Supporting Information

Tuning the Regioselectivity of Gold-Catalyzed Internal Nitroalkyne Redox: A Cycloisomerization and [3+2]-Cycloaddition Cascade for the Construction of *Spiro*-pseudoindoxyl Skeleton

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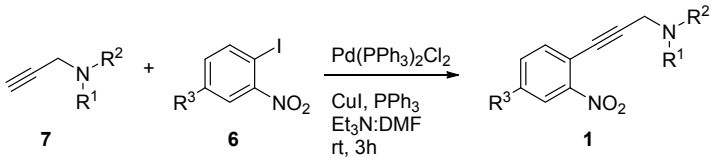
General information: Reactions were carried out in anhydrous solvents under an atmosphere of argon in oven-dried glassware. ^{1}H NMR spectra were recorded on JEOL AL-400 (400 MHz), Bruker AC 200 MHz, Bruker DRX 400 MHz and Bruker DRX 500 MHz spectrometers, and TMS was used as an internal standard of spectrometers. The chemical shifts were reported in parts per million (δ) relative to internal standard TMS (0 ppm) and for $CDCl_3$ (7.25 ppm). The peak patterns are indicated as follows: s, singlet; d, doublet; dd, doublet of doublet; t, triplet; m, multiplet; q, quartet. The coupling constants, *J* are reported in Hertz (Hz). ^{13}C NMR spectra were obtained by JEOL AL-400 (100 MHz), Bruker DRX (125 MHz), Bruker DRX (100 MHz) and Bruker AC (50 MHz) spectrometers and referenced to the internal solvent signals (central peak is 77.0 ppm in $CDCl_3$). $CDCl_3$ was used as a NMR solvent. Mass spectroscopy was carried out on PI QStar Pulsar (Hybrid Quadrupole-TOF LC/MS/MS) and High-resolution mass spectra (HRMS) were recorded on a Thermo Scientific Q-Exactive, Accela 1250 pump, and IR spectra were recorded on FT-IR PerkinElmer spectrometer by neat for oil sample and a $CHCl_3$ solution for solid samples. Column chromatography was performed over silica gel 100–200 mesh. All reagents were weighed and handled in air and backfilled under argon at room temperature. Unless otherwise noted, all reactions were performed under an argon atmosphere. All reagents were purchased from Aldrich and Alfa Easer and used without further purification.

General Procedure A: To a solution of alkyne **7** (1 eq.), *o*-iodonitrobenzene **6** (1.3 eq.) in Et_3N:DMF (2:1), PPh_3 (0.2 eq.) was added. To this, $Pd(PPh_3)_2Cl_2$ (0.05 eq.) was added and the reaction mixture was degassed with argon for 10 min and CuI (0.1 eq.) was added and degassed again and the contents stirred at room temperature for 1–3 h. The reaction mixture was partitioned between ethyl acetate and water and the aqueous layer was extracted with ethyl acetate (2 x 25 mL). Combined ethyl acetate layer was washed with brine, dried over Na_2SO_4, concentrated and the residue obtained was purified by flash silicagel column chromatography to afford the compound **1**.

Scheme SI 1: Synthesis of *o*-nitroalkyne and *o*-nitoenyne carbamates



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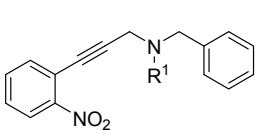
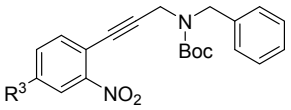
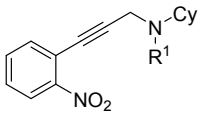


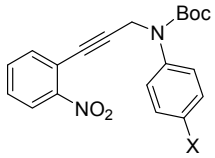
1aa-Ac, R^1 = Ac (79%)
1aa-Boc, R^1 = Boc (83%)
1aa-Ms, R^1 = Ms (72%)
1aa-Ts, R^1 = Ts (69%)



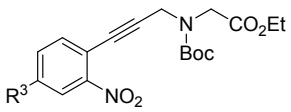
1ba, R^3 = OMe (85%)
1ca-Boc, R^3 = Cl (83%)
1ca-Ac, R^3 = Cl (78%)



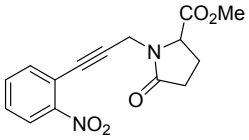
1ab-Ac, R^1 = Ac (71%)
1ab-Boc, R^1 = Boc (78%)



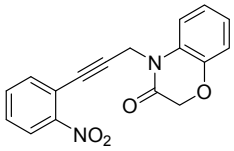
1ac, X = H (74%)
1ad, X = OMe (76%)
1ae, X = F (68%)



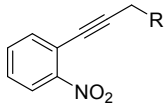
1af, R^3 = H (79%)
1bf, R^3 = OMe (81%)



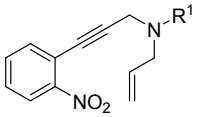
1ag (77%)



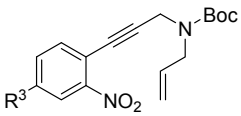
1ah (80%)



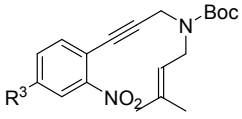
1ai, R = OBn (91%)
1aj, R = $CH(CO_2Et)_2$ (88%)



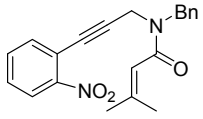
1ak-Ac, R^1 = Ac (84%)
1ak-Boc, R^1 = Boc (87%)
1ak-Ms, R^1 = Ms (74%)
1ak-Ts, R^1 = Ts (77%)



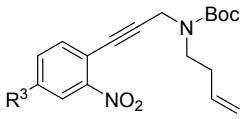
1bk, R^3 = OMe (89%)
1ck, R^3 = Cl (82%)
1dk, R^3 = Me (78%)



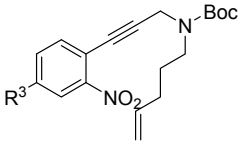
1al, R^3 = H (85%)
1bl, R^3 = OMe (87%)



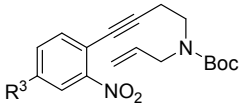
1am (76%)



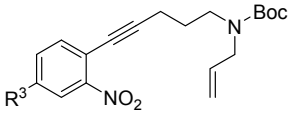
1an, R^3 = H (88%)
1bn, R^3 = OMe (90%)



1ao, R^3 = H (85%)
1bo, R^3 = OMe (89%)



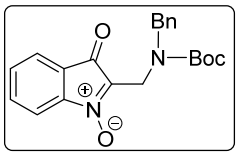
1ap, R^3 = H (86%)
1bp, R^3 = OMe (89%)



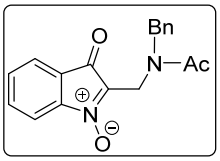
1aq, R^3 = H (85%)
1bq, R^3 = OMe (88%)

General Procedure B: The *o*-nitroalkyne or *o*-nitroenyne carbamate **1** (1 eq.) was dissolved in anhydrous CH_2Cl_2 (4 mL) was added the catalyst $AuCl(PPh_3)$ (10 mol %), and $AgSbF_6$ (20 mol %) at 0 °C and reaction mixture was warmed to room temperature, then allowed to stir for 4 h. After completion, the reaction mixture was concentrated under reduced pressure and the crude was purified by column chromatography (flash silica gel) to procure the isatogen **2** or isoxazolidine **5**.

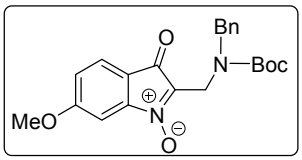
2-((Benzyl(tert-butoxycarbonyl)amino)methyl)-3-oxo-3H-indole 1-oxide (2aa-Boc): Yellow gum; 68%; (R_f = 0.4, 20% AcOEt/pet.ether); ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.47–1.56 (m, 9H), 4.36–4.50 (m, 2H), 4.58 (d, J = 16.9 Hz, 2H), 7.17–7.29 (m, 5H), 7.43–7.58 (m, 4H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 28.3 (q, 3C), 37.5 (t), 51.0 (t), 80.7 (s), 113.8 (d), 121.3 (d), 123.0 (s), 127.1 (d), 128.3 (d, 4C), 131.3 (d), 134.2 (d), 135.0 (s), 137.9 (s), 146.9 (s), 155.3 (s), 185.4 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{21}H_{23}N_2O_4$ (M^++H): 367.1658, found 367.1652.



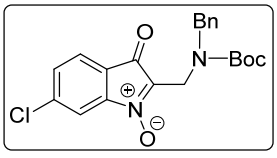
2-((*N*-Benzylacetamido)methyl)-3-oxo-3H-indole 1-oxide (2aa-Ac): Highly viscous yellow oil; 66%; (R_f = 0.3, 40% pet.ether/AcOEt) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 2.21 (s, 3H), 2.51 (s, 3H), 4.50 (s, 2H), 4.54 (s, 2H), 4.67 (s, 2H), 4.77 (s, 2H), 7.11 (t, J = 7.3 Hz, 2H), 7.18–7.39 (m, 8H), 7.48–7.66 (m, 8H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.2, 21.9 (q), 37.8, 38.6 (t), 49.0, 53.7 (t), 113.8, 114.0 (d), 121.5 (d), 122.6, 123.0 (s), 126.3, 126.9 (d), 127.6 (d, 2C), 128.2 (d), 128.8 (d), 131.3, 131.7 (d), 133.9, 134.7 (s), 134.2, 134.4 (d), 136.3, 137.3 (s), 146.7, 146.8 (s), 171.1 (s), 185.2, 185.6 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{17}N_2O_3$ (M^++H):309.1239, found 309.1234.



2-((Benzyl(tert-butoxycarbonyl)amino)methyl)-6-methoxy-3-oxo-3H-indole 1-oxide (2ba): Brown oil; 71%; (R_f = 0.3, 20% AcOEt/pet.ether); ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.38–1.47 (m, 9H), 3.82 (s, 3H), 4.32 (m, 2H), 4.50 (d, J = 18.8 Hz, 2H), 6.80 (d, J = 7.8 Hz, 1H), 7.00 (d, J = 2.3 Hz, 1H), 7.09–7.25 (m, 5H), 7.33 (d, J = 8.2 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.2 (q, 3C), 37.5 (t), 50.9 (t), 56.2 (q), 80.6 (s), 101.2 (d), 115.0 (d), 123.1 (d), 127.0 (d, 2C), 127.6 (s), 128.3 (d, 3C), 135.7 (s), 137.8 (s), 149.5 (s), 155.3 (s), 165.0 (s), 184.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{22}H_{24}N_2O_5Na$ (M^++Na): 419.1583, found 419.1577.

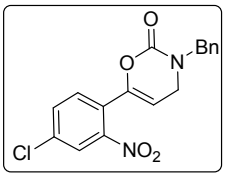


2-((Benzyl(tert-butoxycarbonyl)amino)methyl)-6-chloro-3-oxo-3H-indole 1-oxide (2ca-Boc): Yellow oil; 19%; (R_f = 0.5, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.51 (s, 9H), 4.43 (br. s., 2H), 4.57 (br. s., 2H), 7.07–7.26 (m, 5H), 7.39–7.45 (m, 1H), 7.45–7.55 (m, 2H); ^{13}C NMR (101 MHz, $CDCl_3$):

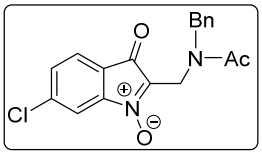


δ 28.3 (q, 3C), 37.6, 38.0 (t), 51.0, 52.0 (t), 80.8 (s), 115.0 (d), 122.3 (d), 127.1 (d), 127.6 (d), 128.3 (d, 3C), 131.2 (d), 135.9 (s), 137.8 (s, 2C), 140.4 (s), 147.8 (s), 155.3 (s), 184.0 (s) ppm; HRMS (ESI^+): calcd. for $C_{21}H_{21}ClN_2O_4Na$ (M^++Na): 423.1088, found 423.1082.

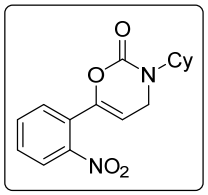
3-Benzyl-6-(4-chloro-2-nitrophenyl)-3,4-dihydro-2H-1,3-oxazin-2-one (4ca): Yellow solid; 51%; (R_f = 0.4, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 4.22 (d, J = 2.1 Hz, 2H), 4.52 (s, 2H), 5.98 (t, J = 2.1 Hz, 1H), 7.24–7.41 (m, 5H), 7.51 (dd, J = 8.5, 2.1 Hz, 1H), 7.87 (d, J = 2.1 Hz, 1H), 8.01 (d, J = 8.6 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 47.8 (t), 48.4 (t), 95.7 (d), 124.5 (d), 126.3 (s), 128.2 (d, 2C), 128.4 (d), 129.0 (d, 2C), 132.0 (d), 132.7 (s), 132.9 (d), 134.3 (s), 145.9 (s), 147.2 (s), 154.5 (s) ppm; HRMS (ESI^+): calcd. for $C_{17}H_{14}ClN_2O_4$ (M^++H): 345.0642, found 345.0637.



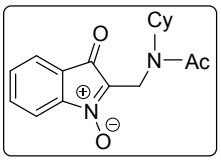
2-((*N*-Benzylacetamido)methyl)-6-chloro-3-oxo-3H-indole 1-oxide (2ca-Ac): Brown gum; 64%; (R_f = 0.5, 50% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (400 MHz, $CDCl_3$): δ 2.18 (s, 3H), 2.47 (s, 2.4H), 4.47 (s, 1.5H), 4.48 (s, 2H), 4.62 (s, 1.5H), 4.73 (s, 2H), 6.96 (t, J = 7.4 Hz, 1H), 7.07 (t, J = 7.6 Hz, 1.7H), 7.15–7.25 (m, 4.7H), 7.27–7.34 (m, 2.4H), 7.9 (d, J = 7.7Hz, 1H), 7.42–7.54 (m, 4.5H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.1, 21.8 (q), 37.9, 38.7 (t), 49.1, 53.7 (t), 114.9, 115.1 (d), 120.9, 121.3 (s), 122.4, 122.5 (d), 126.3, 126.9 (d, 2C), 127.5, 127.7 (d), 128.1, 128.8 (d, 2C), 131.2, 131.5 (d), 134.7, 135.6, 136.2 (s), 137.3 (s), 140.4, 140.6 (s), 147.5, 147.7 (s), 171.0, 171.1 (s), 183.7, 184.2 (s) ppm; HRMS (ESI^+): calcd. for $C_{18}H_{16}ClN_2O_3$ (M^++H): 343.0849, found 343.0844.



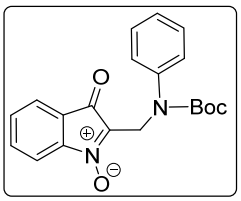
3-Cyclohexyl-6-(2-nitrophenyl)-3,4-dihydro-2H-1,3-oxazin-2-one (4ab): Yellow gum; 68%; (R_f = 0.4, 20% AcOEt/pet.ether); ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.34–1.40 (m, 6H), 1.80–1.86 (m, 4H), 3.72–3.78 (m, 1H), 4.33 (d, J = 2.3 Hz, 2H), 6.06 (t, J = 2.1 Hz, 1H), 7.27–7.33 (m, 1H), 7.50–7.55 (m, 2H), 7.86 (dd, J = 8.2, 1.4 Hz, 1H), 8.00–8.04 (m, 1H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 25.0 (t), 25.1 (t, 2C), 30.1 (t, 2C), 45.3 (t), 52.6 (d), 96.2 (d), 121.4 (s), 124.3 (d), 127.1 (d), 127.9 (s), 130.9 (d), 132.8 (d), 146.0 (s), 154.0 (s) ppm; HRMS (ESI^+): calcd. for $C_{16}H_{19}N_2O_4$ (M^++H): 303.1345, found 303.1339.



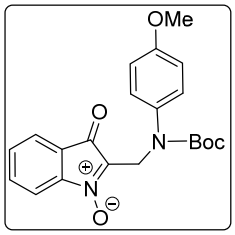
2-((*N*-Cyclohexylacetamido)methyl)-3-oxo-3H-indole 1-oxide (2ab-Ac): Yellow gum; 67%; (R_f = 0.5, 40% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.17–1.38 (m, 3.8H), 1.39–1.52 (m, 2H), 1.61 (d, J = 13.5 Hz, 2.8H), 1.82 (t, J = 9.9 Hz, 4H), 2.11 (s, 3H), 2.28 (s, 1H), 3.49–3.68 (m, 1H), 4.40 (s, 2H), 7.44–7.57 (m, 4H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.3, 22.8 (q), 25.0, 25.7 (t, 3C), 29.9, 31.1 (t, 2C), 34.4, 36.6 (t), 53.8, 58.1 (d), 113.4, 114.0 (d), 121.3, 121.7 (d), 122.6, 123.0 (s), 130.9, 131.7 (d), 134.1, 134.5 (d), 135.3 (s), 146.5, 146.6 (s), 170.5, 170.9 (s), 184.7, 185.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{17}H_{21}N_2O_3$ (M^++H): 301.1552, found 301.1547.



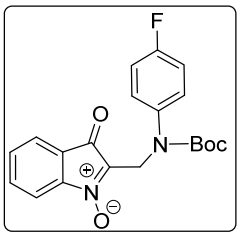
2-(((*Tert*-butoxycarbonyl)(phenyl)amino)methyl)-3-oxo-3H-indole 1-oxide (2ac): Yellow oil; 58%; (R_f = 0.5, 20% AcOEt/pet.ether); ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.43 (s, 9H), 4.89 (s, 2H), 7.17 (td, J = 5.7, 2.7 Hz, 1H), 7.28–7.34 (m, 4H), 7.49–7.67 (m, 4H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.2 (q, 3C), 42.2 (t), 81.0 (s), 113.8 (d), 121.6 (d), 123.0 (s), 126.4 (d), 126.7 (d, 2C), 128.7 (d, 2C), 131.4 (d), 134.3 (d), 134.6 (s), 142.1 (s), 146.8 (s), 154.3 (s), 185.2 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{20}N_2O_4Na$ (M^++ Na): 375.1321, found 375.1315.



2-(((*Tert*-butoxycarbonyl)(4-methoxyphenyl)amino)methyl)-3-oxo-3H-indole 1-oxide (2ad): Brown oil; 43%; (R_f = 0.3, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.42 (s, 9H), 3.75 (s, 3H), 4.84 (s, 2H), 6.75–6.84 (m, 2H), 7.21 (d, J = 8.6 Hz, 2H), 7.50–7.64 (m, 4H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 28.2 (q, 3C), 42.2 (t), 55.3 (q), 80.8 (s), 113.8 (d), 113.9 (d), 121.5 (d), 123.1 (s), 128.0 (d, 3C), 131.4 (d), 134.3 (d), 134.6 (s), 135.0 (s), 146.9 (s), 154.6 (s), 157.9 (s), 185.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{21}H_{22}N_2O_5Na$ (M^++Na): 405.1426, found 405.1421.

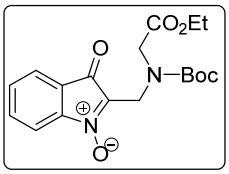


2-(((*Tert*-butoxycarbonyl)(4-fluorophenyl)amino)methyl)-3-oxo-3H-indole 1-oxide (2ae): Yellow gum; 47%; (R_f = 0.4, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.42 (s, 9H), 4.84 (s, 2H), 6.92–7.03 (m, 2H), 7.24–7.33 (m, 2H), 7.51–7.66 (m, 4H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.2 (q, 3C), 42.1 (t), 81.2 (s), 113.9 (d), 115.4 (d), 115.6 (d), 121.6 (d), 123.0 (s), 128.6 (d), 128.7 (d), 131.5 (d), 134.4 (d), 138.0 (s), 146.8 (s), 154.2 (s), 159.7 (s), 162.1 (s),

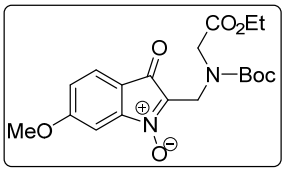


185.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{19}FN_2O_4Na$ (M^++ Na): 393.1227, found 393.1221.

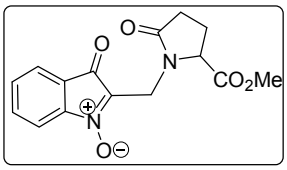
2-(((*Tert*-butoxycarbonyl)(2-ethoxy-2-oxoethyl)amino)methyl)-3-oxo-3H-indole 1-oxide (2af): Highly viscous yellow oil; 69%; (R_f = 0.4, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.16–1.24 (m, 3H), 1.40–1.48 (m, 9H), 4.09–4.20 (m, 4H), 4.51 (d, J = 5.7 Hz, 2H), 7.55–7.70 (m, 4H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 14.1 (q), 28.2 (q, 3C), 38.7 (t), 50.0 (t), 61.0 (t), 81.3 (s), 112.6 (s), 114.1 (d), 121.6 (d), 131.6 (d), 134.4 (d), 134.8 (s), 147.1 (s), 170.0 (s, 2C), 185.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{22}N_2O_6Na$ (M^++Na): 385.1376, found 385.1370.



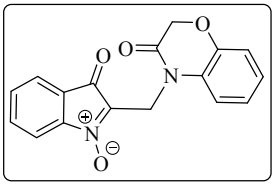
2-(((*Tert*-butoxycarbonyl)(2-ethoxy-2-oxoethyl)amino)methyl)-6-methoxy-3-oxo-3H-indole 1-oxide (2bf): Brown oil; 71%; (R_f = 0.3, 20% AcOEt/pet.ether); ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.18–1.23 (m, 3H), 1.38–1.48 (m, 9H), 3.87–3.95 (m, 3H), 4.01–4.21 (m, 4H), 4.39–4.54 (m, 2H), 6.86–6.99 (m, 1H), 7.14 (dd, J = 2.9, 5.9 Hz, 1H), 7.43–7.54 (m, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 13.9, 14.0 (q), 28.0, 28.1 (q, 3C), 38.7, 38.8 (t), 49.8, 50.6 (t), 56.2 (q), 60.2, 60.9 (t), 80.8, 81.2 (s), 101.5 (d), 101.5 (s), 115.1, 115.2 (d), 123.4, 123.4 (d), 135.3, 135.4 (s), 149.7 (s), 154.6, 154.9 (s), 165.1, 165.1 (s), 169.9, 169.9 (s), 184.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{25}N_2O_7$ (M^++H): 393.1662, found 393.1656



(R)-2-((2-(Methoxycarbonyl)-5-oxopyrrolidin-1-yl)methyl)-3-oxo-3H-indole 1-oxide (2ag): Brown gum; 56%; (R_f = 0.4, 40% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 2.07–2.15 (m, 1H), 2.31–2.48 (m, 3H), 3.76 (s, 3H), 4.23 (d, J = 16.0 Hz, 1H), 4.31–4.44 (m, 1H), 4.88 (d, J = 16.2 Hz, 1H), 7.54–7.68 (m, 4H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 23.0 (t), 28.7 (t), 33.1 (t), 52.6 (q), 60.3 (d), 114.0 (d), 121.8 (d), 123.0 (s), 131.7 (d), 133.4 (s), 134.5 (d), 154.0 (s), 172.1 (s), 175.1 (s), 185.2 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{15}H_{15}N_2O_5$ (M^++H): 303.0981, found 303.0975.

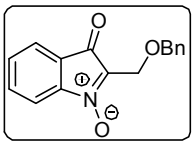


3-Oxo-2-((3-oxo-2,3-dihydro-4H-benzo[b][1,4]oxazin-4-yl)methyl)-3H-indole 1-oxide (2ah): Brown oil; 61%; (R_f = 0.4, 40% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 4.68–4.76 (m, 2H), 5.23 (s, 2H), 6.97 (s, 4H), 7.50–7.58 (m, 2H), 7.58–7.73 (m, 2H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 32.7 (t), 67.4 (t),

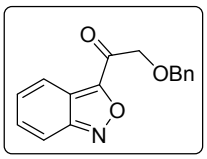


114.0 (d), 114.4 (d), 117.2 (d), 121.8 (d), 122.9 (d), 122.9 (s), 124.2 (d), 128.0 (s), 131.8 (d), 132.6 (s), 134.6 (d), 145.2 (s), 146.7 (s), 164.7 (s), 184.7 (s) ppm; HRMS (ESI^+): calcd. for $C_{17}H_{13}N_2O_4$ (M^++H): 309.0875, found 309.0870.

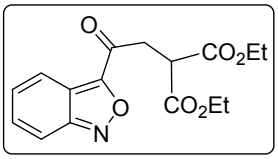
2-((Benzyloxy)methyl)-3-oxo-3H-indole 1-oxide (2ai): Yellow oil; 31%; (R_f = 0.3, 10% AcOEt/pet.ether); ^1H NMR (400 MHz, $CDCl_3$): δ 4.56 (s, 2H), 4.63 (s, 2H), 7.19–7.39 (m, 5H), 7.53–7.69 (m, 4H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 56.9 (t), 73.6 (t), 114.3 (d), 121.6 (d), 123.0 (s), 127.7 (d, 2C), 127.8 (d), 128.3 (d, 2C), 131.8 (d), 134.4 (d), 134.9 (s), 137.6 (s), 147.1 (s), 185.9 (s) ppm; HRMS (ESI^+): calcd. for $C_{16}H_{13}NO_3Na$ (M^++Na): 290.0793, found 290.0788.



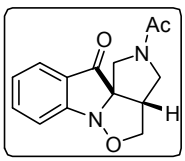
1-(Benzo[c]isoxazol-3-yl)-2-(benzyloxy)ethan-1-one (3ai): Yellow oil; 33%; (R_f = 0.5, 10% AcOEt/pet.ether); ^1H NMR (400 MHz, $CDCl_3$): δ 4.77 (s, 2H), 4.93–4.98 (m, 2H), 7.26–7.46 (m, 7H), 7.72 (d, J = 9.6 Hz, 1H), 8.05 (dd, J = 8.7, 0.9 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 72.5 (t), 73.7 (t), 115.9 (d), 119.7 (s), 120.8 (d), 128.1 (d, 2C), 128.1 (d), 128.5 (d, 2C), 128.9 (d), 131.5 (d), 136.9 (s), 157.3 (s), 158.1 (s), 185.9 (s) ppm; HRMS (ESI^+): calcd. for $C_{16}H_{13}NO_3Na$ (M^++Na): 290.0793, found 290.0788.



Diethyl 2-(2-(benzo[c]isoxazol-3-yl)-2-oxoethyl)malonate (3aj): Yellow oil; 61%; (R_f = 0.4, 20% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 1.30 (t, J = 7.1 Hz, 6H), 3.83 (d, J = 6.9 Hz, 2H), 4.10 (dd, J = 7.5, 6.8 Hz, 1H), 4.20–4.33 (m, 4H), 7.22–7.33 (m, 1H), 7.41 (ddd, J = 9.0, 6.5, 1.1 Hz, 1H), 7.74 (dd, J = 9.0, 1.0 Hz, 1H), 8.00 (dt, J = 8.7, 1.1 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 13.9 (q, 2C), 38.7 (t), 46.4 (d), 61.9 (t, 2C), 116.0 (s), 119.3 (s), 120.8 (s), 128.8 (s), 131.3 (s), 157.4 (s), 158.8 (s), 168.3 (s, 2C), 186.2 (s) ppm; HRMS (ESI^+): calcd. for $C_{16}H_{18}NO_6$ (M^++H): 320.1134, found 320.1129.

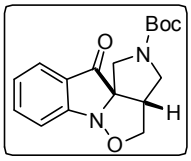


2-Acetyl-2,3,3a,4-tetrahydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,2-a]indol-11-one (5ak-Ac): Brown oil; 65%; (R_f = 0.3, 50% AcOEt/pet.ether) found as rotameric mixture; ^1H NMR (200 MHz, $CDCl_3$): δ 2.12 (s, 3H), 3.16–3.43 (m, 1H), 3.57–3.71 (m, 2H), 3.88–4.19 (m, 4H), 7.29–7.40 (m, 1H), 7.45–7.53 (m, 1H), 7.66–7.81 (m, 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 22.2, 22.2 (q), 50.5, 52.3 (t), 51.0, 52.4 (d), 52.5, 53.9 (t), 71.8, 72.4 (t), 83.3, 84.8 (s), 118.6, 118.8 (d), 123.5, 123.6 (d), 125.4, 125.6 (s), 126.4,

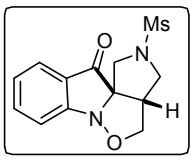


126.4 (d), 137.5, 137.7 (d), 161.3, 161.4 (s), 168.4, 168.6 (s), 196.6, 197.2 (s) ppm; HRMS (ESI^+): calcd. for $C_{14}H_{14}N_2O_3Na$ (M^++Na): 281.0894, found 281.0897.

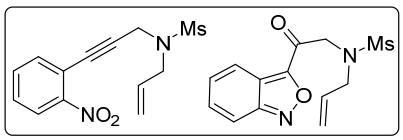
***Tert*-butyl 11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-2(3H)-carboxylate (5ak-Boc):** Yellow solid; 71%; (R_f = 0.4, 20% AcOEt/pet.ether); ^1H NMR (400 MHz, $CDCl_3$): δ 1.48 (s, 9H), 3.20 (br. s., 1H), 3.50 (br. s., 1H), 3.64 (dd, J = 9.2, 5.0 Hz, 1H), 3.84–3.97 (m, 2H), 3.97–4.06 (m, 2H), 7.31 (t, J = 7.3 Hz, 1H), 7.48 (d, J = 7.8 Hz, 1H), 7.66–7.74 (m, 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.4 (q, 3C), 51.2 (t), 51.5 (d), 53.1 (t), 72.5 (t), 80.1 (s, 2C), 84.9 (s), 118.8 (d), 123.6 (d), 126.4 (d), 137.5 (d), 153.5 (s), 161.6 (s), 197.5 (s) ppm; HRMS (ESI^+): calcd. for $C_{17}H_{20}N_2O_4Na$ (M^++Na): 339.1315, found 339.1315.



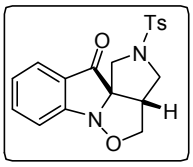
2-(Methylsulfonyl)-2,3,3a,4-tetrahydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indol-11-one (5ak-Ms): Brown oil; 13%; (R_f = 0.3, 30% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 3.06 (s, 3H), 3.26 (dt, J = 8.6, 5.7 Hz, 1H), 3.43–3.54 (m, 1H), 3.67 (dd, J = 9.7, 5.1 Hz, 1H), 3.82–4.08 (m, 4H), 7.29–7.39 (m, 1H), 7.44–7.51 (m, 1H), 7.65–7.81 (m, 2H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 36.2 (q), 53.0 (d), 53.1 (t), 54.5 (t), 72.0 (t), 84.7 (s), 118.6 (d), 123.8 (d), 125.4 (s), 126.6 (d), 137.8 (d), 161.3 (s), 206.6 (s) ppm; HRMS (ESI^+): calcd. for $C_{13}H_{14}N_2O_4SNa$ (M^++Na): 317.0563, found 317.0566.



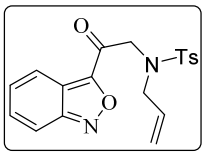
N-Allyl-N-(2-(benzo[c]isoxazol-3-yl)-2-oxoethyl)methanesulfonamide (1ak-Ms + 3ak-Ms): Dark brown oil; 54% (mixture); (R_f = 0.5, 30% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 3.04 (s, 3H), 3.15 (s, 1.3H), 4.02 (d, J = 6.3 Hz, 2.8H), 4.37 (s, 2H), 4.98 (s, 0.8H), 5.20–5.52 (m, 2.9H), 5.74–5.98 (m, 1.4H), 7.30–7.46 (m, 0.7H), 7.48–7.59 (m, 1H), 7.60–7.67 (m, 2H), 7.74–7.80 (dt, J = 1.1, 2.0, 8.8 Hz, 0.4H), 7.98–8.04 (dt, J = 1.1, 2.3, 8.8 Hz, 0.4H), 8.05–8.14 (dt, J = 1.0, 2.1, 8.0 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 36.5 (t), 38.3 (q), 40.5 (q), 49.2 (t), 50.7 (t), 52.9 (t), 81.2 (s), 90.6 (s, 2C), 116.1 (d), 117.4 (s), 120.0 (t), 120.2 (t), 120.4 (d), 124.7 (d), 129.3 (d), 129.4 (d), 131.6 (d), 131.8 (d), 132.3 (d), 133.1 (d), 134.8 (d), 149.5 (s), 157.3 (s), 157.8 (s), 185.0 (s) ppm.



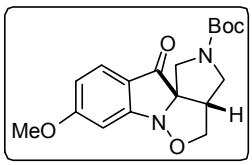
2-Tosyl-2,3,3a,4-tetrahydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indol-11-one (5ak-Ts): Yellow oil; 26%; (R_f = 0.3, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 2.47 (s, 3H), 3.04–3.17 (m, 1H), 3.20–3.30 (m, 1H), 3.47–3.76 (m, 4H), 3.88 (d, J = 9.5 Hz, 1H), 7.25–7.31 (m, 1H), 7.32–7.46 (m, 3H), 7.62–7.71 (m, 2H), 7.75 (d, J = 8.3 Hz, 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.6 (q), 52.2 (d), 52.9 (t), 54.3 (t), 72.1 (t), 83.8 (s), 118.3 (d), 123.8 (d), 125.1 (s), 126.3 (d,), 128.1 (d), 129.8 (d), 131.6 (s), 137.6 (d), 144.2 (s), 161.3 (s), 196.1 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{18}N_2O_4SNa$ (M^++Na): 393.0877, found 393.0879.



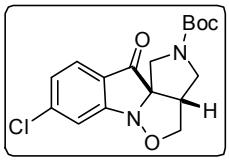
***N*-Allyl-N-(2-(benzo[c]isoxazol-3-yl)-2-oxoethyl)-4-methylbenzenesulfonamide (3ak-Ts):** Yellow oil; 49%; (R_f = 0.5, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 2.44 (s, 3H), 3.99 (d, J = 6.6 Hz, 2H), 4.86 (s, 2H), 5.15 (ddt, J = 13.5, 2.5, 1.4, 1.4 Hz, 2H), 5.61–5.82 (m, 1H), 7.30–7.35 (m, 2H), 7.37–7.47 (m, 1H), 7.65–7.84 (m, 4H), 7.98 (dt, J = 8.7, 1.1 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.5 (q), 51.1 (t), 52.3 (t), 115.9 (d), 119.8 (s), 120.1 (t), 120.7 (d), 127.3 (d, 2C), 129.0 (d), 129.6 (d, 2C), 131.5 (d), 132.1 (d), 136.5 (s), 143.6 (s), 157.2 (s), 158.0 (s), 183.8 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{18}N_2O_4SNa$ (M^++Na): 393.0874, found 393.0879.



***Tert*-butyl 8-methoxy-11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-2(3H)-carboxylate (5bk):** Brown gum; 79%; (R_f = 0.4, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.45 (s, 9H), 3.09–3.26 (m, 1H), 3.39–3.55 (m, 1H), 3.63 (dd, J = 9.3, 4.9 Hz, 1H), 3.81–4.02 (m, 7H), 6.77–6.87 (m, 2H), 7.55 (dd, J = 8.3, 0.8 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.3 (q, 3C), 51.1 (t), 52.0 (d), 53.1 (t), 55.9 (q), 72.6 (t), 79.9 (s), 85.2 (s), 100.8 (d), 115.9 (d), 118.7 (s), 125.0 (d), 153.7 (s), 164.4 (s), 167.7 (s), 195.0 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{22}N_2O_5Na$ (M^++Na): 369.1418, found 369.1421.

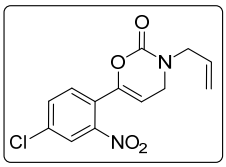


***Tert*-butyl 8-chloro-11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-2(3H)-carboxylate (5ck):** Yellow gum; 22%; (R_f = 0.3, 20% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.47 (s, 9H), 3.12–3.26 (m, 1H), 3.50 (dd, J = 11.0, 5.9 Hz, 1H), 3.61–3.70 (m, 1H), 3.84–3.99 (m, 4H), 7.27 (dd, J = 8.3, 1.7 Hz, 1H), 7.46 (d, J = 1.7 Hz, 1H), 7.60 (d, J = 8.3 Hz, 1H); ^{13}C NMR (50

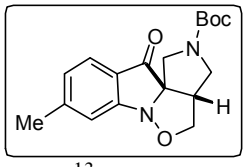


MHz, $CDCl_3$): δ 28.4 (q, 3C), 51.2 (t), 53.0 (t), 72.9 (t), 80.2 (s, 2C), 118.9 (d), 124.0 (s), 124.6 (d), 125.9 (s), 127.2 (d), 144.1 (s), 153.7 (s), 162.5 (s), 196.1 (s) ppm; HRMS (ESI^+): calcd. for $C_{17}H_{19}ClN_2O_4Na$ (M^++Na): 373.0931, found 373.0926.

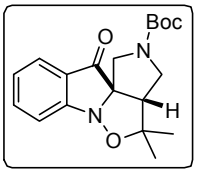
3-Allyl-6-(4-chloro-2-nitrophenyl)-3,4-dihydro-2H-1,3-oxazin-2-one (4ck): Yellow solid; 51%; (R_f = 0.3, 20% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 3.97 (d, J = 6.2 Hz, 2H), 4.33 (d, J = 2.1 Hz, 2H), 5.25–5.38 (m, 2H), 5.69–5.91 (m, 1H), 6.04 (t, J = 2.1 Hz, 1H), 7.52 (dd, J = 8.7, 2.2 Hz, 1H), 7.88 (d, J = 2.3 Hz, 1H), 8.00 (d, J = 8.6 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 46.4 (t), 48.5 (t), 95.7 (d), 119.8 (t), 124.5 (d), 126.3 (s), 130.7 (d), 132.0 (d), 132.7 (s), 132.9 (d), 146.0 (s), 147.2 (s), 154.2 (s) ppm; HRMS (ESI^+): calcd. for $C_{13}H_{12}ClN_2O_4$ (M^++H): 295.0486, found 295.0480.



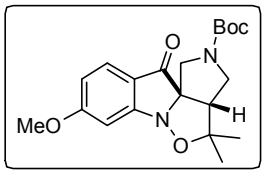
***Tert*-butyl 8-methyl-11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-2(3H)-carboxylate (5dk):** Yellow gum; 73%; (R_f = 0.3, 20% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 1.45 (s, 9H), 2.45 (s, 3H), 3.08–3.25 (m, 1H), 3.47 (dd, J = 11.1, 6.1 Hz, 1H), 3.61 (dd, J = 9.3, 4.9 Hz, 1H), 3.79–4.04 (m, 4H), 7.05–7.14 (m, 1H), 7.24 (s, 1H), 7.53 (d, J = 8.0 Hz, 1H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 22.3 (q), 28.2 (q, 3C), 51.1 (t), 52.1 (d), 53.0 (t), 72.2 (t), 79.8 (s), 84.9 (s), 118.6 (d), 123.2 (d), 123.3 (s), 127.7 (d), 149.4 (s), 153.5 (s), 161.9 (s), 196.6 (s) ppm; HRMS (ESI^+): calcd. for $C_{18}H_{22}N_2O_4Na$ (M^++Na): 353.1472, found 353.1472.



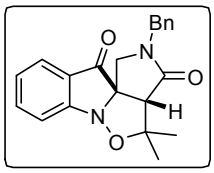
***Tert*-butyl 4,4-dimethyl-11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-2(3H)-carboxylate (5al):** Yellow gum; 77%; (R_f = 0.3, 20% AcOEt/pet.ether); ^1H NMR (200 MHz, $CDCl_3$): δ 0.91 (s, 3H), 1.33 (s, 3H), 1.46 (s, 9H), 2.84 (dd, J = 7.8, 3.4 Hz, 1H), 3.52 (dd, J = 12.0, 7.8 Hz, 1H), 3.75–4.01 (m, 3H), 7.22 (t, J = 7.5 Hz, 1H), 7.40 (d, J = 8.2 Hz, 1H), 7.59–7.72 (m, 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 23.5 (q), 28.3 (q, 3C), 30.6 (q), 47.3 (t), 53.5 (t), 58.8 (d), 80.1 (s), 85.7 (s), 89.3 (s), 118.0 (d), 123.1 (s), 124.2 (d), 125.2 (d), 137.2 (d), 153.8 (s), 164.6 (s), 198.9 (s) ppm; HRMS (ESI^+): calcd. for $C_{19}H_{24}N_2O_4Na$ (M^++Na): 367.1631, found 367.1628.



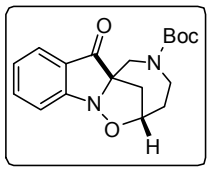
***Tert*-butyl 8-methoxy-4,4-dimethyl-11-oxo-3a,4-dihydro-1H,11H-pyrrolo[3',4':3,4] isoxazolo[2,3-a]indole-2(3H)-carboxylate (5bl):** Colorless solid; 79%; (R_f = 0.6, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 0.95 (s, 3H), 1.32 (s, 3H), 1.45 (s, 9H), 2.83 (dd, J = 7.9, 3.5 Hz, 1H), 3.51 (dd, J = 11.7, 8.1 Hz, 1H), 3.73–3.93 (m, 6H), 6.70–6.85 (m, 2H), 7.55 (d, J = 8.5 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 23.5 (q), 28.3 (q, 3C), 30.5 (q), 47.4 (t), 53.7 (t), 55.9 (d), 58.3 (d), 80.0 (s), 86.0 (s), 89.3 (s), 100.3 (d), 114.8 (d), 116.1 (s), 125.6 (d), 153.8 (s), 167.3 (s), 167.5 (s), 196.6 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{26}N_2O_5Na$ (M^++Na): 397.1734, found 397.1734.



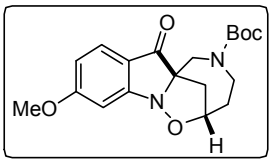
2-Benzyl-4,4-dimethyl-1,2,3a,4-tetrahydro-3H,11H-pyrrolo[3',4':3,4]isoxazolo[2,3-a]indole-3,11-dione (5am): Brown oil; 69%; (R_f = 0.3, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 0.87 (s, 3H), 1.43 (s, 3H), 3.09 (s, 1H), 3.56 (d, J = 10.5 Hz, 1H), 3.69 (d, J = 10.5 Hz, 1H), 4.29 (d, J = 14.9 Hz, 1H), 4.73 (d, J = 14.9 Hz, 1H), 7.11–7.42 (m, 7H), 7.52–7.71 (m, 2H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 24.3 (s), 30.9 (s), 46.8 (s), 53.0 (s), 62.0 (s), 78.3 (s), 89.7 (s), 117.8 (s), 122.7 (s), 124.3 (s), 125.4 (s), 127.8 (s), 127.9 (s), 128.9 (s), 135.2 (s), 137.5 (s), 164.8 (s), 169.1 (s), 197.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{21}H_{20}N_2O_3Na$ (M^++Na): 371.1366, found 371.1366.



***Tert*-butyl 7-oxo-3,4-dihydro-2H,7H-2,6a-methano[1,2,5]oxadiazocino[2,3-a]indole-5(6H)-carboxylate (5an):** Yellow solid; 73%; (R_f = 0.5, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.52 (br. s., 9H), 1.83 (br. s., 2H), 1.93–2.14 (m, 1H), 2.16–2.39 (m, 1H), 3.00–3.33 (m, 2H), 3.87–4.25 (m, 1H), 4.80 (d, J = 13.8 Hz, 1H), 4.92 (br. s., 1H), 7.21–7.32 (m, 1H), 7.35–7.46 (m, 1H), 7.65 (br. s., 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.3, 28.4 (q, 3C), 33.1, 34.0 (t), 37.2, 37.3 (t), 41.8, 42.1 (t), 50.3, 51.4 (t), 78.7, 78.8 (s), 79.9, 80.3 (s), 82.0, 82.4 (d), 113.9 (d), 118.6 (d), 122.0, 122.1 (s), 124.2, 124.3 (d), 136.9, 137.1 (d), 154.9, 155.2 (s), 163.5, 163.6 (s), 196.4, 196.8 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{22}N_2O_4Na$ (M^++Na): 353.1477, found 353.1472.

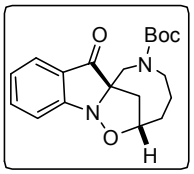


***Tert*-butyl 10-methoxy-7-oxo-3,4-dihydro-2H,7H-2,6a-methano[1,2,5]oxadiazocino[2,3-a]indole-5(6H)-carboxylate (5bn):** Brown gum; 77%; (R_f = 0.4, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.37–1.55 (m, 9H), 1.73–1.90 (m, 2H), 2.02 (dd, J = 12.2, 7.6 Hz, 1H), 2.15–2.31 (m, 1H), 2.93–3.37 (m, 2H), 3.78–3.92 (m, 3H), 3.92–4.16 (m, 1H), 4.51–4.82 (m, 1H), 4.82–4.98 (m, 1H), 6.66–6.88 (m, 2H), 7.53 (d, J = 8.5 Hz, 1H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 28.4 (q, 3C), 33.2, 34.0 (t), 37.3 (t), 41.8, 42.1 (t), 50.4, 51.5 (t), 55.8 (q), 79.1 (s), 79.9, 80.2 (s), 82.0, 82.3 (d), 100.8 (d), 115.1 (s), 115.1 (d), 125.6 (d), 154.9, 155.2 (s), 166.1, 166.3 (s), 167.3, 167.4 (s), 194.2, 194.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{24}N_2O_5Na$ (M^++Na): 383.1577, found 383.1577.

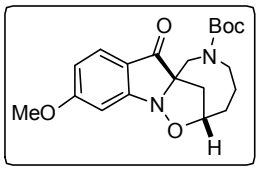


General Procedure C for 1ao, 1bo, 1aq, 1bq: The *o*-nitroenyne carbamate **1** (1 eq.) was dissolved in anhydrous CH_2Cl_2 (4 mL) was added the catalyst $AuCl(PPh_3)$ (10 mol %), and $AgSbF_6$ (20 mol %) at 0 °C and the reaction mixture was warmed to room temperature, then allowed to stir for 4 h. After completion, the reaction mixture was concentrated under reduced pressure and the crude was purified by column chromatography (flash Silica gel) to procure the anthranil **3** and alkenyl isatogen **2**. This alkenyl isatogen was subjected for the next reaction. The solution of alkenyl isatogen **2** (1eq.) in toluene was taken in a sealed tube and heated to reflux for 4–6 h. After completion, the reaction mixture was evoperated under reduced pressure and subjected for the flash coloumn chromatography to obtain the isoxazolidine **5**.

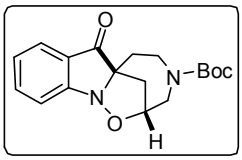
***Tert*-butyl 8-oxo-2,3,4,5-tetrahydro-8H-2,7a-methano[1,2,5]oxadiazonino [2,3-a]indole-6(7H)-carboxylate (5ao):** Yellow oil; 61%; (R_f = 0.5, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.52 (s, 9H), 1.73–1.92 (m, 2H), 2.02–2.34 (m, 4H), 3.17–3.51 (m, 2H), 3.54 (br. s., 1H), 4.29–4.44 (m, 1H), 4.75–4.89 (m, 1H), 7.15–7.26 (m, 1H), 7.38 (d, J = 8.7 Hz, 1H), 7.57–7.70 (m, 2H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.3, 22.7 (t), 28.4 (q, 3C), 31.3, 31.8 (t), 39.1, 40.3 (t), 46.0, 46.1 (t), 50.8, 51.4 (t), 78.7, 78.8 (s), 79.9, 80.3 (s), 81.2, 81.6 (d), 117.9, 118.3 (d), 121.9, 122.0 (s), 124.2, 124.4 (d), 125.2, 125.4 (d), 136.6, 136.9 (d), 155.9, 156.1 (s), 163.5, 163.7 (s), 197.6, 198.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{24}N_2O_4Na$ (M^++Na): 367.1627, found 367.1628.



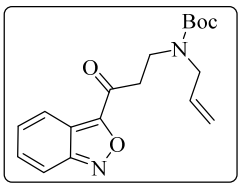
***Tert*-butyl 11-methoxy-8-oxo-2,3,4,5-tetrahydro-8H-2,7a-methano[1,2,5]oxadiazonino[2,3-a]indole-6(7H)-carboxylate (5bo):** Brown gum; 64%; (R_f = 0.4, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (500 MHz, $CDCl_3$): δ 1.52 (d, J = 6.1 Hz, 9H), 1.60–1.70 (m, 1H), 1.77–1.91 (m, 1H), 2.06–2.16 (m, 1H), 2.16–2.38 (m, 3H), 3.22–3.35 (m, 1H), 3.40–3.60 (m, 1H), 3.72–3.83 (m, 1H), 3.85–3.96 (m, 3H), 4.33 (d, J = 15.3 Hz, 1H), 4.80–4.89 (m, 1H), 6.67–6.87 (m, 2H), 7.54 (d, J = 8.4 Hz, 1H); ^{13}C NMR (126 MHz, $CDCl_3$): δ 21.4, 22.8 (t), 28.4 (q, 3C), 31.3, 31.9 (t), 39.3, 40.5 (t), 46.0, 46.1 (t), 51.0, 51.6 (t), 55.9 (q), 79.0, 79.2 (s), 79.9, 80.3 (s), 81.3, 81.6 (d), 100.3, 100.5 (d), 114.7, 114.8 (s), 114.9, 115.1 (d), 125.6, 125.8 (d), 155.9, 156.0 (s), 166.2, 166.4 (s), 167.1, 167.3 (s), 195.5, 196.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{26}N_2O_5Na$ (M^++Na): 397.1736, found 397.1734.



***Tert*-butyl 7-oxo-2,3,5,6-tetrahydro-4H,7H-2,6a-methano[1,2,6]oxadiazocino [2,3-a]indole-4-carboxylate (5ap):** Yellow gum; 47%; (R_f = 0.4, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.36–1.54 (m, 9H), 1.76 (d, J = 14.1 Hz, 1H), 1.99–2.36 (m, 3H), 3.15–3.46 (m, 2H), 3.86–4.14 (m, 2H), 4.93 (dd, J = 7.5, 4.0 Hz, 1H), 7.14–7.25 (m, 1H), 7.34 (d, J = 8.1 Hz, 1H), 7.54–7.71 (m, 2H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 28.3 (q, 3C), 30.9, 31.5 (t), 37.0 (t), 43.1, 43.4 (t), 51.6, 52.6 (t), 80.1 (s), 83.3, 83.7 (d), 83.7 (s), 117.6 (d), 121.3 (s), 124.5 (d), 125.0 (d), 136.7 (d), 155.3 (s), 162.9 (s), 197.8 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{22}N_2O_4Na$ (M^++Na): 353.1472, found 353.1472.

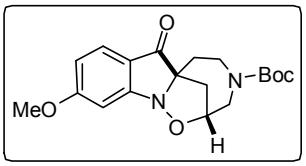


***Tert*-butyl allyl(3-(benzo[c]isoxazol-3-yl)-3-oxopropyl)carbamate (3ap):** Yellow gum; 24%; (R_f = 0.6, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.34 (s, 9H), 3.36 (br. s., 2H), 3.55–3.71 (m, 2H), 3.84 (br. s., 2H), 4.96–5.21 (m, 2H), 5.60–5.86 (m, 1H), 7.15–7.27 (m, 1H), 7.27–7.41 (m, 1H), 7.66 (d, J = 9.0 Hz, 1H), 7.96 (dd, J = 8.7, 0.9 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.3 (q, 3C), 39.5 (t), 42.0 (t), 49.8, 50.7 (t), 79.9 (s), 116.0 (d), 116.3, 117.0 (t), 119.1 (s), 121.1 (d), 128.6 (d), 131.3 (d), 134.0 (d), 155.2 (s), 157.5 (s), 159.5 (s), 188.5 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{18}H_{22}N_2O_4Na$ (M^++Na): 353.1472, found 353.1472.

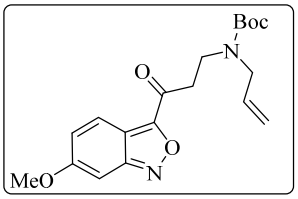


***Tert*-butyl 10-methoxy-7-oxo-2,3,5,6-tetrahydro-4H,7H-2,6a-methano[1,2,6]oxadiazocino [2,3-a]indole-4-carboxylate (5bp):** Brown gum; 53%; (R_f = 0.3, 30% AcOEt/pet.ether) found as

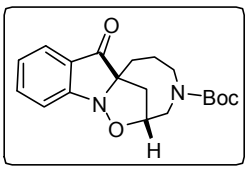
rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.38–1.57 (m, 9H), 1.81 (br. s., 1H), 2.01–2.35 (m, 3H), 3.20–3.45 (m, 2H), 3.88 (s, 3H), 3.91–4.14 (m, 2H), 4.95 (dd, J = 7.4, 3.9 Hz, 1H), 6.64–6.87 (m, 2H), 7.50–7.59 (m, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 28.4 (q, 3C), 31.1, 31.7 (t), 37.2 (t), 43.1, 43.5 (t), 51.6, 52.6 (t), 55.9 (q), 77.4, 77.5 (s), 80.1, 80.2 (s), 83.4, 83.8 (d), 100.1 (d), 114.4, 114.5 (d), 125.9 (d), 125.9 (s), 154.6, 155.4 (s), 165.5, 165.7 (s), 167.2, 167.2 (s), 195.9 (s) ppm; HRMS (ESI^+): calcd. for $C_{19}H_{24}N_2O_5Na$ (M^++Na): 383.1575, found 383.1577.



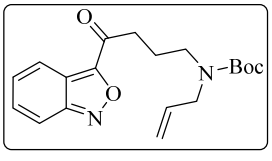
***Tert*-butyl allyl(3-(6-methoxybenzo[c]isoxazol-3-yl)-3-oxopropyl) carbamate (3bp):** Brown gum; 27%; (R_f = 0.5, 30% AcOEt/pet.ether); ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.40 (s, 9H), 3.37 (br. s., 2H), 3.57–3.73 (m, 2H), 3.88 (s, 5H), 5.02–5.27 (m, 2H), 5.65–5.94 (m, 1H), 6.78 (s, 1H), 6.85–7.01 (m, 1H), 7.86 (d, J = 9.3 Hz, 1H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 28.3 (q, 3C), 39.4 (t), 41.9 (t), 49.9 (t), 55.5 (q), 79.9 (s), 90.2 (d), 116.1 (t), 121.7 (s), 121.7 (d), 125.8 (d), 134.0 (d), 155.2 (s), 158.6 (s), 158.9 (s), 161.7 (s), 188.6 (s) ppm; HRMS (ESI^+): calcd. for $C_{19}H_{24}N_2O_5Na$ (M^++Na): 383.1578, found 383.1577.



***Tert*-butyl 8-oxo-2,3,6,7-tetrahydro-8H-2,7a-methano[1,2,7]oxadiazonino[2,3-a]indole-4(5H)-carboxylate (5aq):** Yellow oil; 19%; (R_f = 0.3, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.42–1.53 (m, 9H), 1.93–2.15 (m, 4H), 2.19–2.28 (m, 2H), 3.08–3.45 (m, 2H), 3.63–3.88 (m, 1H), 3.94 (dd, J = 15.3, 4.0 Hz, 1H), 4.74–4.89 (m, 1H), 7.14–7.24 (m, 1H), 7.35 (d, J = 8.6 Hz, 1H), 7.55–7.68 (m, 2H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 24.2 (t), 28.4 (q, 3C), 29.9 (t), 39.0, 39.8 (t), 45.5, 47.6 (t), 50.4, 51.1 (t), 76.7 (s), 80.0 (s), 83.6, 84.0 (d), 117.4 (d), 121.1 (s), 123.8, 124.5 (d), 124.9 (d), 136.5, 137.1 (d), 156.3 (s), 162.9 (s), 199.6 (s) ppm; HRMS (ESI^+): calcd. for $C_{19}H_{24}N_2O_4Na$ (M^++Na): 367.1630, found 367.1628.

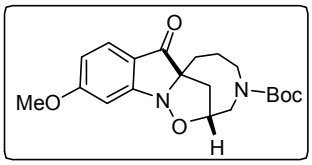


***Tert*-butyl allyl(4-(benzo[c]isoxazol-3-yl)-4-oxobutyl)carbamate (3aq):** Yellow oil; 59%; (R_f = 0.5, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.37–1.50 (m, 9H), 2.05 (quin, J = 7.0 Hz, 2H), 3.20 (t, J = 7.2 Hz, 2H), 3.36 (t, J = 6.9 Hz, 2H), 3.85 (br. s., 2H), 5.06–5.24 (m, 2H), 5.71–5.93 (m, 1H), 7.22–7.33 (m, 1H), 7.41 (dd, J = 8.8, 6.4 Hz, 1H), 7.73 (d, J = 9.0 Hz,

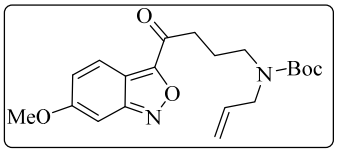


1H), 8.05 (d, J = 8.7 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 21.7, 21.9 (t), 28.2 (q, 3C), 37.1 (t), 45.5 (t), 49.2, 49.7 (t), 79.5 (s), 115.8 (d), 116.6 (t), 119.0 (s), 121.1 (d), 128.4 (d), 131.2 (d), 134.0 (d), 155.4 (s), 157.4 (s), 159.5 (s), 189.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{19}H_{24}N_2O_4Na$ (M^++Na): 367.1628, found 367.1628.

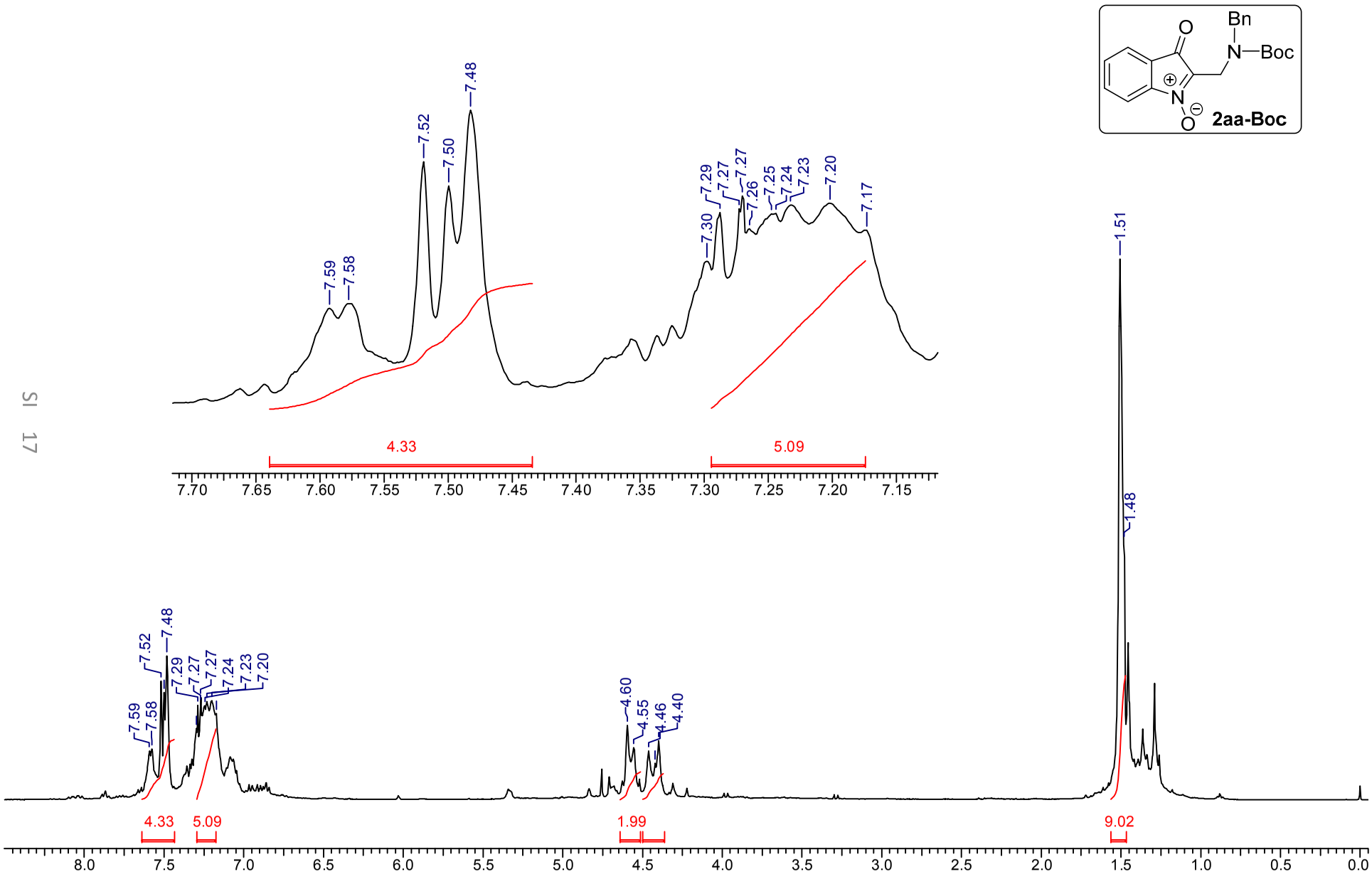
***Tert*-butyl 11-methoxy-8-oxo-2,3,6,7-tetrahydro-8H-2,7a-methano[1,2,7]oxadiazonino[2,3-a]indole-4(5H)-carboxylate (5bq):** Brown gum; 22%; (R_f = 0.3, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (400 MHz, $CDCl_3$): δ 1.38–1.58 (m, 9H), 1.91–2.10 (m, 3H), 2.12–2.35 (m, 3H), 3.14–3.27 (m, 1H), 3.34–3.41 (dt, J = 5.9, 11.7, 13.9 Hz, 1H), 3.65–3.77 (m, 1H), 3.77–3.96 (m, 4H), 4.77–4.89 (m, 1H), 6.72 (dd, J = 8.6, 2.0 Hz, 1H), 6.76–6.83 (m, 1H), 7.52 (d, J = 8.6 Hz, 1H); ^{13}C NMR (101 MHz, $CDCl_3$): δ 23.7, 24.4 (t), 28.4 (q, 3C), 30.1 (t), 39.1, 40.0 (t), 45.5, 45.6 (t), 50.4, 51.1 (t), 55.8 (q), 80.1 (s), 83.8, 84.0 (d), 99.9, 100.1 (d), 113.8 (s), 114.3 (d), 125.3, 125.9 (d), 125.9 (s), 155.4, 156.3 (s), 165.6 (s), 167.1 (s), 197.8 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{26}N_2O_5Na$ (M^++Na): 397.1734, found 397.1734.



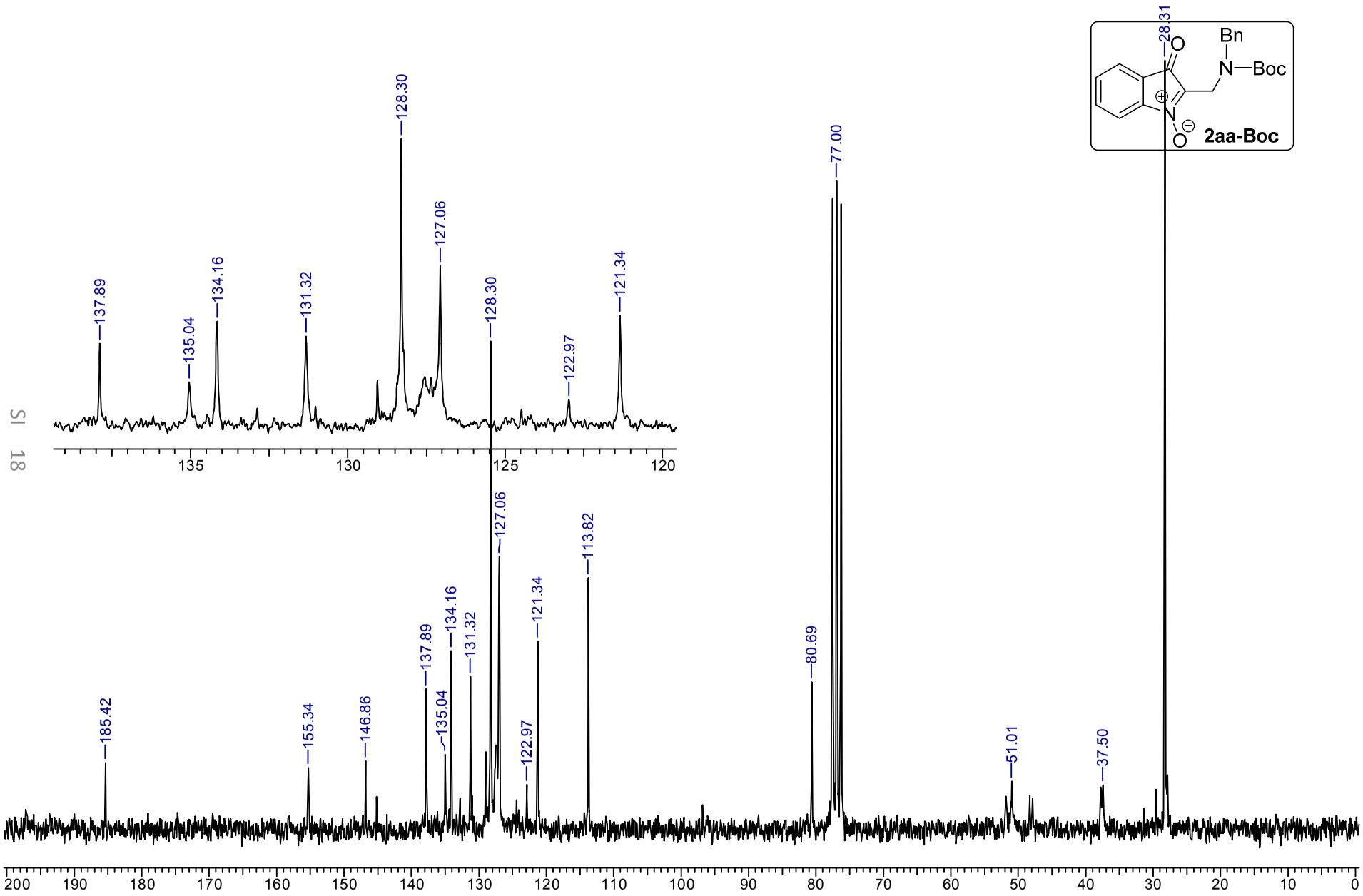
***Tert*-butyl allyl(4-(6-methoxybenzo[c]isoxazol-3-yl)-4-oxobutyl)carbamate (3bq):** Brown gum; 63%; (R_f = 0.5, 30% AcOEt/pet.ether) found as rotameric mixture; ^{1}H NMR (200 MHz, $CDCl_3$): δ 1.38 (s, 9H), 1.98 (quin, J = 7.1 Hz, 2H), 3.11 (t, J = 7.2 Hz, 2H), 3.30 (t, J = 7.0 Hz, 2H), 3.76–3.84 (m, 2H), 3.86 (s, 3H), 4.98–5.21 (m, 2H), 5.62–5.90 (m, 1H), 6.74 (d, J = 1.5 Hz, 1H), 6.88 (dd, J = 9.3, 2.0 Hz, 1H), 7.83 (dd, J = 9.3, 0.6 Hz, 1H); ^{13}C NMR (50 MHz, $CDCl_3$): δ 21.8 (t), 28.2 (q, 3C), 37.0 (t), 45.6 (t), 49.4 (t), 55.4 (q), 79.5 (s), 90.1 (s), 90.1 (d), 116.0, 116.3 (t), 121.7 (d), 125.5 (d), 134.0 (d), 155.4 (s), 158.6 (s), 158.8 (s), 161.6 (s), 189.3 (s) ppm; HRMS (ESI$^+$): calcd. for $C_{20}H_{26}N_2O_5Na$ (M^++Na): 397.1734, found 397.1734.



