Supporting Information

Facile diverted synthesis of pyrrolidinyl triazoles using organotrifluoroborate: Discovery of potential mPTP blockers

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I. Experimental Procedures for Table 2

General Methods

All reactions were carried out under dry nitrogen unless otherwise indicated. Commercially available reagents were used without further purification. Solvents and gases were dried according to standard procedures. Organic solvents were evaporated with reduced pressure using a rotary evaporator. Analytical thin layer chromatography (TLC) was performed using glass plates precoated with silica gel (0.25 mm). TLC plates were visualized by exposure to UV light (UV), and then were visualized with a *p*-anisaldehyde stain followed by brief heating on hot plate. Flash column chromatography was performed using silica gel 60 (230-400 mesh, Merck) with the indicated solvents. ^{1}H and ^{13}C spectra were recorded on Bruker 300, Bruker 400 or Varian 300 NMR spectrometers. ^{1}H NMR spectra are represented as follows: chemical shift, multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet), integration, and coupling constant (*J*) in Hertz (Hz). ^{1}H NMR chemical shifts are reported relative to $CDCl_3$ (7.26 ppm). ^{13}C NMR was recorded relative to the central line of $CDCl_3$ (77.0 ppm).

Potassium (1-(3-hydroxypropyl)-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12a)

To a solution of potassium ethynyltrifluoroborate **6** (41.0 mg, 0.31 mmol), CuBr (4.50 mg, 31.1 μmol), *N*,*N*-dimethylethylenediamine (6.70 μL, 62.2 μmol), Cs_2CO_3 (0.10 g, 0.31 mmol) in DMSO-d_6 (2 mL) was added 3-azidopropanol (34.6 mg, 0.34 mmol) at room temperature. The reaction mixture was carried out at 90 °C for 30 min (until the ^{1}H NMR indicated completion of the reaction). Then, the solvent was completely removed under high vacuum. The residual product was dissolved in dry acetone (3 x 7 mL) and the insoluble salts were removed by filtration through Celite and activated carbon. The solvent was concentrated and the crude solid was purified by dissolution in a minimal amount of dry acetone and precipitation with Et_2O to gave the title compound **12a** (51.5 mg, 72%) as a white solid; ^{1}H

NMR (DMSO-d_6, 400 MHz) δ 7.45 (s, 1H), 4.66 (t, J = 4.4 Hz, 1H), 4.30 (t, J = 7.1 Hz, 2H), 3.37 (t, J = 5.4 Hz, 2H), 2.50 (s, 1H), 1.89 (m, 2H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 126.3, 58.0, 45.8, 33.7; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -134.7; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.17.

Potassium (1-(2-ethoxy-2-oxoethyl)-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12b)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (32.6 mg, 0.25 mmol), ethyl-2-azidoacetate (47.8 mg, 0.37 mmol), CuBr (3.54 mg, 24.7 μmol), N,N-dimethylethylenediamine (5.30 μL, 49.4 μmol), Cs_2CO_3 (80.0 mg, 0.25 mmol) in DMSO-d_6 (1.5 mL) gave the title compound **12b** (40.2 mg, 62%) as a yellow solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 7.45 (s, 1H), 5.22 (s, 2H), 4.15 (q, J = 7.1 Hz, 2H), 1.21 (t, J = 7.1 Hz, 3H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 168.2, 127.7, 61.5, 49.8, 14.4; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -135.4; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.17.

Potassium (1-cinnamyl-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12c)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (20.0 mg, 0.15 mmol), (E)-(3-azidopropenyl)benzene (26.2 mg, 0.17 mmol), CuBr (2.20 mg, 15.1 μmol), N,N-dimethylethylenediamine (3.26 μL, 30.3 μmol), Cs_2CO_3 (49.0 mg, 0.15 mmol) in DMSO-d_6 (1 mL) gave the title compound **12c** (38.1 mg, 87%) as a white solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 7.50-7.42 (m, 3H), 7.34-7.23 (m, 3H), 5.06 (d, J = 6.0 Hz, 2H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 136.4, 133.1, 129.1, 128.3, 126.9, 126.1, 125.2, 50.6; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -135.3; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.14.

Potassium 1-(1-benzylpyrrolidin-3-yl)-1*H*-1,2,3-triazole-4-yl trifluoroborate (12d)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (29.0 mg, 0.22 mmol), 3-azido-1-benzylpyrrolidine (44.3 mg, 0.24 mmol), CuBr (3.20 mg, 21.9 μmol), N,N-dimethylethylenediamine (4.10 μL, 43.9 μmol),

Cs_2CO_3 (72.0 mg, 0.22 mmol) in DMSO-d_6 (1.5 mL) gave the title compound **12d** (52.1 mg, 71%) as a white solid; ^{1}H NMR (MeOH-d_4, 400 MHz) δ 7.75 (s, 1H), 7.37-7.29 (m, 4H), 7.26-7.24 (m, 1H), 5.19 (m, 1H), 3.71 (q, J = 12.1 Hz, 2H), 2.98 (m, 2H), 2.89 (dd, J = 10.3, 4.3 Hz, 1H), 2.61 (m, 1H), 2.52 (m, 1H), 2.14 (m, 1H); ^{13}C NMR (MeOH-d_4, 100 MHz) δ 138.1, 128.6, 128.0, 126.9, 124.6, 59.6, 59.3, 58.3, 52.4, 31.8; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -135.3; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.19.

Potassium (1-(1-2-(*tert*-butoxy)-2-oxoethyl)piperidin-3-yl)-1*H*-1,2,3-triazole-4-yl) trifluoroborate (12e)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (24.0 mg, 0.18 mmol), *tert*-butyl 2-(3-azidopiperidin-1-yl)acetate (45.1 mg, 0.20 mmol), CuBr (2.60 mg, 18.1 μmol), N,N-dimethylethylenediamine (3.90 μL, 36.2 μmol), Cs_2CO_3 (59.0 mg, 0.18 mmol) in DMSO-d_6 (1 mL) gave the title compound **12e** (31.9 mg, 45%) as a white solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 7.50 (s, 1H), 4.39 (m, 1H), 4.03 (bs, 1H), 3.80 (d, J = 12.7 Hz, 1H), 3.15 (bs, 1H), 2.91 (td, J = 12.1, 4.6 Hz, 1H), 2.10-1.99 (m, 1H), 1.95 (m, 1H), 1.71 (m, 1H), 1.54-1.39 (m, 10H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 154.2, 124.5, 79.5, 54.9, 48.8, 43.6, 30.8, 28.4, 23.8; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -135.6; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.17.

Potassium (1-(4-methoxyphenyl)-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12g)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (30.0 mg, 0.23 mmol), 1-azido-4-methoxybenzene (37.4 mg, 0.25 mmol), CuBr (3.30 mg, 22.8 μmol), N,N-dimethylethylenediamine (4.90 μL, 45.5 μmol), Cs_2CO_3 (74.0 mg, 0.23 mmol) in DMSO-d_6 (1.5 mL) gave the title compound **12g** (57.7 mg, 90%) as a white solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 8.03 (s, 1H), 7.76 (td, J = 6.2, 3.9 Hz, 2H), 7.07 (td, J = 6.2, 3.9 Hz, 2H), 3.80 (s, 3H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 158.8, 131.4, 124.2, 121.6, 115.1, 55.9; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -134.9; ^{11}B NMR

(DMSO-d_6, 128 MHz) δ 2.15.

Potassium (1-(4-bromophenyl)-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12h)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (22.6 mg, 0.17 mmol), 1-azido-4-bromobenzene (37.4 mg, 0.18 mmol), CuBr (2.46 mg, 17.2 μmol), N,N-dimethylethylenediamine (3.68 μL, 34.4 μmol), Cs_2CO_3 (55.8 mg, 0.17 mmol) in DMSO-d_6 (1 mL) gave the title compound **12h** (40.6 mg, 72%) as a yellow solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 8.17 (s, 1H), 7.85 (d, J = 8.8 Hz, 2H), 7.71 (d, J = 8.6 Hz, 2H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 137.0, 132.9, 124.1, 121.9, 120.1; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -135.9; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.15.

Potassium (1-(2,6-dimethylphenyl)-1*H*-1,2,3-triazol-4-yl)trifluoroborate (12i)

Following the same procedure as that used for the synthesis of **12a**, potassium ethynyltrifluoroborate **6** (34.4 mg, 0.26 mmol), 2-azido-1,3-dimethylbenzene (42.2 mg, 0.28 mmol), CuBr (3.70 mg, 26.1 μmol), N,N-dimethylethylenediamine (5.60 μL, 52.1 μmol), Cs_2CO_3 (85.0 mg, 0.26 mmol) in DMSO-d_6 (1.5 mL) gave the title compound **12i** (50.1 mg, 69%) as a white solid; ^{1}H NMR (DMSO-d_6, 400 MHz) δ 7.56 (s, 1H), 7.31 (m, 1H), 7.22 (d, J = 7.5 Hz, 2H), 1.87 (s, 6H); ^{13}C NMR (DMSO-d_6, 100 MHz) δ 137.3, 135.3, 129.4, 128.5, 127.6, 17.4; ^{19}F NMR (DMSO-d_6, 376 MHz) δ -134.8; ^{11}B NMR (DMSO-d_6, 128 MHz) δ 2.20.

II. Experimental Procedure for compounds 2b

1-(1-Benzylpyrrolidin-3-yl)-4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole (2ba)

Following the same procedure as that used for the synthesis of **2aa**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (23.4 mg, 43.5 μmol), benzaldehyde (6.65 μL, 65.3 μmol), CH_3CO_2H (0.50 μL, 8.70 μmol), $NaBH(OAc)_3$ (27.6 mg, 131 μmol) in THF (0.4 mL) gave the title compound **2ba** (19.7 mg, 88%) as a yellow solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.33 (s, 1H), 8.14 (s, 1H), 7.54 (s, 1H), 7.35 (bs, 1H), 7.22 (m, 7H), 6.90 (d, J = 8.8 Hz, 1H), 5.24 (bs, 1H), 5.10 (s, 2H), 3.64 (bs, 2H), 2.91 (bs, 3H), 2.55 (bs, 2H), 2.03 (bs, 1H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 152.9, 142.2, 136.5, 132.9, 132.5, 130.8, 129.6, 128.5, 128.4, 127.6, 127.3, 127.0, 126.9, 121.8, 121.7, 113.3, 69.6, 59.9, 59.4, 59.3, 52.6, 32.7; HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{24}Cl_3N_4O$ 513.10102, Found 513.10048.

1-(1-(4-Fluorobenzyl)pyrrolidin-3-yl)-4-(2-(3,4-dichlorobenzyloxy)-5-chlorophenyl)-1*H*-1,2,3-triazole (2bb)

Following the same procedure as that used for the synthesis of **2aa**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (23.8 mg, 44.3 μmol), 4-fluorobenzaldehyde (7.12 μL, 66.4 μmol), CH_3CO_2H (0.51 μL, 8.85 μmol), $NaBH(OAc)_3$ (28.1 mg, 133 μmol) in THF (0.5 mL) gave the title compound **2bb** (14.8 mg, 63%) as a white solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.34 (d, J = 2.6 Hz, 1H), 8.10 (s, 1H), 7.55 (d, J = 1.8 Hz, 1H), 7.40 (d, J = 8.2 Hz, 1H), 7.27-7.22 (m, 2H), 7.13 (bs, 2H), 6.95-6.89 (m, 3H), 5.24 (m, 1H), 5.10 (s, 2H), 3.61 (m, 2H), 2.87 (bs, 3H), 2.56 (m, 2H), 2.05 (m, 1H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 162.0 (d, ^1J = 243.6 Hz), 152.9, 142.2, 136.5, 133.0, 132.6, 130.8, 129.9 (^{3}d, J = 7.3 Hz), 129.6, 128.4, 127.6, 127.1, 127.0, 121.7 (^{4}d, J = 6.2 Hz), 115.2 (^{2}d, J = 21.2 Hz), 113.3, 69.6, 59.9, 59.2, 58.6, 52.5, 32.7;

HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{23}Cl_3FN_4O$ 531.09160, Found 531.09110.

1-(1-(4-Chlorobenzyl)pyrrolidin-3-yl)-4-(2-(3,4-dichlorobenzyloxy)-5-chlorophenyl)-1*H*-1,2,3-triazole (2bc)

Following the same procedure as that used for the synthesis of **2aa**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (17.4 mg, 32.3 μmol), 4-chlorobenzaldehyde (6.82 mg, 48.5 μmol), CH_3CO_2H (0.37 μL, 6.47 μmol), $NaBH(OAc)_3$ (20.5 mg, 97.1 μmol) in THF (0.3 mL) gave the title compound **2bc** (11.1 mg, 63%) as a yellow solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.34 (d, J = 2.6 Hz, 1H), 8.09 (s, 1H), 7.54 (d, J = 1.5 Hz, 1H), 7.41 (d, J = 8.2 Hz, 1H), 7.26-7.23 (m, 5H), 7.23 (bs, 1H), 6.92 (d, J = 8.8 Hz, 1H), 5.25 (bs, 1H), 5.10 (s, 2H), 3.58 (bs, 2H), 2.90 (bs, 2H), 2.57 (bs, 2H), 2.07 (bs, 1H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 152.9, 142.3, 136.5, 133.0, 132.6, 130.8, 129.6, 128.9, 128.7, 128.5, 127.6, 127.1, 126.9, 121.9, 121.4, 113.3, 77.2, 69.6, 59.1, 58.5, 52.5, 32.7; HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{23}Cl_4N_4O$ 547.06205, Found 547.06155.

1-(1-(2,3-Dichlorobenzyl)pyrrolidin-3-yl)-4-(2-(3,4-dichlorobenzyloxy)-5-chlorophenyl)-1*H*-1,2,3-triazole (2bd)

Following the same procedure as that used for the synthesis of **2aa**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (30.0 mg, 55.8 μmol), 2,3-dichlorobenzaldehyde (19.5 mg, 112 μmol), CH_3CO_2H (0.96 μL, 16.7 μmol), $NaBH(OAc)_3$ (47.3 mg, 223 μmol) in THF (0.6 mL) gave the title compound **2bd** (30.3 mg, 93%) as a yellow solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.32 (d, J = 2.6 Hz, 1H), 8.18 (s, 1H), 7.47 (d, J = 1.7 Hz, 1H), 7.31 (t, J = 6.6 Hz, 2H), 7.20 (td, J = 2.4, 7.4 Hz, 2H), 7.13-7.03 (m, 2H), 6.88 (d, J = 8.8 Hz, 1H), 5.27 (m, 1H), 5.10 (s, 2H), 3.75 (q, J = 11.8 Hz, 2H), 2.99 (bs, 2H), 2.86 (bs, 1H), 2.60 (m, 2H), 2.04 (m, 1H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 152.9, 142.3, 136.6, 133.2, 132.8, 132.4, 132.2, 130.7, 129.4,

128.4, 127.6, 127.1, 127.0, 126.8, 121.8, 121.6, 113.4, 69.5, 59.7, 59.1, 56.5, 52.5, 32.7; HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{22}Cl_5N_4O$ 581.02308, Found 581.02246.

1-(1-(2,4-Dichlorobenzyl)pyrrolidin-3-yl)-4-(2-(3,4-dichlorobenzyloxy)-5-chlorophenyl)-1*H*-1,2,3-triazole (2be)

Following the same procedure as that used for the synthesis of **2aa**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (29.2 mg, 54.3 μmol), 2,4-dichlorobenzaldehyde (19.0 mg, 109 μmol), CH_3CO_2H (0.93 μL, 16.3 μmol), $NaBH(OAc)_3$ (46.0 mg, 217 μmol) in THF (0.5 mL) gave the title compound **2be** (27.1 mg, 86%) as a yellow solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.33 (d, J = 2.6 Hz, 1H), 8.16 (s, 1H), 7.50 (d, J = 1.7 Hz, 1H), 7.36 (d, J = 8.2 Hz, 1H), 7.29 (d, J = 1.2 Hz, 1H), 7.24-7.20 (m, 2H), 7.09 (bs, 2H), 6.89 (d, J = 8.8 Hz, 1H), 5.27 (bs, 1H), 5.09 (s, 2H), 3.68 (bs, 2H), 2.99 (bs, 2H), 2.83 (bs, 1H), 2.58 (m, 2H), 2.05 (m, 1H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 152.9, 142.3, 136.5, 134.5, 133.4, 132.9, 132.4, 130.9, 130.7, 129.4, 129.3, 128.3, 127.6, 127.0, 126.8, 121.6, 113.3, 69.5, 60.1, 59.3, 55.5, 52.5, 32.8.

(3-(4-(5-Chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidin-1-yl)(phenyl)methanone (2bf)

Following the same procedure as that used for the synthesis of **2af**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (20.4 mg, 37.9 μmol), benzoly chloride (4.39 μL, 37.9 μmol), TEA (5.34 μL, 38.3 μmol) in THF (0.4 mL) gave the title compound **2bf** (17.1 mg, 86%) as a yellow solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.35 (s, 1H), 7.94 (d, J = 32.5 Hz, 1H), 7.52-7.41 (m, 7H), 7.26-7.22 (m, 2H), 6.89 (d, J = 8.8 Hz, 1H), 5.29-5.12 (m, 3H), 4.19-3.66 (m, 4H), 2.52 (bs, 2H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 170.0, 152.8, 142.1, 136.4, 135.9, 133.0, 132.6, 131.0, 130.4, 129.4, 128.7, 128.5, 127.7, 127.2, 127.1, 126.7, 122.3, 122.0, 121.0, 113.3, 69.5, 59.3, 58.4, 54.3, 51.8, 47.7, 44.3, 32.7, 30.5; HRMS-ESI (m/z): $[M+H]^+$ calcd for

$C_{26}H_{22}Cl_3N_4O_2$ 527.08029, Found 527.07977.

(3-(4-(5-Chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidin-1-yl)(4-fluorophenyl)methanone (2bg)

Following the same procedure as that used for the synthesis of **2af**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (22.8 mg, 42.4 μmol), 4-fluorobenzoyl chloride (5.01 μL, 42.4 μmol), TEA (5.97 μL, 42.8 μmol) in THF (0.4 mL) gave the title compound **2bg** (19.0 mg, 83%) as a yellowish solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.33 (bs, 1H), 7.94 (d, J = 29.7 Hz, 1H), 7.52-7.47 (m, 4H), 7.26-7.16 (m, 2H), 7.10-7.07 (bs, 2H), 6.89 (d, J = 8.8 Hz, 1H), 5.19 (bs, 1H), 5.11 (s, 2H), 4.14-4.01 (m, 2H), 3.86 (bs, 1H), 3.65 (bs, 1H), 2.51 (bs, 2H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 169.0, 163.8 (d, ^1J = 249.4 Hz), 152.8, 142.1, 136.4, 133.0, 132.7, 131.9, 131.0, 129.7 (d, ^4J = 6.2 Hz), 129.4, 128.7, 127.7, 127.1, 126.8, 122.3, 120.9, 115.5 (d, ^2J = 21.7 Hz), 113.3, 69.6, 59.4, 58.4, 54.3, 52.1, 47.8, 44.5, 32.7, 30.5; HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{21}Cl_3FN_4O_2$ 545.07086, Found 545.07094.

(3-(4-(5-Chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidin-1-yl)(4-chlorophenyl)methanone (2bh)

Following the same procedure as that used for the synthesis of **2af**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (33.1 mg, 61.6 μmol), 4-chlorobenzoyl chloride (7.89 μL, 61.6 μmol), TEA (11.2 μL, 80.0 μmol) in THF (0.6 mL) gave the title compound **2bh** (34.4mg, 99%) as a white solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.34 (s, 1H), 7.39 (d, J = 29.7 Hz, 1H), 7.52-7.38 (m, 6H), 7.26-7.22 (m, 2H), 6.89 (d, J = 8.7 Hz, 1H), 5.18 (bs, 1H), 5.10 (s, 2H), 4.11 (bs, 1H), 3.99 (bs, 1H), 3.87 (bs, 1H), 3.65 (bs, 1H), 2.51 (bs, 2H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 168.9, 152.8, 142.1, 136.5, 136.4, 134.2, 133.0, 132.6, 131.0, 129.4, 128.7, 127.9, 127.6, 127.0, 126.8, 122.4, 120.9, 113.3, 69.5, 59.3, 58.4, 54.2, 51.9, 47.7, 44.4, 32.7, 30.5; HRMS-

ESI (m/z): $[M+H]^+$ calcd for $C_{26}H_{21}Cl_4N_4O_2$ 561.04131, Found 561.04042.

4-(5-Chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1-(1-(phenylsulfonyl)pyrrolidin-3-yl)-1*H*-1,2,3-triazole (2bi)

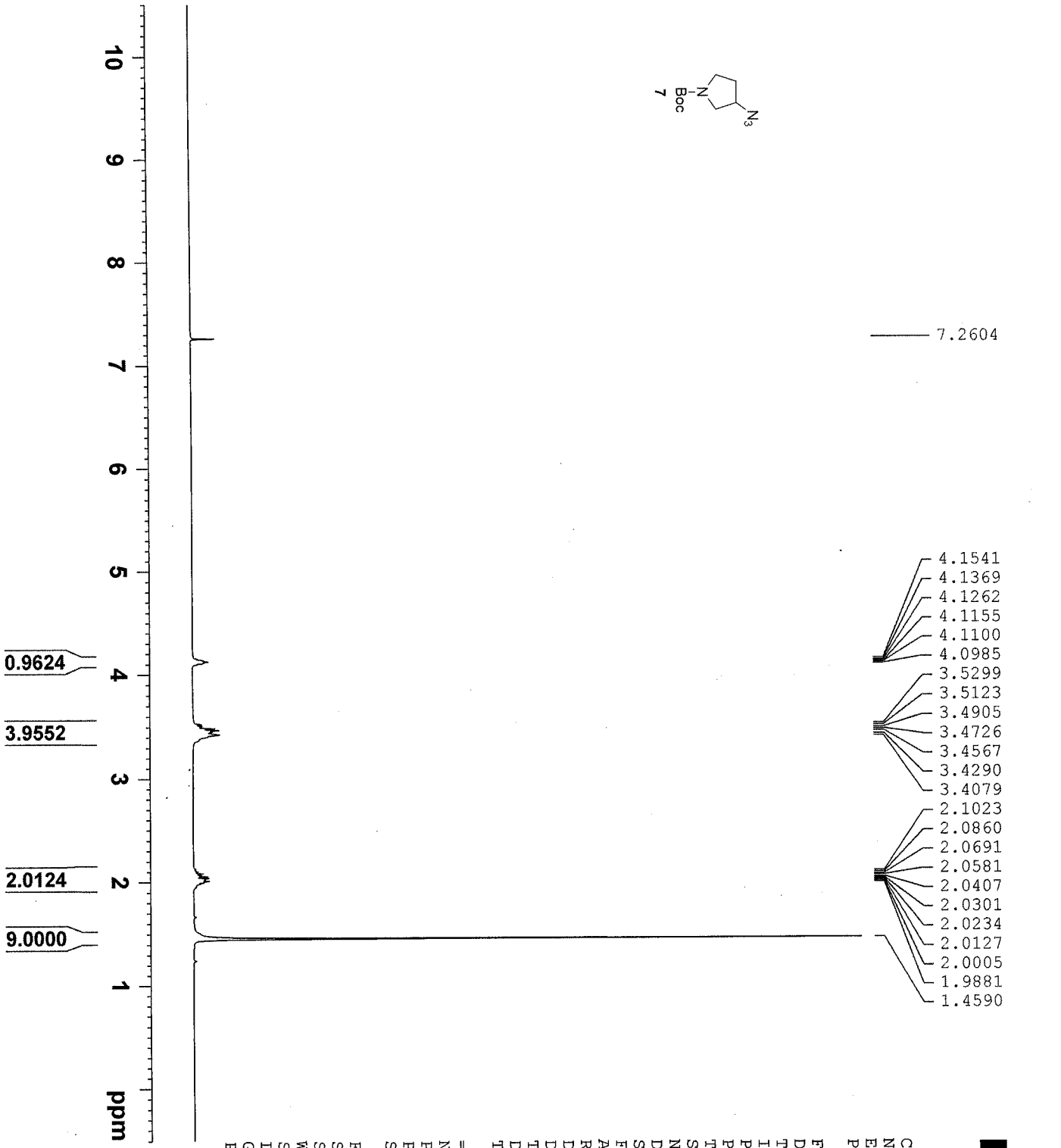
Following the same procedure as that used for the synthesis of **2af**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **18b** (20.3 mg, 37.7 μmol), benzenesulfonyl chloride (4.82 μL, 37.7 μmol), TEA (5.32 μL, 38.1 μmol) in THF (0.4 mL) gave the title compound **2bi** (8.70mg, 41%) as a white solid; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.28 (d, J = 2.6 Hz, 1H), 7.89 (s, 1H), 7.79 (m, 2H), 7.57-7.48 (m, 6H), 7.26 (td, J = 8.2, 2.4 Hz, 1H), 6.90 (d, J = 8.8 Hz, 1H), 5.11 (s, 2H), 5.07 (m, 1H), 3.69 (m, 2H), 3.44 (m, 2H), 2.39 (m, 2H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 152.8, 142.3, 136.4, 136.1, 133.1, 133.0, 132.7, 131.1, 129.5, 129.3, 128.7, 127.7, 127.4, 127.0, 126.9, 121.9, 121.0, 113.3, 69.6, 58.9, 53.4, 46.2, 31.6; HRMS-ESI (m/z): $[M+H]^+$ calcd for $C_{25}H_{22}Cl_3N_4O_3S$ 563.04727, Found 563.04863.

4-(5-Chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1-(1-((4-fluorophenyl)sulfonyl)pyrrolidin-3-yl)-1*H*-1,2,3-triazole (2bj)

Following the same procedure as that used for the synthesis of **2af**, the reaction of 3-(4-(5-chloro-2-(3,4-dichlorobenzyloxy)phenyl)-1*H*-1,2,3-triazole-1-yl)pyrrolidinium 2,2,2-trifluoroacetate **(18b)** (23.2 mg, 43.1 μmol), 4-fluorobenzene-1-sulfonyl chloride (8.39 mg, 43.1 μmol), TEA (6.07 μL, 43.6 μmol) in THF (0.4 mL) gave the title compound **2bj** (10.0 mg, 40%) as a colorless oil; ^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.30 (d, J = 2.7 Hz, 1H), 7.88 (s, 1H), 7.79 (m, 2H), 7.54 (d, J = 8.3 Hz, 2H), 7.26 (m, 2H), 7.18 (t, J = 8.6 Hz, 2H), 6.90 (d, J = 8.8 Hz, 1H), 5.10 (s, 2H), 5.06 (bs, 1H), 3.78-3.69 (m, 2H), 3.47 (t, J = 7.2 Hz, 2H), 2.43 (m, 2H); ^{13}C NMR ($CDCl_3$, 75 MHz) δ 165.4 (d, ^1J = 254.1 Hz), 152.8, 136.4, 132.8 (^{2}d, J = 23.3 Hz), 132.3, 131.1, 130.2 (^{3}d, J = 9.3 Hz), 129.5, 128.7, 127.7, 127.1, 126.9, 121.8, 120.9, 116.6 (^{2}d, J = 22.4 Hz), 113.3, 69.5, 58.9, 53.5, 46.2, 31.6; HRMS-ESI (m/z): $[M+H]^+$ calcd

for $C_{25}H_{21}Cl_3FN_4O_3S$ 581.02308, Found 581.02247.

III. Spectral Data

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Current Data Parameters
NAME          JSH-2-121-2-p
EXPNO                     1
PROCNO                    1

F2 - Acquisition Parameters
Date_              20120203
Time_                 19.50
INSTRUM                spect
PROBHD   5 mm DUL 1H-13
PULPROG                zg30
TD                    65536
SOLVENT               CDCl3
NS                       16
DS                        2
SWH                6172.839 Hz
FIDRES             0.094190 Hz
AQ                 5.3084660 sec
RG                     456.1
DW                  81.000 usec
DE                      6.00 usec
TE                     300.0 K
D1                 1.00000000 sec
TD0                       1

======== CHANNEL f1 ========
NUC1                      1H
P1                    10.50 usec
PL1                   -1.00 dB
SFO1           300.1318534 MHz

F2 - Processing parameters
SI                        32768
SF             300.1300119 MHz
WDW                          EM
SSB                           0
LB                         0.30 Hz
GB                            0
PC                         1.00
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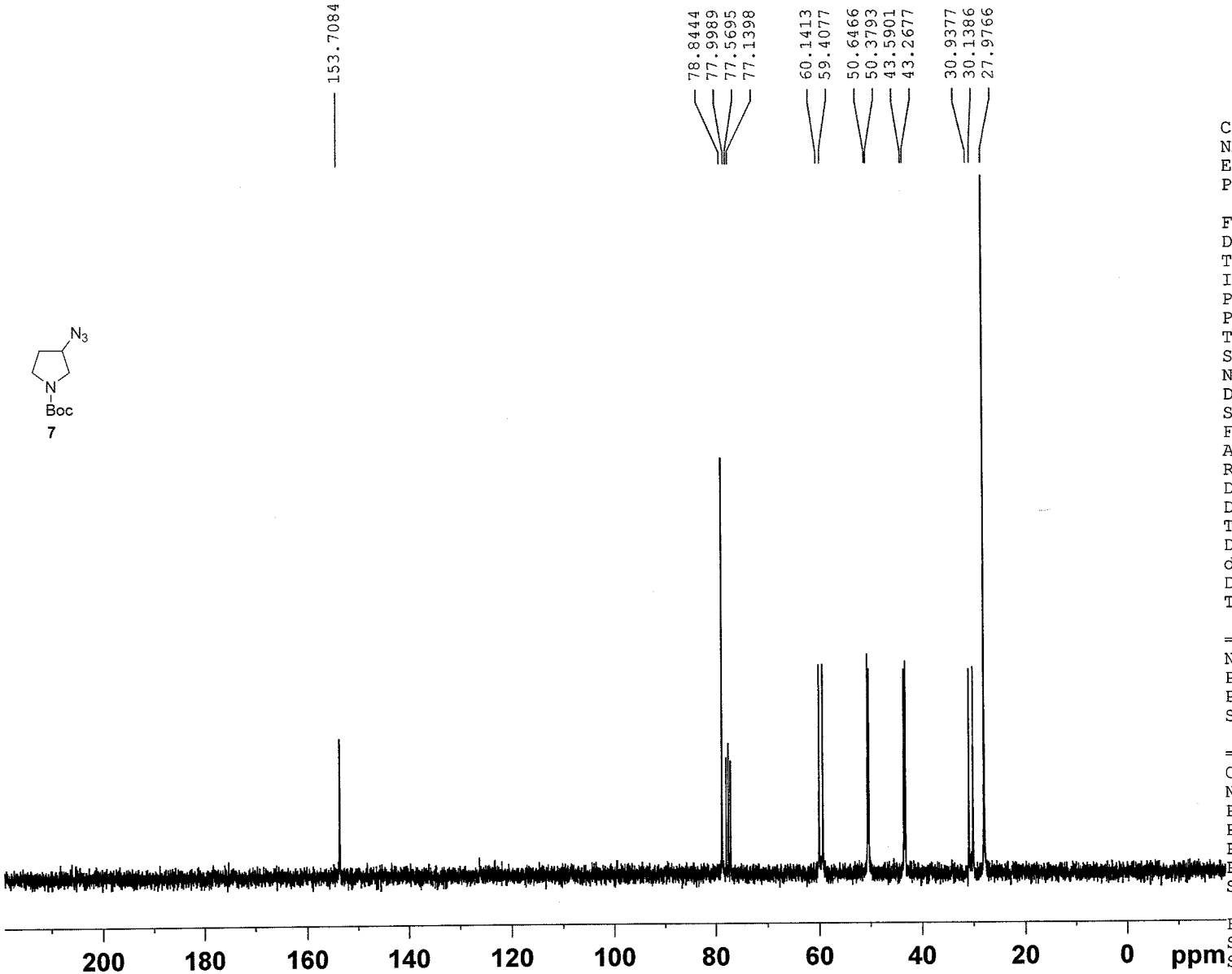


Current Data Parameters

NAME	JSH-2-121-2-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120207
Time	20.55
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	11585.2
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

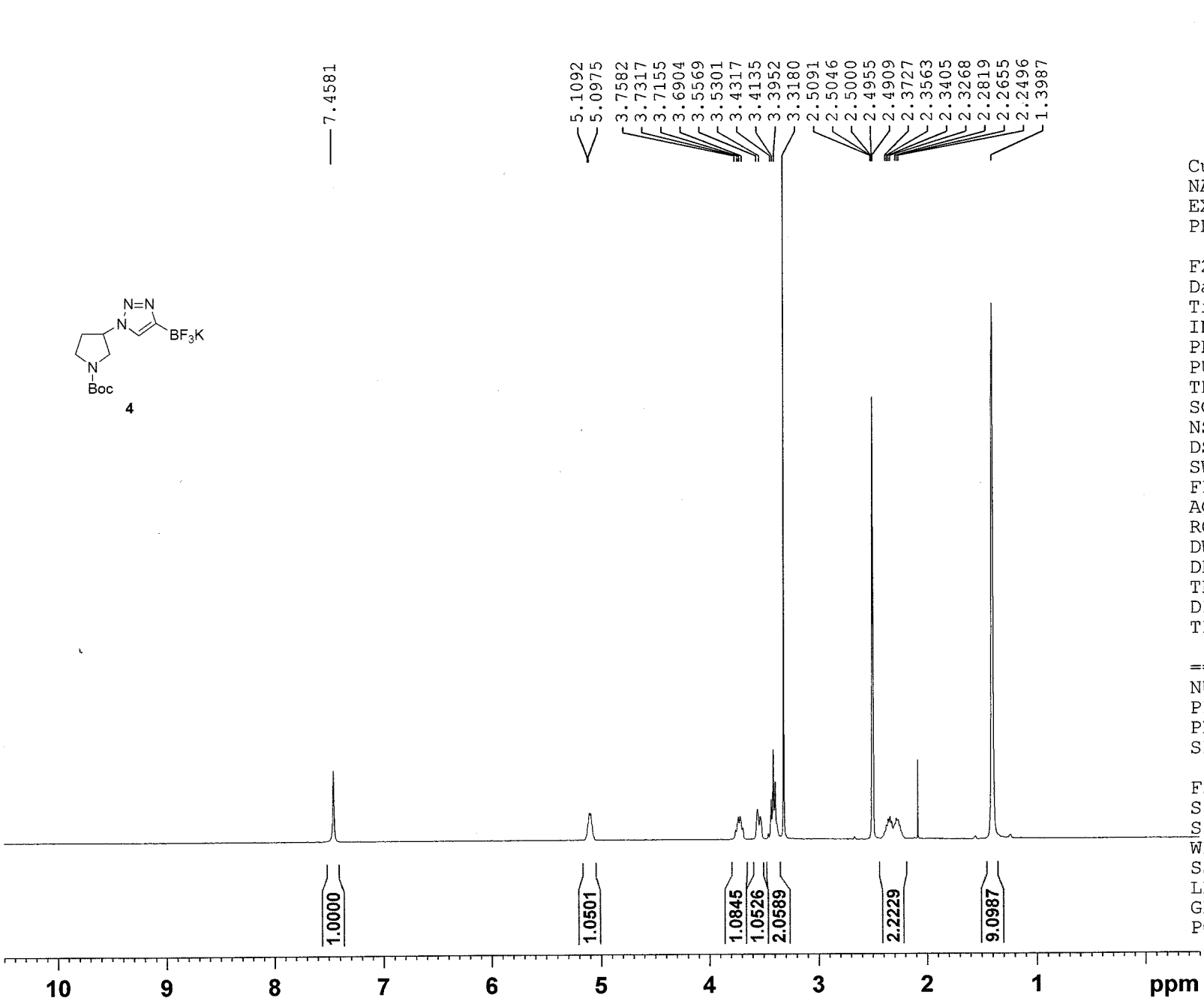
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40



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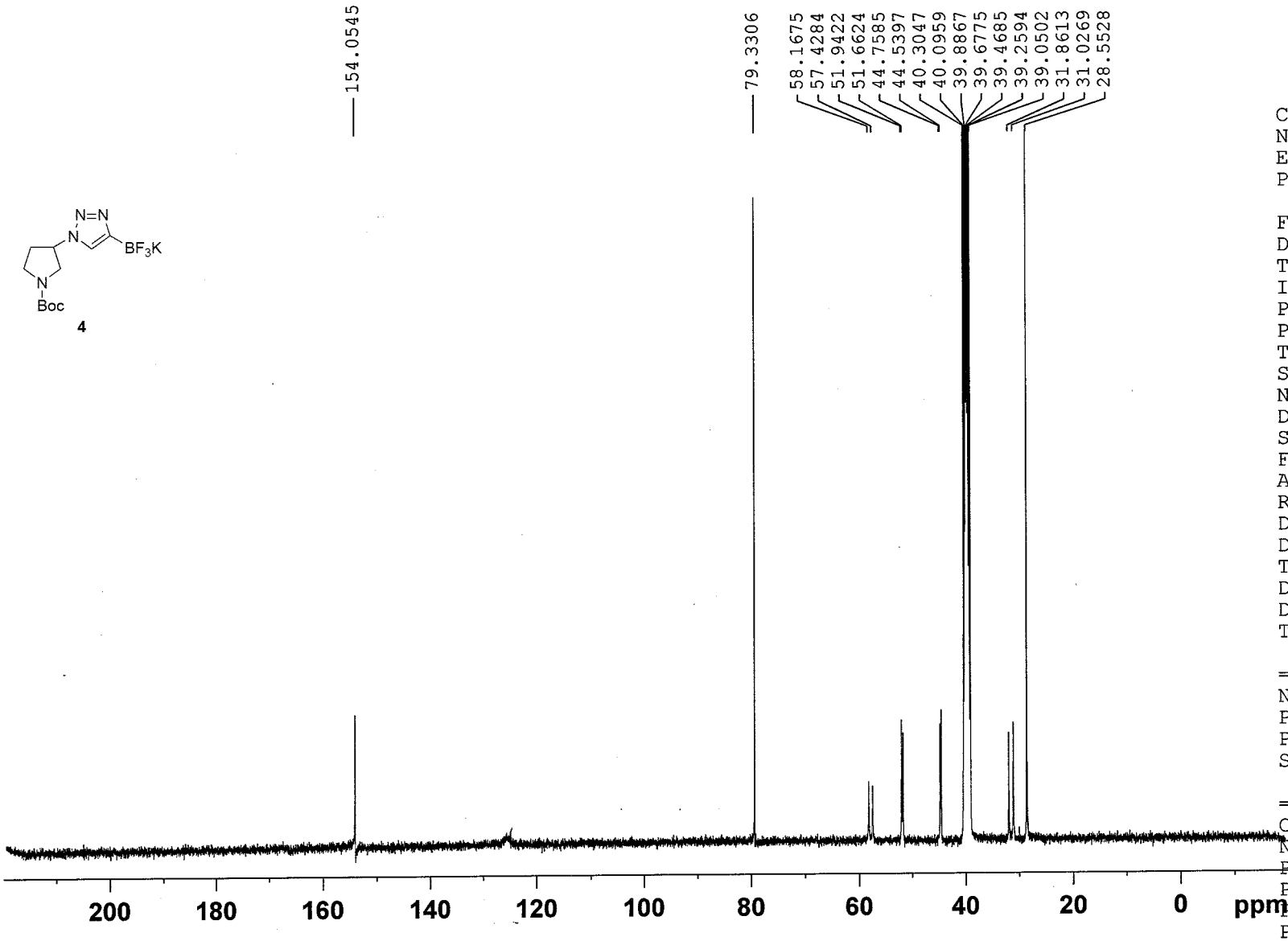
Current Data Parameters
NAME JSH-3-147-p
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20121010
Time 20.27
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 190.62
DW 60.800 usec
DE 6.50 usec
TE 298.9 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100063 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

4



Current Data Parameters
NAME JSH-3-109-p
EXPNO 12
PROCNO 1

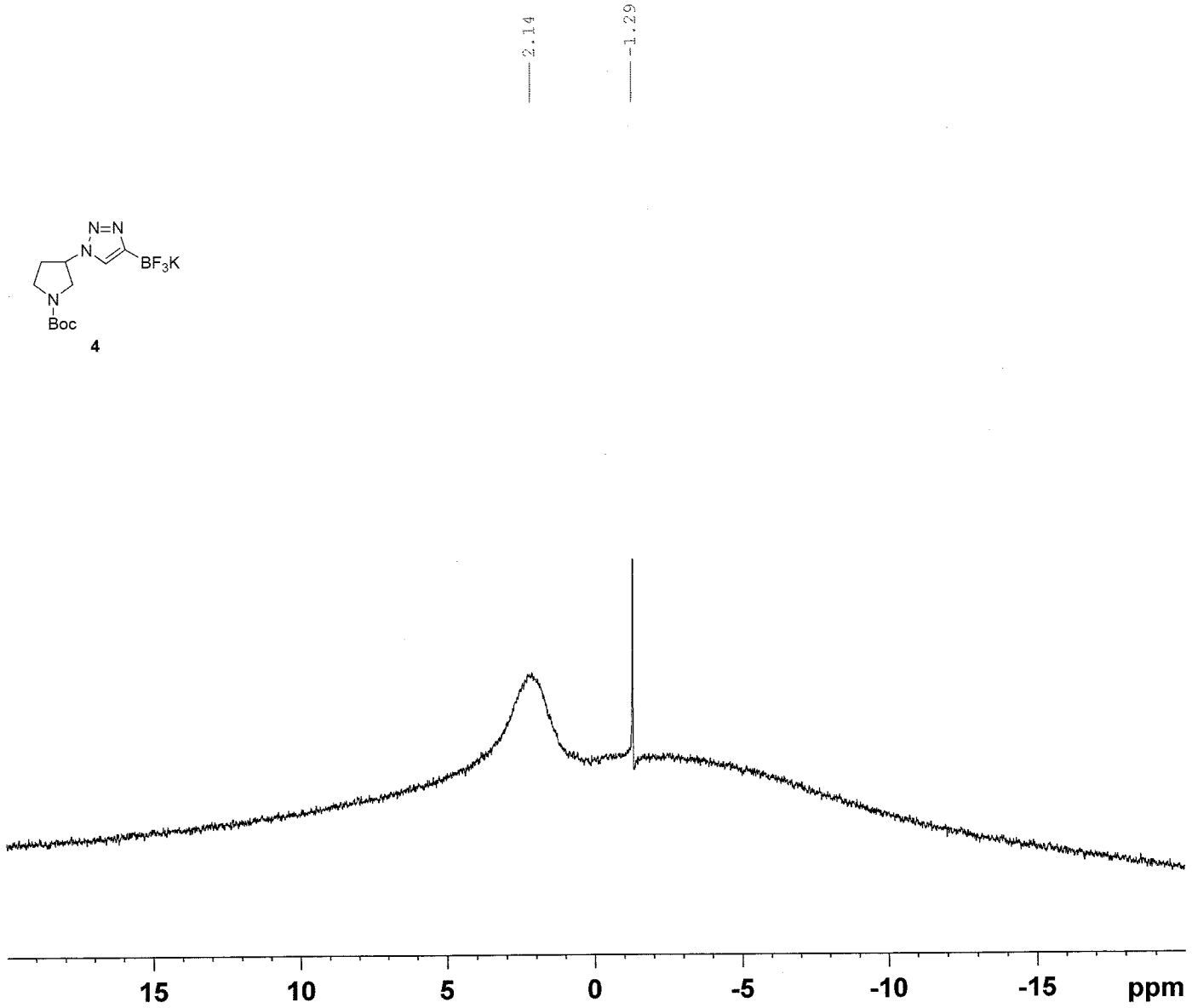
F2 - Acquisition Paramete
Date_ 20130306
Time 22.40
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 11194
DS 4
SWH 24038.461 H
FIDRES 0.366798 H
AQ 1.3631988 s
RG 190.62
DW 20.800 u
DE 6.50 u
TE 299.4 K
D1 2.00000000 s
D11 0.03000000 s
TD0 1

======== CHANNEL f1 =====
NUC1 13C
P1 10.00 u
PLW1 52.00000000 W
SFO1 100.6429474 M

======== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 u
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 M

F2 - Processing parameter
SI 32768

4

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Current Data Parameters
NAME      JSH-Boc pyrrolidine BF3K
EXPNO                  2
PROCNO                 1

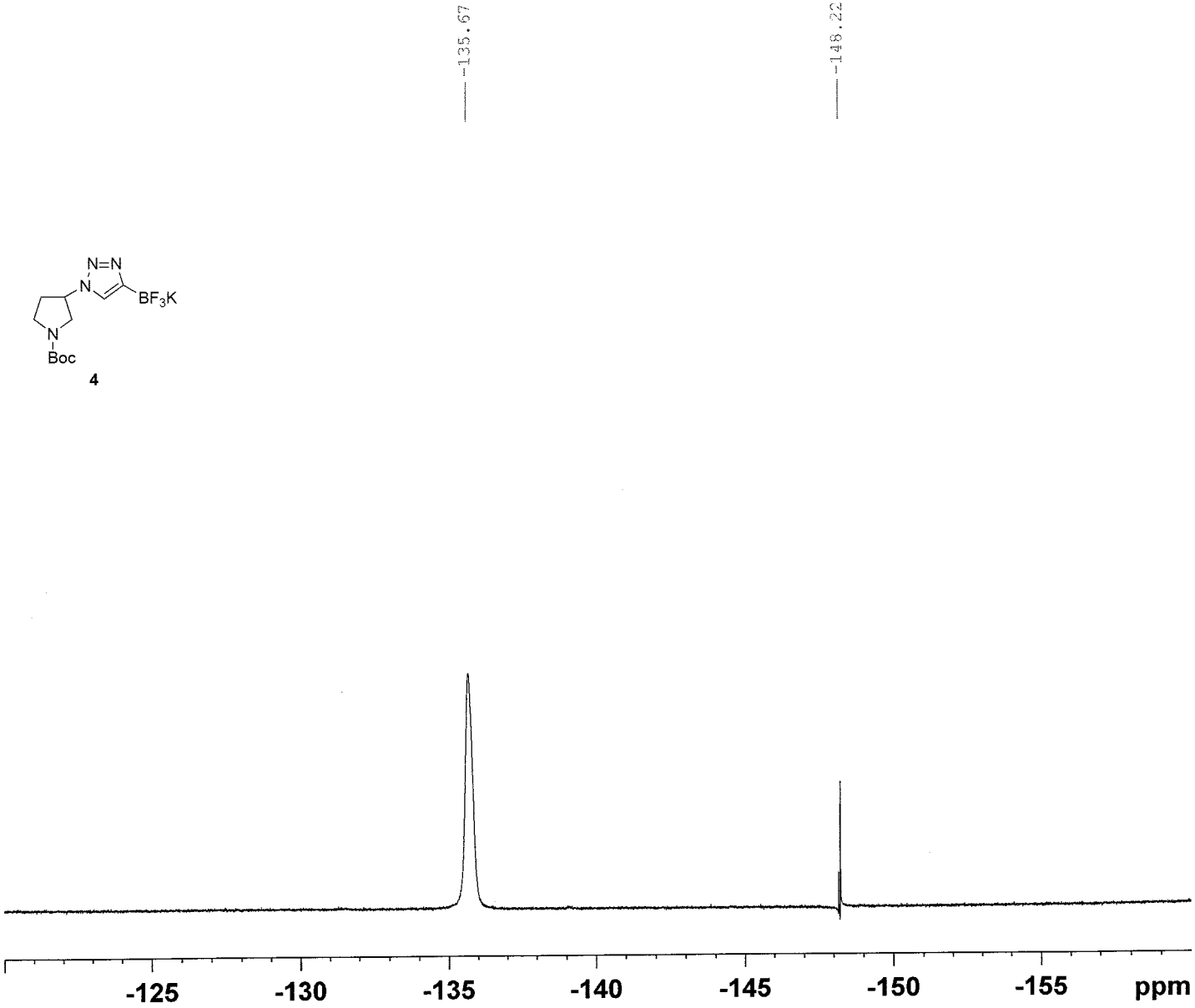
F2 - Acquisition Parameters
Date_           20130502
Time              16.44
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG         zgpg30
TD                65536
SOLVENT             DMSO
NS                    66
DS                     4
SWH           25510.203 Hz
FIDRES         0.389255 Hz
AQ             1.2845556 sec
RG                190.62
DW              19.600 usec
DE               6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

========= CHANNEL f1 ========
NUC1                  11B
P1                 15.00 usec
PLW1         34.20000076 W
SFO1        128.4032720 MHz

========= CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2              90.00 usec
PLW2         12.00000000 W
PLW12         0.33333001 W
PLW13         0.27000001 W
SFO2        400.2116008 MHz

F2 - Processing parameters
SI                 32768
SF          128.4032720 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

