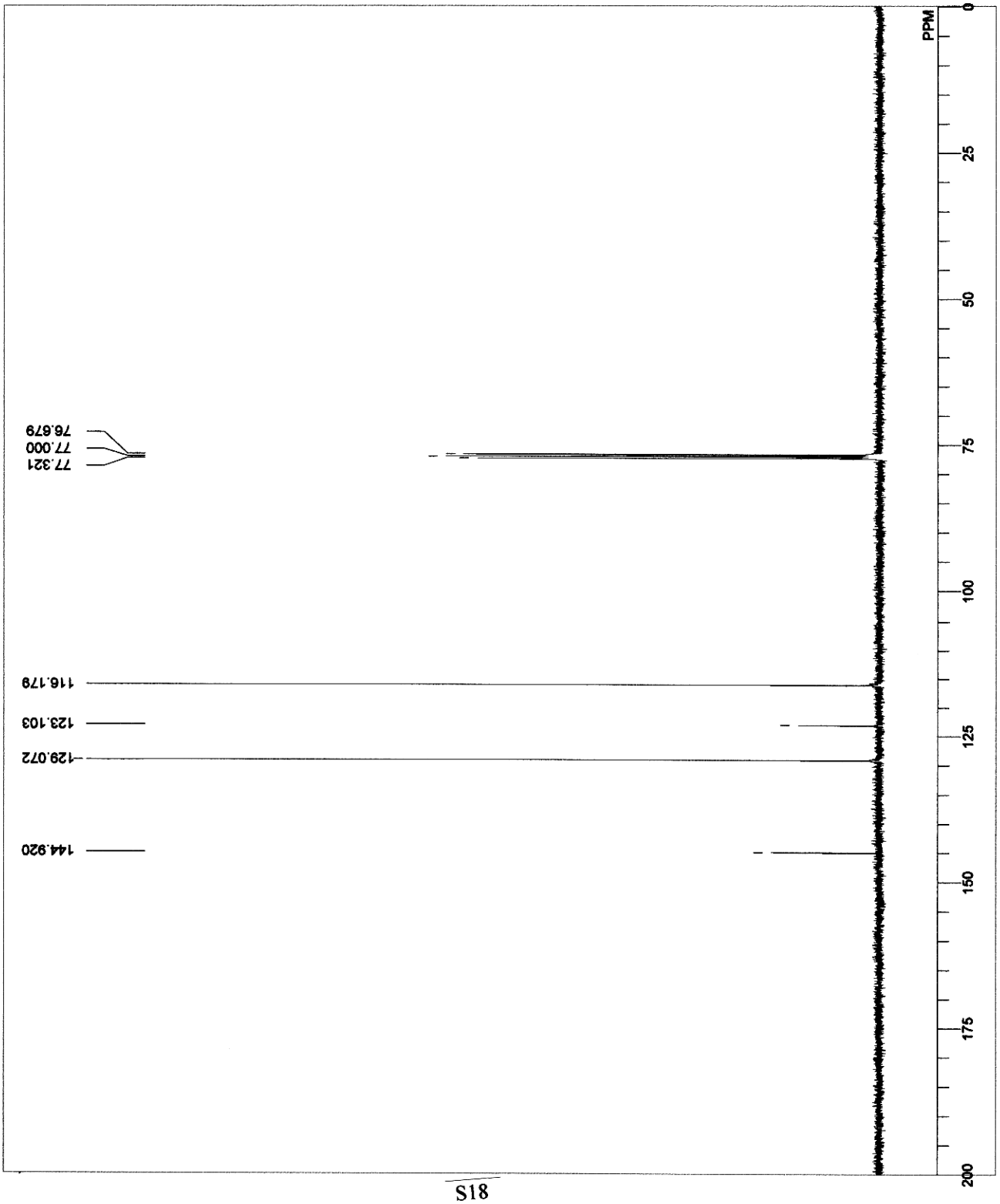


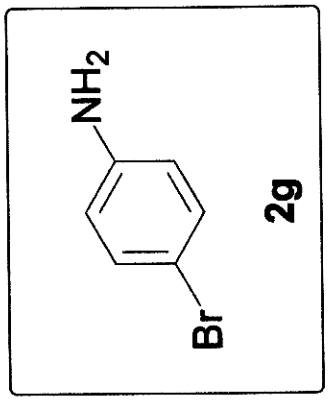
OBNUC	1H
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	7993.60 Hz
SCANS	8
ACQTM	4.0993 sec
PD	2.9010 sec
PW1	6.80 usec
IRNUC	1H
CTEMP	18.9 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	0.12 Hz
RGAIN	21

