Electronic Supplementary Material (ESI) for Chemical Communications

Synthesis of oligodeoxyribonucleotides containing a conformationally-locked *anti* analogue of O^6-methyl-2'-deoxyguanosine and their recognition by MGMT and Atl1

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Supplementary Information

N,N-Dimethylformamide and dichloromethane were dried using the Grubbs' dry solvent apparatus. Silica gel for column chromatography was obtained from Fluorochem. Thin layer chromatography was carried out on pre-coated Merck Kieselgel 60 F_{254} aluminum backed plates. ^{1}H NMR (250.13MHz) and ^{31}P NMR (101.26 MHz) were run on a Bruker AC250 or AV400 (^{1}H at 400.13 and ^{13}C at 100.62 MHz) and all chemical shifts are quoted in p.p.m. relative to tetramethylsilane (^{1}H) or 85% phosphoric acid (^{31}P) as an external standard, respectively. All mass spectroscopy were performed by The University of Sheffield Mass Spectrometry Service.

2-Amino-5-(3-chloropropyl)-4-chloro-7*H*-pyrrolo[2,3-*d*]pyrimidine (8)

2-Amino-5-hydroxypropyl-7*H*-pyrrolo[2,3-*d*]pyrimidin-4-one[1] (730 mg, 3.51 mmol), benzyltriethylammonium chloride (1.6 g, 7.02 mmol) and dry dimethylaniline (0.52 mL, 4.9 mmol) were dissolved in dry MeCN (12 mL) under Ar. Phosphoryl chloride (1.94 mL, 21.1 mmol) was then added and the mixture was refluxed at 90°C for 1 h. The MeCN was removed by evaporation and the residue added to crushed ice. The pH of the mixture was adjusted to 7-8 by adding 10% aq ammonia solution and the product was extracted into CH_2Cl_2 (20 mL). The organic layer was then washed with water (10 mL) and brine (10 mL), dried ($MgSO_4$) and the residue purified by silica gel silica column chromatography (30-40% acetone in DCM) to give a white solid (383 mg, 1.6 mmol, 44%); R_f (10% MeOH/DCM), 0.46; δ_H (d_6-DMSO) 2.05 (2H, dt, J = 6.5, 7.4 Hz CH_2CH_2Cl), 2.79 (2H, t, J = 7.4 Hz, $CH_2CH_2CH_2Cl$), 3.65 (2H, t, J = 6.5 Hz, CH_2Cl), 6.45 (2H, bs, NH_2), 6.86 (1H, s, H6), 11.21 (1H, s, NH) ppm; δ_C (d_6-DMSO) 22.8, 32.9, 44.8, 107.2, 112.3, 120.3, 150.7, 155.2, 159.1 ppm; HRMS (ESI+) Calcd for : $C_9H_{11}N_4Cl_2$ [M+H] 245.0355. Found 245.0361.

2-Amino-5-(3-benzyloxypropyl)-4-chloro-7-[2-deoxy-3,5-di-*O*-(*p*-toluoyl)-β-D-*erythro*-pentofuranosyl]-7*H*-pyrrolo[2,3-*d*]pyrimidine (9)

A mixture of 2-amino-5-(3-benzyloxypropyl)-4-chloro-7*H*-pyrrolo[2,3-*d*]pyrimidine (**7**) and compound **8** (790 mg) was dissolved in anhydrous MeCN (30 mL) under Ar at room temp. NaH (124 mg, 3.1 mmol, 60% dispersed in oil) was added cautiously and the reaction left to stir for 1h. 1-Chloro-2-deoxy-3,5-di-*O*-*p*-toluoyl-α-D-*erythro*-pentofuranose[2] (1.39 g, 3.58 mmol) was then added in portions over 10 min. and the reaction left to stir for 3h. The solvent was then removed, the residue redissolved in DCM and washed with water (100 mL), 5% aqueous HCl (100 mL) and brine (100 mL). The organic layer was then dried ($MgSO_4$) and evaporated and the residue purified the by silica column chromatography (2 - 5% ethyl acetate in DCM). Nucleoside **10** (320 mg) eluted first followed by nucleoside **9** which was isolated

as pale yellow foam (680 mg); R_f (2% MeOH in DCM) 0.21; δ_H ($CDCl_3$) 1.81 (2H, q, J = 6.8,7.6 Hz, CH_2CH_2OBn), 2.37 (3H, s, pTol-CH_3), 2.43 (3H, s, pTol-CH_3), 2.57-2.85 (2H, m, H2' and H2''), 2.75 (2H, t, J 7.6, CH_2CH_2CH_2OBn), 3.47 (2H, t, J = 6.8 Hz, CH_2OBn), 4.49 (2H, s, OCH_2Ph), 4.54-4.79 (3H, m, H4', H5' and H5''), 5.29 (2H, bs, NH_2), 5.73 (1H, m, H3'), 6.58 (1H, dd, J = 3.4 and 5.6 Hz, H1'), 6.72 (1H, s, H6), 7.21-7.29 (4H, m, pTol-H), 7.32-7.35 (5H, m, Ph), 7.93 (2H, d, J = 8.2 Hz, pTol-H), 7.98 (2H, d, J = 8.2 Hz, pTol-H) ppm; δ_C ($CDCl_3$) 21.6, 21.7, 29.9, 37.1, 64.1, 69.5, 72.8, 75.2, 81.9, 83.6, 110.1, 117.1, 119.7, 126.4, 126.7, 127.6, 128.3, 129.0, 129.2, 129.3,129.5,129.6, 129.7, 129.8, 138.5, 144.1, 144.4, 151.8, 153.6, 157.6, 166.0, 166.2 ppm; HRMS (ESI+) Calcd for : $C_{37}H_{38}N_4O_6Cl$ [M+H] 669.2480. Found 669.2481.

2-Amino-5-(3-chloropropyl)-7-[2-deoxy-3,5-di-*O*-(*p*-toluoyl)-*β*-D-*erythro*-pentofuranosyl]-4-chloro-7*H*-pyrrolo[2,3-*d*]pyrimidine (10)

Compound **8** (180 mg, 740 µmol) was dissolved in anhydrous MeCN (20 mL) under Ar at room temp. NaH (35 mg, 890 µmol, 60% in mineral oil) was added cautiously and the reaction left to stir for 1 h, after which α-chlorosugar[2] (344 mg, 890 µmol) was added in portions over 5 min. After 3h, the solvent was evaporated, the residue redissolved in CH_2Cl_2 (20 mL) and washed with water (50 mL), 5% aqueous HCl (50 mL) and brine (50 mL). The organic layer was then dried ($MgSO_4$) and evaporated. Purification of the residue by silica column chromatography (2% MeOH/DCM) gave a pale yellow foam (400 mg, 60%); R_f (2% MeOH/DCM), 0.35; δ_H ($CDCl_3$) 1.90 (2H, dt, J = 6.1, 6.8 Hz, *C*H_2CH_2Cl), 2.35 (3H, s, 2 pTol-*C*H_3), 2.36 (3H, s, 2 pTol-*C*H_3), 2.50-2.60 (1H, m, H2'), 2.80 (2H, t, J = 6.8 Hz, *C*H_2CH_2CH_2Cl), 2.82-2.90 (1H, m, H2''), 3.50 (2H, t, J = 6.1 Hz, *C*H_2Cl), 4.44-4.54 (2H, m, H4' and H5'), 4.68-4.76 (1H, m, H5''), 5.10 (2H, bs, NH_2), 5.70 (1H, m, H3'), 6.63 (1H, dd, J = 3.4, 6.8 Hz, H1'), 6.75 (1H, s, H-6), 7.21 (4H, d, J = 8 Hz, *p*Tol-H), 7.91 (4H, d, J = 8 Hz, *p*Tol-H) ppm; δ_C ($CDCl_3$) 21.5, 23.0, 32.6, 37.2, 44.2, 64.0, 75.1, 81.8, 83.4, 109.5, 115.3, 119.4, 126.4, 126.7, 128.8, 129.0, 129.1, 129.4, 129.6, 143.9, 144.1, 152.2, 154.2, 158.5, 165.8, 165.9 ppm; HRMS (ESI+) Calcd for : $C_{30}H_{31}N_4O_5Cl_2$ [M+H] 597.1672. Found 597.1655.

2-Amino-5-(3-hydroxypropyl)-4-chloro-7-(2-deoxy-β-D-*erythro*-pentofuranosyl)-*7H*-pyrrolo[2,3-*d*] pyrimidine (11)

Compound **9** (510 mg, 0.76 mmol) was dissolved in MeOH (25 mL) and 28% aq ammonia solution (5 mL) added. The mixture was then stirred overnight at 45°C in a sealed vessel then

evaporated. The residue was triturated with diethyl ether (2 x 100 mL) the sample dried in a vacuum oven over P_2O_5, then dissolved in anhydrous DCM (15 mL). A solution of boron trichloride (1M) in heptane, (9.5 mL, 9.5 mmol) was then added dropwise to the stirred solution at -78°C under Ar. After 9 h. the mixture was allowed to warm to room temp. whilst a solution of ethanol in DCM (60 mL, 1:1) was added dropwise. The mixture was evaporated to dryness and purification by silica column chromatography (50% acetone/DCM) gave a pale yellow foam (104 mg, 0.30 mmol, 63%); R_f (20% MeOH in DCM) 0.38; δ_H (d_6-DMSO) 1.74 (2H, q, J = 6.8 Hz, CH_2CH$_2$OH), 2.05-2.11 (1H, m, H2'), 2.33-2.41 (1H, m, H2''), 2.69 (2H, t, J = 7.6 Hz, CH_2CH$_2$CH$_2$OH), 3.44-3.54 (2H, m, H5' and H5''), 3.48 (2H, t, J = 6.0 Hz, CH$_2$O), 3.74-3.77 (1H, m, H4'), 4.28-4.30 (1H, m, H3'), 4.48 (1H, t, J = 5.2 Hz, CH$_2$CH$_2$OH), 4.89 (1H, t, J = 5.6 Hz, C5'-OH), 5.23 (1H, d, J = 4.5 Hz, C3'-OH), 6.40 (1H, dd, J = 3.4 and 5.5 Hz, H1'), 6.65 (2H, s, NH$_2$), 7.09 (1H, s, H-6) ppm; δ_C (d_6-DMSO) 22.1, 33.3, 40.0, 60.3, 61.9, 70.9, 81.9, 86.9,107.7, 115.1, 119.5, 150.9, 154.3, 159.0 ppm; HRMS (ESI+) Calcd for : $C_{14}H_{20}N_4O_4C$ [M+H] 343.1173. Found 343.1181.

4-Amino-2-(2-deoxy-β-D-*erythro*-pentofuranosyl)-6-oxa-7,8,9-trihydro-2,3,5-triazabenzo[*cd*]azulene (12)

To a solution of **10** (483 mg, 0.81 mmol) in 1,4-dioxane (15 mL), was added 1M aq. NaOH solution was added (15 mL, 15 μmol) and the mixture was refluxed at 90°C for 18 h. After cooling, the solution was neutralised with 0.1M aq. acetic acid solution and the mixture then evaporated. Purification by silica column chromatography (40% acetone/DCM) gave a white solid (73 mg, 29%); R_f (20% MeOH in DCM) 0.46 (fluorescent at 356 nm); δ_H (d_6-DMSO) 2.08-2.12 (3H, m, CH_2CH_2O and H2'), 2.30-2.40 (1H, m, H2''), 2.77 (2H, t, J = 7.6 Hz, $CH_2CH_2CH_2O$), 3.45-3.54 (2H, m, H5' and H5''), 3.73-3.79 (1H, m, H4'), 4.25-4.29 (1H, m, H3'), 4.34 (2H, t, J = 6.8 Hz, CH_2O), 4.91 (1H, bs, OH), 5.21 (1H, bs, OH), 6.08 (2H, s, NH_2), 6.43 (1H, dd, J 3.4, 6.8, H1'), 6.92 (1H, s, H6) ppm; δ_C (d_6-DMSO) 25.9, 28.9, 62.1, 71.1, 71.8, 81.9, 86.8, 97.6, 114.1, 115.1, 155.3, 159.8, 164.9 ppm; HRMS (ESI+) Calcd for $C_{14}H_{20}N_4O_4C$ [M+Na] 329.1226. Found 329.1220.