4



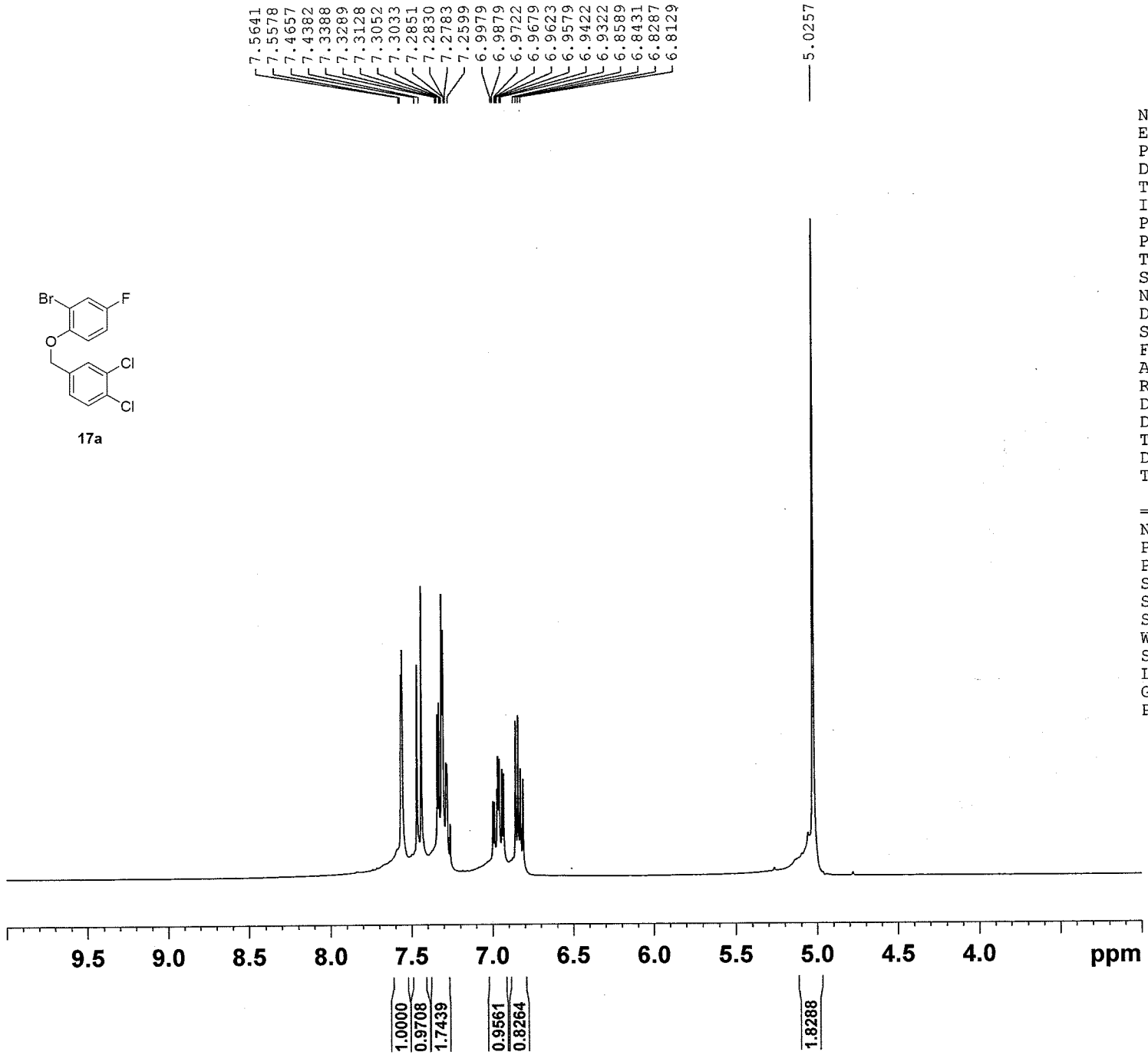
Current Data Parameters
NAME JSH-Boc pyrrolidine BF3K
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130502
Time 16.48
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgfhigqn.2
TD 131072
SOLVENT DMSO
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340532 sec
RG 190.62
DW 5.600 usec
DE 6.50 usec
TE 299.7 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 19F
P1 15.00 usec
PLW1 17.00000000 W
SFO1 376.5359841 MHz

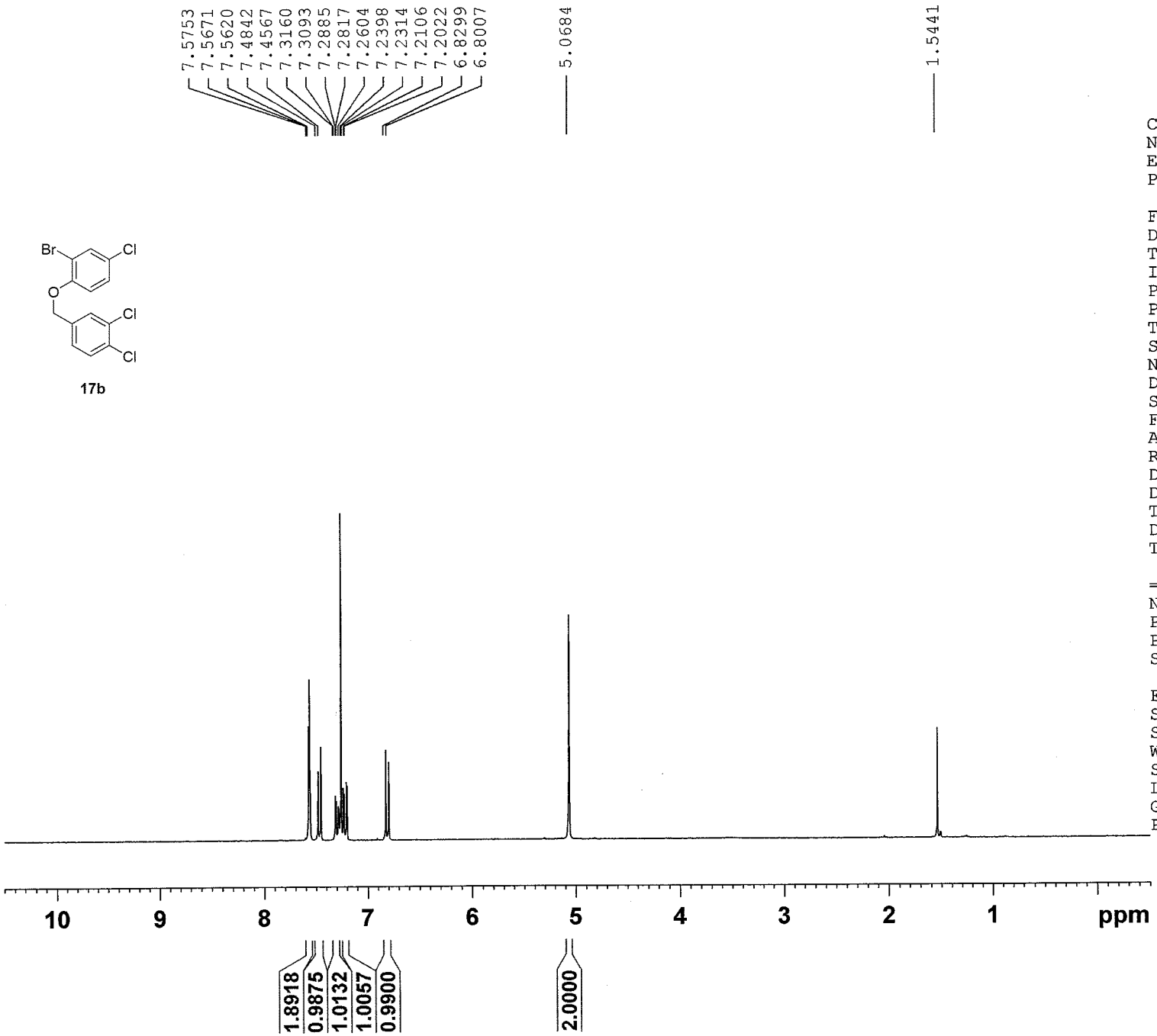
======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 65536
SF 376.5736410 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



NAME	ARi-5-product
EXPNO	1
PROCNO	1
Date_	20120202
Time	14.00
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	161.3
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1
========	CHANNEL f1 ========
NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz
SI	32768
SF	300.1300121 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

17b



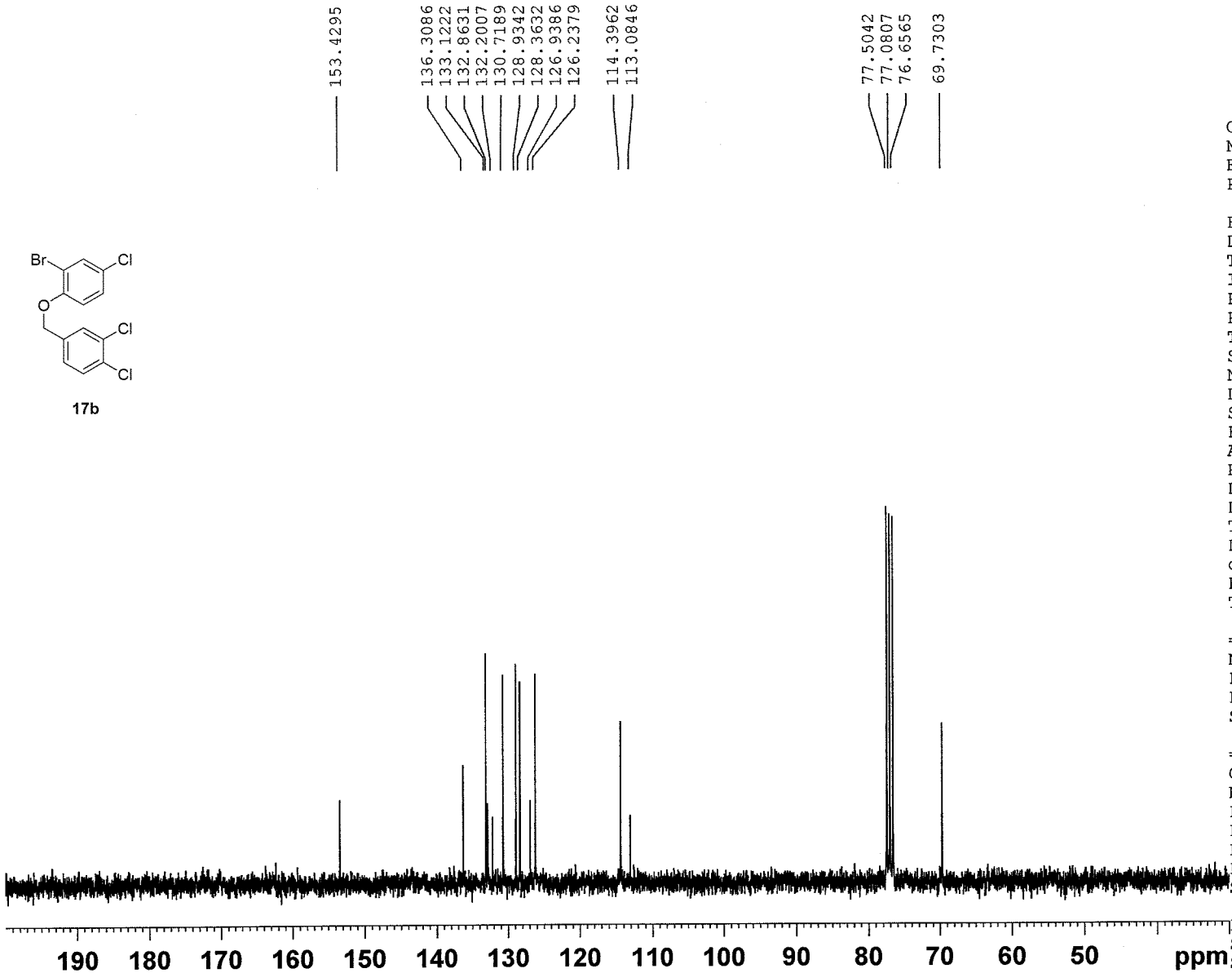

```
Current Data Parameters
NAME                  JSH-2-49-p
EXPNO                          2
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20121016
Time                       16.58
INSTRUM                    spect
PROBHD    5 mm DUL 1H-13
PULPROG                     zg30
TD                         65536
SOLVENT                    CDCl3
NS                            10
DS                             2
SWH                     6172.839 Hz
FIDRES                  0.094190 Hz
AQ                      5.3084660 sec
RG                         1824.6
DW                         81.000 usec
DE                          6.00 usec
TE                         300.0 K
D1                      1.00000000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                          1H
P1                         10.50 usec
PL1                        -1.00 dB
SFO1                300.1318534 MHz

F2 - Processing parameters
SI                         32768
SF                  300.1300120 MHz
WDW                           EM
SSB                            0
LB                          0.30 Hz
GB                             0
PC                          1.00
```

17b



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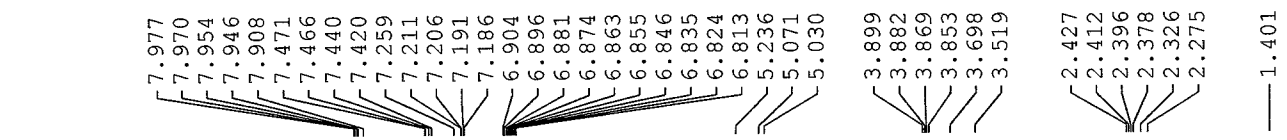
Current Data Parameters
NAME JSH-2-31-p
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120201
Time 21.08
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 65
DS 4
SWH 17985.611 Hz
FIDRES 0.274439 Hz
AQ 1.8219508 sec
RG 20642.5
DW 27.800 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 1

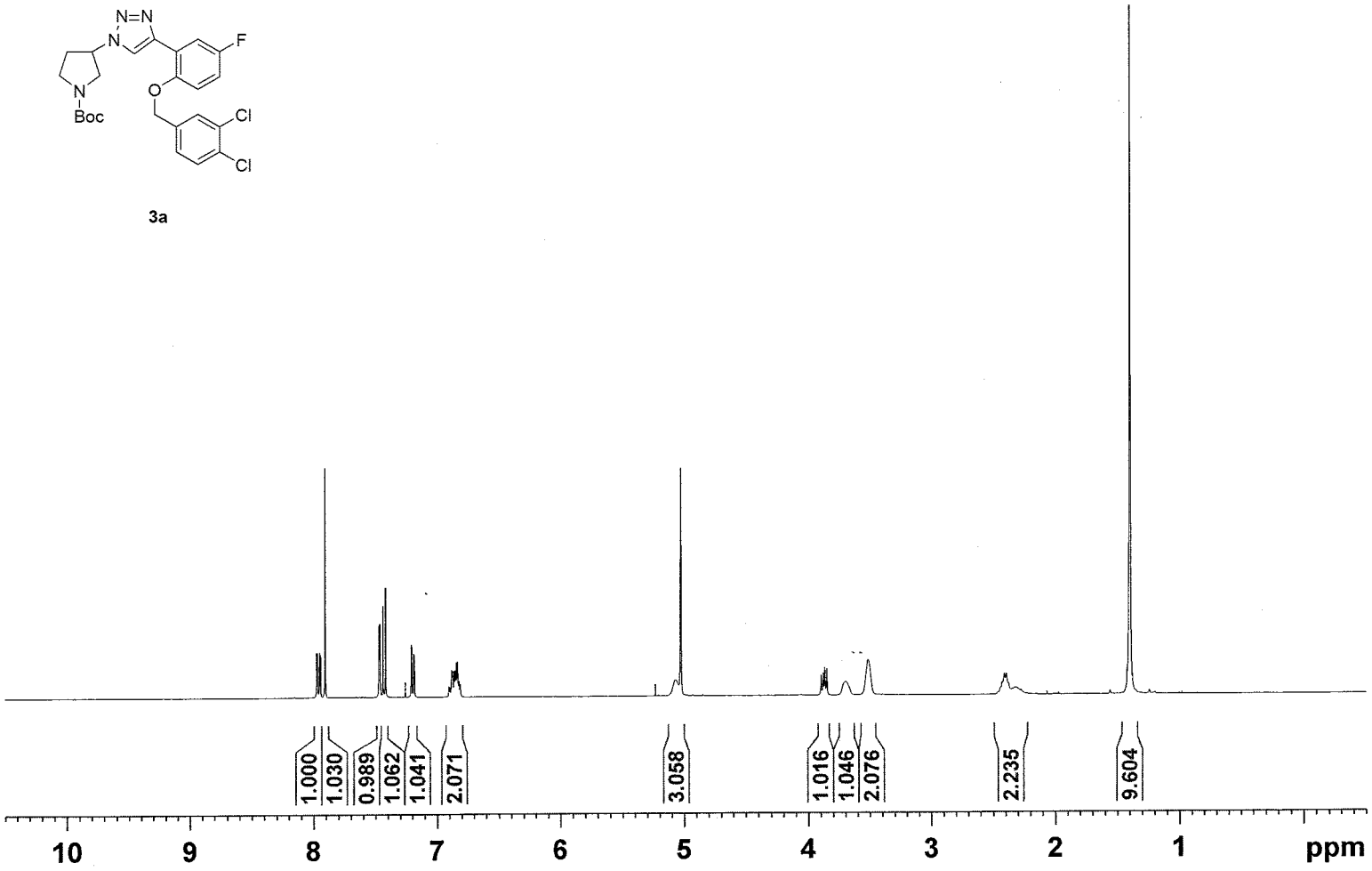
======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PL1 0.00 dB
SFO1 75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 100.00 usec
PL2 0.00 dB
PL12 20.00 dB
PL13 22.00 dB
SFO2 300.1312005 MHz

F2 - Processing parameters
SI 32768
SF 75.4677490 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



3a

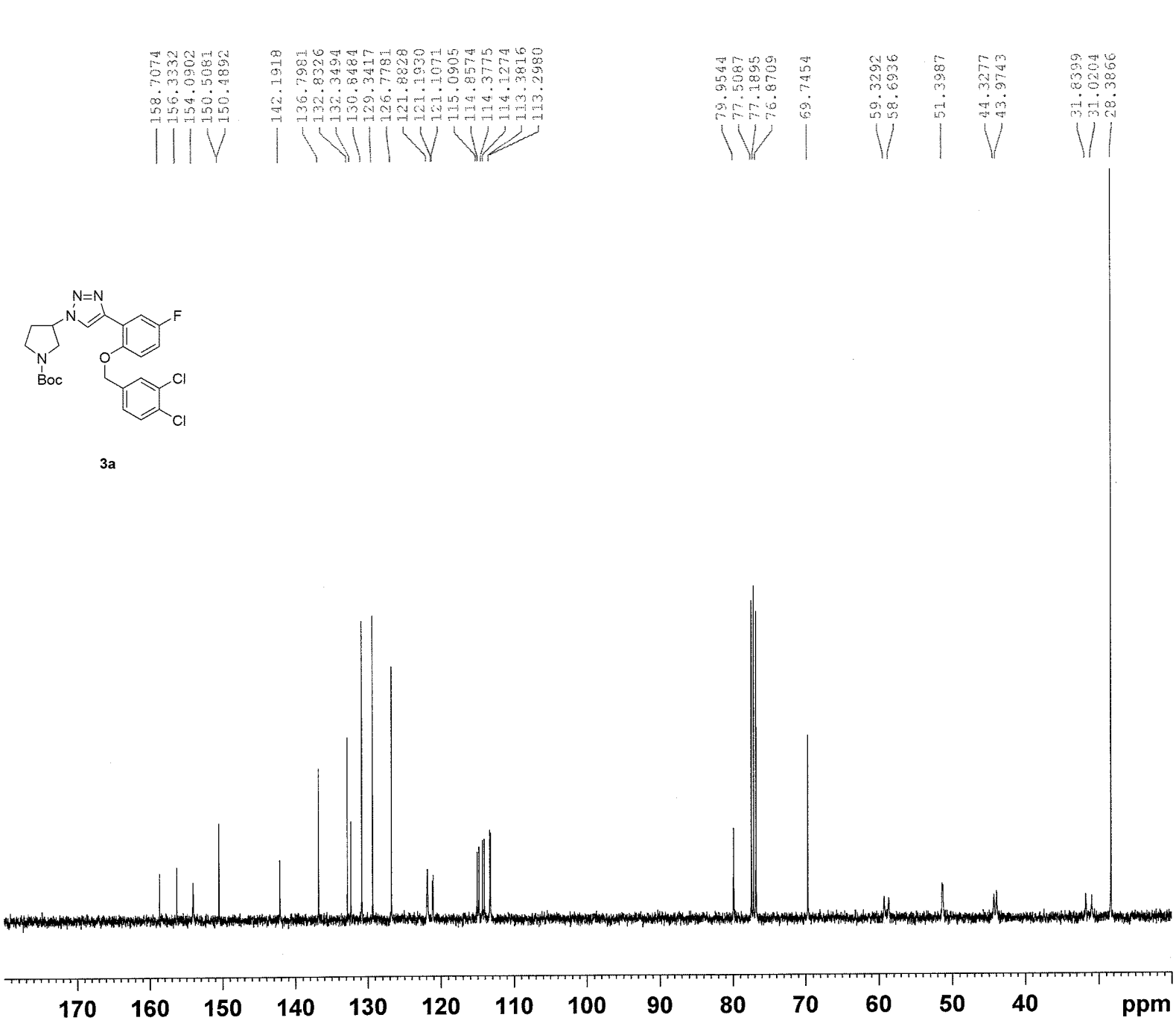


Current Data Parameters
NAME JSH-130625-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130625
Time 10.02
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 5
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 33.2
DW 60.800 usec
DE 6.50 usec
TE 298.4 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100129 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



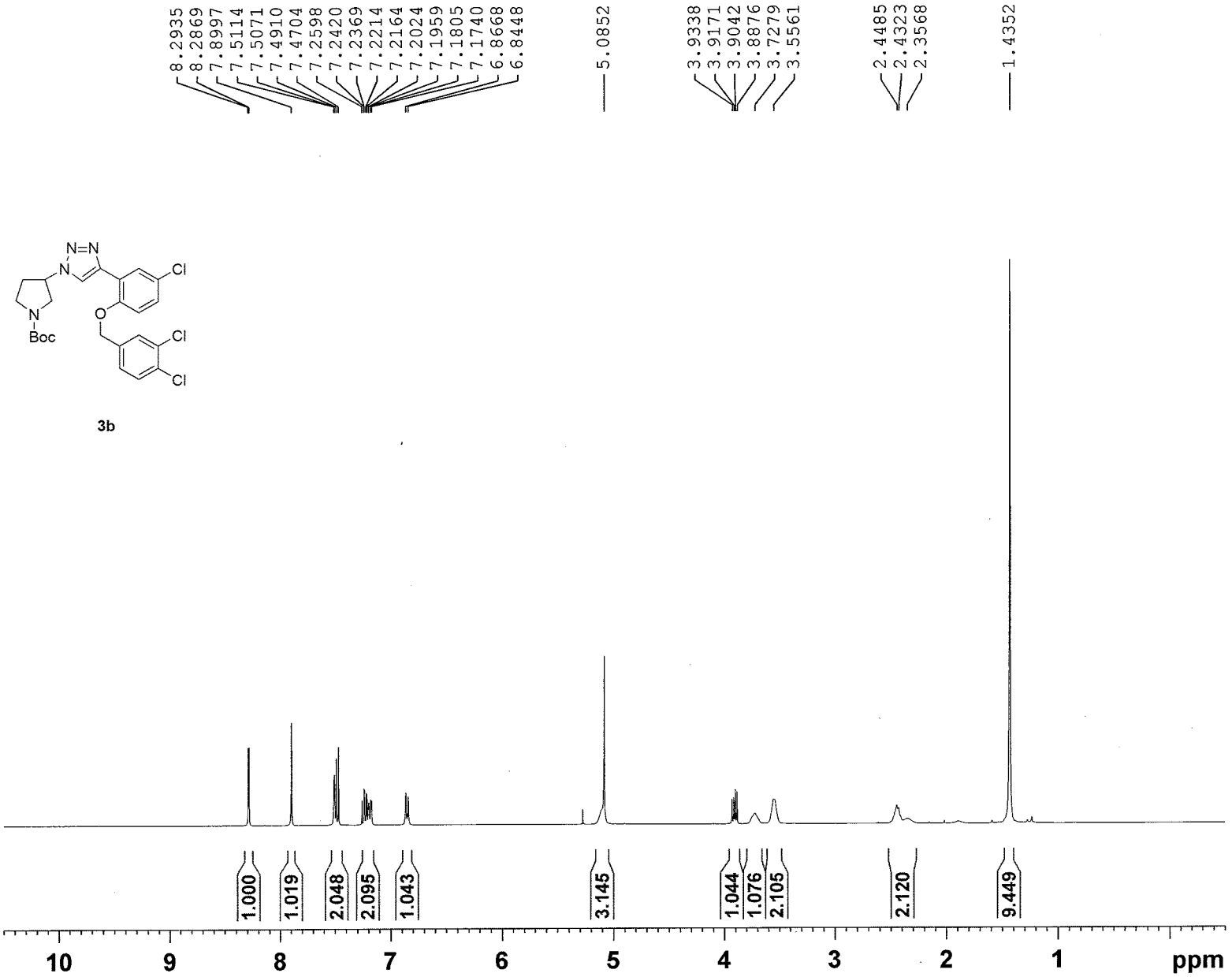
Current Data Parameters
NAME JSH-130625-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130625
Time 10.05
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 41
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 190.62
DW 20.800 usec
DE 6.50 usec
TE 298.9 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PLW1 52.00000000 W
SFO1 100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 32768
SF 100.6328860 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

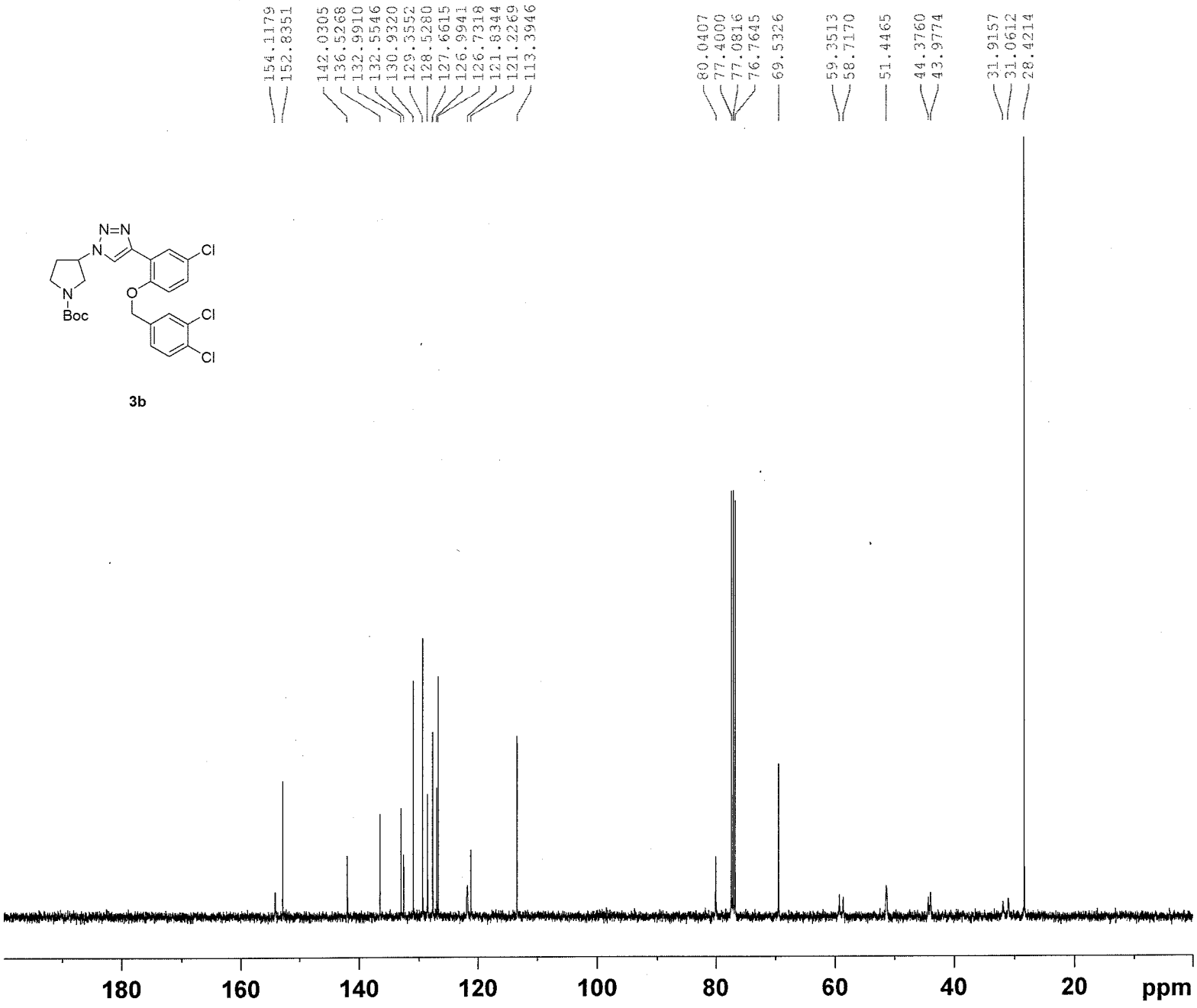


Current Data Parameters
NAME JSH-3-173-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130617
Time 12.42
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 3
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 58.64
DW 60.800 usec
DE 6.50 usec
TE 298.4 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100130 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



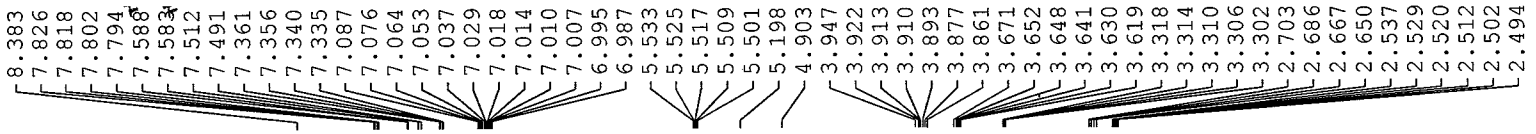
Current Data Parameters
NAME JSH-3-173-p
EXPNO 3
PROCNO 1

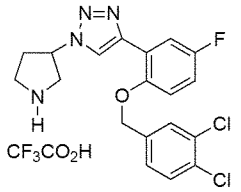
F2 - Acquisition Parameters
Date_ 20130617
Time 12.46
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 130
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 190.62
DW 20.800 usec
DE 6.50 usec
TE 298.8 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PLW1 52.00000000 W
SFO1 100.6429474 MHz

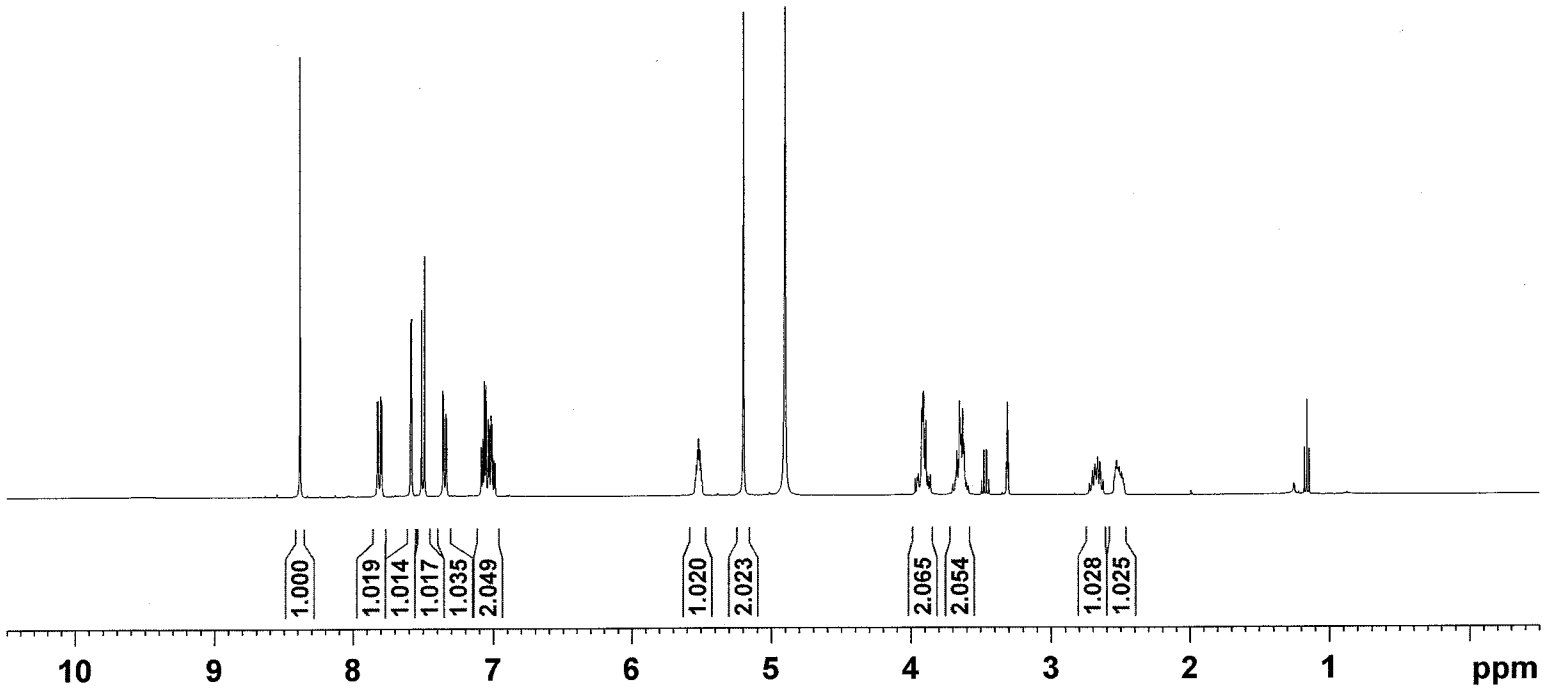
======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 32768
SF 100.6328860 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40





18a



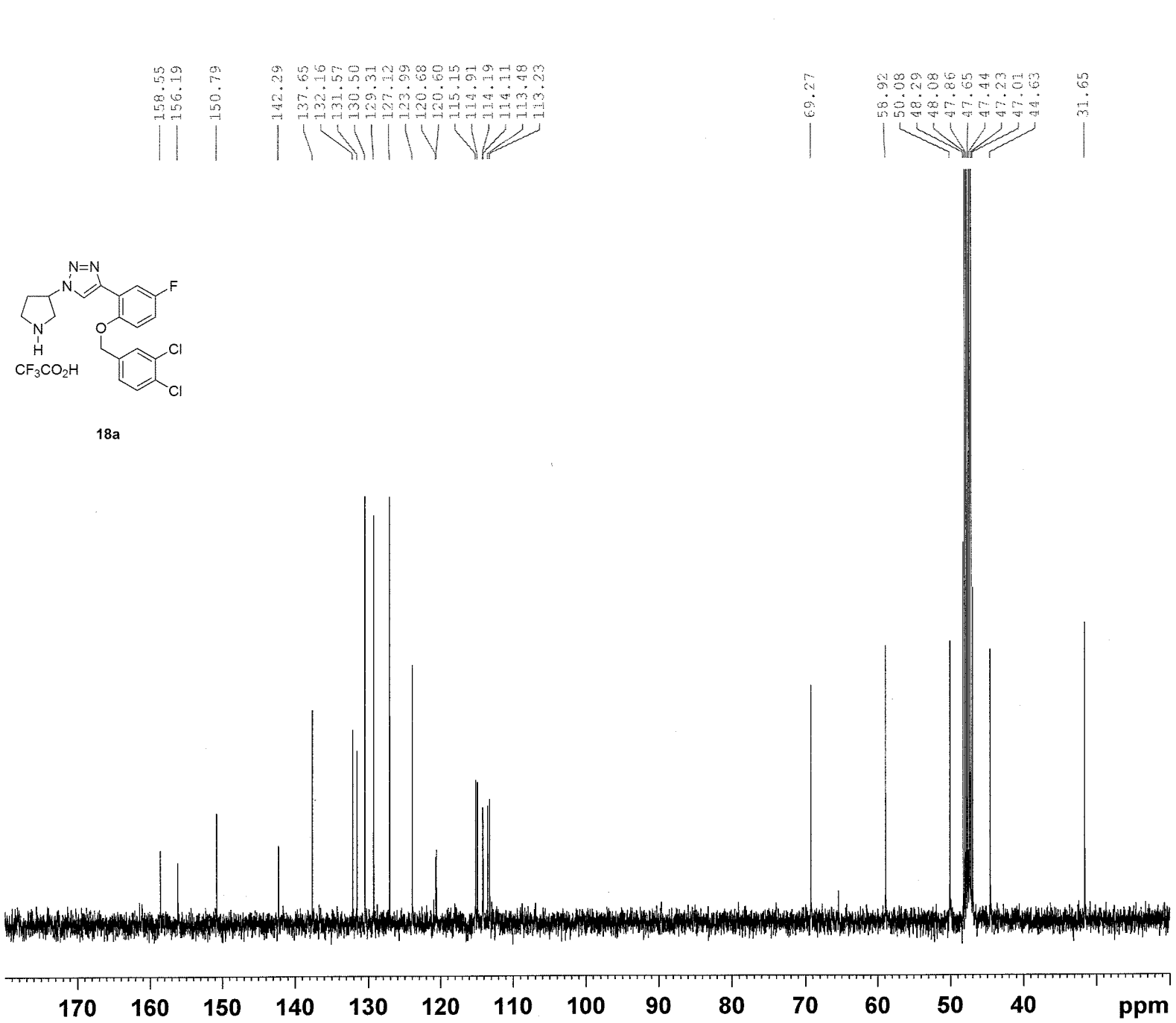
BRUKER

Current Data Parameters
NAME JSH-2-163-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130508
Time 22.14
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT MeOD
NS 9
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 69.69
DW 60.800 usec
DE 6.50 usec
TE 299.1 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100109 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

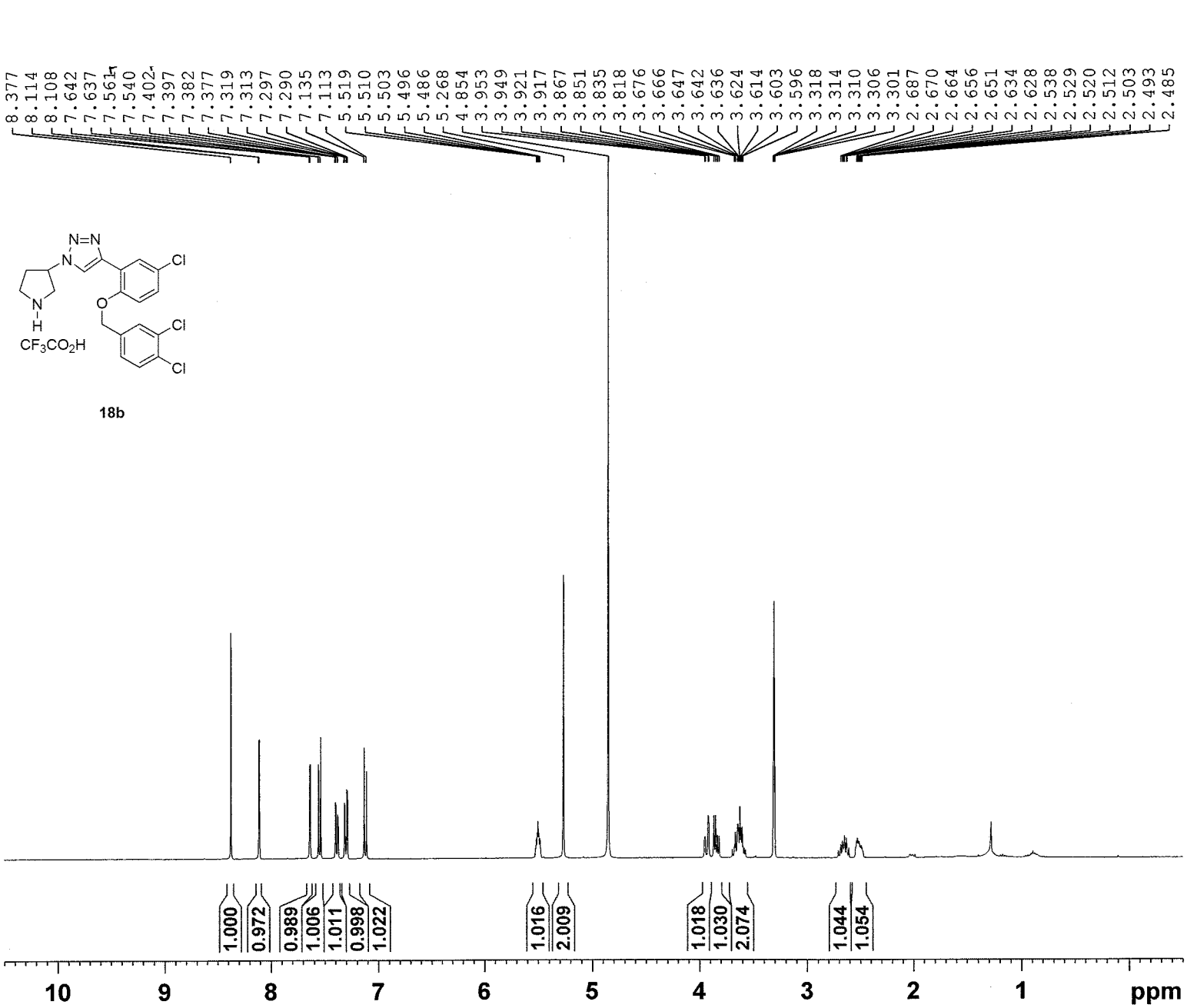
Current Data Parameters
NAME JSH-2-163-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130508
Time 22.18
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT MeOD
NS 99
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 190.62
DW 20.800 usec
DE 6.50 usec
TE 299.8 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PLW1 52.00000000 W
SFO1 100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 32768
SF 100.6328860 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



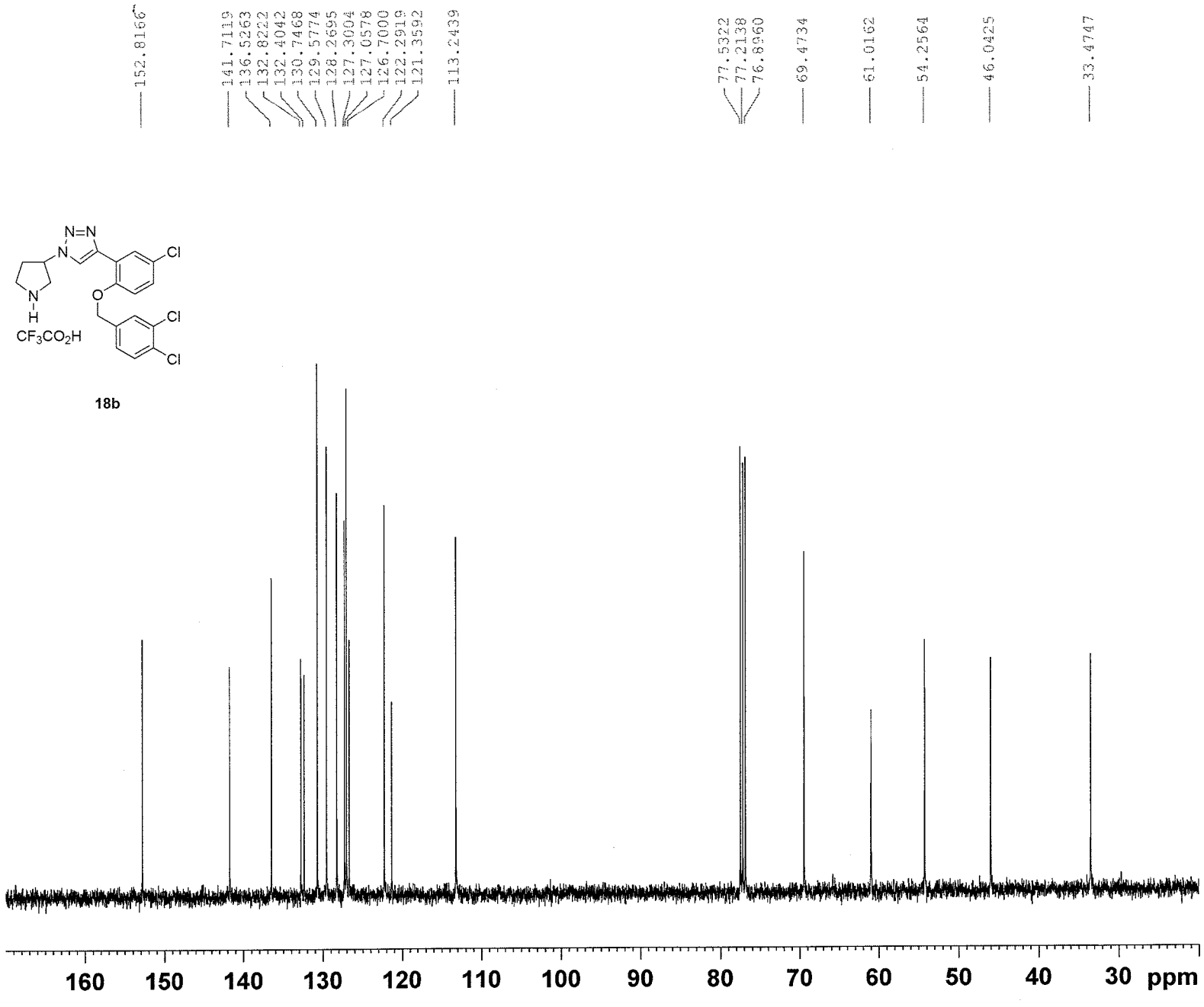
BRUKER

Current Data Parameters
NAME JSH-2-131-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130508
Time 22.08
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT MeOD
NS 8
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 171.62
DW 60.800 usec
DE 6.50 usec
TE 299.4 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100110 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

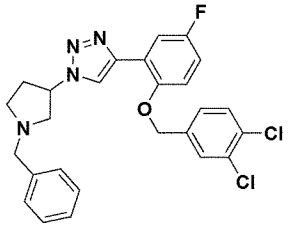
Current Data Parameters
NAME JSH-130702-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130702
Time 20.36
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 31
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 190.62
DW 20.800 usec
DE 6.50 usec
TE 297.4 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PLW1 52.00000000 W
SFO1 100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 32768
SF 100.6328860 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



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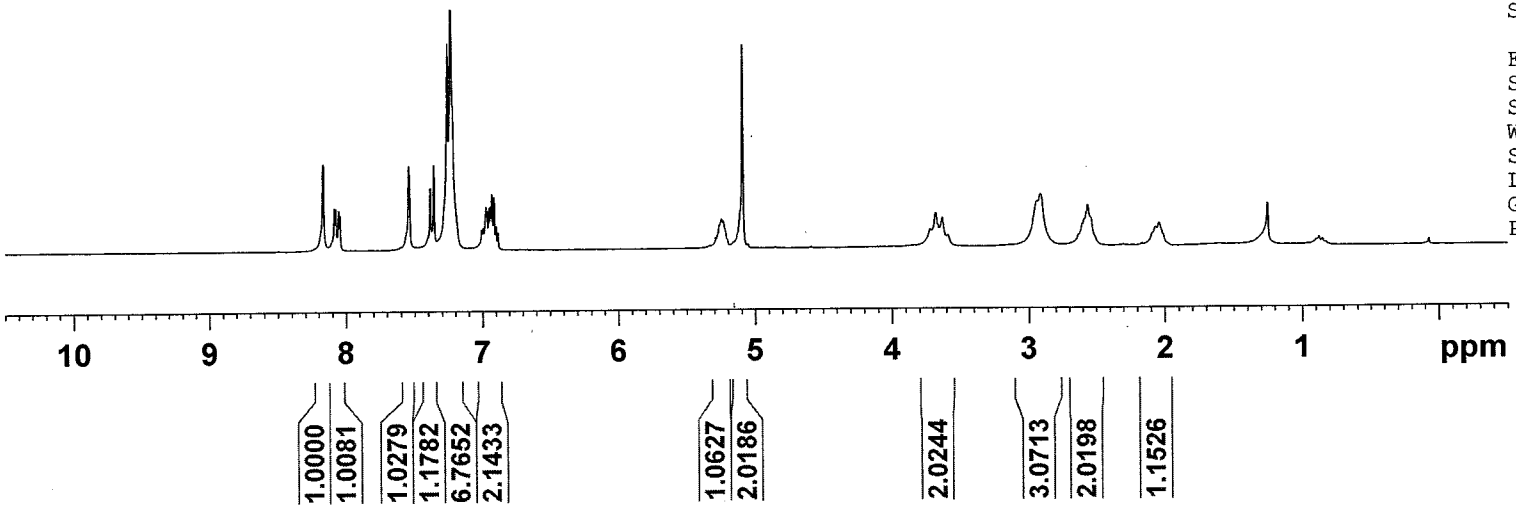
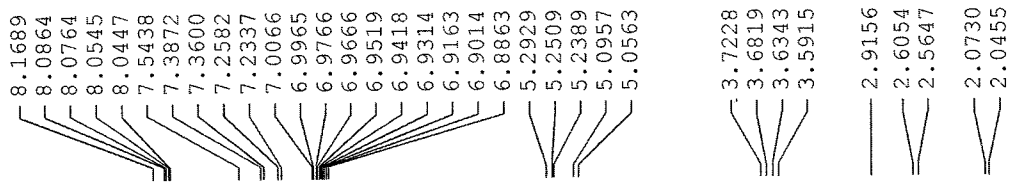




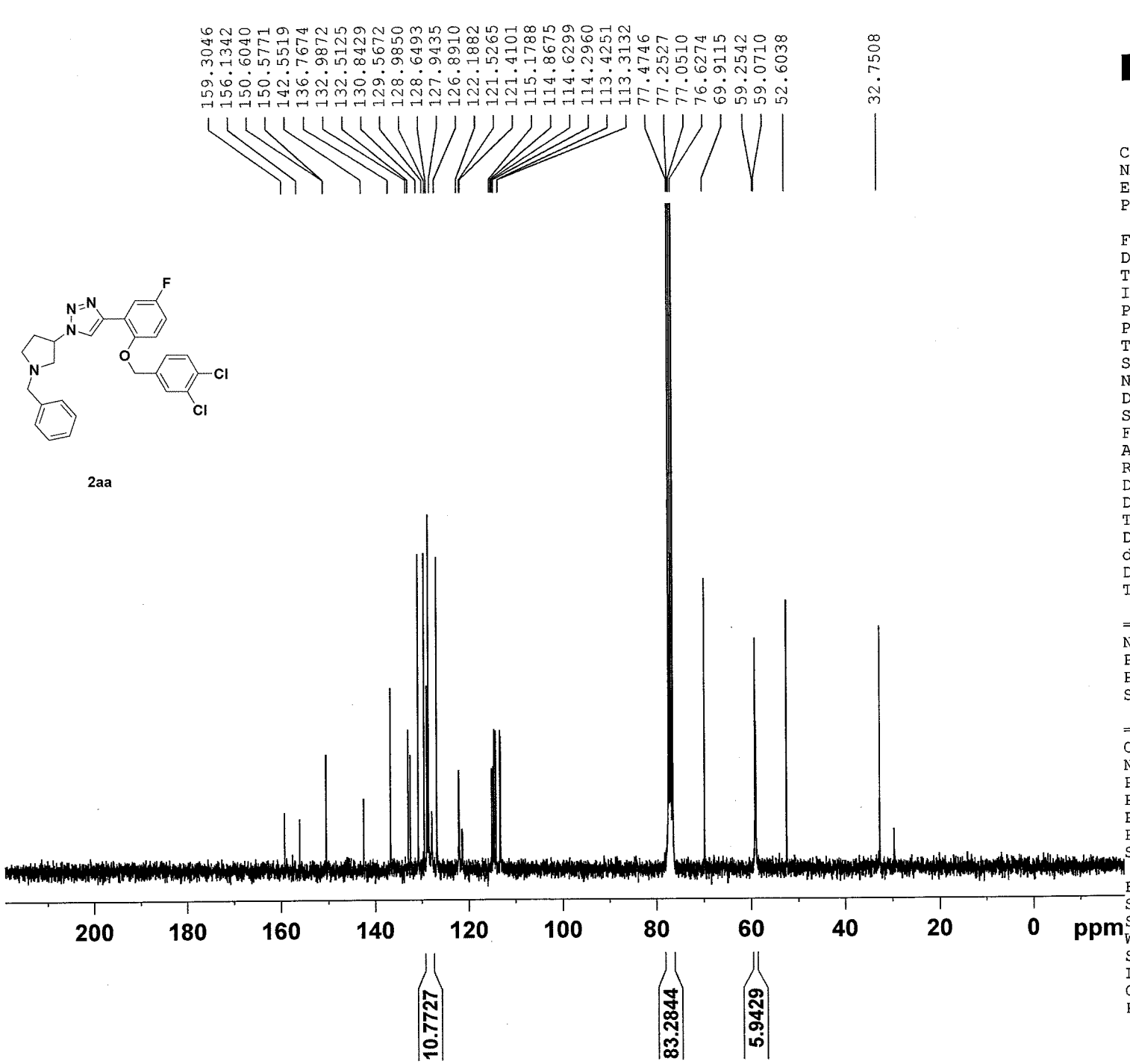
BRUKER

```
Current Data Parameters
NAME                  JSH-2-167-p
EXPNO                           1
PROCNO                          1

F2 - Acquisition Parameters
Date_                    20120329
Time                        21.30
INSTRUM                     spect
PROBHD    5 mm DUL 1H-13
PULPROG                      zg30
TD                          65536
SOLVENT                     CDCl3
NS                             16
DS                              2
SWH                    6172.839 Hz
FIDRES                 0.094190 Hz
AQ                     5.3084660 sec
RG                          287.4
DW                     81.000 usec
DE                      6.00 usec
TE                          300.0 K
D1                   1.00000000 sec
TD0                             1

======== CHANNEL f1 ========
NUC1                          1H
P1                        10.50 usec
PL1                       -1.00 dB
SF01             300.1318534 MHz

F2 - Processing parameters
SI                          32768
SF               300.1300120 MHz
WDW                            EM
SSB                             0
LB                         0.30 Hz
GB                              0
PC                           1.00
```