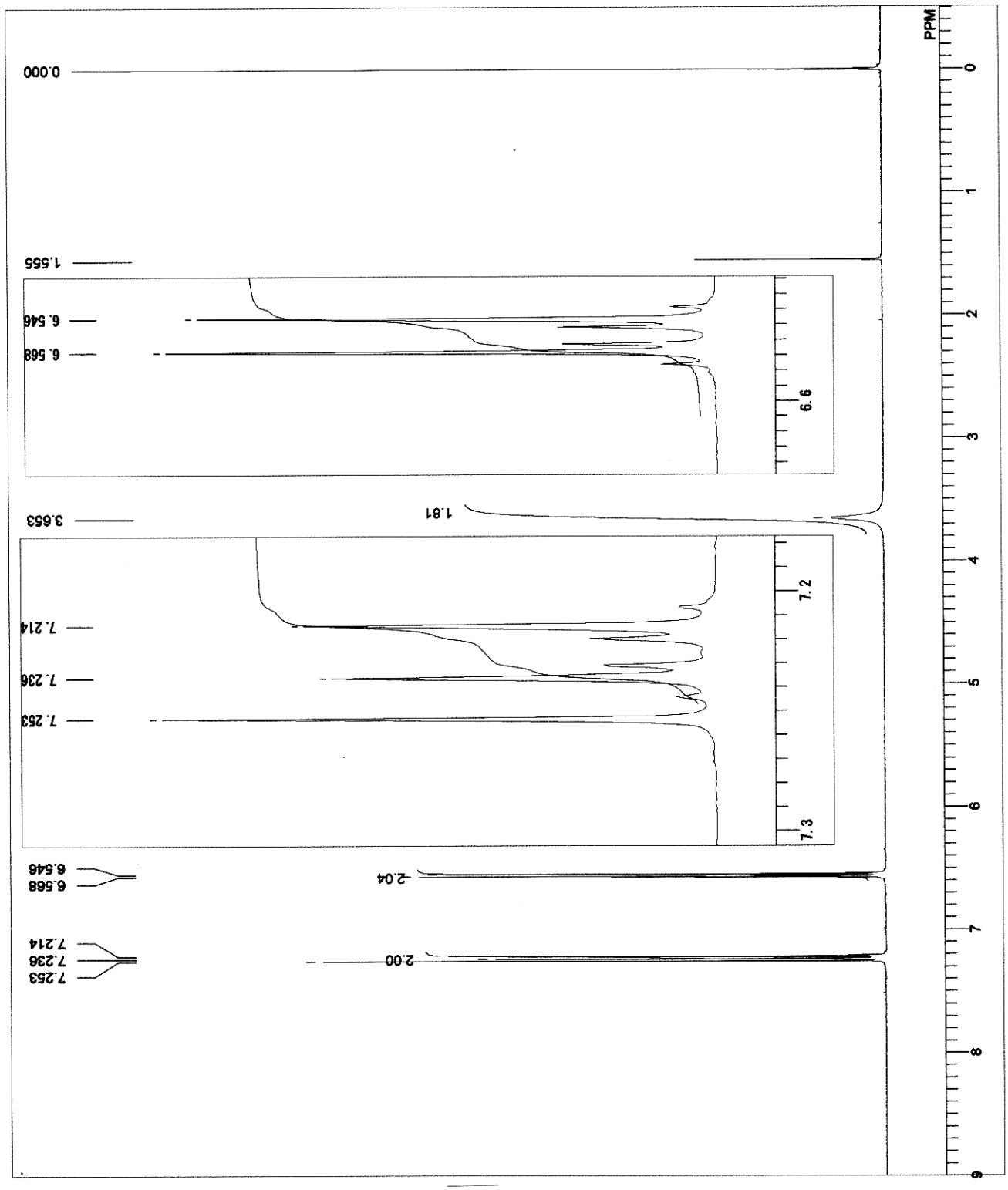


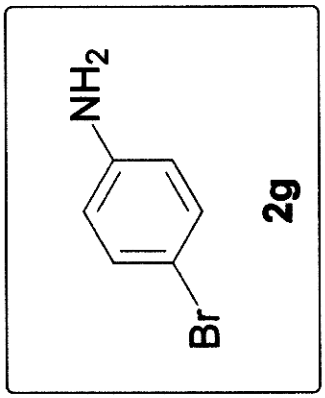


OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	512
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	22.1 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.00 Hz
RGAIN	29

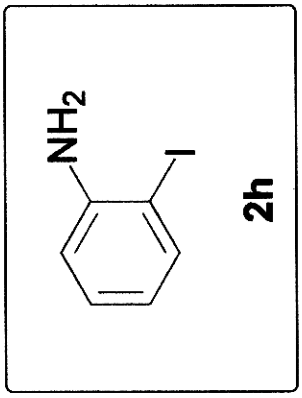



NH2
Br
2g

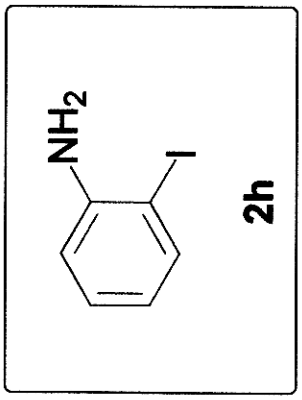

1H
NON
399.65 MHz
124.00 KHz
10500.00 Hz
32768
7993.60 Hz
16
4.0993 sec
2.9010 sec
6.60 usec
1H
22.9 c
CDCL3
0.00 ppm
0.12 Hz
22
OBNUC
EXMOD
OBFRQ
OBSET
OBFIN
POINT
FREQU
SCANS
ACQTM
PD
PW1
IRNUC
CTEMP
SLVNT
EXREF
BF
RGAIN
0.000
1.555
6.546
6.568
3.653
1.81
7.214
7.236
7.253
6.6
7.2
7.3
6.546
6.568
2.04
7.214
7.236
7.253
2.00
PPM