4-{[(dimethylamino)methylidene]amino}-2-(2-deoxy-β-D-*erythro*-pentofuranosyl)-6-oxa-7,8,9-trihydro-2,3,5-triazabenzo[cd]azulene (15)

Compound **12** (150 mg, 490 μmol) was dissolved in anhydrous DMF (3 mL), under Ar. After 1 h, *N,N*-dimethylformamide dimethylacetal (0.5 mL, 3.9 mmol) was added and the solution left to stir overnight. After evaporation the residue was purified by silica gel column chromatography (0-5% MeOH in CH_2Cl_2 (1% Et_3N)) to give a white foam (100 mg, 57%) R_f (10% MeOH/DCM) = 0.47; δ_H (d_4-CD_3OD) 2.07-2.11 (2H, m, CH_2CH_2O), 2.80 (2H, t, J = 6.4 Hz, $CH_2CH_2CH_2O$), 3.00 (3H, s, N-CH_3), 3.11 (3H, s, N-CH_3), 3.45(2H, m, H2' and H2''), 3.70 (1H, m, H5'), 4.31 (1H, m, H5''), 4.39 (2H, t, J = 6.4 Hz, CH_2O), 4.93 (1H, t, J = 6.4 Hz, C4'), 5.25 (1H, d, J = 6.4 Hz, C3'), 6.05 (1H, dd, J = 3.2, 6.4 Hz, H1'), 7.15 (1H, s, H-6), 8.09 (1H, s, N=C-*H*) ppm; δ_C (d_4-CD_3OD) 27.1, 30.3, 35.4, 41.0, 41.6, 63.7, 72.9, 74.1, 84.9, 88.5, 102.7, 116.2, 119.6, 155.8, 159.2, 161.9, 166.4 ppm; HRMS (ESI+) Calcd for $C_{17}H_{27}N_5O_4$ [M+H] 362.1828. Found 362.1827.

4-[(Formyl)amino]-2-(2-deoxy-β-D-*erythro*-pentofuranosyl)-6-oxa-7,8,9-trihydro-2,3,5-triazabenzo[cd]azulene (16)

Compound **15** (250 mg, 0.69 mmol) was dissolved in 20% acetic acid (5 mL) and stirred overnight at room temp. After evaporation, the residue was purified by silica gel column chromatography (0-5% MeOH / CH_2Cl_2) to give a white foam (150 mg, 65%). R_f (10%

MeOH/DCM) = 0.60; δ_H (d_4-CD_3OD) 2.32-2.56 (3H, m, CH_2CH_2O and H2'), 2.54 (1H, m, H2''), 2.93 (2H, t, J = 5.5 Hz, $CH_2CH_2CH_2O$), 3.72 (2H, m, H5' and H5''), 3.94 (1H, m, H4'), 4.53 (3H, m, CH_2O and H3'), 6.63 (1H, dd, J = 3.2 Hz, 6.4 Hz, H1'), 7.21 (1H, s, H6), 9.39 (1H, s, *CH*O) ppm; HRMS (ESI+) Calcd for $C_{15}H_{19}N_4O_5$ [M+H] 335.1355. Found 335.1353.

4-[(Formyl)amino]-2-(2-deoxy-β-D-erythro-5-O-[4, 4'-dimethoxytrityl]-*erythro*-pentofuranosyl)-6-oxa-7,8,9-trihydro-2,3,5-triazabenzo[cd]azulene (17)

Compound **16** (150 mg, 449 μmol) was dissolved in anhydrous pyridine (5 mL) under Ar with stirring. 4,4-Dimethoxytrityl chloride (183 mg, 539 μmol) and 4-*N,N*-dimethylaminopyridine (2 mg, 15 μmol) were added. After 4 h the mixture was evaporated, redissolved in ethylacetate (20 mL) and extracted with saturated aq. sodium acetate (10 mL), water (10 mL), brine (10 mL) and dried ($NaSO_4$). Evaporation and purification of the resulting residue by silica gel chromatography (0-5% MeOH / DCM (1% Et_3N)) gave **17** as a pale yellow foam (140 mg, 50%). R_f (5% MeOH/ DCM (1% Et_3N)) = 0.6; δ_H ($CDCl_3$) 2.17 (2H, m, CH_2CH_2O), 2.36-2.44 (2H, m, *H*2' and *H*2''), 2.75 (2H, t, J = 5.8 Hz, $CH_2CH_2CH_2O$), 3.33-3.46 (2H, m, H5' and H5''), 3.80 (6H, s, 2 x -OCH_3, DMT), 4.09 (1H, m, H4'), 4.50 (2H, m, CH_2O), 4.65 (1H, m, H3'), 6.65 (1H, pt, J = 6.8 Hz, *H*1'), 6.81 (4H, m, Ar-*H*, DMT), 6.92 (1H, s, H6), 7.17-7.45 (9H, m, Ar-*H*, DMT), 7.92 (1H, d, J = 10.9 Hz, *NH*-CHO), 9.49 (1H, d, J = 10.9 Hz, *CH*O) ppm; δ_C ($CDCl_3$) 26.5, 29.3, 40.9, 46.5, 55.6, 64.5, 72.8, 73.6, 83.5, 86.1, 86.9, 103.1, 113.6, 115.5, 118.7, 127.3, 128.3, 128.7, 130.5, 130.6, 136.1, 136.2, 145.0, 152.0, 154.0, 158.9, 163.6, 165.6 ppm; HRMS (ESI+) Calcd for $C_{36}H_{37}N_4O_7$ [M+H] 637.2662. Found 637.2654.

4-[(Formyl)amino]-2-(2-deoxy-β-D-*erythro*-5-O-[4,4'-dimethoxytrityl] pentofuranosyl)-6-oxa-7,8,9-trihydro-2,3,5-triazabenzo[cd]azulene-3'-(2-β-cyanoethyl-*N,N*-diisopropyl)phosphoramidite (18)

Compound **17** (110 mg, 173 μmol) was dissolved in dry DCM (2 mL, 0.1 M) under Ar. Dry diisopropyl ethylamine (120 μL, 694 μmol) was then added followed by the dropwise addition of 2-cyanoethyl-*N*-diisopropylamine chlorophosphomidite (50 μL, 208 μmol) over 15 min. After 1 h benzyl alcohol solid support (2.5 mmol/g average) was added[3] and the resulting suspension was stirred for 30 min. further. The reaction was then filtered to remove the solid support, the filtrate was washed with 10% Na_2CO_3 (10 ml), brine (10 mL) and dried (Na_2SO_4). The residue was evaporated and purified by silica gel column chromatography under nitrogen eluting with 45% dichloromethane / hexane (10% Et_3N) to give phosphoramidite **18** as a white foam (75 mg, 52%); R_f (EtOAc/ hexane/Et_3N, 45:45:10 = 0.55,

0.57; ^{31}P NMR δ ($CDCl_3$) +148.5, +148.6 ppm; δ_H ($CDCl_3$) 1.12-1.28 (12H, m, -NCH*Me*$_2$), 2.19 (2H, m, *CH*$_2$CH$_2$O), 2.36-2.44 (6H, m, *CH*$_2$CH$_2$CH$_2$O, -NC*H*Me$_2$, H2' and H2''), 2.77 (2H, t, *J* = 5.8 Hz, *CH*$_2$CH$_2$CH$_2$O), 3.26-3.78 (6H, m, -OCH$_2$C*H*$_2$CN, H5' and H5''), 3.80 (6H, s, 2 x -O*CH*$_3$, DMT), 4.25 (1H, m, H4'), 4.50 (2H, m, *CH*$_2$O), 4.75 (1H, m, H3'), 6.63 (1H, pt, *J* = 6.8 Hz, *H*1'), 6.81 (4H, m, Ar-*H*, DMT), 6.96/6.99 (1H*, s, H6), 7.24-7.47 (9H, m, Ar-*H*, DMT), 7.73 (1H, m, *NH*-CHO), 9.49 (1H*, d, *J* = 10.9 Hz, *CH*O) ppm *2 diastereoisomers ; HRMS (ESI+) Calcd $C_{45}H_{54}N_6O_8P$ [M+H] 837.3741. Found 837.3737.

Oligodeoxyribonucleotide synthesis

The oligodeoxyribonucleotides **ODN-1** and **ODN-2** were synthesised on an Applied Biosystems DNA automated synthesiser (Model 394) employing standard phosphoramidites. The MeG containing ODN was purchased and the pobG-containing ODN prepared as described previously.[4] The final dimethoxytrityl group (DMT) was left on ODN-1 for purification purposes. After synthesis the ODNs were removed from the solid support with 33% aq ammonia solution at room temperature by the Applied Biosystems 394 automated synthesiser through the machine own deprotection programme. Further incubation at 50 °C for 12 h removed the formyl and other protecting groups. The 5'-SIMA label and -DMT protected oligomers were purified by reverse phase high performance liquid chromatography (RP-HPLC) using a Hichrom ACE-5 C18 (250 x 4.6 mm) column with a flow rate of 1 mL/minute and detection at 260 nm and a gradient of 0 - 60% B in 30 min. (A = 0.1 M triethylammonium bicarbonate pH 7.5/5% CH_3CN, B = CH_3CN). Fractions containing purified ODNs were evaporated, redissolved in water, de-salted using a NAP-10 column, and characterized using ESI-MS. Detritylation was performed by treatment with 20% acetic acid for 1 h. After removal of the acid the oligomer was further dissolved in water 1 mL, extracted with diethyl ether and de-salted using a NAP-10 column.

ODN-1 (DMT-ON) HPLC retention time = 19.1 min. ESI-MS (DMT-off) calcd. 4012, found 4015.

ODN-2 HPLC retention time = 20.9 min. ESI-MS calcd. 4772, found 4773.

MGMT Assays

The inactivation of human MGMT by the modified ODN-1 and MeG-containing ODN involved pre-incubation of MGMT-MBP (MGMT fusion with maltose binding protein) with varying amounts of ODN for 10 h. at 37°C using the procedure described previously[5,6]

Binding assays with Atl1. Fluorescence emission intensity measurements (determined in triplicate) used a 1 nM solutions of 5'-ODNs in 1 mL of titration buffer (50 mM Tris–HCl pH 7.5, 50 mM NaCl, 1 mM EDTA) to which were added native Atl1[7] in 1 mL aliquots. The binding isotherms were fitted by non-linear least-squares regression using KaleidaGraph to the following equation describing the equilibrium $D + E \leftrightarrow DE$ (where D = ODN, E = enzyme, DE = ODN-enzyme complex)

$$I = I_{max} + [(D + E + K_D) - ((D + E + K_D)^2 - (4DE))^{0.5}] (I_{min} - I_{max}) / 2D$$

(where I = intensity measured at a certain concentration of enzyme, I_{max} = maximum intensity (i.e. prior to protein addition), I_{min} = minimum intensity (i.e. when binding is saturated), D = ODN concentration, K_D = dissociation constant).

