Supporting Information

A Direct Access to Isoxazoles from Ynones using Trimethylsilyl Azide as Amino Surrogate under Metal/Catalyst free Conditions

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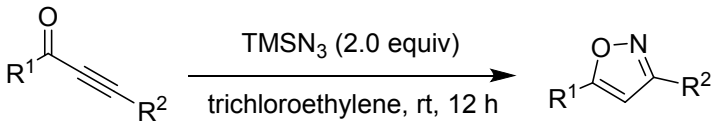
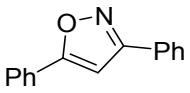
General Information: All reagents and solvents were purchased from commercial sources and used without purification. NMR spectra were recorded with a 400 MHz spectrometer for ^{1}H NMR, 100 MHz for ^{13}C NMR spectroscopy. Chemical shifts are reported relative to the residual signals of tetramethylsilane in $CDCl_3$ or deuterated solvent $CDCl_3$/[D6]DMSO for ^{1}H and ^{13}C NMR spectroscopy. Multiplicities are reported as follows: singlet (s), doublet (d), broad singlet (bs), doublet of doublets (dd), triplet (t), quartet (q), multiplet (m). HRMS were recorded by using QTof mass spectrometer. Column chromatography was performed with silica gel (100–200 mesh) as the stationary phase. All reactions were monitored by using TLC. The purity and characterization of compounds were further established by using HRMS.

Ynones are prepared from known literature procedure[1].

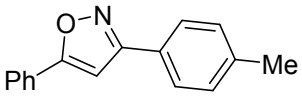
General Procedure for the synthesis of 2 from 1 taking the 2aa as an example:



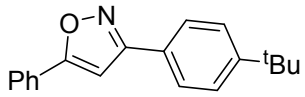
To the substrate **1** (1.0 mmol) dissolved in trichloroethylene (5 ml) was added trimethyl silyl azide (2.0 mmol) and the mixture was stirred in open air at rt for 12 h. To the reaction mixture then was added water (5 ml) and extracted with ethyl acetate (3 x 10 ml). The combined extracts were dried over Na_2SO_4, filtered and concentrated. The crude product was purified by column chromatography (silicagel, 2-4% EtOAc in hexanes) to get the pure product **2**.



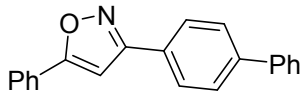
3,5-diphenylisoxazole (2aa)[2]: 82% yield (181 mg); white solid; mp 140-142 ^{o}C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.90-7.83 (m, 4H); 7.52-7.45 (m, 6H); 6.83 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.5, 163.1, 130.3, 130.1, 129.2, 129.1, 129.0, 127.6, 126.9, 125.9, 97.6; IR (neat) ν: 3025, 1640, 1216; HRMS (ESI-TOF) calcd for $C_{15}H_{12}NO$ $[M + H]^+$ 222.0919, found 222.0922.



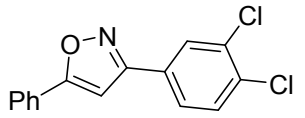
5-phenyl-3-(p-tolyl)isoxazole (2ab)[2]: 86% yield (202 mg); white solid; mp 140-142 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.82 (m, 2H); 7.76 (d, 2H, J = 8.1 Hz); 7.51-7.44 (m, 3H); 7.29 (d, 2H, J = 7.9 Hz); 6.80 (s, 1H); 2.41 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.3, 163.0, 140.2, 130.2, 129.7, 129.1, 127.6, 126.8, 126.4, 125.9, 97.5, 21.5; IR (neat) ν: 3019, 1651, 1215, 669; HRMS (ESI-TOF) calcd for $C_{16}H_{14}NO$ [M + H]$^+$ 236.1075, found 236.1072.



3-(4-(tert-butyl)phenyl)-5-phenylisoxazole (2ac): 84% yield (232 mg); white solid; mp 121-123 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.83 (m, 2H); 7.81 (d, 2H, J = 8.4 Hz); 7.52-7.45 (m, 5H); 6.82 (s, 1H); 1.37 (s, 9H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.3, 162.9, 153.3, 130.2, 129.0, 127.6, 126.6, 126.3, 125.9, 125.9, 97.5, 34.9, 31.3; IR (neat) ν: 3019, 1645, 1215, 669; HRMS (ESI-TOF) calcd for $C_{19}H_{20}NO$ [M + H]$^+$ 278.1545, found 278.1548.

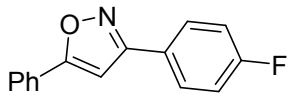


3-([1,1'-biphenyl]-4-yl)-5-phenylisoxazole (2ad): 73% yield (217 mg); white solid; mp 194-196 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.95 (d, 2H, J = 8.2 Hz); 7.86 (d, 2H, J = 6.7 Hz); 7.72 (d, 2H, J = 8.2 Hz); 7.65 (d, 2H, J = 7.2 Hz); 7.53-7.44 (m, 5H); 7.39 (t, 1H, J = 7.3 Hz); 6.87 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.6, 162.8, 142.9, 140.4, 130.3, 129.1, 129.0, 128.1, 127.9, 127.7, 127.6, 127.3, 127.2, 126.0, 97.6; IR (neat) ν: 2986, 1644, 1219, 687; HRMS (ESI-TOF) calcd for $C_{21}H_{16}NO$ [M + H]$^+$ 298.1232, found 298.1228.

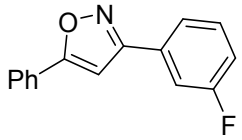


3-(3,4-dichlorophenyl)-5-phenylisoxazole (2ae): 66% yield (191 mg); white solid; mp 157-159 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.96 (d, 1H, J = 1.9 Hz); 7.82 (dd, 2H, J = 7.7, 1.9 Hz); 7.71 (dd, 1H, J = 8.3, 1.9 Hz); 7.55 (d, 1H, J = 8.3 Hz); 7.52-7.47 (m, 3H); 6.79 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 171.2, 161.2, 134.3, 133.4,

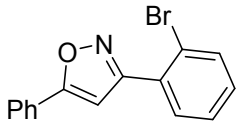
131.1, 130.6, 129.2, 129.2, 128.8, 127.2, 126.0, 126.0, 97.3; IR (neat) ν: 3019, 1645, 1216, 770; HRMS (ESI-TOF) calcd for $C_{15}H_{10}Cl_2NO$ $[M + H]^+$ 290.0139, found 290.0141.



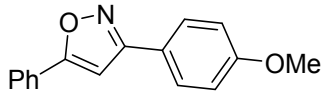
3-(4-fluorophenyl)-5-phenylisoxazole (2af): 78% yield (186 mg); white solid; mp 165-167 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.88-7.81 (m, 4H); 7.52-7.45 (m, 3H); 7.17 (t, 2H, J = 8.7 Hz); 6.79 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.7, 163.9 (d, 250.0 Hz), 162.2, 130.4, 129.1, 128.8 (d, 8.6 Hz), 127.5, 125.9, 125.5 (d, 3.4 Hz), 116.1 (d, 22.0 Hz), 97.4; IR (neat) ν: 3019, 1607, 1215, 768; HRMS (ESI-TOF) calcd for $C_{15}H_{11}FNO$ $[M + H]^+$ 240.0825, found 240.0824.



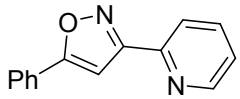
3-(3-fluorophenyl)-5-phenylisoxazole (2ag): 74% yield (177 mg); white solid; mp 142-144 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.84 (d, 2H, J = 6.8 Hz); 7.65 (d, 1H, J = 7.7 Hz); 7.61-7.57 (m, 1H); 7.52-7.42 (m, 4H); 7.19-7.13 (m, 1H); 6.81 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.9, 163.2 (d, 222.3 Hz), 161.9, 131.3 (d, 8.3 Hz), 130.7 (d, 8.1 Hz), 130.5, 129.1, 127.4, 125.9, 122.6 (d, 2.2 Hz), 117.0 (d, 21.1 Hz), 113.9 (d, 23.1 Hz), 97.5; IR (neat) ν: 3019, 1644, 1216, 770; HRMS (ESI-TOF) calcd for $C_{15}H_{11}FNO$ $[M + H]^+$ 240.0825, found 240.0824.



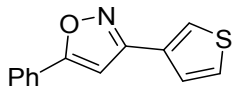
3-(2-bromophenyl)-5-phenylisoxazole (2ah)[3]**:** 74% yield (221 mg); yellow oil; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.89-7.83 (m, 2H); 7.74-7.68 (m, 2H); 7.52-7.45 (m, 3H); 7.44-7.39 (m, 1H); 7.35-7.30 (m, 1H); 6.95 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.7, 163.1, 133.7, 131.4, 131.1, 130.7, 130.3, 129.1, 127.7, 127.5, 126.0, 122.4, 101.0; IR (neat) ν: 3025, 1635, 1216, 695; HRMS (ESI-TOF) calcd for $C_{15}H_{11}BrNO$ $[M + H]^+$ 300.0024, found 300.0023.



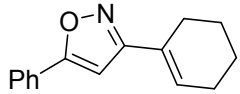
3-(4-methoxyphenyl)-5-phenylisoxazole (2ai)[4]: 80% yield (200 mg); white solid; mp 128-130 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.85-7.79 (m, 4H); 7.50-7.44 (m, 3H); 6.99 (d, 2H, *J* = 8.8 Hz); 6.77 (s, 1H); 3.86 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.2, 162.7, 161.1, 130.2, 129.1, 128.3, 127.7, 125.9, 121.7, 114.4, 97.3, 55.4; IR (neat) ν: 3019, 1645, 1215, 1069; HRMS (ESI-TOF) calcd for $C_{16}H_{14}NO_2$ $[M + H]^+$ 252.1025, found 252.1023.



5-phenyl-3-(pyridin-2-yl)isoxazole (2aj)[4]: 65% yield (144 mg); white solid; mp 125-127 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.72-8.70 (m, 1H); 8.13 (d, 1H, *J* = 7.9 Hz); 7.88-7.84 (m, 2H); 7.83-7.79 (m, 1H); 7.52-7.44 (m, 3H); 7.38-7.34 (m, 1H); 7.20 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.7, 163.8, 149.8, 148.7, 136.9, 130.3, 129.1, 127.5, 125.9, 124.6, 121.7, 98.4; IR (neat) ν: 3019, 1644, 1402, 1216; HRMS (ESI-TOF) calcd for $C_{14}H_{11}N_2O$ $[M + H]^+$ 223.0871, found 223.0860.

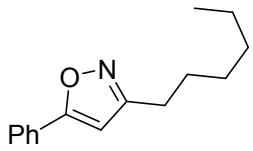


5-phenyl-3-(thiophen-3-yl)isoxazole (2ak): 88% yield (200 mg); white solid; mp 124-126 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.83 (dd, 2H, *J* = 8.1, 1.7 Hz); 7.77 (dd, 1H, *J* = 2.9, 1.1 Hz); 7.57 (dd, 1H, *J* = 5.0, 1.1 Hz); 7.51-7.42 (m, 4H); 6.74 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.2, 158.9, 130.5, 130.3, 129.0, 127.4, 126.8, 126.1, 125.9, 124.7, 97.8; IR (neat) ν: 3025, 1652, 1223, 1023; HRMS (ESI-TOF) calcd for $C_{13}H_{10}NOS$ $[M + H]^+$ 228.0483, found 228.0481.

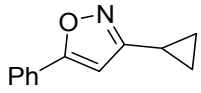


3-(cyclohex-1-en-1-yl)-5-phenylisoxazole (2al): 85% yield (191 mg); yellow solid; mp 114-116 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.79-7.75 (m, 2H); 7.48-7.40 (m, 3H); 6.58 (s, 1H); 6.45-6.41 (m, 1H); 2.55-2.49 (m, 2H); 2.27-2.21 (m, 2H); 1.81-1.74 (m, 2H); 1.73-1.66 (m, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.2, 164.5, 130.7,

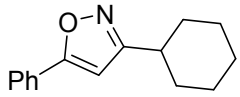
130.0, 129.0, 128.2, 127.8, 125.8, 96.3, 25.8, 25.3, 22.3, 22.0; IR (neat) ν: 3019, 1651, 1216; HRMS (ESI-TOF) calcd for $C_{15}H_{16}NO$ $[M + H]^+$ 226.1232, found 226.1229.



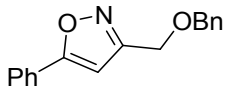
3-hexyl-5-phenylisoxazole (2am): 89% yield (204 mg); red oil; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.76 (d, 2H, J = 7.3 Hz); 7.49-7.40 (m, 3H); 6.36 (s, 1H); 2.70 (t, 2H, J = 7.4 Hz); 1.77-1.66 (m, 2H); 1.45-1.27 (m, 6H); 0.93-0.86 (m, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.6, 164.8, 130.0, 129.0, 127.8, 125.8, 99.2, 31.6, 29.0, 28.4, 26.2, 22.6, 14.1; IR (neat) ν: 3019, 1645, 1215; HRMS (ESI-TOF) calcd for $C_{15}H_{20}NO$ $[M + H]^+$ 230.1545, found 230.1539.



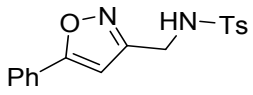
3-cyclopropyl-5-phenylisoxazole (2an)[5]**:** 71% yield (131 mg); white solid; mp 125-127 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.72 (d, 2H, J = 6.4 Hz); 7.46-7.38 (m, 3H); 6.10 (s, 1H); 2.08-1.99 (m, 1H); 1.09-1.02 (m, 2H); 0.90-0.84 (m, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.6, 167.0, 130.0, 128.9, 127.6, 125.7, 96.9, 8.1, 7.5; IR (neat) ν: 3019, 1644, 1215; HRMS (ESI-TOF) calcd for $C_{12}H_{12}NO$ $[M + H]^+$ 186.0919, found 186.0923.



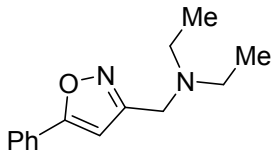
3-cyclohexyl-5-phenylisoxazole (2ao)[3]**:** 91% yield (207 mg); white solid; mp 122-124 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.77-7.73 (m, 2H); 7.46-7.39 (m, 4H); 6.37 (s, 1H); 2.83-2.75 (m, 1H); 2.07-1.99 (m, 2H); 1.88-1.80 (m, 2H); 1.78-1.71 (m, 1H); 1.56-1.37 (m, 4H); 1.37-1.27 (m, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.4, 169.1, 130.0, 129.0, 127.9, 125.8, 97.9, 36.1, 32.2, 26.1, 26.0; IR (neat) ν: 3019, 1646, 1216; HRMS (ESI-TOF) calcd for $C_{15}H_{18}NO$ $[M + H]^+$ 228.1388, found 228.1382.



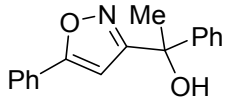
3-((benzyloxy)methyl)-5-phenylisoxazole (2ap): 82% yield (217 mg); yellow oil; R_f = 0.70 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.81-7.77 (m, 2H); 7.49-7.43 (m, 3H); 7.39-7.36 (m, 4H); 7.35-7.30 (m, 1H); 6.61 (s, 1H); 4.68 (s, 2H); 4.61 (s, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.3, 162.2, 137.5, 130.2, 129.0, 128.5, 128.0, 127.4, 125.9, 98.9, 72.7, 63.5; IR (neat) ν: 3021, 1645, 1321, 1220; HRMS (ESI-TOF) calcd for $C_{17}H_{16}NO_2$ [M + H]$^+$ 266.1181, found 266.1176.



4-methyl-N-((5-phenylisoxazol-3-yl)methyl)benzenesulfonamide (2aq): 80% yield (262 mg); white solid; mp 153-155 °C; R_f = 0.40 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.77 (d, 2H, J = 8.2 Hz); 7.70-7.66 (m, 2H); 7.46-7.42 (m, 3H); 7.29 (d, 2H, J = 8.2 Hz); 6.39 (s, 1H); 5.18 (t, 1H, J = 6.2 Hz); 4.26 (d, 2H, J = 6.2 Hz); 2.36 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.7, 160.9, 144.0, 136.6, 130.5, 129.9, 129.1, 127.3, 127.1, 125.9, 98.8, 39.1, 21.5; IR (neat) ν: 3390, 3020, 1654, 1219; HRMS (ESI-TOF) calcd for $C_{17}H_{17}N_2O_3S$ [M + H]$^+$ 329.0960, found 329.0962.

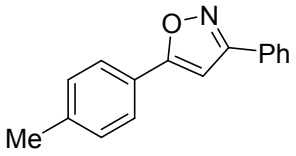


N-ethyl-N-((5-phenylisoxazol-3-yl)methyl)ethanamine (2ar): 84% yield (193 mg); black oil; R_f = 0.30 (EtOAc/hexanes = 3/7); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.79-7.75 (m, 2H); 7.47-7.41 (m, 3H); 6.54 (s, 1H); 3.72 (s, 2H); 2.59 (q, 4H, J = 7.1 Hz); 1.09 (t, 6H, J = 7.1 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.8, 163.0, 130.1, 129.0, 127.7, 125.8, 99.7, 48.1, 47.2, 11.9; IR (neat) ν: 3021, 1644, 1350, 1219; HRMS (ESI-TOF) calcd for $C_{14}H_{19}N_2O$ [M + H]$^+$ 231.1497, found 231.1488.

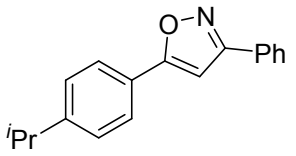


1-phenyl-1-(5-phenylisoxazol-3-yl)ethan-1-ol (2as): 62% yield (164 mg); yellow solid; mp 150-152 °C; R_f = 0.50 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.73 (d, 2H, J = 4.7 Hz); 7.53 (d, 2H, J = 7.1 Hz); 7.47-7.40 (m, 3H); 7.36 (t, 2H, J = 7.3 Hz); 7.29 (d, 1H, J = 6.9 Hz); 6.42 (s, 1H); 2.78 (s, 1H); 2.03 (s, 3H); ^{13}C NMR (100 MHz, DMSO d_6) δ: 171.5,

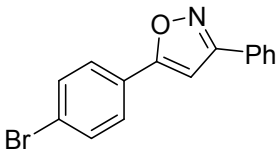
168.9, 146.9, 130.7, 129.6, 128.4, 127.4, 127.3, 125.9, 125.4, 99.7, 71.8, 30.0; IR (neat) ν: 3389, 2924, 1651, 1219; HRMS (ESI-TOF) calcd for $C_{17}H_{14}NO$ [M - H_2O]$^+$ 248.1075, found 248.1067.



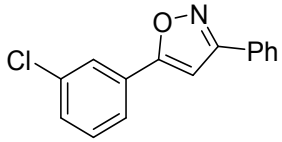
3-phenyl-5-(p-tolyl)isoxazole (2ba)[6]: 92% yield (216 mg); white solid; mp 136-138 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.88-7.86 (m, 2H); 7.73(d, 2H, *J* = 7.8 Hz); 7.50-7.45 (m, 3H); 7.29 (d, 2H, *J* = 7.8 Hz); 6.77 (s, 1H); 2.41 (s, 3H);^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.7, 163.0, 140.6, 130.0, 129.8, 129.4, 129.0, 126.9, 125.9, 124.9, 97.0, 21.6; IR (neat) ν: 3019, 1650, 1216, 669; HRMS (ESI-TOF) calcd for $C_{16}H_{14}NO$ [M + H]$^+$ 236.1075, found 236.1062.



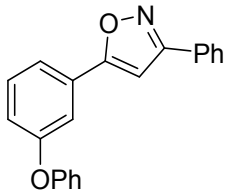
5-(4-isopropylphenyl)-3-phenylisoxazole (2bb): 90% yield (236 mg); white solid; mp 90-92 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.89-7.86 (m, 2H); 7.77 (d, 2H, *J* = 8.1 Hz); 7.50-7.45 (m, 3H); 7.35 (d, 2H, *J* = 8.1 Hz); 6.78 (s, 1H); 3.02-2.92 (m, 1H); 1.29 (d, 6H, *J* = 6.9 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.7, 163.0, 151.5, 130.0, 129.4, 129.0, 127.2, 126.9, 126.0, 125.2, 97.0, 34.2, 23.9; IR (neat) ν: 3019, 1618, 1215, 669; HRMS (ESI-TOF) calcd for $C_{18}H_{18}NO$ [M + H]$^+$ 264.1388, found 264.1392.



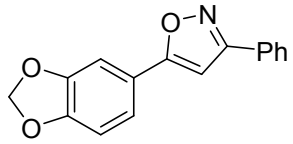
5-(4-bromophenyl)-3-phenylisoxazole (2bc)[2]: 55% yield (163 mg); white solid; mp 156-158 °C; R_f = 0.40 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.84 (m, 2H); 7.71-7.69 (m, 2H); 7.63-7.61 (m, 2H); 7.50-7.46 (m, 3H); 6.83 (s, 1H);^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.4, 163.2, 132.4, 130.2, 129.1, 129.0, 127.4, 126.9, 126.5, 124.7, 98.0; IR (neat) ν: 3019, 1650, 1216, 770; HRMS (ESI-TOF) calcd for $C_{15}H_{11}BrNO$ [M + H]$^+$ 300.0024, found 300.0023.



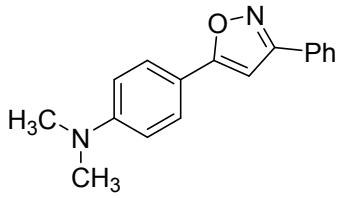
5-(3-chlorophenyl)-3-phenylisoxazole (2bd)[6]: 61% yield (155 mg); white solid; mp 104-106 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.82 (m, 3H); 7.72 (s, 1H); 7.48-7.42 (m, 5H); 6.85 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.0, 163.2, 135.2, 130.5, 130.3, 130.3, 129.1, 129.1, 129.0, 126.9, 126.0, 124.0, 98.4; IR (neat) ν: 3019, 1643, 1216, 669; HRMS (ESI-TOF) calcd for $C_{15}H_{11}ClNO$ $[M + H]^+$ 256.0529, found 256.0528.



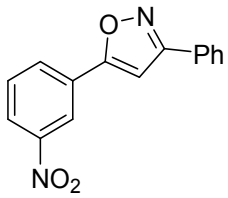
5-(3-phenoxyphenyl)-3-phenylisoxazole (2be): 87% yield (272 mg); white solid; mp 98-100 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.84 (m, 2H); 7.57(d, 1H, J = 7.7 Hz); 7.48-7.44 (m, 5H); 7.40-7.36 (m, 2H); 7.18-7.15 (m, 1H); 7.11-7.06 (m, 3H); 6.80 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.8, 163.1, 158.1, 156.6, 130.5, 130.1, 130.0, 129.1, 129.0, 126.9, 124.0, 120.6, 120.4, 119.3, 115.9, 98.0; IR (neat) ν: 3022, 1650, 1402, 1219, 771; HRMS (ESI-TOF) calcd for $C_{21}H_{16}NO_2$ $[M + H]^+$ 314.1181, found 314.1182.



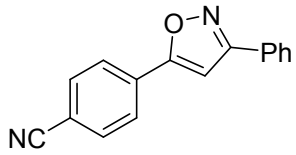
3,5-diphenylisox5-(benzo[d][1,3]dioxol-5-yl)-3-phenylisoxazoleazole (2bf): 89% yield (235 mg); white solid; mp 118-120 °C; R_f = 0.30 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86-7.83 (m, 2H); 7.50-7.45 (m, 3H); 7.38-7.36 (m, 1H); 7.28 (s, 1H); 6.90 (d, 1H, J = 8.1 Hz); 6.68 (s, 1H); 6.04 (s, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.2, 163.1, 149.4, 148.4, 130.1, 129.3, 129.0, 126.9, 121.7, 120.6, 108.9, 106.3, 101.7, 96.6; IR (neat) ν: 3019, 1651, 1216, 669; HRMS (ESI-TOF) calcd for $C_{16}H_{12}NO_3$ $[M + H]^+$ 266.0817, found 266.0815.



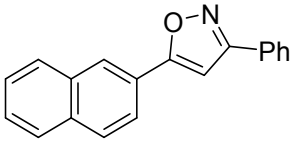
N,N-dimethyl-4-(3-phenylisoxazol-5-yl)aniline (2bg): 70% yield (184 mg); Brick red solid; mp 150-152 °C; R_f = 0.50 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.86 (d, 2H, *J* = 7.6 Hz); 7.70 (d, 2H, *J* = 8.7 Hz); 7.48-7.44 (m, 3H); 6.75 (d, 2H, *J* = 8.7 Hz); 6.61 (s, 1H); 3.03 (s, 6H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 171.3, 162.9, 151.5, 129.8, 129.7, 128.9, 127.2, 126.9, 115.5, 111.9, 94.7, 40.2; IR (neat) ν: 3019, 1615, 1216, 669; HRMS (ESI-TOF) calcd for $C_{17}H_{17}N_2O$ $[M + H]^+$ 265.1341, found 265.1337.



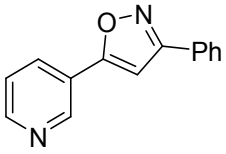
5-(3-nitrophenyl)-3-phenylisoxazole (2bh): 52% yield (138 mg); white solid; mp 168-170 °C; R_f = 0.40 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 9.07 (s, 1H); 8.68 (d, 1H, *J* = 3.9 Hz); 8.12 (d, 1H, *J* = 7.9 Hz); 7.87-7.85 (m, 2H); 7.48-7.41 (m, 4H); 6.92 (s, 1H); ^{13}C NMR (100 MHz, DMSO-d_6) δ: 167.9, 163.4, 148.8, 132.0, 131.6, 131.0, 129.7, 128.6, 128.6, 127.0, 125.3, 120.6, 101.0; IR (neat) ν: 3019, 1650, 1216, 669; HRMS (ESI-TOF) calcd for $C_{15}H_{11}N_2O_3$ $[M + H]^+$ 267.0770, found 267.0774.



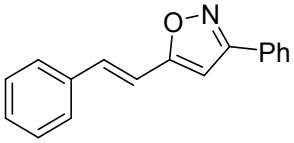
4-(3-phenylisoxazol-5-yl)benzonitrile (2bi): 47% yield (115 mg); white solid; mp 196-198 °C; R_f = 0.40 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, DMSO-d_6) δ: 8.11-8.04 (m, 4H); 7.93-7.92 (m, 2H); 7.84 (s, 1H); 7.57-7.56 (m, 3H); ^{13}C NMR (100 MHz, DMSO-d_6) δ: 168.3, 163.3, 133.7, 131.0, 131.0, 129.7, 128.6, 127.0, 126.7, 118.7, 113.1, 101.5; IR (neat) ν: 3019, 1644, 1216, 669; HRMS (ESI-TOF) calcd for $C_{16}H_{11}N_2O$ $[M + H]^+$ 247.0871, found 247.0870.



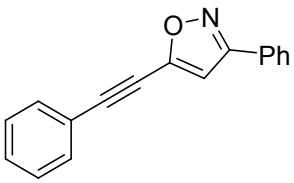
5-(naphthalen-2-yl)-3-phenylisoxazole (2bj)[6]: 72% yield (195 mg); white solid; mp 163-165 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, DMSO-d_6) δ: 8.54 (s, 1H); 8.13-8.11 (m, 2H); 8.03-7.96 (m, 4H); 7.75 (s, 1H); 7.64-8.56 (m, 5H); ^{13}C NMR (100 MHz, DMSO-d_6) δ: 175.0, 167.9, 138.7, 137.9, 135.5, 134.4, 134.2, 133.8, 133.8, 133.0, 132.8, 132.4, 131.8, 130.2, 129.4, 128.0, 104.3; IR (neat) ν: 3019, 1650, 1216, 669; HRMS (ESI-TOF) calcd for $C_{19}H_{14}NO$ $[M + H]^+$ 272.1075, found 272.1077.



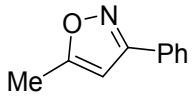
3-phenyl-5-(pyridin-3-yl)isoxazole (2bk): 78% yield (173 mg); white solid; mp 136-138 °C; R_f = 0.30 (EtOAc/hexanes = 3/7); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 9.07 (s, 1H); 8.68 (d, 1H, J = 3.9 Hz); 8.12 (d, 1H, J = 7.9 Hz); 7.87-7.85 (m, 2H); 7.48-7.41 (m, 4H); 6.92 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 167.6, 163.2, 151.1, 147.1, 133.0, 130.3, 129.1, 128.7, 126.9, 123.9, 123.8, 98.6; IR (neat) ν: 3020, 1650, 1402, 693; HRMS (ESI-TOF) calcd for $C_{14}H_{11}N_2O$ $[M + H]^+$ 223.0871, found 223.0860.



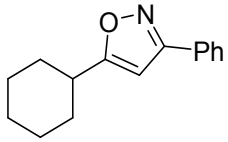
(E)-3-phenyl-5-styrylisoxazole (2bl): 83% yield (205 mg); white solid; mp 130-132 °C; R_f = 0.70 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.85-7.83 (m, 2H); 7.54 (d, 2H, J = 7.3 Hz); 7.50-7.46 (m, 3H); 7.41-7.33 (m, 4H); 7.01 (d, 1H, J = 16.4 Hz); 6.58 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.0, 162.8, 135.6, 135.0, 130.0, 129.3, 129.2, 129.0, 127.2, 126.9, 113.2, 99.5; IR (neat) ν: 3019, 1644, 1216, 669; HRMS (ESI-TOF) calcd for $C_{17}H_{14}NO$ $[M + H]^+$ 248.1075, found 248.1073.



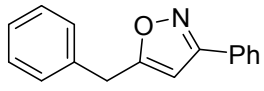
3-phenyl-5-(phenylethynyl)isoxazole (2bm): 36% yield (88 mg); Yellow gum; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.84-7.81 (m, 2H); 7.61-7.58 (m, 2H); 7.49-7.47 (m, 3H); 7.44-7.38 (m, 3H); 6.80 (s, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 162.7, 154.1, 132.0, 130.3, 130.0, 129.1, 128.7, 128.6, 126.9, 121.0, 105.9, 98.6, 75.7; IR (neat) ν: 3019, 1643, 1216, 1154, 669; HRMS (ESI-TOF) calcd for $C_{17}H_{12}NO$ $[M + H]^+$ 246.0919, found 246.0924.



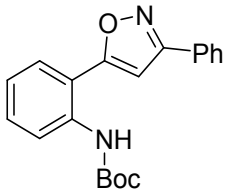
5-methyl-3-phenylisoxazole (2bn)[4]: 89% yield (141 mg); yellow oil; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.79-7.77 (m, 2H); 7.45-7.41 (m, 3H); 6.28 (s, 1H); 2.46 (m, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.9, 162.6, 129.8, 129.4, 128.9, 126.8, 99.7, 12.4; IR (neat) ν: 3019, 1646, 1215, 669; HRMS (ESI-TOF) calcd for $C_{10}H_{10}NO$ $[M + H]^+$ 160.0762, found 160.0759.



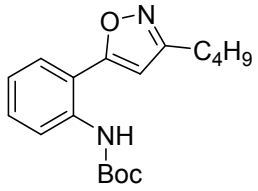
5-cyclohexyl-3-phenylisoxazole (2bo): 91% yield (206 mg); white solid; mp 70-72 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.80-7.78 (m, 2H); 7.46-7.41 (m, 3H); 6.25 (d, 1H, J = 7.3 Hz); 2.85-2.78 (m, 1H); 2.12-2.08 (m, 2H); 1.86-1.81 (m, 2H); 1.76-1.71 (m, 1H); 1.55-1.38 (m, 4H); 1.37-1.26 (m, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 178.4, 162.2, 129.8, 129.6, 128.9, 126.8, 97.1, 36.5, 31.2, 25.9, 25.7; IR (neat) ν: 3019, 1645, 1216, 668; HRMS (ESI-TOF) calcd for $C_{15}H_{18}NO$ $[M + H]^+$ 228.1388, found 228.1389.



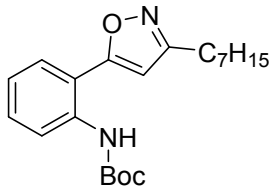
5-benzyl-3-phenylisoxazole (2bp): 86% yield (202 mg); white solid; mp 60-62 °C; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.77-7.75 (m, 2H); 7.45-7.41 (m, 3H); 7.38-7.34 (m, 2H); 7.31-7.28 (m, 3H); 6.21 (s, 1H); 4.13 (s, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 172.8, 162.6, 136.0, 129.9, 129.3, 129.0, 128.9, 128.9, 127.3, 126.9, 100.1, 33.4; IR (neat) ν: 3019, 1645, 1216, 1155, 669; HRMS (ESI-TOF) calcd for $C_{16}H_{14}NO$ $[M + H]^+$ 236.1075, found 236.1074.



tert-butyl (2-(3-phenylisoxazol-5-yl)phenyl)carbamate (2ca): 82% yield (275 mg); yellow solid; mp 114-116 °C; R_f = 0.40 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.23 (d, 1H, J = 8.1 Hz); 7.88-7.86 (m, 2H); 7.76 (s, 1H); 7.61 (dd, 1H, J = 7.8, 1.5 Hz); 7.53-7.42 (m, 4H); 7.16-7.12 (m, 1H); 6.79 (s, 1H); 1.53 (s, 9H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 170.1, 162.9, 153.0, 136.4, 131.5, 130.4, 129.2, 129.0, 128.8, 127.0, 123.3, 121.5, 116.8, 100.2, 81.2, 28.4; IR (neat) ν: 3427, 3019, 1597, 1216, 669; HRMS (ESI-TOF) calcd for $C_{20}H_{21}N_2O_3$ $[M + H]^+$ 337.1552, found 337.1540.

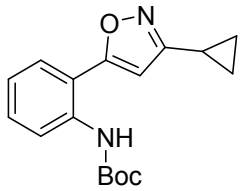


tert-butyl (2-(3-butylisoxazol-5-yl)phenyl)carbamate (2cb): 89% yield (281 mg); yellow oil; R_f = 0.40 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.20 (d, 1H, J = 8.4 Hz); 7.78 (s, 1H); 7.52 (dd, 1H, J = 7.8, 1.4 Hz); 7.42-7.37 (m, 1H);7.11-7.07 (m, 1H); 6.32 (s, 1H); 2.73 (t, 2H, J = 7.5 Hz); 1.75-1.67 (m, 2H); 1.51 (s, 9H); 1.46-1.41 (m, 2H); 0.96 (t, 3H, J = 7.3 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.1, 164.6, 152.9, 136.3, 131.2, 128.8, 123.1, 121.3, 116.8, 101.8, 81.0, 30.4, 28.4, 25.8, 22.4, 13.8; IR (neat) ν: 3426, 3019, 1596, 1217, 669; HRMS (ESI-TOF) calcd for $C_{18}H_{25}N_2O_3$ $[M + H]^+$ 317.1865, found 317.1860.

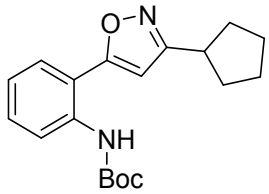


tert-butyl (2-(3-heptylisoxazol-5-yl)phenyl)carbamate (2cc): 91% yield (325 mg); white solid; mp 60-62 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.20 (d, 1H, J = 8.4 Hz); 7.78 (s, 1H); 7.53-7.51 (m, 1H); 7.42-7.38 (m, 1H); 7.11-7.07 (m, 1H); 6.32 (s, 1H); 2.72 (t, 2H, J = 7.6 Hz); 1.76-1.67 (m, 2H); 1.51 (s, 9H); 1.42-1.35 (m, 4H); 1.33-1.25 (m, 4H); 0.88 (t, 3H, J = 6.5 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.1, 164.6, 152.9, 136.3, 131.1, 128.8, 123.1, 121.2, 116.8, 101.8, 81.0, 31.8, 29.3, 29.0, 28.4, 28.3, 26.1, 22.7,

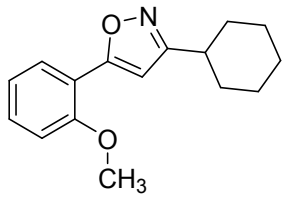
14.1; IR (neat) ν: 3427, 3019, 1596, 1216, 668; HRMS (ESI-TOF) calcd for $C_{21}H_{31}N_2O_3$ [M + H]$^+$ 359.2335, found 359.2329.



tert-butyl (2-(3-cyclopropylisoxazol-5-yl)phenyl)carbamate (2cd): 85% yield (255 mg); white solid; mp 64-66 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.19 (d, 1H, J = 8.3 Hz); 7.74 (s, 1H); 7.48 (d, 1H, J = 7.8 Hz); 7.39 (t, 1H, J = 7.6 Hz); 7.08 (t, 1H, J = 7.6 Hz); 6.13 (s, 1H); 2.09-2.02 (m, 1H); 1.51 (s, 9H); 1.12-1.07 (m, 2H); 0.92-0.88 (m, 2H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.2, 166.9, 152.9, 136.3, 131.2, 128.8, 123.1, 121.3, 116.8, 99.7, 81.0, 28.4, 8.3, 7.5; IR (neat) ν: 3425, 3019, 1597, 1216, 669; HRMS (ESI-TOF) calcd for $C_{17}H_{21}N_2O_3$ [M + H]$^+$ 301.1552, found 301.1540.

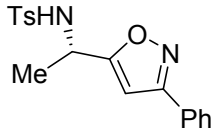


tert-butyl (2-(3-cyclopentylisoxazol-5-yl)phenyl)carbamate (2ce): 90% yield (295 mg); white solid; mp 84-86 °C; R_f = 0.50 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 8.20 (d, 1H, J = 8.2 Hz); 7.82 (s, 1H); 7.52 (d, 1H, J = 7.7 Hz); 7.39 (t, 1H, J = 8.2 Hz); 7.08 (t, 1H, J = 7.7 Hz); 6.32 (s, 1H); 3.24-3.17 (m, 1H); 2.16-2.08 (m, 2H); 1.82-1.71 (m, 6H); 1.51 (s, 9H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.2, 168.4, 153.0, 136.3, 131.1, 128.8, 123.1, 121.2, 116.8, 100.8, 81.0, 37.1, 32.5, 28.4, 25.5; IR (neat) ν: 3425, 3019, 1596, 1215, 669; HRMS (ESI-TOF) calcd for $C_{19}H_{25}N_2O_3$ [M + H]$^+$ 329.1865, found 329.1858.

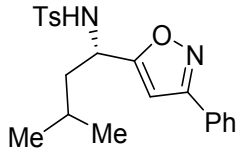


3-cyclohexyl-5-(2-methoxyphenyl)isoxazole (2cf): 92% yield (236 mg); yellow oil; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.96-7.94 (m, 1H); 7.38-7.34 (m, 1H); 7.04 (t, 1H, J = 7.6 Hz); 6.98 (d, 1H, J = 8.3 Hz); 6.64 (s, 1H); 3.94 (s,3H); 2.82-

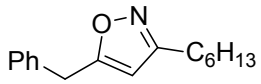
2.75 (m, 1H); 2.04-2.01 (m, 2H); 1.86-1.72 (m, 4H); 1.57-1.47 (m, 2H); 1.46-1.38 (m, 1H); 1.36-1.25 (m, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 169.0, 165.2, 156.1, 130.9, 127.7, 120.9, 116.8, 111.2, 101.9, 55.5, 36.1, 32.2, 26.1, 26.0; IR (neat) ν: 3425, 3019, 1596, 1215, 668; HRMS (ESI-TOF) calcd for $C_{16}H_{20}NO_2$ $[M + H]^+$ 258.1494, found 258.1490.



(S)-4-methyl-N-(1-(3-phenylisoxazol-5-yl)ethyl)benzenesulfonamide (2cg): 52% yield (177 mg); yellow gum; R_f = 0.20 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.69 (d, 2H, J = 8.1 Hz); 7.64-7.63 (m, 2H); 7.43-7.42 (m, 3H); 7.20 (d, 2H, J = 8.1 Hz); 6.14 (s, 1H); 5.16 (d, 1H, J = 8.3 Hz); 4.76-4.68 (m, 1H); 2.26 (s, 3H); 1.54 (d, 3H, J = 6.9 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 172.0, 162.3, 143.9, 137.2, 130.2, 129.8, 129.0, 128.7, 127.2, 126.8, 99.7, 46.6, 29.8, 20.9; IR (neat) ν: 3425, 3019, 1403, 1215, 669; HRMS (ESI-TOF) calcd for $C_{18}H_{19}N_2O_3S$ $[M + H]^+$ 343.1116, found 343.1118.



