Supporting Information

Asymmetric Hydrogenation of α-Hydroxy Ketones with Iridium/f-Amphox Catalyst: Efficient Access to Chiral 1,2-Diols

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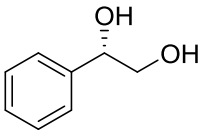
I. General Remarks

All reactions and manipulations which are sensitive to moisture or air were performed in an argon-filled glovebox or using standard Schlenk techniques. Hydrogen gas (99.999%) was purchased from Shanghai Regulator Factory Co., Ltd. Simple ketones, were purchased from Aldrich or Alfa Aesar chemical company, and they were further purified by distilled. Anhydrous THF, 1,4-dioxane and toluene was distilled from sodium benzophenone ketyl. Anhydrous *i*-PrOH, EA, CH_2Cl_2 were freshly distilled from calcium hydride. Anhydrous MeOH and EtOH were freshly distilled from Mg. Anhydrous CF_3CH_2OH were purchased from Sigma-Aldrich. Solvents were transferred by syringe. $[Ir(COD)Cl]_2$ was prepared according to the literature.[1-2] ^1H, ^{13}C and ^{31}P NMR spectra were recorded with a Bruker ADVANCE III (400 MHz) spectrometer with $CDCl_3$ as the solvent and tetramethylsilane (TMS) as the internal standard. Chemical shifts are reported in parts per million (ppm, δ scale) downfield from TMS at 0.00 ppm and referenced to the $CDCl_3$ at 7.26 ppm (for ^1H NMR) or 77.0 ppm (for ^{13}C NMR). Data are reported as: multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet), coupling constant in hertz (Hz) and signal area integration in natural numbers. ^{13}C NMR and ^{31}P NMR analyses were run with decoupling. Optical rotations $[\alpha]_D$ were determined using a PERKIN ELMER polarimeter 343 instrument. GC analyses were performed using SHIMADZU Lab Solution instrument. HPLC analyses were performed using Daicel chiral column. Aliphatic α-hydroxy ketones were purchased from Sigma-Aldrich and all the aromatic α-hydroxy ketones were prepared according the literature.[3-7] The characterization data of compounds **2a-2c, 2e, 2j, 2l, 2n, 2o, 2r** are in accordance with the reported data in the literature.[6] The characterization data of compounds **2d, 2g, 2i, 2q, 2m** are in accordance with the reported data in the literature.[5, 11] The characterization data of compounds **2f, 2h, 2k, 2p, 2s** are in accordance with the reported data in the literature. [12-16]

II. General procedure for asymmetric hydrogenation

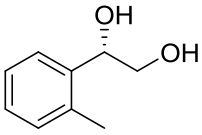
General procedure for S/C = 10,000: To a 4.0 mL vial was added the catalyst precursor $[Ir(COD)Cl]_2$ (1.4 mg, 2.0×10^{-3} mmol), ligand **L3** (2.4 mg, 4.2×10^{-3} mmol) and anhydrous ^{i}PrOH (2.0 mL) under argon atmosphere. The mixture was stirred for 2.0 h at 25 °C giving orange red solution in the argon-filled glovebox. The resulting solution (10 μL) and a solution of K_2CO_3 (10 μL, c = 0.02 mmol/mL) transferred by syringe into a 5.0 mL vial charged with fresh distilled substrate ketones (0.2 mmol) in 1.0 mL anhydrous ^{i}PrOH. The vials were transferred to an autoclave, which was then charged with 20 atm of H_2 and stirred at room temperature for 2 h. The hydrogen gas was released slowly in a well-ventilated hood and the solution was concentrated and passed through a short column of silica gel to remove the metal complex. The product was analyzed by chiral GC or chiral HPLC for ee values. The characterization data of compounds **2a**-**2s** are in accordance with the reported data in the literature.[5-10]

(*S*)-1-Phenyl-1,2-ethanediol **2a**



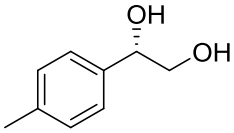
Colorless solid, 27.4 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +34.8 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 33.61 min (minor), t_R(*S*) = 37.82 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.36- 7.24 (m, 4H), 7.23-7.17 (m, 1H), 4.64 (dd, *J* = 7.1, 5.0 Hz, 1H), 3.57 (dd, *J* = 6.1, 2.6 Hz, 2H); ^{13}C NMR (101 MHz, CD_3OD) δ 141.91, 127.88, 127.15, 126.03, 74.59, 67.39.

(*S*)-1-(2-Methylphenyl)-1,2-ethanediol **2b**



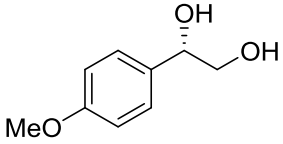
Colorless solid, 30.1 mg, 99% yield; 99% ee; $[\alpha]_D^{25}$ = +33.4 (c = 0.35, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 29.23 min (minor), t_R(*S*) = 39.62 min (major). ^{1}H NMR (400 MHz, d-DMSO) δ 7.40 (d, *J* = 4.0 Hz, 1H), 7.19-7.06 (m, 3H), 5.14 (d, *J* = 4.0 Hz, 1H), 4.76-4.74 (m, 1H), 3.39 (dt, *J* = 9.4, 3.8 Hz, 1H), 3.34-3.30 (m, 1H), 2.28 (s, 3H); ^{13}C NMR (101 MHz, d-DMSO) δ141.84, 134.84, 130.16, 126.99, 126.46, 126.06, 71.0, 67.04, 19.28.

(*S*)-1-(4-Methylphenyl)-1,2-ethanediol **2c**



Colorless solid, 30.1 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +57.8 (c = 0.225, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 210 nm; t_R(*R*) = 29.15 min (minor), t_R(*S*) = 33.59 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.26 (d, *J* = 8.0 Hz, 2H), 7.16 (d, *J* = 8.0 Hz, 2H), 4.70-4.62 (m, 1H), 3.64-3.57 (m, 2H), 2.33 (s, 3H). ^{13}C NMR (101 MHz, CD_3OD) δ 138.82, 136.85, 128.48, 125.97, 74.45, 67.38, 19.79.

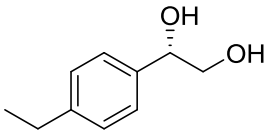
(*S*)-1-(4-Methoxyphenyl)-1,2-ethanediol **2d**



Colorless solid, 33.3 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +63.8 (c = 0.24, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate

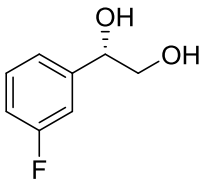
= 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 50.37 min (minor), t_R(*S*) = 58.49 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.18 (d, *J* = 8.0 Hz, 2H), 6.78 (d, *J* = 8.0 Hz, 2H), 4.52 (t, *J* = 6.1 Hz, 1H), 3.67 (s, 3H), 3.48 (d, *J* = 8.0 Hz, 2H). ^{13}C NMR (101 MHz, CD_3OD) δ 159.25, 133.88, 127.21, 113.24, 74.16, 67.31, 54.25.

(*S*)-1-(4-Ethylphenyl)-1,2-ethanediol **2e**



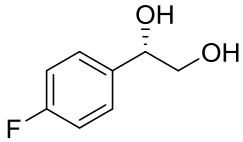
Colorless solid, 32.9 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +20.2 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 26.75 min (minor), t_R(*S*) = 30.13 min (major). ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.29 (d, *J* = 8.1 Hz, 2H), 7.20 (d, *J* = 8.1 Hz, 2H), 4.80 (dd, *J* = 8.0, 3.4 Hz, 1H), 3.80-3.59 (m, 2H), 2.65 (q, *J* = 7.6 Hz, 2H), 2.54 (brs, 1H), 2.17 (brs, 1H), 1.24 (t, *J* = 8.0 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 144.22, 137.74, 128.10, 126.12, 74.60, 68.10, 28.58, 15.62.

(*S*)-1-(3-Fluorophenyl)-1,2-ethanediol **2f**



Colorless solid, 30.9 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +19.2 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 28.39 min (minor), t_R(*S*) = 32.53 min (major). ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.34-7.29 (m, 1H), 7.12-7.08 (m, 2H), 7.01-6.96 (m, 1H), 4.81 (dd, *J* = 8.1, 3.2 Hz, 1H), 3.77-3.74 (m, 1H), 3.64-3.59 (m, 1H), 3.07 (brs, 1H), 2.54 (brs, 1H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 162.97 (d, *J* = 246.3 Hz), 143.11 (d, *J* = 6.9 Hz), 130.10 (d, *J* = 8.1 Hz), 121.62 (d, *J* = 2.9 Hz), 114.85 (d, *J* = 21.1 Hz), 113.08 (d, *J* = 22.1 Hz), 74.04 (d, *J* = 1.6 Hz), 67.90.

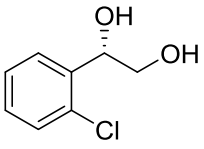
(*S*)-1-(4-Fluorophenyl)-1,2-ethanediol **2g**



Colorless solid, 30.9 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +56.4 (c = 0.225, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 210 nm; t_R(*R*) = 31.60 min (minor), t_R(*S*) = 35.53 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.30-7.26 (m, 2H), 6.97-6.93 (m, 2H), 4.57 (t, *J* = 8.0 Hz, 1H), 3.50-3.48 (m, 2H). ^{13}C NMR (101 MHz,

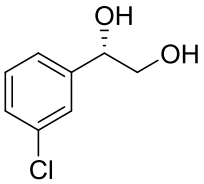
CD_3OD) δ 162.24 (d, *J* = 243.6 Hz), 138.05 (d, *J* = 3.0 Hz), 127.87 (d, *J* = 8.1 Hz), 114.44 (d, *J* = 21.5 Hz), 73.79, 67.23.

(*S*)-1-(2-Chlorophenyl)-1,2-ethanediol **2h**



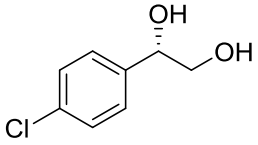
Colorless solid, 34.2 mg, 99% yield; 95% ee; $[\alpha]_D^{25}$ = +32.4 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 205 nm; t_R(*R*) = 24.34 min (minor), t_R(*S*) = 33.78 min (major). ^{1}H NMR (400 MHz, d-DMSO) δ 7.58-7.55 (m, 1H), 7.41-7.30 (m, 2H), 7.29-7.26 (m, 1H), 5.47 (d, *J* = 4.0 Hz, 1H), 4.92-4.87 (m, 1H), 3.51-3.47 (m, 1H), 3.36-3.26 (m, 1H). ^{13}C NMR (101 MHz, d-DMSO) δ 140.82, 131.52, 129.26, 128.99, 128.80, 127.50, 71.02, 66.09.

(*S*)-1-(3-Chlorophenyl)-1,2-ethanediol **2i**



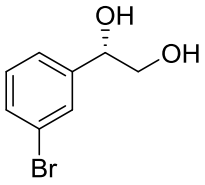
Colorless solid, 34.2 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +50.8 (c = 0.24, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 33.02 min (minor), t_R(*S*) = 39.22 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.43 (s, 1H), 7.38-7.21 (m, 3H), 4.70-4.67 (m, 1H), 3.63-3.61 (m, 2H). ^{13}C NMR (101 MHz, CD_3OD) δ 144.61, 133.77, 129.37, 127.07, 126.11, 124.46, 73.76, 67.10.

(*S*)-1-(4-Chlorophenyl)-1,2-ethanediol **2j**



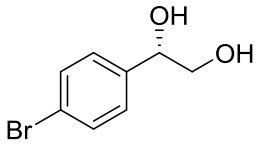
Colorless solid, 34.2 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +11.8 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 33.41 min (minor), t_R(*S*) = 37.63 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.36-7.25 (m, 4H), 4.64-4.61 (m, 1H), 3.59-3.51 (m, 2H). ^{13}C NMR (101 MHz, CD_3OD) δ 140.91, 132.72, 127.89, 127.68, 73.75, 67.11.

(*S*)-1-(3-Bromophenyl)-1,2-ethanediol **2k**



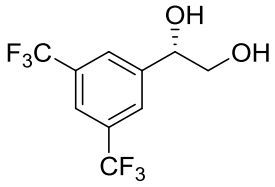
Colorless solid, 42.9 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +14.8 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 210 nm; t_R(*R*) = 37.16 min (minor), t_R(*S*) = 45.84 min (major). ^{1}H NMR (400 MHz, d-DMSO) δ 7.53 (t, *J* = 1.7 Hz, 1H), 7.42 (ddd, *J* = 7.8, 2.0, 1.2 Hz, 1H), 7.36-7.32 (m, 1H), 7.27 (t, *J* = 7.7 Hz, 1H), 5.42 (brs, 1H), 4.80 (brs, 1H), 4.54 (t, *J* = 5.8 Hz, 1H), 3.53-3.44 (m, 1H), 3.43-3.40 (m, 1H). ^{13}C NMR (101 MHz, d-DMSO) δ 146.93, 130.50, 130.04, 129.52, 125.92, 121.80, 73.47, 67.55.

(*S*)-1-(4-Bromophenyl)-1,2-ethanediol **2l**



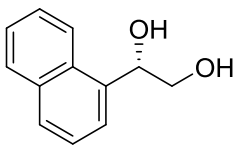
Colorless solid, 42.6 mg, 98% yield; >99% ee; $[\alpha]_D^{25}$ = +31.8 (c = 0.50, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 39.54 min (minor), t_R(*S*) = 42.78 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.46-7.43 (m, 2H), 7.27-7.25 (m, 2H), 4.62-4.60 (m, 1H), 3.56–3.54 (m, 2H). ^{13}C NMR (101 MHz, CD_3OD) δ 141.41, 130.90, 128.02, 120.70, 73.79, 67.06.

(*S*)-1-(3,5-bis(trifluoromethyl)phenyl)-1,2-ethanediol **2m**



Colorless solid, 54.3 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +35.8 (c = 0.50, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*R*) = 18.64 min (minor), t_R(*S*) = 20.74 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.90 (s, 2H), 7.76 (s, 1H), 4.75 (t, *J* = 8.0 Hz, 1H), 3.57 (d, *J* = 8.0 Hz, 2H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 143.03, 131.80 (q, *J* = 33.0 Hz), 126.27, 121.86, 99.99, 73.39, 67.58. ^{19}F NMR (377 MHz, $CDCl_3$) δ -62.89.

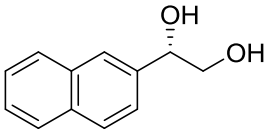
(*S*)-1-(1-Naphtyl)-1,2-ethanediol **2n**



Colorless solid, 37.3 mg, 99% yield; 97% ee; $[\alpha]_D^{25}$ = +35.8 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 70:30; flow rate

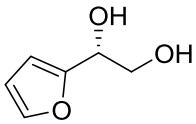
= 0.5mL/min; UV detection at 254 nm; t_R(*R*) = 10.54 min (minor), t_R(*S*) = 14.83 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 8.17 (d, *J* = 8.0 Hz, 1H), 7.92-7.90 (m, 1H), 7.83-7.81 (m, 1H), 7.59 (d, *J* = 7.1 Hz, 1H), 7.74-7.72 (m, 1H), 7.56-7.49 (m, 3H), 5.57-5.55 (m, 1H), 3.90-3.86 (m, 1H), 3.73-3.68 (m, 1H). ^{13}C NMR (101 MHz, CD_3OD) δ 137.30, 133.83, 130.65, 128.47, 127.53, 125.62, 125.09, 125.01, 123.29, 122.60, 71.37, 67.02.

(*S*)-1-(2-Naphtyl)-1,2-ethanediol **2o**



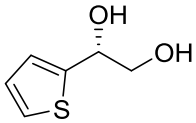
Colorless solid, 37.3 mg, 99% yield; 99% ee; $[\alpha]_D^{25}$ = +13.6 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 70:30; flow rate = 0.5 mL/min; UV detection at 254 nm; t_R(*R*) = 11.18 min (minor), t_R(*S*) = 12.39 min (major). ^{1}H NMR (400 MHz, CD_3OD) δ 7.87-7.84 (m, 4H), 7.48-7.46 (m, 3H), 4.91-4.83 (m, 1H), 3.75-3.72 (m, 2H). ^{13}C NMR (101 MHz, CD_3OD) δ 139.43, 133.39, 133.12, 127.53, 127.51, 127.24, 125.66, 125.38, 124.84, 124.17, 74.65, 67.24.

(*R*)-1-(2-Furyl)-1,2-ethanediol **2p**



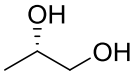
Colorless solid, 25.4 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +4.4 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 95:5; flow rate = 0.8 mL/min; UV detection at 230 nm; t_R(*S*) = 25.36 min (minor), t_R(*R*) = 29.82 min (major). ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.37 (s, 1H), 6.34-6.29 (m, 2H), 4.79–4.77 (m, 1H), 3.87-3.79 (m, 2H), 3.74 (brs, 1H), 3.29 (brs, 1H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 153.55, 142.32, 110.34, 107.02, 68.34, 65.04.

(*R*)-1-(2-Thienyl)-1,2-ethanediol **2q**



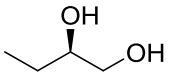
Colorless solid, 28.6 mg, 99% yield; >99% ee; $[\alpha]_D^{25}$ = +36.9 (c = 0.52, $CHCl_3$). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 95:5; flow rate = 1.0 mL/min; UV detection at 220 nm; t_R(*S*) = 7.59 min (minor), t_R(*R*) = 9.02 min (major). ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.27-7.25 (m, 1H), 6.99-6.97 (m, 2H), 5.01 (dd, *J* = 7.6, 3.6 Hz, 1H), 3.81-3.68 (m, 2H), 3.68 (brs, 1H), 3.20 (brs, 1H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 143.86, 126.89, 125.10, 124.46, 70.70, 67.69.

(*S*)-1,2-Propanediol **2r**



Colorless oil, 15.1 mg, 99% yield; 93% ee; $[\alpha]_D^{25}$ = +7.0 (c = 0.50, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 205 nm; t_R(*R*) = 41.36 min (minor), t_R(*S*) = 43.34 min (major). HPLC conditions (To the corresponding *p*-Toluenesulfonyl derivatives). ^{1}H NMR (400 MHz, d-DMSO) δ 4.39-4.37 (m, 1H), 4.32 (d, *J* = 4.5 Hz, 1H), 3.50-3.38 (m, 1H), 3.20-3.11 (m, 1H), 3.07-3.03 (m, 1H), 0.89 (d, *J* = 6.3 Hz, 3H). ^{13}C NMR (101 MHz, d-DMSO) δ 67.69, 67.64, 20.42.

(*R*)-1,2-Butanediol **2s**



Colorless oil, 17.8 mg, 99% yield; 96% ee; $[\alpha]_D^{25}$ = +0.8 (c = 0.28, MeOH). The enantiomeric excess was determined by HPLC on Chiralpak OD-H column, hexane: isopropanol = 98:2; flow rate = 1.0 mL/min; UV detection at 205 nm; t_R(*S*) = 28.2 min (minor), t_R(*R*) = 32.37 min (major). HPLC conditions (To the corresponding *p*-Toluenesulfonyl derivatives). ^{1}H NMR (400 MHz, CD_3OD) δ 3.41-3.22 (m, 3H), 1.45-1.43 (m, 1H), 1.32-1.26 (m, 1H), 0.86 (t, *J* = 8.0 Hz, 3H). ^{13}C NMR (101 MHz, CD_3OD) δ 73.30, 65.60, 25.81, 8.94.

Asymmetric Hydrogenation of acetophenone at S/C = 1 000 000

To a 4 mL vial was added the catalyst precursor $[Ir(COD)Cl]_2$ (1.4 mg, 2.0×10^{-3} mmol), ligand **L3** (2.4 mg, 4.2×10^{-3} mmol) and anhydrous ^{i}PrOH (2.0 mL) under argon atmosphere. The mixture was stirred for 2.0 h at 25 °C giving orange red solution in the argon-filled glovebox. The resulting solution (50 μL) and K_2CO_3 (13.8 mg) transferred by syringe into a 100 mL vial charged with recrystallized α–hydroxyacetophenone (100 mmol) in 25 mL anhydrous ^{i}PrOH. The vial was transferred to an autoclave, which was then charged with 50 atm of H_2 and stirred at room temperature for 24 h. The hydrogen gas was released slowly in a well-ventilated hood and the solution was concentrated and passed through a column of silica gel to remove the metal complex. The product (*S*)-1-Phenyl-1,2-ethanediol **2a** was analyzed by chiral HPLC, >99% yield and >99% ee.

III. GC and HPLC spectra

```
Data File E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\043-0501.D
Sample Name: WWL-2-PH-diol-rac

    ================================================================
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    Acq. Instrument : 1260HPLC-DAD                 Location : Vial 43
    Injection Date  : 12/12/2015 2:31:07 PM            Inj :   1
                                                  Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-0D(1-2)-98-2-1.0ML-
                      205-250NM-60MIN.M
    Last changed    : 12/12/2015 3:21:25 PM by SYSTEM
                      (modified after loading)
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                      205-250NM-60MIN.M (Sequence Method)
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                      (modified after loading)
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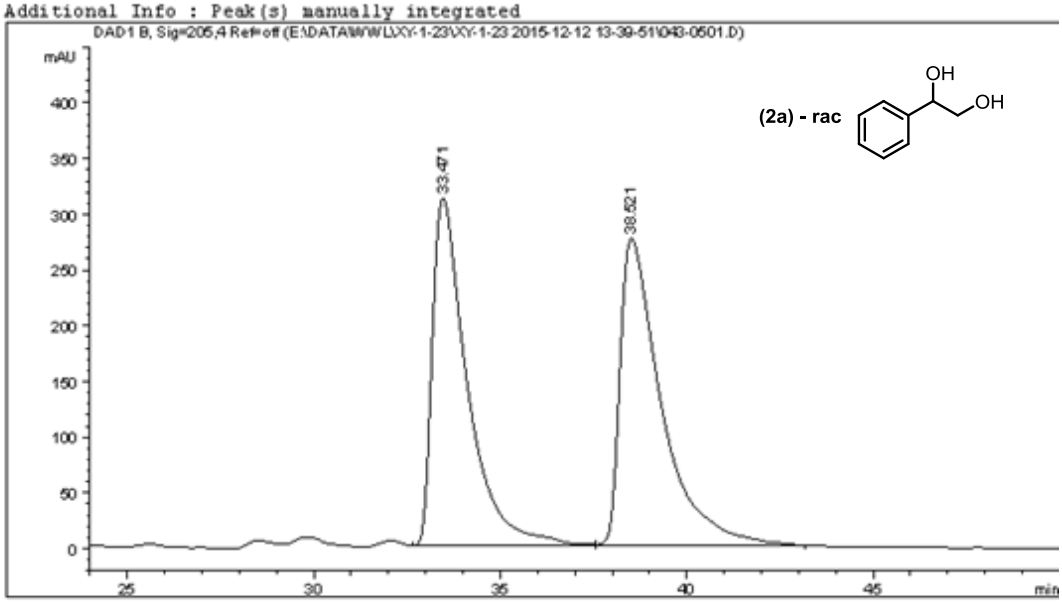


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                          Area Percent Report
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    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=205,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  33.471 BB    0.9290 2.02411e4   311.96320  49.0873
       2  38.521 BB    1.0839 2.09938e4   274.60208  50.9127

    Totals :                  4.12349e4   586.56528

    ================================================================

1260HPLC-DAD 12/12/2015 8:56:28 PM SYSTEM                    Page 1 of 1
```

Data File E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\021-0201.D
Sample Name: WWL-2-193-1

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   2
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 21
    Injection Date  : 11/20/2015 10:22:52 PM              Inj :   1
                                                  Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-50MIN.M
    Last changed    : 11/20/2015 10:05:02 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-OD(1-2)-98-2-1.
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                      (modified after loading)
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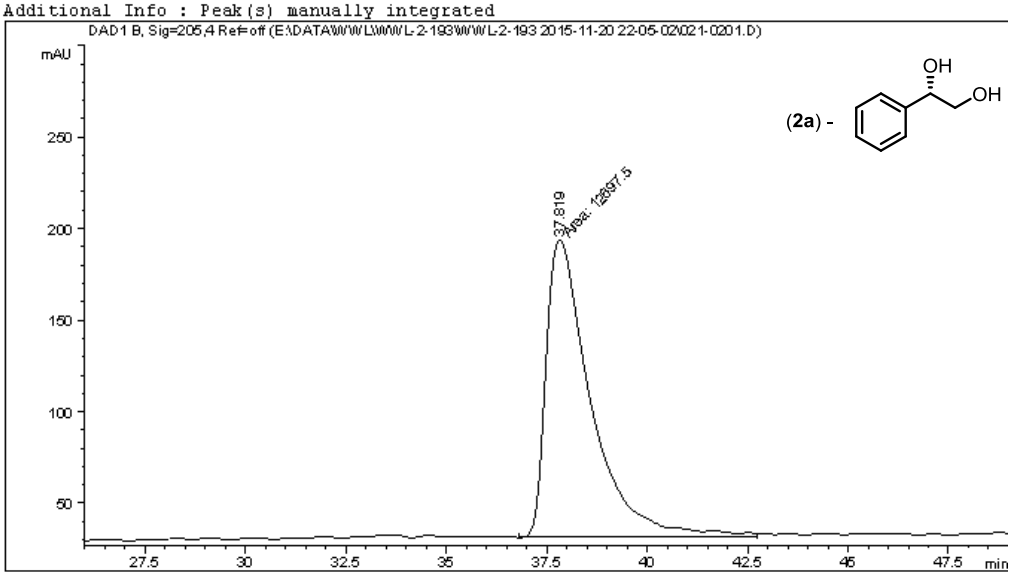


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                              Area Percent Report
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    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=205,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  37.819 MM    1.3045 1.26975e4   162.22153 100.0000

    Totals :                  1.26975e4   162.22153


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                              *** End of Report ***
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Data File E:\DATA\WW...-ALKYLOL-TS-RAC\WWL-2-ALKYLOL-TS-RAC 2015-12-11 16-54-57\031-1601.D
Sample Name: wwl-o-me-diol-rac

```
Acq. Operator   : SYSTEM                        Seq. Line :  16
Acq. Instrument : 1260HPLC-VWD                   Location : Vial 31
Injection Date  : 12/12/2015 3:28:12 AM               Inj :  1
                                                Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WWL\WWL-2-ALKYLOL-TS-RAC\WWL-2-ALKYLOL-TS-RAC 2015-12-11 16-54-
                  57\VWD-OD(1-2)-98-2-1.0ML-210NM-50MIN.M
Last changed    : 12/11/2015 10:33:54 PM by SYSTEM
Analysis Method : E:\DATA\WWL\WWL-2-ALKYLOL-TS-RAC\WWL-2-ALKYLOL-TS-RAC 2015-12-11 16-54-
                  57\VWD-OD(1-2)-98-2-1.0ML-210NM-50MIN.M (Sequence Method)
Last changed    : 12/12/2015 9:03:32 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
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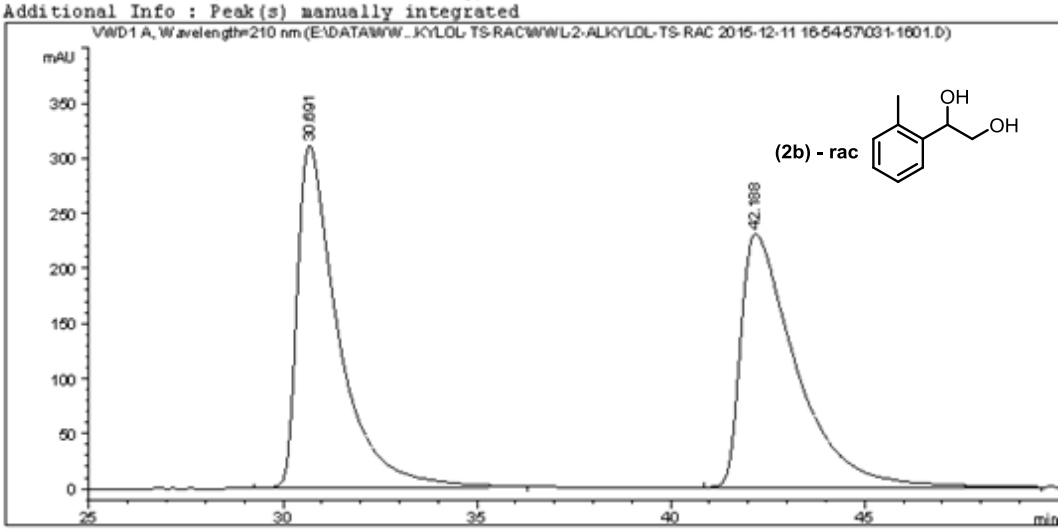


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                          Area Percent Report

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=210 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  30.691 BB    1.0829 2.27558e4   310.53751  49.8536
   2  42.188 BB    1.4290 2.28895e4   230.02068  50.1464

Totals :                  4.56453e4   540.55818


                          *** End of Report ***
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Data File E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\041-1201.D
Sample Name: WWL-3-08-1

```
    ==================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  12
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 41
    Injection Date  : 12/15/2015 1:05:43 AM             Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-50MIN.M
    Last changed    : 12/14/2015 8:13:46 PM by SYSTEM
    Analysis Method : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 1/21/2016 12:50:11 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
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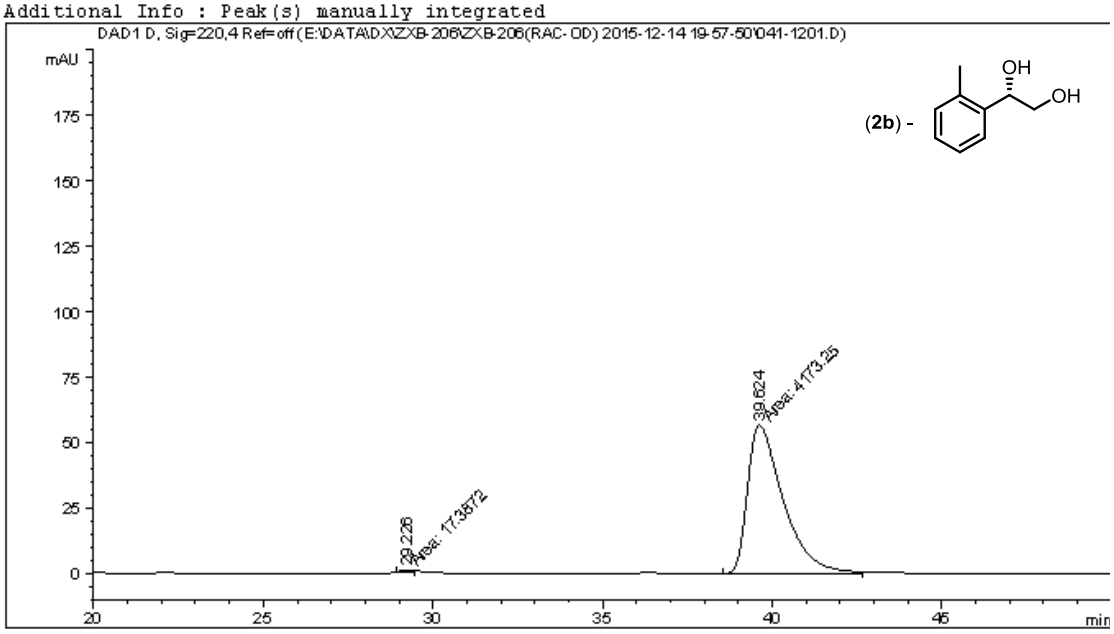


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    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]        %
    ----|-------|----|-------|----------|----------|--------|
       1  29.226 MM    0.4380   17.38722 6.61577e-1   0.4149
       2  39.624 MM    1.2267 4173.24707   56.70223  99.5851

    Totals :                  4190.63429   57.36381


    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\063-1901.D
Sample Name: WWL-P-CH3-OH

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :  19
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 63
Injection Date  : 5/31/2015 10:38:59 PM             Inj :  1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-50MIN(1-2).M
Last changed    : 5/31/2015 4:09:31 PM by SYSTEM
Analysis Method : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-50MIN(1-2).M (Sequence Method)
Last changed    : 12/9/2015 7:40:10 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
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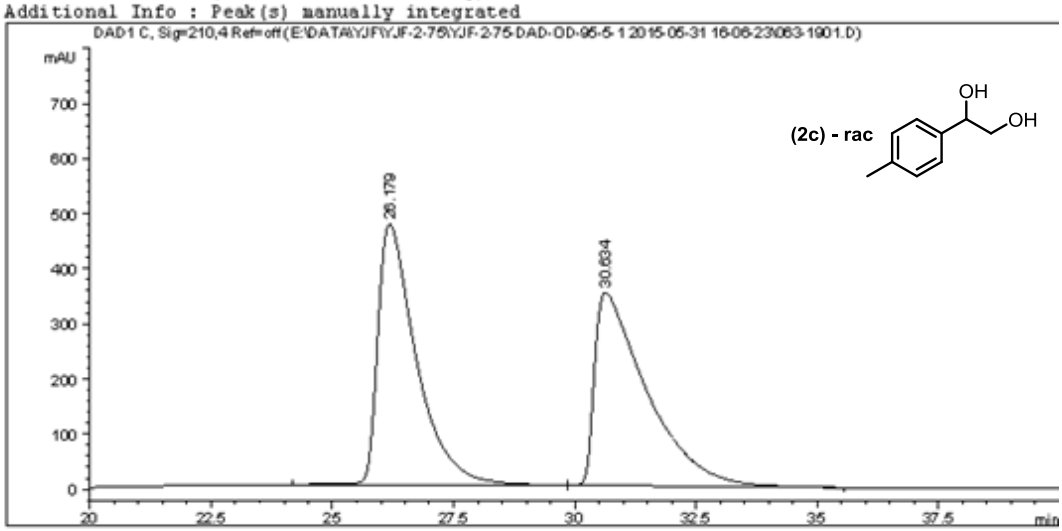