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Current Data Parameters

NAME	JSH-2-167-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120617
Time	15.33
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	3959
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

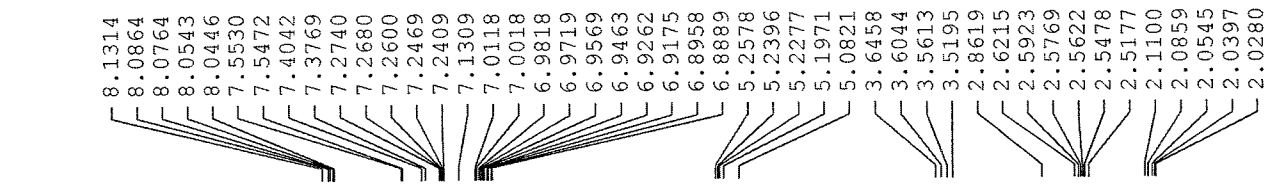
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

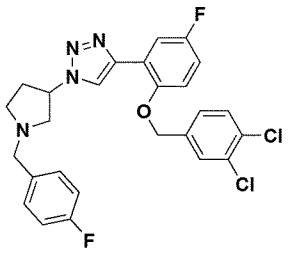
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





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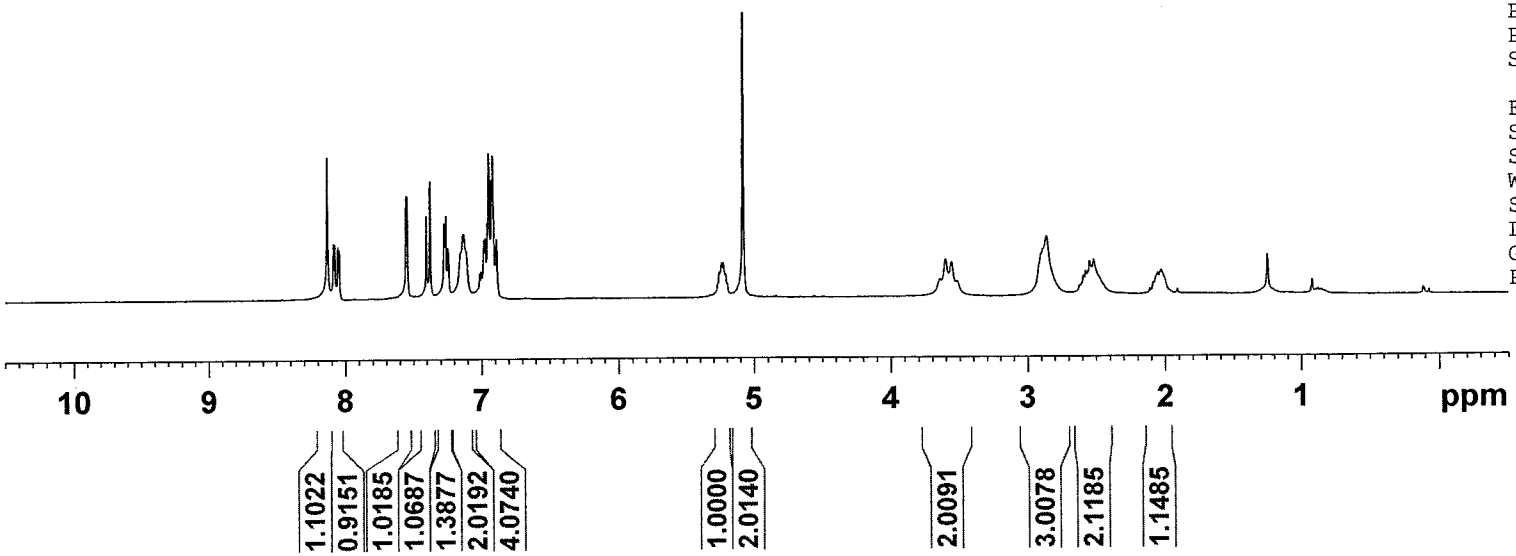


BRUKER

Current Data Parameters
NAME JSH-2-147-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

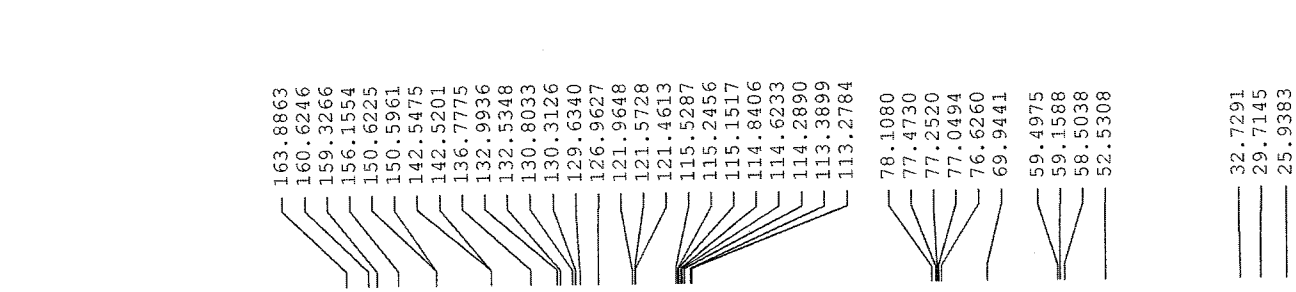
Date_	20120327
Time	14.20
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	228.1
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300122 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



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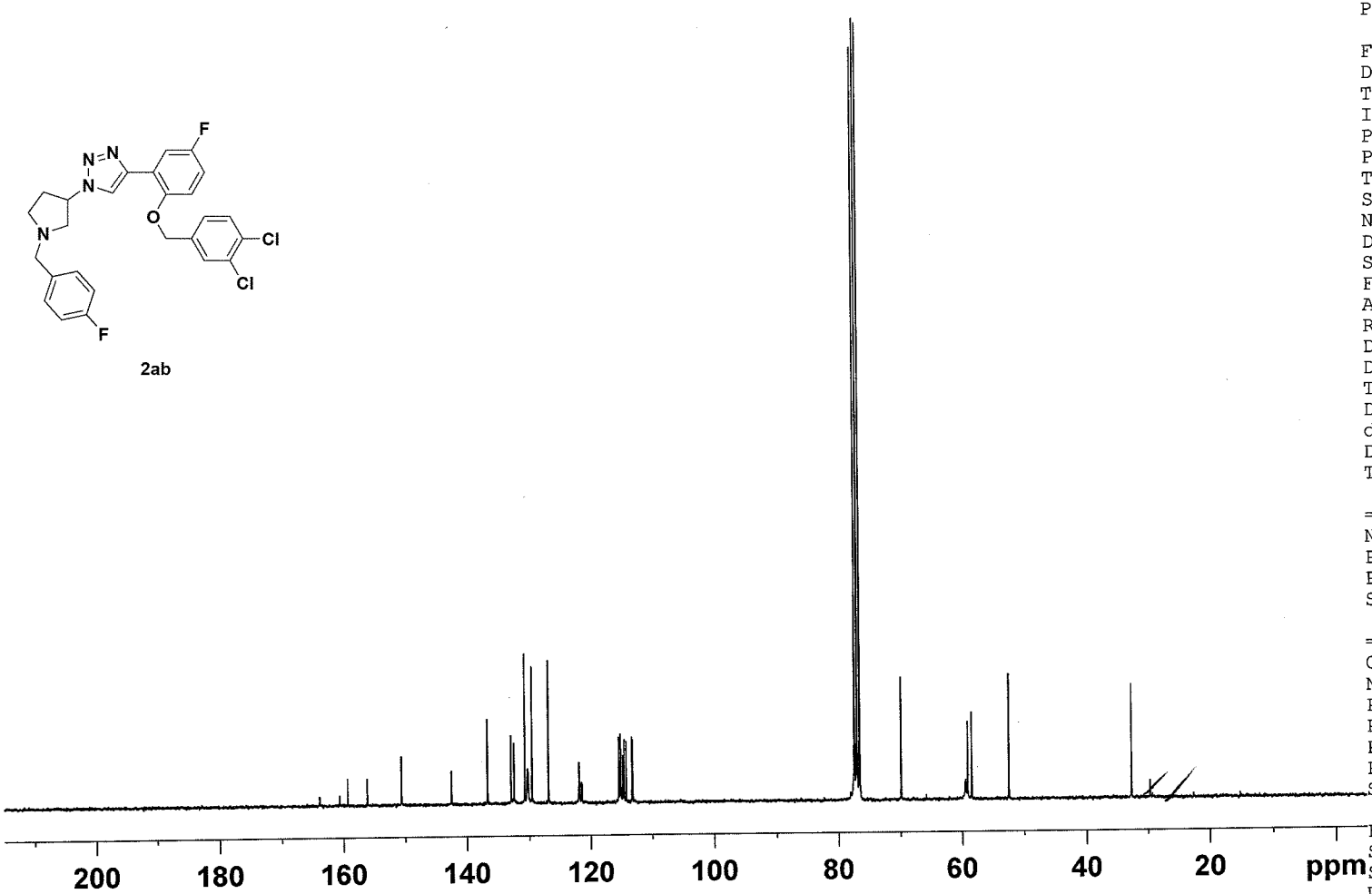


Current Data Parameters

NAME	JSH-2-147-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120712
Time	21.10
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	11157
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	11585.2
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

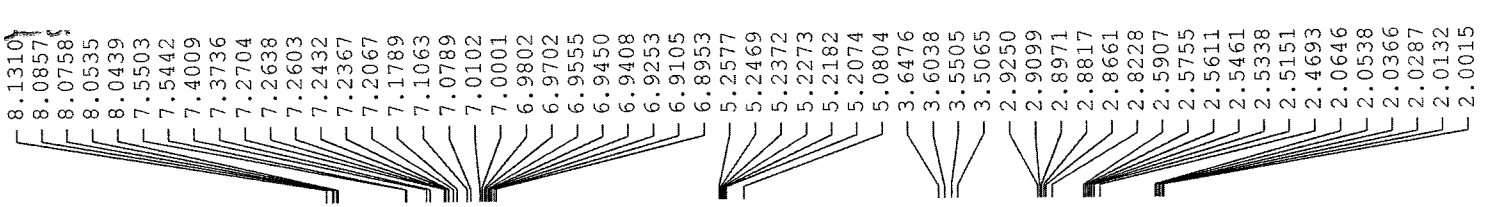
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

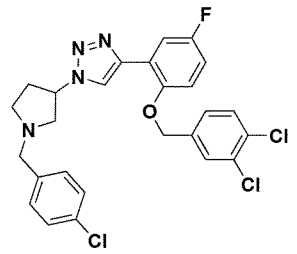
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





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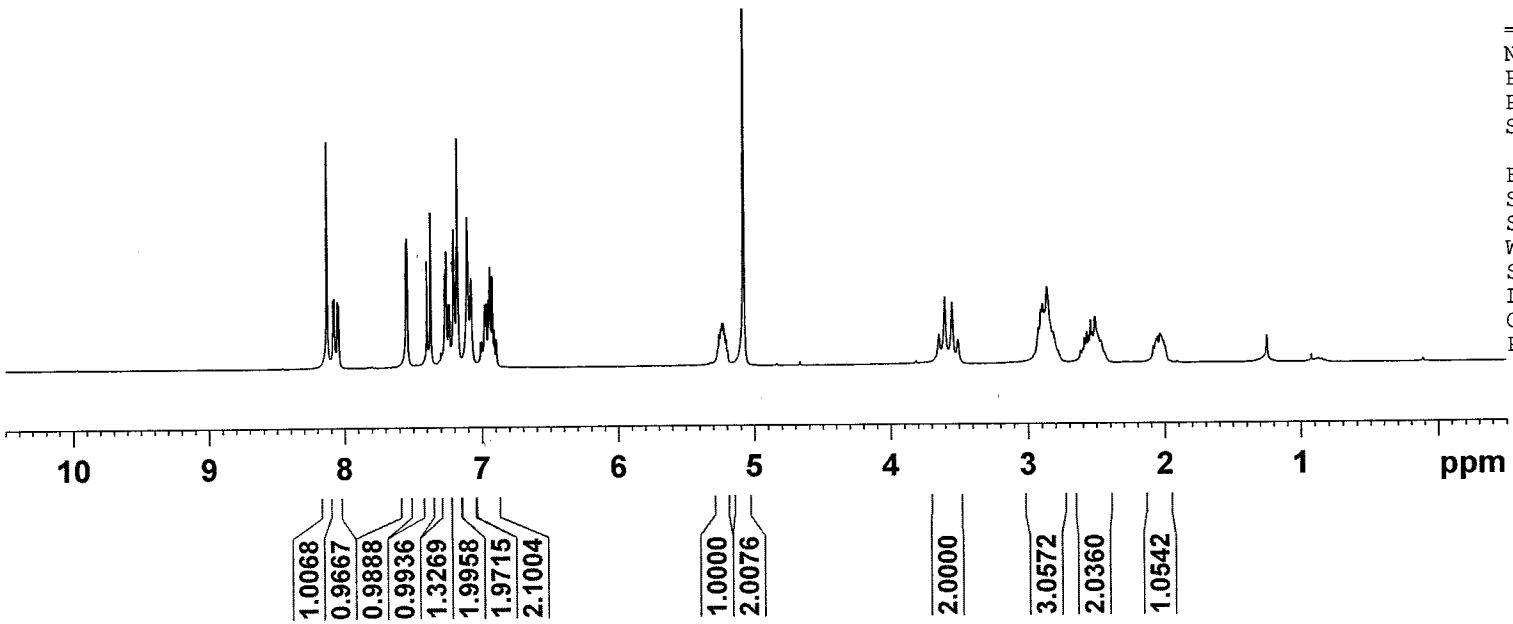

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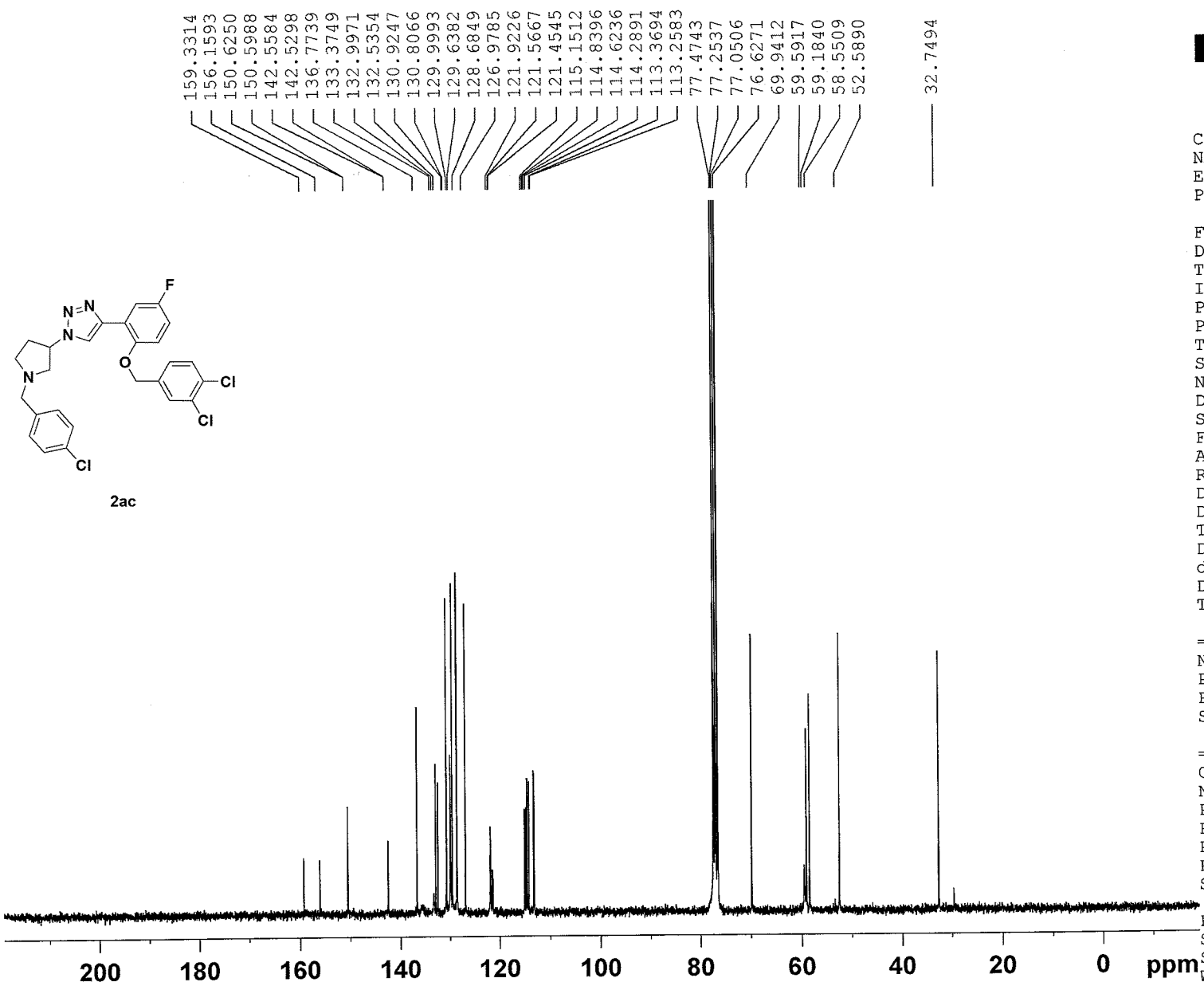
Current Data Parameters
NAME JSH-2-183-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120402
Time 19.45
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 203.2
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300123 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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Current Data Parameters

NAME	JSH-2-183-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120719
Time	21.44
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	9897
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	16384
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

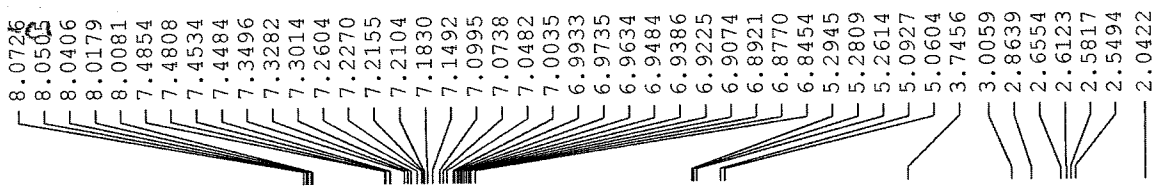
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

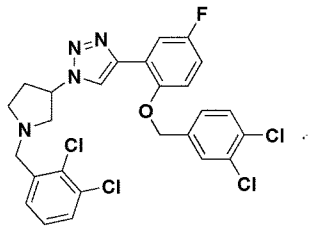
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





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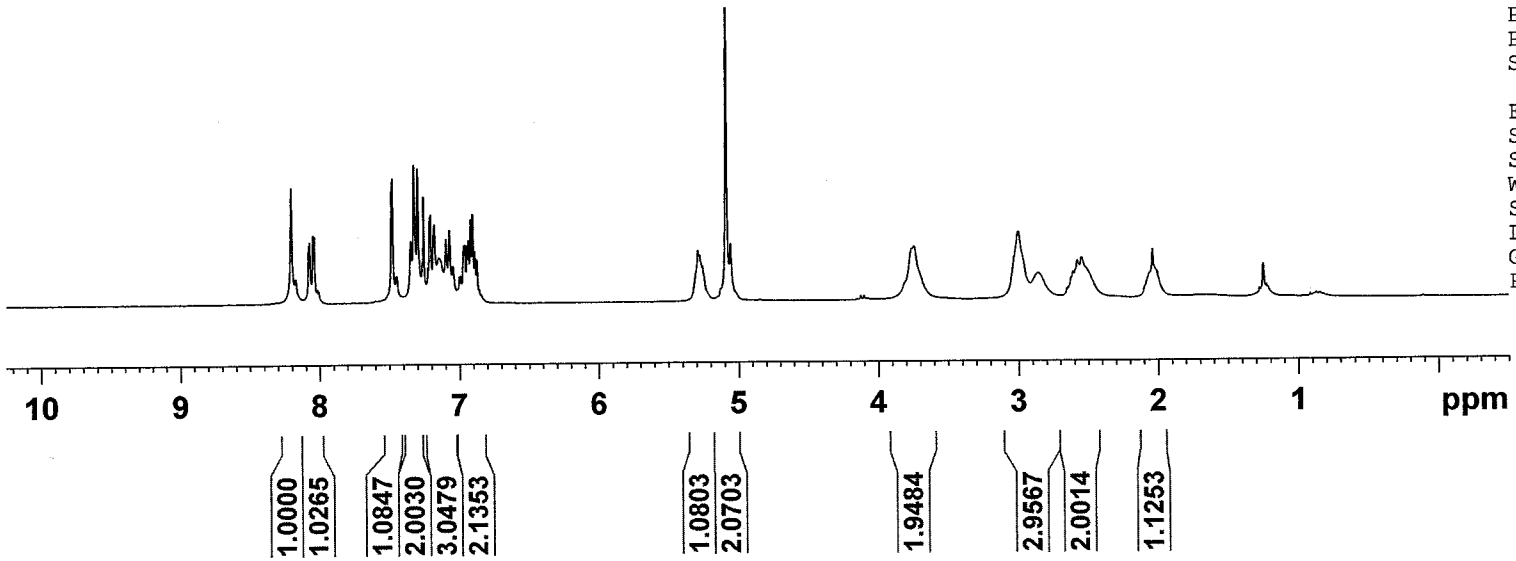


Current Data Parameters

NAME	JSH-2-187-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

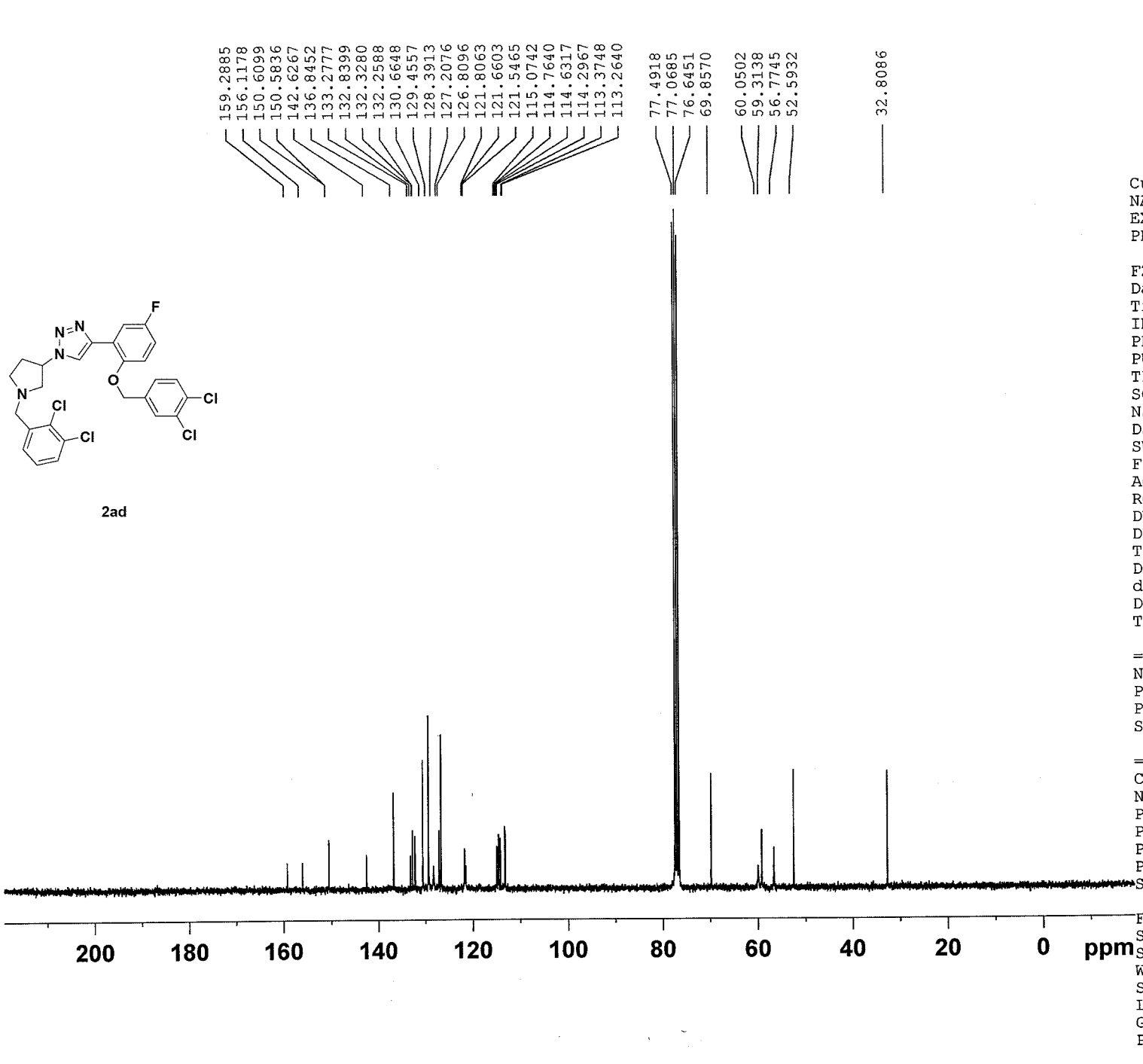
Date_	20120409
Time	21.14
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	287.4
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300123 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



Current Data Parameters

NAME	JSH-2-187-p
EXPNO	3
PROCNO	1

F2 - Acquisition Parameters

Date_	20120422
Time	17.04
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1639
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

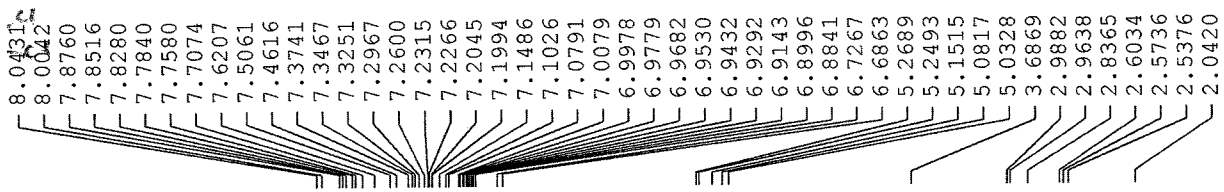
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

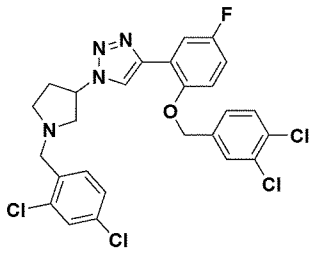
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





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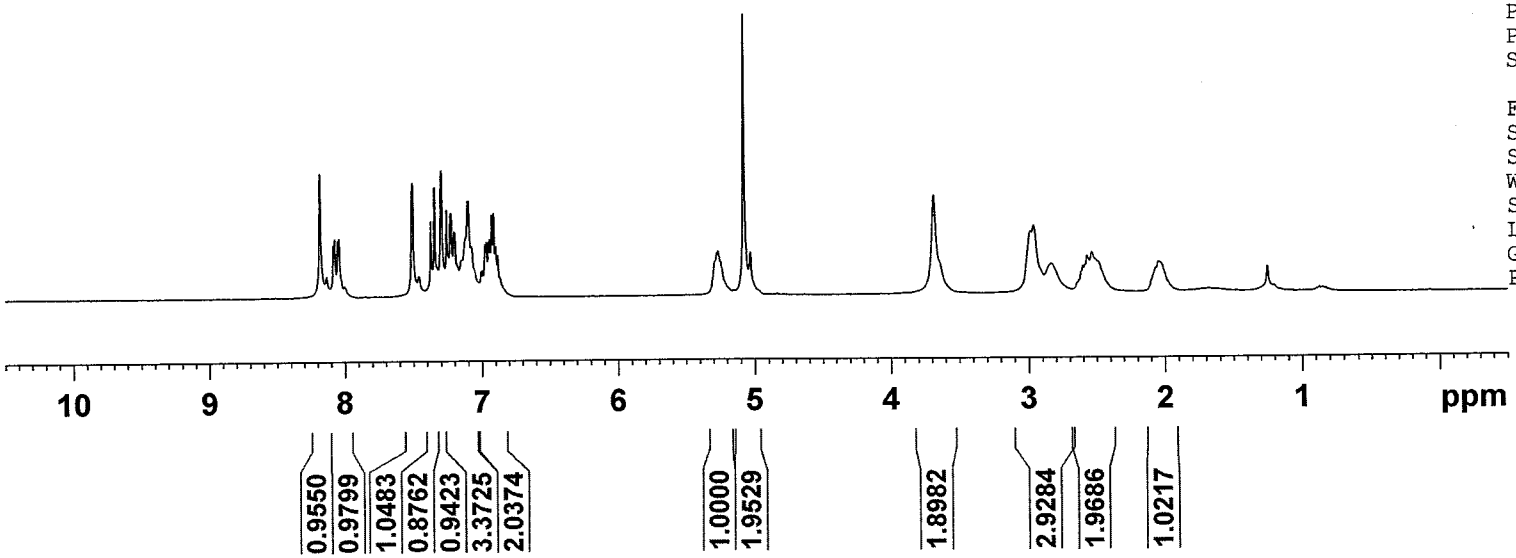


Current Data Parameters
NAME JSH-2-187-p
EXPNO 189 1
PROCNO 1

F2 - Acquisition Parameters

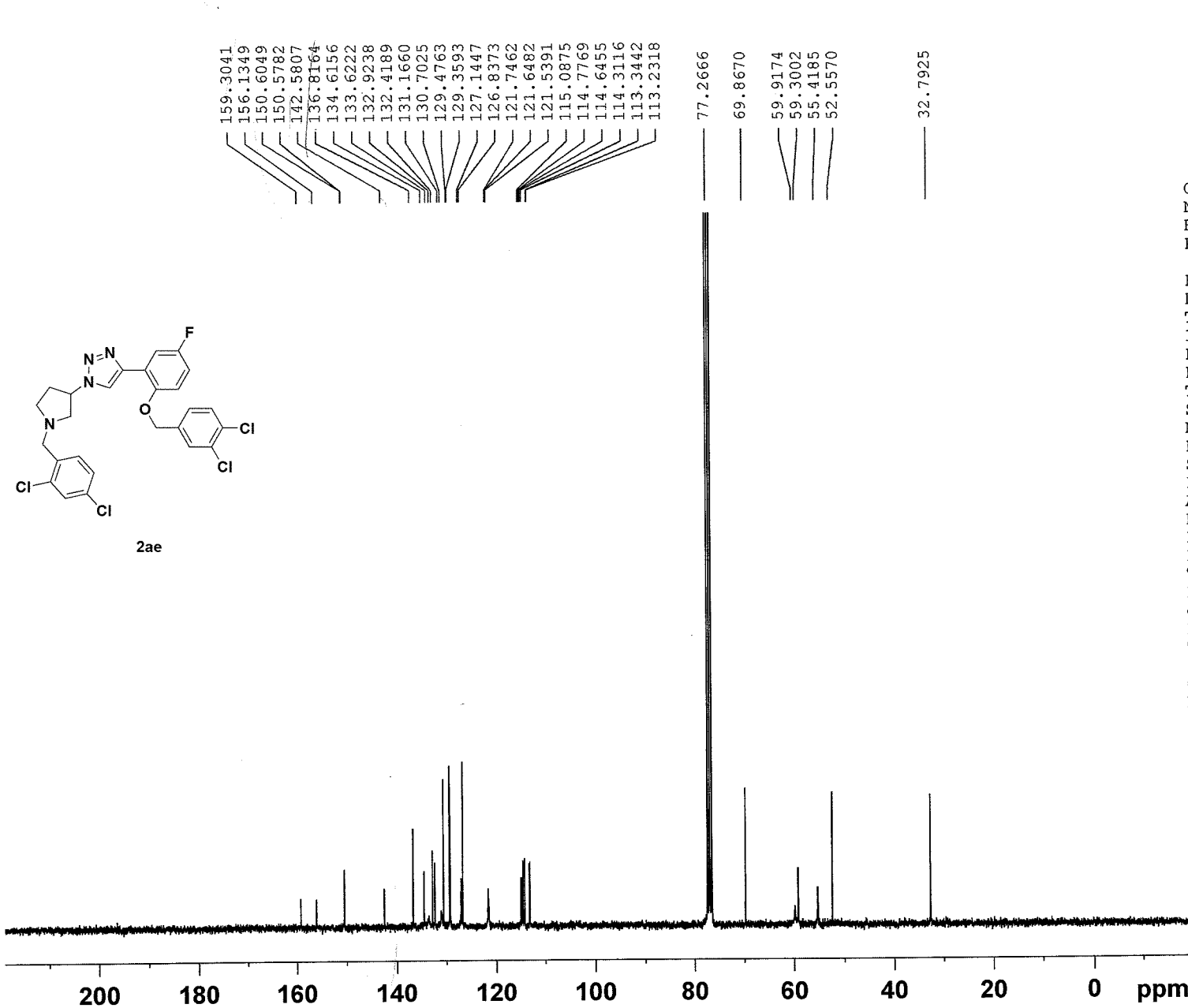
Date_	20120409
Time	21.05
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	287.4
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300123 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



Current Data Parameters

NAME	JSH-2-189-p
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	20120422
Time	19.25
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1624
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	16384
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

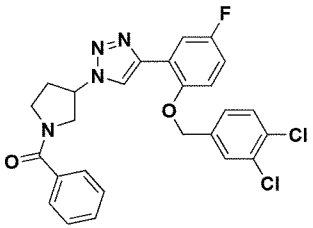
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40



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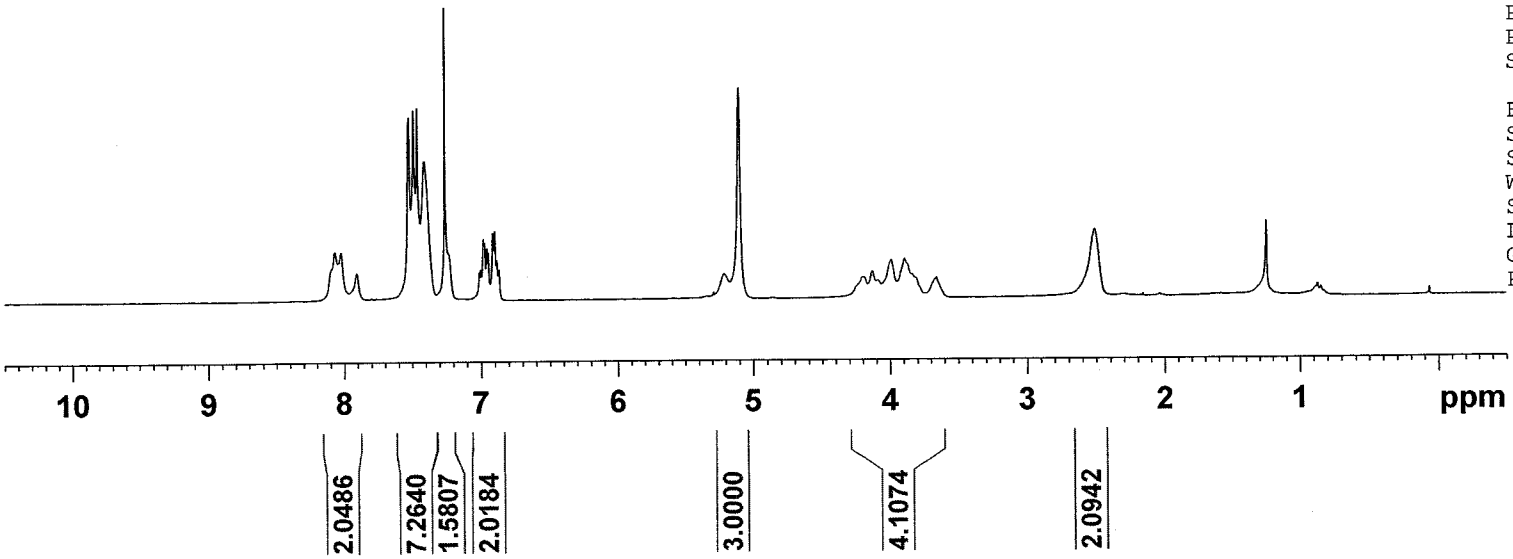

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6.9581
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5.2130
5.1056
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3.9925
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2.5137

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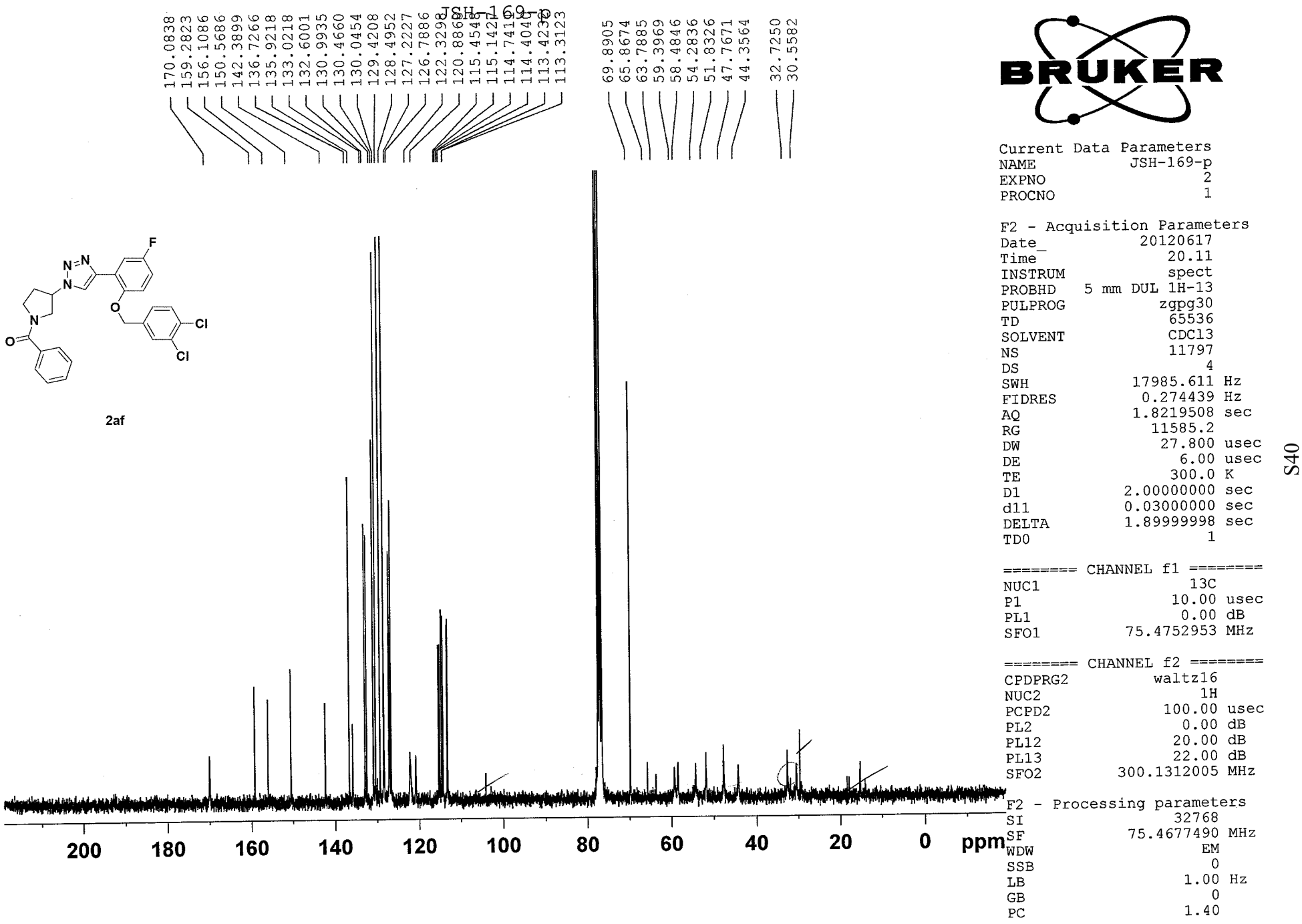
Current Data Parameters
NAME JSH-2-169-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120329
Time 21.36
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 322.5
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300121 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



Current Data Parameters

NAME	JSH-169-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120617
Time	20.11
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	11797
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	11585.2
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

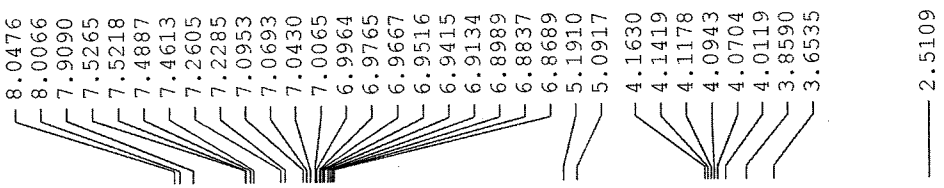
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

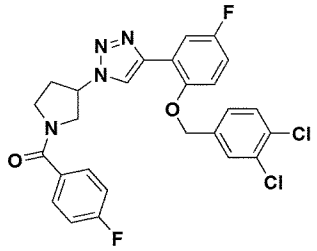
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

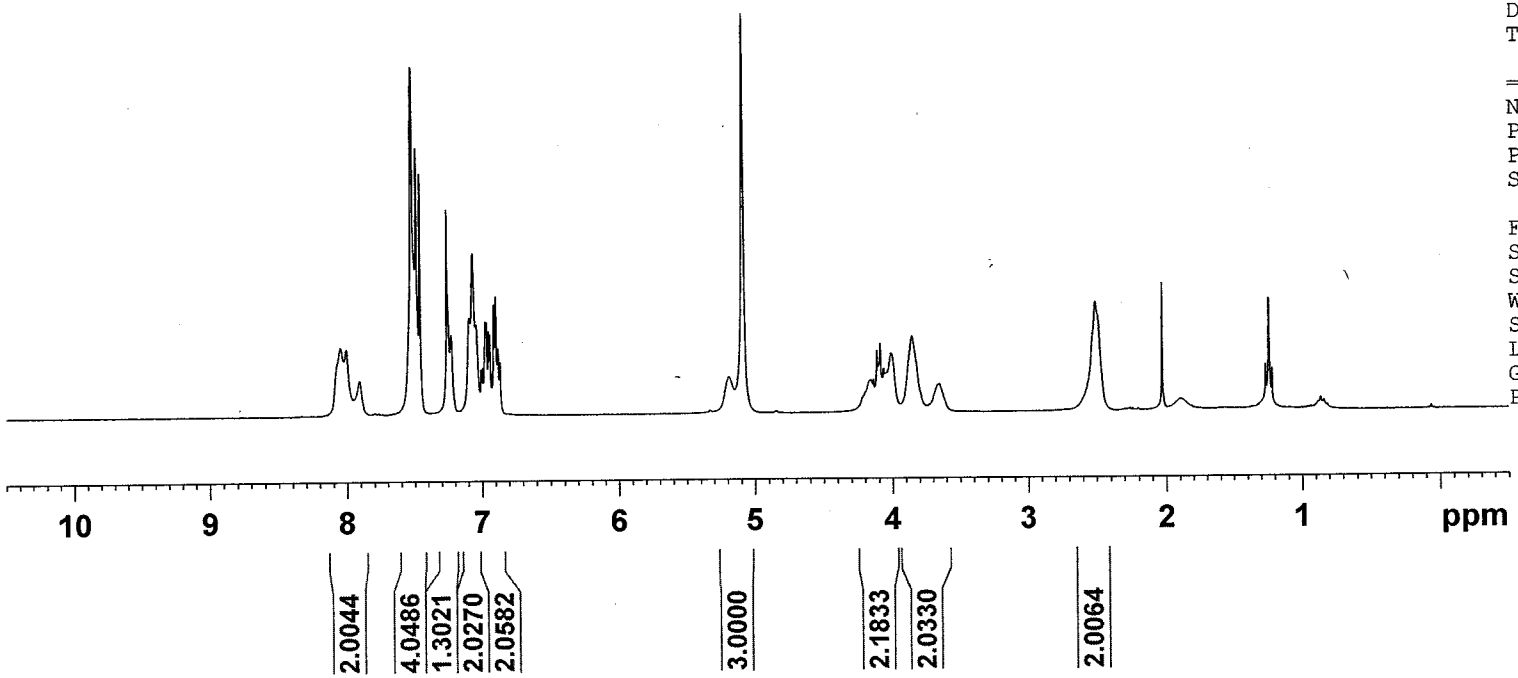
F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2ag



Current Data Parameters
NAME JSH-2-179-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

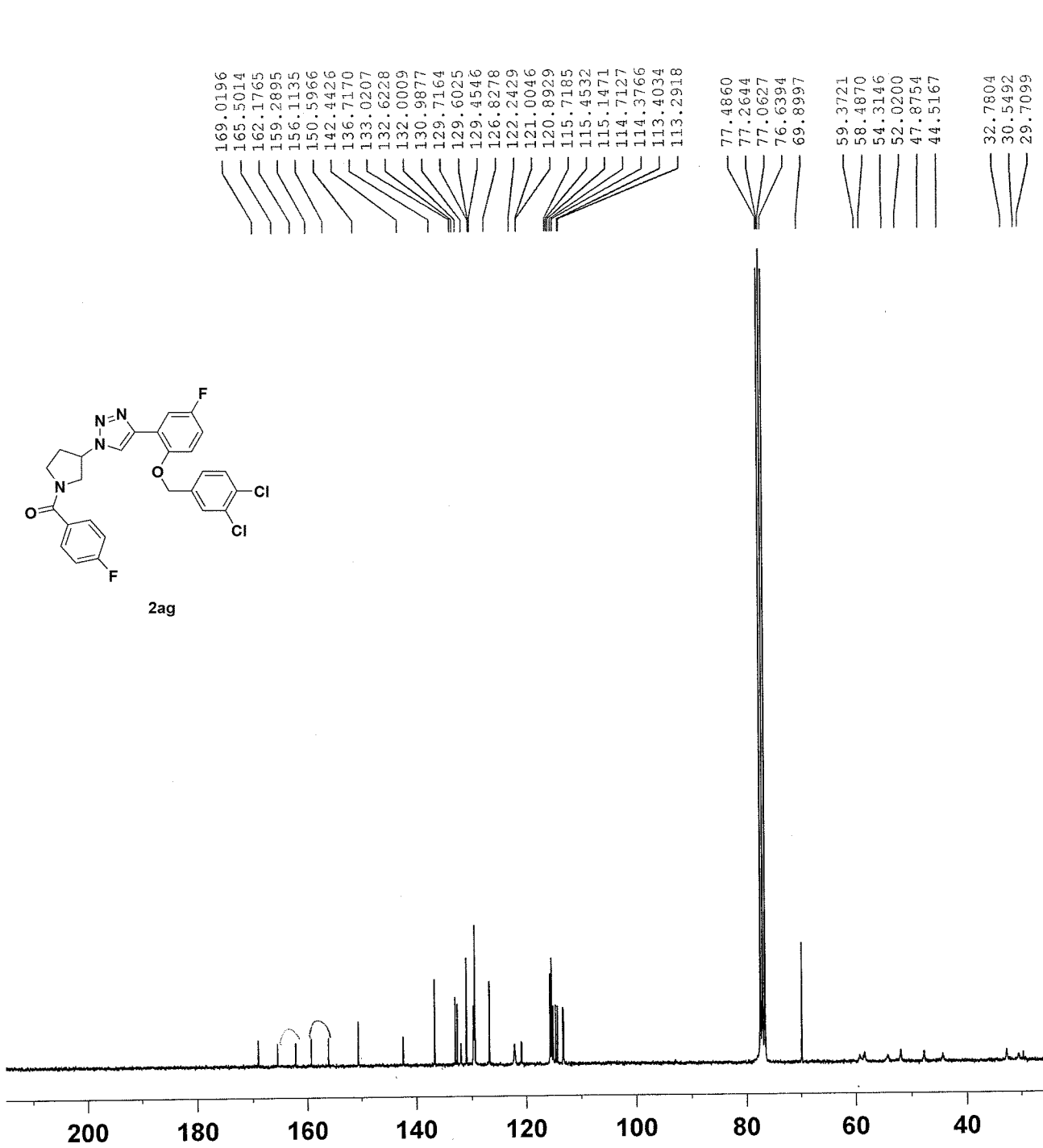
Date_	20120402
Time	19.39
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	10
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	228.1
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300121 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



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Current Data Parameters

NAME	JSH-2-179-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120718
Time	21.01
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	11189
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

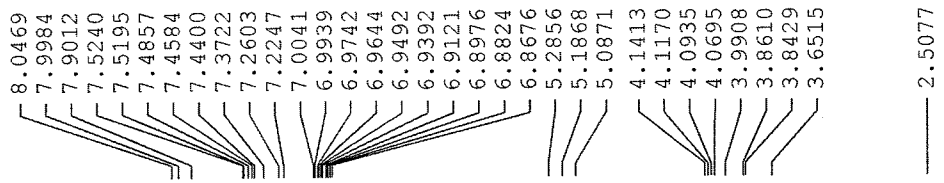
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

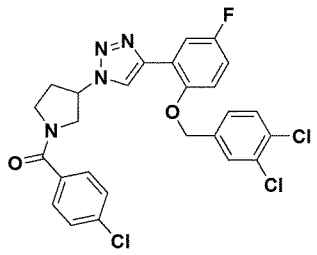
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2ah