(S)-4-methyl-N-(3-methyl-1-(3-phenylisoxazol-5-yl)butyl)benzenesulfonamide (2ch): 42% yield (161 mg); white solid; mp 170-172 °C; R_f = 0.30 (EtOAc/hexanes = 2/8); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.63 (s, 1H); 7.61-7.58 (m, 3H); 7.43-7.41 (m, 3H); 7.13 (d, 2H, J = 8.1 Hz); 5.99 (s, 1H); 5.06 (d, 1H, J = 9.3 Hz); 4.67-4.61 (m, 1H); 2.16 (s, 3H); 1.78-1.69 (m, 2H); 1.67-1.61 (m, 1H); 0.91 (d, 3H, J = 6.3 Hz); 0.88 (d, 3H, J = 6.3 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 171.3, 162.1, 143.8, 137.3, 130.2, 129.6, 129.0, 128.6, 127.2, 126.7, 100.1, 49.2, 43.7, 24.6, 22.5, 21.9, 21.3; IR (neat) ν: 3391, 3019, 1668, 1216, 669; HRMS (ESI-TOF) calcd for $C_{21}H_{25}N_2O_3S$ $[M + H]^+$ 385.1586, found 385.1576.



5-benzyl-3-hexylisoxazole (2da)[7]: 60% yield (145 mg); colorless oil; R_f = 0.60 (EtOAc/hexanes = 1/9); ^{1}H NMR (400 MHz, $CDCl_3$) δ: 7.35-7.31 (m, 2H); 7.28-7.24 (m, 3H); 5.74 (s, 1H); 4.03 (s, 3H); 2.59 (t, 2H, J = 7.9 Hz); 1.65-1.57 (m, 2H); 1.35-1.26 (m,

6H); 0.87 (t, 3H, J = 6.8 Hz); ^{13}C NMR (100 MHz, $CDCl_3$) δ: 171.8, 164.3, 136.3, 128.9, 128.8, 127.1, 101.6, 33.3, 31.5, 29.0, 28.3, 26.2, 22.4, 14.1.

References:

1. K. Okamoto, T. Shimbayashi, E. Tamura, K.Ohe, *Org. Lett.* 2015, **17**, 5843-5845
2. A.Yoshimura, K. R.Middleton, A. D. Todora, B. J. Kastern, S. R. Koski, A. V. Maskaev, V. V. Zhdankin, *Org. Lett.* 2013, **15**, 4010-4013.
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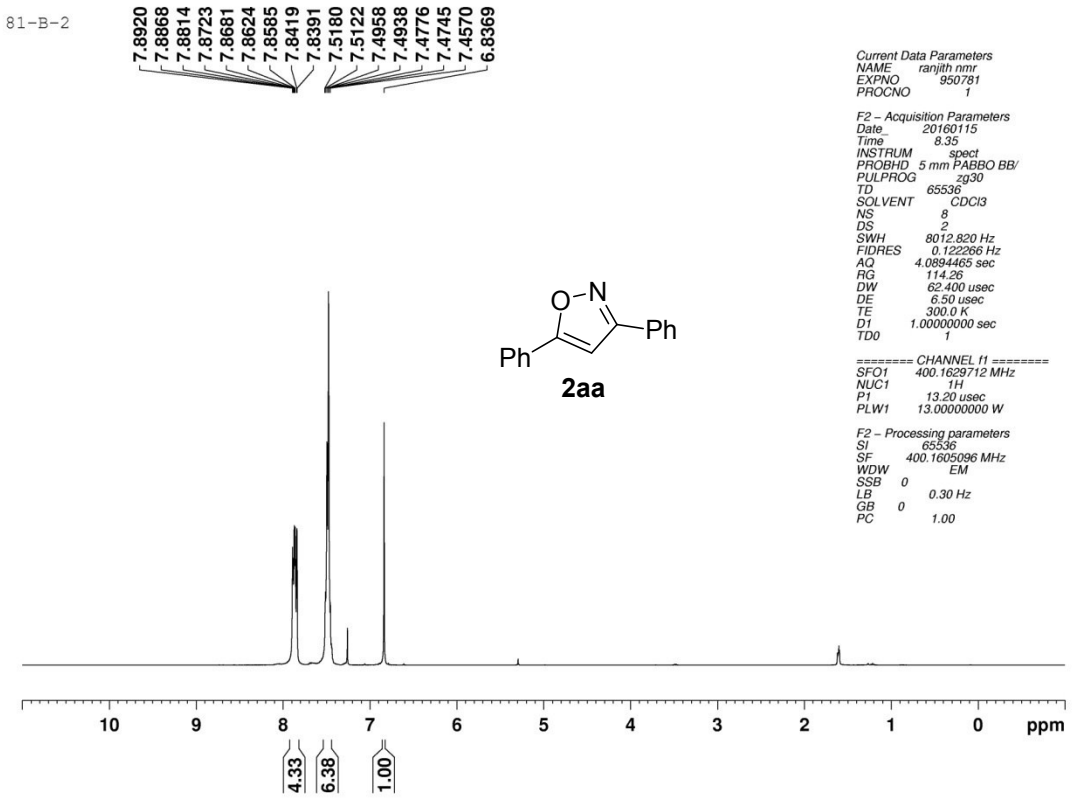
7. L. Wang, X. Yu, X. Feng, M. Bao, *Org. Lett.* 2012, **14**, 2418-2421.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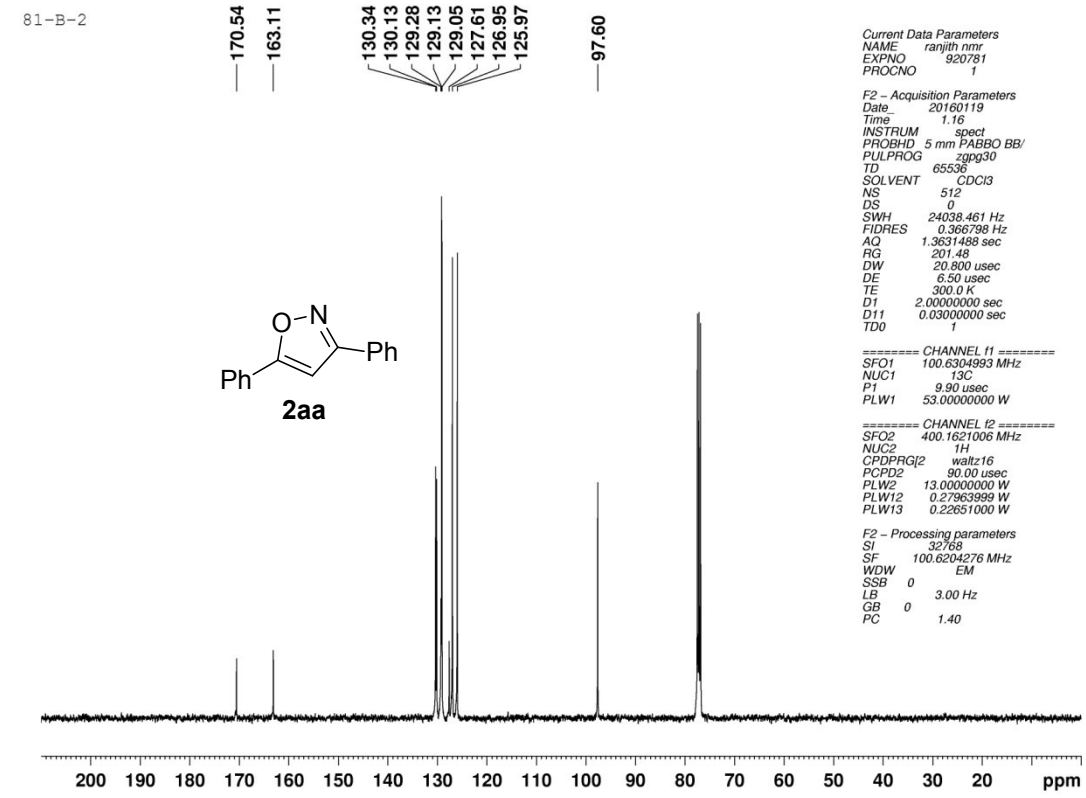
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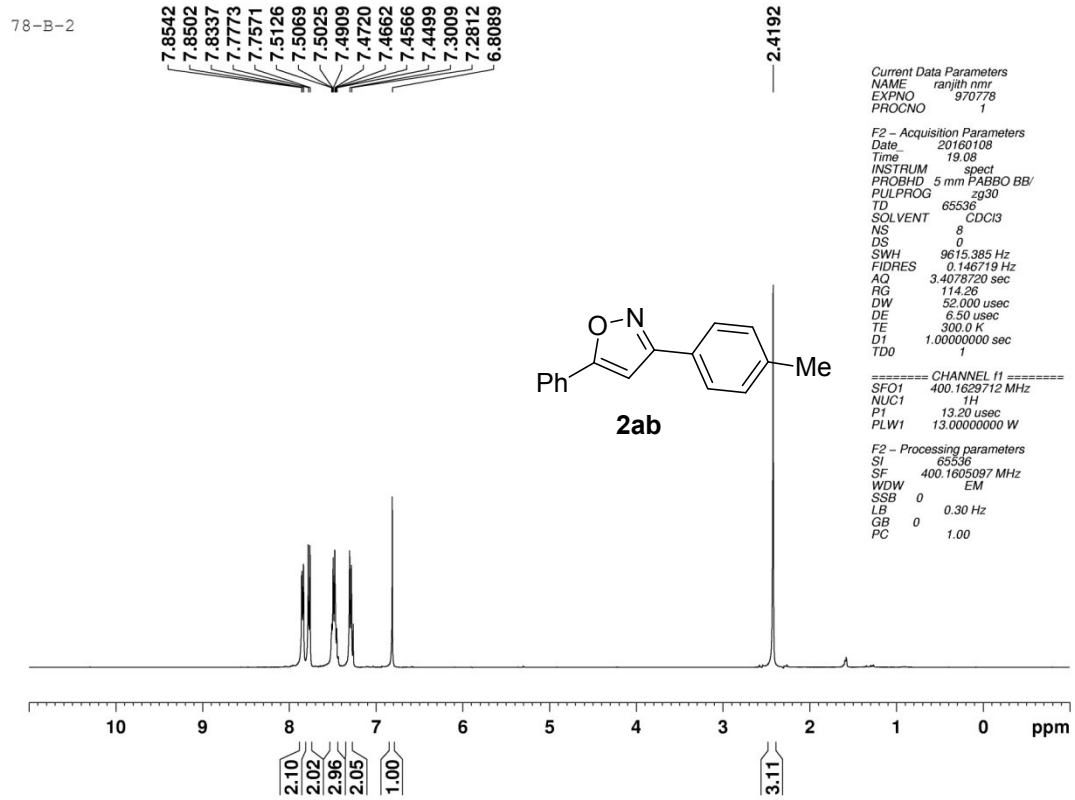
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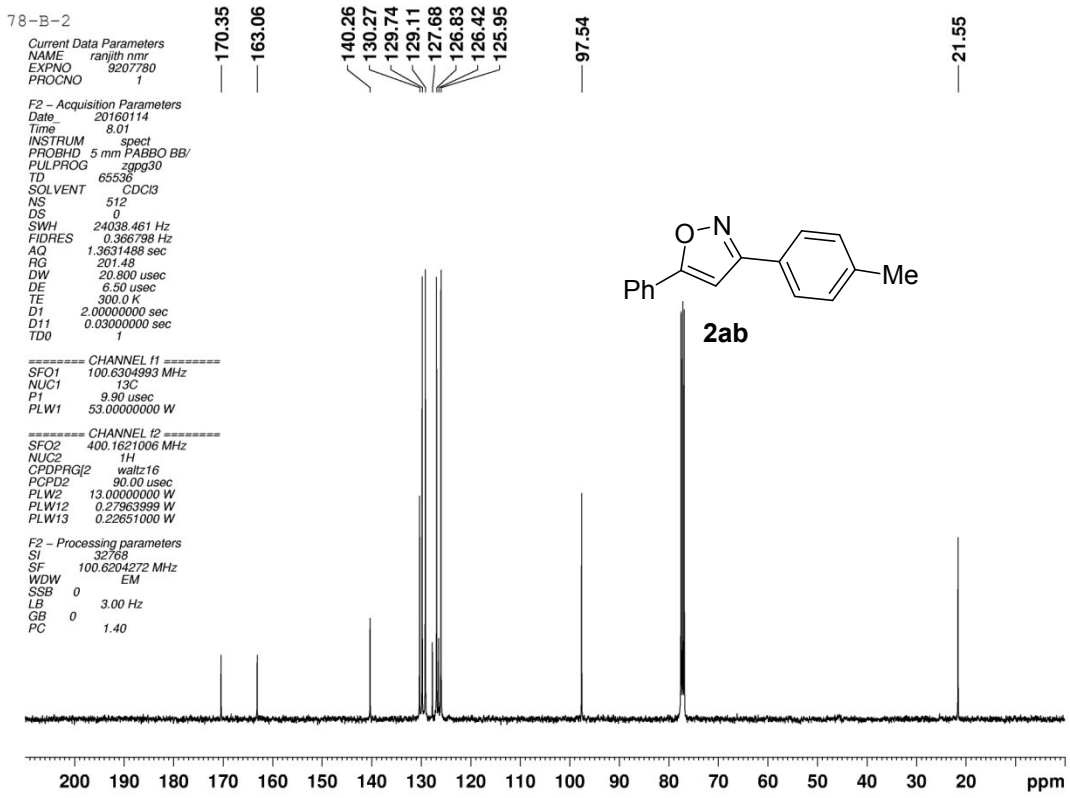
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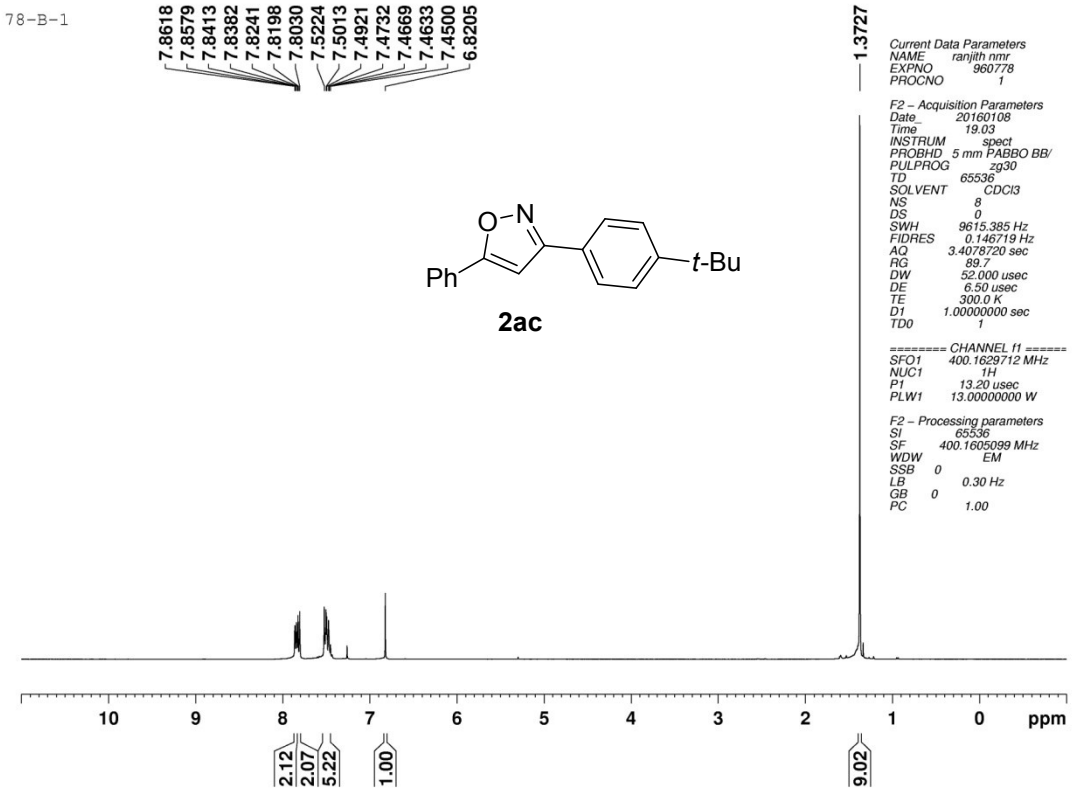
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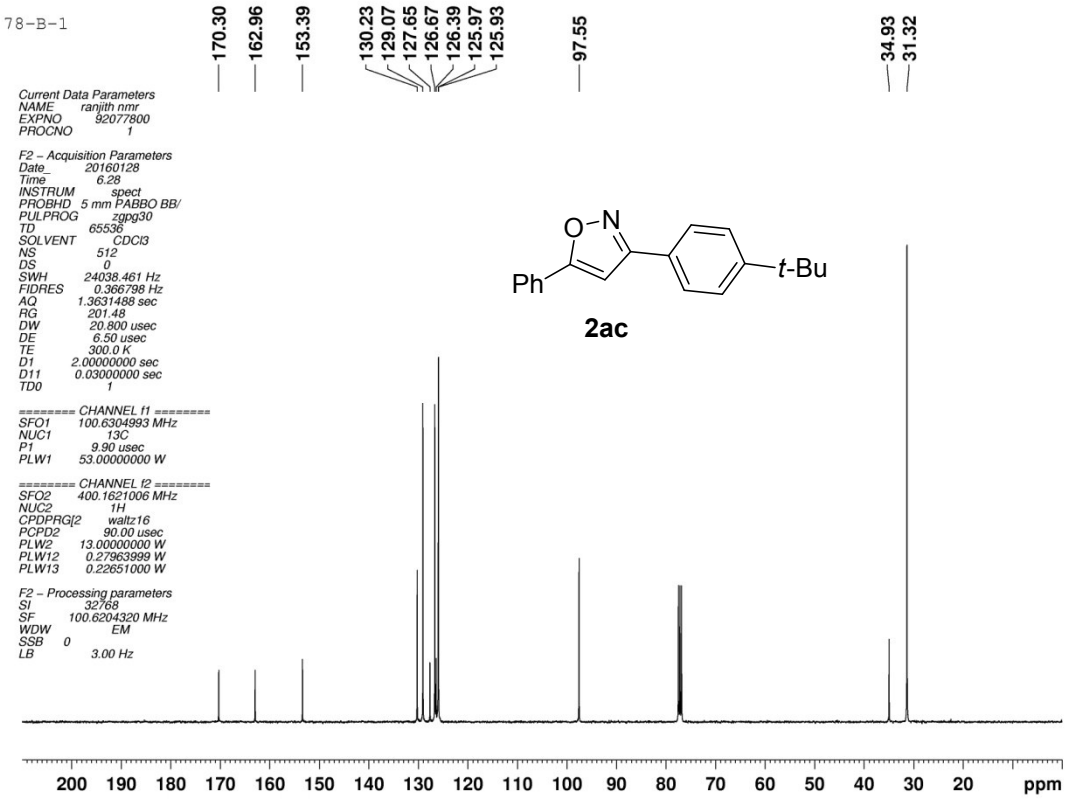
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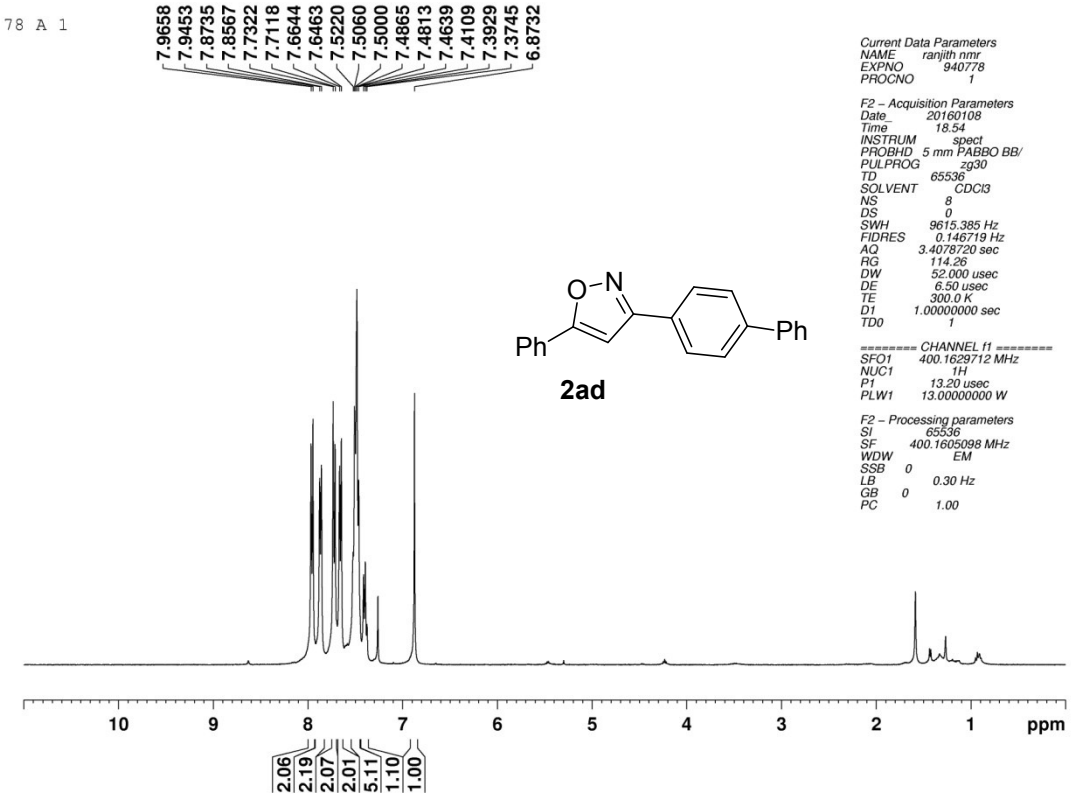
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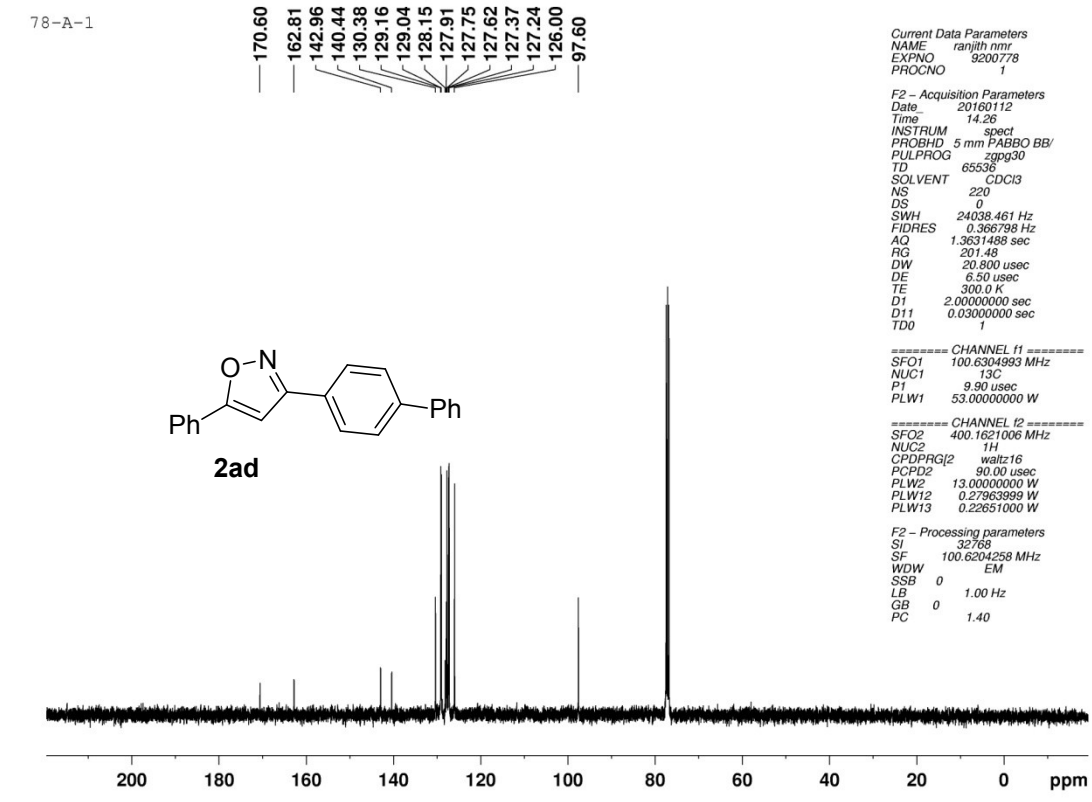
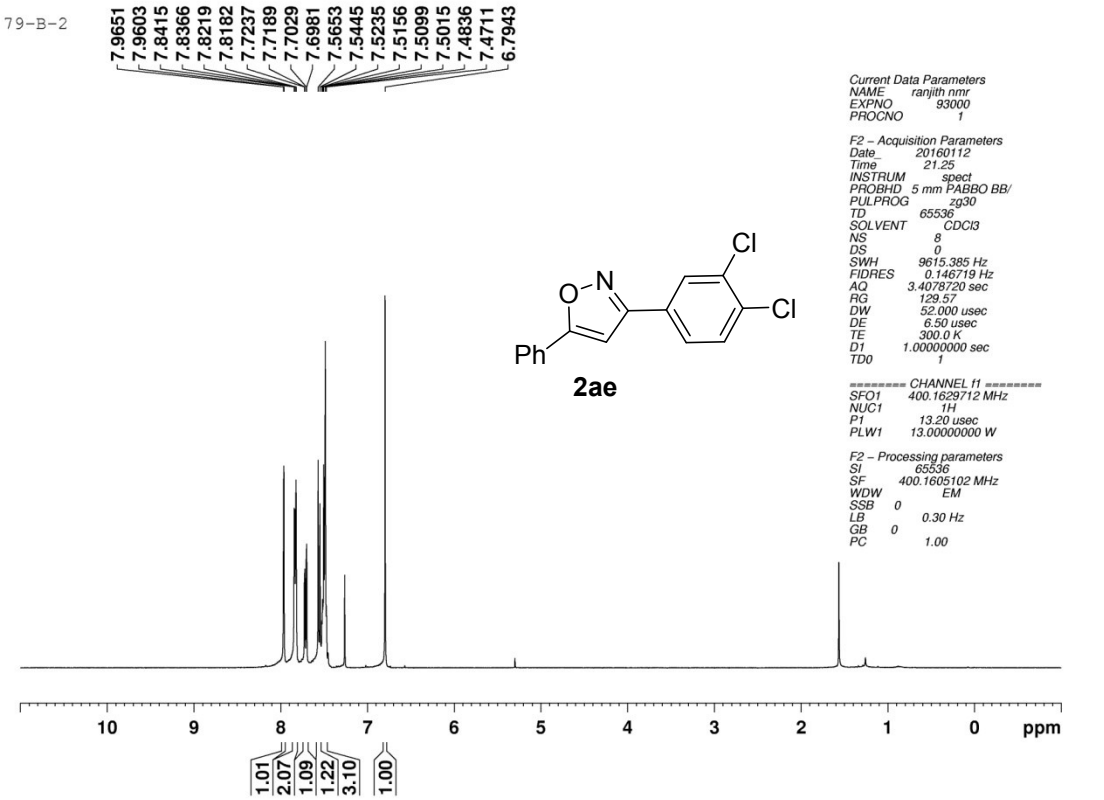
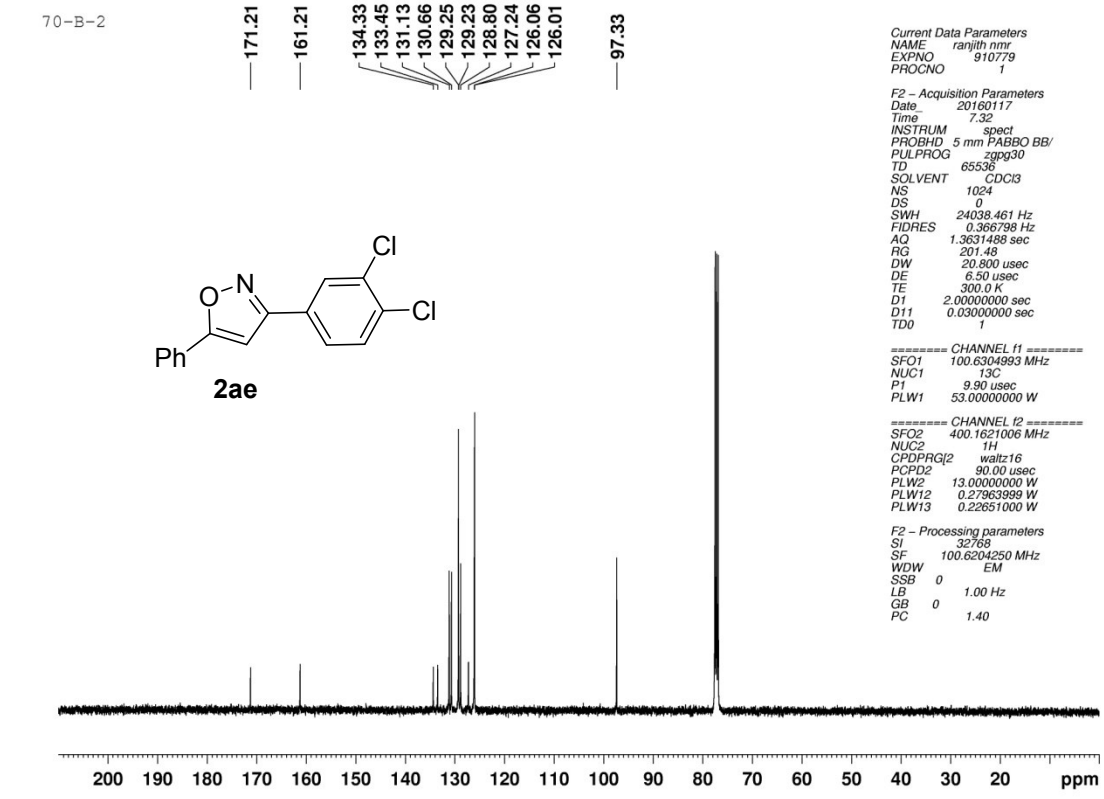
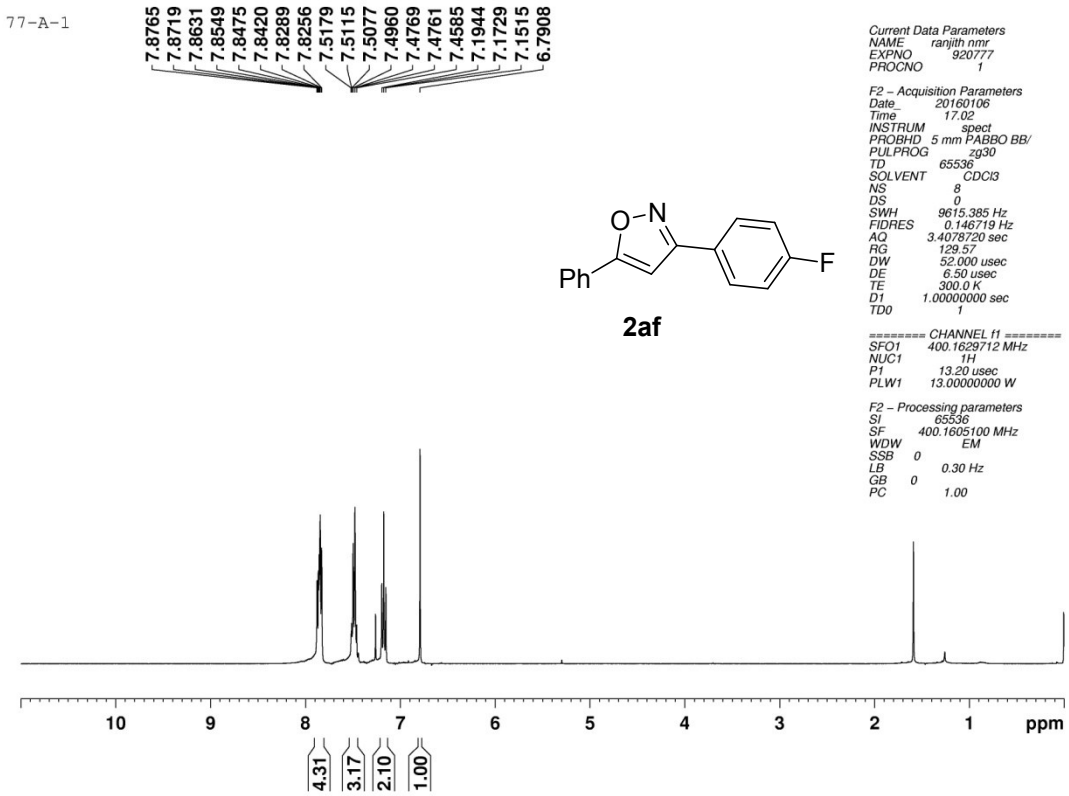
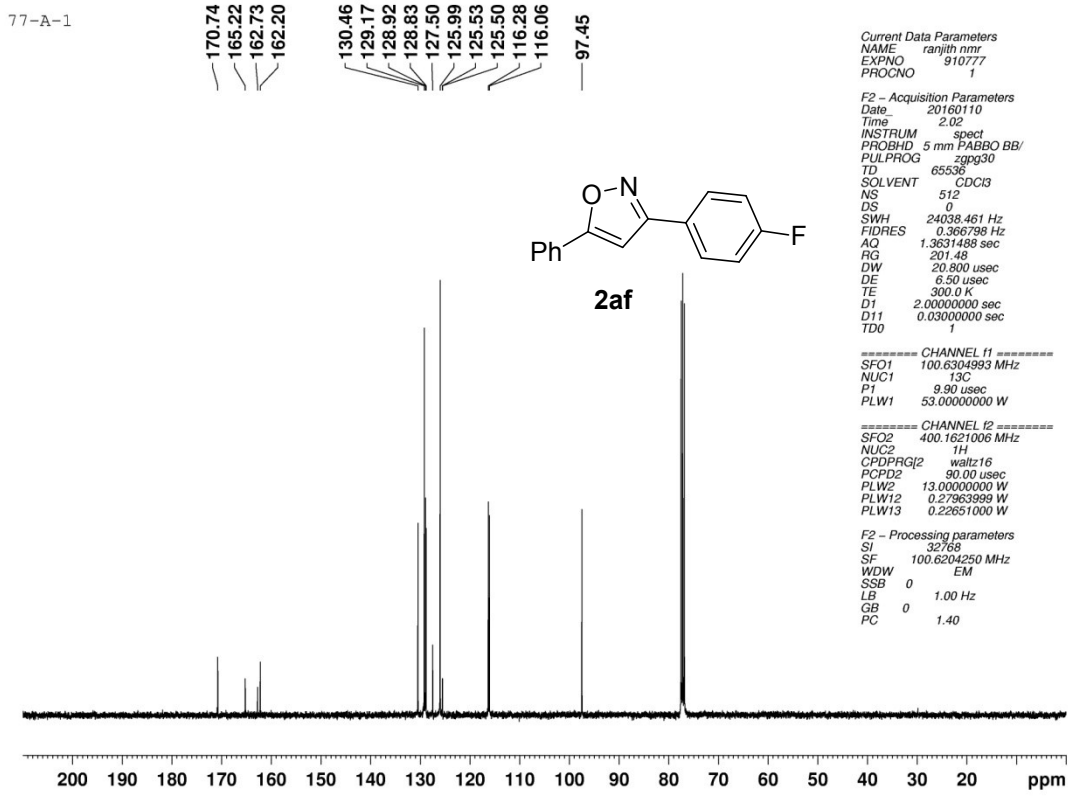
1.10
1.00

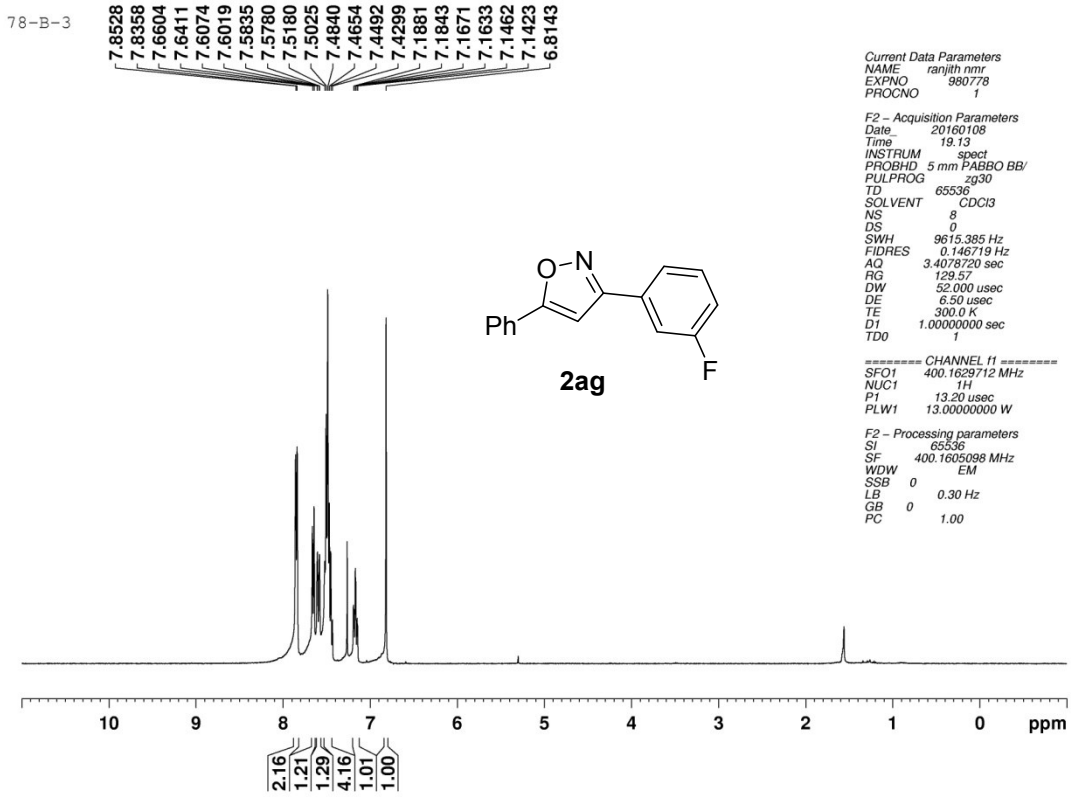

78-A-1
170.60
162.81
142.96
140.44
130.38
129.16
129.04
128.15
127.91
127.75
127.62
127.37
127.24
126.00
97.60
Current Data Parameters
NAME ranjith nmr
EXPNO 9200778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160112
Time 14.26
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 220
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204258 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
Ph
2ad
200
180
160
140
120
100
80
60
40
20
0
ppm