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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 C, Sig=210,4 Ref=off

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  26.179 BB    0.8220 2.62215e4   473.53427  49.9787
   2  30.634 BB    1.0955 2.62438e4   350.51547  50.0213

Totals :                  5.24653e4   824.04974


==================================================================
                        *** End of Report ***
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Data File E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\044-1501.D
Sample Name: WWL-3-08-4

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  15
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 44
    Injection Date  : 12/15/2015 3:38:21 AM                Inj :  1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-40MIN.M
    Last changed    : 12/14/2015 8:13:44 PM by SYSTEM
    Analysis Method : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-40MIN.M (Sequence Method)
    Last changed    : 12/15/2015 9:48:41 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
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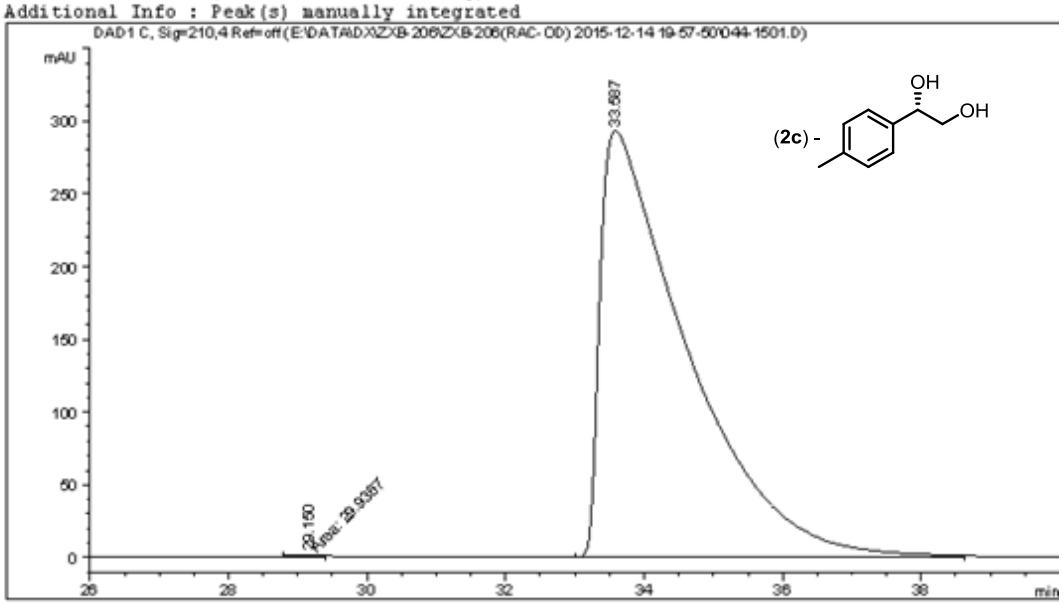


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    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
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    ----|-------|----|-------|----------|----------|--------|
       1  29.150 MM    0.5309   29.93672 9.39864e-1   0.1175
       2  33.587 BB    1.1571 2.54515e4   293.10132  99.8825

    Totals :                  2.54814e4   294.04118


    ==================================================================
                            *** End of Report ***
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Data File E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\064-2001.D
Sample Name: WWL-P-CH3O-OH

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :  20
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 64
Injection Date  : 5/31/2015 11:29:57 PM               Inj :  1
                                                Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-65MIN(1-2).M
Last changed    : 5/31/2015 4:11:31 PM by SYSTEM
Analysis Method : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-65MIN(1-2).M (Sequence Method)
Last changed    : 12/9/2015 7:45:09 PM by SYSTEM
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Additional Info : Peak(s) manually integrated
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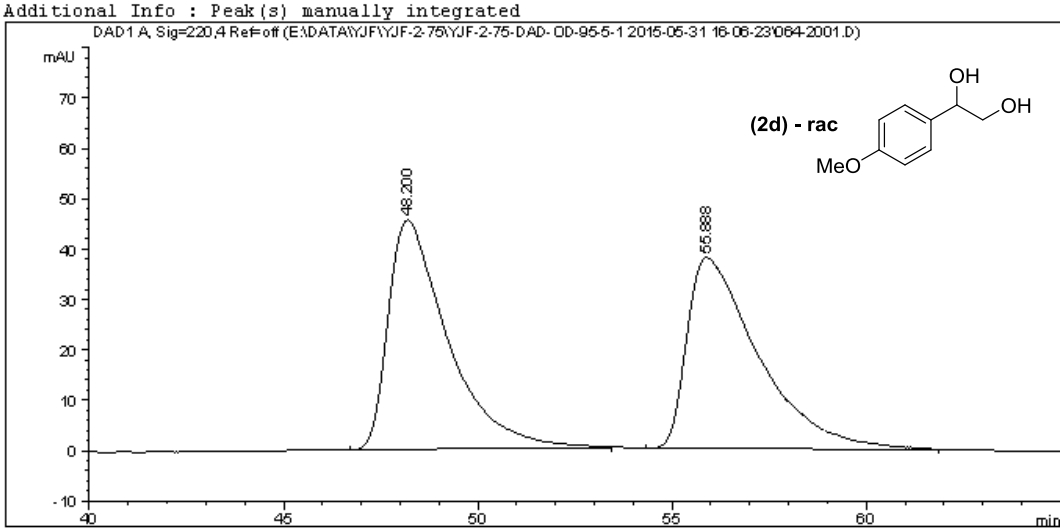


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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 A, Sig=220,4 Ref=off

Peak RetTime Type  Width     Area      Height     Area
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----|-------|----|-------|----------|----------|--------|
   1  48.200 BB    1.4831 4843.86768   45.53268  49.9939
   2  55.888 BB    1.7096 4845.04785   37.94681  50.0061

Totals :                  9688.91553   83.47949


==================================================================
                        *** End of Report ***
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Data File E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\007-0801.D
Sample Name: WWL-2-185-6

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   8
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 7
    Injection Date  : 11/14/2015 9:17:19 PM               Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-70MIN.M
    Last changed    : 11/14/2015 4:04:27 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-70MIN.M (Sequence Method)
    Last changed    : 12/13/2015 3:27:10 PM by SYSTEM
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    Additional Info : Peak(s) manually integrated
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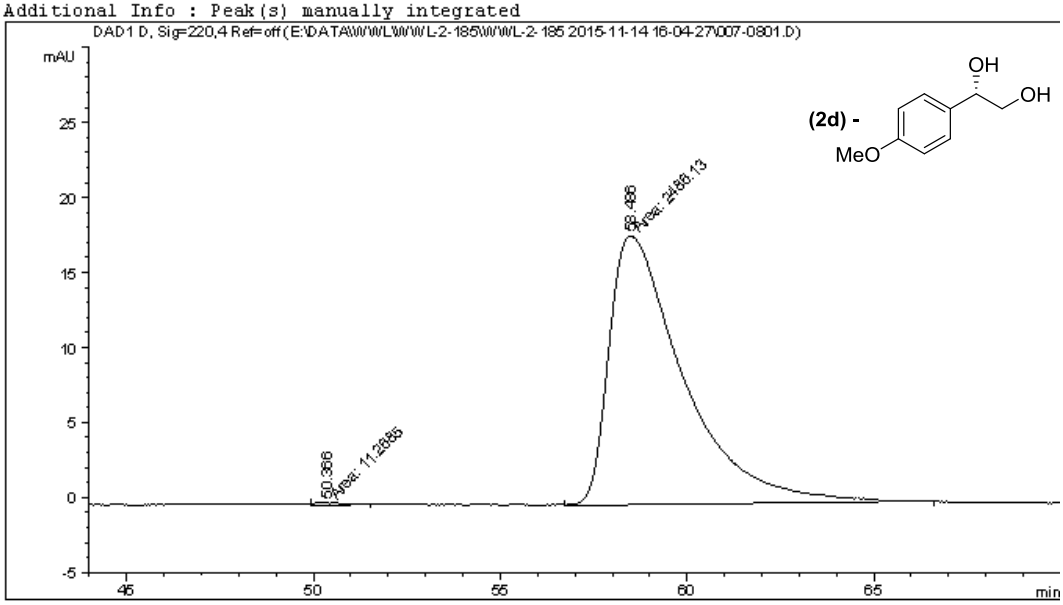


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    Sorted By             :      Signal
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    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
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    ----|-------|----|-------|----------|----------|--------|
       1  50.366 MM    1.1124   11.26848 1.68836e-1   0.4512
       2  58.486 MM    2.3108 2486.12793   17.93087  99.5488

    Totals :                  2497.39641   18.09971

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                               *** End of Report ***
```

Data File E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\062-0601.D
Sample Name: WWL-P-ET-RAC

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   6
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 62
    Injection Date  : 9/22/2015 1:43:57 PM                  Inj :   1
                                                    Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                      98-2-1ML-210NM-254NM-40MIN.M
    Last changed    : 9/22/2015 11:07:21 AM by SYSTEM
    Analysis Method : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                      98-2-1ML-210NM-254NM-40MIN.M (Sequence Method)
    Last changed    : 12/11/2015 10:43:20 AM by SYSTEM
                      (modified after loading)
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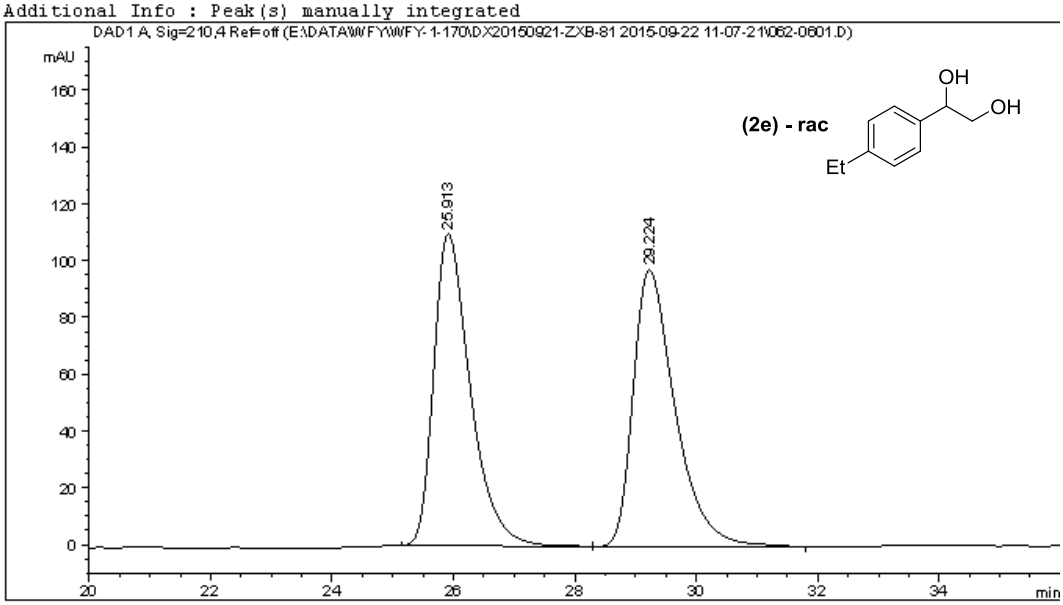


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                            Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=210,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  25.913 BB    0.6348 4594.16797  109.66184  49.5306
       2  29.224 BB    0.7202 4681.23682   97.48492  50.4694

    Totals :                  9275.40479  207.14677


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                            *** End of Report ***
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Data File E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\075-2001.D
Sample Name: wwl-2-183-15

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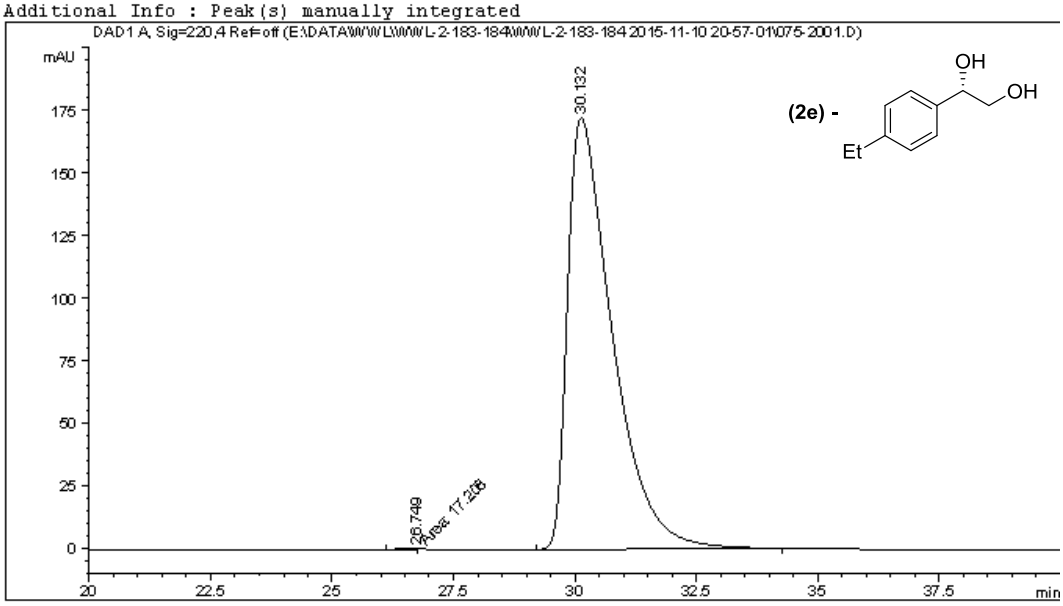
    ====================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  20
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 75
    Injection Date  : 11/11/2015 8:59:24 AM               Inj :  1
                                                   Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D(1-2)-
                      98-2-1ML-220NM-254NM-40MIN.M
    Last changed    : 11/10/2015 8:57:02 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D(1-2)-
                      98-2-1ML-220NM-254NM-40MIN.M (Sequence Method)
    Last changed    : 12/13/2015 3:11:45 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ====================================================================
                            Area Percent Report
    ====================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=220,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  26.749 MM    0.4236   17.20805 6.76984e-1   0.1550
       2  30.132 BB    0.9381 1.10826e4   172.36777  99.8450

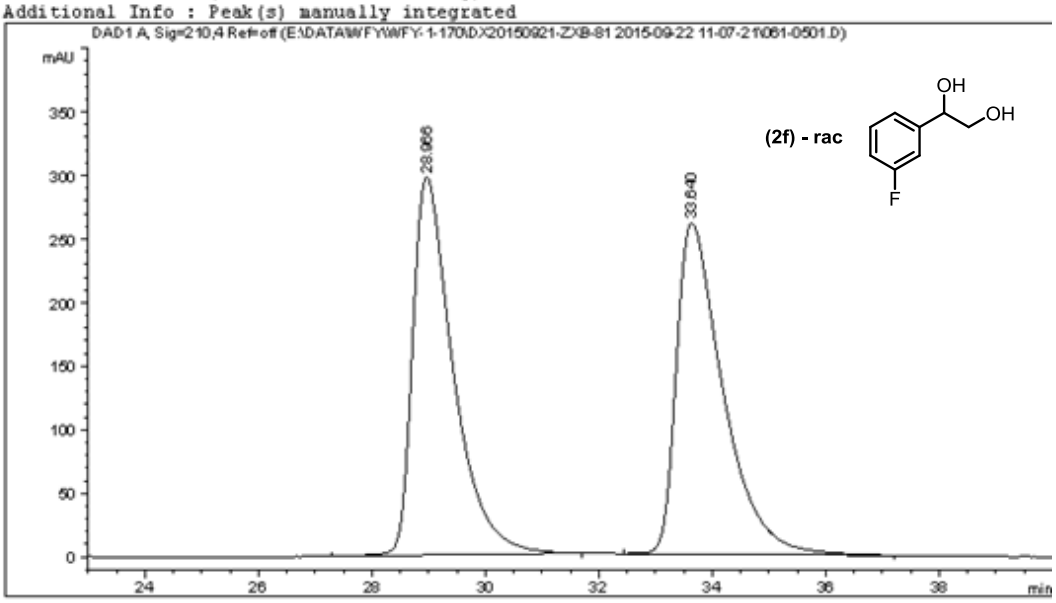
    Totals :                  1.10998e4   173.04475


    ====================================================================
                            *** End of Report ***

1260HPLC-DAD 12/13/2015 3:11:50 PM SYSTEM                    Page 1 of 1
```

Data File E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\061-0501.D
Sample Name: WWL-M-F-RAC

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :   5
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 61
Injection Date  : 9/22/2015 1:03:04 PM               Inj :   1
                                                Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                  98-2-1ML-210NM-254NM-40MIN.M
Last changed    : 9/22/2015 11:07:21 AM by SYSTEM
Analysis Method : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                  98-2-1ML-210NM-254NM-40MIN.M (Sequence Method)
Last changed    : 12/11/2015 10:33:58 AM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
==================================================================
                        Area Percent Report
==================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 A, Sig=210,4 Ref=off

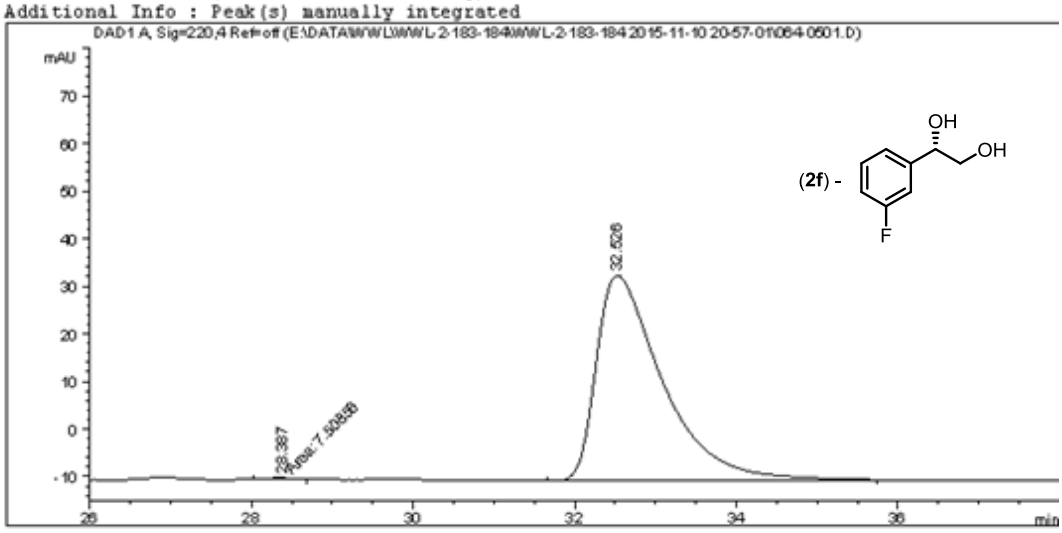
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  28.966 BB    0.7436 1.47666e4   297.22147  49.8034
   2  33.640 BB    0.8449 1.48832e4   260.35419  50.1966

Totals :                  2.96498e4   557.57565

==================================================================
                        *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\064-0501.D
Sample Name: wwl-2-183-4

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :   5
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 64
Injection Date  : 11/10/2015 11:52:37 PM              Inj :   1
                                                Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                  -(1-2)1M-220NM-40MIN.M
Last changed    : 11/10/2015 8:57:01 PM by SYSTEM
Analysis Method : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                  -(1-2)1M-220NM-40MIN.M (Sequence Method)
Last changed    : 12/13/2015 2:58:39 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
==================================================================
                        Area Percent Report
==================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 A, Sig=220,4 Ref=off

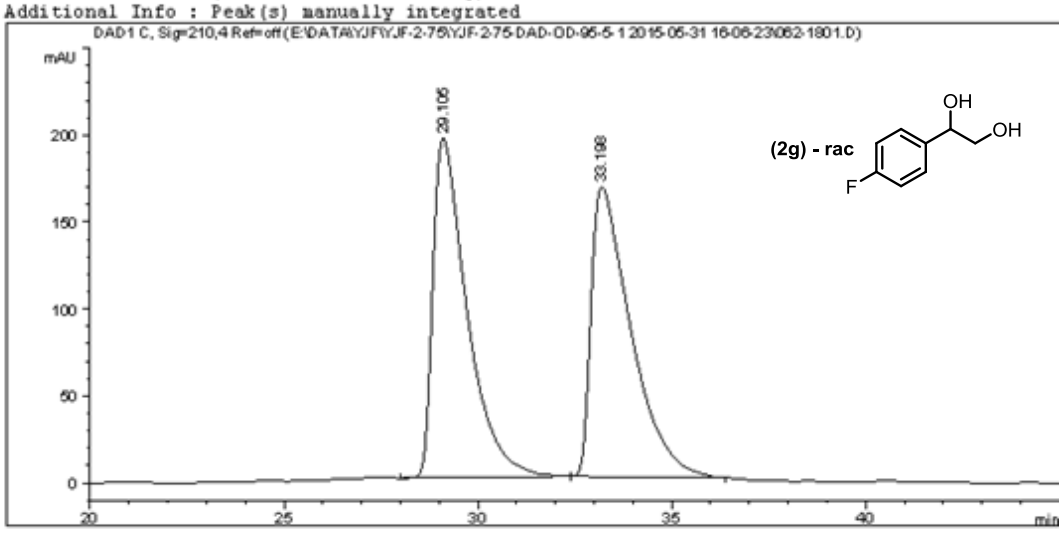
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  28.387 MM    0.4681    7.50856 2.67333e-1   0.3045
   2  32.526 BB    0.8184 2458.47510   43.17194  99.6955

Totals :                  2465.98366   43.43928


==================================================================
                        *** End of Report ***
```

Data File E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\062-1801.D
Sample Name: WWL-P-F-OH

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :  18
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 62
Injection Date  : 5/31/2015 9:48:04 PM               Inj :  1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-50MIN(1-2).M
Last changed    : 5/31/2015 4:09:31 PM by SYSTEM
Analysis Method : E:\DATA\YJF\YJF-2-75\YJF-2-75-DAD-OD-95-5-1 2015-05-31 16-06-23\DAD-ODH-
                  98-2-1ML-50MIN(1-2).M (Sequence Method)
Last changed    : 12/9/2015 8:21:25 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
==================================================================
                        Area Percent Report
==================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 C, Sig=210,4 Ref=off

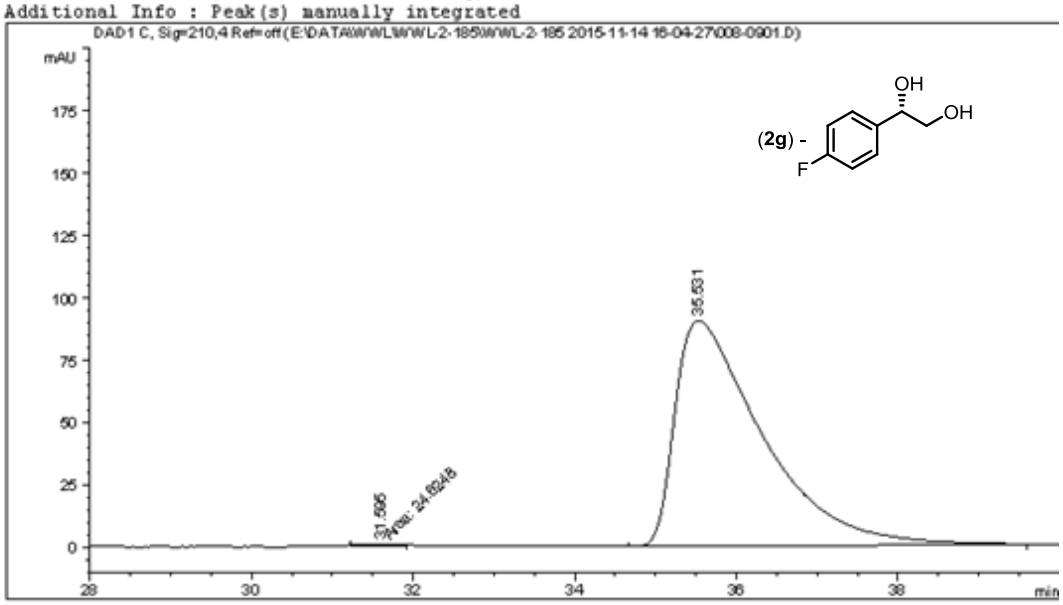
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  29.105 BB    0.9052 1.19408e4   195.32858  50.1679
   2  33.198 BB    1.0139 1.18608e4   166.73166  49.8321

Totals :                  2.38016e4   362.06024


==================================================================
                        *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\008-0901.D
Sample Name: WWL-2-185-7

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   9
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 8
    Injection Date  : 11/14/2015 10:28:14 PM               Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-40MIN.M
    Last changed    : 11/14/2015 4:04:27 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-40MIN.M (Sequence Method)
    Last changed    : 12/15/2015 10:23:15 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

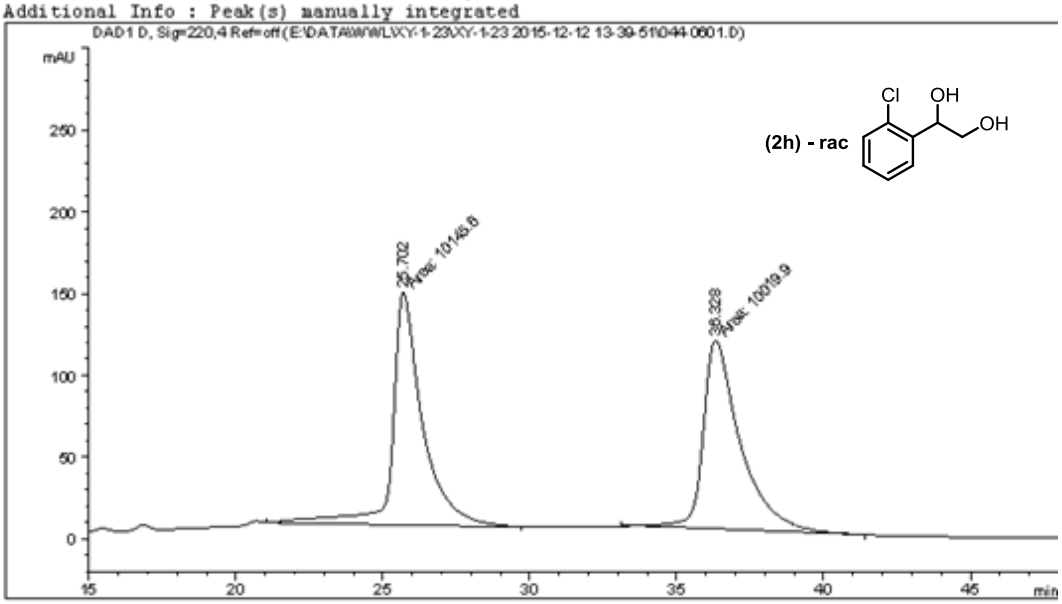
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  31.595 MM    0.5584   24.62478 7.35022e-1   0.3609
       2  35.531 BB    1.0188 6799.45313   90.47634  99.6391

    Totals :                  6824.07790   91.21136


    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\044-0601.D
Sample Name: WWL-2-o-cl--diol-rac

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   6
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 44
    Injection Date  : 12/12/2015 3:23:59 PM                Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-0D(1-2)-98-2-1.0ML-
                      205-250NM-60MIN.M
    Last changed    : 12/12/2015 3:21:25 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-0D(1-2)-98-2-1.0ML-
                      205-250NM-60MIN.M (Sequence Method)
    Last changed    : 12/12/2015 8:48:08 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                              Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  25.702 MM    1.1883 1.01456e4   142.29950  50.3117
       2  36.328 MM    1.4506 1.00199e4   115.12132  49.6883

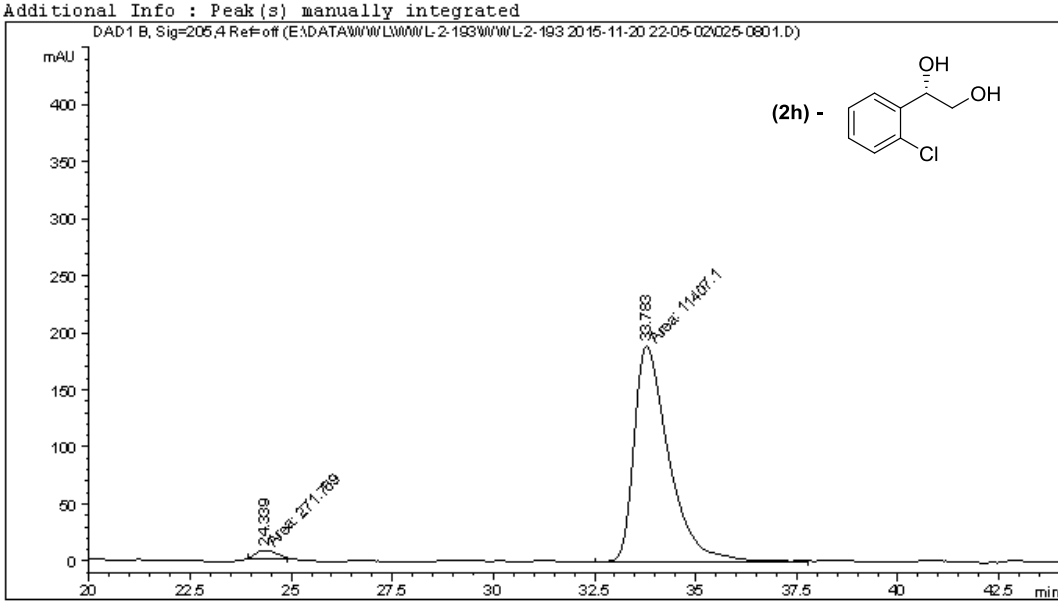
    Totals :                  2.01654e4   257.42082

    ======================================================================
                              *** End of Report ***

1260HPLC-DAD 12/12/2015 8:48:15 PM SYSTEM                    Page 1 of 1
```

Data File E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\025-0801.D
Sample Name: WWL-2-193-5

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   8
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 25
    Injection Date  : 11/21/2015 1:29:00 AM               Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-OD(1-2)-98-2-1.
                      0ML-205-250NM-50MIN.M
    Last changed    : 11/20/2015 10:05:02 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-OD(1-2)-98-2-1.
                      0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 12/15/2015 10:34:37 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                              Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=205,4 Ref=off

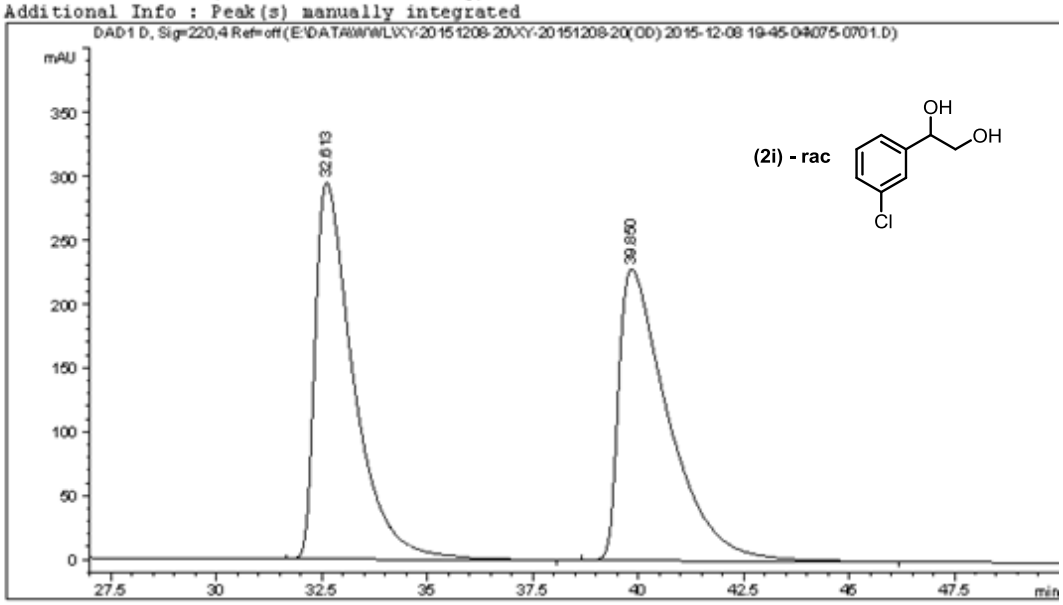
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  24.339 MM    0.5992  271.76947    7.55986   2.3270
       2  33.783 MM    1.0035 1.1407le4   189.45425  97.6730

    Totals :                  1.16789e4   197.01411


    ======================================================================
                              *** End of Report ***
```

Data File E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\075-0701.D
Sample Name: XY-20-rac-m-Cl

```
    ==================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   7
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 75
    Injection Date  : 12/8/2015 11:37:37 PM             Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\DAD-OD
                      (1-2)-98-2-1.0ML-205-250NM-50MIN.M
    Last changed    : 12/8/2015 9:36:56 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\DAD-OD
                      (1-2)-98-2-1.0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 12/11/2015 10:00:02 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                          Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

