Supporting Information for

Highly Stereoselective Synthesis and Application of P-Chiral Ferrocenyl Bisphosphorus Ligands for Asymmetric Hydrogenation

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Contents

General Remarks 2

Procedure for the synthesis of the ligands 2

General procedure for asymmetric hydrogenation 4

Characterization data of the ligands and intermediates 5

Methods for the determination of the *ee* for the asymmetric hydrogenation of the standard substrates 8

NMR Spectra 10

HPLC and GC Spectra 16

References 48

General Remarks

All reactions were performed in the argon-filled glovebox or under nitrogen using standard Schlenk techniques, unless otherwise noted. Solvents were dried with standard procedures and degassed with N_2. Column chromatography was performed using 200~400 mesh silica gel. Thin layer chromatography (TLC) was performed on EM reagents 0.25 mm silica 60-F plates. ^{1}H, ^{13}C, ^{31}P NMR spectrum were recorded on Bruker-400, with $CDCl_3$ as the solvent and tetramethylsilane (TMS) as the internal standard. Chemical shifts were reported in ppm, upfield to TMS (0.00 ppm) for and relative to $CDCl_3$ (7.26 ppm, 77.3 ppm) for ^{1}H NMR and ^{13}C NMR. HPLC analysis was conducted on an Agilent 1260 Series instrument. GC analysis was carried out on SHIMADZU Lab Solution using chiral capillary columns. High resolution mass spectrum was obtained on Thermo LTQ XL Orbitrap. Unless otherwise noted, all reagents and solvents were purchased from commercial suppliers and used without further purification. Substrates **3a-3p** were synthesized according to our previously developed method [1]. The characterization data of compounds **4a-4p** are as the same as those reported by our previous studies [1].

Procedure for the synthesis of the ligands

General procedure for method A

To an oven dried Schlenk flask was added (*S*)-Ugi's amine (10 mmol, 2.5715 g) and 20 mL of dry Et_2O under N_2 atmosphere. The resulting solution was cooled to -78 ℃ and *t*-BuLi (11 mmol, 1.5 M in pentane, 7.6 mL) was added carefully and dropwise. After the addition, the solution was allowed to warm to room temperature (rt) and stirred for 1.5 h. The Schlenk flask was cooed to -78 ℃ and PCl_3 (10 mmol, 1.0 mL) was added in one portion. The suspension was allowed to warm to rt and stirred for 1.5 h. The Schlenk flask was cooled to -78 ℃ and (2-(diphenylphosphanyl)phenyl)lithium or (dicyclohexylphosphanyl)phenyl)-lithium (11 mmol, prepared by treating (2-bromophenyl)diphenyl-phosphane or (2-bromophenyl)dicyclohexylphosphane with *n*-BuLi in an 1:1.1 molar ratio under

-40 ℃ for 1.5 h in Et_2O) was added dropwise and the resulting suspension was allowed to warm to rt and stirred for 1 h. The Schlenk flask was cooled to -78 ℃ again and CH_3MgCl (3.0 M in Et_2O, 3.7 mL) or an aqueous solution of NaOH (15 wt%, 10 mL) was added dropwise. The resulting suspension was allowed to warm to rt and stirred for 3 h. Water (10 mL) was added into the Schlenk flask and the solution was stirred for 10 min. The organic phase was separated and the aqueous phase was extracted by ethyl acetate (50 mL X 3). The organic phases were combined, dried and concentrated under reduced pressure. The residue was purified by column chromatography to give the desired ligands as yellow solid.

General procedure for method B

Synthesis of the intermediate **2**: To an oven dried Schlenk flask was added (*S*)-Ugi's amine (10 mmol, 2.5715 g) and 20 mL of dry Et_2O under N_2 atmosphere. The resulting solution was cooled to -78 ℃ and *t*-BuLi (11 mmol, 1.5 M in pentane, 7.6 mL) was added carefully and dropwise. After the addition, the solution was allowed to warm to room temperature (rt) and stirred for 1.5 h. The Schlenk flask was cooed to -78 ℃ and $PhPCl_2$ (10 mmol, 1.79 g) was added in one portion. The suspension was allowed to warm to rt and stirred for 1.5 h. The Schlenk flask was cooled to -78 ℃ and (2-bromophenyl)magnesium chloride (11 mmol, prepared by treating 1-bromo-2-iodobenzene with *i*-PrMgCl in an 1:1.1 molar ratio under -40 ℃ for 1.0 h in Et_2O) was added dropwise and the resulting suspension was allowed to warm to rt and stirred for 3 h. Water (10 mL) was added into the Schlenk flask and the solution was stirred for 10 min. The organic phase was separated and the aqueous phase was extracted by ethyl acetate (50 mL X 3). The organic phases were combined, dried and concentrated under reduced pressure. The residue was purified by column chromatography to give the intermediate **2** as yellow solid.

Synthesis of ligands L5, L9-L10 from intermediate 2

To an oven dried Schlenk flask was added intermediate **2** (3.0 mmol, 1.56 g), TMEDA (N^1, N^1, N^2, N^2-tetramethylethane-1, 2-diamine, 3.3 mmol, 383.5 mg) and 20 mL of dry Et_2O under N_2 atmosphere. The resulting solution was cooled to -78 ℃ and *n*-BuLi (3.3 mmol, 2.3 M, 1.4 mL) was added dropwise. The resulting solution

was stirred at -78 ℃ for 1 h. The corresponding phosphine chloride was added dropwise at -78 ℃ and the resulting solution was allowed to warm to rt and stirred for 3 h. Water (20 mL) was added into the Schlenk flask and the solution was stirred for 10 min. The organic phase was separated and the water phase was extracted by ethyl acetate (30 mL X 3). The organic phases were combined, dried and concentrated under reduced pressure. The residue was purified by column chromatography to give the desired ligands as yellow solid.

Synthesis of ligand L11

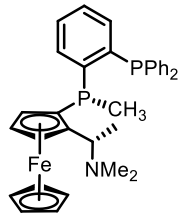
To an oven dried Schlenk flask was added (*S*)-Ugi's amine (5 mmol, 1.2856 g) and 10 mL of dry Et_2O under N_2 atmosphere. The resulting solution was cooled to -78 ℃ and *t*-BuLi (5.5 mmol, 1.5 M in pentane, 3.8 mL) was added carefully and dropwise. After the addition, the solution was allowed to warm to room temperature (rt) and stirred for 1.5 h. The Schlenk flask was cooed to -78 ℃ and *t*-$BuPCl_2$ (10 mmol, 1.79 g) was added in one portion. The suspension was allowed to warm to rt and stirred for 1.5 h. The Schlenk flask was cooled to -78 ℃ and (2-(diphenylphosphanyl)phenyl)lithium (5.5 mmol, prepared by treating (2-bromophenyl)diphenylphosphane with n-BuLi in an 1:1.1 molar ratio under -40 ℃ for 1.5 h in Et_2O) was added dropwise and the resulting suspension was allowed to warm to rt and stirred for 3 h. Water (10 mL) was added into the Schlenk flask and the solution was stirred for 10 min. The organic phase was separated and the aqueous phase was extracted by ethyl acetate (50 mL X 3). The organic phases were combined, dried and concentrated under reduced pressure. The residue was purified by column chromatography to give ligand **L11** as yellow solid.

General procedure for asymmetric hydrogenation

In an argon-filled glove box, $[Rh(NBD)_2]BF_4$ (0.01 mmol) and Wudaphos (0.011 mmol) were dissolved in EtOH (1 mL) and stirred for 30 min. 0.1 mL of the resulting solution was transferred by syringe into the vials charged with different substrates (0.1 mmol for each). Additional EtOH was added to bring the total reaction volume to

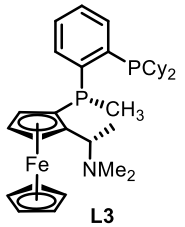
1 mL. The vials were subsequently transferred into an autoclave which was charged with hydrogen (10 bar). The reaction was then stirred at rt for 12 h. The hydrogen gas was released slowly and carefully in a well-ventilated hood. The solution was passed through a short column of silica gel (eluent: EtOAc) to remove the metal complex and concentrated to give the hydrogenation products. The ee values were then determined by HPLC analysis on a chiral stationary phase.

Characterization data of the ligands and intermediates



(S_C, R_{FC}, S_P) **L1**

L1: Yellow solid, m.p. = 125-127 ℃, 58% yield. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.40 – 7.21 (m, 10H), 7.17 – 7.02 (m, 3H), 6.98 – 6.89 (m, 1H), 4.393 – 4.343 (m, 3H), 4.12 (s, 5H), 4.07 (dd, *J* = 6.7, 2.8 Hz, 1H), 1.66 (s, 6H), 1.30 (d, *J* = 4.5 Hz, 3H), 1.26 (d, *J* = 6.3 Hz, 3H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 134.14 (d, *J* = 19.5 Hz), 133.65 (d, *J* = 19.2 Hz), 133.33 (d, *J* = 6.6 Hz), 131.42 (d, *J* = 9.7 Hz), 128.38 (d, *J* = 3.0 Hz), 128.35 (d, *J* = 16.3 Hz), 128.22, 127.46, 77.52 (d, *J* = 52.7 Hz), 69.71, 69.59 (d, *J* = 4.9 Hz), 68.06 (d, *J* = 2.6 Hz), 56.85, 39.68, 12.70 (dd, *J* = 10.2, 1.8 Hz) ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ -16.79 (d, *J* = 164.5 Hz), -50.76 (d, *J* = 164.1 Hz) ppm.