Current Data Parameters
NAME JSH-2-185-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

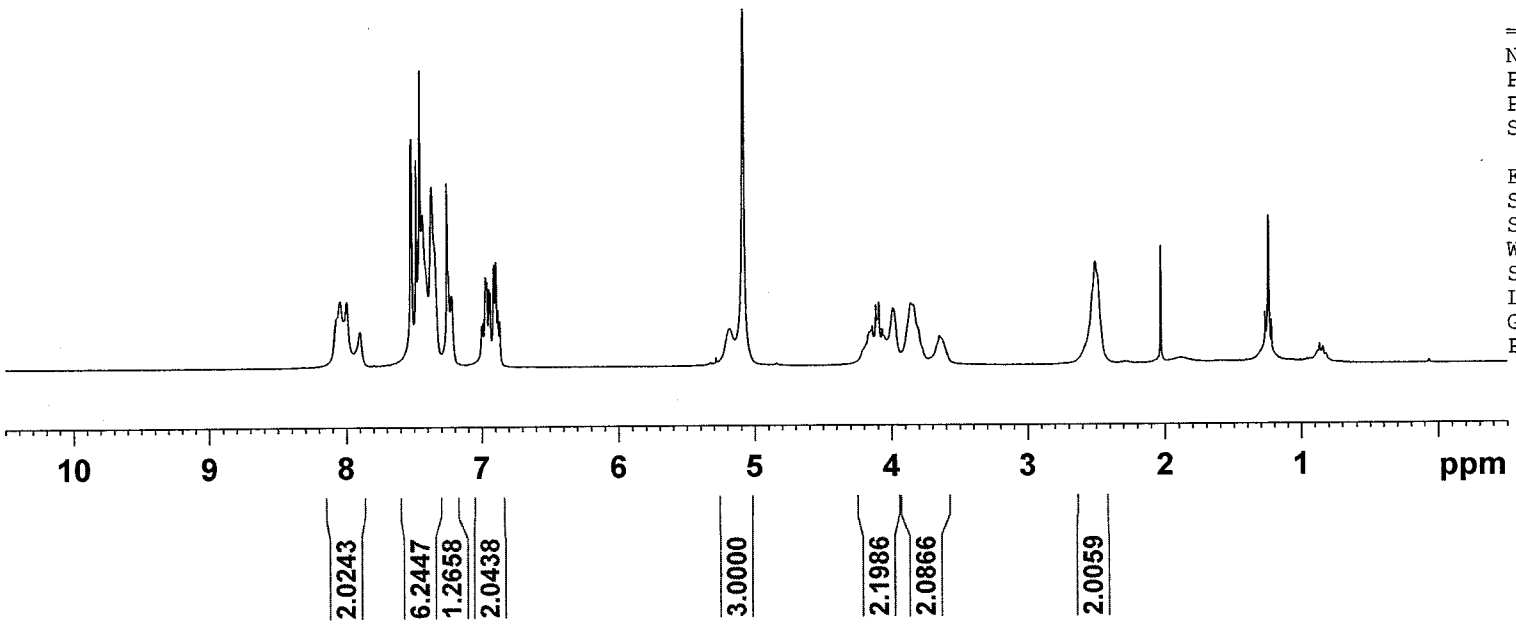
Date_	20120404	
Time	15.38	
INSTRUM	spect	
PROBHD	5 mm DUL 1H-13	
PULPROG	zg30	
TD	65536	
SOLVENT	CDCl3	
NS	16	
DS	2	
SWH	6172.839	Hz
FIDRES	0.094190	Hz
AQ	5.3084660	sec
RG	203.2	
DW	81.000	usec
DE	6.00	usec
TE	300.0	K
D1	1.00000000	sec
TD0	1	

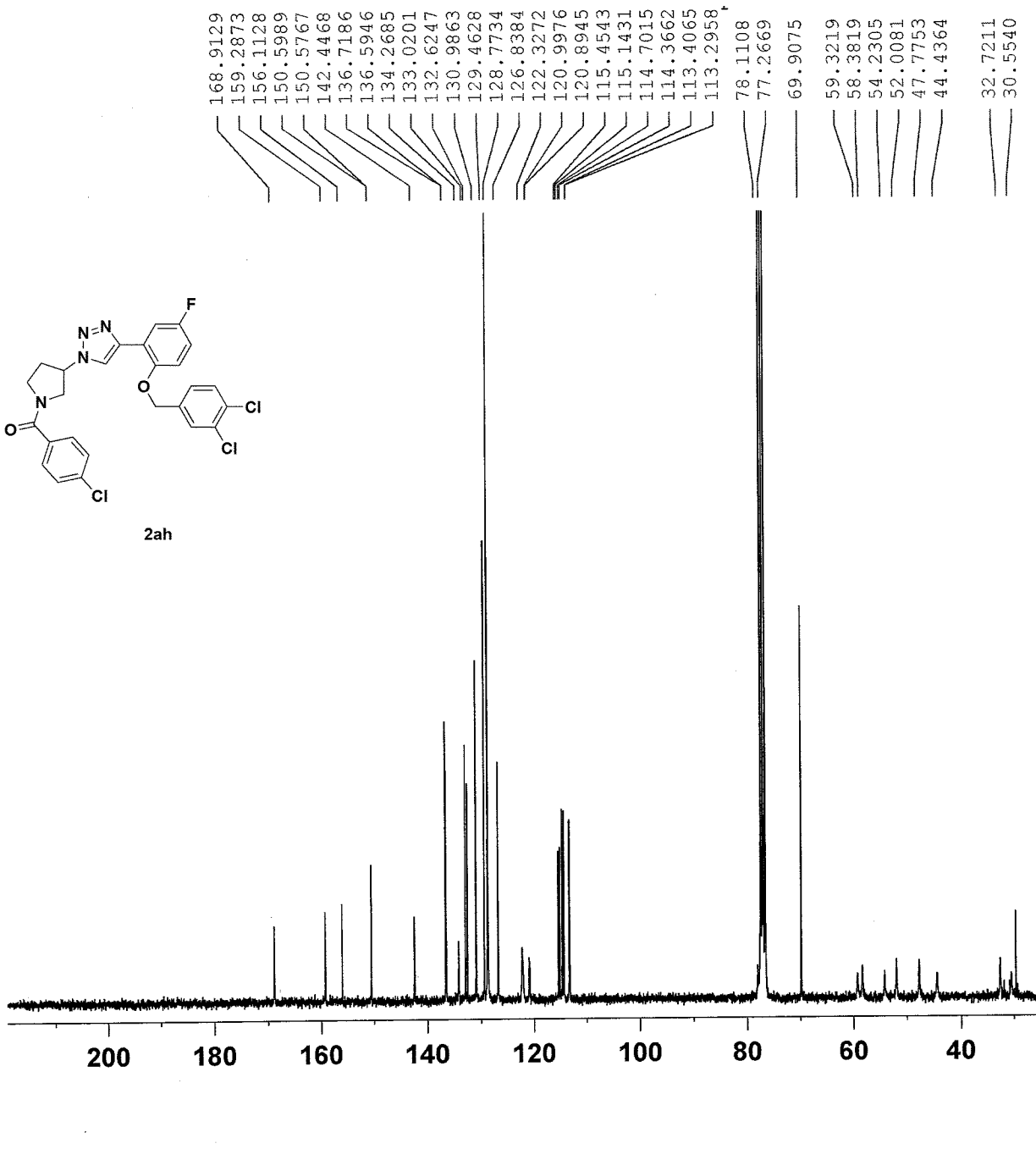
======== CHANNEL f1 ========

NUC1	1H	
P1	10.50	usec
PL1	-1.00	dB
SFO1	300.1318534	MHz

F2 - Processing parameters

SI	32768	
SF	300.1300121	MHz
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	





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Current Data Parameters

NAME	JSH-2-185-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120726
Time	20.53
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10941
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

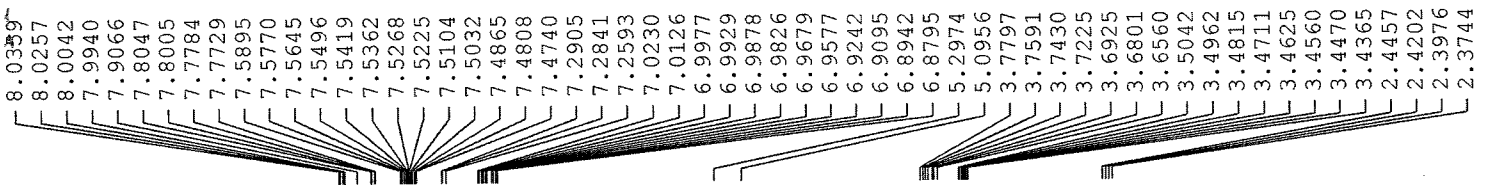
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

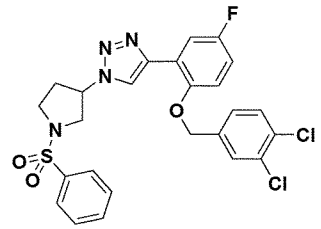
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

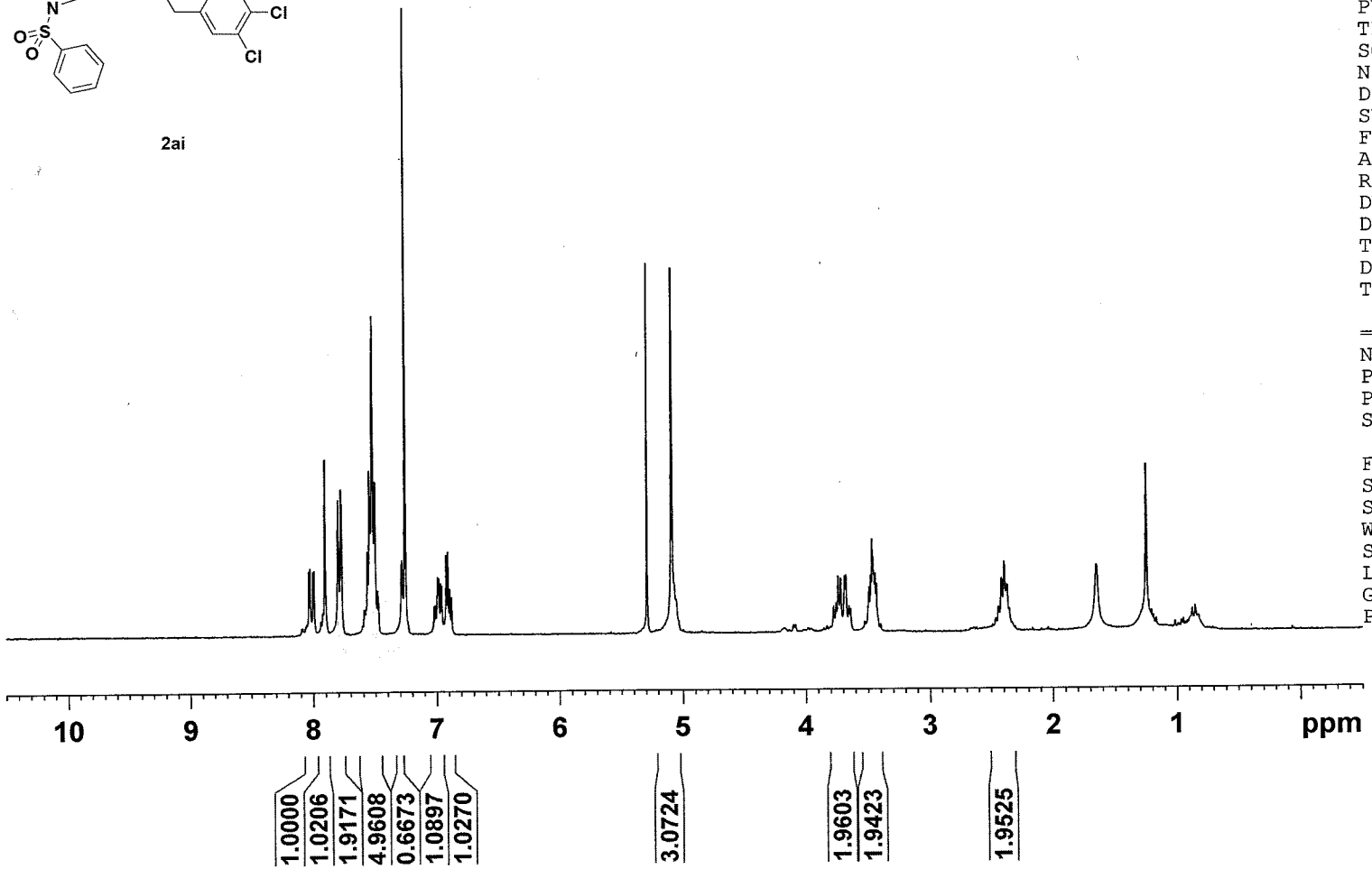
F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2ai



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Current Data Parameters
NAME JSH-2-171-p (UP)
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

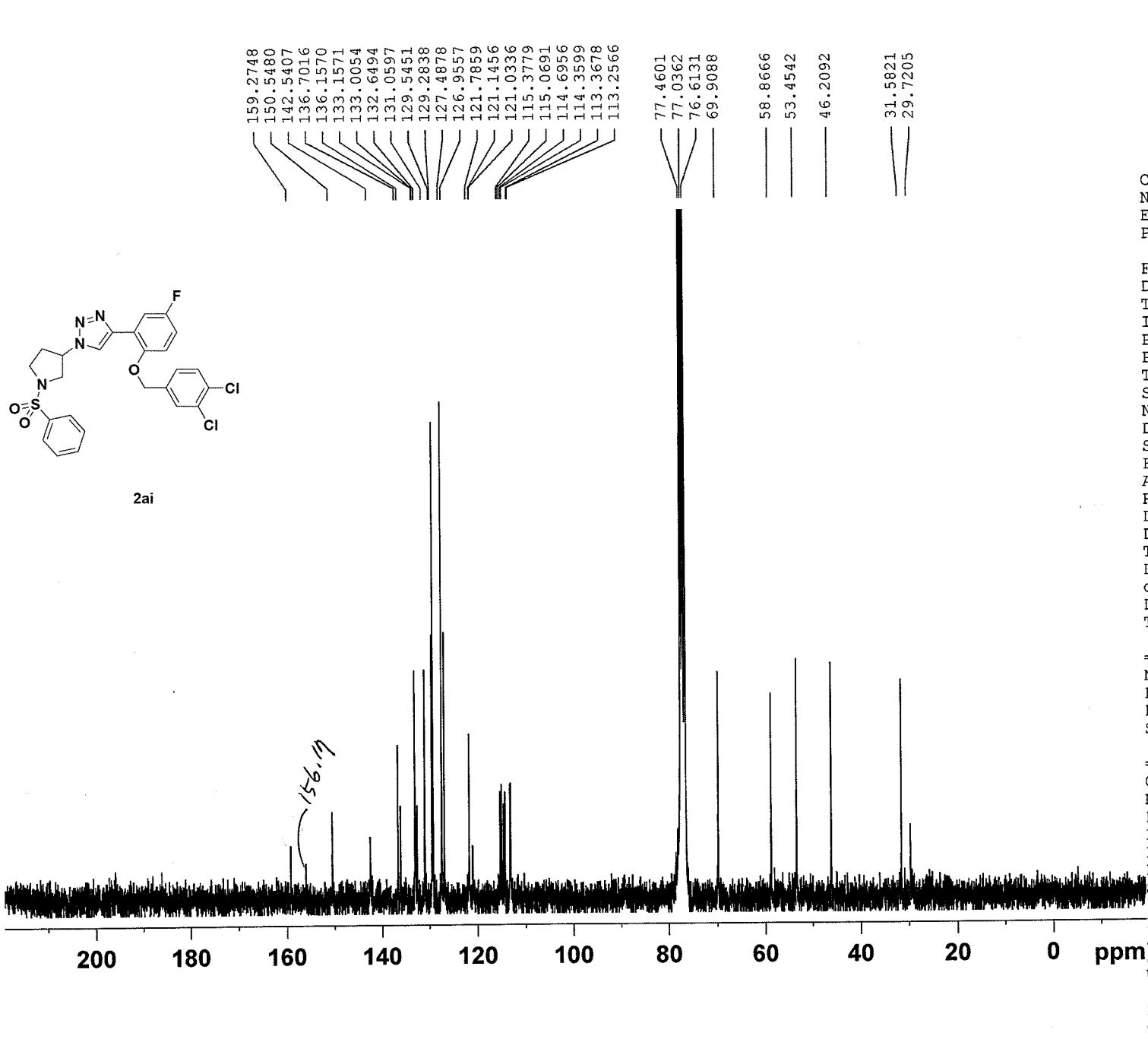
Date_	20120410
Time	18.09
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	1149.4
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300124 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



Current Data Parameters

NAME	JSH-171-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120419
Time	21.25
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10870
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	14596.5
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

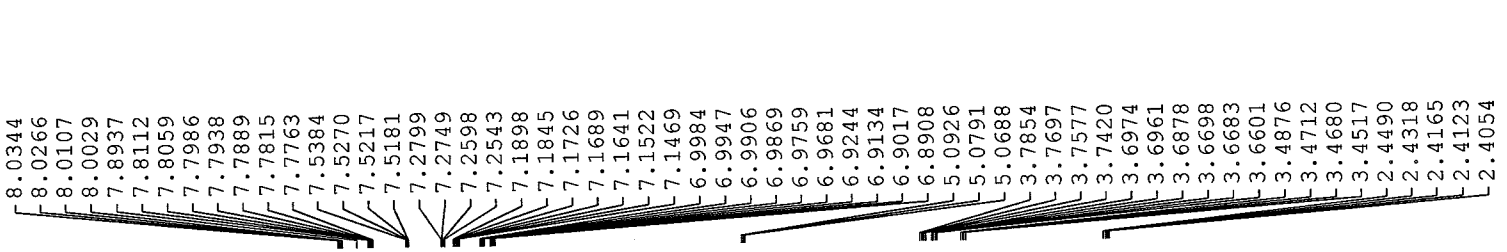
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

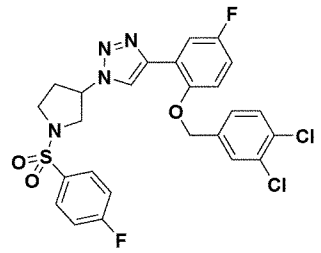
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





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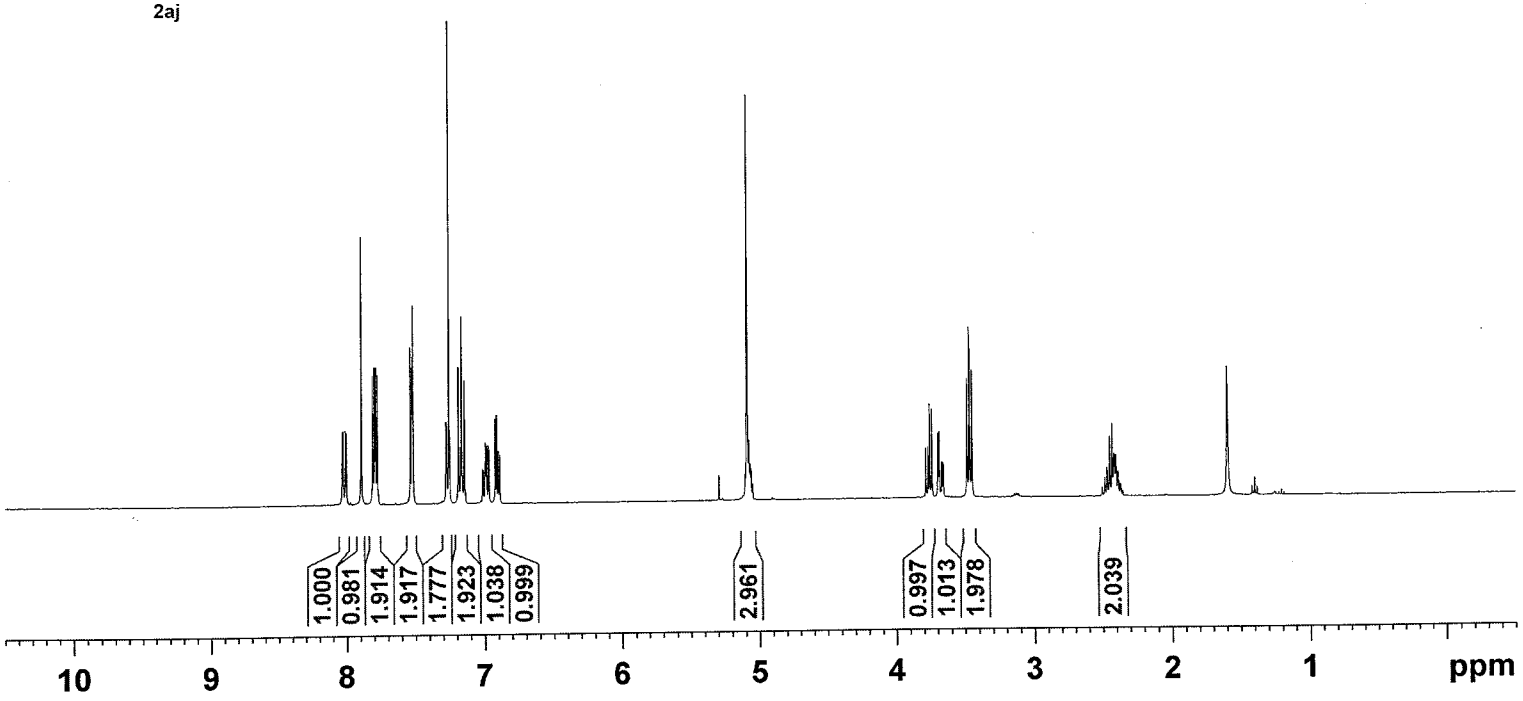
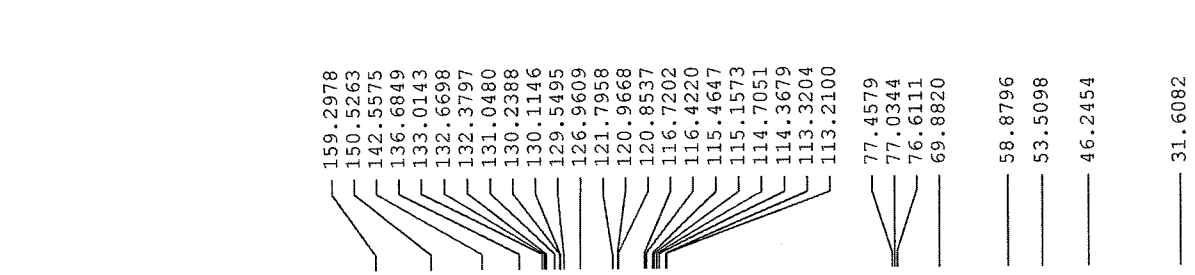


Current Data Parameters
NAME JSH-130626-p
EXPNO 1
PROCNO 1

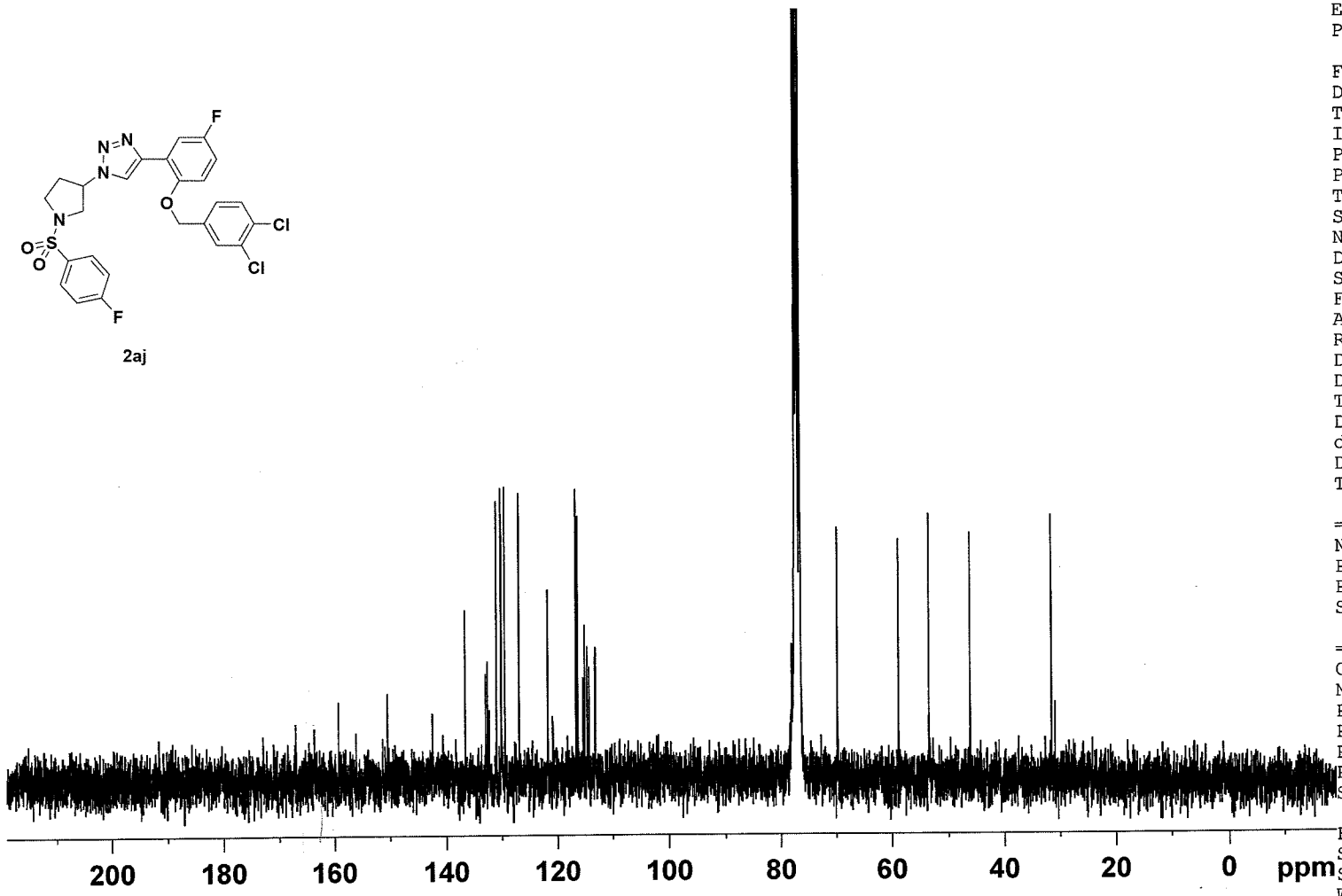
F2 - Acquisition Parameters
Date_ 20130626
Time 17.36
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 12
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 190.62
DW 60.800 usec
DE 6.50 usec
TE 298.3 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100131 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



2aj



Current Data Parameters

NAME	JSH-2-181-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120422
Time	21.26
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10534
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	20642.5
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

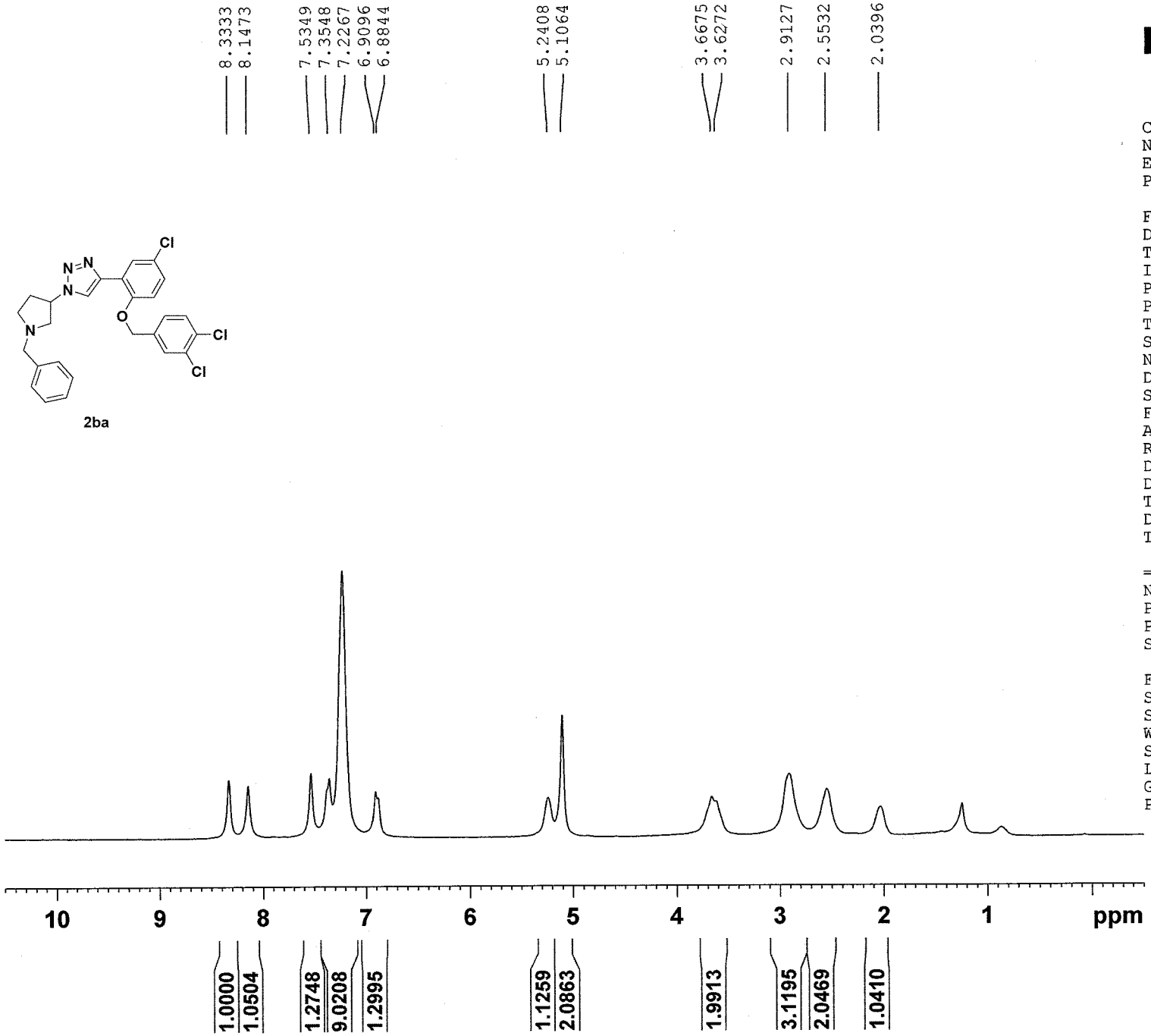
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.00

2ba

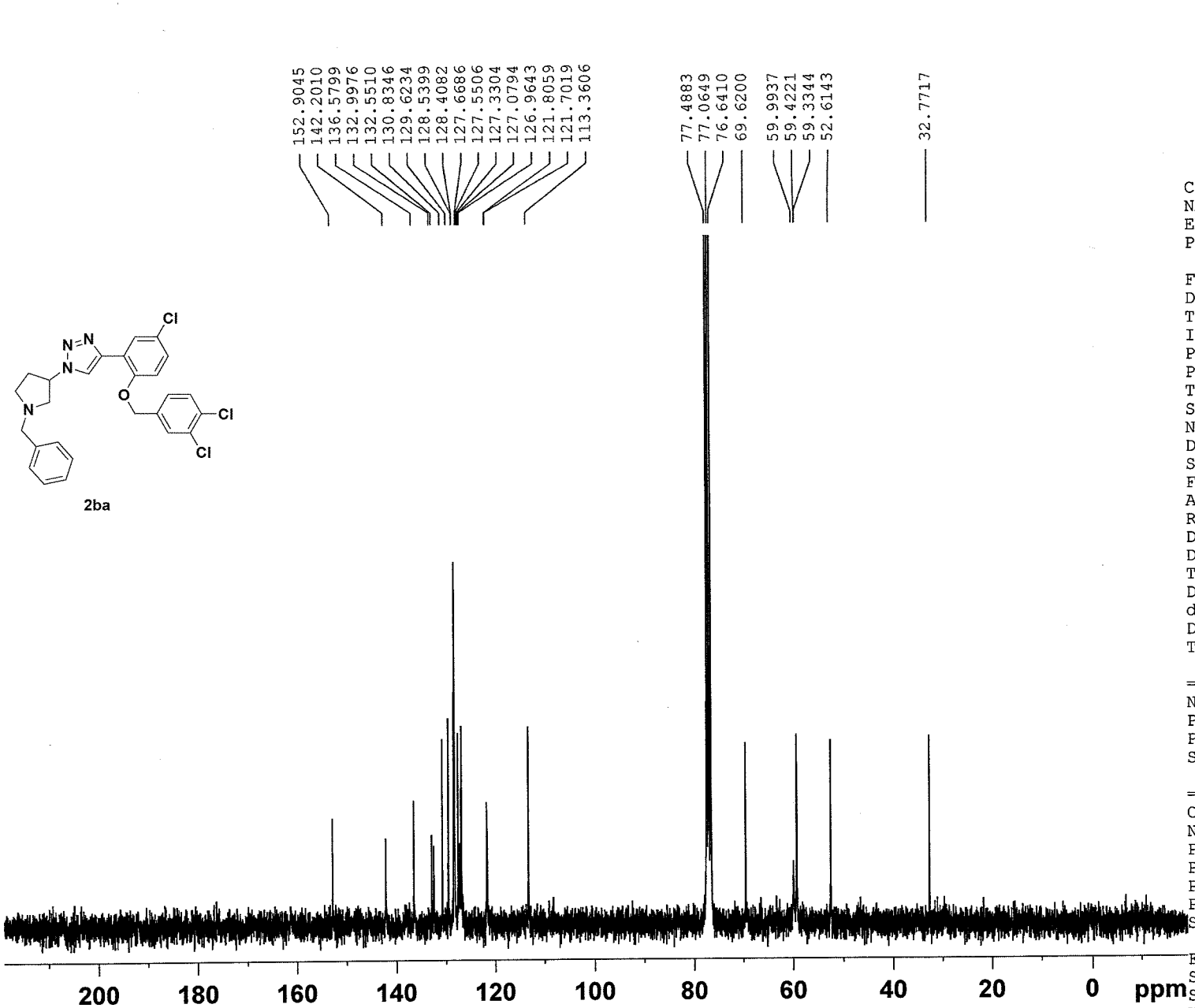


Current Data Parameters
NAME JSH-2-133-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120217
Time 21.49
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 256
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300123 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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Current Data Parameters

NAME	JSH-2-133-p
EXPNO	3
PROCNO	1

F2 - Acquisition Parameters

Date_	20120217
Time	21.53
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1024
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

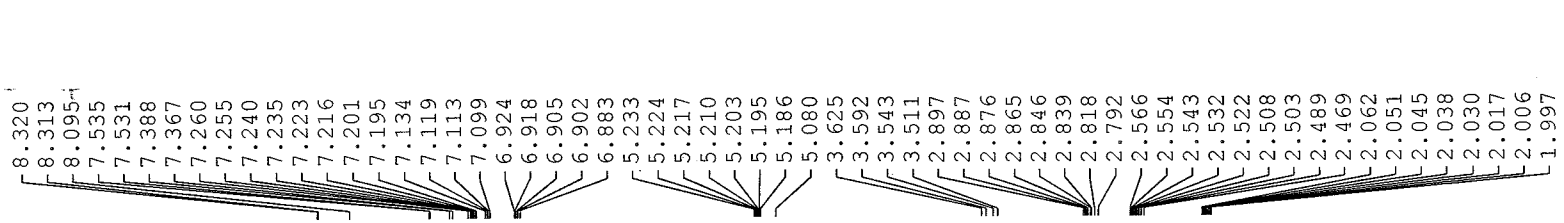
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

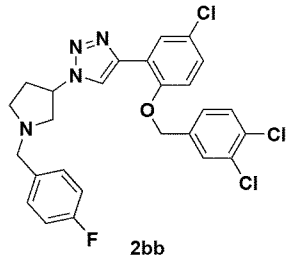
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

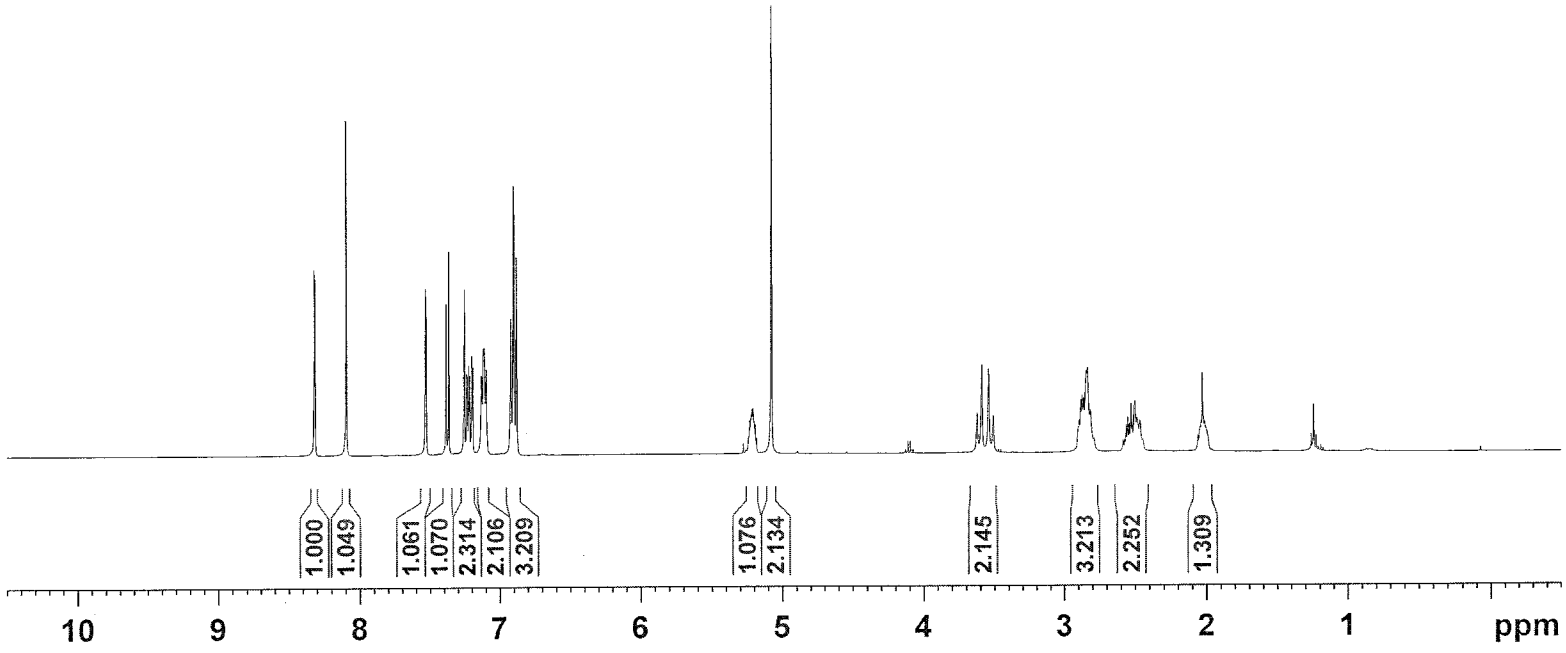
F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	0.80





2bb

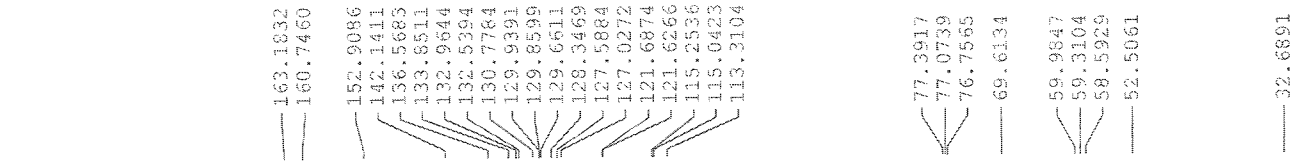


Current Data Parameters
NAME JSH-130714-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130714
Time 15.48
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 10
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 76.56
DW 60.800 usec
DE 6.50 usec
TE 297.6 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100151 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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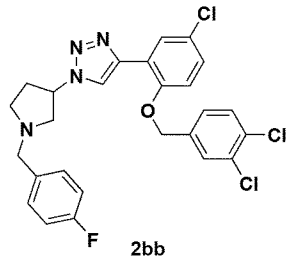
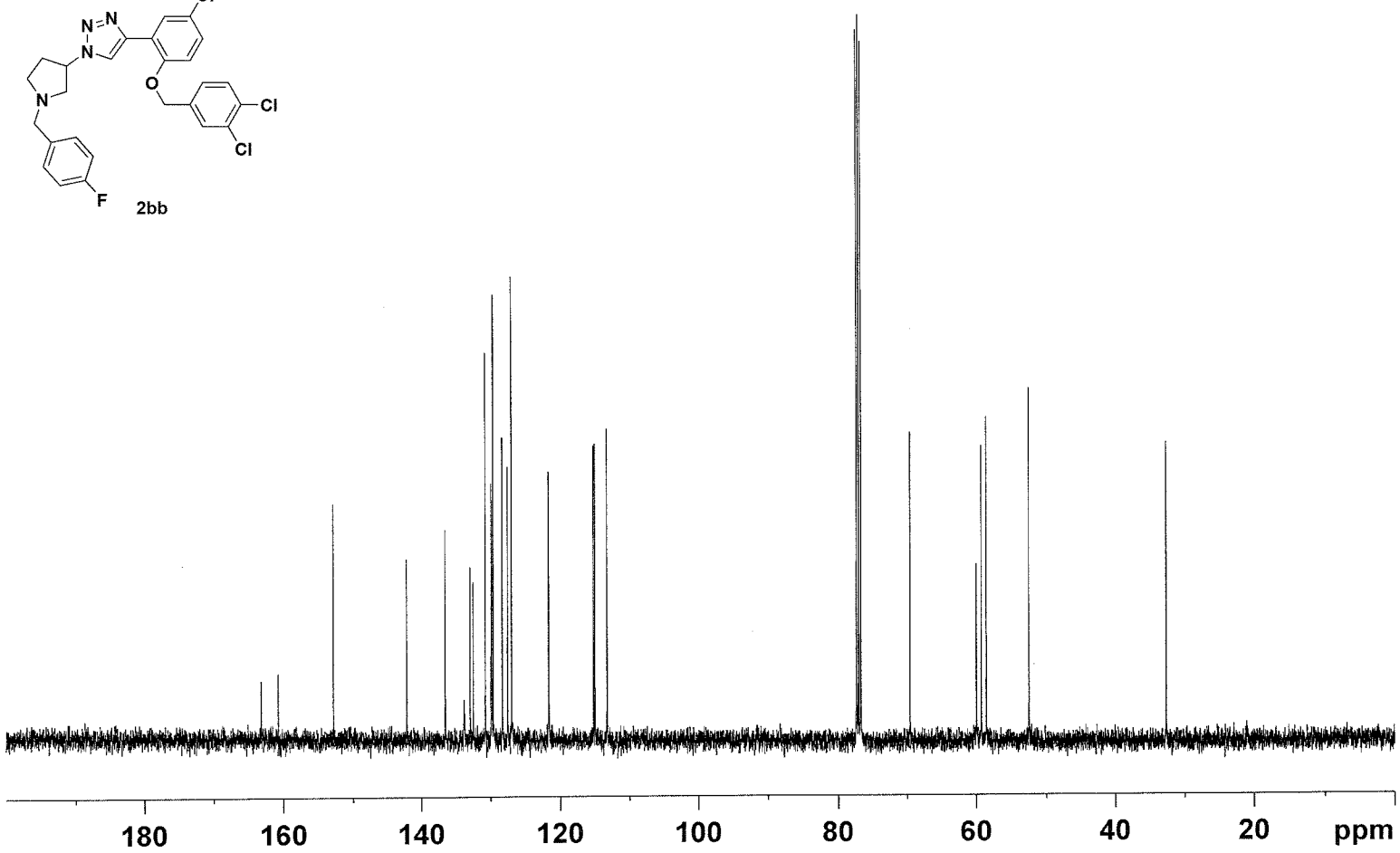