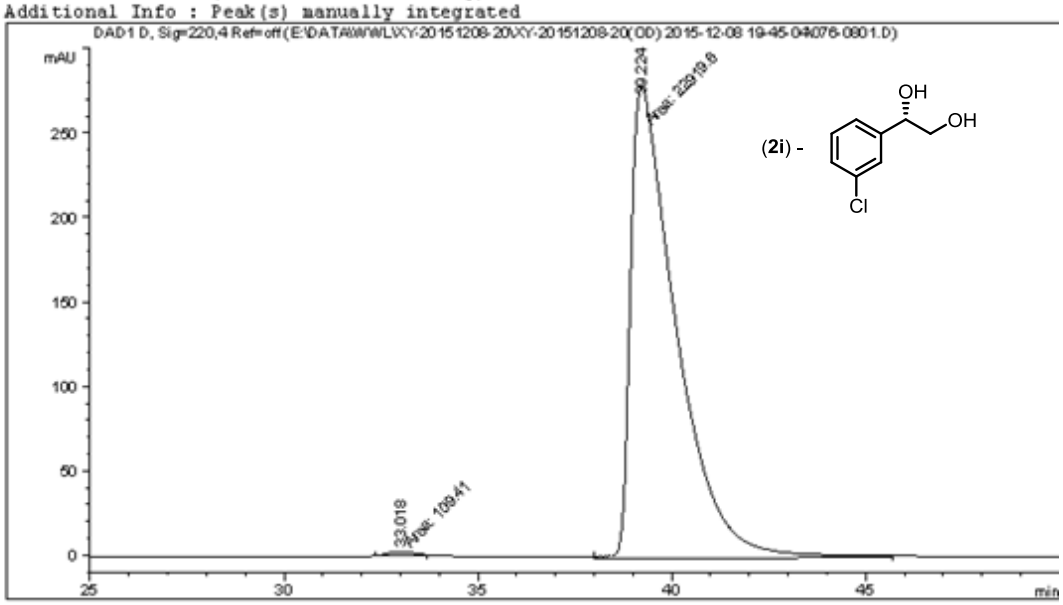
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  32.613 BB    0.9388 1.86265e4   294.94156  49.8364
       2  39.850 BB    1.1878 1.87488e4   227.90480  50.1636

    Totals :                  3.73753e4   522.84636


    ==================================================================
                          *** End of Report ***
```

Data File E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\076-0801.D
Sample Name: XY-20-m-Cl

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   8
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 76
    Injection Date  : 12/9/2015 12:28:31 AM                 Inj :  1
                                                      Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\DAD-OD
                      (1-2)-98-2-1.0ML-205-250NM-50MIN.M
    Last changed    : 12/8/2015 9:36:56 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\XY-20151208-20\XY-20151208-20(OD) 2015-12-08 19-45-04\DAD-OD
                      (1-2)-98-2-1.0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 12/13/2015 3:54:56 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

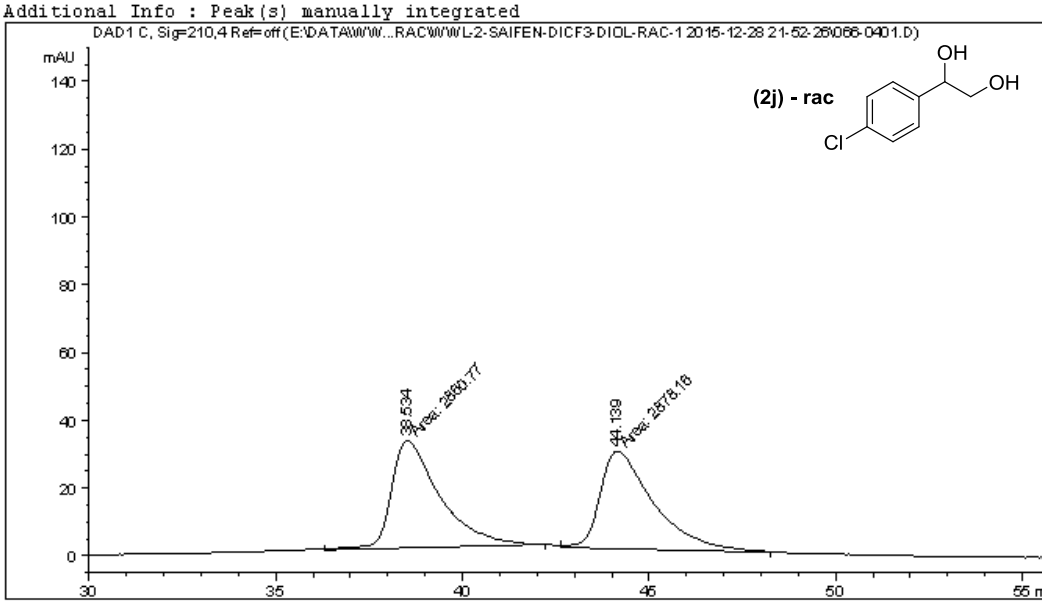
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  33.018 MM    0.7659  109.41030    2.38079   0.4751
       2  39.224 MM    1.3679 2.29196e4   279.26505  99.5249

    Totals :                  2.30290e4   281.64583

    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\WW...OL-RAC\WWL-2-SAIFEN-DICF3-DIOL-RAC-1 2015-12-28 21-52-26\066-0401.D
Sample Name: wwl-p-cl-diol

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   4
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 66
    Injection Date  : 12/28/2015 11:22:12 PM               Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-SAIFEN-CF3-DIOL-RAC\WWL-2-SAIFEN-DICF3-DIOL-RAC-1 2015-
                      12-28 21-52-26\DAD-OD(1-2)-98-2-1.0ML-205-250NM-60MIN.M
    Last changed    : 12/28/2015 10:19:13 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-SAIFEN-CF3-DIOL-RAC\WWL-2-SAIFEN-DICF3-DIOL-RAC-1 2015-
                      12-28 21-52-26\DAD-OD(1-2)-98-2-1.0ML-205-250NM-60MIN.M (Sequence Method
                      )
    Last changed    : 12/29/2015 9:30:34 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                              Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

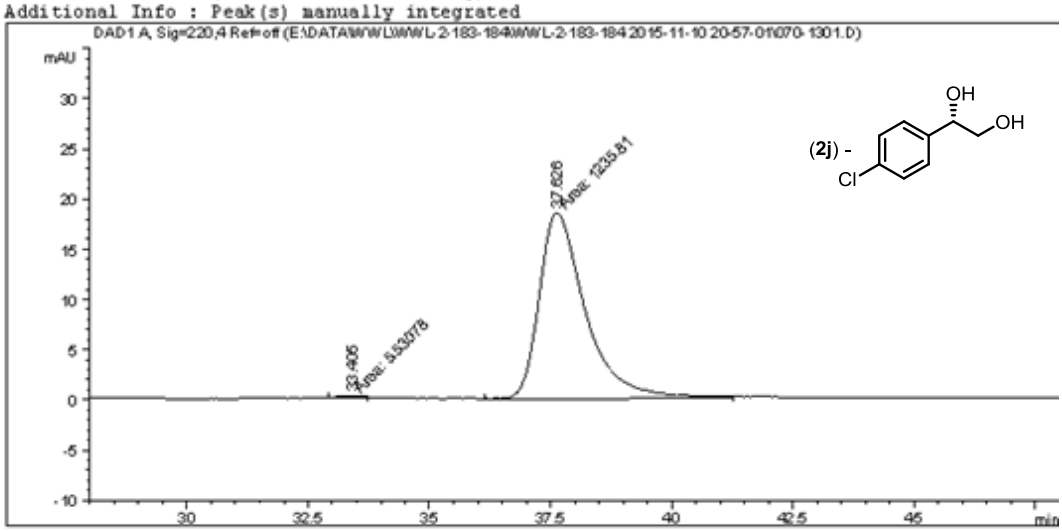
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  38.534 MM    1.5068 2860.77344   31.64202  49.8485
       2  44.139 MM    1.6673 2878.15674   28.77144  50.1515

    Totals :                  5738.93018   60.41346

    ======================================================================
```

Data File E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\070-1301.D
Sample Name: wwl-2-183-10

```
Acq. Operator   : SYSTEM                          Seq. Line :  13
Acq. Instrument : 1260HPLC-DAD                    Location : Vial 70
Injection Date  : 11/11/2015 5:22:36 AM                Inj :  1
                                                  Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                  -(1-2)1M-220NM-50MIN.M
Last changed    : 11/10/2015 8:57:02 PM by SYSTEM
Analysis Method : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                  -(1-2)1M-220NM-50MIN.M (Sequence Method)
Last changed    : 12/13/2015 3:05:50 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
                          Area Percent Report

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 A, Sig=220,4 Ref=off

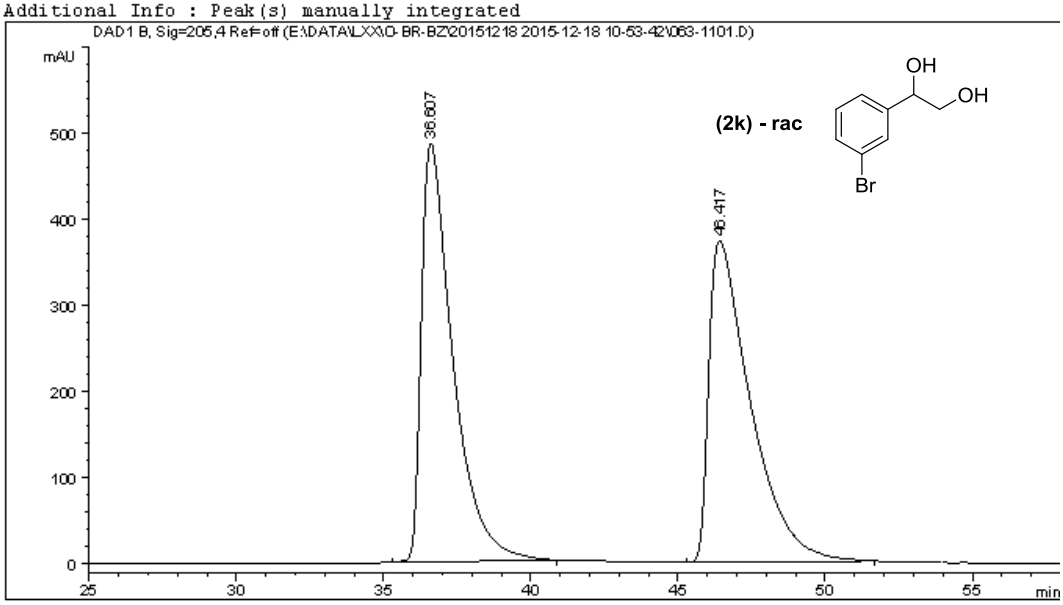
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  33.405 MM    0.6085    5.53078 1.51494e-1   0.4455
   2  37.626 MM    1.1096 1235.81067   18.56190  99.5545

Totals :                  1241.34145   18.71339


                          *** End of Report ***
```

Data File E:\DATA\LXX\0-BR-BZ\20151218 2015-12-18 10-53-42\063-1101.D
Sample Name: WWL-M-BR-DIOL-rac

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  11
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 63
    Injection Date  : 12/18/2015 5:02:42 PM               Inj :  1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\LXX\0-BR-BZ\20151218 2015-12-18 10-53-42\DAD-OD(1-2)-98-2-1.0ML-
                      205-250NM-70MIN.M
    Last changed    : 12/18/2015 11:42:07 AM by SYSTEM
    Analysis Method : E:\DATA\LXX\0-BR-BZ\20151218 2015-12-18 10-53-42\DAD-OD(1-2)-98-2-1.0ML-
                      205-250NM-70MIN.M (Sequence Method)
    Last changed    : 12/19/2015 2:32:45 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                            Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=205,4 Ref=off

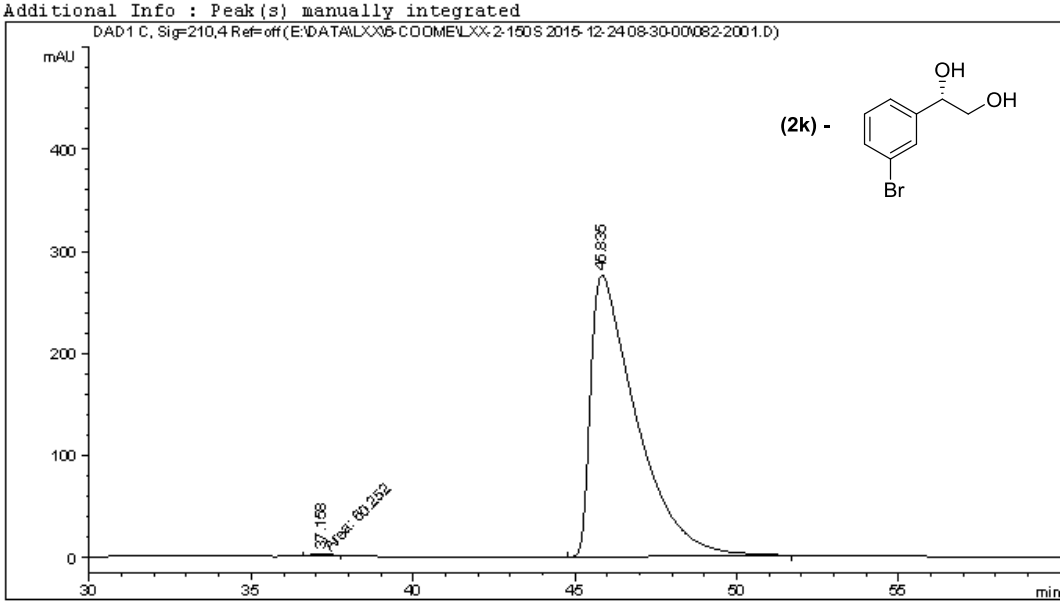
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  36.607 BB    1.0250 3.62365e4   486.46805  49.7070
       2  46.417 BB    1.3081 3.66637e4   373.85541  50.2930

    Totals :                  7.29002e4   860.32346


    ======================================================================
                            *** End of Report ***
```

Data File E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\082-2001.D
Sample Name: ww1-3-08-m-br-diol

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  20
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 82
    Injection Date  : 12/24/2015 7:41:59 PM               Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-60MIN.M
    Last changed    : 12/24/2015 8:30:01 AM by SYSTEM
    Analysis Method : E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-60MIN.M (Sequence Method)
    Last changed    : 12/25/2015 9:20:23 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                              Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  37.158 MM    0.7118   60.25197    1.41084   0.2220
       2  45.835 BB    1.3407 2.70799e4   275.99332  99.7780

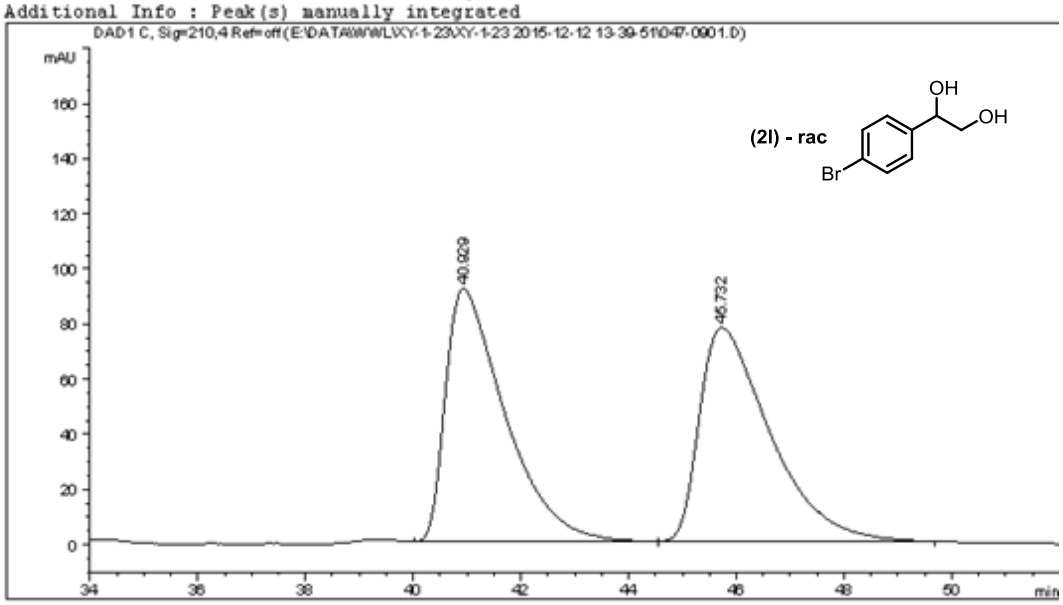
    Totals :                  2.71402e4   277.40416


    ======================================================================
                              *** End of Report ***

1260HPLC-DAD 12/25/2015 9:20:32 AM SYSTEM                    Page 1 of 1
```

Data File E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\047-0901.D
Sample Name: WWL-2-p-br-diol-rac

```
    ==================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   9
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 47
    Injection Date  : 12/12/2015 6:00:43 PM              Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-0D(1-2)-98-2-1.0ML-
                      205-250NM-60MIN.M
    Last changed    : 12/12/2015 1:39:51 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-0D(1-2)-98-2-1.0ML-
                      205-250NM-60MIN.M (Sequence Method)
    Last changed    : 12/12/2015 8:52:24 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

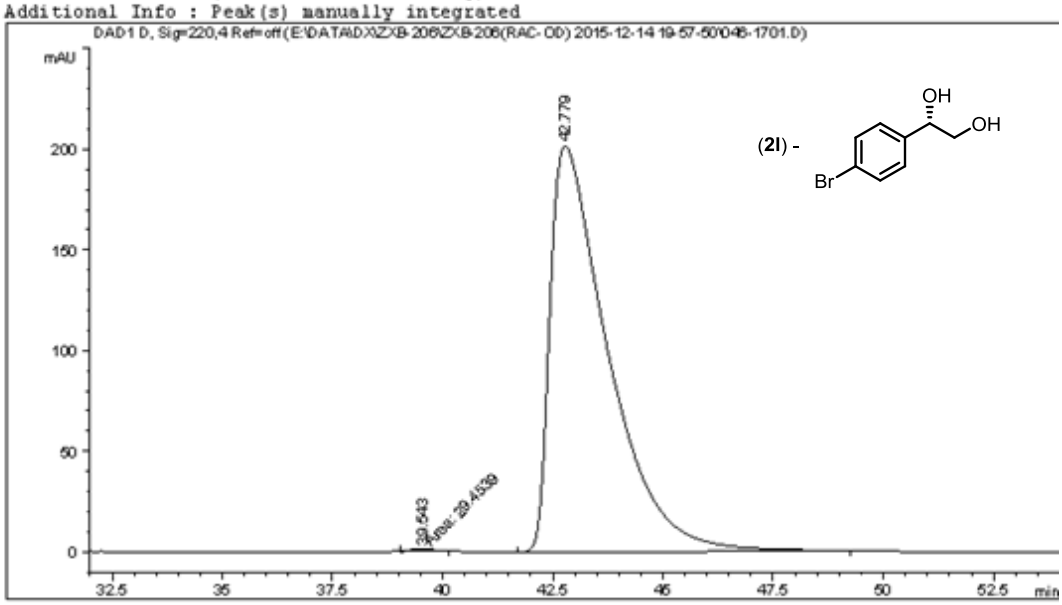
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  40.929 BB    1.0949 7029.29102   91.64479  49.8686
       2  45.732 BB    1.2421 7066.34326   77.47694  50.1314

    Totals :                  1.40956e4   169.12173

    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\046-1701.D
Sample Name: WWL-3-08-6

```
    ==================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  17
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 46
    Injection Date  : 12/15/2015 5:00:10 AM             Inj :  1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-60MIN.M
    Last changed    : 12/14/2015 8:13:47 PM by SYSTEM
    Analysis Method : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-98-2-
                      1.0ML-205-250NM-60MIN.M (Sequence Method)
    Last changed    : 12/15/2015 9:43:58 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

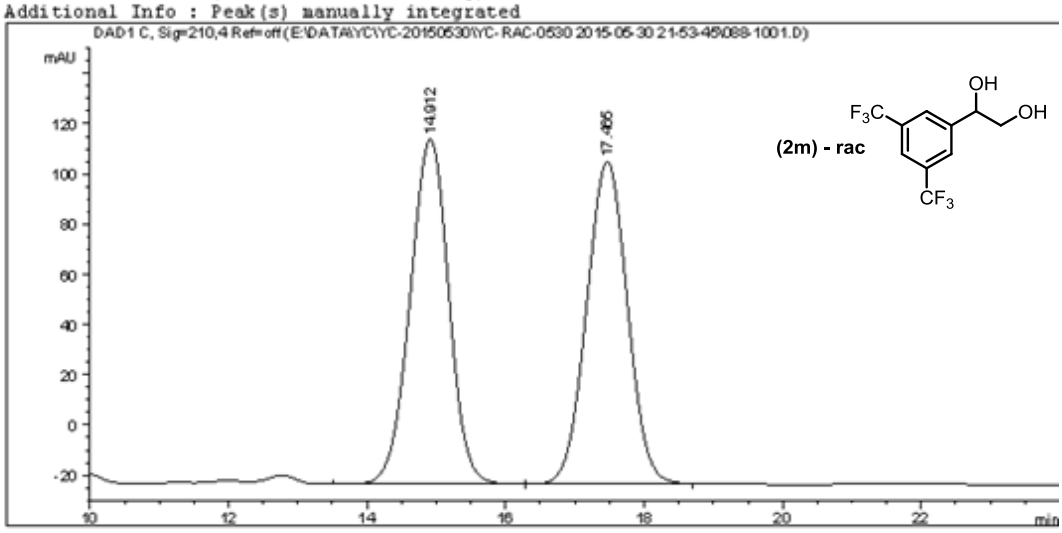
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  39.543 MM    0.6973   29.45387 7.03989e-1   0.1596
       2  42.779 BB    1.3032 1.84263e4   201.43111  99.8404

    Totals :                  1.84557e4   202.13510


    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\YC\YC-20150530\YC-RAC-0530 2015-05-30 21-53-45\088-1001.D
Sample Name: ww1-di-CF3-OH

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :  10
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 88
Injection Date  : 5/31/2015 2:30:44 AM               Inj :  1
                                                Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\YC\YC-20150530\YC-RAC-0530 2015-05-30 21-53-45\DAD-0DH-98-2-1ML-
                  35MIN(1-2).M
Last changed    : 5/30/2015 10:38:28 PM by SYSTEM
Analysis Method : E:\DATA\YC\YC-20150530\YC-RAC-0530 2015-05-30 21-53-45\DAD-0DH-98-2-1ML-
                  35MIN(1-2).M (Sequence Method)
Last changed    : 12/9/2015 9:45:29 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
==================================================================
                        Area Percent Report
==================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 C, Sig=210,4 Ref=off

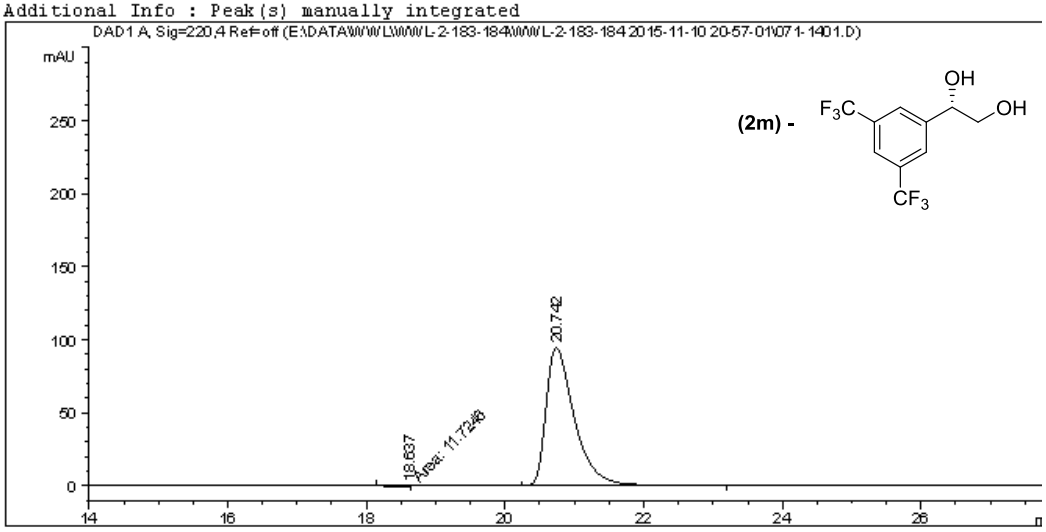
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  14.912 BB    0.6045 5326.47266  137.34102  50.3844
   2  17.465 BB    0.6408 5245.19385  128.33156  49.6156

Totals :                  1.05717e4   265.67258


==================================================================
                        *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\071-1401.D
Sample Name: wwl-2-183-11

```
    ====================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  14
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 71
    Injection Date  : 11/11/2015 6:13:32 AM              Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                      -(1-2)1M-220NM-50MIN.M
    Last changed    : 11/10/2015 8:57:02 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-183-184\WWL-2-183-184 2015-11-10 20-57-01\DAD-0D-98-2-
                      -(1-2)1M-220NM-50MIN.M (Sequence Method)
    Last changed    : 1/12/2016 10:40:35 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```



(2m) -


```
    ====================================================================
                            Area Percent Report
    ====================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=220,4 Ref=off

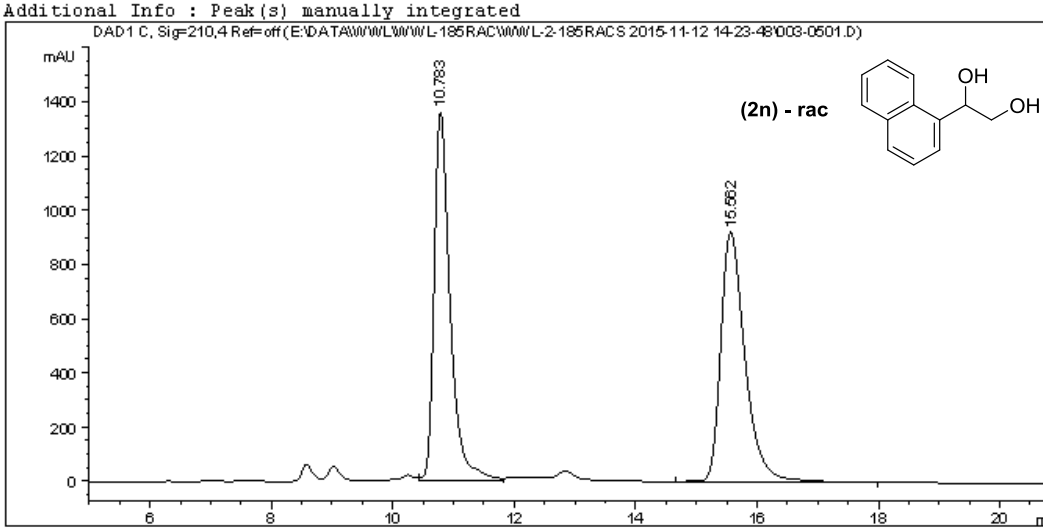
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  18.637 MM    0.3426   11.72463 5.70442e-1   0.4352
       2  20.742 BB    0.4275 2682.45239   94.39999  99.5648

    Totals :                  2694.17702   94.97044


    ====================================================================
                            *** End of Report ***
```

Data File E:\DATA\WWL\WWL-185RAC\WWL-2-185RACS 2015-11-12 14-23-48\003-0501.D
Sample Name: WWL-NAI-RAC

```
    ======================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :   5
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 3
    Injection Date  : 11/12/2015 4:39:33 PM              Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-185RAC\WWL-2-185RACS 2015-11-12 14-23-48\DAD-OD(1-2)-70-
                      30-0.5ML-ALLNM-40MIN.M
    Last changed    : 11/12/2015 2:23:48 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-185RAC\WWL-2-185RACS 2015-11-12 14-23-48\DAD-OD(1-2)-70-
                      30-0.5ML-ALLNM-40MIN.M (Sequence Method)
    Last changed    : 12/11/2015 4:04:59 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                            Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 C, Sig=210,4 Ref=off

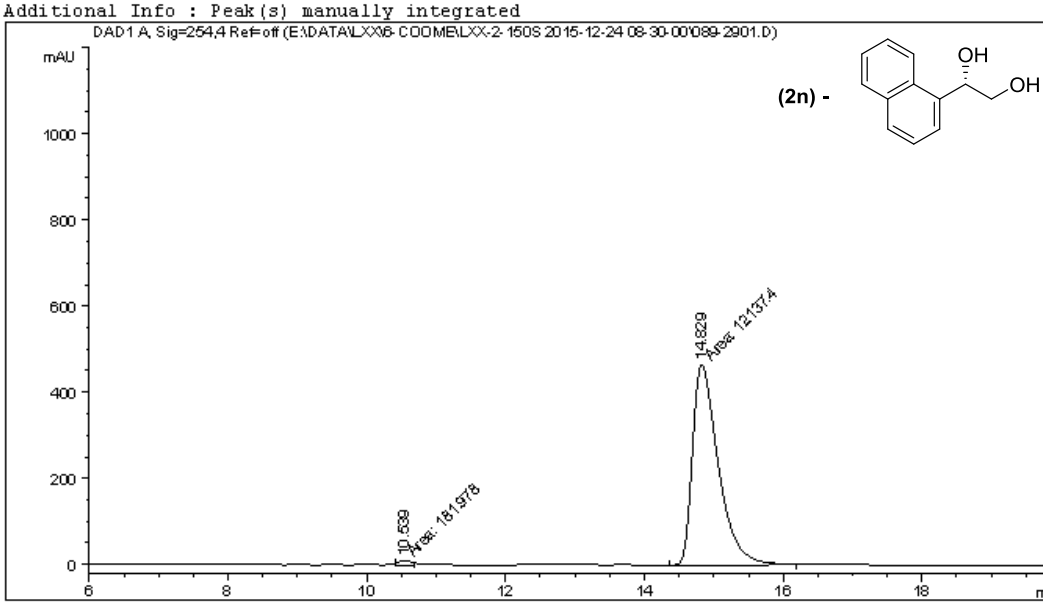
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  10.783 VV    0.2765 2.49964e4  1359.38037  49.4576
       2  15.562 BB    0.4220 2.55446e4   919.91034  50.5424

    Totals :                  5.05410e4  2279.29071


    ======================================================================
                            *** End of Report ***
```

Data File E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\089-2901.D
Sample Name: ww1-3-08-1-aceto-nai

```
    ==================================================================
    Acq. Operator   : SYSTEM                        Seq. Line :  29
    Acq. Instrument : 1260HPLC-DAD                   Location : Vial 89
    Injection Date  : 12/24/2015 11:55:19 PM            Inj :   1
                                                   Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\DAD-OD(1-2)-70-30-0.
                      5ML-205-250NM-20MIN.M
    Last changed    : 12/24/2015 8:30:02 AM by SYSTEM
    Analysis Method : E:\DATA\LXX\6-COOME\LXX-2-150S 2015-12-24 08-30-00\DAD-OD(1-2)-70-30-0.
                      5ML-205-250NM-20MIN.M (Sequence Method)
    Last changed    : 12/25/2015 9:54:57 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=254,4 Ref=off

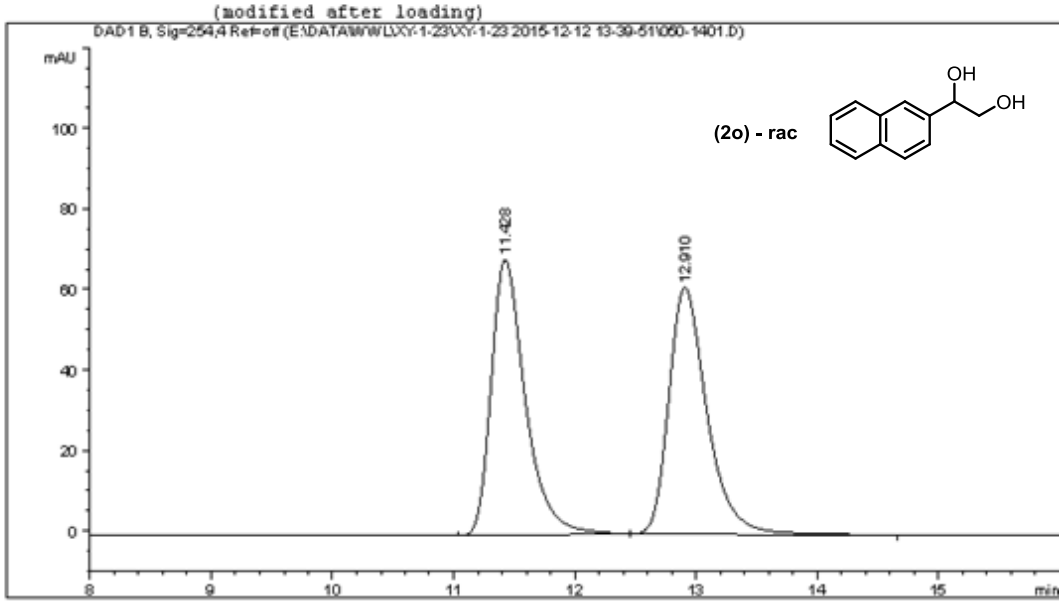
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  10.539 MM    0.2247  181.97768   13.49828   1.4772
       2  14.829 MM    0.4325 1.21374e4   467.76807  98.5228