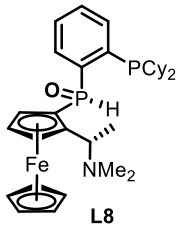


L3

(S_C, R_{FC}, S_P)

L3: Yellow solid, m.p. = 160-163 ℃, 55% yield. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.43 – 7.35 (m, 1H), 7.13 (td, *J* = 7.4, 1.2 Hz, 1H), 7.04 (t, *J* = 7.5 Hz, 1H), 6.91 (dt, *J* = 6.5, 2.7 Hz, 1H), 4.43 (s, 1H), 4.40 (t, *J* = 2.3 Hz, 1H), 4.30 (s, 1H), 4.15 (s, 5H),

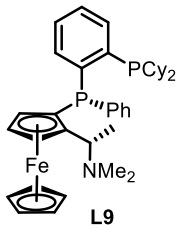
3.98 (dd, *J* = 6.7, 3.2 Hz, 1H), 2.09-1.82 (m, 2 H), 1.77 (s, 6H), 1.72-1.49 (m, 10H), 1.45-1.07 (m, 16H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 153.23 (dd, *J* = 31.9, 14.4 Hz), 137.77 (dd, *J* = 26.9, 14.9 Hz), 131.73, 131.14 (d, *J* = 8.9 Hz), 127.85, 126.43, 97.48 (d, *J* = 25.3 Hz), 78.08 (dd, *J* = 14.3, 12.0 Hz), 70.22 (dd, *J* = 4.6, 2.6 Hz), 69.68, 68.34, 60.44, 56.77 (d, *J* = 8.4 Hz), 40.31, 36.26 (dd, *J* = 13.8, 3.0 Hz), 33.97 (dd, *J* = 12.5, 5.1 Hz), 30.82 – 30.48 (m), 30.28 (d, *J* = 11.7 Hz), 28.72 (d, *J* = 5.6 Hz), 27.40 (dd, *J* = 7.5, 2.8 Hz), 27.34 (d, *J* = 41.4 Hz), 27.25, 26.49 (d, *J* = 7.2 Hz), 21.11, 14.24, 13.49 (dd, *J* = 10.1, 5.9 Hz), 11.81 ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ -13.73 (d, *J* = 147.0 Hz), -48.37 (d, *J* = 147.1 Hz) ppm.



L8

(***S**C*, ***R**FC*, ***S**P*)

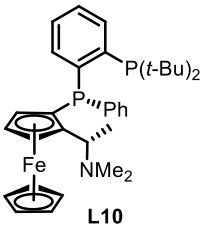
L8: Yellow solid, m.p. = 207-210 ℃, 38% yield. $[\alpha]_D^{20}$ = +151.6 (c 0.5, $CHCl_3$). ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.58 (d, *J* = 517.9 Hz, 1H), 7.62 – 7.48 (m, 2H), 7.42 (t, *J* = 7.5 Hz, 1H), 7.32 (t, *J* = 7.2 Hz, 1H), 4.50 (s, 1H), 4.43 (s, 1H), 4.38 (d, *J* = 1.7 Hz, 1H), 4.34 (s, 5H), 4.05 (dd, *J* = 13.2, 6.6 Hz, 1H), 2.15 – 2.06 (m, 1H), 2.03 – 1.88 (m, 2H), 1.85 – 1.43 (m, 15H), 1.38 – 1.03 (m, 13H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 139.14 (dd, *J* = 23.4, 11.3 Hz), 132.51-132.15 (m), 130.05, 127.87 (d, *J* = 11.9 Hz), 74.16 (dd, *J* = 10.5, 4.6 Hz), 72.01, 70.89, 70.41, 70.35 (d, *J* = 11.7 Hz), 69.03 (d, *J* = 11.0 Hz), 57.40, 39.37, 35.59 (d, *J* = 14.3 Hz), 33.59 (d, *J* = 11.9 Hz), 30.43 (d, *J* = 14.1 Hz), 30.22, 30.06 (d, *J* = 7.6 Hz), 29.12 (d, *J* = 6.1 Hz), 27.53, 27.44 (d, *J* = 6.1 Hz), 27.00 (dd, *J* = 10.5, 6.4 Hz), 26.35 (d, *J* = 11.8 Hz), 8.77 ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ 14.87 (d, *J* = 66.8 Hz), -14.29 (d, *J* = 66.6 Hz) ppm.



L9

(***S**C*, ***R**FC*, ***S**P*)

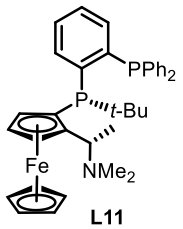
L9: Yellow solid, m.p. = 60-65 ℃, 80% yield. $[\alpha]_D^{20}$ = +214.0 (c 0.4, $CHCl_3$). ^1H NMR (400 MHz, $CDCl_3$): δ 7.62-7.59 (m, 2H), 7.38 – 7.37 (m, 3H), 7.21-7.20 (m, 4H), 4.39 (s, 1H), 4.20-4.13 (m, 5H), 3.87 (s, 1H), 3.59 (s, 1H), 1.93-1.55 (m, 18H), 1.30-1.06 (m, 12H), 0.89-0.82 (m, 2H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 140.92 (d, *J* = 7.2 Hz), 139.01 (d, *J* = 9.4 Hz), 135.28 (d, *J* = 21.1 Hz), 132.50 (d, *J* = 18.9 Hz), 128.89, 128.07 (d, *J* = 7.5 Hz), 127.51 (d, *J* = 6.8 Hz), 127.32, 77.21, 77.15, 77.12, 74.47 (d, *J* = 18.4 Hz), 73.59 (d, *J* = 4.1 Hz), 73.46 (d, *J* = 5.5 Hz), 72.38, 71.66, 71.34, 71.12 (dd, *J* = 13.4, 3.5 Hz), 57.40 (d, *J* = 6.3 Hz), 39.03, 34.06 (d, *J* = 12.5 Hz), 33.27 (d, *J* = 10.5 Hz), 31.23 (d, *J* = 14.6 Hz), 30.85 (d, *J* = 15.0 Hz), 29.98 (d, *J* = 11.0 Hz), 29.68 (d, *J* = 7.3 Hz), 27.72-27.44 (m), 26.61 ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ -7.99 (s), -23.44 (s) ppm. HRMS (ESI) calculated for $C_{38}H_{50}NFeP_2^+$ [M + H^+]: 638.2762; found: 638.2745.



L10

(***S**C*, ***R**FC*, ***S**P*)

L10: Yellow solid, m.p. = 113-118 ℃, 43% yield. $[\alpha]_D^{20}$ = +179.0 (c 0.2, $CHCl_3$). ^1H NMR (400 MHz, $CDCl_3$): δ 7.61-7.57 (m, 2H), 7.35 – 7.34 (m, 3H), 7.19 – 7.18 (m, 5H), 4.38 (s, 1H), 4.22 – 4.15 (m, 5H), 3.85 (s, 1H), 3.67 (s, 1H), 1.75 (s, 6 H), 1.26 – 1.25 (m, 3H), 1.13 (d, *J* = 11.4 Hz, 9H), 1.01 (d, *J* = 11.1 Hz, 9H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 140.95 (d, *J* = 6.2 Hz), 139.07 (d, *J* = 9.6 Hz), 135.43 (d, *J* = 21.3 Hz), 132.55 (d, *J* = 19.0 Hz), 128.98, 128.17 (d, *J* = 7.5 Hz), 127.57 (d, *J* = 6.9 Hz), 127.38, 77.50, 77.17, 75.78 (d, *J* = 21.6 Hz), 74.35 (d, *J* = 5.7 Hz), 72.90, 72.83, 72.52, 72.07, 71.45, 57.44, 39.03, 32.84 (dd, *J* = 51.2, 20.0 Hz), 30.96 (dd, *J* = 63.7, 13.2 Hz) ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ 27.13 (s), -23.36 (s) ppm. HRMS (ESI) calculated for $C_{34}H_{46}NFeP_2^+$ [M + H^+]: 586.2449; found: 586.2435.