2bb



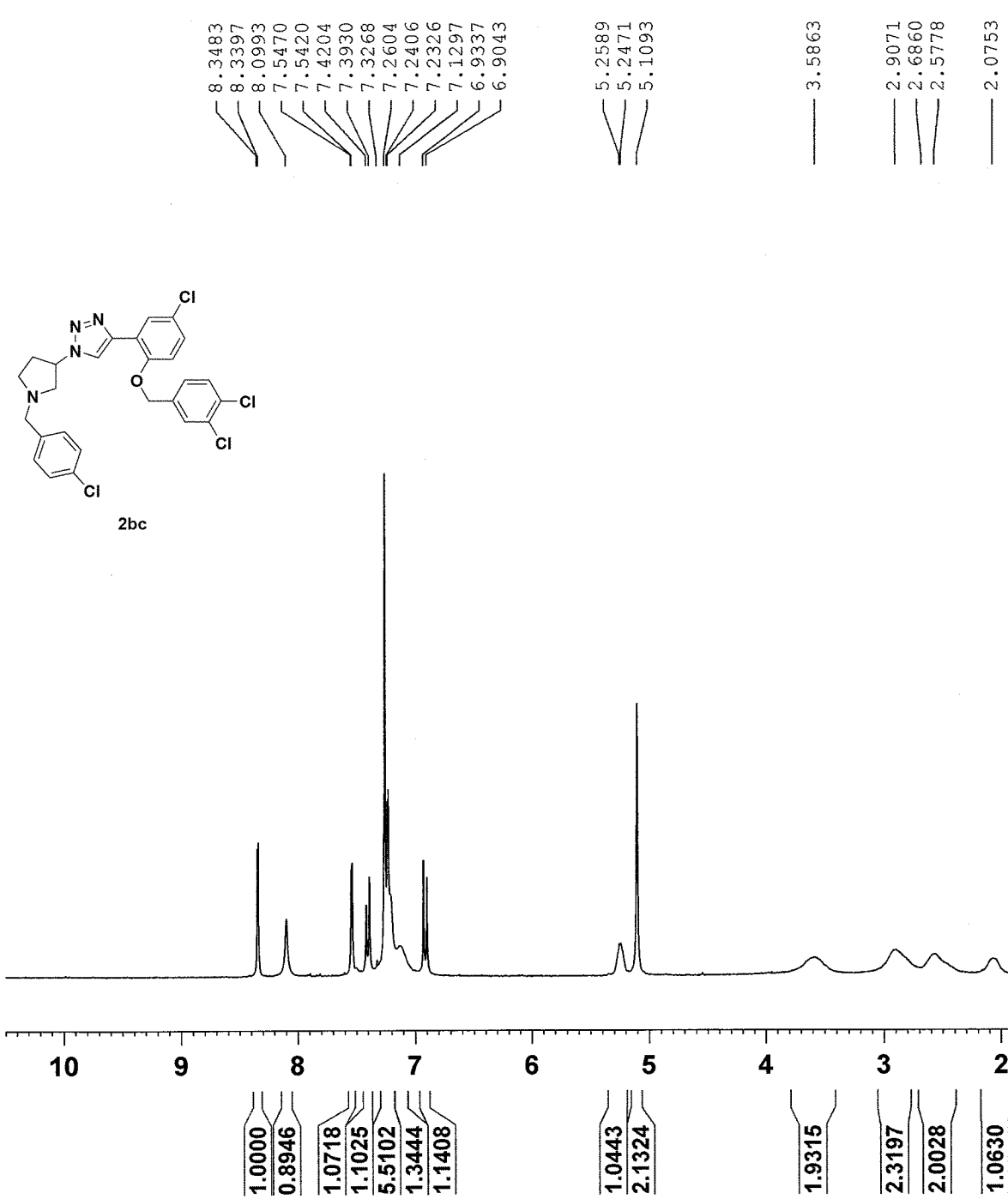

```
Current Data Parameters
NAME          JSH-130714-p
EXPNO                    2
PROCNO                   1

F2 - Acquisition Parameters
Date_             20130714
Time                 15.55
INSTRUM              spect
PROBHD    5 mm PABBO BB/
PULPROG             zgpg30
TD                   65536
SOLVENT              CDCl3
NS                     104
DS                       4
SWH              24038.461 Hz
FIDRES           0.366798 Hz
AQ               1.3631988 sec
RG                  190.62
DW                  20.800 usec
DE                   6.50 usec
TE                  298.4 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                      1

======== CHANNEL f1 ========
NUC1                   13C
P1                  10.00 usec
PLW1          52.00000000 W
SFO1          100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2            waltz16
NUC2                   1H
PCPD2               90.00 usec
PLW2          12.00000000 W
PLW12          0.33333001 W
PLW13          0.27000001 W
SFO2          400.2116008 MHz

F2 - Processing parameters
SI                   32768
SF            100.6328860 MHz
WDW                     EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

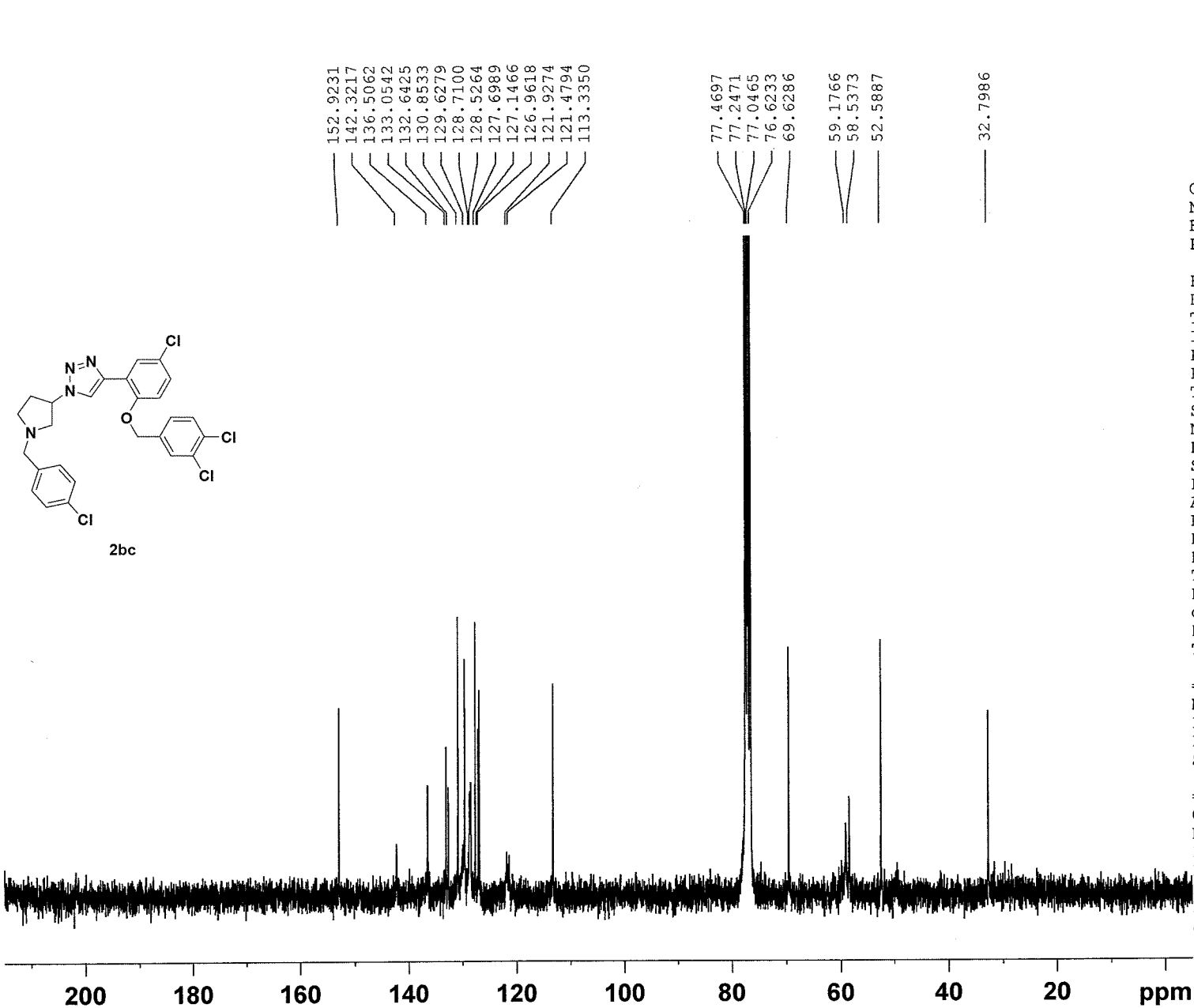


Current Data Parameters
NAME JSH-2-145-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120316
Time 11.14
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 1024
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300120 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



Current Data Parameters

NAME	JSH-2-145-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120320
Time	22.17
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10019
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	14596.5
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

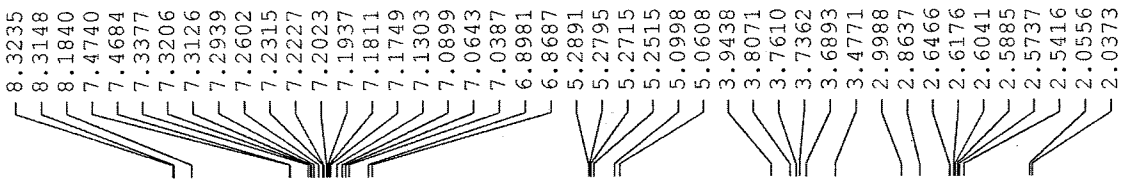
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

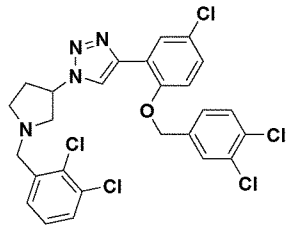
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

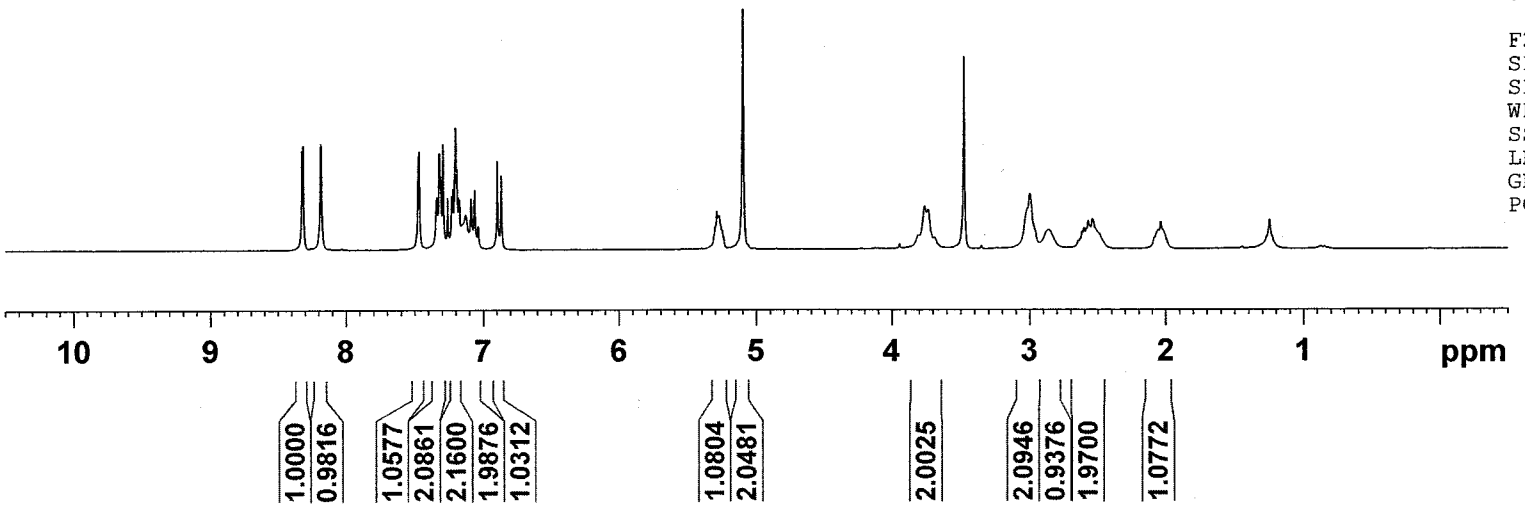
F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2bd



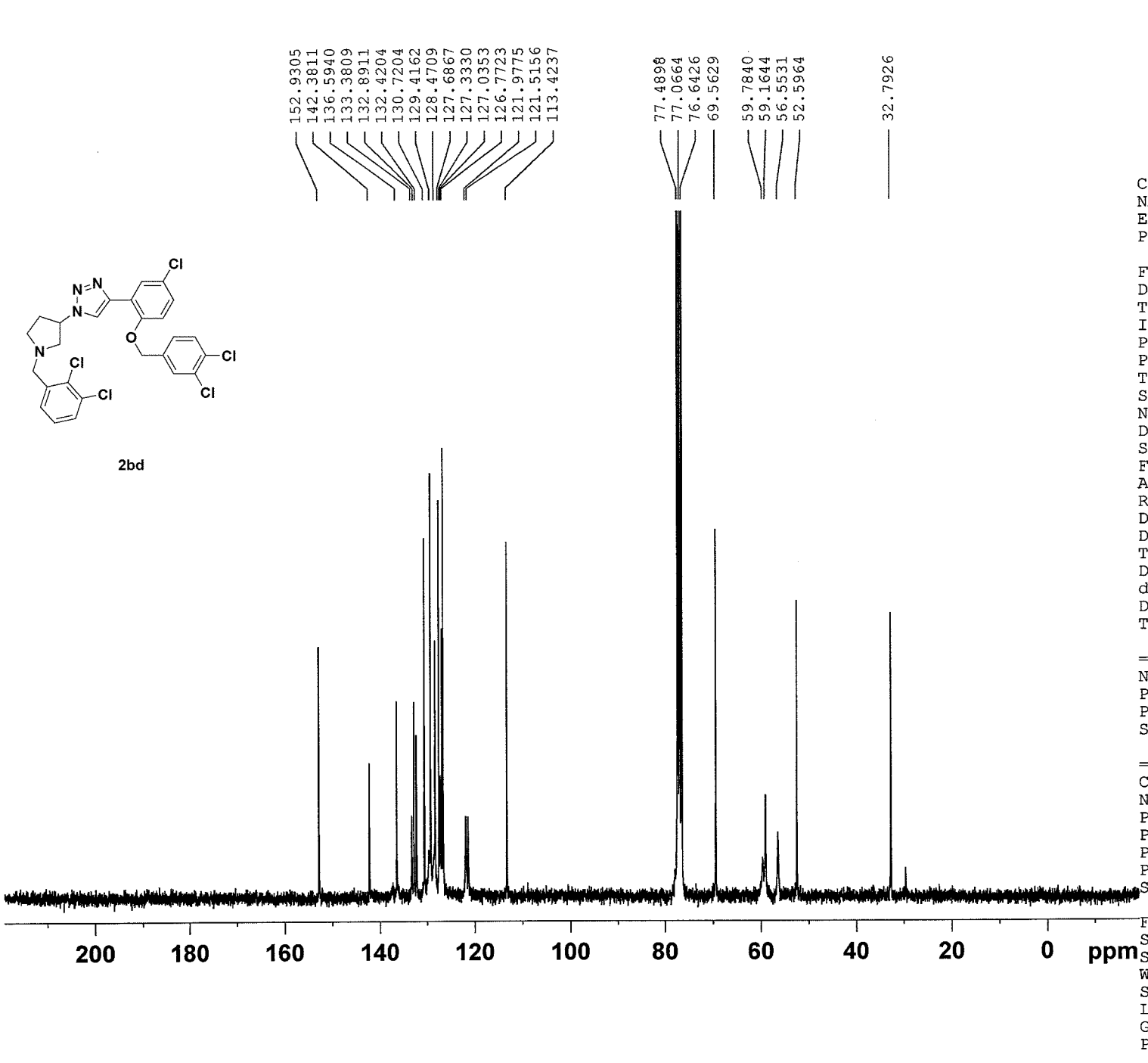
BRUKER

Current Data Parameters
NAME JSH-2-175-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120316
Time 14.54
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 203.2
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300122 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

Current Data Parameters

NAME	JSH-2-175-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120424
Time	20.18
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	11603
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	9195.2
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

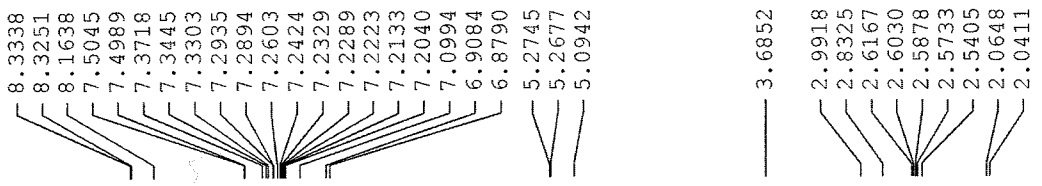
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

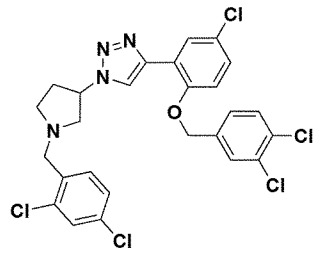
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

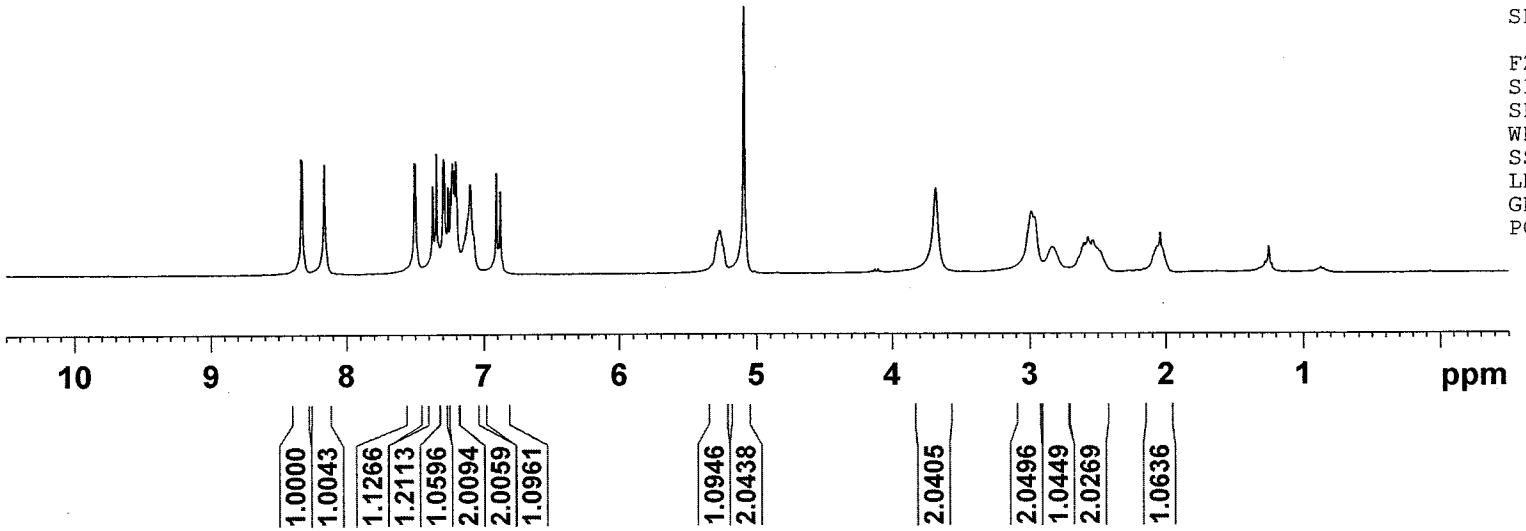
F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2be



Current Data Parameters
NAME JSH-2-177-p
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

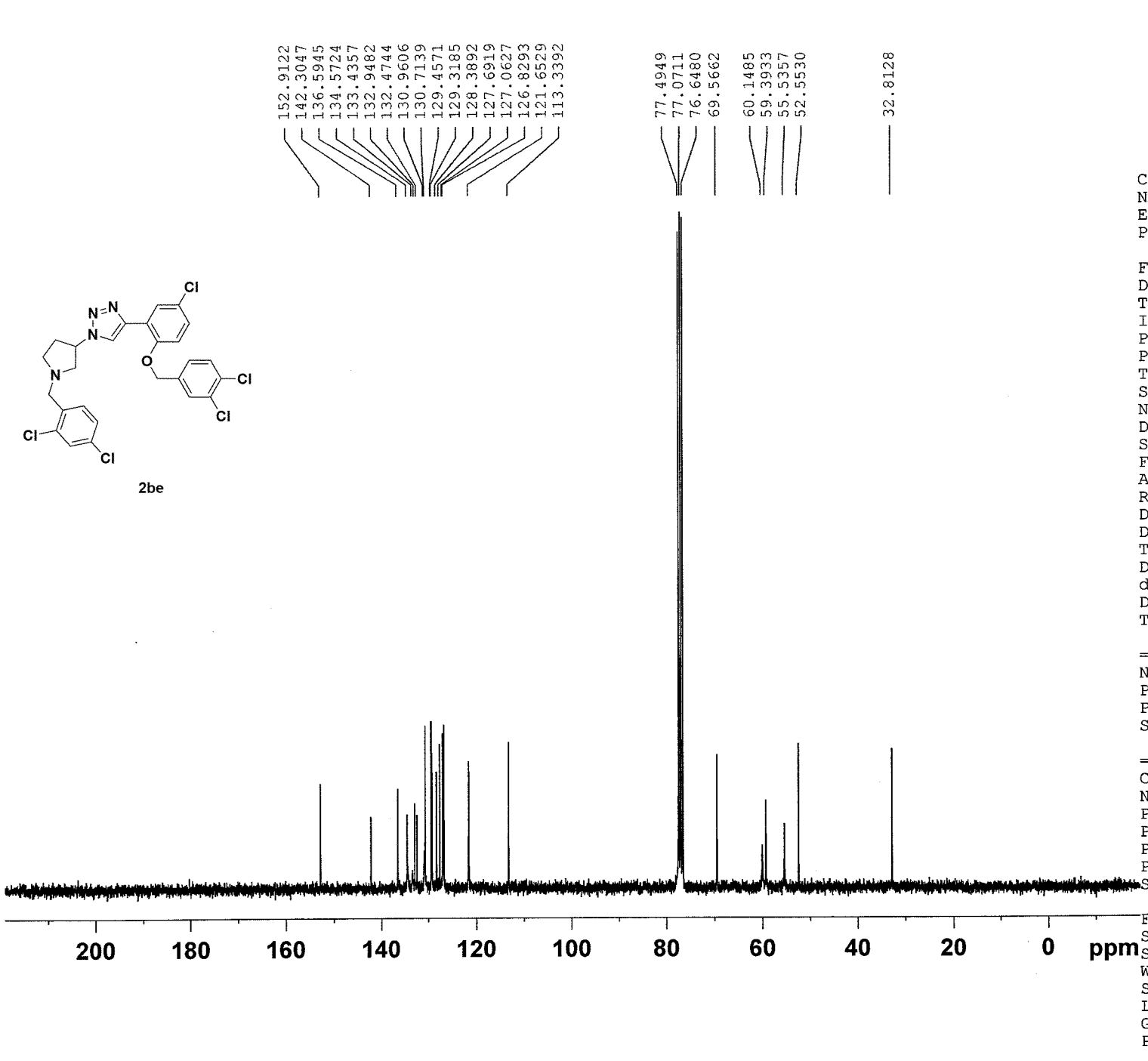
Date_	20120320
Time	21.02
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	256
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300120 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



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Current Data Parameters

NAME	JSH-2-177-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	20120320
Time	21.08
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1024
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

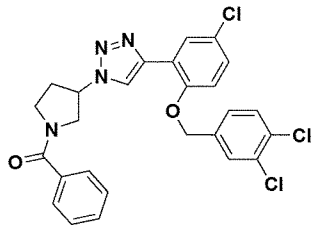
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

======== CHANNEL f2 ========

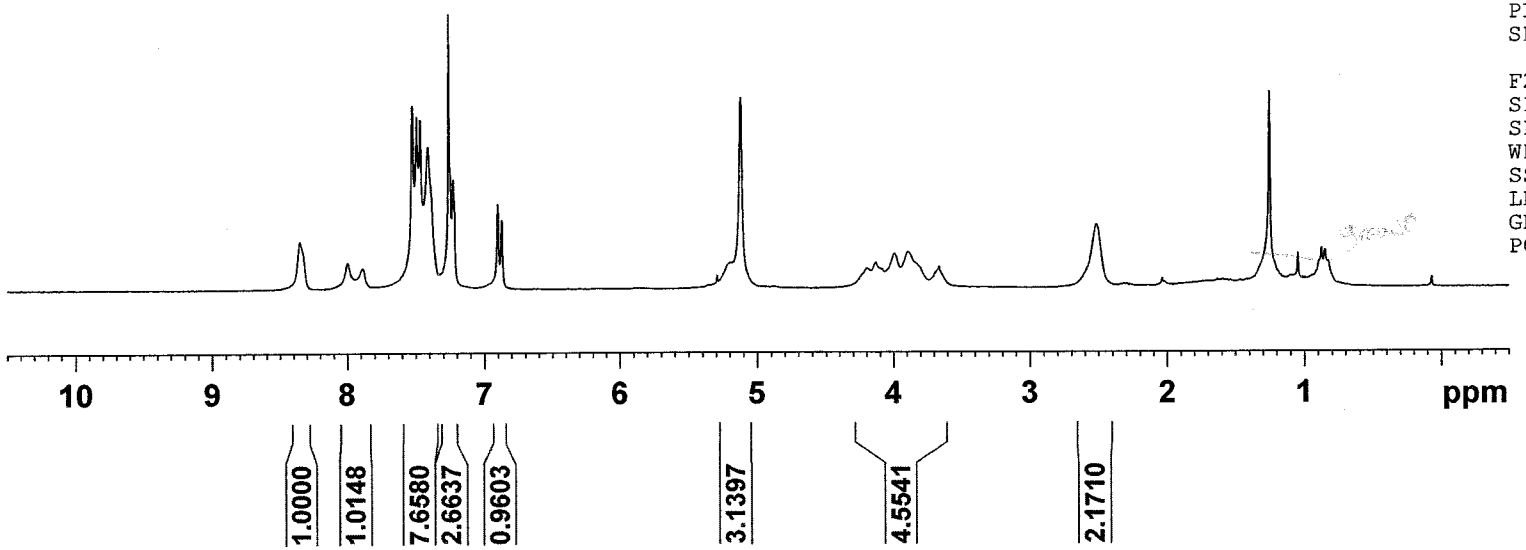
CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40



2bf

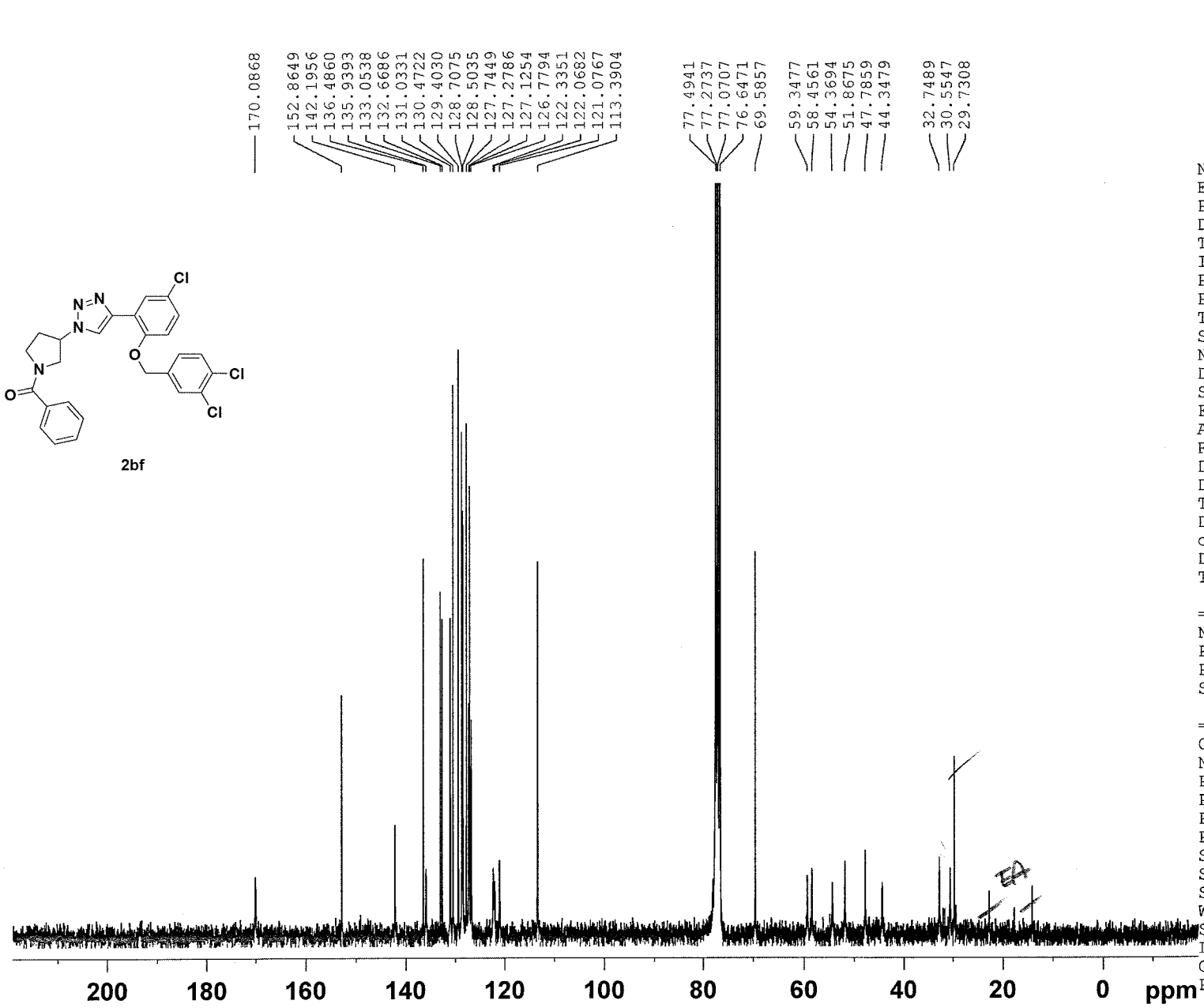


Current Data Parameters
NAME JSH-2-135-p
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120308
Time 11.18
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 512
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

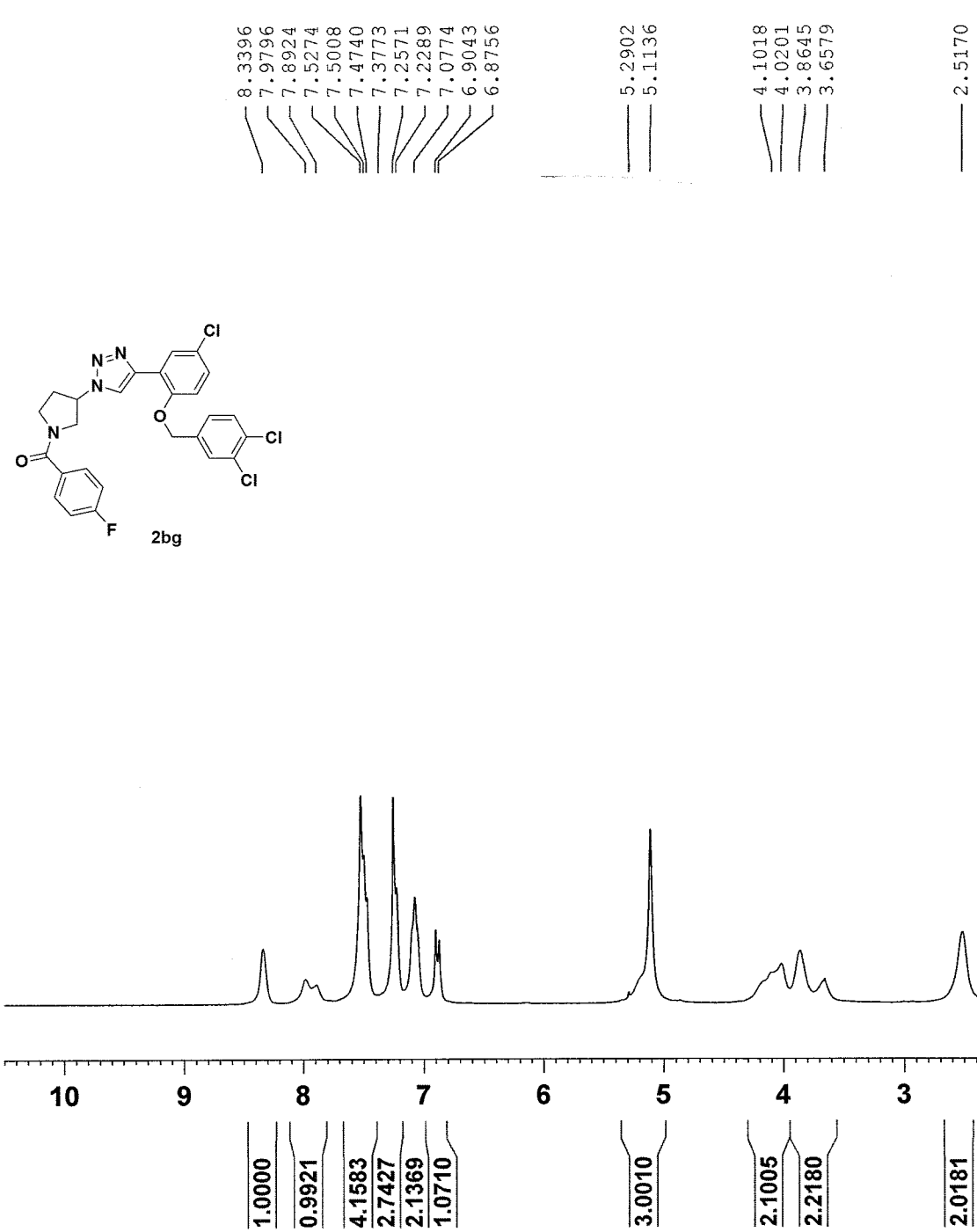
======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300116 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

NAME	JSH-2-135-p
EXPNO	3
PROCNO	1
Date_	20120313
Time	8.59
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10839
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	13004
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz
SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40



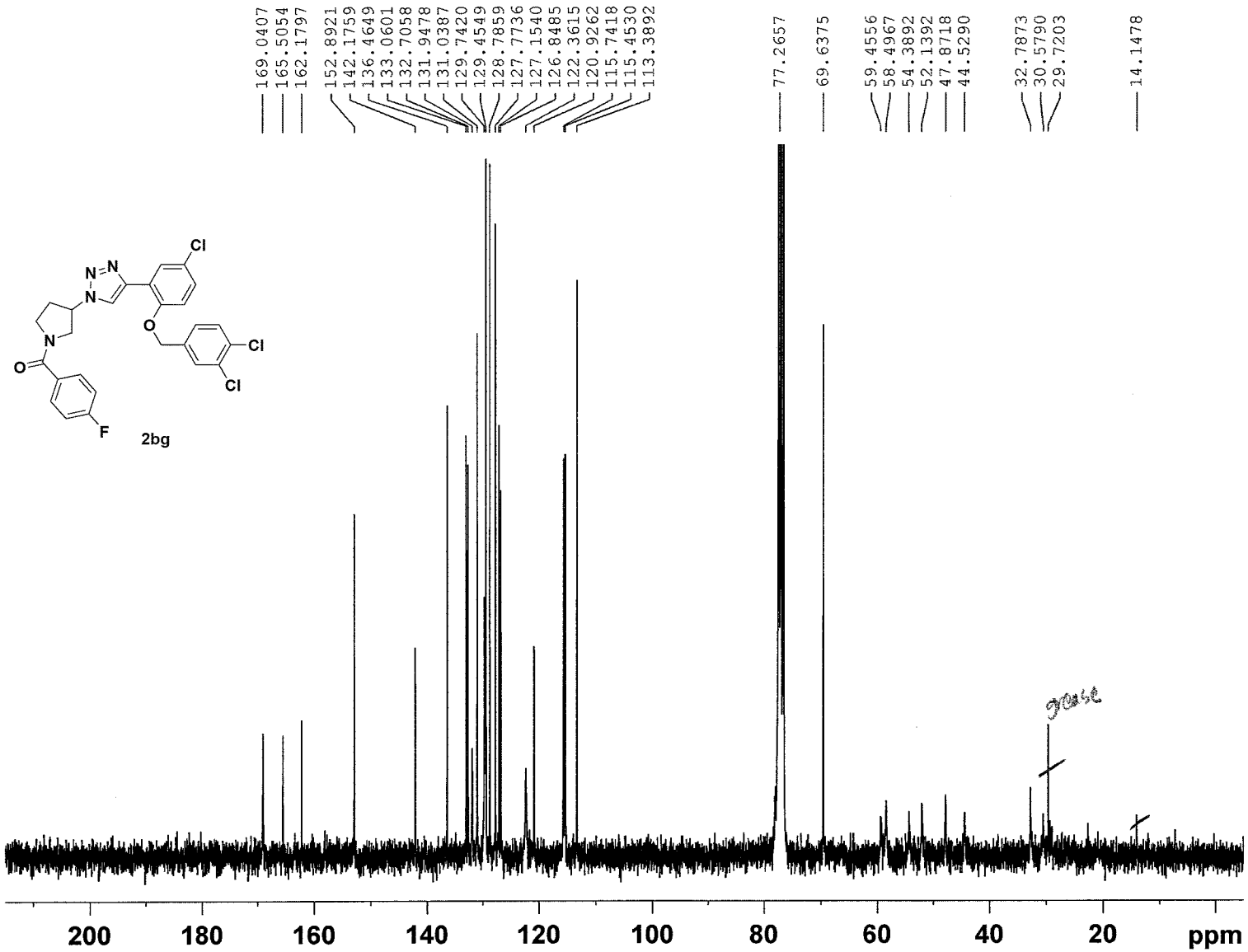
BRUKER

Current Data Parameters
NAME JSH-2-141-p
EXPNO 2
PROCNO 1

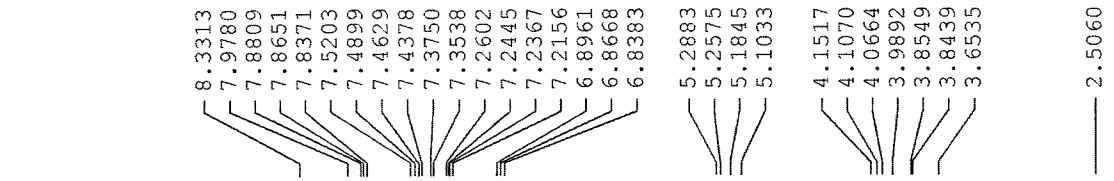
F2 - Acquisition Parameters
Date_ 20120321
Time 20.11
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 362
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

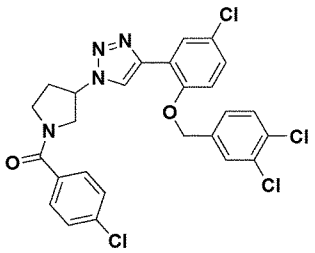
======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300127 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



NAME	JSH-2-141-p
EXPNO	3
PROCNO	1
Date_	20120322
Time	22.02
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10219
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	18390.4
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz
SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2bh

Current Data Parameters

NAME	JSH-2-173-p
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

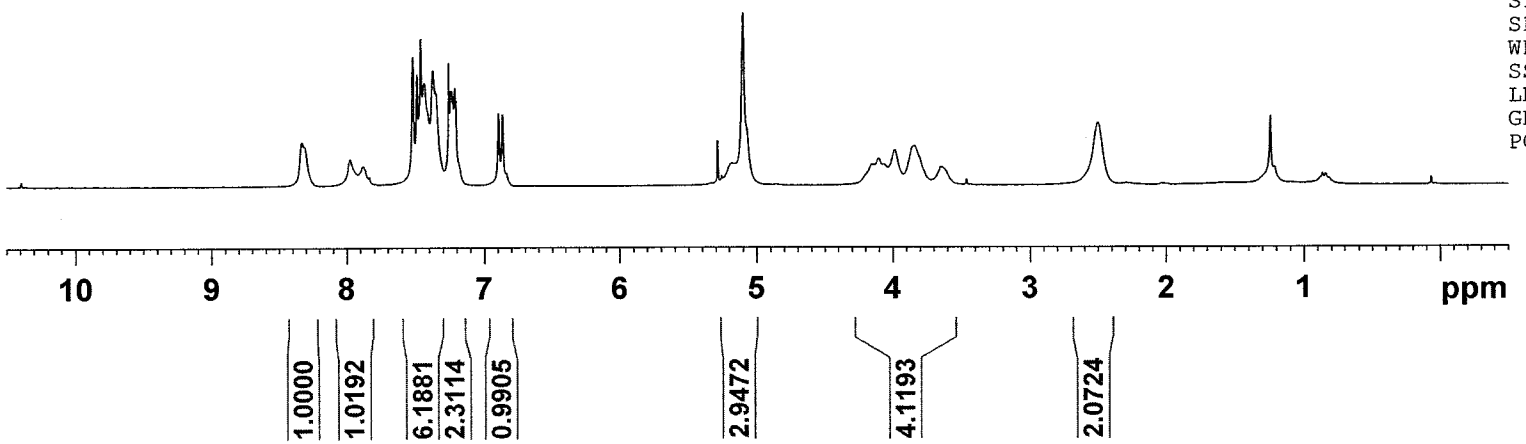
Date_	20120322	
Time	17.36	
INSTRUM	spect	
PROBHD	5 mm DUL 1H-13	
PULPROG	zg30	
TD	65536	
SOLVENT	CDCl3	
NS	16	
DS	2	
SWH	6172.839	Hz
FIDRES	0.094190	Hz
AQ	5.3084660	sec
RG	256	
DW	81.000	usec
DE	6.00	usec
TE	300.0	K
D1	1.00000000	sec
TD0	1	

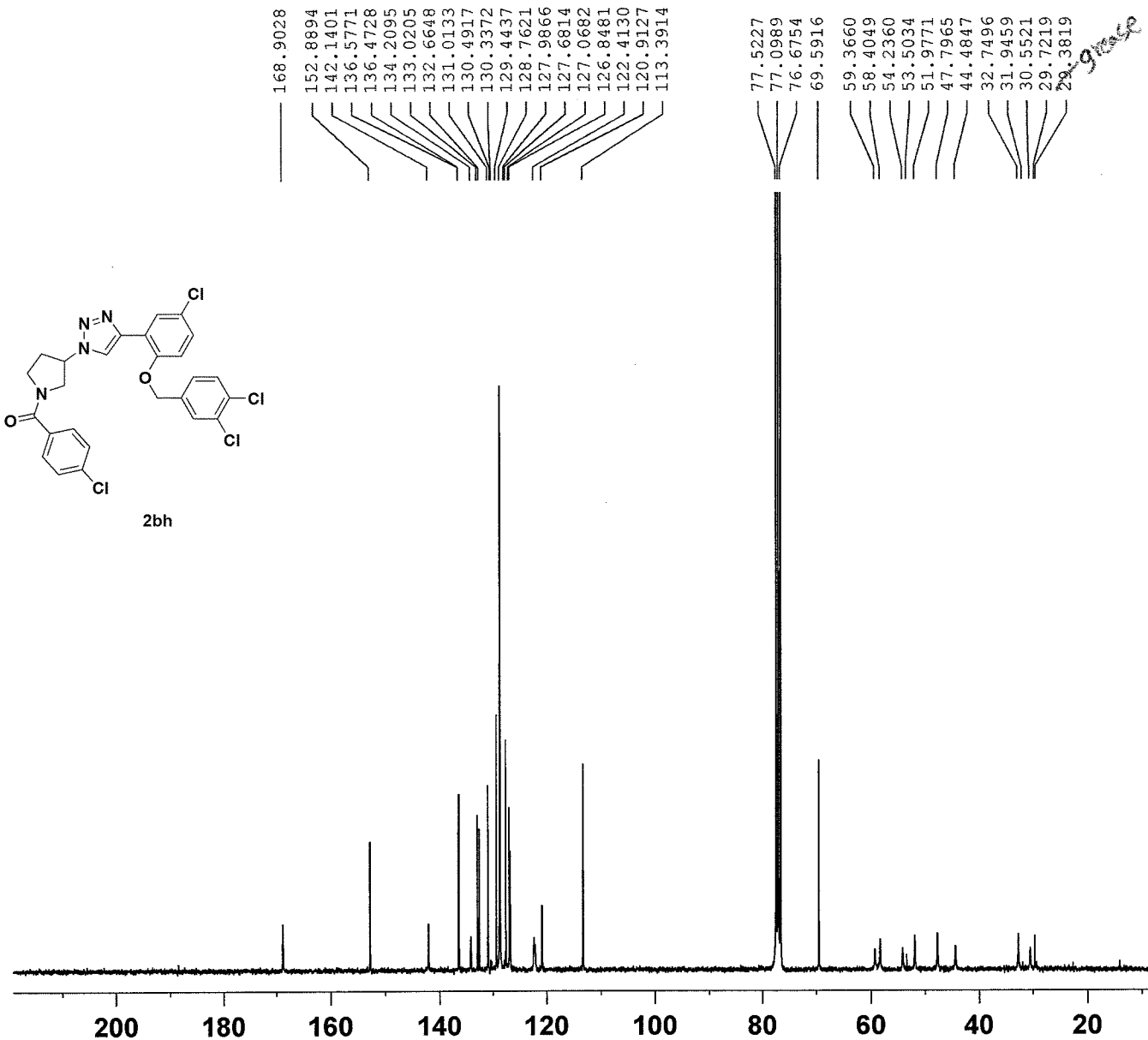
======== CHANNEL f1 ========

NUC1	1H	
P1	10.50	usec
PL1	-1.00	dB
SFO1	300.1318534	MHz

F2 - Processing parameters

SI	32768	
SF	300.1300123	MHz
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	





BRUKER

Current Data Parameters

NAME	JSH-2-173-p
EXPNO	3
PROCNO	1

F2 - Acquisition Parameters

Date_	20120403
Time	9.11
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10615
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	8192
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

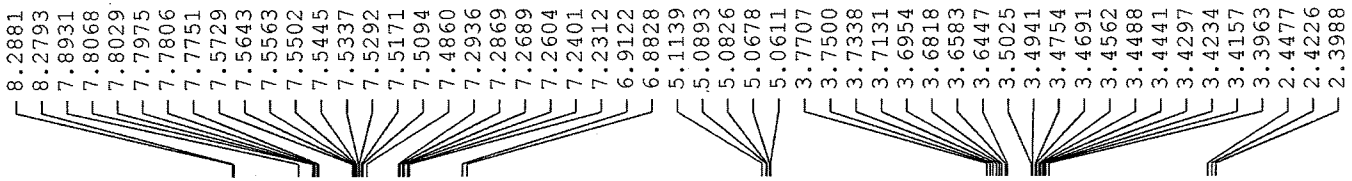
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

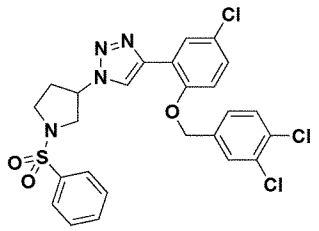
======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





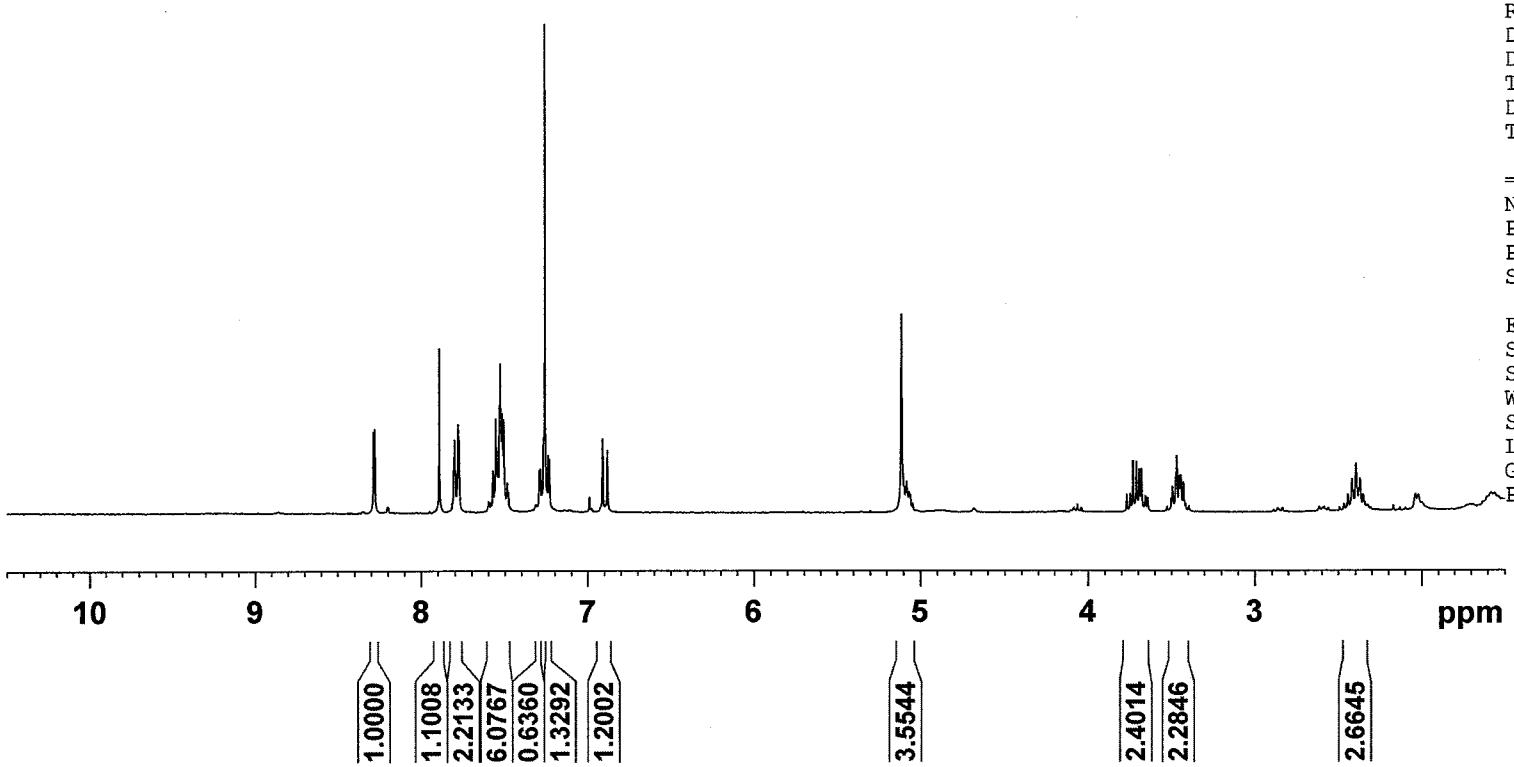
2bi

Current Data Parameters
NAME JSH-2-137-p
EXPNO 1
PROCNO 5

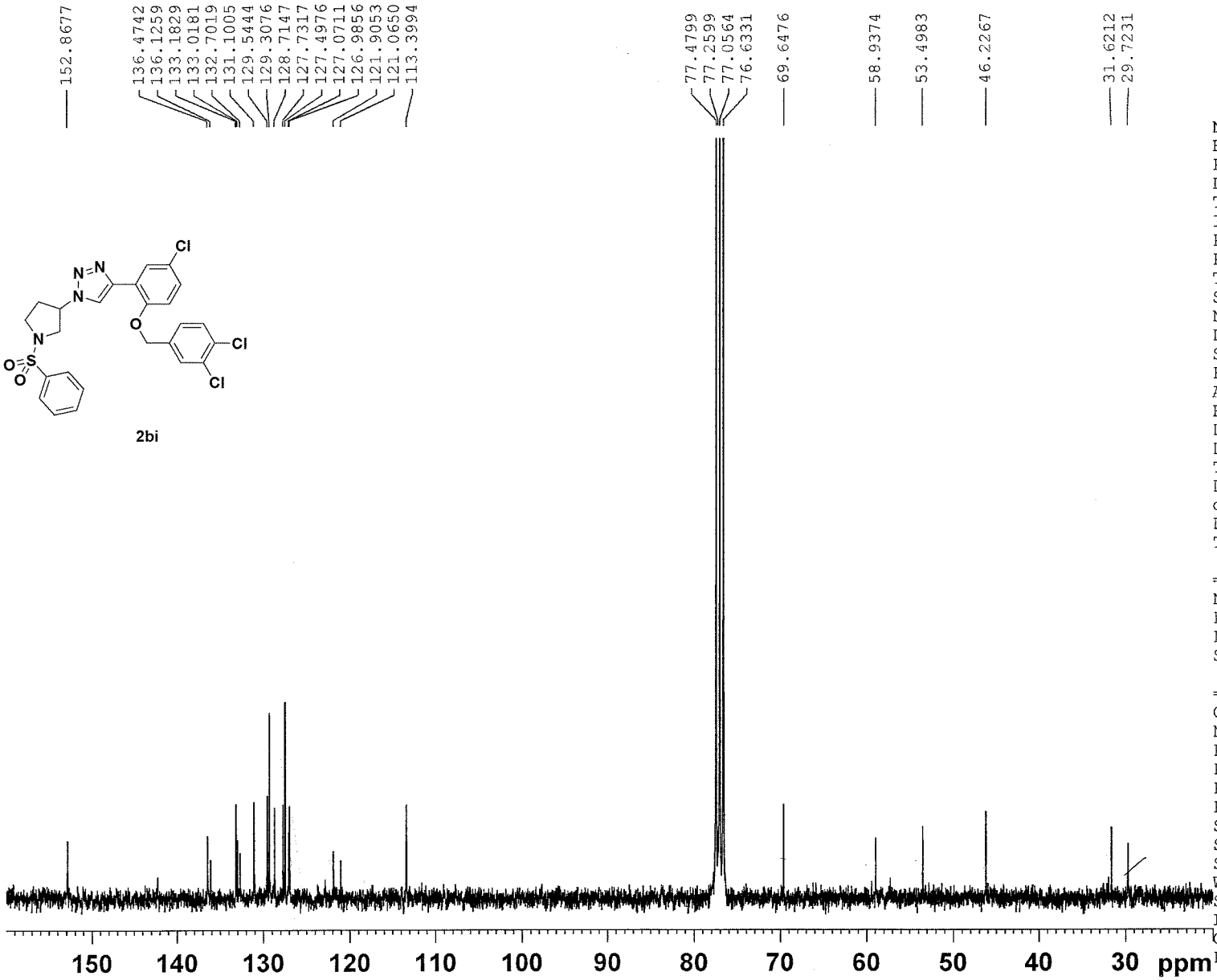
F2 - Acquisition Parameters
Date_ 20121121
Time 17.06
INSTRUM spect
PROBHD 5 mm DUL 1H-13
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 12
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 574.7
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 10.50 usec
PL1 -1.00 dB
SFO1 300.1318534 MHz

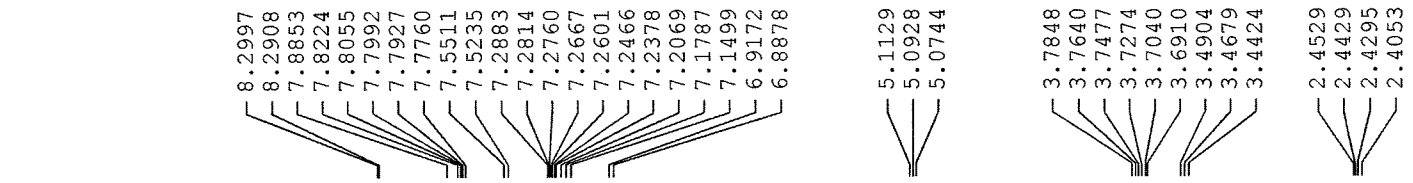
F2 - Processing parameters
SI 32768
SF 300.1300121 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

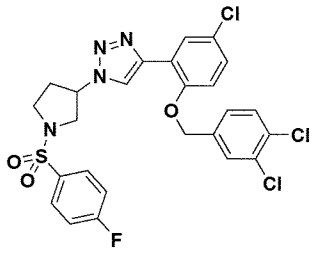


2bi



NAME	JSH-2-137-p
EXPNO	3
PROCNO	1
Date_	20120313
Time	14.32
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	567
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	13004
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz
SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40





2bj

Current Data Parameters

NAME	JSH-2-143-p
EXPNO	1
PROCNO	5

F2 - Acquisition Parameters

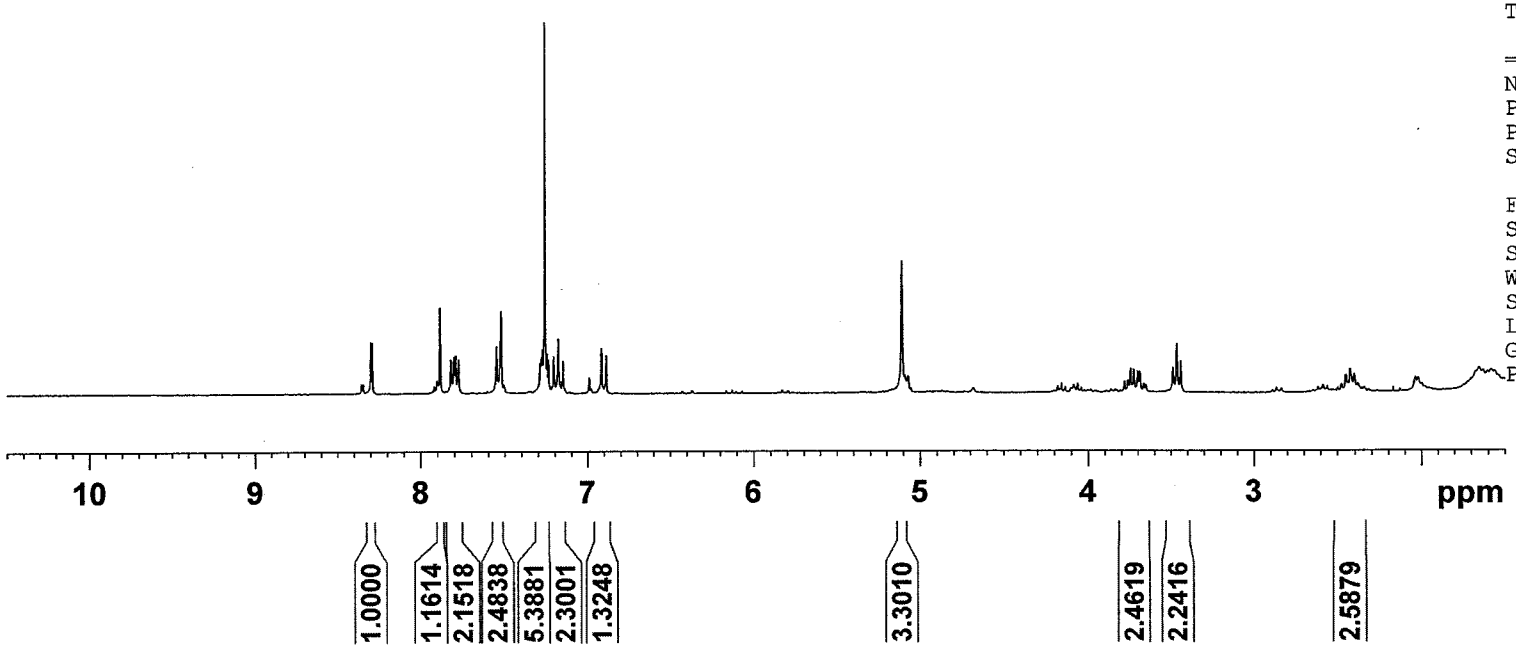
Date_	20121121
Time	17.15
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	13
DS	2
SWH	6172.839 Hz
FIDRES	0.094190 Hz
AQ	5.3084660 sec
RG	512
DW	81.000 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
TD0	1

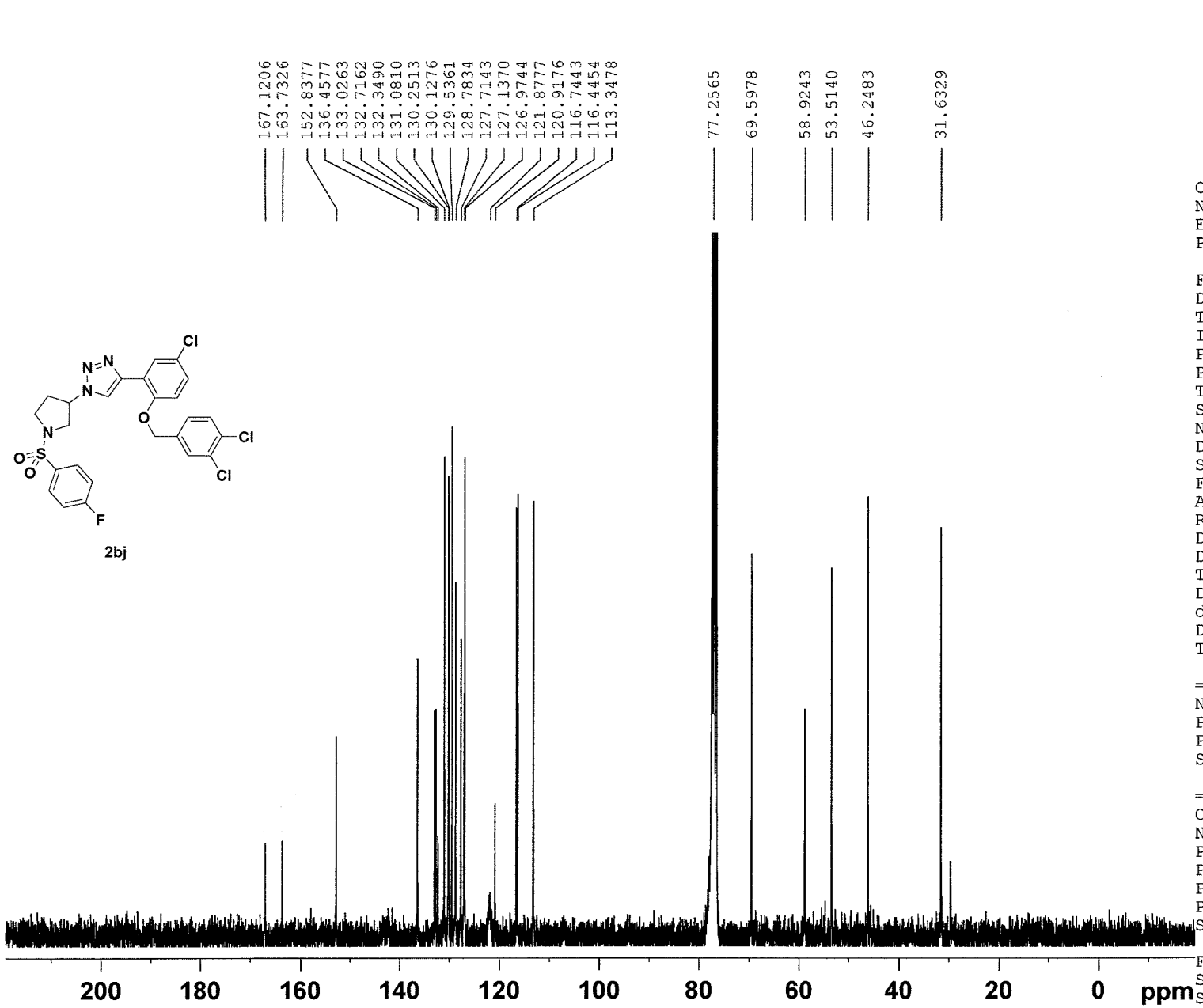
======== CHANNEL f1 ========

NUC1	1H
P1	10.50 usec
PL1	-1.00 dB
SFO1	300.1318534 MHz

F2 - Processing parameters

SI	32768
SF	300.1300122 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00





Current Data Parameters

NAME	JSH-2-143-p
EXPNO	3
PROCNO	1

F2 - Acquisition Parameters

Date_	20120326
Time	21.22
INSTRUM	spect
PROBHD	5 mm DUL 1H-13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	10979
DS	4
SWH	17985.611 Hz
FIDRES	0.274439 Hz
AQ	1.8219508 sec
RG	9195.2
DW	27.800 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

======== CHANNEL f1 ========

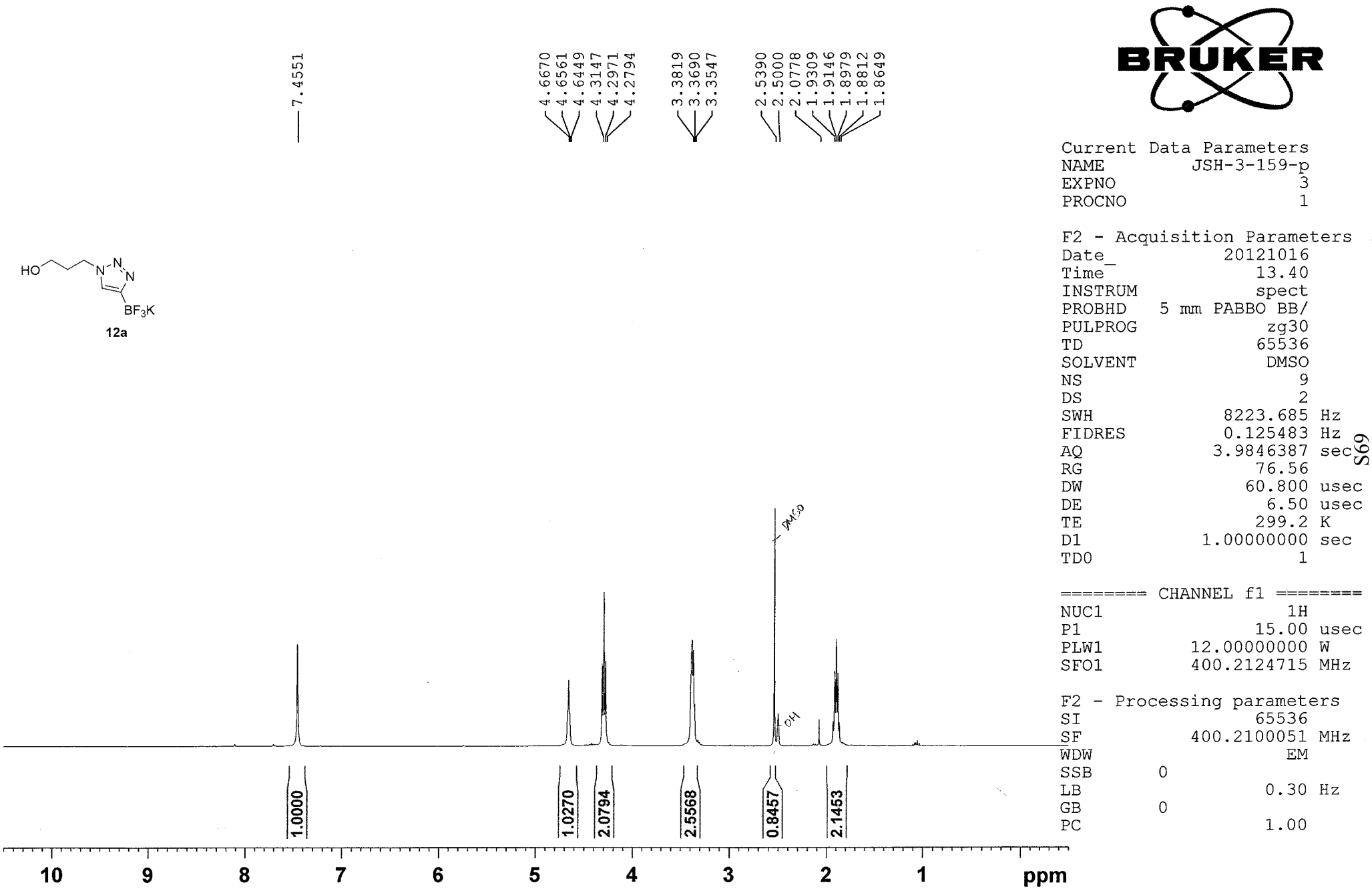
NUC1	13C
P1	10.00 usec
PL1	0.00 dB
SFO1	75.4752953 MHz

======== CHANNEL f2 ========

CPDPRG2	waltz16
NUC2	1H
PCPD2	100.00 usec
PL2	0.00 dB
PL12	20.00 dB
PL13	22.00 dB
SFO2	300.1312005 MHz

F2 - Processing parameters

SI	32768
SF	75.4677490 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

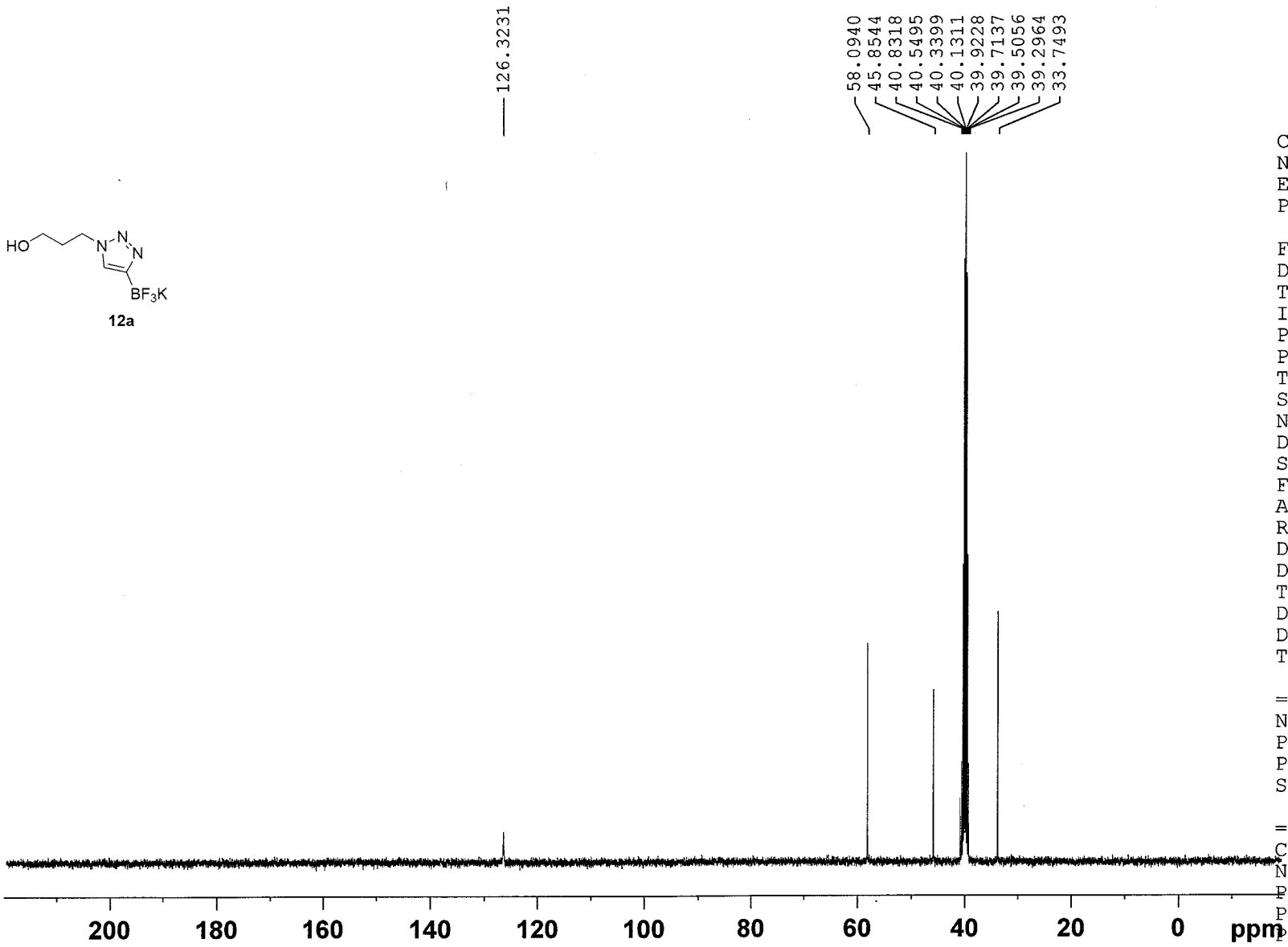


Current Data Parameters
NAME JSH-3-159-p
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20121016
Time 13.40
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 9
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 76.56
DW 60.800 usec
DE 6.50 usec
TE 299.2 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100051 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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```
Current Data Parameters
NAME          JSH-3-159-p
EXPNO                   6
PROCNO                  1

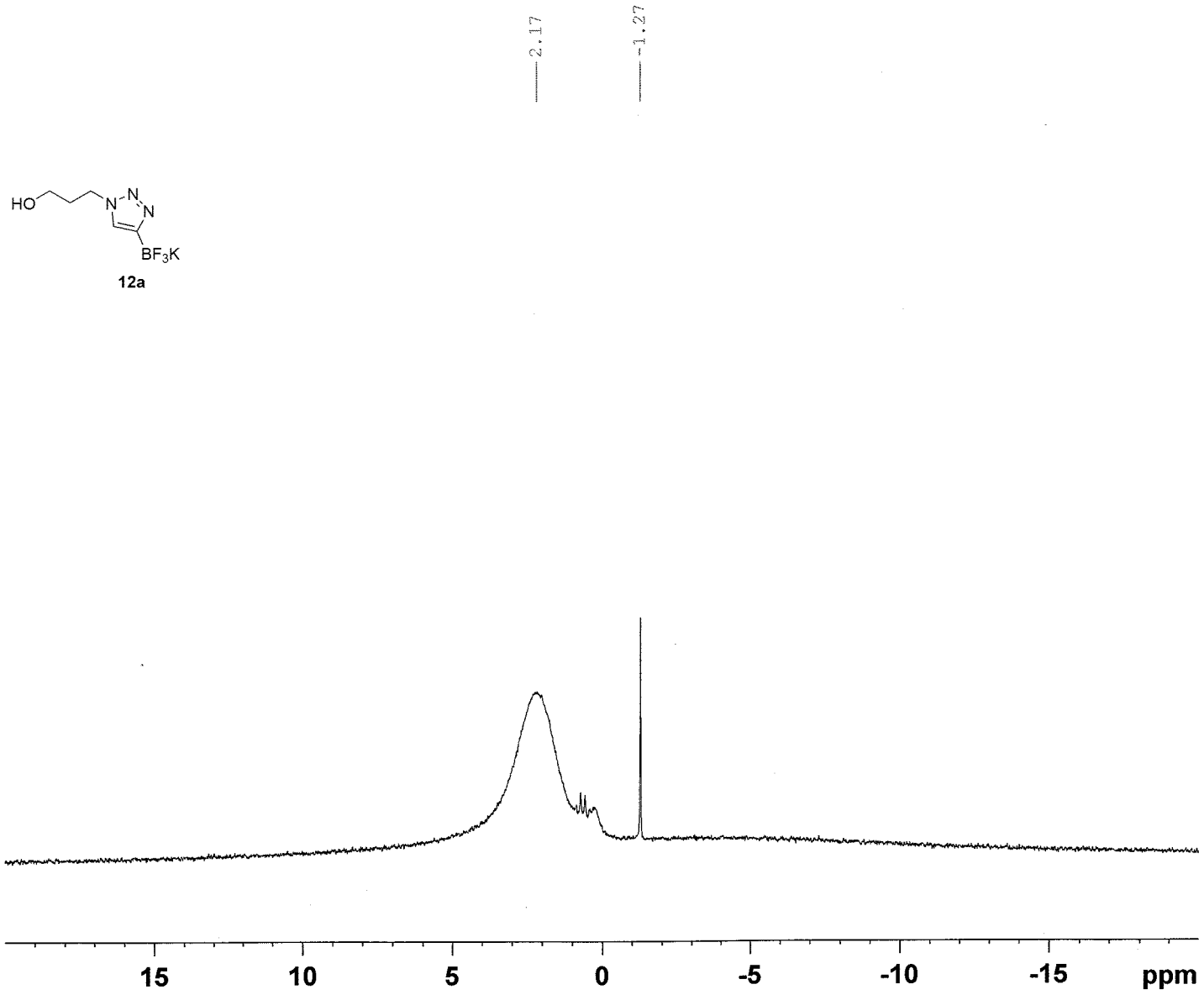
F2 - Acquisition Paramete
Date_            20121016
Time_               18.59
INSTRUM             spect
PROBHD   5 mm PABBO BB/
PULPROG           zgpg30
TD                 65536
SOLVENT              DMSO
NS                     108
DS                       4
SWH            24038.461 H
FIDRES          0.366798 H
AQ              1.3631988 s
RG                 190.62
DW                 20.800 u
DE                  6.50 u
TE                 299.6 K
D1           2.00000000 s
D11          0.03000000 s
TD0                    1

======== CHANNEL f1 =====
NUC1                 13C
P1                 10.00 u
PLW1         52.00000000 W
SFO1        100.6429474 M

======== CHANNEL f2 =====
CPDPRG2          waltz16
NUC2                 1H
PCPD2              90.00 u
PLW2         12.00000000 W
PLW12         0.33333001 W
PLW13         0.27000001 W
SFO2        400.2116008 M

F2 - Processing parameter
SI                 32768
```