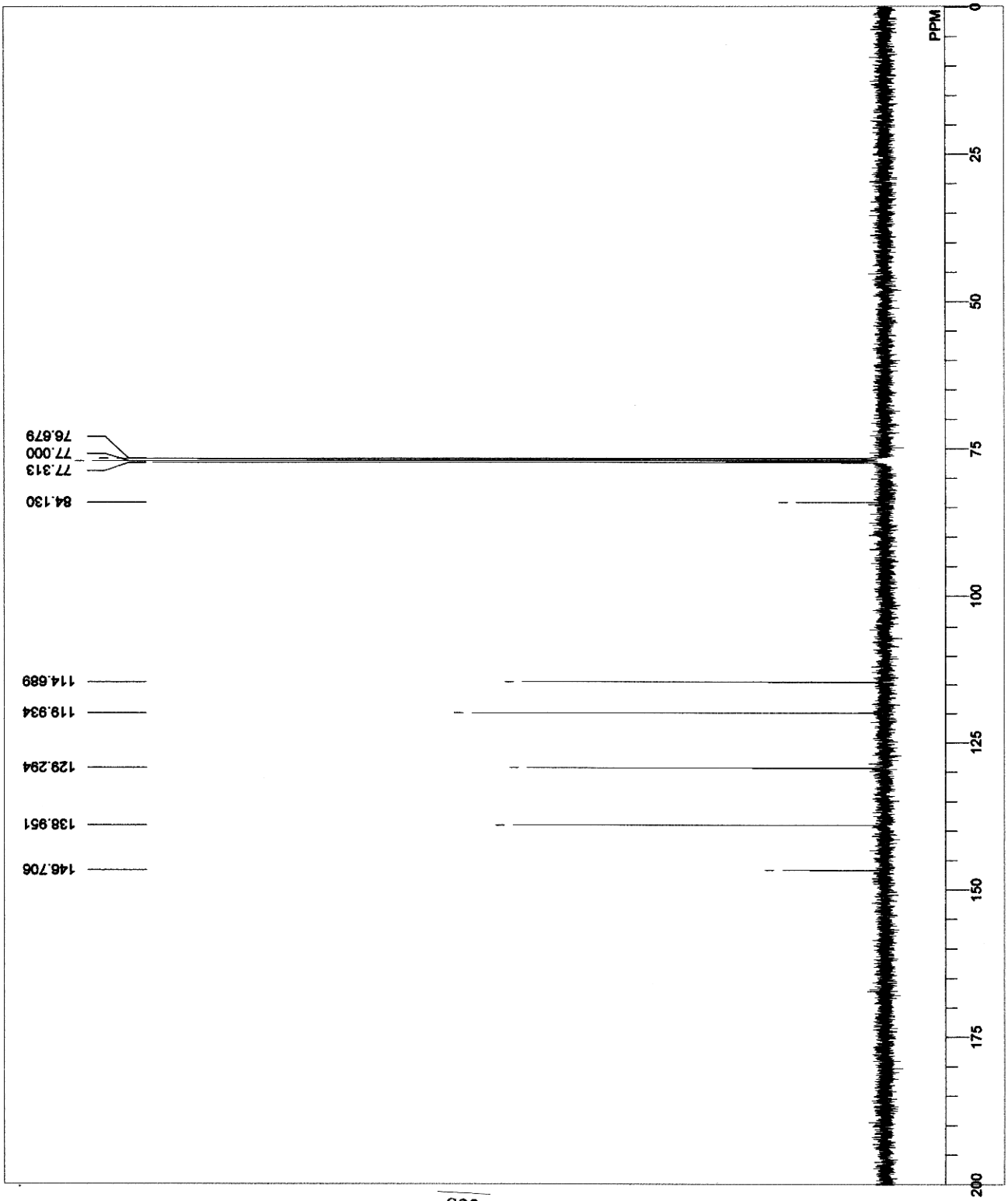
OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	412
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	22.4 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.00 Hz
RGAIN	27