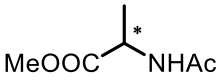
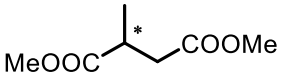


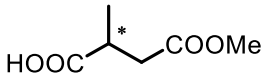
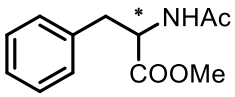
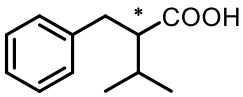
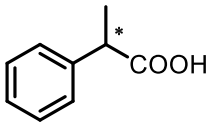
L11

(S_C, R_{FC}, S_P)

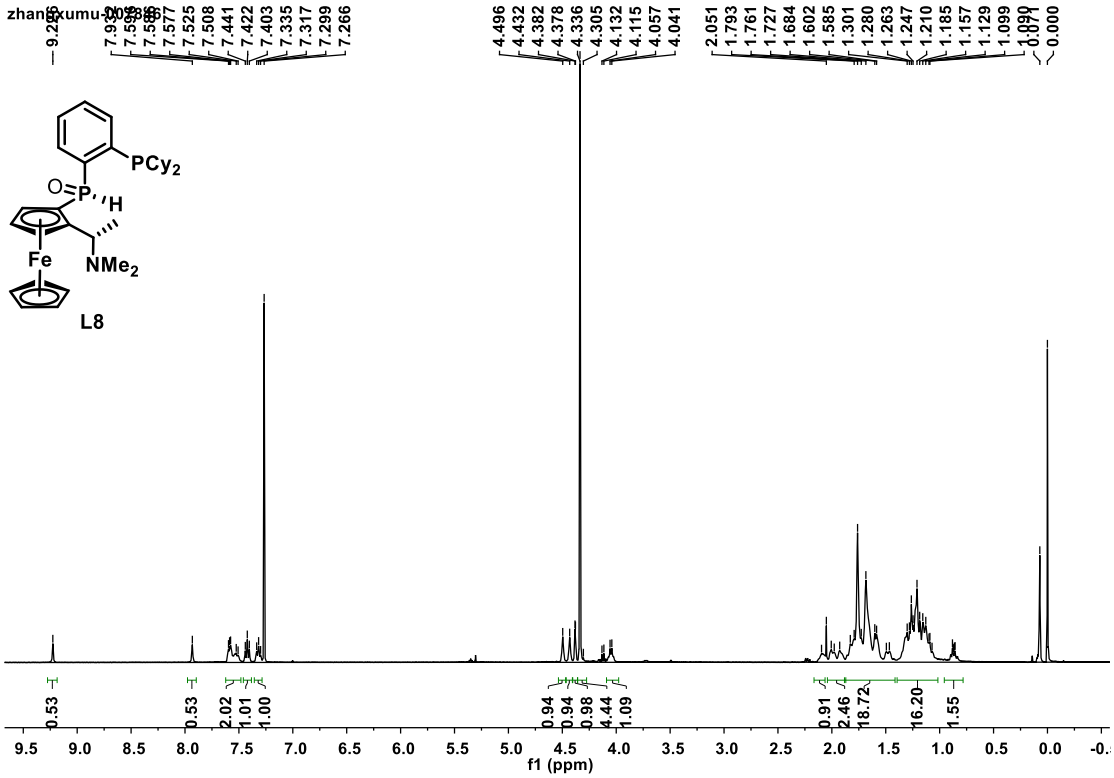
L11: Yellow solid, m.p. = 148-150 ℃, 33% yield. $[\alpha]_D^{20}$ = -349.8 (c 0.4, $CHCl_3$). ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.47 – 7.39 (m, 2H), 7.36 – 7.30 (m, 3H), 7.31 – 7.22 (m, 6H), 7.19 – 7.13 (m, 1H), 7.10 – 7.04 (m, 2H), 4.54 (dd, *J* = 2.3, 1.2 Hz, 1H), 4.41 (s, 1H), 4.34 (t, *J* = 2.3 Hz, 1H), 4.19 (s, 5H), 2.62 (q, *J* = 6.6 Hz, 1H), 1.53 (s, 6H), 1.31 (d, *J* = 11.8 Hz, 9H), 1.22 (d, *J* = 6.7 Hz, 3H) ppm; ^{13}C NMR (101 MHz, $CDCl_3$): δ 146.45 (dd, *J* = 34.7, 21.0 Hz), 143.52 (dd, *J* = 32.0, 11.3 Hz), 139.53 (dd, *J* = 14.7, 7.3 Hz), 138.72 (dd, *J* = 14.9, 3.0 Hz), 136.20 (dd, *J* = 7.3, 2.4 Hz), 134.82 (dd, *J* = 6.6, 1.9 Hz), 134.65 (d, *J* = 20.4 Hz), 133.44 (d, *J* = 18.3 Hz), 99.32 (d, *J* = 16.6 Hz), 76.59 (dd, *J* = 23.6, 9.2 Hz), 70.32, 69.85, 69.62 (d, *J* = 3.0 Hz), 67.18, 56.97 (d, *J* = 4.9 Hz), 42.20, 32.60 (d, *J* = 16.0 Hz), 30.05 (dd, *J* = 12.9, 3.1 Hz), 18.13 ppm; ^{31}P NMR (162 MHz, $CDCl_3$): δ -9.77 (d, *J* = 157.6 Hz), -15.72 (d, *J* = 157.5 Hz) ppm. HRMS (ESI) calculated for $C_{36}H_{42}NFeP_2^+$ [M + H^+]: 606.2136; found: 606.2122.

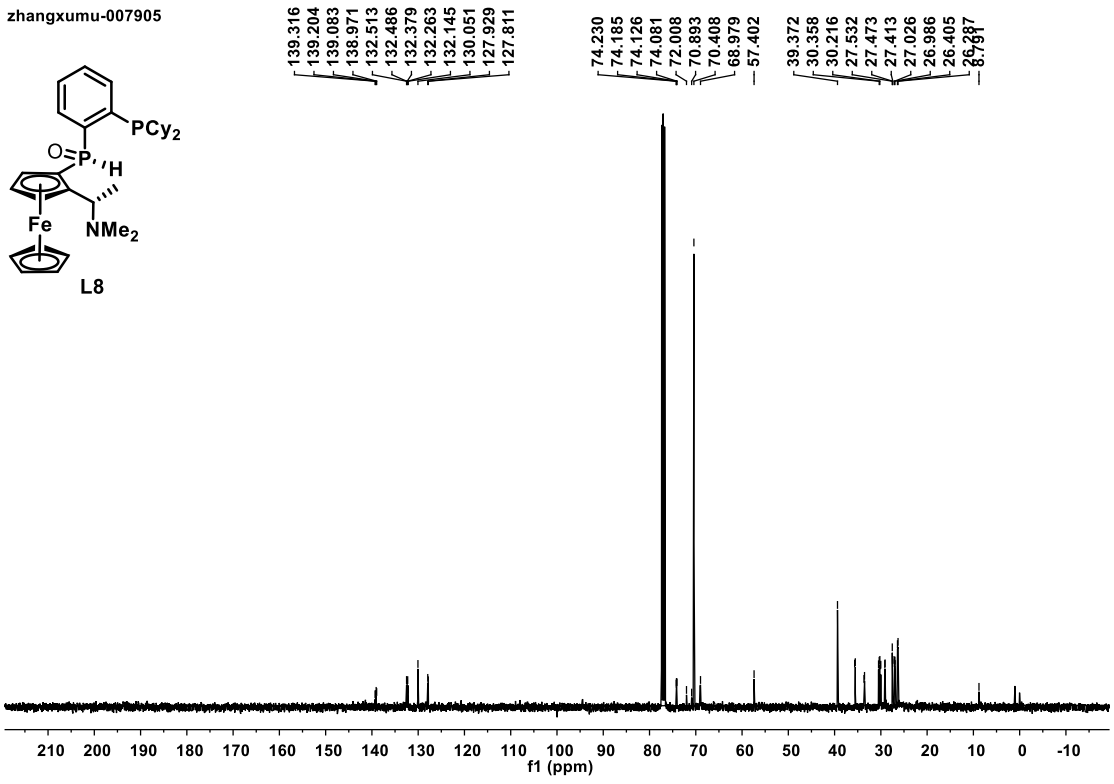
Methods for the determination of the ee for the asymmetric hydrogenation of the standard substrates

Products	Methods
	Determined by chiral GC analysis on Chiral β-dex 225 column. Conditions: Gasify room temerature = 220 °C, column temperature = 70-210 °C (hold at 70 °C for 5 min, increase the temperature at the rate of 6 °C/min, and hold at 210 °C for 5 min), detector temperature = 230 °C, N_2 flow rate = 1.0 mL/min, t_R = 19.6 min (minor), 20.0 min (major).
	Determined by chiral GC analysis on Chiral β-dex 225 column. Conditions: Gasify room temerature = 250 °C, column temperature =

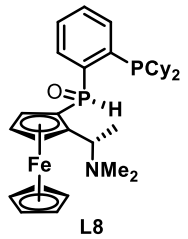
	80-120 °C (increase the temperature at the rate of 2 °C/min), detector temperature = 260 °C, N_2 flow rate = 1.0 mL/min, t_R = 13.8 min (major), 14.1 min (minor).
	Determined by chiral GC analysis on Chiral β-dex 225 column after esterification with CH_2N_2. Conditions: Gasify room temerature = 250 °C, column temperature = 80-120 °C (increase the temperature at the rate of 2 °C/min), detector temperature = 260 °C, N_2 flow rate = 1.0 mL/min, t_R = 13.8 min (major), 14.1 min (minor).
	Determined by chiral HPLC analysis on Chiralpak OJ-H column. Conditions: hexane/isopropanol = 80:20, flow rate = 1.0 mL/min, uv-vis detection at λ = 210 nm, t_R = 7.1 min (minor), 9.6 min (major).
	Determined by chiral HPLC analysis on Chiralpak OJ-H column after esterification with CH_2N_2. Conditions: hexane/isopropanol = 99:1, flow rate = 1.0 mL/min, uv-vis detection at λ = 220 nm, t_R = 6.8 min (minor), 7.6 min (major).
	Determined by chiral HPLC analysis on Chiralpak OJ-H column after esterification with CH_2N_2. Conditions: hexane/isopropanol = 99 :1, flow rate = 1.0 mL/min, uv-vis detection at λ = 205 nm, t_R = 15.0 min (major), 18.9 min (minor).