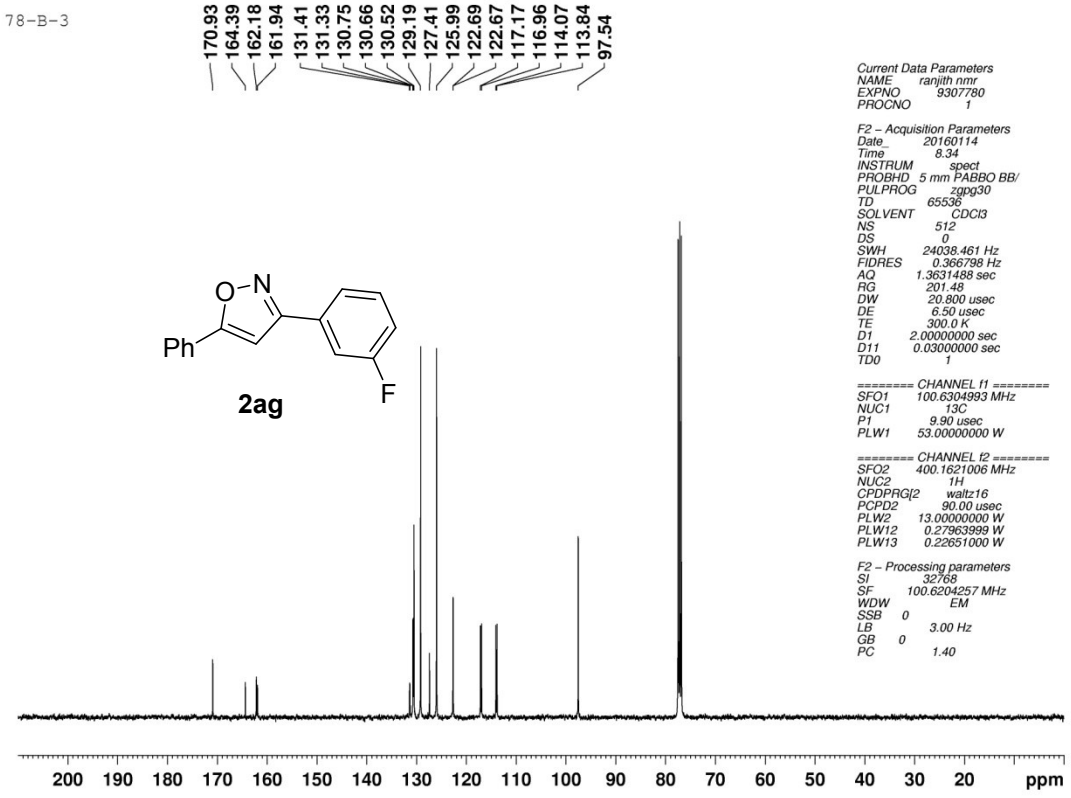

79-B-2
7.9651
7.9603
7.8415
7.8366
7.8219
7.8182
7.7237
7.7189
7.7029
7.6981
7.5653
7.5445
7.5235
7.5156
7.5099
7.5015
7.4836
7.4711
6.7943
Cl
Cl
O
N
Ph
2ae
Current Data Parameters
NAME ranjith nmr
EXPNO 93000
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160112
Time 21.25
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 129.57
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605102 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
10 9 8 7 6 5 4 3 2 1 0 ppm
1.01 2.07 1.09 1.22 3.10 1.00

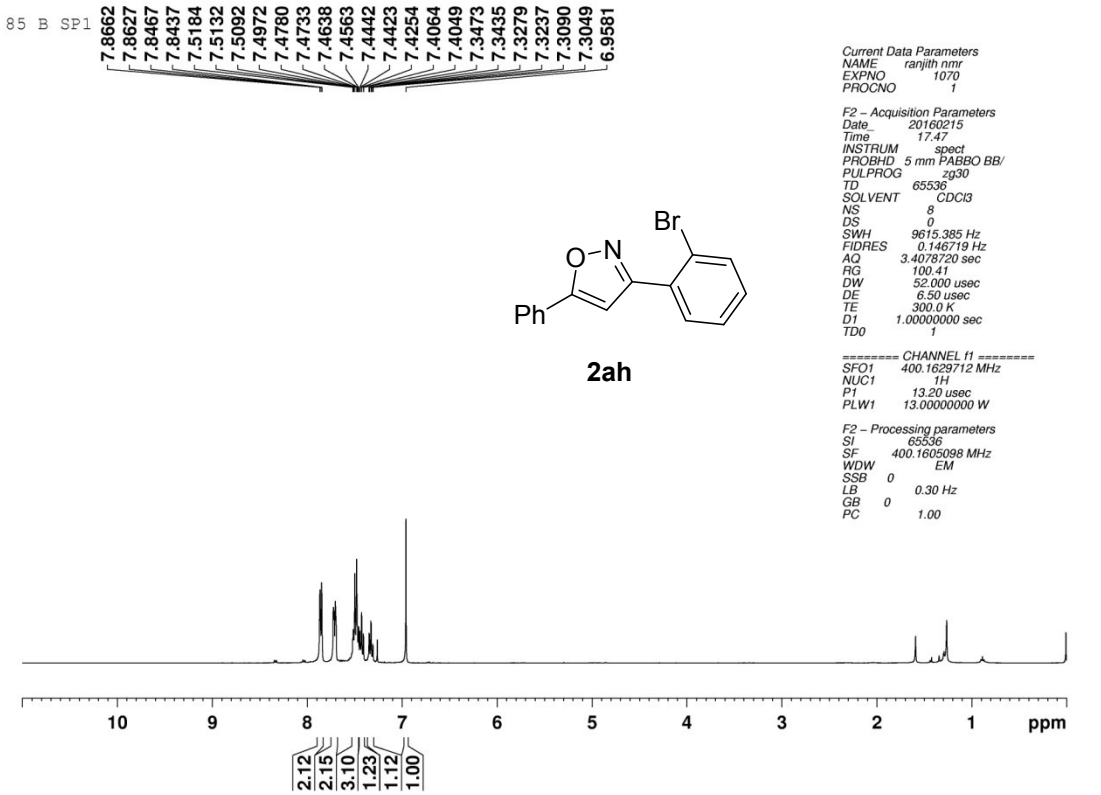

70-B-2
171.21
161.21
134.33
133.45
131.13
130.66
129.25
129.23
128.80
127.24
126.06
126.01
97.33
Cl
Cl
O
N
Ph
2ae
Current Data Parameters
NAME ranjith nmr
EXPNO 910779
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160117
Time 7.32
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204250 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

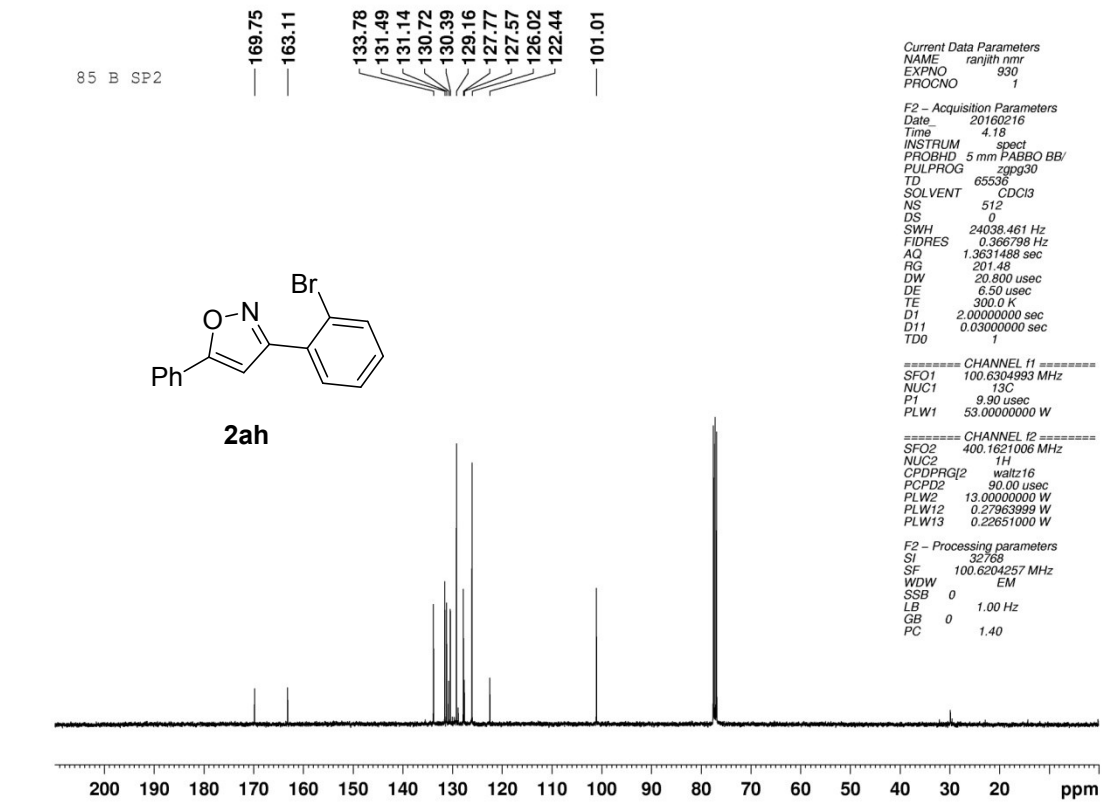

77-A-1
7.8765
7.8719
7.8631
7.8549
7.8475
7.8420
7.8289
7.8256
7.5179
7.5115
7.5077
7.4960
7.4769
7.4761
7.4585
7.1944
7.1729
7.1515
6.7908
Current Data Parameters
NAME ranjith nmr
EXPNO 920777
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160106
Time 17.02
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 129.57
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605100 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
F
2af
10
9
8
7
6
5
4
3
2
1
ppm
4.31
3.17
2.10
1.00

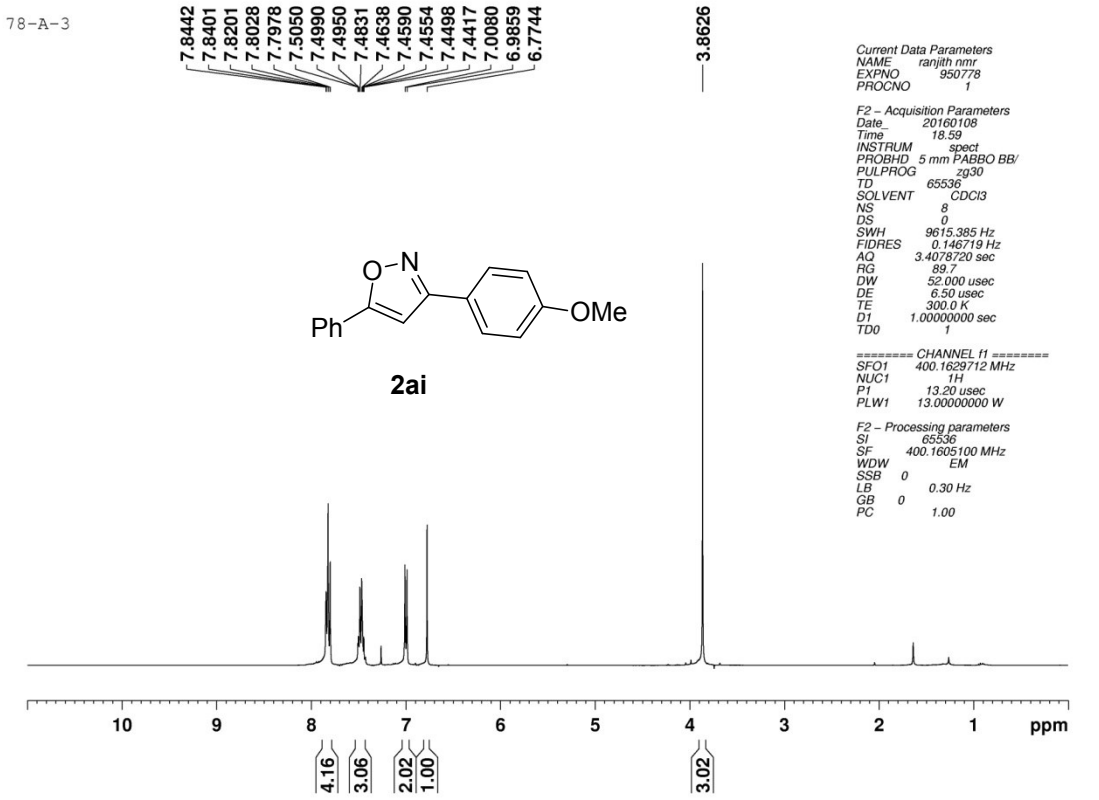

77-A-1
170.74
165.22
162.73
162.20
130.46
129.17
128.92
128.83
127.50
125.99
125.53
125.50
116.28
116.06
97.45
Current Data Parameters
NAME ranjith nmr
EXPNO 910777
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160110
Time 2.02
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204250 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
F
2af
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

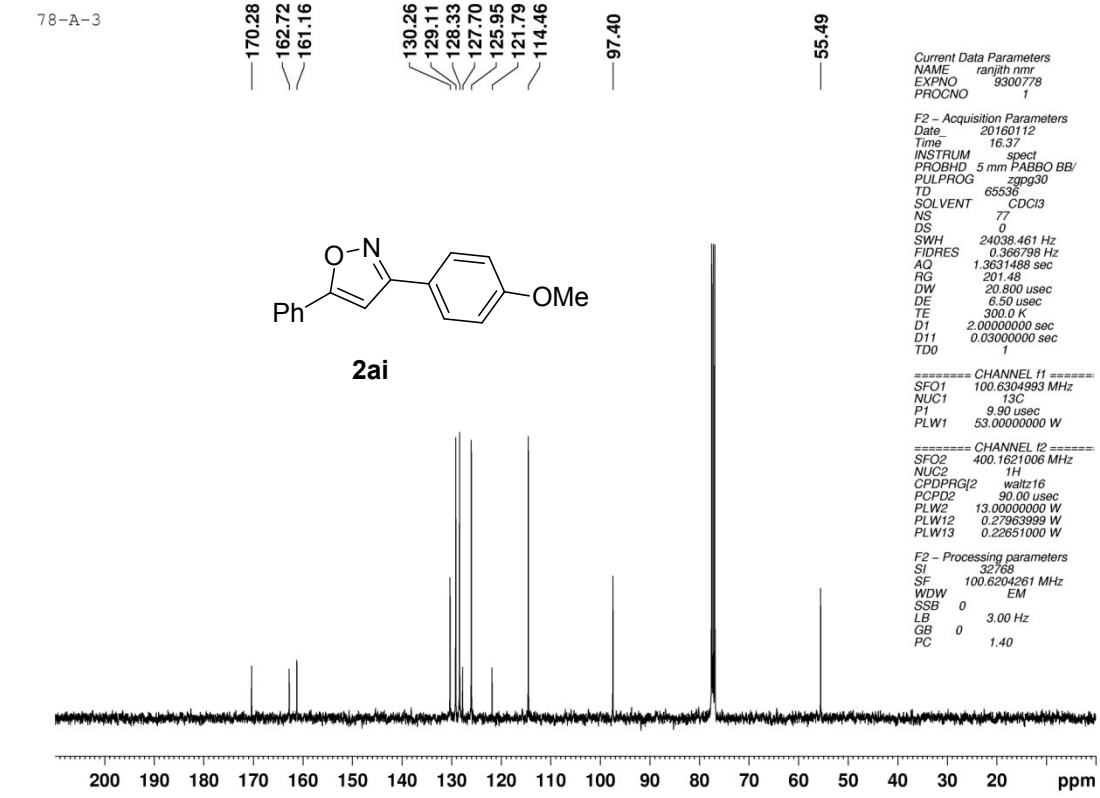

78-B-3
7.8528
7.8358
7.6604
7.6411
7.6074
7.6019
7.5835
7.5780
7.5180
7.5025
7.4840
7.4654
7.4492
7.4299
7.1881
7.1843
7.1671
7.1633
7.1462
7.1423
6.8143
Current Data Parameters
NAME ranjith nmr
EXPNO 980778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160108
Time 19.13
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 129.57
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
F
2ag
10
9
8
7
6
5
4
3
2
1
0
ppm
2.16
1.21
1.29
4.16
1.01
1.00

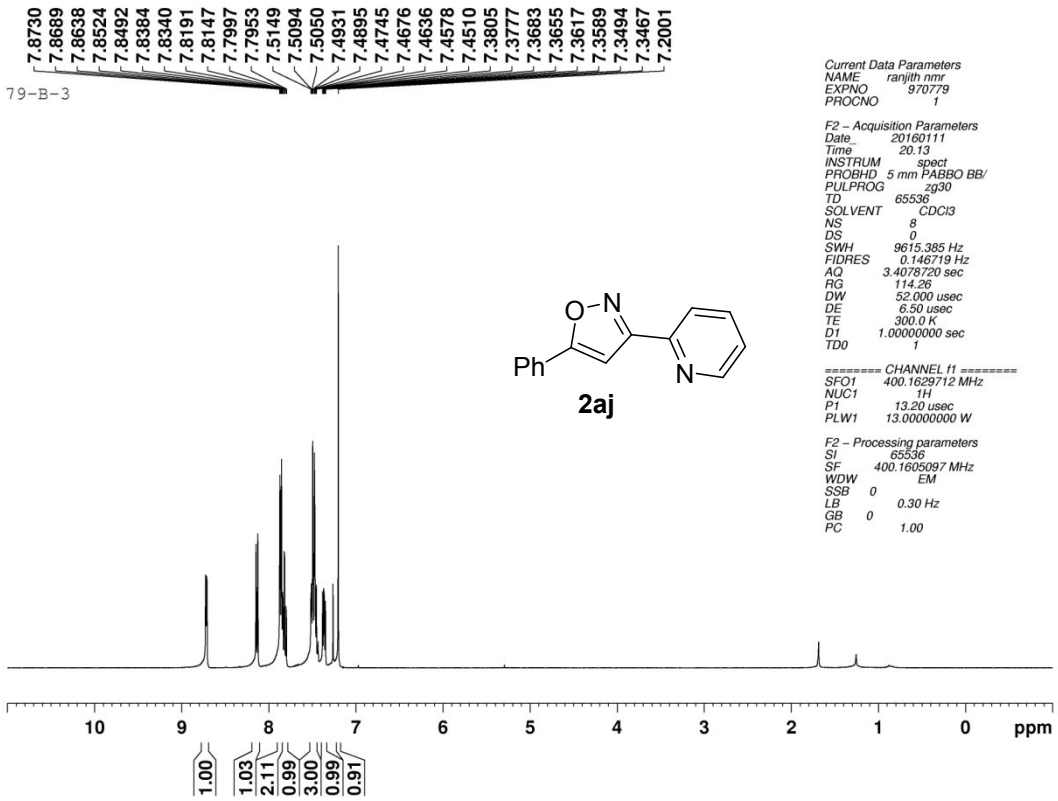

78-B-3
170.93
164.39
162.18
161.94
131.41
131.33
130.75
130.66
130.52
129.19
127.41
125.99
122.69
122.67
117.17
116.96
114.07
113.84
97.54
Current Data Parameters
NAME ranjith nmr
EXPNO 9307780
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160114
Time 8.34
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204257 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
F
2ag
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

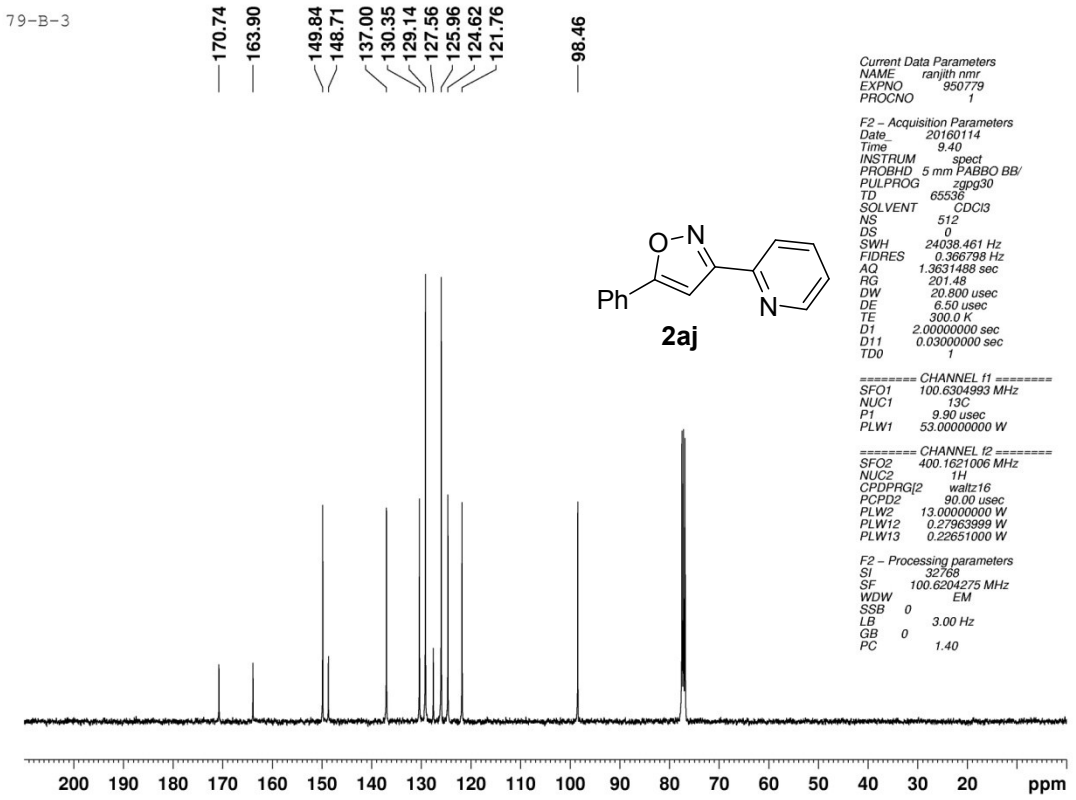

85 B SP1
7.8662
7.8627
7.8467
7.8437
7.5184
7.5132
7.5092
7.4972
7.4780
7.4733
7.4638
7.4563
7.4442
7.4423
7.4254
7.4064
7.4049
7.3473
7.3435
7.3279
7.3237
7.3090
7.3049
6.9581
Br
O
N
Ph
2ah
Current Data Parameters
NAME ranjith nmr
EXPNO 1070
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160215
Time 17.47
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 100.41
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
10
9
8
7
6
5
4
3
2
1
ppm
2.12
2.15
3.10
1.23
1.12
1.00

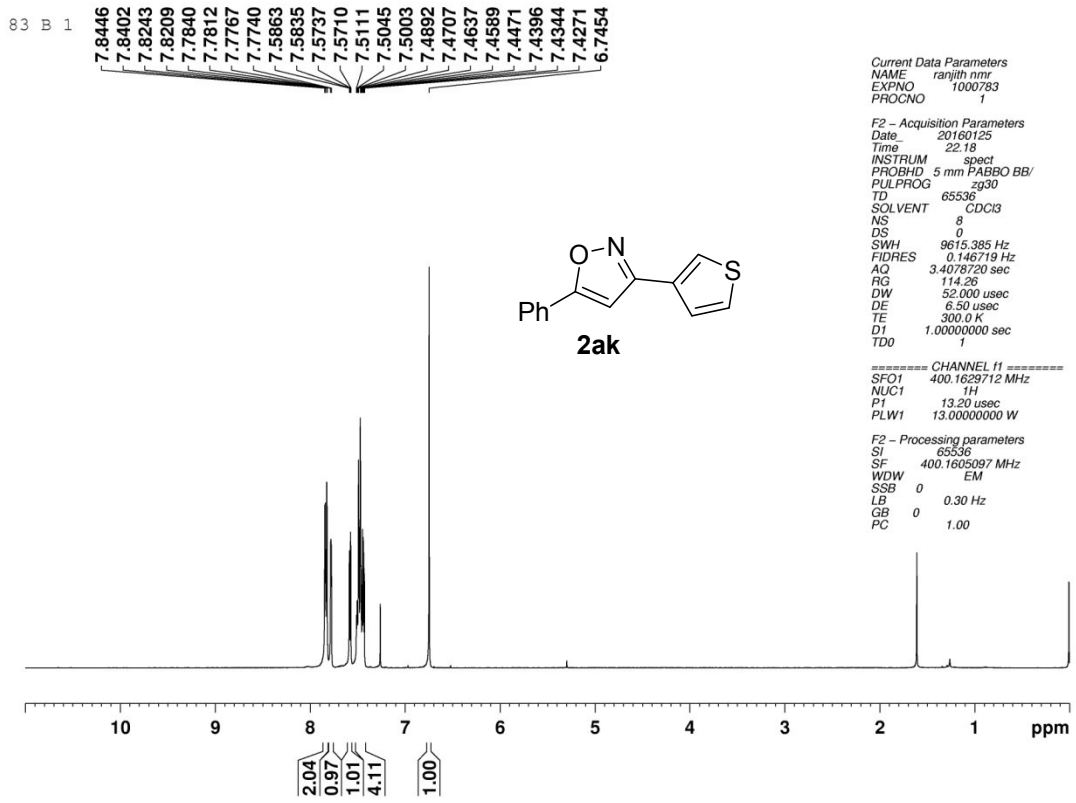

85 B SP2
169.75
163.11
133.78
131.49
131.14
130.72
130.39
129.16
127.77
127.57
126.02
122.44
101.01
Br
O
N
Ph
2ah
Current Data Parameters
NAME ranjith nmr
EXPNO 930
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160216
Time 4.18
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204257 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

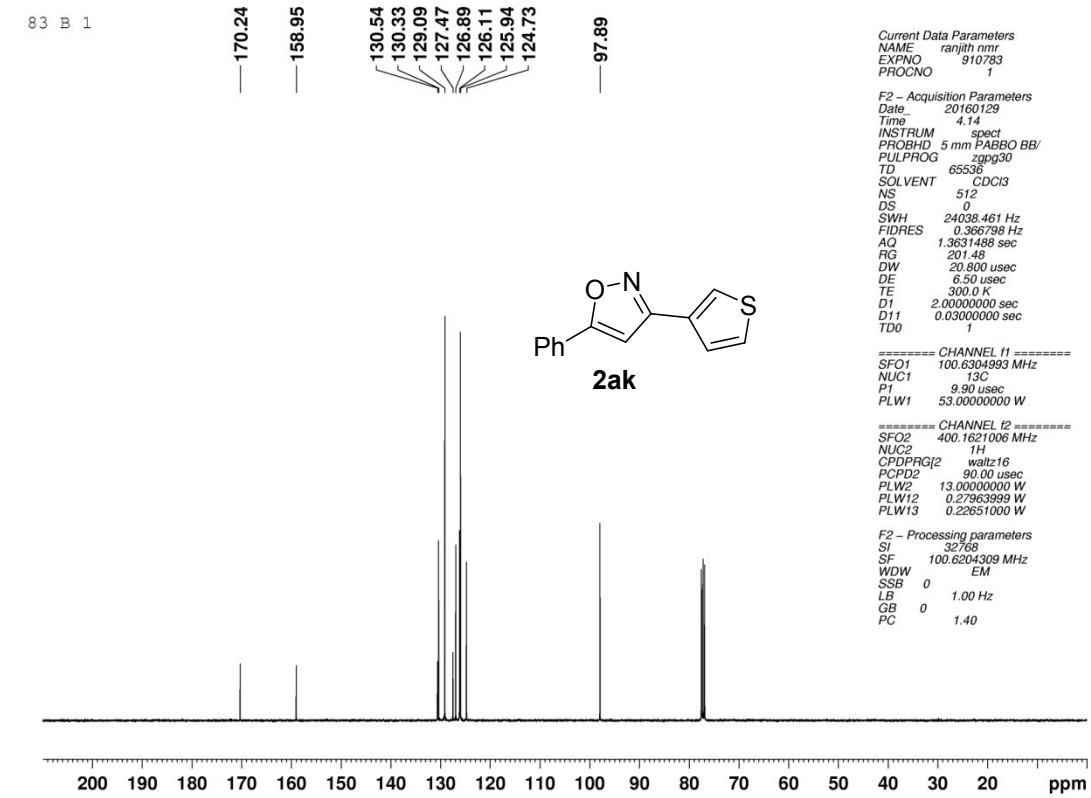

78-A-3
7.8442
7.8401
7.8201
7.8028
7.7978
7.5050
7.4990
7.4950
7.4831
7.4638
7.4590
7.4554
7.4498
7.4417
7.0080
6.9859
6.7744
3.8626
Current Data Parameters
NAME ranjith nmr
EXPNO 950778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160108
Time 18.59
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605100 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
OMe
2ai
10
9
8
7
6
5
4
3
2
1
ppm
4.16
3.06
2.02
1.00
3.02

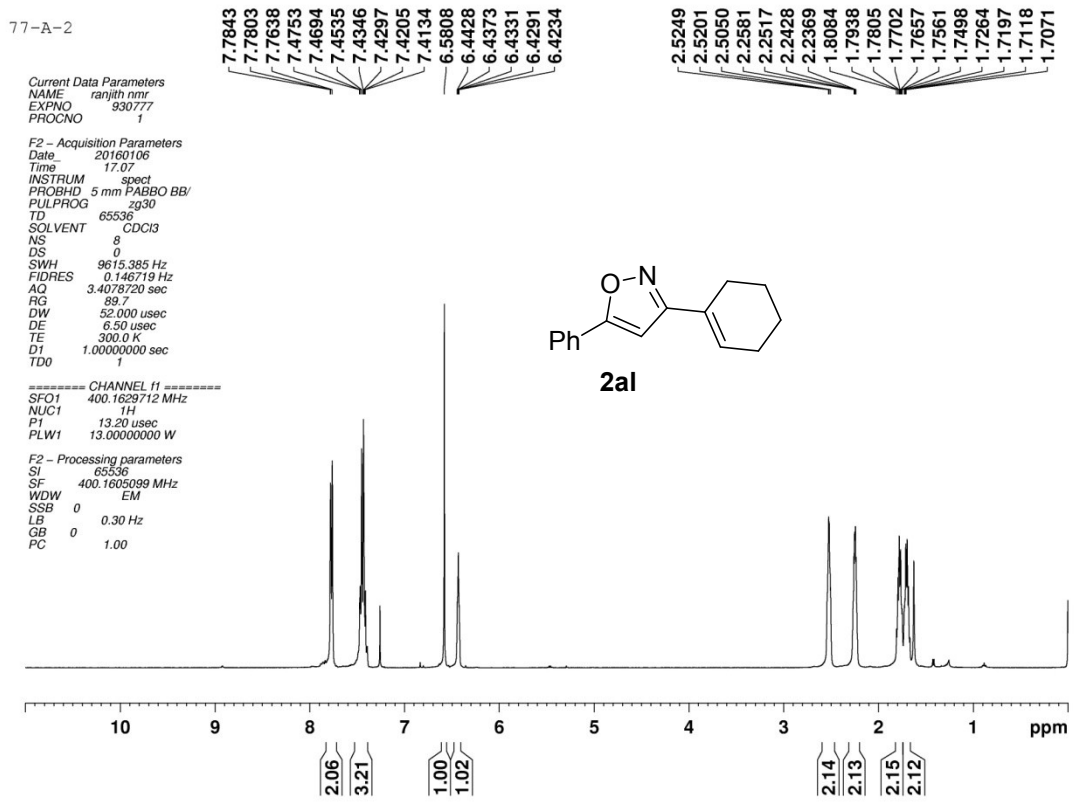

78-A-3
170.28
162.72
161.16
130.26
129.11
128.33
127.70
125.95
121.79
114.46
97.40
55.49
Current Data Parameters
NAME ranjith nmr
EXPNO 9300778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160112
Time 16.37
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 77
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204261 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
OMe
2ai
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

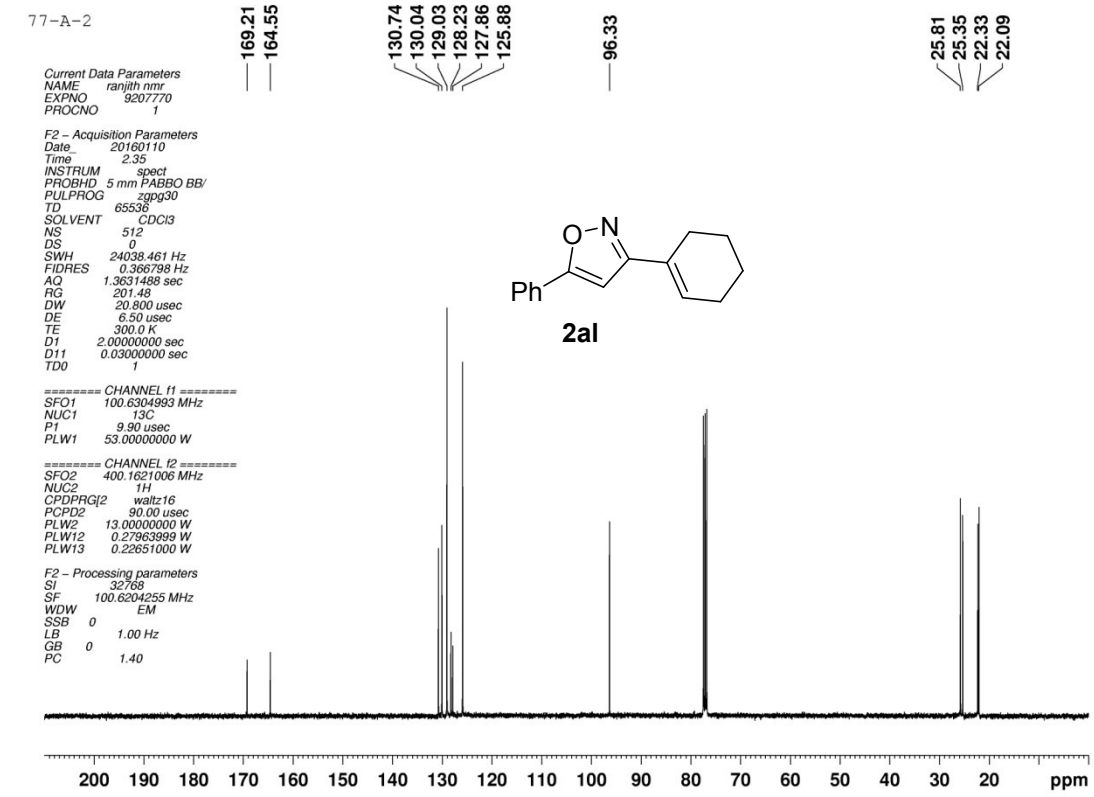

7.8730
7.8689
7.8638
7.8524
7.8492
7.8384
7.8340
7.8191
7.8147
7.7997
7.7953
7.5149
7.5094
7.5050
7.4931
7.4895
7.4745
7.4676
7.4636
7.4578
7.4510
7.3805
7.3777
7.3683
7.3655
7.3617
7.3589
7.3494
7.3467
7.2001
79-B-3
Current Data Parameters
NAME ranjith nmr
EXPNO 970779
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160111
Time 20.13
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
N
2aj
10
9
8
7
6
5
4
3
2
1
0
ppm
1.00
1.03
2.11
0.99
3.00
0.99
0.91

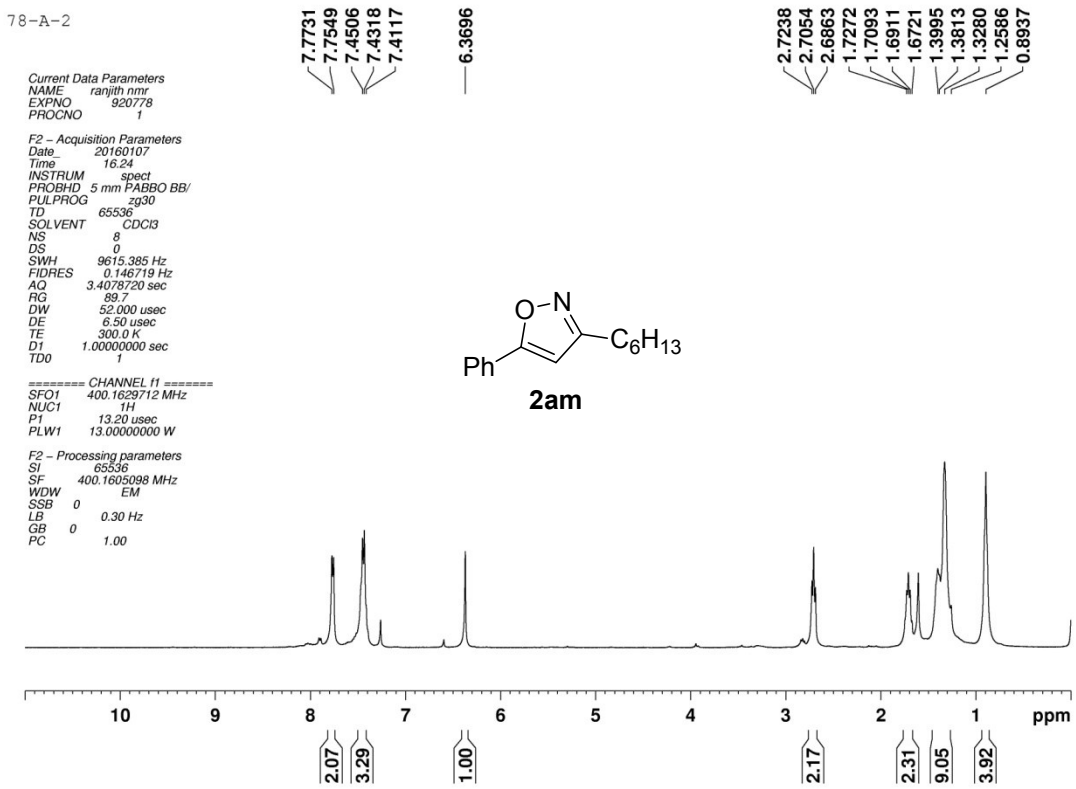

79-B-3
170.74
163.90
149.84
148.71
137.00
130.35
129.14
127.56
125.96
124.62
121.76
98.46
Current Data Parameters
NAME ranjith nmr
EXPNO 950779
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160114
Time 9.40
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204275 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
N
2aj
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

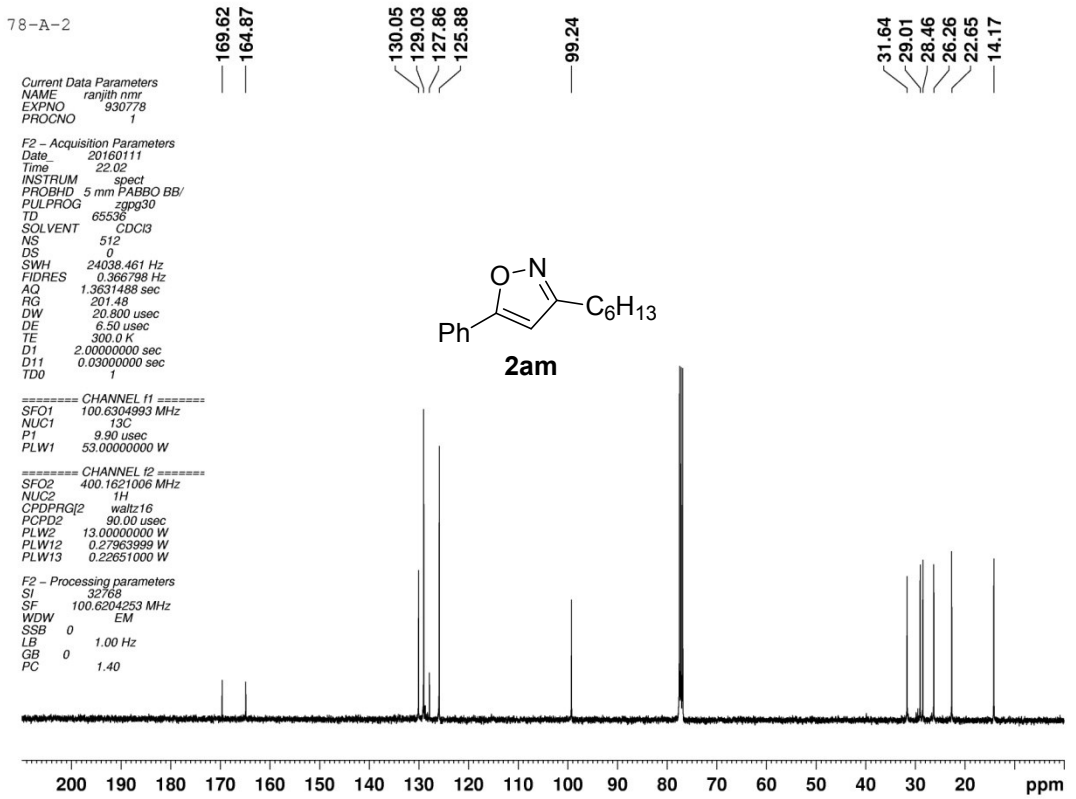

83 B 1
7.8446
7.8402
7.8243
7.8209
7.7840
7.7812
7.7767
7.7740
7.5863
7.5835
7.5737
7.5710
7.5111
7.5045
7.5003
7.4892
7.4707
7.4637
7.4589
7.4471
7.4396
7.4344
7.4271
6.7454
Current Data Parameters
NAME ranjith nmr
EXPNO 1000783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160125
Time 22.18
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
S
Ph
2ak
10
9
8
7
6
5
4
3
2
1
ppm
2.04
0.97
1.01
4.11
1.00