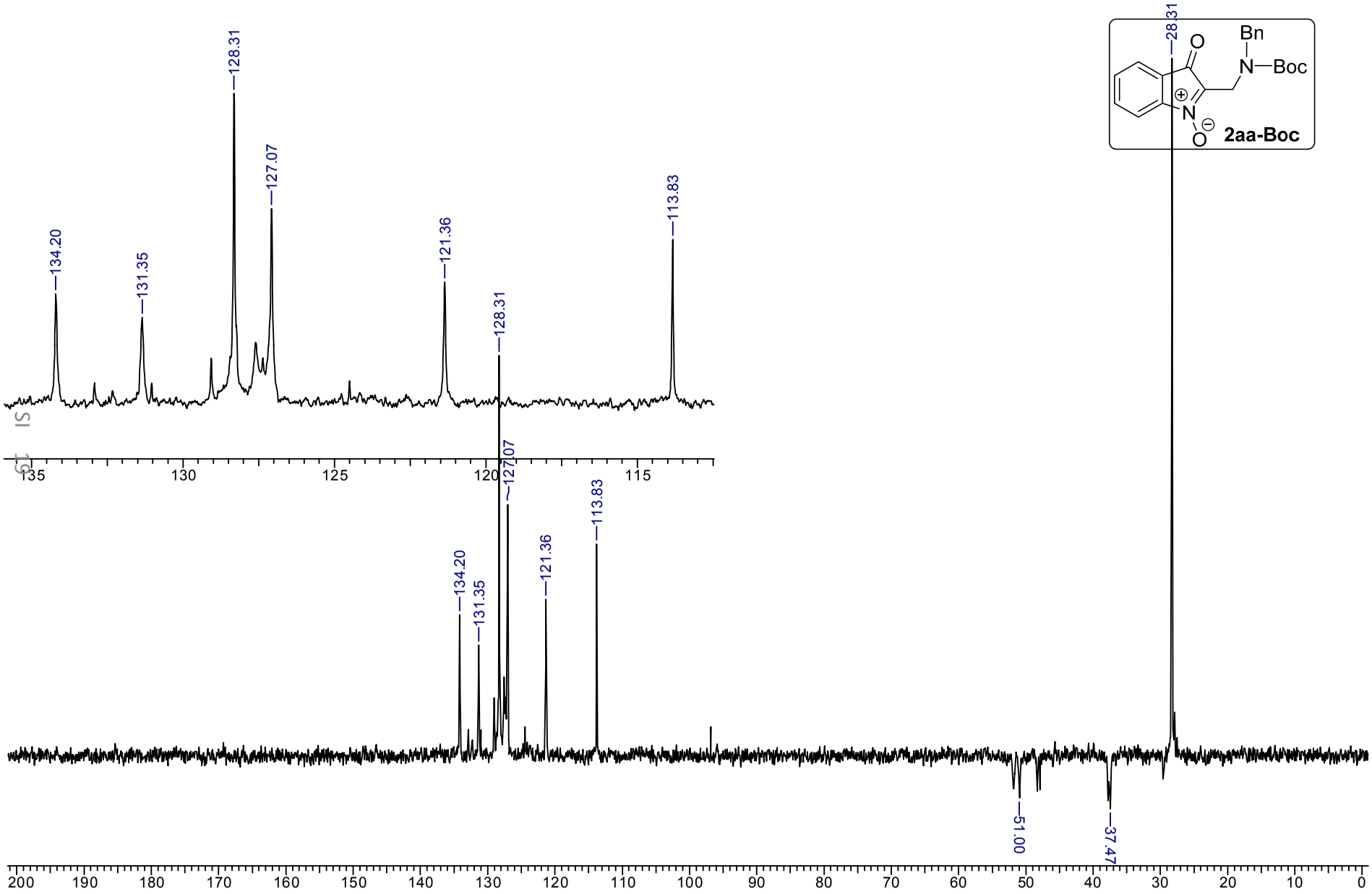
Acquisition Time (sec)	2.1838	***Comment***	Suneel	***Date***	29 Mar 2014 07:59:33			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	10	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	23.400						



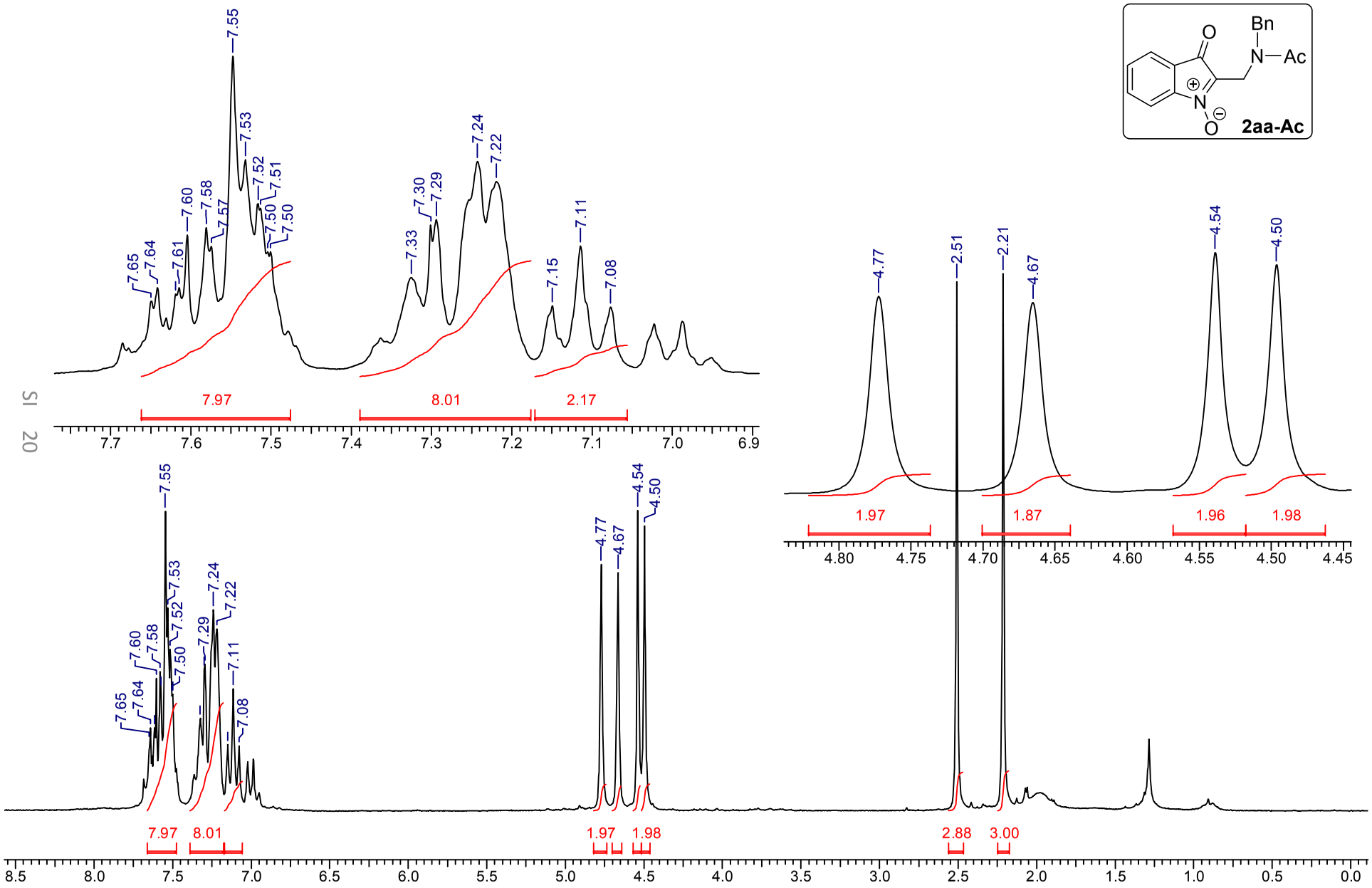
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	01 Sep 2013 22:15:36			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04	***Temperature (grad C)***	27.000						



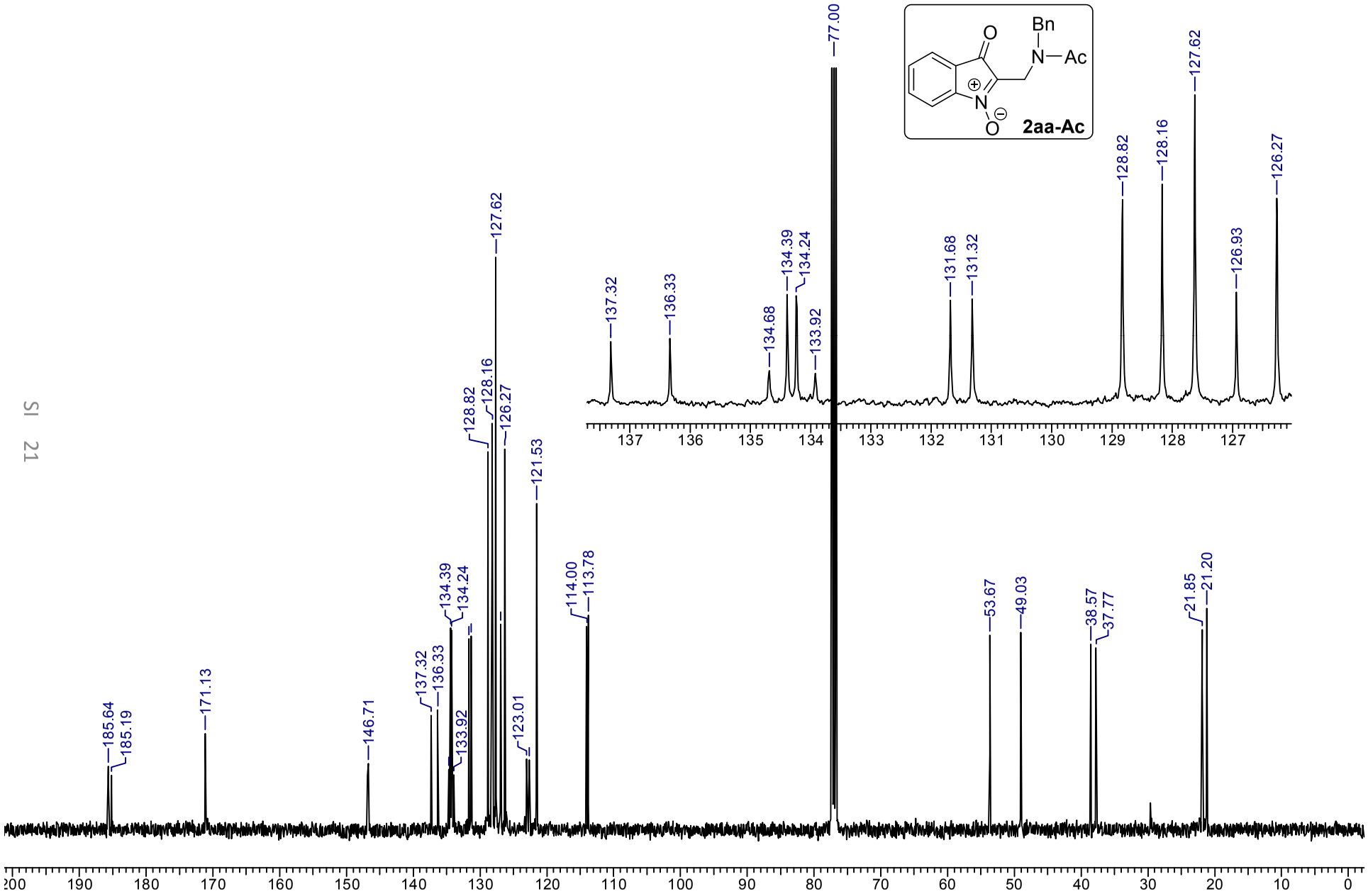
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	01 Sep 2013 21:20:08			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



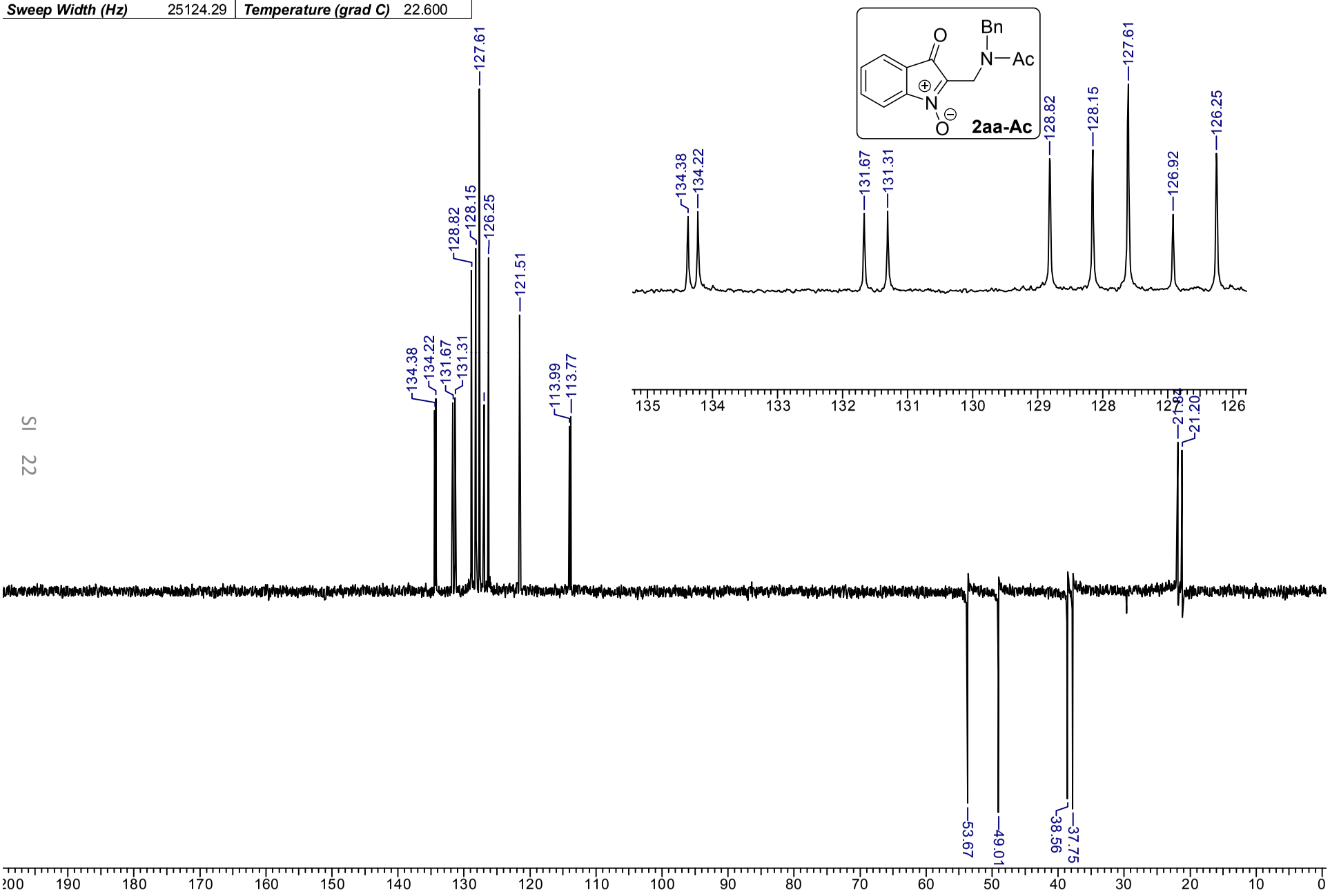
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	23 Sep 2013 18:48:40			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



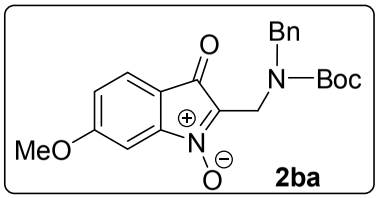
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	28 Sep 2013 10:30:14			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	22.900						



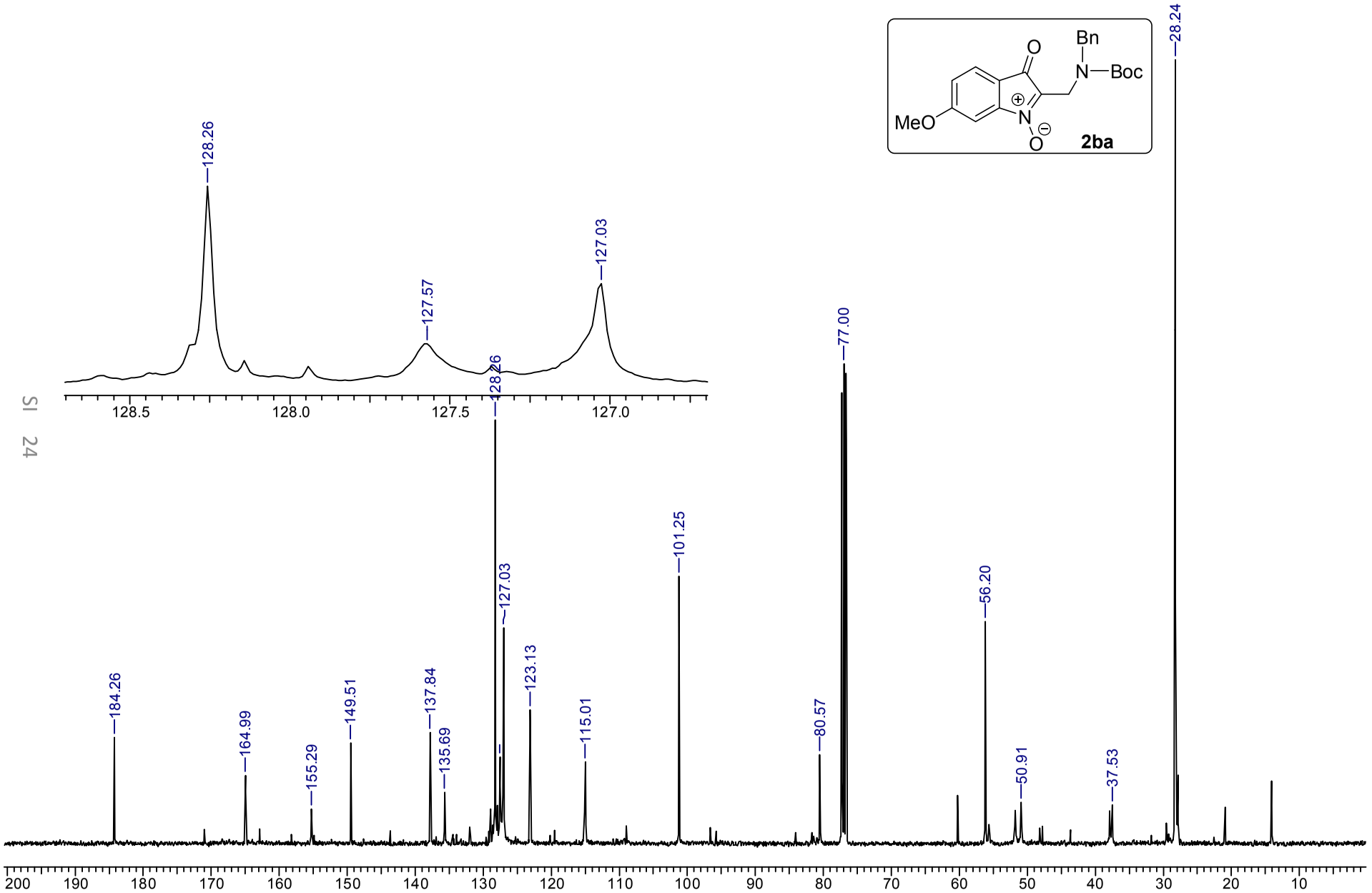
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	28 Sep 2013 10:30:14			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	22.600						



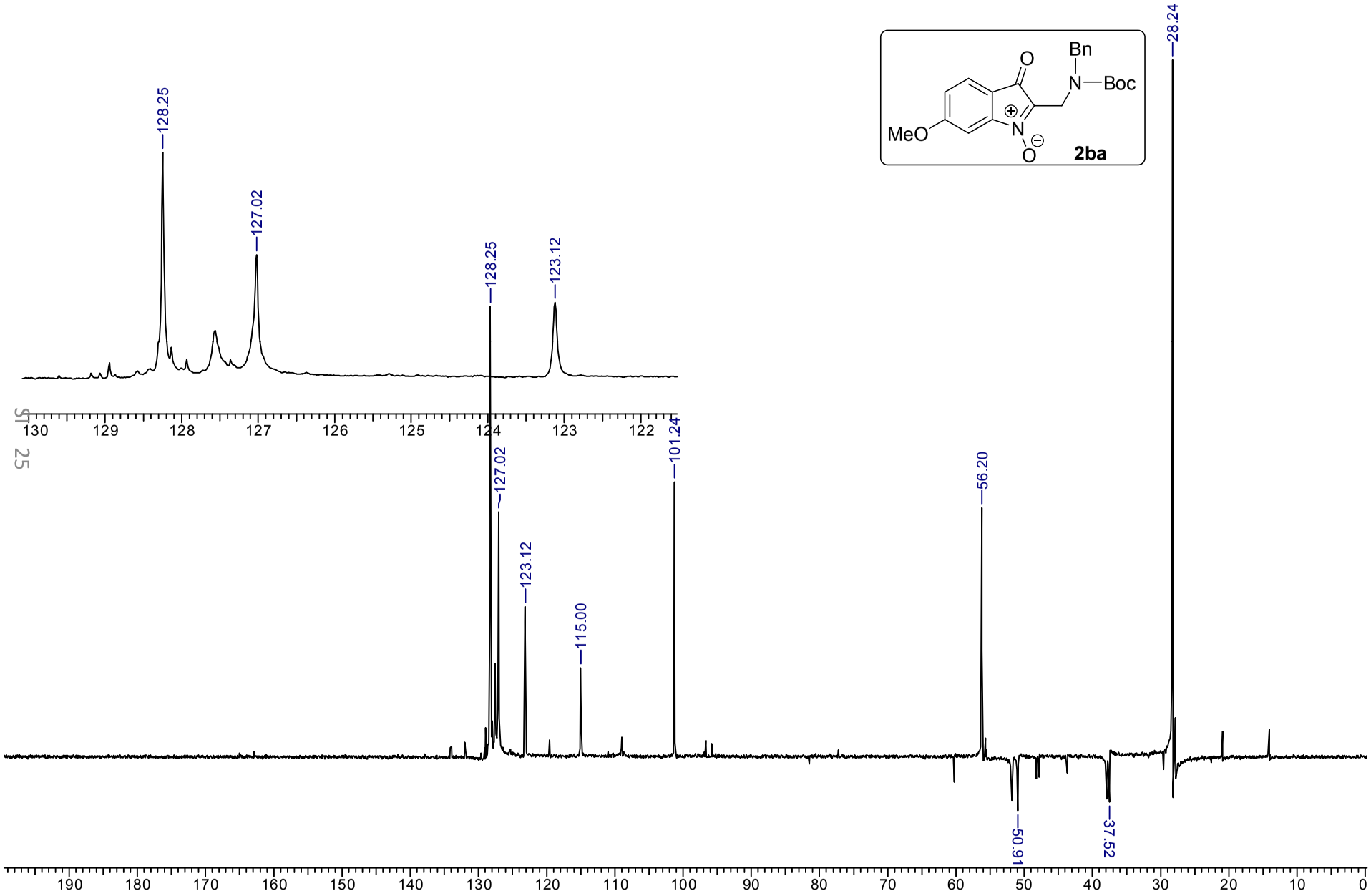
Acquisition Time (sec)	2.1838	***Comment***	santosh	***Date***	27 Sep 2013 15:30:39			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	23.000						



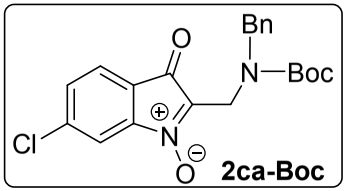
Acquisition Time (sec)	1.0434	***Comment***	santosh	***Date***	01 Oct 2013 08:31:07			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1012	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	22.600						

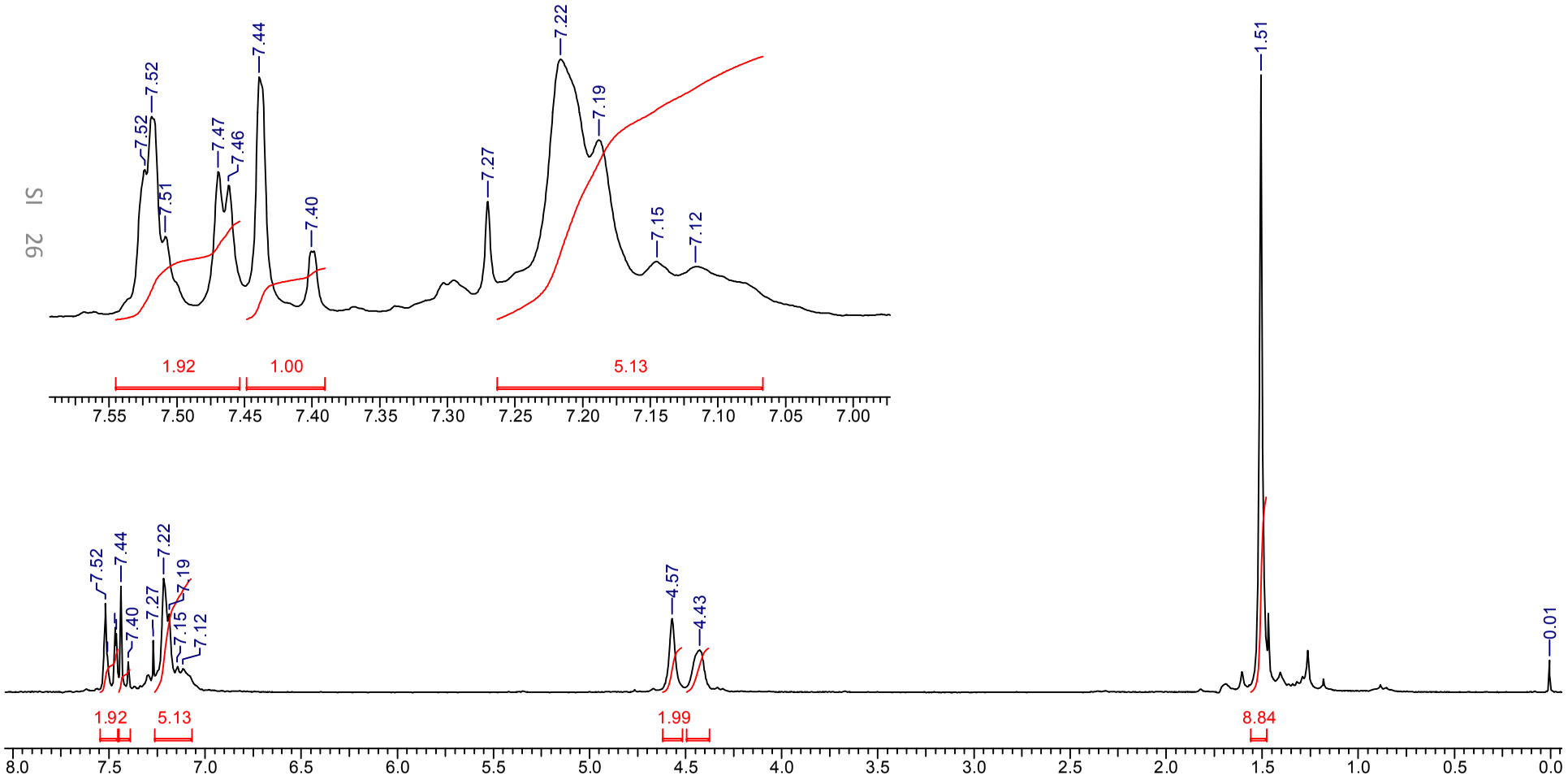


Acquisition Time (sec)	1.0434	***Comment***	santosh	***Date***	01 Oct 2013 08:31:07			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.200						

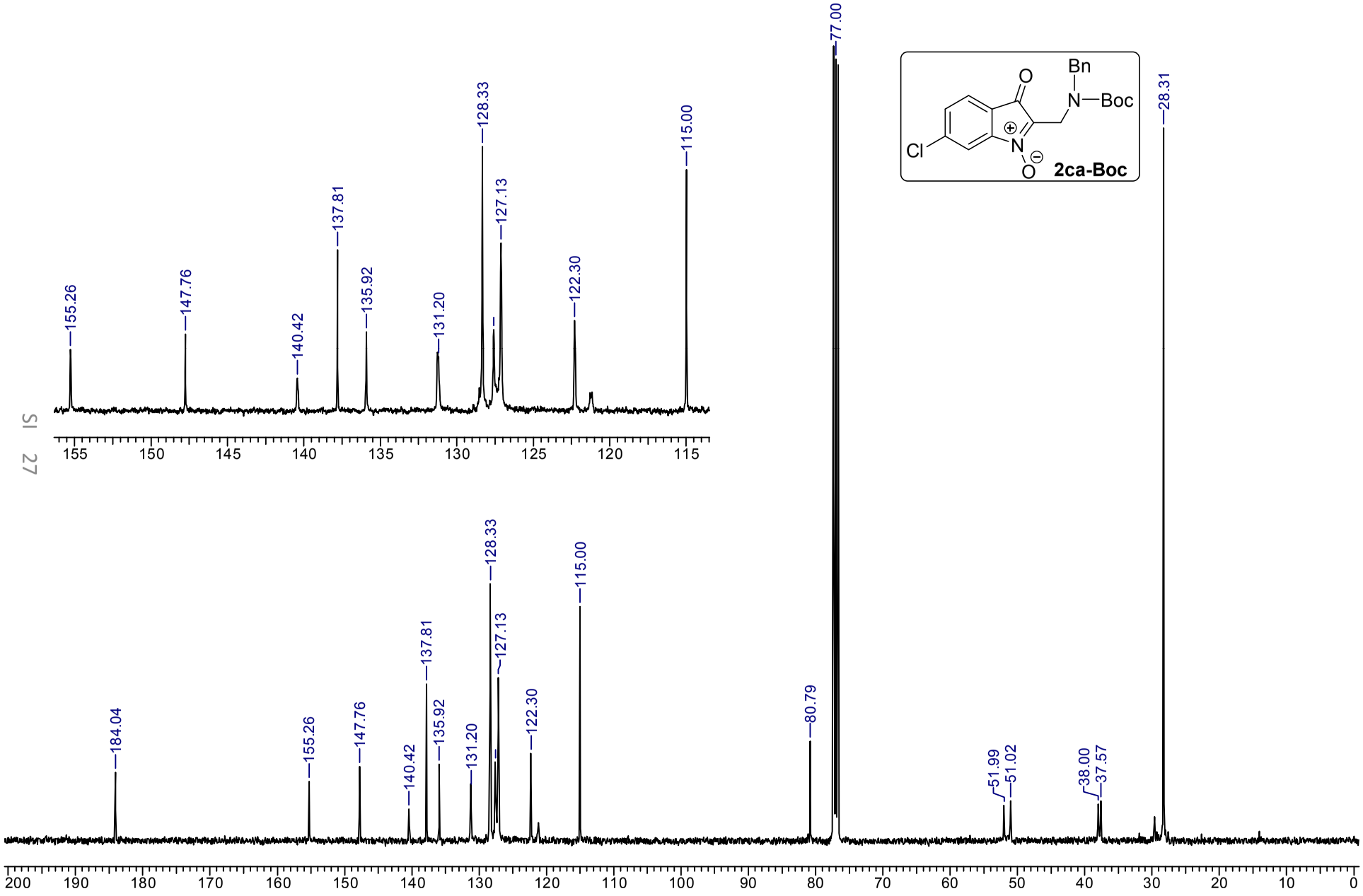


Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	22 Mar 2014 15:02:32			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

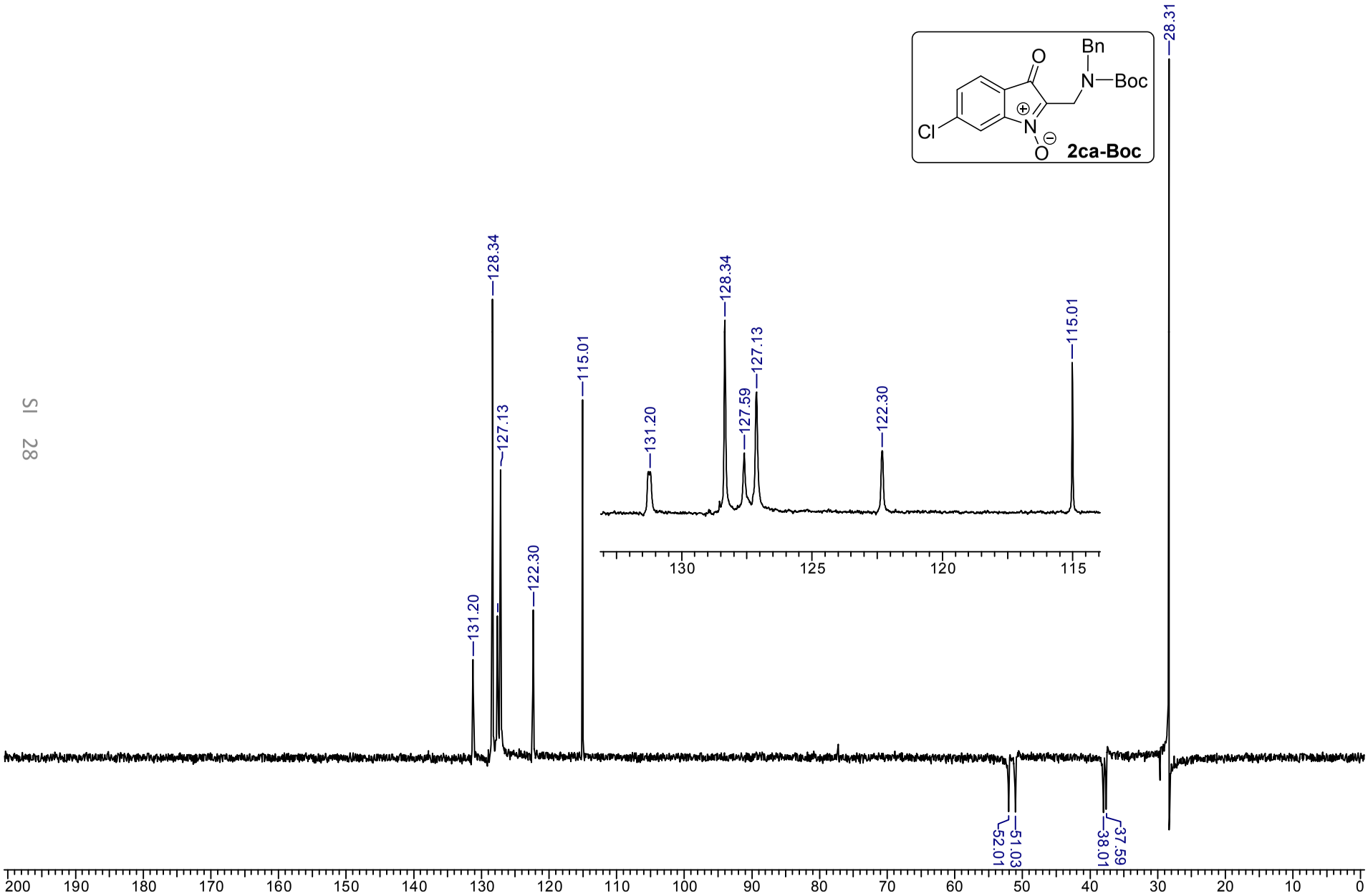




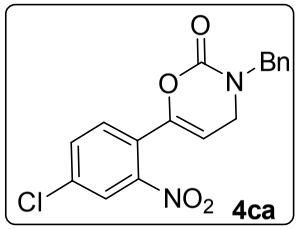
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	25 Mar 2014 07:18:53			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.300						

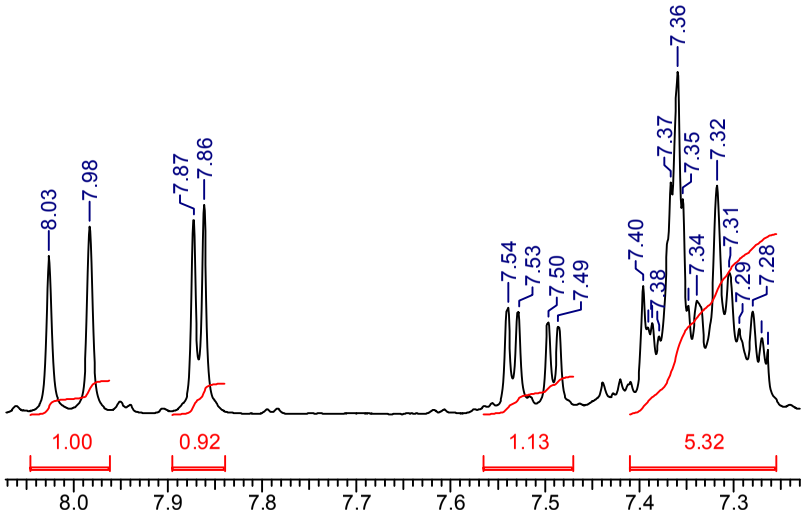


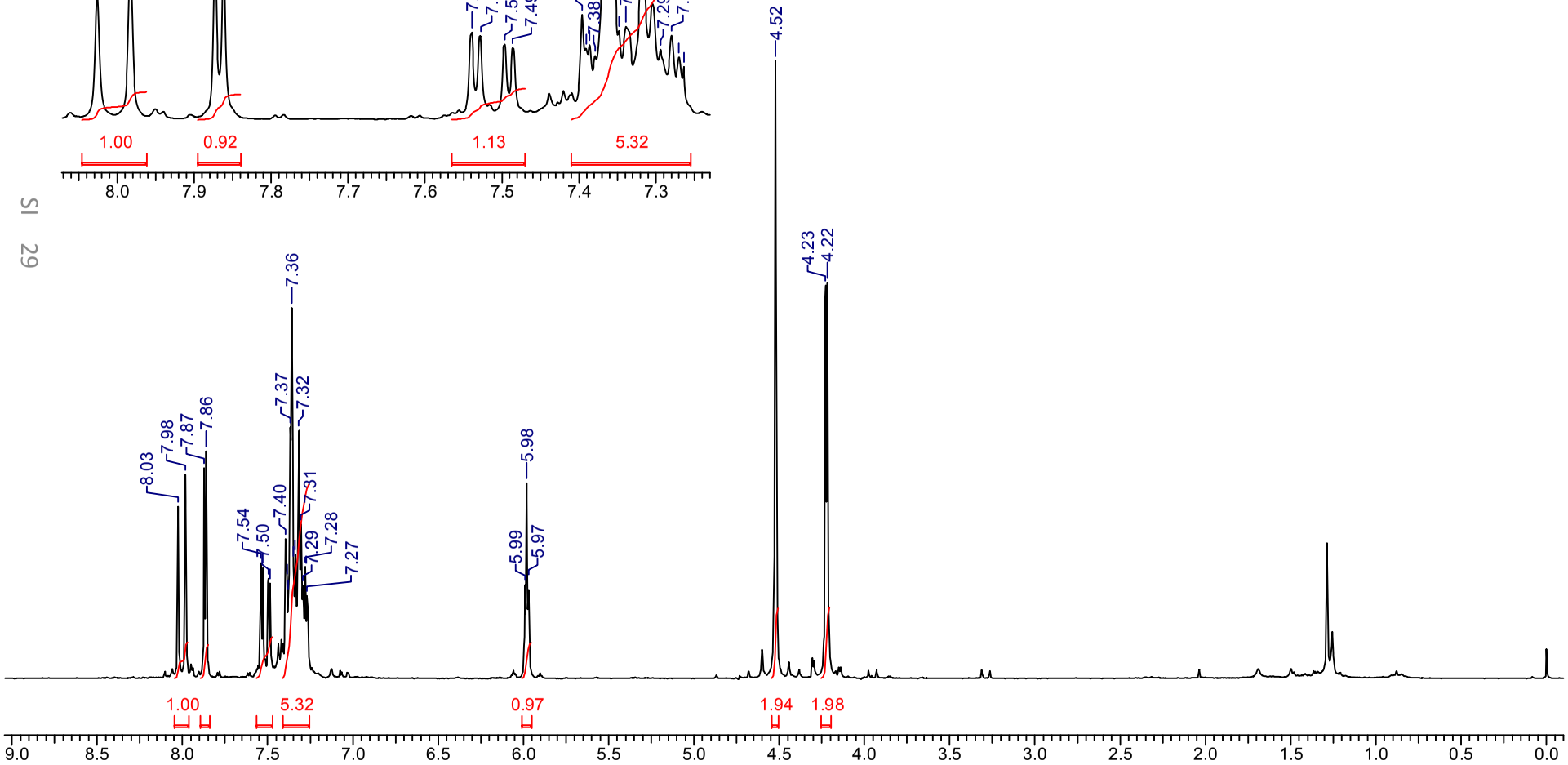
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	25 Mar 2014 07:18:53			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.000						



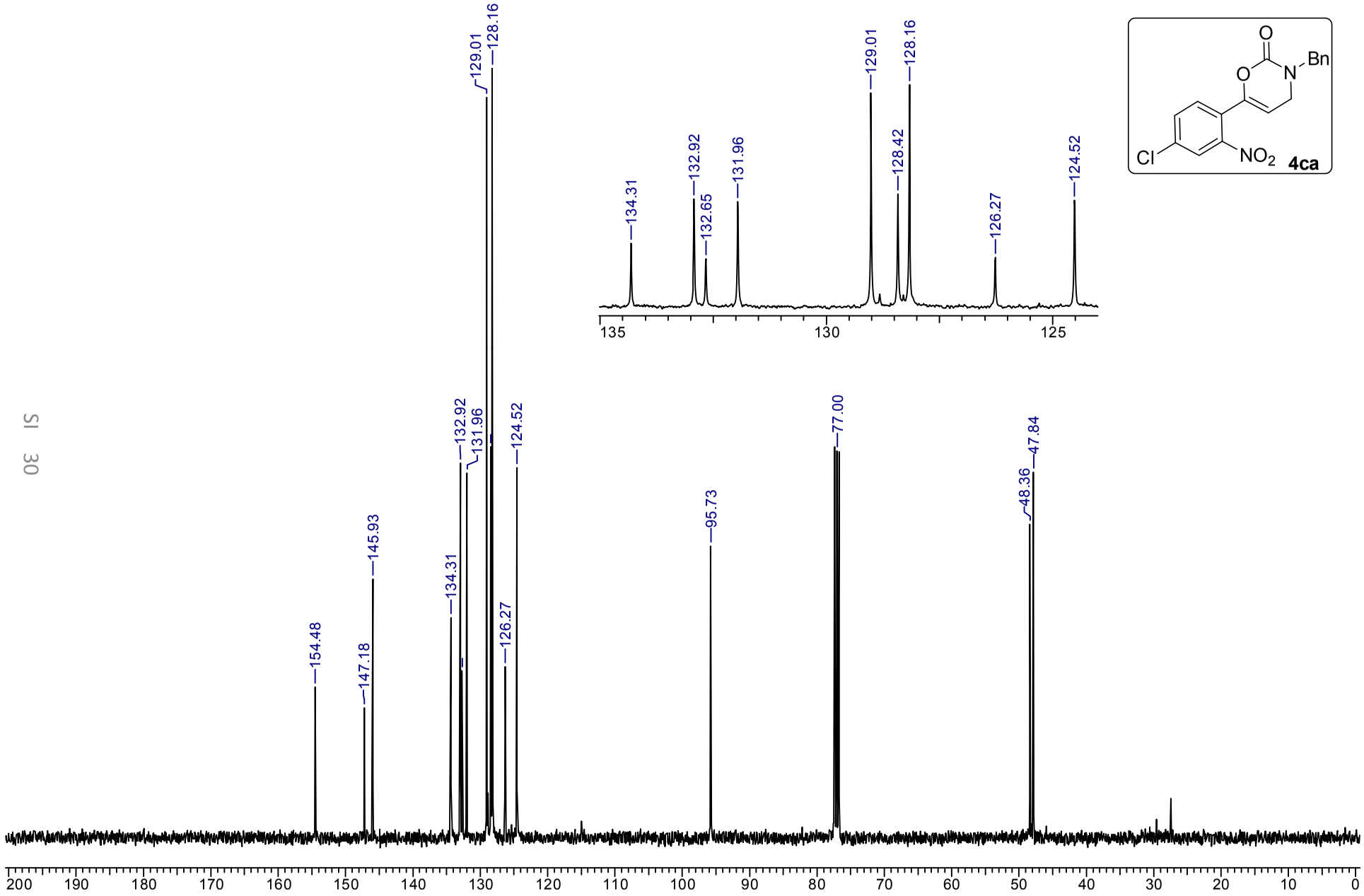
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	22 Mar 2014 15:11:04			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



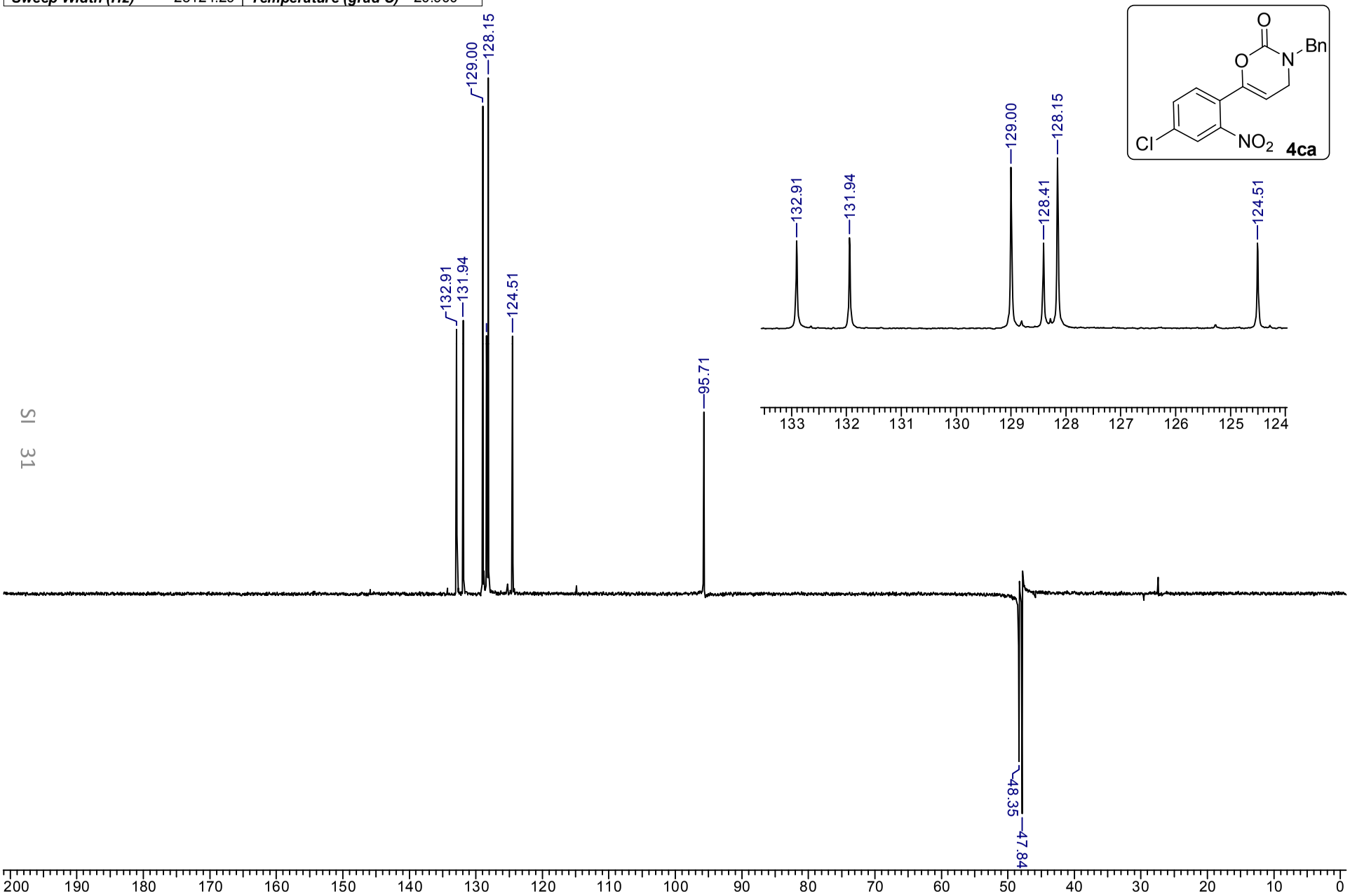




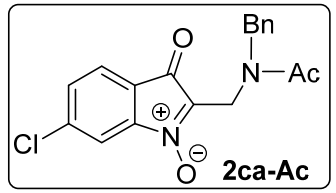
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	25 Mar 2014 07:37:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	88	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29			***Temperature (grad C)***	21.300				

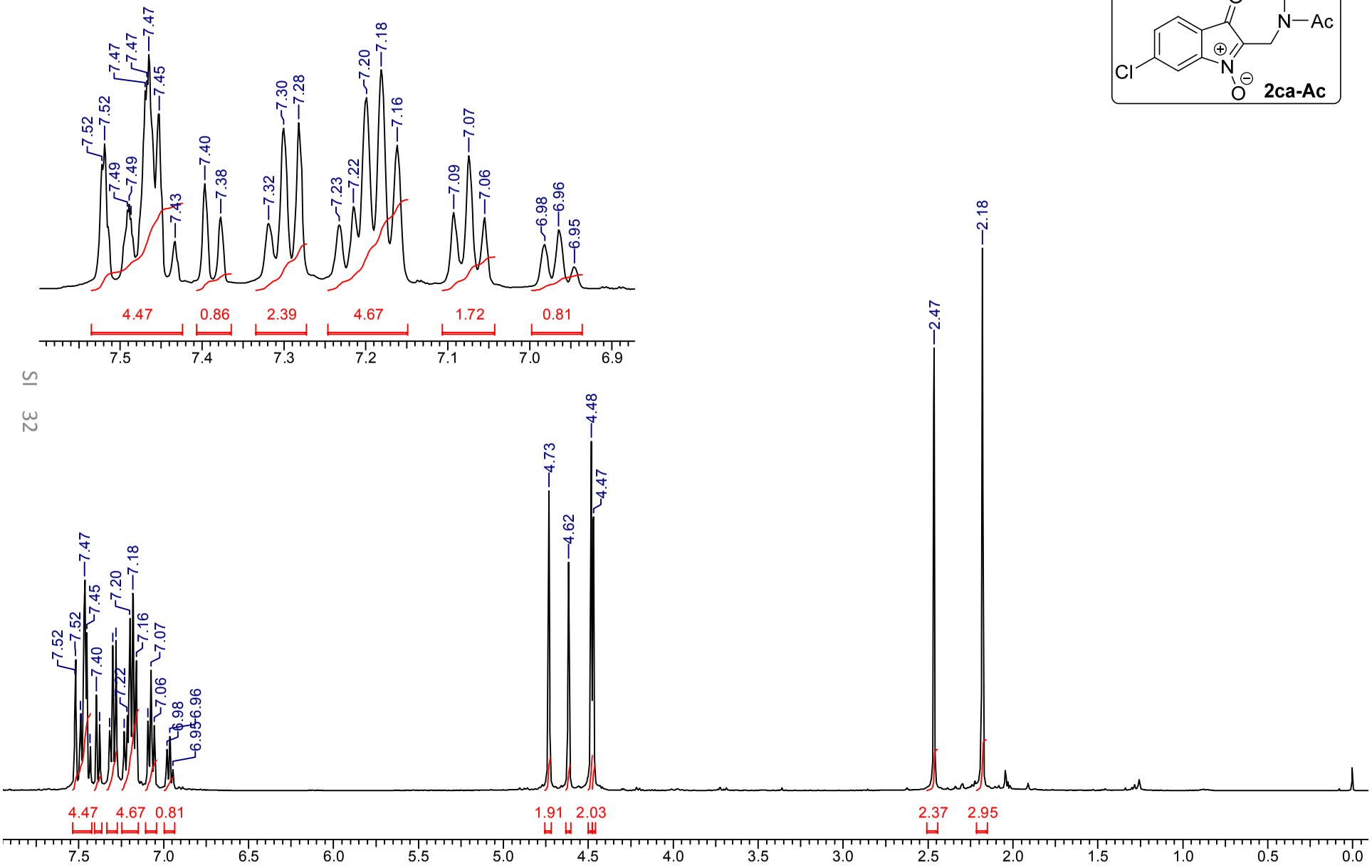


Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	25 Mar 2014 07:37:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	263	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.900						

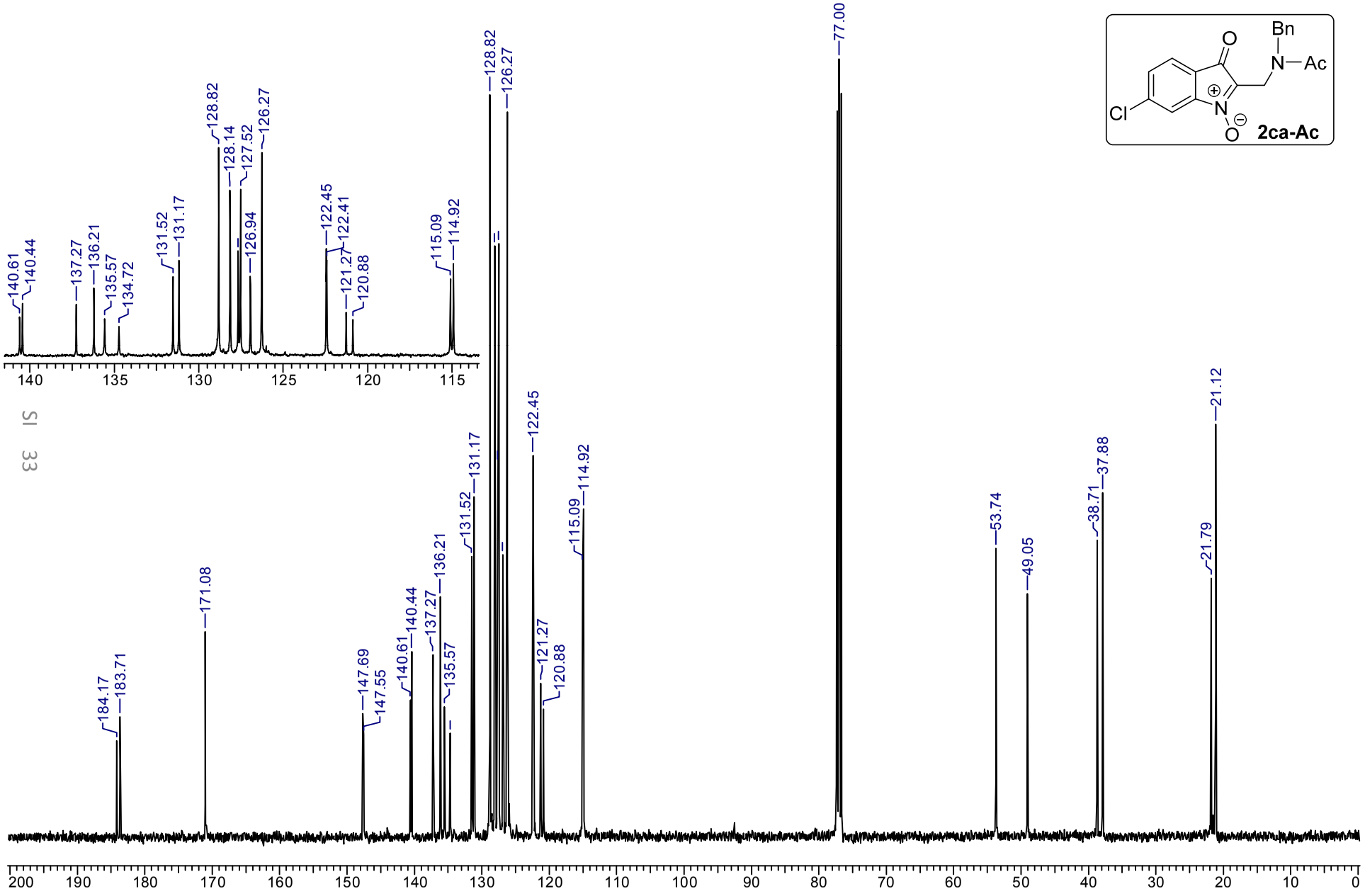


Acquisition Time (sec)	2.1838	***Comment***	Suneel	***Date***	29 Mar 2014 08:05:45			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	23.400						

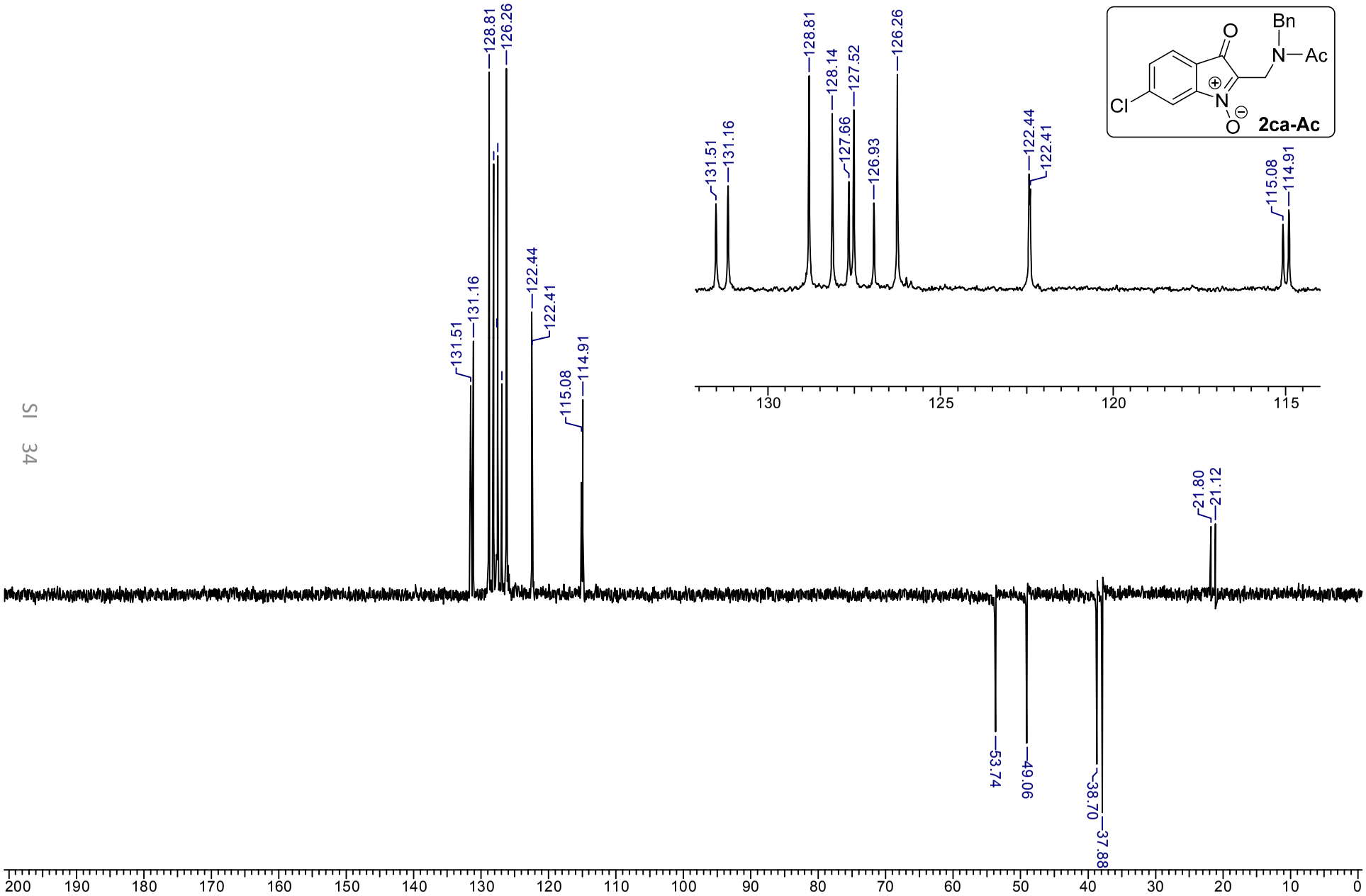




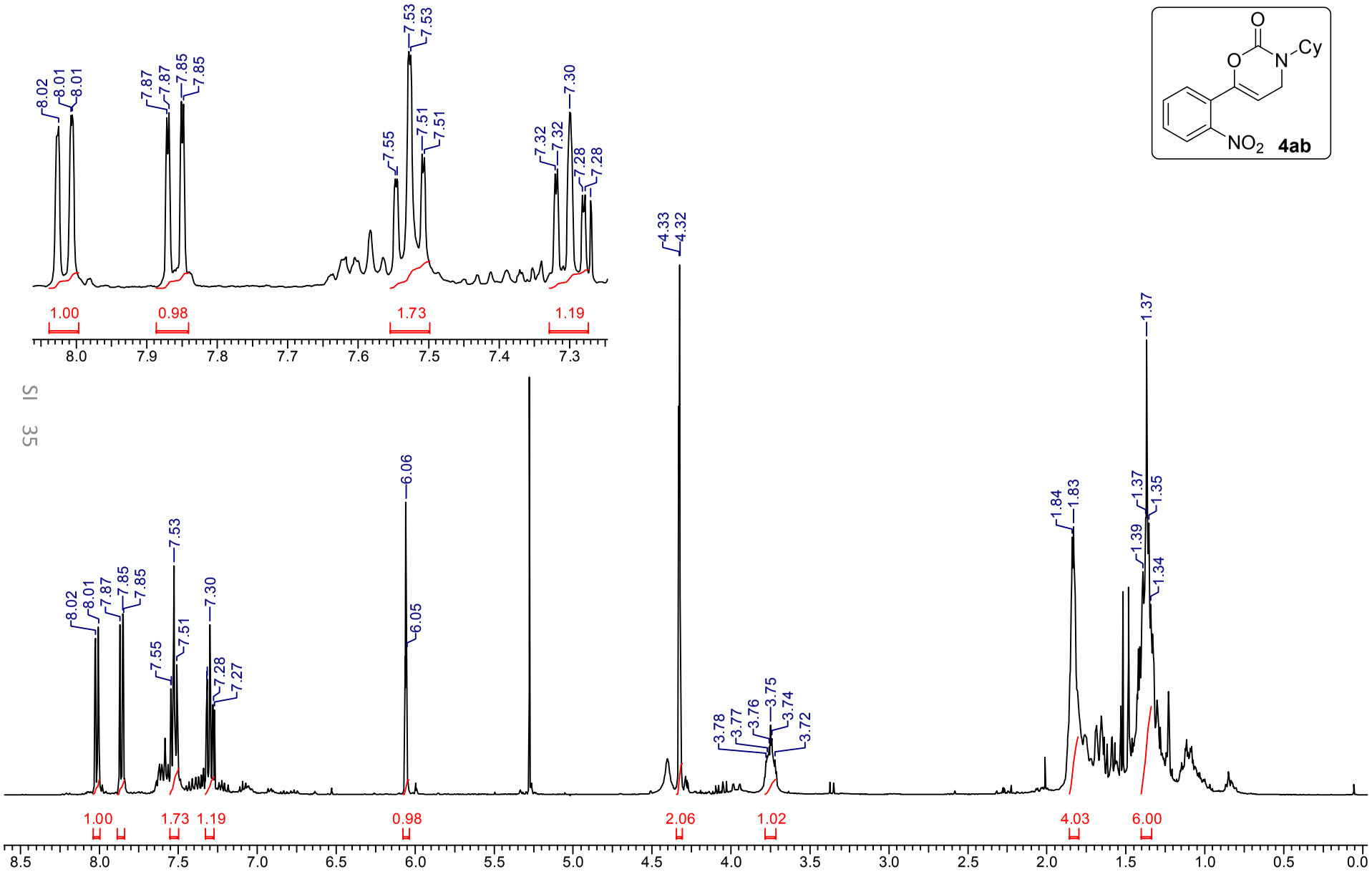
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	31 Mar 2014 11:51:32			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1163	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.800						