NMR Spectra

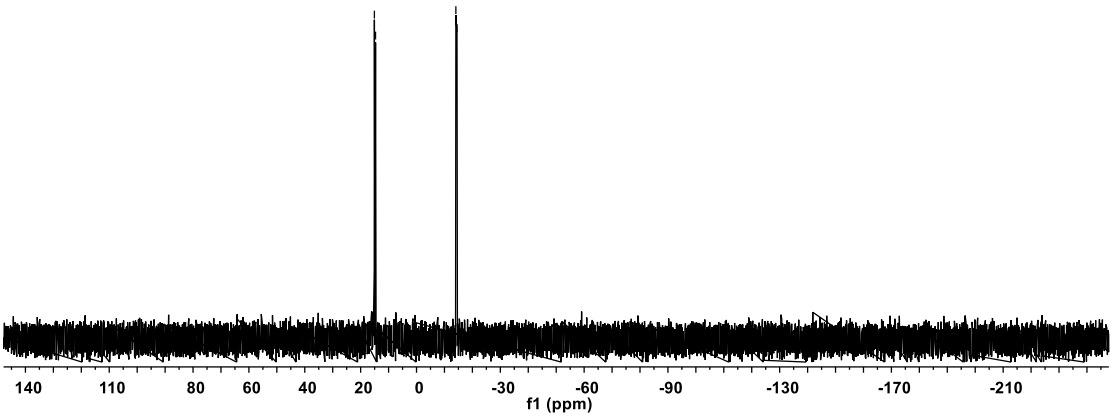

zhangxumu-007905
PCy2
O
P
H
Fe
NMe2
L8
f1 (ppm)


zhangxumu-007905
PCy2
O
P
H
Fe
NMe2
L8
f1 (ppm)