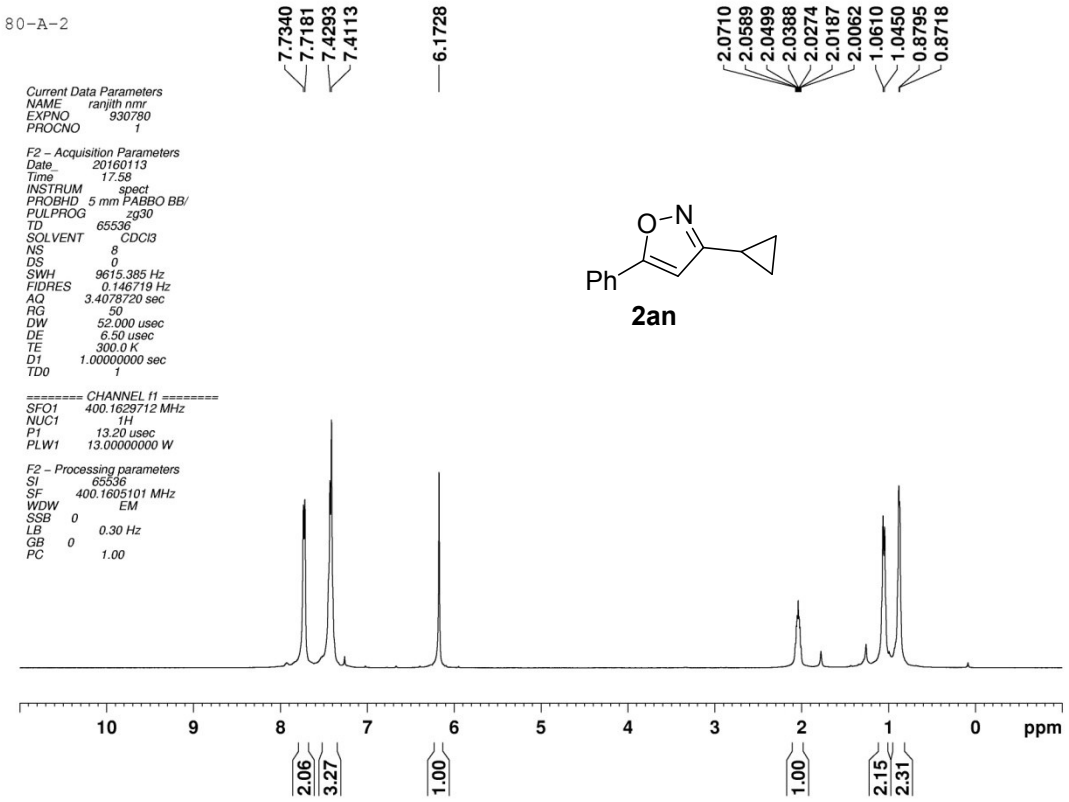

83 B 1
170.24
158.95
130.54
130.33
129.09
127.47
126.89
126.11
125.94
124.73
97.89
Current Data Parameters
NAME ranjith nmr
EXPNO 910783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160129
Time 4.14
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204309 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
S
Ph
2ak
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

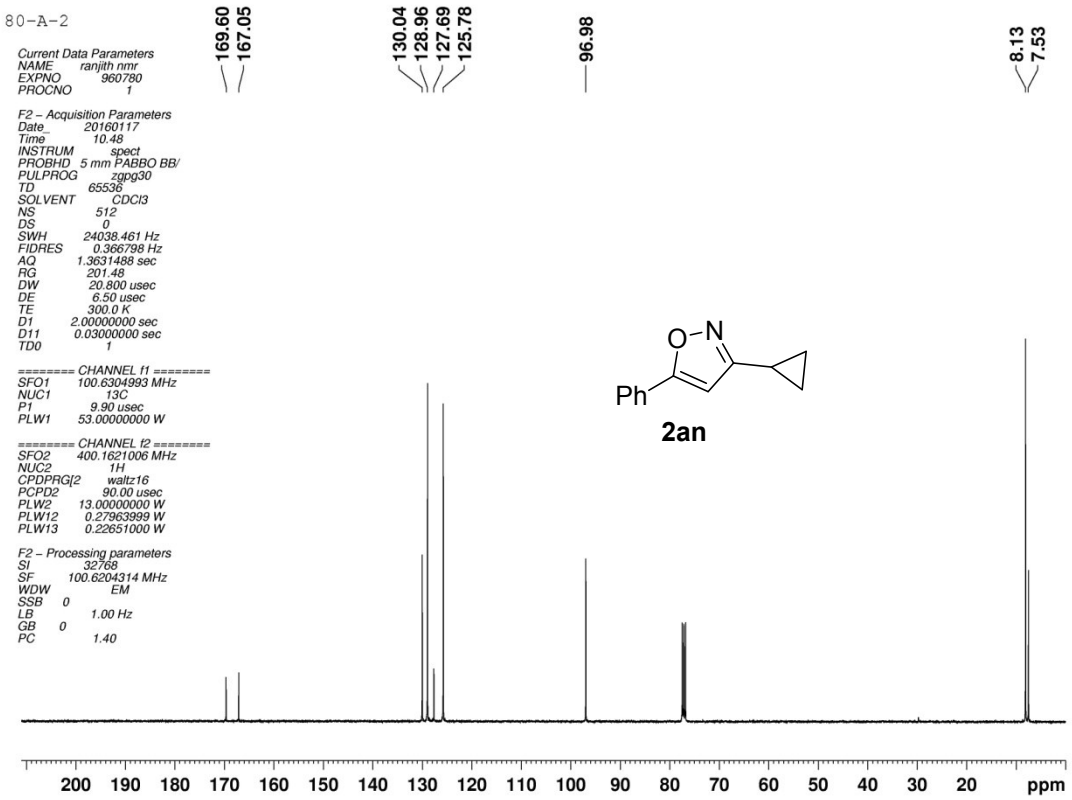

77-A-2
7.7843
7.7803
7.7638
7.4753
7.4694
7.4535
7.4346
7.4297
7.4205
7.4134
6.5808
6.4428
6.4373
6.4331
6.4291
6.4234
2.5249
2.5201
2.5050
2.2581
2.2517
2.2428
2.2369
1.8084
1.7938
1.7805
1.7702
1.7657
1.7561
1.7498
1.7264
1.7197
1.7118
1.7071
Current Data Parameters
NAME ranjith nmr
EXPNO 930777
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160106
Time 17.07
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
2aI
10
9
8
7
6
5
4
3
2
1
ppm
2.06
3.21
1.00
1.02
2.14
2.13
2.15
2.12

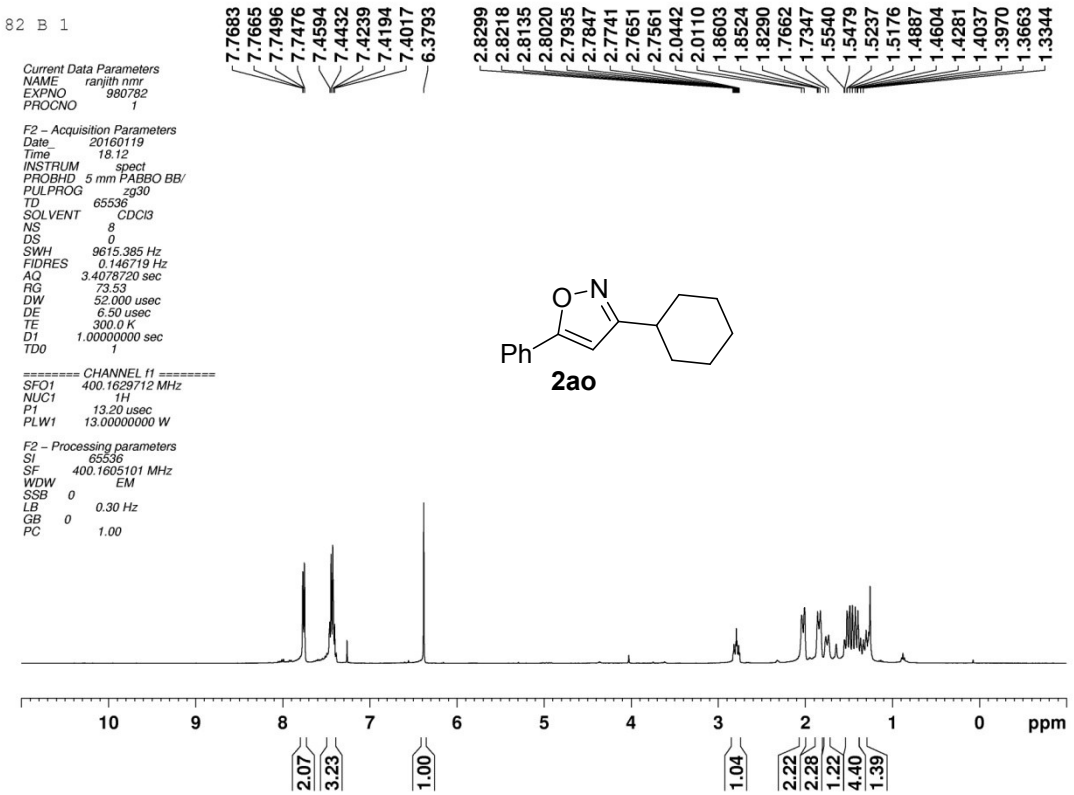

77-A-2
169.21
164.55
130.74
130.04
129.03
128.23
127.86
125.88
96.33
25.81
25.35
22.33
22.09
Current Data Parameters
NAME ranjith nmr
EXPNO 9207770
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160110
Time 2.35
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204255 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
2aI
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

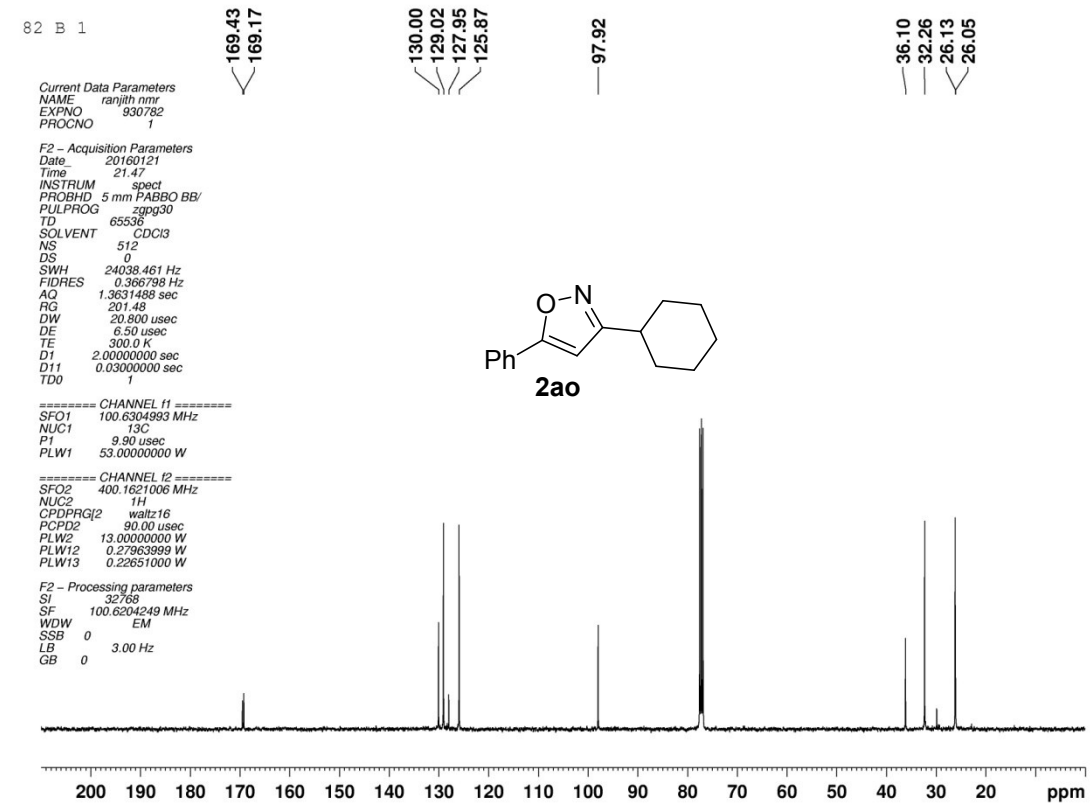

78-A-2
7.7731
7.7549
7.4506
7.4318
7.4117
6.3696
2.7238
2.7054
2.6863
1.7272
1.7093
1.6911
1.6721
1.3995
1.3813
1.3280
1.2586
0.8937
Current Data Parameters
NAME ranjith nmr
EXPNO 920778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160107
Time 16.24
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 =======
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
C6H13
2am
10
9
8
7
6
5
4
3
2
1
ppm
2.07
3.29
1.00
2.17
2.31
9.05
3.92

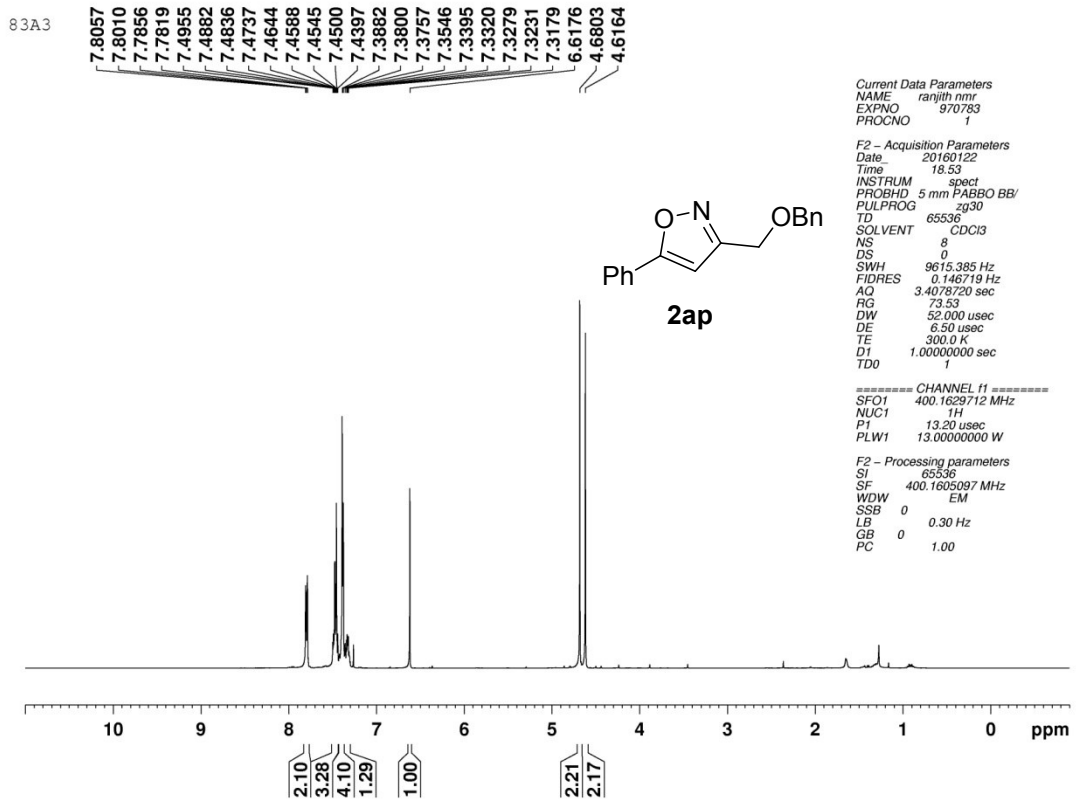

78-A-2
169.62
164.87
130.05
129.03
127.86
125.88
99.24
31.64
29.01
28.46
26.26
22.65
14.17
Current Data Parameters
NAME ranjith nmr
EXPNO 930778
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160111
Time 22.02
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 =======
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 =======
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204253 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
C6H13
2am
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

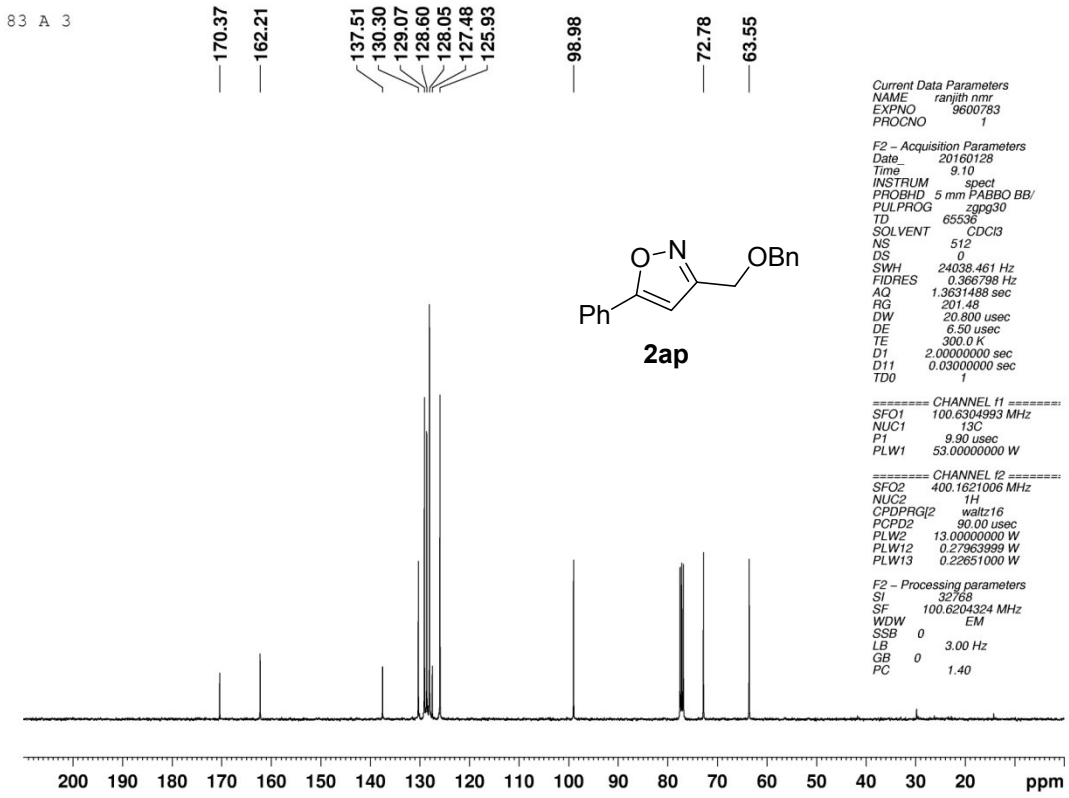

80-A-2
7.7340
7.7181
7.4293
7.4113
6.1728
2.0710
2.0589
2.0499
2.0388
2.0274
2.0187
2.0062
1.0610
1.0450
0.8795
0.8718
Current Data Parameters
NAME ranjith nmr
EXPNO 930780
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160113
Time 17.58
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 50
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605101 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
2an
10
9
8
7
6
5
4
3
2
1
0
ppm
2.06
3.27
1.00
1.00
2.15
2.31


80-A-2
169.60
167.05
130.04
128.96
127.69
125.78
96.98
8.13
7.53
Current Data Parameters
NAME ranjith nmr
EXPNO 960780
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160117
Time 10.48
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204314 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
2an
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

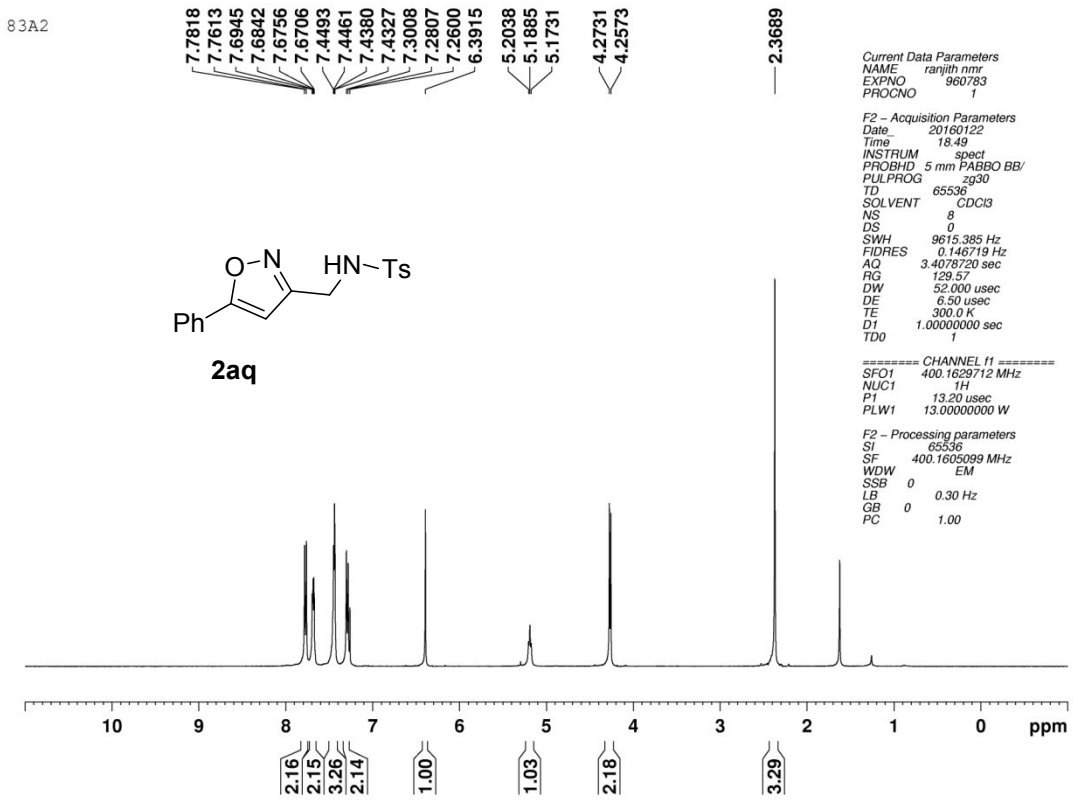

82 B 1
7.7683
7.7665
7.7496
7.7476
7.4594
7.4432
7.4239
7.4194
7.4017
6.3793
2.8299
2.8218
2.8135
2.8020
2.7935
2.7847
2.7741
2.7651
2.7561
2.0442
2.0110
1.8603
1.8524
1.8290
1.7662
1.7347
1.5540
1.5479
1.5237
1.5176
1.4887
1.4604
1.4281
1.4037
1.3970
1.3663
1.3344
Current Data Parameters
NAME ranjith nmr
EXPNO 980782
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160119
Time 18.12
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 73.53
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605101 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
2ao
10
9
8
7
6
5
4
3
2
1
0
ppm
2.07
3.23
1.00
1.04
2.22
2.28
1.22
4.40
1.39

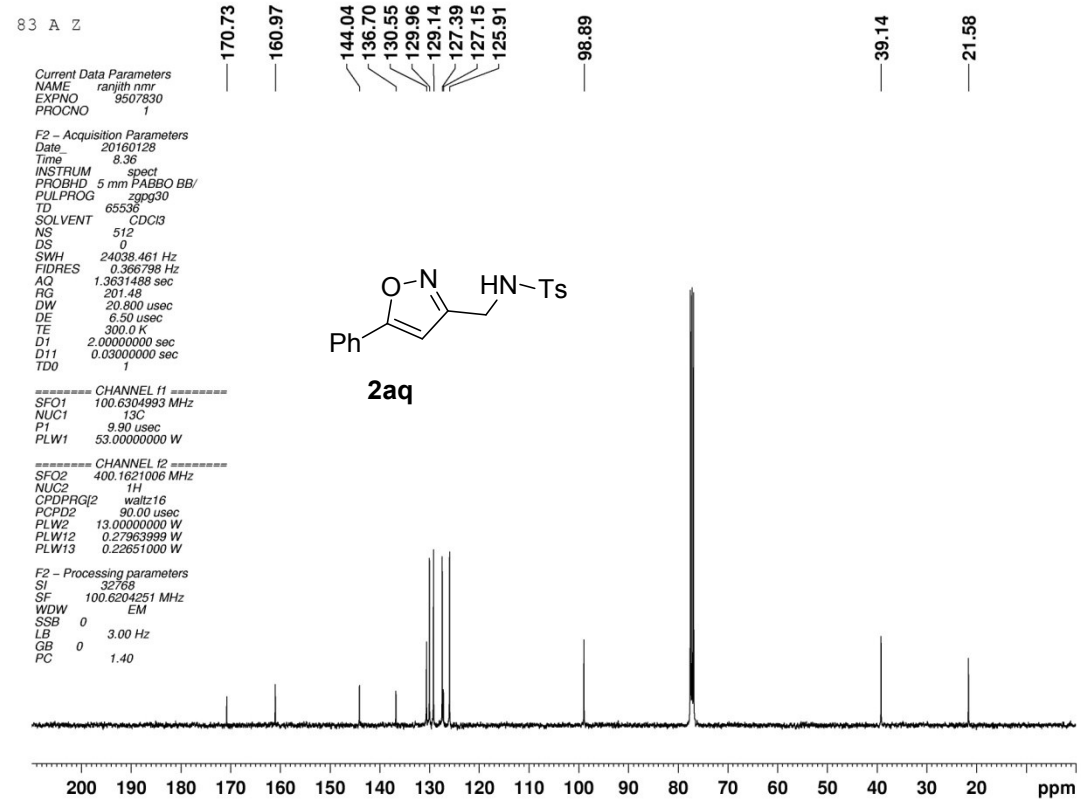

82 B 1
169.43
169.17
130.00
129.02
127.95
125.87
97.92
36.10
32.26
26.13
26.05
Current Data Parameters
NAME ranjith nmr
EXPNO 930782
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160121
Time 21.47
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204249 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
O
N
Ph
2ao
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

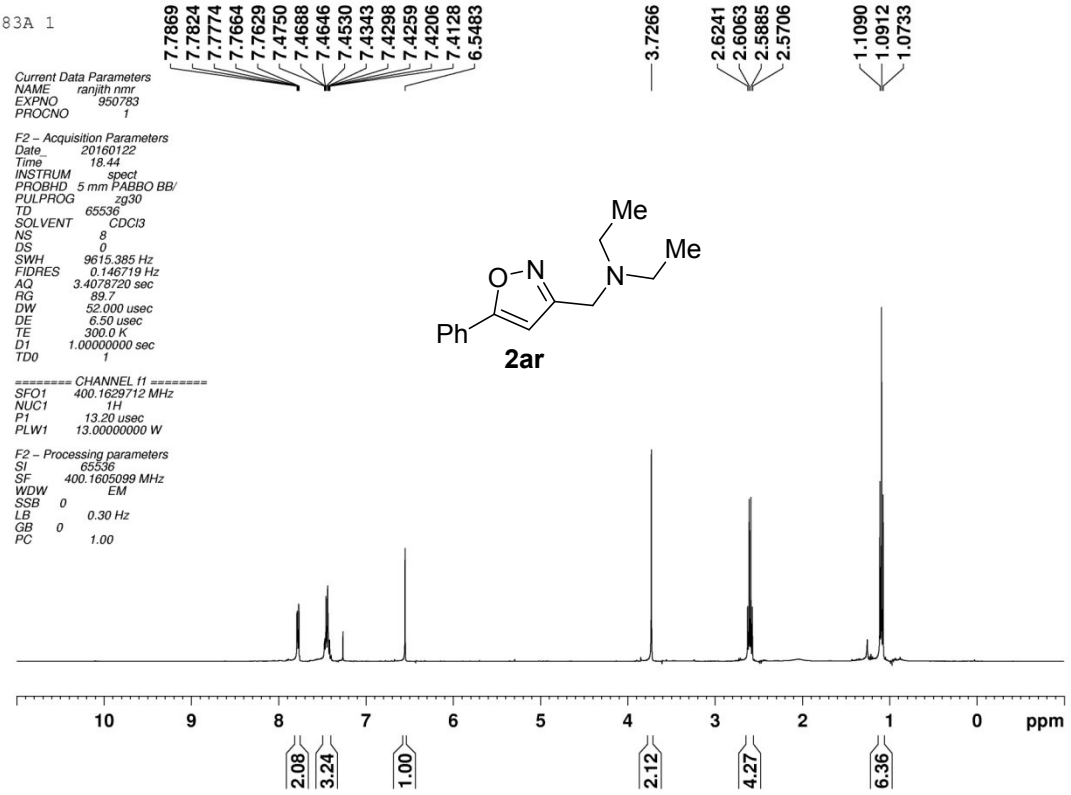

83A3
7.8057
7.8010
7.7856
7.7819
7.4955
7.4882
7.4836
7.4737
7.4644
7.4588
7.4545
7.4500
7.4397
7.3882
7.3800
7.3757
7.3546
7.3395
7.3320
7.3279
7.3231
7.3179
6.6176
4.6803
4.6164
Current Data Parameters
NAME ranjith nmr
EXPNO 970783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160122
Time 18.53
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 73.53
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
OBn
Ph
2ap
10
9
8
7
6
5
4
3
2
1
0
ppm
2.10
3.28
4.10
1.29
1.00
2.21
2.17

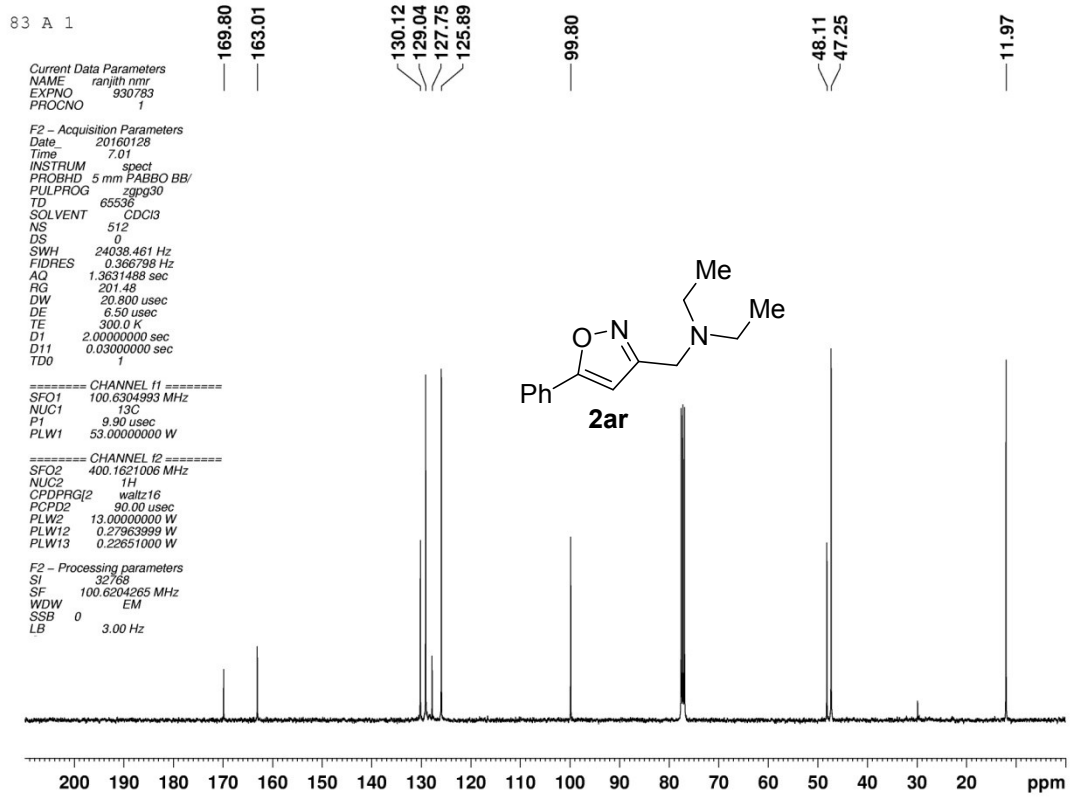

83 A 3
170.37
162.21
137.51
130.30
129.07
128.60
128.05
127.48
125.93
98.98
72.78
63.55
Current Data Parameters
NAME ranjith nmr
EXPNO 9600783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160128
Time 9.10
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204324 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
OBn
Ph
2ap
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

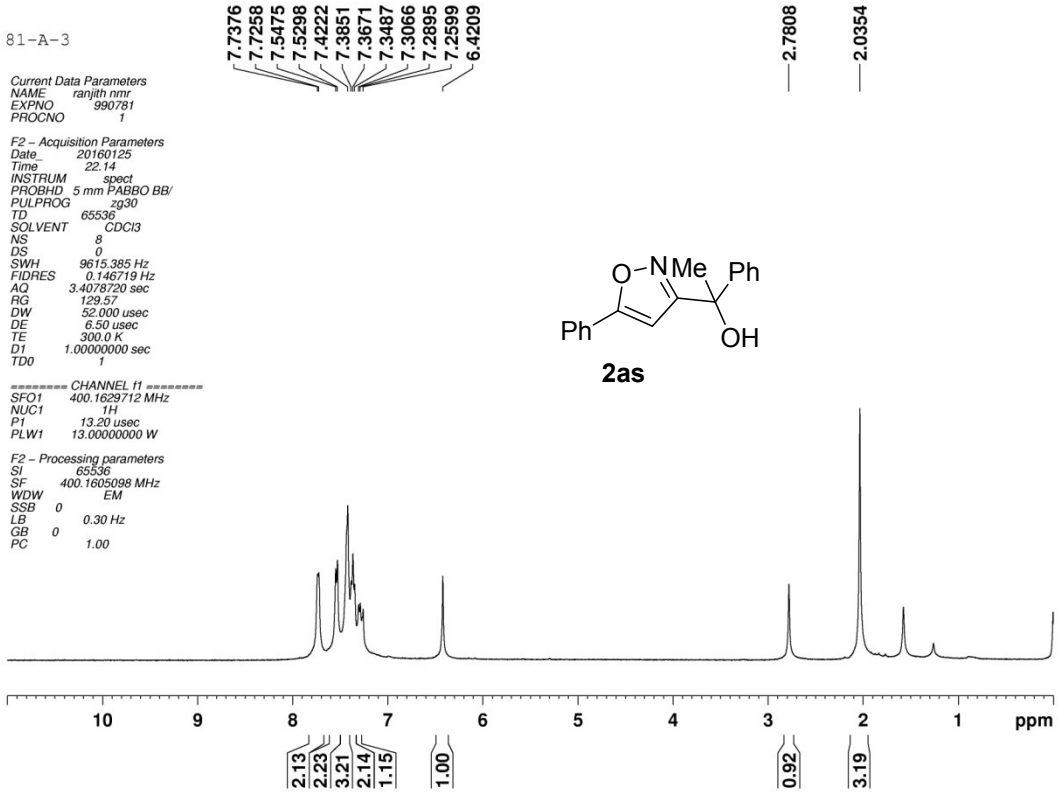
v

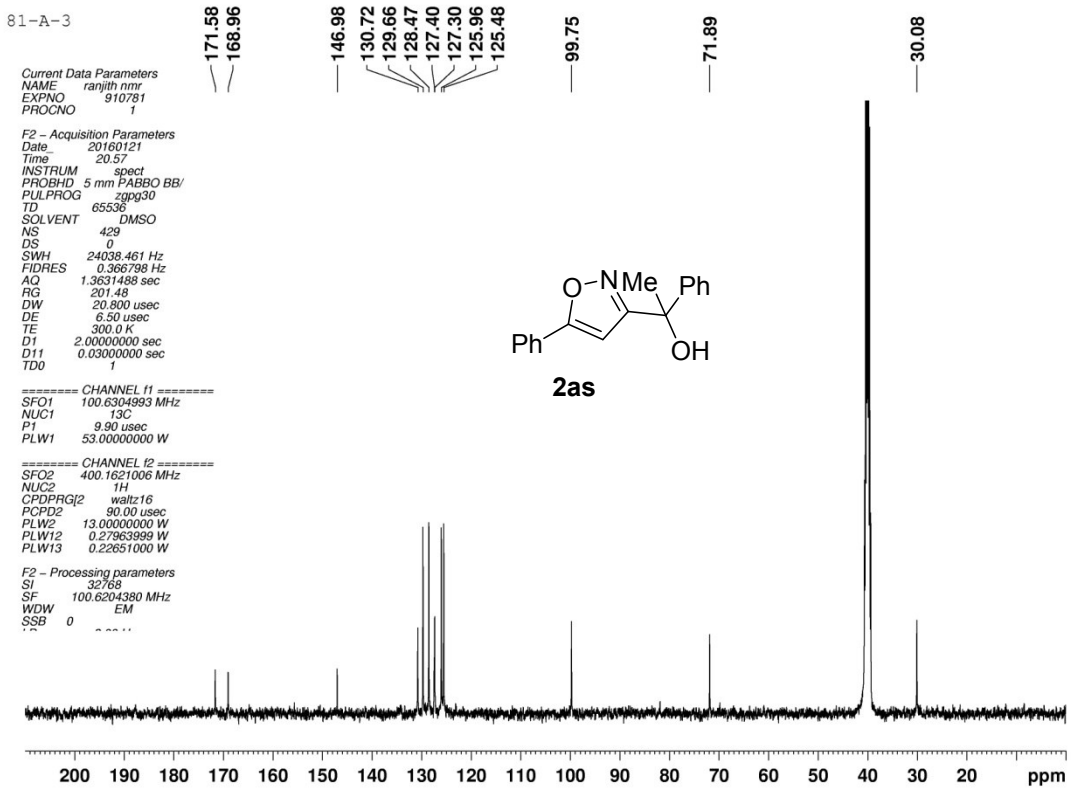

83A2
7.7818
7.7613
7.6945
7.6842
7.6756
7.6706
7.4493
7.4461
7.4380
7.4327
7.3008
7.2807
7.2600
6.3915
5.2038
5.1885
5.1731
4.2731
4.2573
2.3689
Current Data Parameters
NAME ranjith nmr
EXPNO 960783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160122
Time 18.49
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 129.57
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
HN
Ts
Ph
2aq
10
9
8
7
6
5
4
3
2
1
0
ppm
2.16
2.15
3.26
2.14
1.00
1.03
2.18
3.29

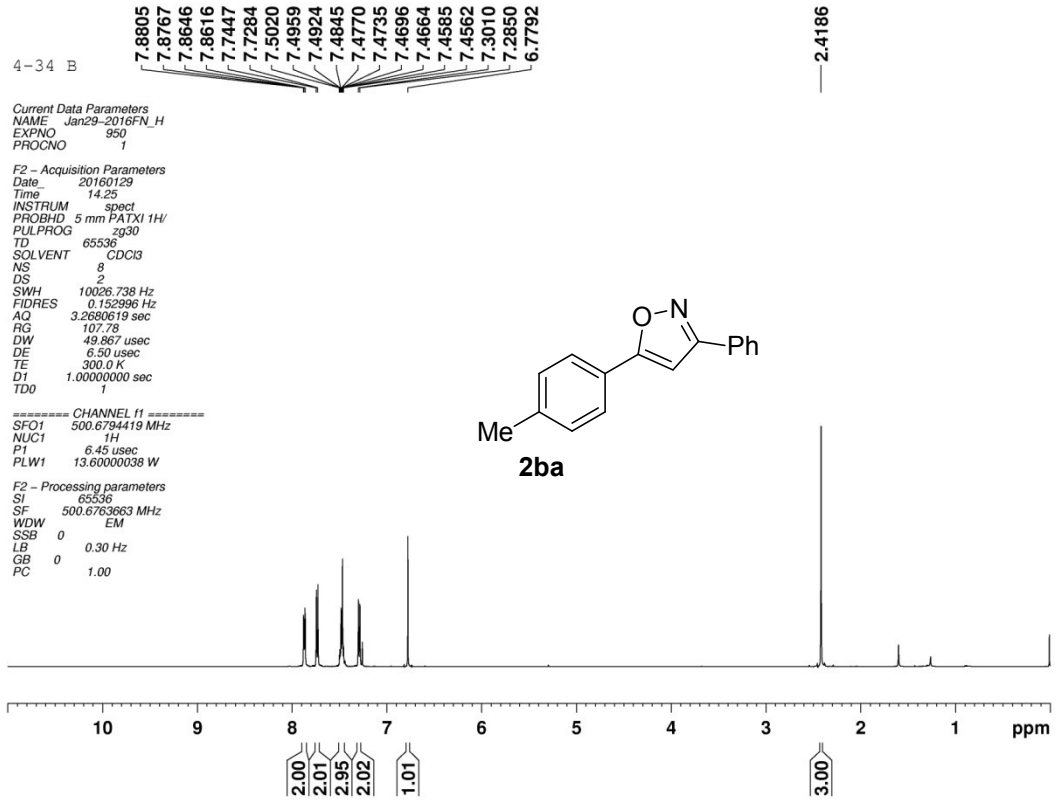

83 A Z
170.73
160.97
144.04
136.70
130.55
129.96
129.14
127.39
127.15
125.91
98.89
39.14
21.58
Current Data Parameters
NAME ranjith nmr
EXPNO 9507830
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160128
Time 8.36
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204251 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
HN
Ts
Ph
2aq
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