    Totals :                  1.23194e4   481.26634


    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\050-1401.D
Sample Name: WWL-2-acetonai-diol-rac

```
==================================================================
Acq. Operator   : SYSTEM                        Seq. Line :  14
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 50
Injection Date  : 12/12/2015 9:04:11 PM             Inj :  1
                                                Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WWL\XY-1-23\XY-1-23 2015-12-12 13-39-51\DAD-OD(1-2)-70-30-0.5ML-
                  ALLNM-40MIN.M
Last changed    : 12/12/2015 9:31:32 PM by SYSTEM
                  (modified after loading)
Analysis Method : C:\CHEM32\2\METHODS\DEF_LC.M
Last changed    : 12/12/2015 9:44:20 PM by SYSTEM
                  (modified after loading)
```




```
==================================================================
                        Area Percent Report
==================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 B, Sig=254,4 Ref=off

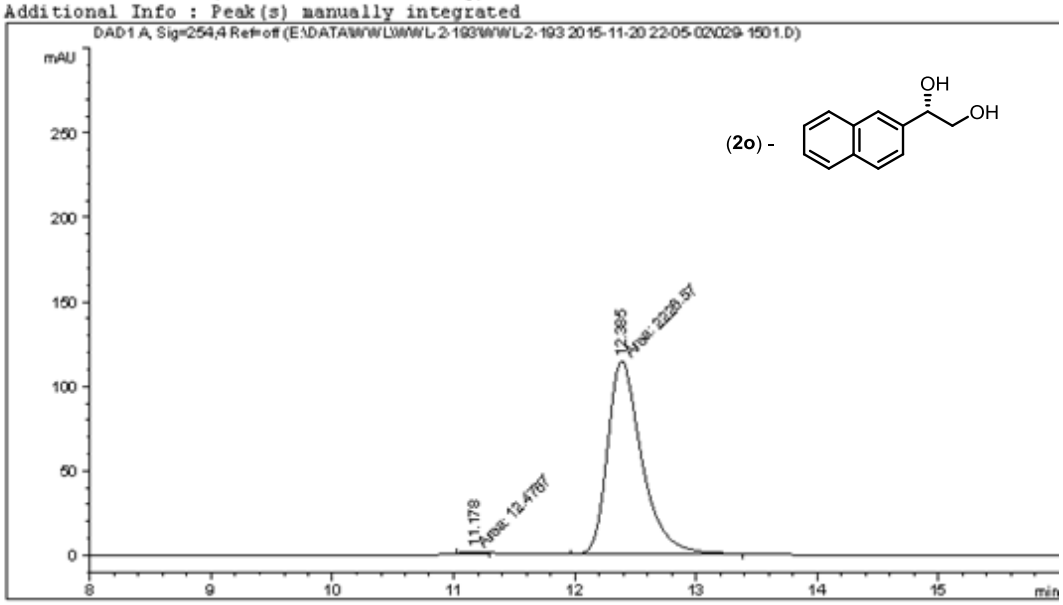
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  11.428 BB    0.2963 1337.25781   68.33035  49.9171
   2  12.910 BB    0.3339 1341.69885   61.17166  50.0829

Totals :                  2678.95667  129.50200


==================================================================
                        *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\029-1501.D
Sample Name: WWL-2-193-9

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  15
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 29
    Injection Date  : 11/21/2015 4:37:38 AM                 Inj :  1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-0D(1-2)-70-30-0.
                      5ML-205-250NM-20MIN.M
    Last changed    : 11/20/2015 10:05:03 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-193\WWL-2-193 2015-11-20 22-05-02\DAD-0D(1-2)-70-30-0.
                      5ML-205-250NM-20MIN.M (Sequence Method)
    Last changed    : 12/13/2015 3:45:04 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=254,4 Ref=off

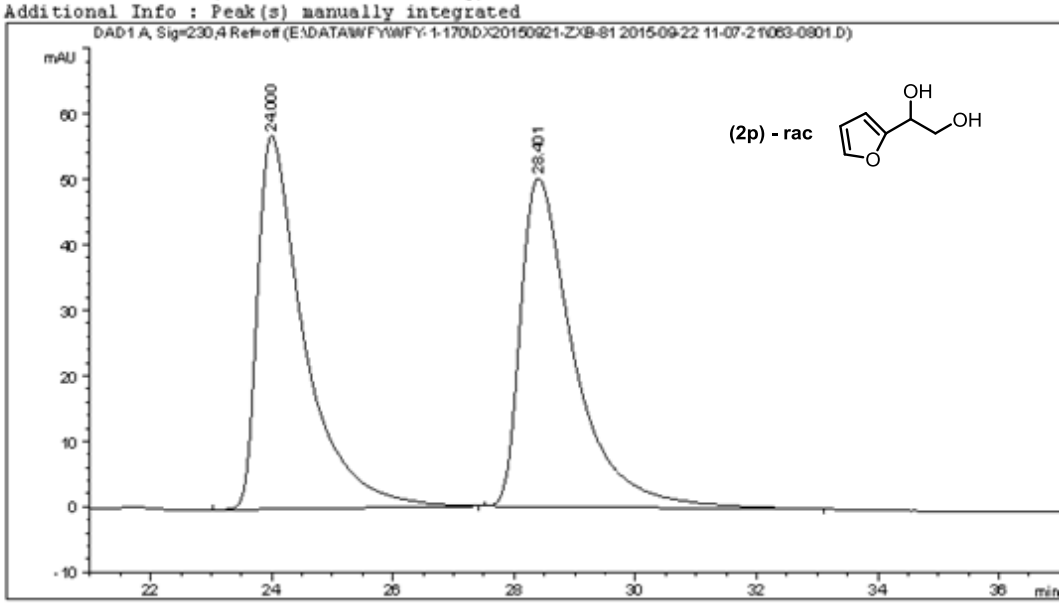
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  11.178 MM    0.1897   12.47672    1.09637   0.5572
       2  12.385 MM    0.3249 2226.56763  114.23113  99.4428

    Totals :                  2239.04434  115.32750


    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\063-0801.D
Sample Name: WWL-FUAN-RAC

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   8
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 63
    Injection Date  : 9/22/2015 2:35:52 PM                  Inj :  1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                      95-5-0.8ML-210NM-254NM-50MIN.M
    Last changed    : 9/22/2015 11:24:41 AM by SYSTEM
    Analysis Method : E:\DATA\WFY\WFY-1-170\DX20150921-ZXB-81 2015-09-22 11-07-21\DAD-0D(1-2)-
                      95-5-0.8ML-210NM-254NM-50MIN.M (Sequence Method)
    Last changed    : 12/11/2015 10:46:41 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=230,4 Ref=off

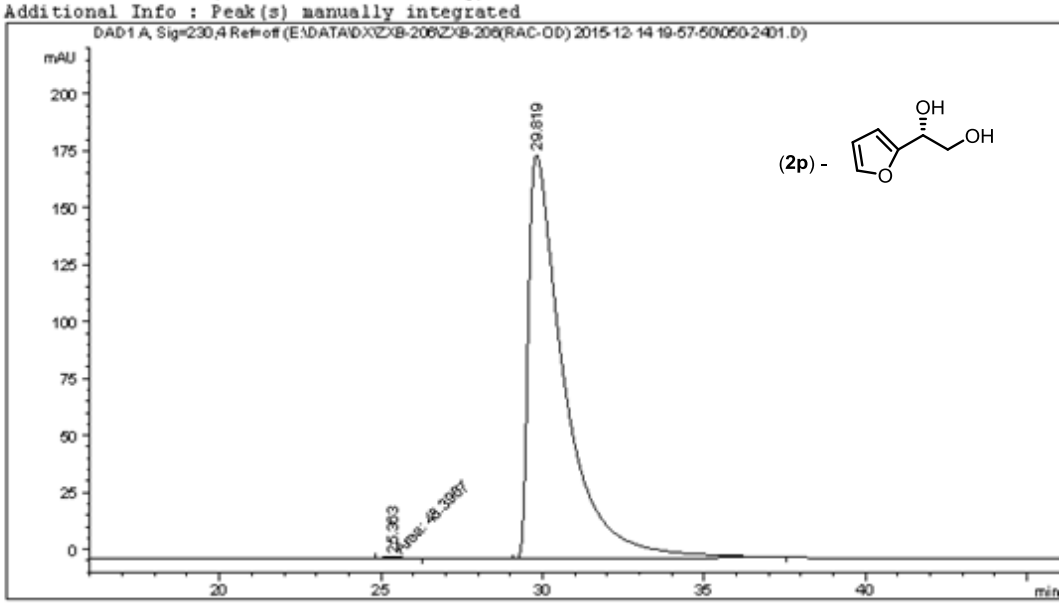
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  24.000 BB    0.7753 3055.60278   57.00809  49.8095
       2  28.401 BB    0.9044 3078.96948   50.14202  50.1905

    Totals :                  6134.57227  107.15011

    ==================================================================
                            *** End of Report ***
```

Data File E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\050-2401.D
Sample Name: WWL-3-08-10

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  24
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 50
    Injection Date  : 12/15/2015 7:56:56 AM                 Inj :  1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-95-5-
                      0.8ML-210NM-254NM-50MIN.M
    Last changed    : 12/14/2015 8:14:44 PM by SYSTEM
    Analysis Method : E:\DATA\DX\ZXB-206\ZXB-206(RAC-OD) 2015-12-14 19-57-50\DAD-OD(1-2)-95-5-
                      0.8ML-210NM-254NM-50MIN.M (Sequence Method)
    Last changed    : 12/15/2015 9:35:55 AM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```



(**2p**) -


```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=230,4 Ref=off

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  25.363 MM    1.1004   48.39669 7.32993e-1   0.3545
       2  29.819 BB    1.0627 1.36036e4   177.39224  99.6455

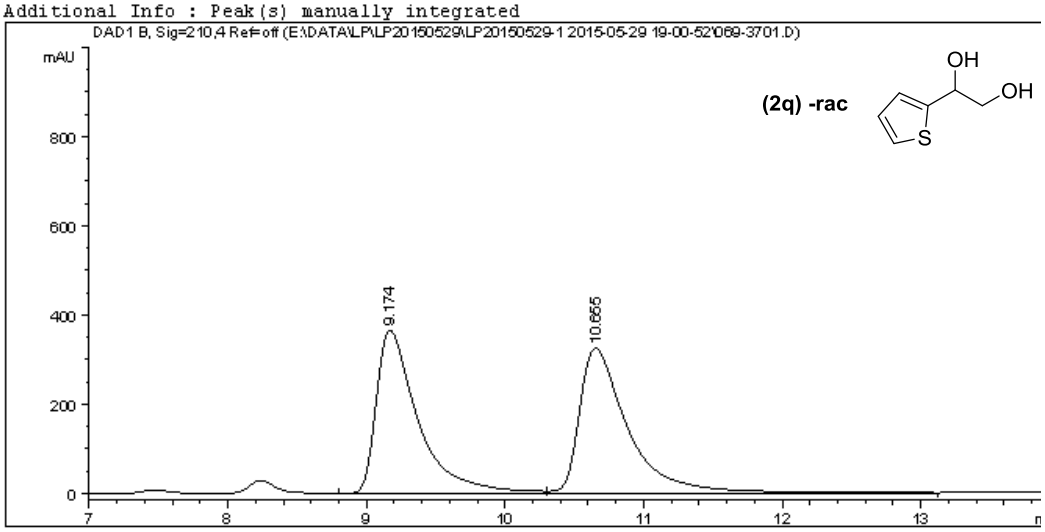
    Totals :                  1.36520e4   178.12524

    ==================================================================
                            *** End of Report ***

1260HPLC-DAD 12/15/2015 9:36:01 AM SYSTEM                    Page 1 of 1
```

Data File E:\DATA\LP\LP20150529\LP20150529-1 2015-05-29 19-00-52\069-3701.D
Sample Name: wwl-saifen-OH

```
    ====================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  37
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 69
    Injection Date  : 5/30/2015 8:36:24 AM                  Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\LP\LP20150529\LP20150529-1 2015-05-29 19-00-52\DAD-0DH-95-5-1ML-
                      30MIN(1-2).M
    Last changed    : 5/30/2015 8:57:11 AM by SYSTEM
                      (modified after loading)
    Analysis Method : E:\DATA\LP\LP20150529\LP20150529-1 2015-05-29 19-00-52\DAD-0DH-95-5-1ML-
                      30MIN(1-2).M (Sequence Method)
    Last changed    : 1/16/2016 3:54:56 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ====================================================================
                            Area Percent Report
    ====================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=210,4 Ref=off

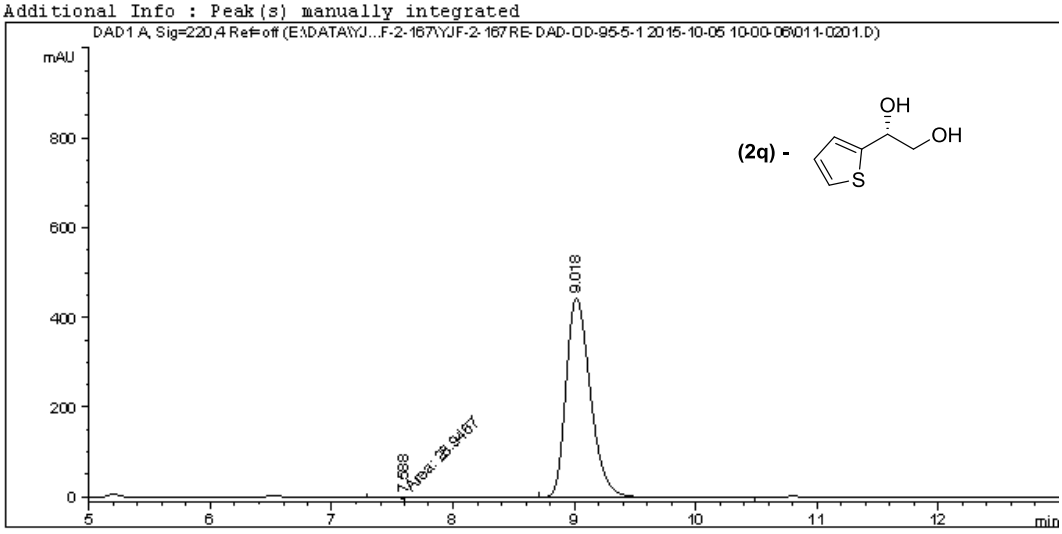
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1   9.174 BV    0.3086 7663.20947  365.43793  49.2618
       2  10.655 VB    0.3598 7892.88867  324.47595  50.7382

    Totals :                  1.5556le4   689.91388


    ====================================================================
                            *** End of Report ***
```

Data File E:\DATA\YJF\YJF-2-167\YJF-2-167RE-DAD-OD-95-5-1 2015-10-05 10-00-06\011-0201.D
Sample Name: YJF-2-167

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   2
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 11
    Injection Date  : 10/5/2015 10:21:57 AM                 Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\YJF\YJF-2-167\YJF-2-167RE-DAD-OD-95-5-1 2015-10-05 10-00-06\DAD-
                      OD(1-2)-95-5-1ML-220NM-254NM-20MIN.M
    Last changed    : 10/5/2015 10:00:06 AM by SYSTEM
    Analysis Method : E:\DATA\YJF\YJF-2-167\YJF-2-167RE-DAD-OD-95-5-1 2015-10-05 10-00-06\DAD-
                      OD(1-2)-95-5-1ML-220NM-254NM-20MIN.M (Sequence Method)
    Last changed    : 1/15/2016 10:43:43 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                            Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 A, Sig=220,4 Ref=off

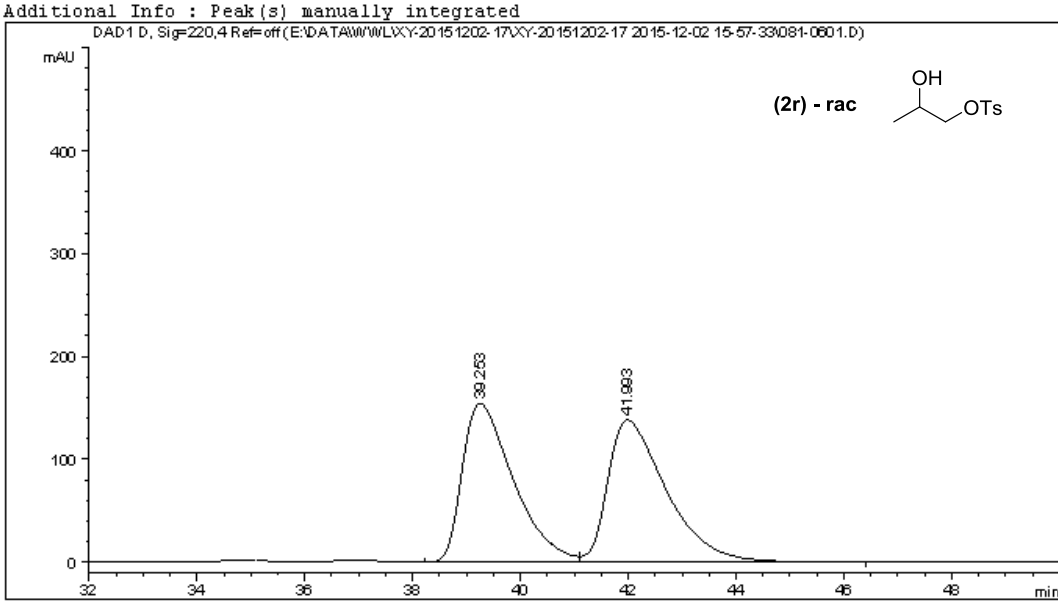
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1   7.588 MM    0.2018   28.94666    2.39117   0.4627
       2   9.018 VB    0.2177 6227.20752  443.84637  99.5373

    Totals :                   6256.15418  446.23755


    ======================================================================
                            *** End of Report ***
```

Data File E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\081-0601.D
Sample Name: wwl-2-199-1

```
    ====================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   6
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 81
    Injection Date  : 12/2/2015 6:49:23 PM                 Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\DAD-0D(1-2
                      )-98-2-1.0ML-205-250NM-50MIN.M
    Last changed    : 12/2/2015 4:33:35 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\DAD-0D(1-2
                      )-98-2-1.0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 12/30/2015 12:39:51 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ====================================================================
                            Area Percent Report
    ====================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 D, Sig=220,4 Ref=off

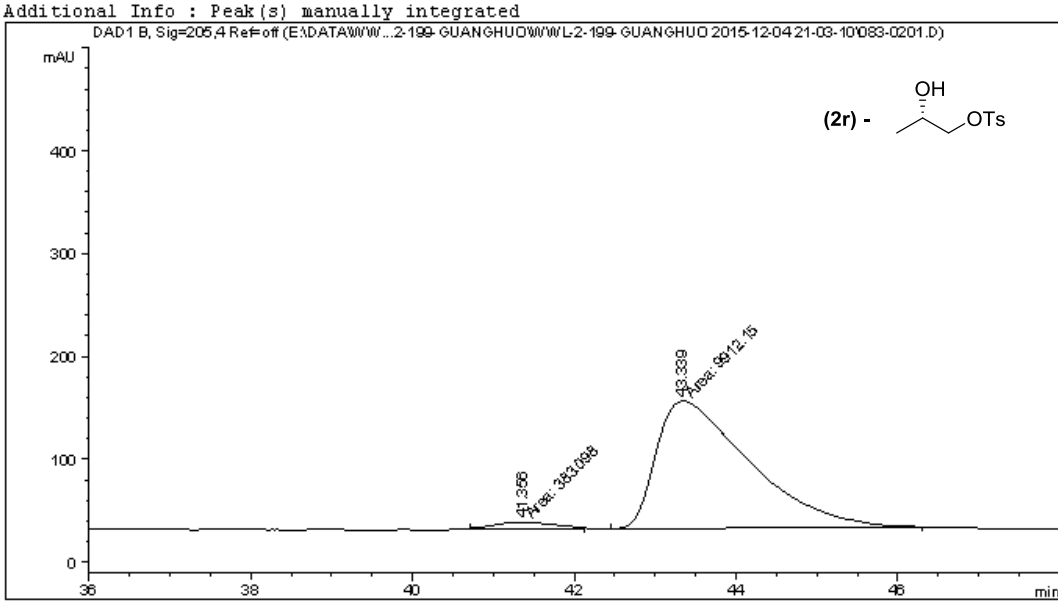
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  39.253 BV    0.9643 1.01686e4   154.40909  49.3577
       2  41.993 VB    1.0858 1.04333e4   138.03203  50.6423

    Totals :                  2.06019e4   292.44112


    ====================================================================
                            *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-199-GUANGHUO\WWL-2-199-GUANGHUO 2015-12-04 21-03-10\083-0201.D
Sample Name: wwl-2-pr-diol-Ts

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   2
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 83
    Injection Date  : 12/4/2015 9:20:51 PM                 Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-199-GUANGHUO\WWL-2-199-GUANGHUO 2015-12-04 21-03-10
                      \DAD-OD(1-2)-98-2-1.0ML-205-250NM-50MIN.M
    Last changed    : 12/4/2015 9:03:11 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-199-GUANGHUO\WWL-2-199-GUANGHUO 2015-12-04 21-03-10
                      \DAD-OD(1-2)-98-2-1.0ML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 12/19/2015 2:58:09 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ======================================================================
                              Area Percent Report
    ======================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs


    Signal 1: DAD1 B, Sig=205,4 Ref=off

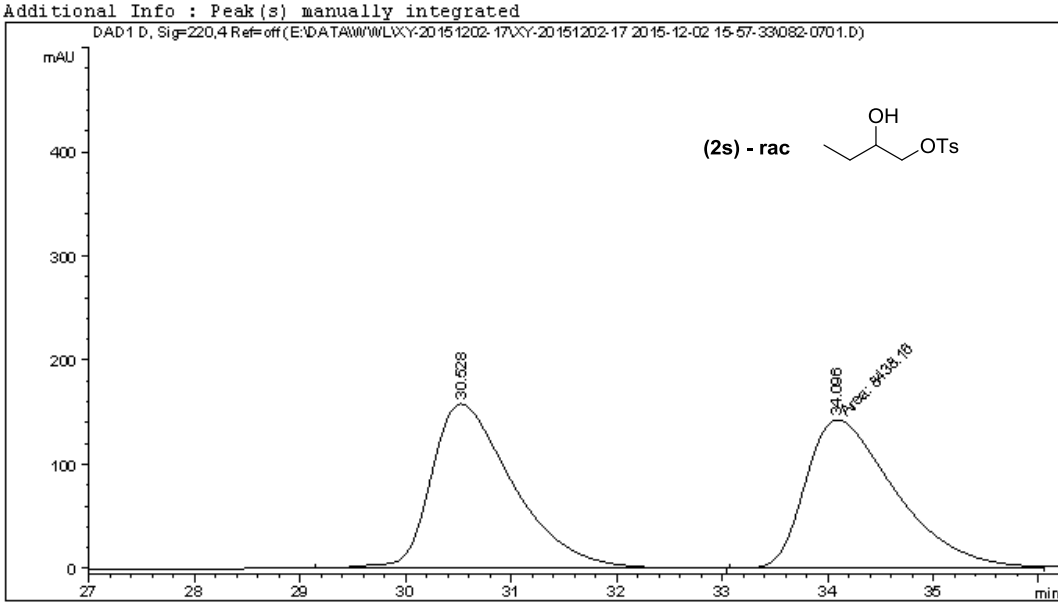
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  41.356 MM    0.9203  383.09811    6.93803   3.7211
       2  43.339 MM    1.3354 9912.14844  123.71206  96.2789

    Totals :                  1.02952e4   130.65009


    ======================================================================
                              *** End of Report ***
```

Data File E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\082-0701.D
Sample Name: wwl-2-199-2

```
=====================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   7
Acq. Instrument : 1260HPLC-DAD                     Location : Vial 82
Injection Date  : 12/2/2015 7:40:15 PM                 Inj :   1
                                                  Inj Volume : 1.000 µl
Acq. Method     : E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\DAD-OD(1-2
                  )-98-2-1.0ML-205-250NM-50MIN.M
Last changed    : 12/2/2015 4:33:35 PM by SYSTEM
Analysis Method : E:\DATA\WWL\XY-20151202-17\XY-20151202-17 2015-12-02 15-57-33\DAD-OD(1-2
                  )-98-2-1.0ML-205-250NM-50MIN.M (Sequence Method)
Last changed    : 1/21/2016 1:07:25 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




```
=====================================================================
                        Area Percent Report
=====================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs


Signal 1: DAD1 D, Sig=220,4 Ref=off

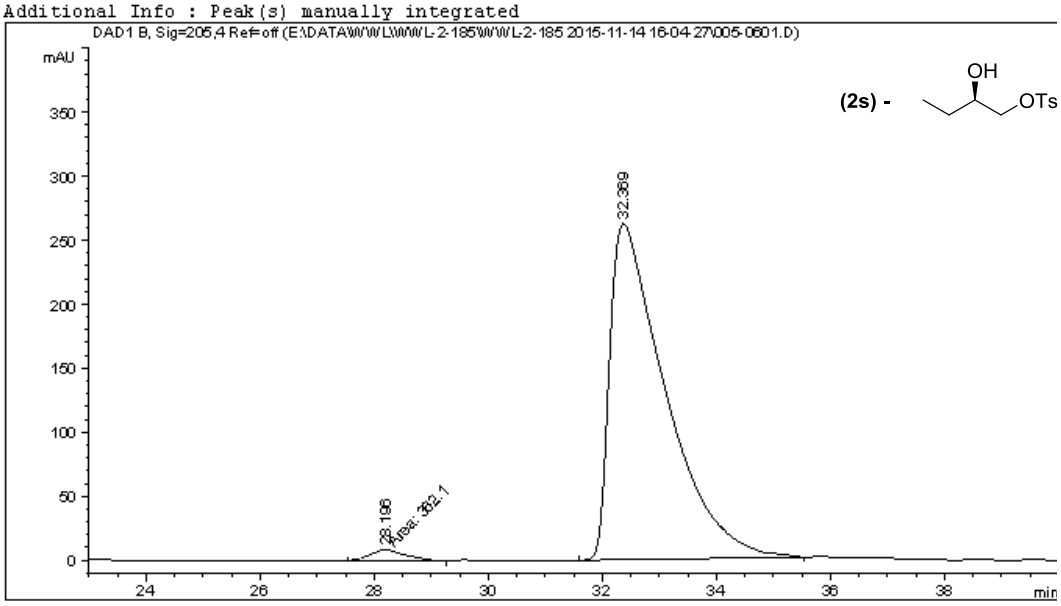
Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  30.528 BB    0.8075 8512.81738  157.75905  50.2202
   2  34.096 MM    0.9872 8438.16406  142.45729  49.7798

Totals :                  1.69510e4   300.21634


=====================================================================
                        *** End of Report ***
```

Data File E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\005-0601.D
Sample Name: WWL-2-185-4

```
    ==================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   6
    Acq. Instrument : 1260HPLC-DAD                     Location : Vial 5
    Injection Date  : 11/14/2015 7:45:28 PM                 Inj :   1
                                                     Inj Volume : 1.000 µl
    Acq. Method     : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-50MIN.M
    Last changed    : 11/14/2015 4:04:27 PM by SYSTEM
    Analysis Method : E:\DATA\WWL\WWL-2-185\WWL-2-185 2015-11-14 16-04-27\DAD-OD(1-2)-98-2-1.
                      OML-205-250NM-50MIN.M (Sequence Method)
    Last changed    : 1/17/2016 6:23:31 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




```
    ==================================================================
                            Area Percent Report
    ==================================================================

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Do not use Multiplier & Dilution Factor with ISTDs

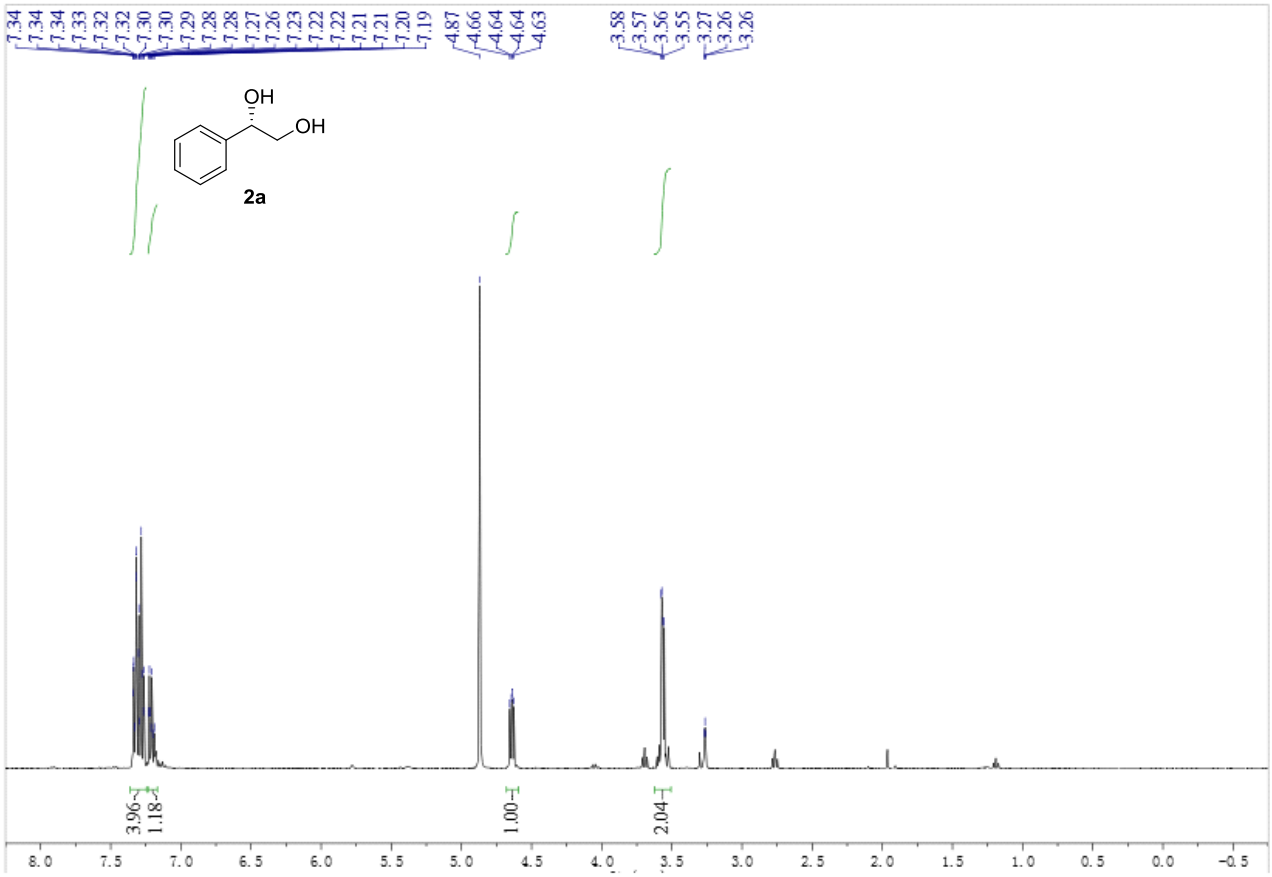

    Signal 1: DAD1 B, Sig=205,4 Ref=off

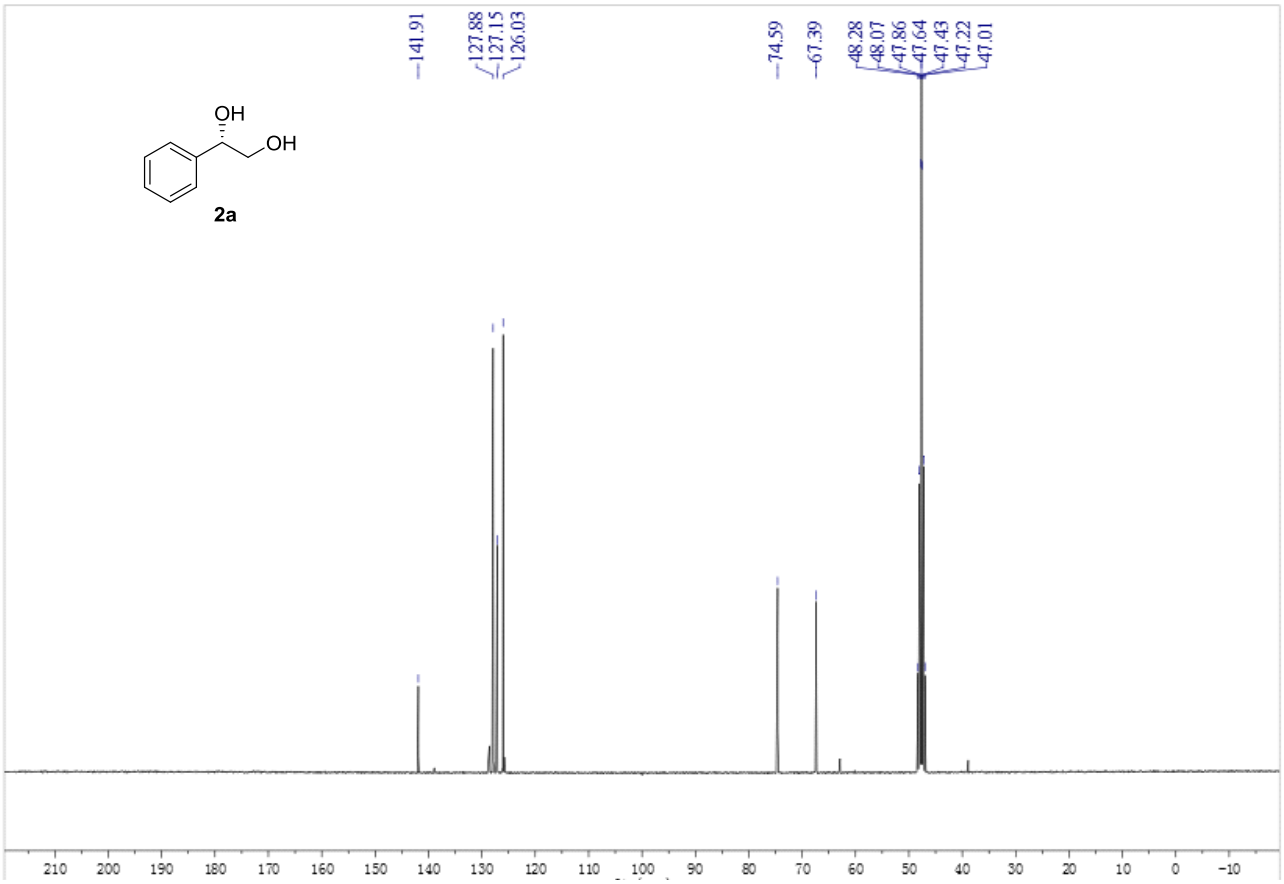
    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]        %
    ----|-------|----|-------|----------|----------|--------|
       1  28.196 MM    0.7101  362.09982    8.49826   1.9979
       2  32.369 BB    0.9328 1.77618e4   262.70511  98.0021