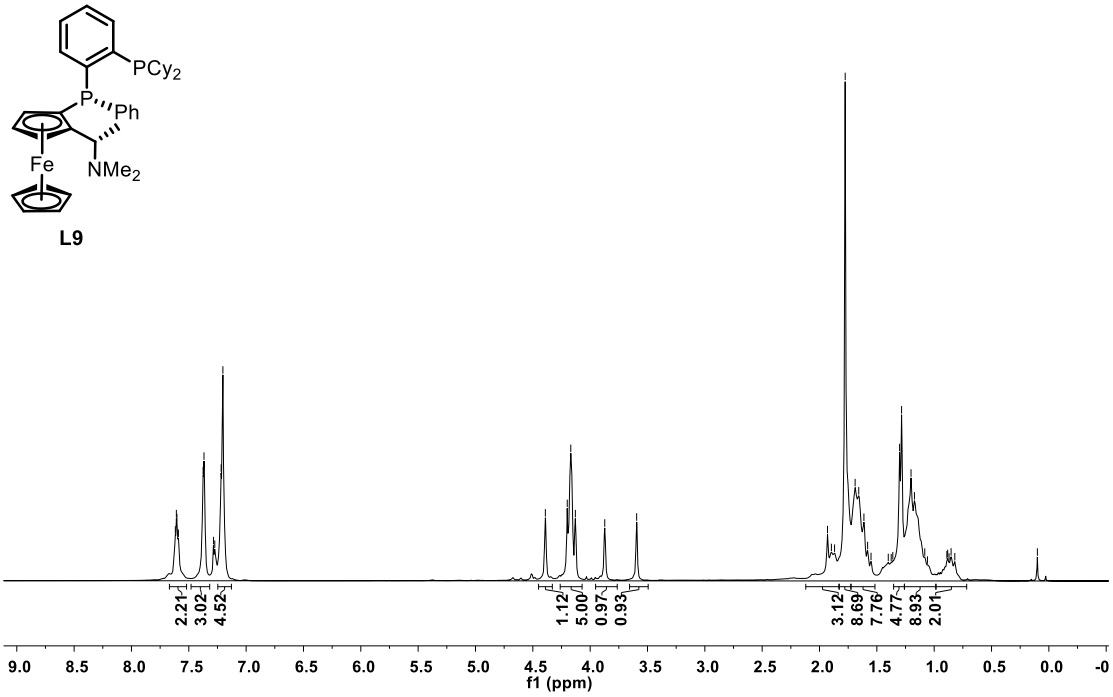
zhangxumu-007846



L8

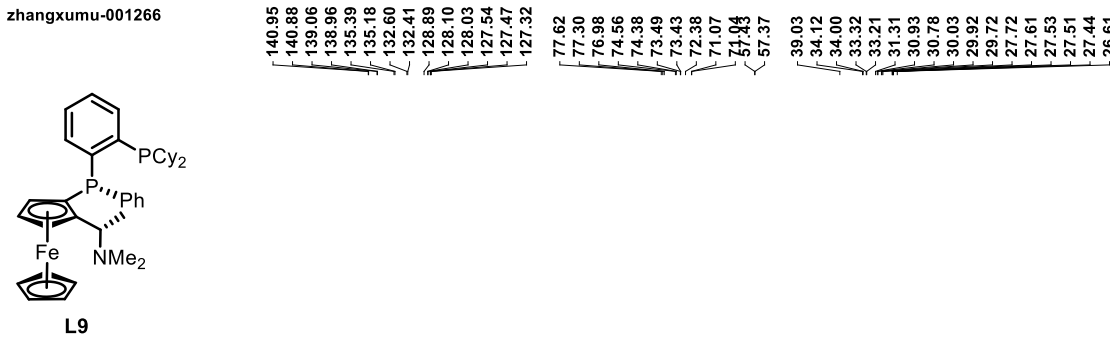


zhangxumu-001266

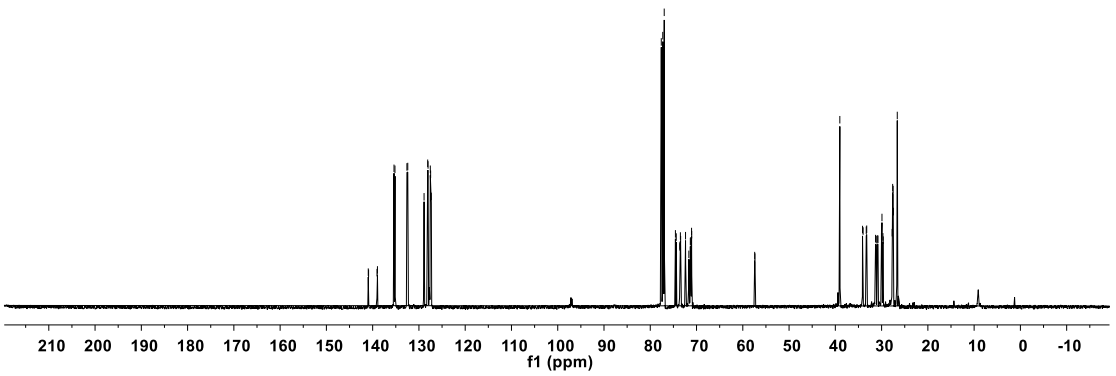


L9

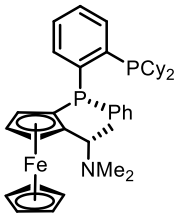
zhangxumu-001266



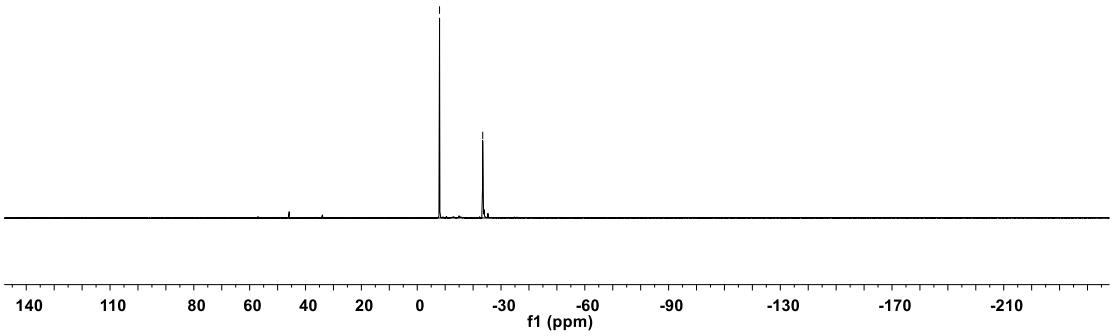
L9

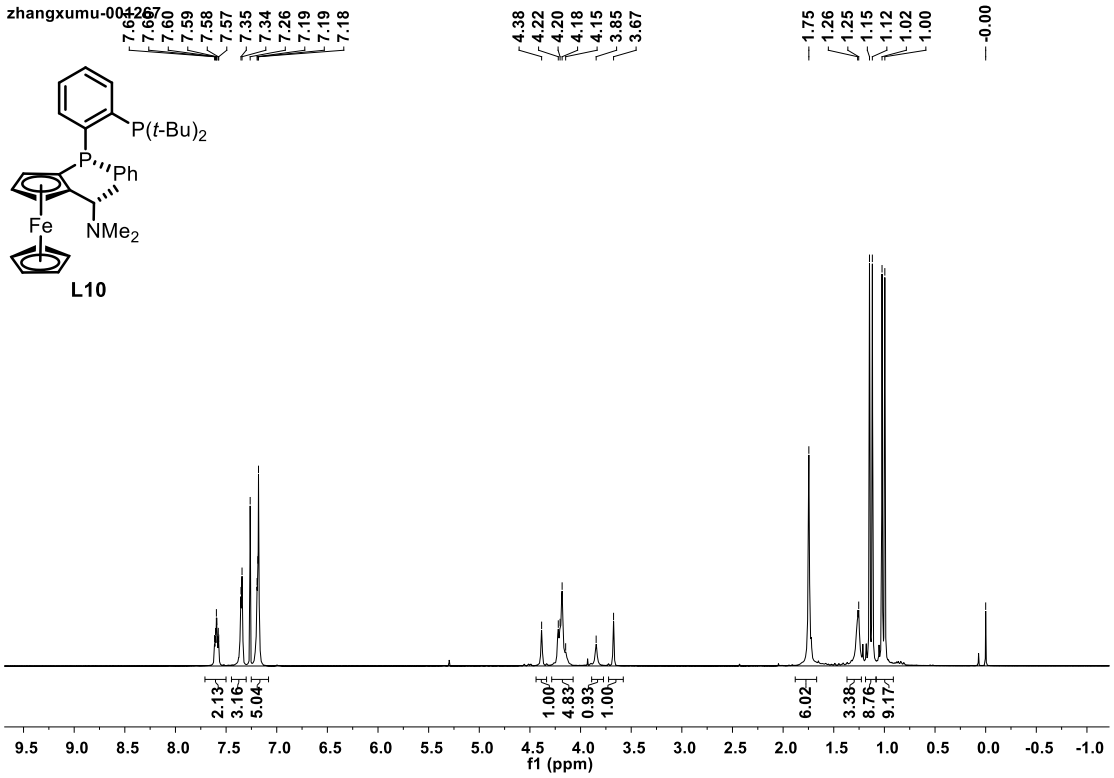


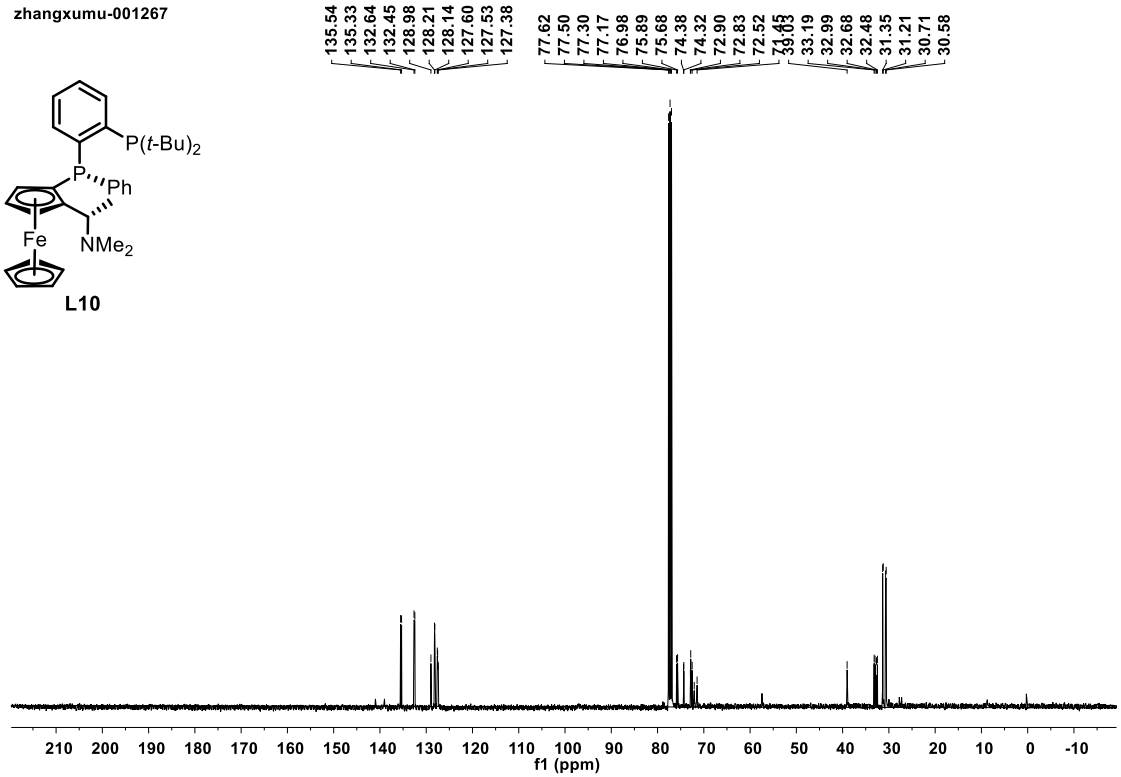
zhangxumu-001266



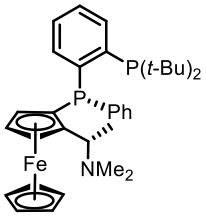
L9



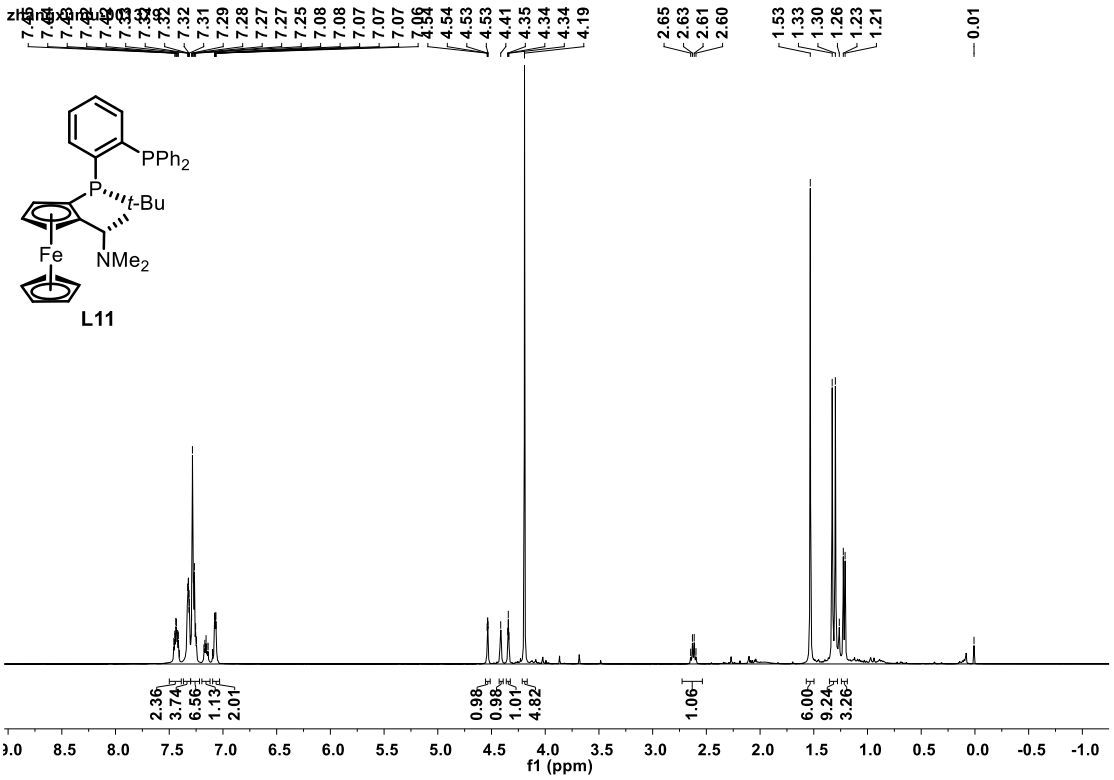

zhangxumu-001267
7.61
7.60
7.60
7.59
7.58
7.57
7.35
7.34
7.26
7.19
7.19
7.18
4.38
4.22
4.20
4.18
4.15
3.85
3.67
1.75
1.26
1.25
1.15
1.12
1.02
1.00
-0.00
P(t-Bu)2
P
Ph
Fe
NMe2
L10
2.13
3.16
5.04
1.00
4.83
0.93
1.00
6.02
3.38
8.76
9.17
9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.5 -1.0
f1 (ppm)


zhangxumu-001267
135.54
135.33
132.64
132.45
128.98
128.21
128.14
127.60
127.53
127.38
77.62
77.50
77.30
77.17
76.98
75.89
75.68
74.38
74.32
72.90
72.83
72.52
71.45
39.03
33.19
32.99
32.68
32.48
31.35
31.21
30.71
30.58
P(t-Bu)2
P
Ph
Fe
NMe2
L10
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10
f1 (ppm)