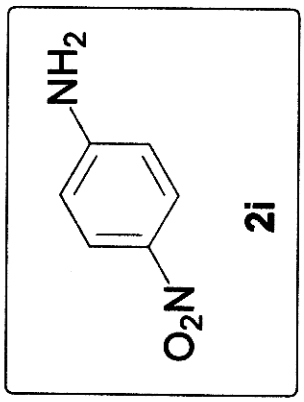


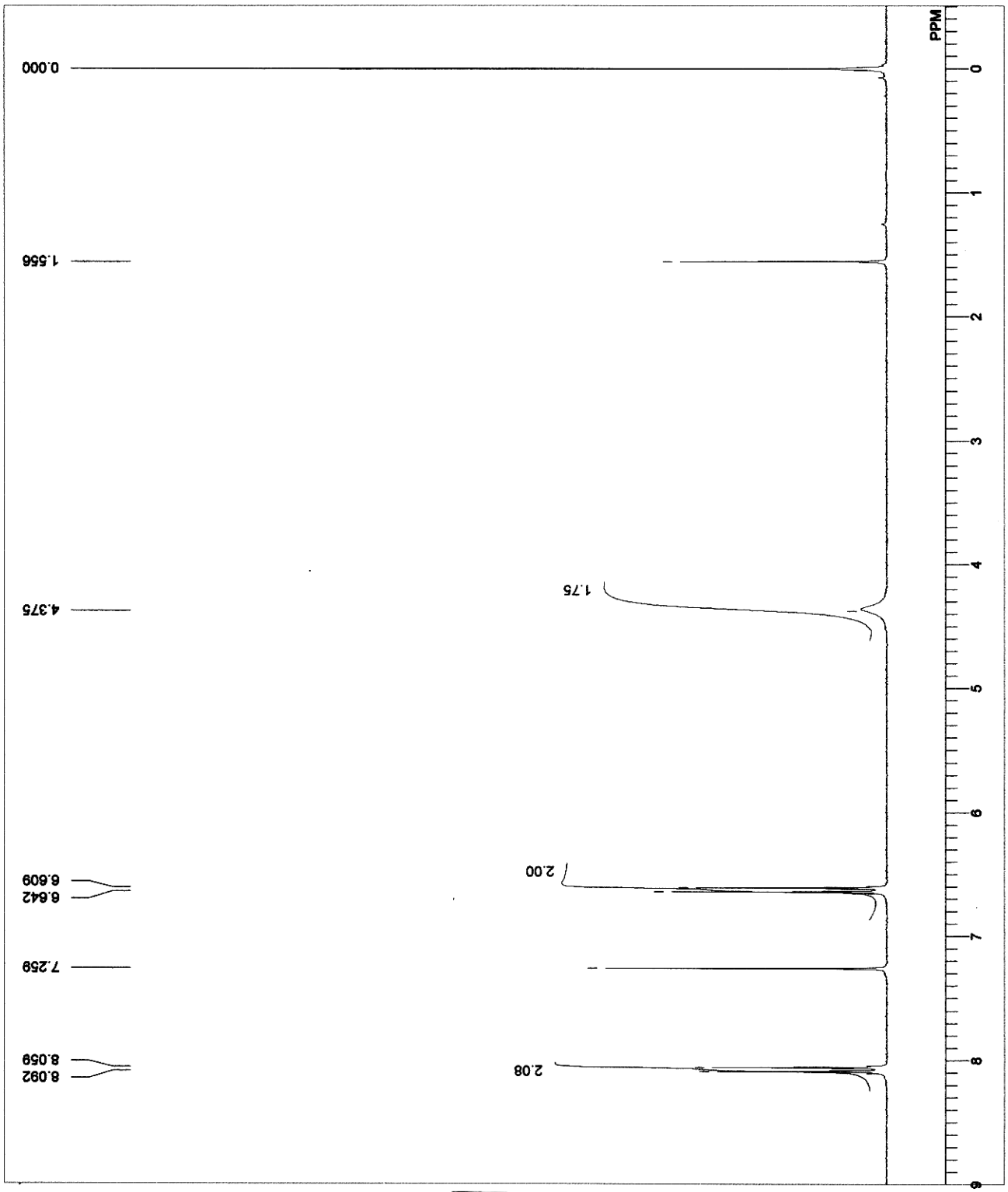
1H	
NON	
OBNUC	
EXMOD	
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	7992.01 Hz
SCANS	16
ACQTM	4.1001 sec
PD	2.9000 sec
PW1	6.20 usec
1H	
IRNUC	
CTEMP	25.0 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	1.00 Hz
RGAIN	22



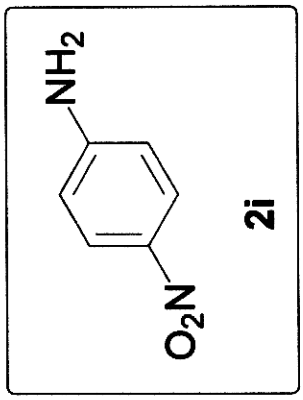
OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	300
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	22.2 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.00 Hz
RGAIN	29