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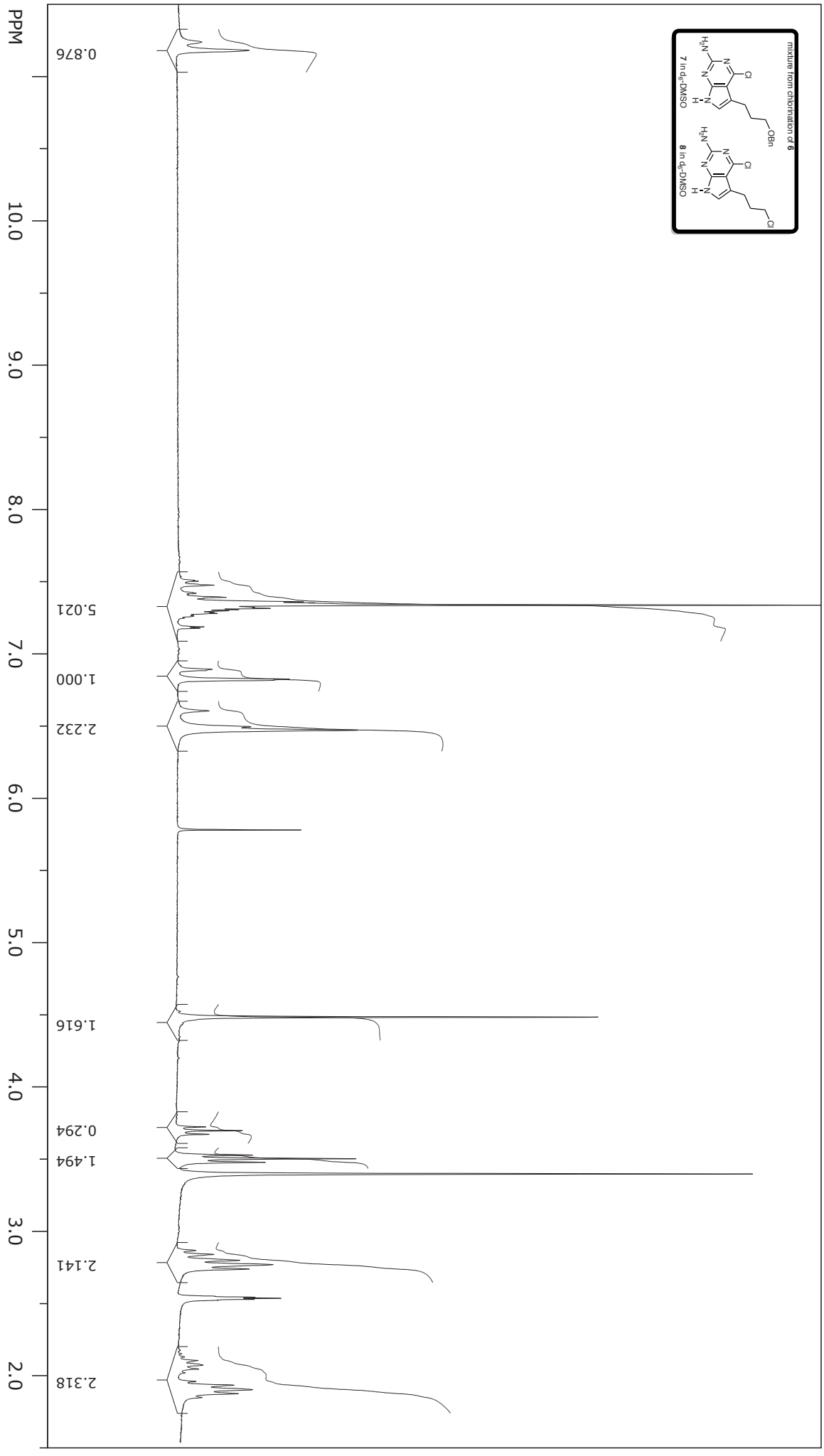