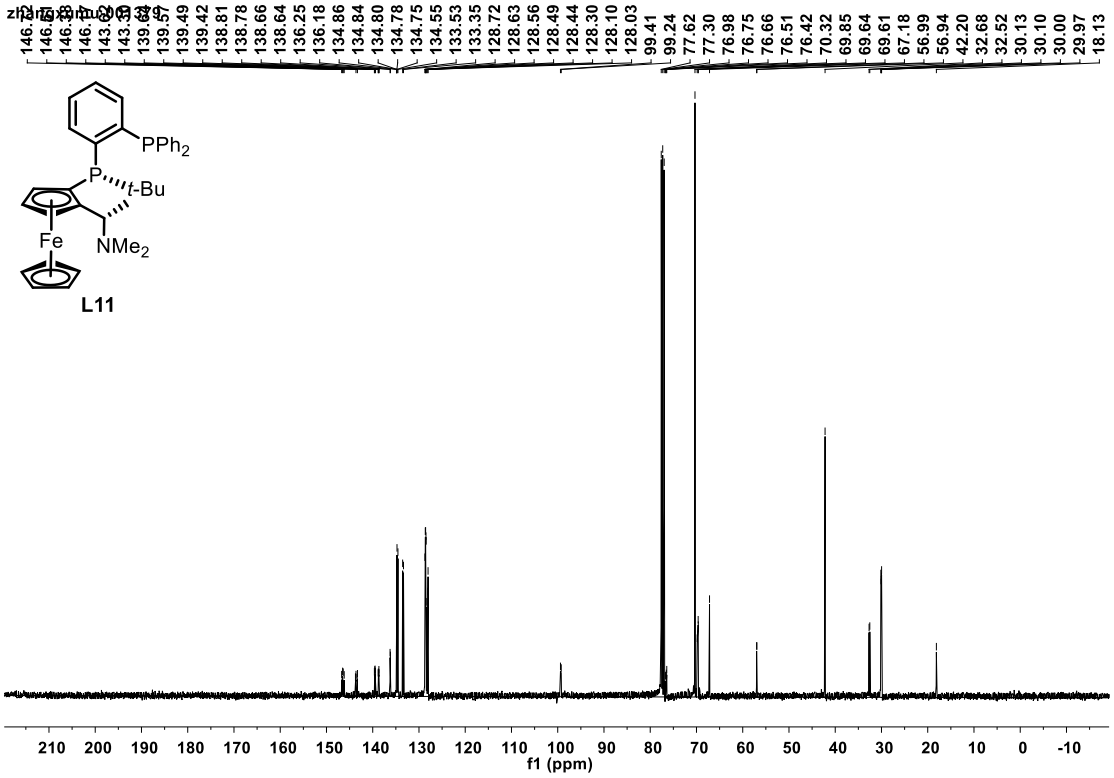
zhangxumu-001267

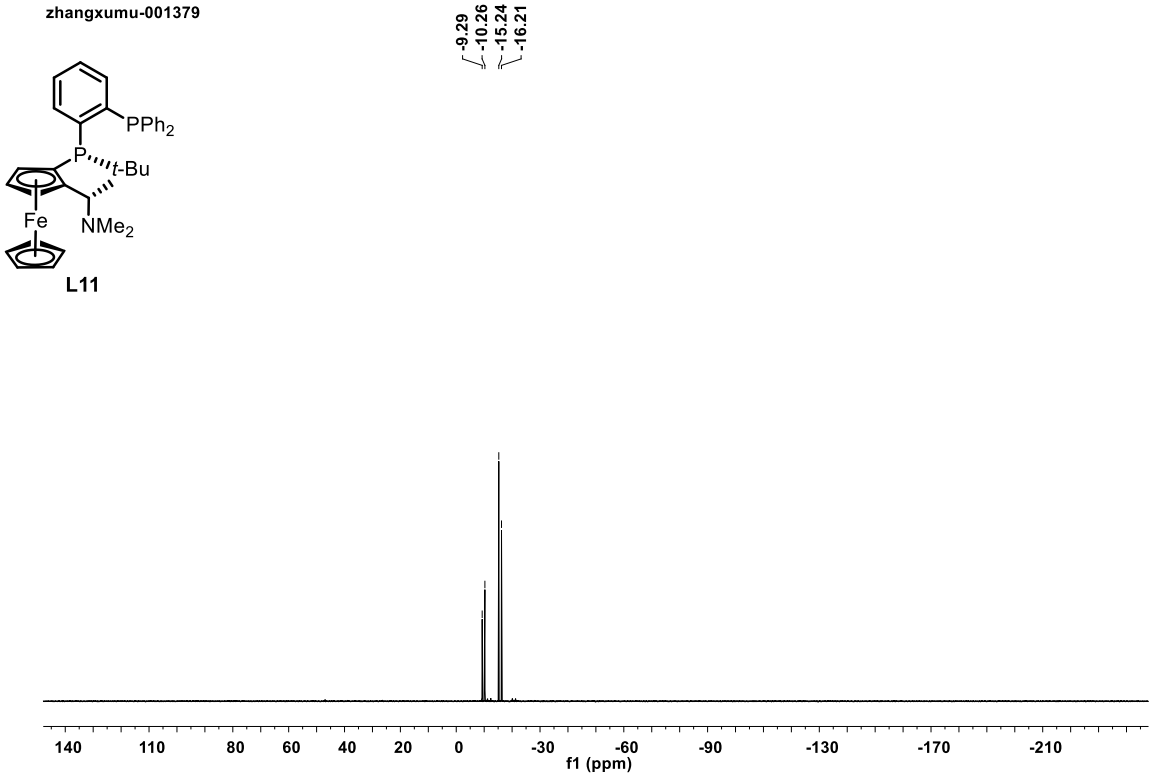


L10



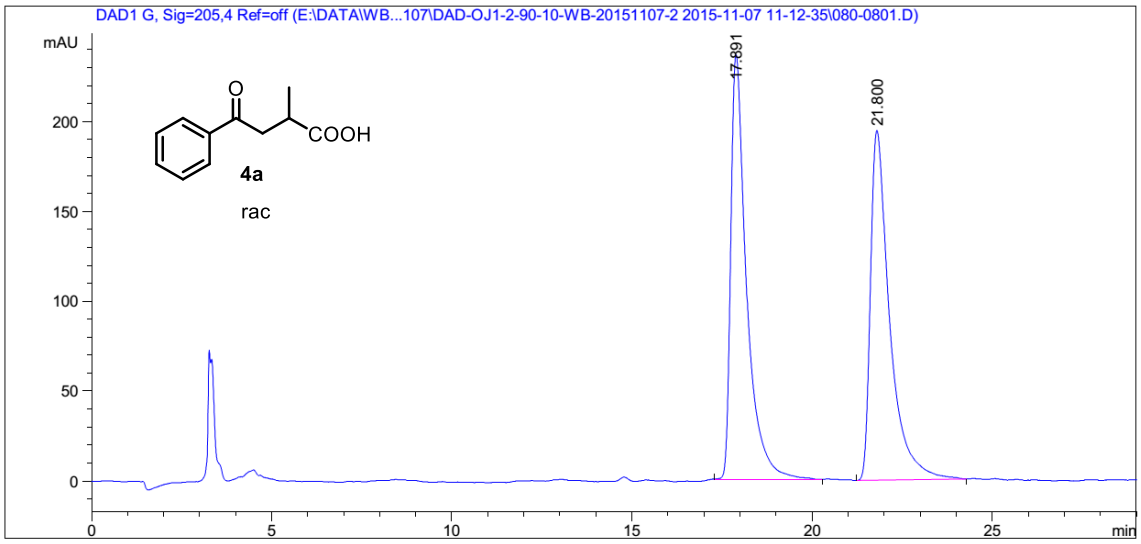
L11


zhangxumu-001379
146.69
146.47
146.17
143.03
143.34
139.64
139.57
139.49
139.42
138.81
138.78
138.66
138.64
136.25
136.18
134.86
134.84
134.80
134.78
134.75
134.55
133.53
133.35
128.72
128.63
128.56
128.49
128.44
128.30
128.10
128.03
99.41
99.24
77.62
77.30
76.98
76.75
76.66
76.51
76.42
70.32
69.85
69.64
69.61
67.18
56.99
56.94
42.20
32.68
32.52
30.13
30.10
30.00
29.97
18.13
PPh2
P
t-Bu
Fe
NMe2
L11
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10
f1 (ppm)


zhangxumu-001379
-9.29
-10.26
-15.24
-16.21
PPh2
P
t-Bu
Fe
NMe2
L11
140 110 80 60 40 20 0 -30 -60 -90 -130 -170 -210
f1 (ppm)