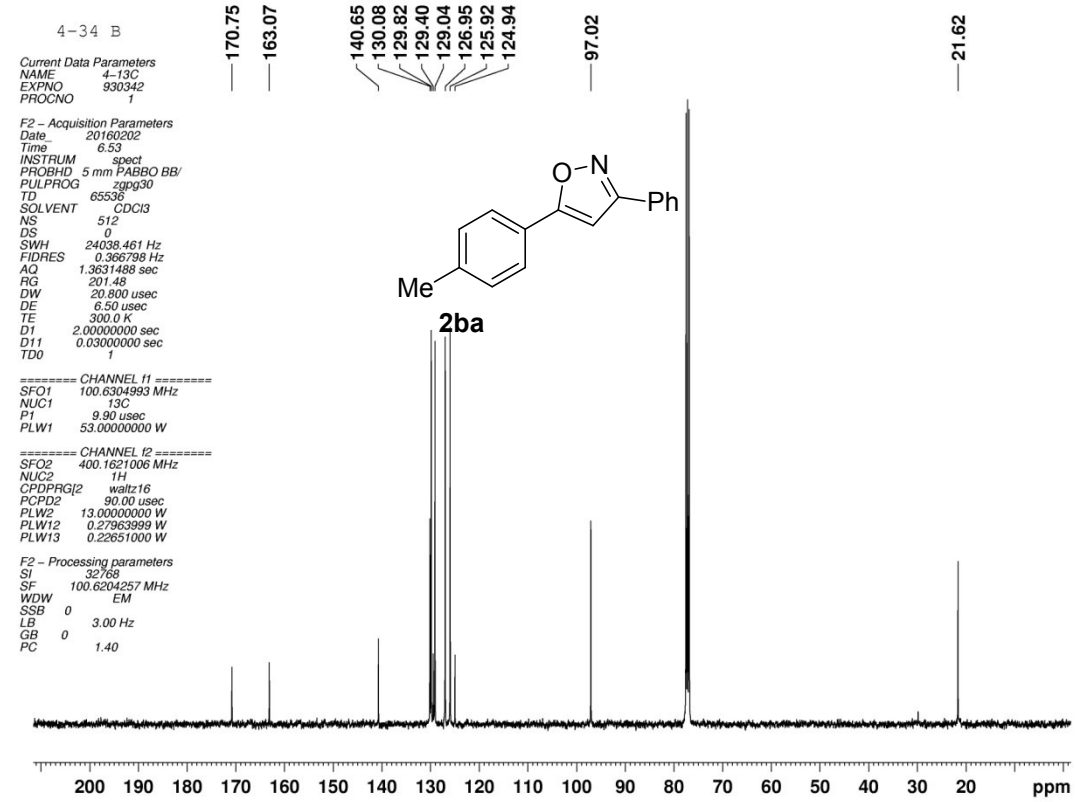

83A 1
7.7869
7.7824
7.7774
7.7664
7.7629
7.4750
7.4688
7.4646
7.4530
7.4343
7.4298
7.4259
7.4206
7.4128
6.5483
3.7266
2.6241
2.6063
2.5885
2.5706
1.1090
1.0912
1.0733
Current Data Parameters
NAME ranjith nmr
EXPNO 950783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160122
Time 18.44
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
Me
Me
N
O
N
Ph
2ar
10
9
8
7
6
5
4
3
2
1
0
ppm
2.08
3.24
1.00
2.12
4.27
6.36

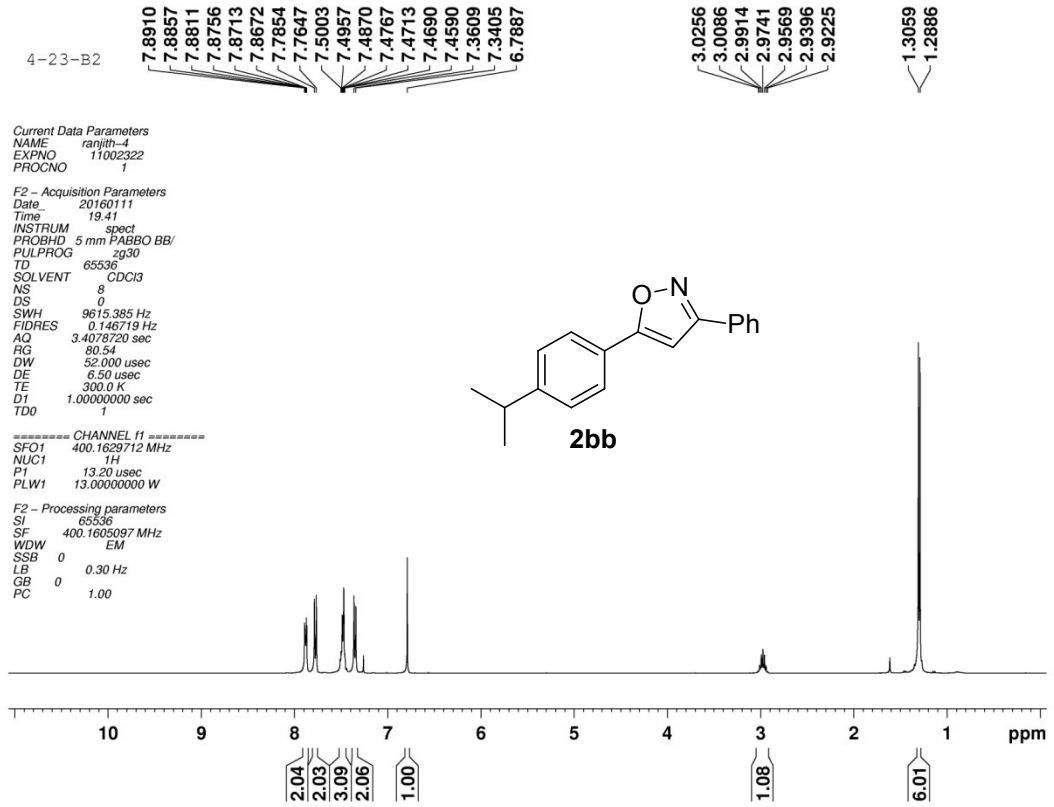

83 A 1
169.80
163.01
130.12
129.04
127.75
125.89
99.80
48.11
47.25
11.97
Current Data Parameters
NAME ranjith nmr
EXPNO 930783
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160128
Time 7.01
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204265 MHz
WDW EM
SSB 0
LB 3.00 Hz
Me
Me
N
O
N
Ph
2ar
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

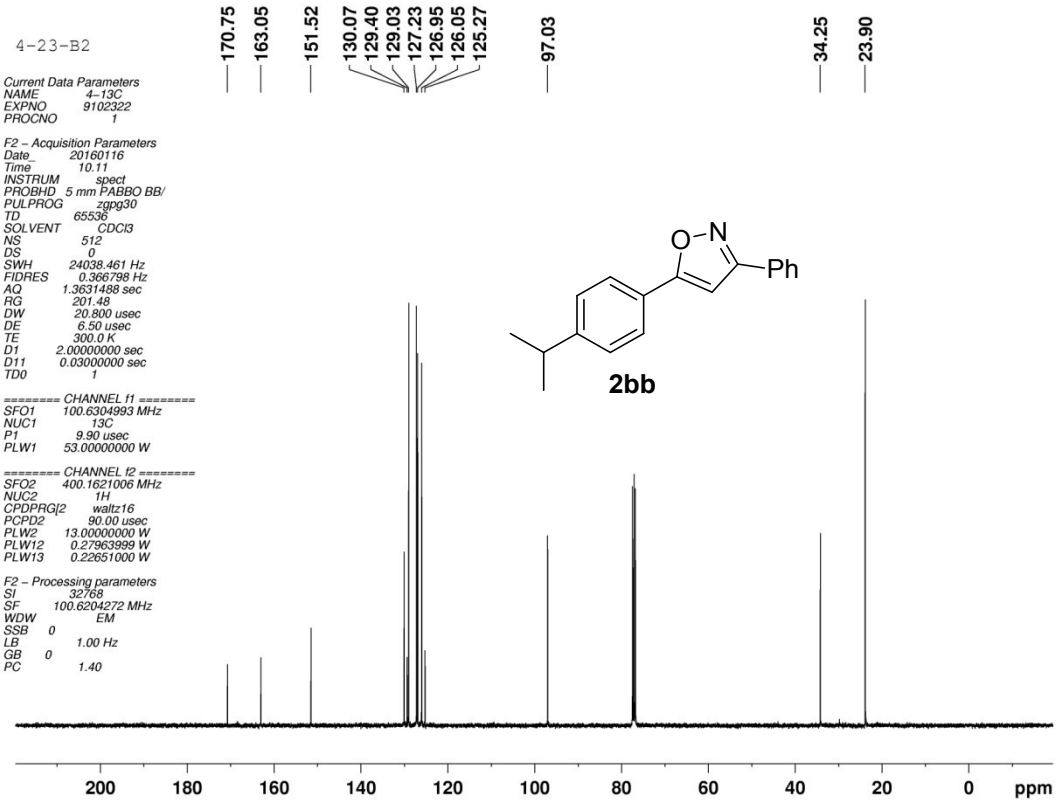

81-A-3
7.7376
7.7258
7.5475
7.5298
7.4222
7.3851
7.3671
7.3487
7.3066
7.2895
7.2599
6.4209
2.7808
2.0354
Current Data Parameters
NAME ranjith nmr
EXPNO 990781
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160125
Time 22.14
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 129.57
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Me
Ph
Ph
OH
2as
10
9
8
7
6
5
4
3
2
1
ppm
2.13
2.23
3.21
2.14
1.15
1.00
0.92
3.19

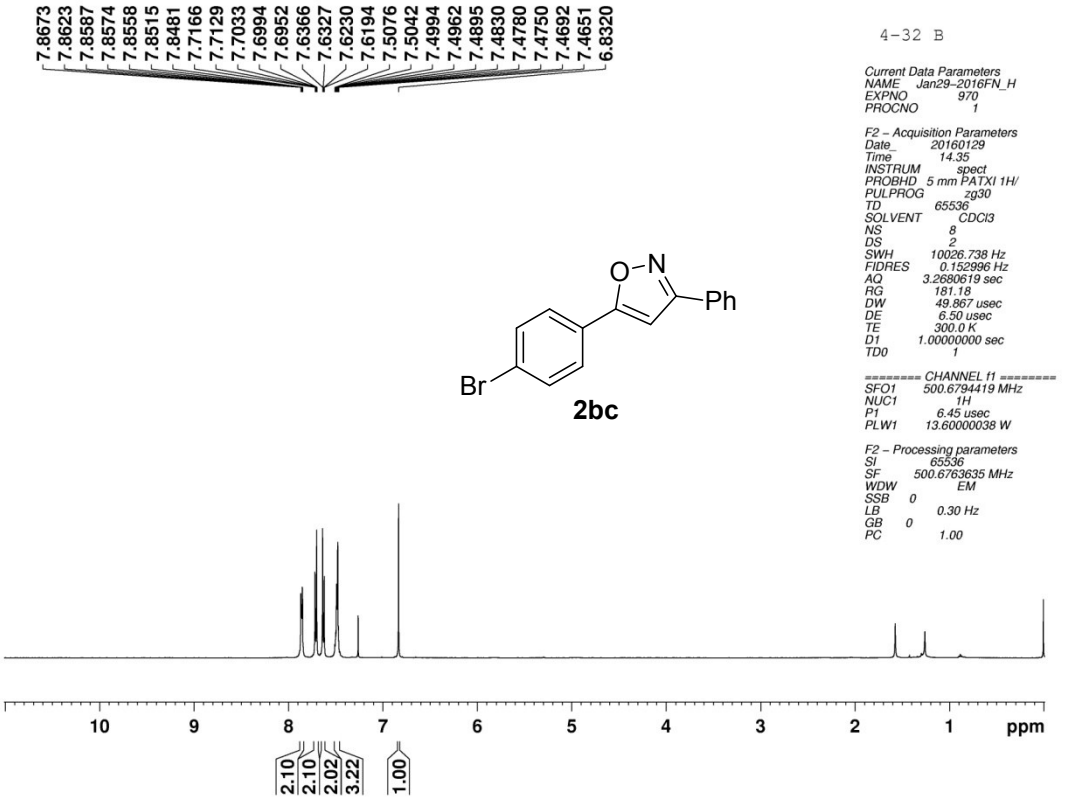

81-A-3
171.58
168.96
146.98
130.72
129.66
128.47
127.40
127.30
125.96
125.48
99.75
71.89
30.08
Current Data Parameters
NAME ranjith nmr
EXPNO 910781
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160121
Time 20.57
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 429
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204380 MHz
WDW EM
SSB 0
O
N
Me
Ph
Ph
OH
2as
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

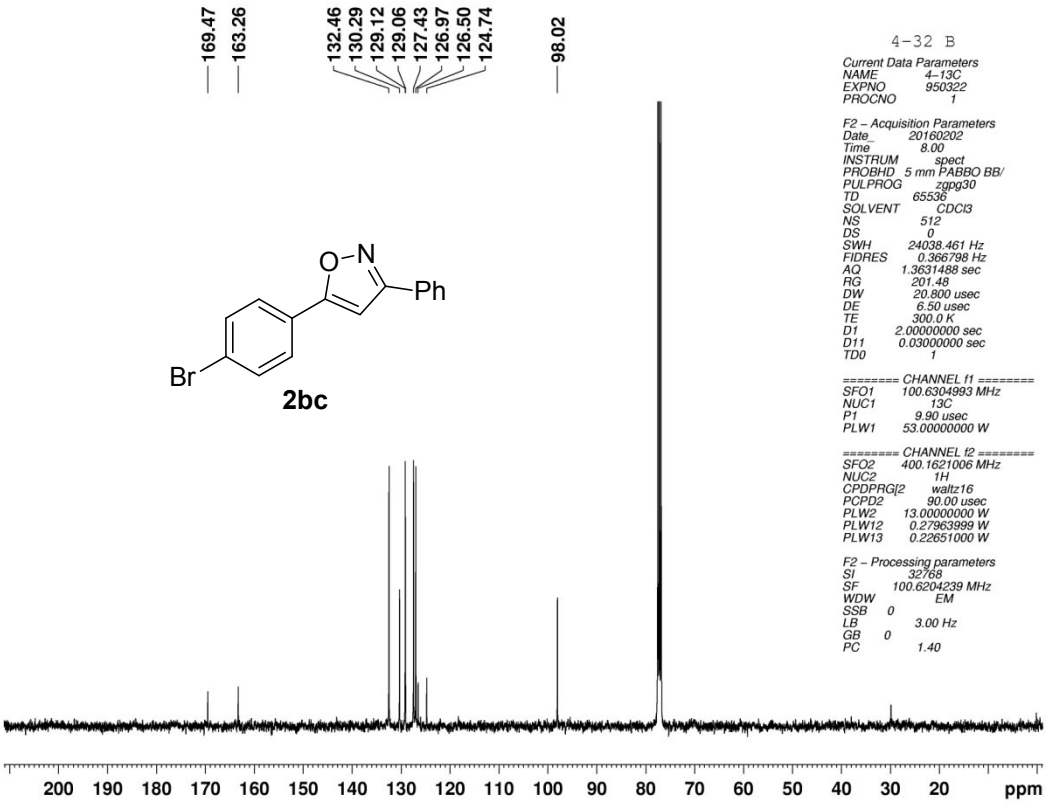

7.8805
7.8767
7.8646
7.8616
7.7447
7.7284
7.5020
7.4959
7.4924
7.4845
7.4770
7.4735
7.4696
7.4664
7.4585
7.4562
7.3010
7.2850
6.7792
2.4186
4-34 B
Current Data Parameters
NAME Jan29-2016FN_H
EXPNO 950
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160129
Time 14.25
INSTRUM spect
PROBHD 5 mm PATXI 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 2
SWH 10026.738 Hz
FIDRES 0.152996 Hz
AQ 3.2680619 sec
RG 107.78
DW 49.867 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 500.6794419 MHz
NUC1 1H
P1 6.45 usec
PLW1 13.60000038 W
F2 - Processing parameters
SI 65536
SF 500.6763663 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
Me
2ba
10
9
8
7
6
5
4
3
2
1
ppm
2.00
2.01
2.95
2.02
1.01
3.00

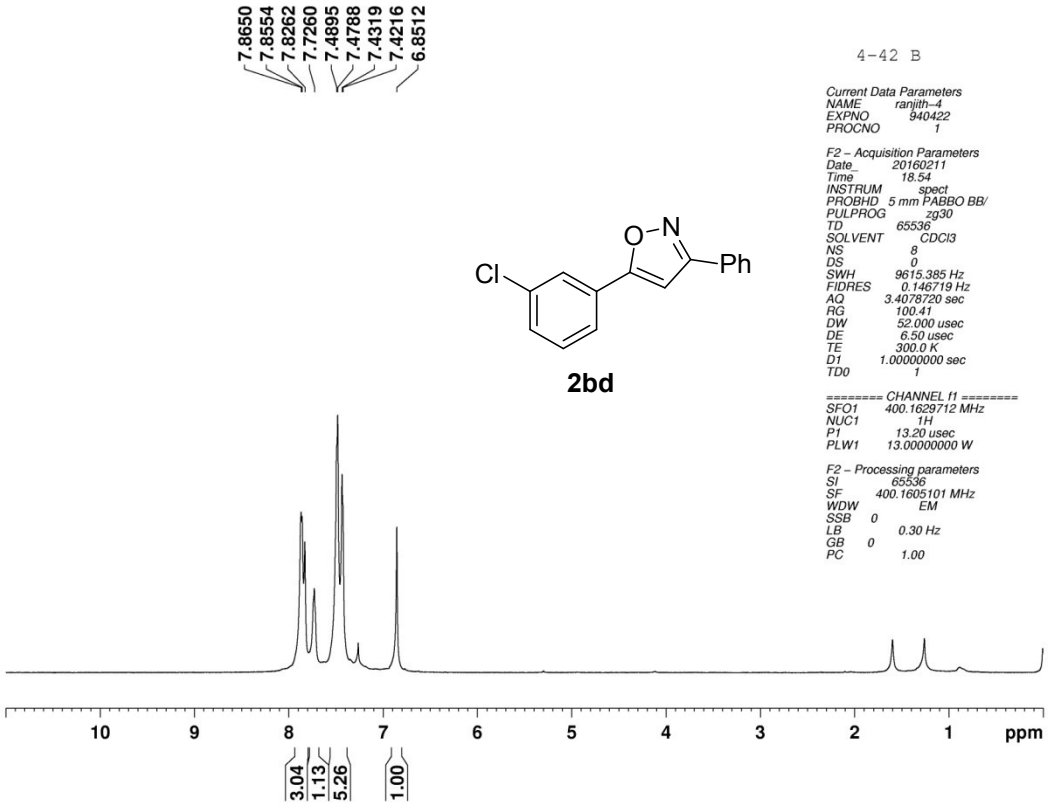

4-34 B
170.75
163.07
140.65
130.08
129.82
129.40
129.04
126.95
125.92
124.94
97.02
21.62
Current Data Parameters
NAME 4-13C
EXPNO 930342
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160202
Time 6.53
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204257 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
Me
2ba
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

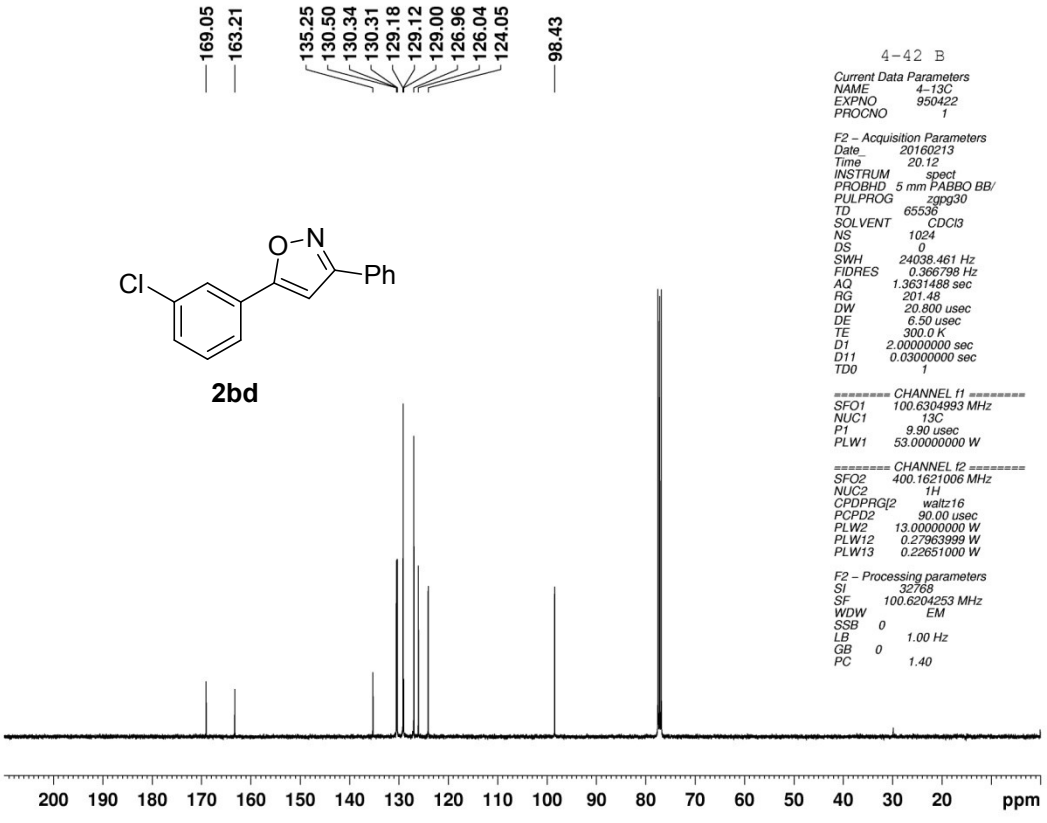

4-23-B2
7.8910
7.8857
7.8811
7.8756
7.8713
7.8672
7.7854
7.7647
7.5003
7.4957
7.4870
7.4767
7.4713
7.4690
7.4590
7.3609
7.3405
6.7887
3.0256
3.0086
2.9914
2.9741
2.9569
2.9396
2.9225
1.3059
1.2886
Current Data Parameters
NAME ranjith--4
EXPNO 11002322
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160111
Time 19.41
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 80.54
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
2bb
10
9
8
7
6
5
4
3
2
1
ppm
2.04
2.03
3.09
2.06
1.00
1.08
6.01

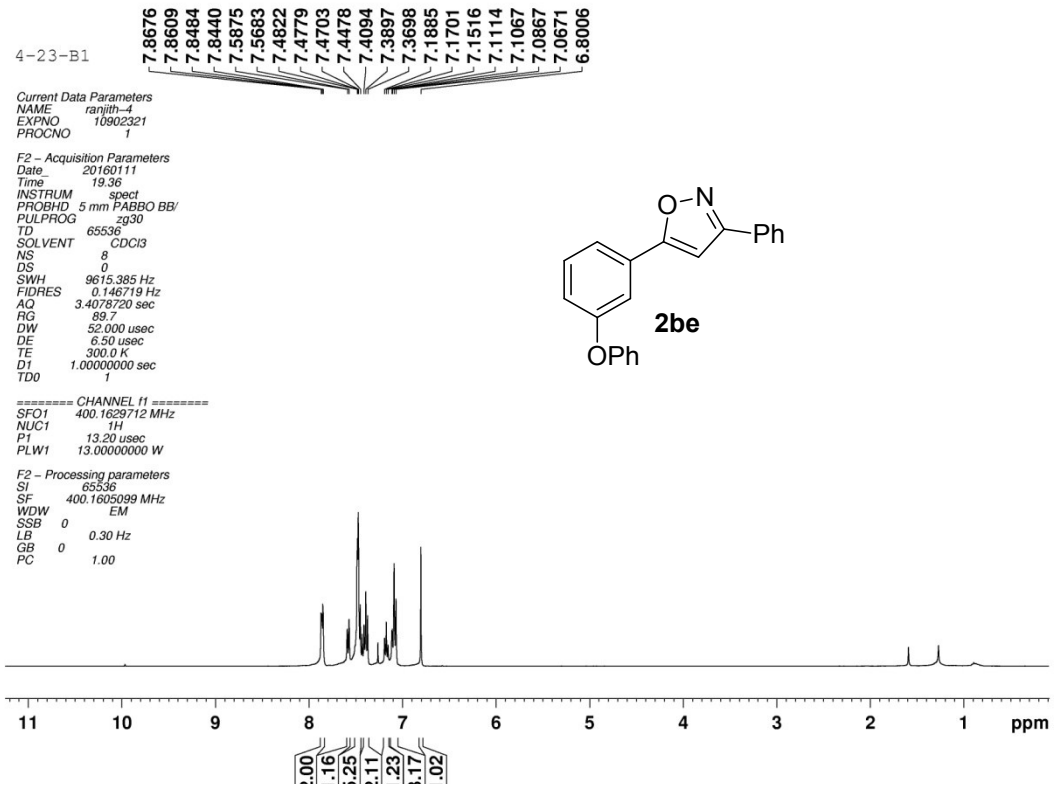

4-23-B2
170.75
163.05
151.52
130.07
129.40
129.03
127.23
126.95
126.05
125.27
97.03
34.25
23.90
Current Data Parameters
NAME 4-13C
EXPNO 9102322
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160116
Time 10.11
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204272 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
2bb
200
180
160
140
120
100
80
60
40
20
0
ppm

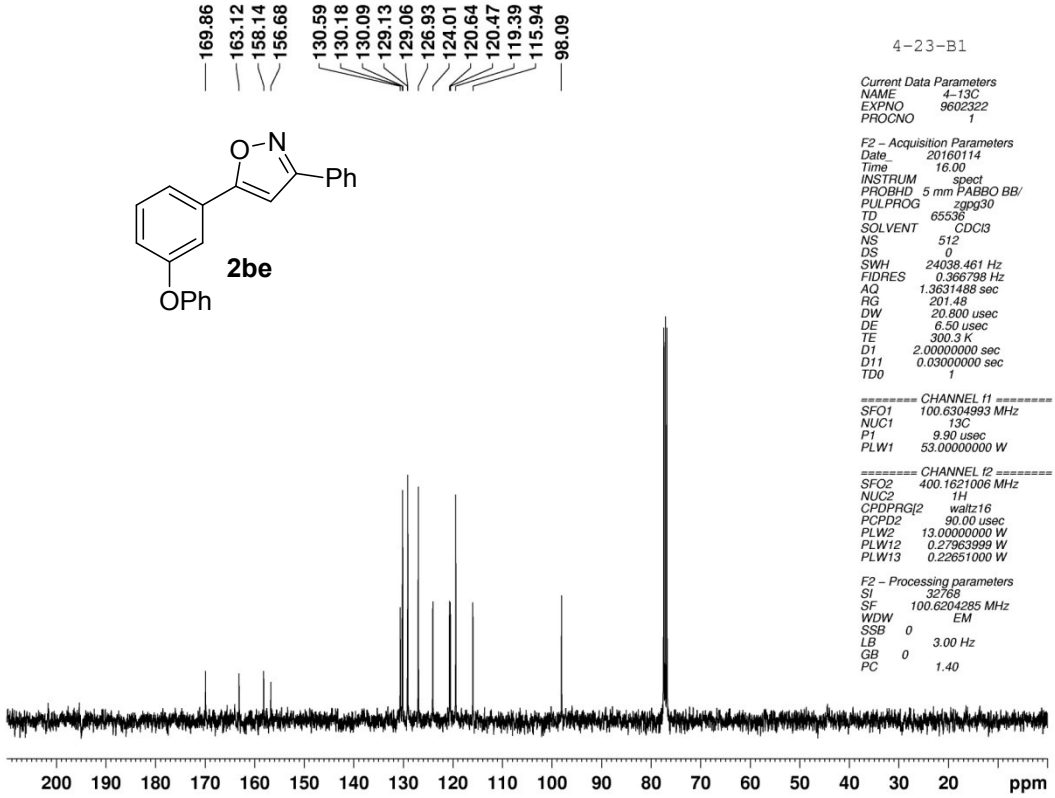

7.8673
7.8623
7.8587
7.8574
7.8558
7.8515
7.8481
7.7166
7.7129
7.7033
7.6994
7.6952
7.6366
7.6327
7.6230
7.6194
7.5076
7.5042
7.4994
7.4962
7.4895
7.4830
7.4780
7.4750
7.4692
7.4651
6.8320
4-32 B
Current Data Parameters
NAME Jan29-2016FN_H
EXPNO 970
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160129
Time 14.35
INSTRUM spect
PROBHD 5 mm PATXI 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 2
SWH 10026.738 Hz
FIDRES 0.152996 Hz
AQ 3.2680619 sec
RG 181.18
DW 49.867 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 500.6794419 MHz
NUC1 1H
P1 6.45 usec
PLW1 13.60000038 W
F2 - Processing parameters
SI 65536
SF 500.6763635 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
Br
2bc
10
9
8
7
6
5
4
3
2
1
ppm
2.10
2.10
2.02
3.22
1.00

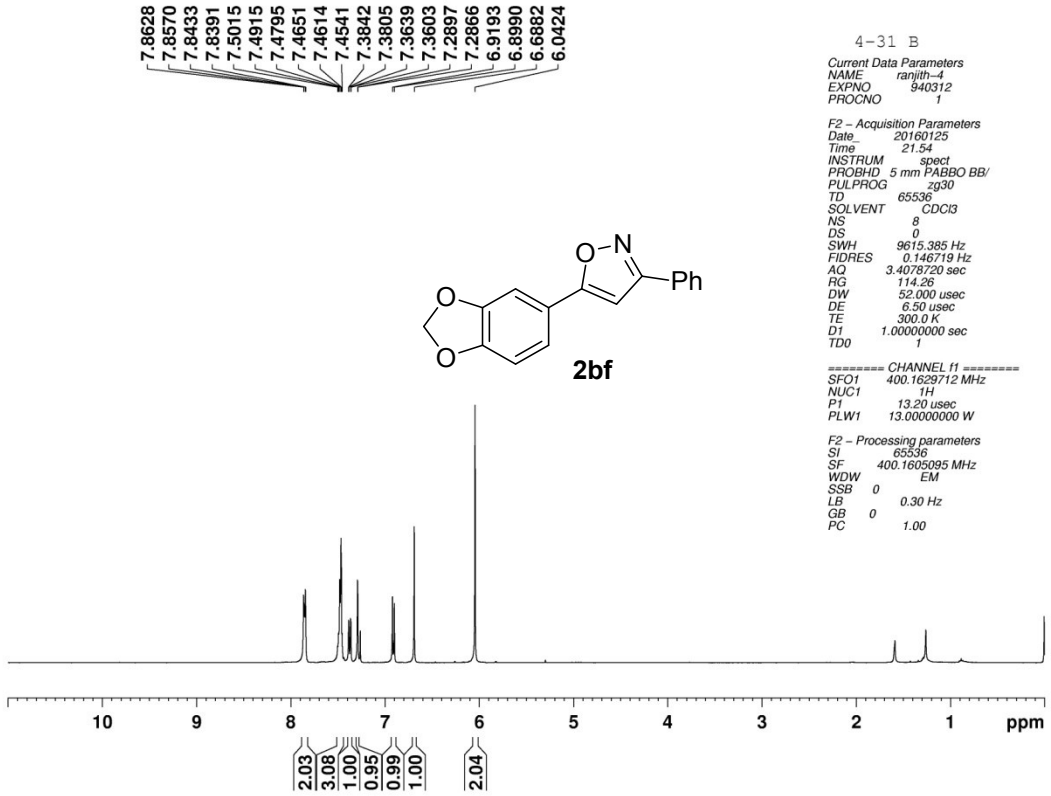

169.47
163.26
132.46
130.29
129.12
129.06
127.43
126.97
126.50
124.74
98.02
4-32 B
Current Data Parameters
NAME 4-13C
EXPNO 950322
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160202
Time 8.00
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204239 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
Br
2bc
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

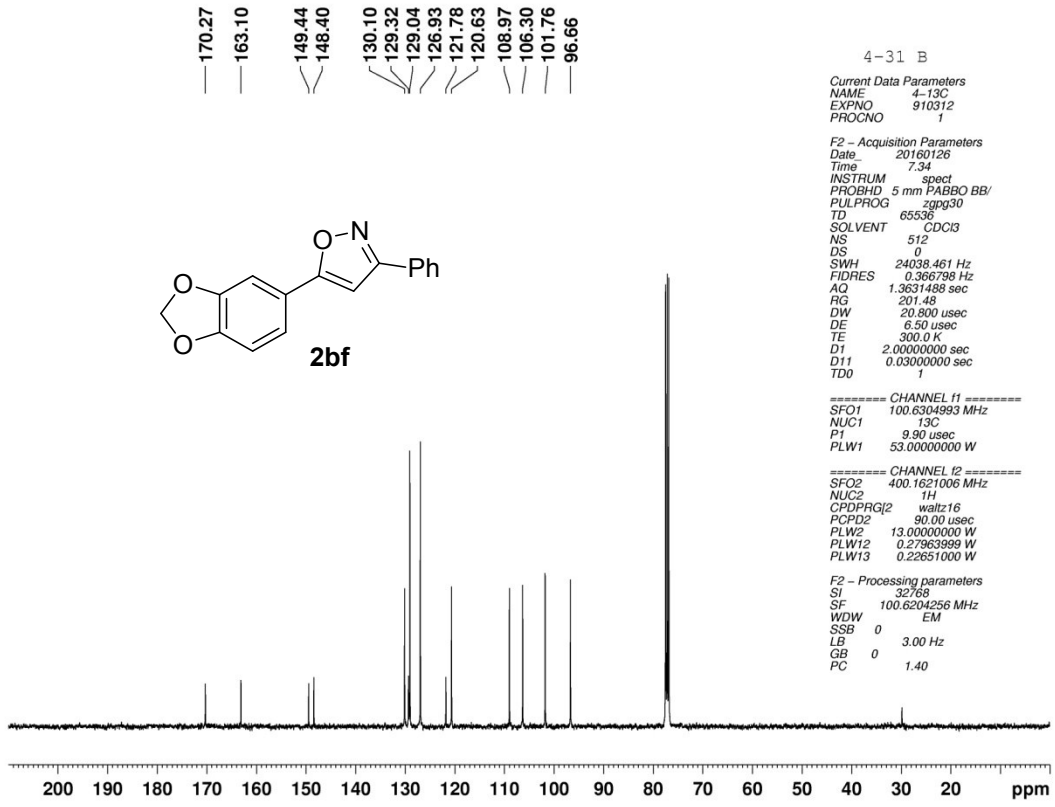

7.8650
7.8554
7.8262
7.7260
7.4895
7.4788
7.4319
7.4216
6.8512
Cl
O
N
Ph
2bd
4-42 B
Current Data Parameters
NAME ranjith-4
EXPNO 940422
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160211
Time 18.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 100.41
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605101 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
10 9 8 7 6 5 4 3 2 1 ppm
3.04
1.13
5.26
1.00

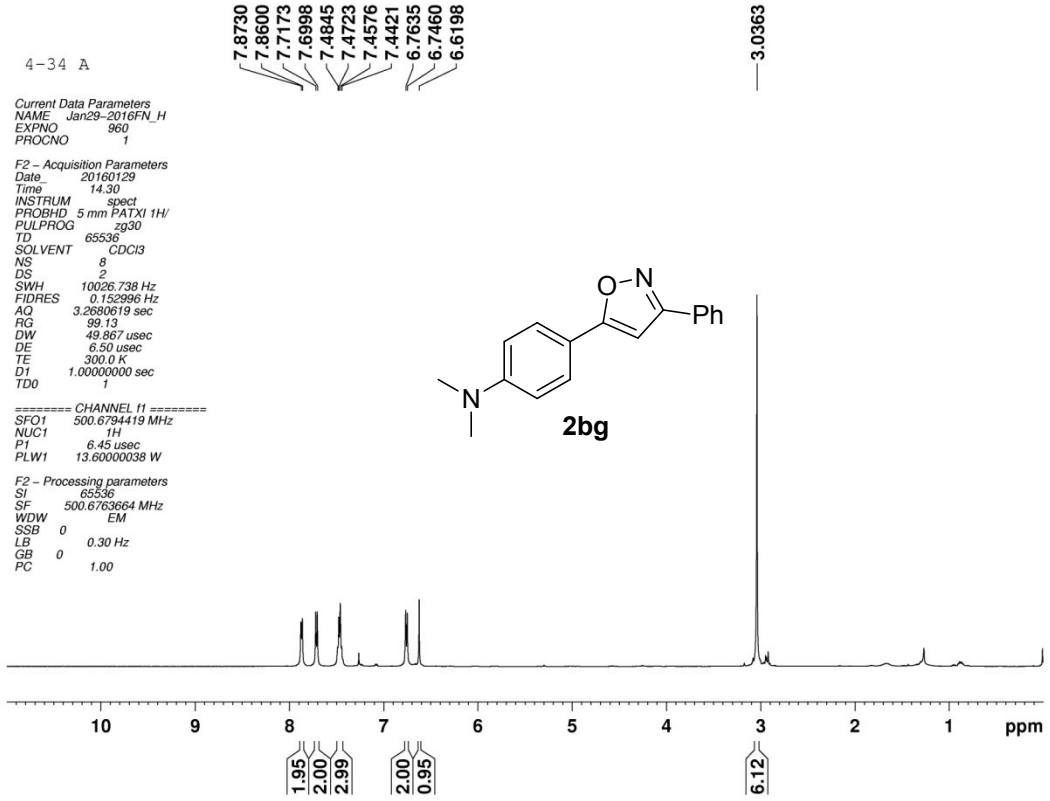

169.05
163.21
135.25
130.50
130.34
130.31
129.18
129.12
129.00
126.96
126.04
124.05
98.43
Cl
O
N
Ph
2bd
4-42 B
Current Data Parameters
NAME 4-13C
EXPNO 950422
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160213
Time 20.12
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204253 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

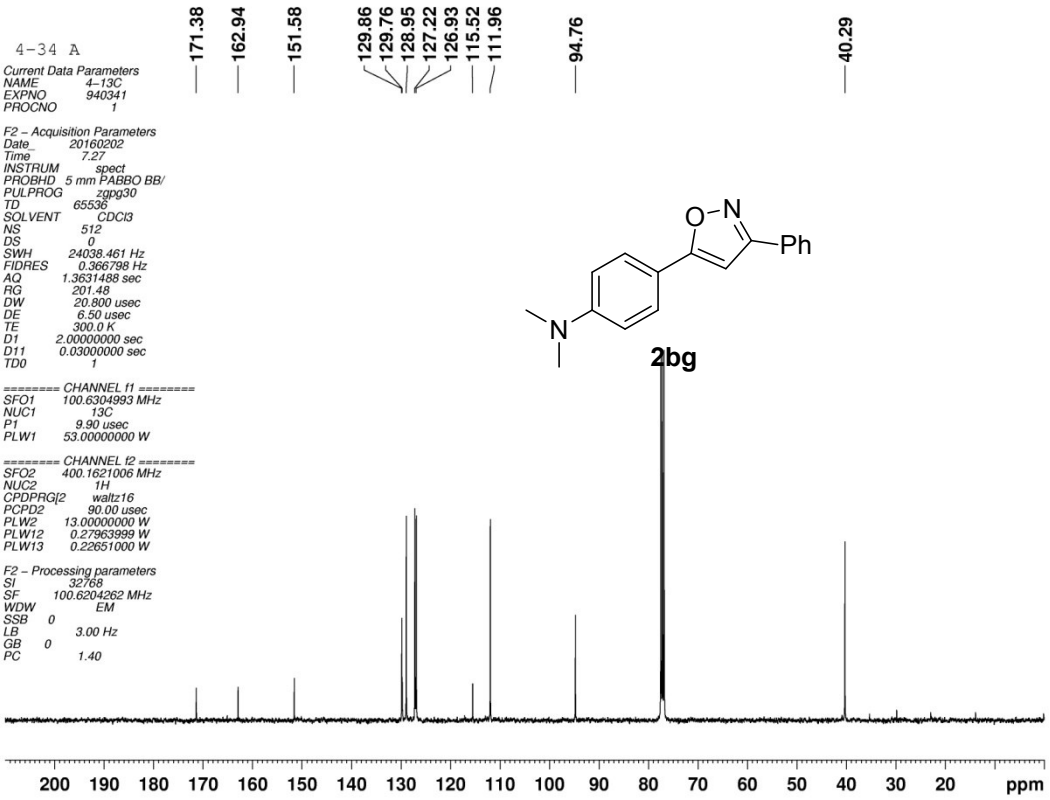

7.8676
7.8609
7.8484
7.8440
7.5875
7.5683
7.4822
7.4779
7.4703
7.4478
7.4094
7.3897
7.3698
7.1885
7.1701
7.1516
7.1114
7.1067
7.0867
7.0671
6.8006
4-23-B1
Current Data Parameters
NAME ranjith--4
EXPNO 10902321
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160111
Time 19.36
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
OPh
2be
11
10
9
8
7
6
5
4
3
2
1
ppm
1.00
1.16
1.25
2.11
2.23
1.17
1.02