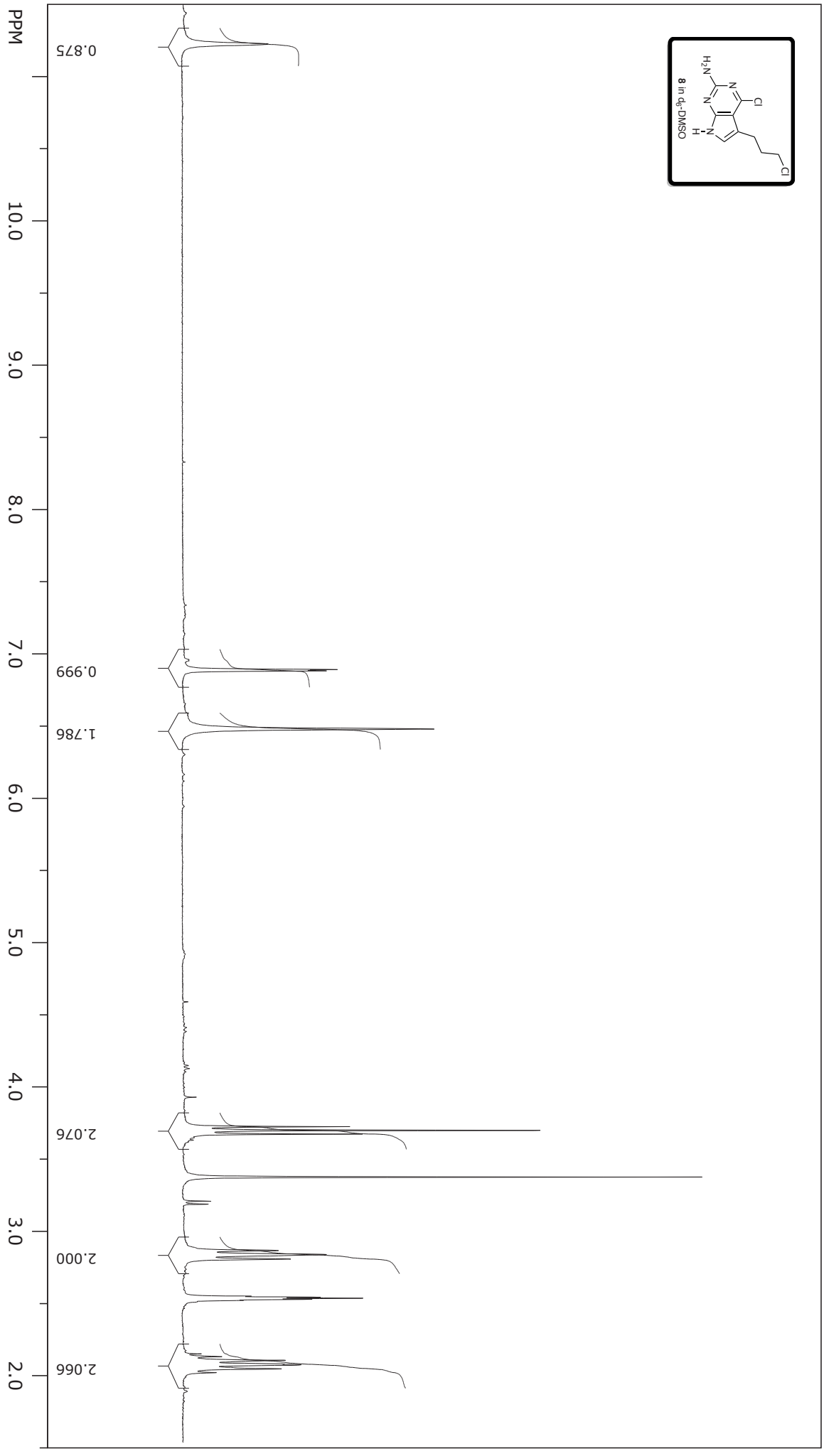

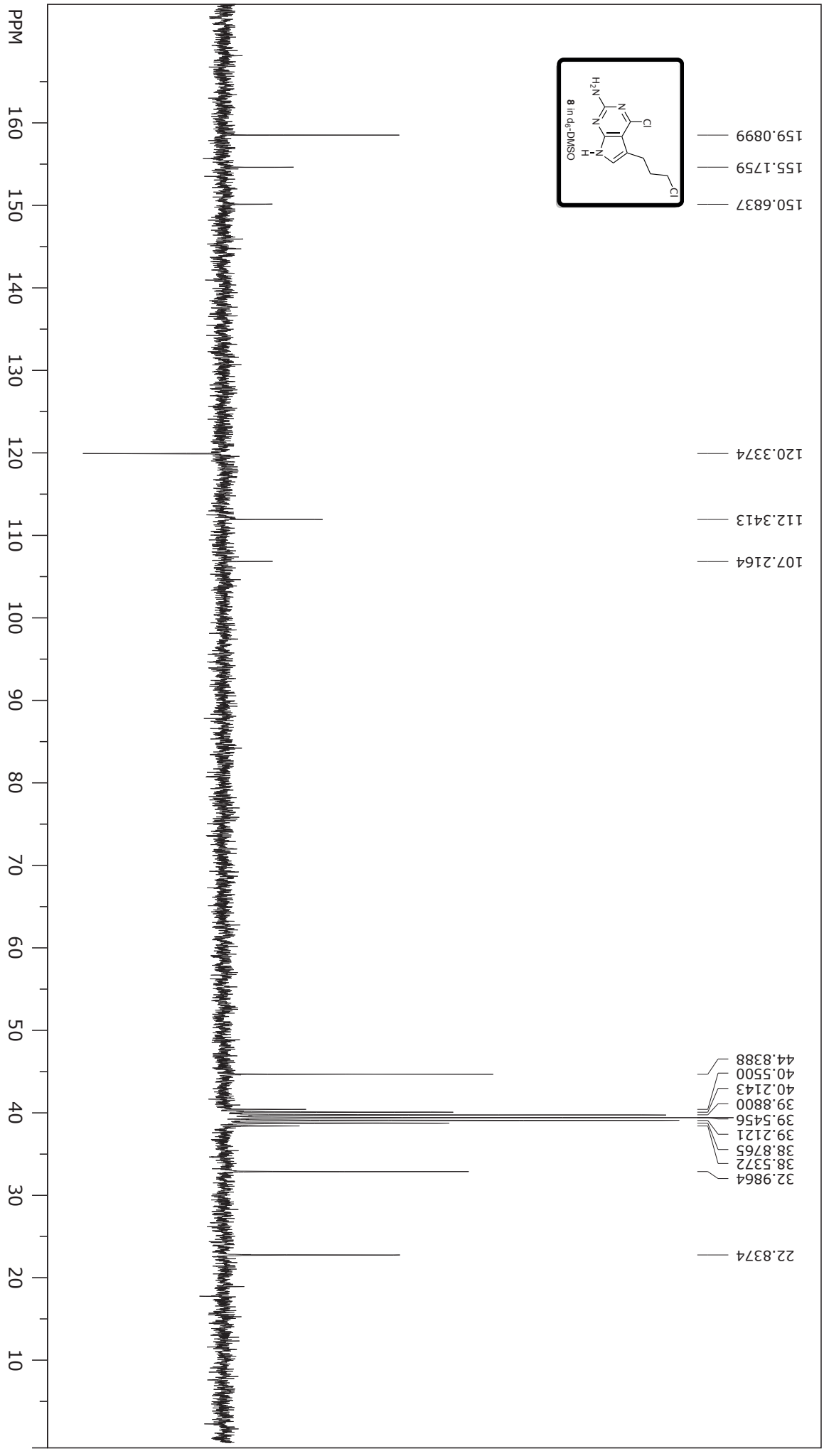

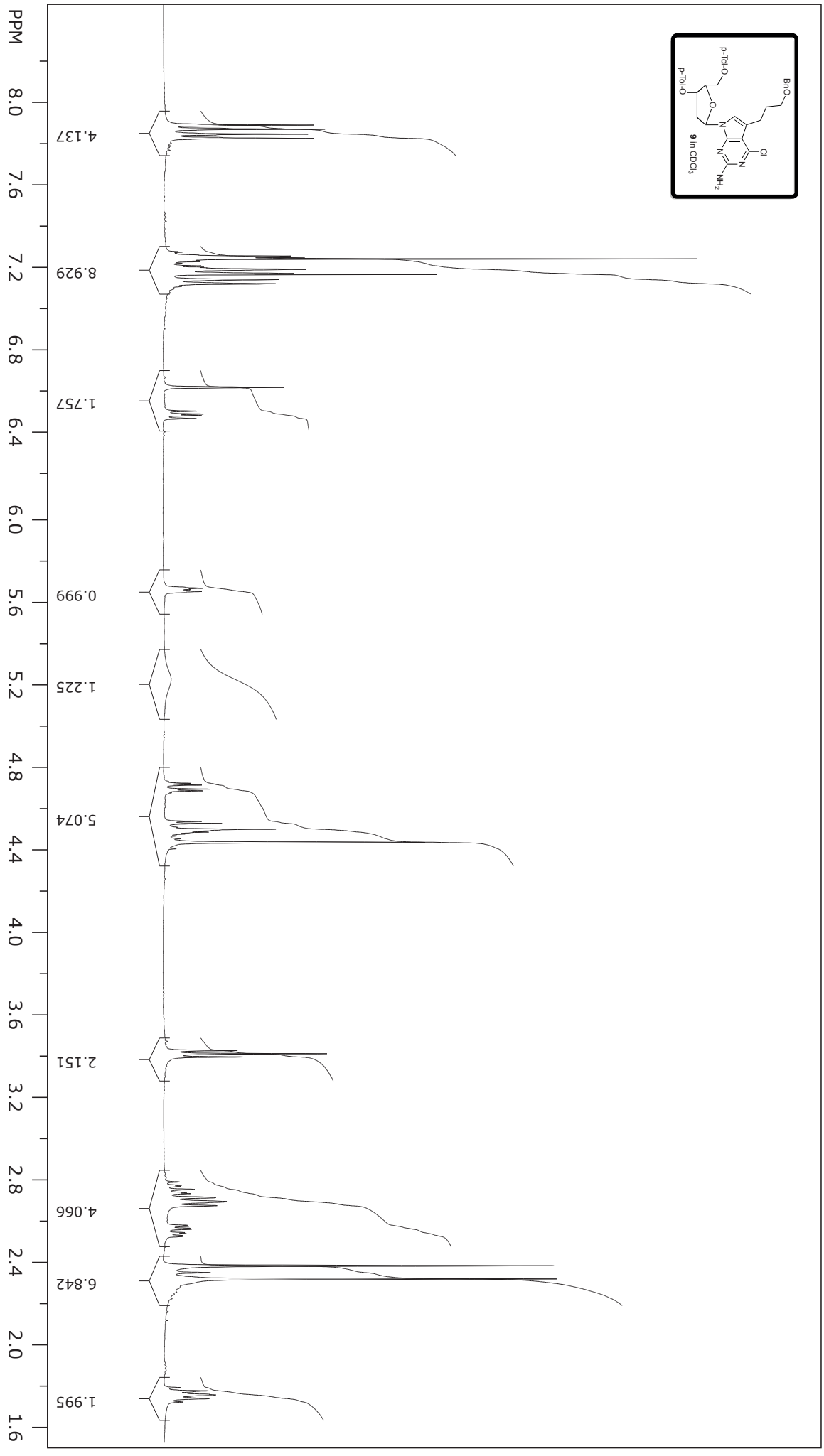

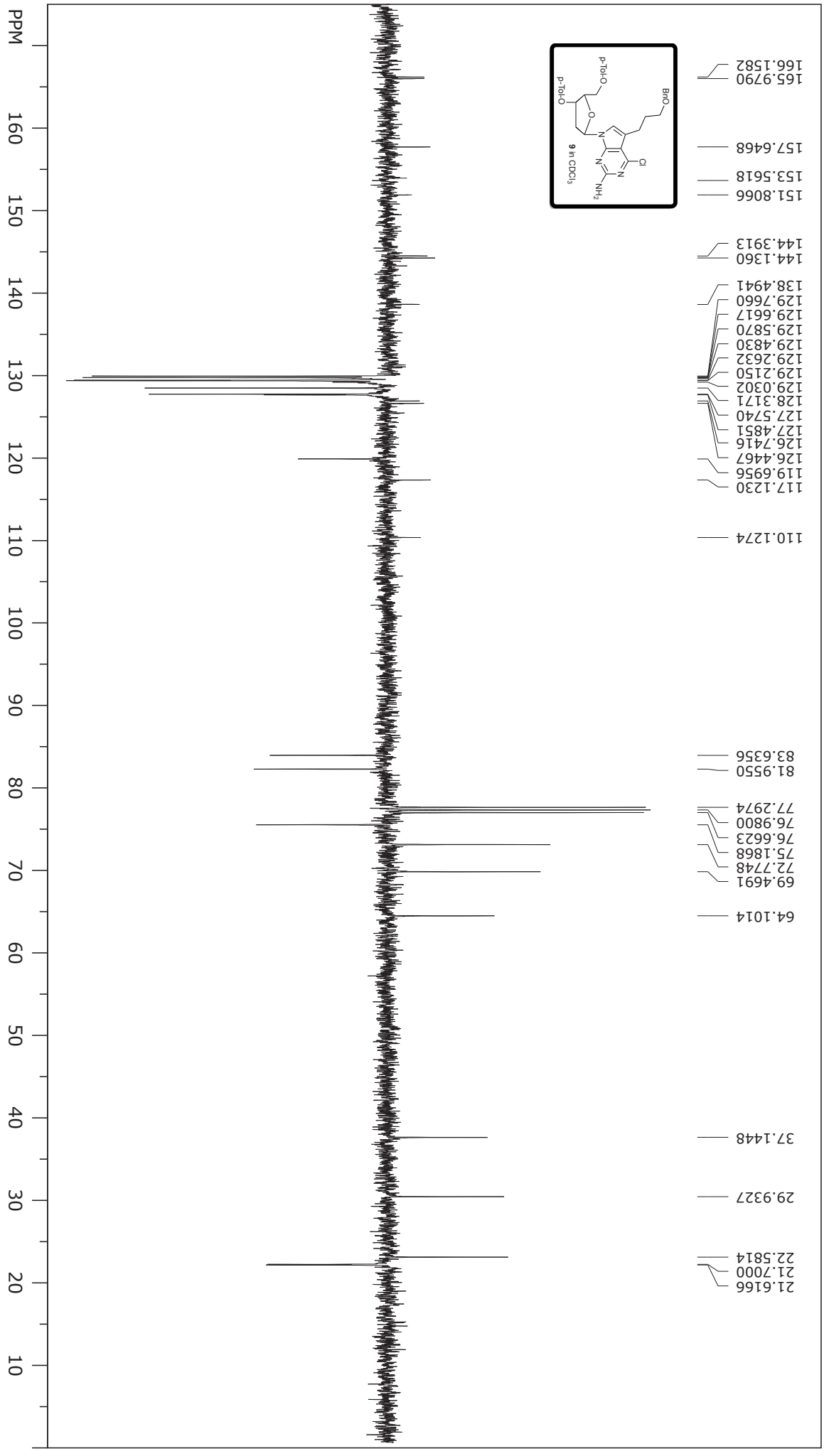