12a




```
Current Data Parameters
NAME      JSH-propanol BF3K
EXPNO                   6
PROCNO                  1

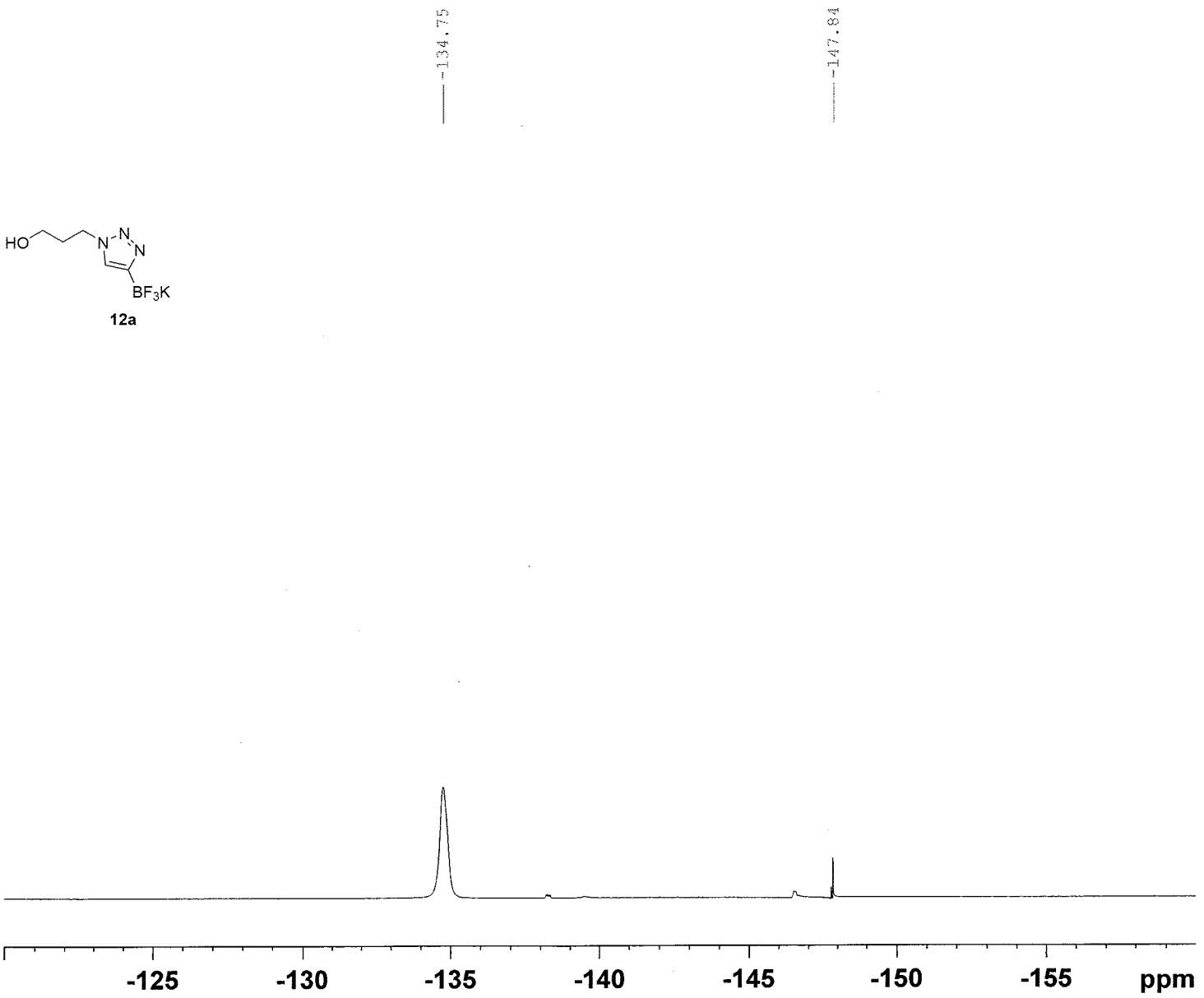
F2 - Acquisition Parameters
Date_            20130507
Time                13.30
INSTRUM             spect
PROBHD    5 mm PABBO BB/
PULPROG           zgpg30
TD                 65536
SOLVENT              DMSO
NS                     17
DS                      4
SWH           25510.203 Hz
FIDRES         0.389255 Hz
AQ            1.2845556 sec
RG               190.62
DW               19.600 usec
DE                6.50 usec
TE                299.4 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  11B
P1                15.00 usec
PLW1         34.20000076 W
SFO1        128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2             90.00 usec
PLW2         12.00000000 W
PLW12         0.33333001 W
PLW13         0.27000001 W
SFO2        400.2116008 MHz

F2 - Processing parameters
SI                 32768
SF          128.4032720 MHz
WDW                   EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```

12a




```
Current Data Parameters
NAME      JSH-propanol BF3K
EXPNO                    7
PROCNO                   1

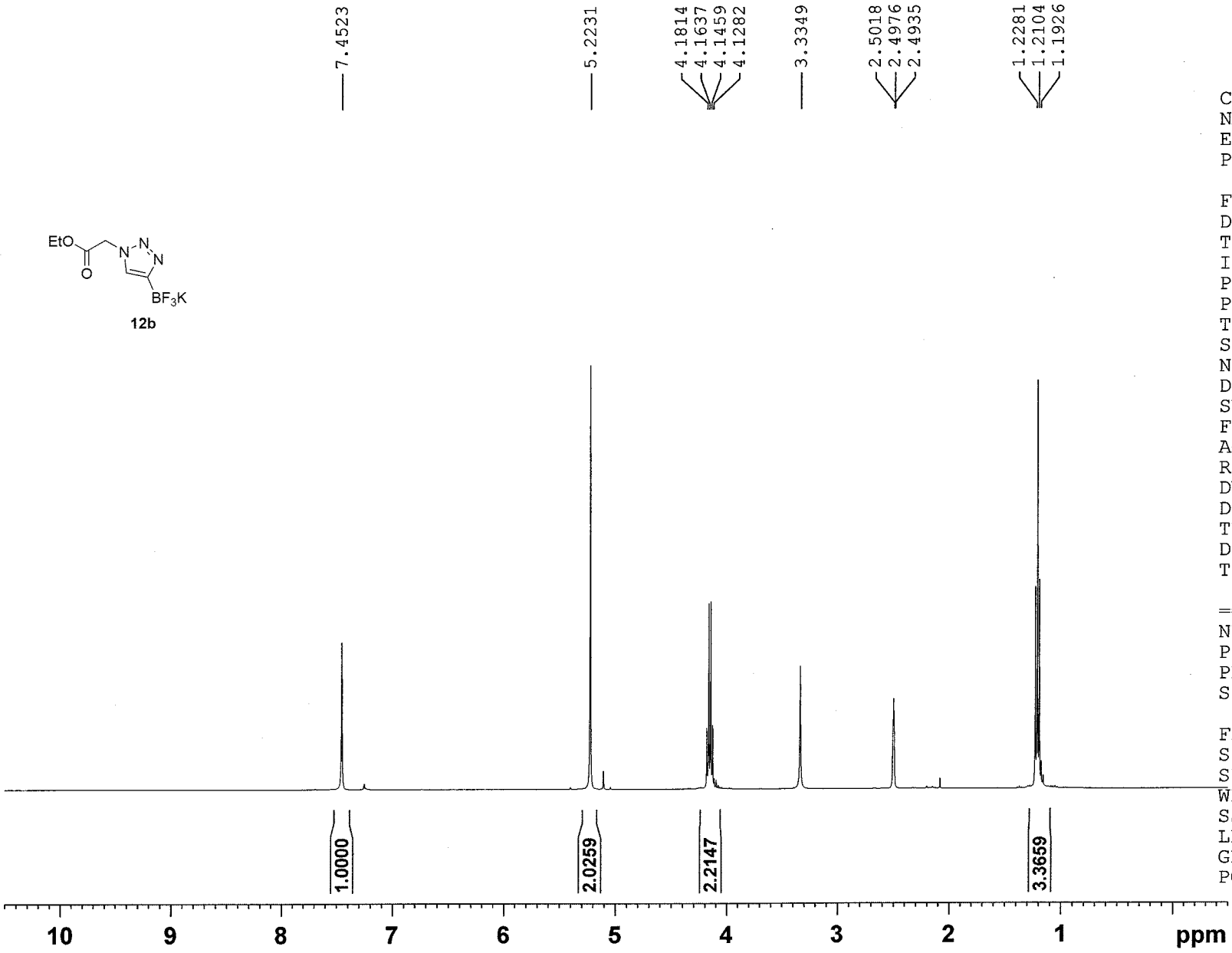
F2 - Acquisition Parameters
Date_             20130507
Time                 13.33
INSTRUM              spect
PROBHD    5 mm PABBO BB/
PULPROG       zgfhigqn.2
TD                  131072
SOLVENT               DMSO
NS                      16
DS                       4
SWH              89285.711 Hz
FIDRES            0.681196 Hz
AQ                0.7340532 sec
RG                   190.62
DW                  5.600 usec
DE                  6.50 usec
TE                  299.2 K
D1              1.00000000 sec
D11             0.03000000 sec
D12             0.00002000 sec
TD0                      1

======== CHANNEL f1 ========
NUC1                    19F
P1                  15.00 usec
PLW1           17.00000000 W
SFO1          376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                    1H
PCPD2               90.00 usec
PLW2           12.00000000 W
PLW12           0.33333001 W
SFO2          400.2116008 MHz

F2 - Processing parameters
SI                   65536
SF            376.5736410 MHz
WDW                     EM
SSB       0
LB                  0.30 Hz
GB        0
PC                  1.00
```

12b

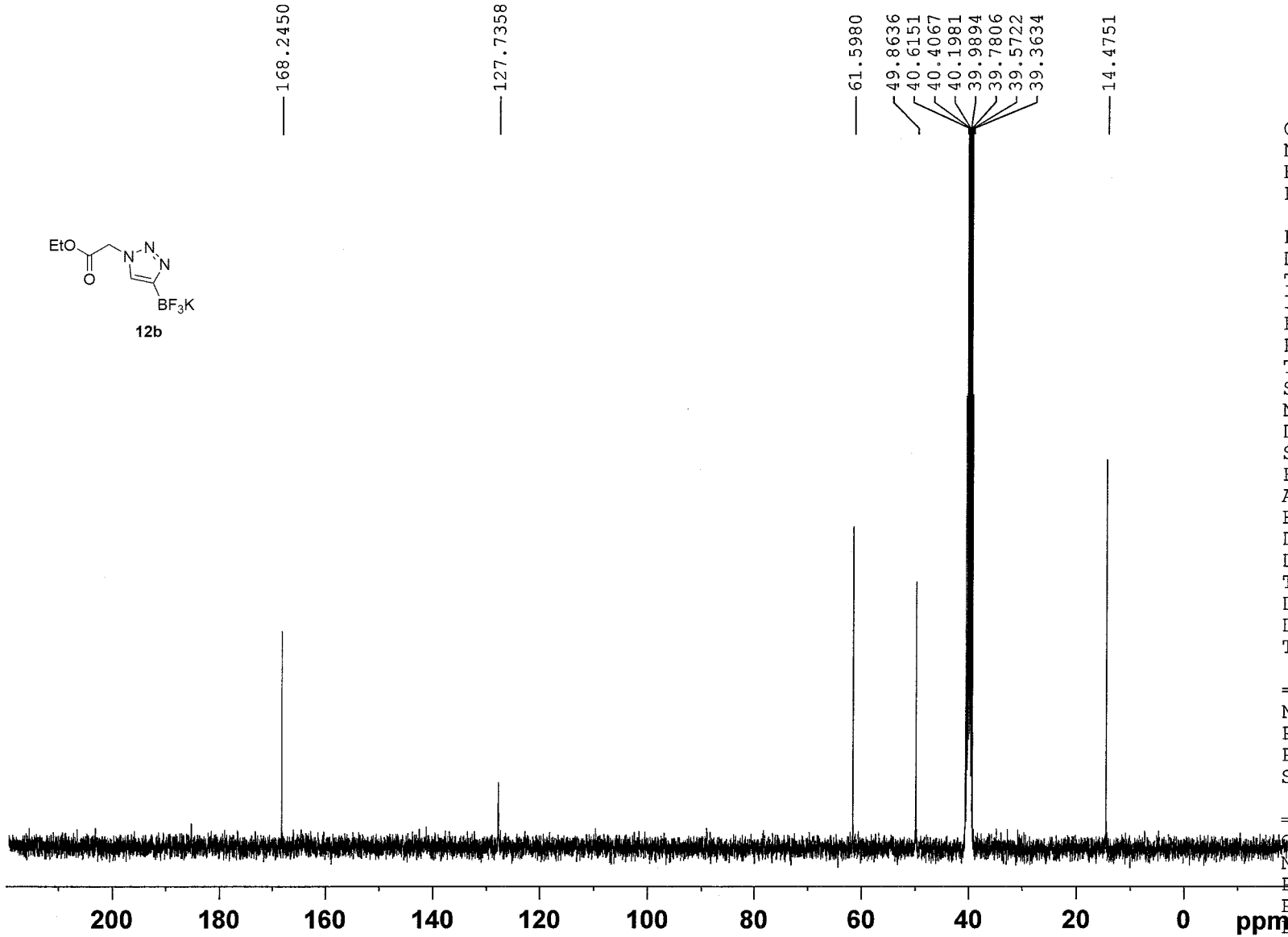



```
Current Data Parameters
NAME                  JSH-4-26-p
EXPNO                          3
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20130320
Time                       19.52
INSTRUM                    spect
PROBHD    5 mm PABBO BB/
PULPROG                     zg30
TD                         65536
SOLVENT                     DMSO
NS                             16
DS                              2
SWH                     8223.685 Hz
FIDRES                  0.125483 Hz
AQ                      3.9846387 sec
RG                         133.17
DW                         60.800 usec
DE                          6.50 usec
TE                         298.6 K
D1                    1.00000000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                          1H
P1                         15.00 usec
PLW1                12.00000000 W
SFO1                400.2124715 MHz

F2 - Processing parameters
SI                         65536
SF                  400.2100071 MHz
WDW                           EM
SSB                0
LB                         0.30 Hz
GB                 0
PC                         1.00
```



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Current Data Parameters
NAME JSH-4-26-p
EXPNO 4
PROCNO 1

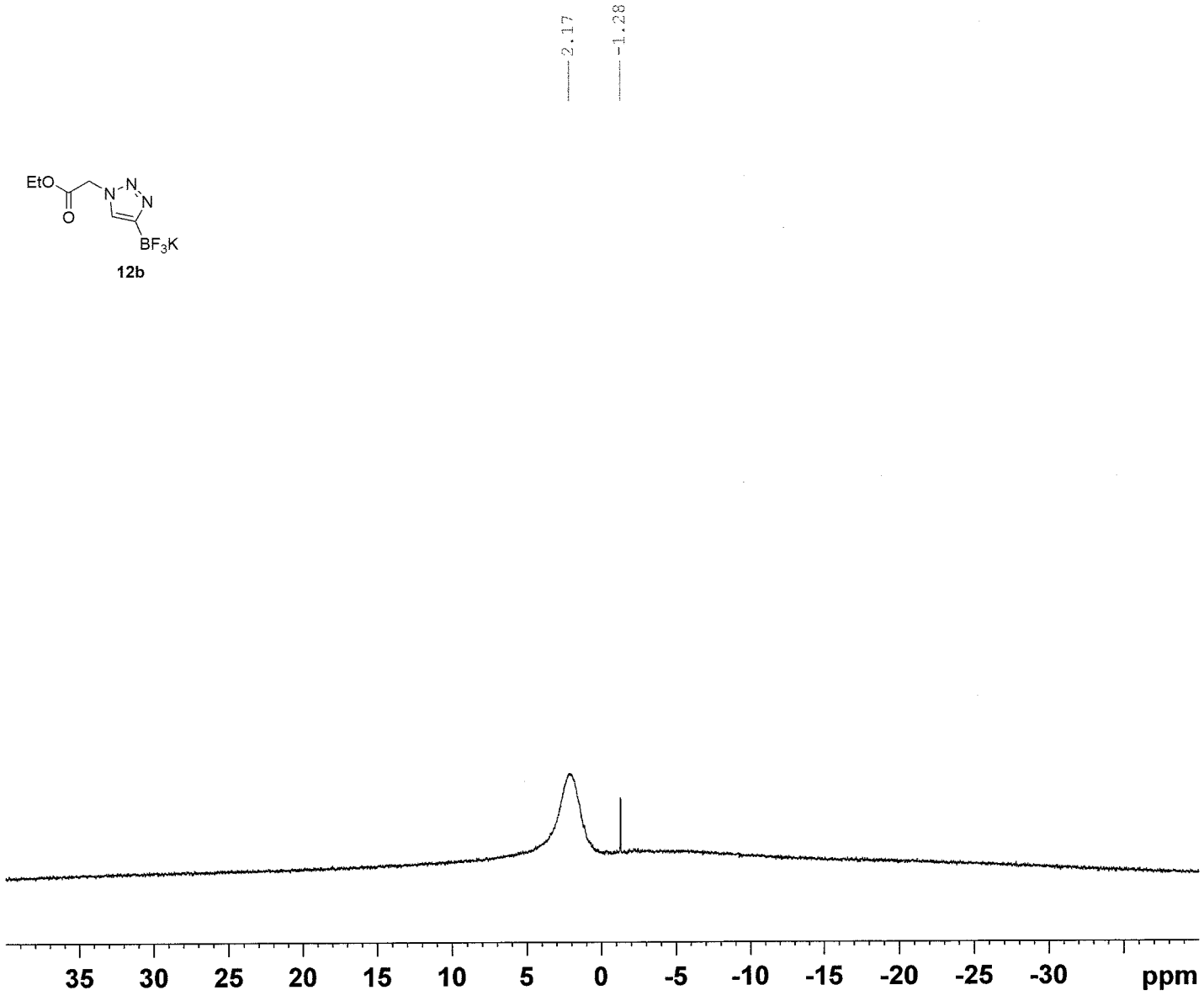
F2 - Acquisition Paramete
Date_ 20130320
Time 19.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 489
DS 4
SWH 24038.461 H
FIDRES 0.366798 H
AQ 1.3631988 s
RG 190.62
DW 20.800 u
DE 6.50 u
TE 299.1 K
D1 2.00000000 s
D11 0.03000000 s
TD0 1

======== CHANNEL f1 =====
NUC1 13C
P1 10.00 u
PLW1 52.00000000 W
SFO1 100.6429474 M

======== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 u
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 M

F2 - Processing parameter
SI 32768

12b



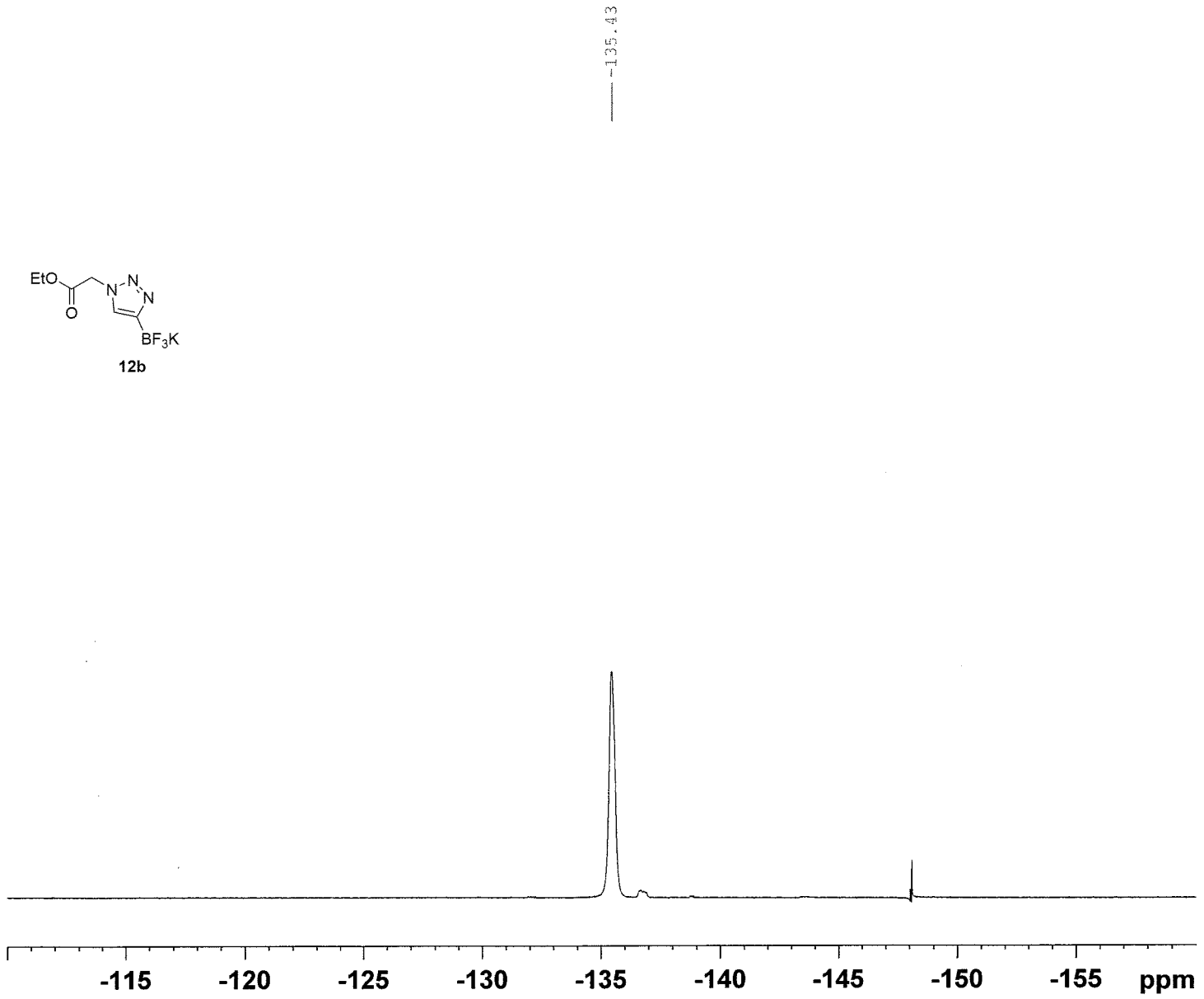

```
Current Data Parameters
NAME      JSH-ethyl acetate BF3K
EXPNO                         2
PROCNO                        1

F2 - Acquisition Parameters
Date_              20130501
Time_                 22.11
INSTRUM               spect
PROBHD    5 mm PABBO BB/
PULPROG             zgpg30
TD                    65536
SOLVENT                 DMSO
NS                        21
DS                         4
SWH               25510.203 Hz
FIDRES             0.389255 Hz
AQ                1.2845556 sec
RG                   190.62
DW                   19.600 usec
DE                    6.50 usec
TE                   299.7 K
D1                2.00000000 sec
D11               0.03000000 sec
TD0                           1

======== CHANNEL f1 ========
NUC1                        11B
P1                        15.00 usec
PLW1              34.20000076 W
SFO1             128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2                waltz16
NUC2                        1H
PCPD2                     90.00 usec
PLW2              12.00000000 W
PLW12              0.33333001 W
PLW13              0.27000001 W
SFO2             400.2116008 MHz