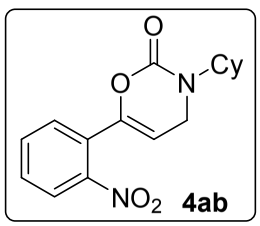
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	31 Mar 2014 11:51:32			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	129	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.800						

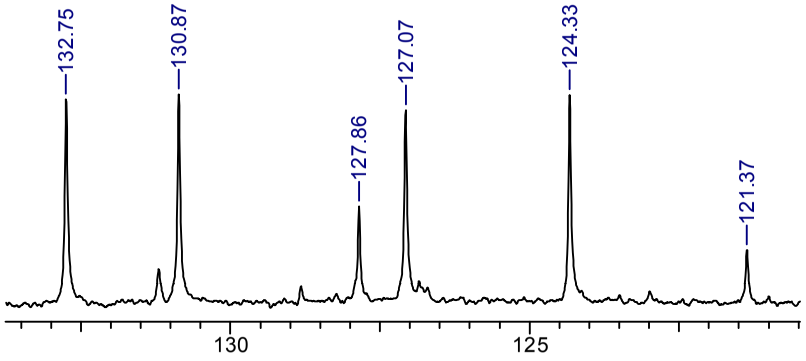


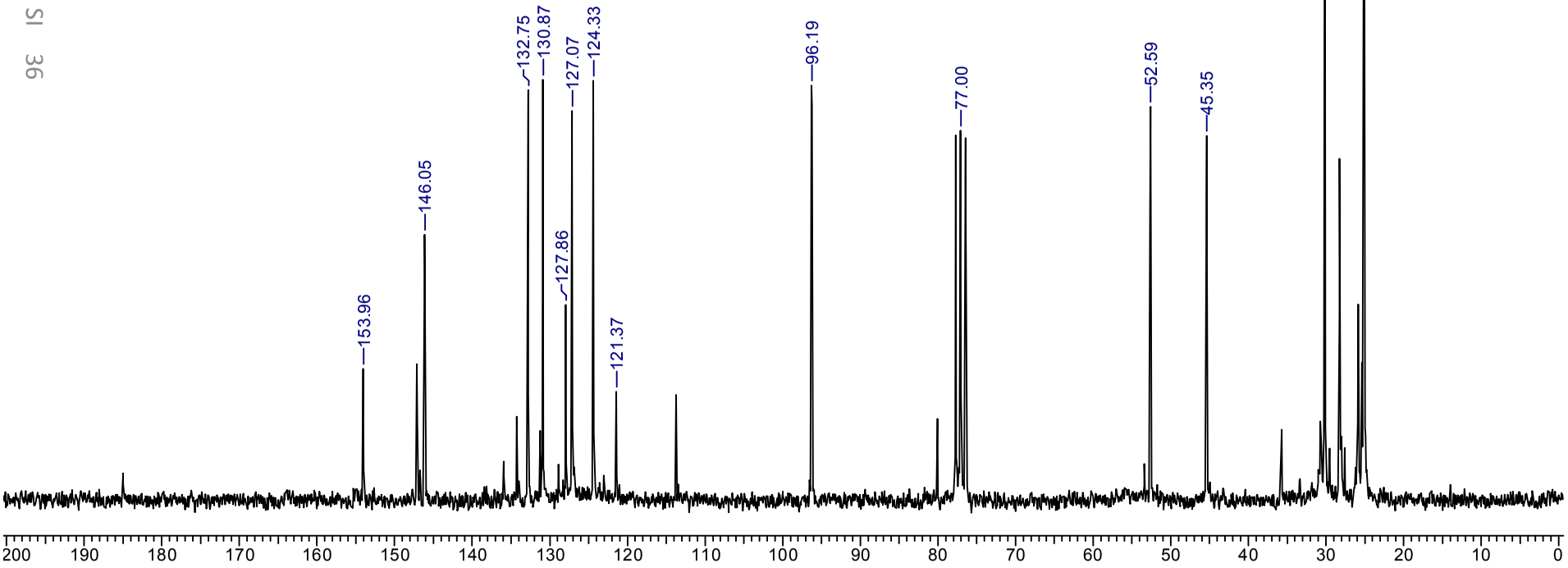
Acquisition Time (sec)	2.1838	***Comment***	santosh	***Date***	10 Sep 2013 13:12:04			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	23.200						



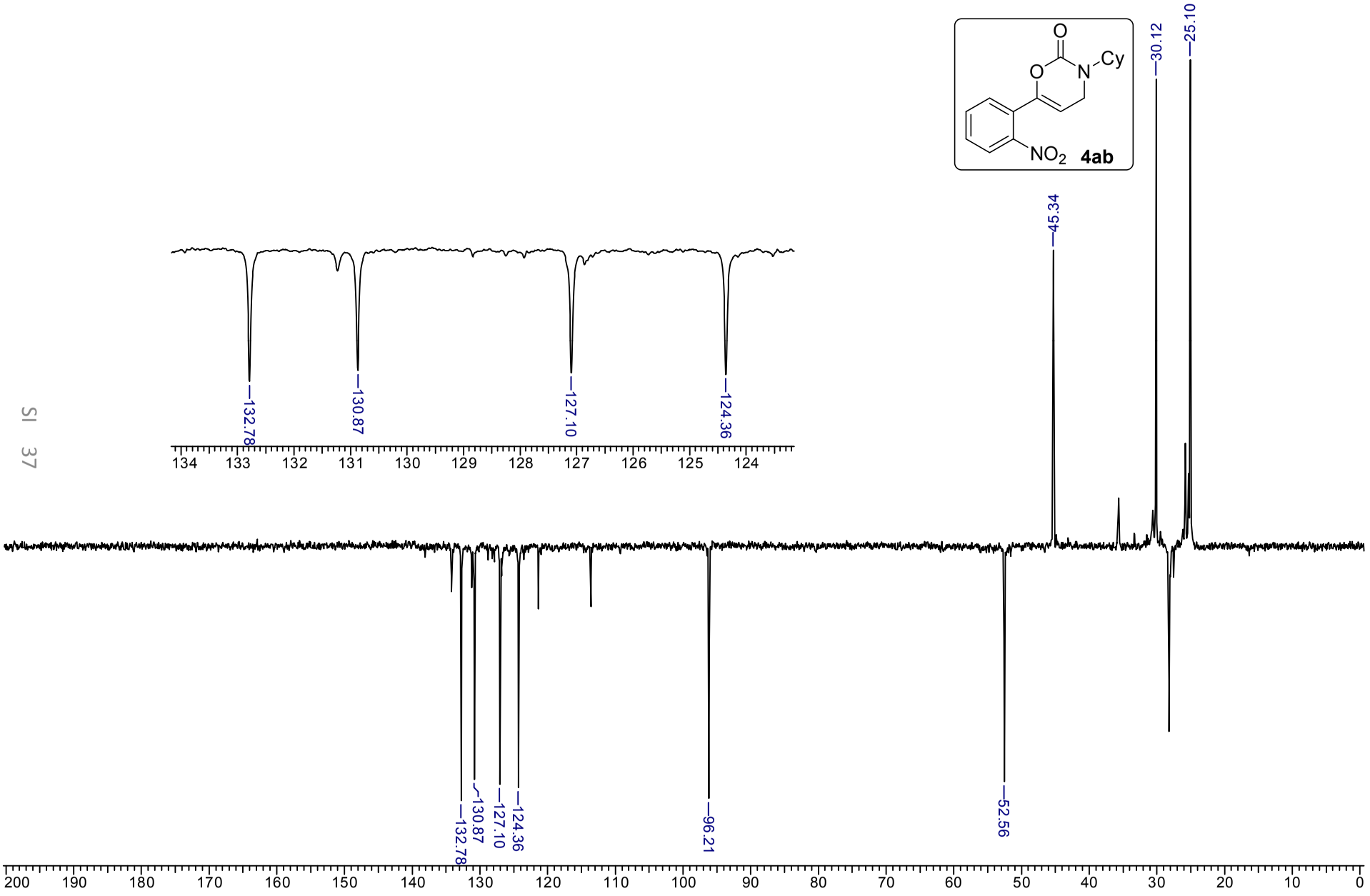
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	16 Sep 2013 02:50:48			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	1600	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



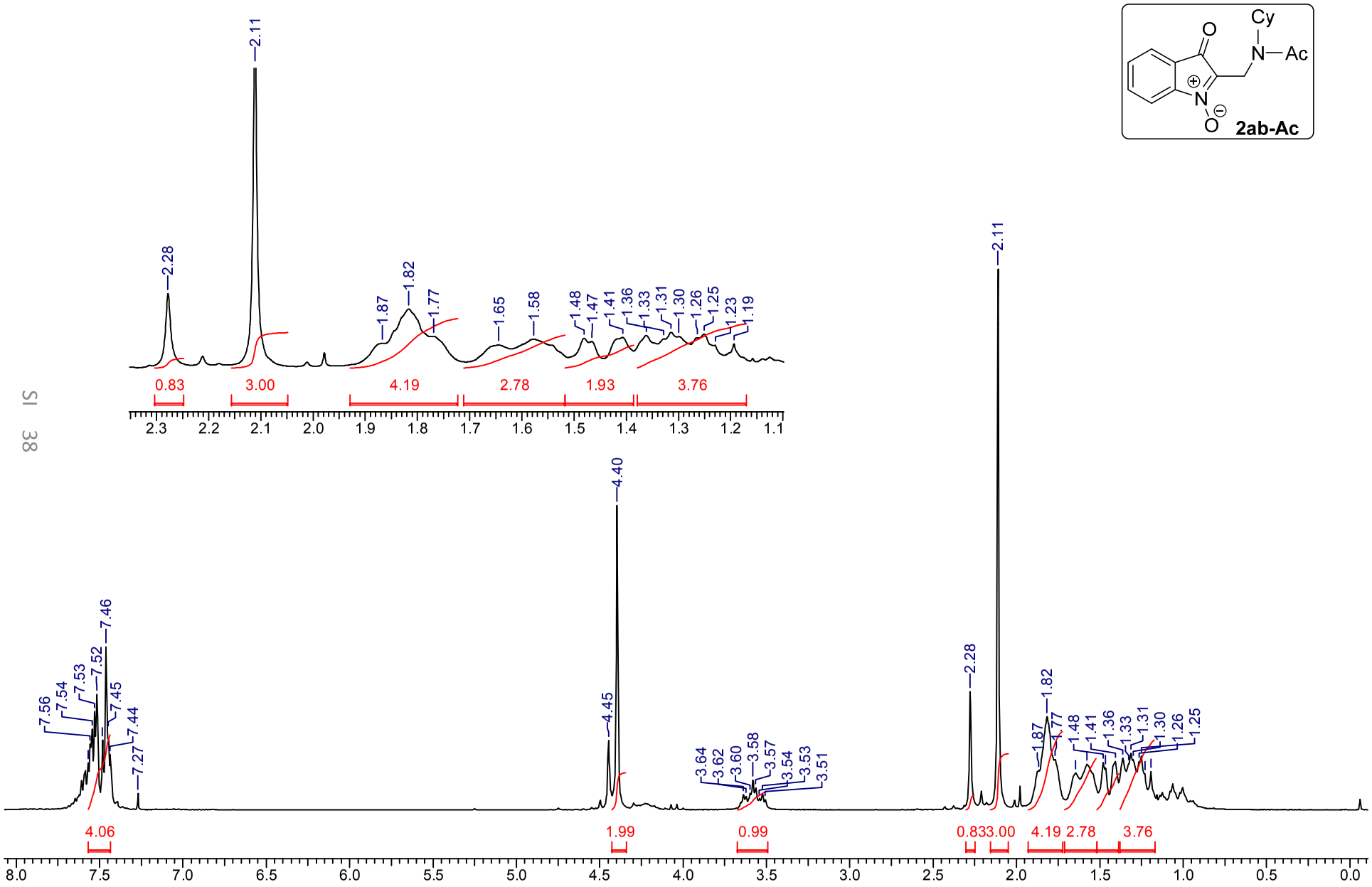




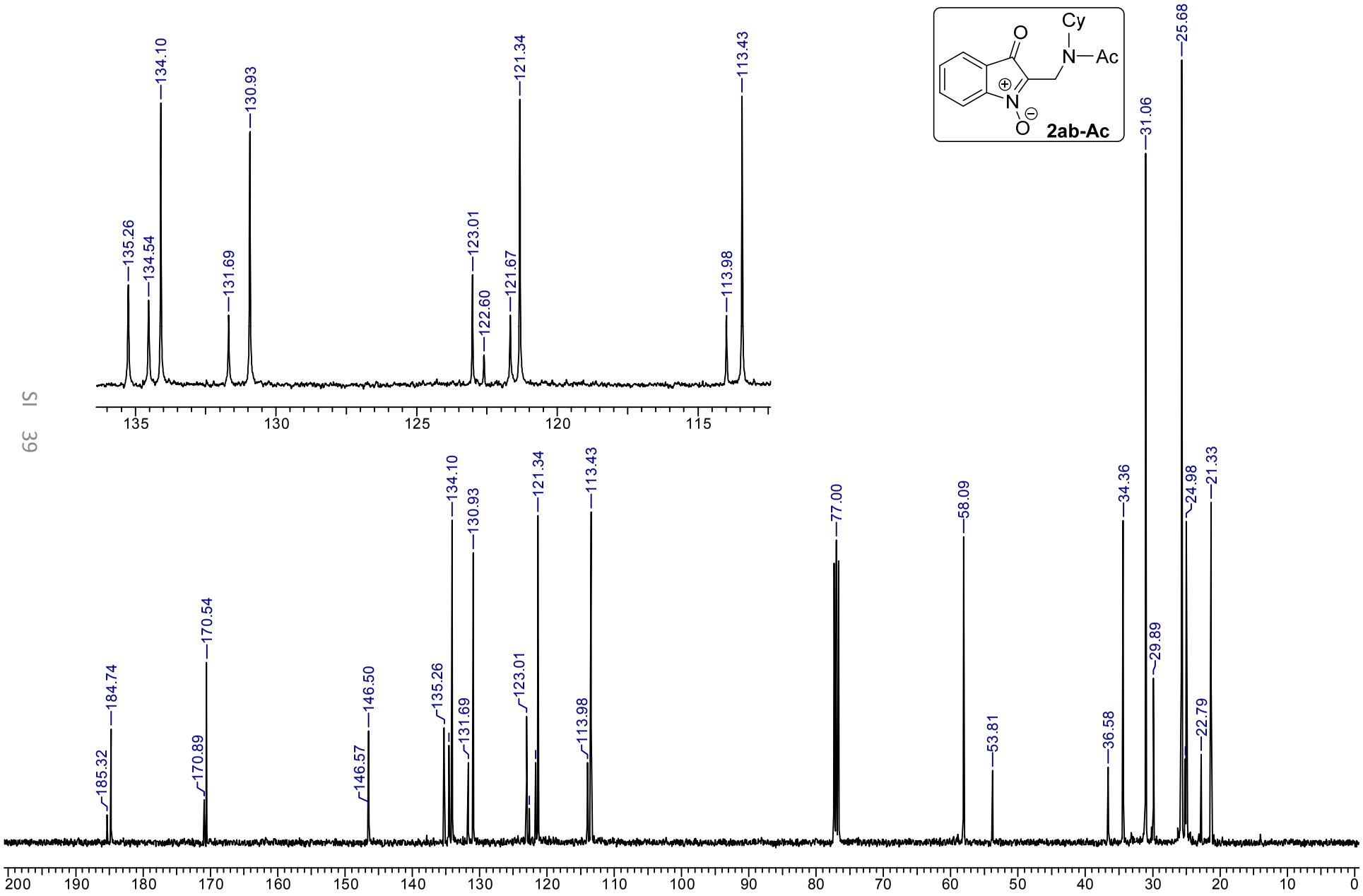
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	16 Sep 2013 01:36:08			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



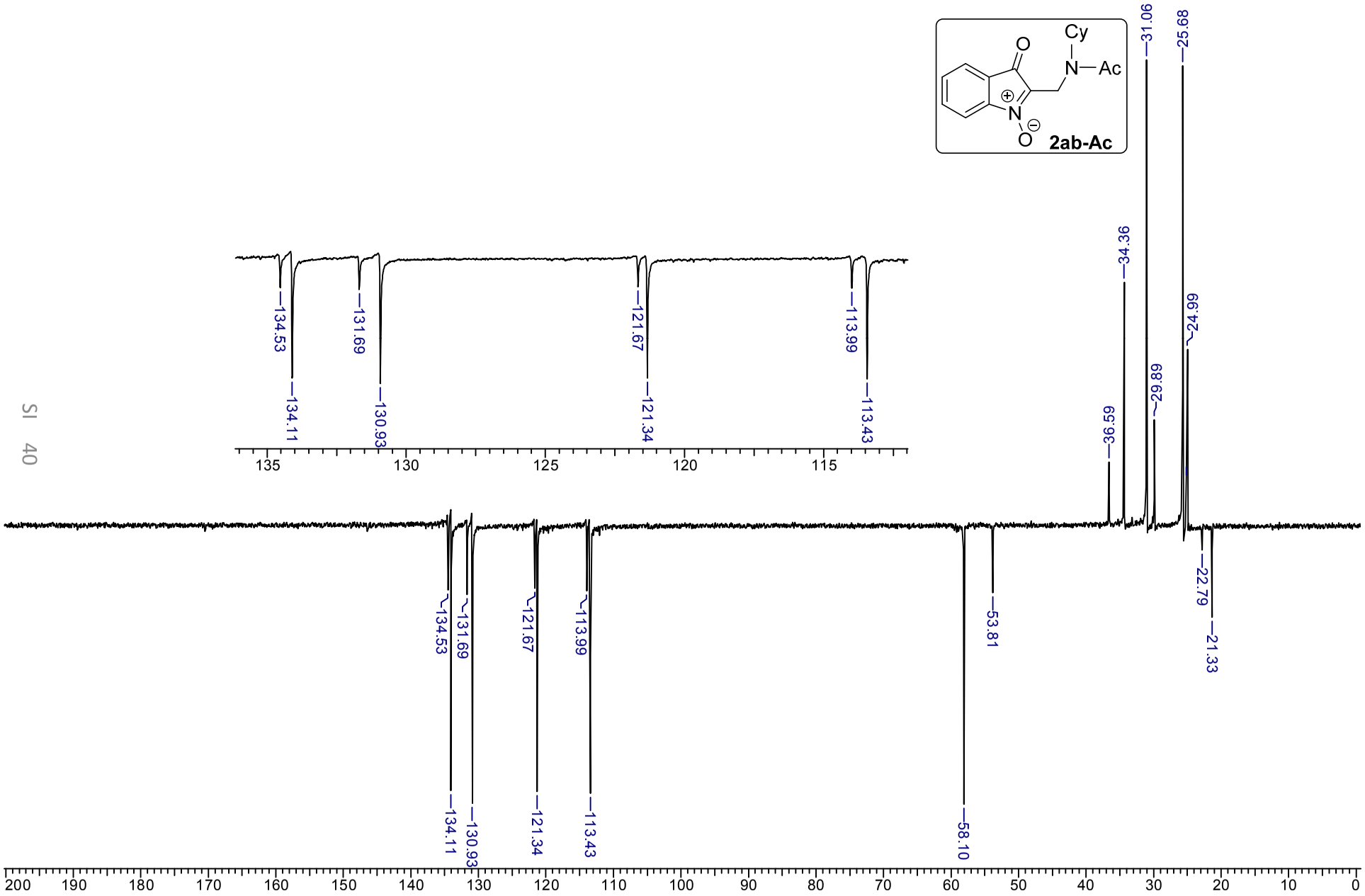
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	27 Mar 2014 17:14:48			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



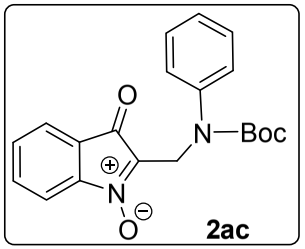
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	30 Mar 2014 14:39:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.700						

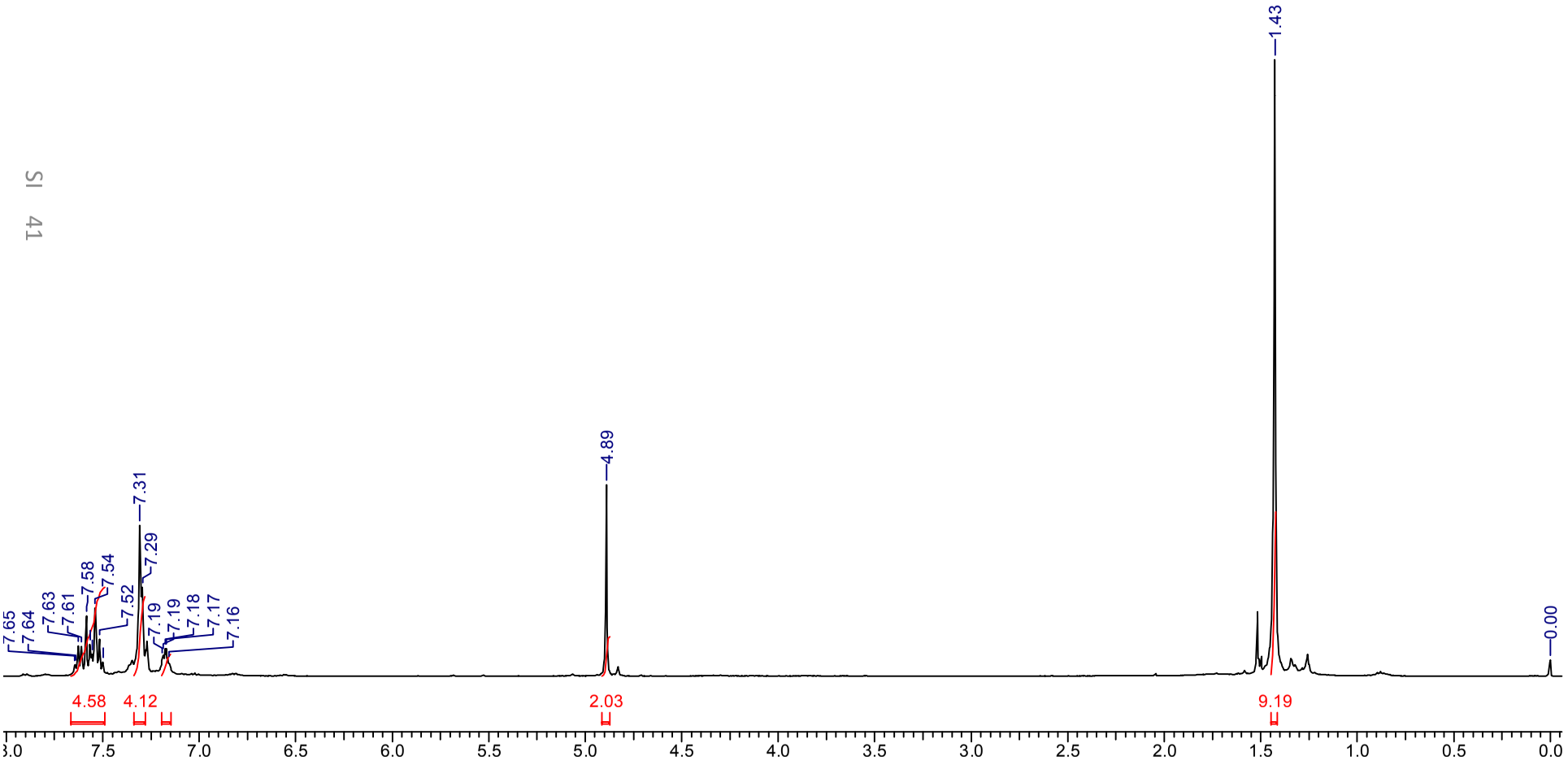


Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	30 Mar 2014 14:39:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.600						

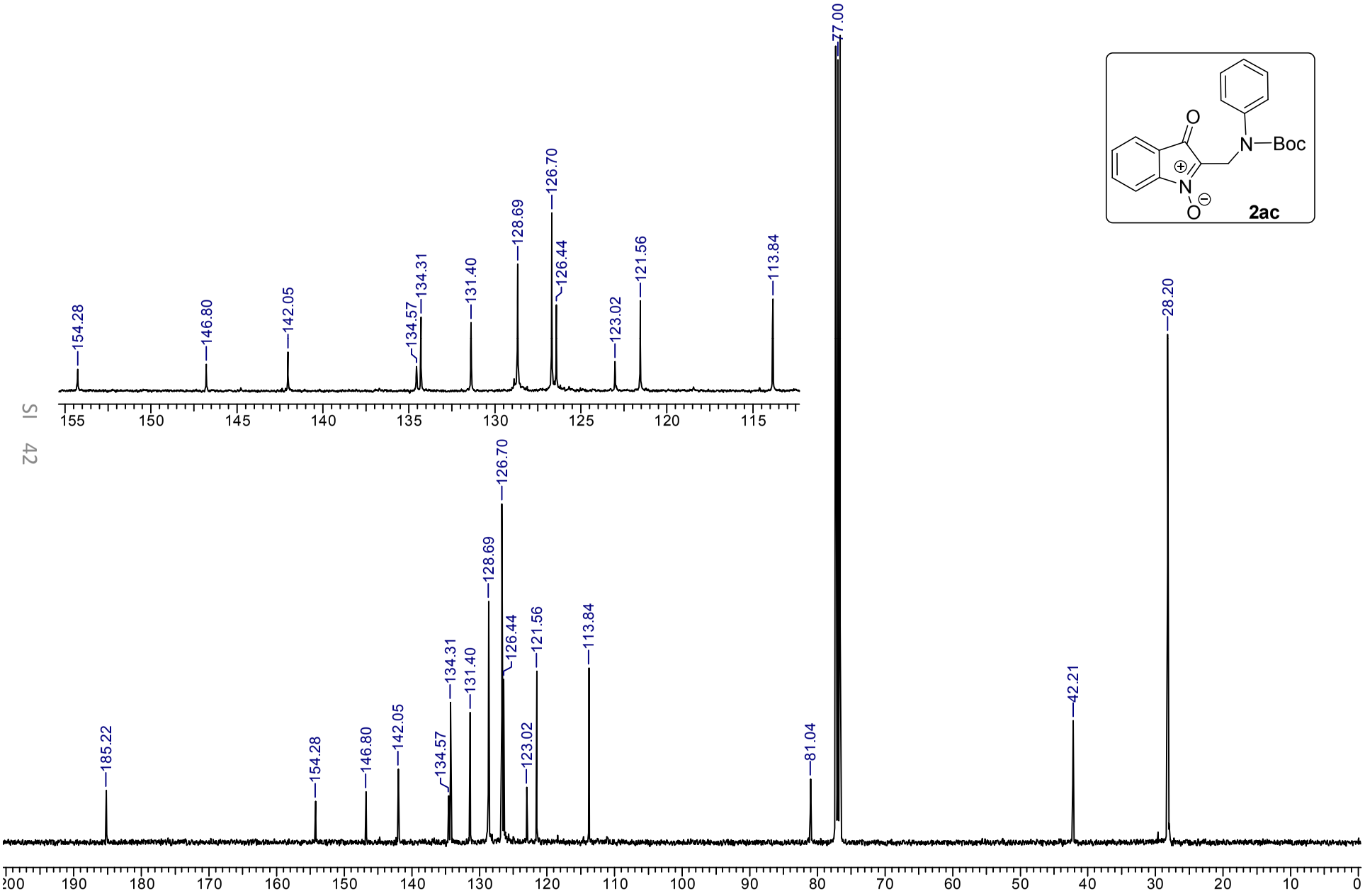


Acquisition Time (sec)	2.1838	***Comment***	Suneel	***Date***	24 Apr 2014 11:28:16			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	4	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	20.500						

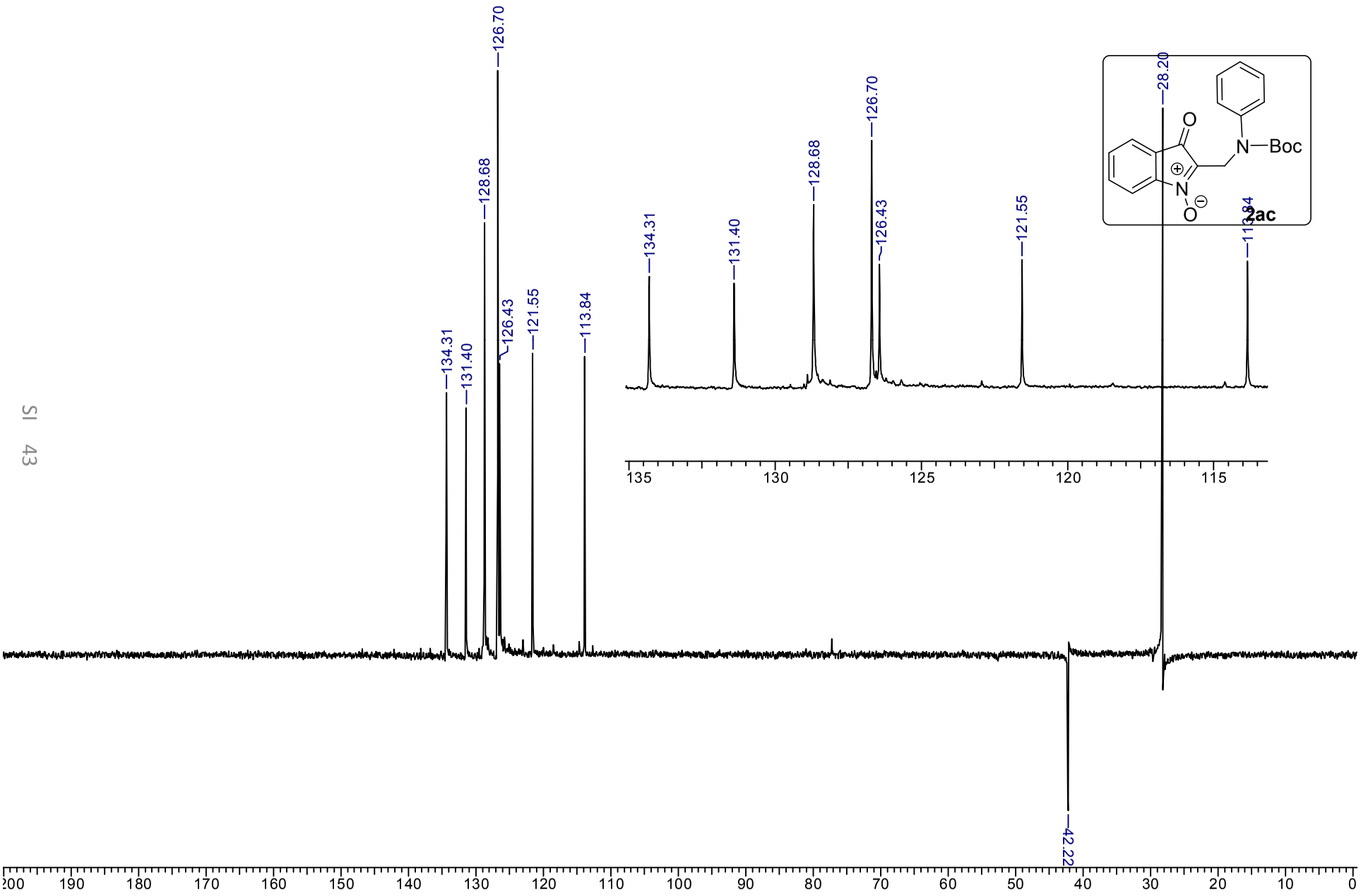




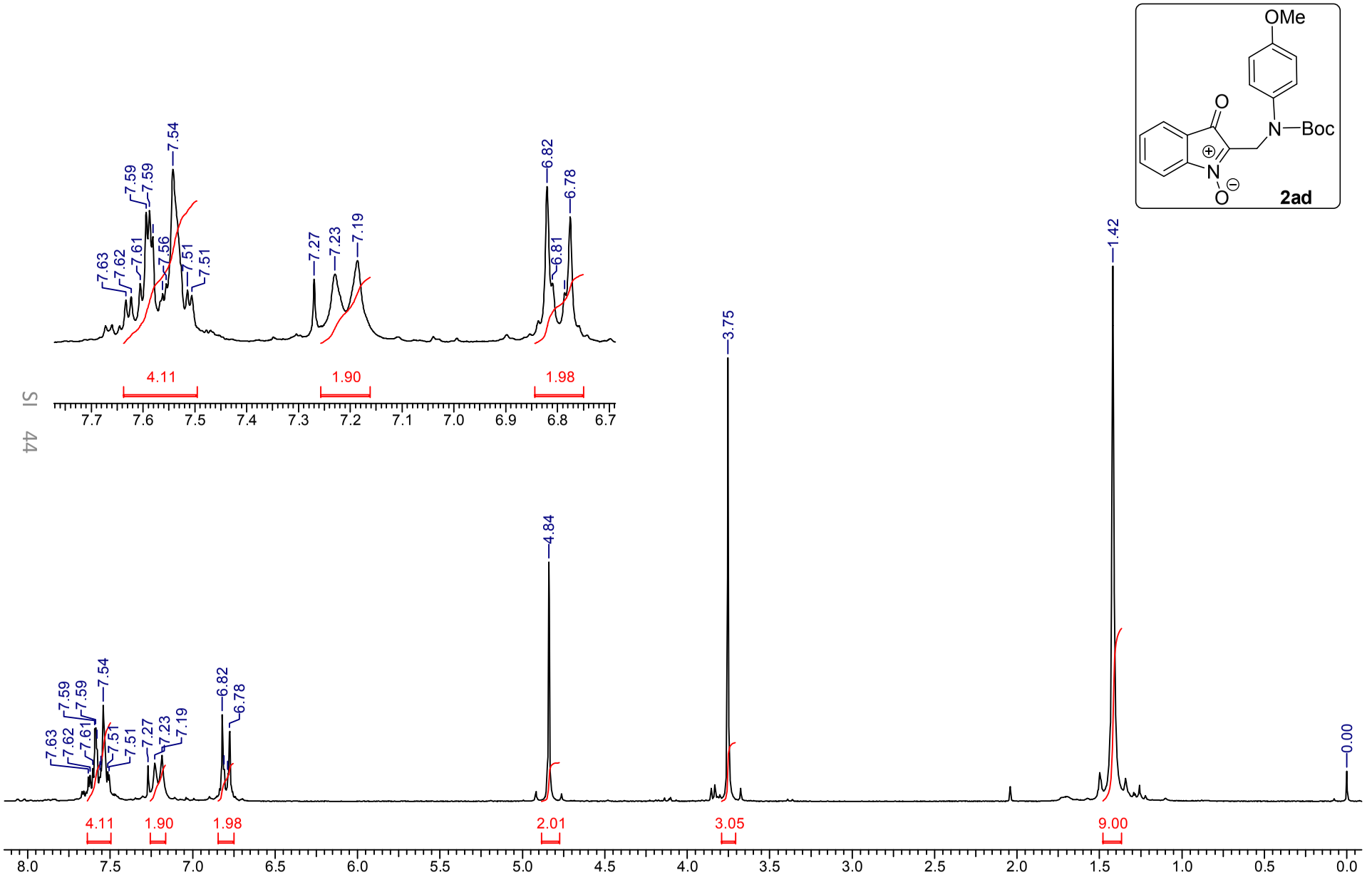
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	22 Apr 2014 16:58:11			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.600						



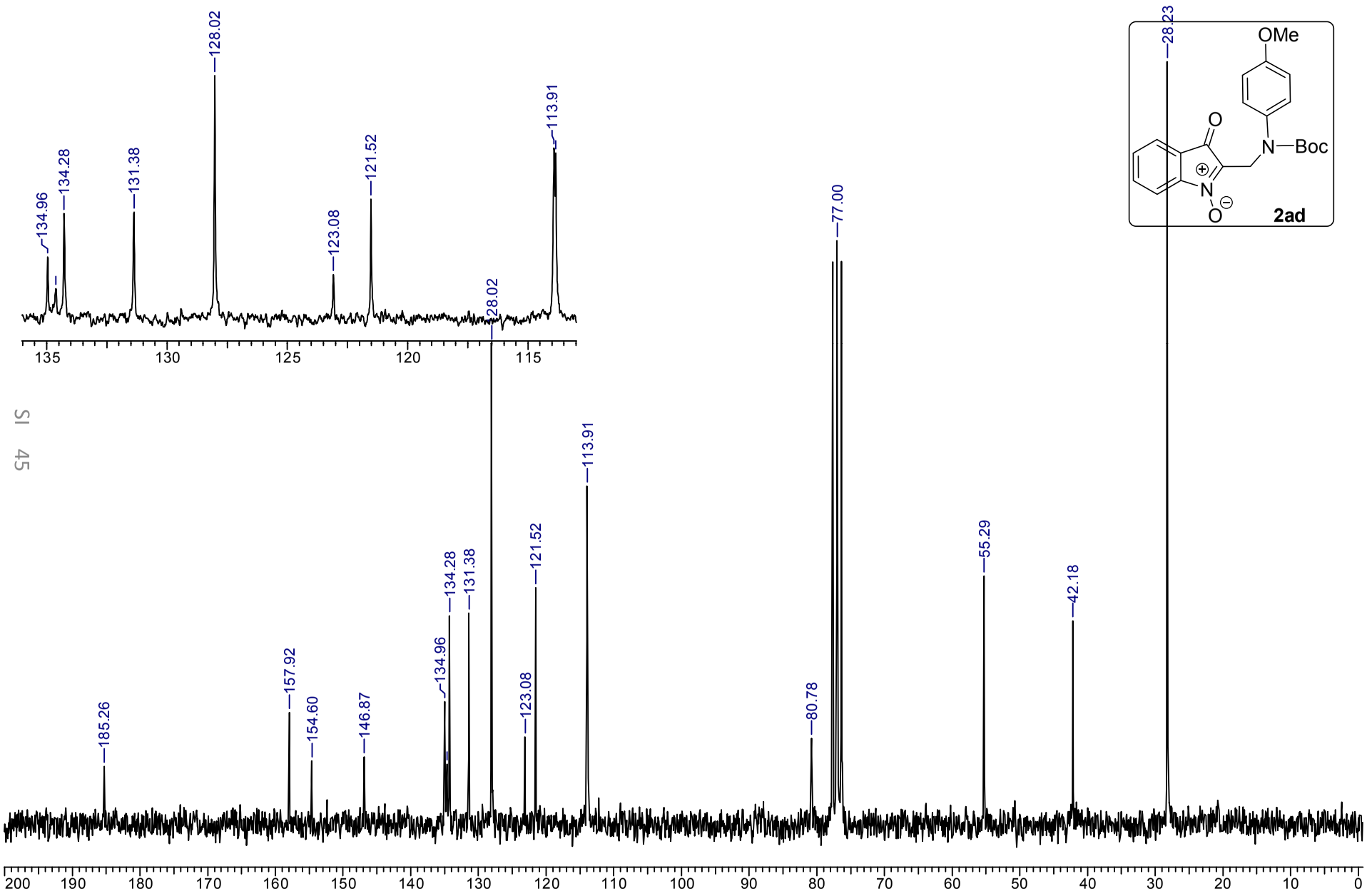
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	22 Apr 2014 16:58:11			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.300						



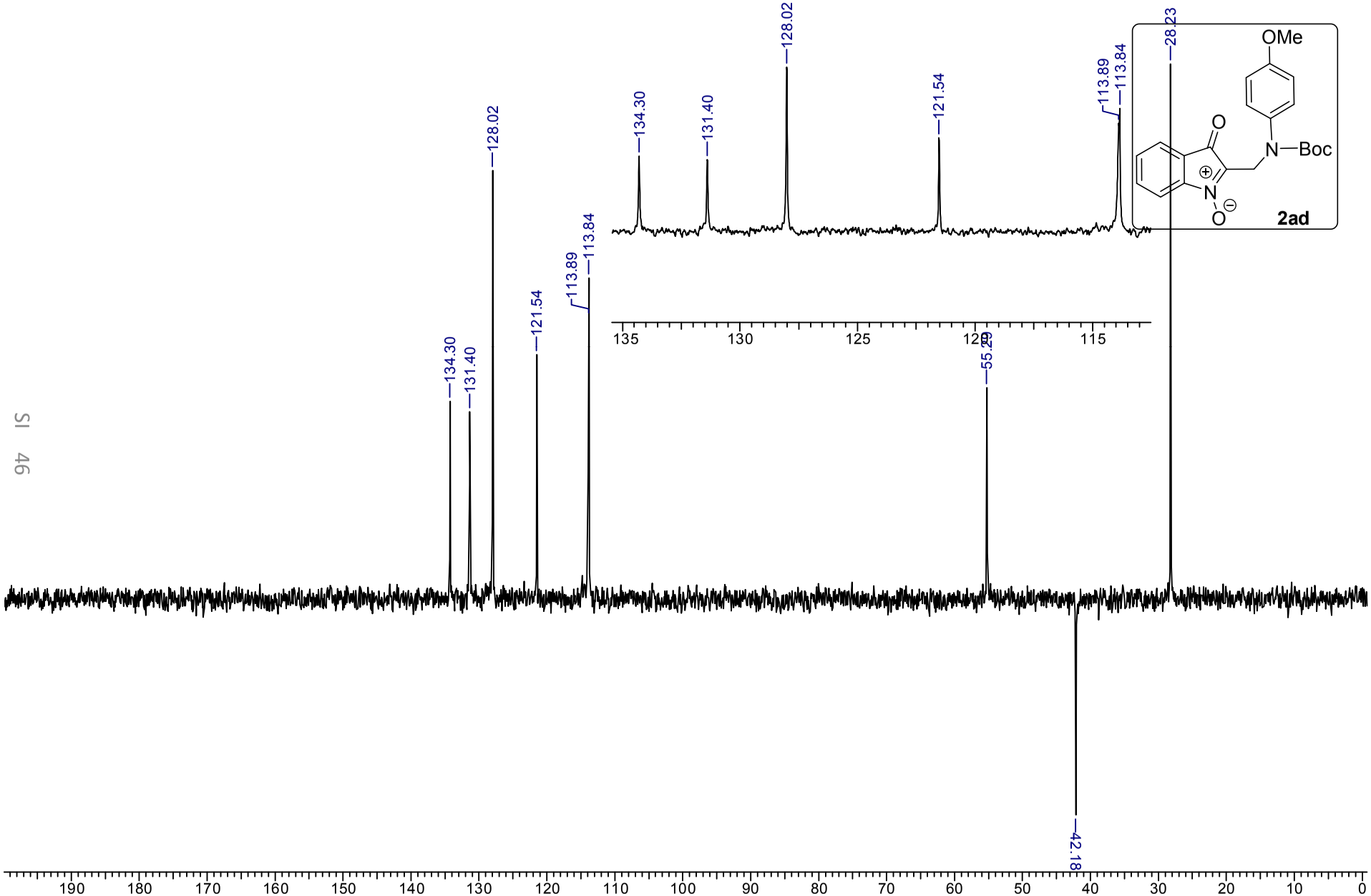
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	29 Mar 2014 17:59:36			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



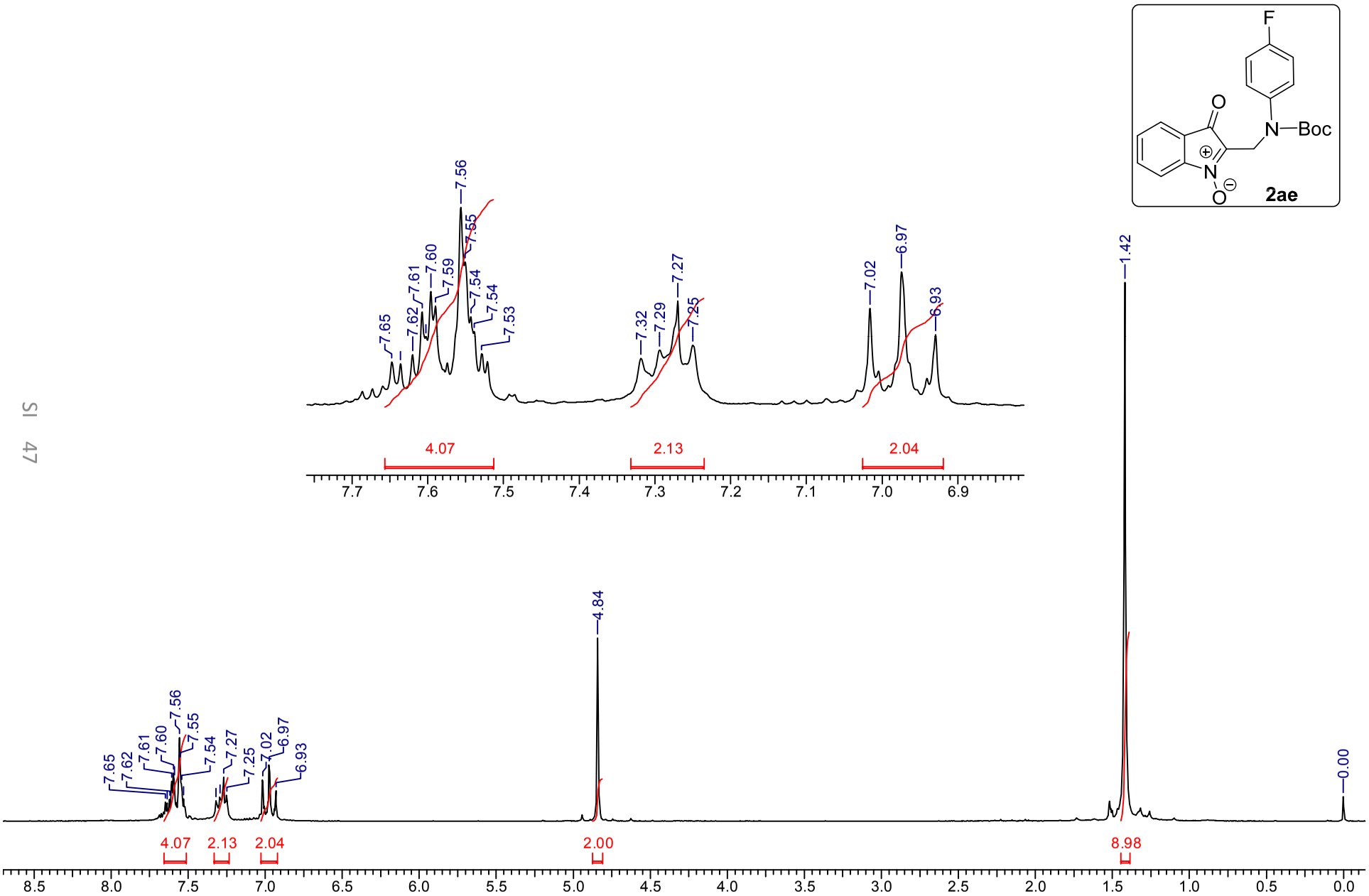
Acquisition Time (sec)	0.6832	***Comment***	Suneel kumar			***Date***	02 Apr 2014 03:52:40		
Frequency (MHz)	50.32	***Nucleus***	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768
Solvent	CHLOROFORM-d			***Sweep Width (Hz)***	11990.04	***Temperature (grad C)***	27.000		



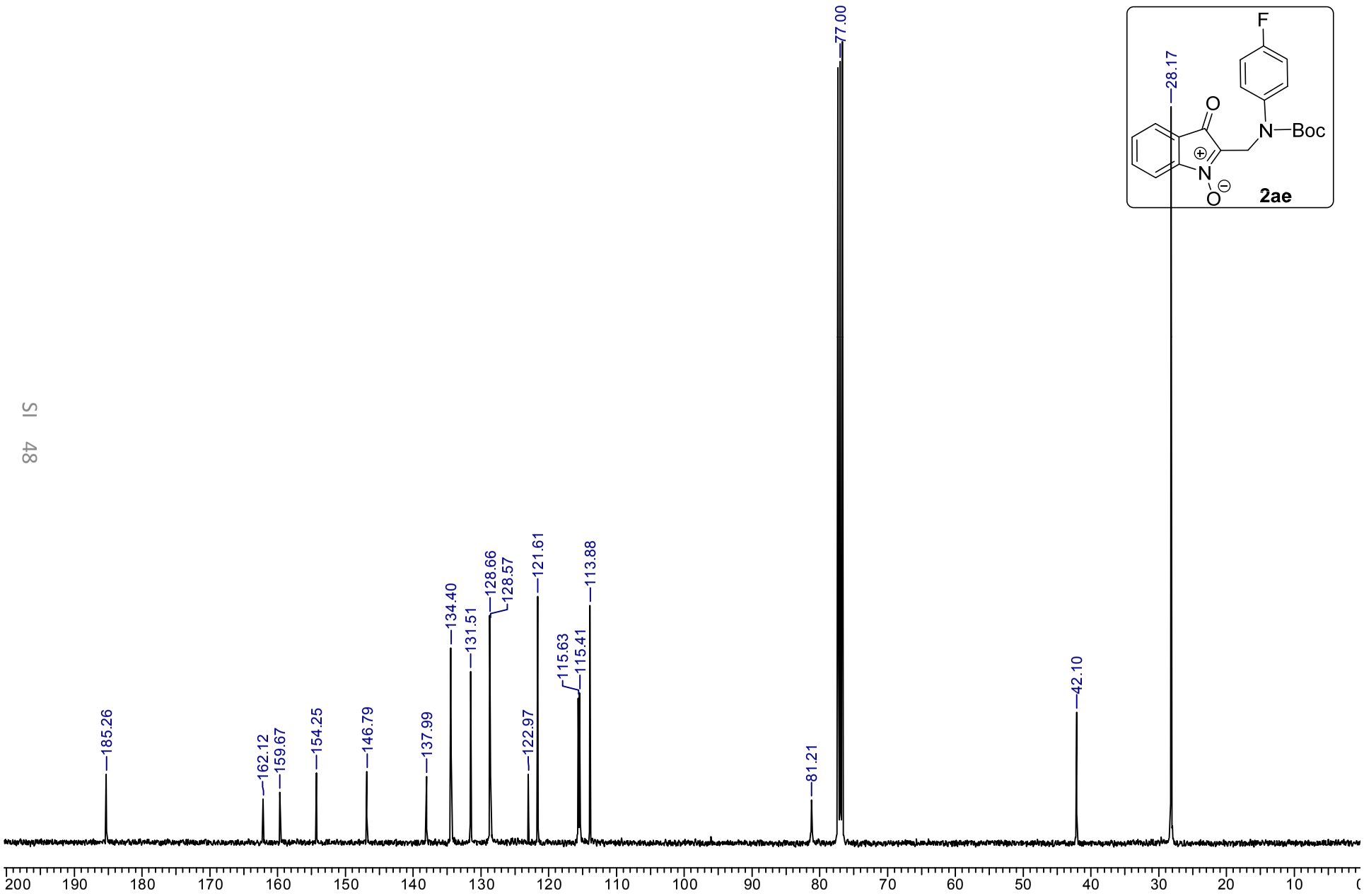
Acquisition Time (sec)	0.6832	***Comment***	Suneel kumar			***Date***	02 Apr 2014 03:14:16
Frequency (MHz)	50.32	***Nucleus***	13C	***Number of Transients***	400	***Original Points Count***	8192
Solvent	CHLOROFORM-d			***Sweep Width (Hz)***	11990.04	***Temperature (grad C)***	27.000



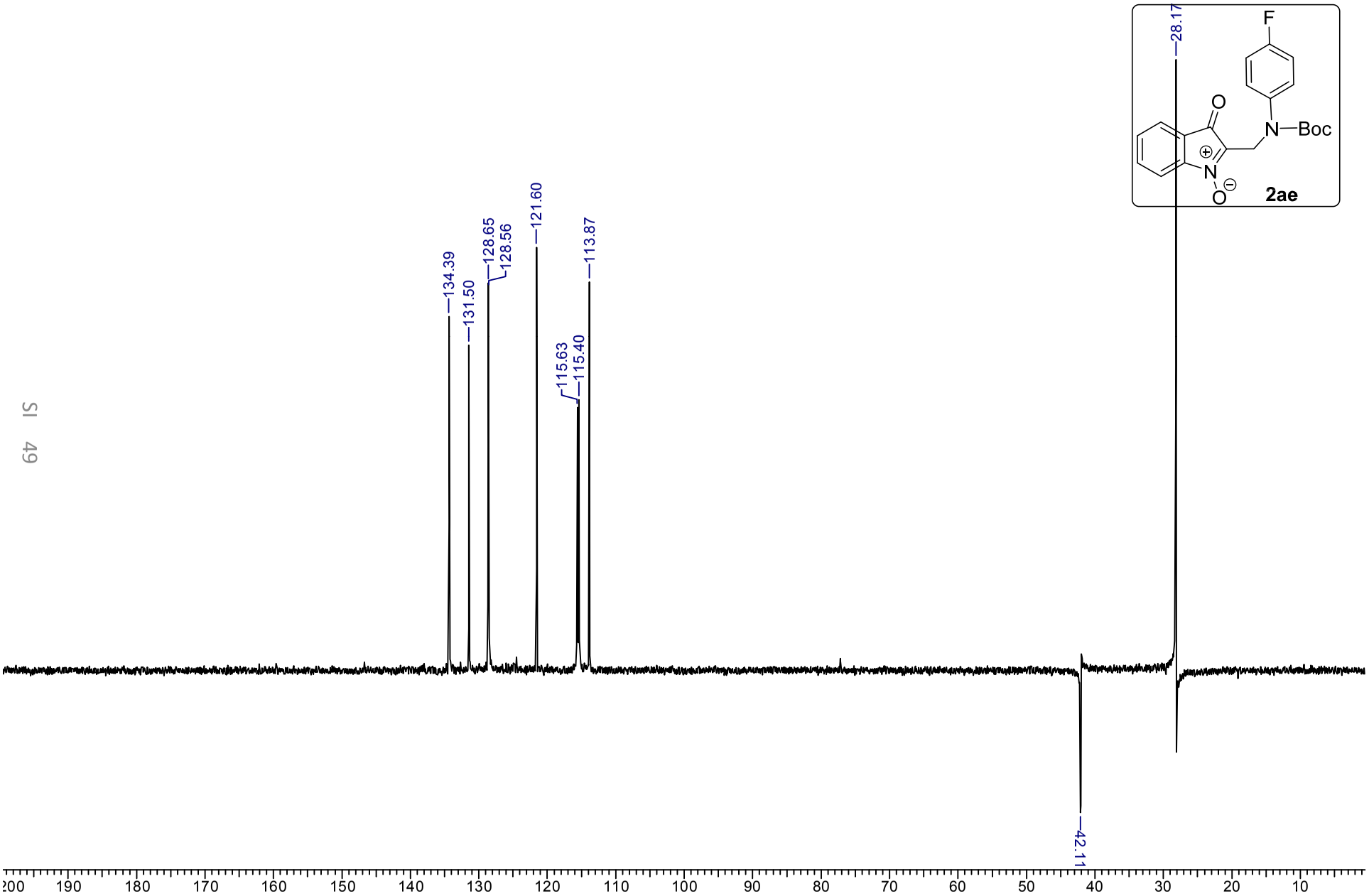
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	12 Apr 2014 15:47:20			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



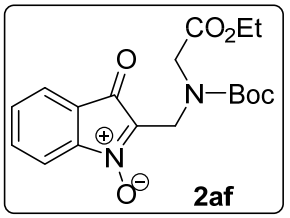
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	15 Apr 2014 05:14:17			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.200						

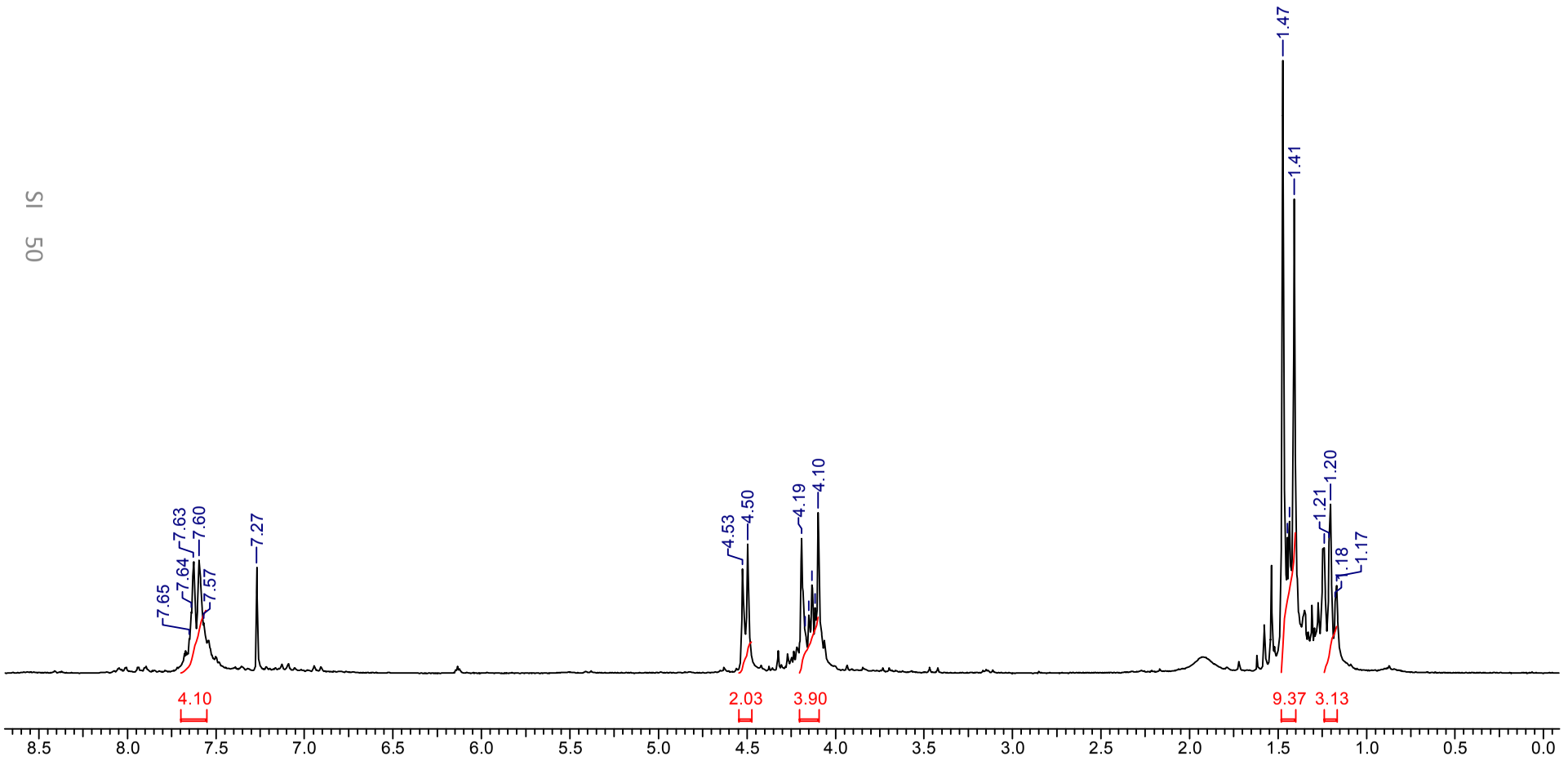


Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	15 Apr 2014 05:14:17			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.100						

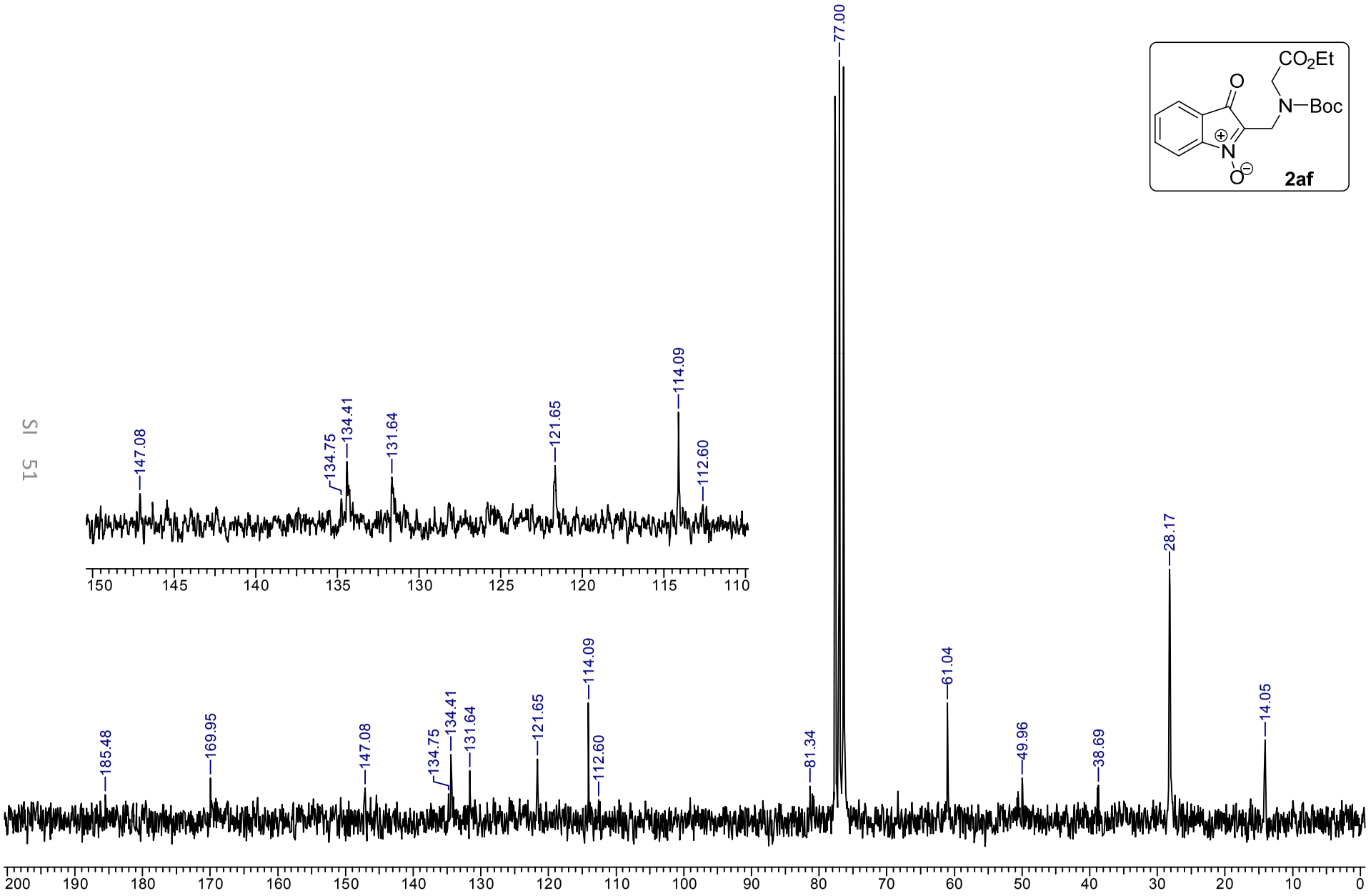


Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	29 Jul 2013 18:18:48			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

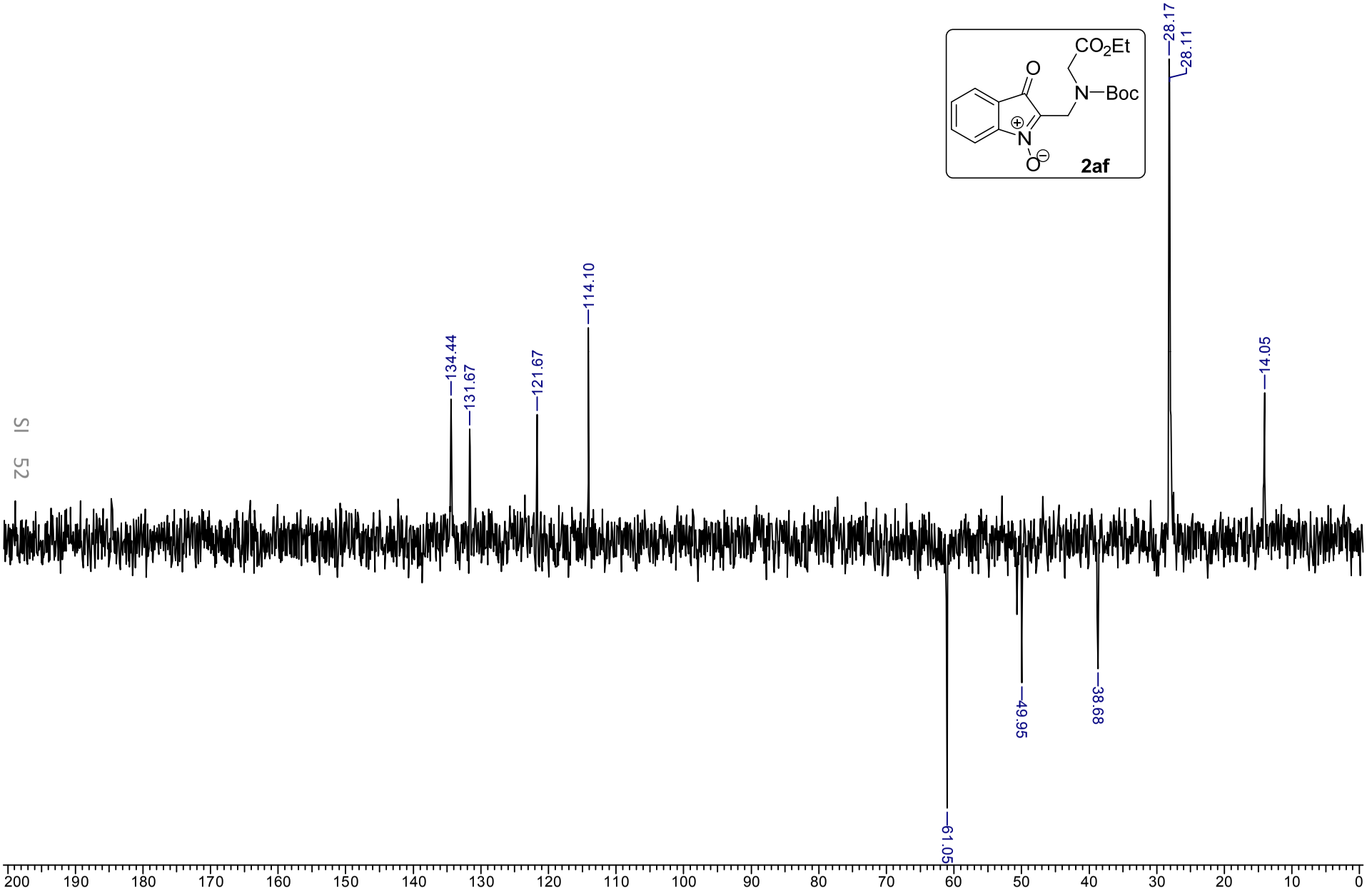




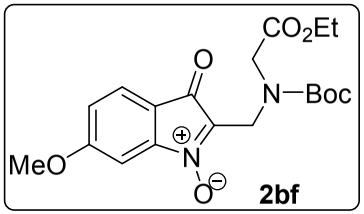
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	08 Aug 2013 03:37:44			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