HPLC and GC Spectra

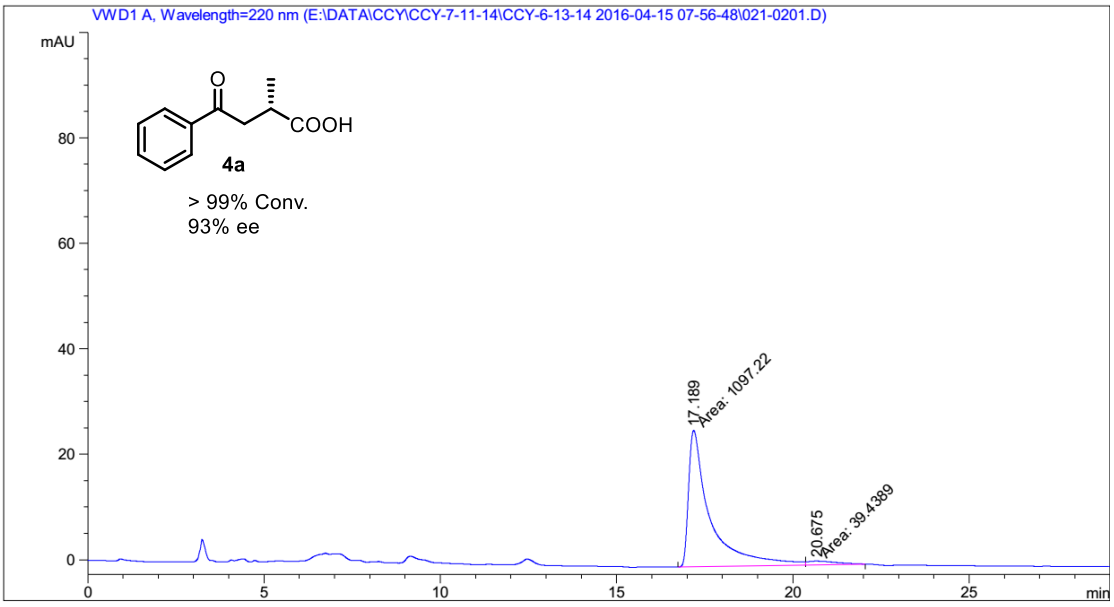
```
======================================================================
Acq. Operator    : SYSTEM                          Seq. Line :   8
Acq. Instrument : 1260HPLC-DAD                      Location : Vial 80
Injection Date  : 11/7/2015 2:31:30 PM                   Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WB\WEIB-20151107\DAD-OJ1-2-90-10-WB-20151107-2 2015-11-07 11-12-35
                  \DAD-OJ(1-6)-95-5-1.0ML-ALLNM-45MIN.M
Last changed    : 11/7/2015 12:28:53 PM by SYSTEM
Analysis Method : E:\DATA\WB\WEIB-20151107\DAD-OJ1-2-90-10-WB-20151107-2 2015-11-07 11-12-35
                  \DAD-OJ(1-6)-95-5-1.0ML-ALLNM-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 3:17:53 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 G, Sig=205,4 Ref=off

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  17.891 BB    0.4458 7206.02441  236.26976  50.0469
   2  21.800 BB    0.5434 7192.52832  194.51363  49.9531

Totals :                  1.43986e4   430.78339

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

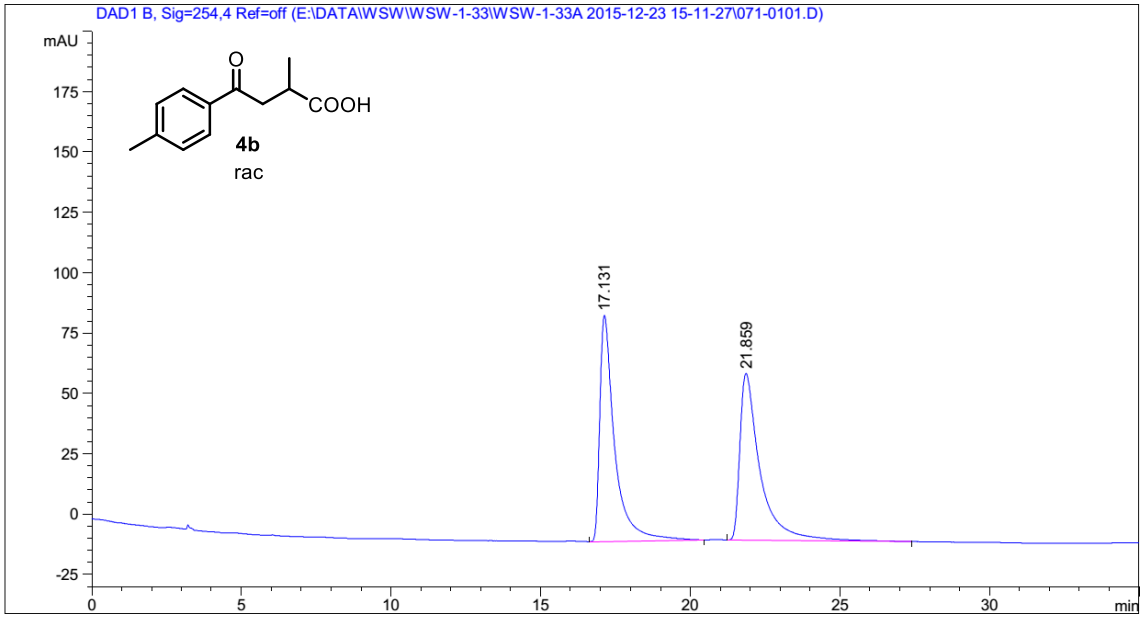
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\021-0201.D
Sample Name: ccy-7-14-1

```
=====================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   2
Acq. Instrument : 1260HPLC-VWD                    Location : Vial 21
Injection Date  : 4/15/2016 8:08:21 AM                 Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                  0ML-220NM-45MIN.M
Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                  0ML-220NM-45MIN.M (Sequence Method)
Last changed    : 4/18/2017 3:34:23 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=220 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  17.189 MF    0.7079 1097.21985   25.83108  96.5303
   2  20.675 FM    0.6649   39.43892 7.03331e-1   3.4697

Totals :                  1136.65877   26.53441
```

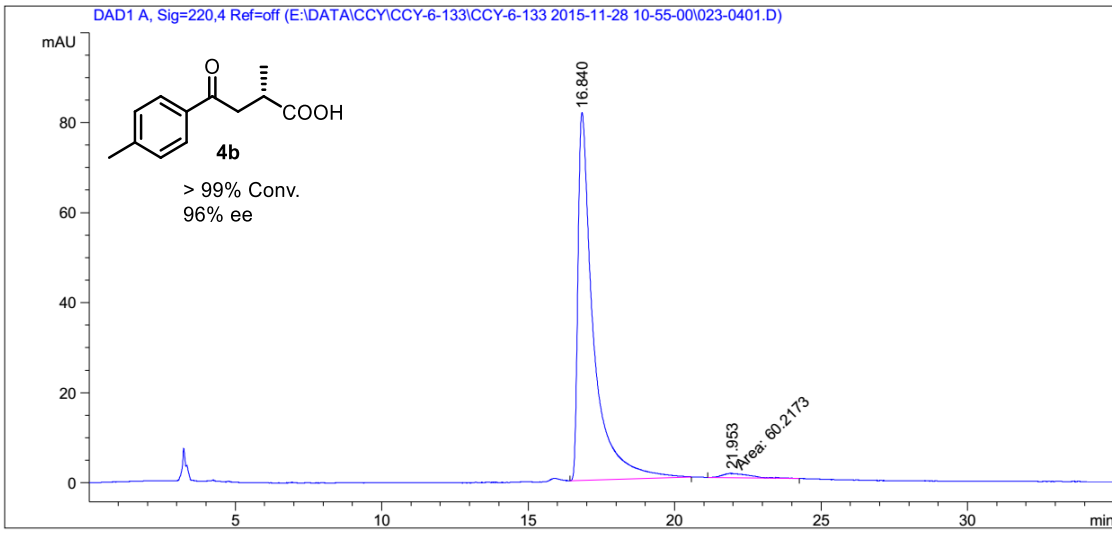
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   1
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 71
Injection Date  : 12/23/2015 3:12:19 PM               Inj :   1
                                                 Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M
Last changed    : 12/23/2015 3:11:27 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 3:39:00 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  17.131 BB    0.4999 3239.95850   93.59347  49.9162
   2  21.859 BB    0.6791 3250.84058   69.07588  50.0838

Totals :                  6490.79907  162.66935
```