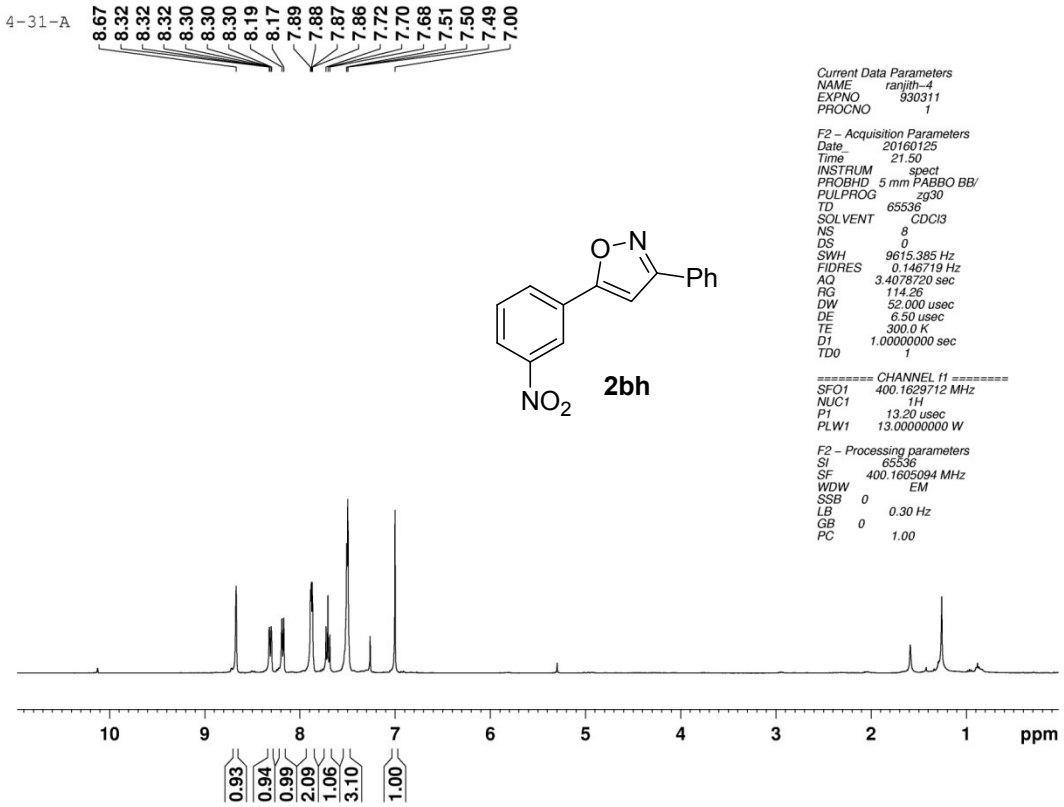

169.86
163.12
158.14
156.68
130.59
130.18
130.09
129.13
129.06
126.93
124.01
120.64
120.47
119.39
115.94
98.09
4-23-B1
Current Data Parameters
NAME 4-13C
EXPNO 9602322
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160114
Time 16.00
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.3 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204285 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
OPh
2be
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

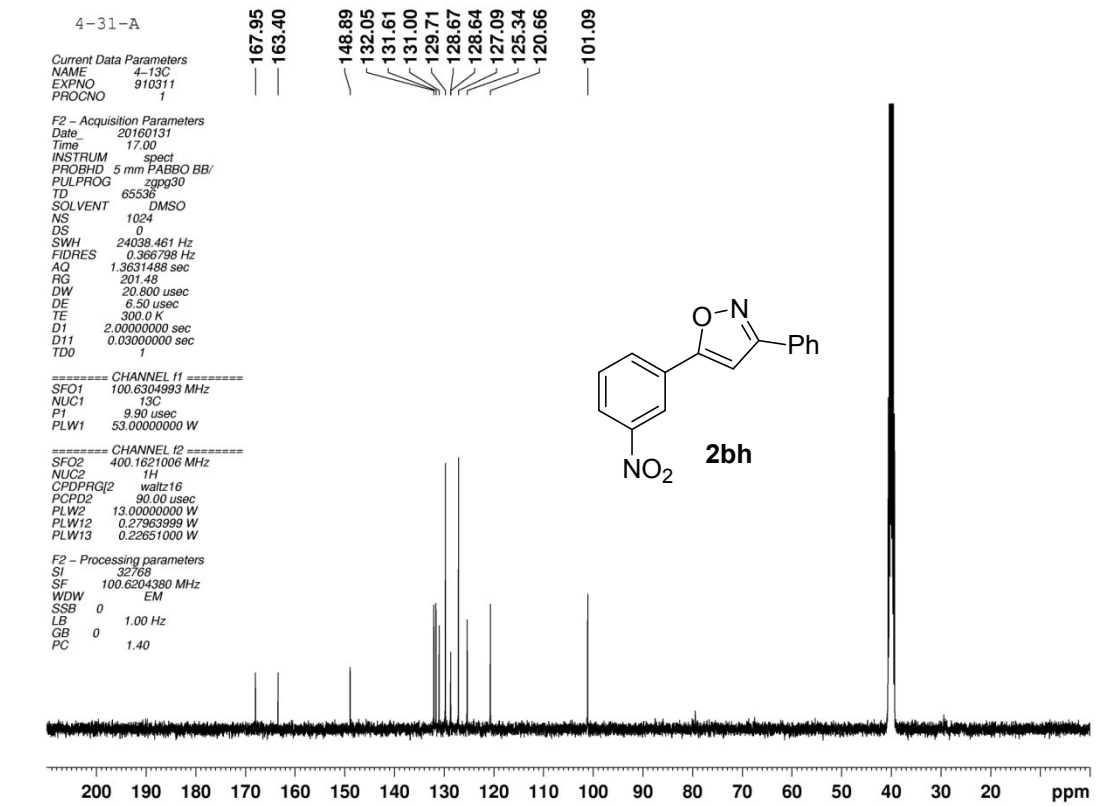

7.8628
7.8570
7.8433
7.8391
7.5015
7.4915
7.4795
7.4651
7.4614
7.4541
7.3842
7.3805
7.3639
7.3603
7.2897
7.2866
6.9193
6.8990
6.6882
6.0424
4-31 B
Current Data Parameters
NAME ranjith--4
EXPNO 940312
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160125
Time 21.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605095 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
O
O
2bf
10
9
8
7
6
5
4
3
2
1
ppm
2.03
3.08
1.00
0.95
0.99
1.00
2.04

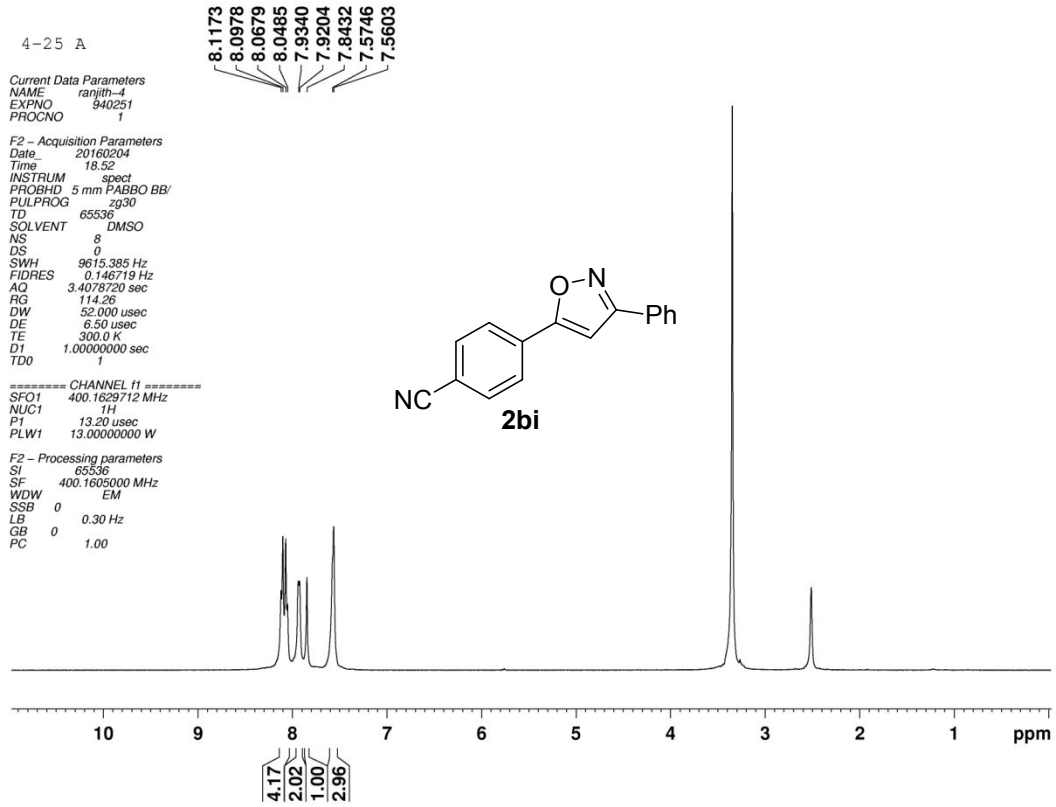

170.27
163.10
149.44
148.40
130.10
129.32
129.04
126.93
121.78
120.63
108.97
106.30
101.76
96.66
4-31 B
Current Data Parameters
NAME 4-13C
EXPNO 910312
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160126
Time 7.34
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204256 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
O
O
2bf
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

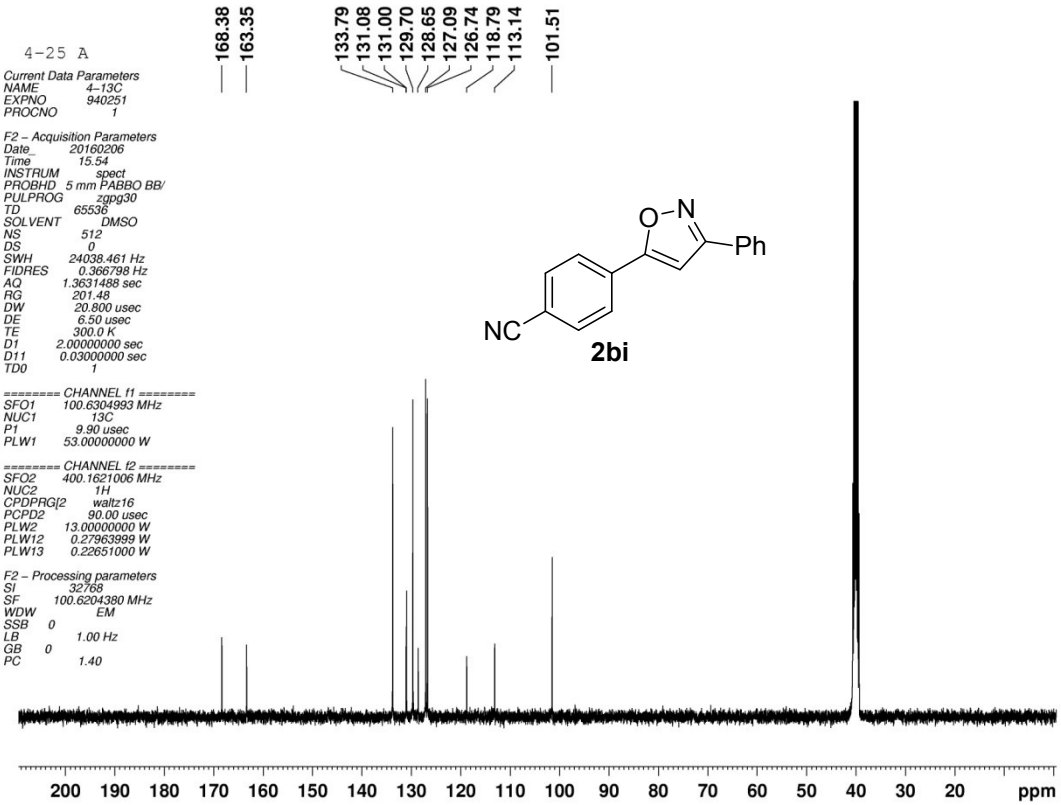

7.8730
7.8600
7.7173
7.6998
7.4845
7.4723
7.4576
7.4421
6.7635
6.7460
6.6198
3.0363
4-34 A
Current Data Parameters
NAME Jan29-2016FN_H
EXPNO 960
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160129
Time 14.30
INSTRUM spect
PROBHD 5 mm PATXI 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 2
SWH 10026.738 Hz
FIDRES 0.152996 Hz
AQ 3.2680619 sec
RG 99.13
DW 49.867 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 500.6794419 MHz
NUC1 1H
P1 6.45 usec
PLW1 13.60000038 W
F2 - Processing parameters
SI 65536
SF 500.6763664 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
N
2bg
10
9
8
7
6
5
4
3
2
1
ppm
1.95
2.00
2.99
2.00
0.95
6.12

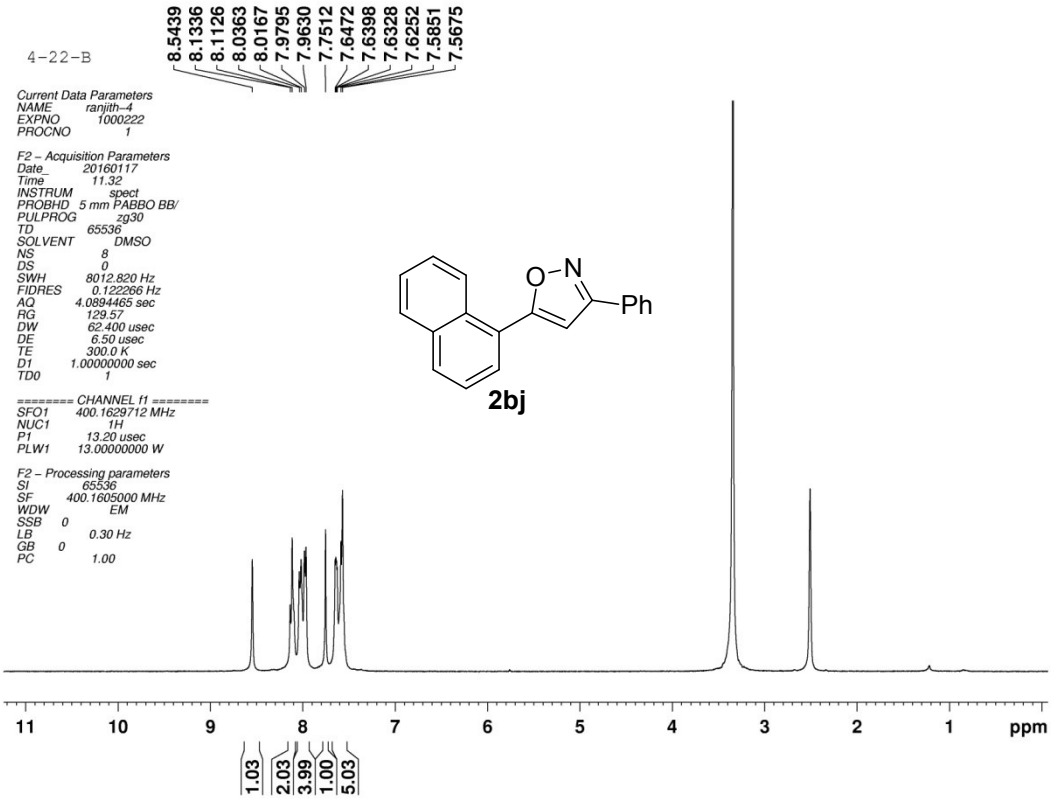

171.38
162.94
151.58
129.86
129.76
128.95
127.22
126.93
115.52
111.96
94.76
40.29
4-34 A
Current Data Parameters
NAME 4-13C
EXPNO 940341
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160202
Time 7.27
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204262 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
N
2bg
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

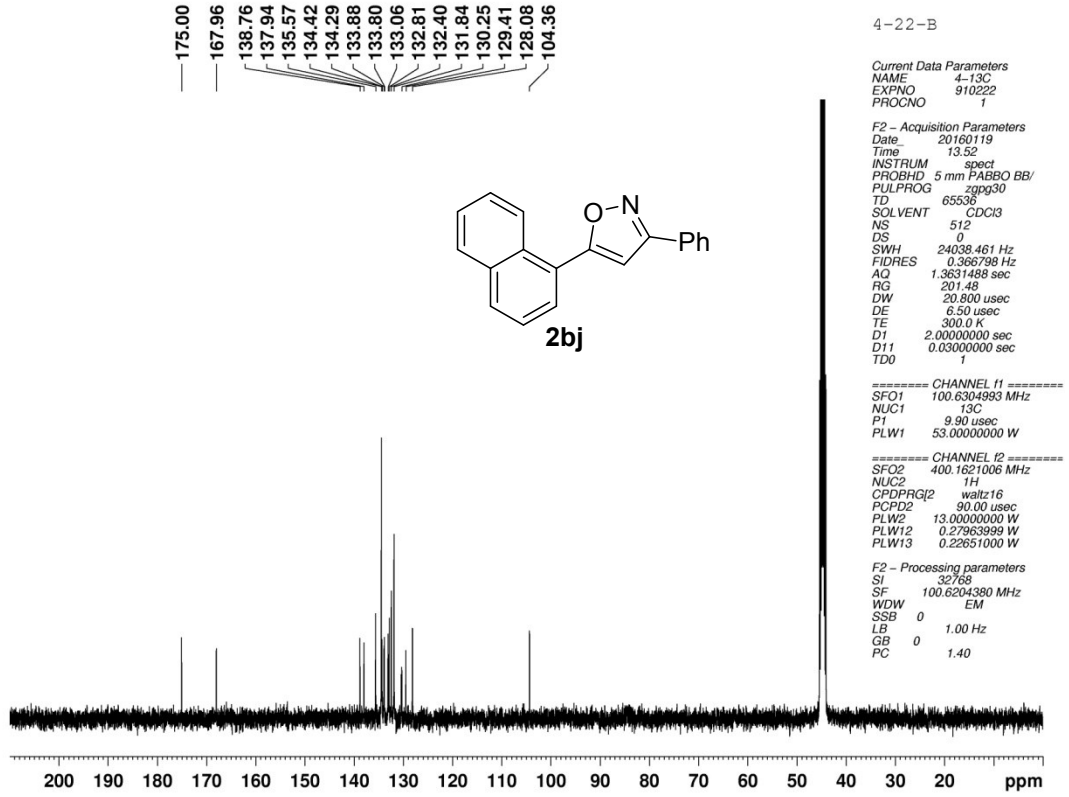

4-31-A
8.67
8.32
8.32
8.32
8.30
8.30
8.30
8.19
8.17
7.89
7.88
7.87
7.86
7.72
7.70
7.68
7.51
7.50
7.49
7.00
Current Data Parameters
NAME ranjith-4
EXPNO 930311
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160125
Time 21.50
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605094 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O-N
Ph
NO2
2bh
10
9
8
7
6
5
4
3
2
1
ppm
0.93
0.94
0.99
2.09
1.06
3.10
1.00

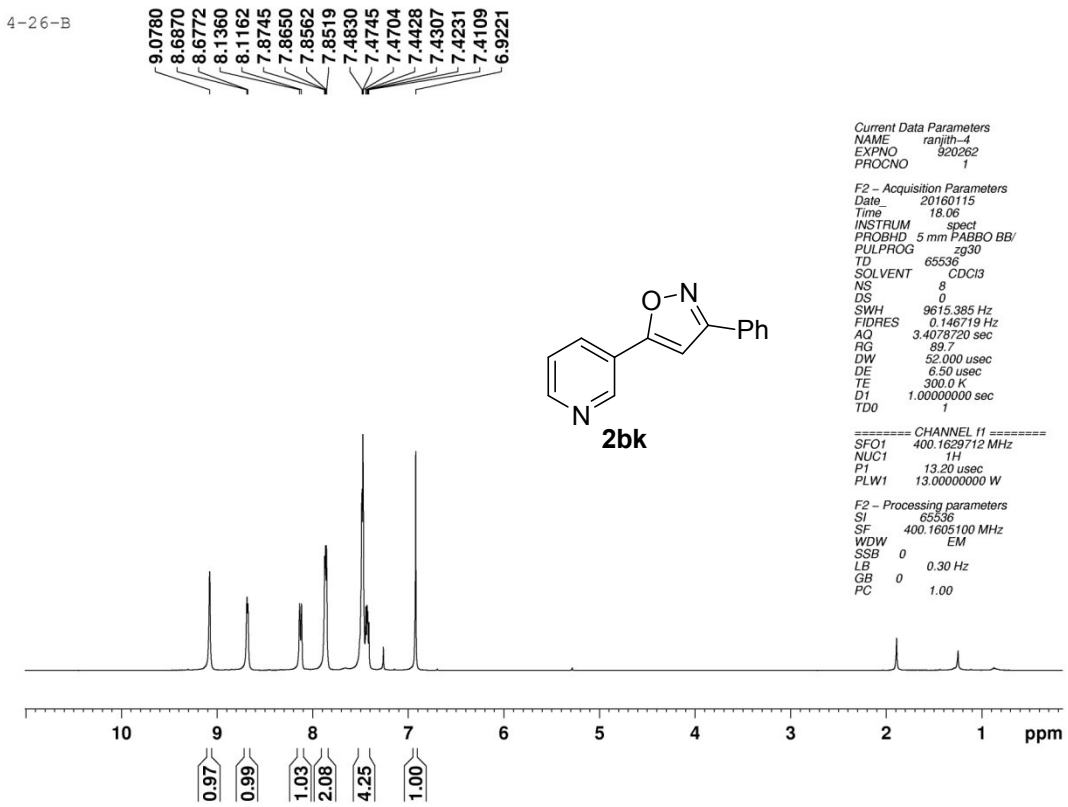

4-31-A
167.95
163.40
148.89
132.05
131.61
131.00
129.71
128.67
128.64
127.09
125.34
120.66
101.09
Current Data Parameters
NAME 4-13C
EXPNO 910311
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160131
Time 17.00
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204380 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O-N
Ph
NO2
2bh
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

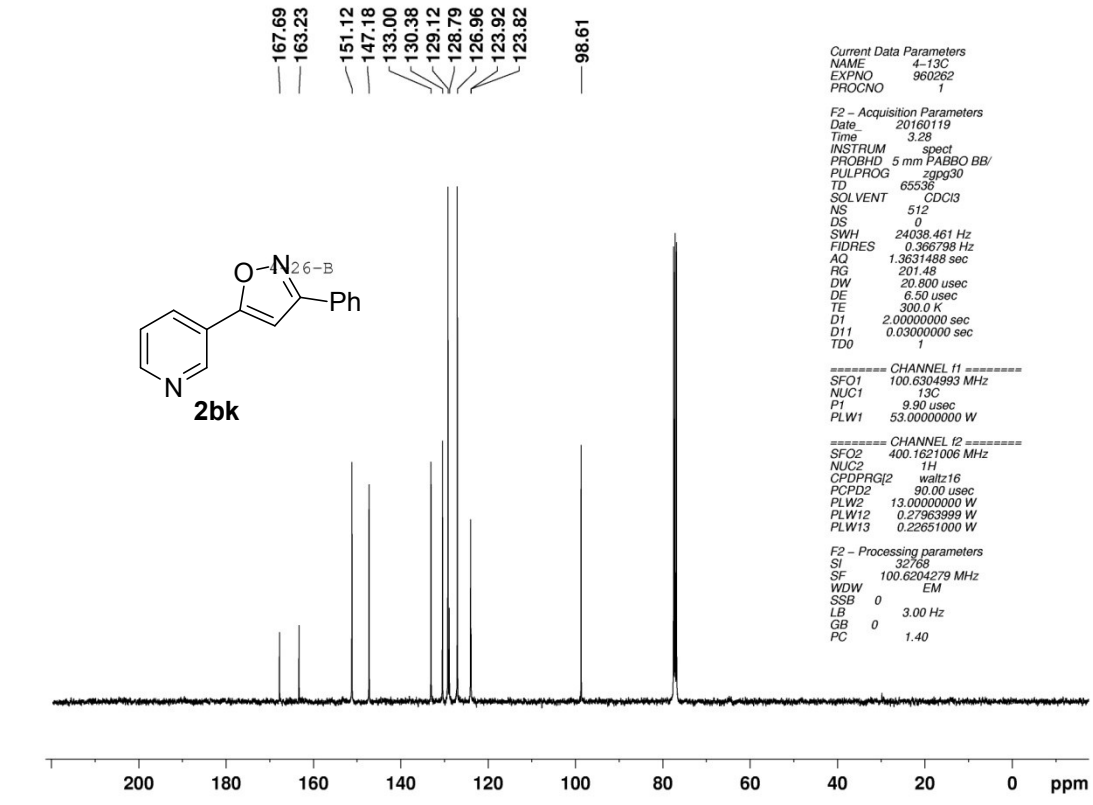

8.1173
8.0978
8.0679
8.0485
7.9340
7.9204
7.8432
7.5746
7.5603
4-25 A
Current Data Parameters
NAME ranjith--4
EXPNO 940251
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160204
Time 18.52
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
NC
2bi
10
9
8
7
6
5
4
3
2
1
ppm
4.17
2.02
1.00
2.96

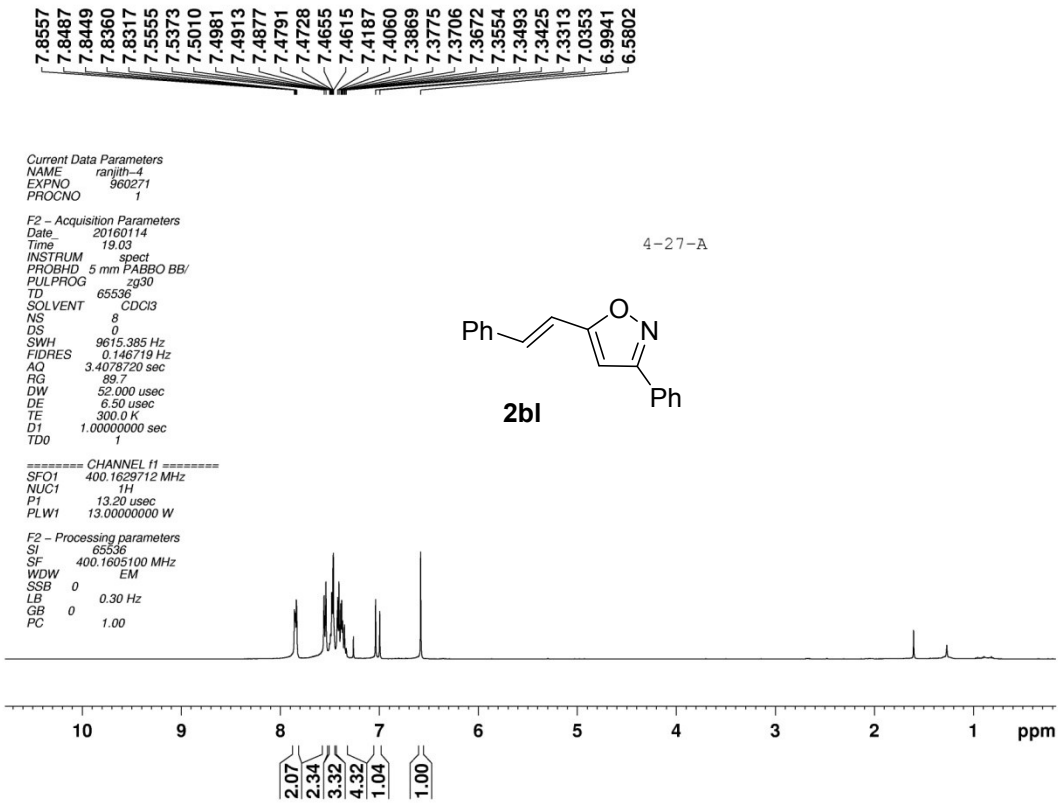

168.38
163.35
133.79
131.08
131.00
129.70
128.65
127.09
126.74
118.79
113.14
101.51
4-25 A
Current Data Parameters
NAME 4-13C
EXPNO 940251
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160206
Time 15.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204380 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
NC
2bi
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

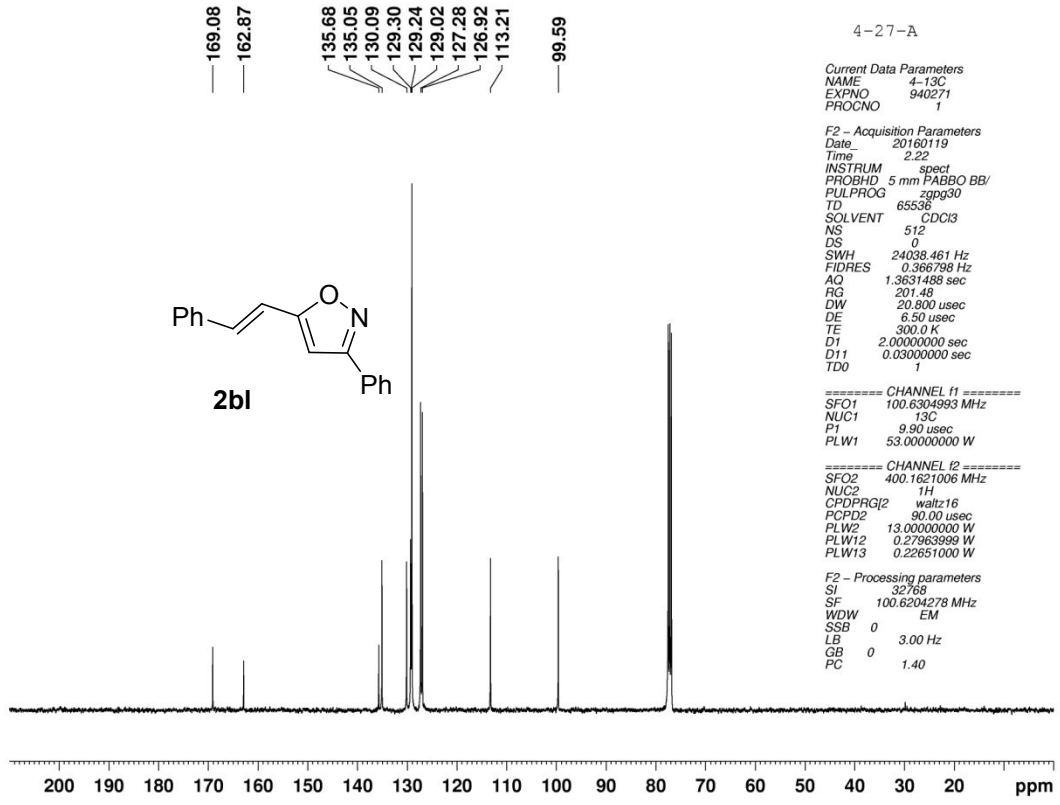

8.5439
8.1336
8.1126
8.0363
8.0167
7.9795
7.9630
7.7512
7.6472
7.6398
7.6328
7.6252
7.5851
7.5675
4-22-B
Current Data Parameters
NAME ranjith-4
EXPNO 1000222
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160117
Time 11.32
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 8
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 129.57
DW 62.400 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
2bj
11
10
9
8
7
6
5
4
3
2
1
ppm
1.03
2.03
3.99
1.00
5.03

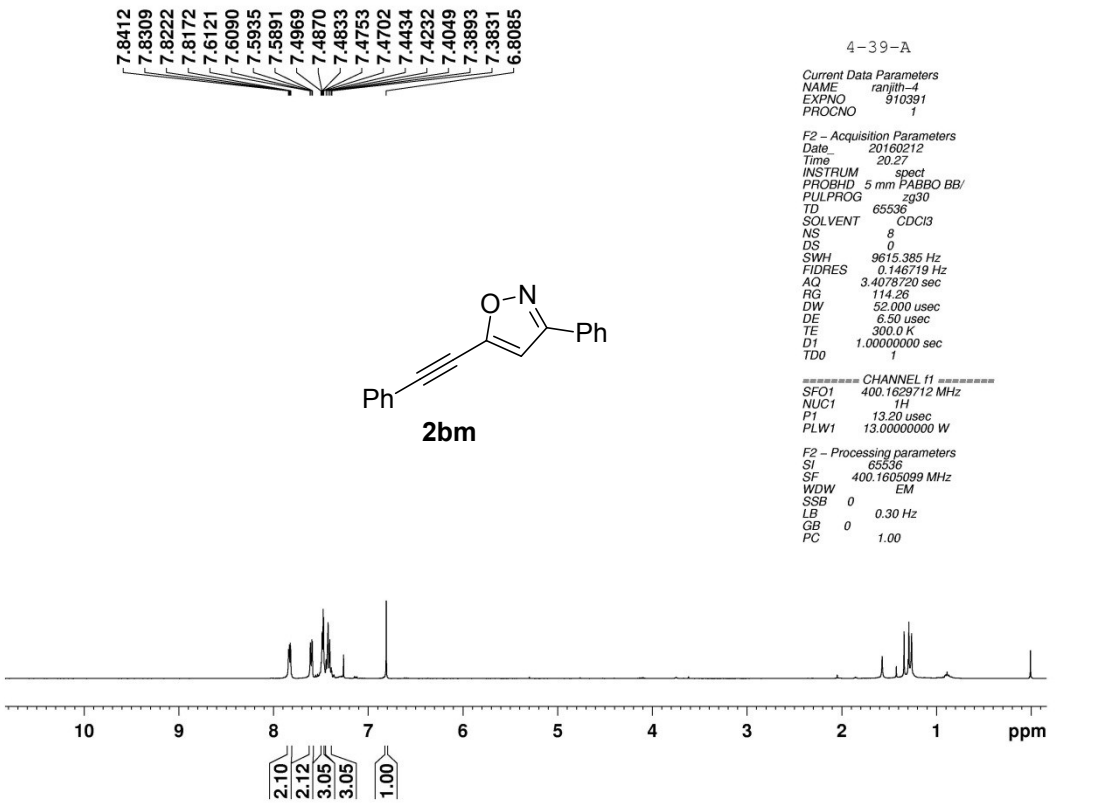

175.00
167.96
138.76
137.94
135.57
134.42
134.29
133.88
133.80
133.06
132.81
132.40
131.84
130.25
129.41
128.08
104.36
4-22-B
Current Data Parameters
NAME 4-13C
EXPNO 910222
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160119
Time 13.52
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204380 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
2bj
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

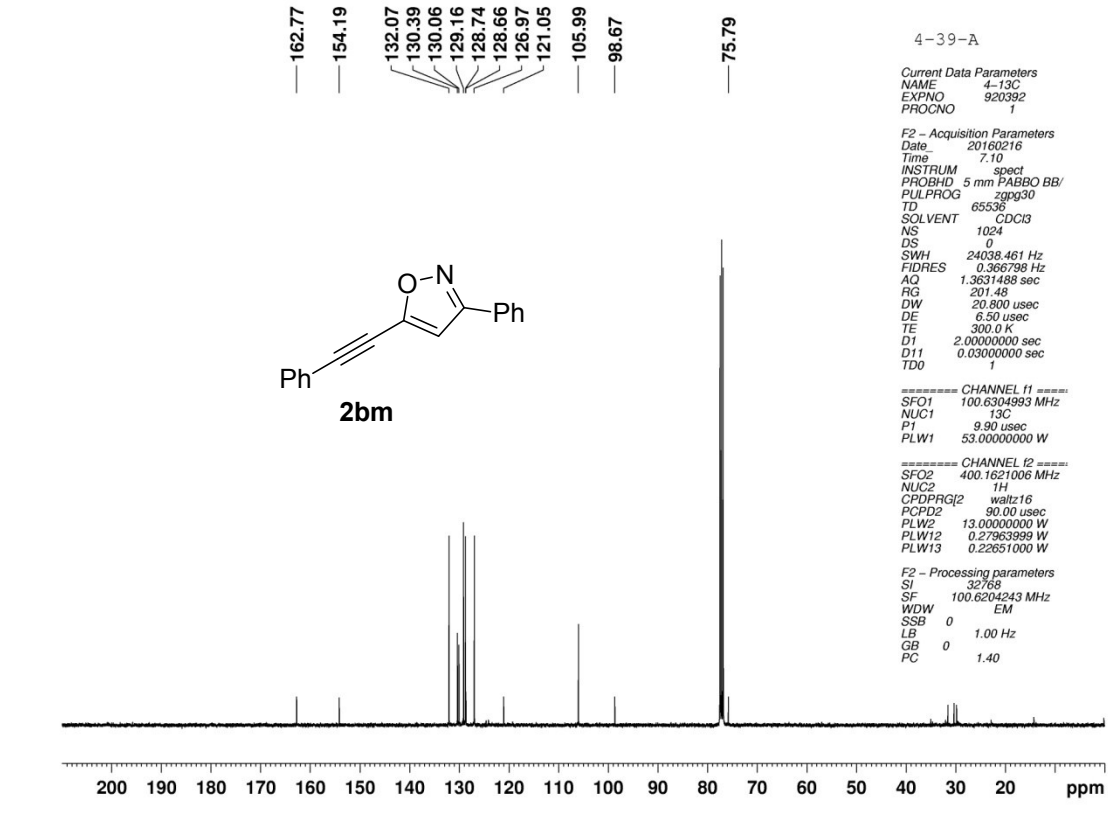

4-26-B
9.0780
8.6870
8.6772
8.1360
8.1162
7.8745
7.8650
7.8562
7.8519
7.4830
7.4745
7.4704
7.4428
7.4307
7.4231
7.4109
6.9221
Current Data Parameters
NAME ranjith--4
EXPNO 920262
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160115
Time 18.06
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605100 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
N
2bk
10
9
8
7
6
5
4
3
2
1
ppm
0.97
0.99
1.03
2.08
4.25
1.00

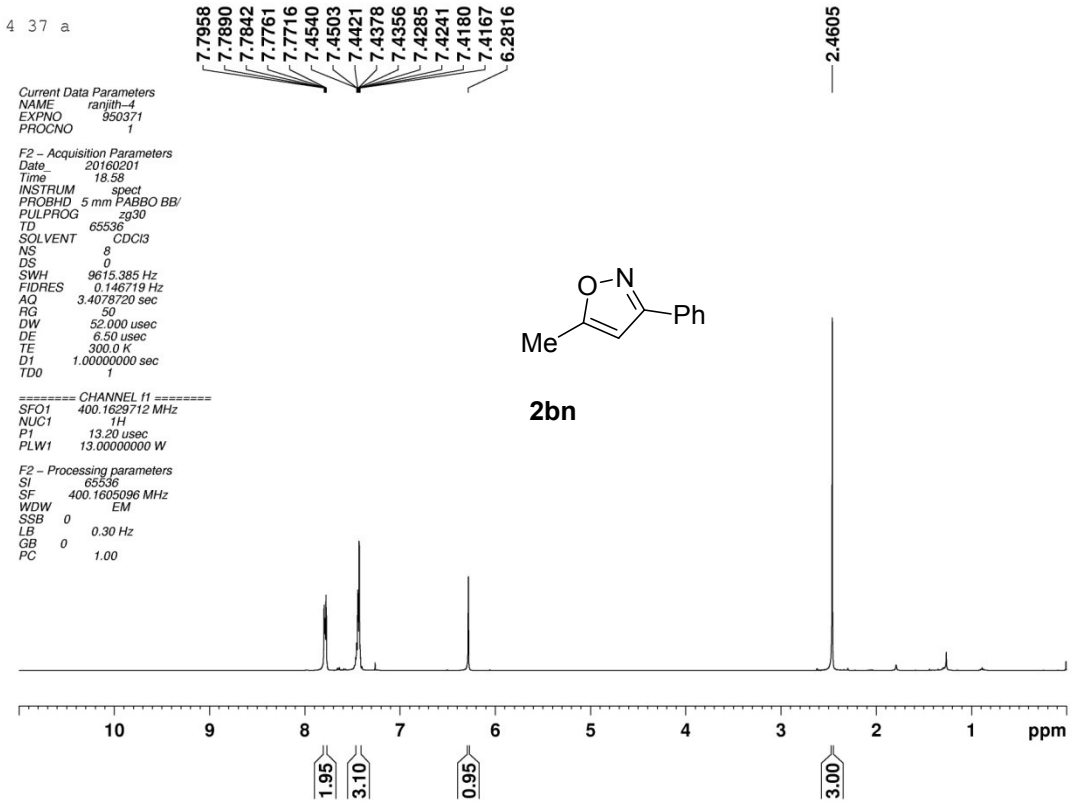

167.69
163.23
151.12
147.18
133.00
130.38
129.12
128.79
126.96
123.92
123.82
98.61
Current Data Parameters
NAME 4--13C
EXPNO 960262
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160119
Time 3.28
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204279 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
26-B
Ph
N
2bk
200
180
160
140
120
100
80
60
40
20
0
ppm