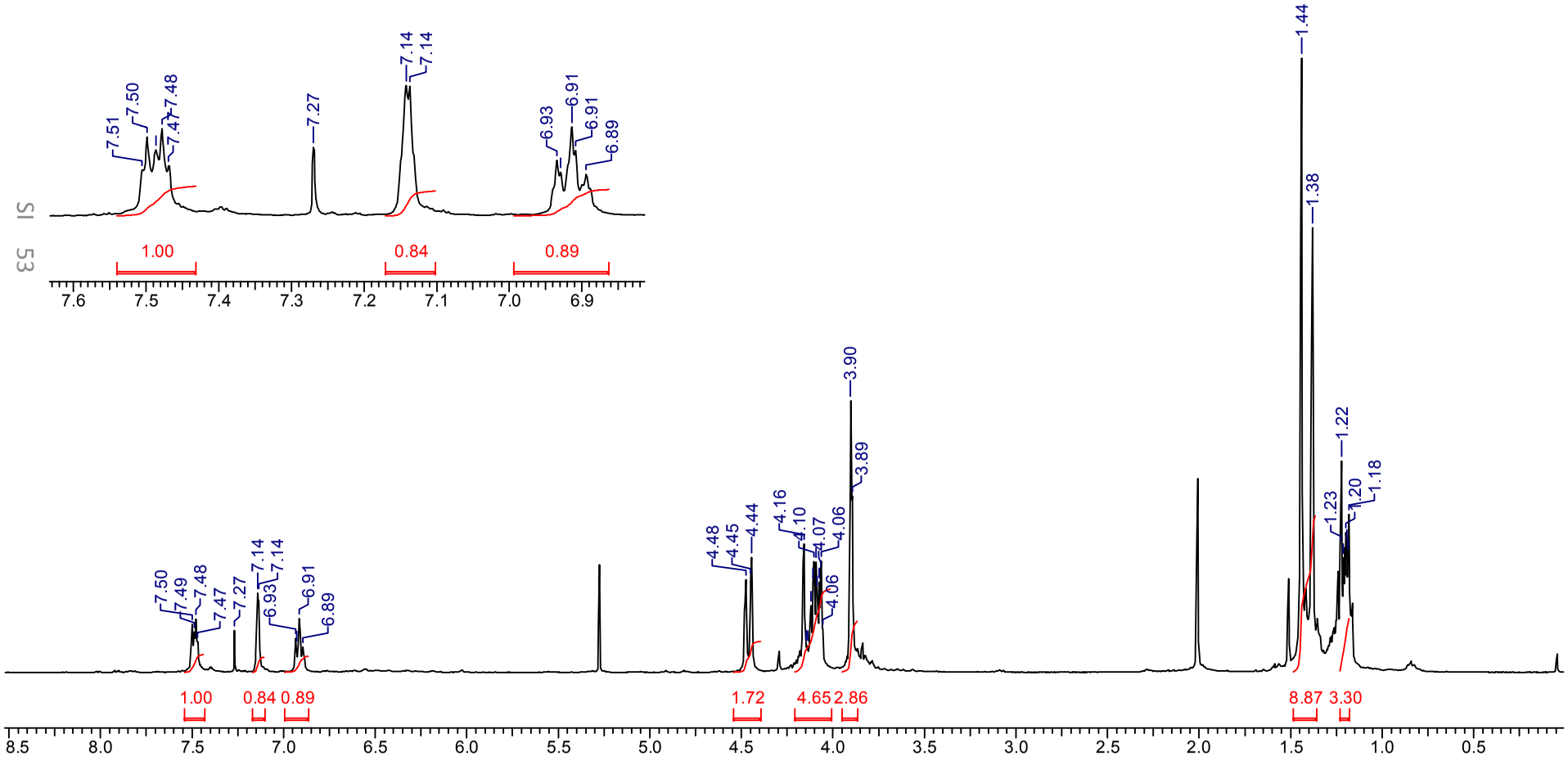


Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	08 Aug 2013 02:59:20			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

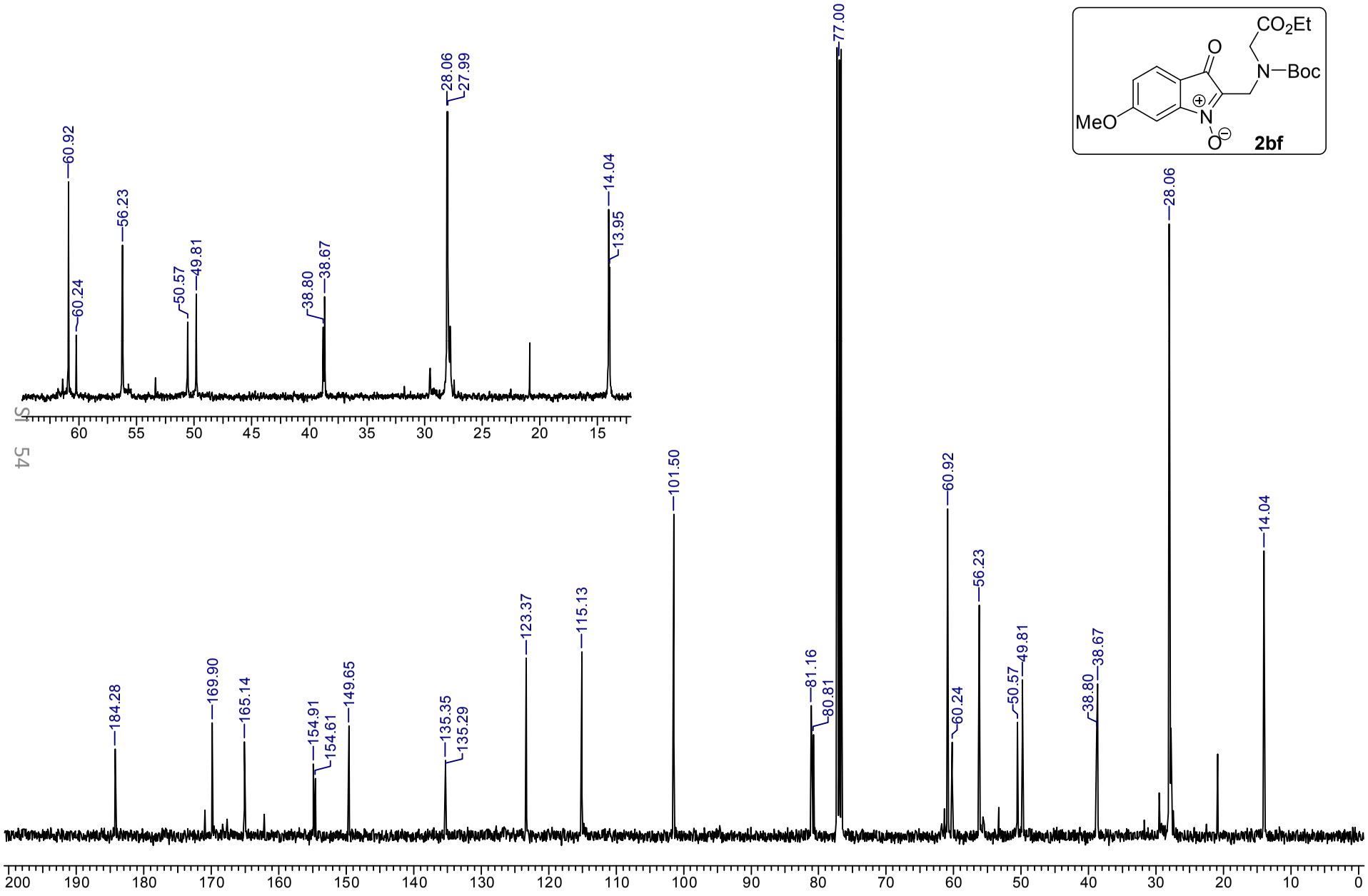


Acquisition Time (sec)	2.1838	***Comment***	santosh	***Date***	27 Sep 2013 15:36:52			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	23.000						

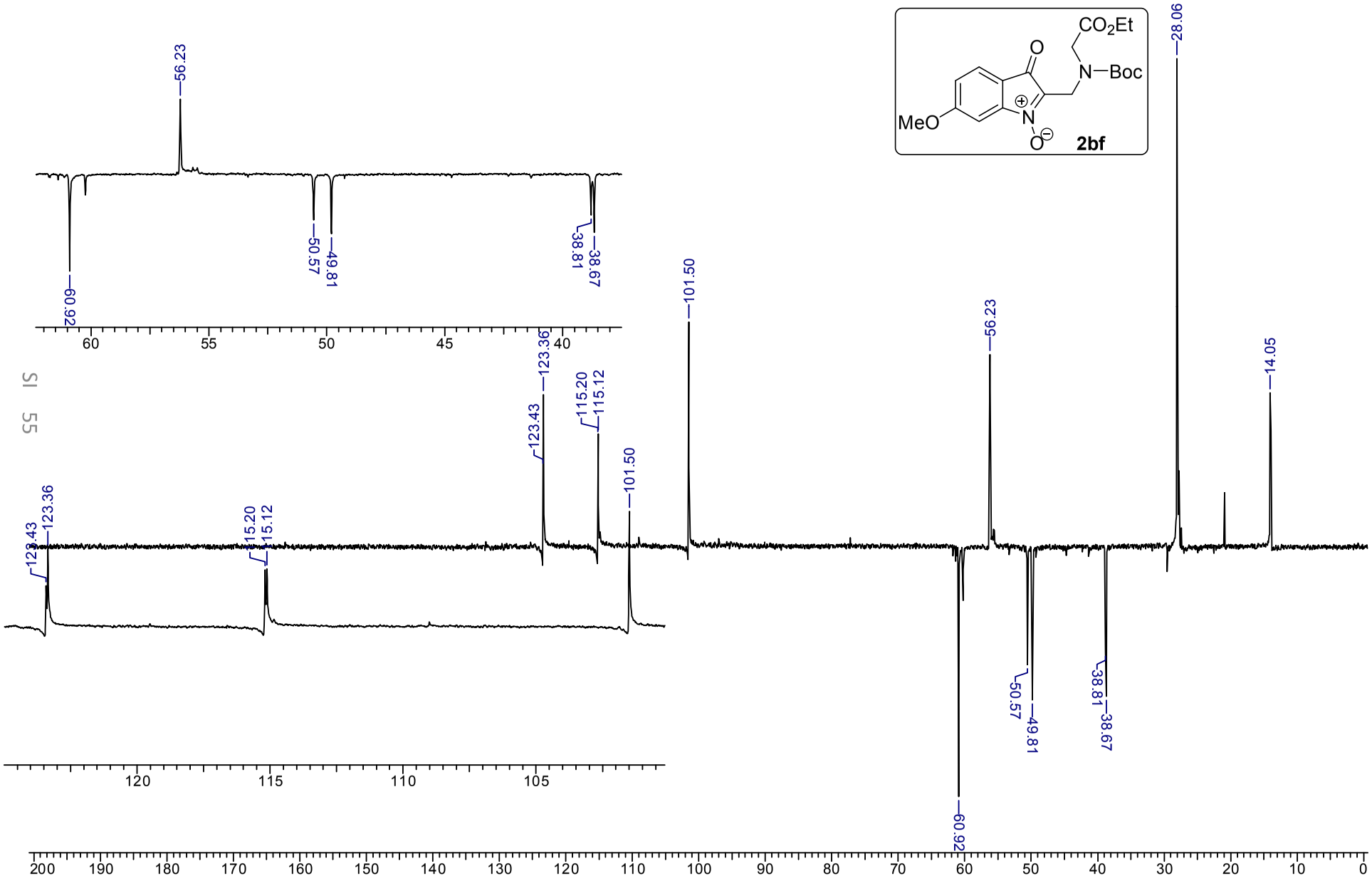




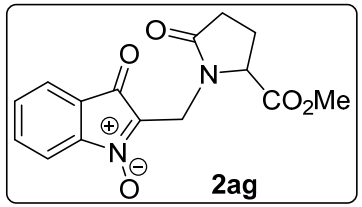
Acquisition Time (sec)	1.0434	***Comment***	santosh	***Date***	01 Oct 2013 09:03:20			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	294	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.700						

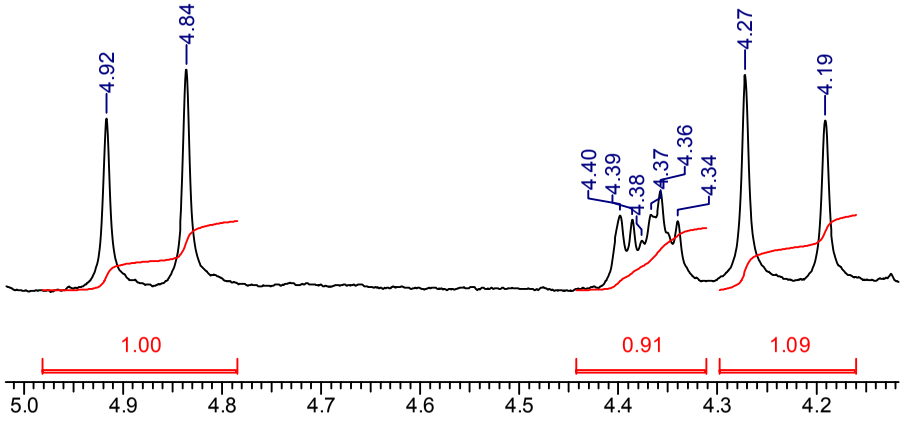


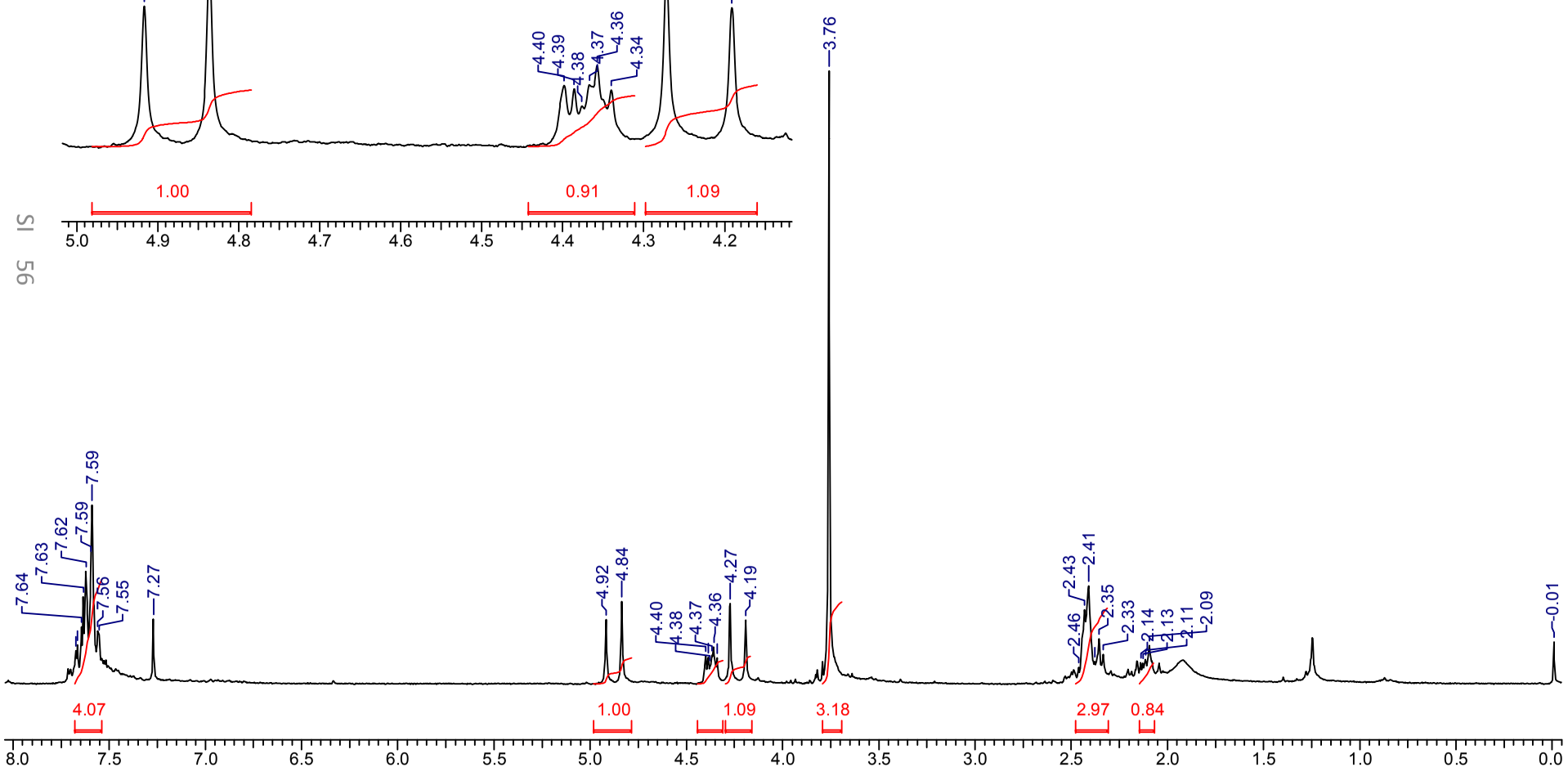
Acquisition Time (sec)	1.0434	***Comment***	santosh	***Date***	01 Oct 2013 09:03:20			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.600						



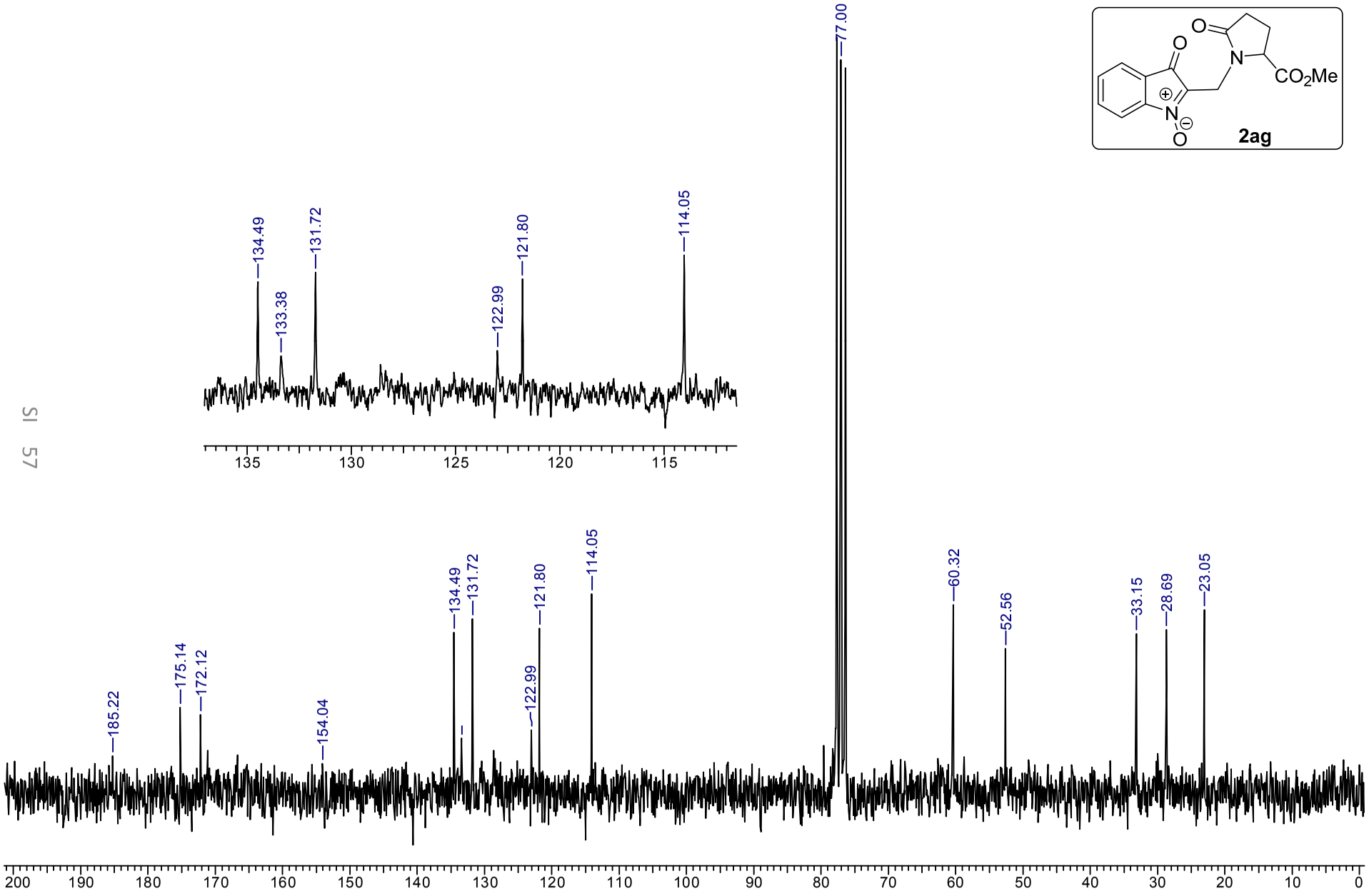
Acquisition Time (sec)	3.9584	***Comment***	sunnel	***Date***	26 Nov 2013 14:54:00			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



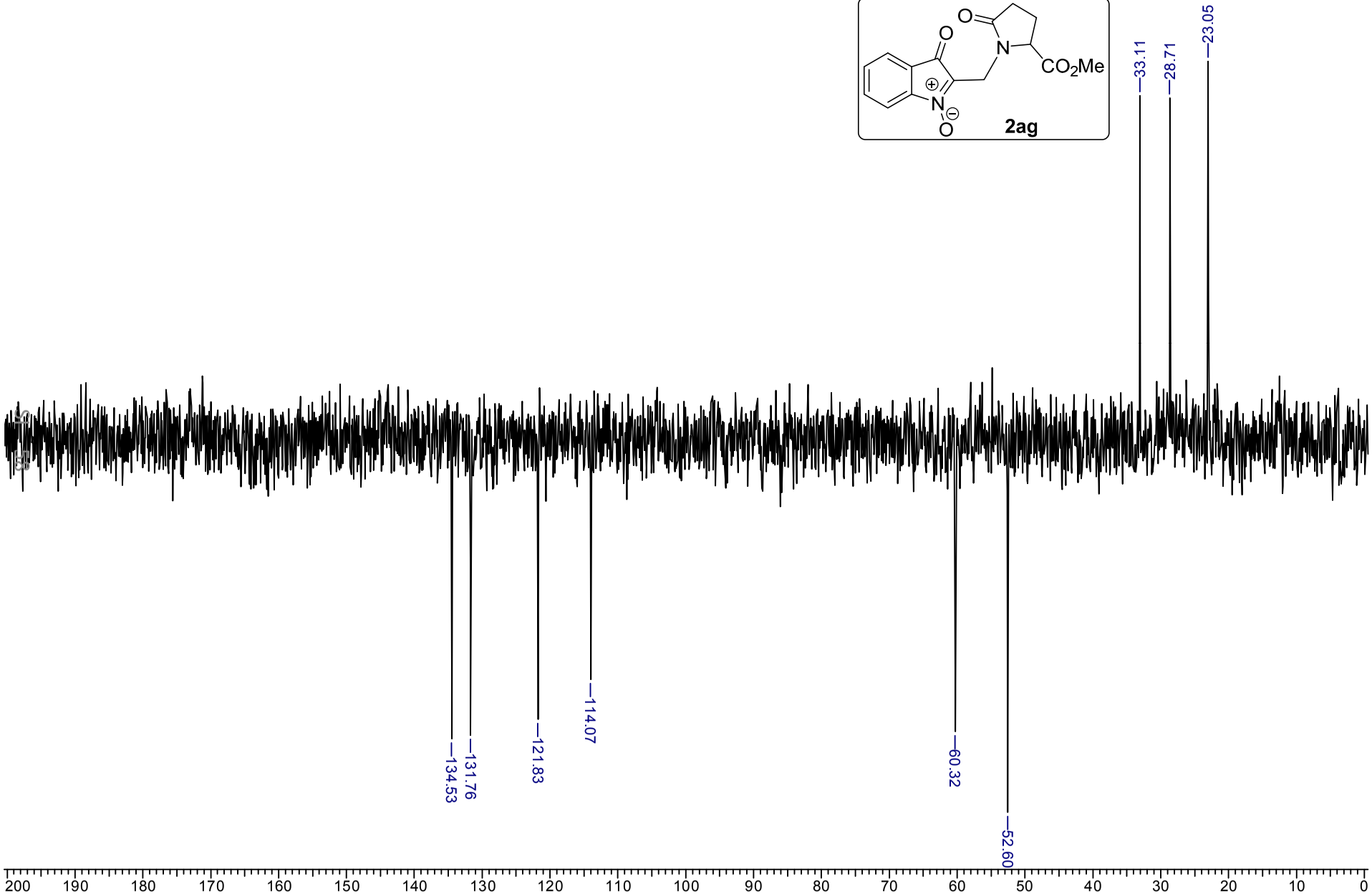




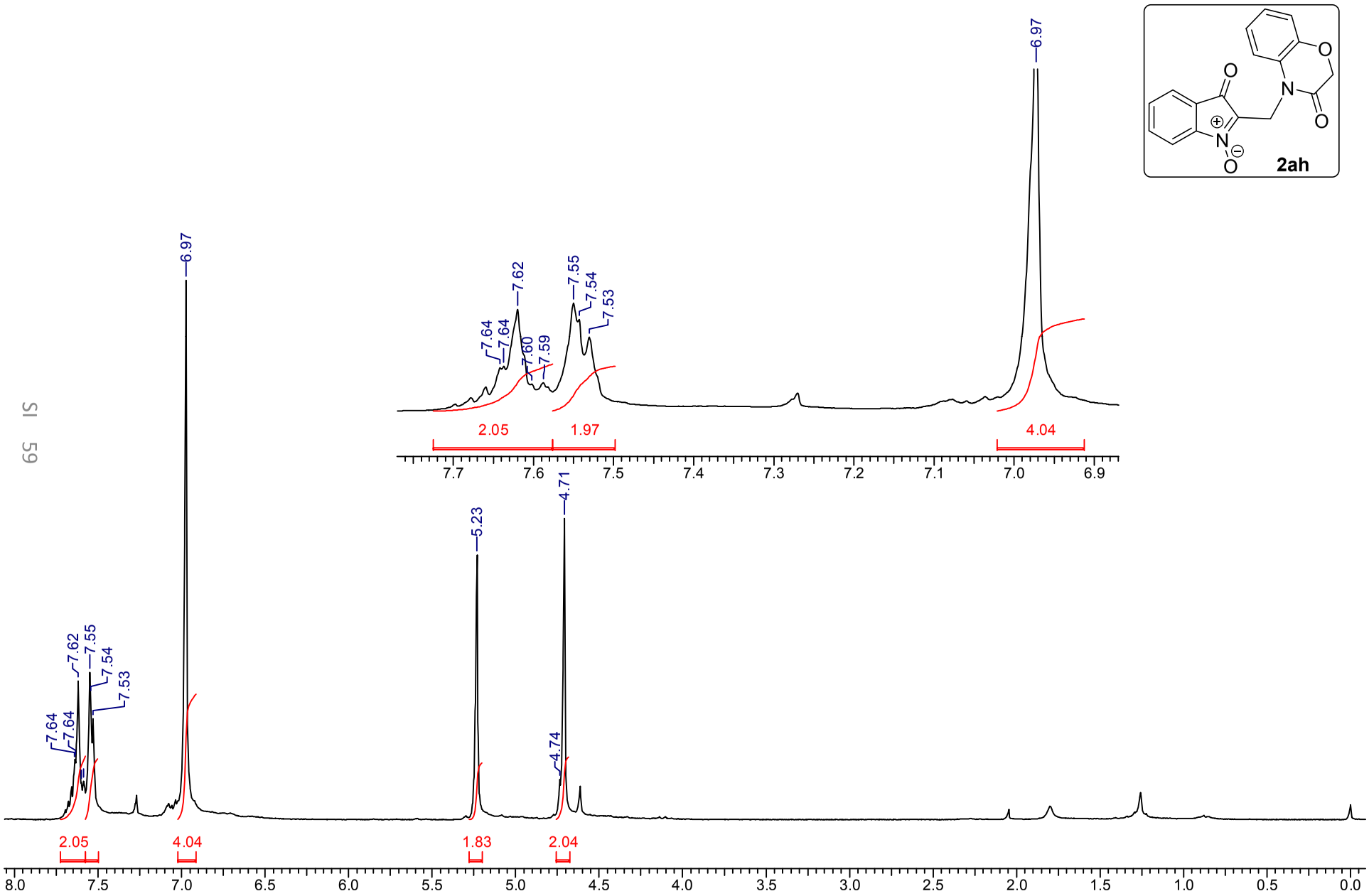
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	01 Dec 2013 11:24:56			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	320	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



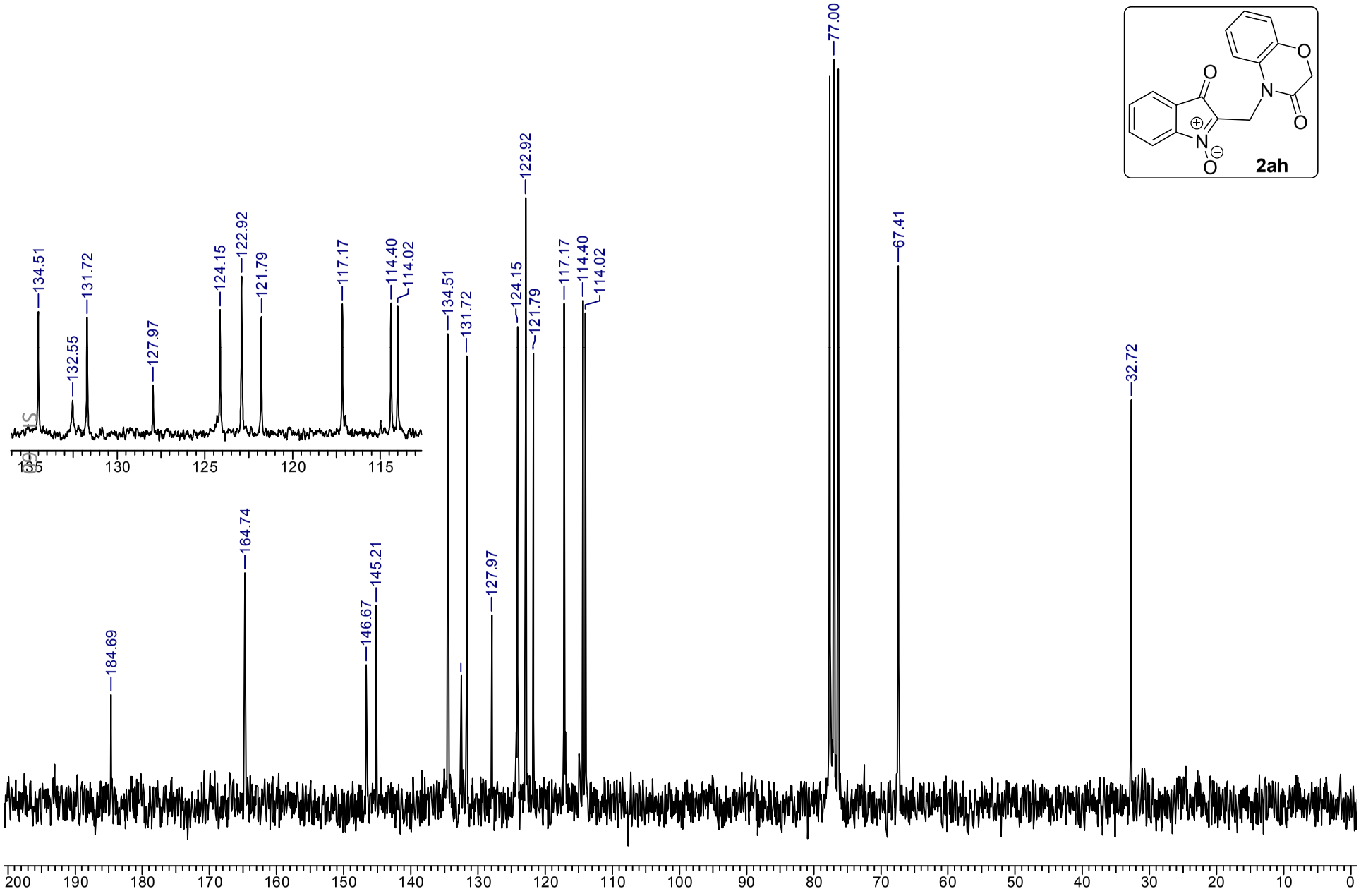
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	01 Dec 2013 11:10:00			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	160	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



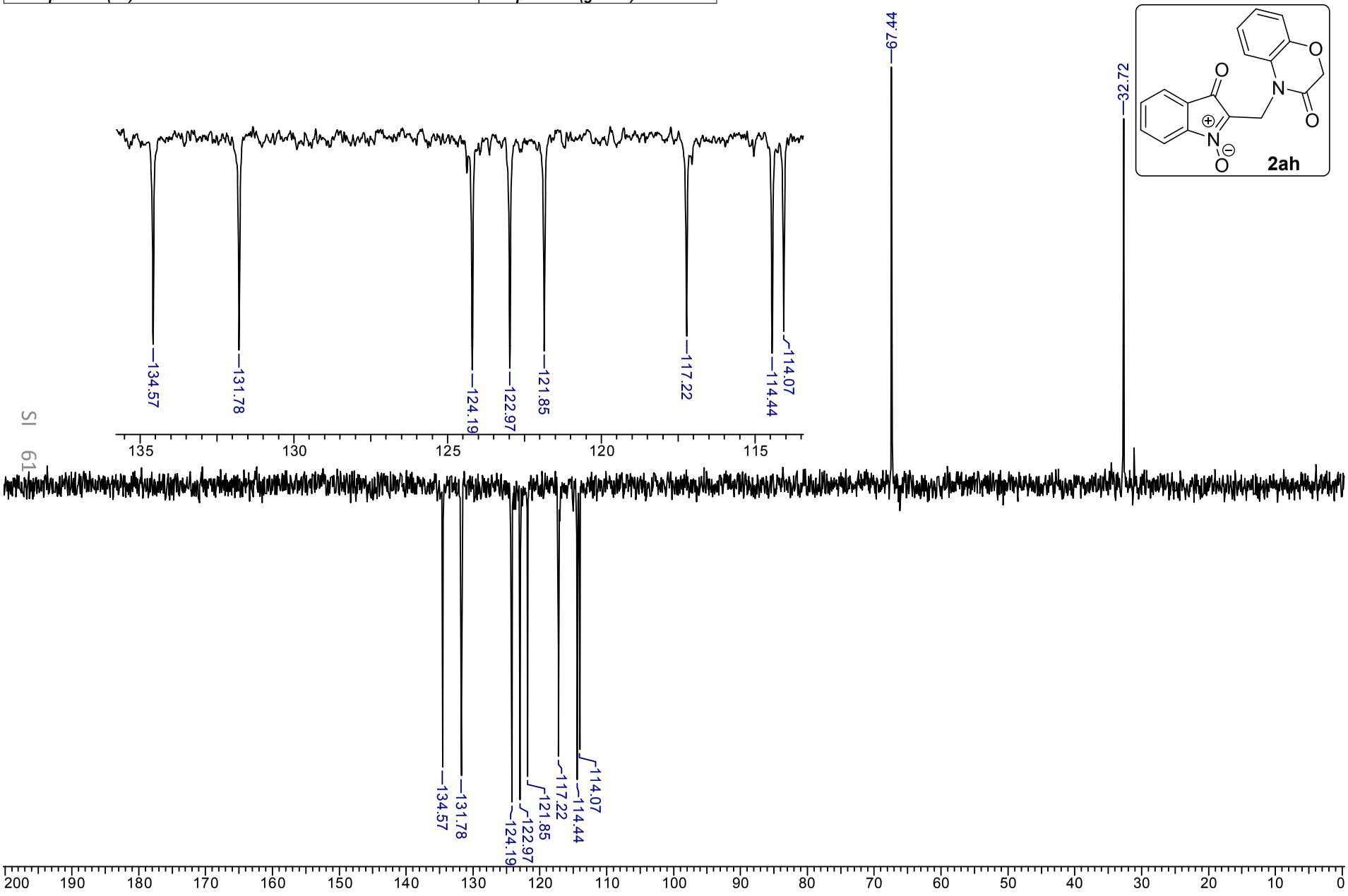
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	22 Nov 2013 15:26:00			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



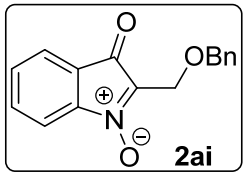
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	30 Nov 2013 06:36:56			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

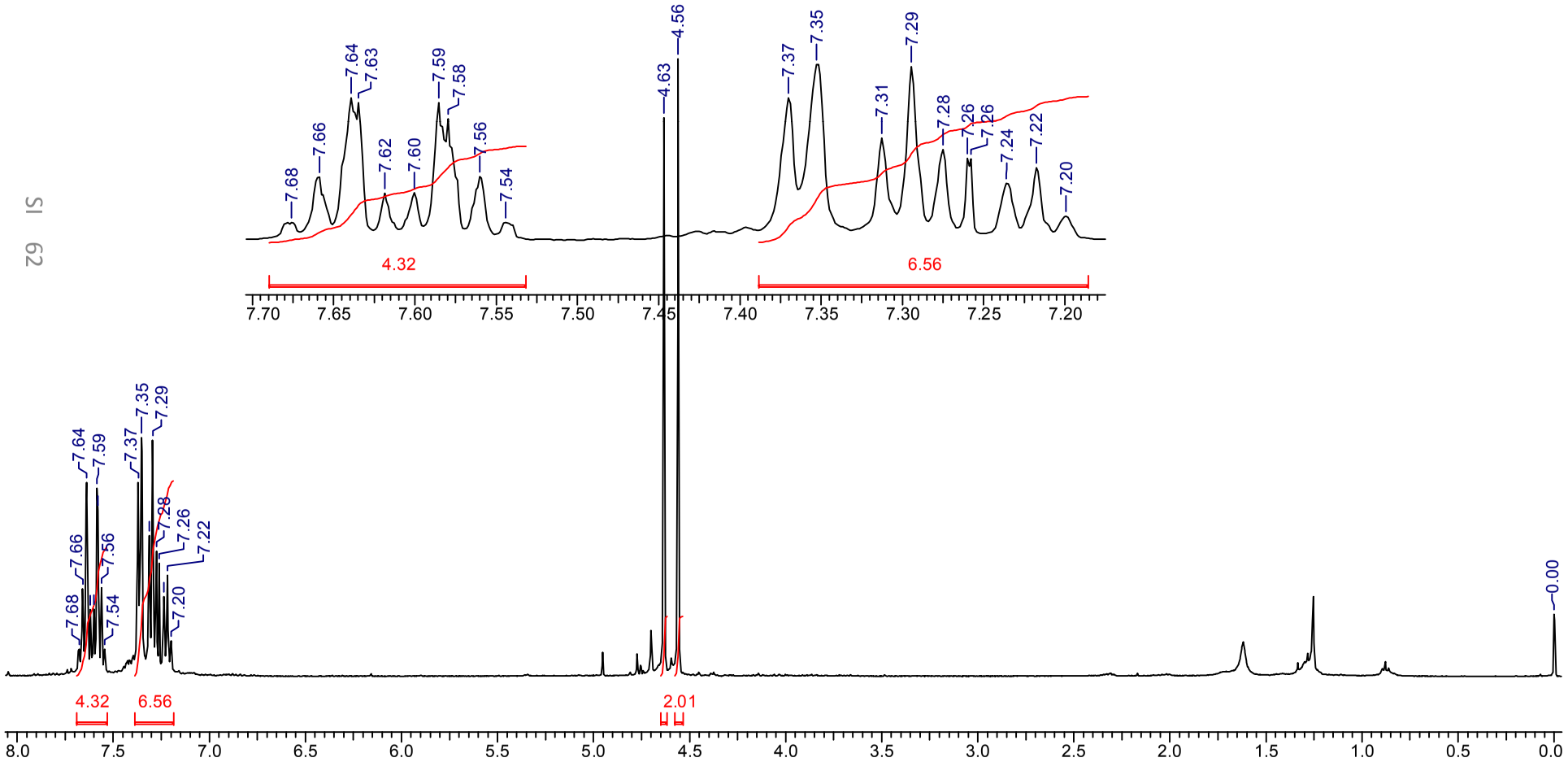


Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	30 Nov 2013 06:17:44			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

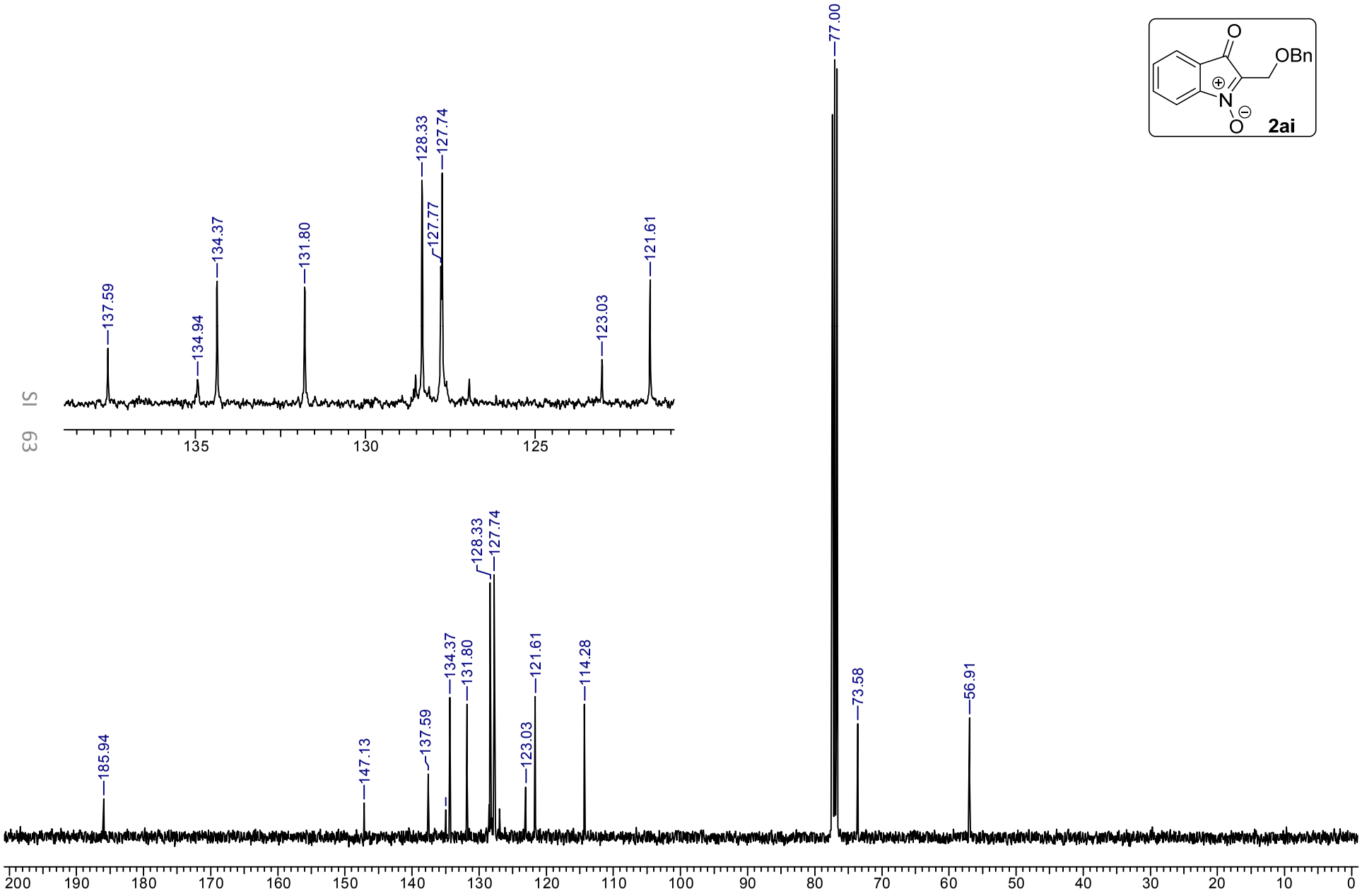


Acquisition Time (sec)	2.1838	***Comment***	Suneel	***Date***	26 Mar 2014 13:37:09			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	22.400						

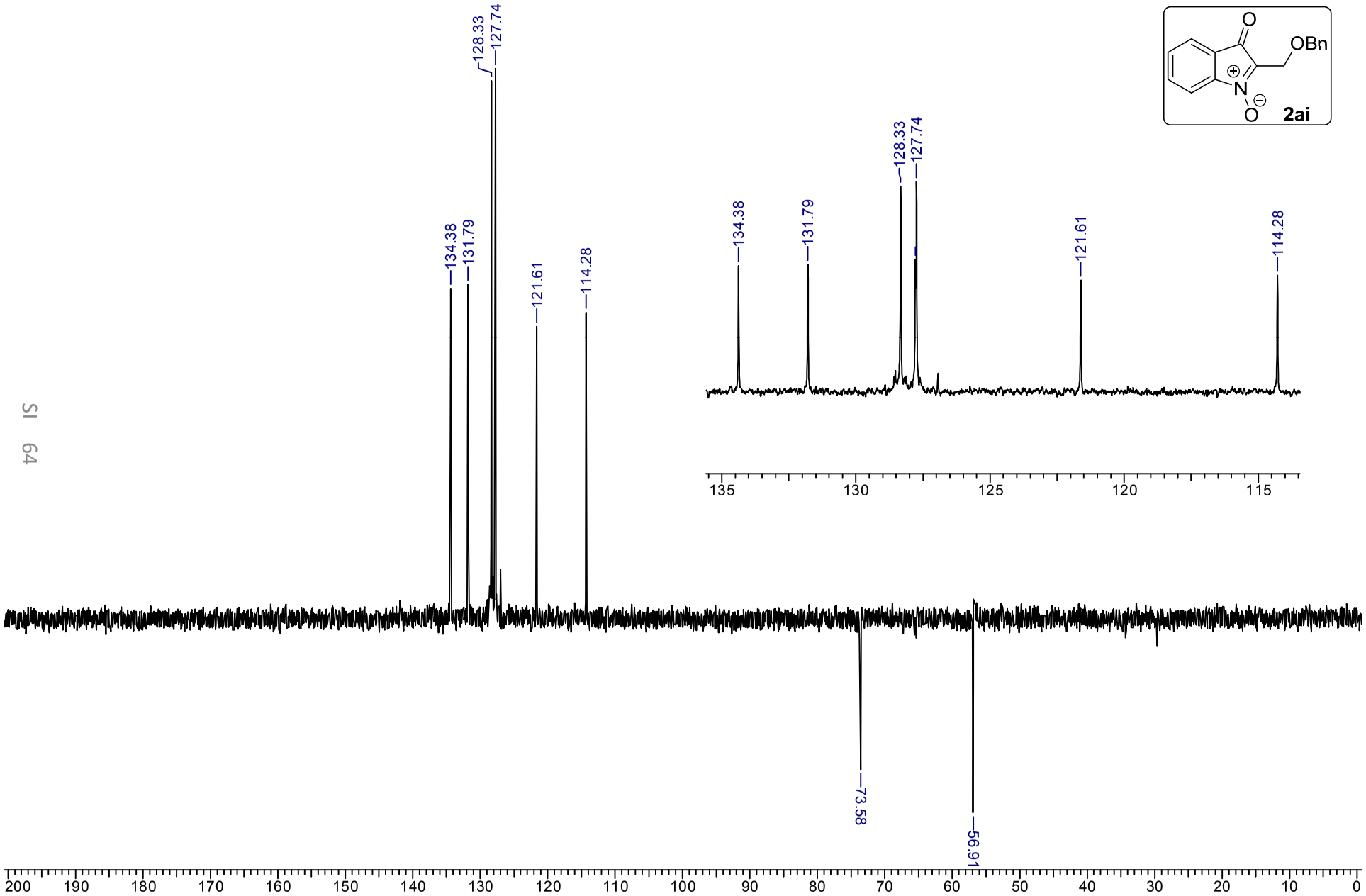




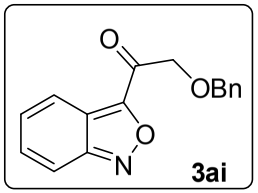
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	29 Mar 2014 01:00:43			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	300	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.300						



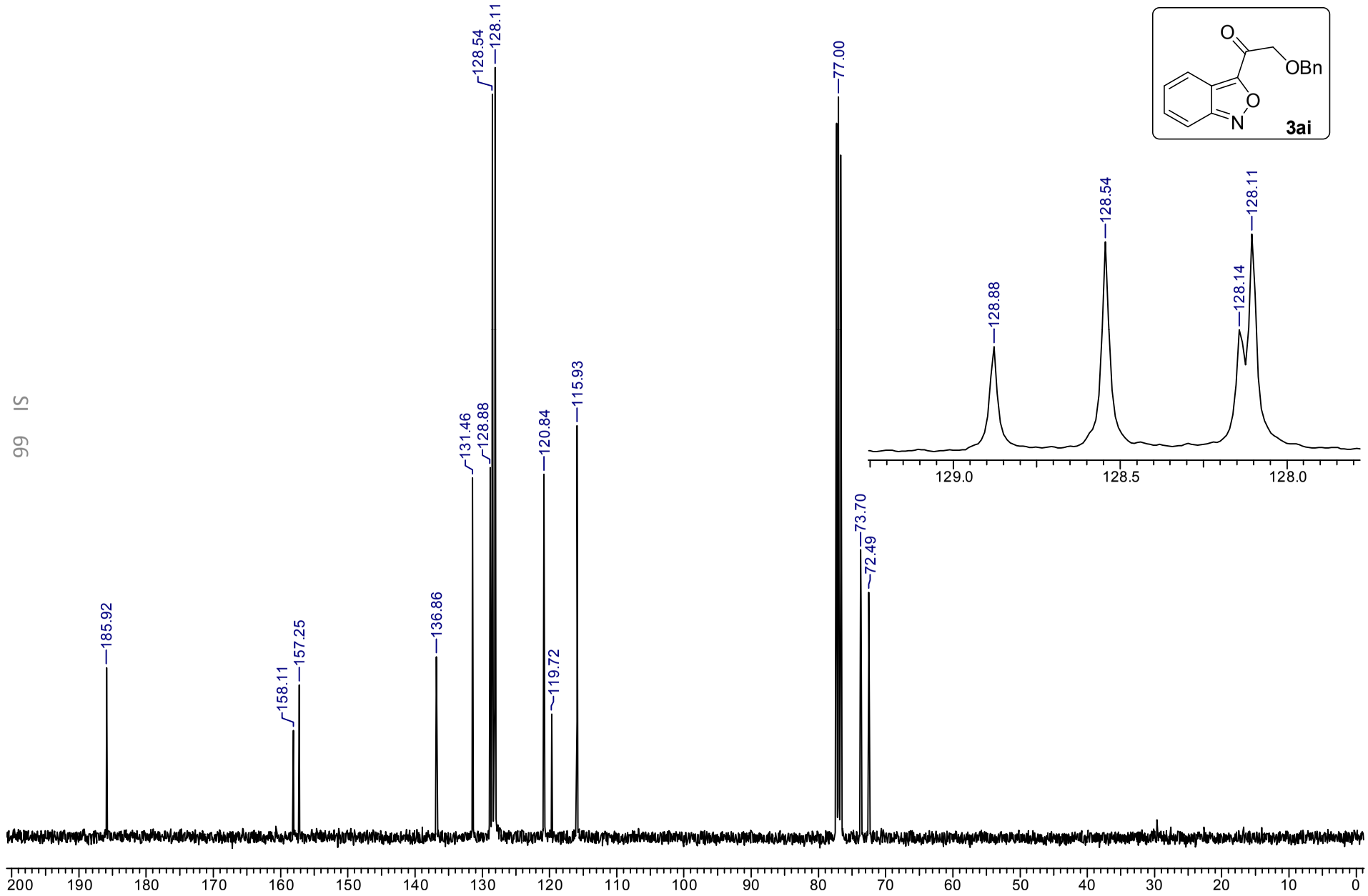
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	29 Mar 2014 01:00:43			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.200						



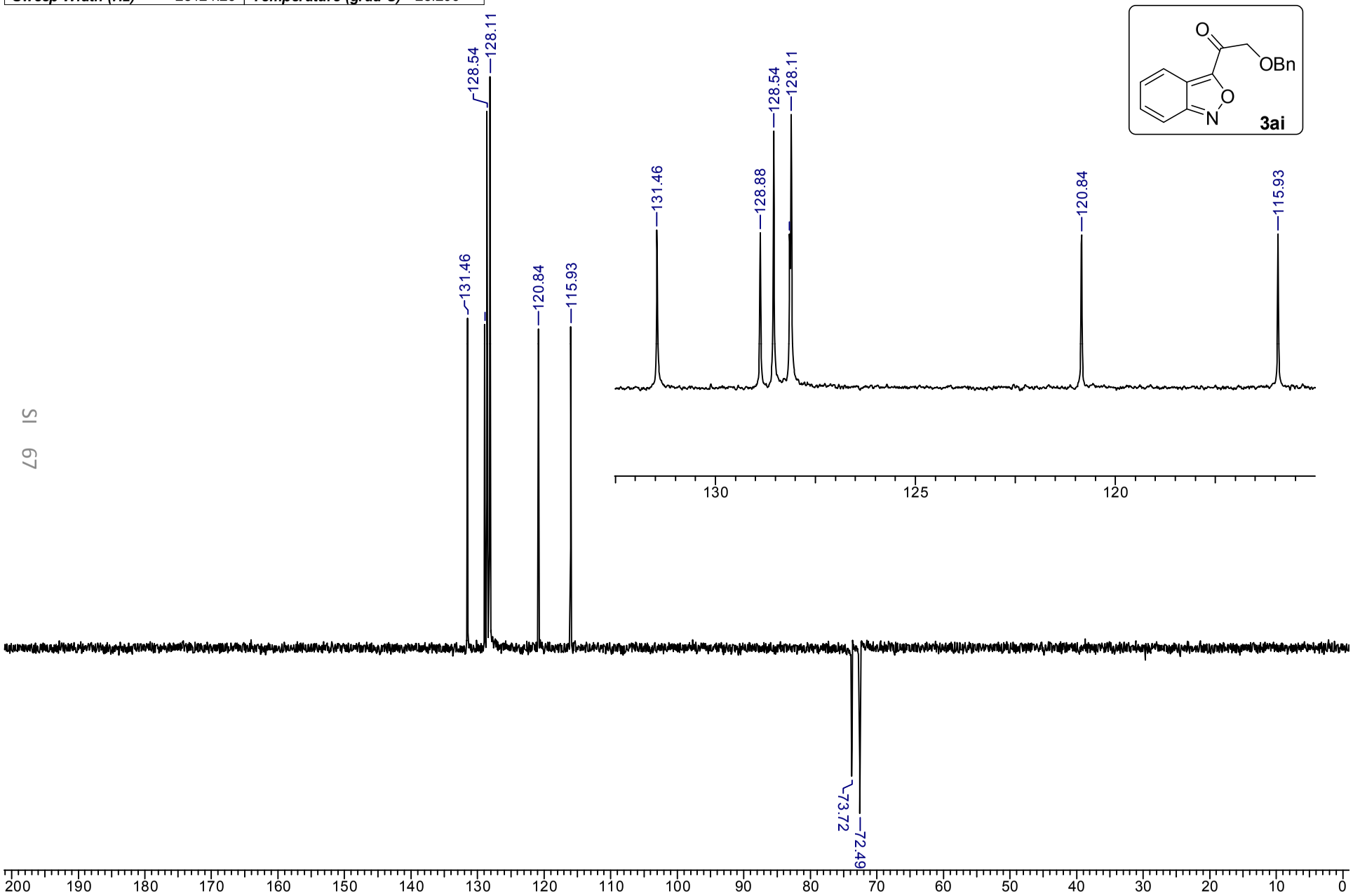
Acquisition Time (sec)	2.1838	***Comment***	Suneel	***Date***	26 Mar 2014 13:44:25			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	22.400						



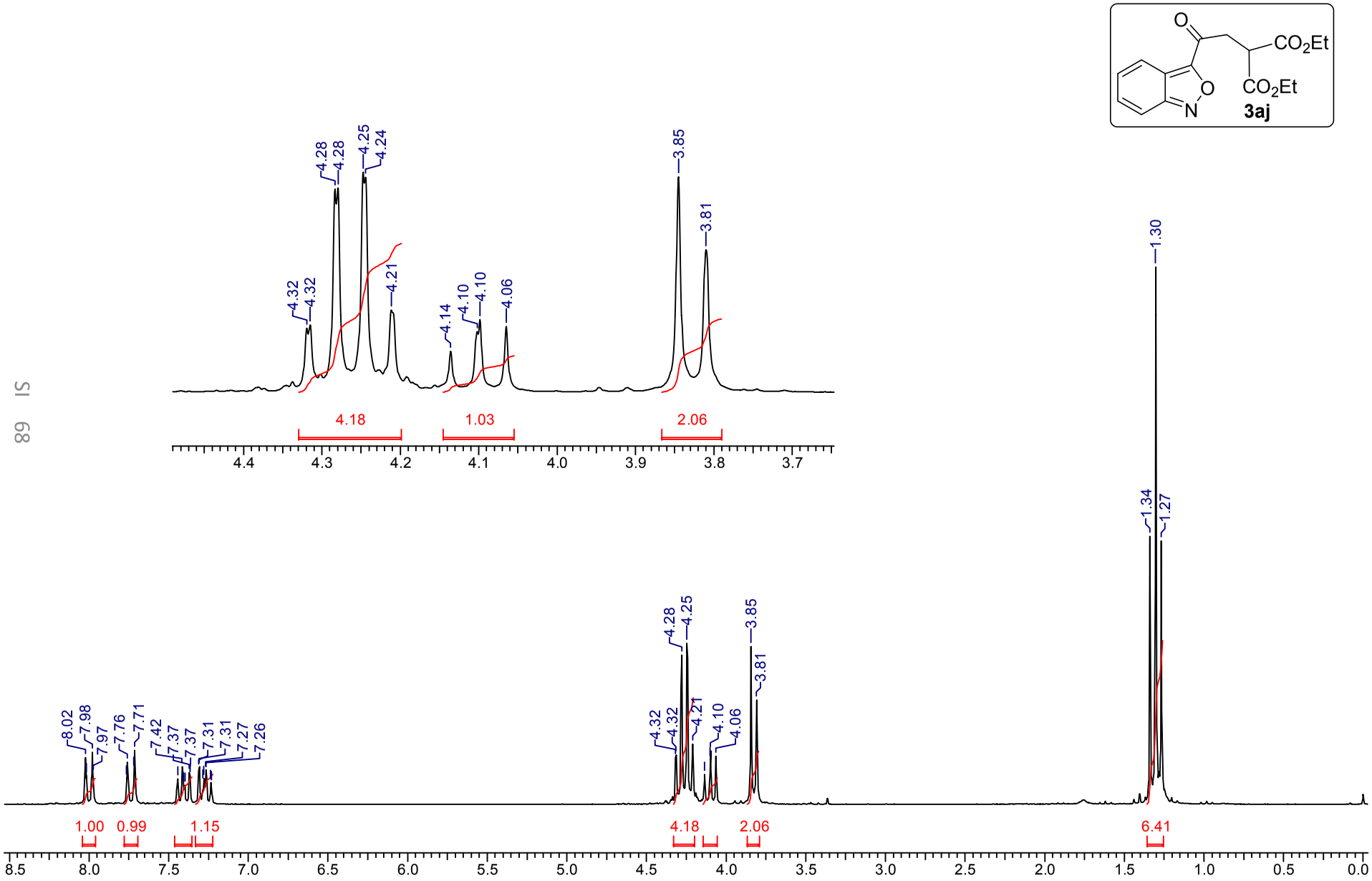
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	28 Mar 2014 17:34:21			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.200						



Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	28 Mar 2014 17:34:21			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	23.200						



Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	31 Mar 2014 16:12:56			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	05 Apr 2014 00:20:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.600						