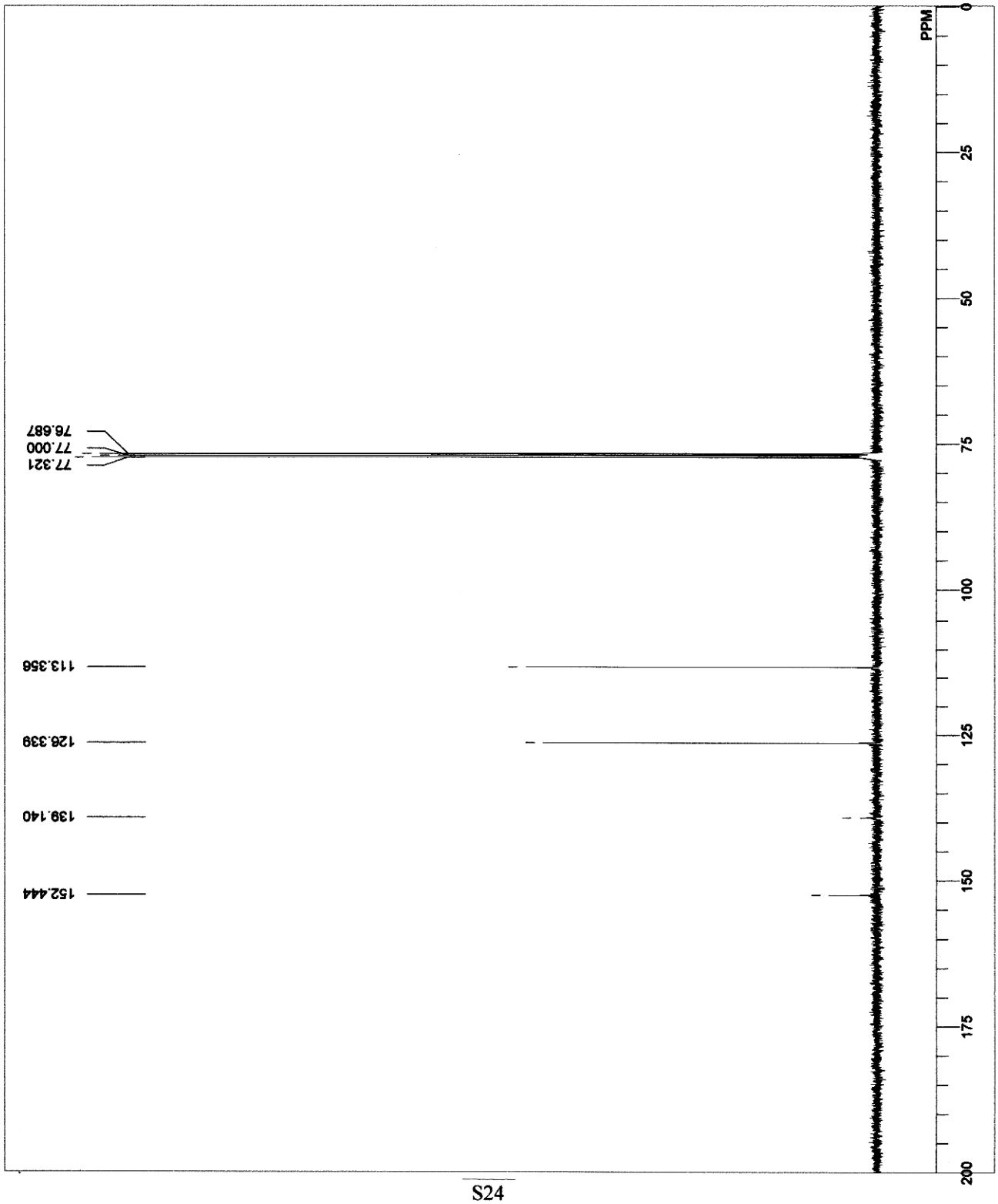

NH2
O2N
2i


OBNUC 1H
EXMOD NON
OBFRQ 270.05 MHz
OBSET 112.00 KHz
OBFIN 5800.00 Hz
POINT 16384
FREQU 5402.40 Hz
SCANS 8
ACQTM 3.0327 sec
PD 3.9690 sec
PW1 4.90 usec
IRNUC 1H
CTEMP 19.6 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.12 Hz
RGAIN 25
0.000
1.556
4.375
6.609
6.642
7.259
8.059
8.092
1.75
2.00
2.08
PPM

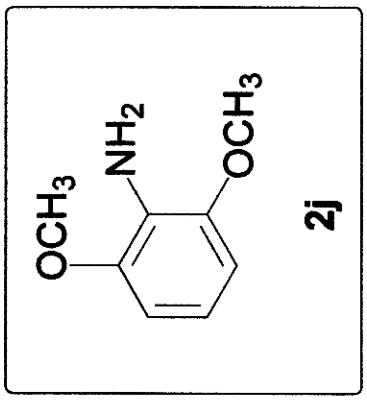
OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	800
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	21.2 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.20 Hz
RGAIN	29