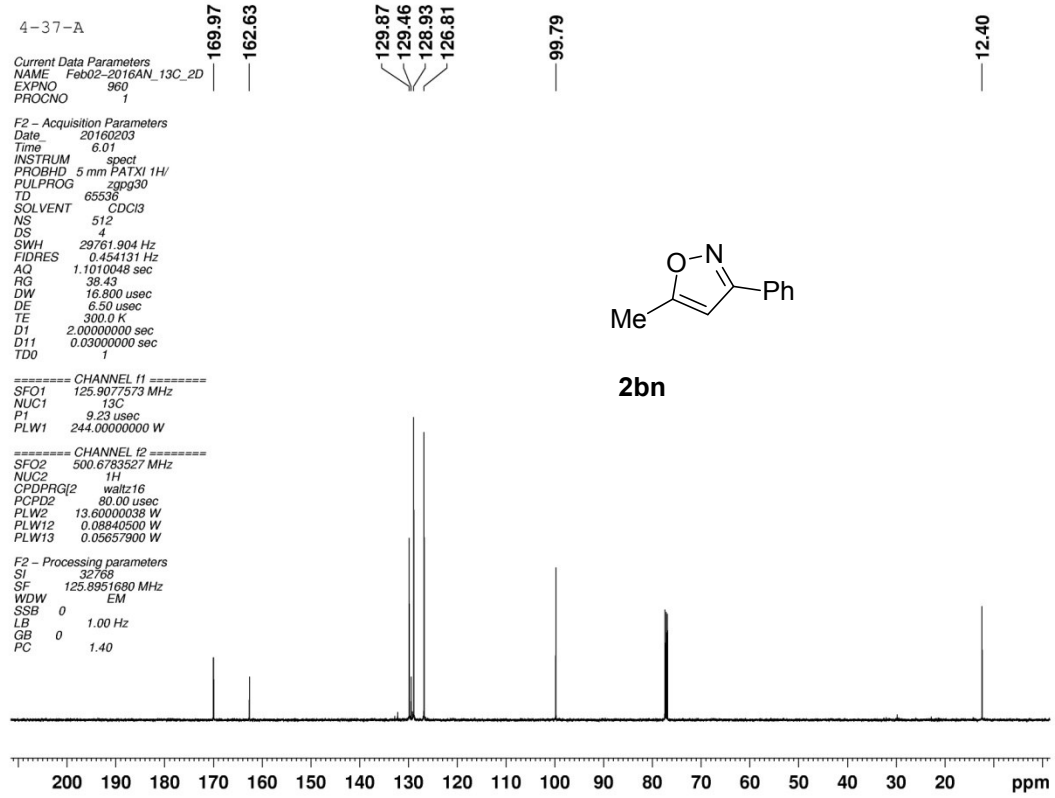

7.8557
7.8487
7.8449
7.8360
7.8317
7.5555
7.5373
7.5010
7.4981
7.4913
7.4877
7.4791
7.4728
7.4655
7.4615
7.4187
7.4060
7.3869
7.3775
7.3706
7.3672
7.3554
7.3493
7.3425
7.3313
7.0353
6.9941
6.5802
Current Data Parameters
NAME ranjith--4
EXPNO 960271
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160114
Time 19.03
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605100 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
4-27-A
Ph
O
N
Ph
2bl
10
9
8
7
6
5
4
3
2
1
ppm
2.07
2.34
3.32
4.32
1.04
1.00

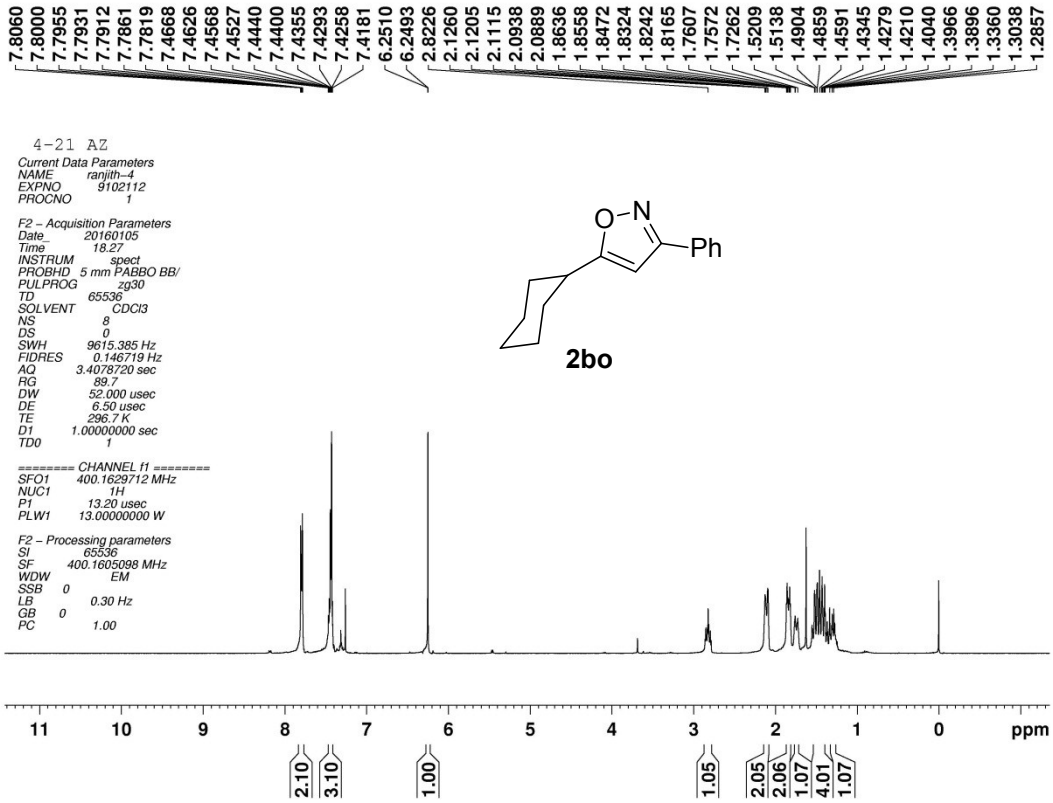

169.08
162.87
135.68
135.05
130.09
129.30
129.24
129.02
127.28
126.92
113.21
99.59
4-27-A
Current Data Parameters
NAME 4-13C
EXPNO 940271
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160119
Time 2.22
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204278 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
Ph
O
N
Ph
2bl
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

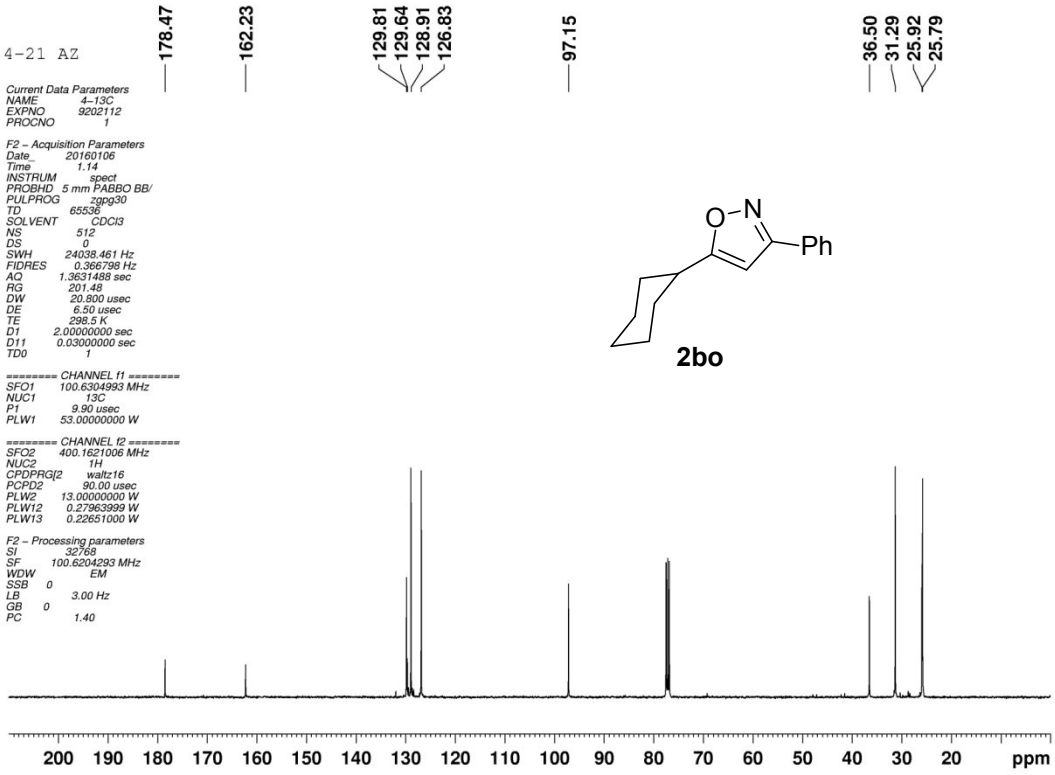

7.8412
7.8309
7.8222
7.8172
7.6121
7.6090
7.5935
7.5891
7.4969
7.4870
7.4833
7.4753
7.4702
7.4434
7.4232
7.4049
7.3893
7.3831
6.8085
4-39-A
Current Data Parameters
NAME ranjith-4
EXPNO 910391
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160212
Time 20.27
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
Ph
2bm
10
9
8
7
6
5
4
3
2
1
ppm
2.10
2.12
3.05
3.05
1.00

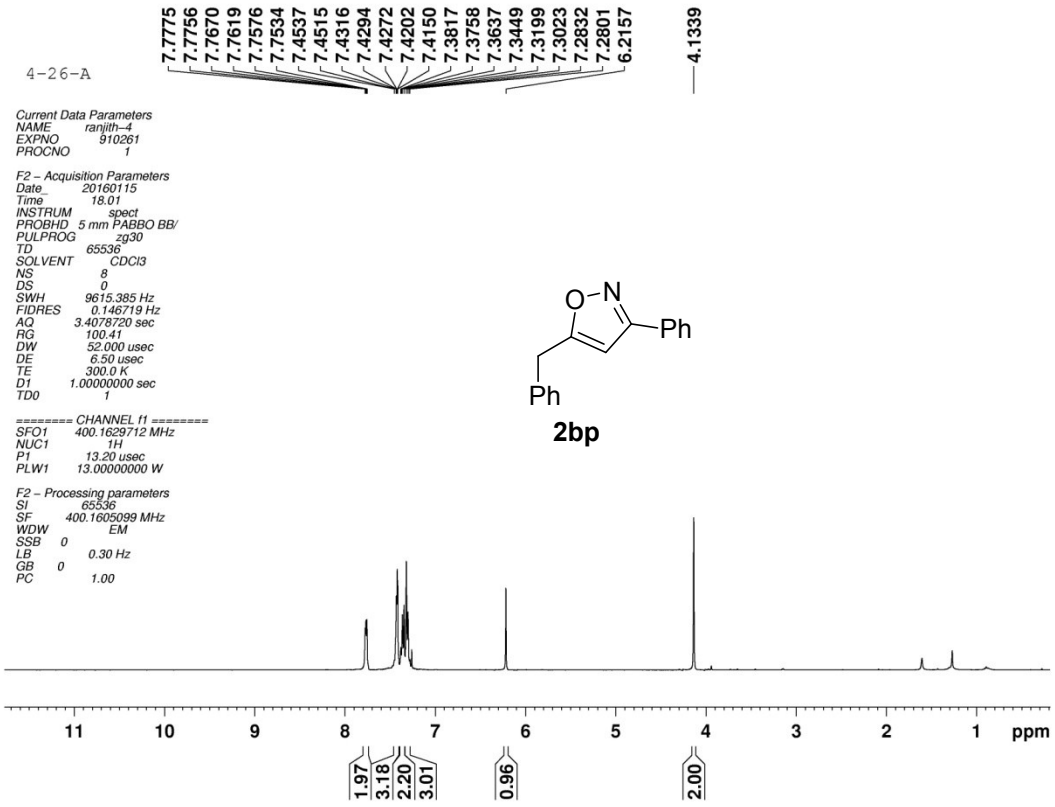

162.77
154.19
132.07
130.39
130.06
129.16
128.74
128.66
126.97
121.05
105.99
98.67
75.79
4-39-A
Current Data Parameters
NAME 4-13C
EXPNO 920392
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160216
Time 7.10
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204243 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
Ph
2bm
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

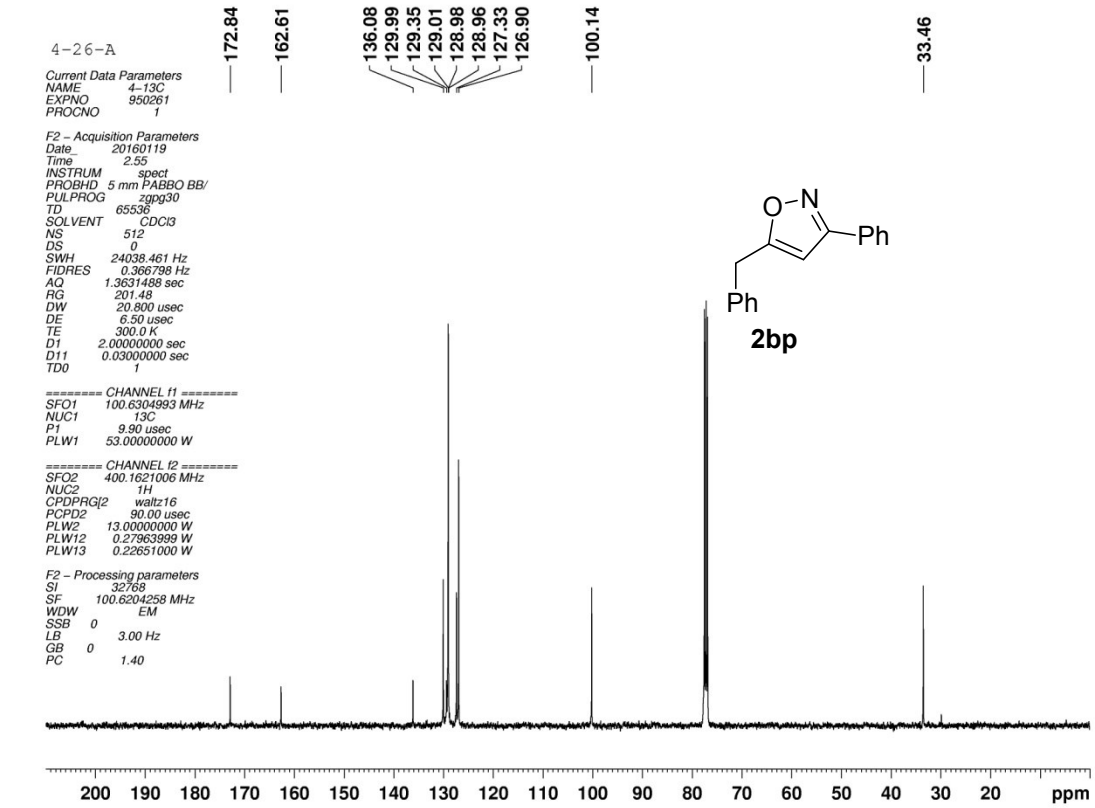

4 37 a
7.7958
7.7890
7.7842
7.7761
7.7716
7.4540
7.4503
7.4421
7.4378
7.4356
7.4285
7.4241
7.4180
7.4167
6.2816
2.4605
Current Data Parameters
NAME ranjith-4
EXPNO 950371
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160201
Time 18.58
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 50
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605096 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
Me
2bn
10
9
8
7
6
5
4
3
2
1
ppm
1.95
3.10
0.95
3.00

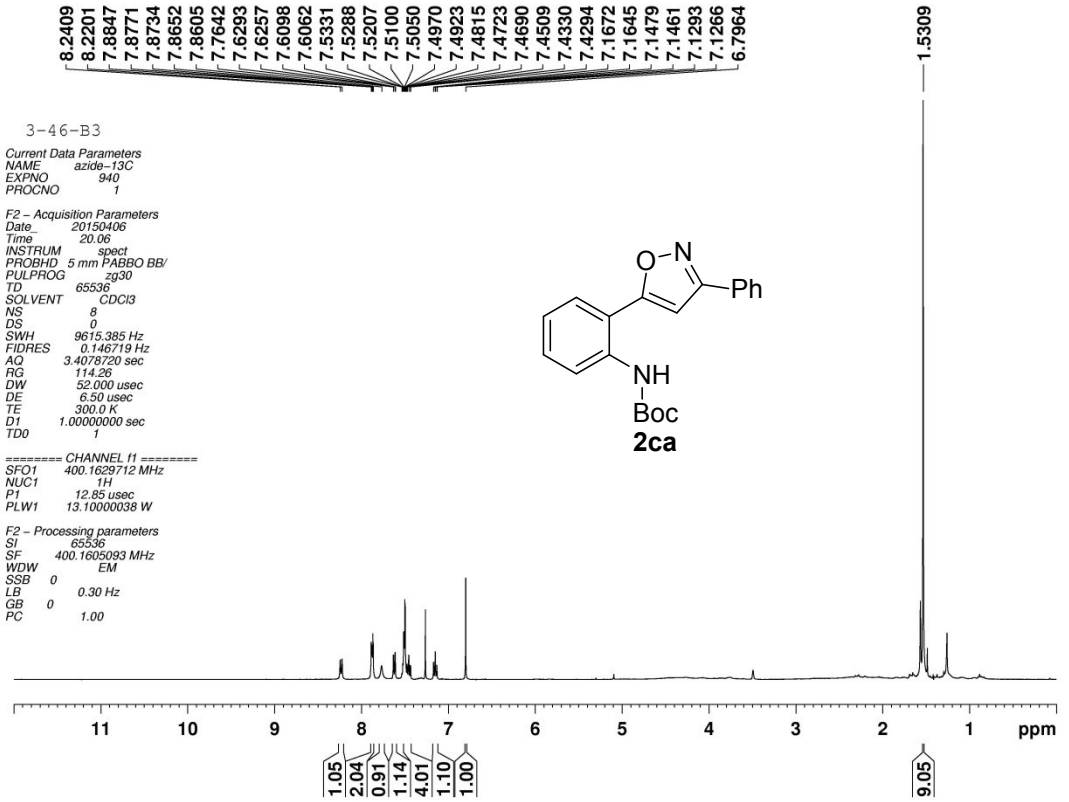

4-37-A
169.97
162.63
129.87
129.46
128.93
126.81
99.79
12.40
Current Data Parameters
NAME Feb02-2016AN_13C_2D
EXPNO 960
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160203
Time 6.01
INSTRUM spect
PROBHD 5 mm PATXI 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 29761.904 Hz
FIDRES 0.454131 Hz
AQ 1.1010048 sec
RG 38.43
DW 16.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 125.9077573 MHz
NUC1 13C
P1 9.23 usec
PLW1 244.00000000 W
======== CHANNEL f2 ========
SFO2 500.6783527 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 13.60000038 W
PLW12 0.08840500 W
PLW13 0.05657900 W
F2 - Processing parameters
SI 32768
SF 125.8951680 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
Ph
Me
2bn
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

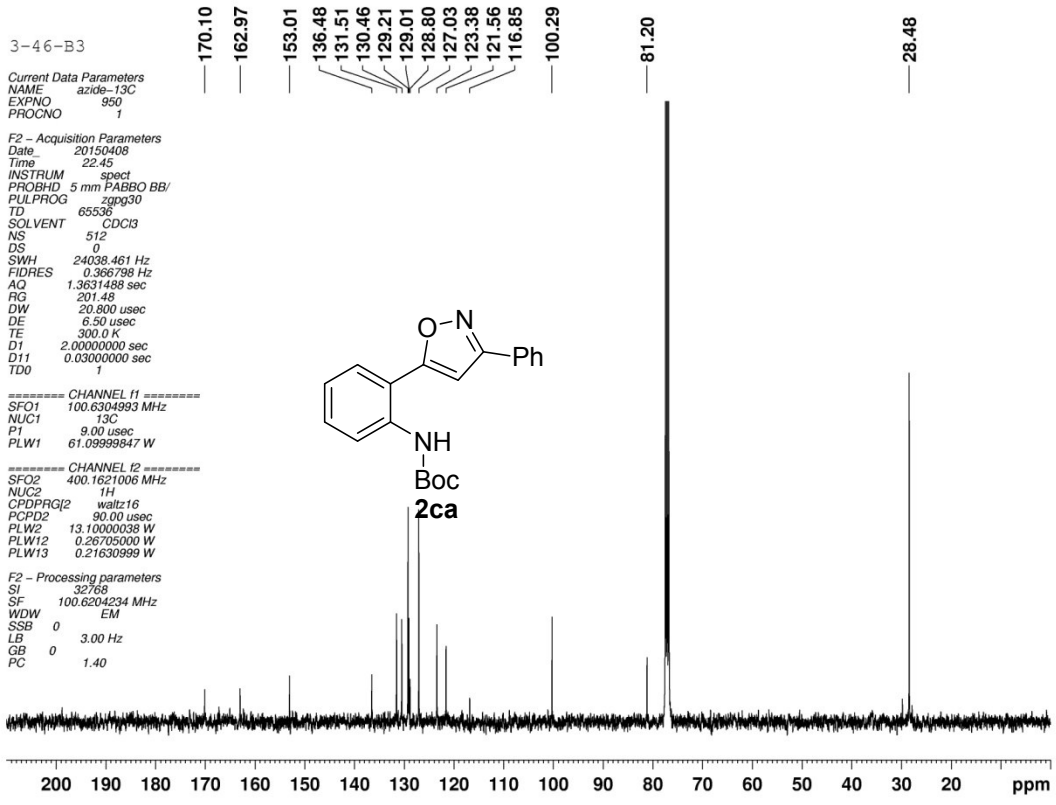

7.8060
7.8000
7.7955
7.7931
7.7912
7.7861
7.7819
7.4668
7.4626
7.4568
7.4527
7.4440
7.4400
7.4355
7.4293
7.4258
7.4181
6.2510
6.2493
2.8226
2.1260
2.1205
2.1115
2.0938
2.0889
1.8636
1.8558
1.8472
1.8324
1.8242
1.8165
1.7607
1.7572
1.7262
1.5209
1.5138
1.4904
1.4859
1.4591
1.4345
1.4279
1.4210
1.4040
1.3966
1.3896
1.3360
1.3038
1.2857
4-21 AZ
Current Data Parameters
NAME ranjith-4
EXPNO 9102112
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160105
Time 18.27
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 89.7
DW 52.000 usec
DE 6.50 usec
TE 296.7 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O-N
Ph
2bo
11 10 9 8 7 6 5 4 3 2 1 0 ppm
2.10
3.10
1.00
1.05
2.05
2.06
1.07
4.01
1.07

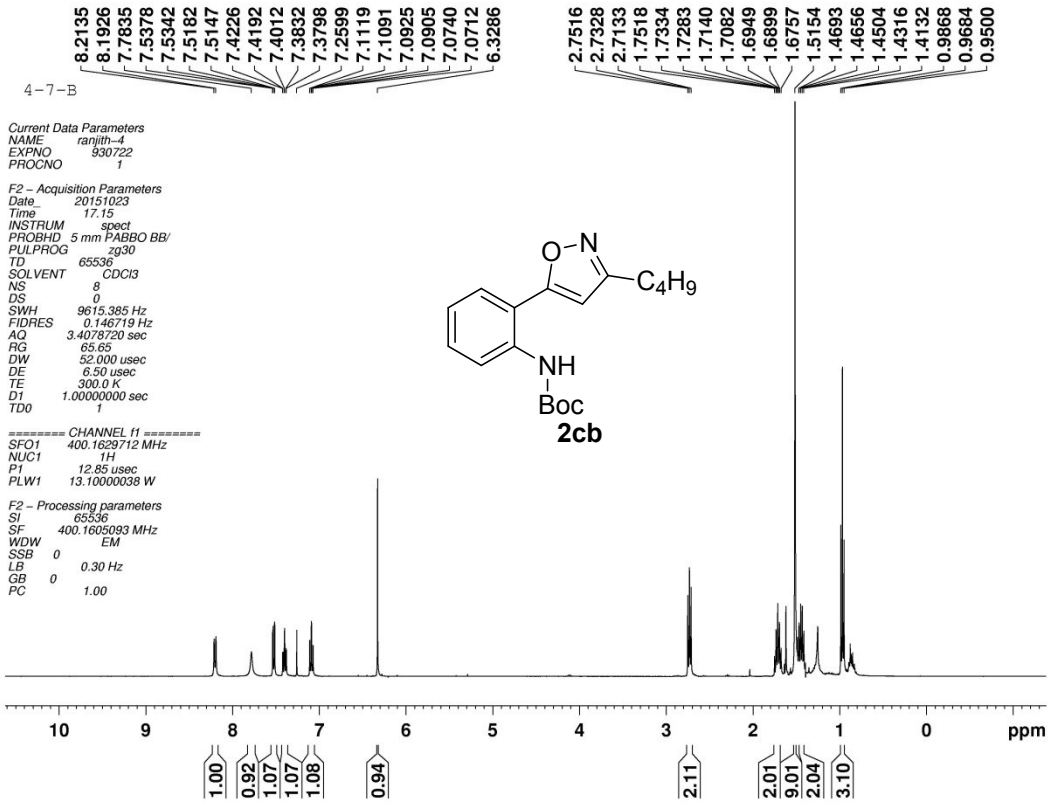

178.47
162.23
129.81
129.64
128.91
126.83
97.15
36.50
31.29
25.92
25.79
4-21 AZ
Current Data Parameters
NAME 4-13C
EXPNO 9202112
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160106
Time 1.14
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 298.5 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204293 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O-N
Ph
2bo
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

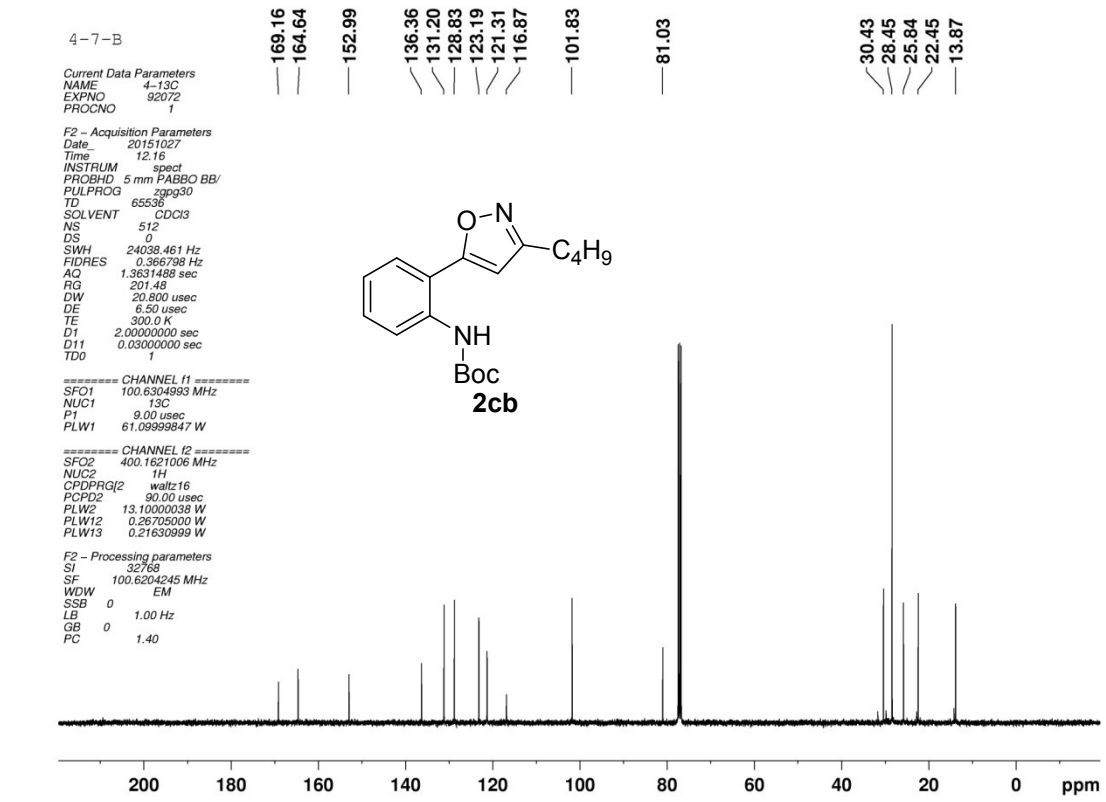

7.7775
7.7756
7.7670
7.7619
7.7576
7.7534
7.4537
7.4515
7.4316
7.4294
7.4272
7.4202
7.4150
7.3817
7.3758
7.3637
7.3449
7.3199
7.3023
7.2832
7.2801
6.2157
4.1339
4-26-A
Current Data Parameters
NAME ranjith-4
EXPNO 910261
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160115
Time 18.01
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 100.41
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
Ph
2bp
11 10 9 8 7 6 5 4 3 2 1 ppm
1.97
3.18
2.20
3.01
0.96
2.00

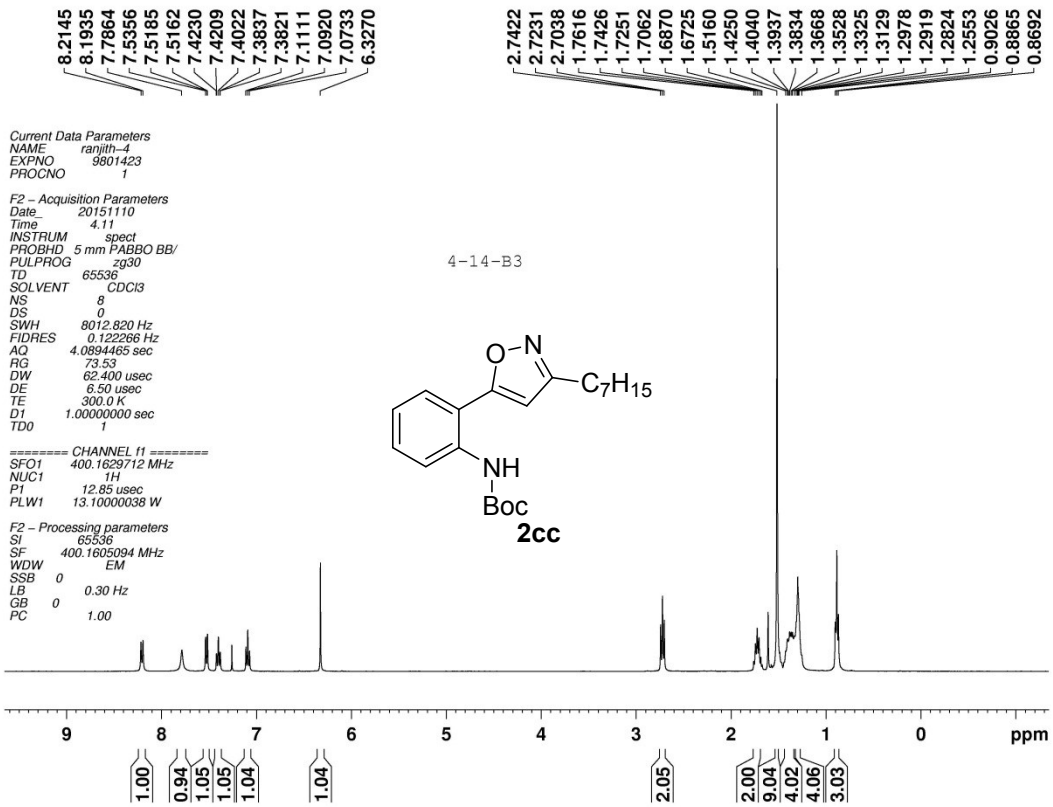

172.84
162.61
136.08
129.99
129.35
129.01
128.98
128.96
127.33
126.90
100.14
33.46
4-26-A
Current Data Parameters
NAME 4-13C
EXPNO 950261
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160119
Time 2.55
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204258 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
Ph
2bp
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

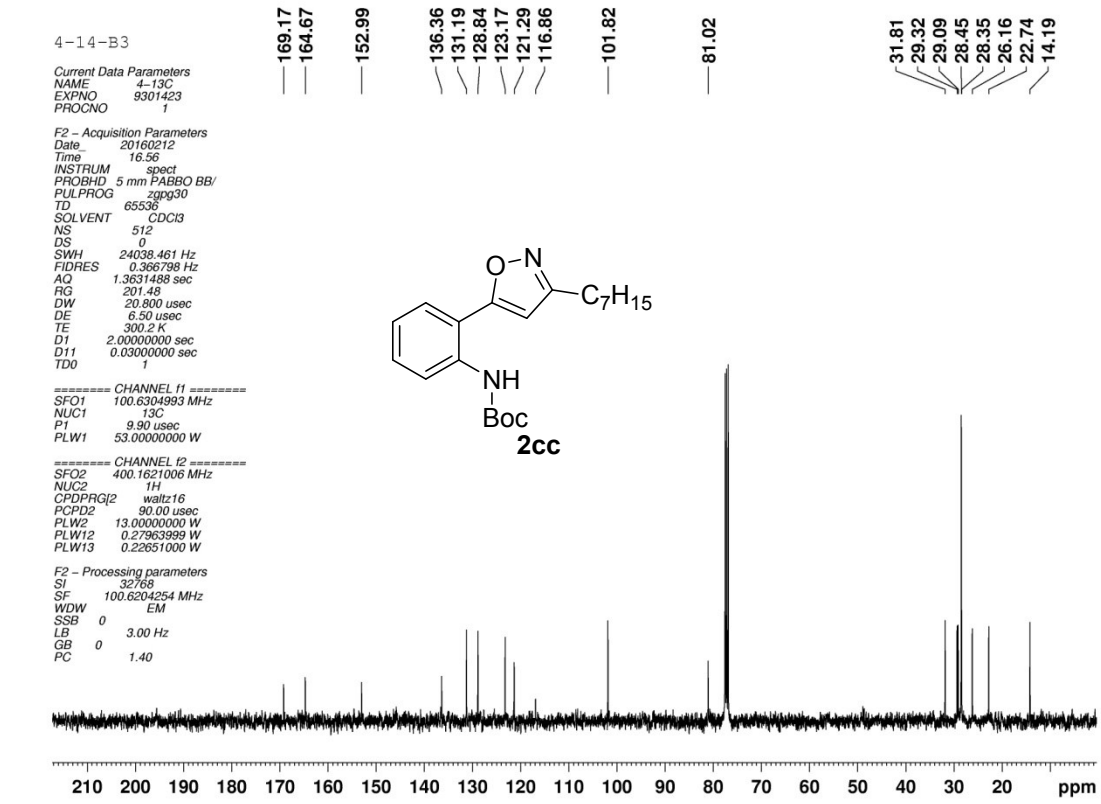

8.2409
8.2201
7.8847
7.8771
7.8734
7.8652
7.8605
7.7642
7.6293
7.6257
7.6098
7.6062
7.5331
7.5288
7.5207
7.5100
7.5050
7.4970
7.4923
7.4815
7.4723
7.4690
7.4509
7.4330
7.4294
7.1672
7.1645
7.1479
7.1461
7.1293
7.1266
6.7964
1.5309
3-46-B3
Current Data Parameters
NAME azide-13C
EXPNO 940
PROCNO 1
F2 - Acquisition Parameters
Date_ 20150406
Time 20.06
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 12.85 usec
PLW1 13.10000038 W
F2 - Processing parameters
SI 65536
SF 400.1605093 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
Ph
NH
Boc
2ca
11
10
9
8
7
6
5
4
3
2
1
ppm
1.05
2.04
0.91
1.14
4.01
1.10
1.00
9.05

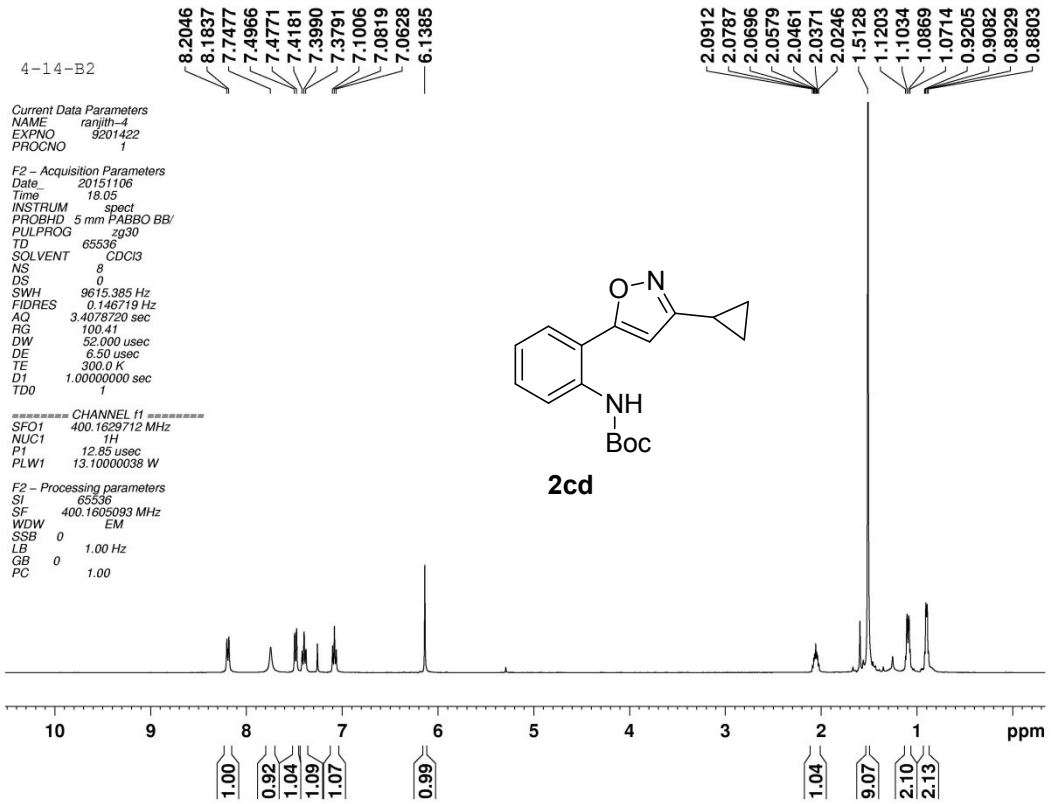

170.10
162.97
153.01
136.48
131.51
130.46
129.21
129.01
128.80
127.03
123.38
121.56
116.85
100.29
81.20
28.48
3-46-B3
Current Data Parameters
NAME azide-13C
EXPNO 950
PROCNO 1
F2 - Acquisition Parameters
Date_ 20150408
Time 22.45
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.00 usec
PLW1 61.09999847 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.10000038 W
PLW12 0.26705000 W
PLW13 0.21630999 W
F2 - Processing parameters
SI 32768
SF 100.6204234 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
Ph
NH
Boc
2ca
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