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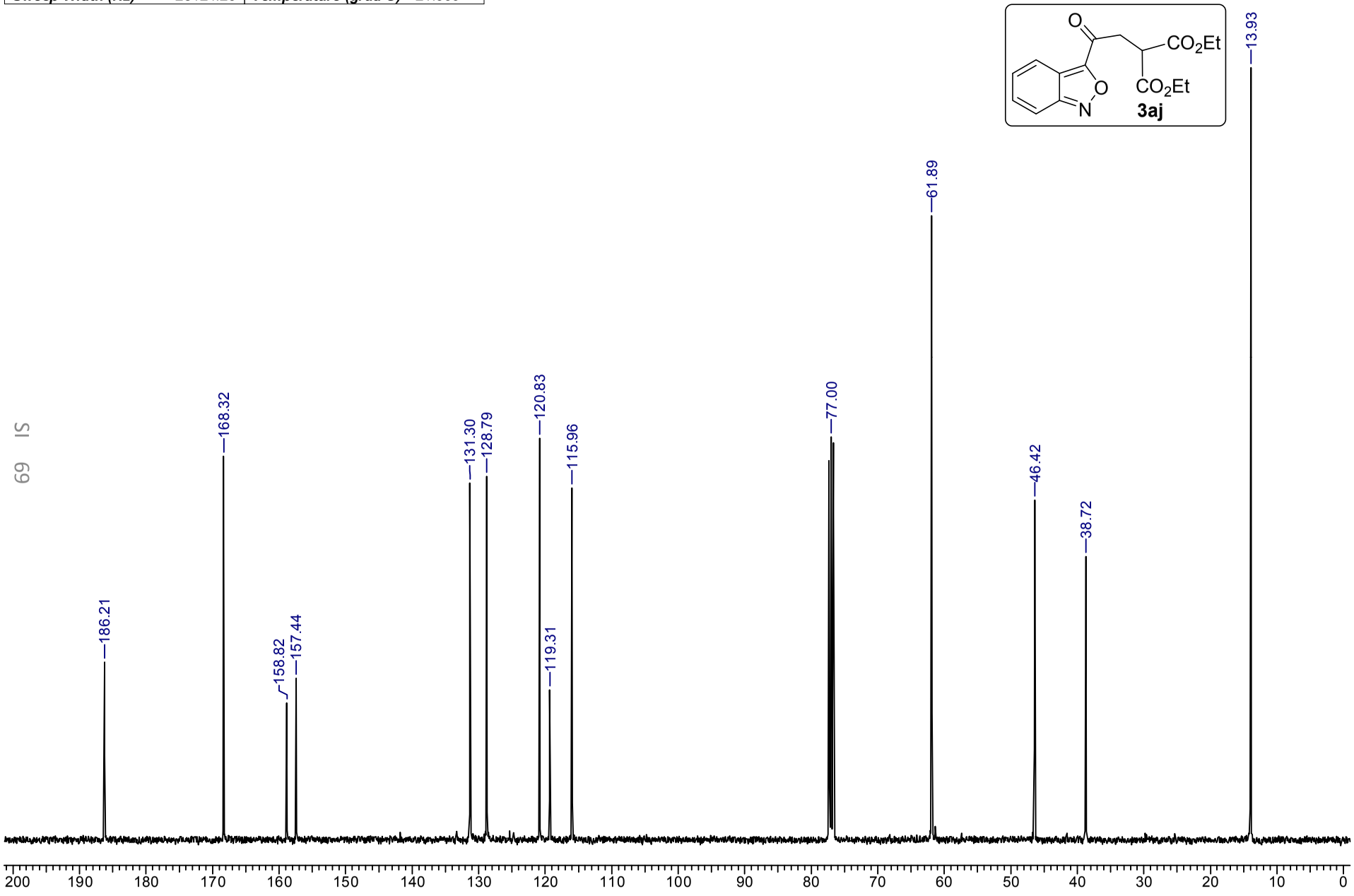
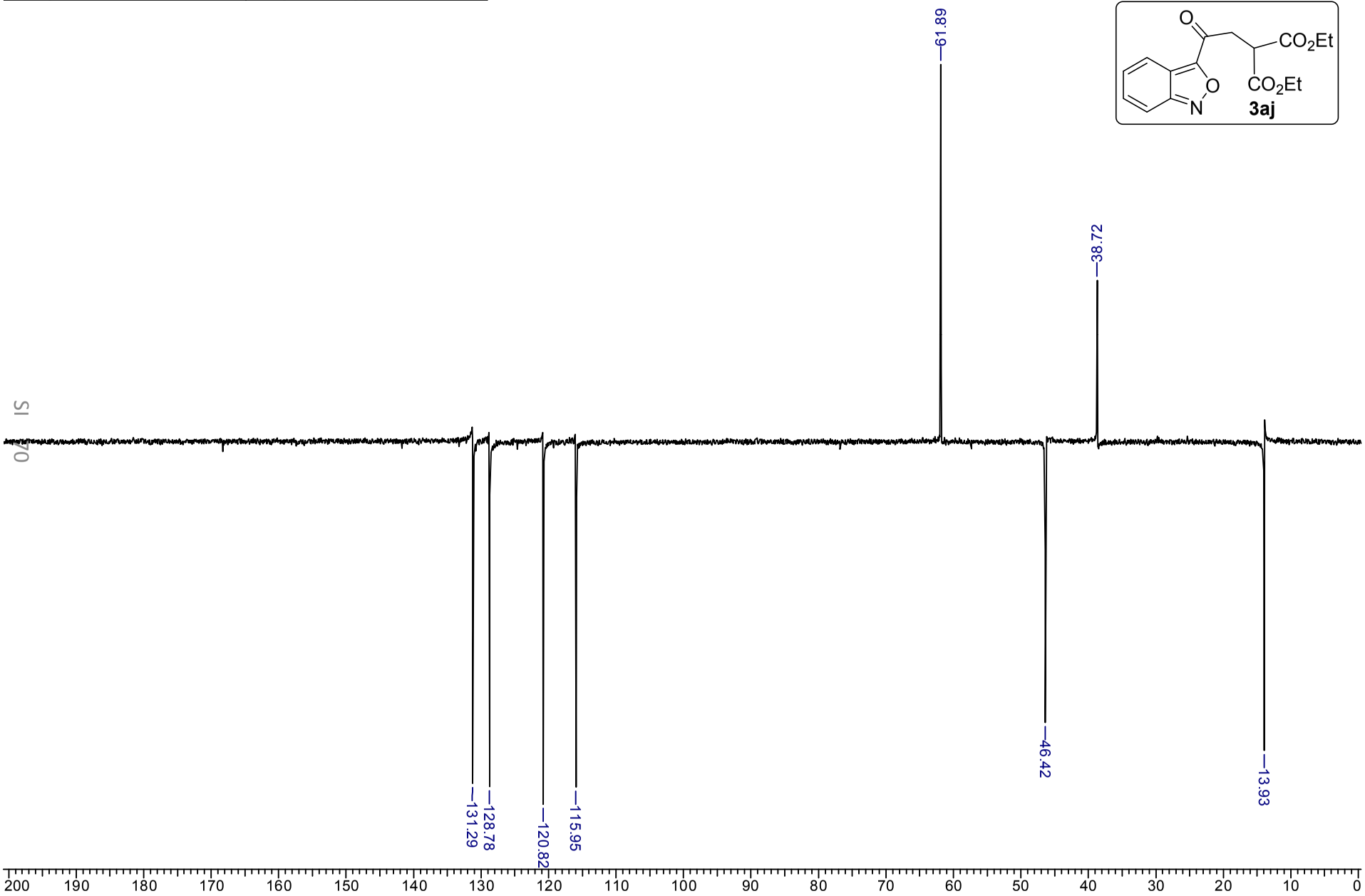
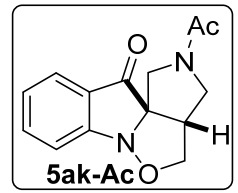
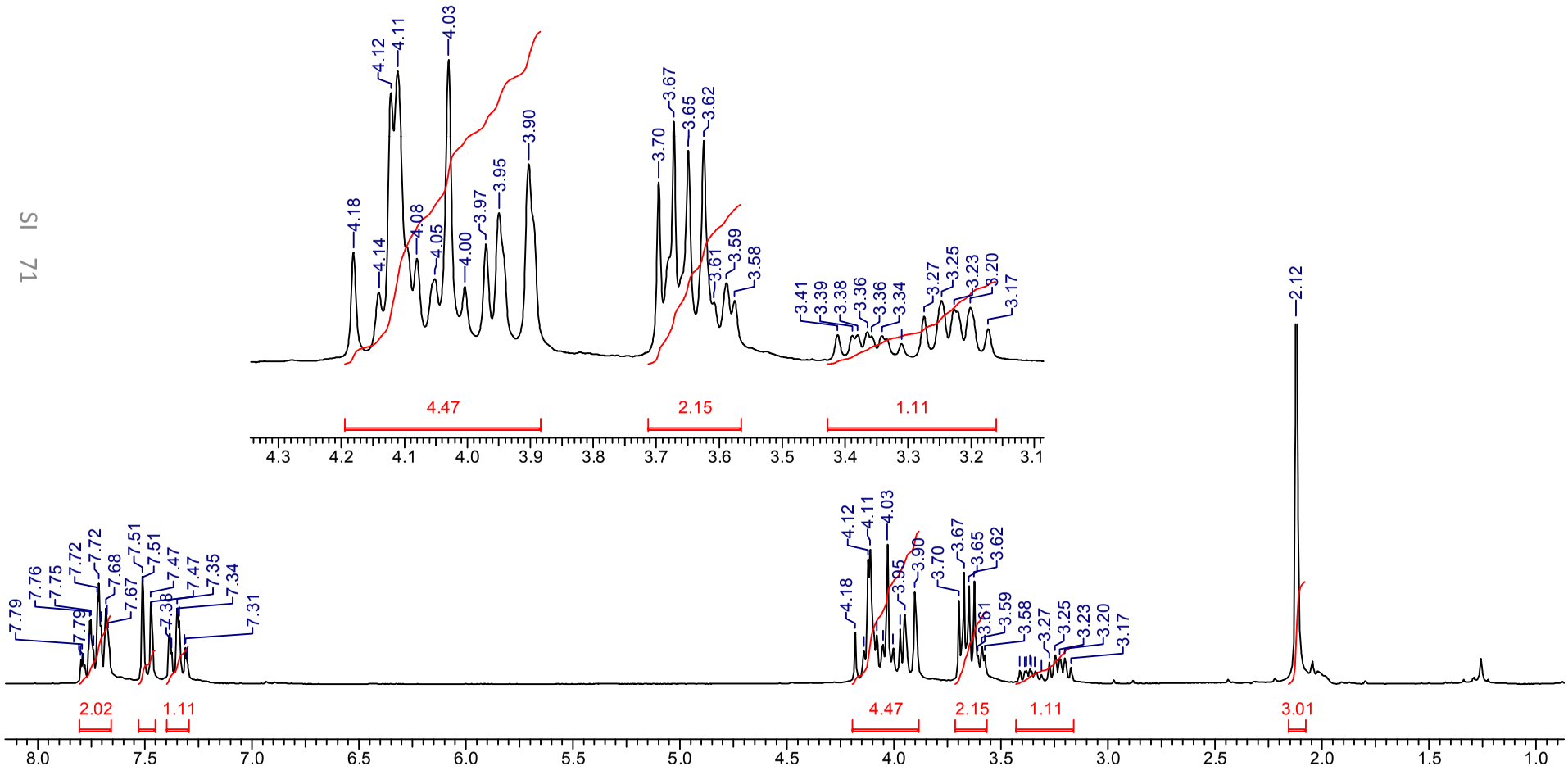


Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	05 Apr 2014 00:20:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.500						

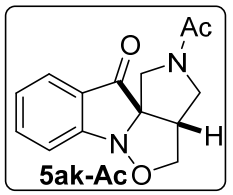


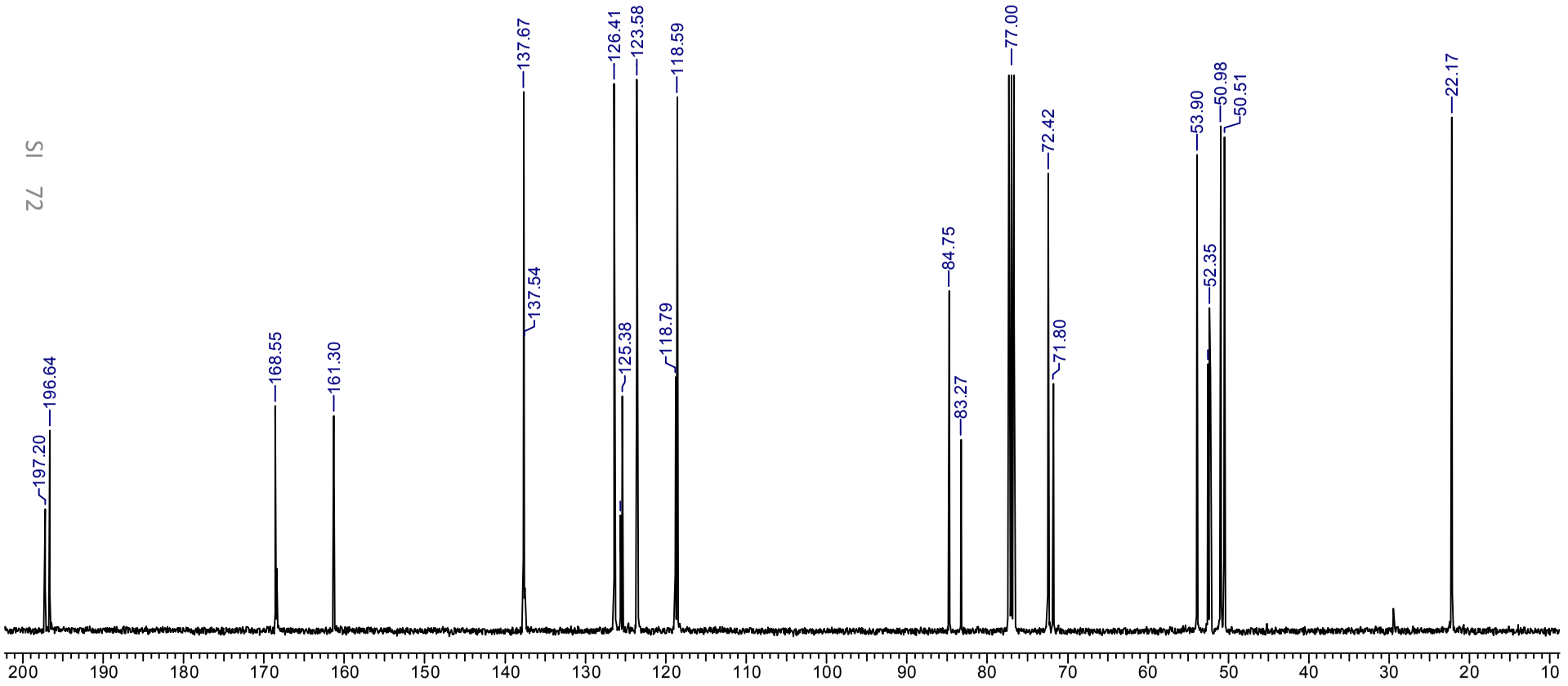
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	15 Jan 2014 15:53:44			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



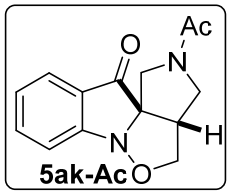


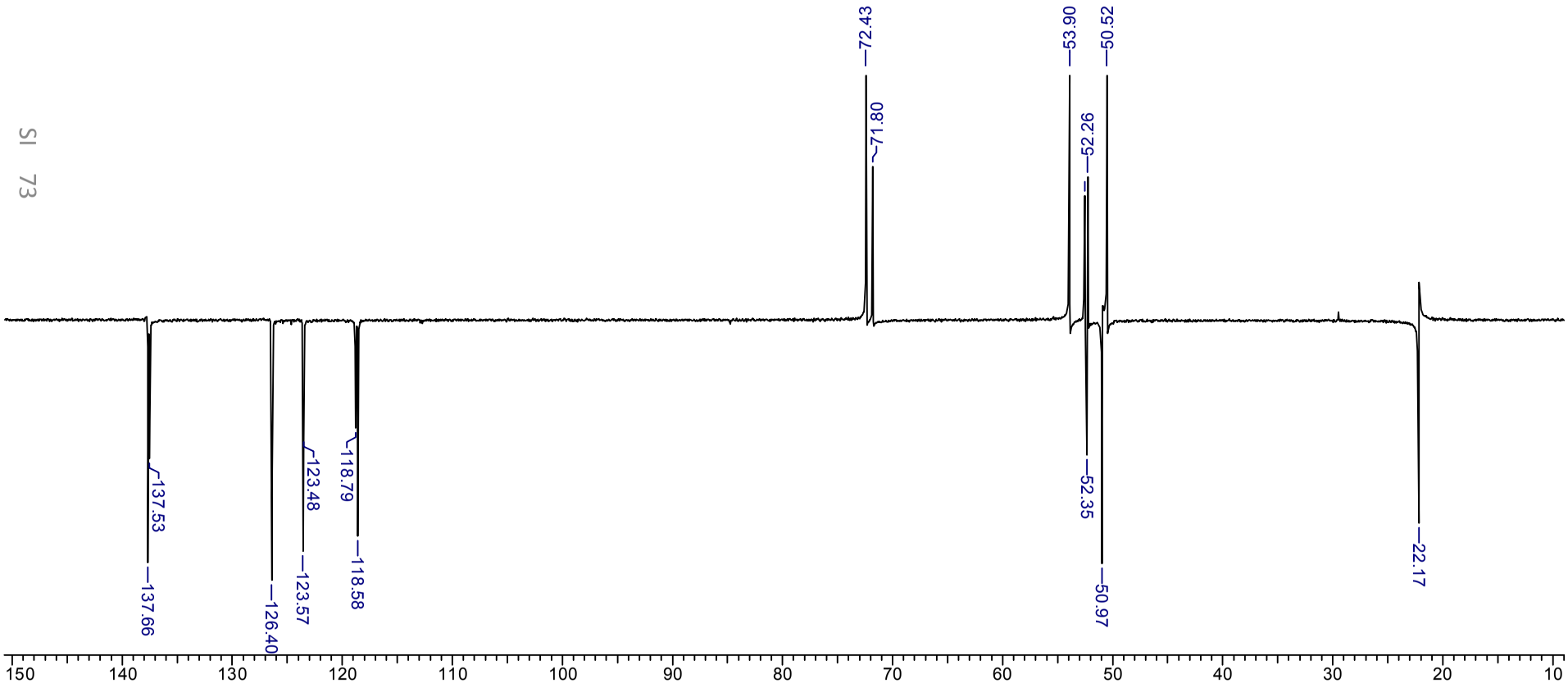
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	17 Jan 2014 05:29:02			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.600						



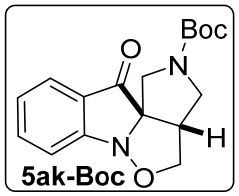


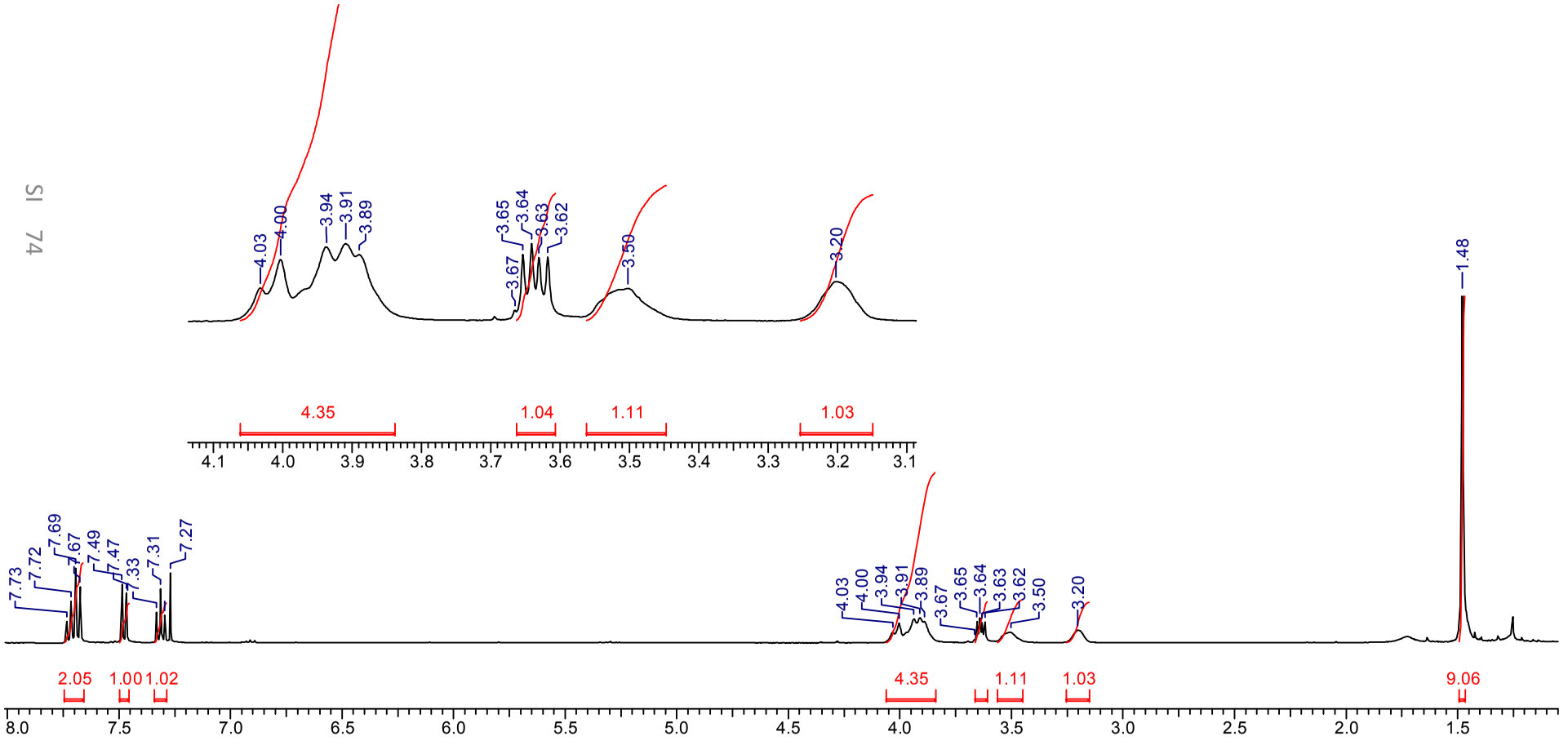
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	17 Jan 2014 05:29:02			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.600						



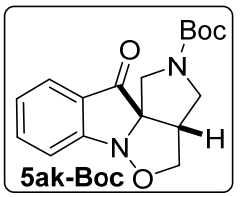


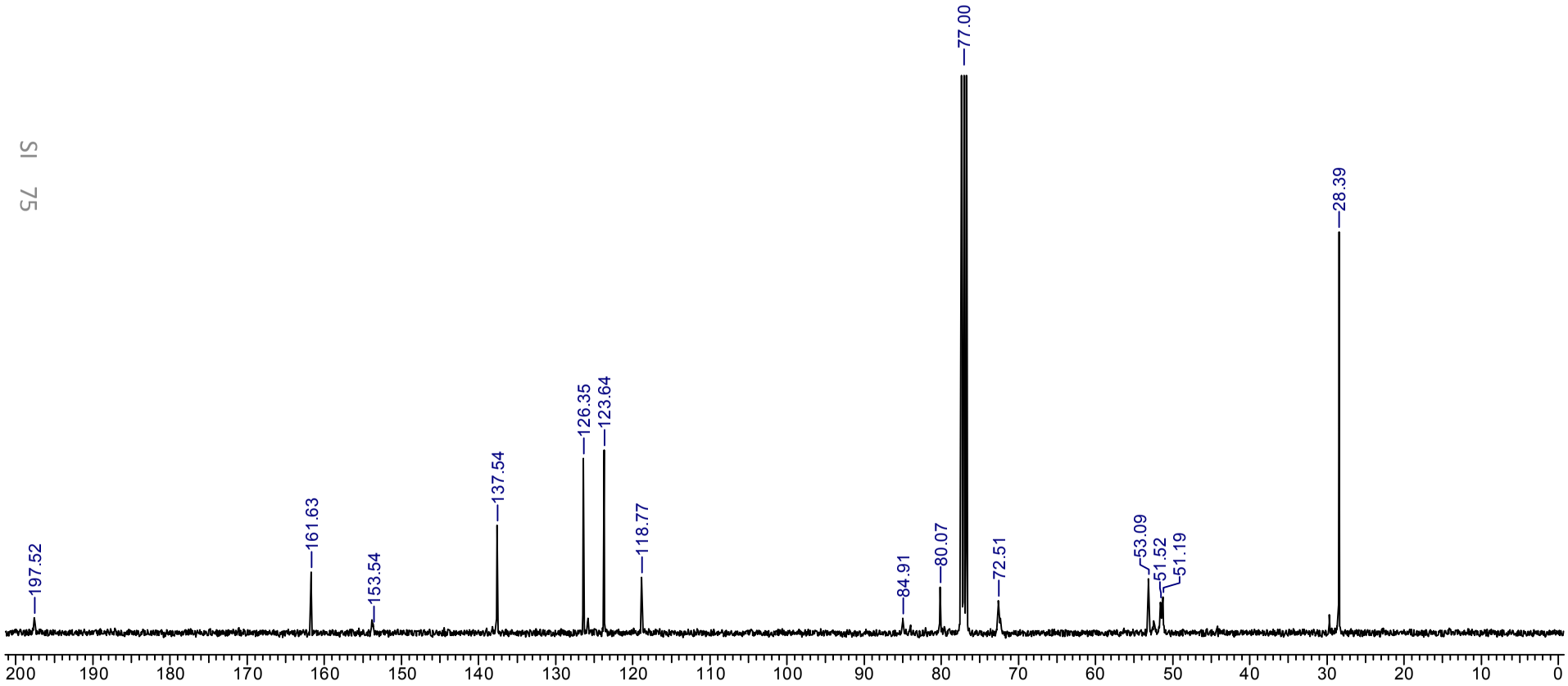
Acquisition Time (sec)	2.1838	***Comment***	suneel	***Date***	06 Jun 2013 02:32:03			***Frequency (MHz)***	399.78
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	13107	***Points Count***	13107	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	6001.85	***Temperature (grad C)***	20.400						



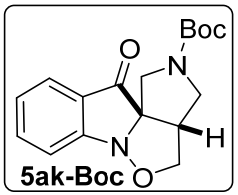


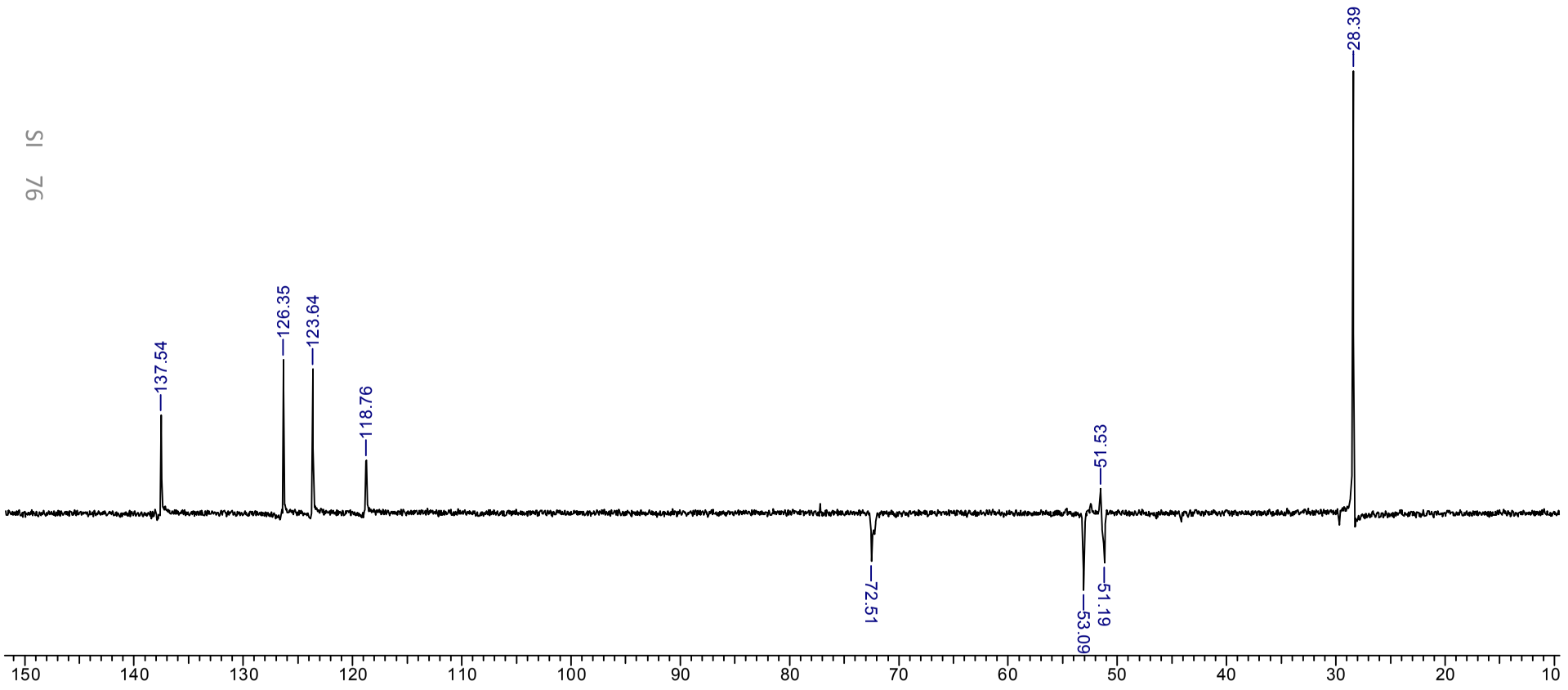
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	09 Jun 2013 16:16:46			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.900						



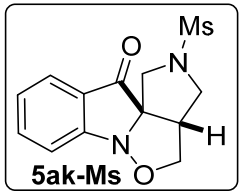


Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	09 Jun 2013 16:16:46			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.700						

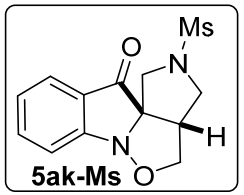


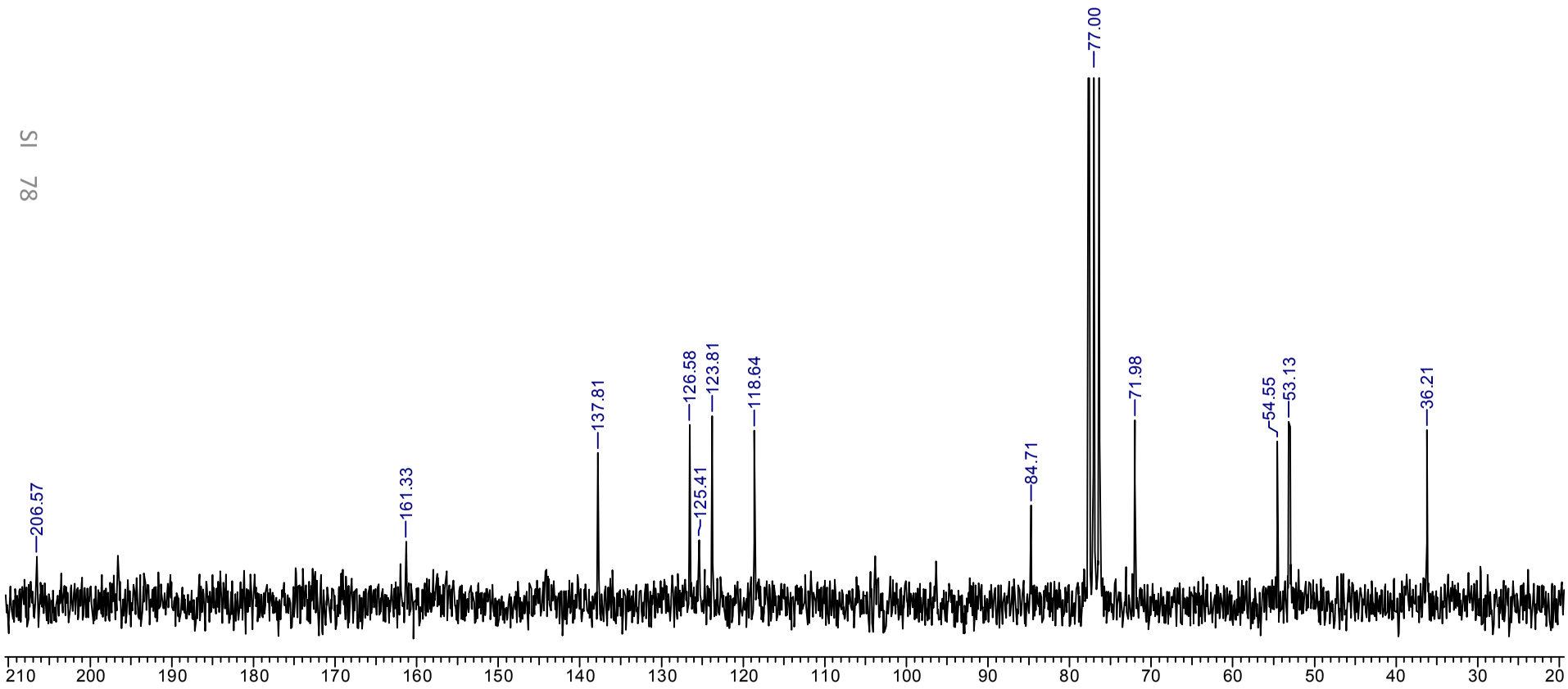


Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	29 Nov 2013 00:36:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

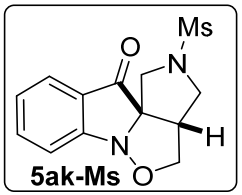


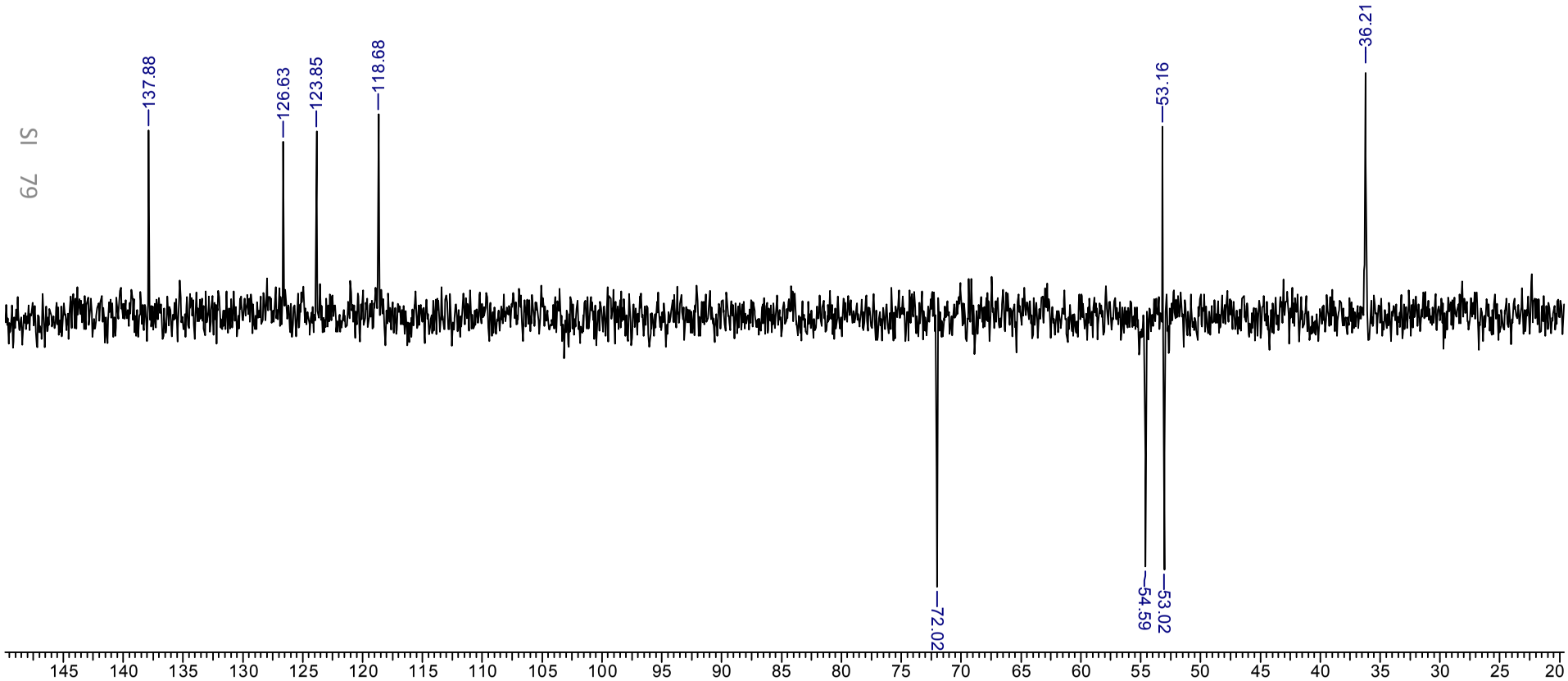
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	08 Dec 2013 00:08:40			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	320	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



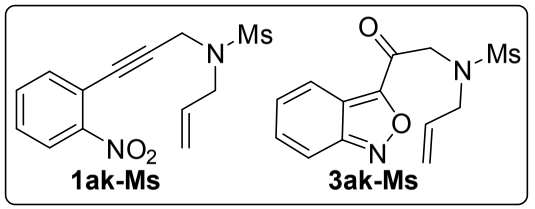


Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	07 Dec 2013 23:53:44			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	160	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

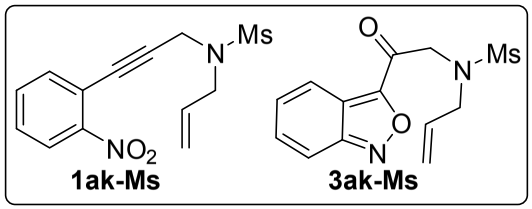




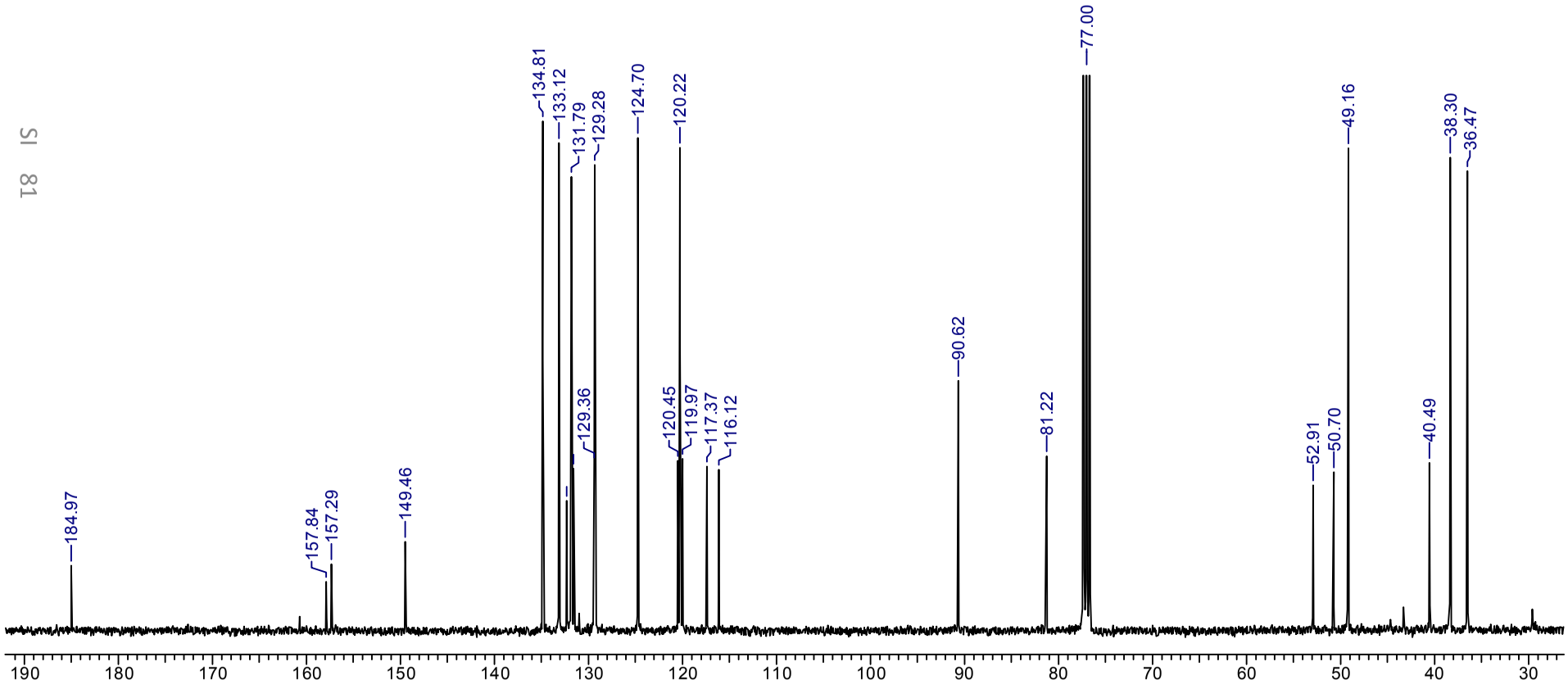
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	29 Nov 2013 16:15:04			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



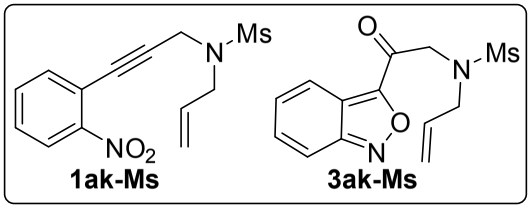
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	16 Jan 2014 05:45:14			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.700						



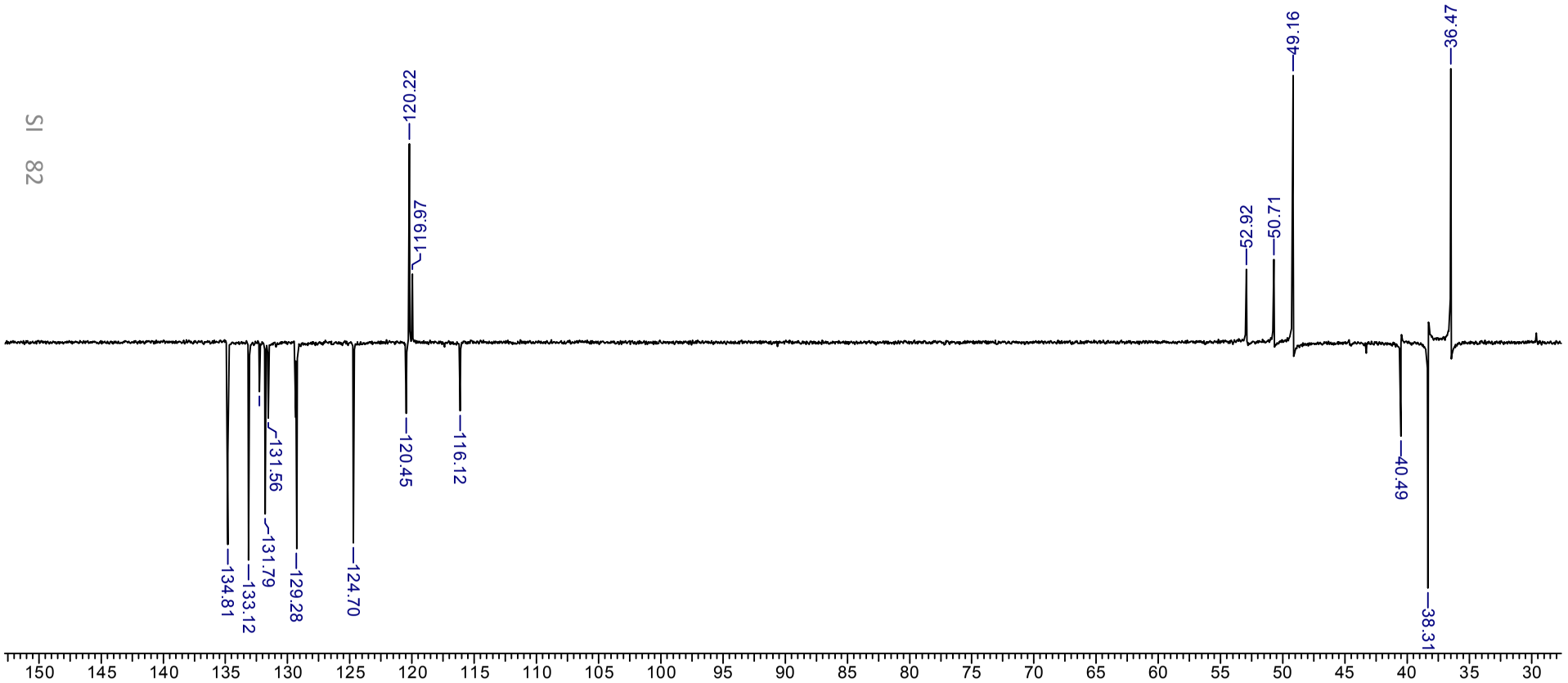
1ak-Ms **3ak-Ms**



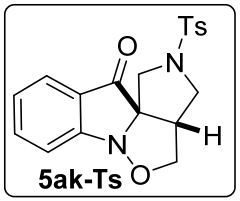
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	16 Jan 2014 05:45:14			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.600						



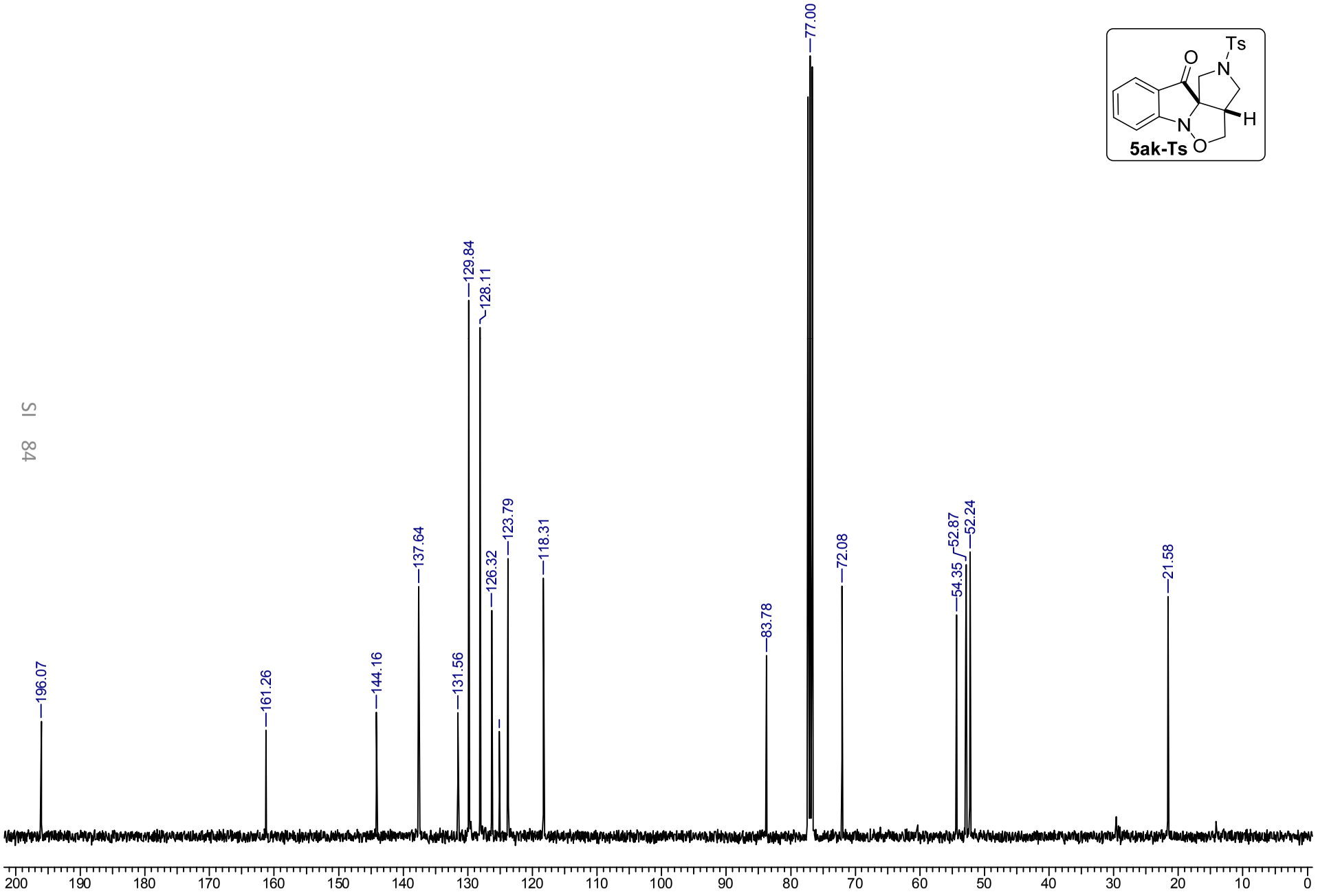
1ak-Ms **3ak-Ms**



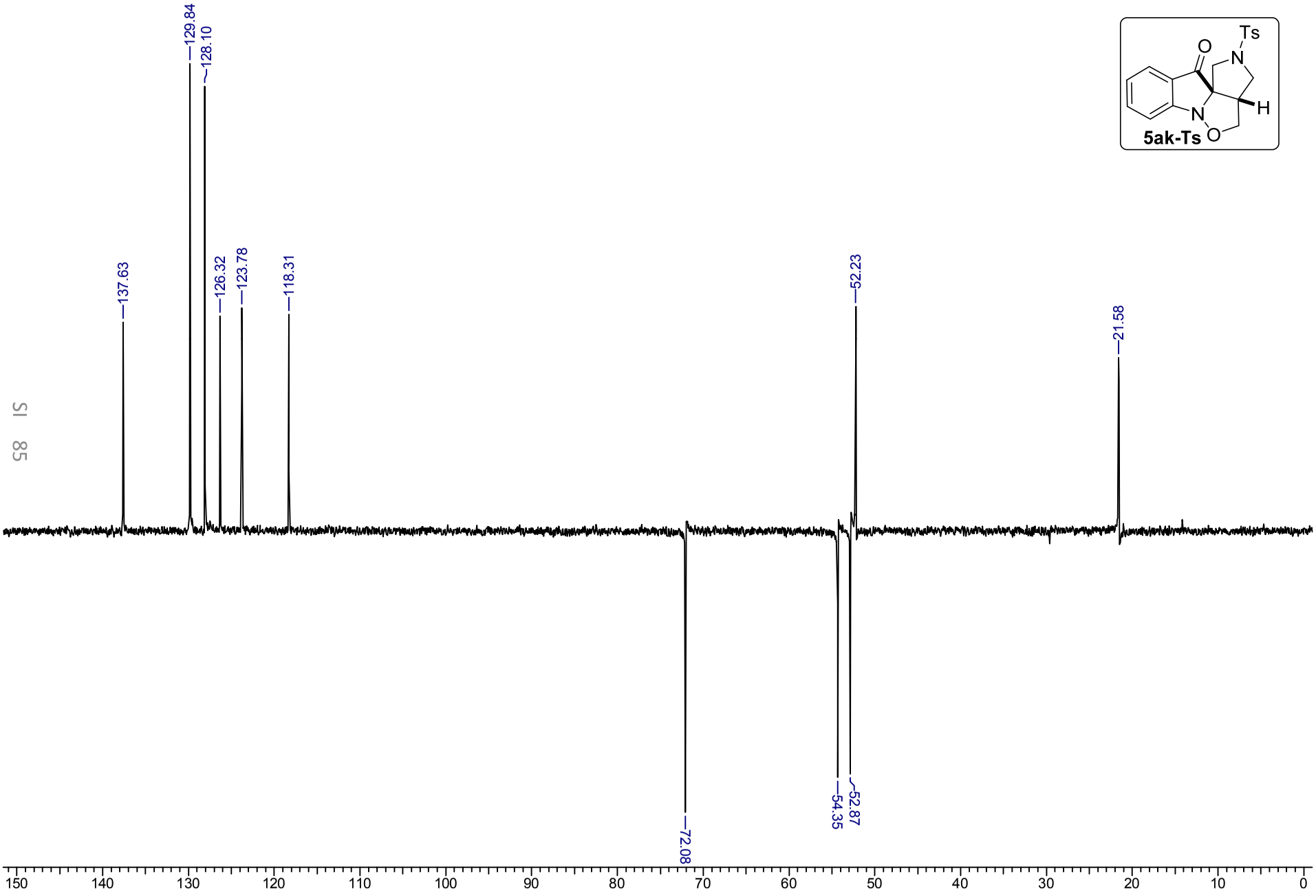
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	20 Jan 2014 19:56:56			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



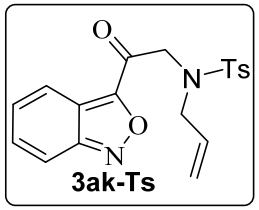
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	22 Jan 2014 00:28:53			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.300						



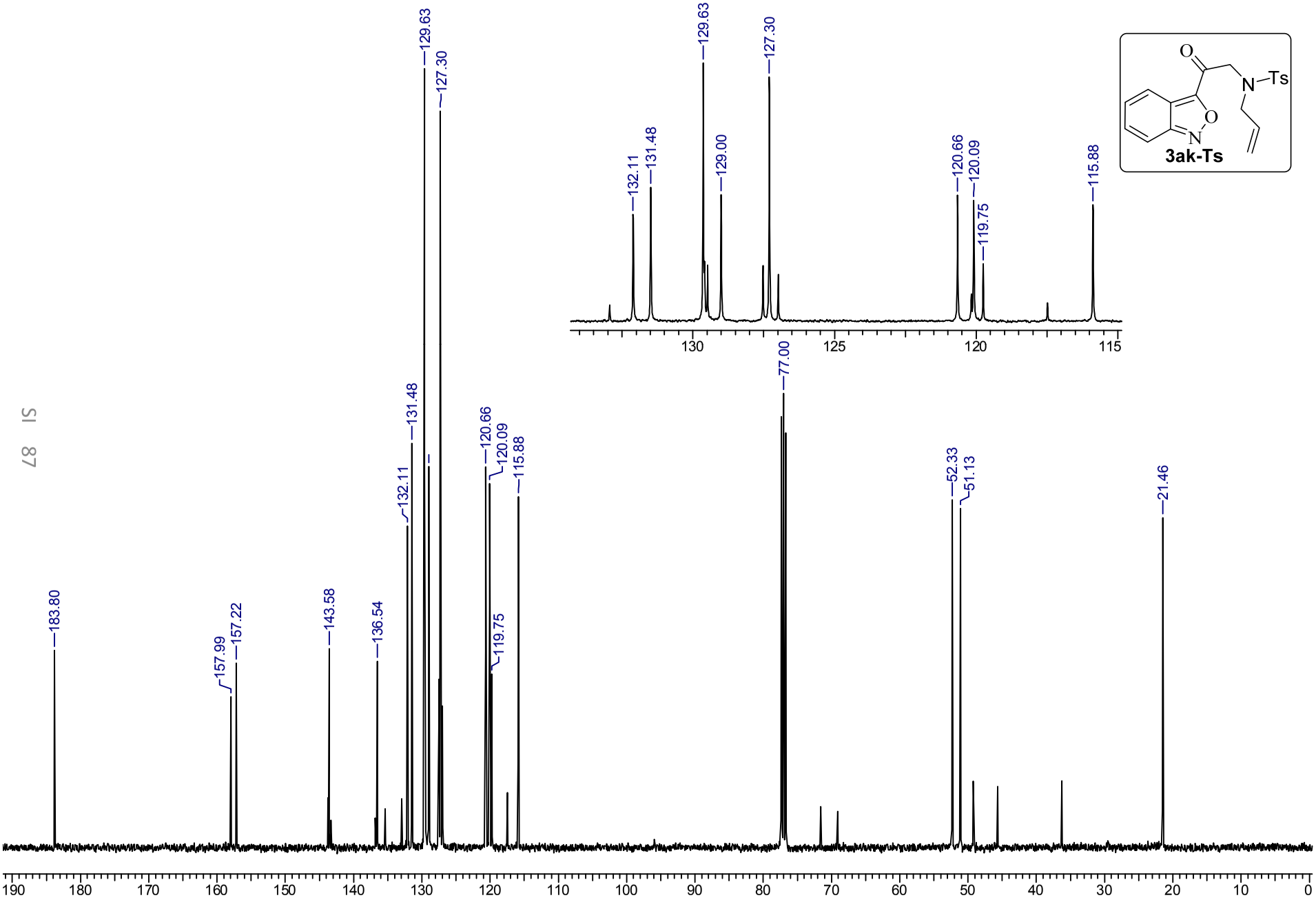
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	22 Jan 2014 00:28:53			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.200						



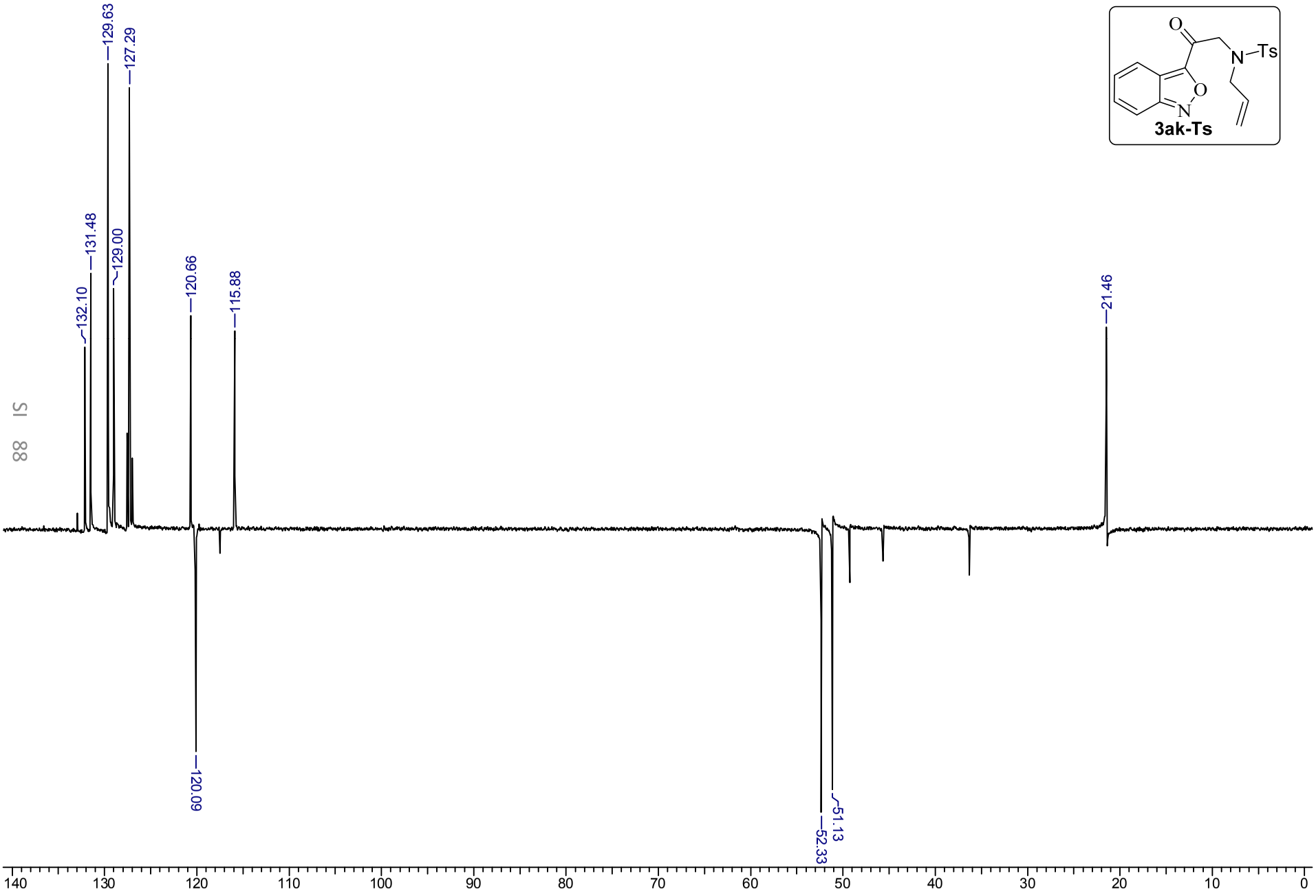
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	20 Jan 2014 19:48:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



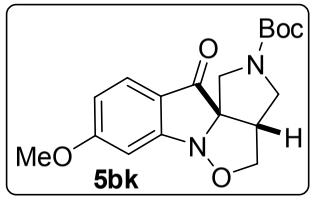
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	22 Jan 2014 01:26:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.200						



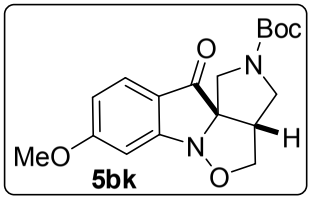
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	22 Jan 2014 01:26:12			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.100						



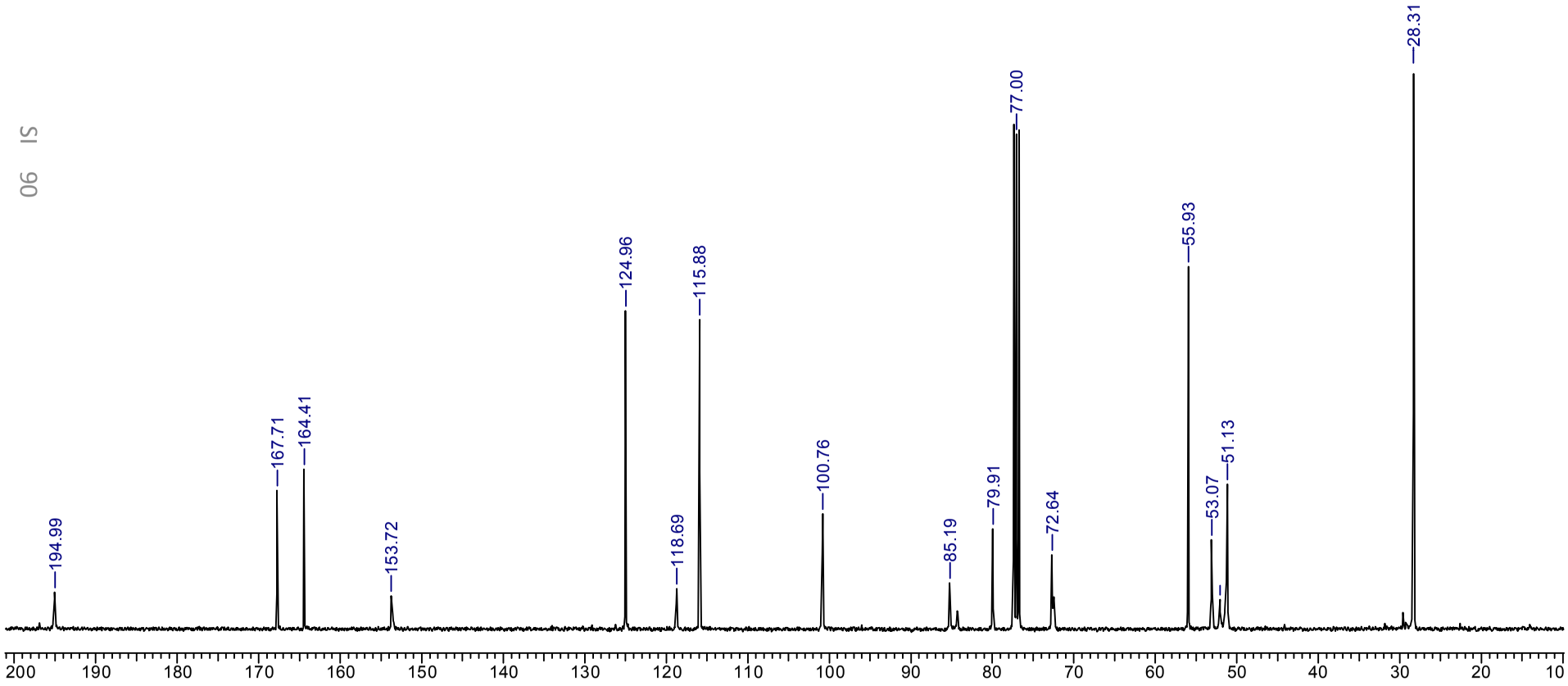
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	14 Aug 2013 13:24:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



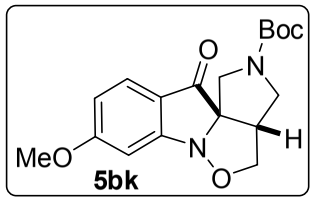
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	17 Aug 2013 14:34:17			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.600						

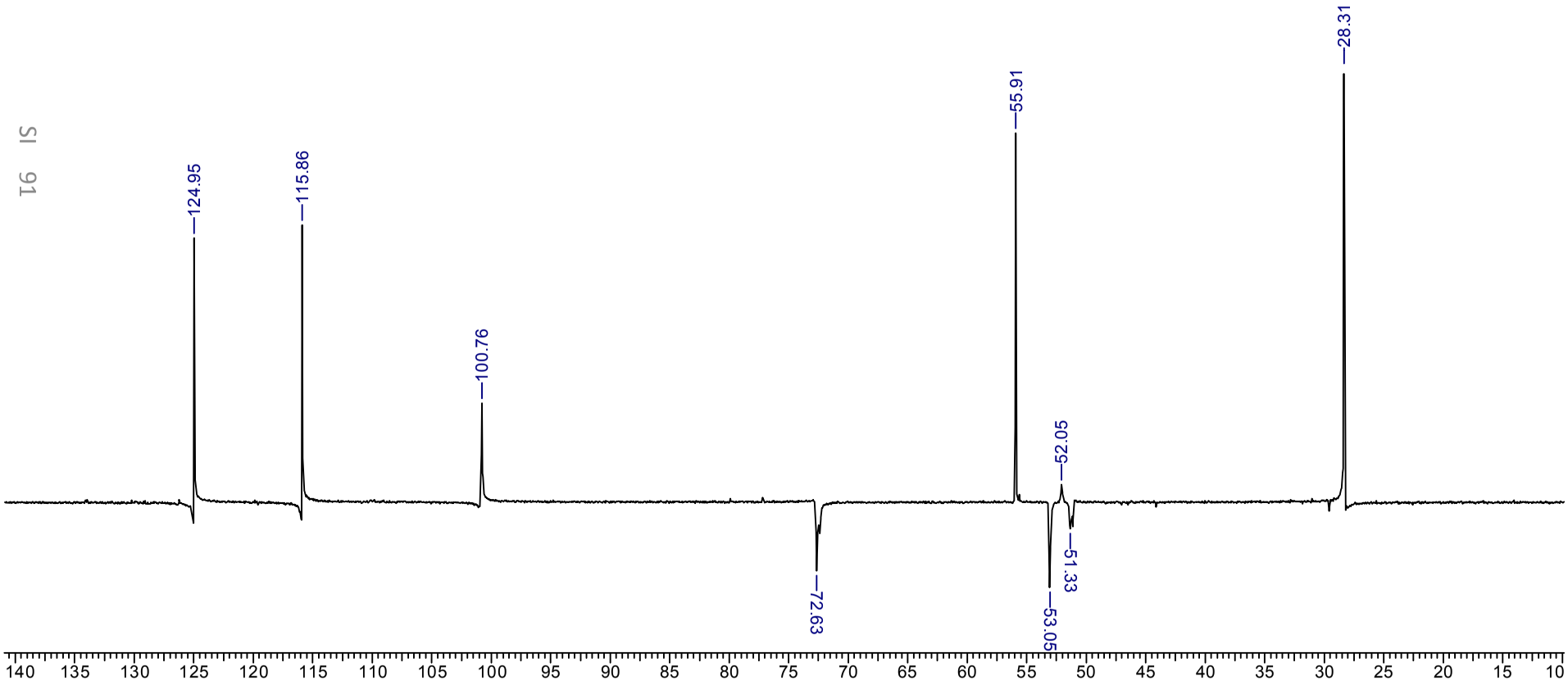


5bk

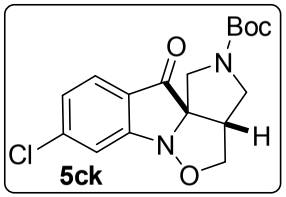


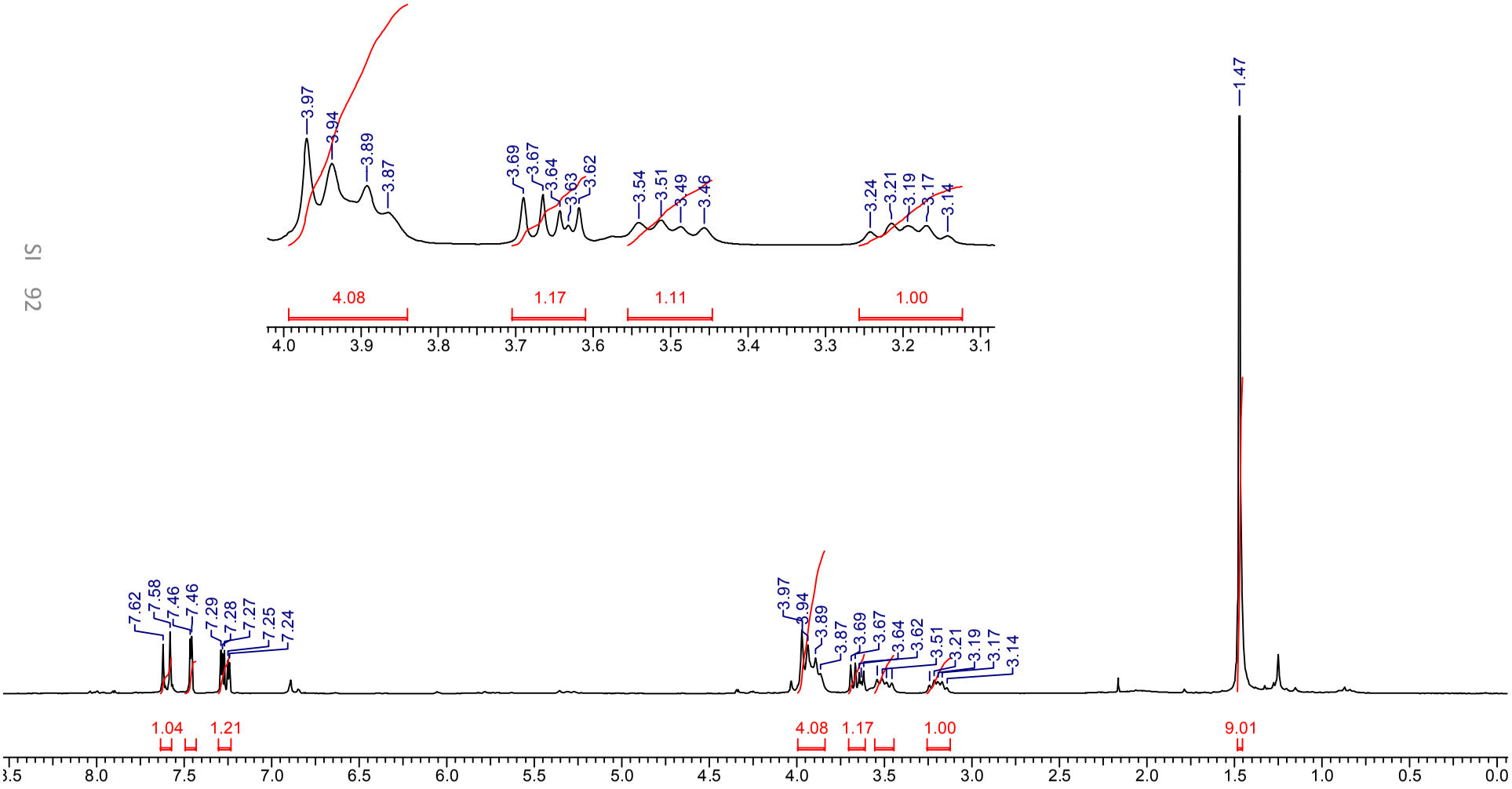
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	17 Aug 2013 14:34:17			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.900						