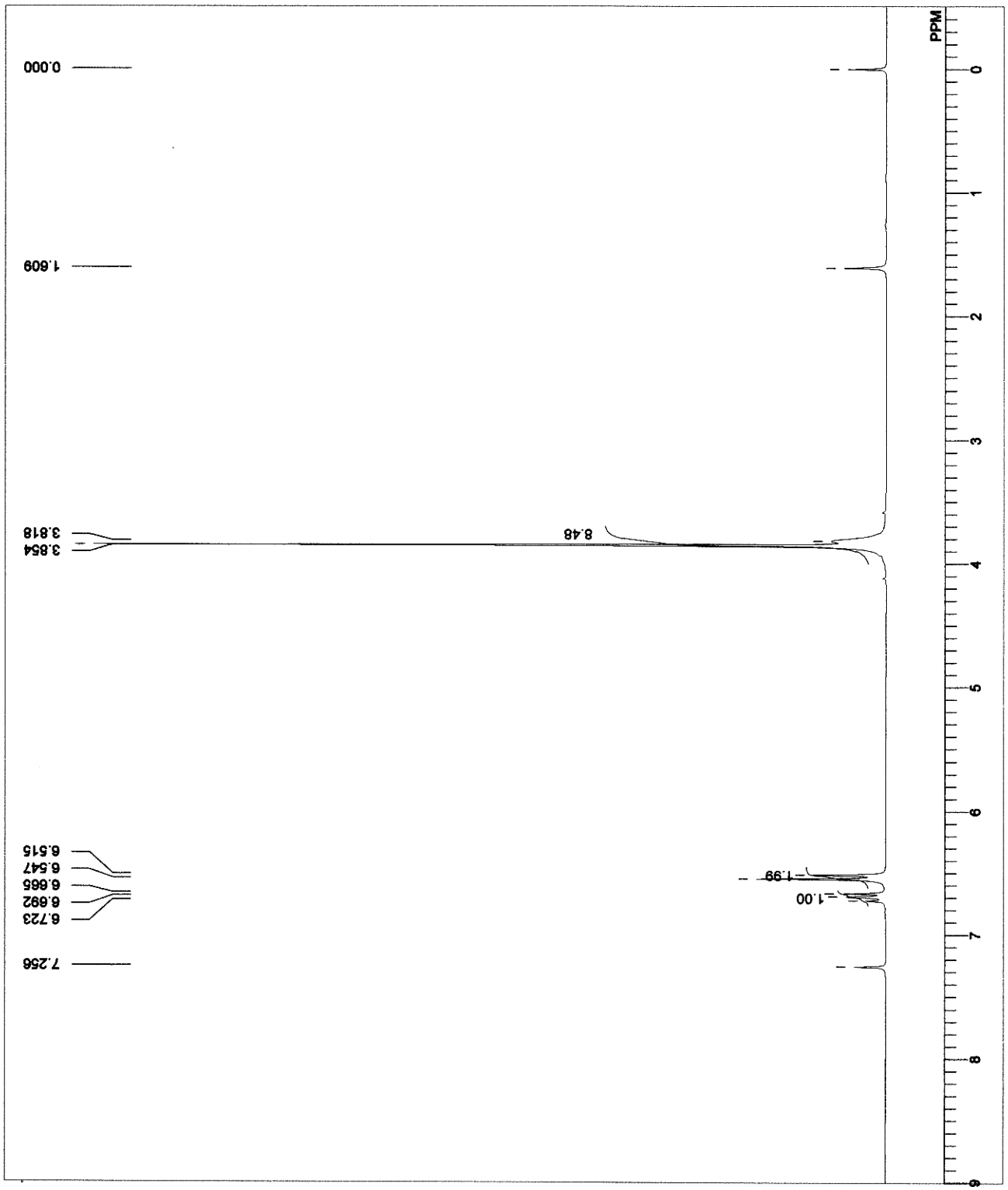


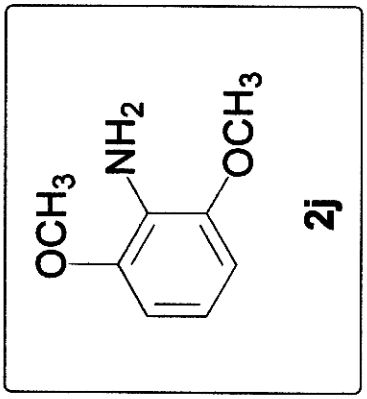
2i



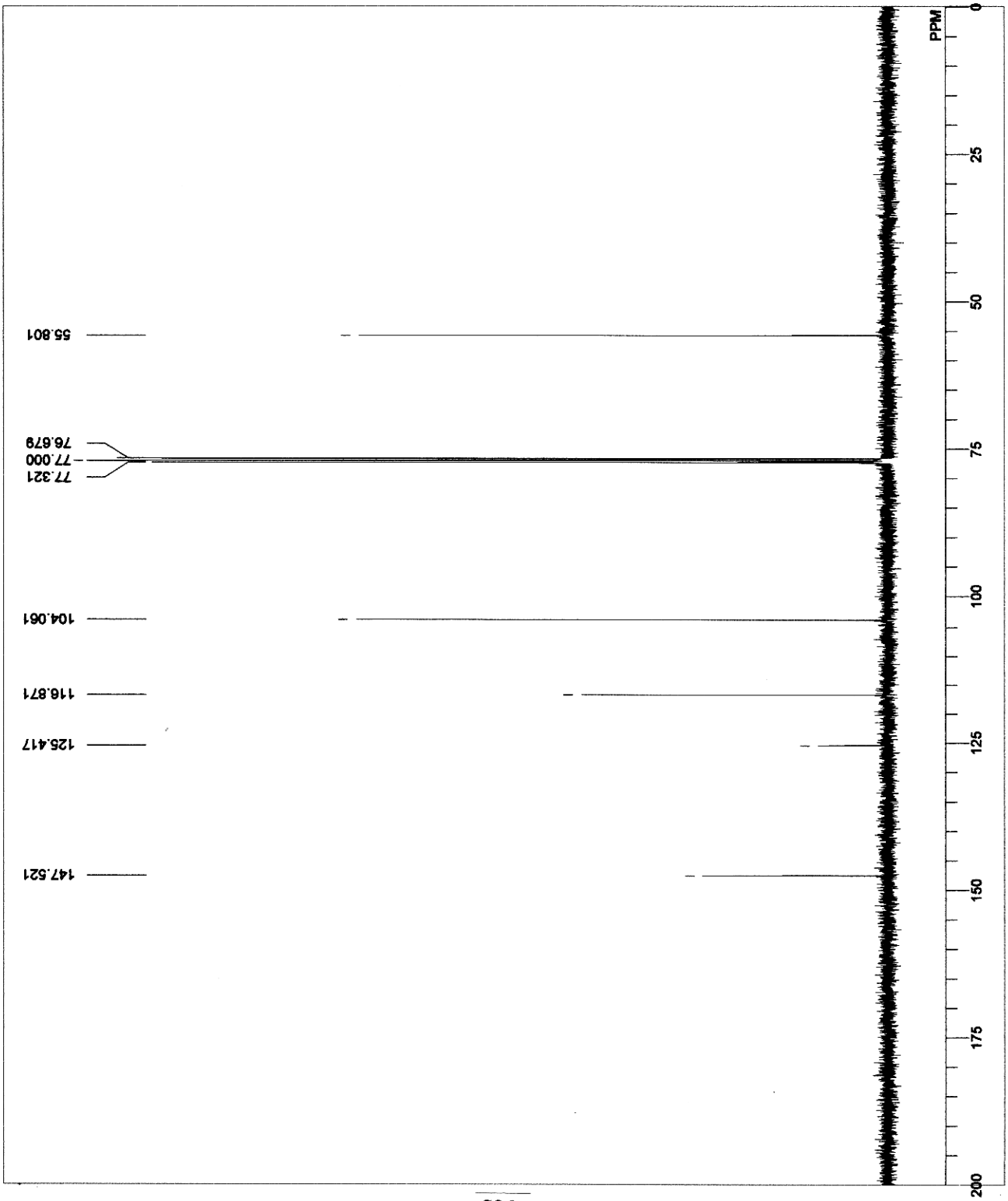
OBNUC	1H
EXMOD	NON
OBFRQ	270.05 MHz
OBSET	112.00 KHz
OBFIN	5800.00 Hz
POINT	16384
FREQU	20000.00 Hz
SCANS	8
ACQTM	0.8192 sec
PD	3.9690 sec
PW1	4.90 usec
IRNUC	1H
CTEMP	18.0 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	1.20 Hz
RGAIN	17