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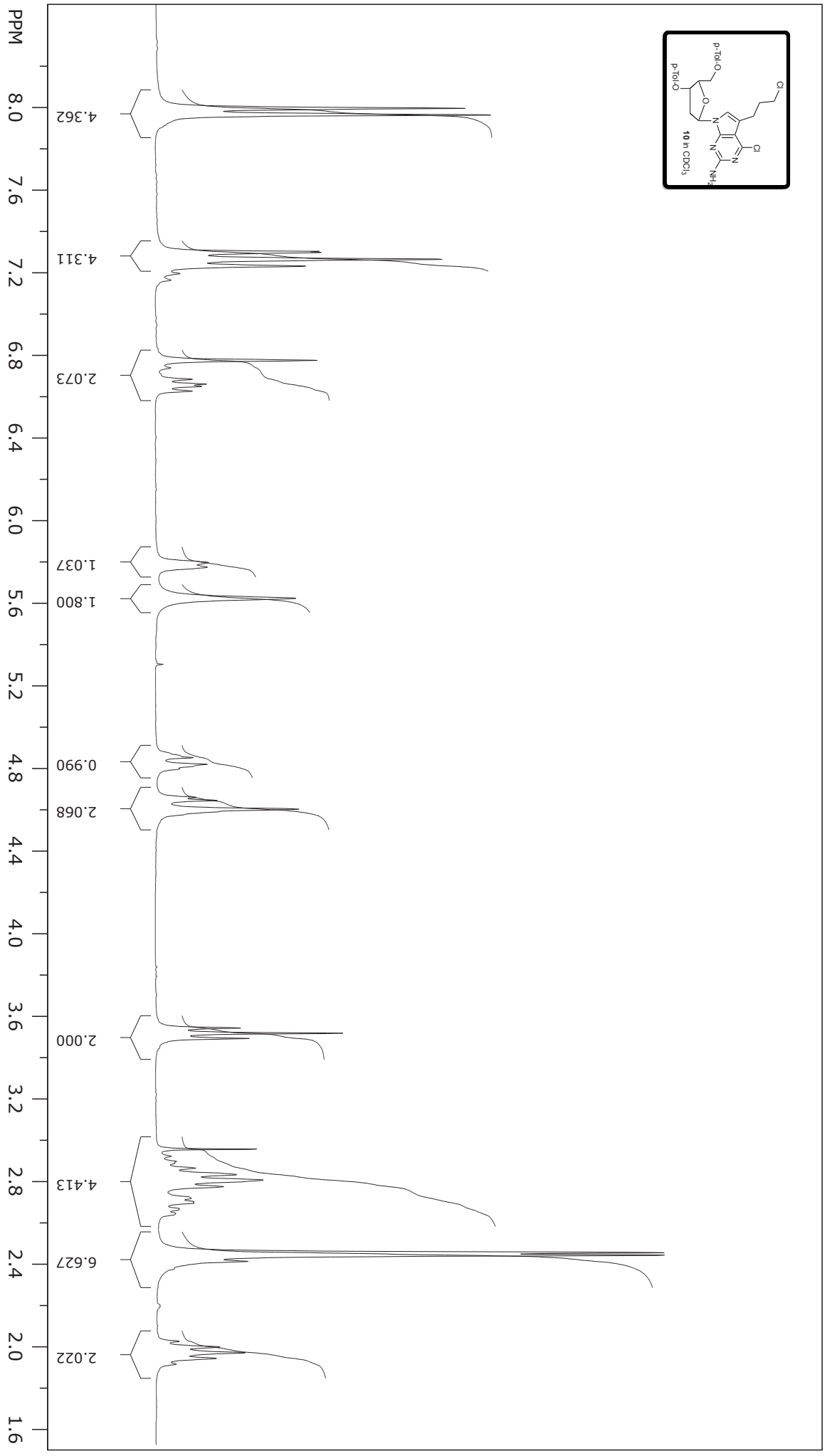
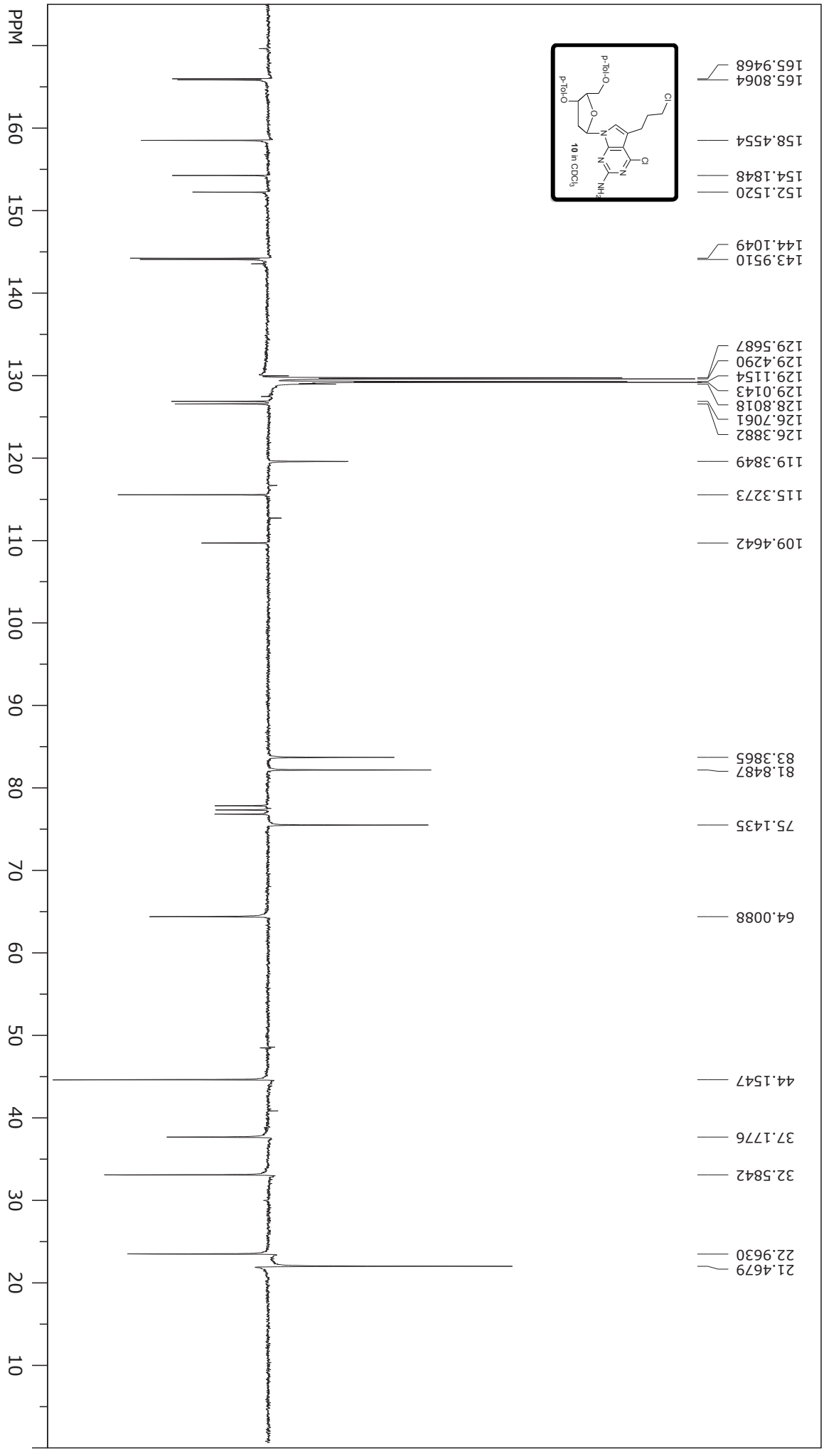