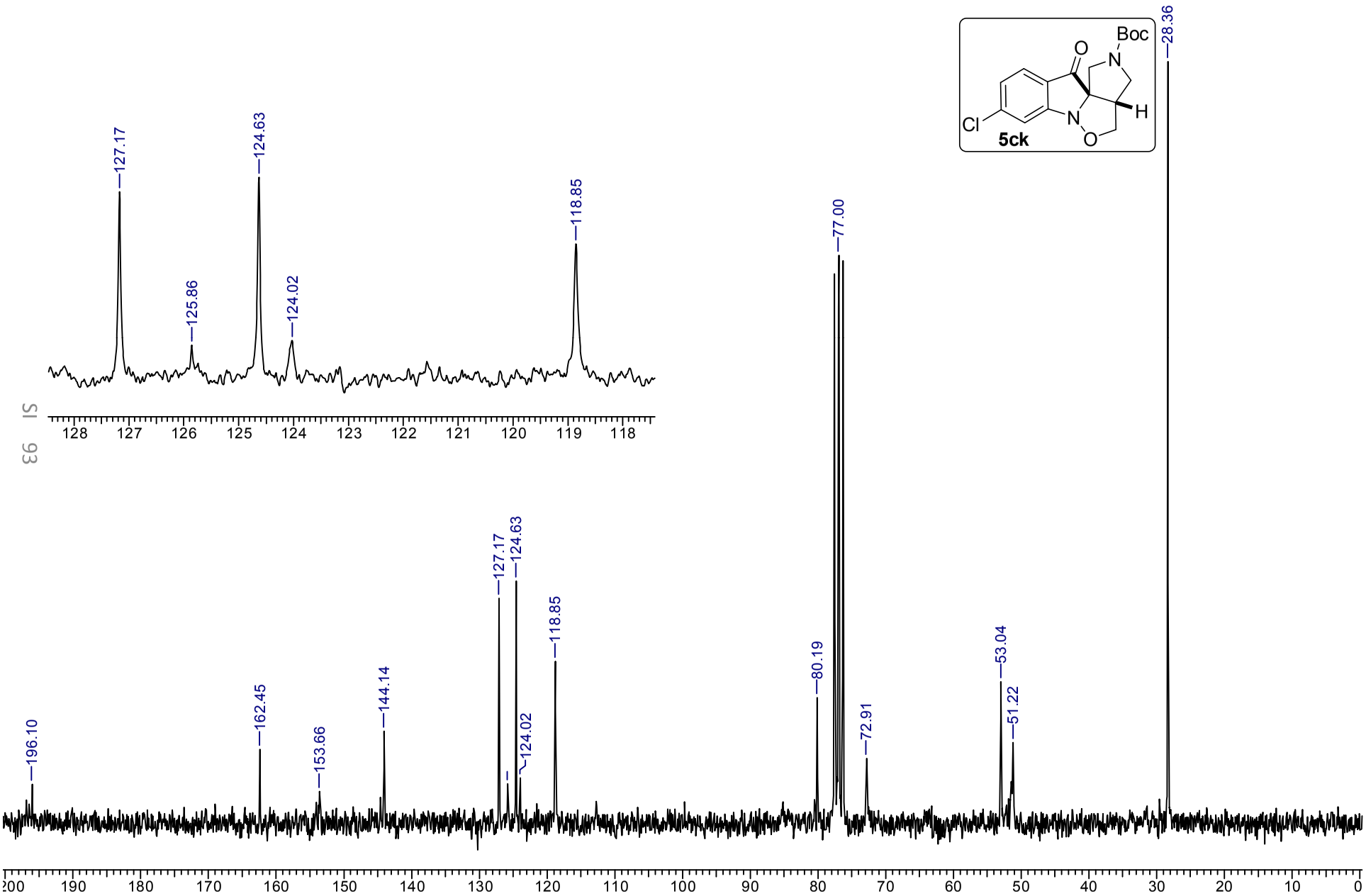


Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	25 Jun 2013 05:45:44			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

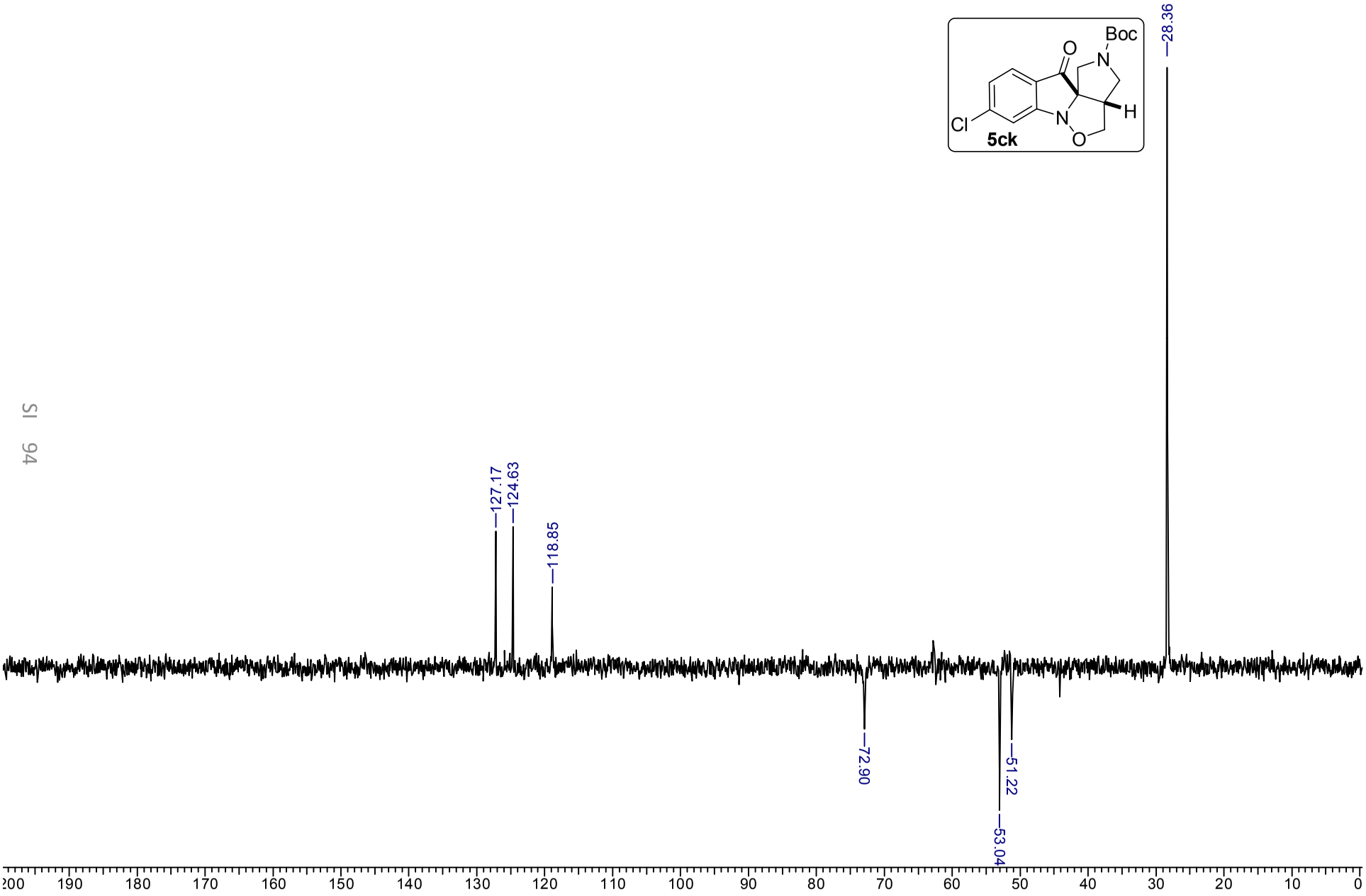




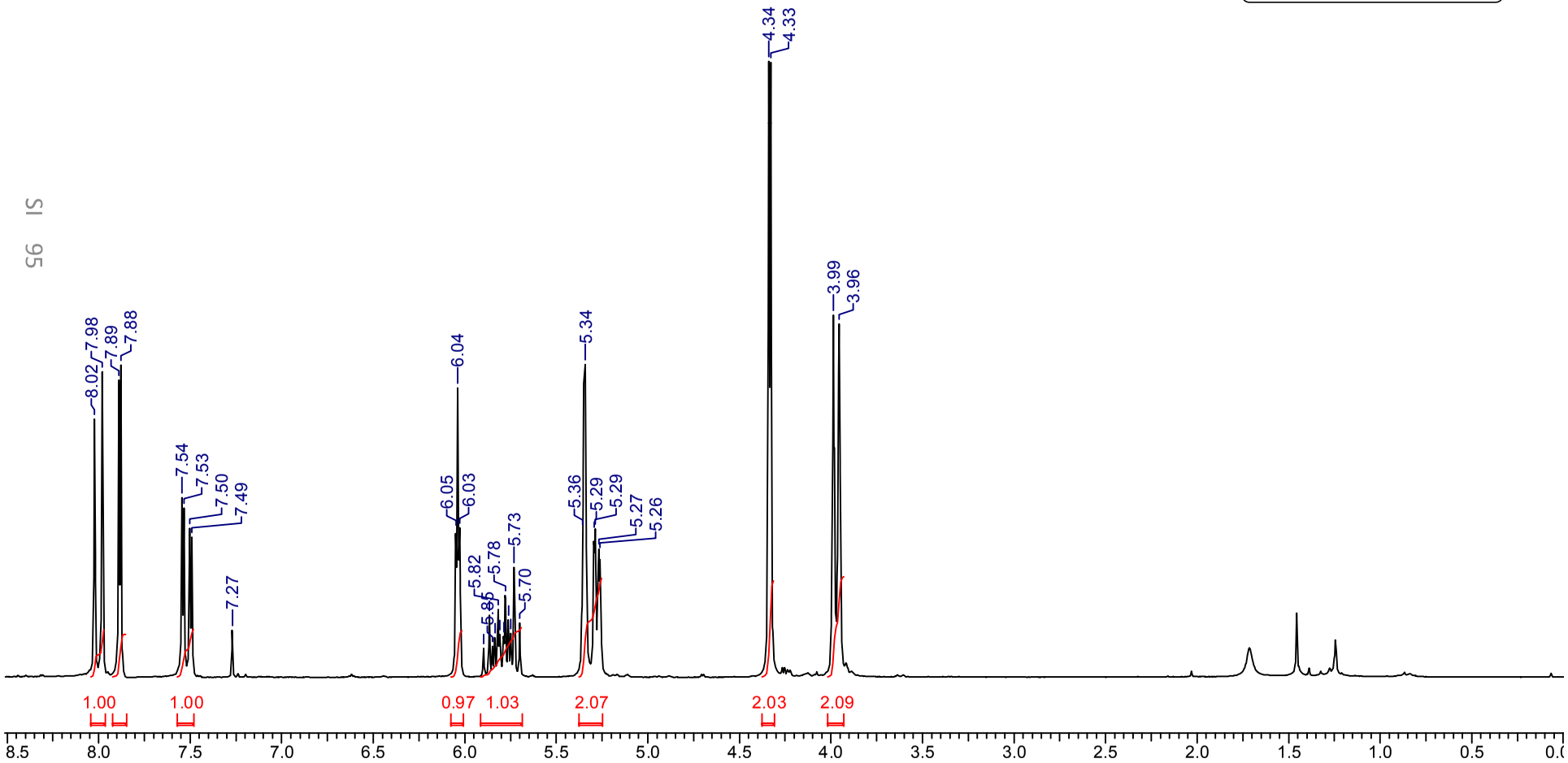
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	27 Jun 2013 09:25:28			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



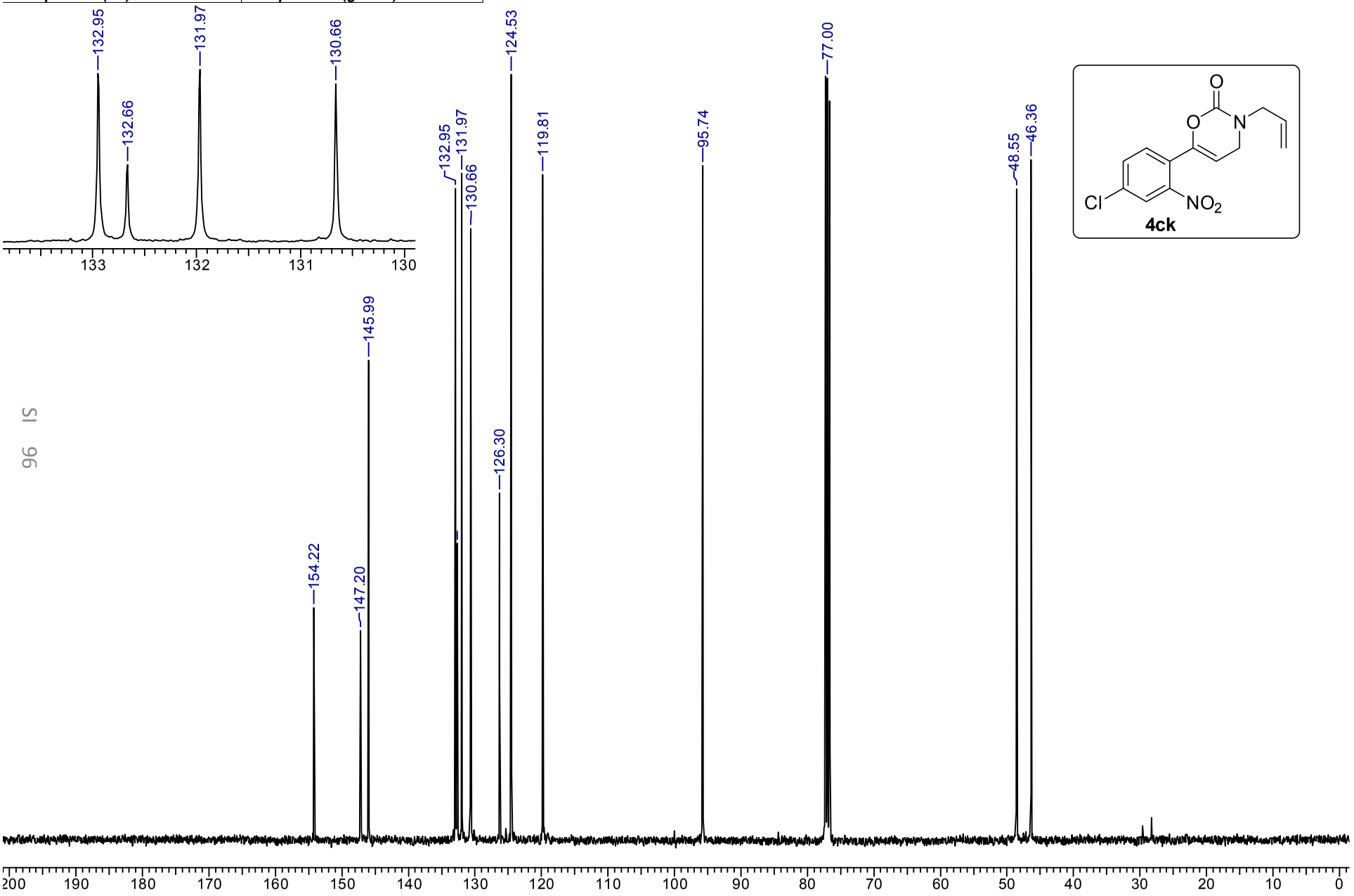
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	27 Jun 2013 08:47:04			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



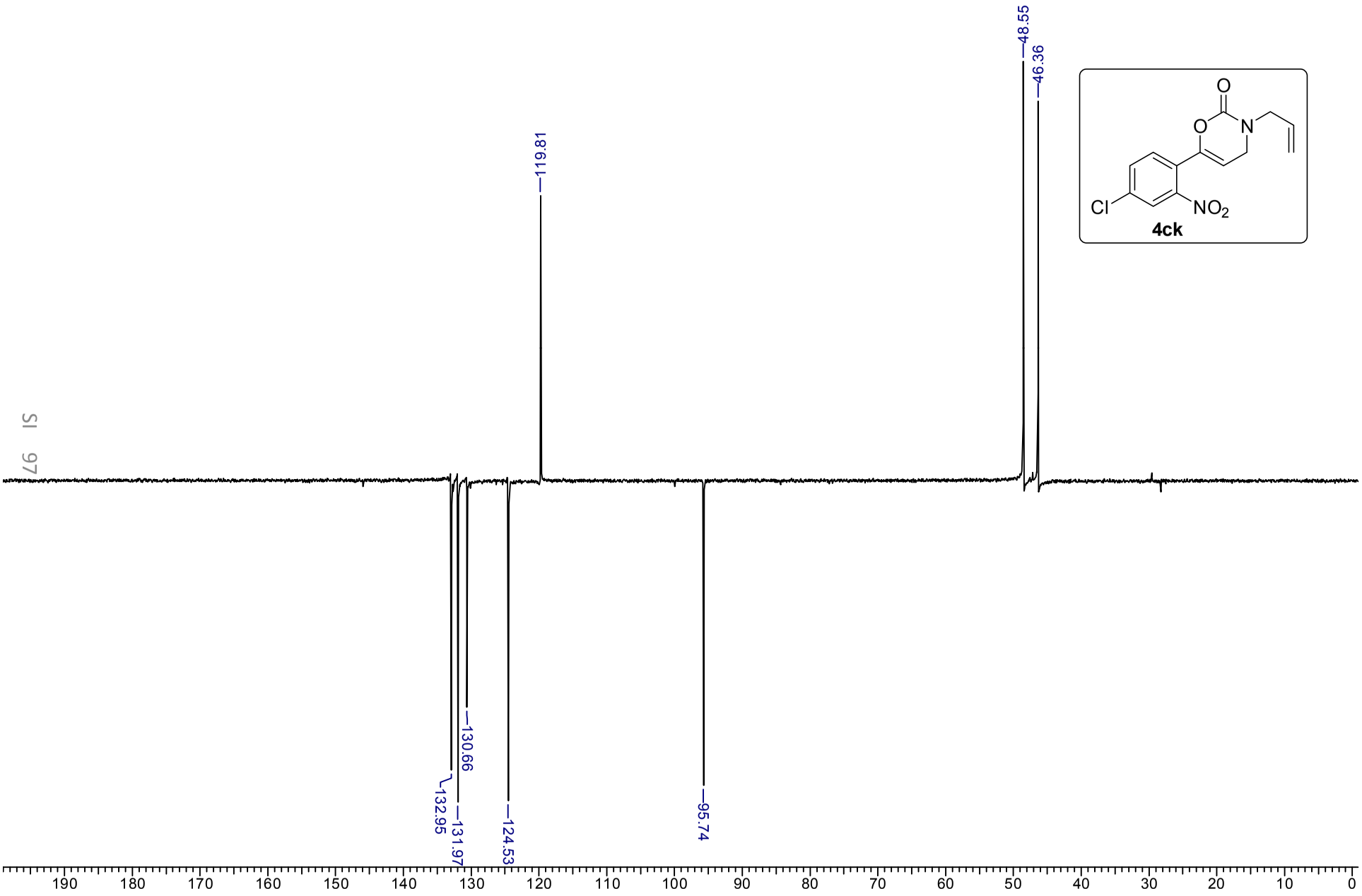
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	22 Jun 2013 14:41:12			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



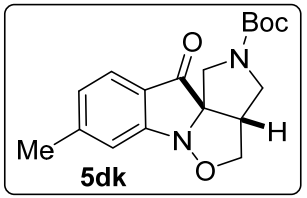
Acquisition Time (sec)	1.0434	***Comment***	suneel k	***Date***	25 Jun 2013 12:56:01			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	600	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.200						

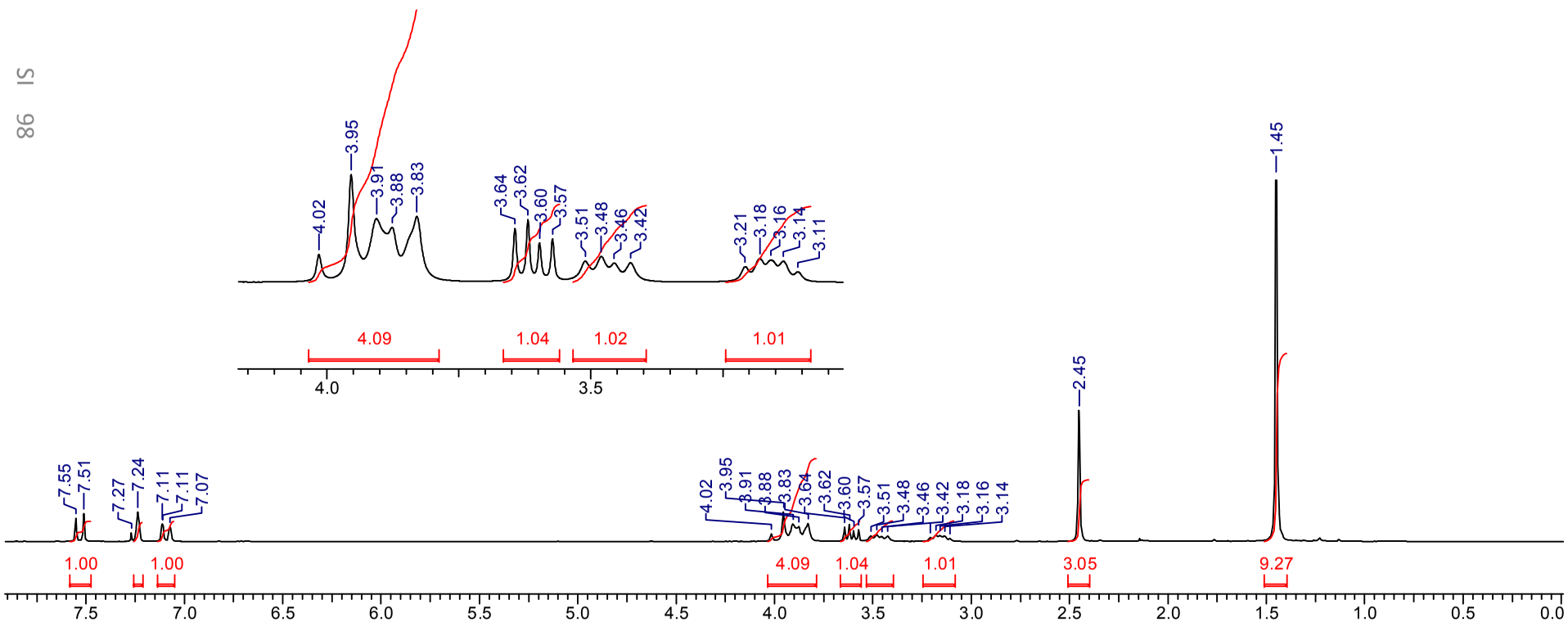


Acquisition Time (sec)	1.0434	***Comment***	suneel k	***Date***	25 Jun 2013 12:56:01			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	19.000						

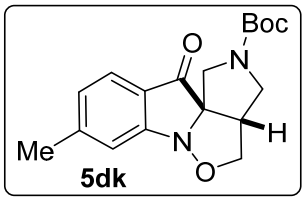


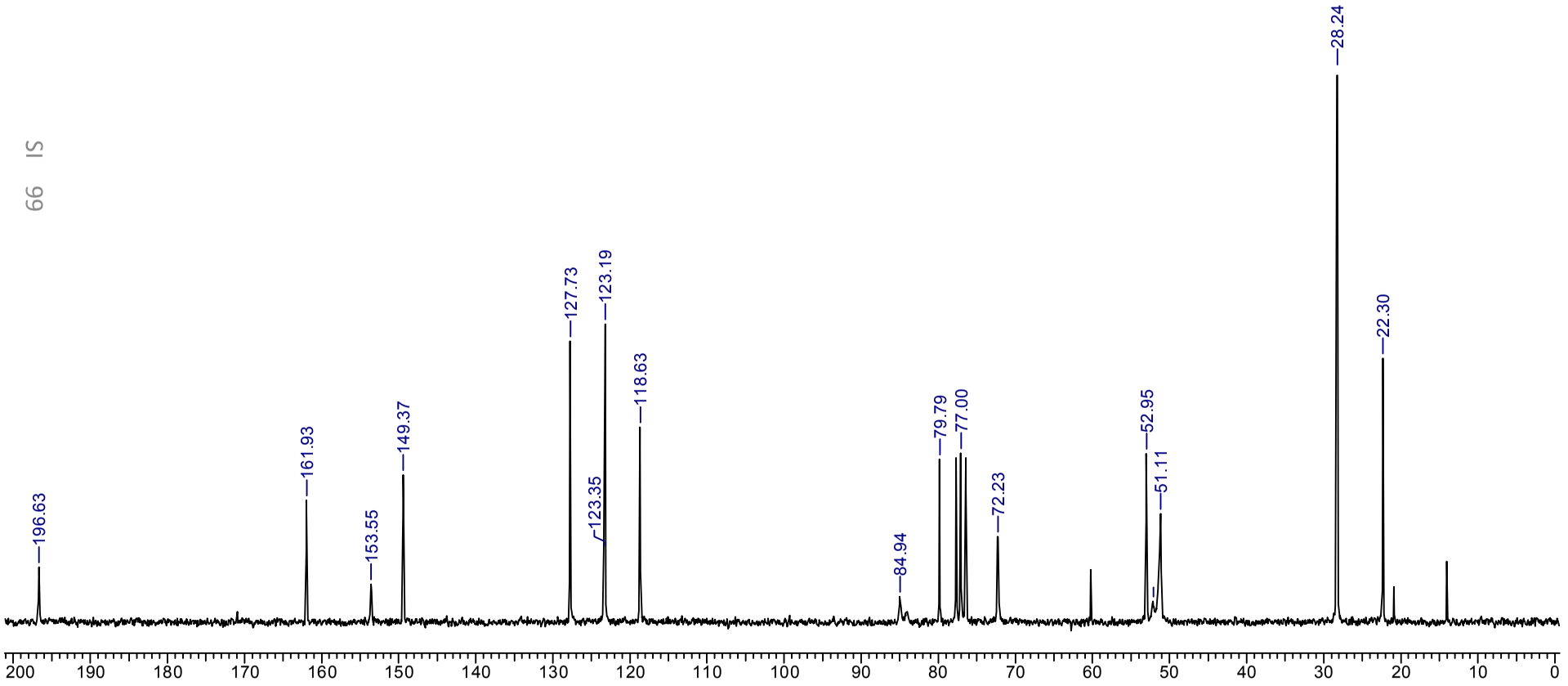
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	25 Jun 2013 05:54:16			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						





Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	19 Jun 2013 06:56:08	***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				





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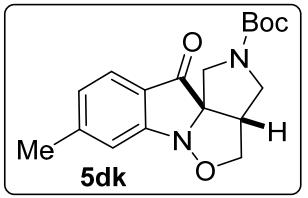
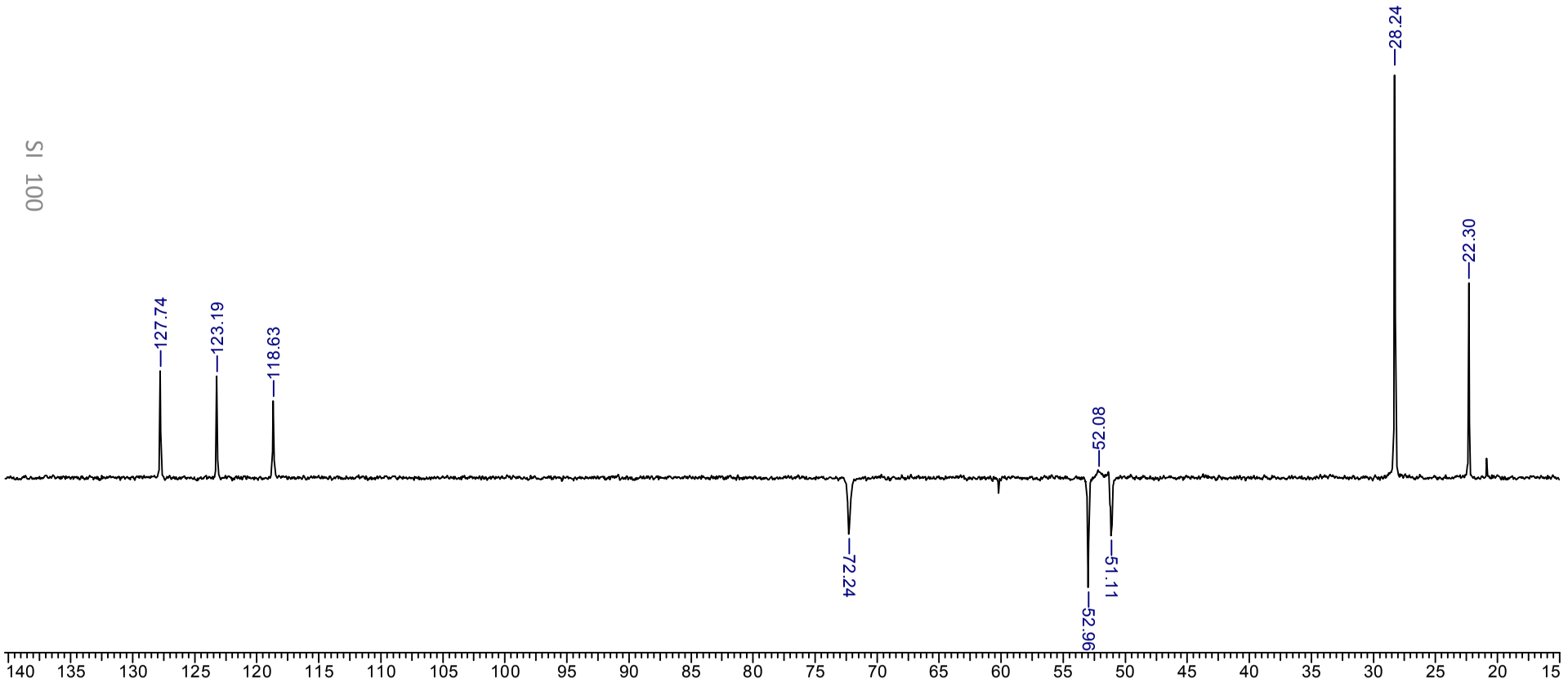
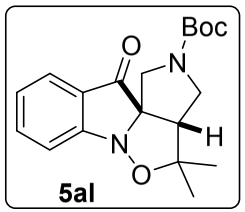
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	19 Jun 2013 06:17:44	***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

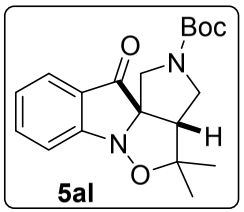




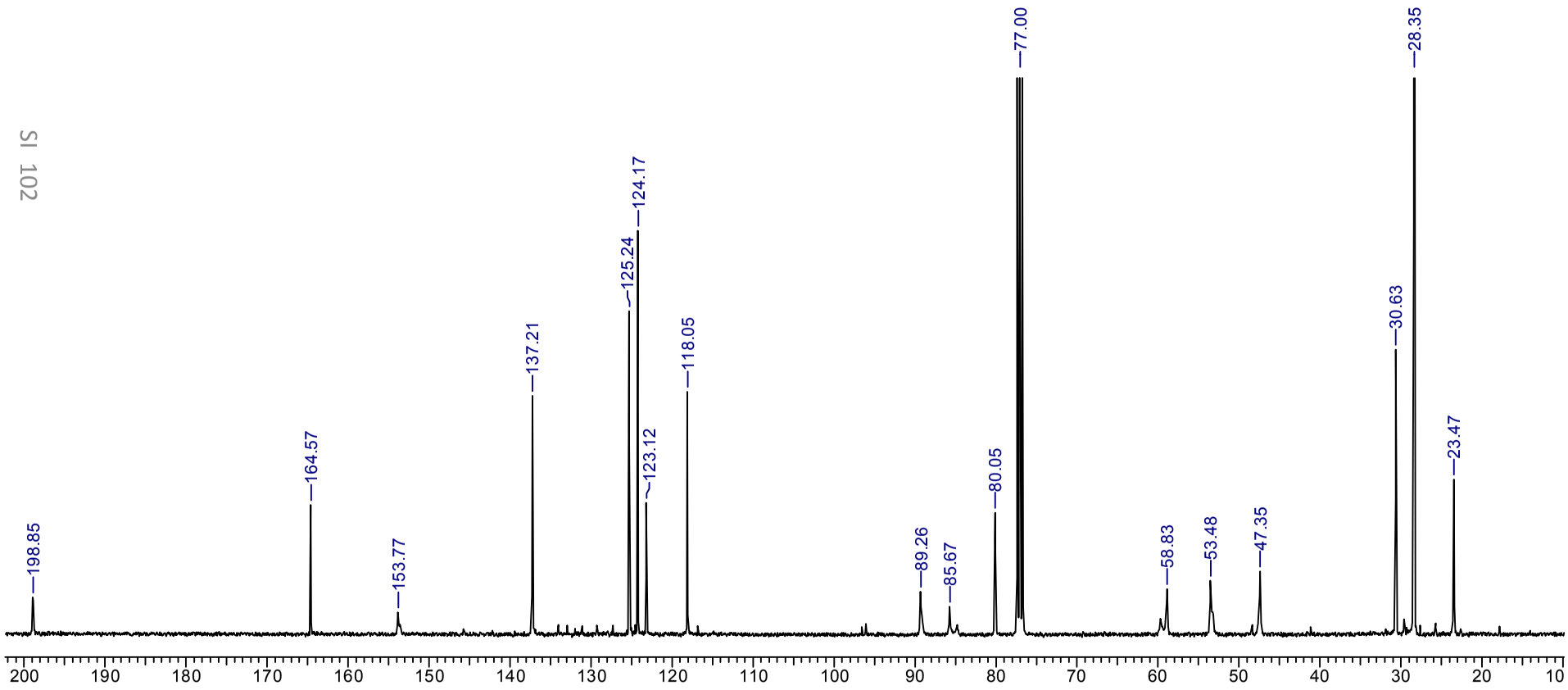
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	08 Nov 2013 21:24:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



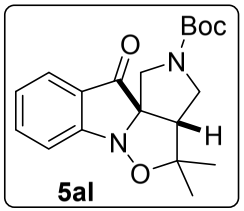
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	10 Nov 2013 11:22:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	2400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.500						

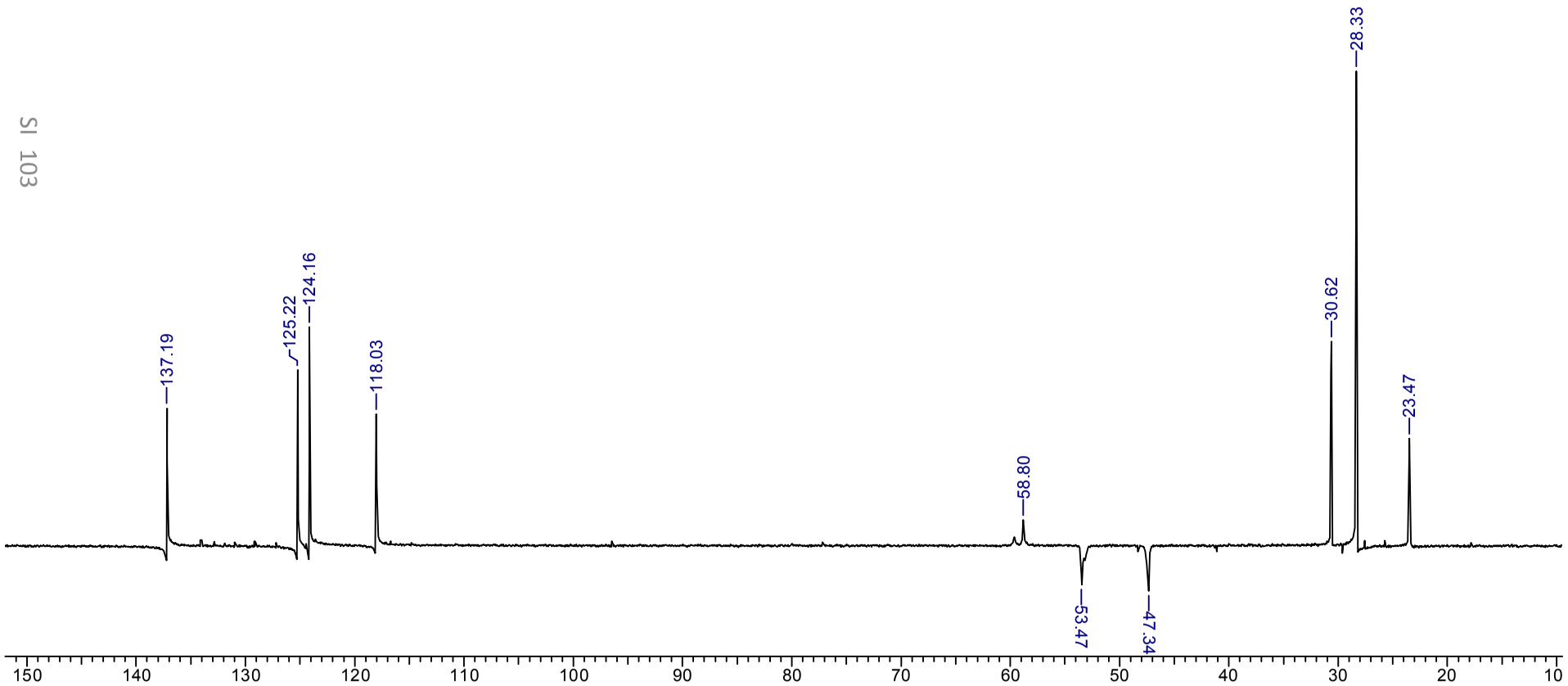


5al

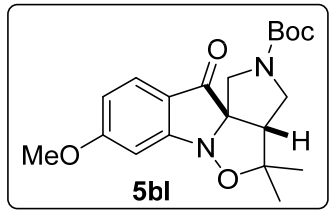


Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	10 Nov 2013 11:22:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.300						

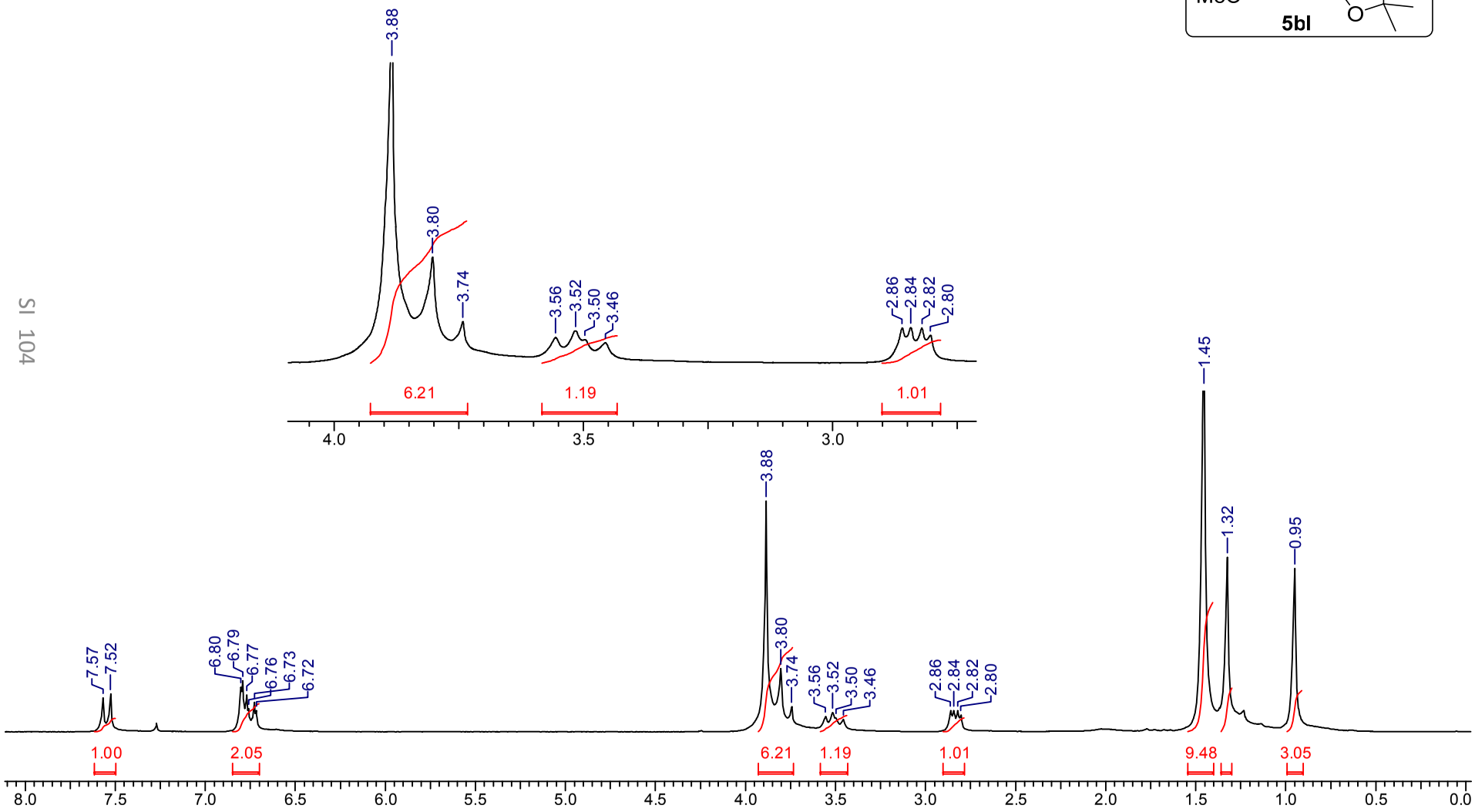




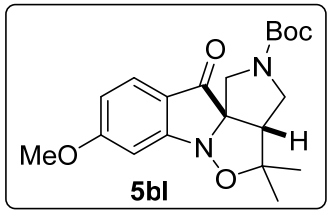
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	08 Nov 2013 14:32:40			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



5bl



Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	10 Nov 2013 08:58:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	2400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.300						



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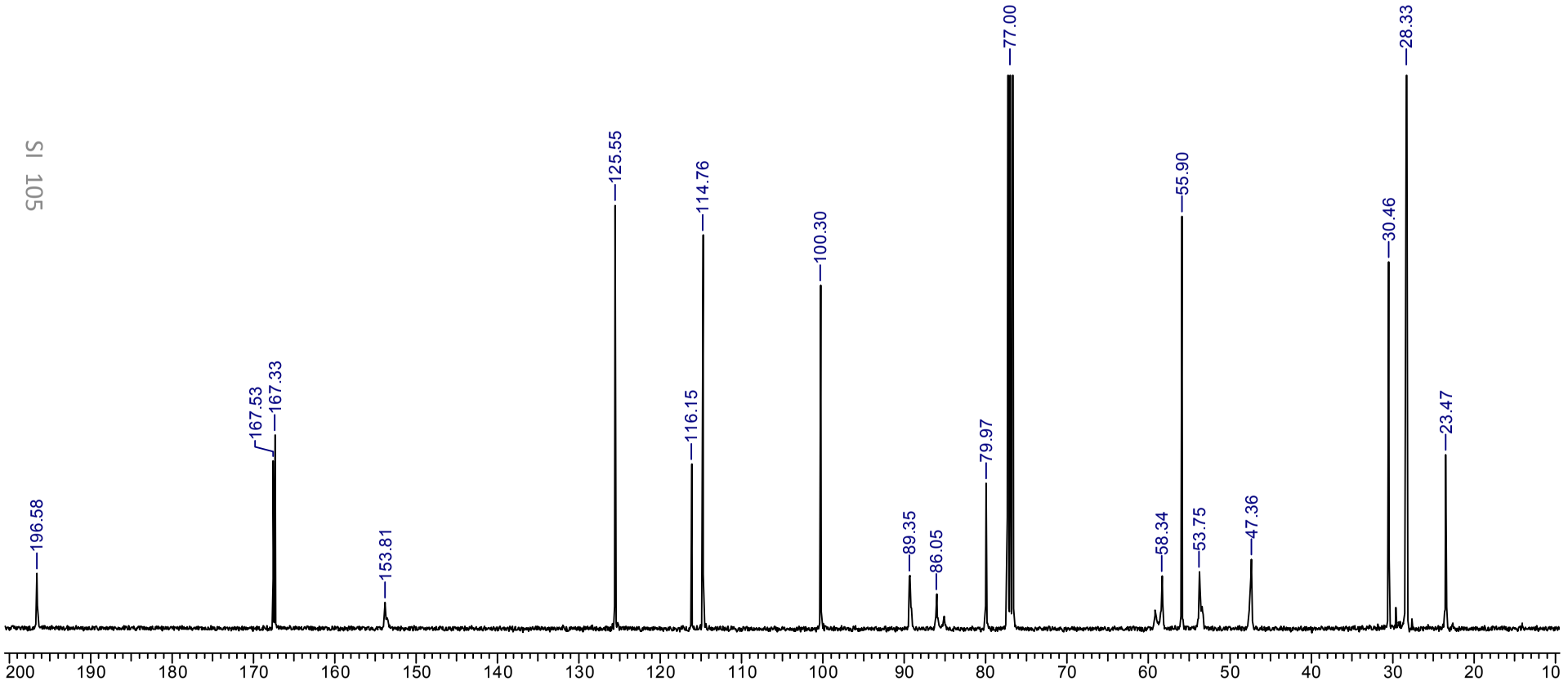
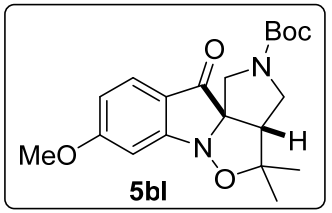


Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	10 Nov 2013 08:58:47			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.300						



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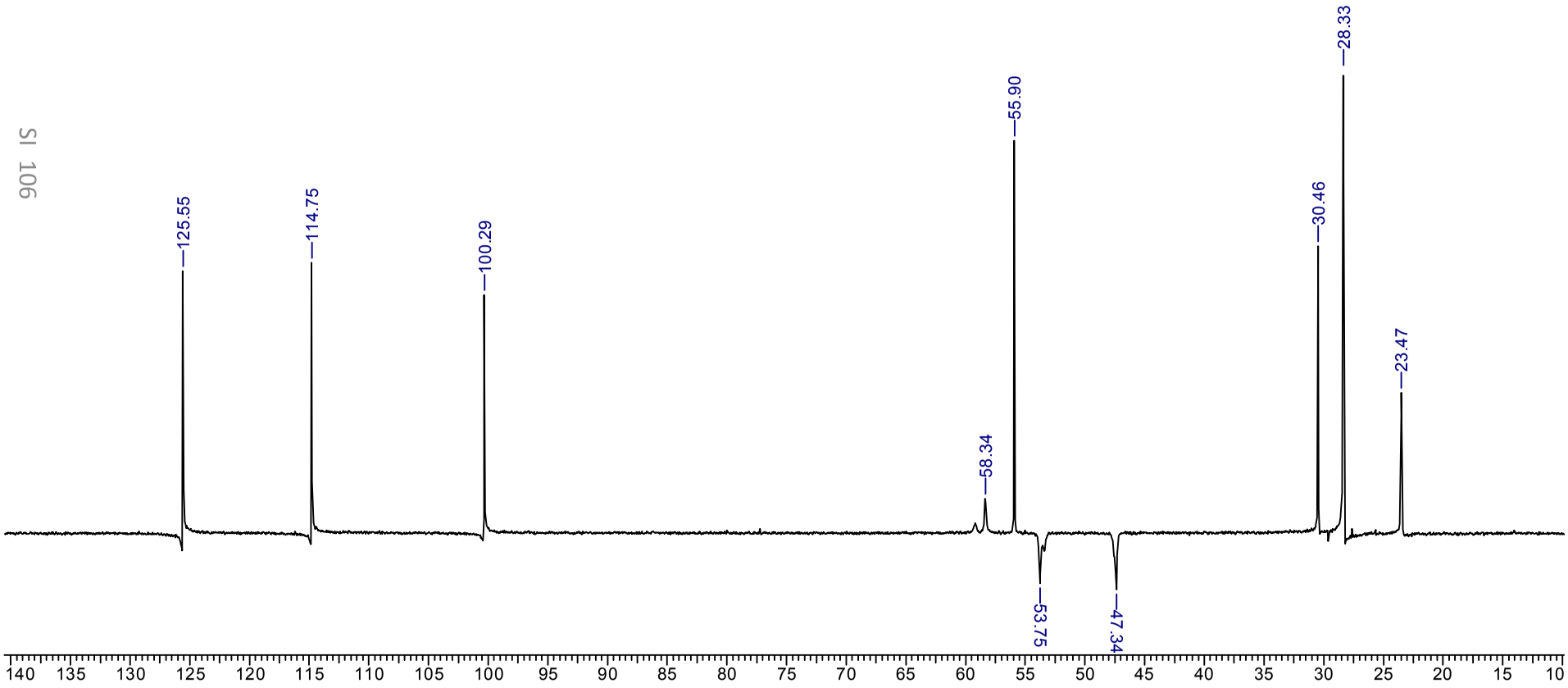
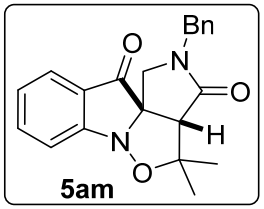
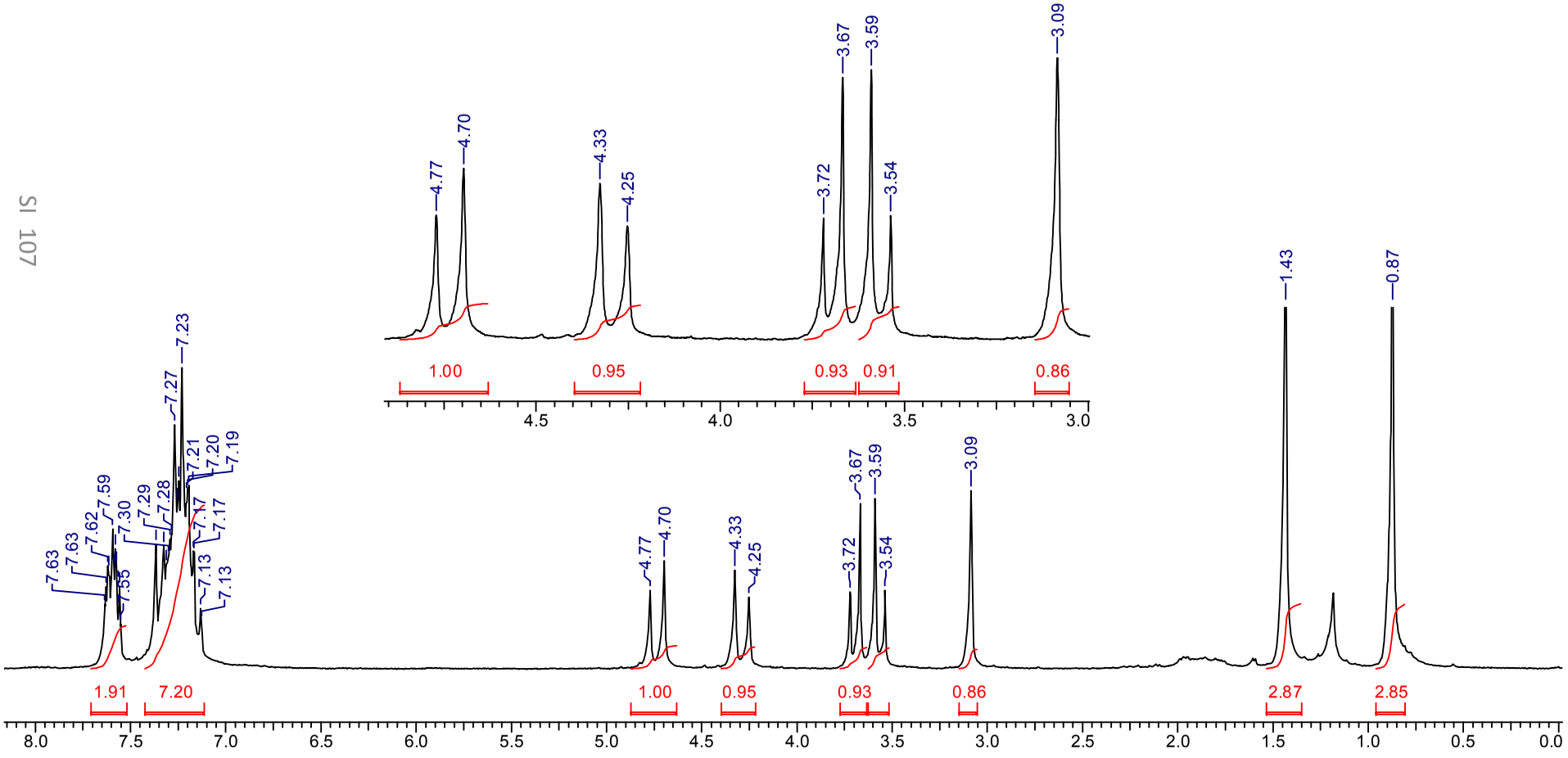
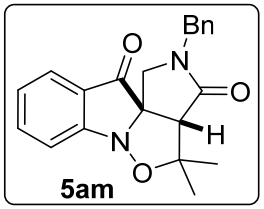


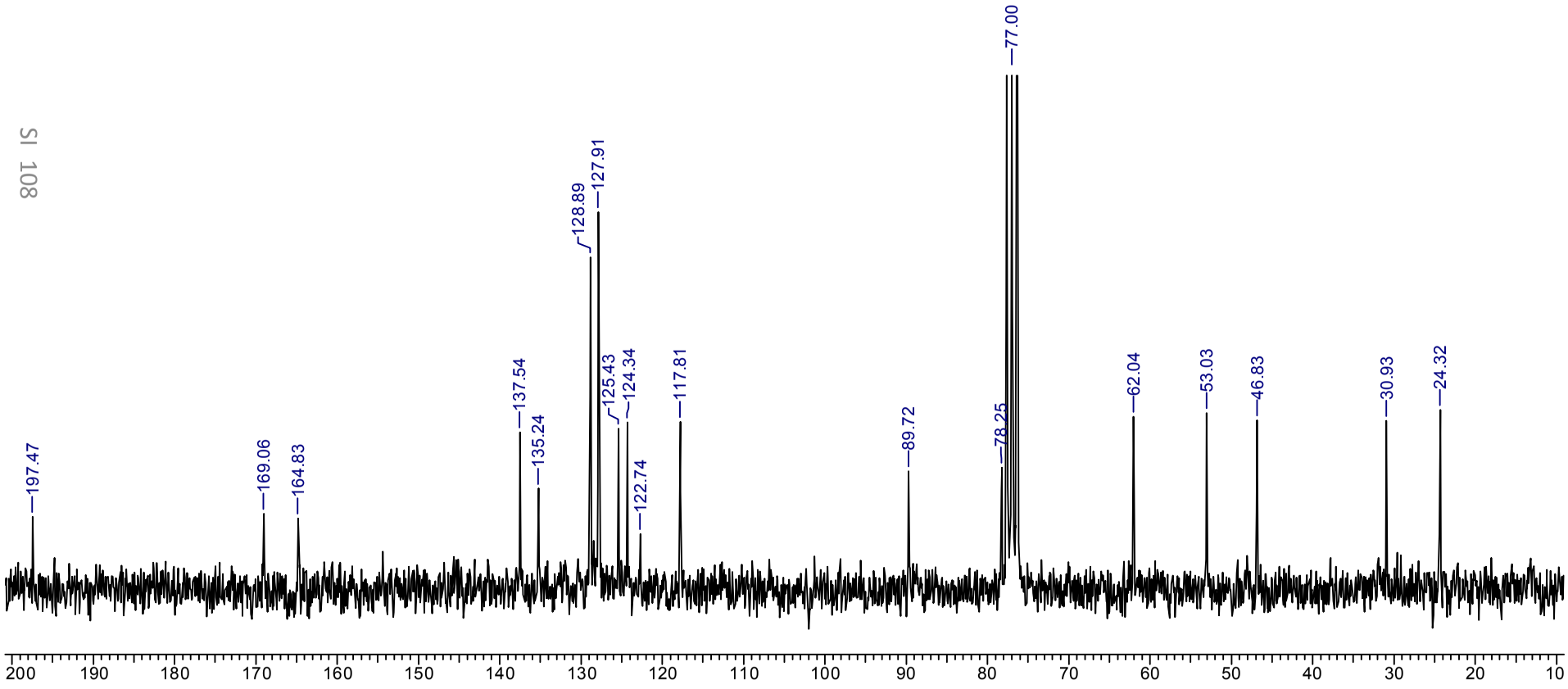
Acquisition Time (sec)	3.9584	***Comment***	Santhosh			***Date***	22 Oct 2013 23:02:32
Frequency (MHz)	200.13	***Nucleus***	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768
Solvent	CHLOROFORM-d			***Sweep Width (Hz)***	4138.95	***Temperature (grad C)***	27.000		



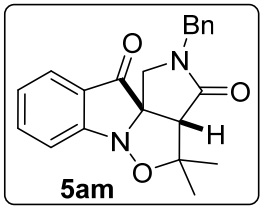


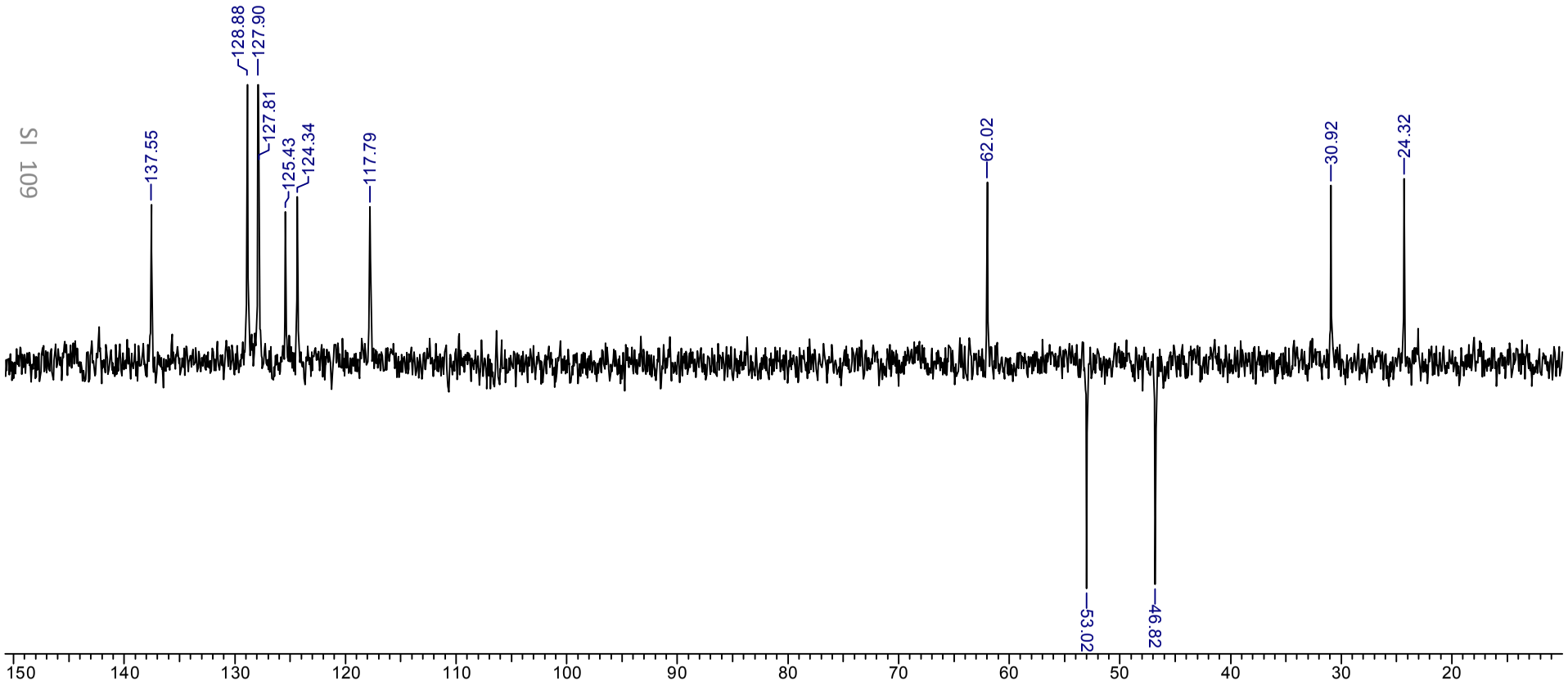
Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	29 Oct 2013 09:48:56			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	430	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



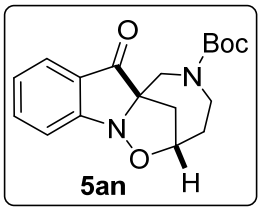


Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	29 Oct 2013 09:36:08			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	227	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				





Acquisition Time (sec)	7.9167	***Comment***	suneel	***Date***	12/11/2013 02:38:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Original Points Count***	32768	***Points Count***	32768	***Sweep Width (Hz)***	4139.07	***Temperature (grad C)***	0.000



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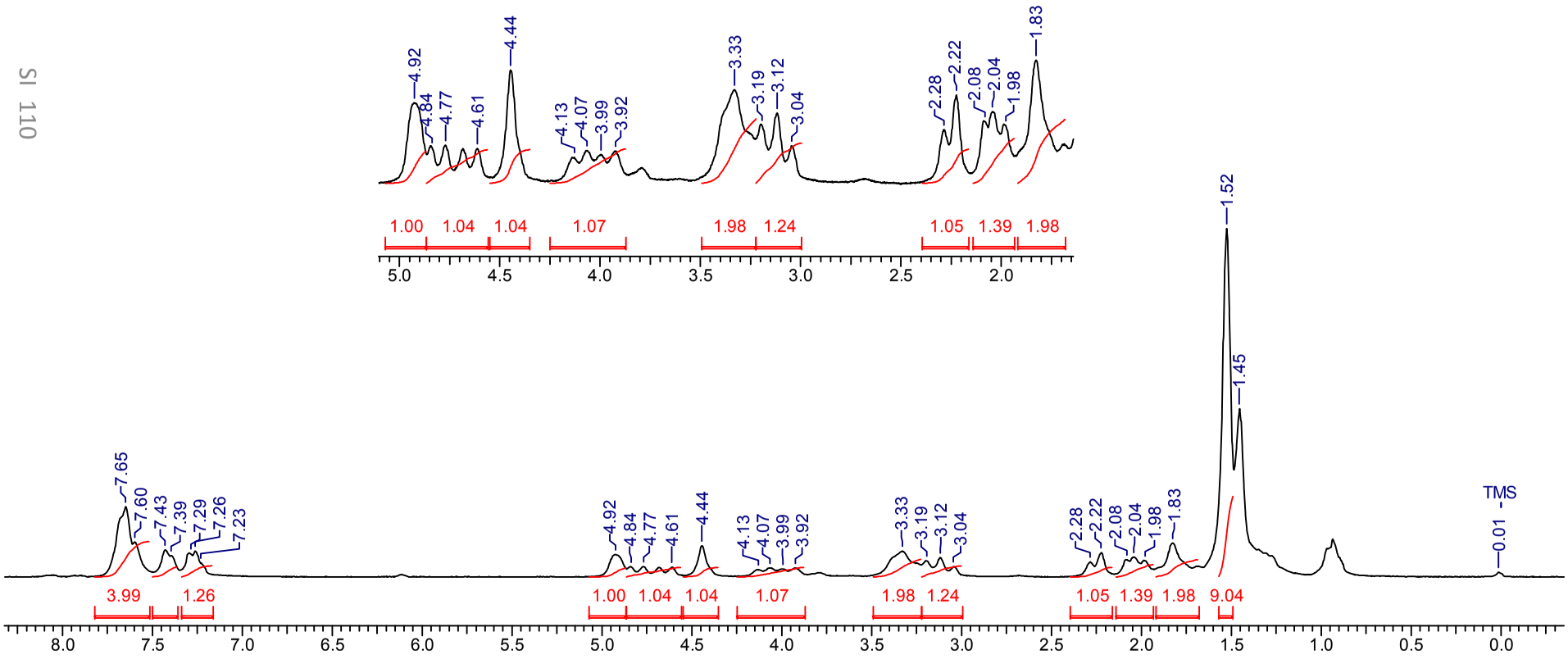
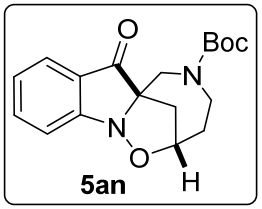


Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	13 Nov 2013 05:10:50			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	600	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.300						



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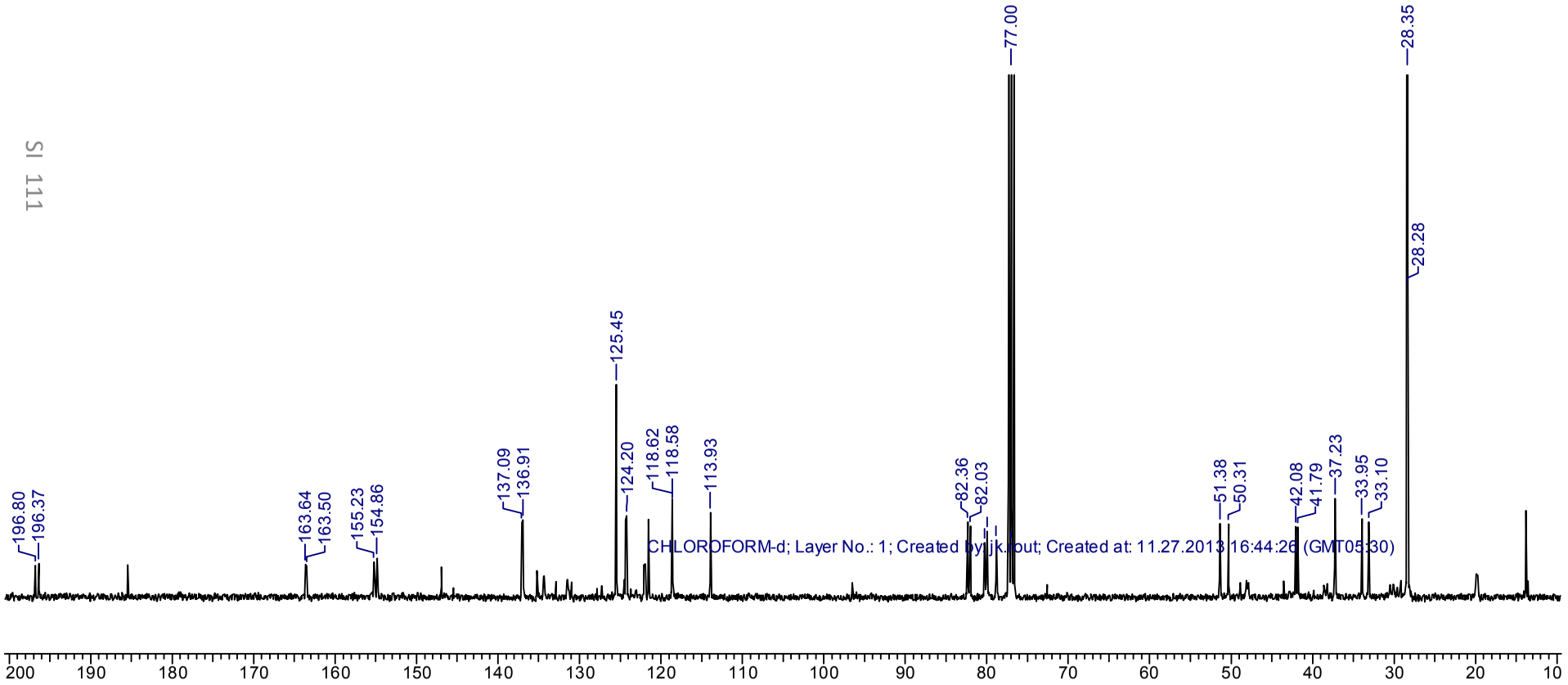
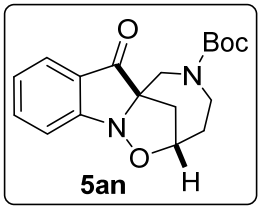
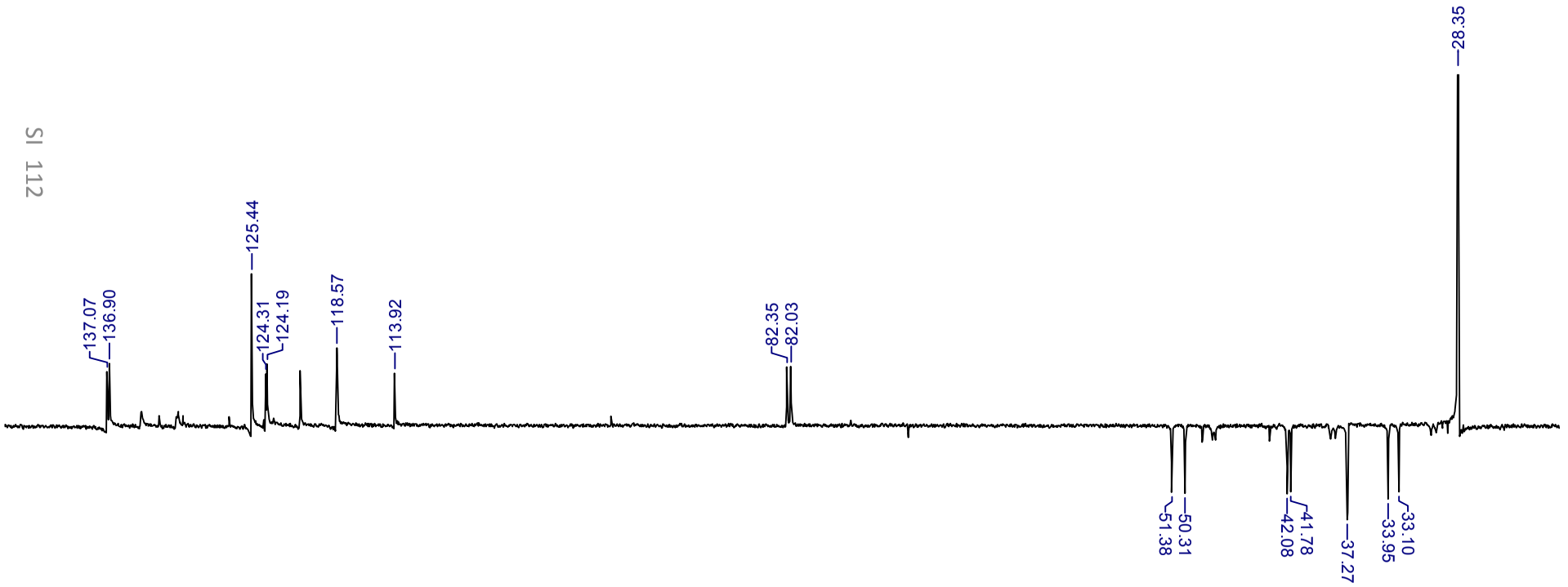


Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	13 Nov 2013 05:10:50			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.300						



5an



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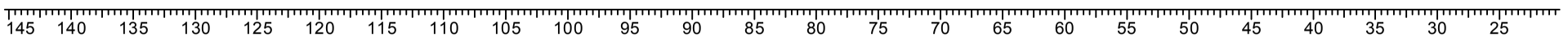
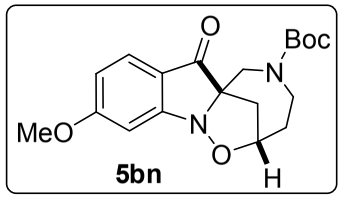


Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	12 Nov 2013 02:16:40			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



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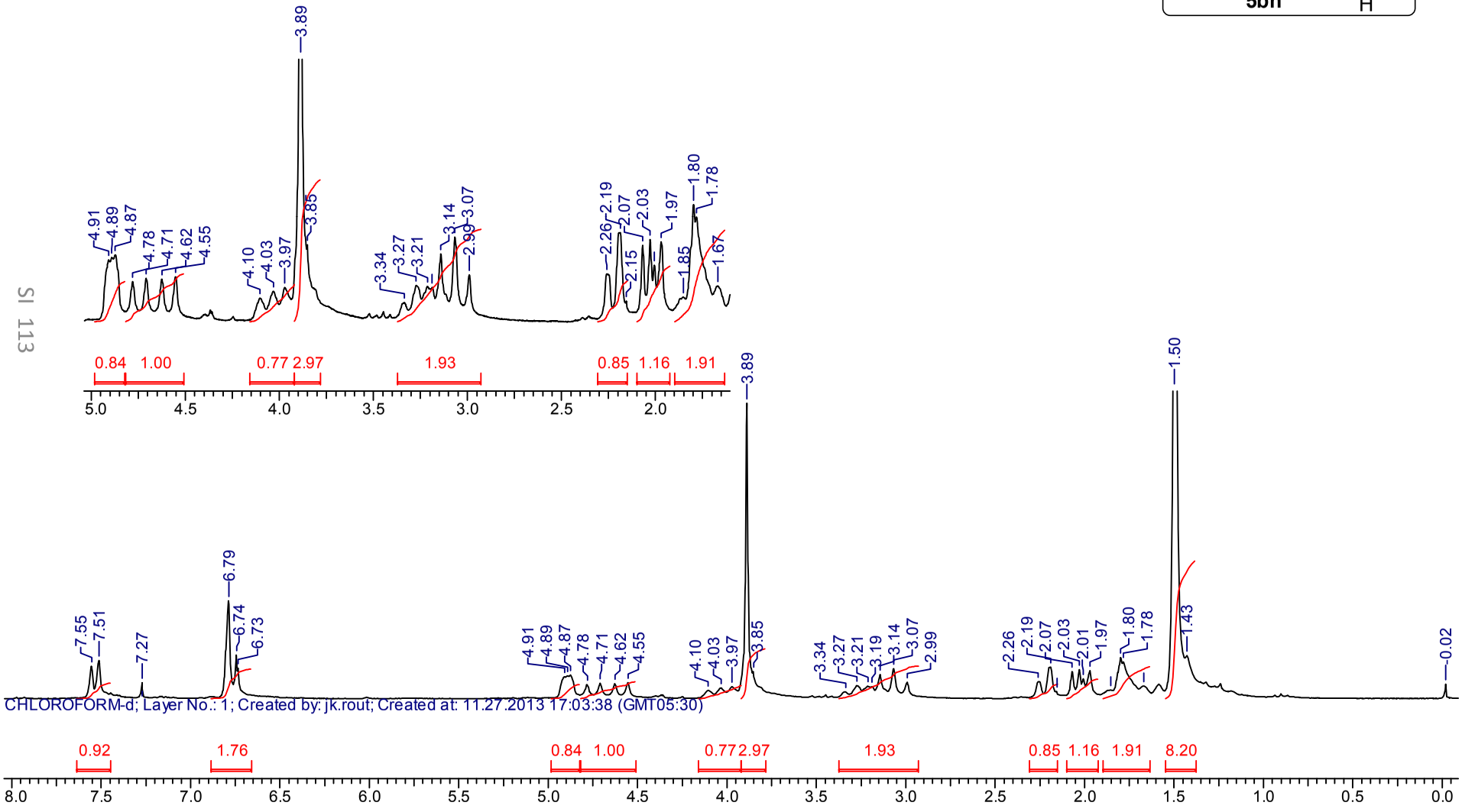
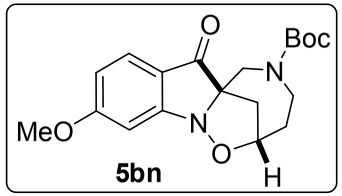


Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	13 Nov 2013 16:10:48			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



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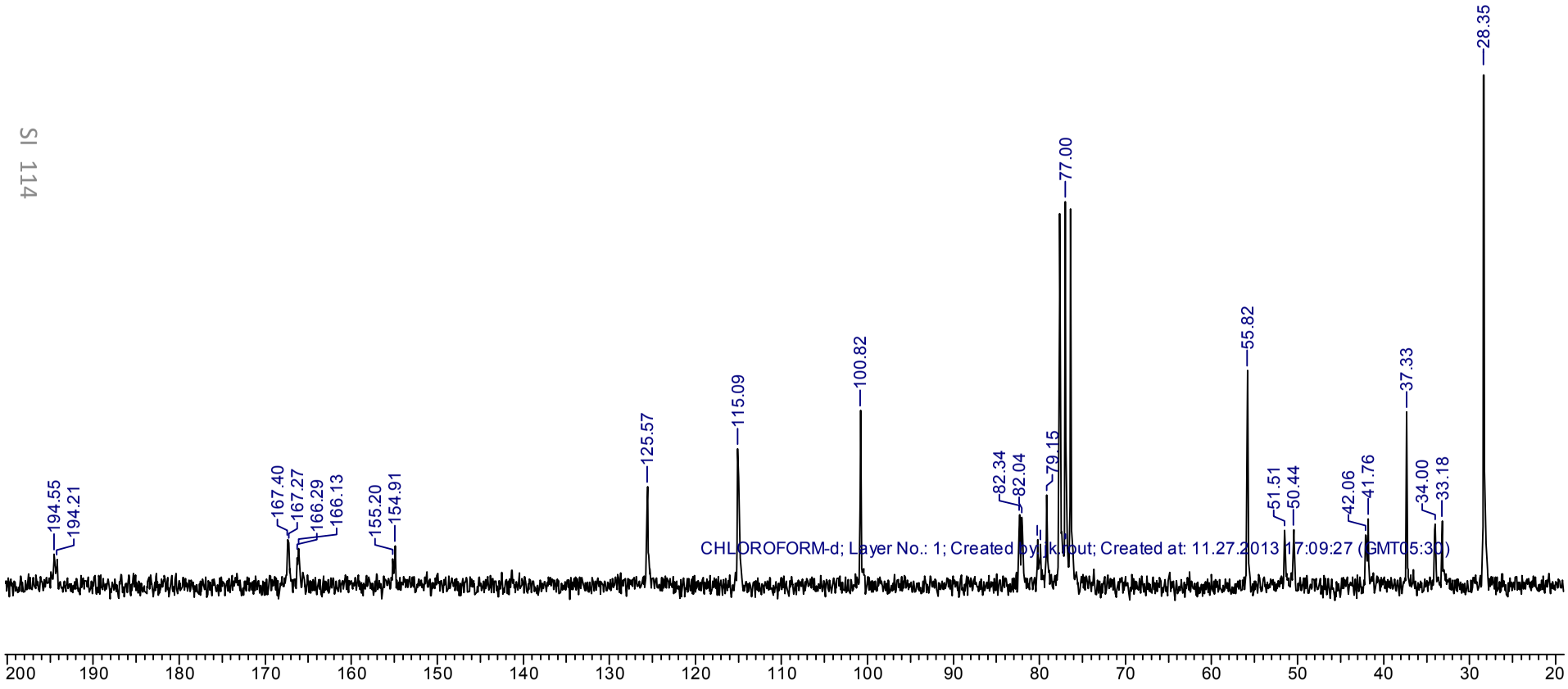
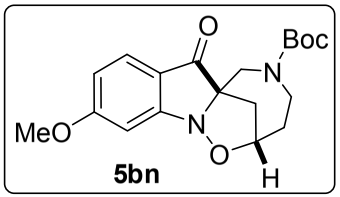
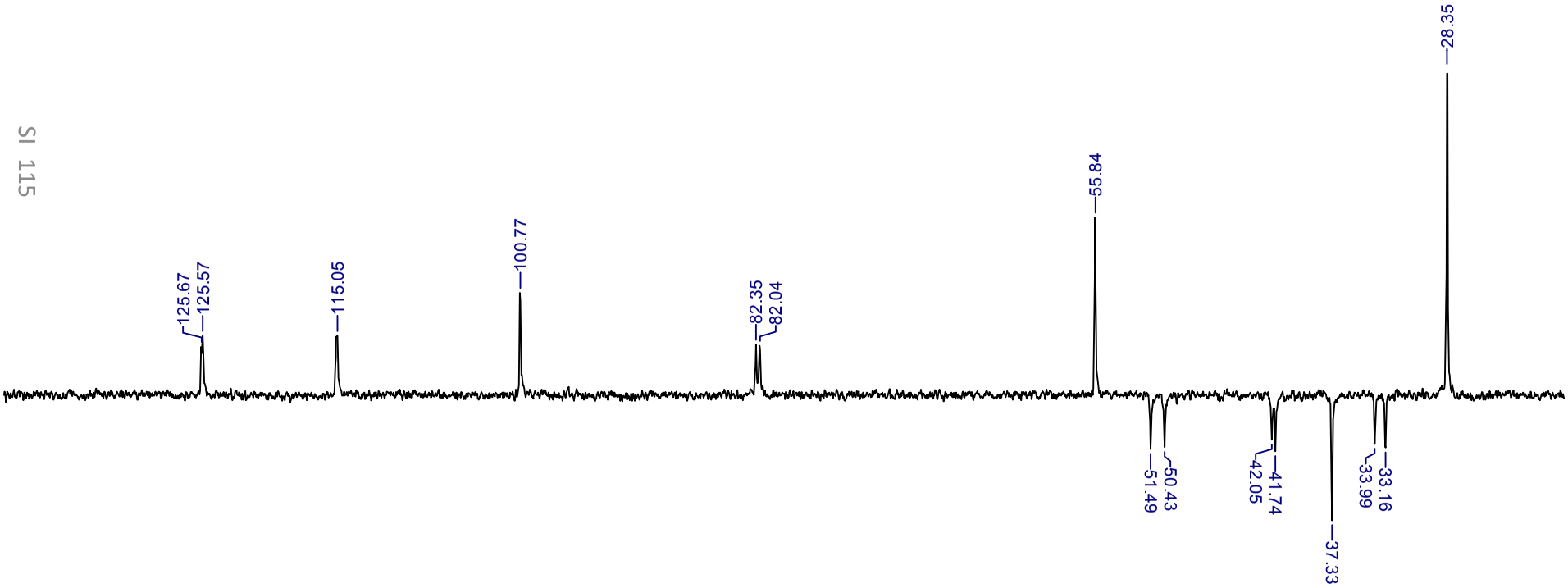


Acquisition Time (sec)	0.6832	***Comment***	suneel	***Date***	13 Nov 2013 15:32:24			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



5bn



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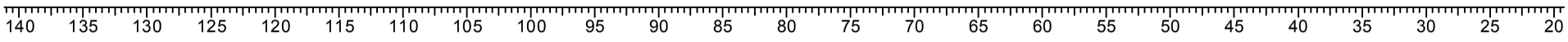
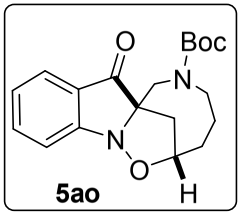
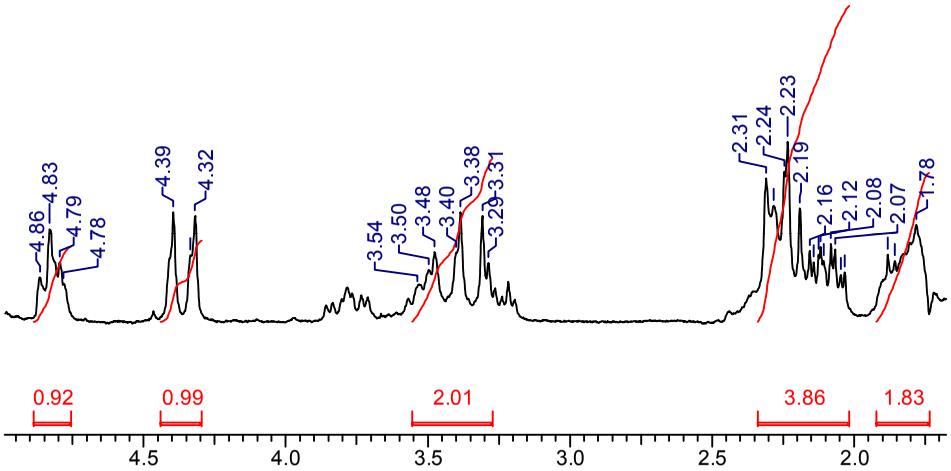
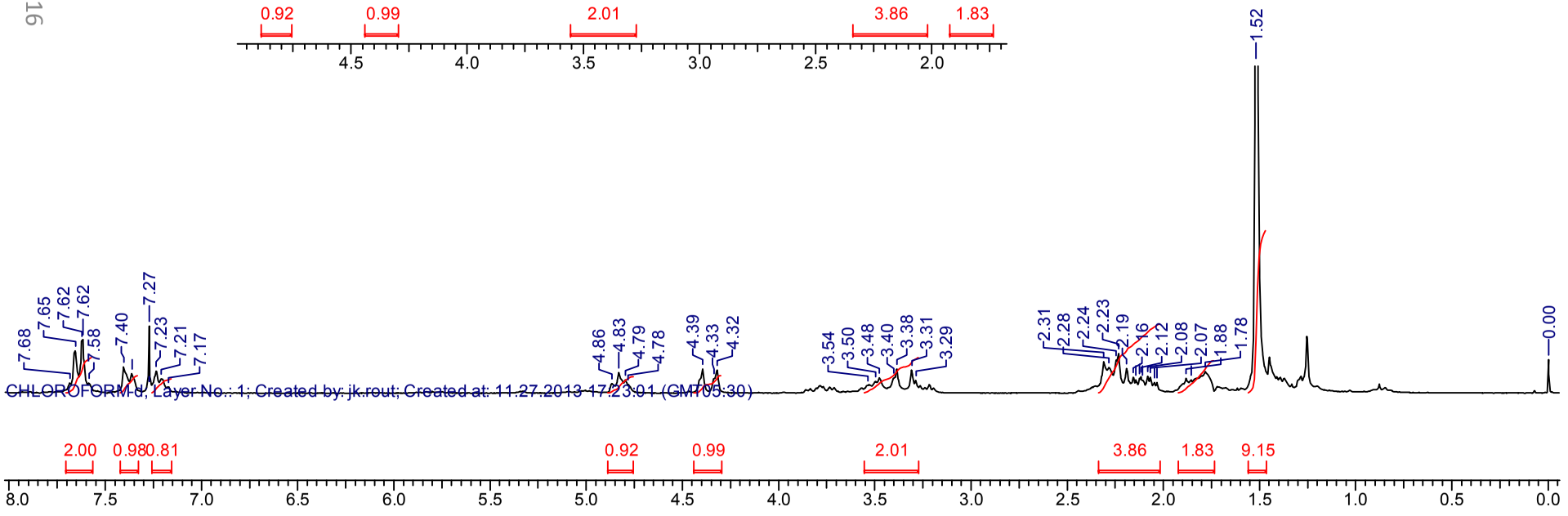


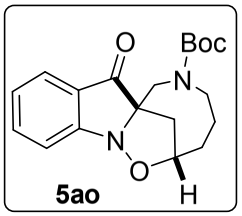
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	14 Aug 2013 03:18:32			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	16	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



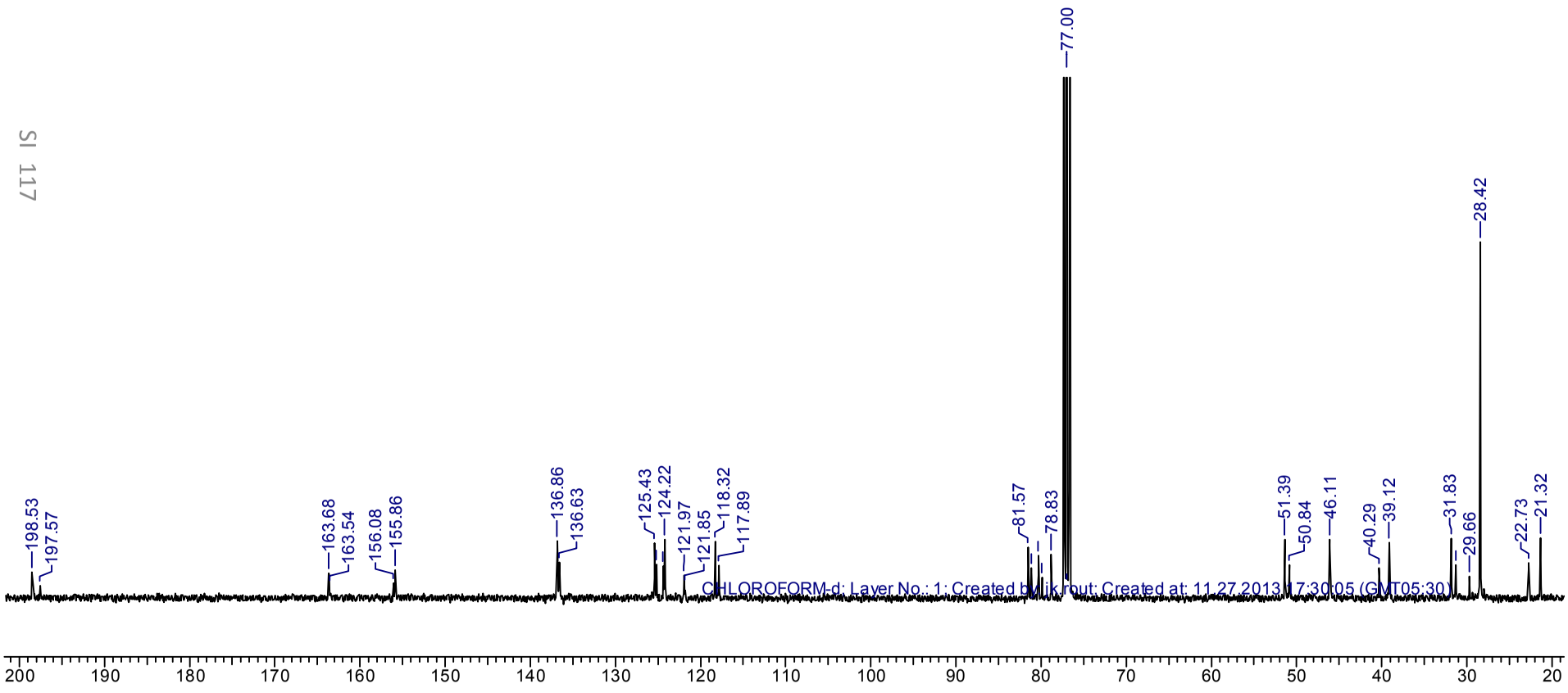




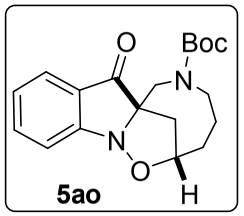
Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	11 Aug 2013 06:28:42			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.000						

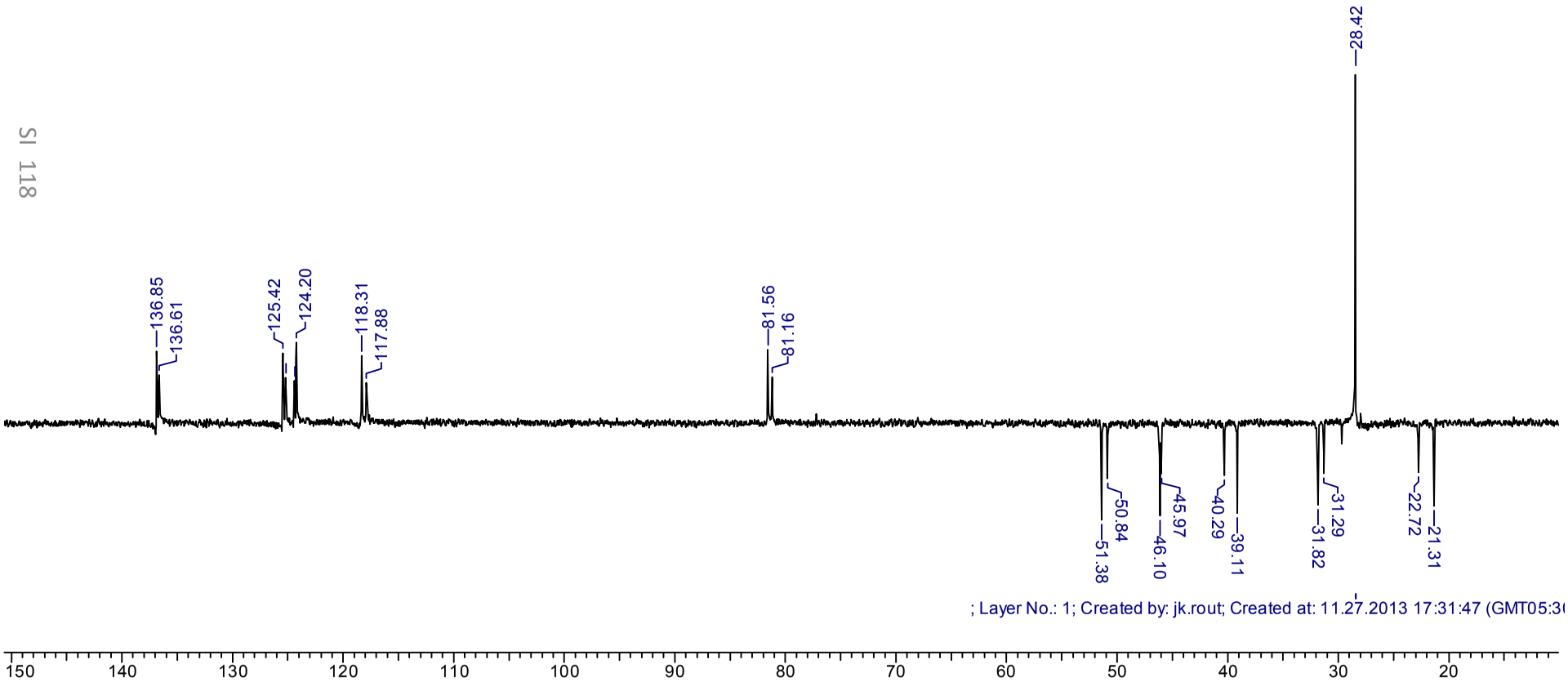


5ao



Acquisition Time (sec)	1.0434	***Comment***	Suneel	***Date***	11 Aug 2013 06:28:42			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.100						





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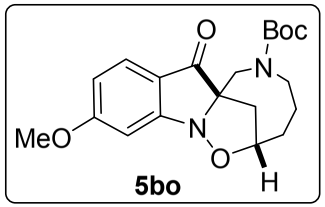
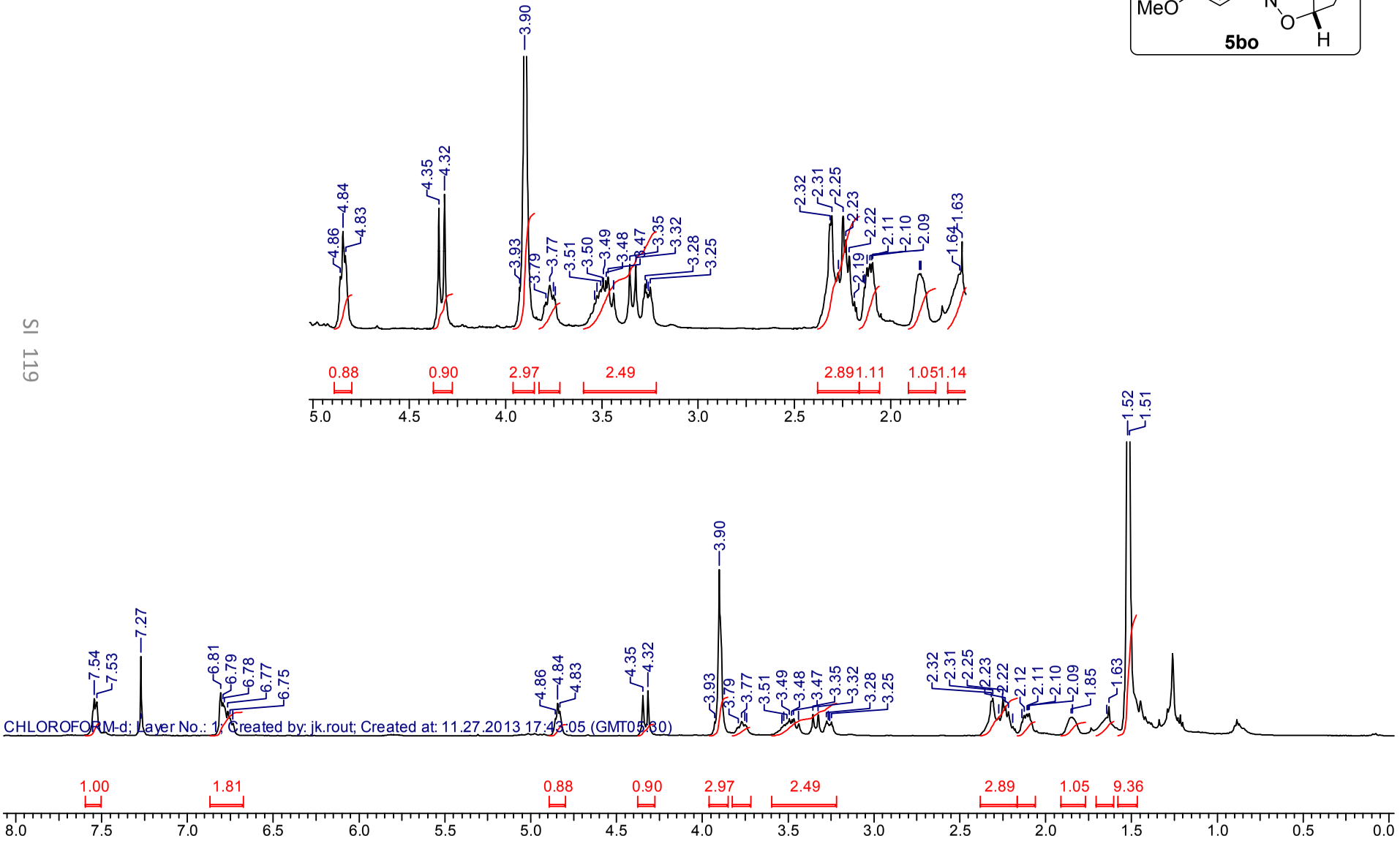
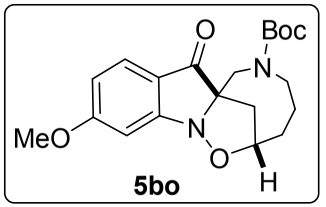
Acquisition Time (sec)	1.6025	***Comment***	Suneel 1H			***Date***	10 Nov 2013 10:21:04
Frequency (MHz)	500.13	***Nucleus***	1H	***Number of Transients***	256	***Original Points Count***	20031
Points Count	32768	***Solvent***	CHLOROFORM-d	***Sweep Width (Hz)***	12499.62	***Temperature (grad C)***	21.700

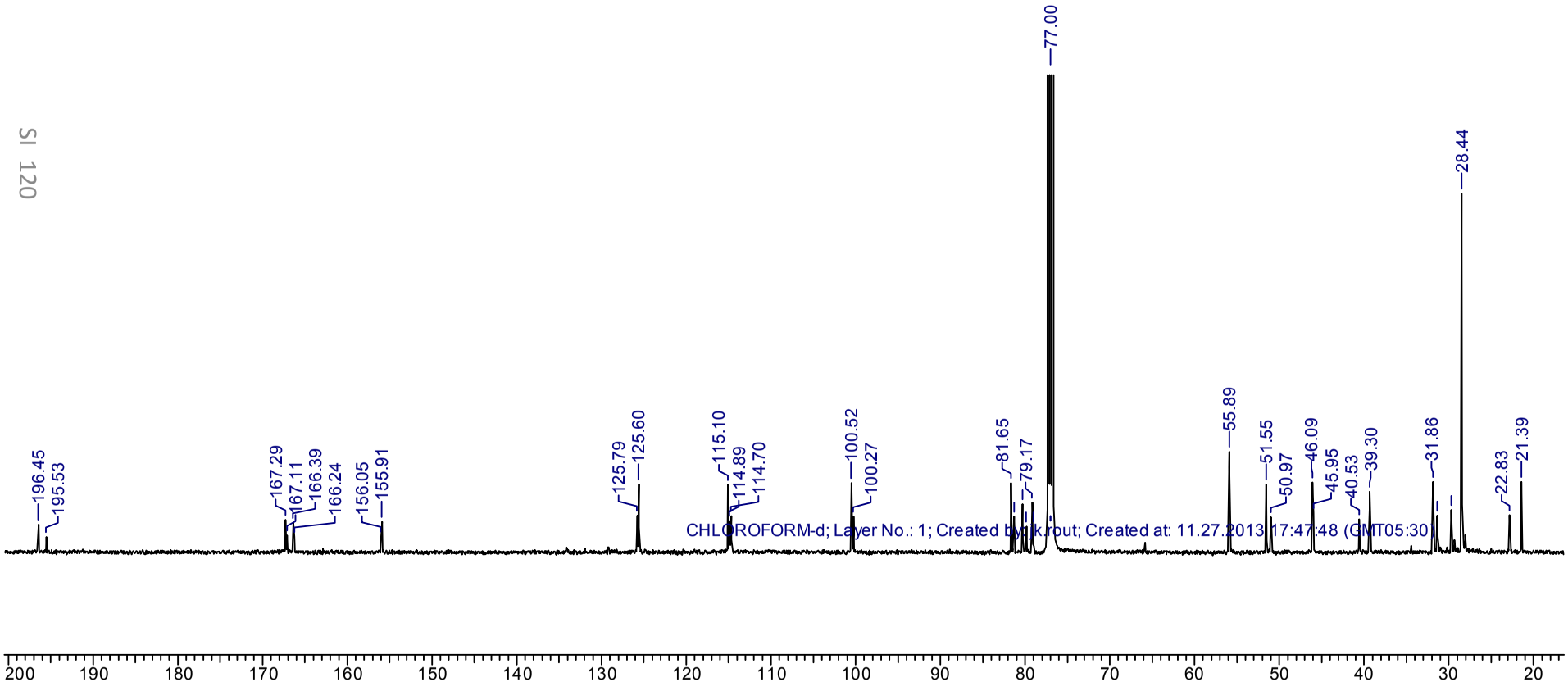


5bo

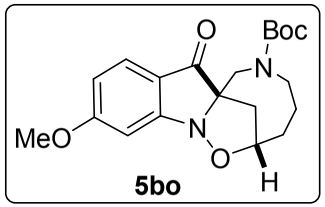


Acquisition Time (sec)	1.0486	***Comment***	13C	***Date***	11 Nov 2013 09:25:36			***Frequency (MHz)***	125.76
Nucleus	13C	***Number of Transients***	21871	***Original Points Count***	32768	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	31249.05	***Temperature (grad C)***	22.300						

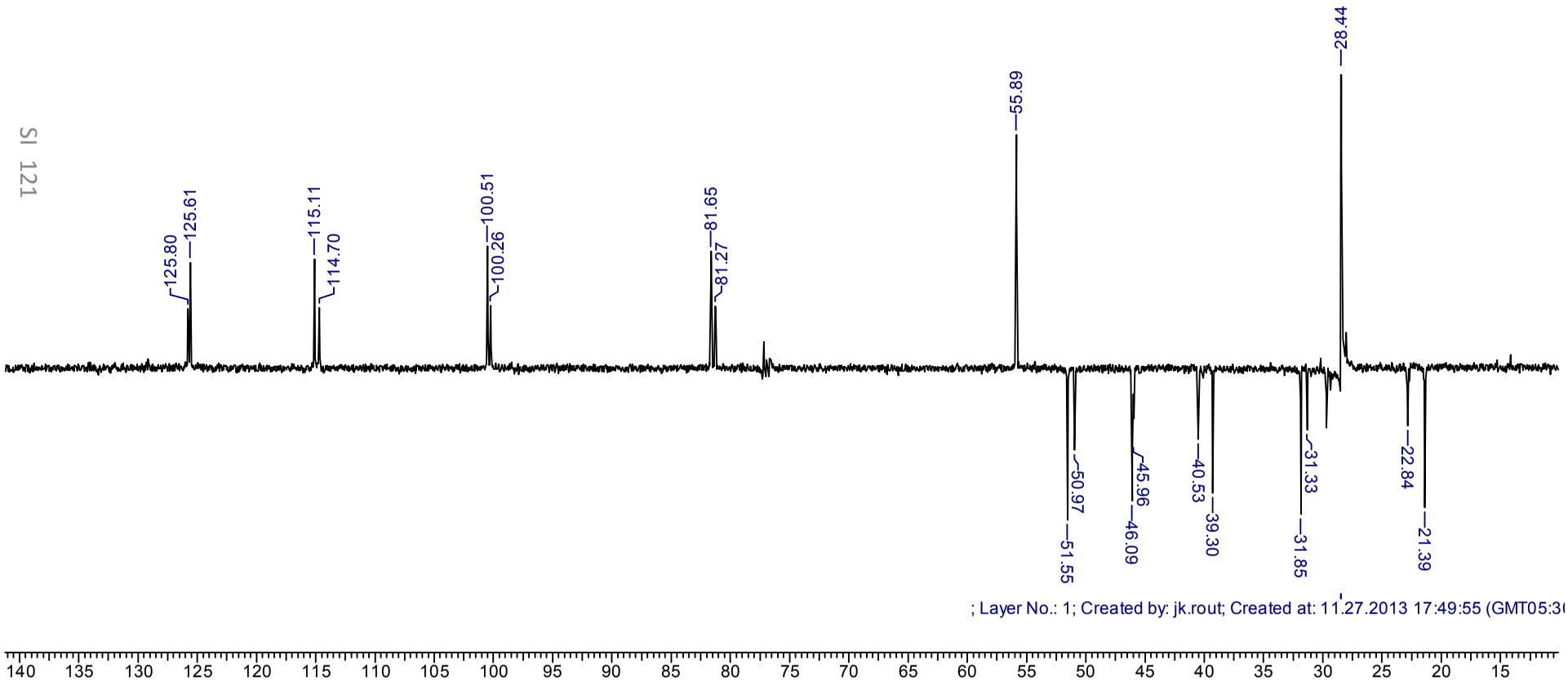




Acquisition Time (sec)	1.0486	***Comment***	DEPT;	***Date***	10 Nov 2013 16:06:40			***Frequency (MHz)***	125.76
Nucleus	13C	***Number of Transients***	8000	***Original Points Count***	32768	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	31249.05	***Temperature (grad C)***	21.600						

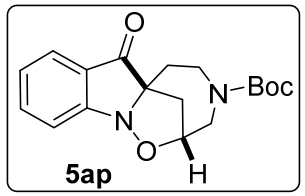


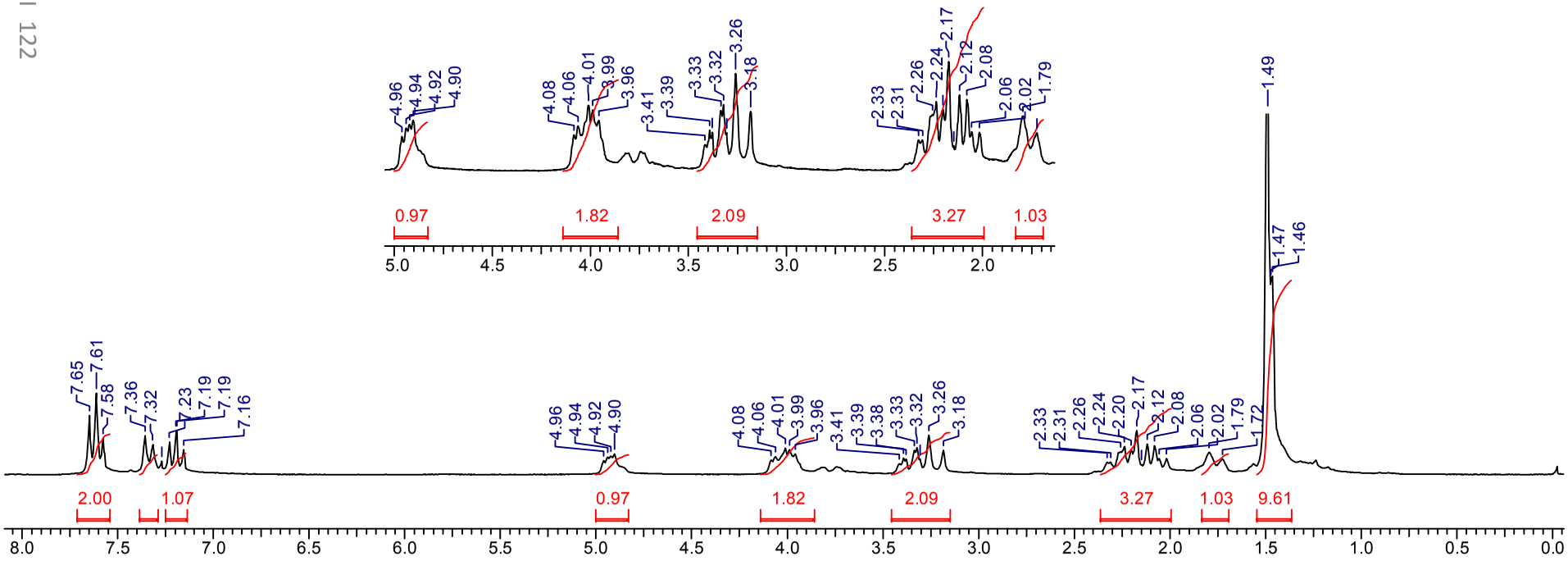
5bo



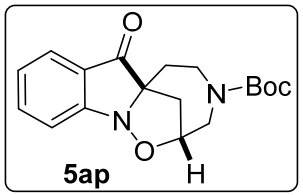
; Layer No.: 1; Created by: jk.rout; Created at: 11.27.2013 17:49:55 (GMT05:3

Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	12 Nov 2013 02:12:24			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

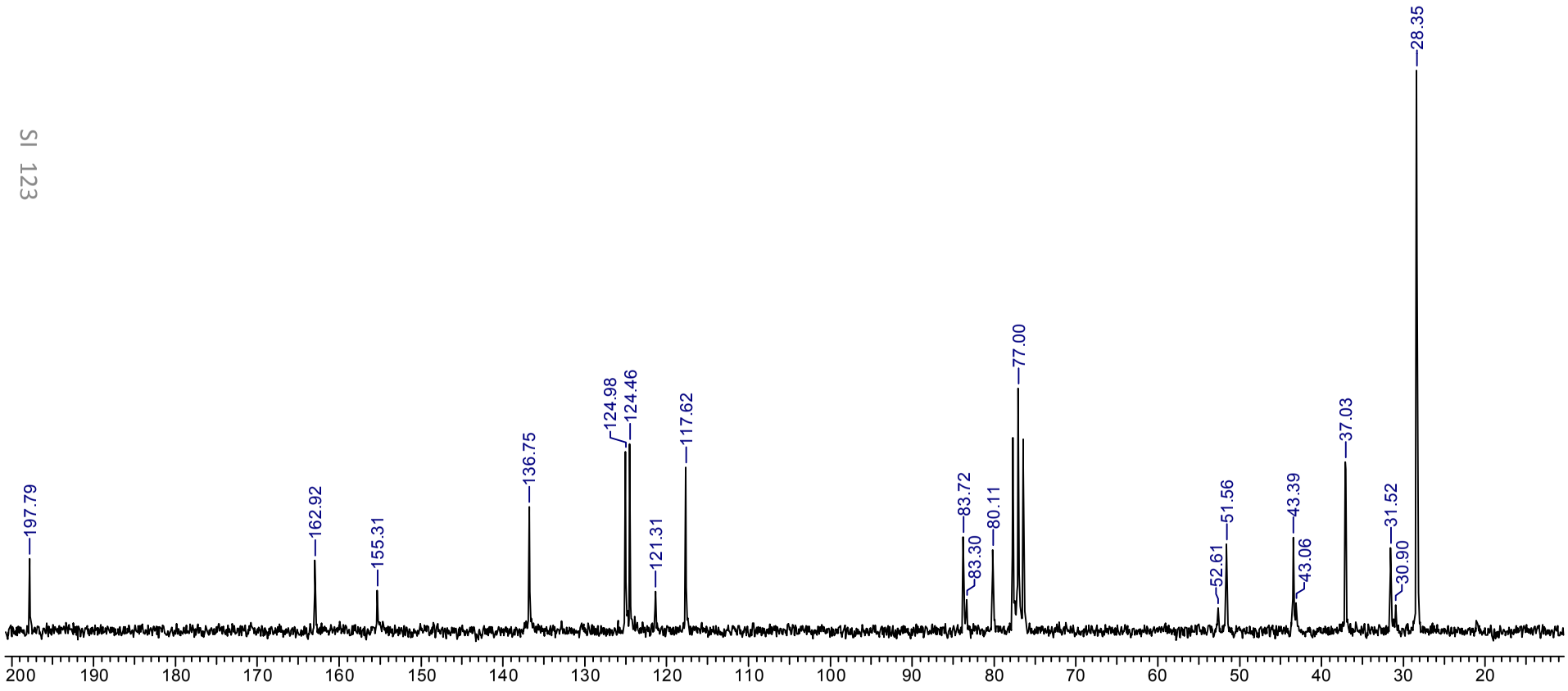




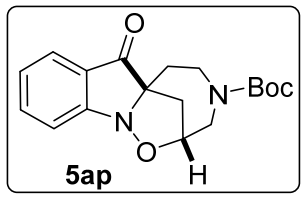
Acquisition Time (sec)	0.6832	***Comment***	Patil	***Date***	13 Nov 2013 07:53:44			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

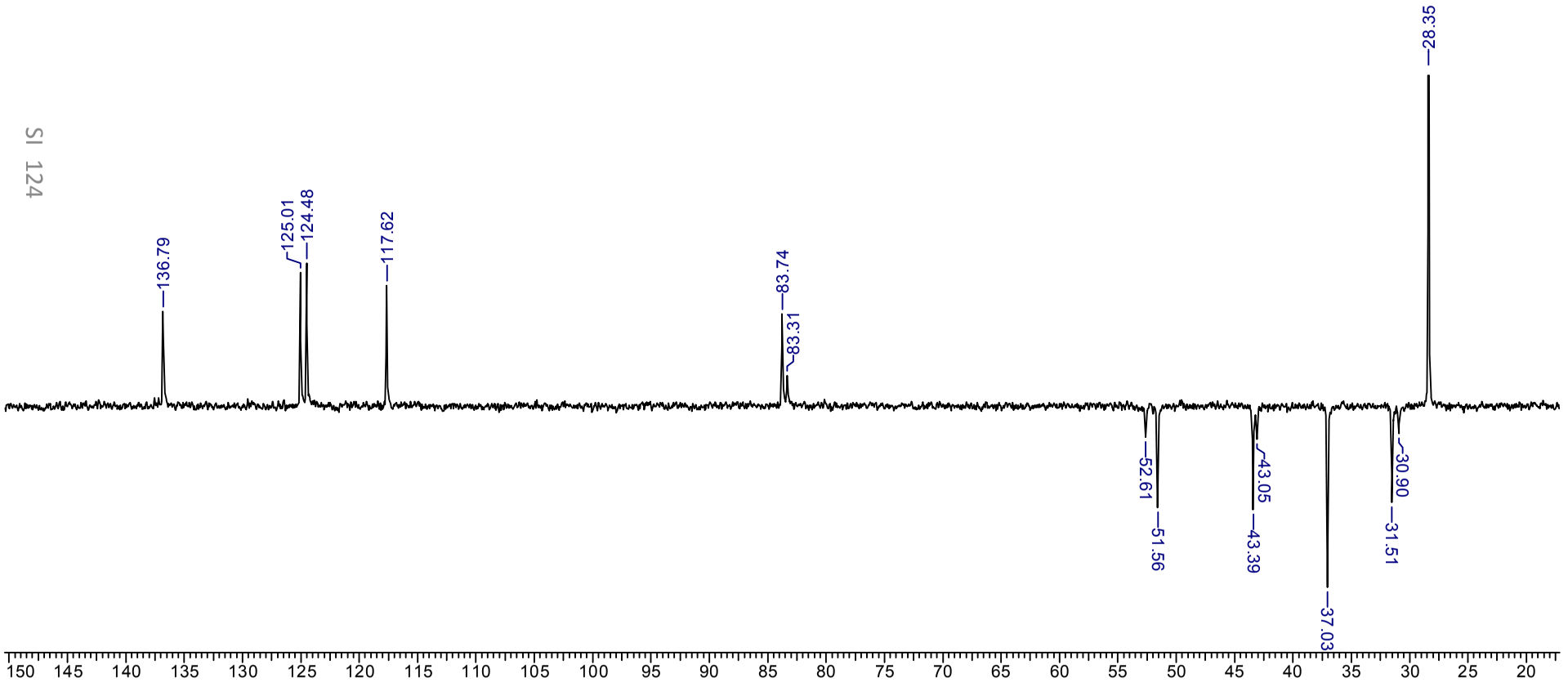


5ap

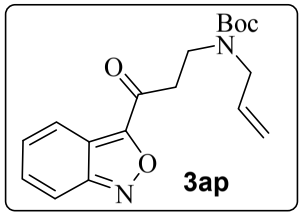


Acquisition Time (sec)	0.6832	***Comment***	Patil	***Date***	13 Nov 2013 07:15:20			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

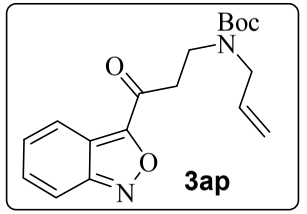


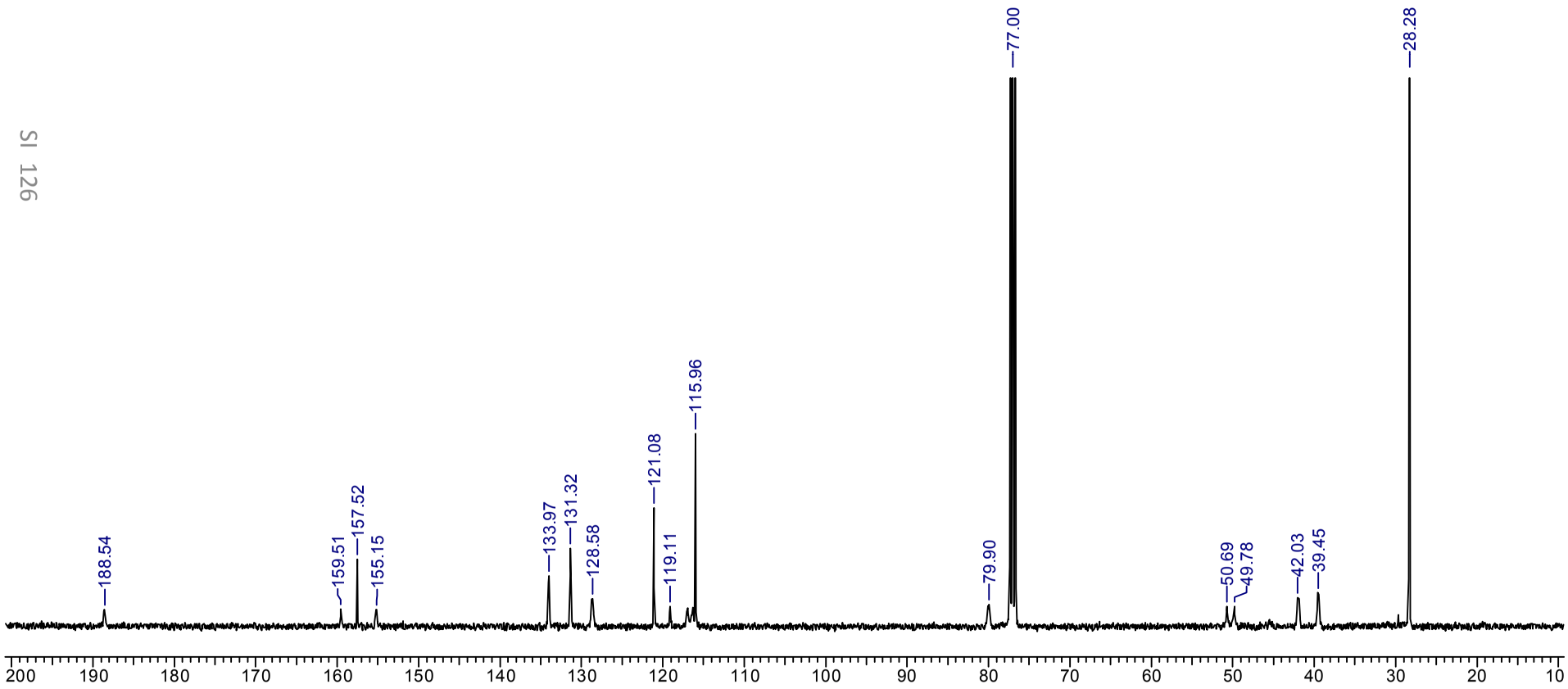


Acquisition Time (sec)	3.9584	***Comment***	Swami	***Date***	09 Nov 2013 13:22:16			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

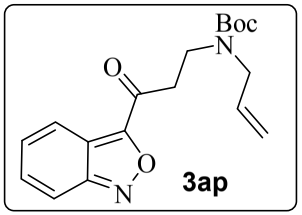


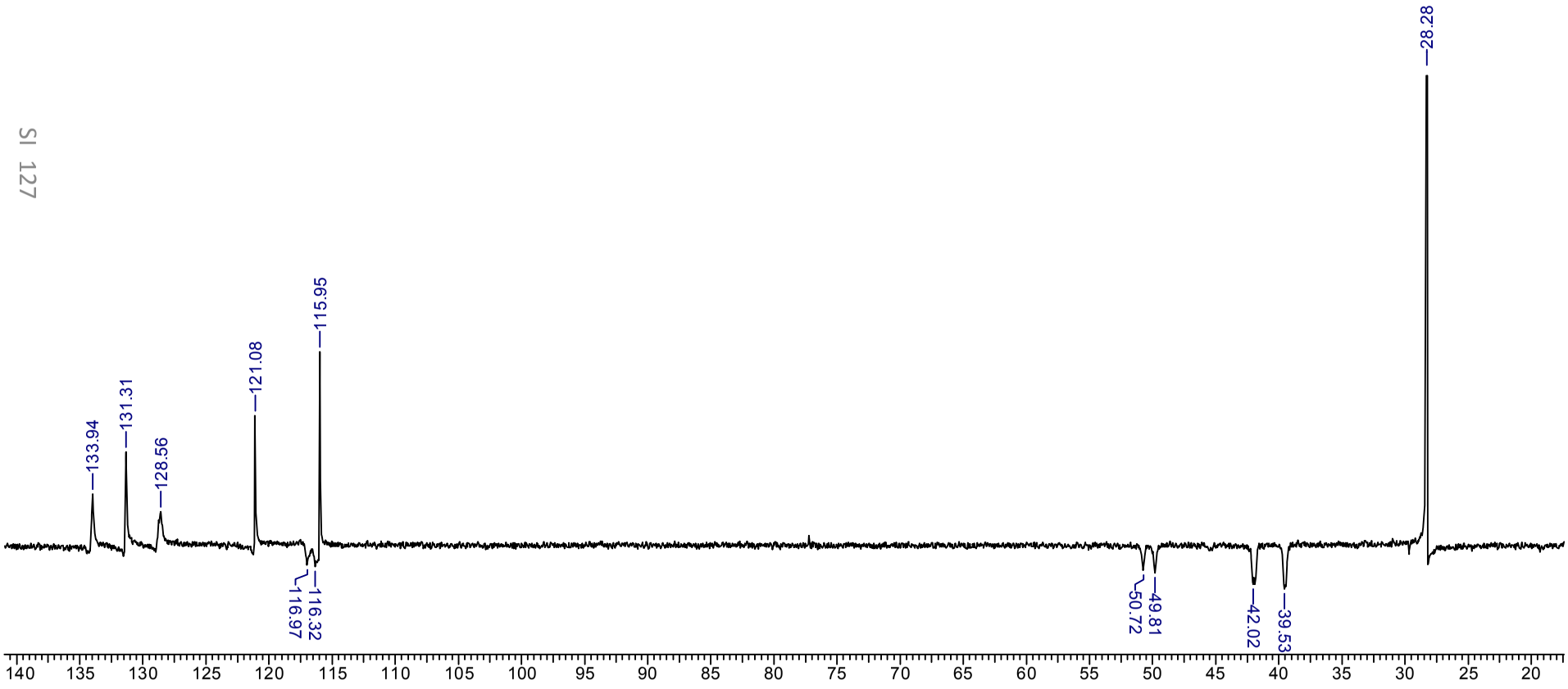
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	12 Nov 2013 00:05:52			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	2000	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.100						



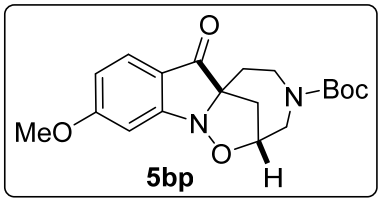


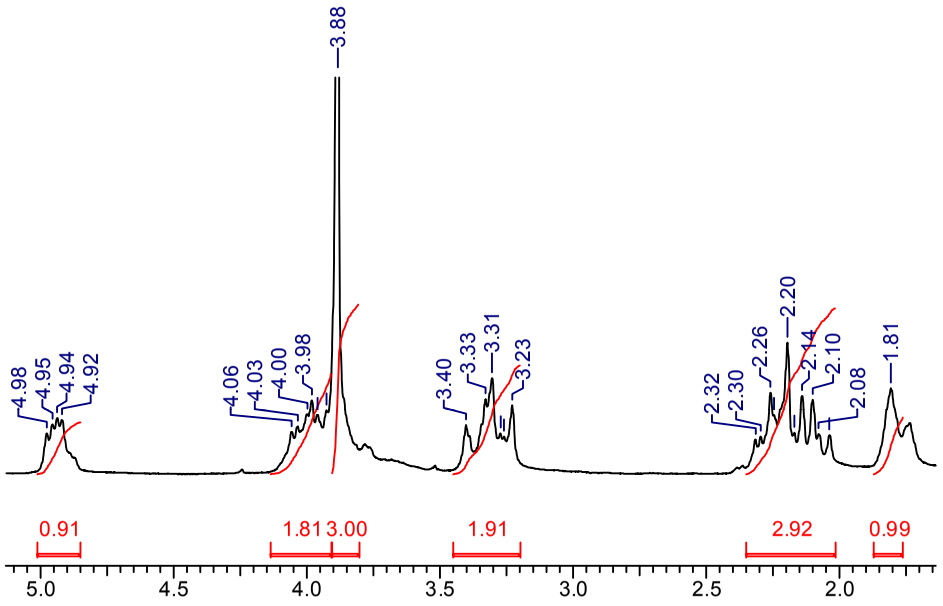
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	12 Nov 2013 00:05:52			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1200	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	20.700						

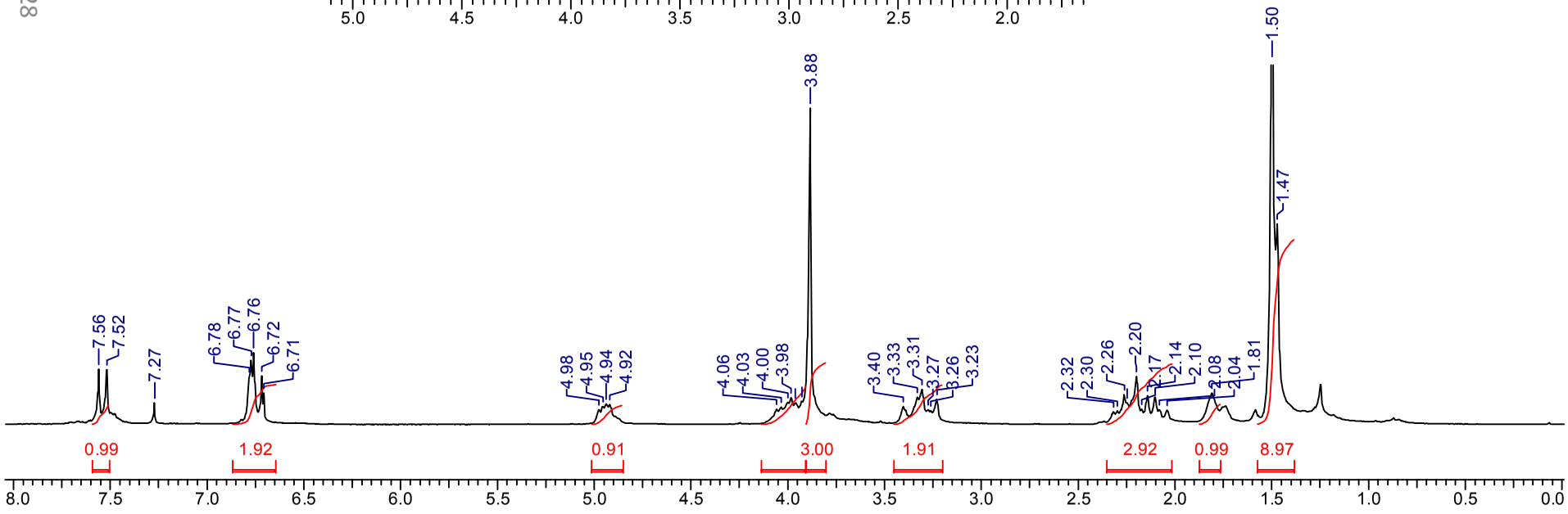




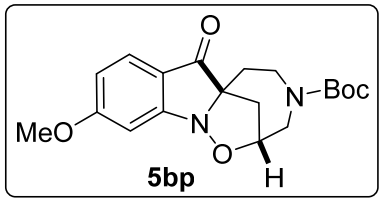
Acquisition Time (sec)	3.9584	***Comment***	Suneel	***Date***	09 Nov 2013 13:05:12			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