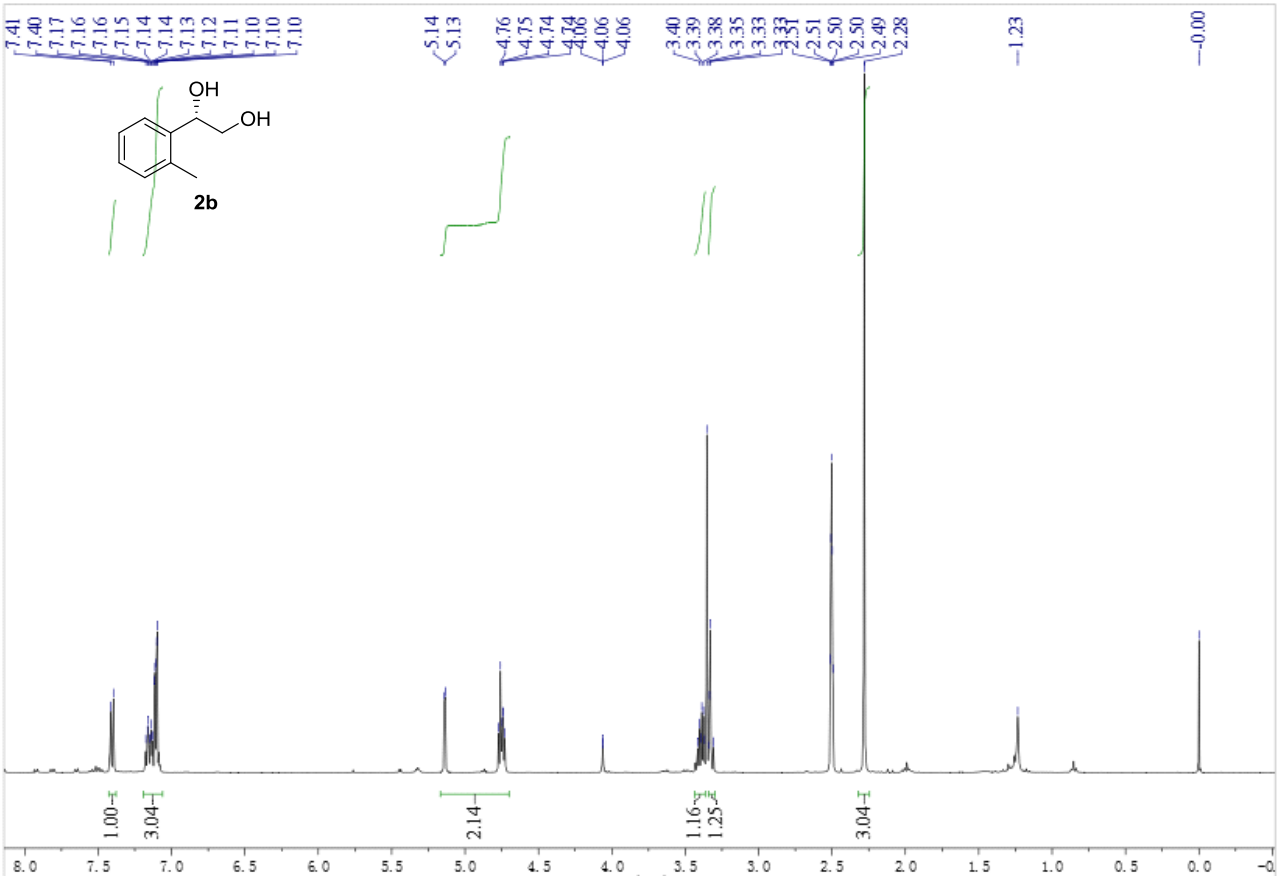
    Totals :                  1.81239e4   271.20337