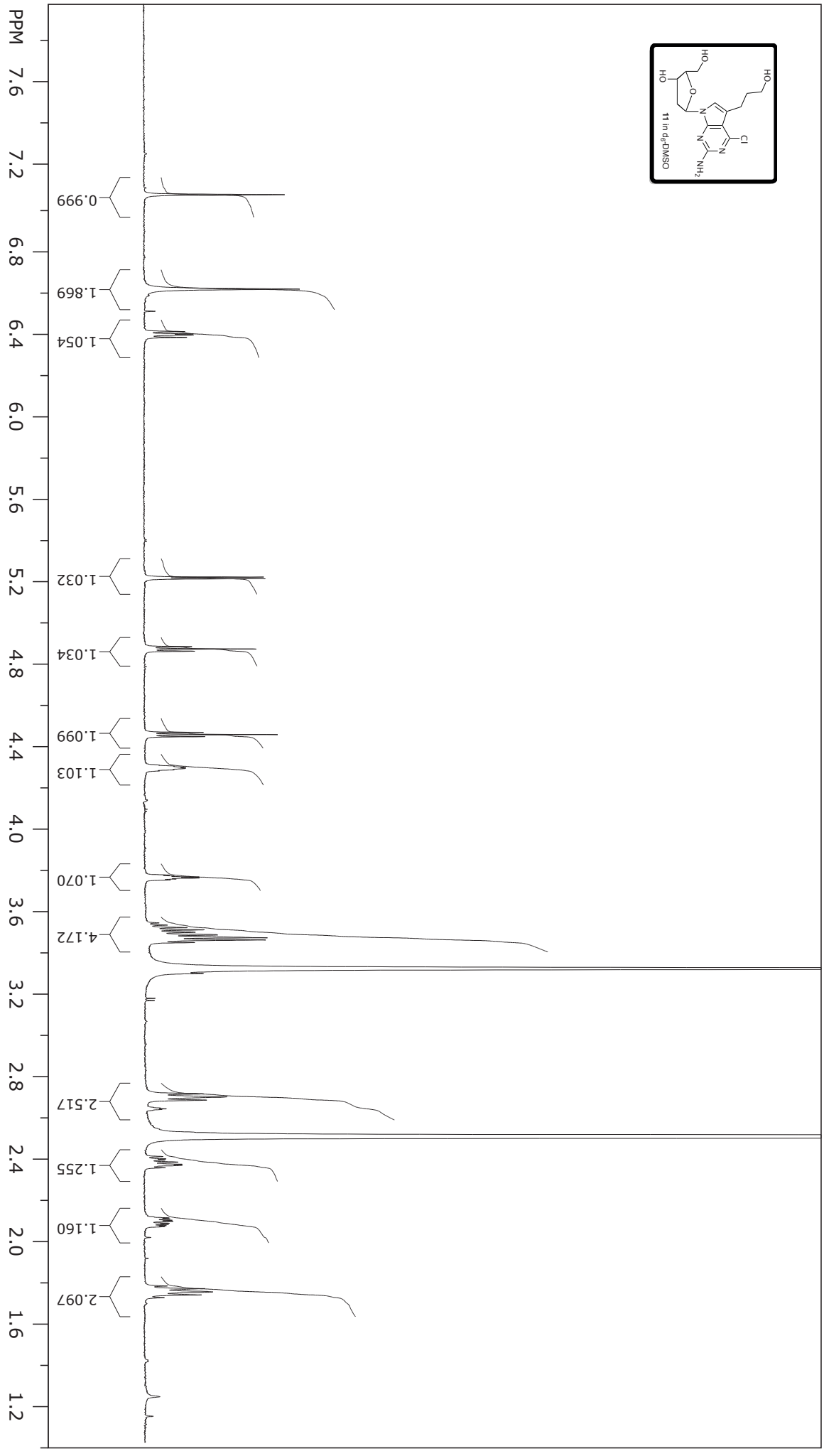
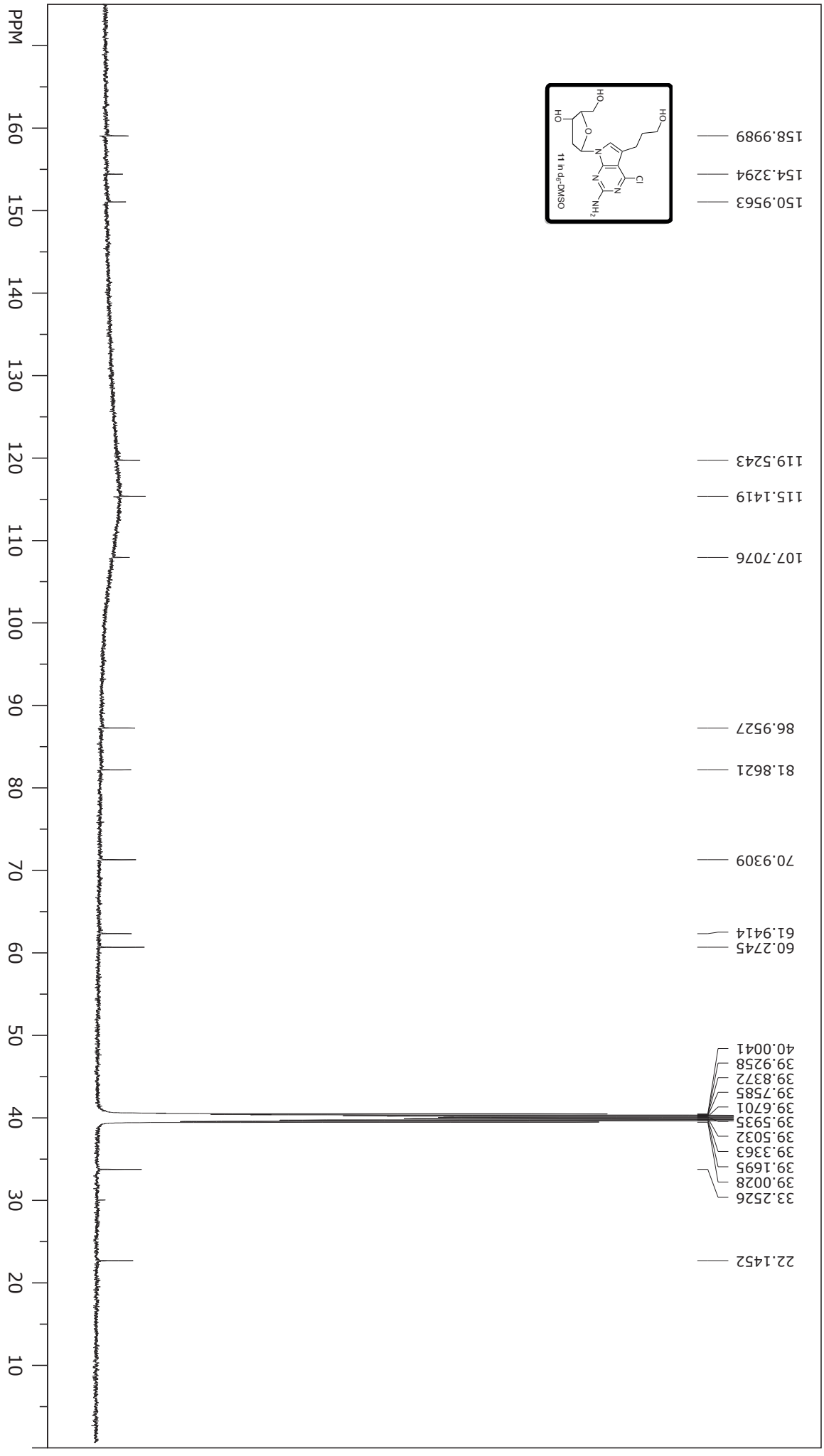
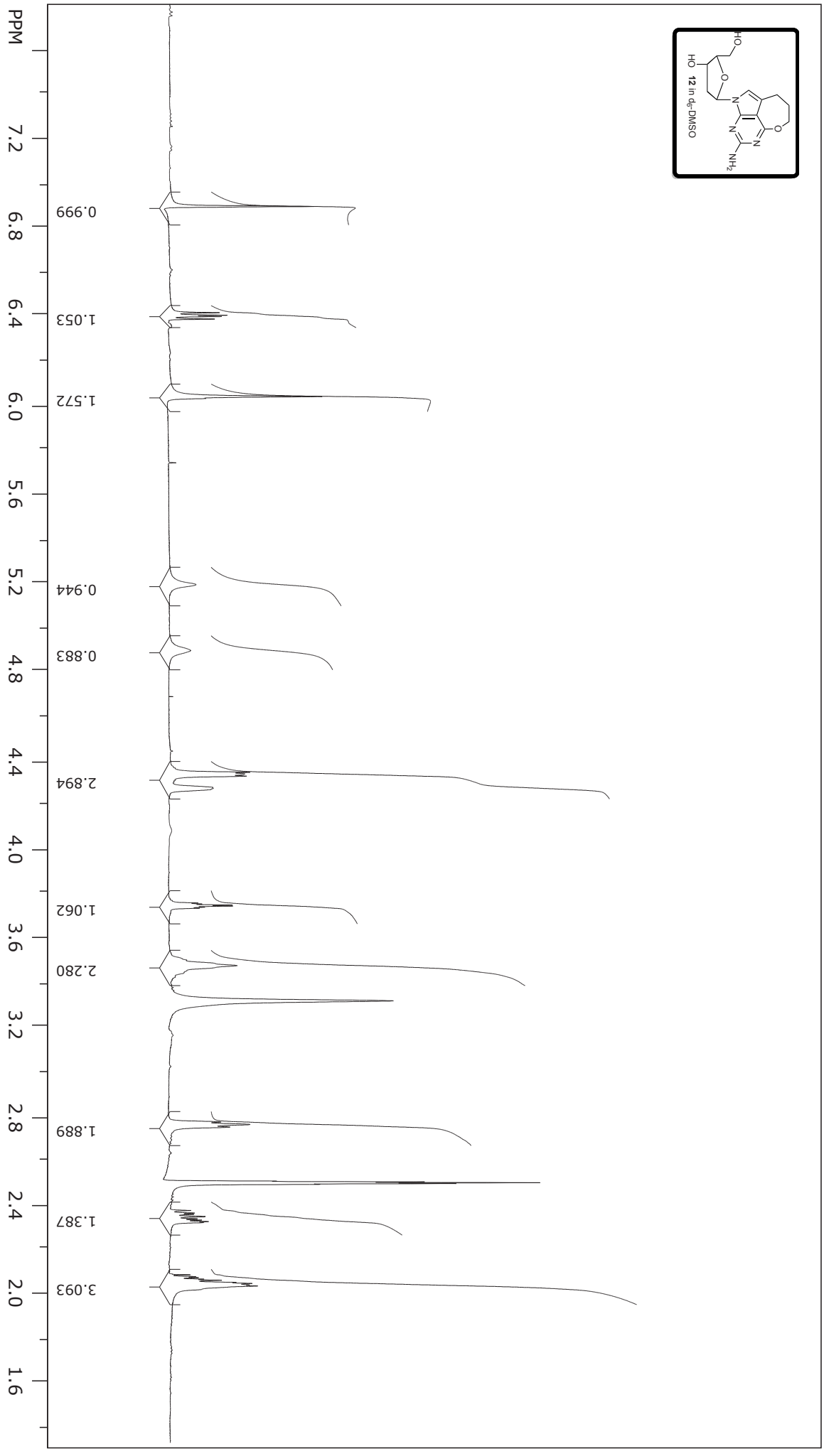
NH2
9 in CDCl3