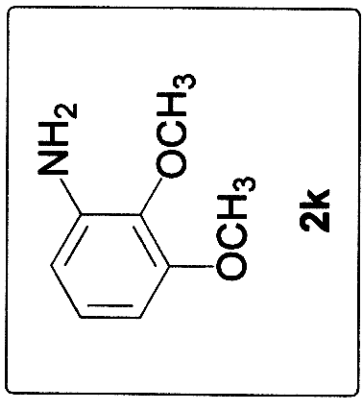




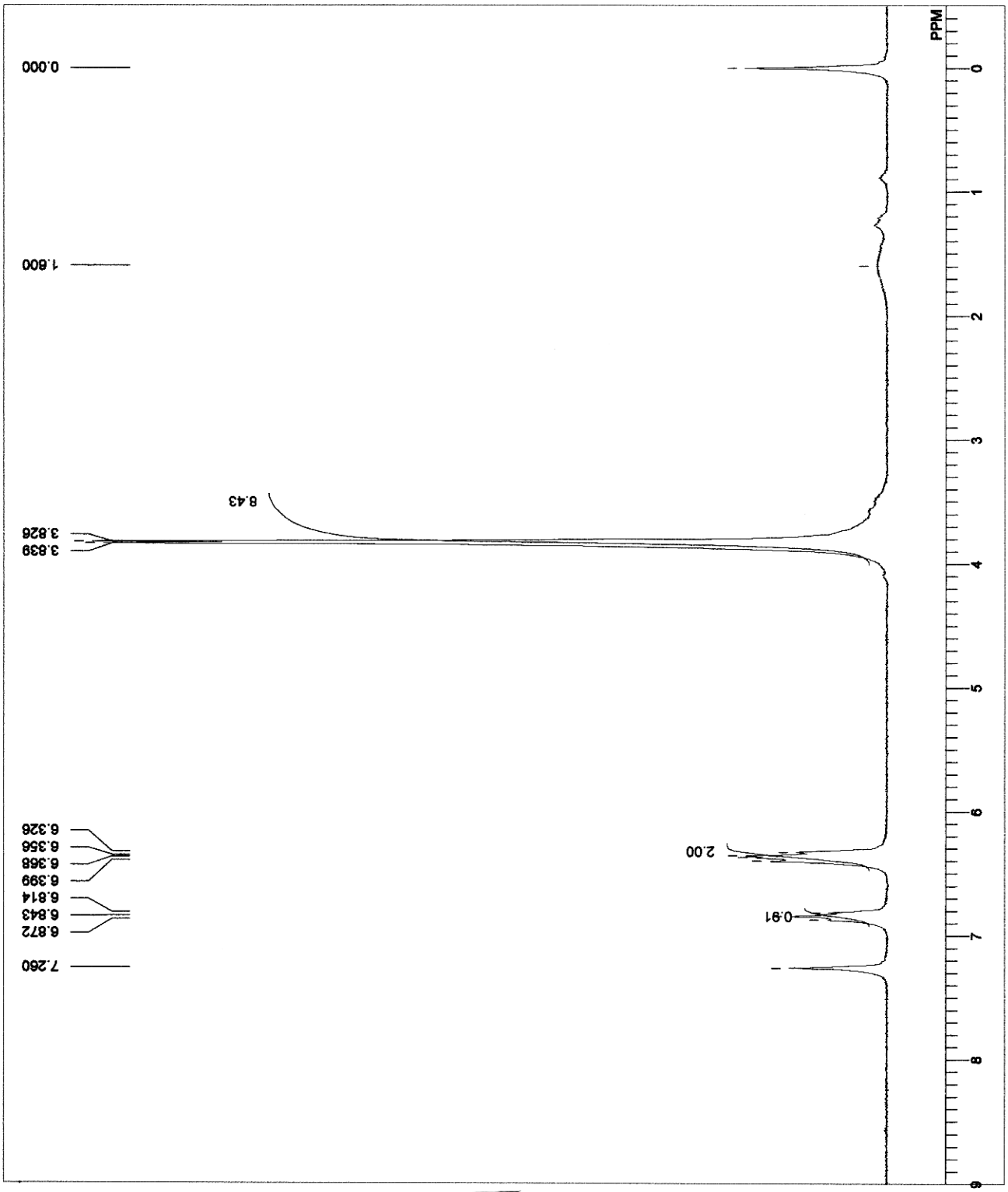


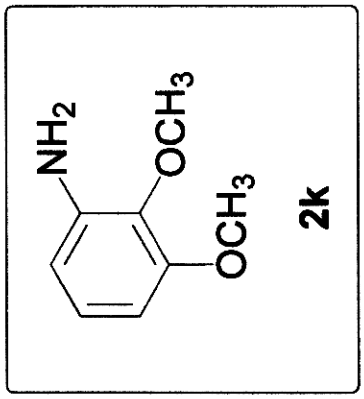
OBNUC	13C
EXMOD	BCM
OBFRQ	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
POINT	32768
FREQU	27118.64 Hz
SCANS	300
ACQTM	1.2083 sec
PD	1.7920 sec
PW1	6.20 usec
IRNUC	1H
CTEMP	22.3 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	1.00 Hz
RGAIN	29





OBNUC	1H
EXMOD	NON
OBFRQ	270.05 MHz
OBSET	112.00 KHz
OBFIN	5800.00 Hz
POINT	16384
FREQU	5405.40 Hz
SCANS	16
ACQTM	3.0310 sec
PD	3.9690 sec
PW1	4.90 usec
IRNUC	1H
CTEMP	25.0 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	0.12 Hz
RGAIN	21





OBNUC	13C
EXMOD	BCM
OBFRQ	67.80 MHz
OBSET	135.00 KHz
OBFIN	5200.00 Hz
POINT	16384
FREQU	18315.00 Hz
SCANS	600
ACQTM	0.8946 sec
PD	2.1050 sec
PW1	4.70 usec
IRNUC	1H
CTEMP	20.6 c
SLVNT	CDCL3
EXREF	77.00 ppm
BF	0.12 Hz
RGAIN	28