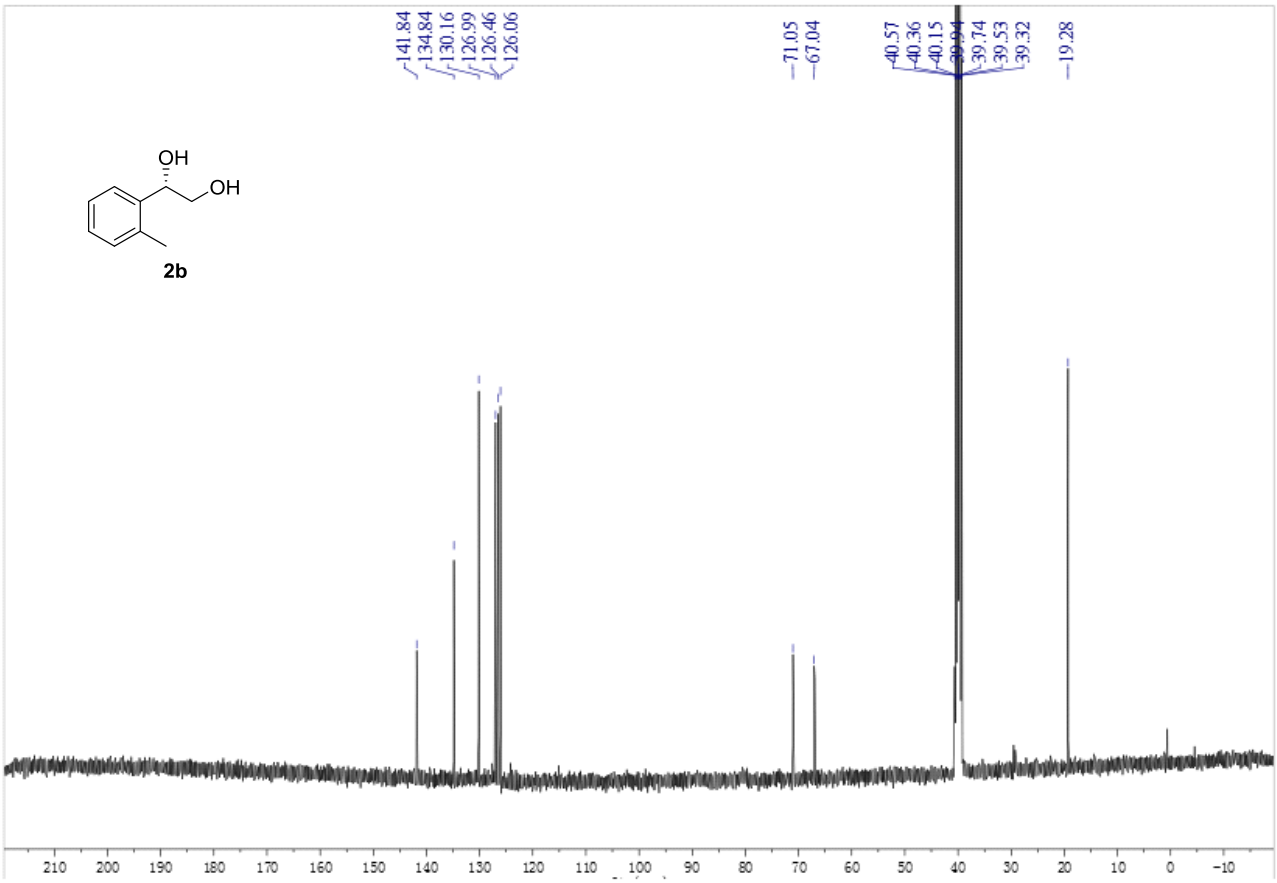

    ==================================================================
                            *** End of Report ***
```

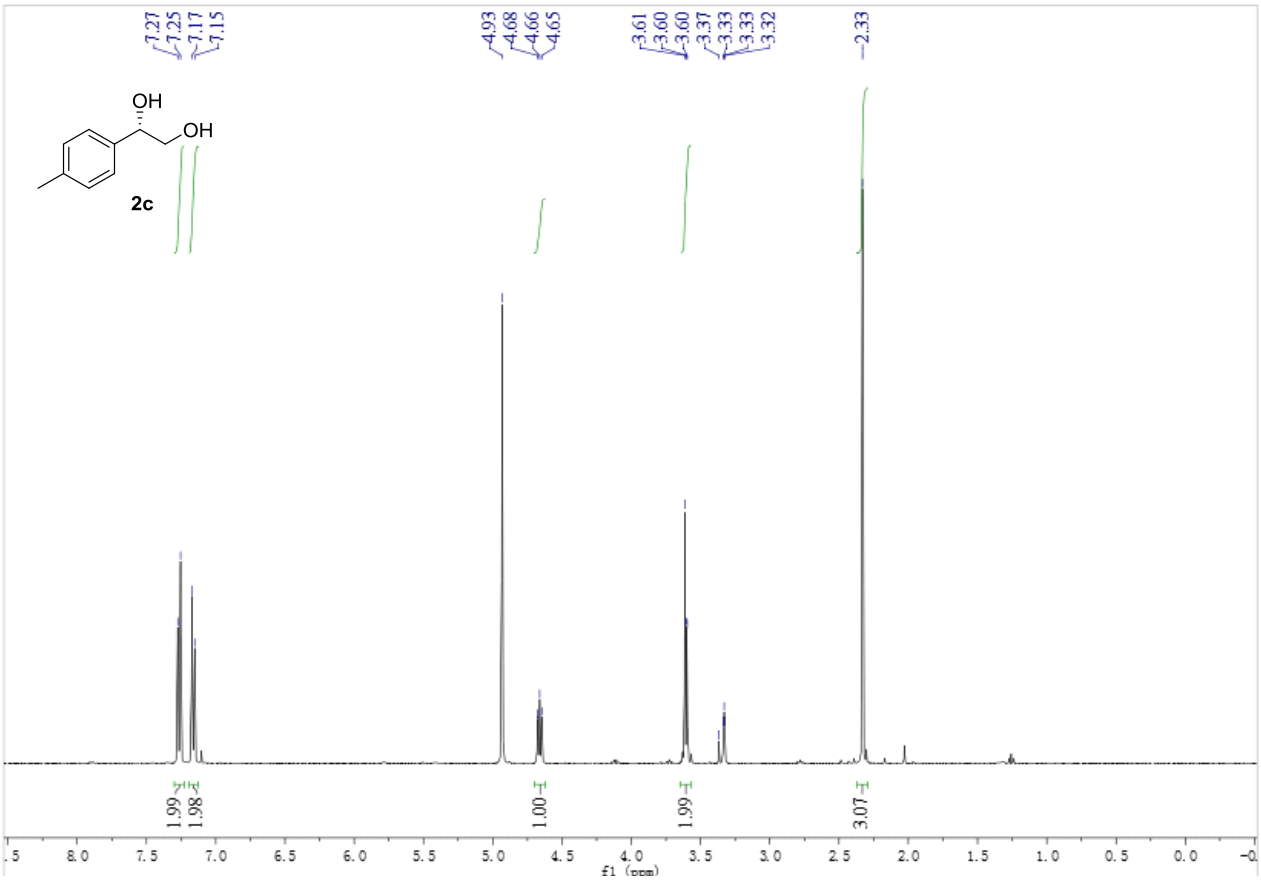
IV. NMR spectra

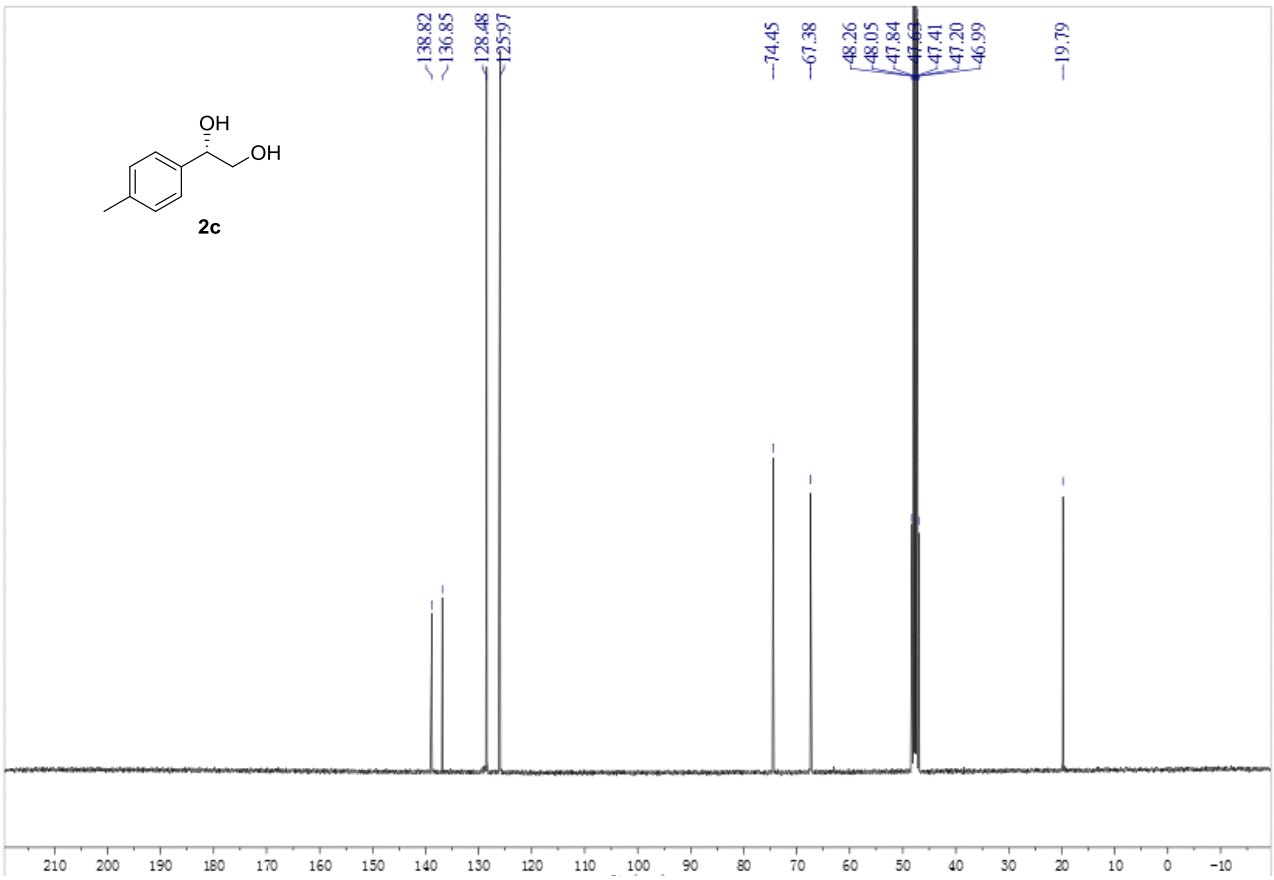


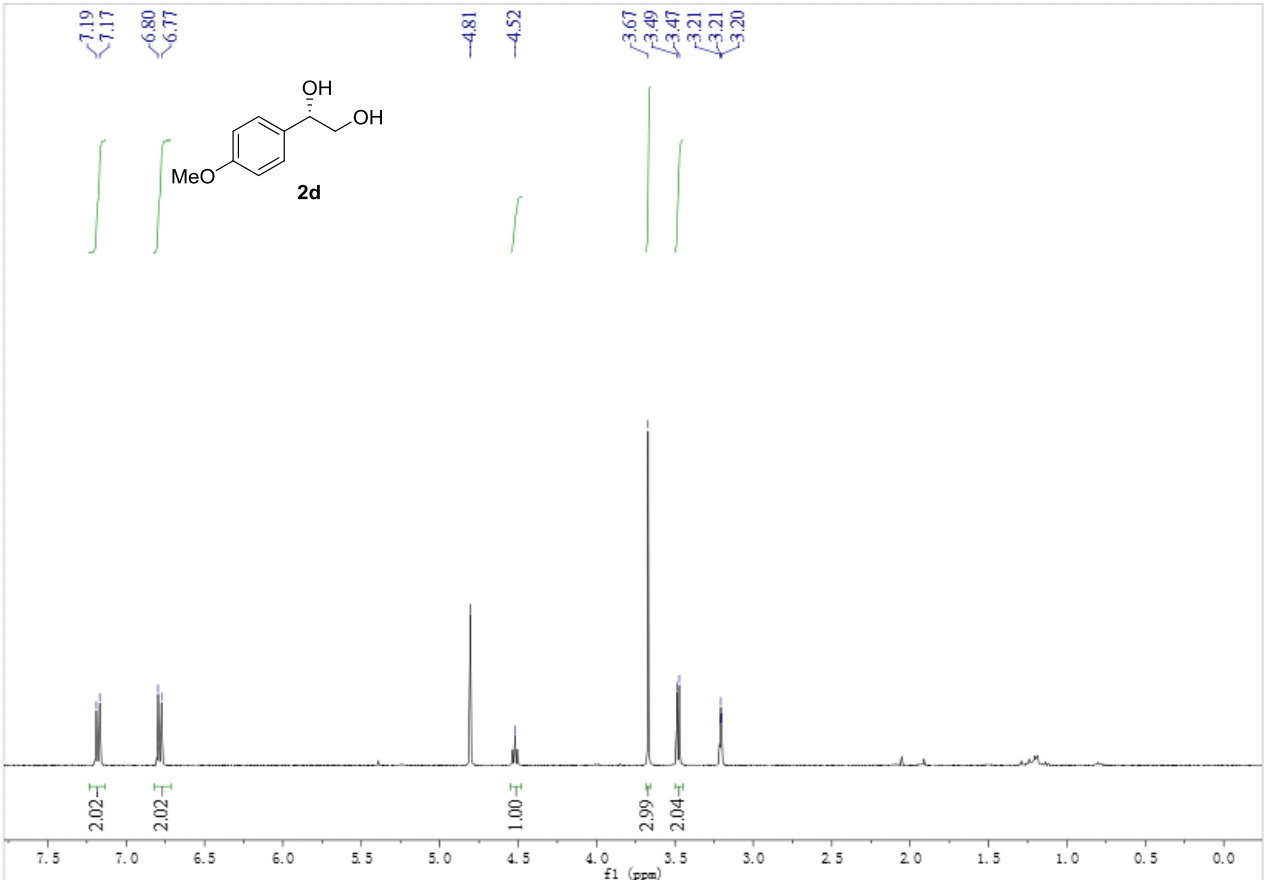


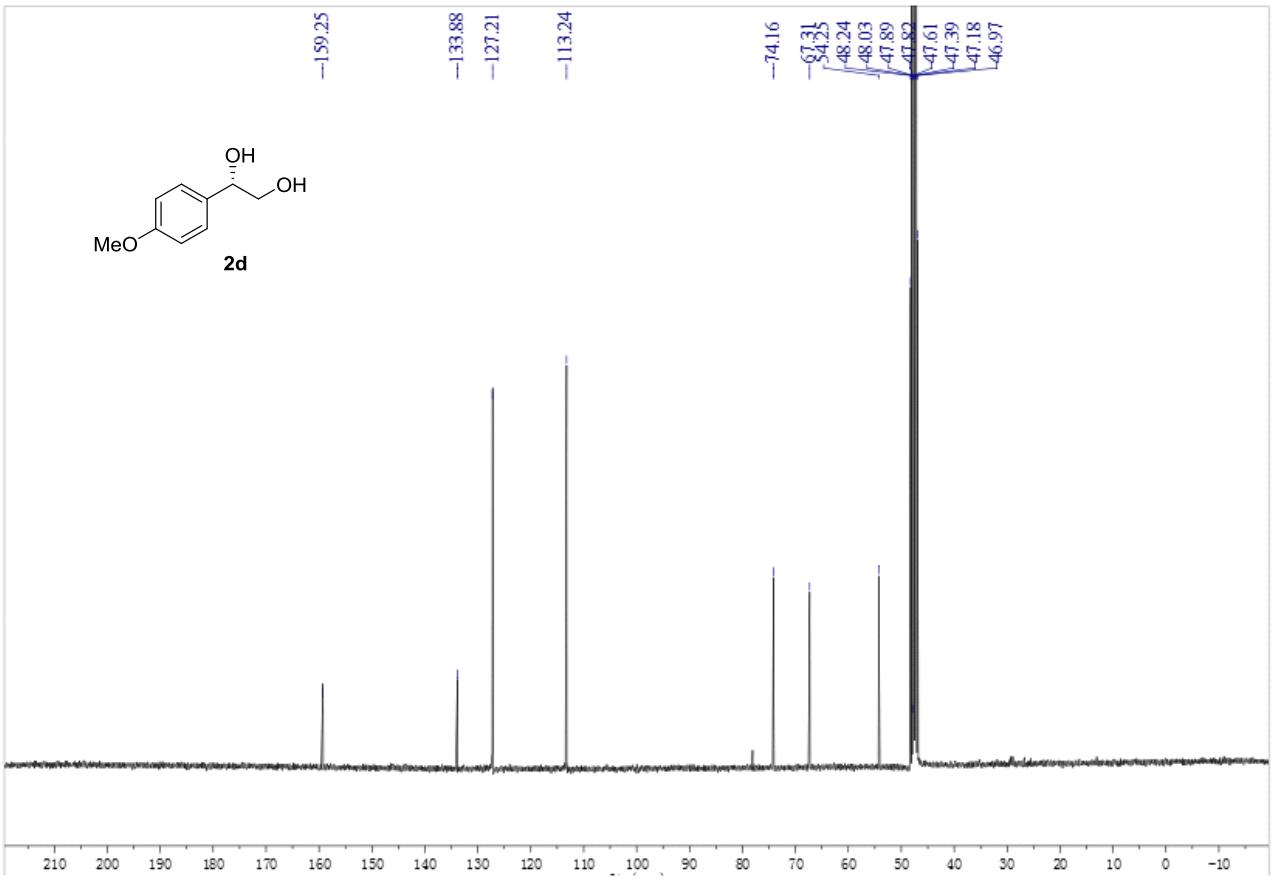

OH
OH
2b

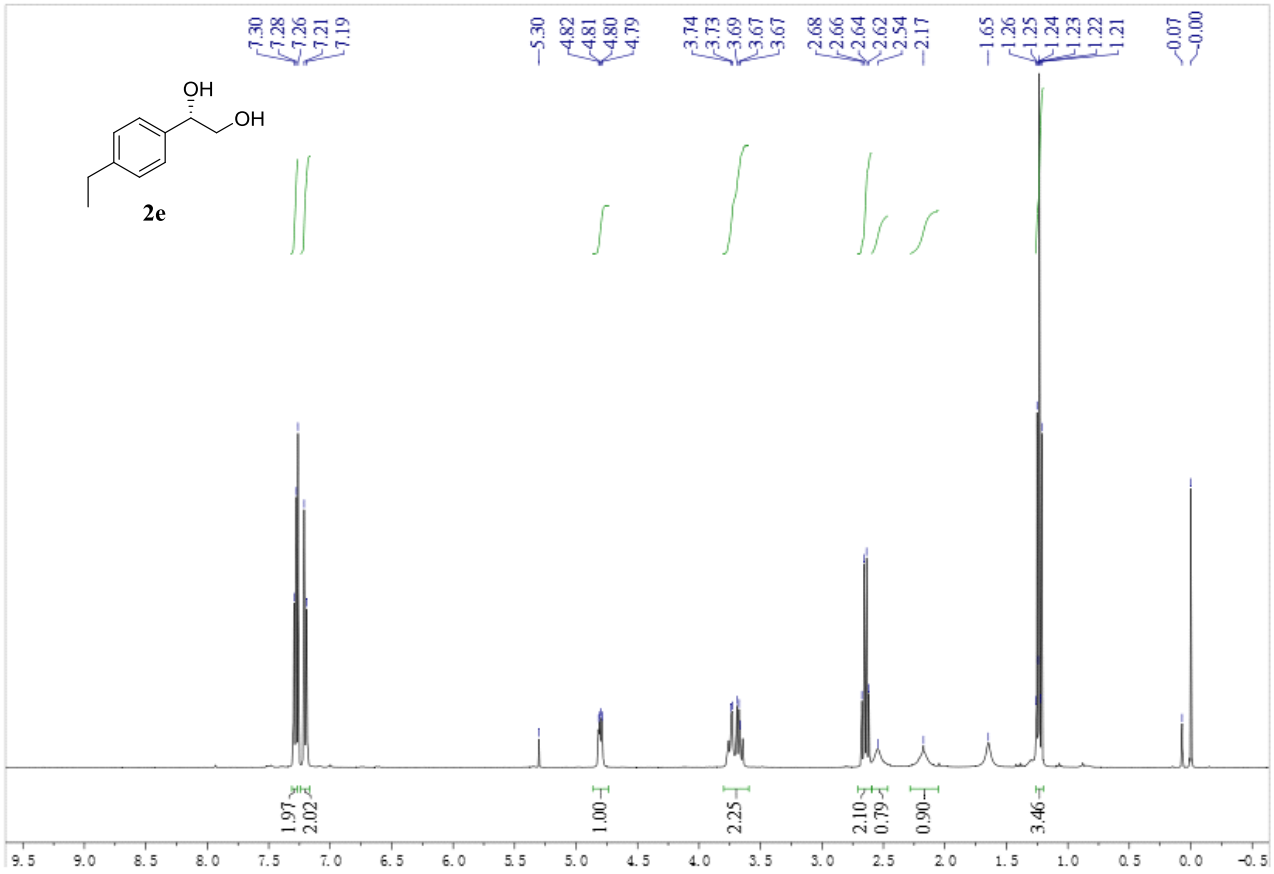

OH
OH
2b

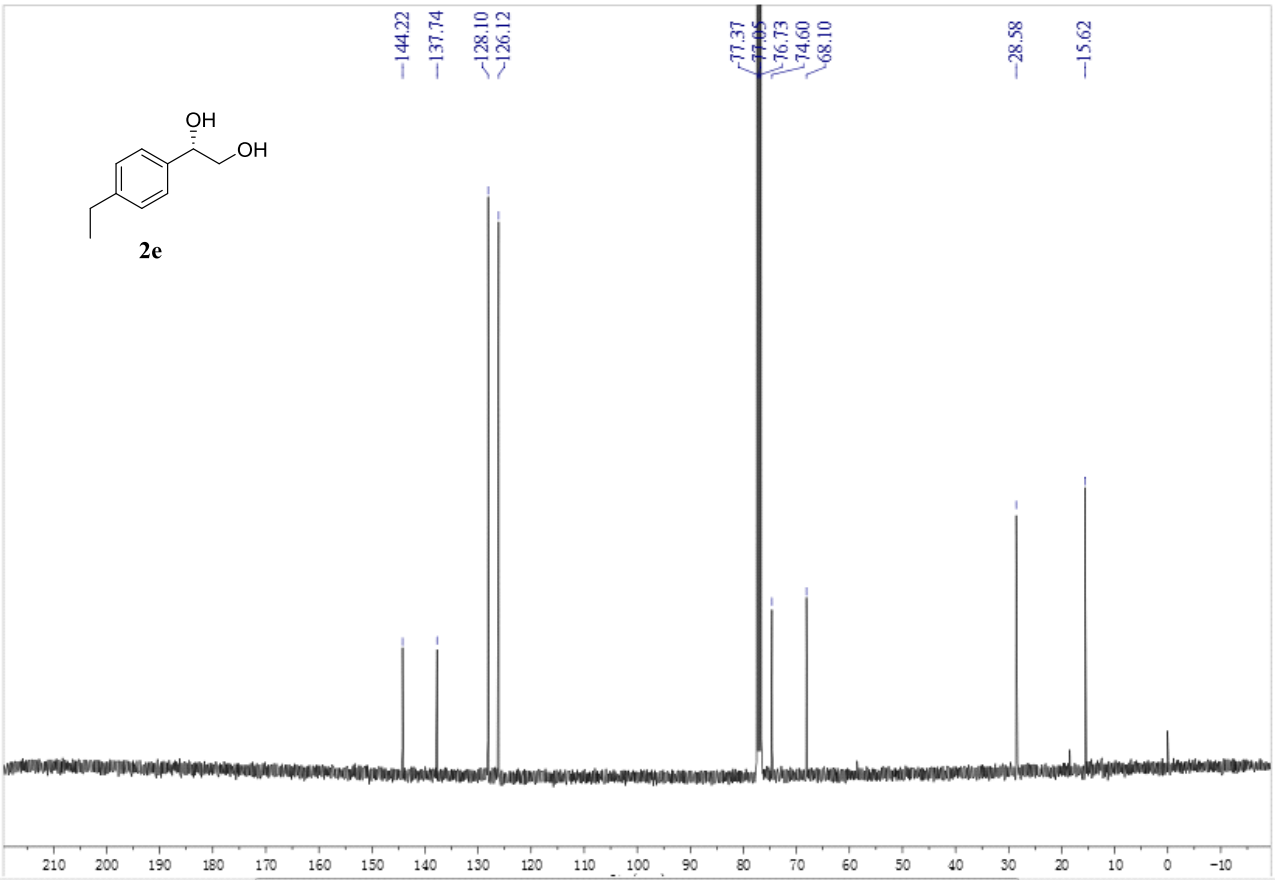

7.27
7.25
7.17
7.15
4.93
4.68
4.66
4.65
3.61
3.60
3.60
3.37
3.33
3.33
3.32
2.33
OH
OH
2c
1.99
1.98
1.00
1.99
3.07
f1 (ppm)

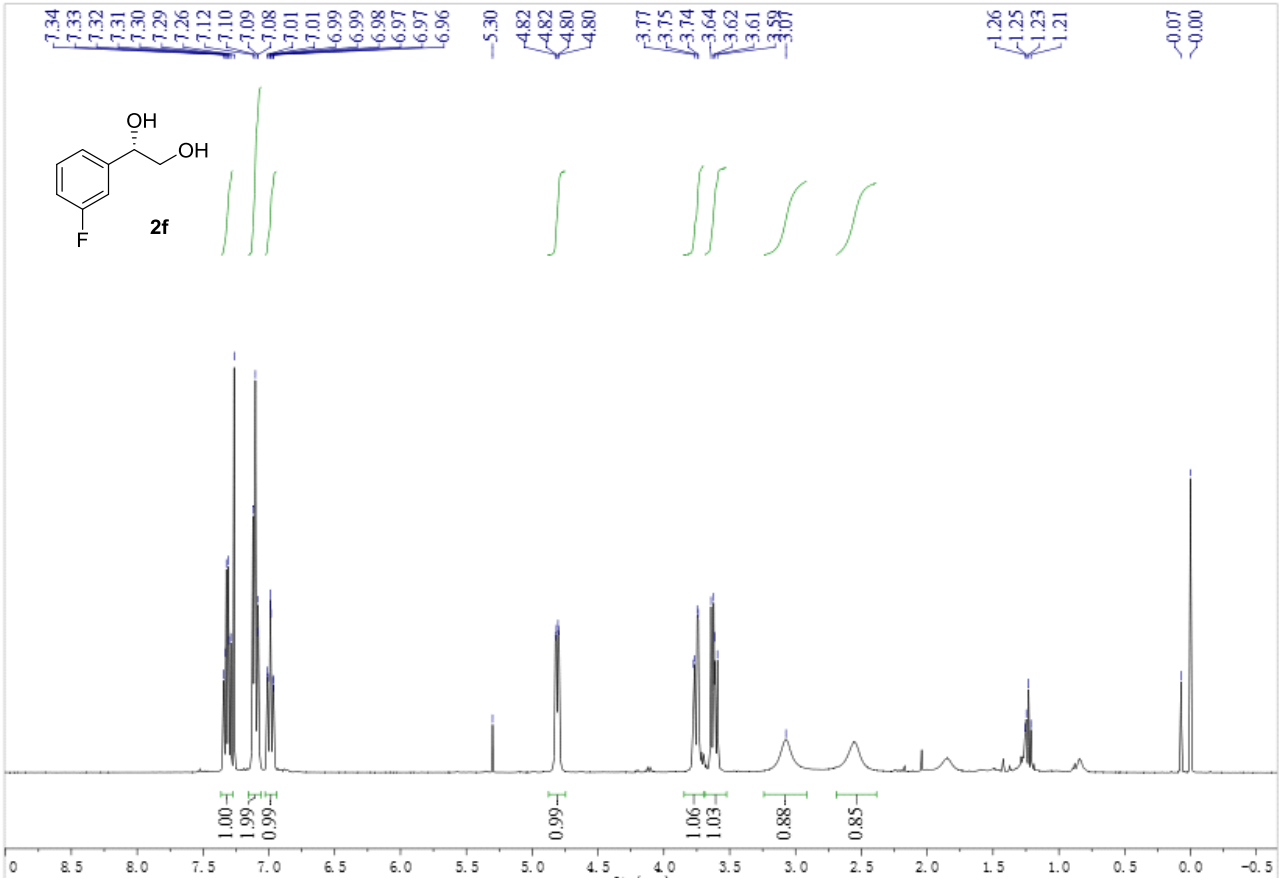

138.82
136.85
128.48
125.97
74.45
67.38
48.26
48.05
47.84
47.63
47.41
47.20
46.99
19.79
OH
OH
2c

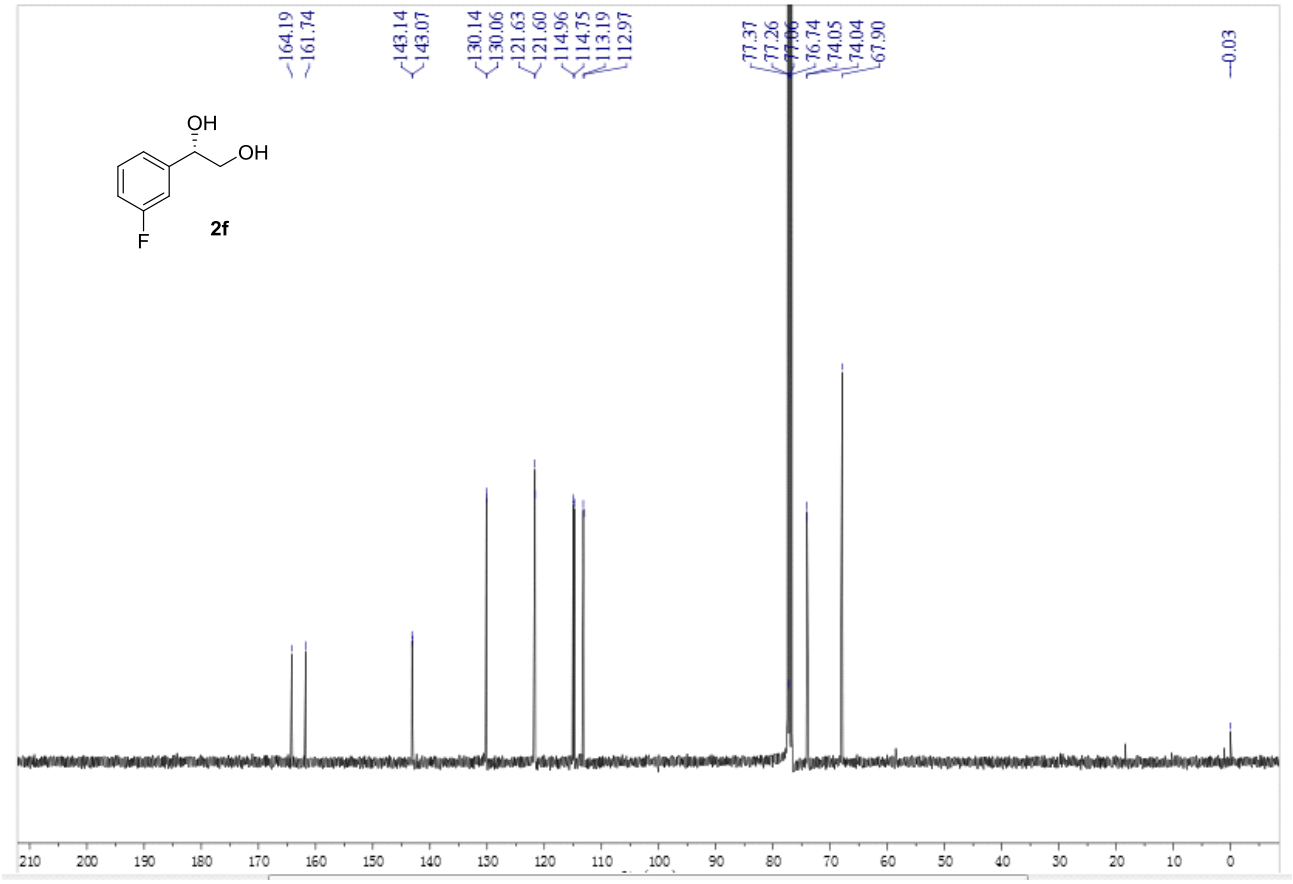

7.19
7.17
6.80
6.77
4.81
4.52
3.67
3.49
3.47
3.21
3.21
3.20
OH
OH
MeO
2d
2.02
2.02
1.00
2.99
2.04
f1 (ppm)

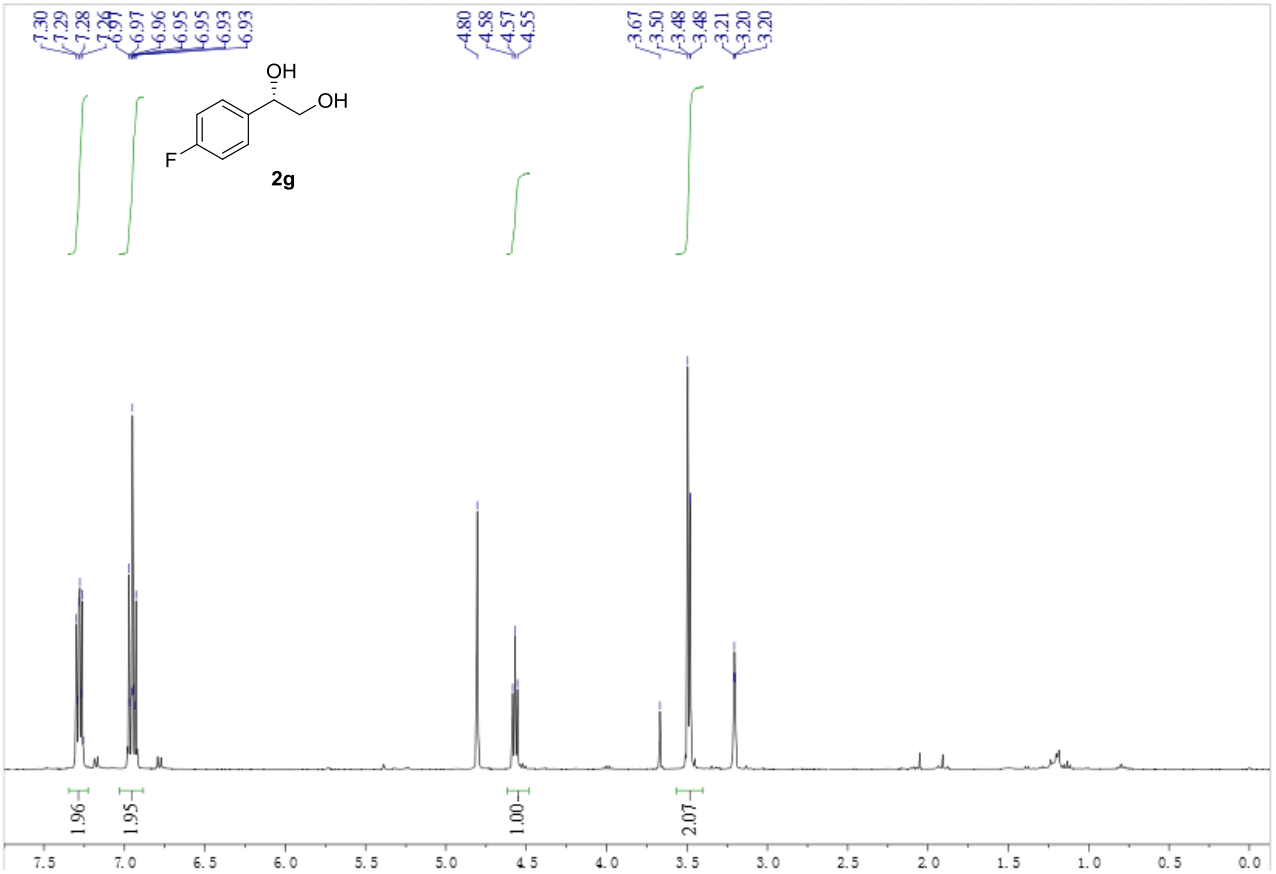

159.25
133.88
127.21
113.24
74.16
67.31
54.25
48.24
48.03
47.89
47.82
47.61
47.39
47.18
46.97
OH
OH
MeO
2d

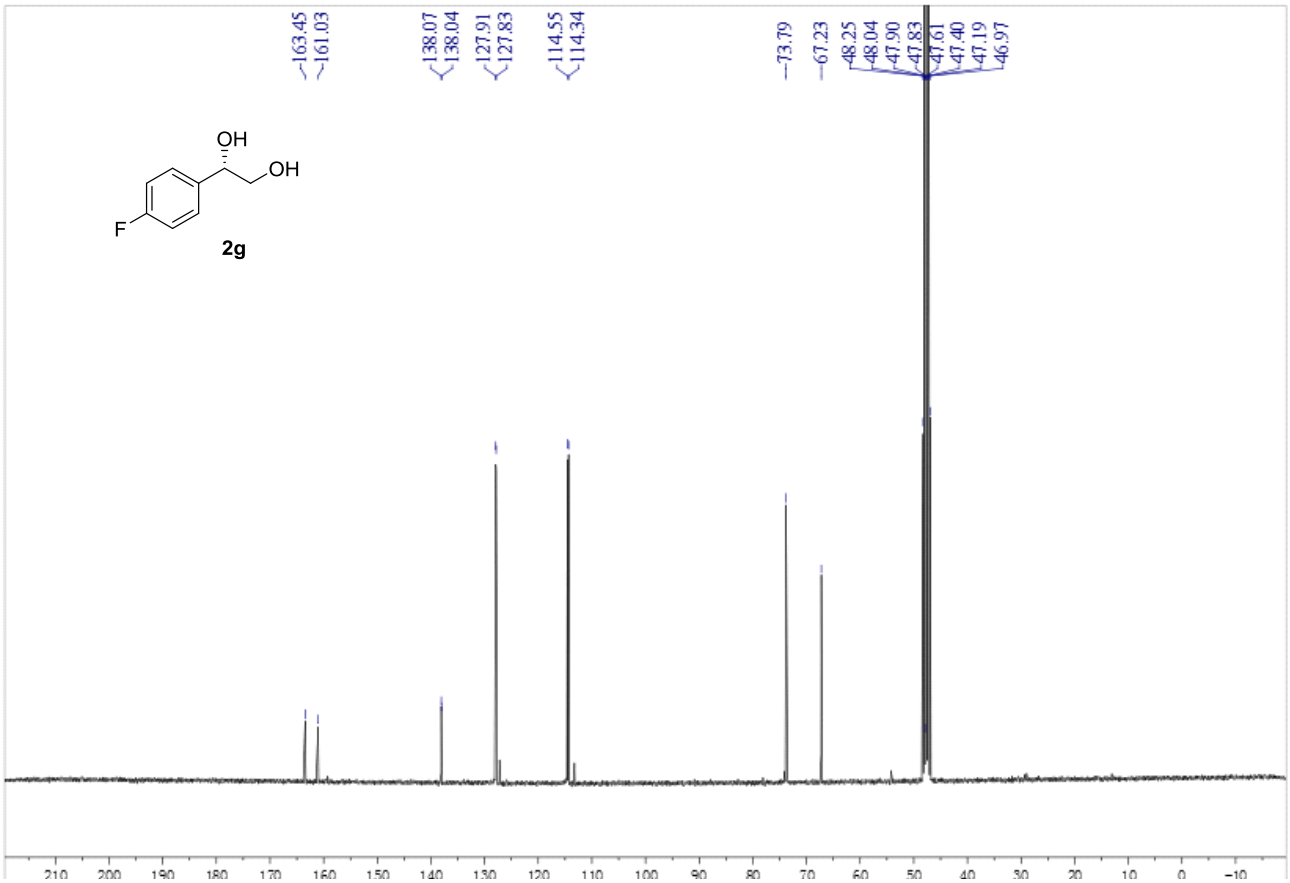

7.30
7.28
7.26
7.21
7.19
5.30
4.82
4.81
4.80
4.79
3.74
3.73
3.69
3.67
3.67
2.68
2.66
2.64
2.62
2.54
2.17
1.65
1.26
1.25
1.24
1.23
1.22
1.21
0.07
0.00
OH
OH
2e
1.97
2.02
1.00
2.25
2.10
0.79
0.90
3.46

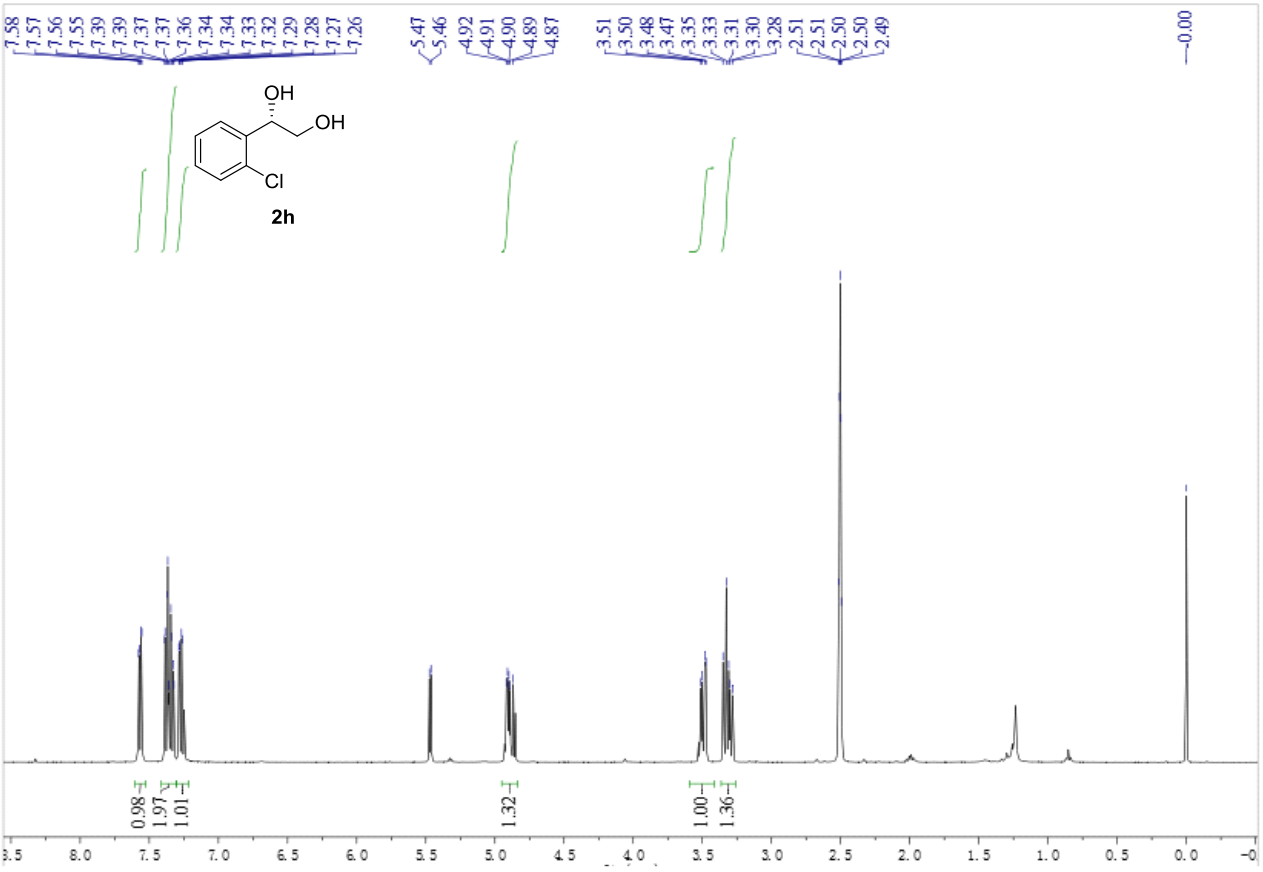

144.22
137.74
128.10
126.12
77.37
77.05
76.73
74.60
68.10
28.58
15.62
OH
OH
2e

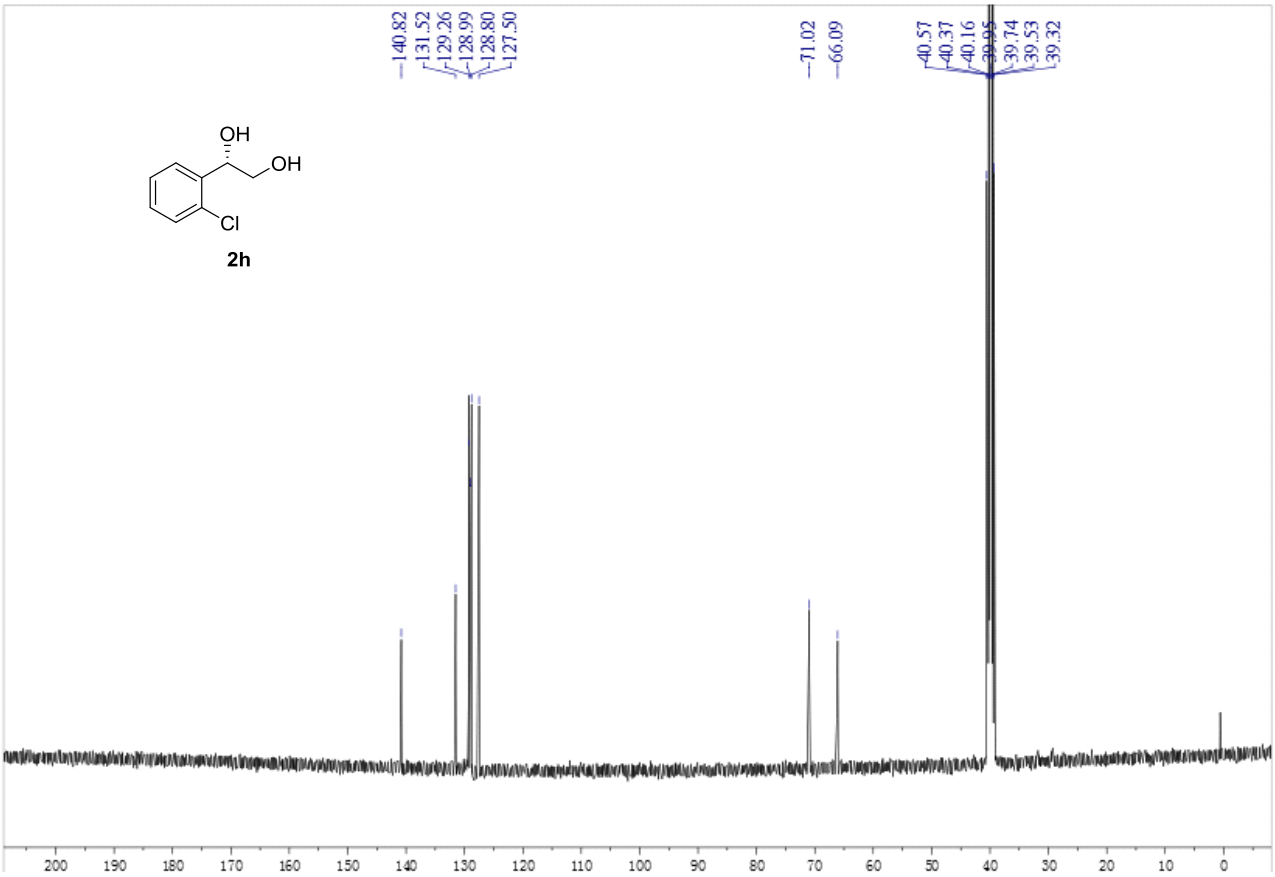

7.34
7.33
7.32
7.31
7.30
7.29
7.26
7.12
7.10
7.09
7.08
7.01
7.01
6.99
6.99
6.98
6.97
6.97
6.96
5.30
4.82
4.82
4.80
4.80
3.77
3.75
3.74
3.64
3.62
3.61
3.59
3.07
1.26
1.25
1.23
1.21
0.07
0.00
OH
OH
F
2f
1.00
1.99
0.99
0.99
1.06
1.03
0.88
0.85


164.19
161.74
143.14
143.07
130.14
130.06
121.63
121.60
114.96
114.75
113.19
112.97
77.37
77.26
76.74
74.05
74.04
67.90
0.03