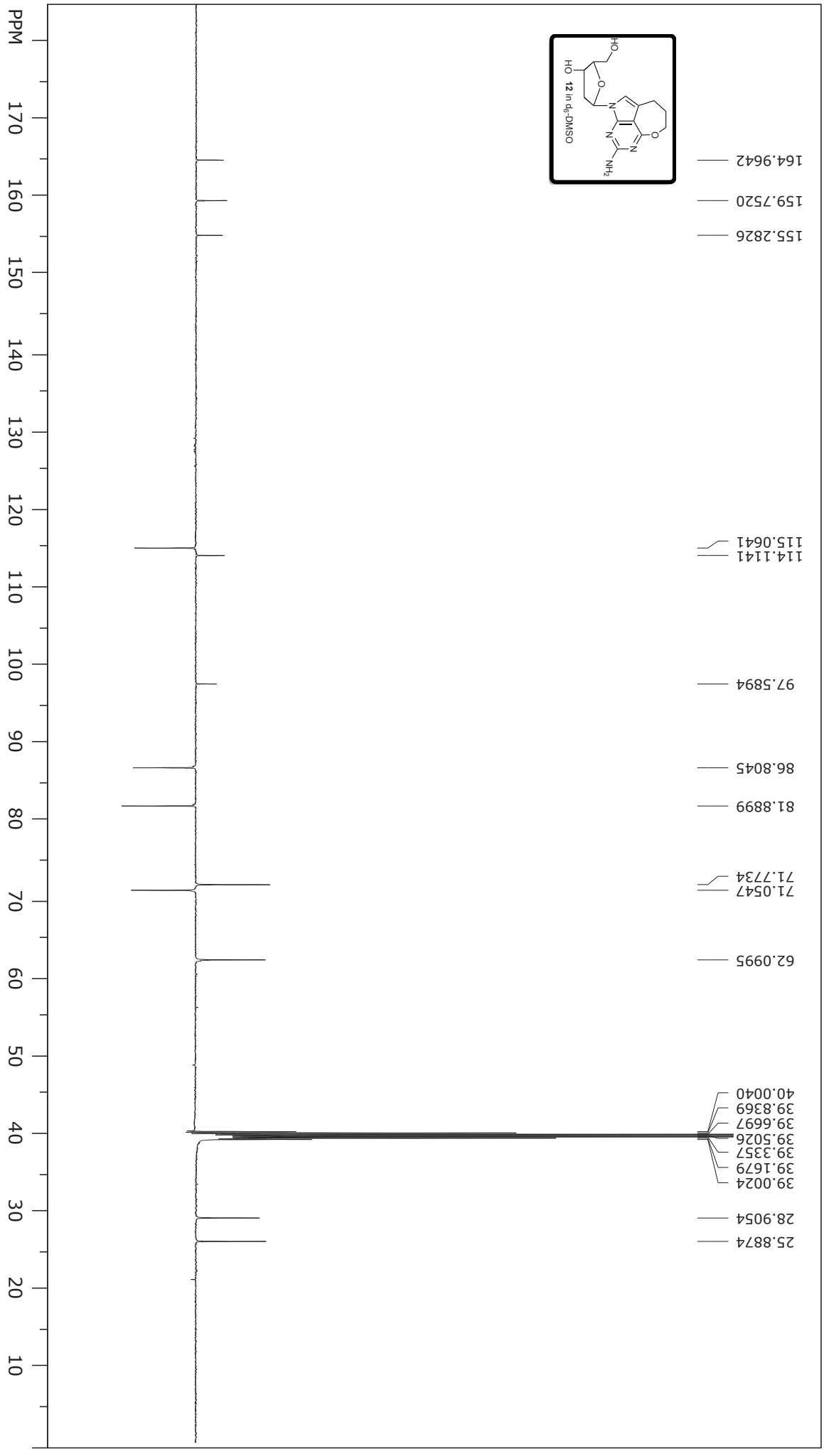


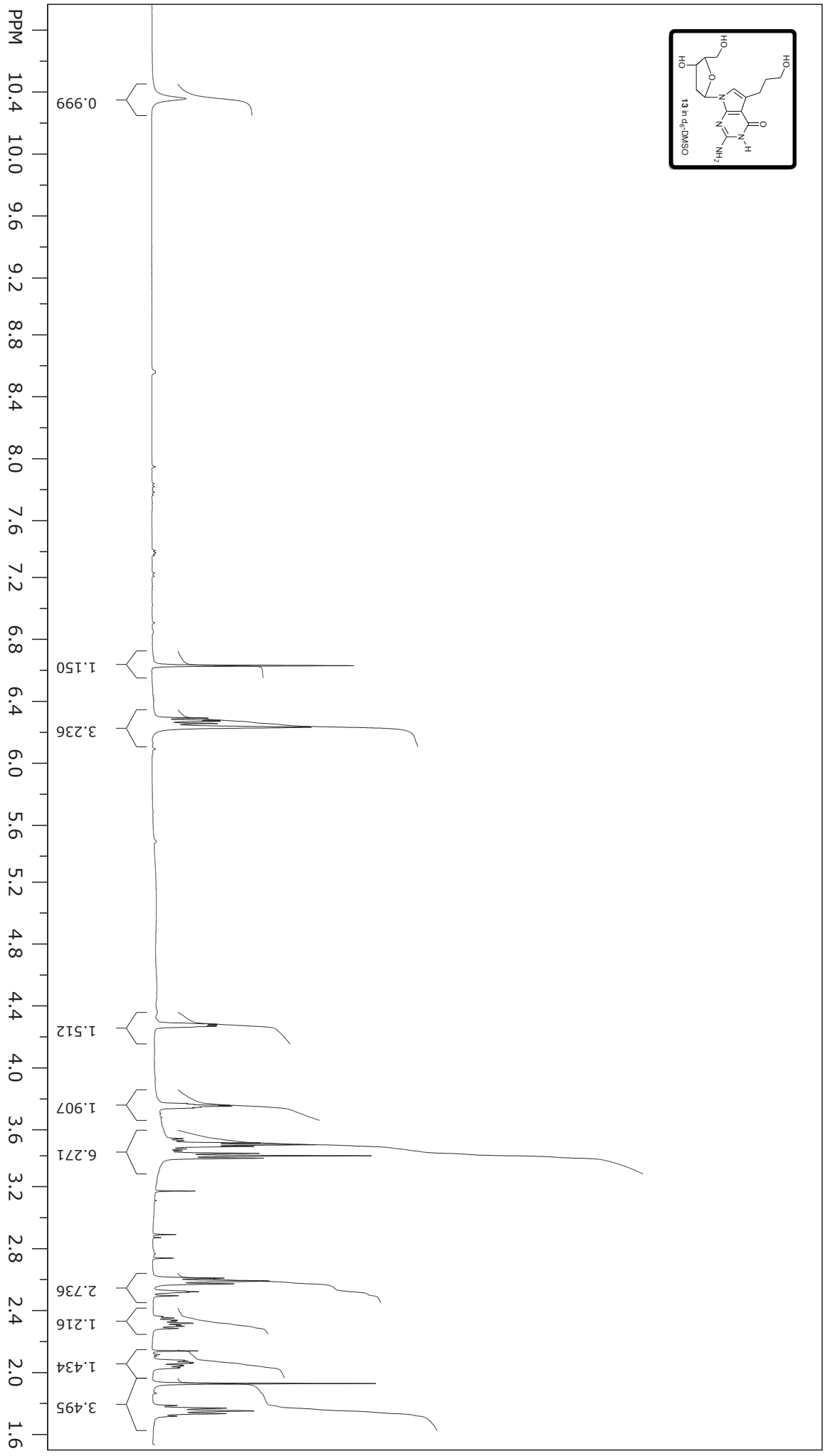


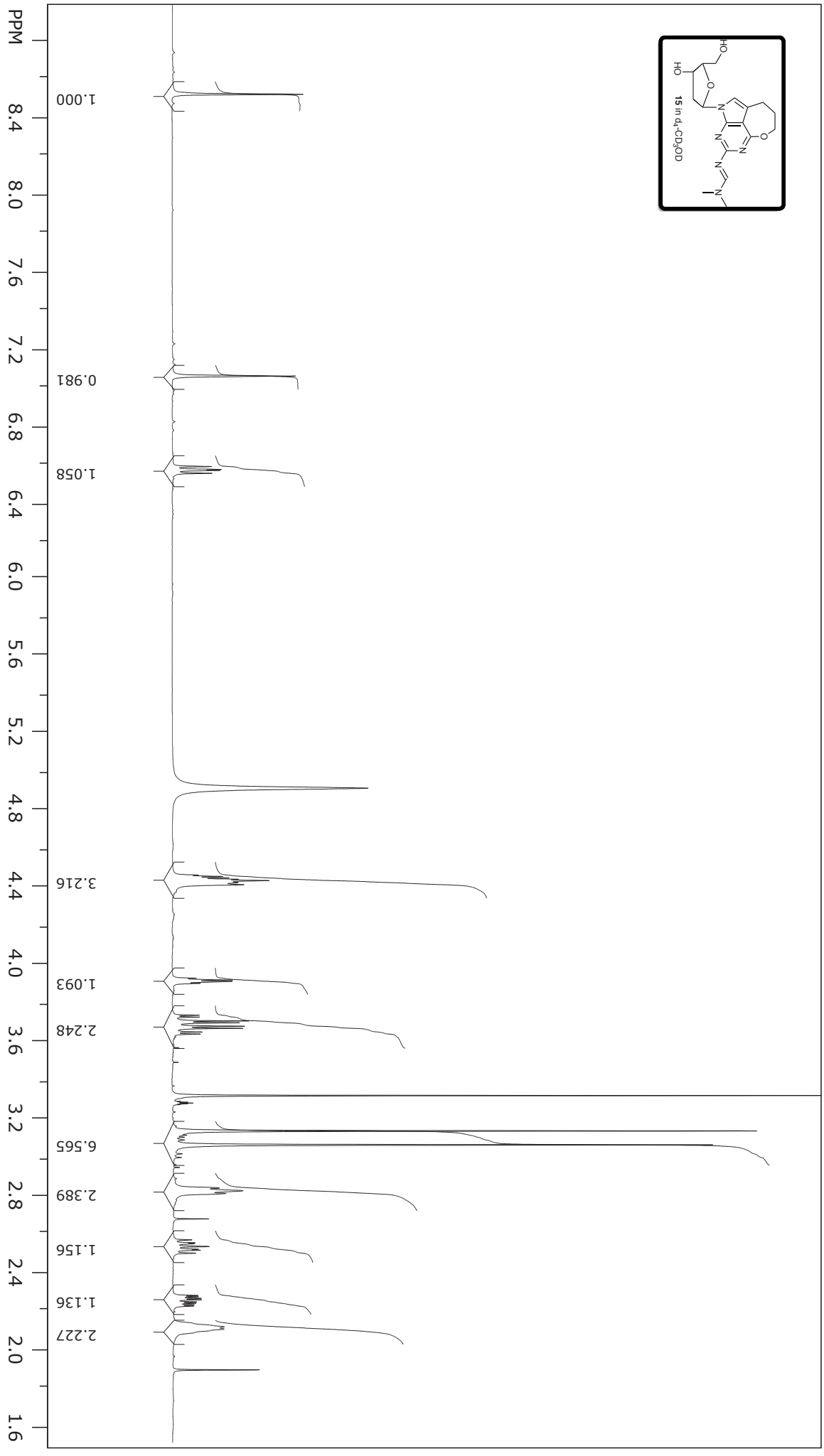


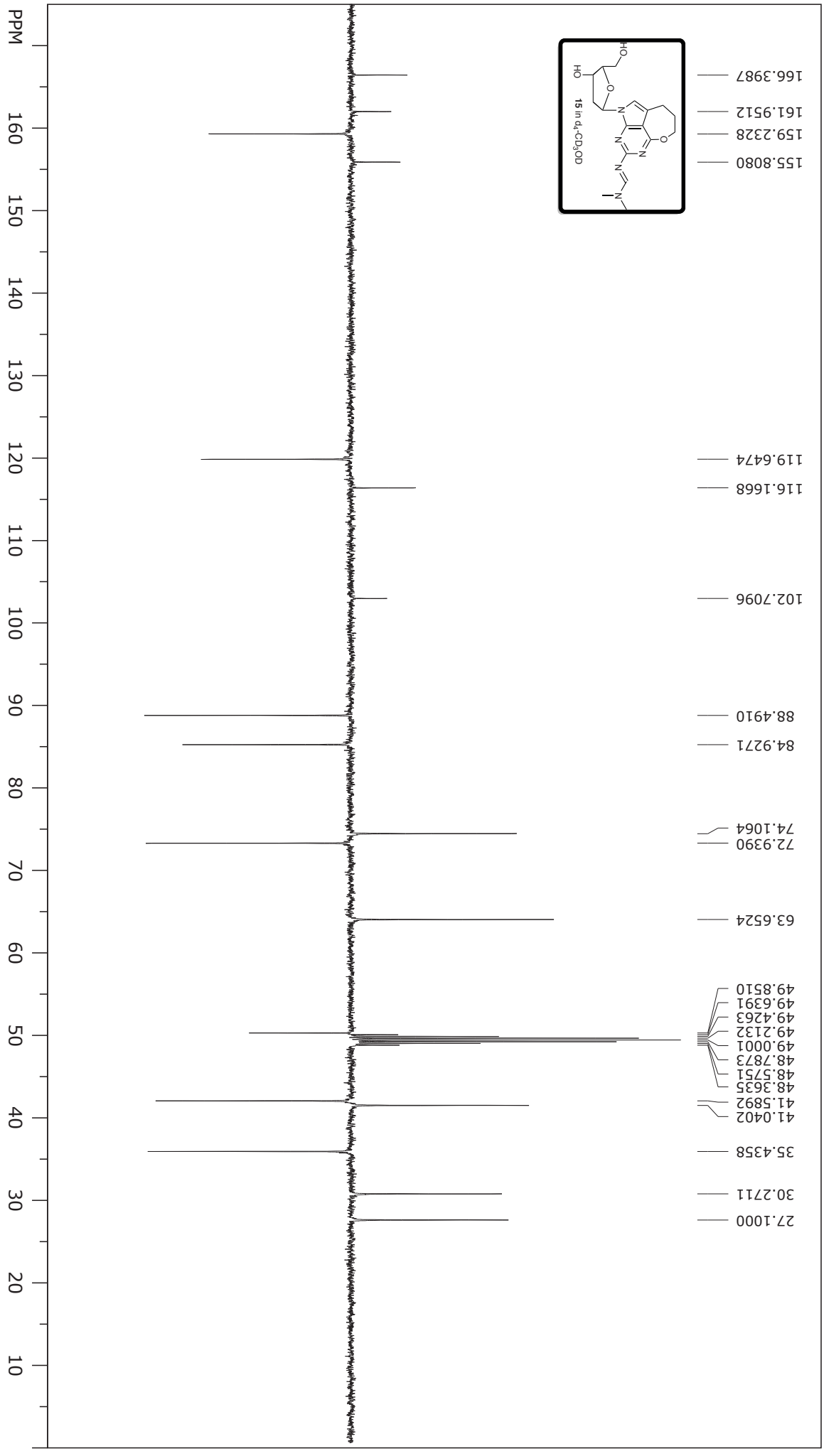


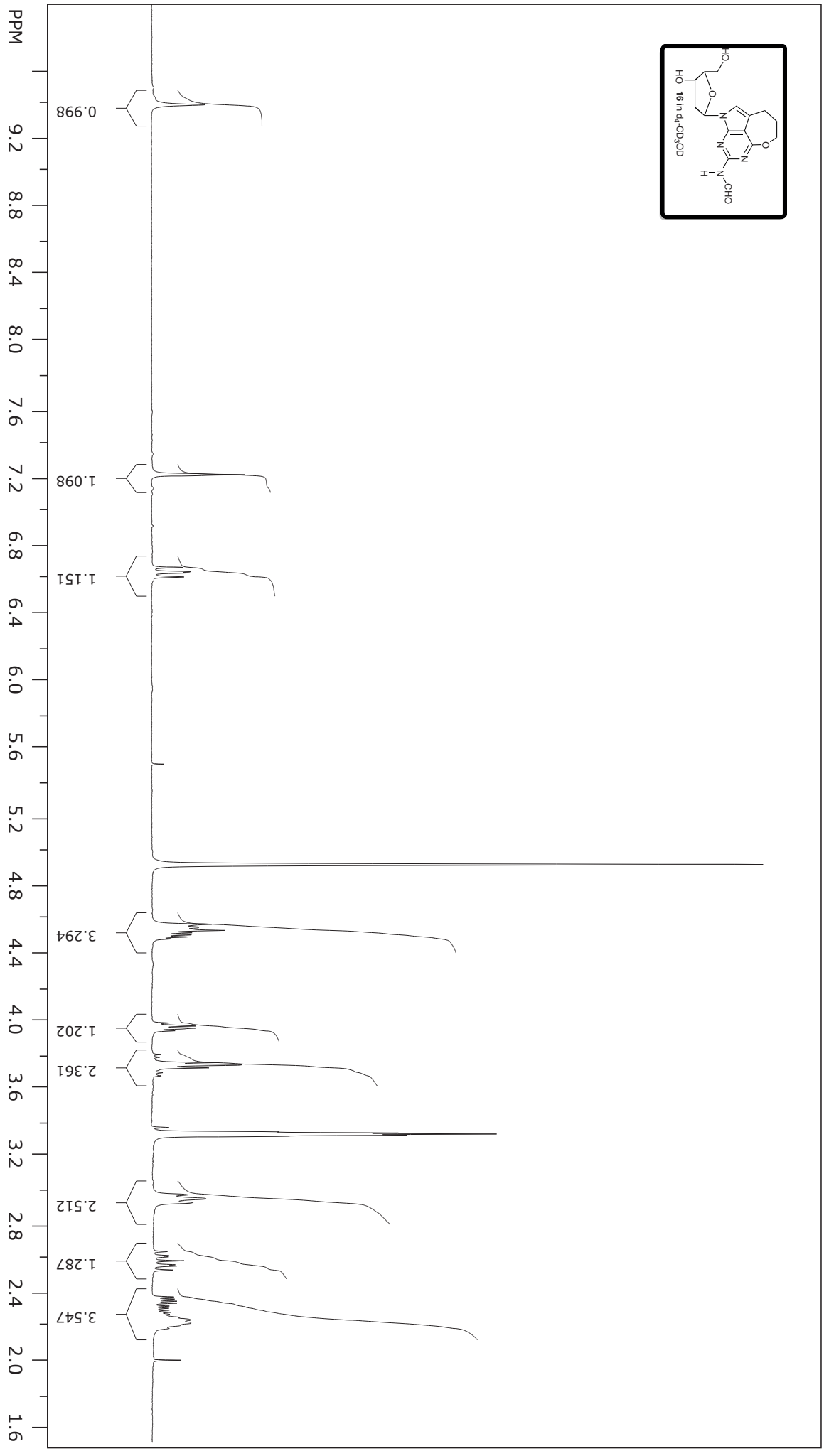

PPM
7.2
6.8
6.4
6.0
5.6
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
0.999
1.053
1.572
0.944
0.883
2.894
1.062
2.280
1.889
1.387
3.093
HO
HO
O
N
N
N
O
NH2
12 in d6-DMSO