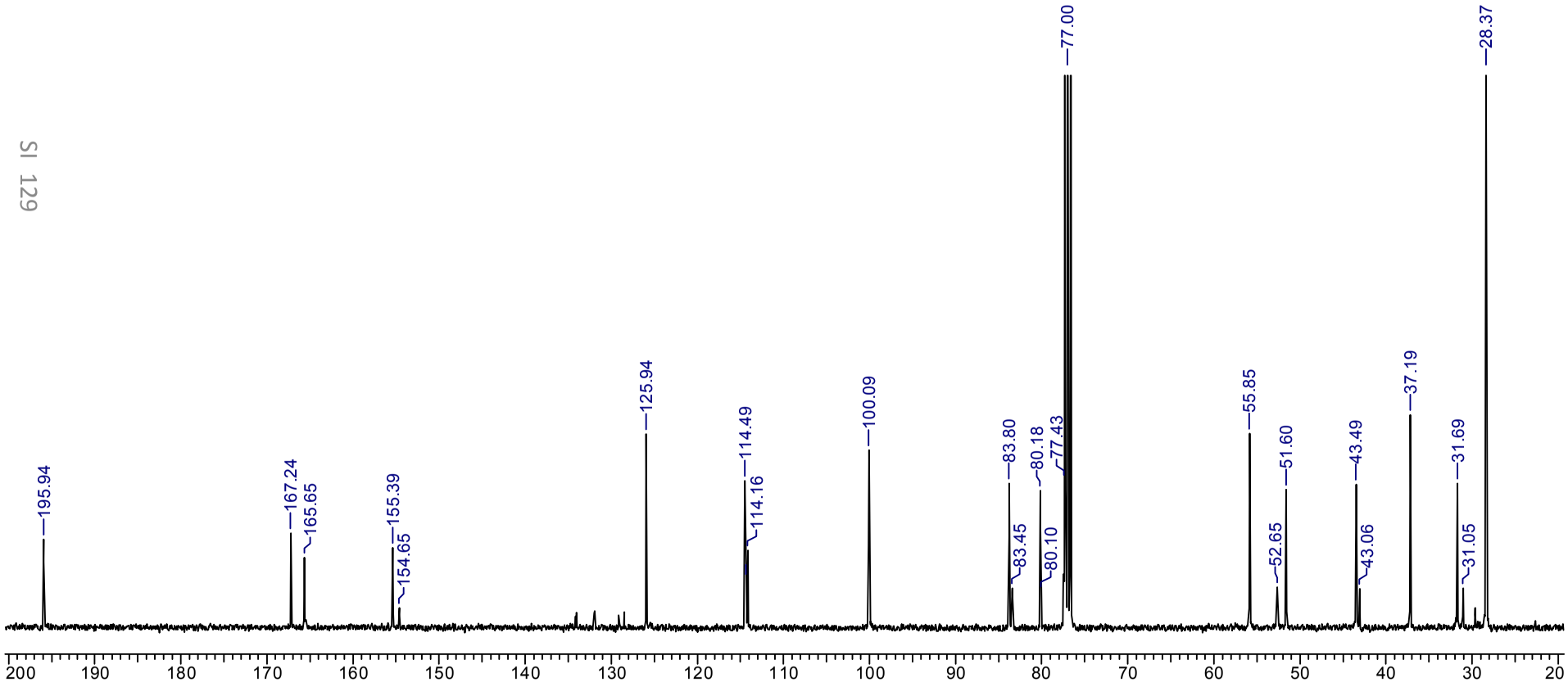




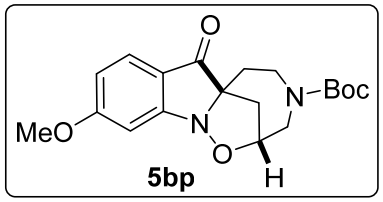
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	12 Nov 2013 01:45:02			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	1600	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.000						



5bp

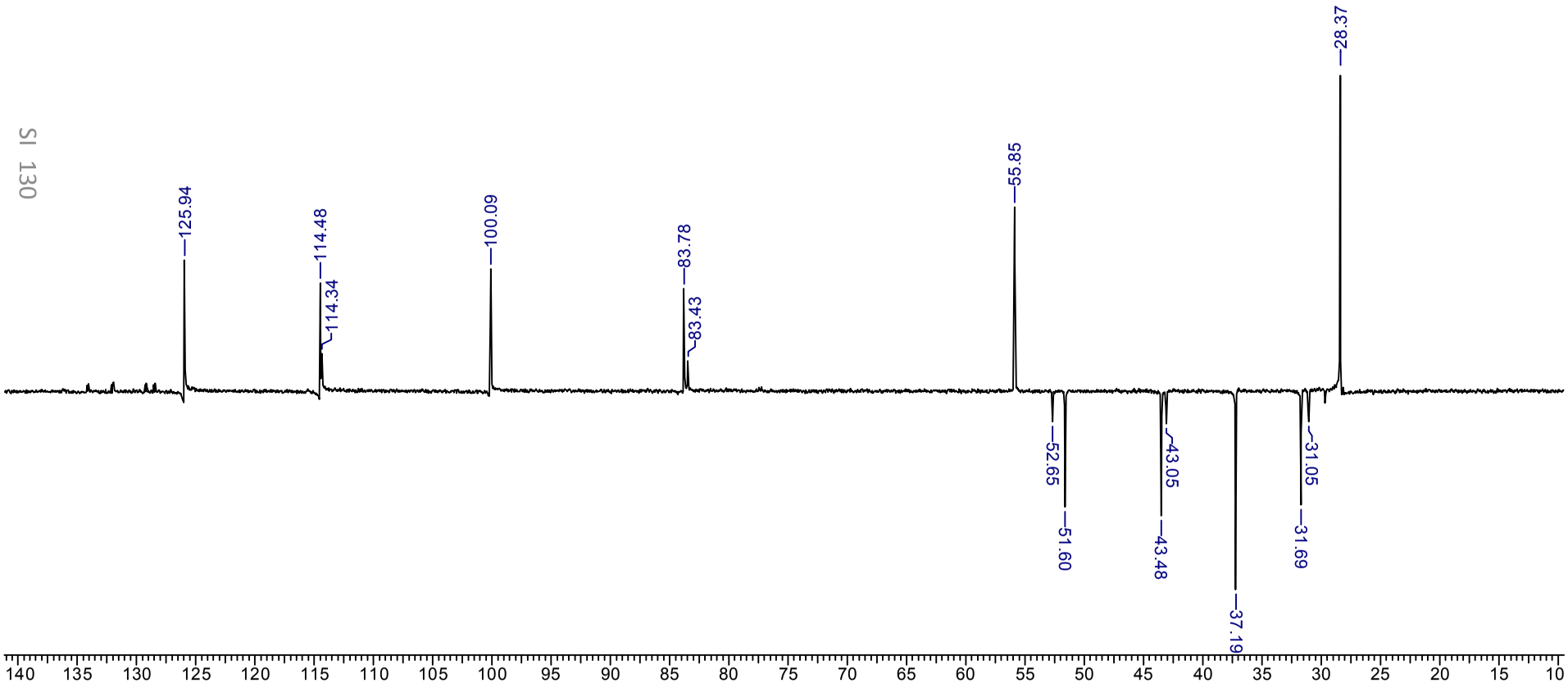


Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	12 Nov 2013 01:45:02			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	21.000						

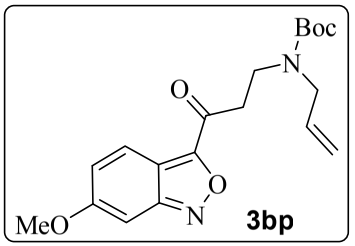


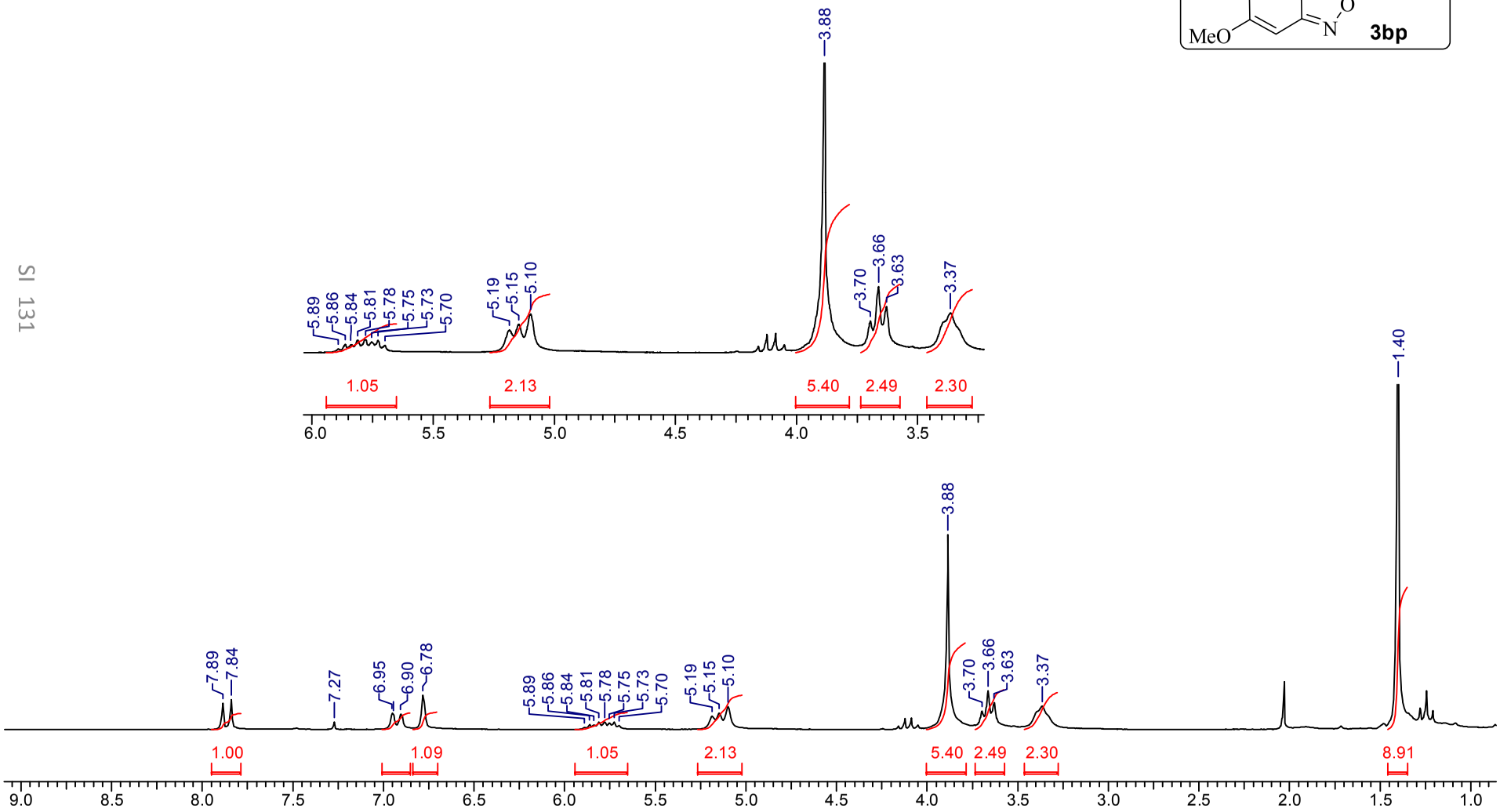
5bp

SI 130

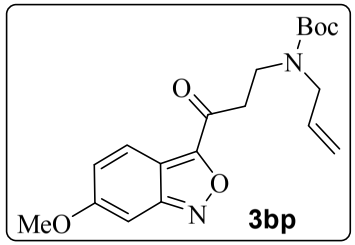


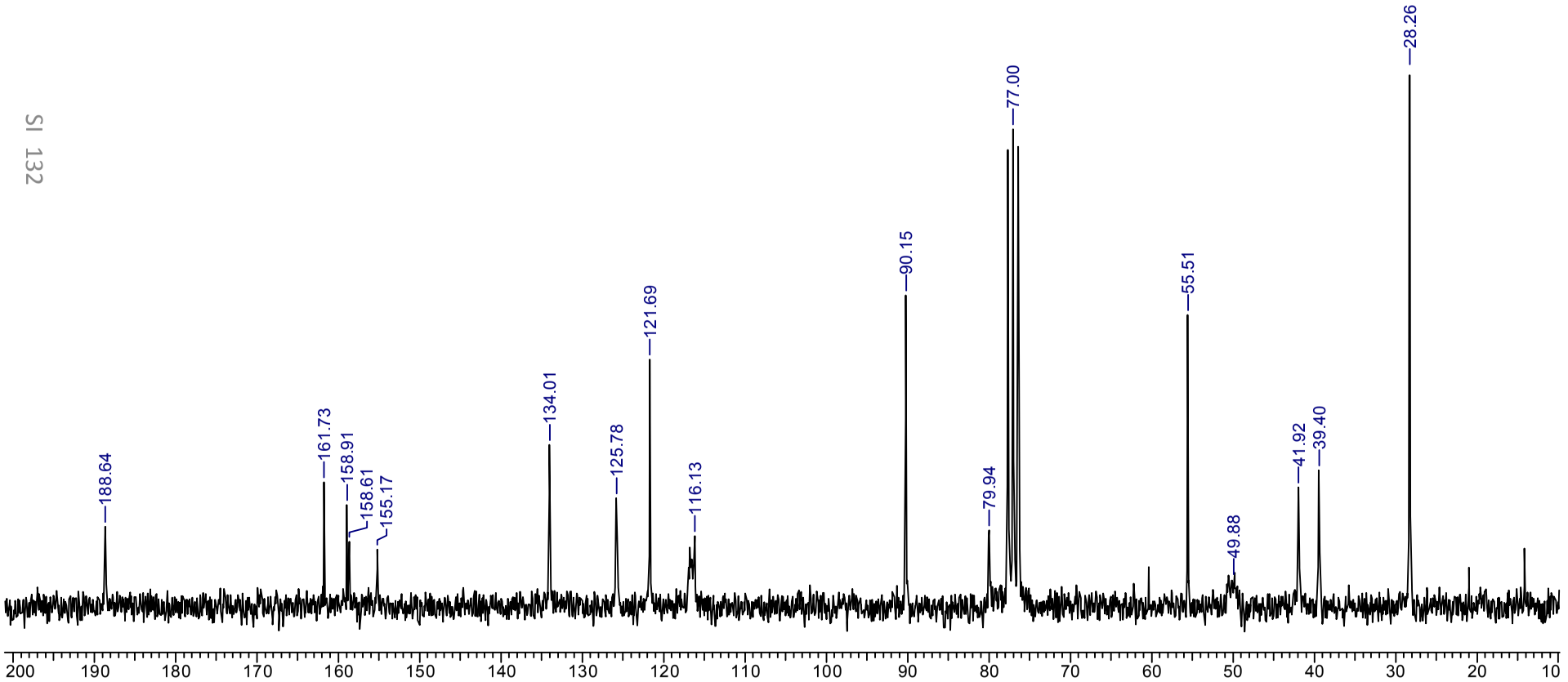
Acquisition Time (sec)	3.9584	***Comment***	vivek	***Date***	12 Nov 2013 02:50:48			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



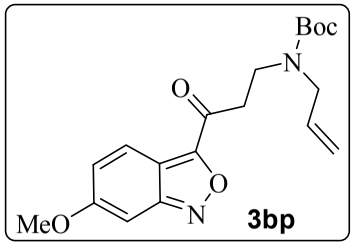


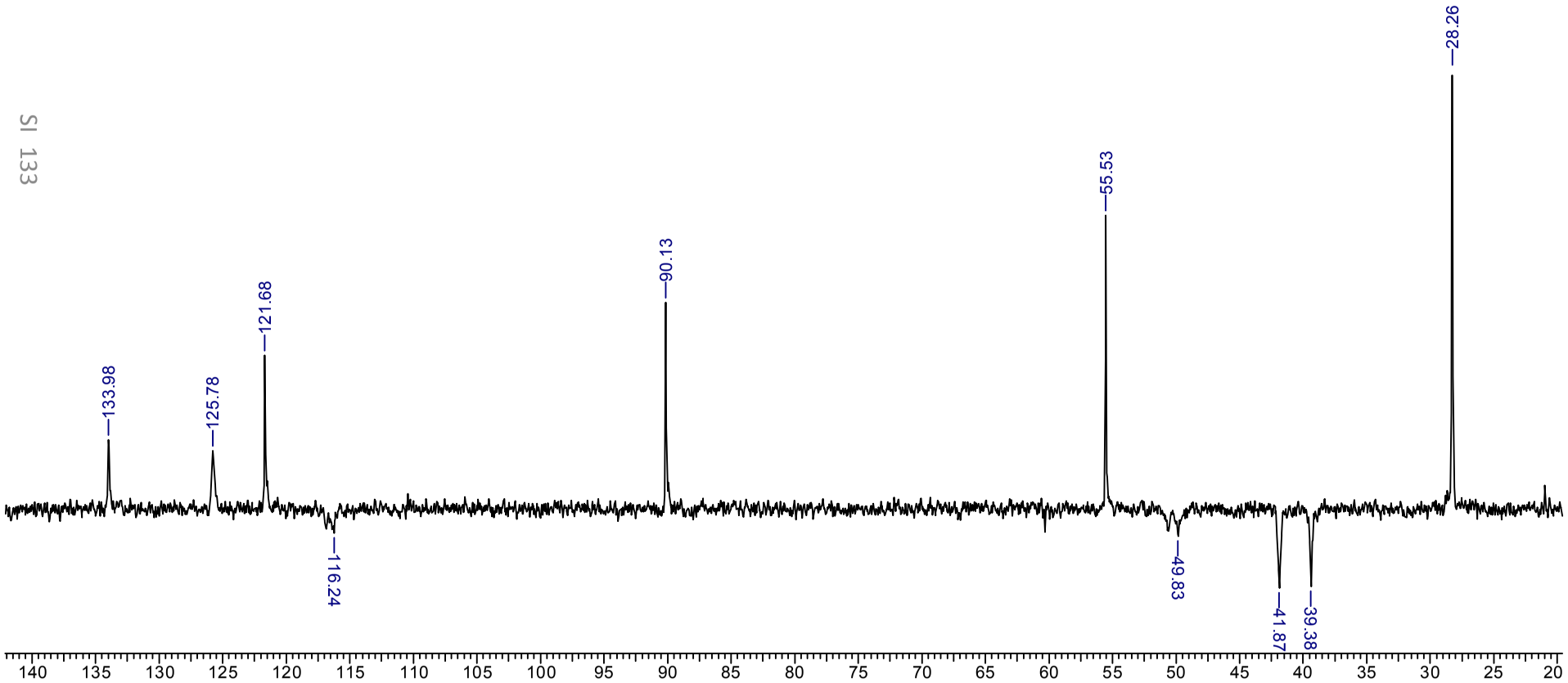
Acquisition Time (sec)	0.6832	***Comment***	Patil	***Date***	13 Nov 2013 06:49:44			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



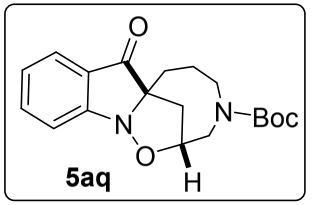


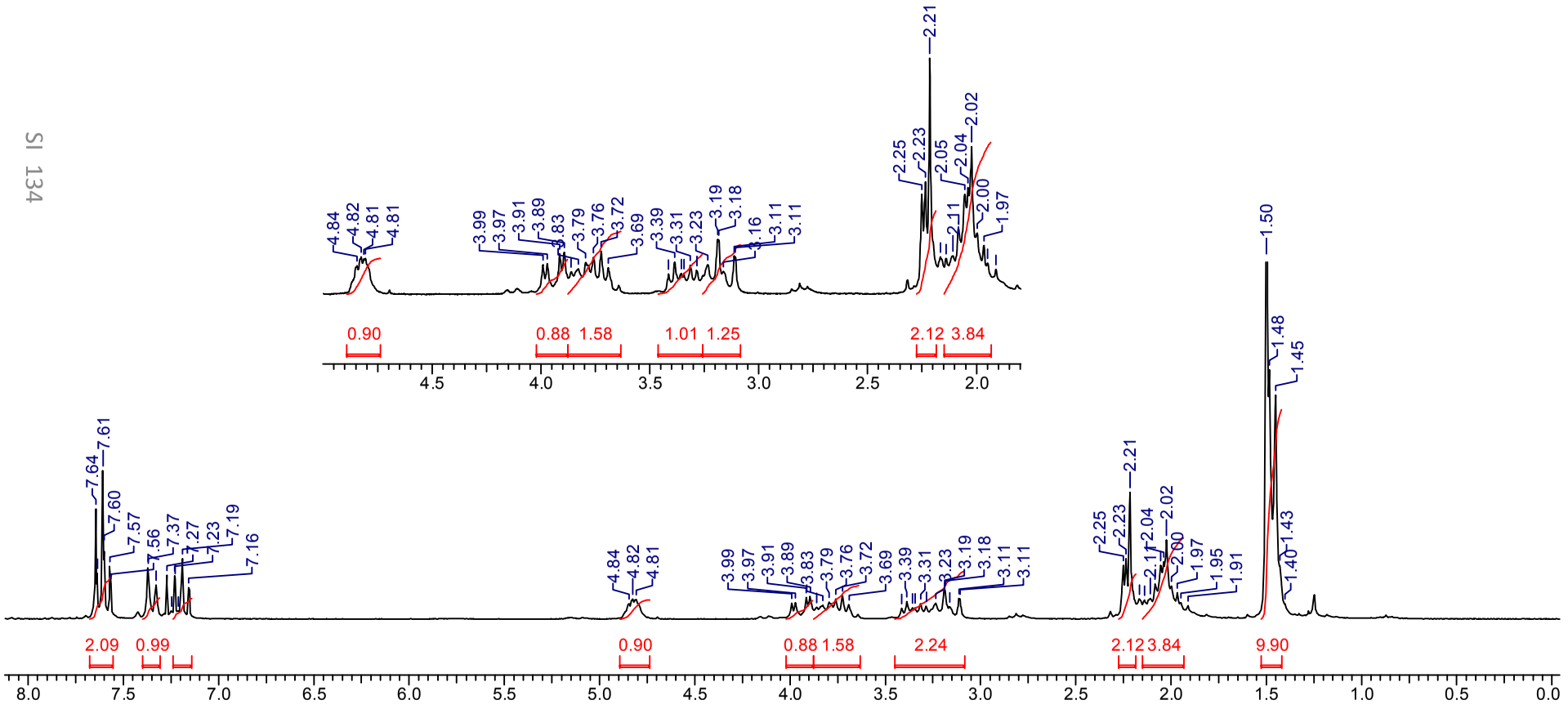
Acquisition Time (sec)	0.6832	***Comment***	Patil	***Date***	13 Nov 2013 06:11:20			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



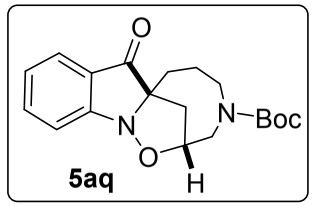


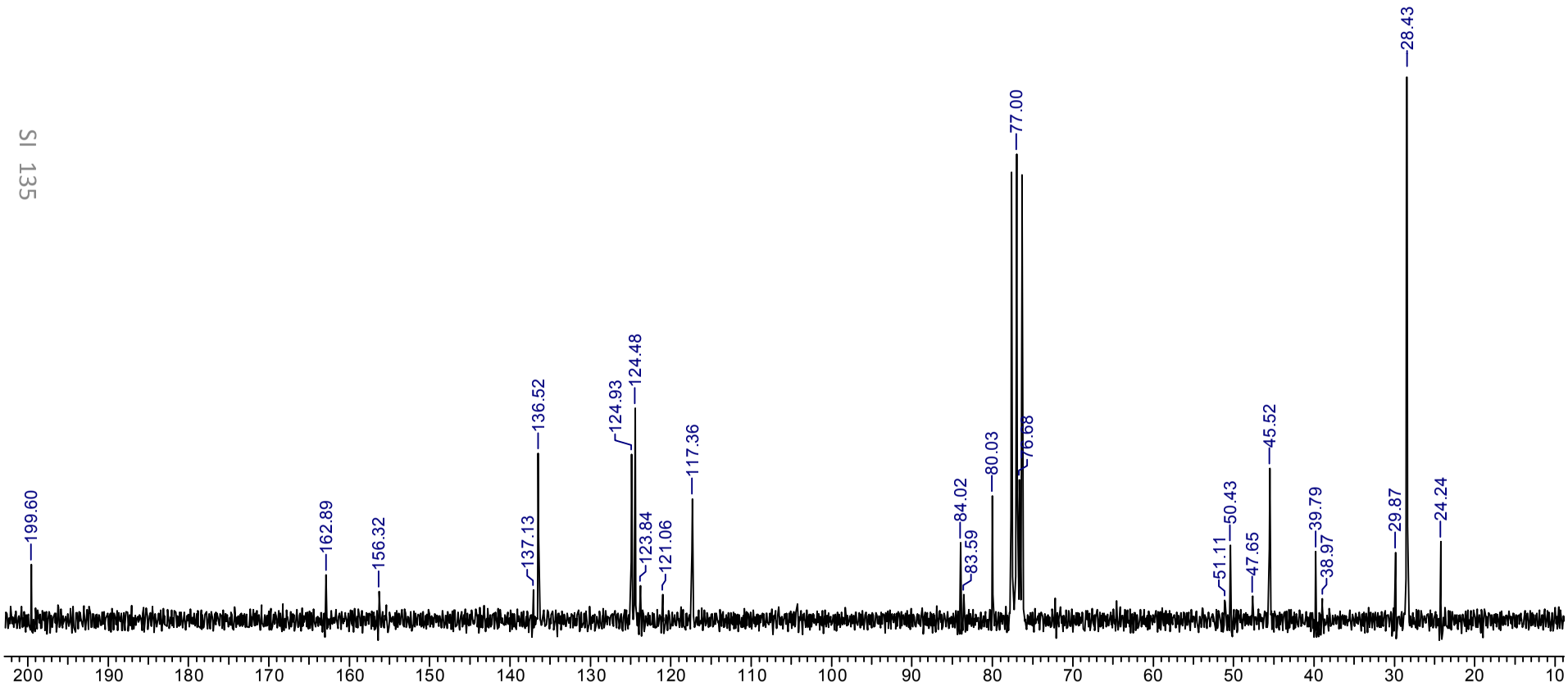
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	23 Oct 2013 16:15:04			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



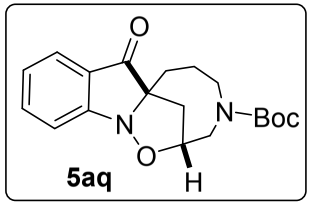


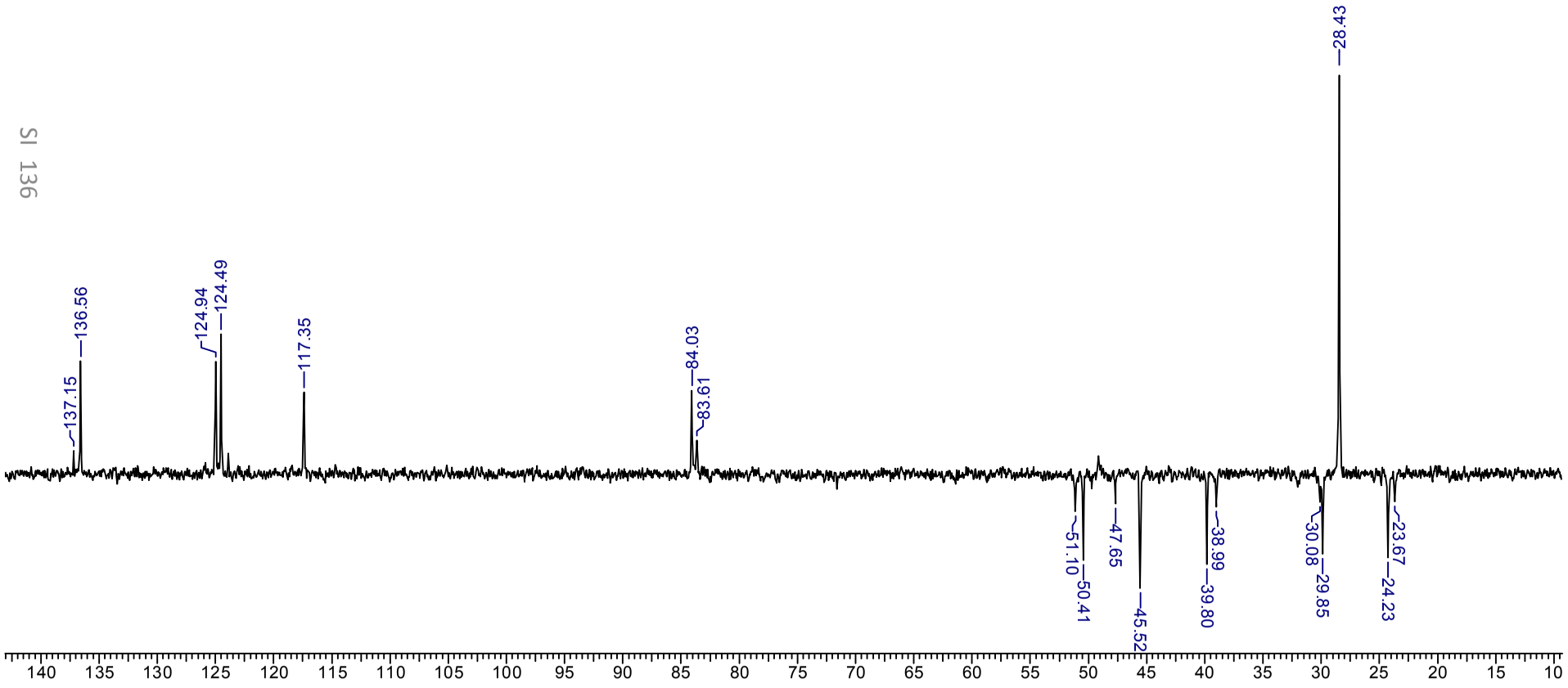
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	27 Oct 2013 07:58:00			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	1000	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



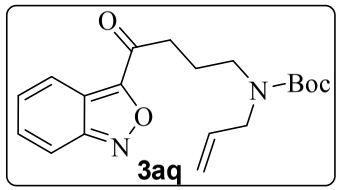


Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	27 Oct 2013 07:11:04			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	600	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				

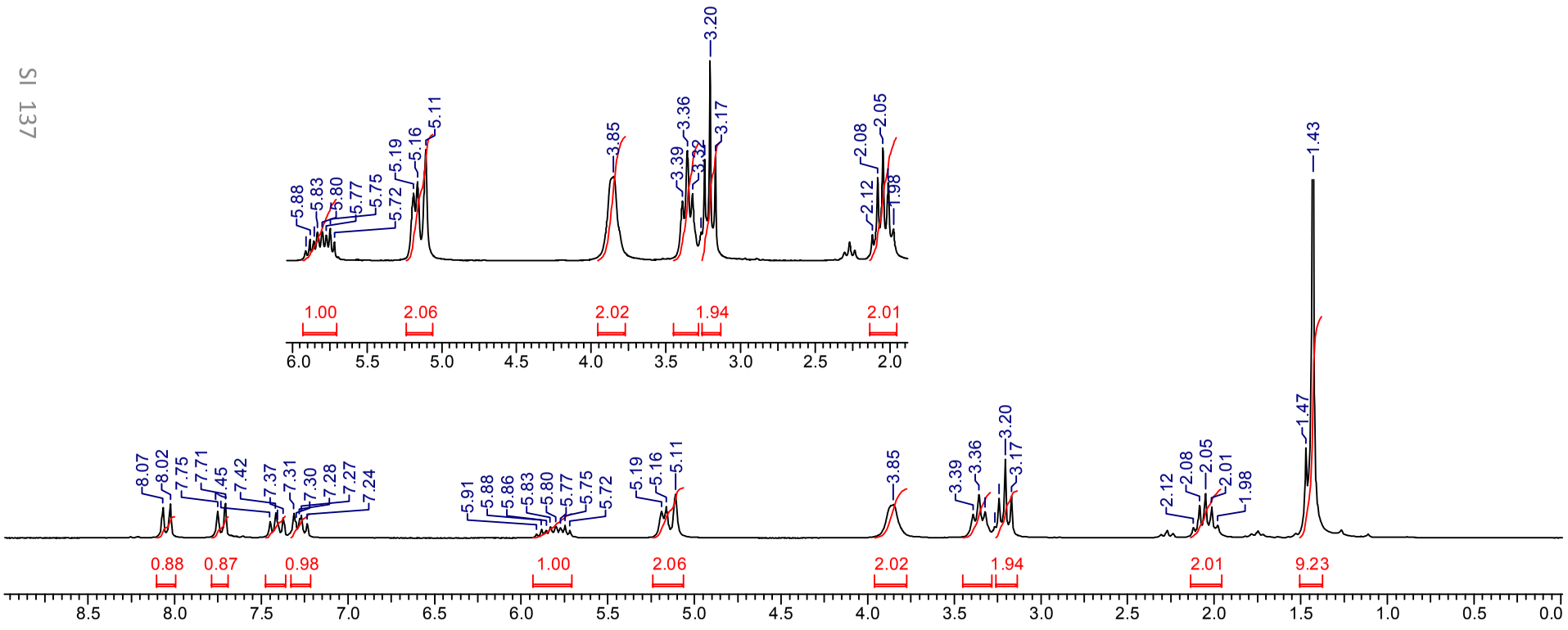




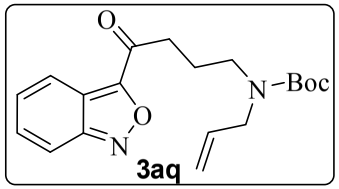
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	22 Oct 2013 23:21:44			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	32	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						

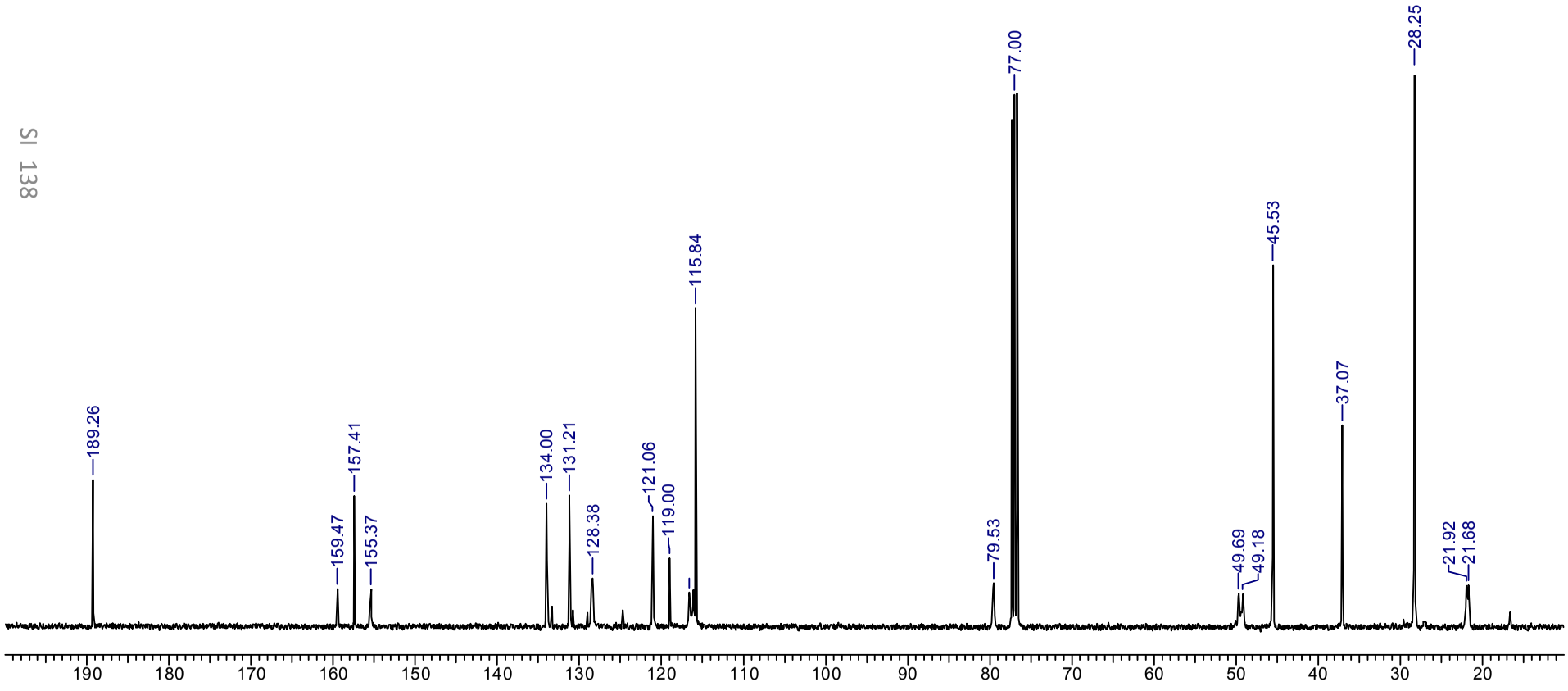


3aq

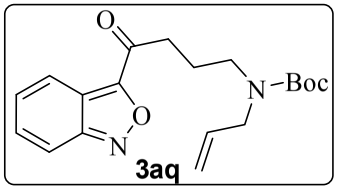


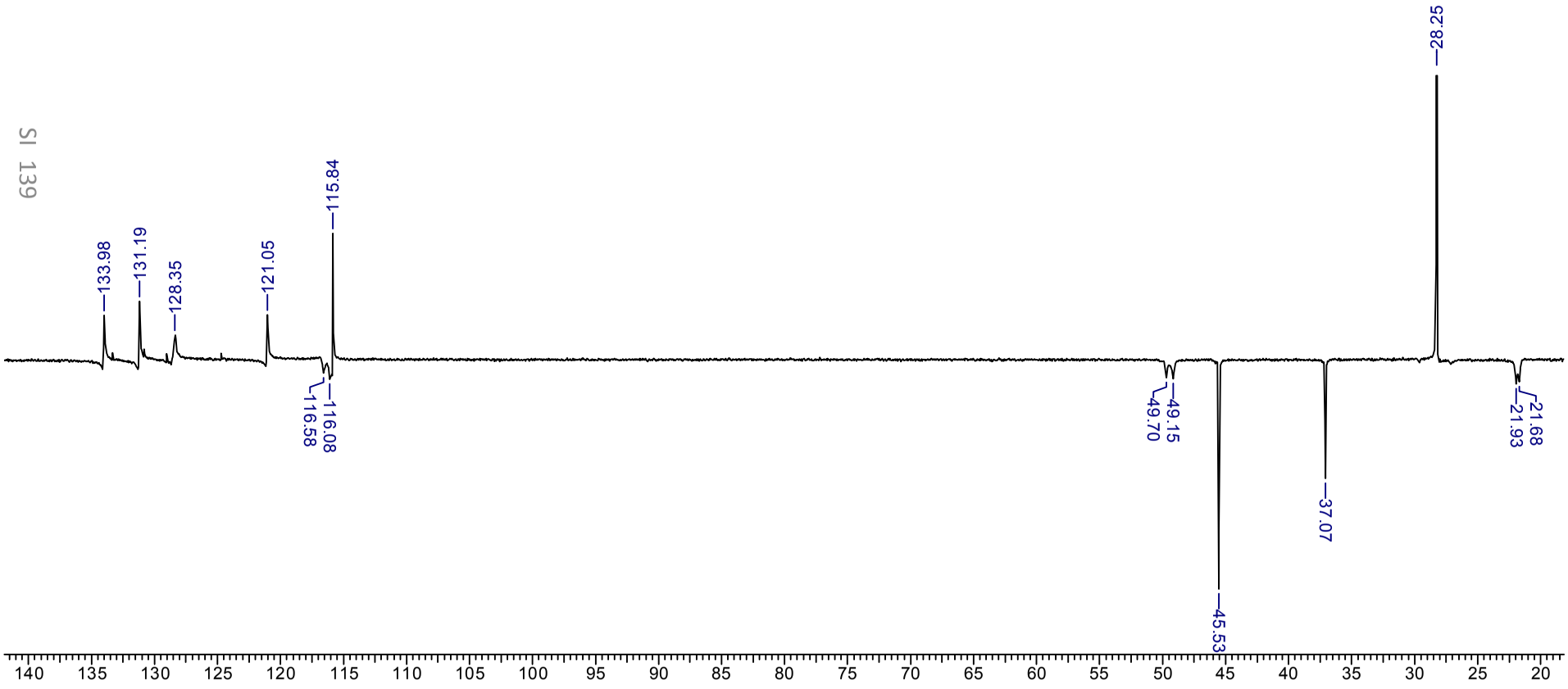
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	27 Oct 2013 15:25:08			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	800	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	18.800						



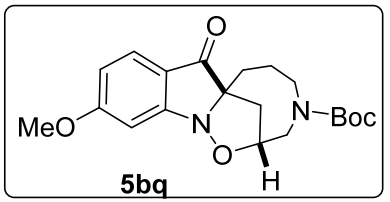


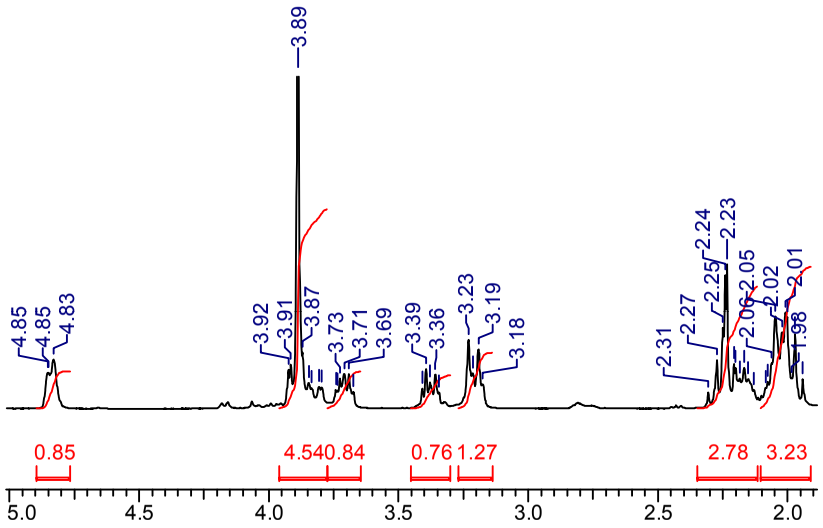
Acquisition Time (sec)	1.0434	***Comment***	suneel	***Date***	27 Oct 2013 15:25:08			***Frequency (MHz)***	100.53
Nucleus	13C	***Number of Transients***	400	***Original Points Count***	26214	***Points Count***	26214	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	25124.29	***Temperature (grad C)***	18.600						

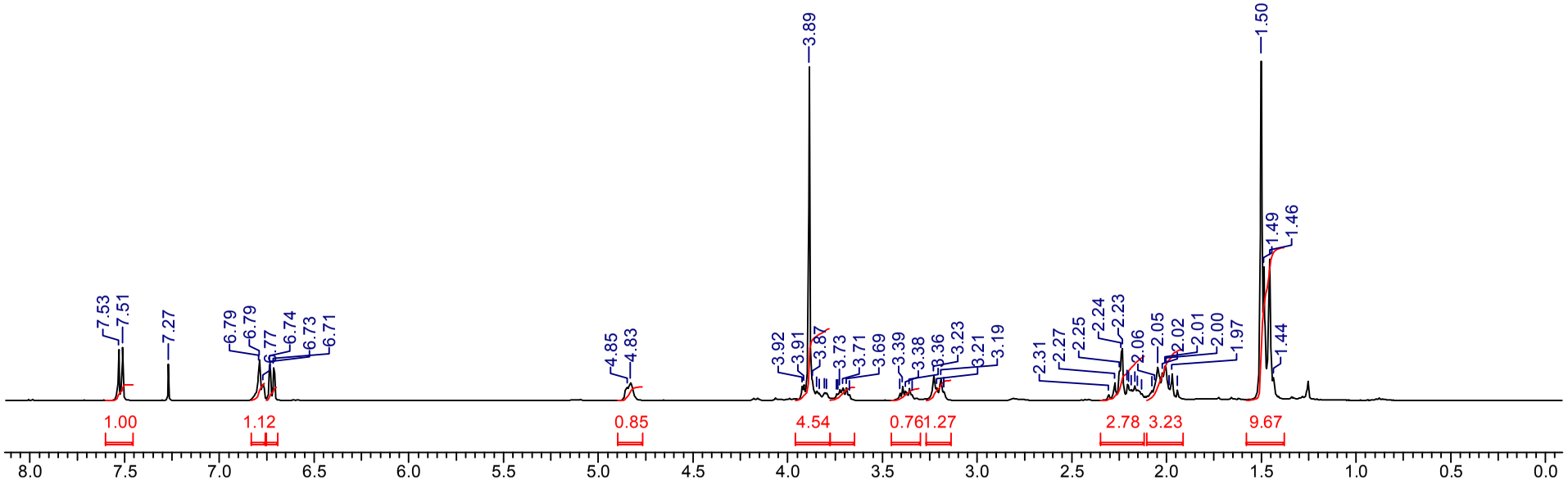




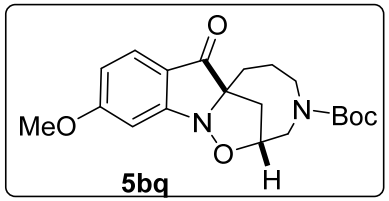
Acquisition Time (sec)	2.0447				
Comment	Mahesh 1H				
Date	30 Oct 2013 17:55:20	***Frequency (MHz)***	400.13	***Nucleus***	1H
Number of Transients	64	***Original Points Count***	16384	***Points Count***	32768
Solvent	CHLOROFORM-d	***Sweep Width (Hz)***	8012.58	***Temperature (grad C)***	25.900



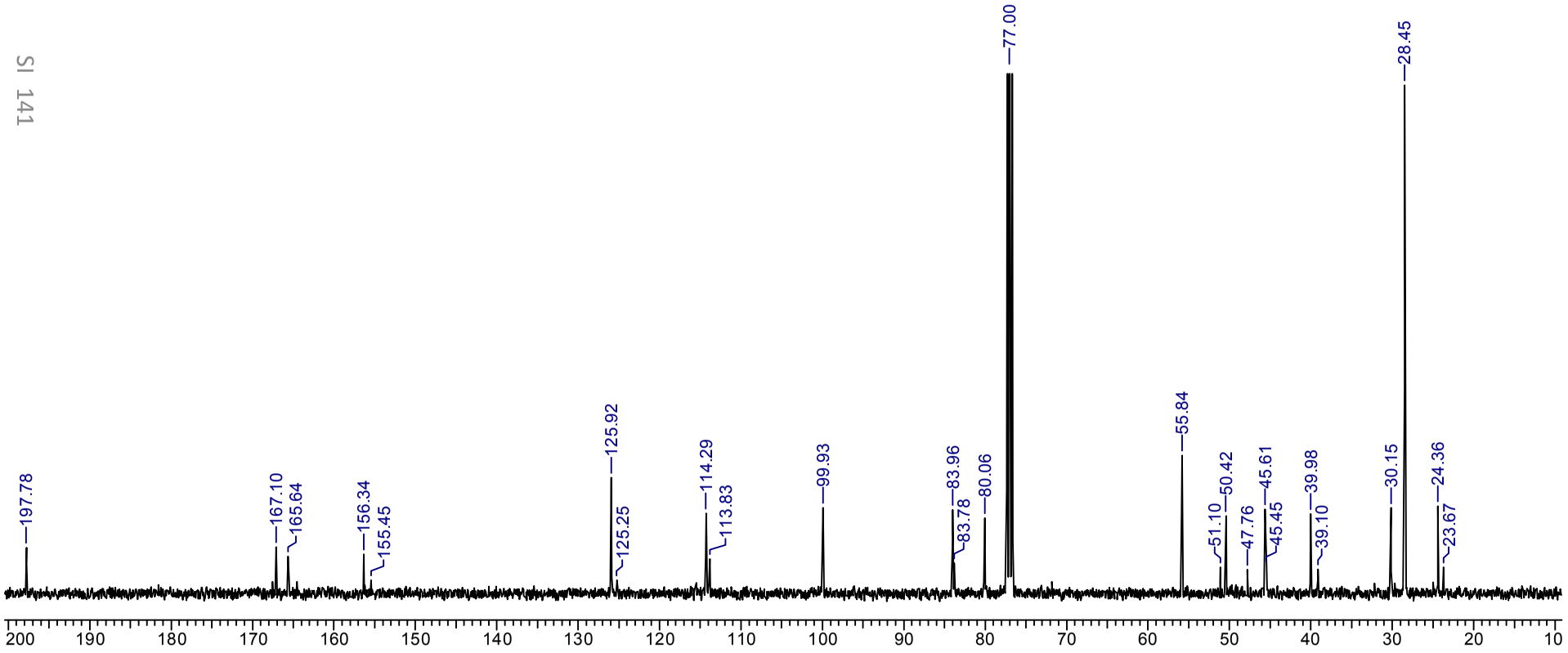




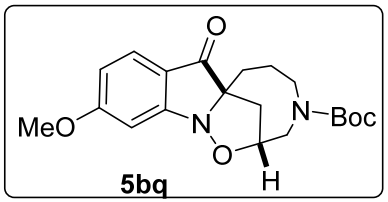
Acquisition Time (sec)	0.6488				
Comment	13C				
Date	30 Oct 2013 18:55:04	***Frequency (MHz)***	100.61	***Nucleus***	13C
Number of Transients	543	***Original Points Count***	16384	***Points Count***	32768
Solvent	METHANOL-d4	***Sweep Width (Hz)***	25251.75	***Temperature (grad C)***	26.500

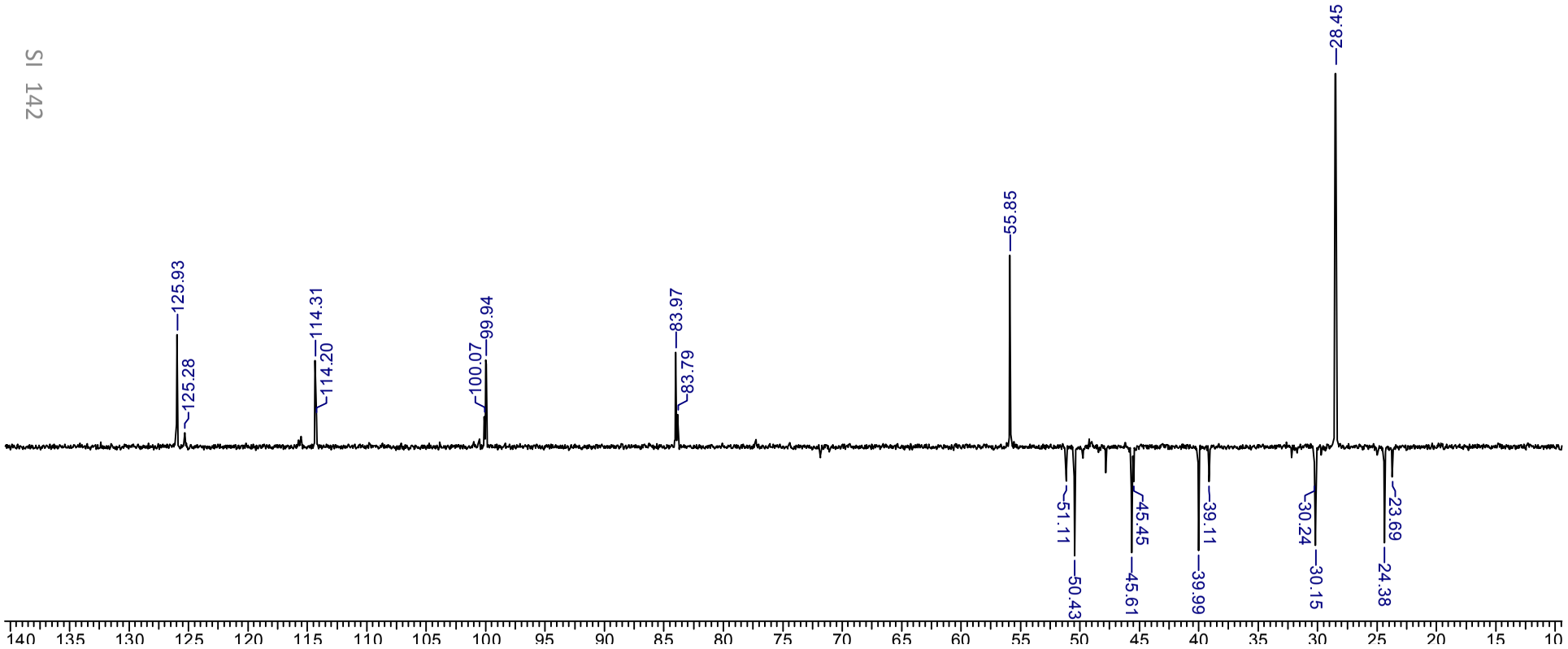


5bq

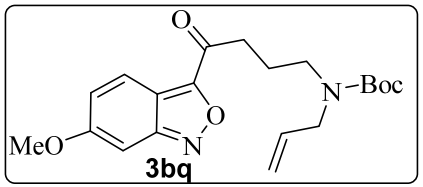


Acquisition Time (sec)	0.6488				
Comment	DEPT				
Date	30 Oct 2013 18:31:36	***Frequency (MHz)***	100.61	***Nucleus***	13C
Number of Transients	800	***Original Points Count***	16384	***Points Count***	32768
Solvent	CHLOROFORM-d	***Sweep Width (Hz)***	25251.75	***Temperature (grad C)***	26.100

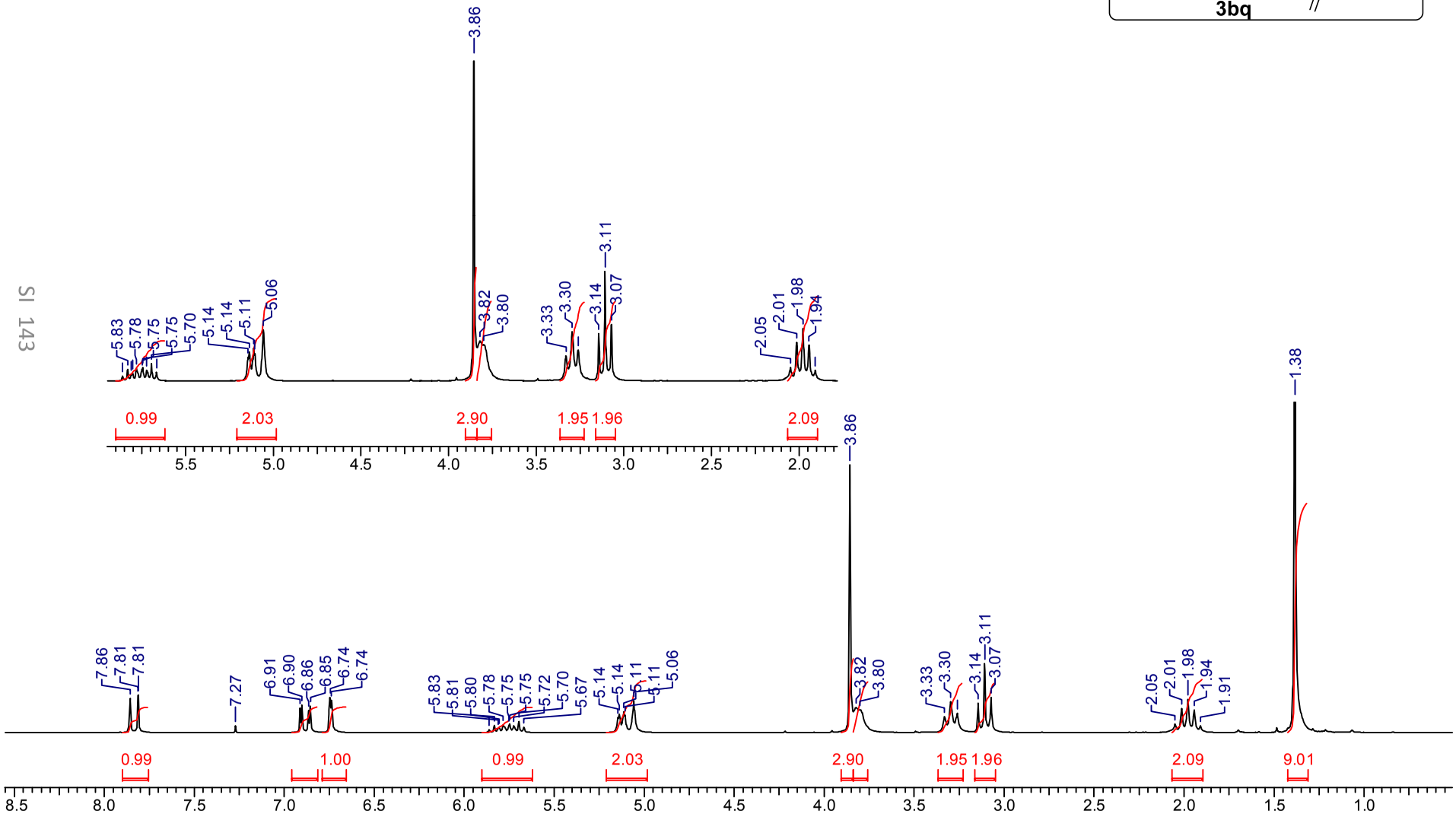




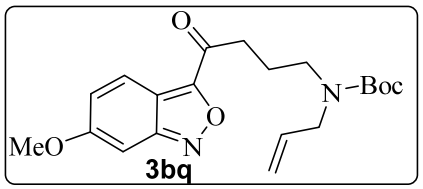
Acquisition Time (sec)	3.9584	***Comment***	suneel	***Date***	23 Oct 2013 16:23:36			***Frequency (MHz)***	200.13
Nucleus	1H	***Number of Transients***	8	***Original Points Count***	16384	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	4138.95	***Temperature (grad C)***	27.000						



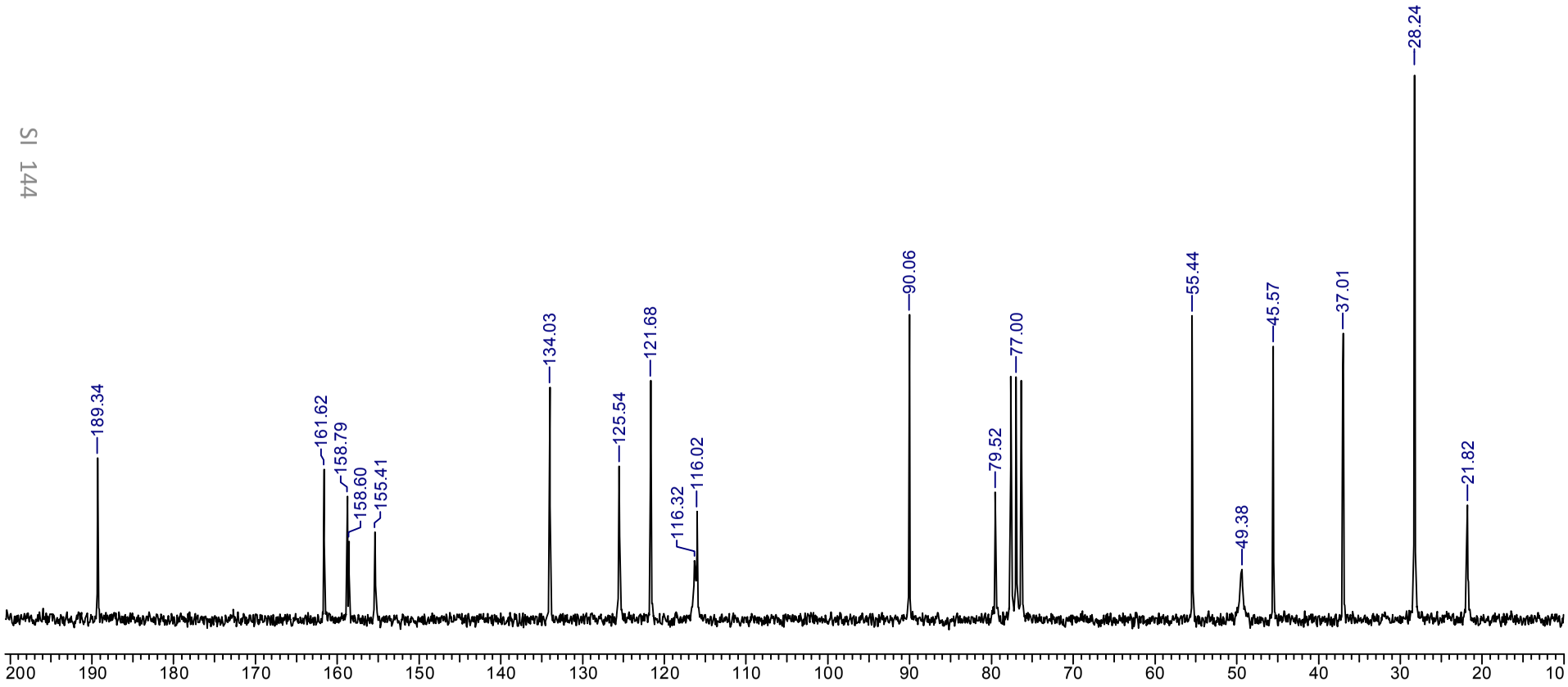
3bq



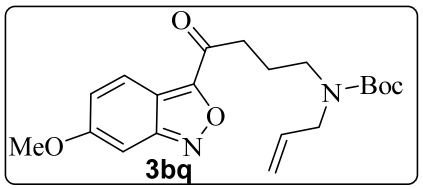
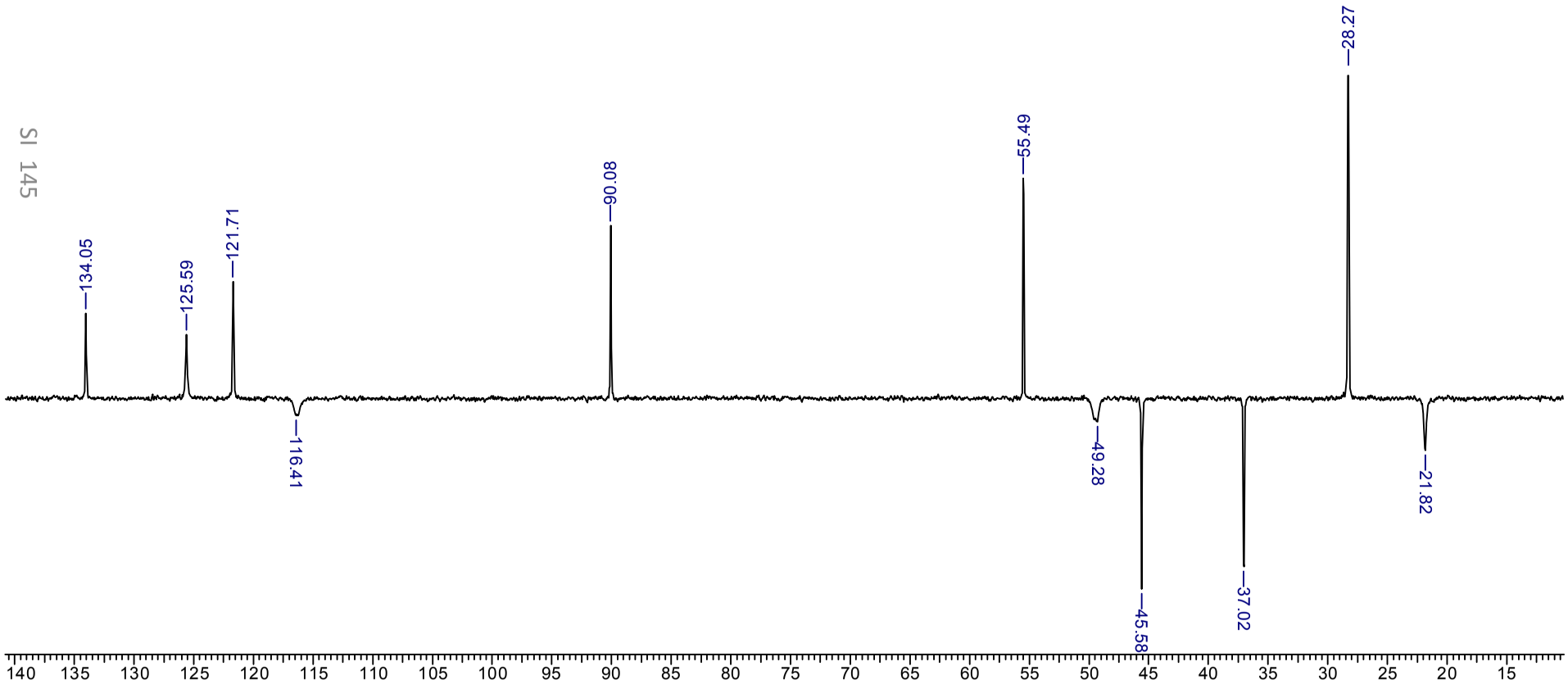
Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	27 Oct 2013 06:34:48			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	1000	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



3bq



Acquisition Time (sec)	0.6832	***Comment***	Suneel	***Date***	27 Oct 2013 05:47:52			***Frequency (MHz)***	50.32
Nucleus	13C	***Number of Transients***	600	***Original Points Count***	8192	***Points Count***	32768	***Solvent***	CHLOROFORM-d
Sweep Width (Hz)	11990.04			***Temperature (grad C)***	27.000				



3bq