OH
OH
F
2f


7.30
7.29
7.28
7.26
6.97
6.96
6.95
6.95
6.93
6.93
4.80
4.58
4.57
4.55
3.67
3.50
3.48
3.48
3.21
3.20
3.20
OH
OH
F
2g
1.96
1.95
1.00
2.07
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0


163.45
161.03
138.07
138.04
127.91
127.83
114.55
114.34
73.79
67.23
48.25
48.04
47.90
47.83
47.61
47.40
47.19
46.97
OH
OH
F
2g
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10


7.58
7.57
7.56
7.55
7.39
7.39
7.37
7.37
7.36
7.34
7.34
7.33
7.32
7.29
7.28
7.27
7.26
5.47
5.46
4.92
4.91
4.90
4.89
4.87
3.51
3.50
3.48
3.47
3.35
3.33
3.31
3.30
3.28
2.51
2.51
2.50
2.50
2.49
0.00
OH
OH
Cl
2h
0.98
1.97
1.01
1.32
1.00
1.36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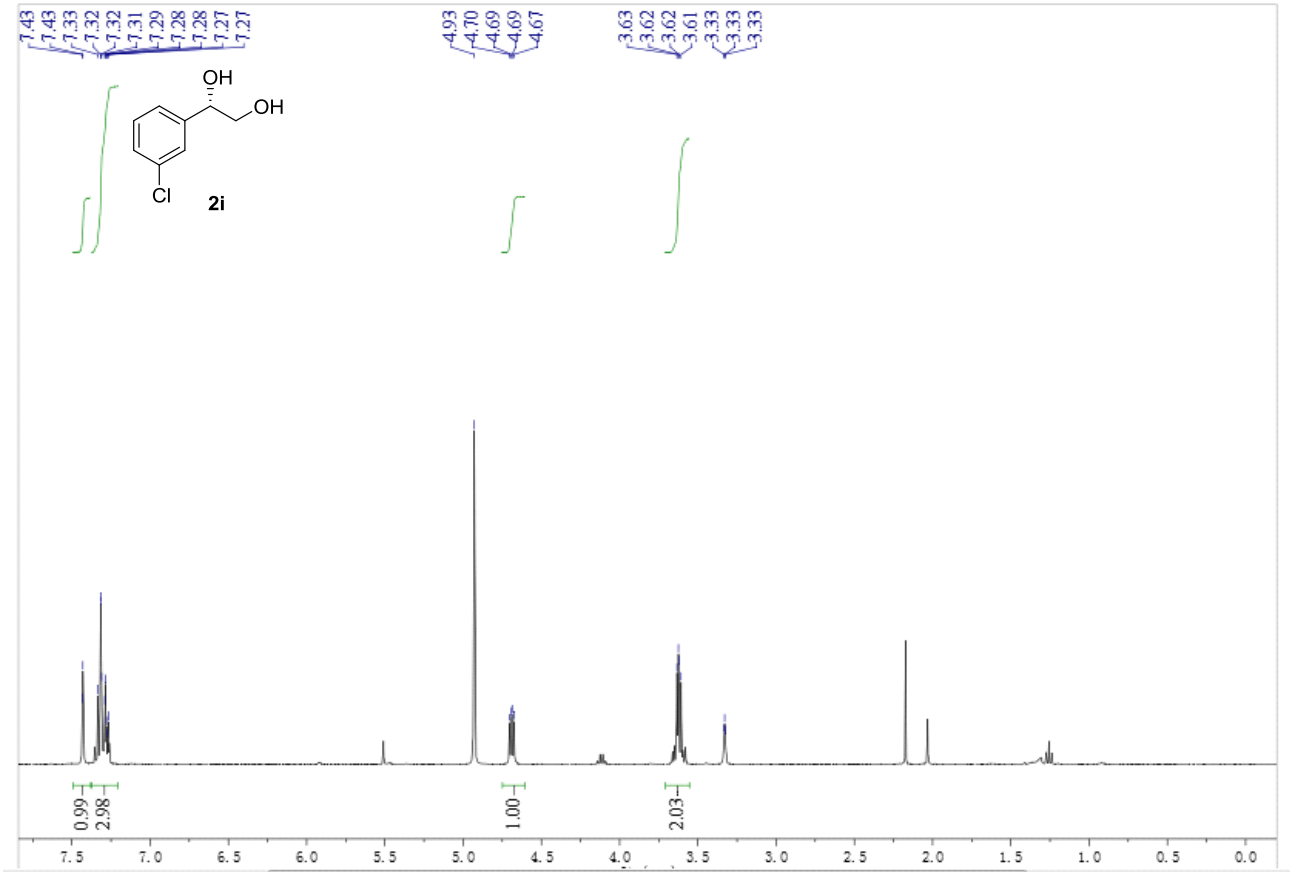
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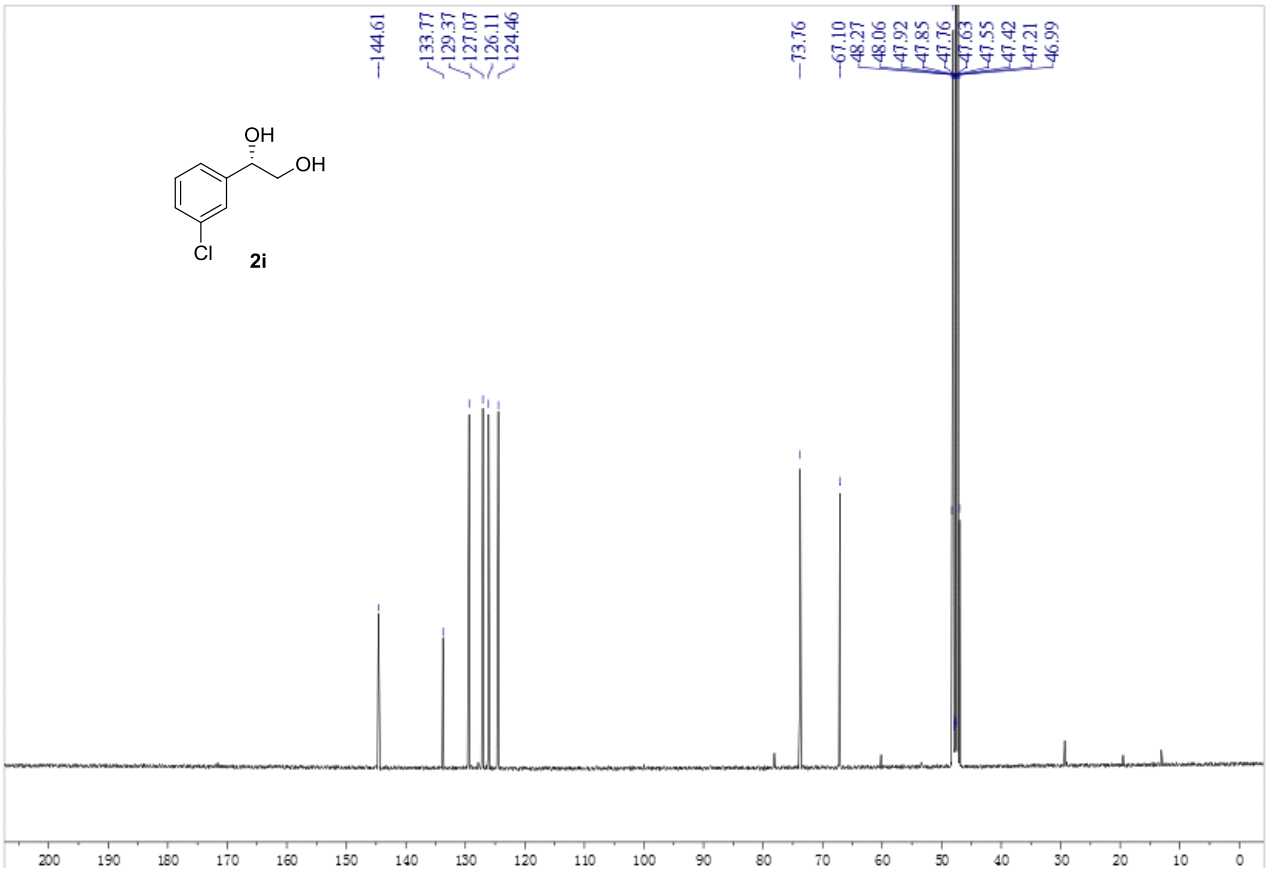
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Cl
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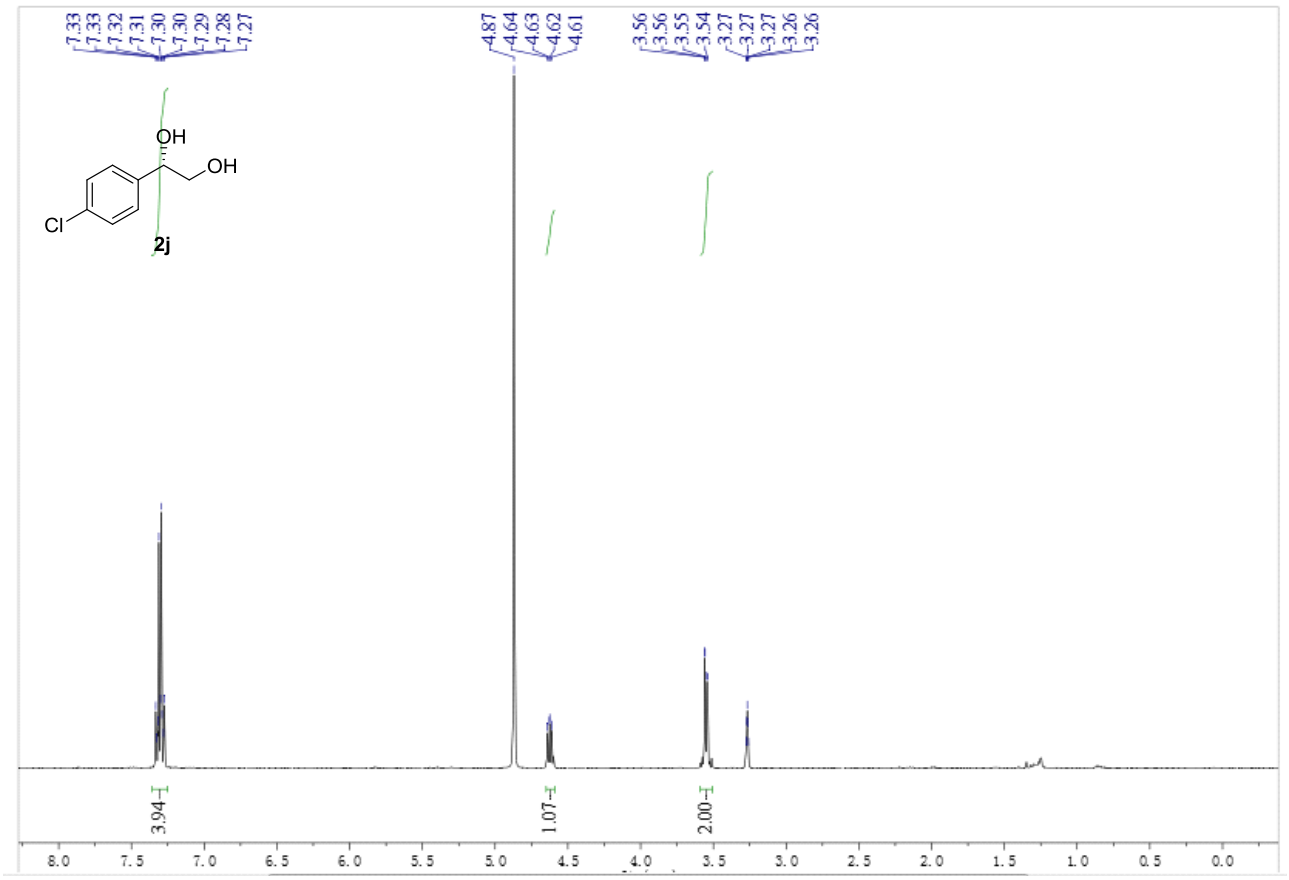
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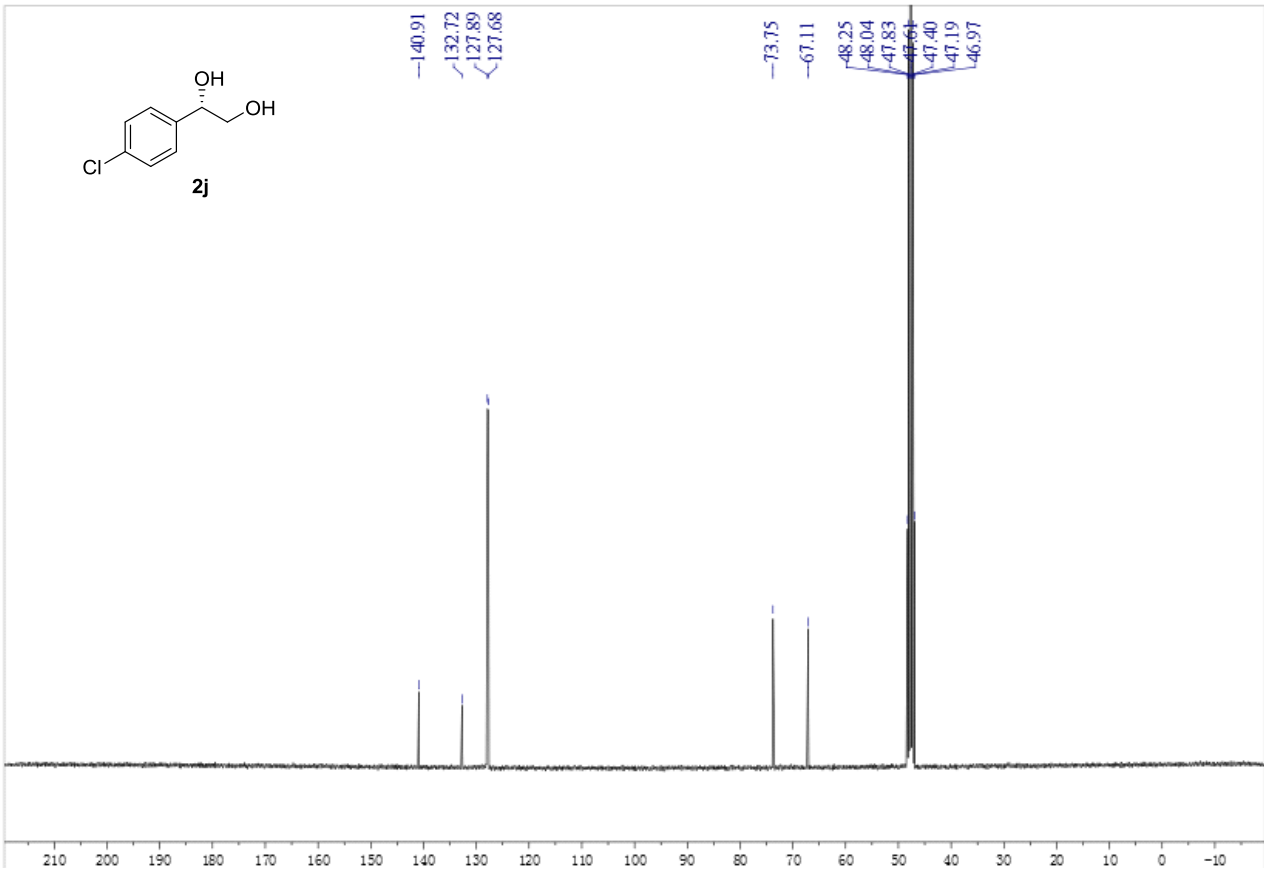
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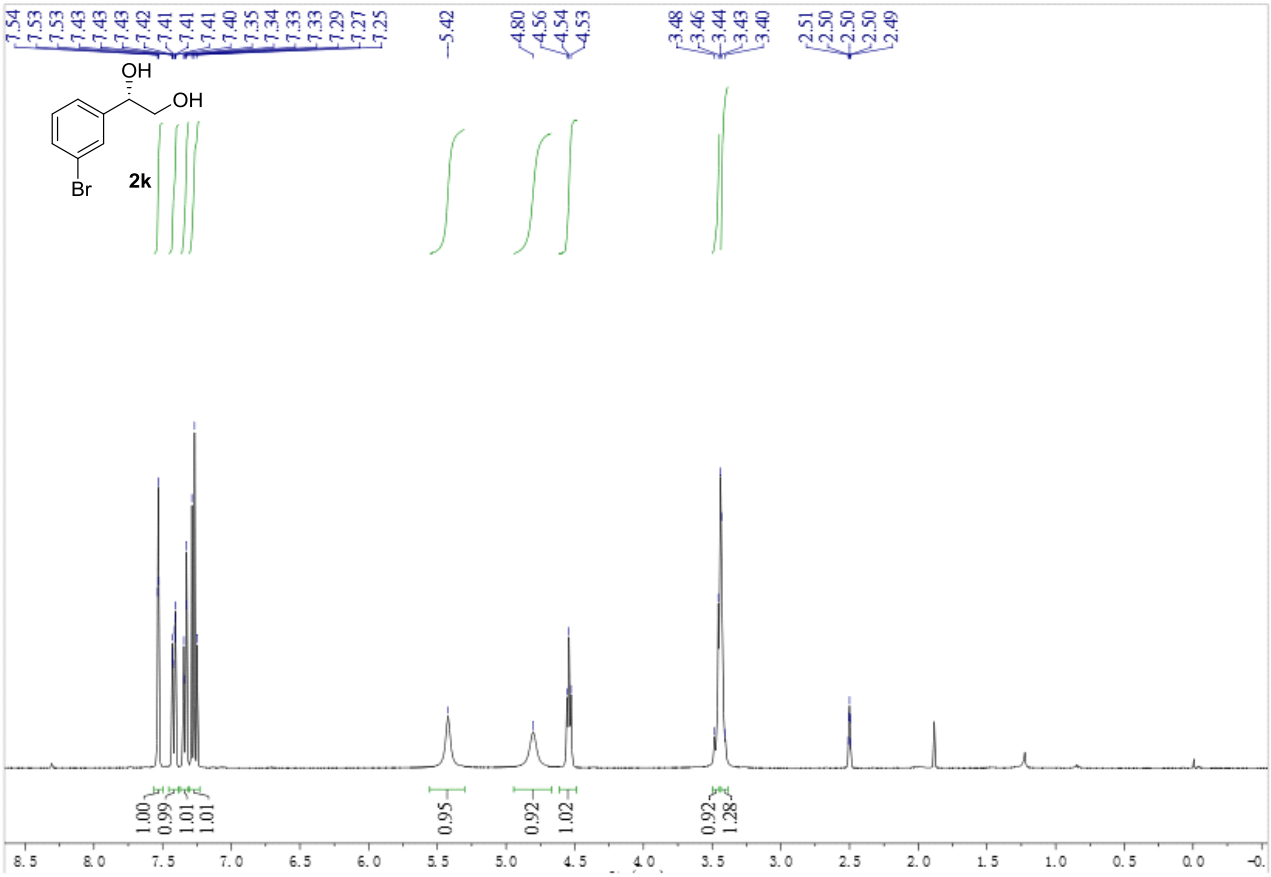
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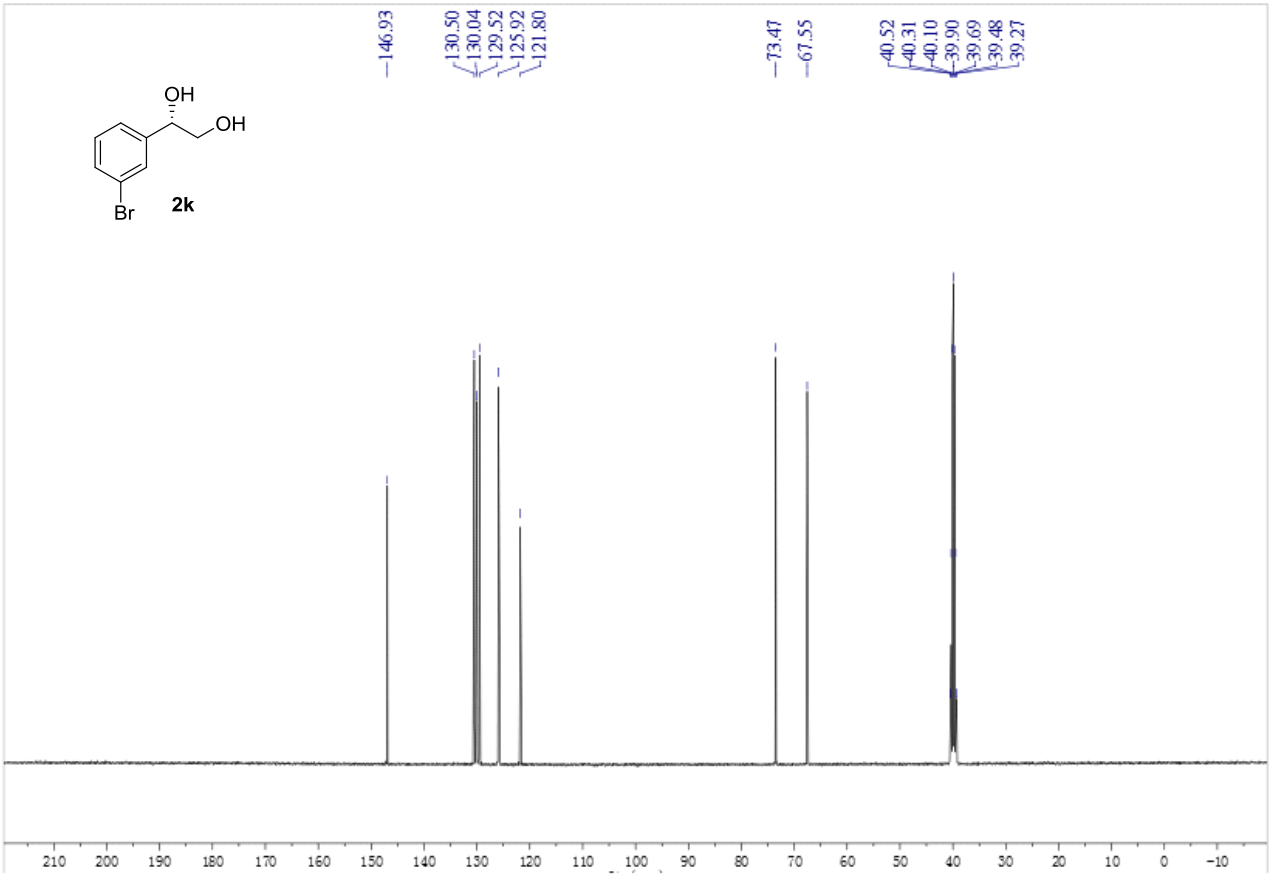
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39.48
39.27
OH
OH
Br
2k
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200
190
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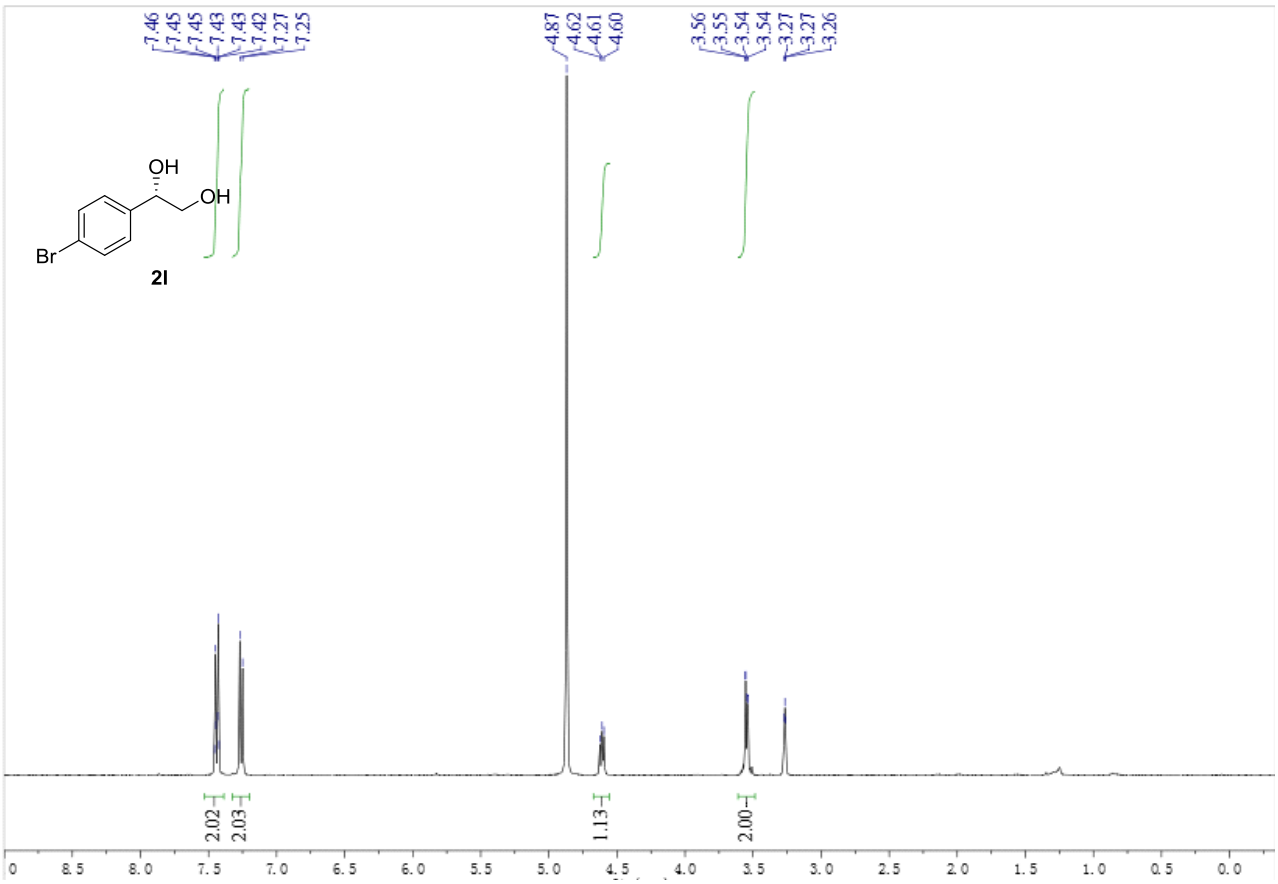
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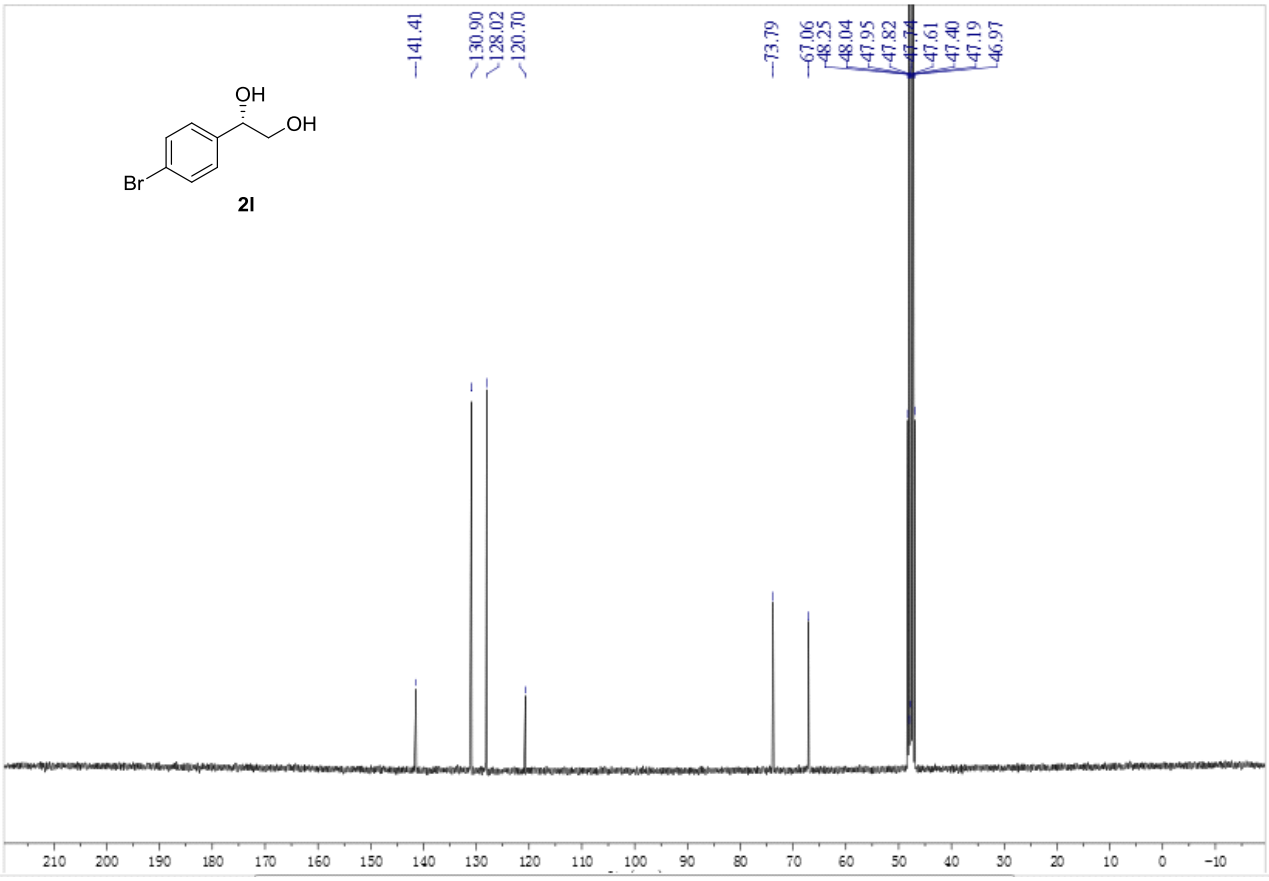
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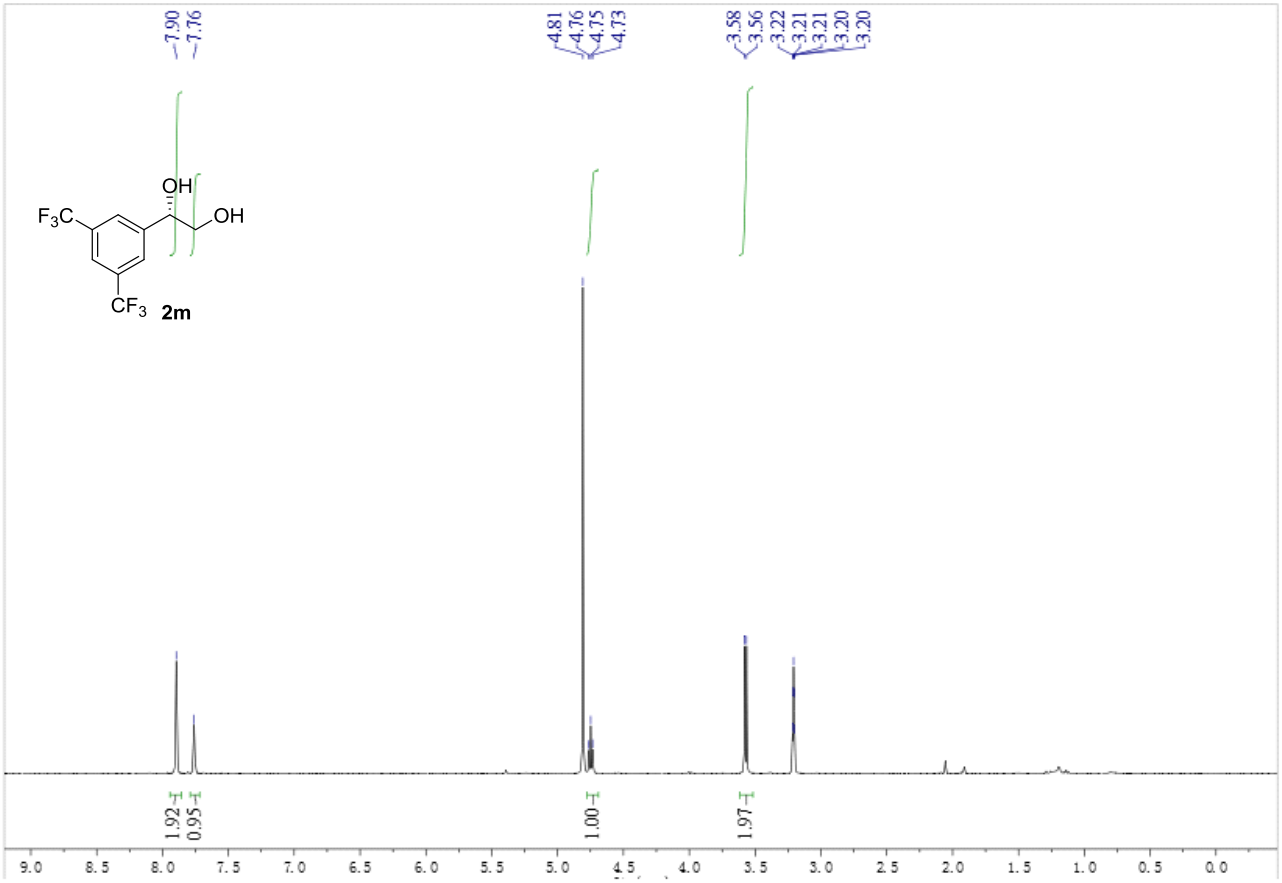
OH
Br
2l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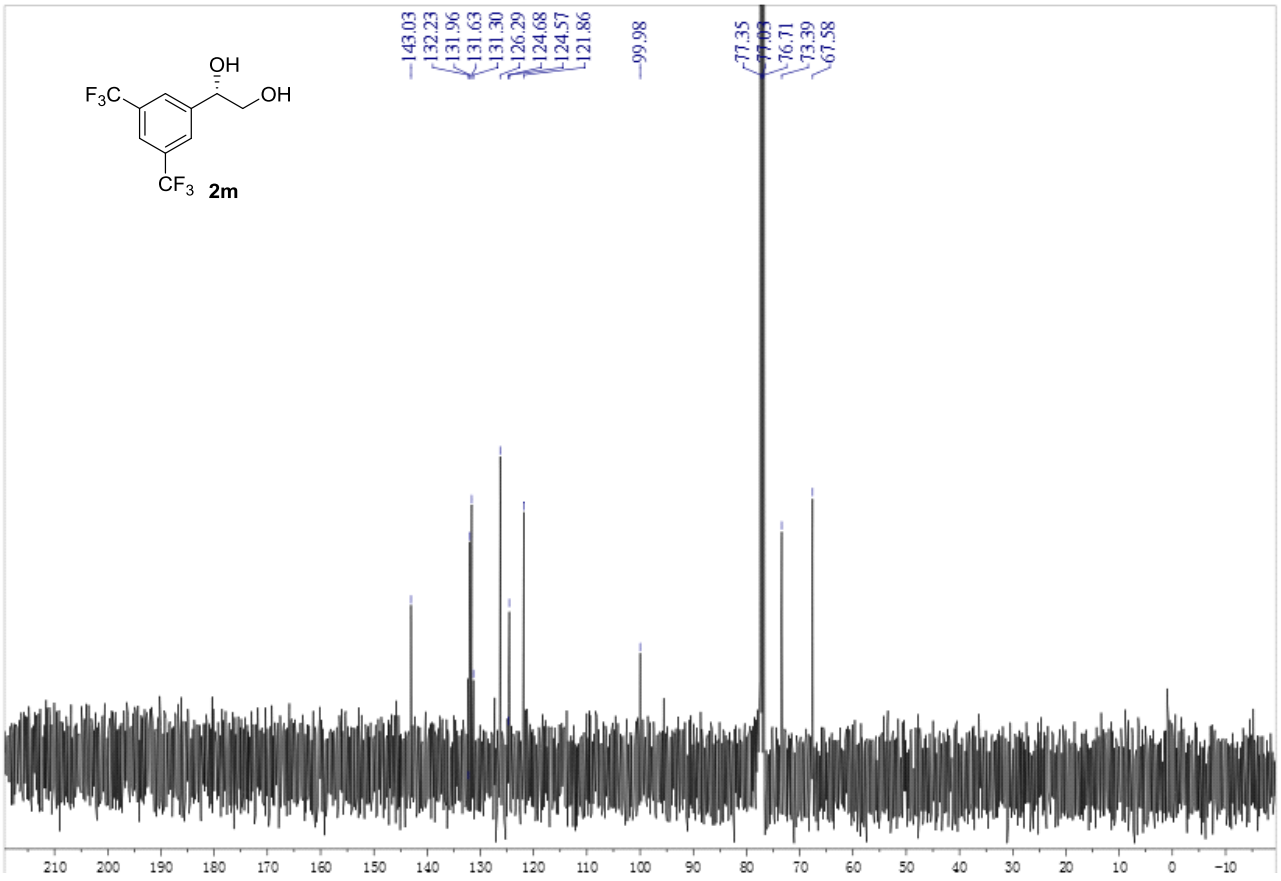