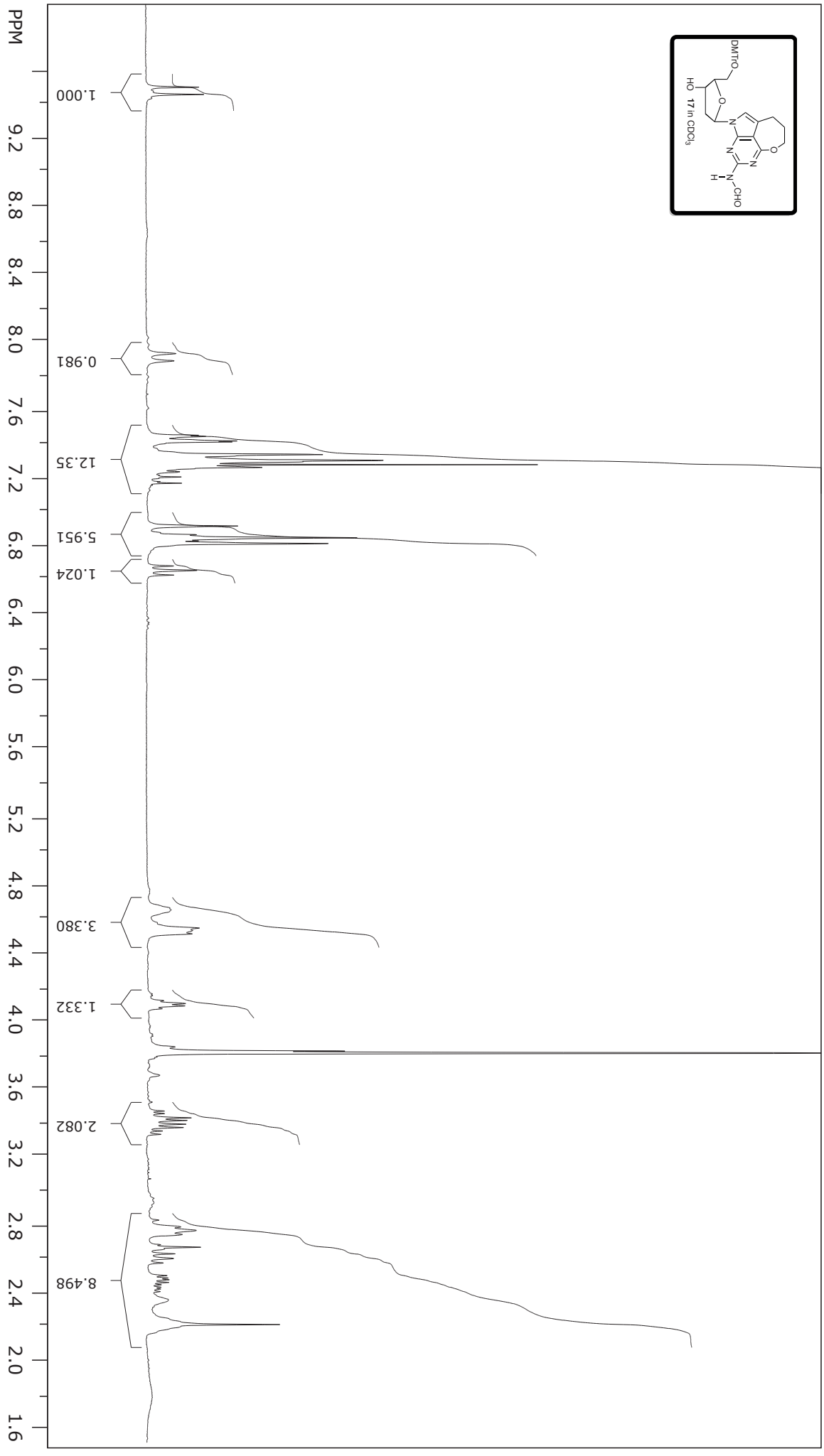


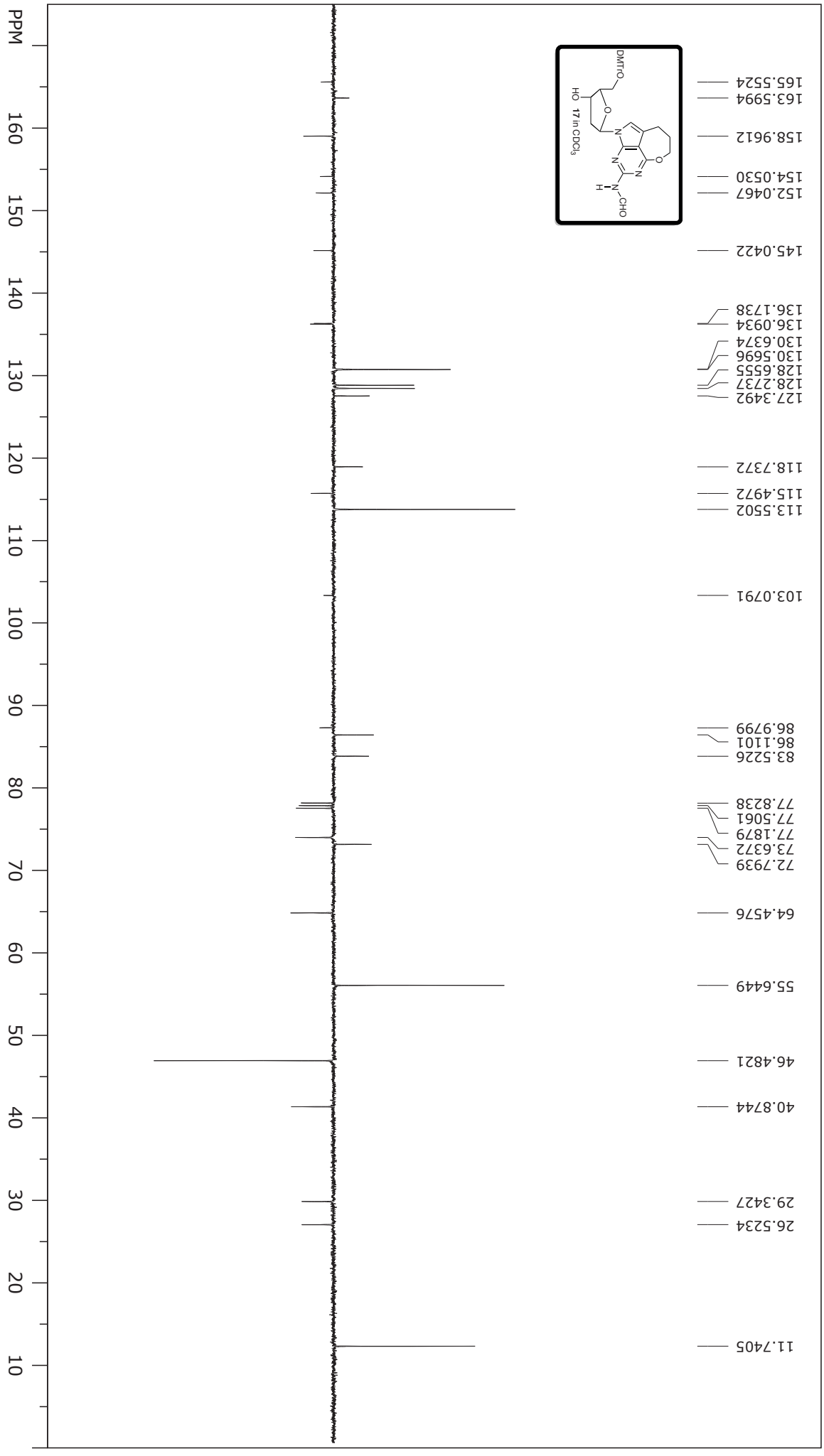


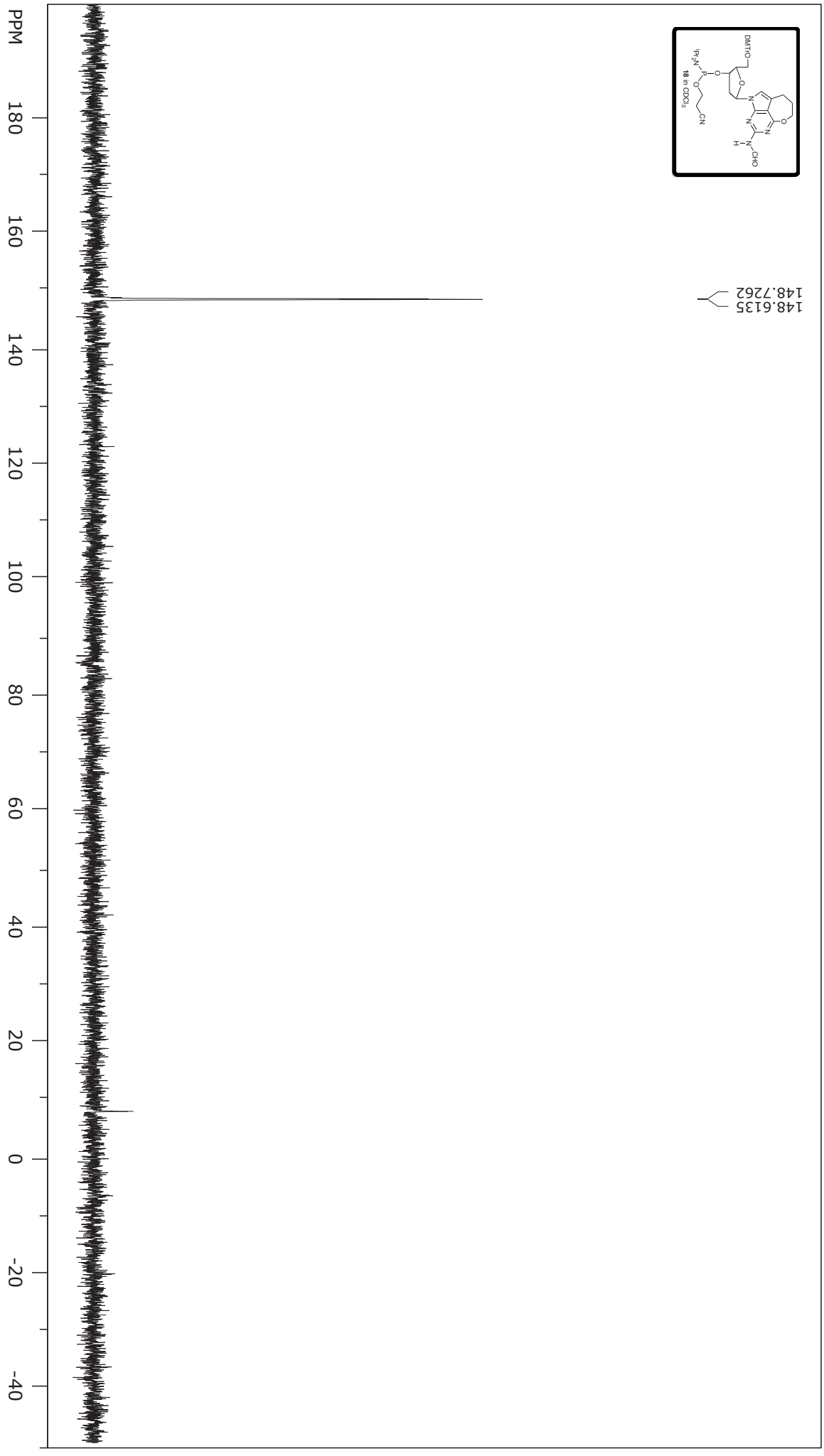


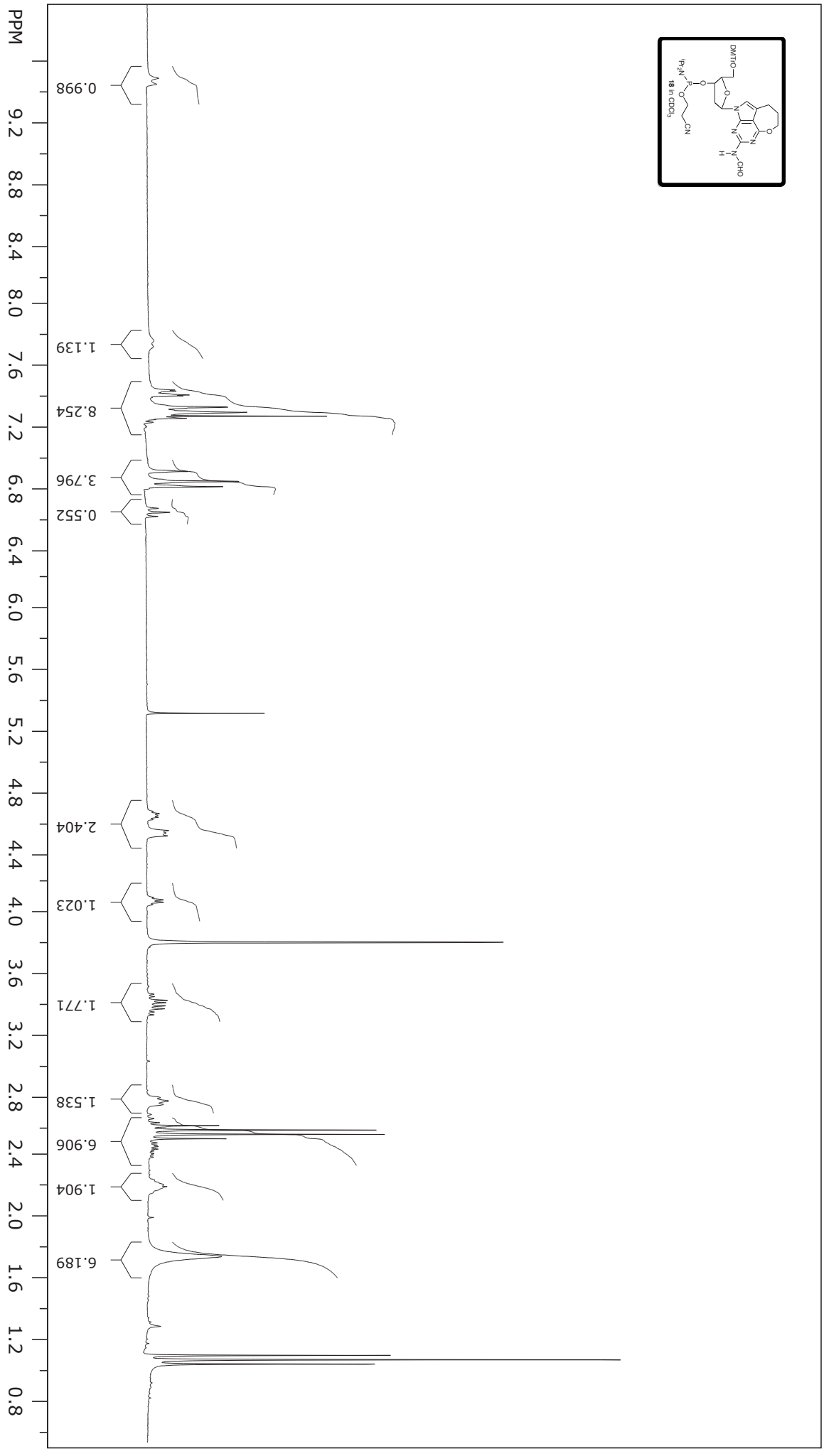

PPM
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
166.3987
161.9512
159.2328
155.8080
119.6474
116.1668
102.7096
88.4910
84.9271
74.1064
72.9390
63.6524
49.8510
49.6391
49.4263
49.2132
49.0001
48.7873
48.5751
48.3635
41.5892
41.0402
35.4358
30.2711
27.1000
15 in d4-CD3OD




PPM
9.2
8.8
8.4
8.0
7.6
7.2
6.8
6.4
6.0
5.6
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.000
0.981
12.35
5.951
1.024
3.380
1.332
2.082
8.498
DMTrO
HO
17 in CDCl3
O
N
N
N
O
N
H
N
CHO






PPM
9.2
8.8
8.4
8.0
7.6
7.2
6.8
6.4
6.0
5.6
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.998
1.139
8.254
3.796
0.552
2.404
1.023
1.771
1.538
6.906
1.904
6.189
DMTrO
CN
CHO