F2 - Processing parameters
SI                        32768
SF               128.4032720 MHz
WDW                          EM
SSB          0
LB                        1.00 Hz
GB           0
PC                        1.40
```



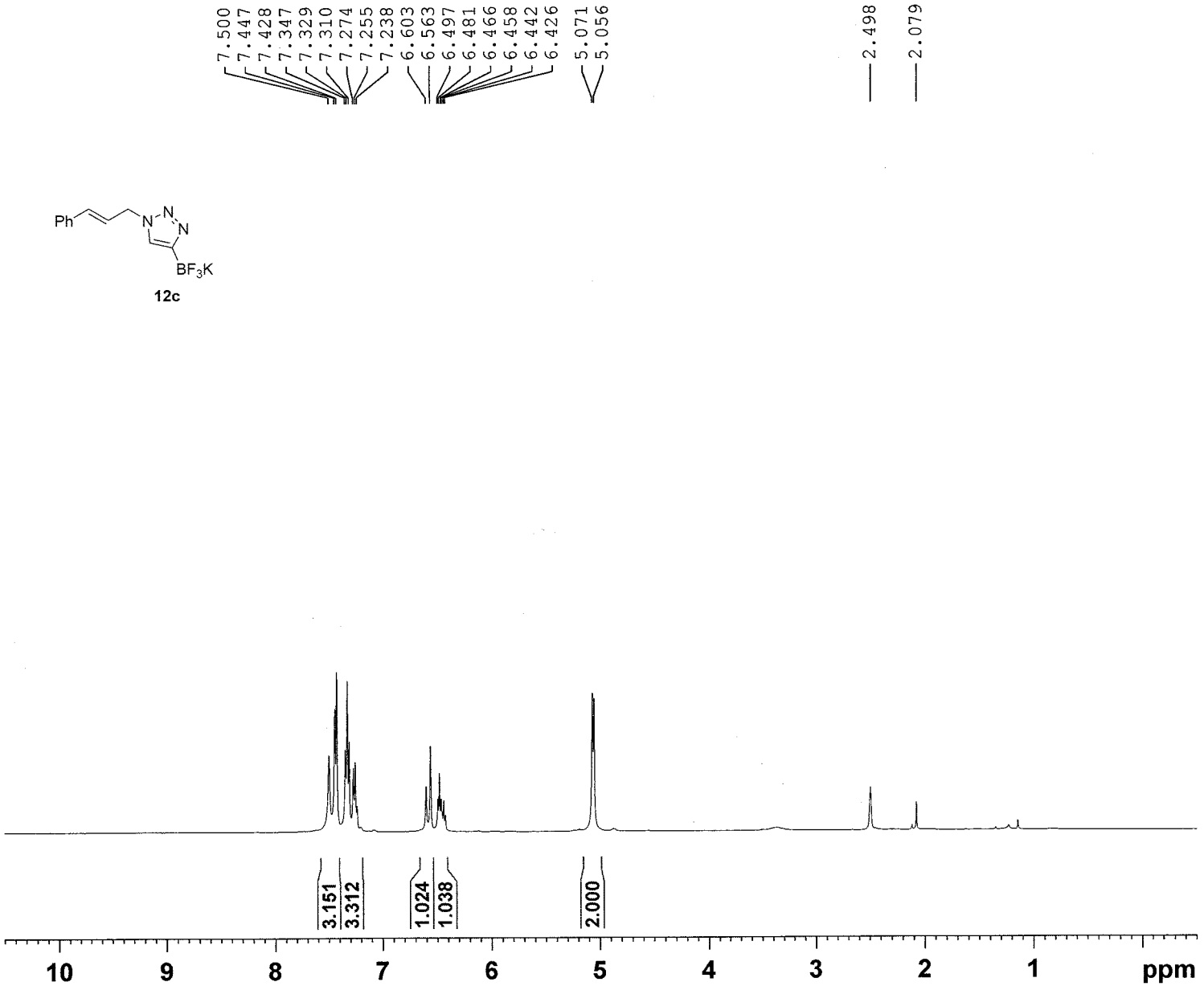
Current Data Parameters
NAME JSH-ethyl acetate BF3K
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130501
Time 22.15
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgfhigqn.2
TD 131072
SOLVENT DMSO
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340532 sec
RG 190.62
DW 5.600 usec
DE 6.50 usec
TE 299.5 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 19F
P1 15.00 usec
PLW1 17.00000000 W
SFO1 376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 65536
SF 376.5736410 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

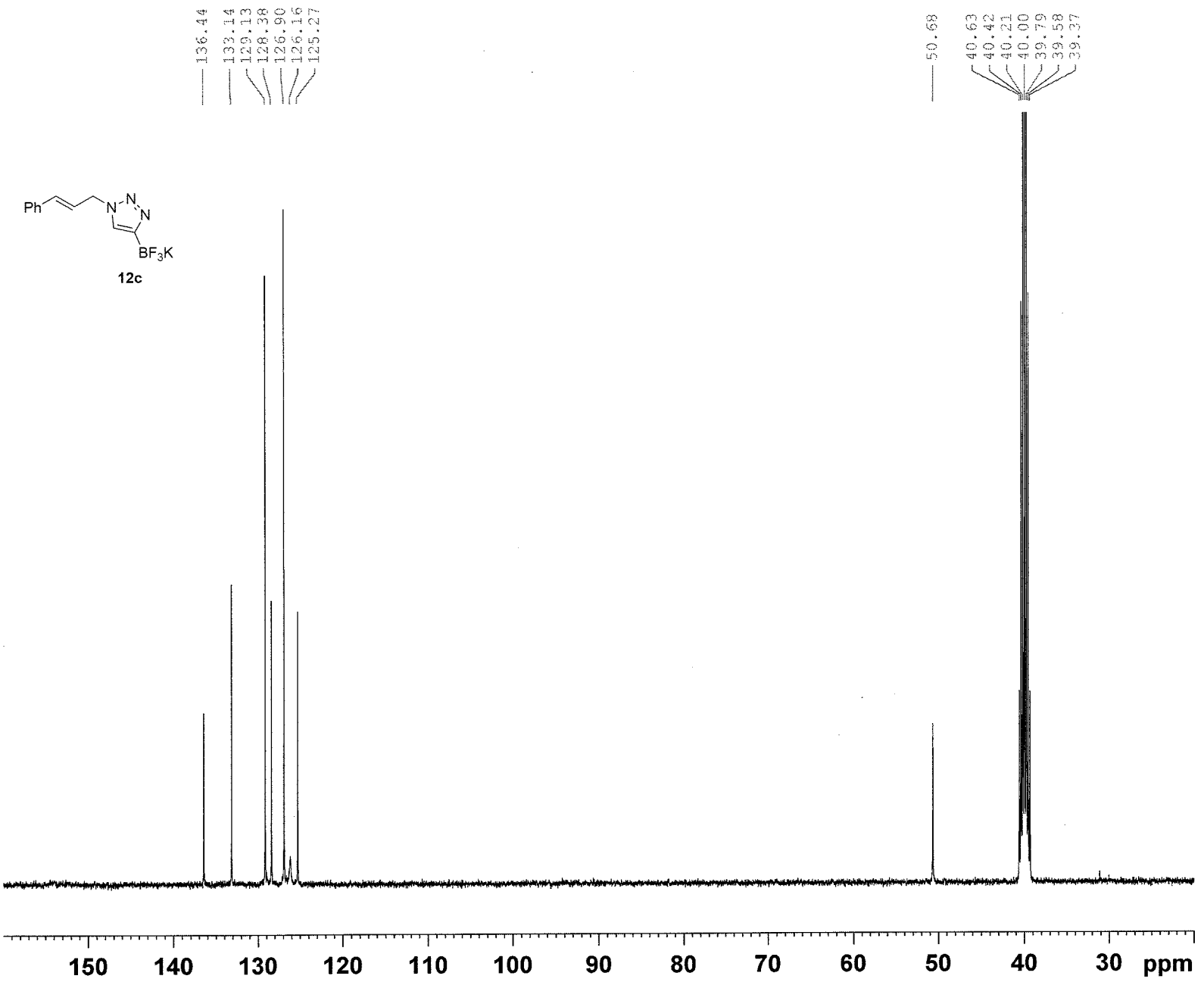


Current Data Parameters
NAME JSH-cinamyl BF3K
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130505
Time 22.05
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 91.91
DW 60.800 usec
DE 6.50 usec
TE 300.1 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100065 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



Current Data Parameters
NAME JSH-cinamyl BF3K
EXPNO 4
PROCNO 1

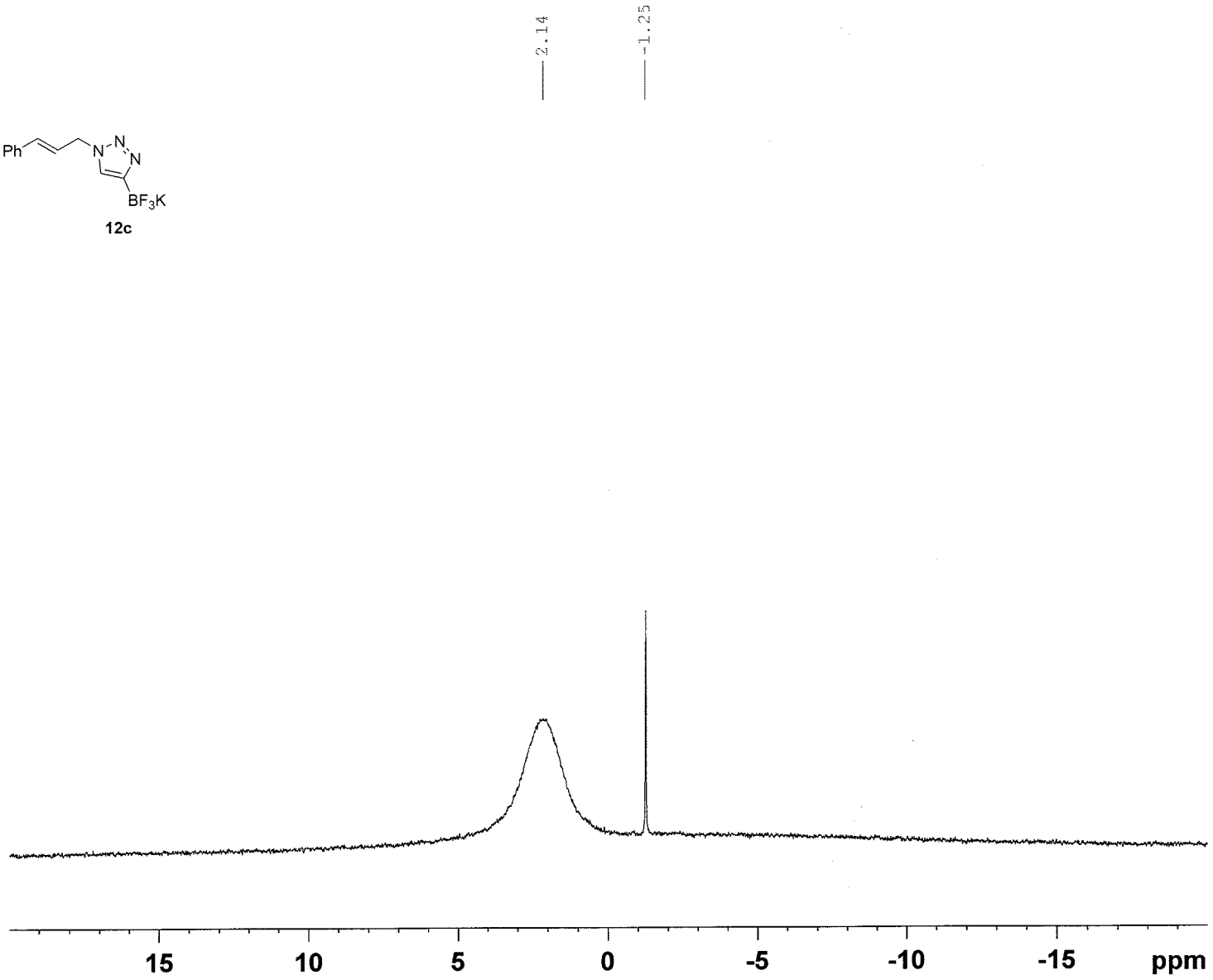
F2 - Acquisition Parameters
Date_ 20130505
Time 22.12
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 907
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 190.62
DW 20.800 usec
DE 6.50 usec
TE 300.3 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 13C
P1 10.00 usec
PLW1 52.00000000 W
SFO1 100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
PLW13 0.27000001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 32768
SF 100.6328860 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

12c



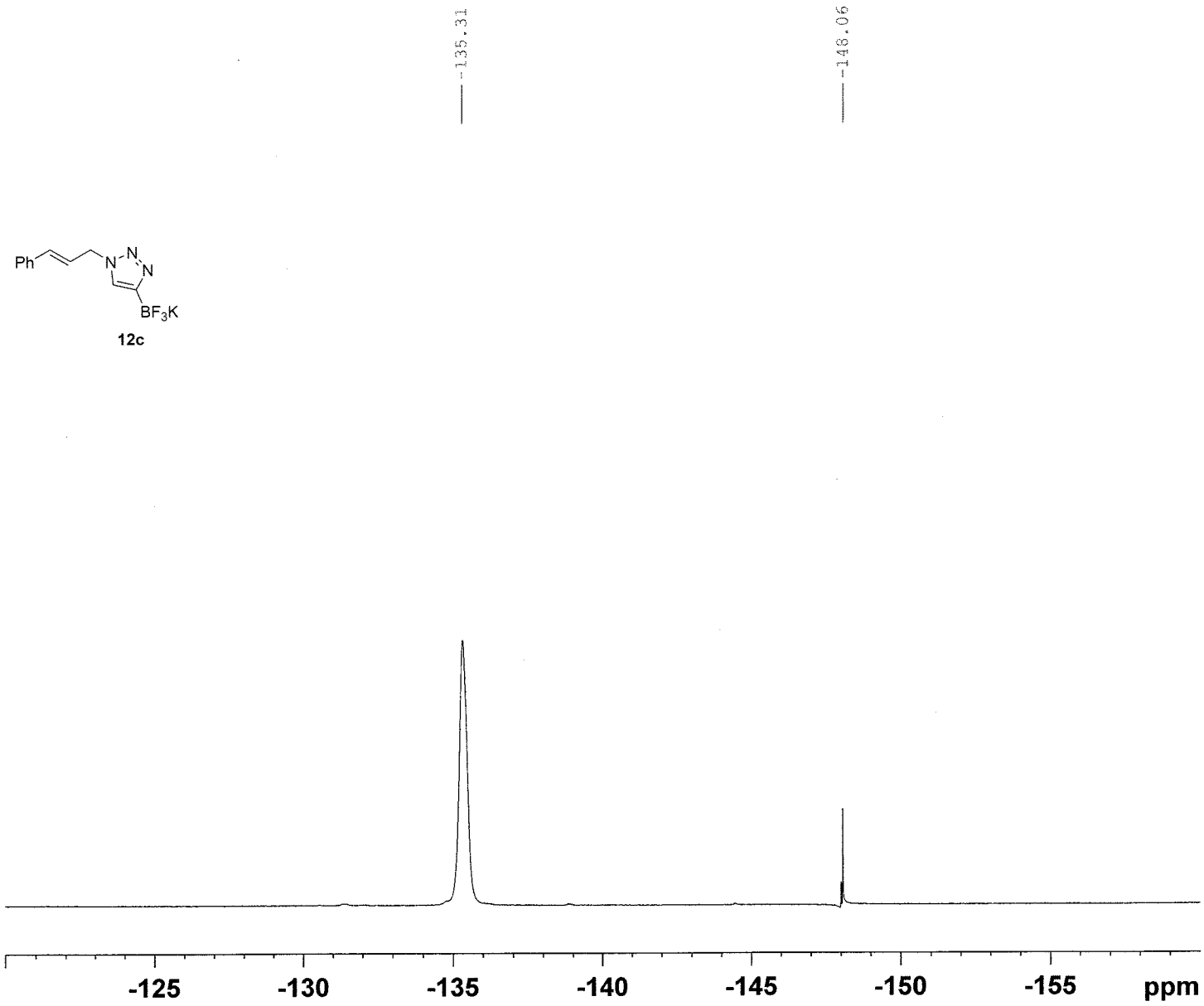

```
Current Data Parameters
NAME      JSH-cinamyl BF3K
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130505
Time              22.01
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG         zgpg30
TD                65536
SOLVENT             DMSO
NS                   14
DS                    4
SWH           25510.203 Hz
FIDRES         0.389255 Hz
AQ            1.2845556 sec
RG               190.62
DW             19.600 usec
DE              6.50 usec
TE              300.6 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 11B
P1             15.00 usec
PLW1        34.20000076 W
SFO1       128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2          90.00 usec
PLW2        12.00000000 W
PLW12        0.33333001 W
PLW13        0.27000001 W
SFO2       400.2116008 MHz

F2 - Processing parameters
SI                32768
SF         128.4032720 MHz
WDW                  EM
SSB       0
LB             1.00 Hz
GB        0
PC                1.40
```



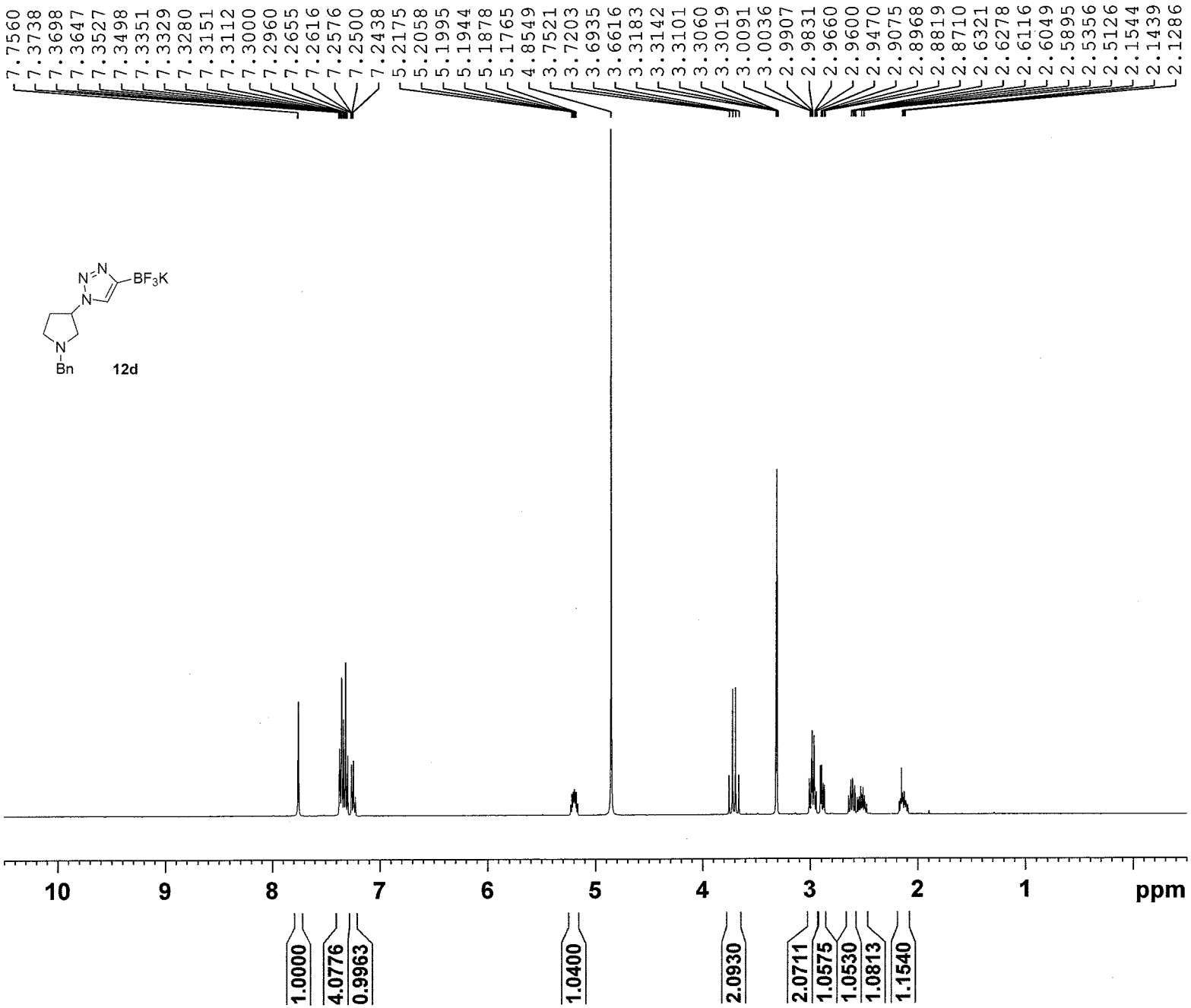
Current Data Parameters
NAME JSH-cinamyl BF3K
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130505
Time 21.58
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgfhigqn.2
TD 131072
SOLVENT DMSO
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340532 sec
RG 190.62
DW 5.600 usec
DE 6.50 usec
TE 300.3 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 19F
P1 15.00 usec
PLW1 17.00000000 W
SFO1 376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 65536
SF 376.5736410 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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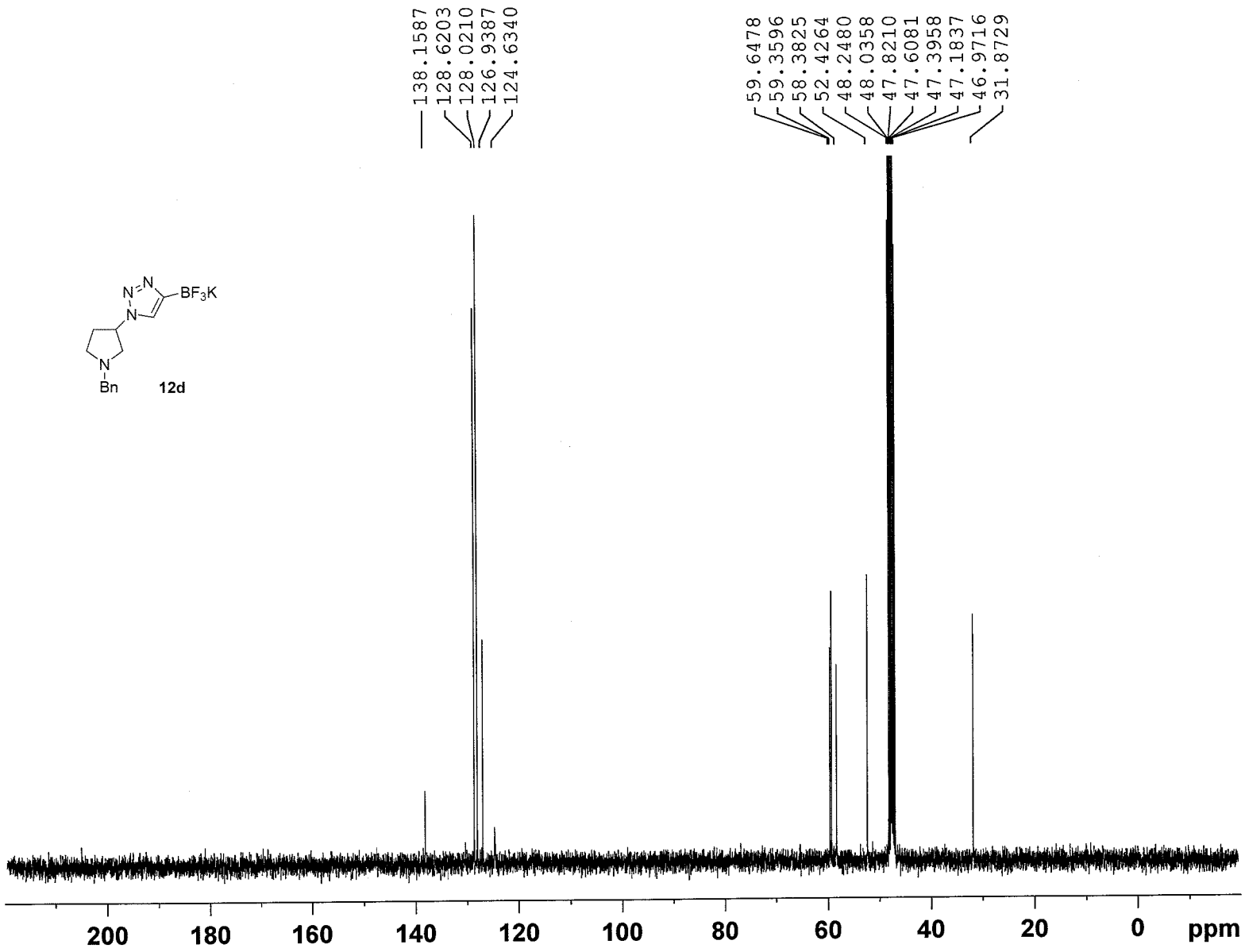
Current Data Parameters
NAME JSH-3-95-p
EXPNO 6
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120725
Time 16.10
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT MeOD
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 146.31
DW 60.800 usec
DE 6.50 usec
TE 298.3 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100110 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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```
Current Data Parameters
NAME                  JSH-3-101-p
EXPNO                           4
PROCNO                          1

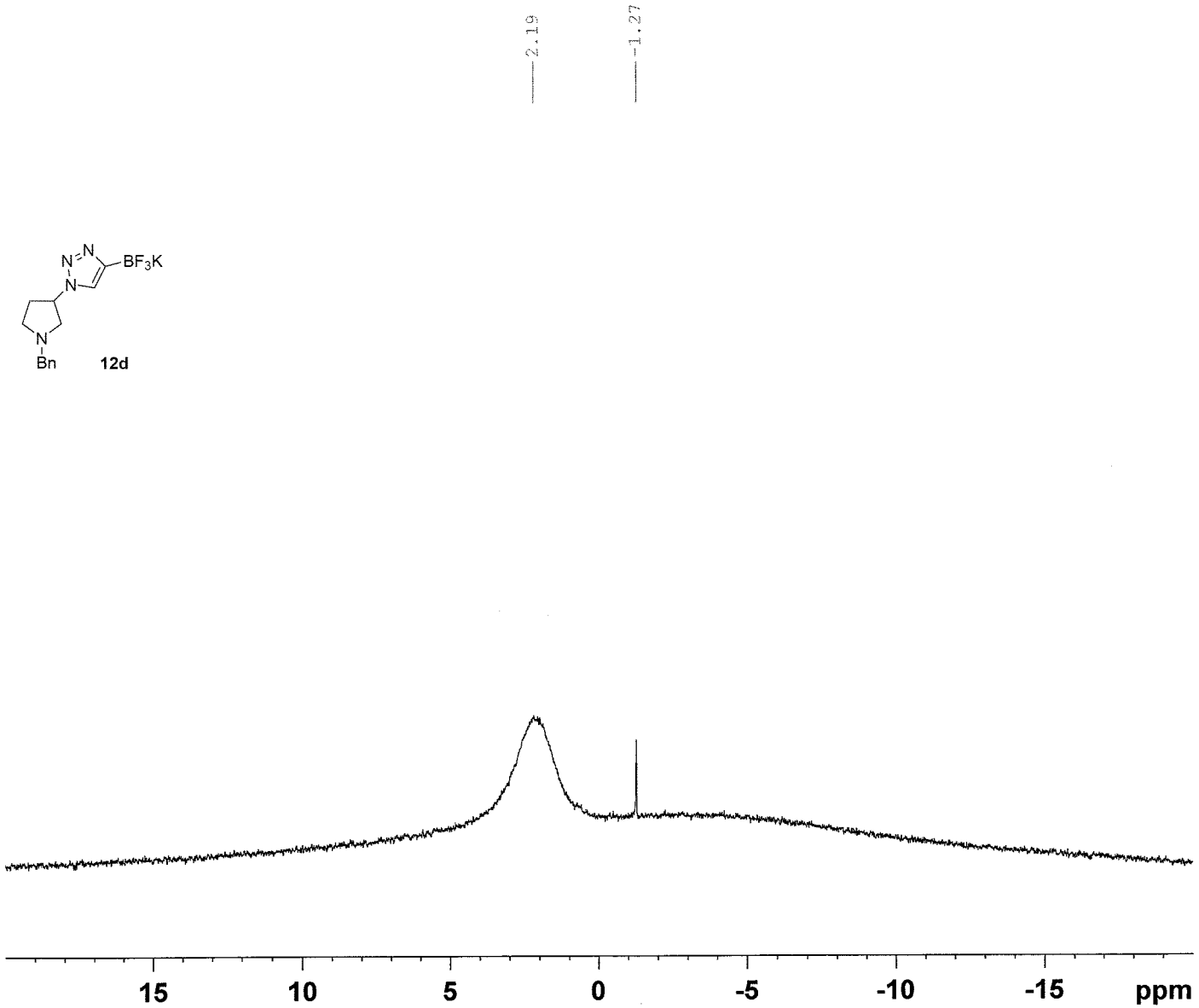
F2 - Acquisition Parameters
Date_                    20120731
Time                        14.38
INSTRUM                     spect
PROBHD    5 mm PABBO BB/
PULPROG                   zgpg30
TD                         65536
SOLVENT                     MeOD
NS                           516
DS                             4
SWH                    24038.461 Hz
FIDRES                 0.366798 Hz
AQ                     1.3631988 sec
RG                        190.62
DW                        20.800 usec
DE                         6.50 usec
TE                        299.2 K
D1                    2.00000000 sec
D11                   0.03000000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                         13C
P1                        10.00 usec
PLW1                52.00000000 W
SFO1               100.6429474 MHz

======== CHANNEL f2 ========
CPDPRG2                  waltz16
NUC2                         1H
PCPD2                     90.00 usec
PLW2                12.00000000 W
PLW12                0.33333001 W
PLW13                0.27000001 W
SFO2               400.2116008 MHz

F2 - Processing parameters
SI                           32768
SF                 100.6328860 MHz
WDW                             EM
SSB       0
LB                        1.00 Hz
GB        0
PC                        1.40
```

12d



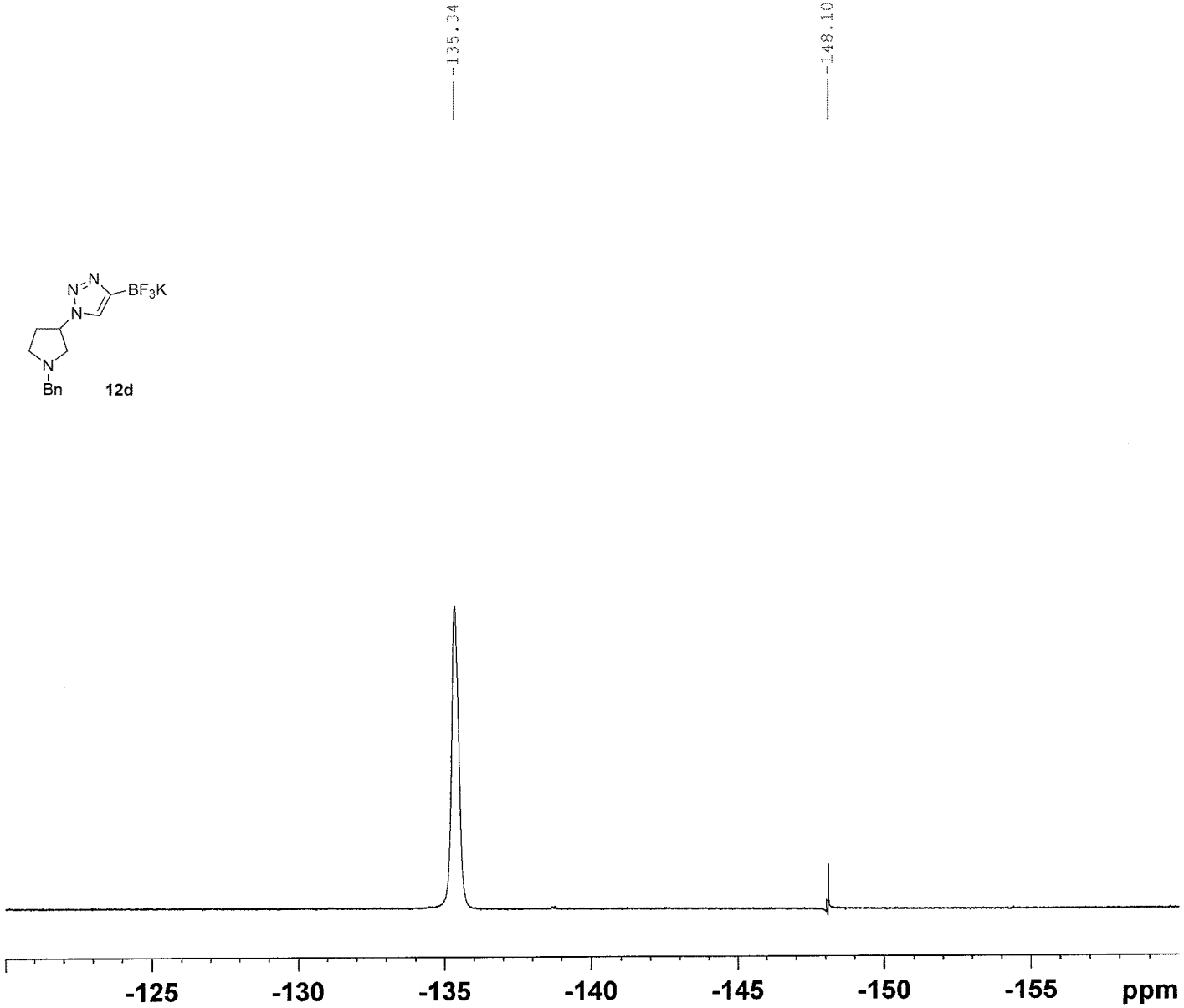

```
Current Data Parameters
NAME      JSH-benzylpyrrolidine BF3K
EXPNO                 3
PROCNO                1

F2 - Acquisition Parameters
Date_          20130502
Time              16.36
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG         zgpg30
TD                65536
SOLVENT             DMSO
NS                    30
DS                     4
SWH           25510.203 Hz
FIDRES         0.389255 Hz
AQ             1.2845556 sec
RG                190.62
DW                19.600 usec
DE                 6.50 usec
TE                299.5 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 11B
P1                15.00 usec
PLW1         34.20000076 W
SFO1        128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2             90.00 usec
PLW2         12.00000000 W
PLW12         0.33333001 W
PLW13         0.27000001 W
SFO2         400.2116008 MHz

F2 - Processing parameters
SI                32768
SF          128.4032720 MHz
WDW                  EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```




```
Current Data Parameters
NAME      JSH-benzylpyrrolidine BF3K
EXPNO                 2
PROCNO                1

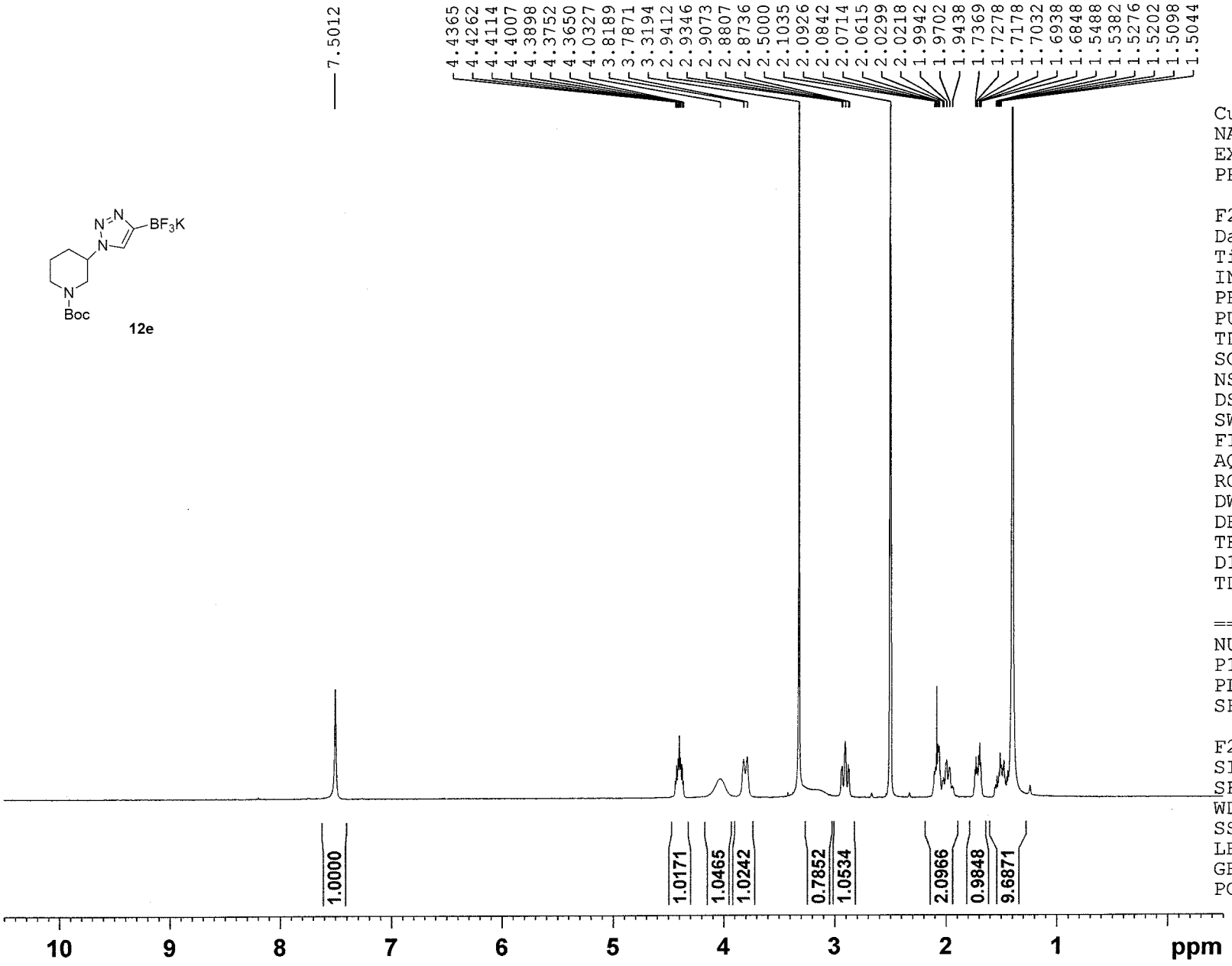
F2 - Acquisition Parameters
Date_          20130502
Time              16.33
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG      zgfhigqn.2
TD             131072
SOLVENT           DMSO
NS                  16
DS                   4
SWH           89285.711 Hz
FIDRES         0.681196 Hz
AQ             0.7340532 sec
RG                190.62
DW                 5.600 usec
DE                 6.50 usec
TE                299.6 K
D1           1.00000000 sec
D11          0.03000000 sec
D12          0.00002000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 19F
P1                15.00 usec
PLW1        17.00000000 W
SFO1        376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2             90.00 usec
PLW2        12.00000000 W
PLW12        0.33333001 W
SFO2        400.2116008 MHz

F2 - Processing parameters
SI                65536
SF          376.5736410 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```

12e

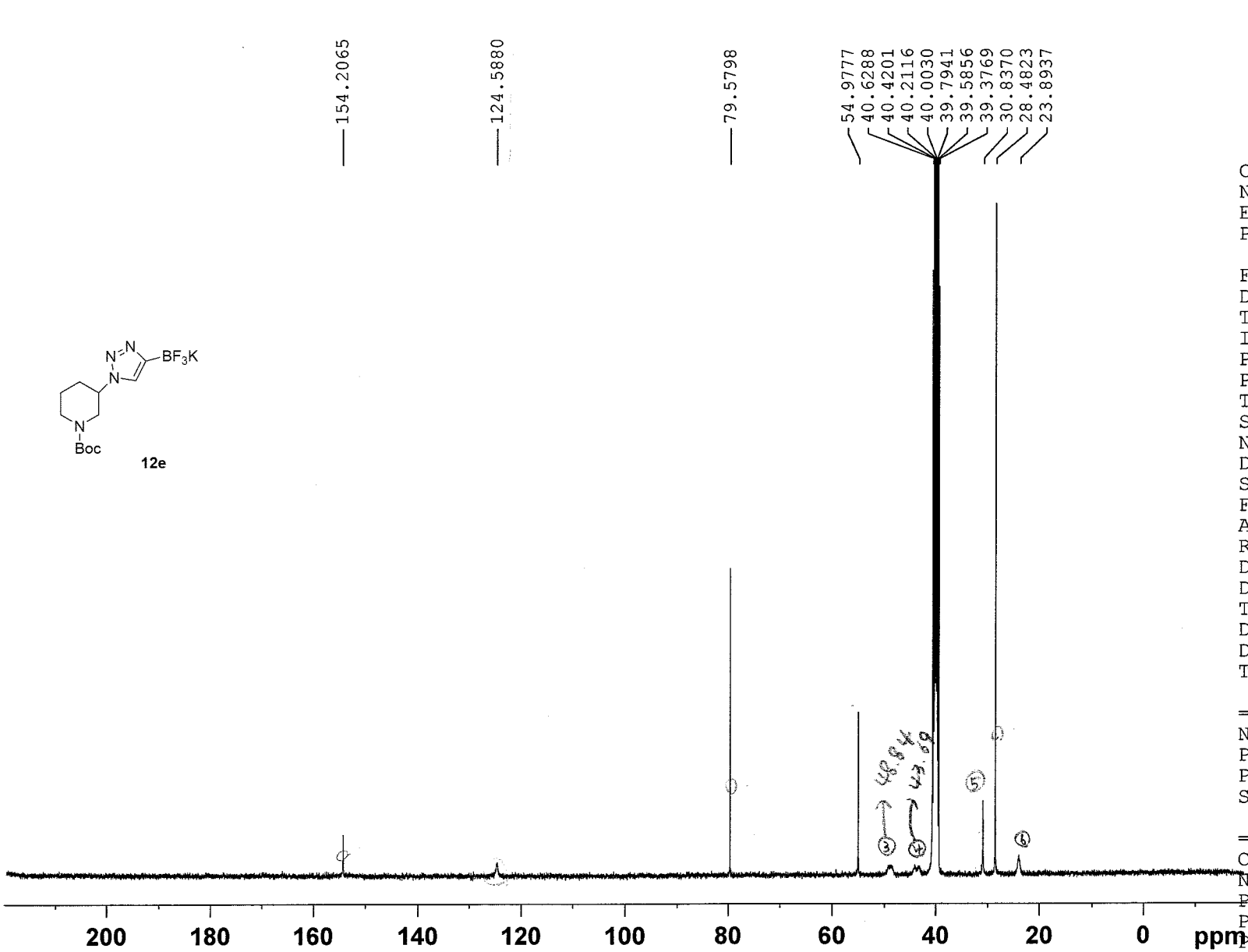


Current Data Parameters
NAME JSH-3-149-p
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20121010
Time 20.35
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 171.62
DW 60.800 usec
DE 6.50 usec
TE 298.9 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100063 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

```
Current Data Parameters
NAME          JSH-3-149-p
EXPNO                   6
PROCNO                  1

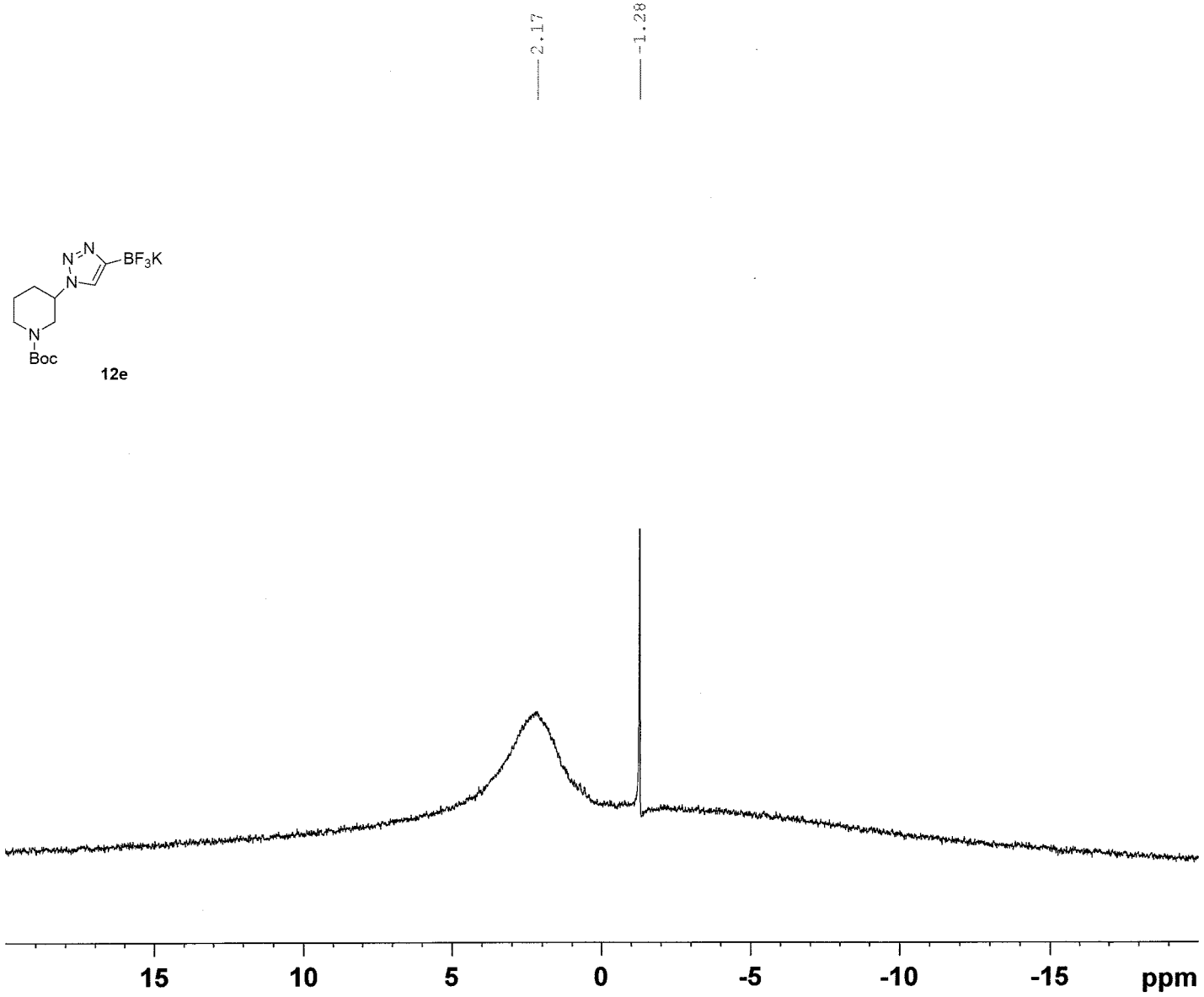
F2 - Acquisition Paramete
Date_            20121010
Time                21.13
INSTRUM             spect
PROBHD    5 mm PABBO BB/
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                 12477
DS                     4
SWH           24038.461 H
FIDRES         0.366798 H
AQ             1.3631988 s
RG                190.62
DW                20.800 u
DE                 6.50 u
TE                299.9 K
D1           2.00000000 s
D11          0.03000000 s
TD0                    1

======== CHANNEL f1 =====
NUC1                  13C
P1                 10.00 u
PLW1        52.00000000 W
SFO1       100.6429474 M

======== CHANNEL f2 =====
CPDPRG2          waltz16
NUC2                  1H
PCPD2              90.00 u
PLW2        12.00000000 W
PLW12        0.33333001 W
PLW13        0.27000001 W
SFO2       400.2116008 M

F2 - Processing parameter
SI                 32768
```

12e




```
Current Data Parameters
NAME      JSH-Boc piperidine BF3K
EXPNO                          3
PROCNO                         1

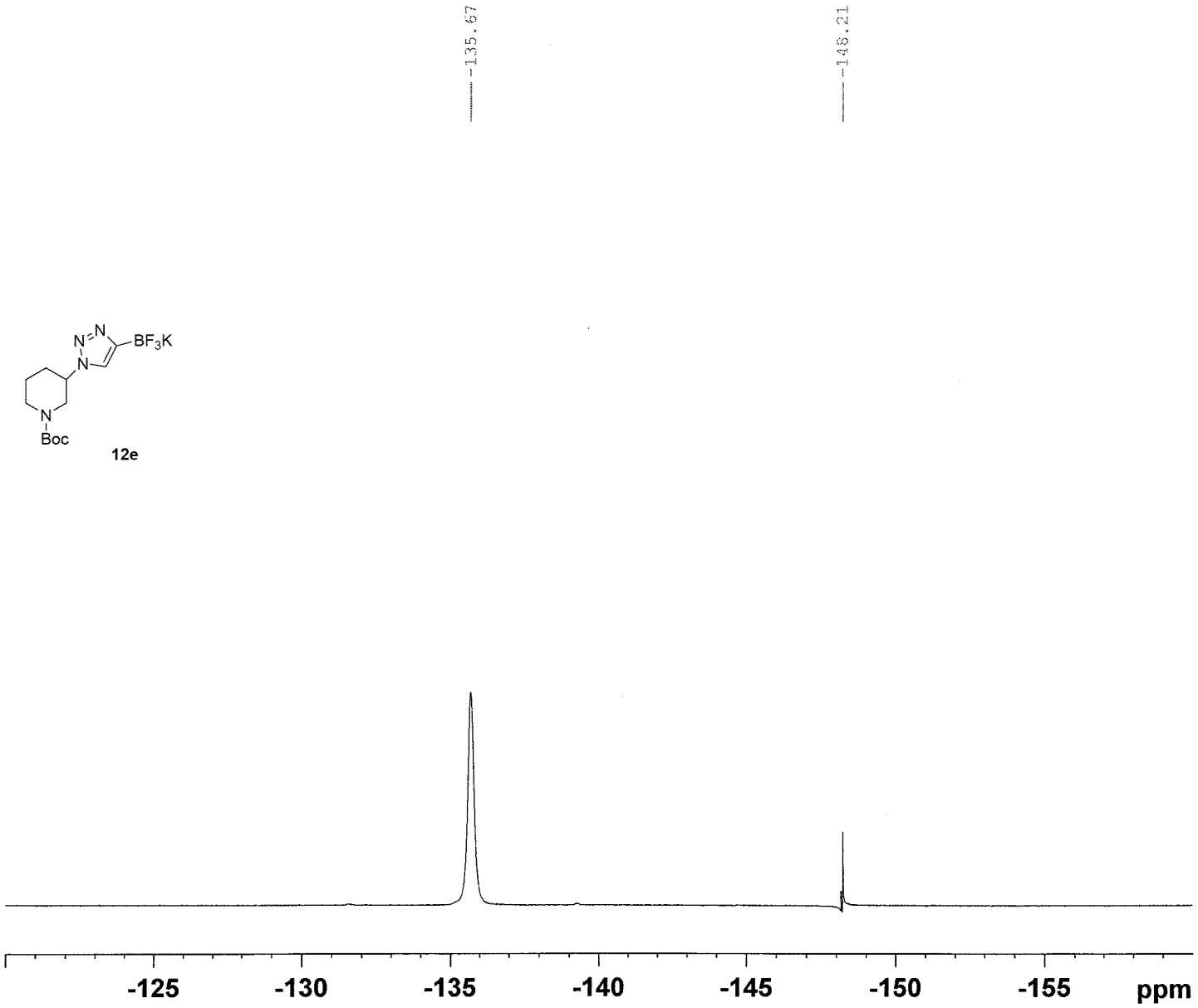
F2 - Acquisition Parameters
Date_                   20130502
Time                       16.55
INSTRUM                    spect
PROBHD   5 mm PABBO BB/
PULPROG                   zgpg30
TD                         65536
SOLVENT                     DMSO
NS                            22
DS                             4
SWH                    25510.203 Hz
FIDRES                  0.389255 Hz
AQ                     1.2845556 sec
RG                        190.62
DW                        19.600 usec
DE                         6.50 usec
TE                        299.4 K
D1                     2.00000000 sec
D11                    0.03000000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                         11B
P1                        15.00 usec
PLW1                34.20000076 W
SFO1               128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2                  waltz16
NUC2                         1H
PCPD2                     90.00 usec
PLW2                12.00000000 W
PLW12                0.33333001 W
PLW13                0.27000001 W
SFO2               400.2116008 MHz

F2 - Processing parameters
SI                         32768
SF                 128.4032720 MHz
WDW                           EM
SSB                0
LB                         1.00 Hz
GB                 0
PC                         1.40
```

12e



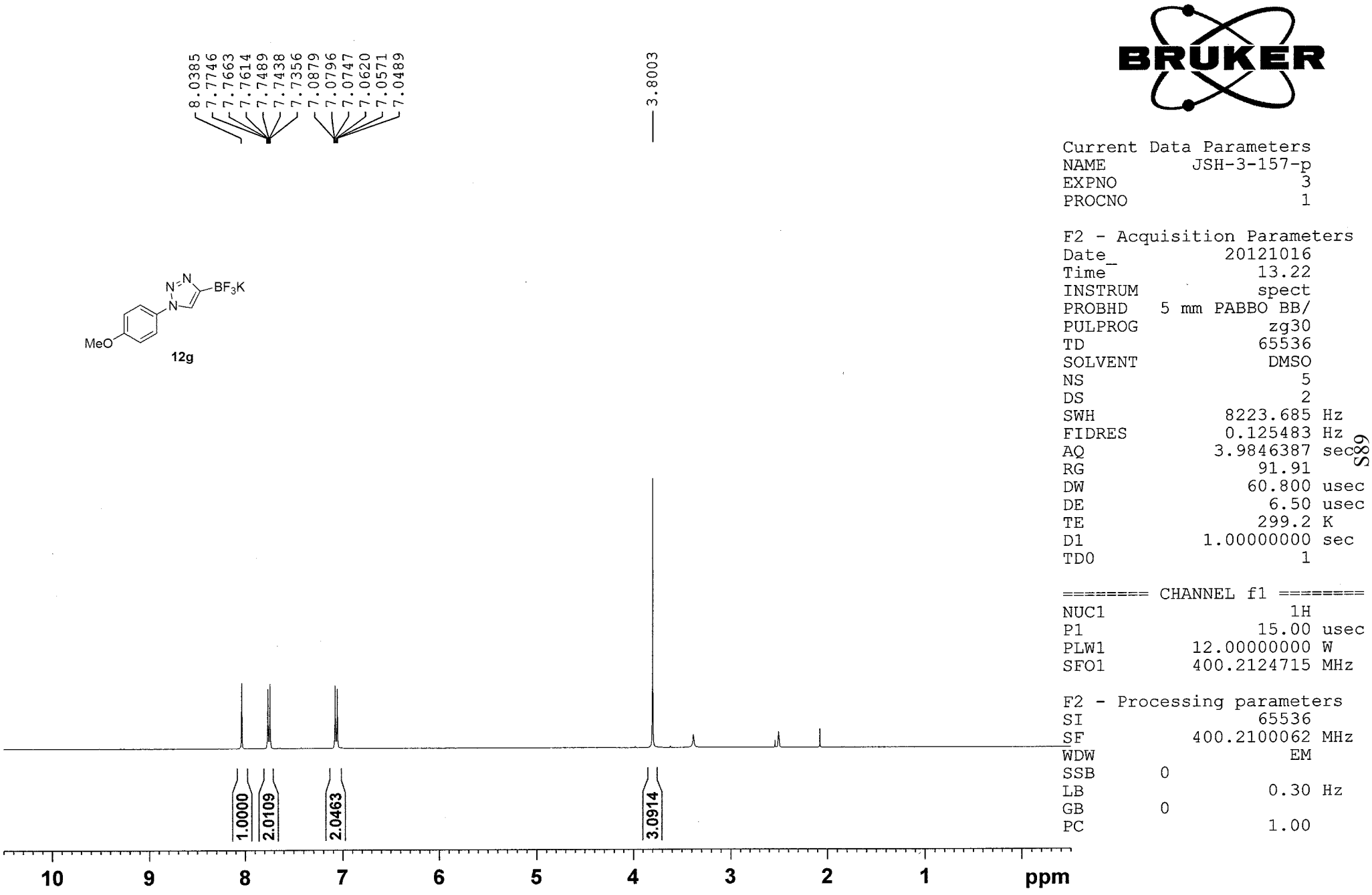

```
Current Data Parameters
NAME      JSH-Boc piperidine BF3K
EXPNO                          2
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20130502
Time                       16.52
INSTRUM                    spect
PROBHD   5 mm PABBO BB/
PULPROG              zgfhigqn.2
TD                        131072
SOLVENT                     DMSO
NS                            16
DS                             4
SWH                    89285.711 Hz
FIDRES                  0.681196 Hz
AQ                      0.7340532 sec
RG                        190.62
DW                         5.600 usec
DE                         6.50 usec
TE                         299.5 K
D1                     1.00000000 sec
D11                    0.03000000 sec
D12                    0.00002000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                         19F
P1                         15.00 usec
PLW1                17.00000000 W
SFO1               376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2                  waltz16
NUC2                         1H
PCPD2                      90.00 usec
PLW2                12.00000000 W
PLW12                0.33333001 W
SFO2               400.2116008 MHz

F2 - Processing parameters
SI                         65536
SF                 376.5736410 MHz
WDW                           EM
SSB       0
LB                         0.30 Hz
GB        0
PC                         1.00
```