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CF3
2m
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200
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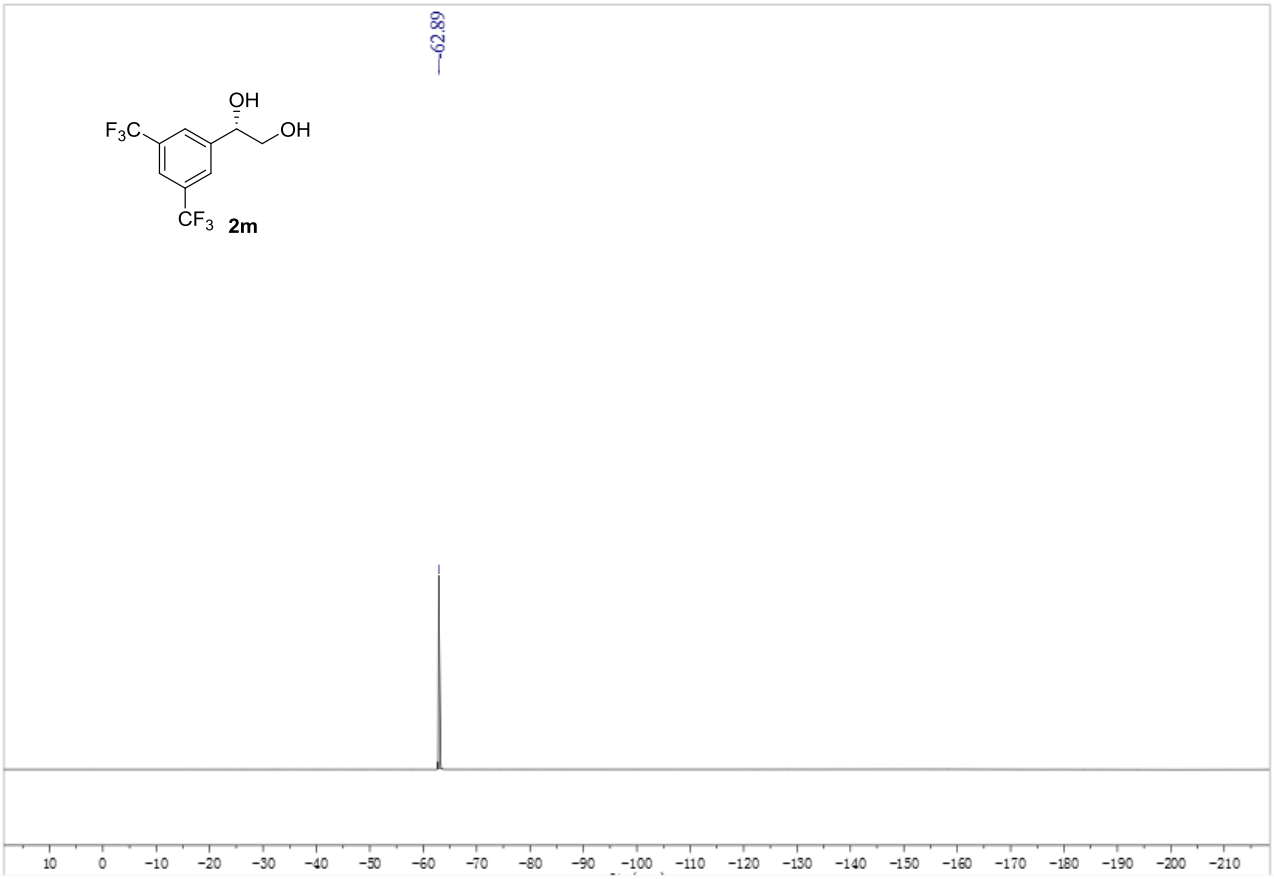
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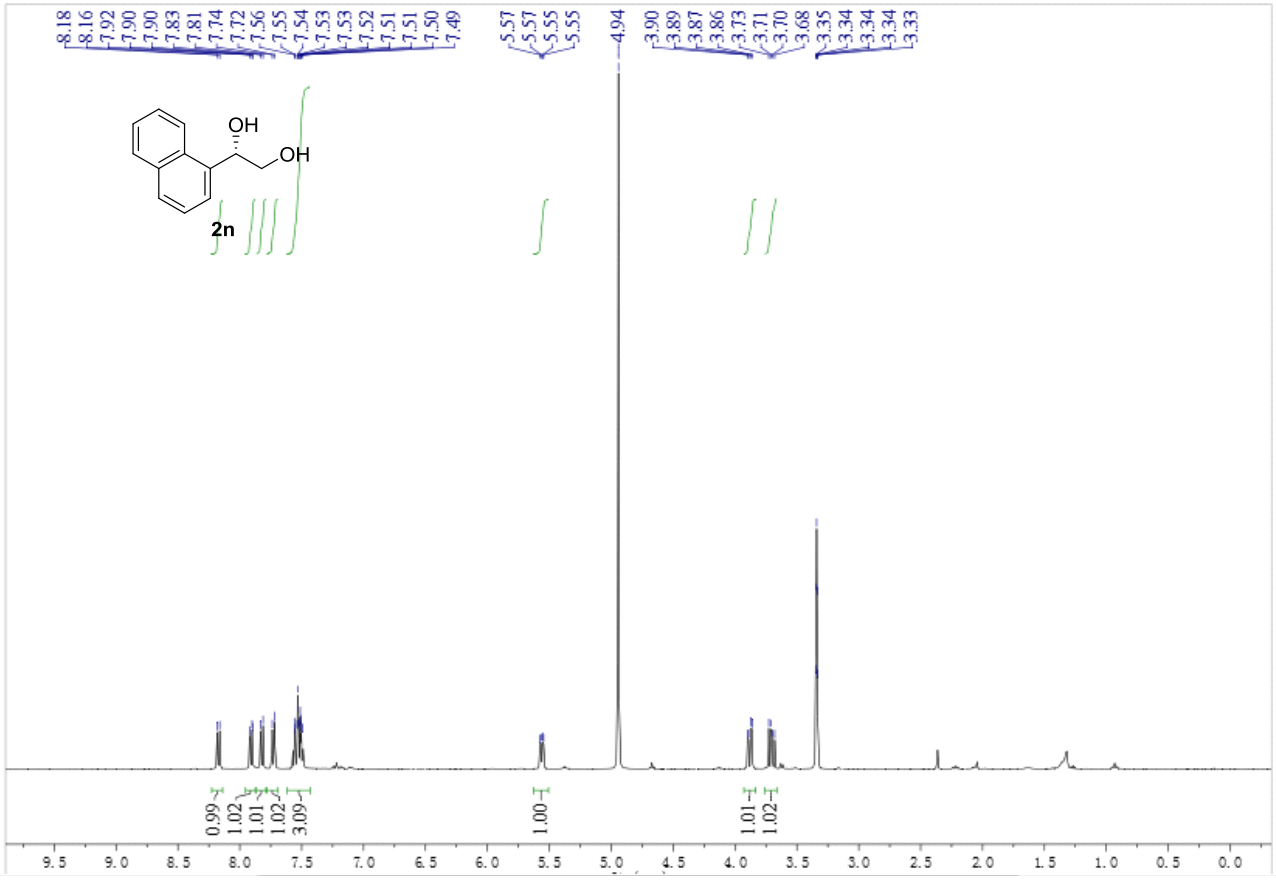
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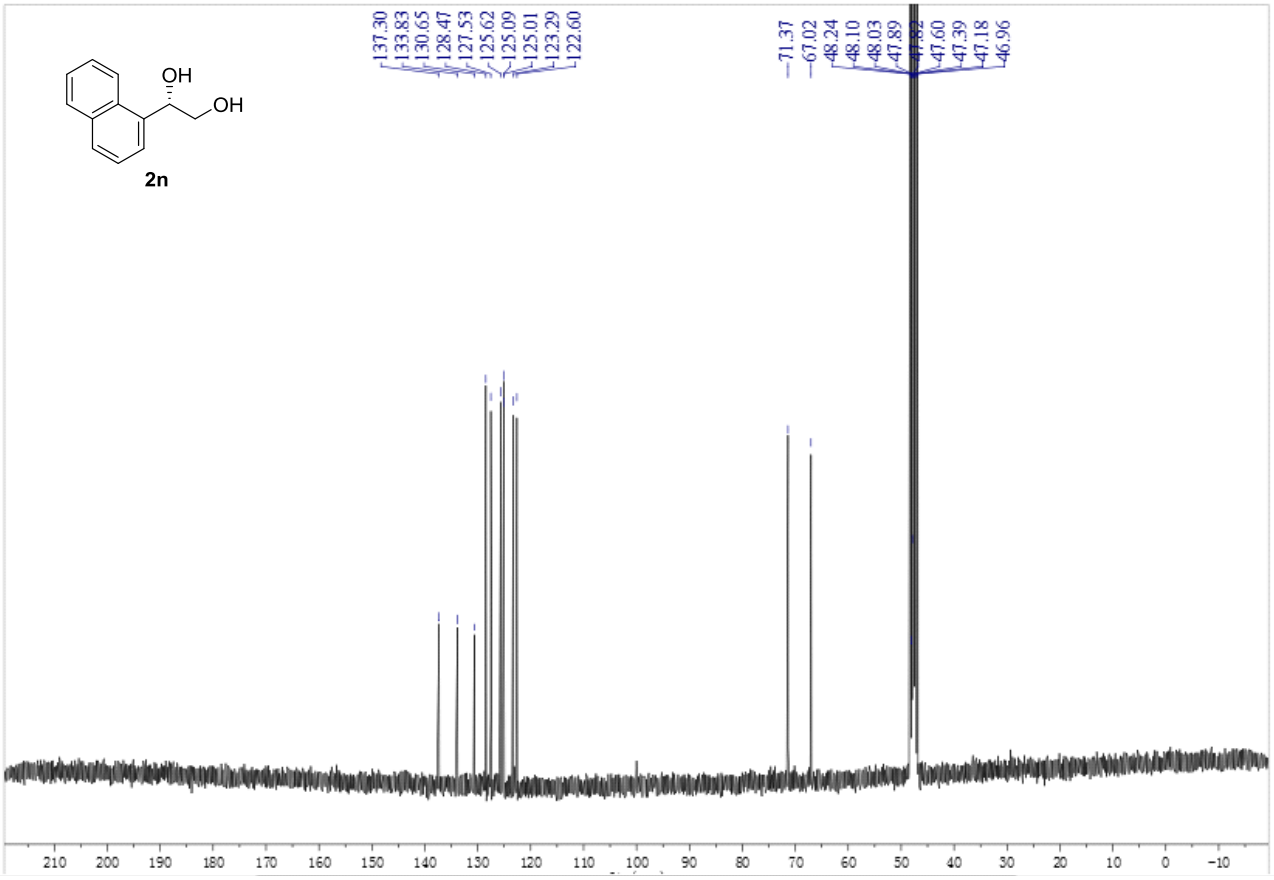
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47.18
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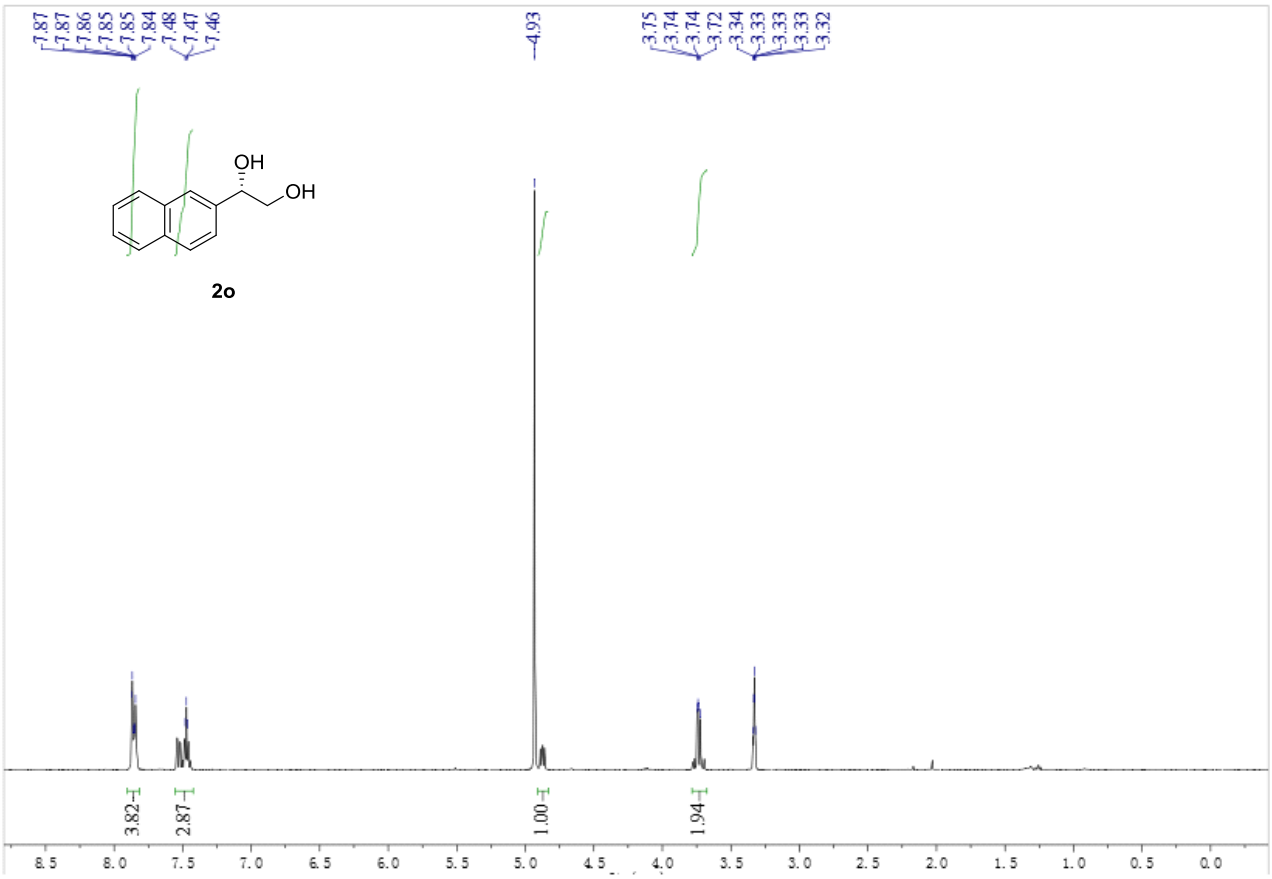
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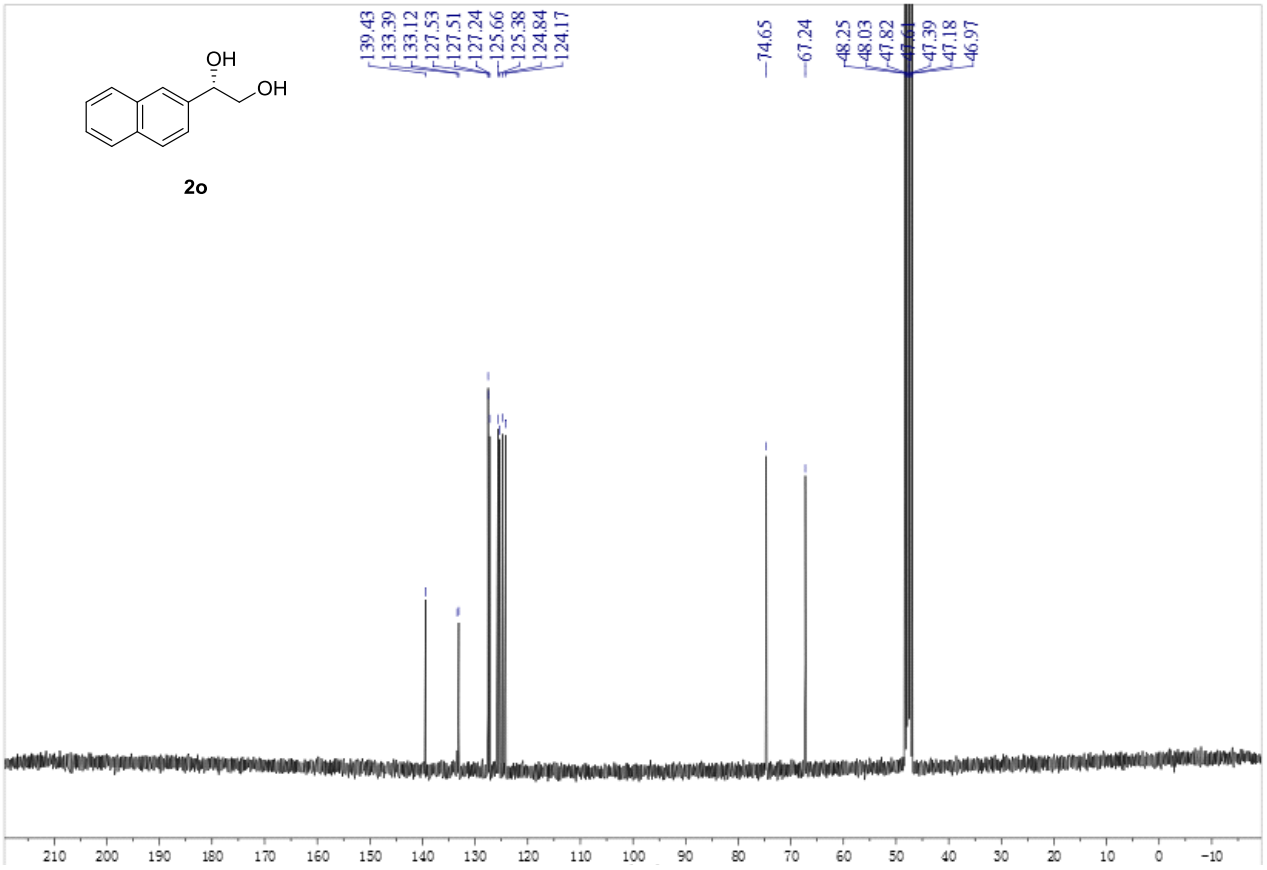
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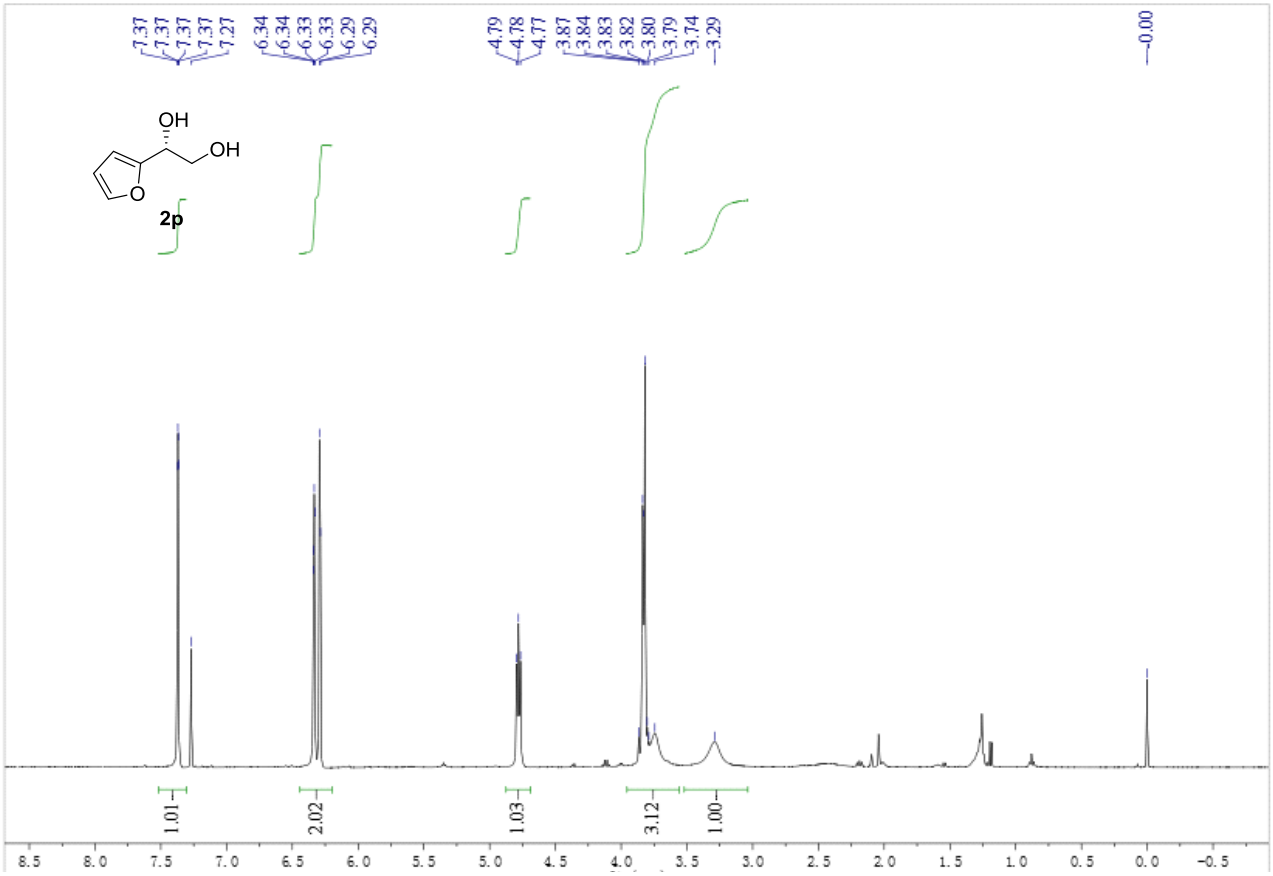
46.97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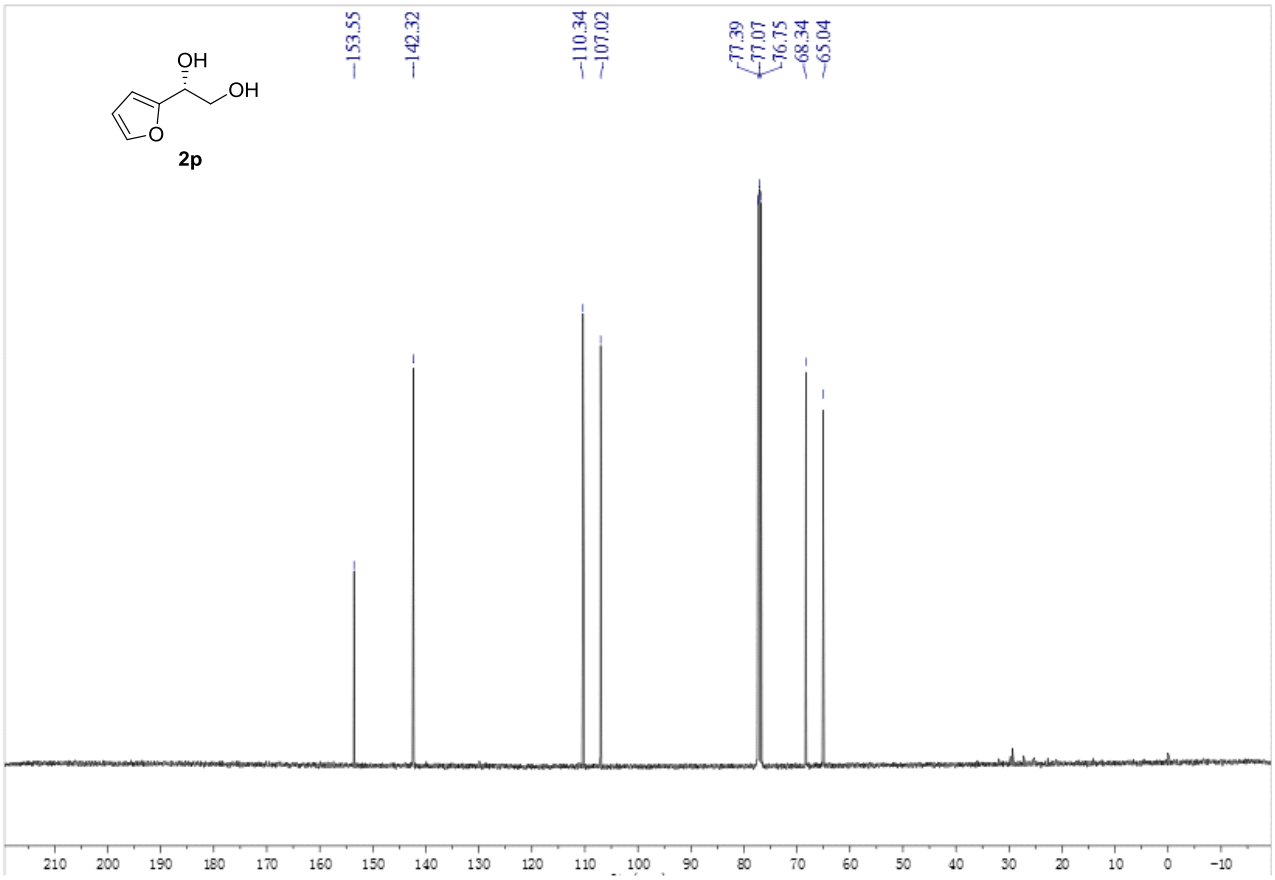
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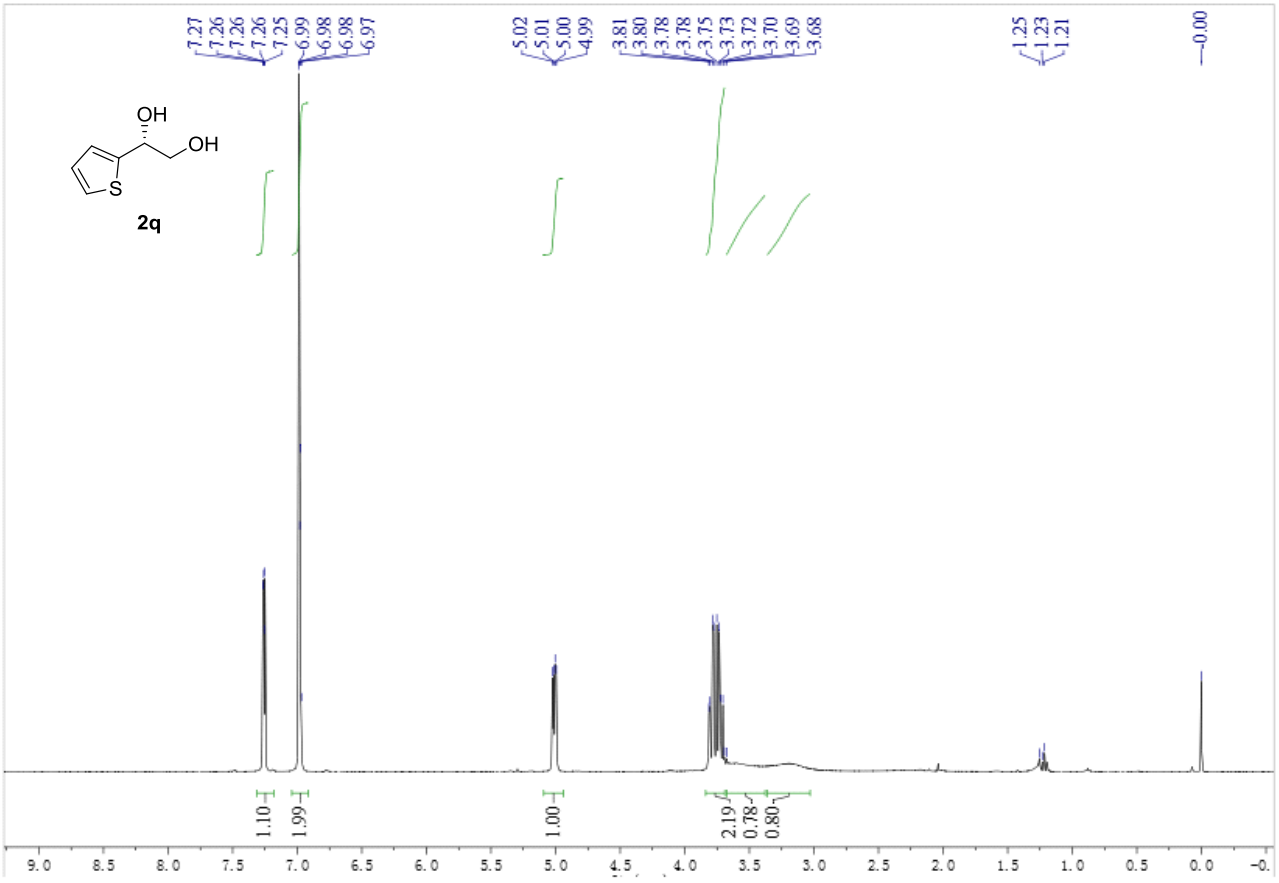
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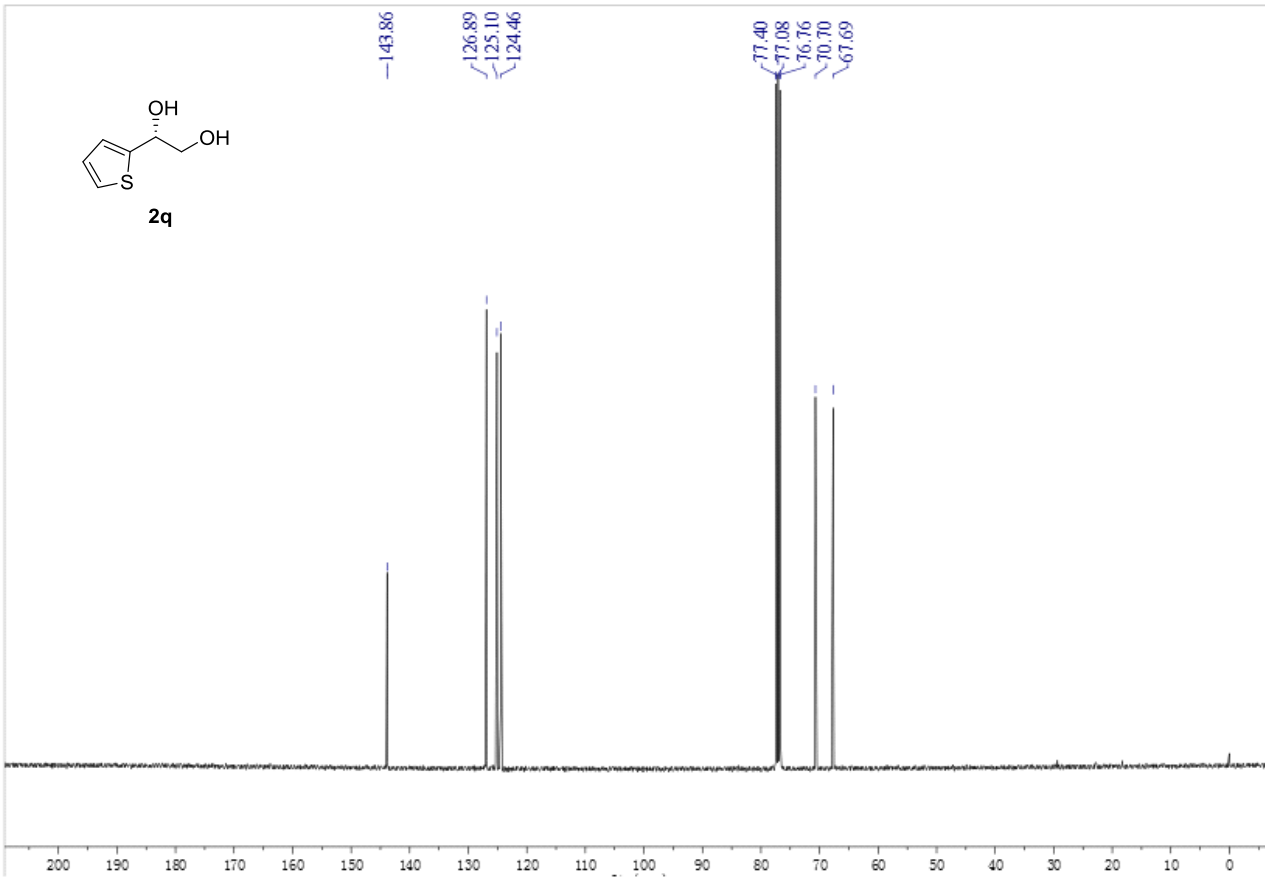
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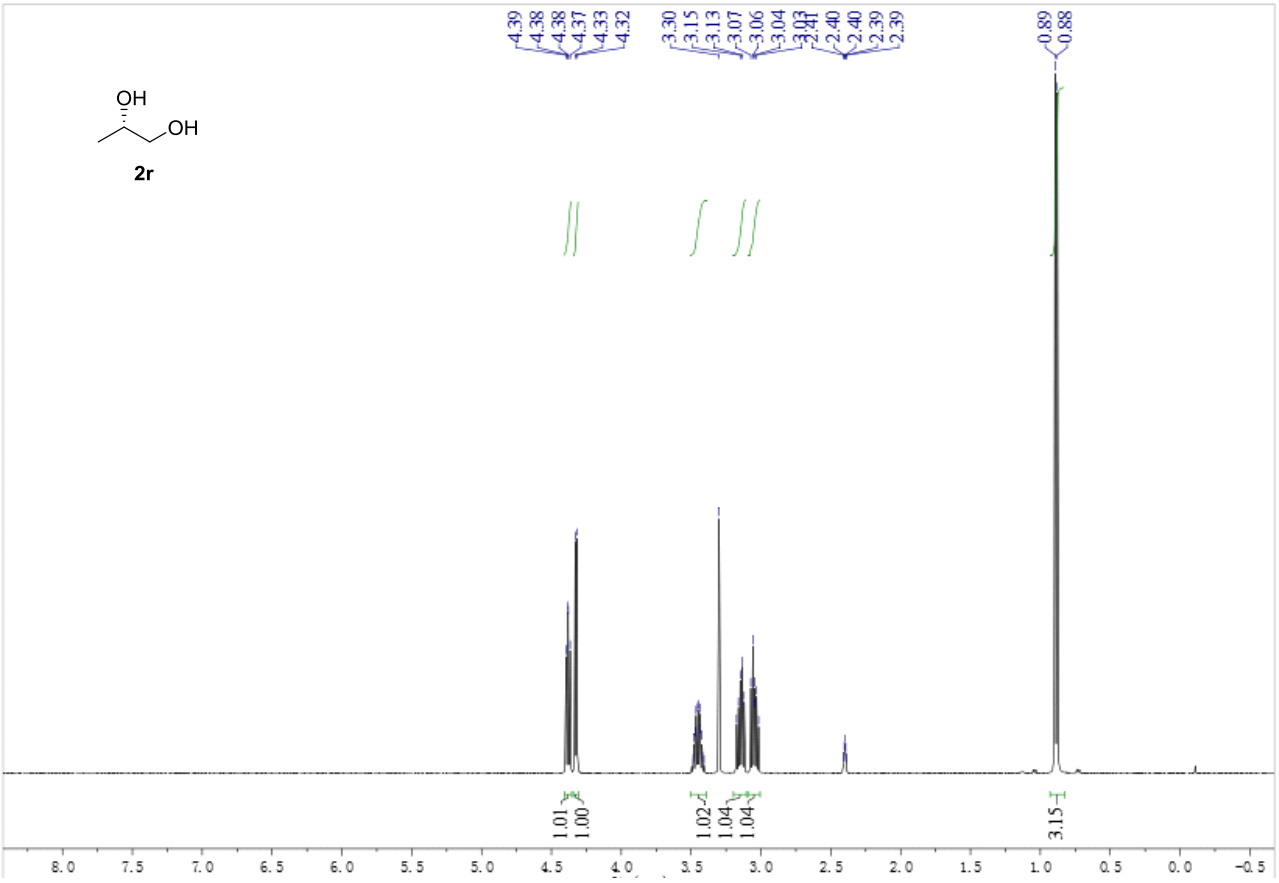
OH
S
2q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4.32
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3.13
3.07
3.06
3.04
2.41
2.40
2.40
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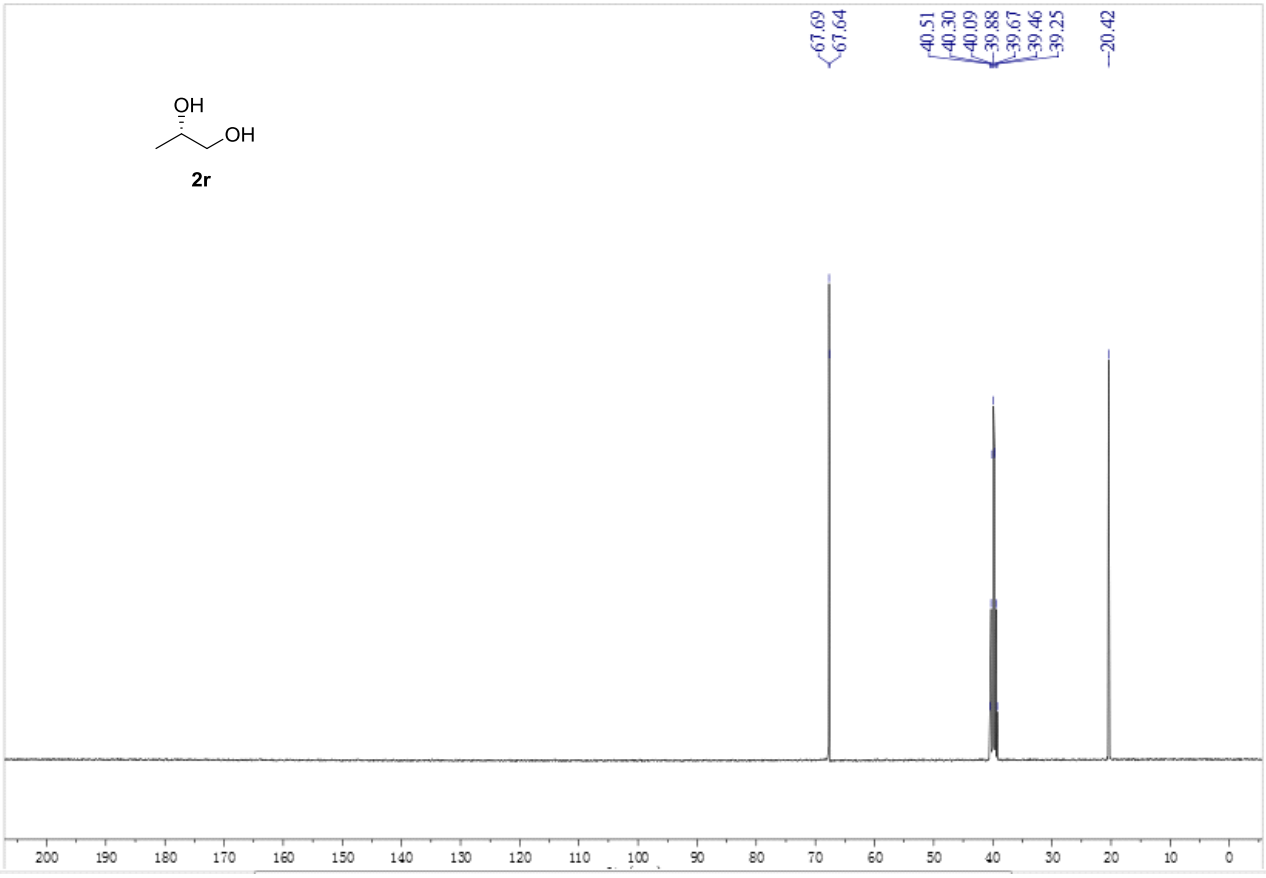
3.15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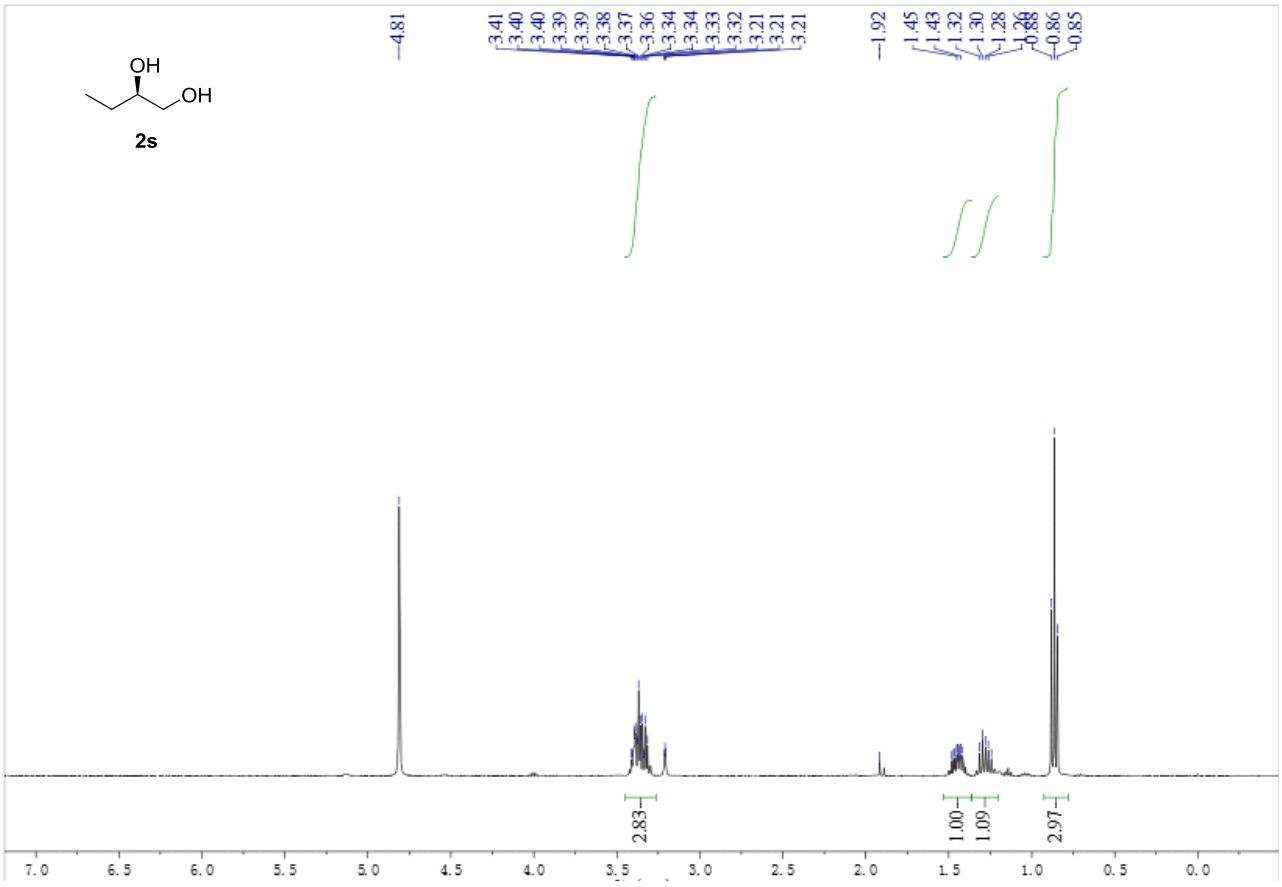
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3.37
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3.33
3.32
3.21
3.21
3.21
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0.85
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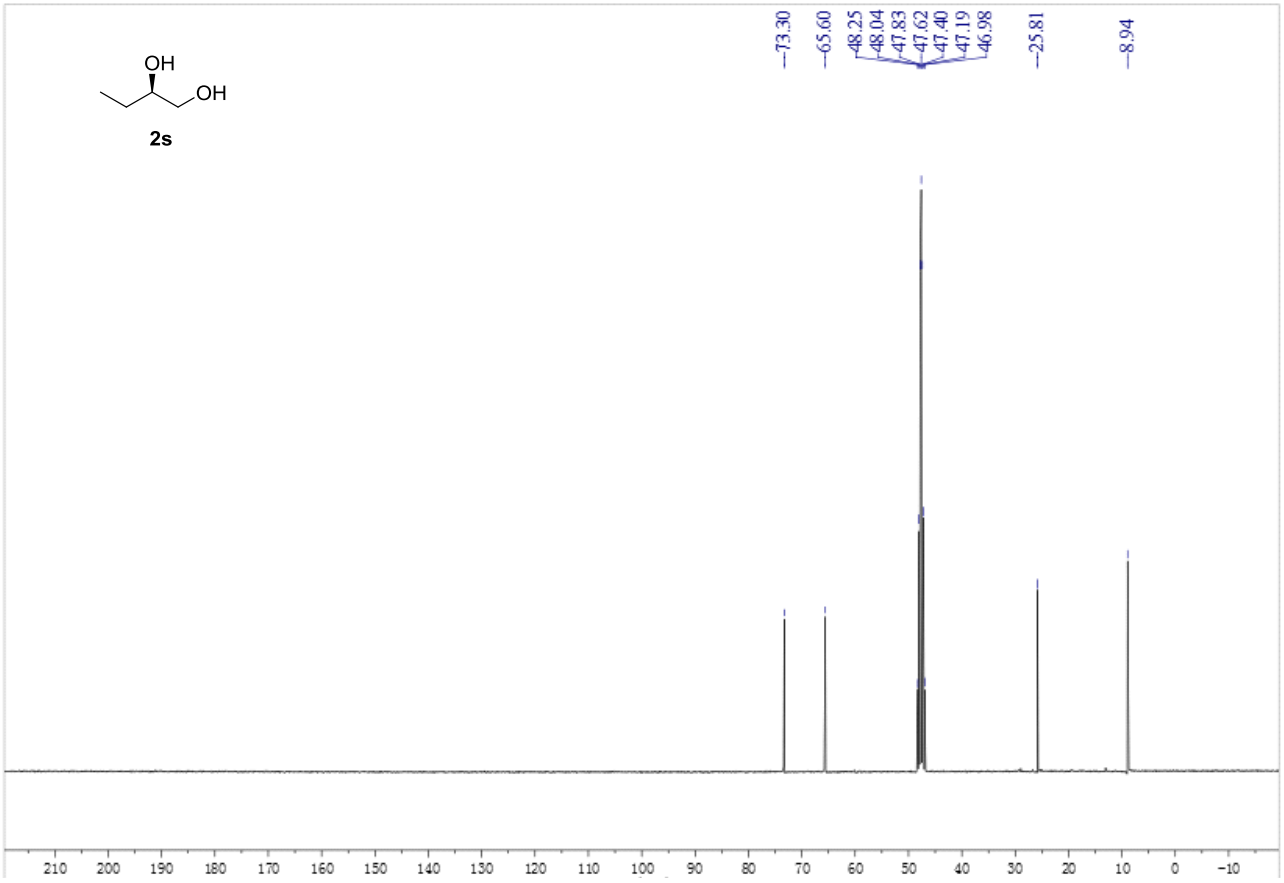
1.09
2.97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