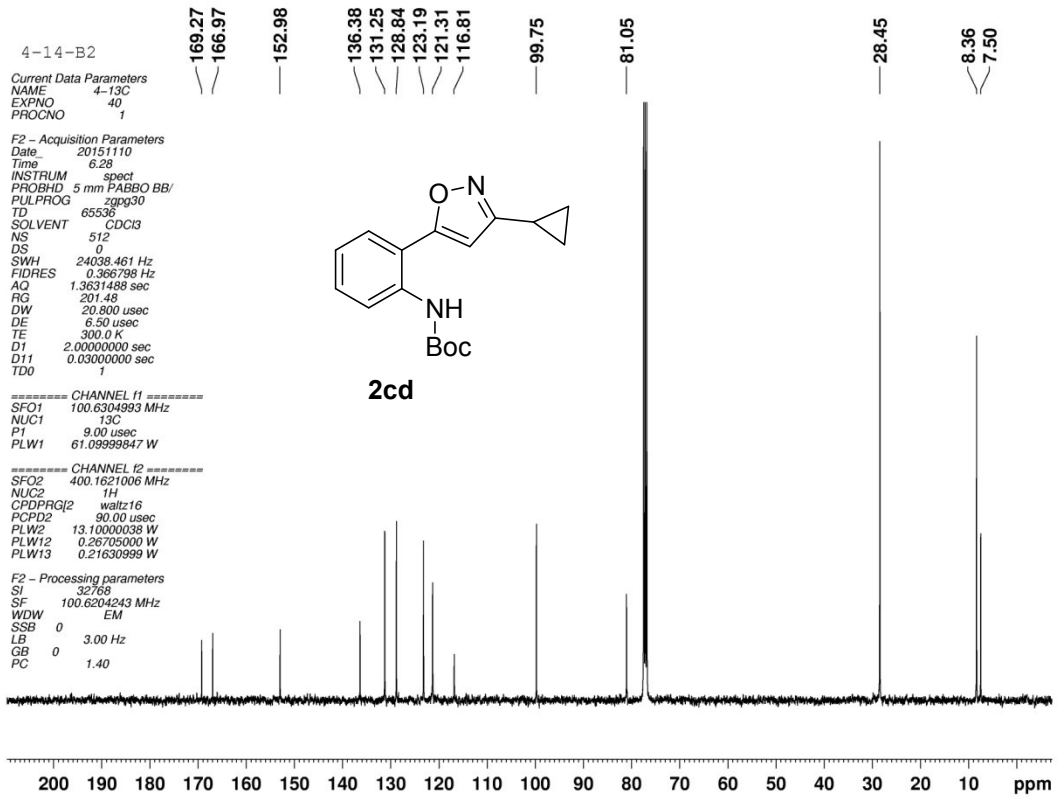

8.2135
8.1926
7.7835
7.5378
7.5342
7.5182
7.5147
7.4226
7.4192
7.4012
7.3832
7.3798
7.2599
7.1119
7.1091
7.0925
7.0905
7.0740
7.0712
6.3286
2.7516
2.7328
2.7133
1.7518
1.7334
1.7283
1.7140
1.7082
1.6949
1.6899
1.6757
1.5154
1.4693
1.4656
1.4504
1.4316
1.4132
0.9868
0.9684
0.9500
4-7-B
Current Data Parameters
NAME ranjith--4
EXPNO 930722
PROCNO 1
F2 – Acquisition Parameters
Date_ 20151023
Time 17.15
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 65.65
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 12.85 usec
PLW1 13.10000038 W
F2 – Processing parameters
SI 65536
SF 400.1605093 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
C4H9
NH
Boc
2cb
10
9
8
7
6
5
4
3
2
1
0
ppm
1.00
0.92
1.07
1.07
1.08
0.94
2.11
2.01
9.01
2.04
3.10

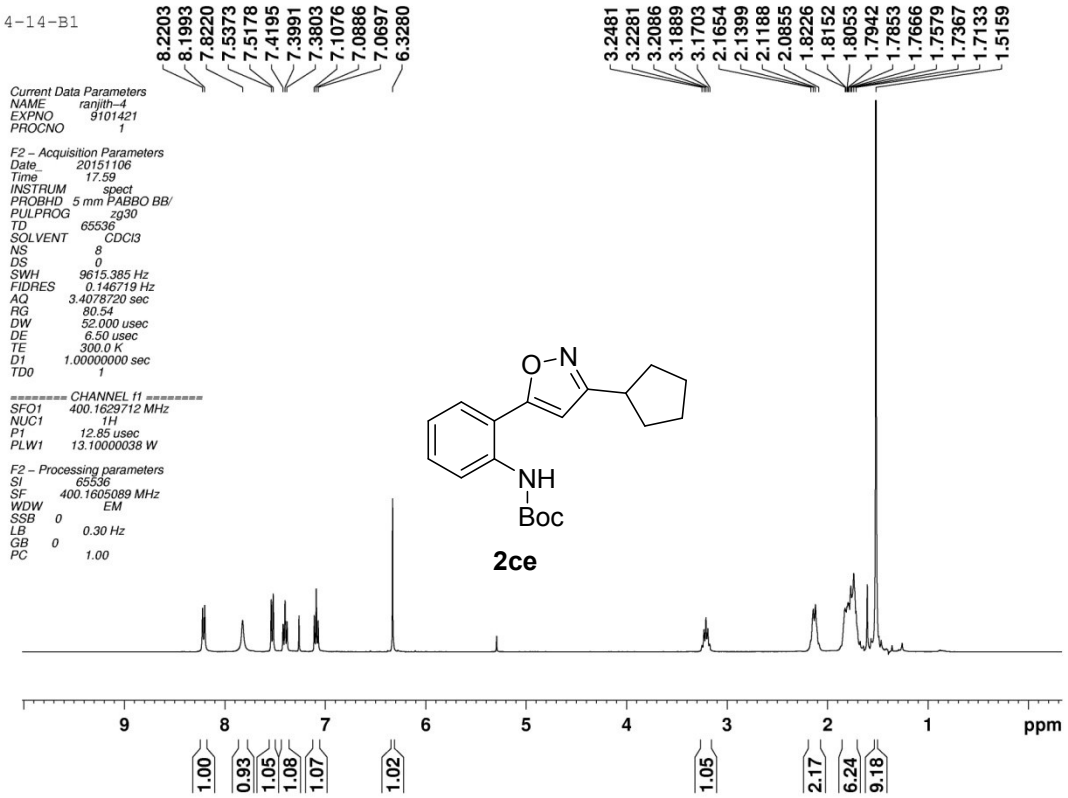

169.16
164.64
152.99
136.36
131.20
128.83
123.19
121.31
116.87
101.83
81.03
30.43
28.45
25.84
22.45
13.87
4-7-B
Current Data Parameters
NAME 4--13C
EXPNO 92072
PROCNO 1
F2 – Acquisition Parameters
Date_ 20151027
Time 12.16
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.00 usec
PLW1 61.09999847 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.10000038 W
PLW12 0.26705000 W
PLW13 0.21630999 W
F2 – Processing parameters
SI 32768
SF 100.6204245 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
C4H9
NH
Boc
2cb
200
180
160
140
120
100
80
60
40
20
0
ppm

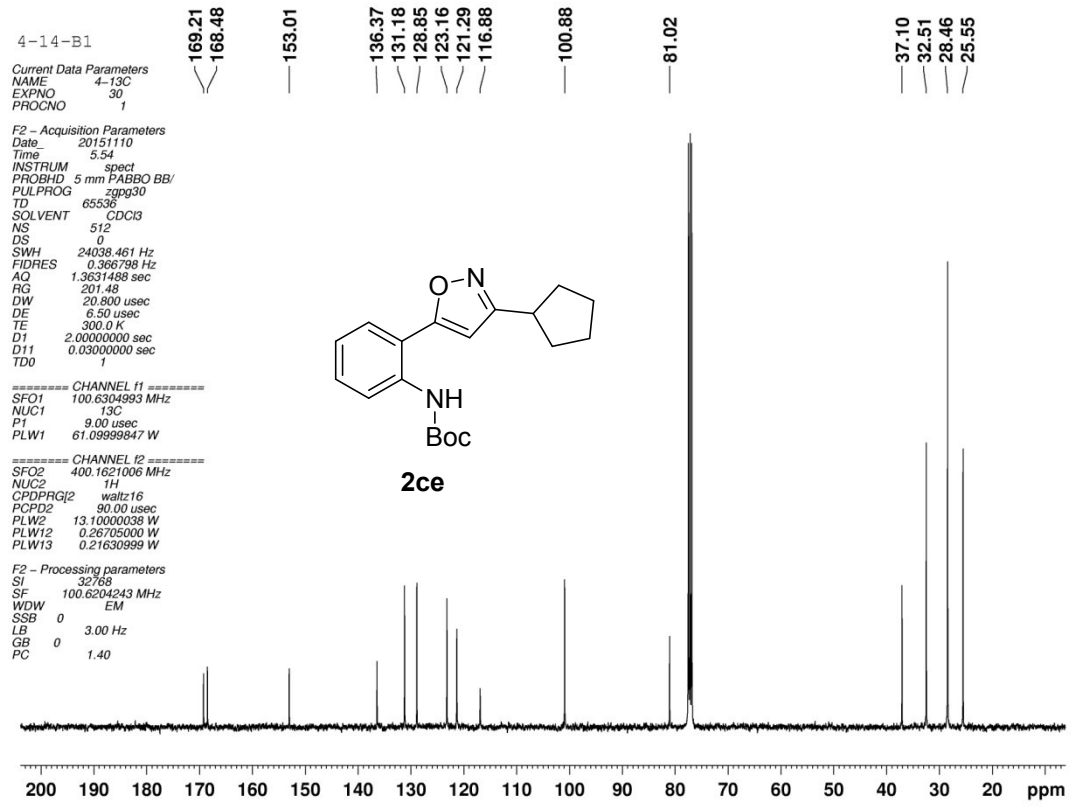

8.2145
8.1935
7.7864
7.5356
7.5185
7.5162
7.4230
7.4209
7.4022
7.3837
7.3821
7.1111
7.0920
7.0733
6.3270
2.7422
2.7231
2.7038
1.7616
1.7426
1.7251
1.7062
1.6870
1.6725
1.5160
1.4250
1.4040
1.3937
1.3834
1.3668
1.3528
1.3325
1.3129
1.2978
1.2919
1.2824
1.2553
0.9026
0.8865
0.8692
Current Data Parameters
NAME ranjith--4
EXPNO 9801423
PROCNO 1
F2 – Acquisition Parameters
Date_ 20151110
Time 4.11
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 73.53
DW 62.400 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 12.85 usec
PLW1 13.10000038 W
F2 – Processing parameters
SI 65536
SF 400.1605094 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
4-14-B3
O
N
C7H15
NH
Boc
2cc
9
8
7
6
5
4
3
2
1
0
ppm
1.00
0.94
1.05
1.05
1.04
1.04
2.05
2.00
9.04
4.02
4.06
3.03

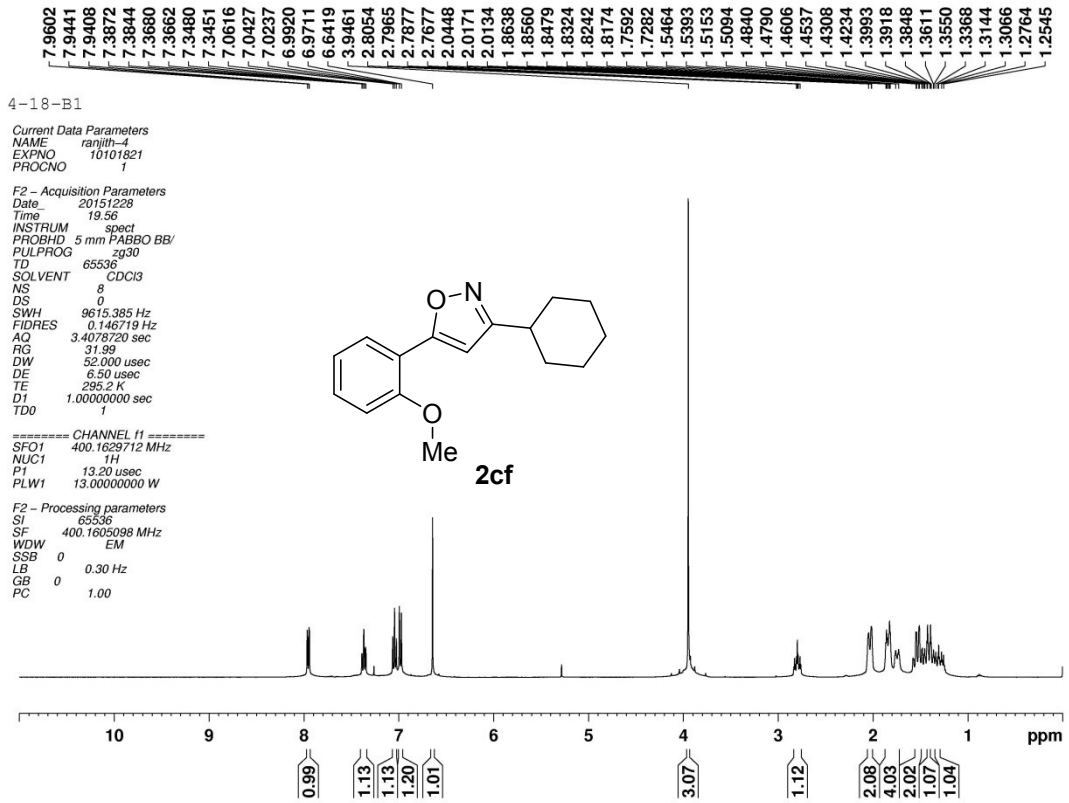

4-14-B3
169.17
164.67
152.99
136.36
131.19
128.84
123.17
121.29
116.86
101.82
81.02
31.81
29.32
29.09
28.45
28.35
26.16
22.74
14.19
Current Data Parameters
NAME 4-13C
EXPNO 9301423
PROCNO 1
F2 – Acquisition Parameters
Date_ 20160212
Time 16.56
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204254 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
C7H15
NH
Boc
2cc
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

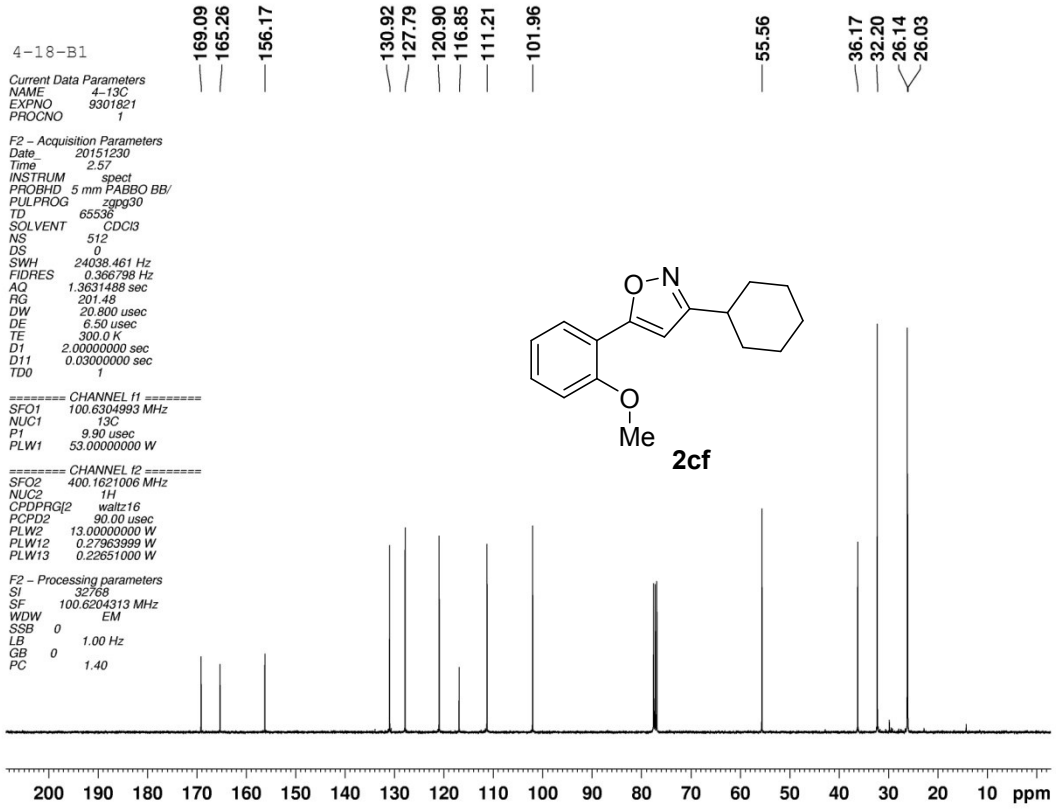

8.2046
8.1837
7.7477
7.4966
7.4771
7.4181
7.3990
7.3791
7.1006
7.0819
7.0628
6.1385
2.0912
2.0787
2.0696
2.0579
2.0461
2.0371
2.0246
1.5128
1.1203
1.1034
1.0869
1.0714
0.9205
0.9082
0.8929
0.8803
4-14-B2
Current Data Parameters
NAME ranjith-4
EXPNO 9201422
PROCNO 1
F2 - Acquisition Parameters
Date_ 20151106
Time 18.05
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 100.41
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 12.85 usec
PLW1 13.10000038 W
F2 - Processing parameters
SI 65536
SF 400.1605093 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00
O
N
NH
Boc
2cd
10
9
8
7
6
5
4
3
2
1
ppm
1.00
0.92
1.04
1.09
1.07
0.99
1.04
9.07
2.10
2.13

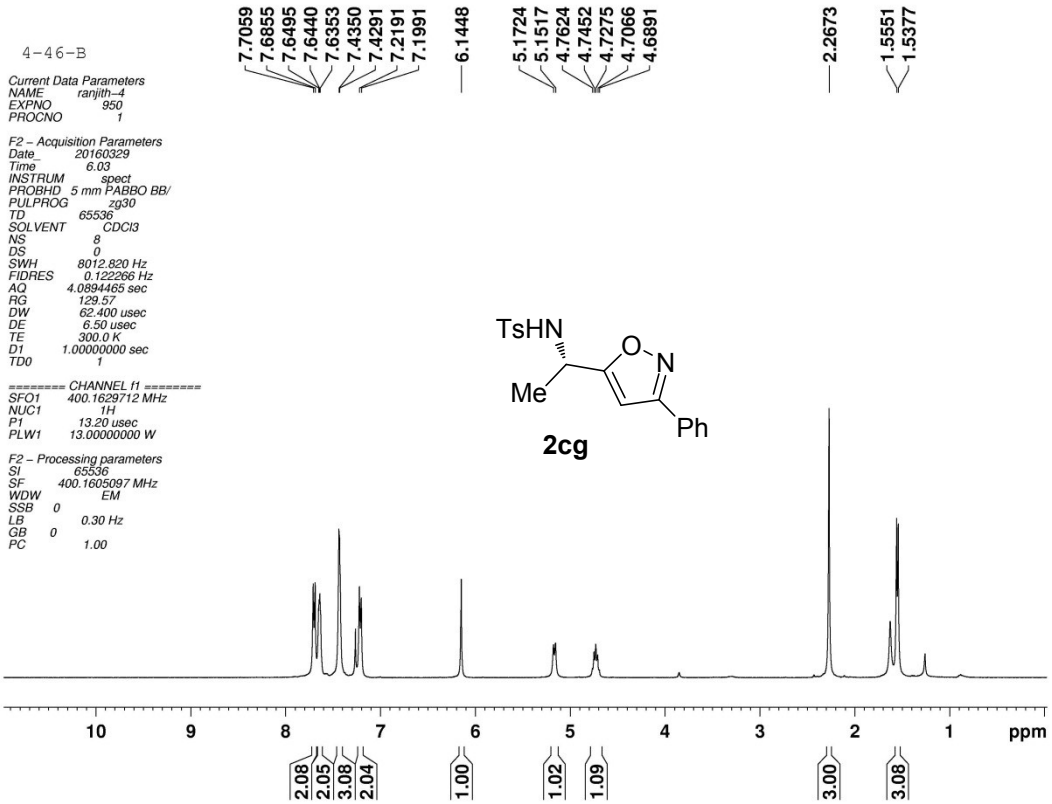

169.27
166.97
152.98
136.38
131.25
128.84
123.19
121.31
116.81
99.75
81.05
28.45
8.36
7.50
4-14-B2
Current Data Parameters
NAME 4-13C
EXPNO 40
PROCNO 1
F2 - Acquisition Parameters
Date_ 20151110
Time 6.28
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.00 usec
PLW1 61.09999847 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.10000038 W
PLW12 0.26705000 W
PLW13 0.21630999 W
F2 - Processing parameters
SI 32768
SF 100.6204243 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
NH
Boc
2cd
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
ppm

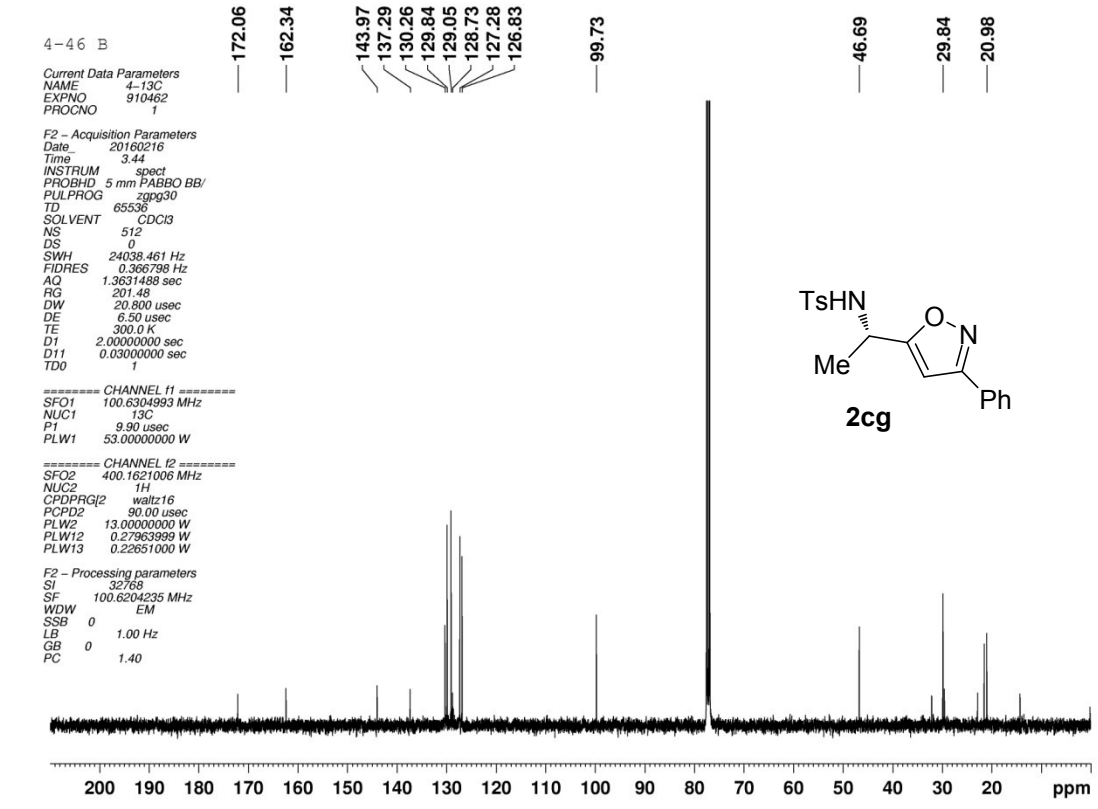

4-14-B1
8.2203
8.1993
7.8220
7.5373
7.5178
7.4195
7.3991
7.3803
7.1076
7.0886
7.0697
6.3280
3.2481
3.2281
3.2086
3.1889
3.1703
2.1654
2.1399
2.1188
2.0855
1.8226
1.8152
1.8053
1.7942
1.7853
1.7666
1.7579
1.7367
1.7133
1.5159
Current Data Parameters
NAME ranjith-4
EXPNO 9101421
PROCNO 1
F2 - Acquisition Parameters
Date_ 20151106
Time 17.59
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 80.54
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 12.85 usec
PLW1 13.10000038 W
F2 - Processing parameters
SI 65536
SF 400.1605089 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
NH
Boc
2ce
9
8
7
6
5
4
3
2
1
ppm
1.00
0.93
1.05
1.08
1.07
1.02
1.05
2.17
6.24
9.18

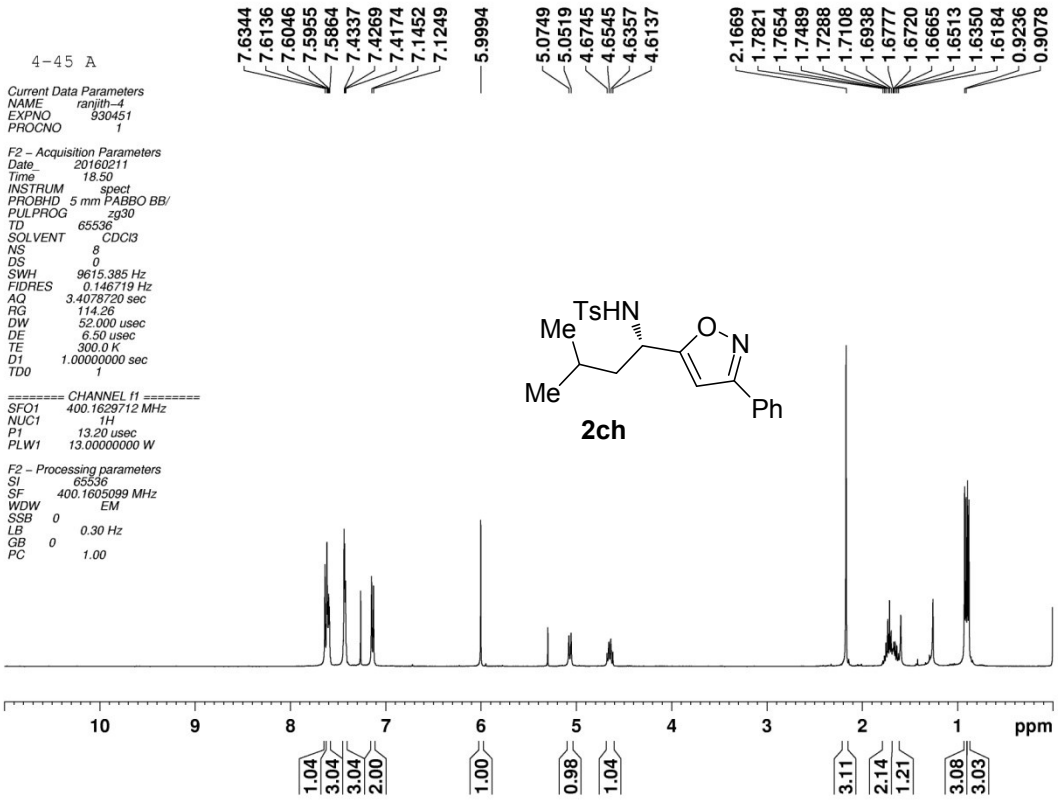

4-14-B1
169.21
168.48
153.01
136.37
131.18
128.85
123.16
121.29
116.88
100.88
81.02
37.10
32.51
28.46
25.55
Current Data Parameters
NAME 4-13C
EXPNO 30
PROCNO 1
F2 - Acquisition Parameters
Date_ 20151110
Time 5.54
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.00 usec
PLW1 61.09999847 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.10000038 W
PLW12 0.26705000 W
PLW13 0.21630999 W
F2 - Processing parameters
SI 32768
SF 100.6204243 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
O
N
NH
Boc
2ce
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm

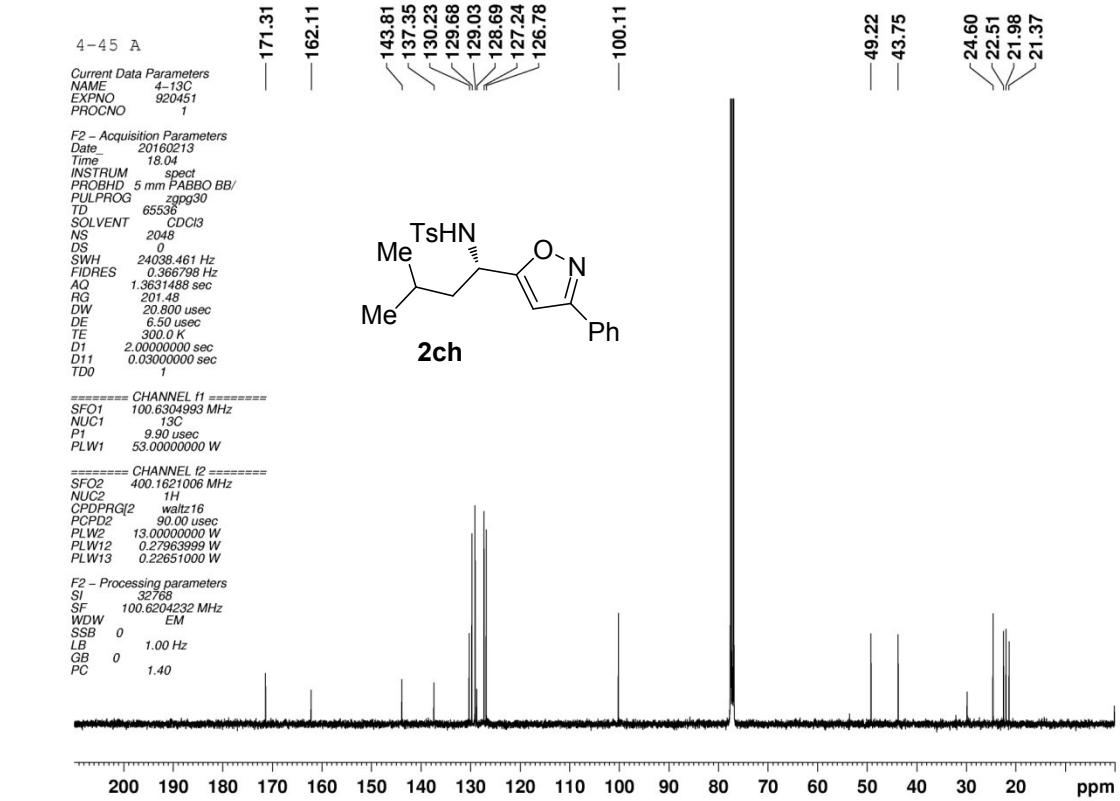

7.9602
7.9441
7.9408
7.3872
7.3844
7.3680
7.3662
7.3480
7.3451
7.0616
7.0427
7.0237
6.9920
6.9711
6.6419
3.9461
2.8054
2.7965
2.7877
2.7677
2.0448
2.0171
2.0134
1.8638
1.8560
1.8479
1.8324
1.8242
1.8174
1.7592
1.7282
1.5464
1.5393
1.5153
1.5094
1.4840
1.4790
1.4606
1.4537
1.4308
1.4234
1.3993
1.3918
1.3848
1.3611
1.3550
1.3368
1.3144
1.3066
1.2764
1.2545
4-18-B1
Current Data Parameters
NAME ranjith--4
EXPNO 10101821
PROCNO 1
F2 – Acquisition Parameters
Date_ 20151228
Time 19.56
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 31.99
DW 52.000 usec
DE 6.50 usec
TE 295.2 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 – Processing parameters
SI 65536
SF 400.1605098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
N
O
Me
2cf
10 9 8 7 6 5 4 3 2 1 ppm
0.99 1.13 1.13 1.20 1.01 3.07 1.12 2.08 4.03 2.02 1.07 1.04

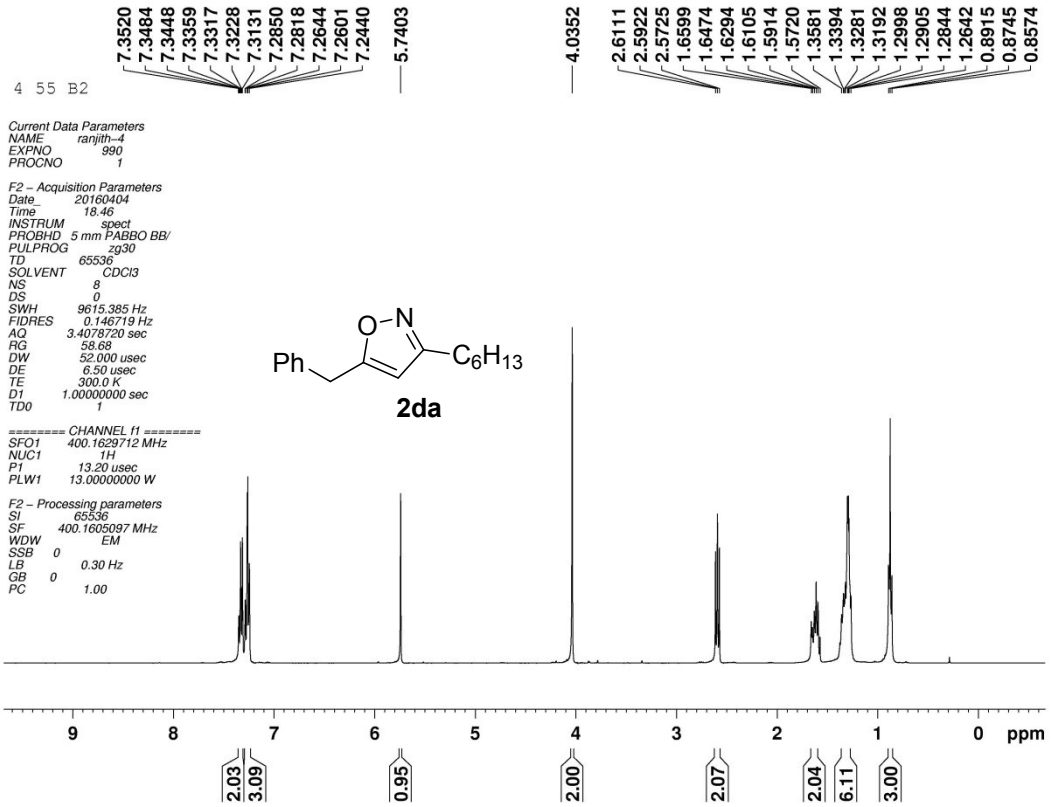

169.09
165.26
156.17
130.92
127.79
120.90
116.85
111.21
101.96
55.56
36.17
32.20
26.14
26.03
4-18-B1
Current Data Parameters
NAME 4--13C
EXPNO 9301821
PROCNO 1
F2 – Acquisition Parameters
Date_ 20151230
Time 2.57
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 – Processing parameters
SI 32768
SF 100.6204313 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
N
O
Me
2cf
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ppm

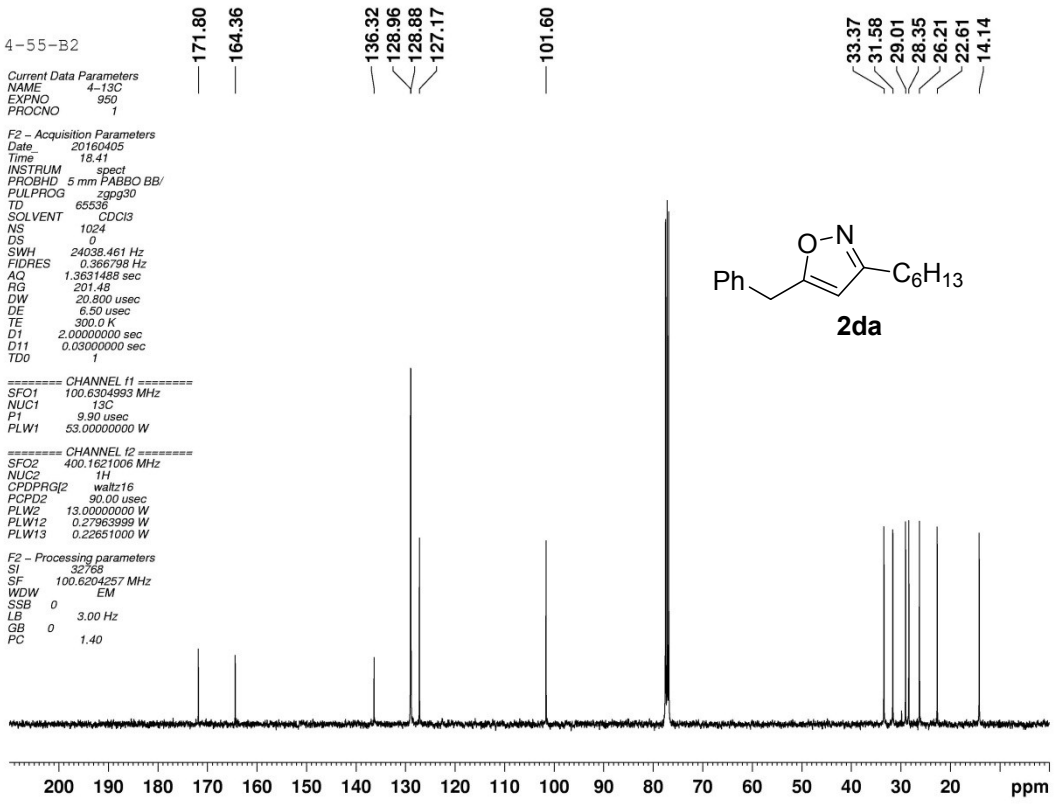

4-46-B
Current Data Parameters
NAME ranjith-4
EXPNO 950
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160329
Time 6.03
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 129.57
DW 62.400 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
7.7059
7.6855
7.6495
7.6440
7.6353
7.4350
7.4291
7.2191
7.1991
6.1448
5.1724
5.1517
4.7624
4.7452
4.7275
4.7066
4.6891
2.2673
1.5551
1.5377
TsHN
Me
O
N
Ph
2cg
10 9 8 7 6 5 4 3 2 1 ppm
2.08
2.05
3.08
2.04
1.00
1.02
1.09
3.00
3.08


4-46 B
Current Data Parameters
NAME 4-13C
EXPNO 910462
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160216
Time 3.44
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204235 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
172.06
162.34
143.97
137.29
130.26
129.84
129.05
128.73
127.28
126.83
99.73
46.69
29.84
20.98
TsHN
Me
O
N
Ph
2cg
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm


4-45 A
7.6344
7.6136
7.6046
7.5955
7.5864
7.4337
7.4269
7.4174
7.1452
7.1249
5.9994
5.0749
5.0519
4.6745
4.6545
4.6357
4.6137
2.1669
1.7821
1.7654
1.7489
1.7288
1.7108
1.6938
1.6777
1.6720
1.6665
1.6513
1.6350
1.6184
0.9236
0.9078
Current Data Parameters
NAME ranjith-4
EXPNO 930451
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160211
Time 18.50
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 114.26
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605099 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
TsHN
Me
Me
O
N
Ph
2ch
10
9
8
7
6
5
4
3
2
1
ppm
1.04
3.04
3.04
2.00
1.00
0.98
1.04
3.11
2.14
1.21
3.08
3.03


4-45 A
171.31
162.11
143.81
137.35
130.23
129.68
129.03
128.69
127.24
126.78
100.11
49.22
43.75
24.60
22.51
21.98
21.37
Current Data Parameters
NAME 4-13C
EXPNO 920451
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160213
Time 18.04
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 2048
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204232 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
TsHN
Me
Me
O
N
Ph
2ch
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm


7.3520
7.3484
7.3448
7.3359
7.3317
7.3228
7.3131
7.2850
7.2818
7.2644
7.2601
7.2440
5.7403
4.0352
2.6111
2.5922
2.5725
1.6599
1.6474
1.6294
1.6105
1.5914
1.5720
1.3581
1.3394
1.3281
1.3192
1.2998
1.2905
1.2844
1.2642
0.8915
0.8745
0.8574
4 55 B2
Current Data Parameters
NAME ranjith-4
EXPNO 990
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160404
Time 18.46
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4078720 sec
RG 58.68
DW 52.000 usec
DE 6.50 usec
TE 300.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1629712 MHz
NUC1 1H
P1 13.20 usec
PLW1 13.00000000 W
F2 - Processing parameters
SI 65536
SF 400.1605097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
Ph
O
N
C6H13
2da
9
8
7
6
5
4
3
2
1
0
ppm
2.03
3.09
0.95
2.00
2.07
2.04
6.11
3.00


171.80
164.36
136.32
128.96
128.88
127.17
101.60
33.37
31.58
29.01
28.35
26.21
22.61
14.14
4-55-B2
Current Data Parameters
NAME 4-13C
EXPNO 950
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160405
Time 18.41
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 0
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 201.48
DW 20.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 100.6304993 MHz
NUC1 13C
P1 9.90 usec
PLW1 53.00000000 W
======== CHANNEL f2 ========
SFO2 400.1621006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 13.00000000 W
PLW12 0.27963999 W
PLW13 0.22651000 W
F2 - Processing parameters
SI 32768
SF 100.6204257 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
Ph
O
N
C6H13
2da
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
ppm