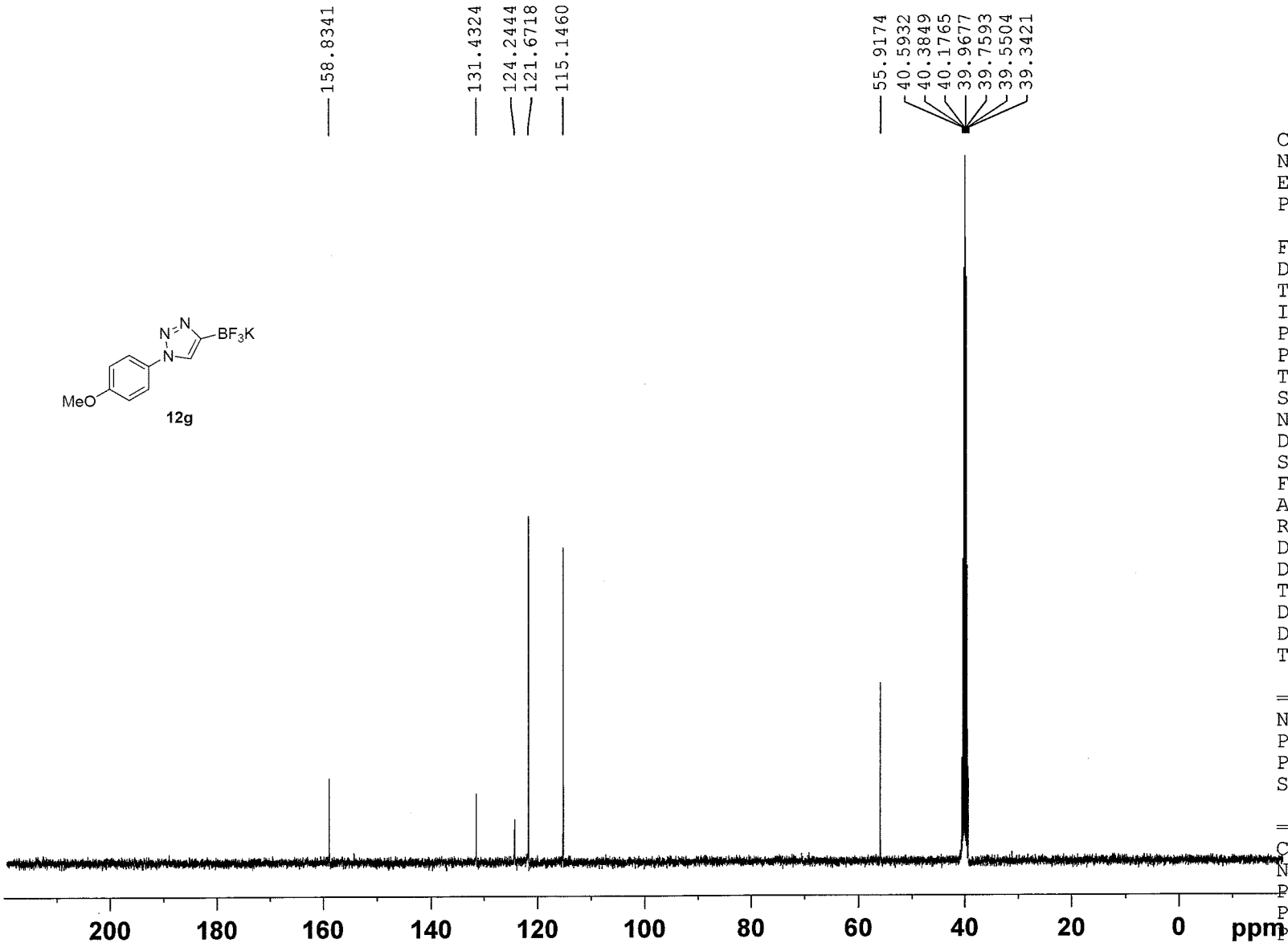


Current Data Parameters
NAME JSH-3-157-p
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20121016
Time 13.22
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 5
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 91.91
DW 60.800 usec
DE 6.50 usec
TE 299.2 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100062 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



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```
Current Data Parameters
NAME          JSH-3-157-p
EXPNO                   4
PROCNO                  1

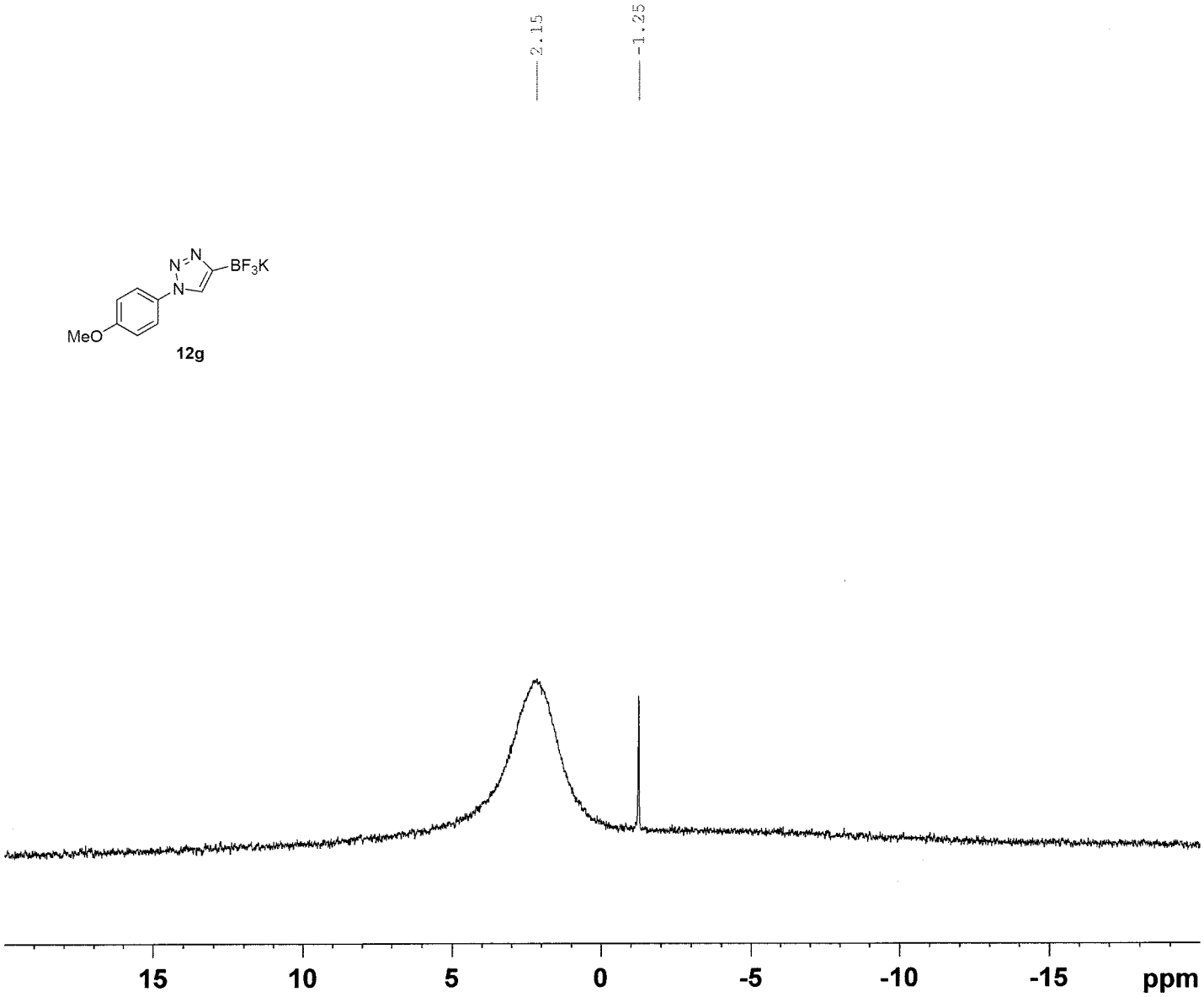
F2 - Acquisition Paramete
Date_            20121016
Time                13.25
INSTRUM             spect
PROBHD   5 mm PABBO BB/
PULPROG           zgpg30
TD                 65536
SOLVENT             DMSO
NS                    70
DS                     4
SWH            24038.461 H
FIDRES           0.366798 H
AQ               1.3631988 s
RG                 190.62
DW                 20.800 u
DE                  6.50 u
TE                 299.9 K
D1           2.00000000 s
D11          0.03000000 s
TD0                    1

======== CHANNEL f1 =====
NUC1                  13C
P1                 10.00 u
PLW1         52.00000000 W
SFO1         100.6429474 M

======== CHANNEL f2 =====
CPDPRG2           waltz16
NUC2                  1H
PCPD2              90.00 u
PLW2         12.00000000 W
PLW12         0.33333001 W
PLW13         0.27000001 W
SFO2         400.2116008 M

F2 - Processing parameter
SI                 32768
```

12g



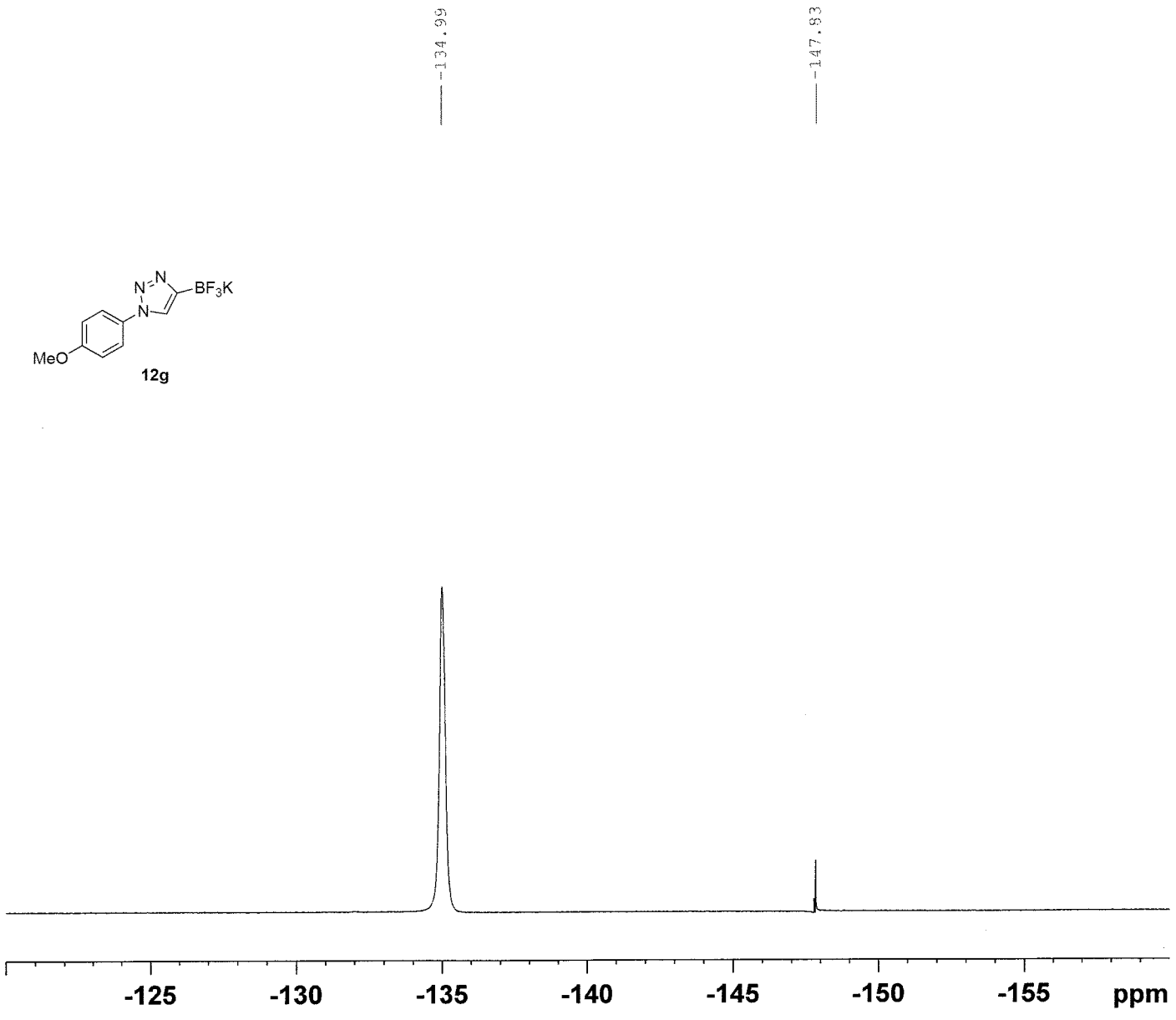

```
Current Data Parameters
NAME      JSH-methoxybenzene BF3K
EXPNO                          1
PROCNO                         1

F2 - Acquisition Parameters
Date_                   20130505
Time                       21.51
INSTRUM                    spect
PROBHD    5 mm PABBO BB/
PULPROG                  zgpg30
TD                        65536
SOLVENT                     DMSO
NS                            11
DS                             4
SWH                  25510.203 Hz
FIDRES                0.389255 Hz
AQ                    1.2845556 sec
RG                       190.62
DW                       19.600 usec
DE                        6.50 usec
TE                       300.4 K
D1                   2.00000000 sec
D11                  0.03000000 sec
TD0                            1

======== CHANNEL f1 ========
NUC1                         11B
P1                        15.00 usec
PLW1                34.20000076 W
SFO1               128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2                  waltz16
NUC2                         1H
PCPD2                     90.00 usec
PLW2                12.00000000 W
PLW12                0.33333001 W
PLW13                0.27000001 W
SFO2               400.2116008 MHz

F2 - Processing parameters
SI                           32768
SF                 128.4032720 MHz
WDW                             EM
SSB       0
LB                        1.00 Hz
GB        0
PC                        1.40
```



Current Data Parameters
NAME JSH-methoxybenzene BF3K
EXPNO 2
PROCNO 1

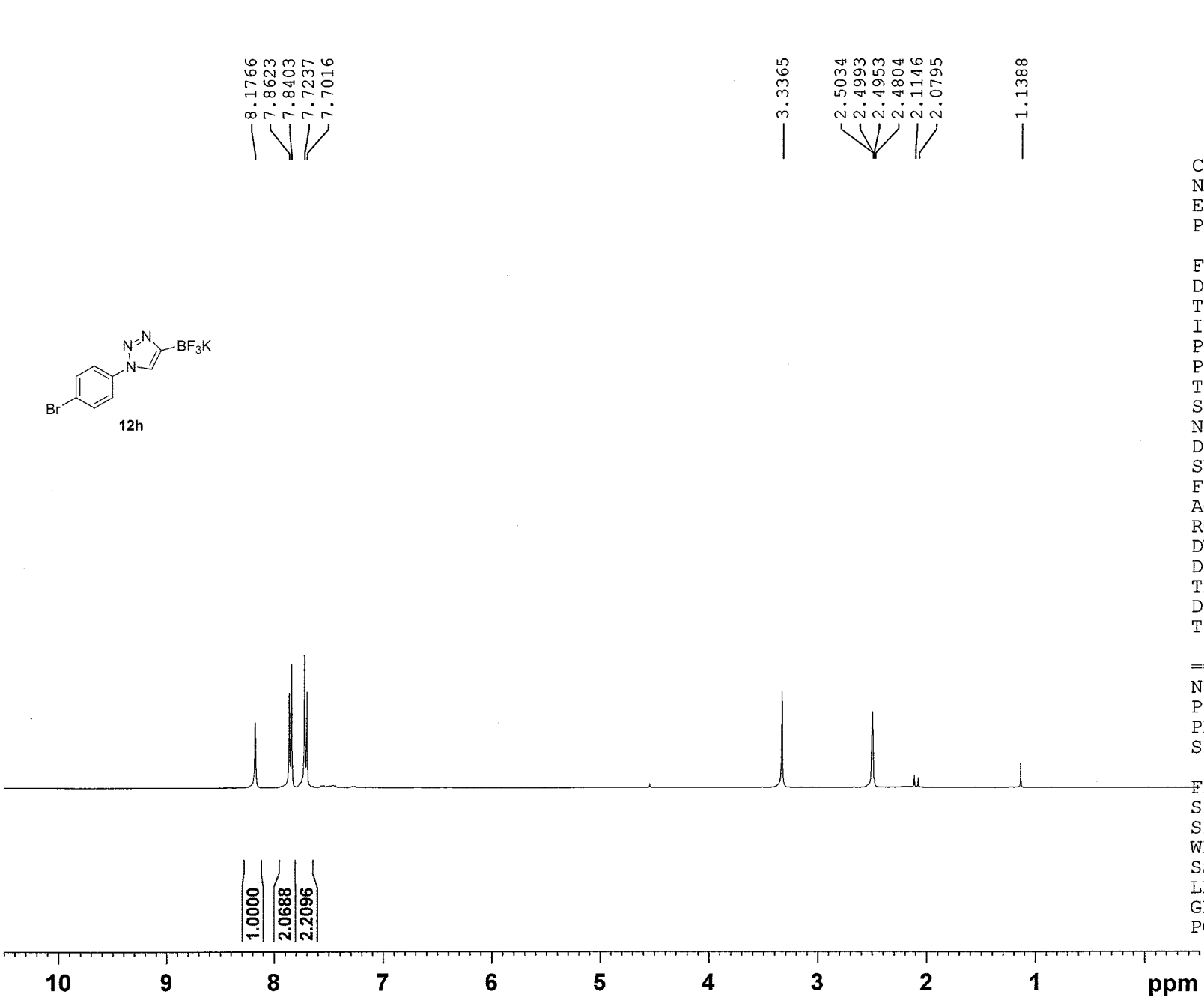
F2 - Acquisition Parameters
Date_ 20130505
Time 21.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgfhigqn.2
TD 131072
SOLVENT DMSO
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340532 sec
RG 190.62
DW 5.600 usec
DE 6.50 usec
TE 300.4 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 19F
P1 15.00 usec
PLW1 17.00000000 W
SFO1 376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 12.00000000 W
PLW12 0.33333001 W
SFO2 400.2116008 MHz

F2 - Processing parameters
SI 65536
SF 376.5736410 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

12h



Current Data Parameters

NAME	JSH-4-1-p
EXPNO	4
PROCNO	1

F2 - Acquisition Parameters

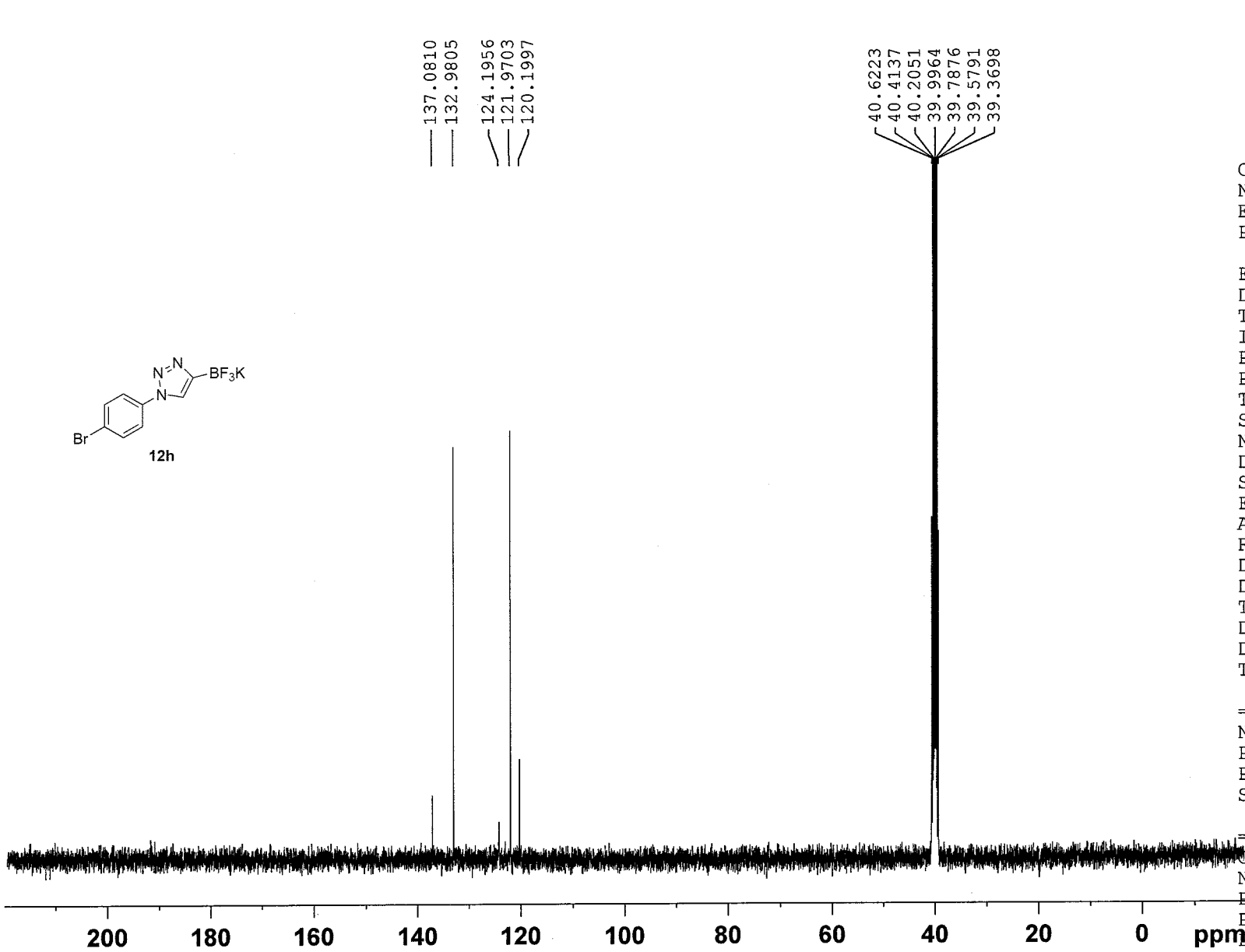
Date_	20130305
Time	11.15
INSTRUM	spect
PROBHD	5 mm PABBO BB/
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	9
DS	2
SWH	8223.685 Hz
FIDRES	0.125483 Hz
AQ	3.9846387 sec
RG	146.31
DW	60.800 usec
DE	6.50 usec
TE	299.0 K
D1	1.00000000 sec
TD0	1

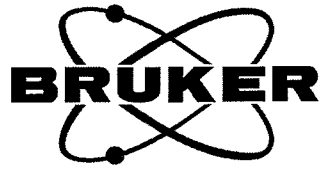
======== CHANNEL f1 ========

NUC1	1H
P1	15.00 usec
PLW1	12.00000000 W
SFO1	400.2124715 MHz

F2 - Processing parameters

SI	65536
SF	400.2100063 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00






```
Current Data Parameters
NAME                  JSH-4-1-p
EXPNO                         5
PROCNO                        1

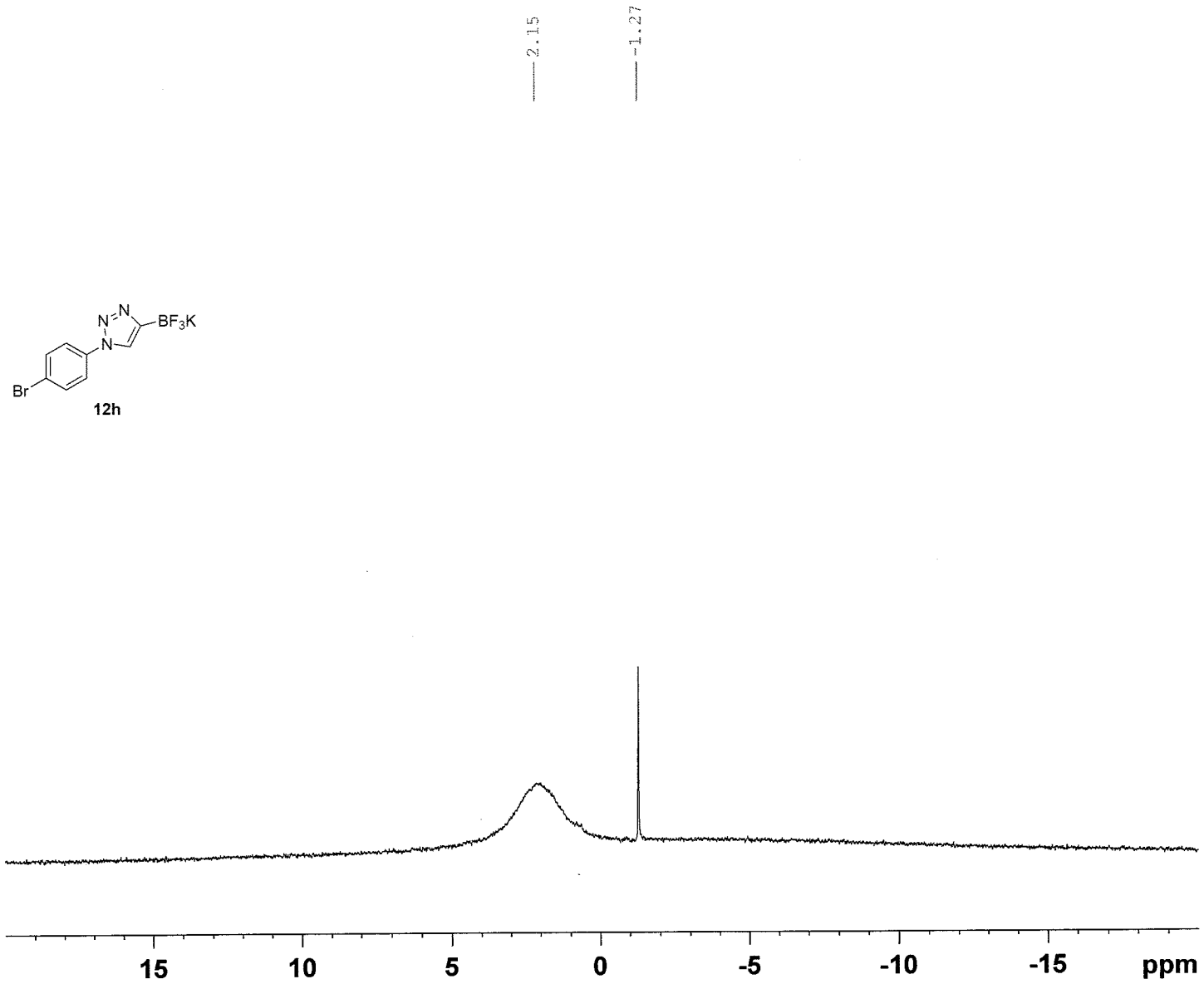
F2 - Acquisition Paramete
Date_                  20130305
Time                      11.16
INSTRUM                   spect
PROBHD    5 mm PABBO BB/
PULPROG                  zgpg30
TD                        65536
SOLVENT                     DMSO
NS                           249
DS                             4
SWH                  24038.461 H
FIDRES                0.366798 H
AQ                   1.3631988 s
RG                       190.62
DW                       20.800 u
DE                        6.50 u
TE                       299.2 K
D1                  2.00000000 s
D11                 0.03000000 s
TD0                           1

======== CHANNEL f1 =====
NUC1                        13C
P1                        10.00 u
PLW1                52.00000000 W
SFO1               100.6429474 M

======== CHANNEL f2 =====
CPDPRG2                 waltz16
NUC2                        1H
PCPD2                     90.00 u
PLW2                12.00000000 W
PLW12                0.33333001 W
PLW13                0.27000001 W
SFO2               400.2116008 M

F2 - Processing parameter
SI                        32768
```

12h




```
Current Data Parameters
NAME      JSH-4-bromophenyl BF3K
EXPNO                        1
PROCNO                       1

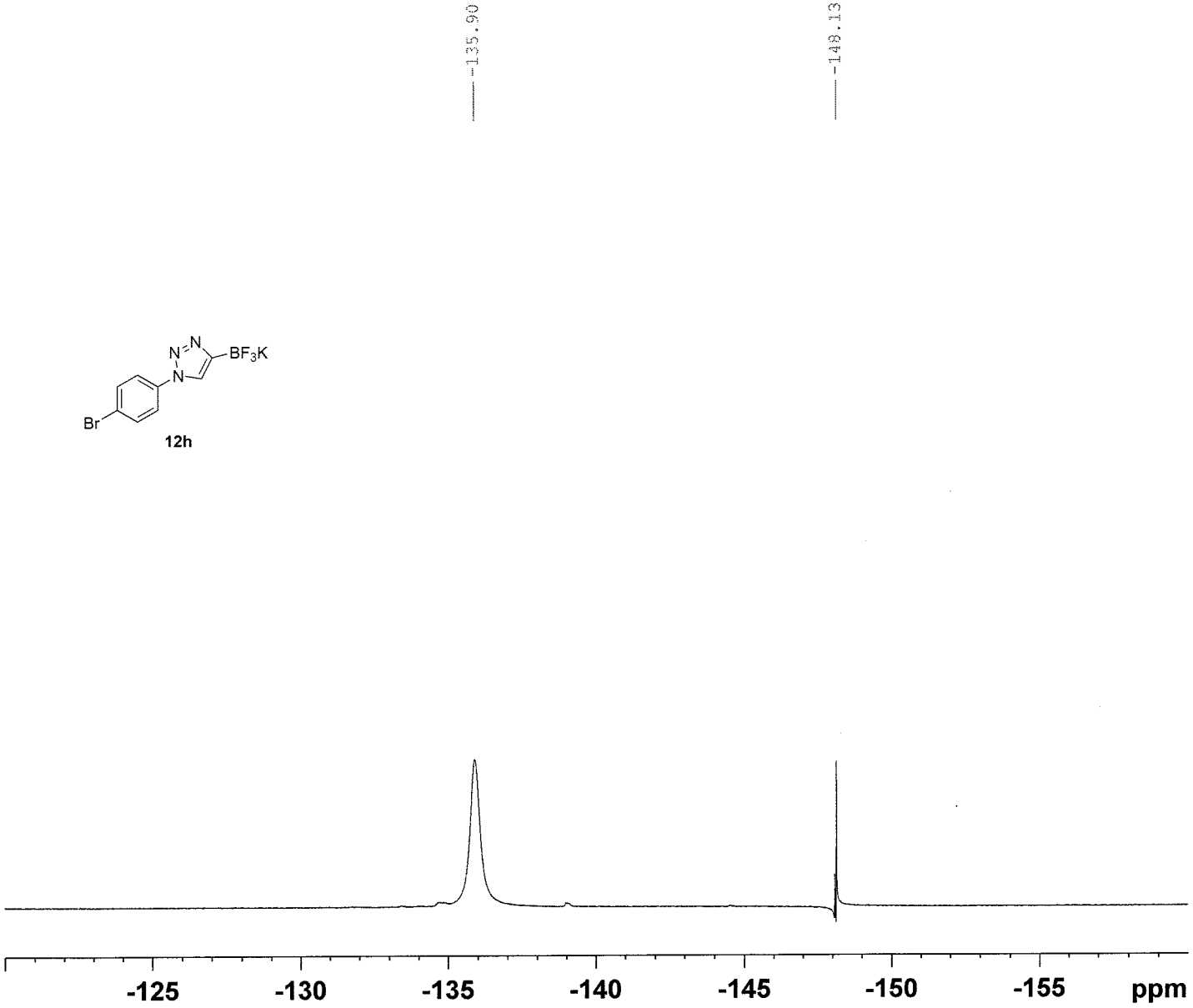
F2 - Acquisition Parameters
Date_              20130501
Time                 22.30
INSTRUM              spect
PROBHD    5 mm PABBO BB/
PULPROG              zgpg30
TD                   65536
SOLVENT                DMSO
NS                        15
DS                         4
SWH                25510.203 Hz
FIDRES             0.389255 Hz
AQ                 1.2845556 sec
RG                    190.62
DW                    19.600 usec
DE                     6.50 usec
TE                    299.7 K
D1              2.00000000 sec
D11             0.03000000 sec
TD0                        1

======== CHANNEL f1 ========
NUC1                     11B
P1                    15.00 usec
PLW1           34.20000076 W
SFO1          128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2             waltz16
NUC2                     1H
PCPD2                 90.00 usec
PLW2           12.00000000 W
PLW12           0.33333001 W
PLW13           0.27000001 W
SFO2          400.2116008 MHz

F2 - Processing parameters
SI                       32768
SF            128.4032720 MHz
WDW                         EM
SSB       0
LB                     1.00 Hz
GB        0
PC                     1.40
```

12h



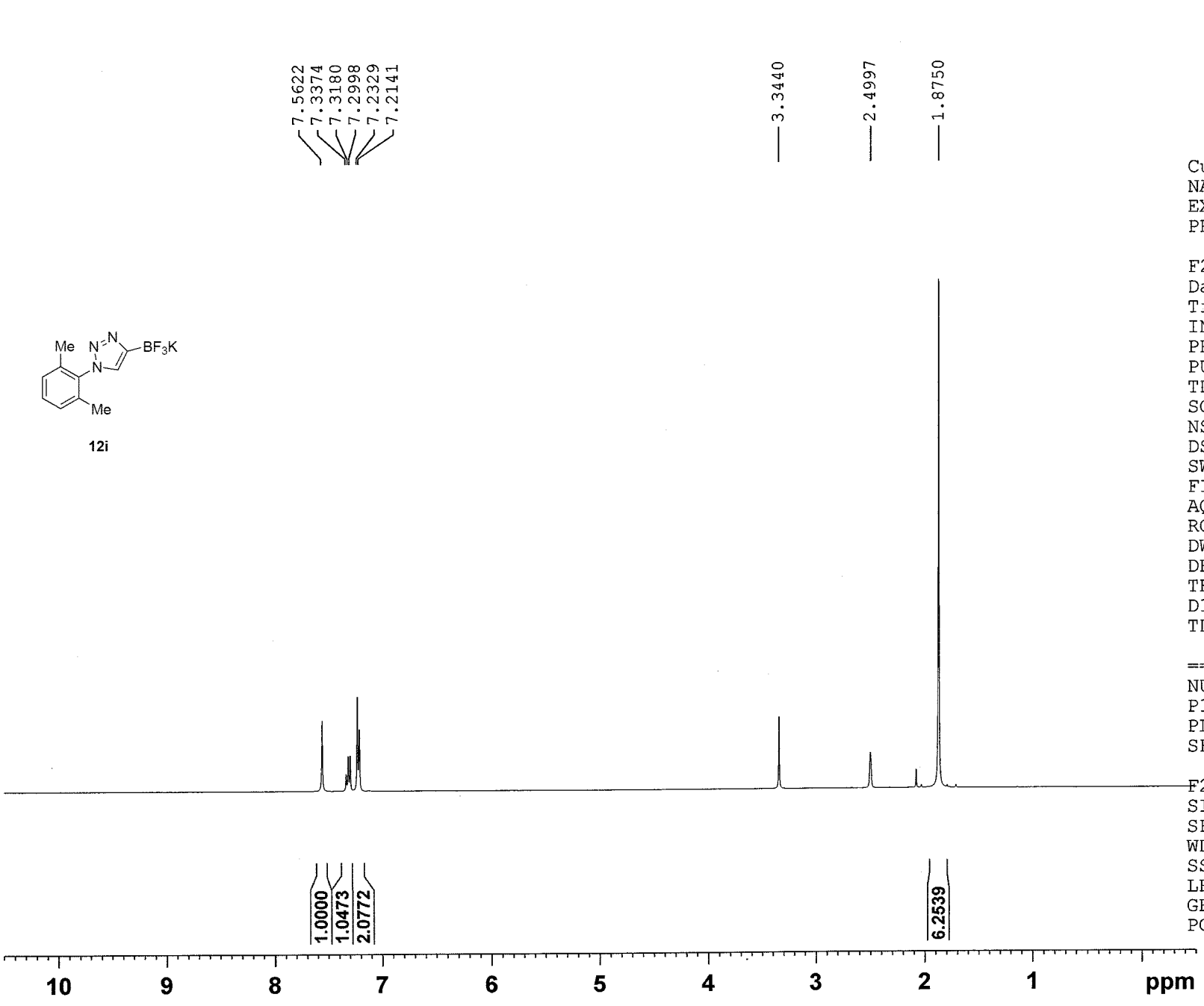

```
Current Data Parameters
NAME      JSH-4-bromophenyl BF3K
EXPNO                         2
PROCNO                        1

F2 - Acquisition Parameters
Date_              20130501
Time                  22.33
INSTRUM               spect
PROBHD    5 mm PABBO BB/
PULPROG       zgfhigqn.2
TD                  131072
SOLVENT               DMSO
NS                      16
DS                       4
SWH               89285.711 Hz
FIDRES             0.681196 Hz
AQ                0.7340532 sec
RG                   190.62
DW                    5.600 usec
DE                     6.50 usec
TE                    299.6 K
D1              1.00000000 sec
D11             0.03000000 sec
D12             0.00002000 sec
TD0                      1

======== CHANNEL f1 ========
NUC1                    19F
P1                   15.00 usec
PLW1          17.00000000 W
SFO1          376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2            waltz16
NUC2                    1H
PCPD2                90.00 usec
PLW2          12.00000000 W
PLW12          0.33333001 W
SFO2          400.2116008 MHz

F2 - Processing parameters
SI                   65536
SF            376.5736410 MHz
WDW                     EM
SSB       0
LB                    0.30 Hz
GB        0
PC                    1.00
```



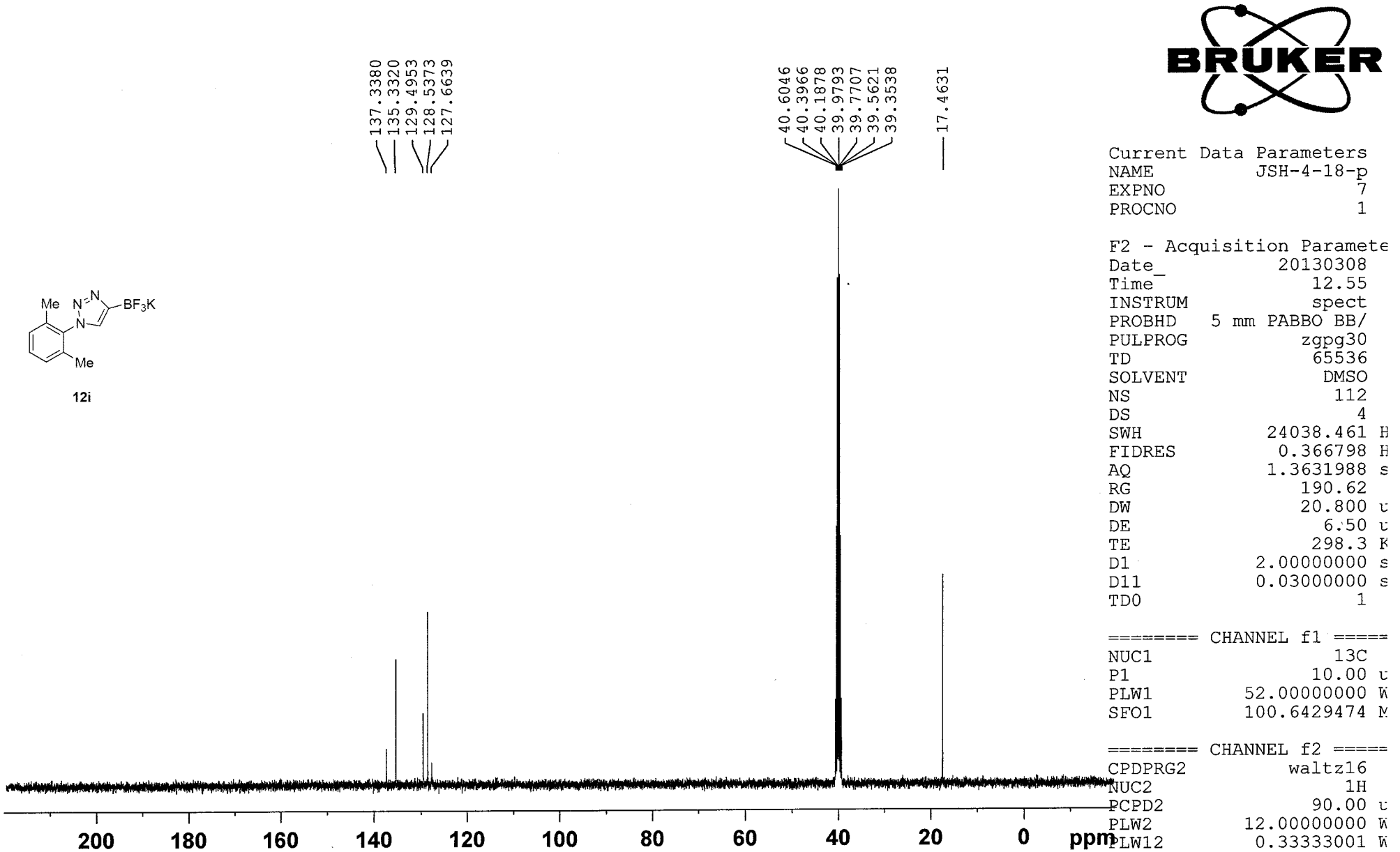
BRUKER

Current Data Parameters
NAME JSH-4-18-p
EXPNO 6
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130308
Time 12.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 11
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 103.95
DW 60.800 usec
DE 6.50 usec
TE 297.9 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
NUC1 1H
P1 15.00 usec
PLW1 12.00000000 W
SFO1 400.2124715 MHz

F2 - Processing parameters
SI 65536
SF 400.2100061 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

```
Current Data Parameters
NAME                  JSH-4-18-p
EXPNO                          7
PROCNO                         1

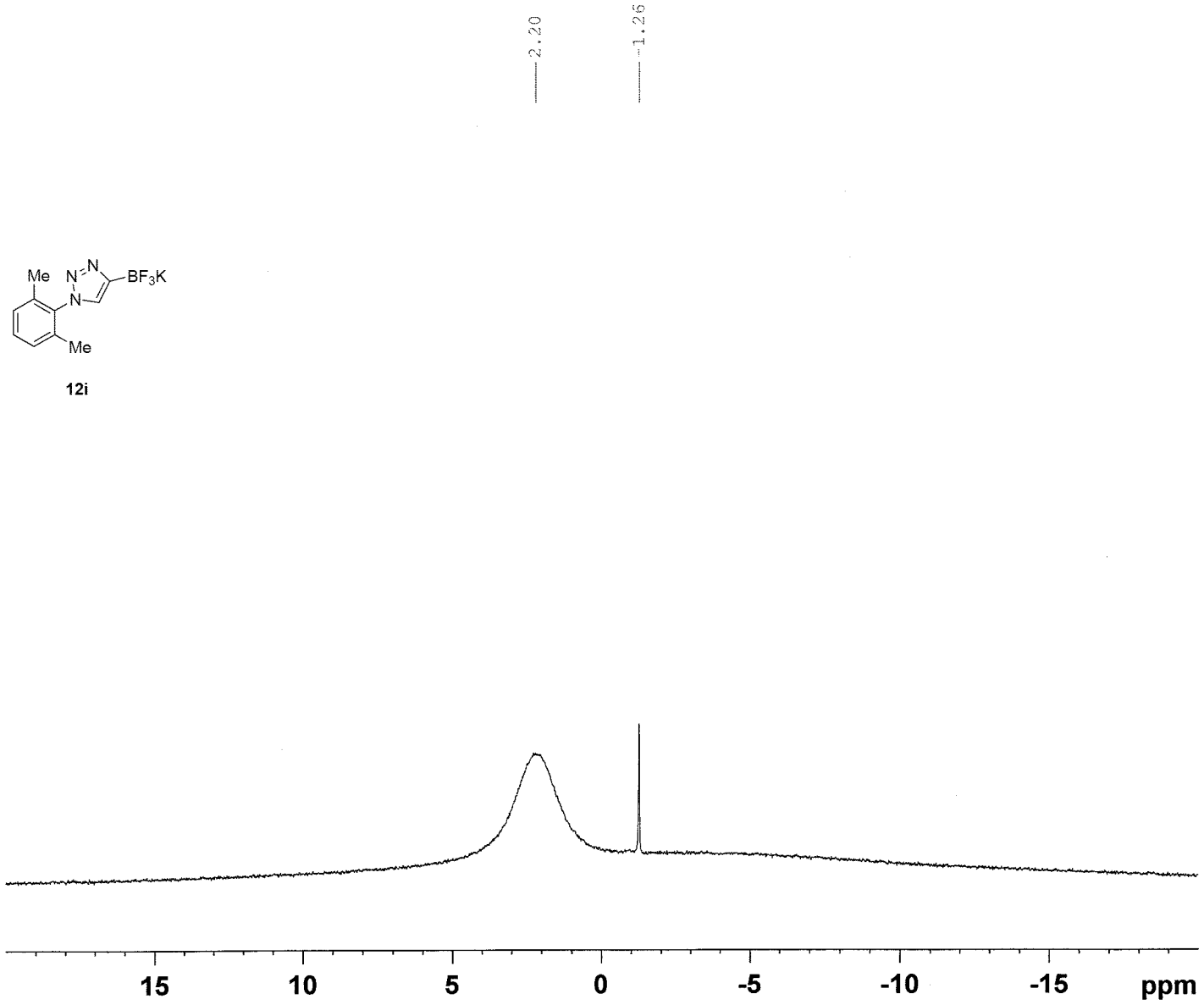
F2 - Acquisition Parameter
Date_                   20130308
Time                       12.55
INSTRUM                    spect
PROBHD    5 mm PABBO BB/
PULPROG                   zgpg30
TD                         65536
SOLVENT                     DMSO
NS                           112
DS                             4
SWH                    24038.461 H
FIDRES                  0.366798 H
AQ                     1.3631988 s
RG                        190.62
DW                        20.800 u
DE                         6.50 u
TE                        298.3 K
D1                    2.00000000 s
D11                   0.03000000 s
TD0                            1

======== CHANNEL f1 =====
NUC1                         13C
P1                         10.00 u
PLW1                52.00000000 W
SFO1                100.6429474 M

======== CHANNEL f2 =====
CPDPRG2                  waltz16
NUC2                         1H
PCPD2                      90.00 u
PLW2                12.00000000 W
PLW12                0.33333001 W
PLW13                0.27000001 W
SFO2                400.2116008 M

F2 - Processing parameter
SI                         32768
```

12i




```
Current Data Parameters
NAME      JSH-2,6-dimethylphenyl BF3K
EXPNO                 1
PROCNO                1

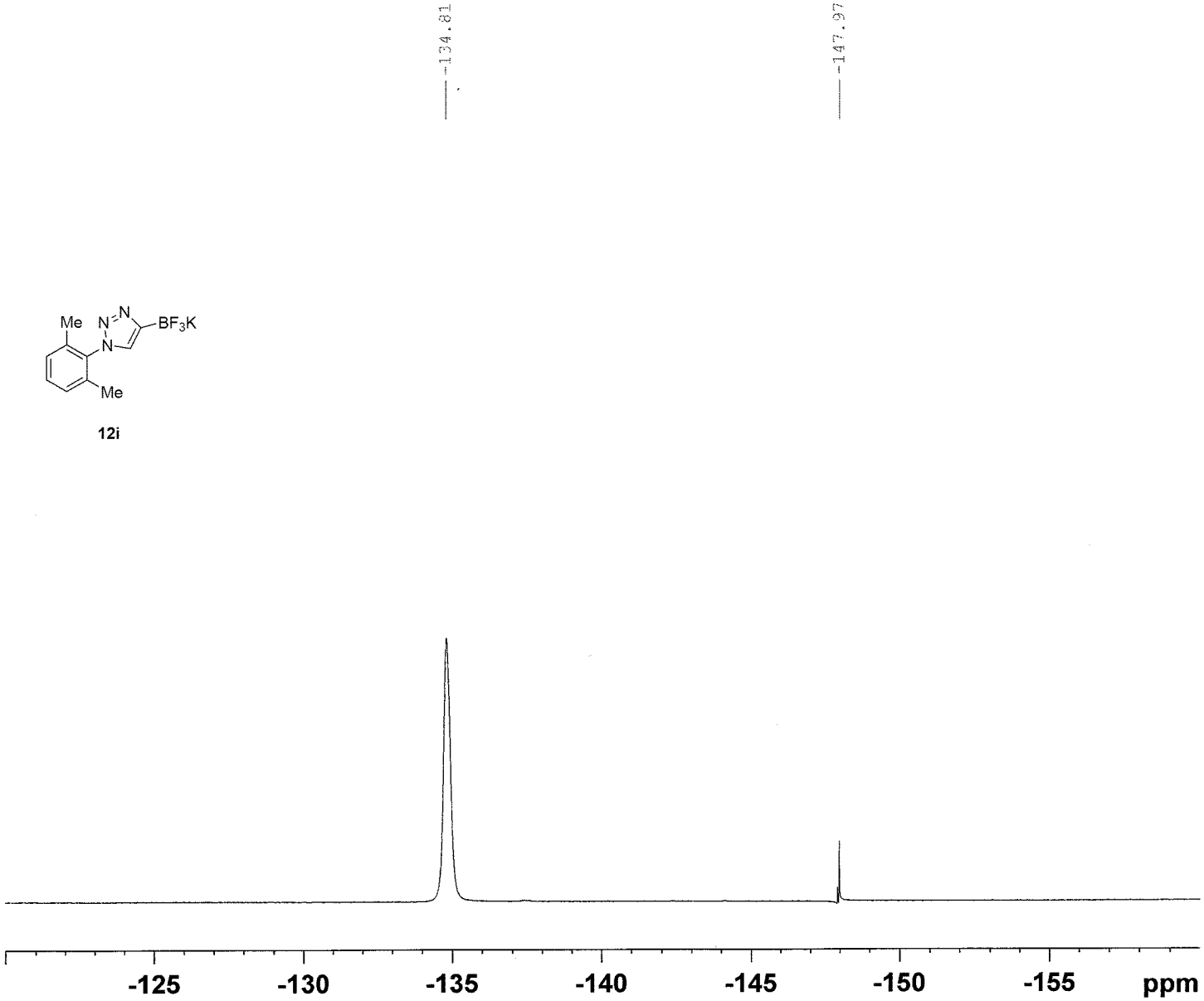
F2 - Acquisition Parameters
Date_          20130504
Time             21.26
INSTRUM          spect
PROBHD   5 mm PABBO BB/
PULPROG         zgpg30
TD              65536
SOLVENT           DMSO
NS                  30
DS                   4
SWH          25510.203 Hz
FIDRES         0.389255 Hz
AQ            1.2845556 sec
RG               190.62
DW               19.600 usec
DE                6.50 usec
TE               300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                11B
P1                15.00 usec
PLW1        34.20000076 W
SFO1        128.4032720 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                1H
PCPD2            90.00 usec
PLW2        12.00000000 W
PLW12        0.33333001 W
PLW13        0.27000001 W
SFO2        400.2116008 MHz

F2 - Processing parameters
SI                32768
SF          128.4032720 MHz
WDW                EM
SSB       0
LB               1.00 Hz
GB        0
PC               1.40
```

12i




```
Current Data Parameters
NAME      JSH-2,6-dimethylphenyl BF3K
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130504
Time              21.29
INSTRUM           spect
PROBHD   5 mm PABBO BB/
PULPROG      zgfhigqn.2
TD              131072
SOLVENT            DMSO
NS                   16
DS                    4
SWH           89285.711 Hz
FIDRES         0.681196 Hz
AQ             0.7340532 sec
RG               190.62
DW                 5.600 usec
DE                 6.50 usec
TE                299.7 K
D1           1.00000000 sec
D11          0.03000000 sec
D12          0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  19F
P1                 15.00 usec
PLW1        17.00000000 W
SFO1        376.5359841 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2              90.00 usec
PLW2        12.00000000 W
PLW12        0.33333001 W
SFO2        400.2116008 MHz

F2 - Processing parameters
SI                 65536
SF          376.5736410 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```