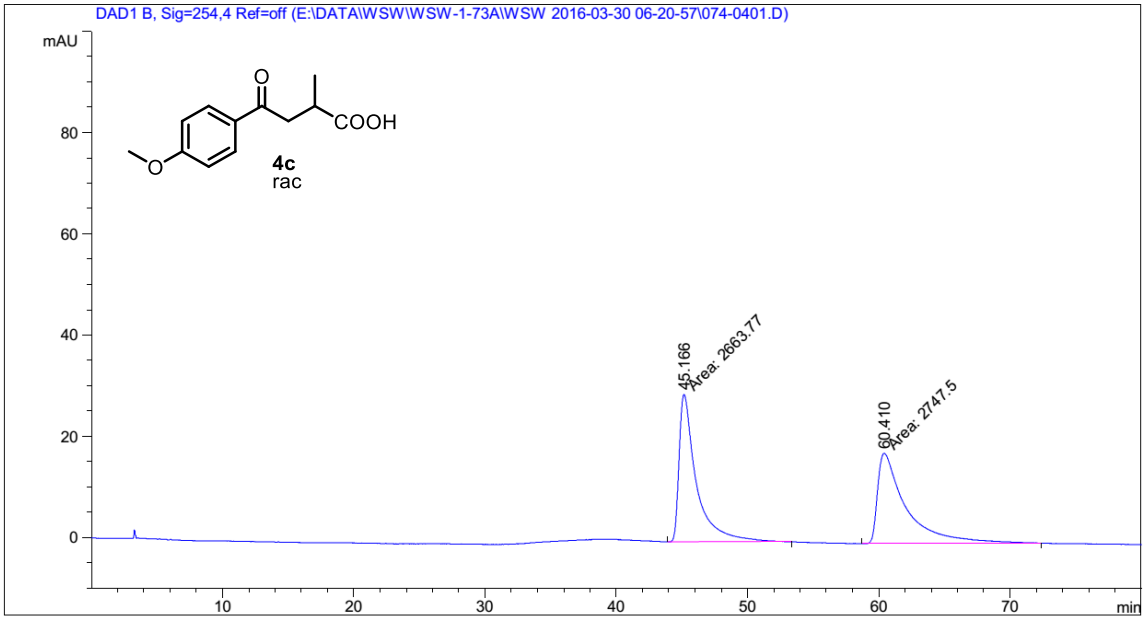
Data File E:\DATA\CCY\CCY-6-133\CCY-6-133 2015-11-28 10-55-00\023-0401.D
Sample Name: ccy-6-133-3

```
=====================================================================
Acq. Operator    : SYSTEM                          Seq. Line :   4
Acq. Instrument  : 1260HPLC-DAD                     Location : Vial 23
Injection Date   : 11/28/2015 12:18:50 PM               Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method      : E:\DATA\CCY\CCY-6-133\CCY-6-133 2015-11-28 10-55-00\DAD-OJ(1-6)-95-5-1.0ML-
                   ALLNM-35MIN.M
Last changed     : 11/28/2015 10:55:00 AM by SYSTEM
Analysis Method  : E:\DATA\CCY\CCY-6-133\CCY-6-133 2015-11-28 10-55-00\DAD-OJ(1-6)-95-5-1.0ML-
                   ALLNM-35MIN.M (Sequence Method)
Last changed     : 4/18/2017 4:11:57 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  16.840 BB    0.5185 3001.74463   81.73164  98.0334
   2  21.953 MM    1.0822   60.21733 9.27379e-1   1.9666

Totals :                  3061.96196   82.65901

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

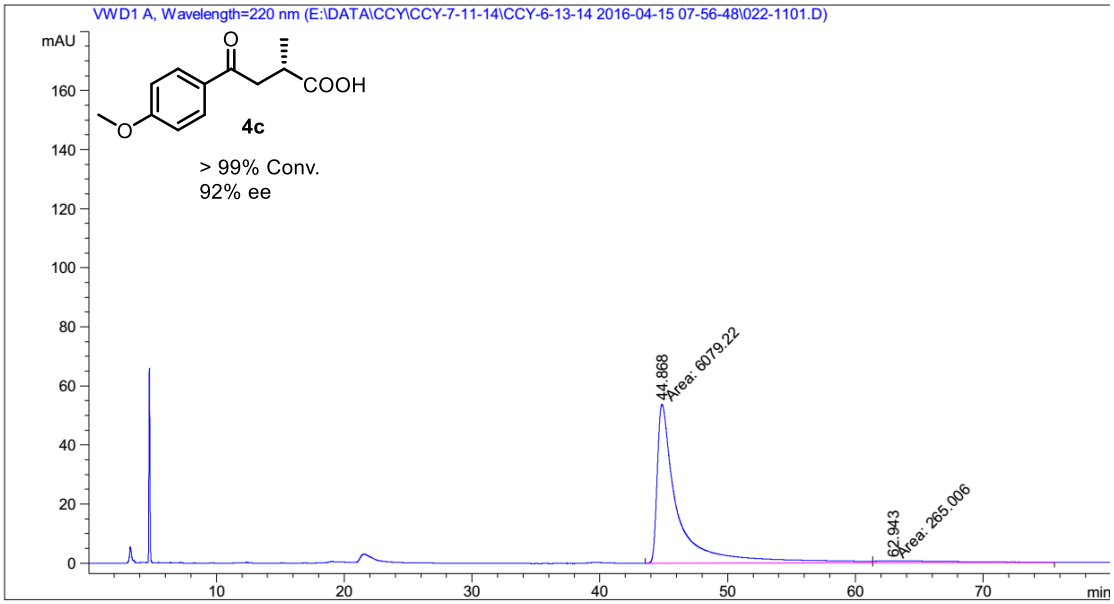
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   4
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 74
Injection Date  : 3/30/2016 9:14:59 AM                Inj :   1
                                                Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-73A\WSW 2016-03-30 06-20-57\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M
Last changed    : 3/30/2016 6:42:23 AM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-73A\WSW 2016-03-30 06-20-57\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M (Sequence Method)
Last changed    : 8/16/2016 3:49:09 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  45.166 MM    1.5240 2663.76929   29.13059  49.2264
   2  60.410 MM    2.5624 2747.49561   17.87056  50.7736

Totals :                  5411.26489   47.00115
```

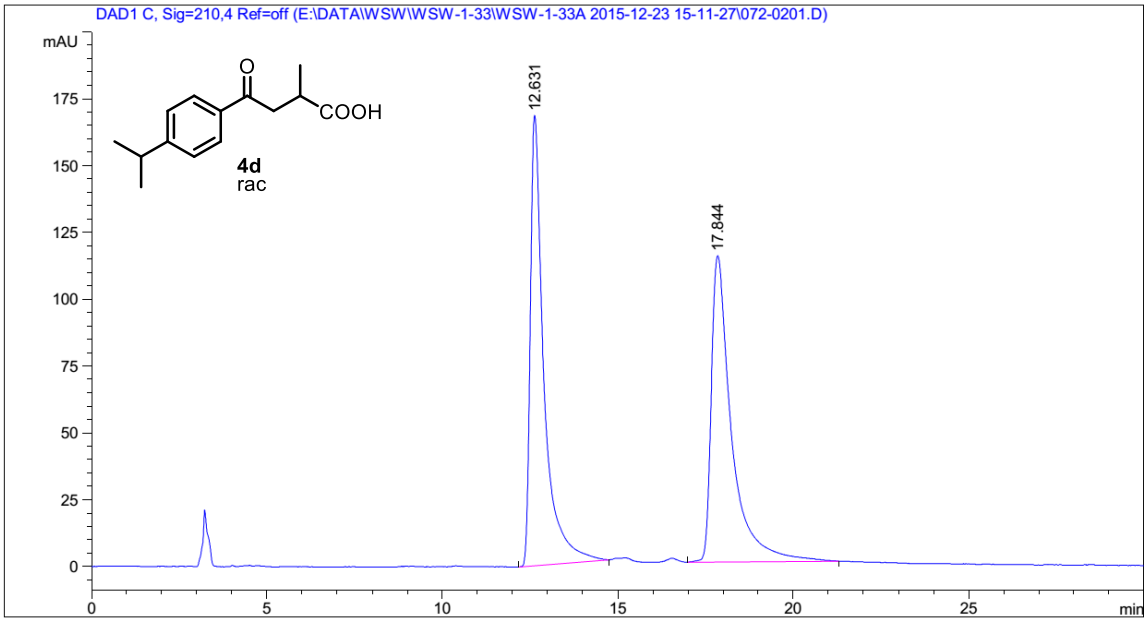
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\022-1101.D
Sample Name: ccy-7-14-2

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  11
    Acq. Instrument : 1260HPLC-VWD                    Location : Vial 22
    Injection Date  : 4/15/2016 3:00:20 PM                 Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-80MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-80MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:39:37 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  44.868 MF    1.8836 6079.22412   53.79193  95.8229
       2  62.943 FM    6.7808  265.00641 6.51363e-1   4.1771

    Totals :                  6344.23053   54.44329
```

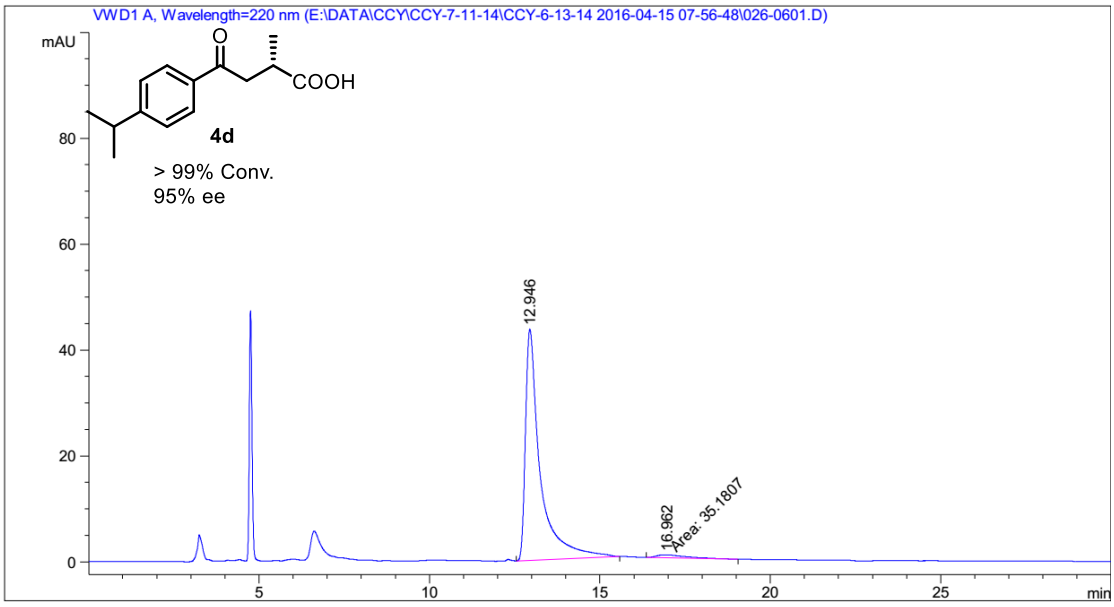
```
=====================================================================
Acq. Operator    : SYSTEM                          Seq. Line :   2
Acq. Instrument : 1260HPLC-DAD                     Location : Vial 72
Injection Date  : 12/23/2015 3:58:13 PM               Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M
Last changed    : 12/23/2015 3:11:27 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 3:56:37 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  12.631 BB    0.3902 4539.92969  168.59048  49.7862
   2  17.844 BB    0.5741 4578.91699  114.60268  50.2138

Totals :                  9118.84668  283.19316
```

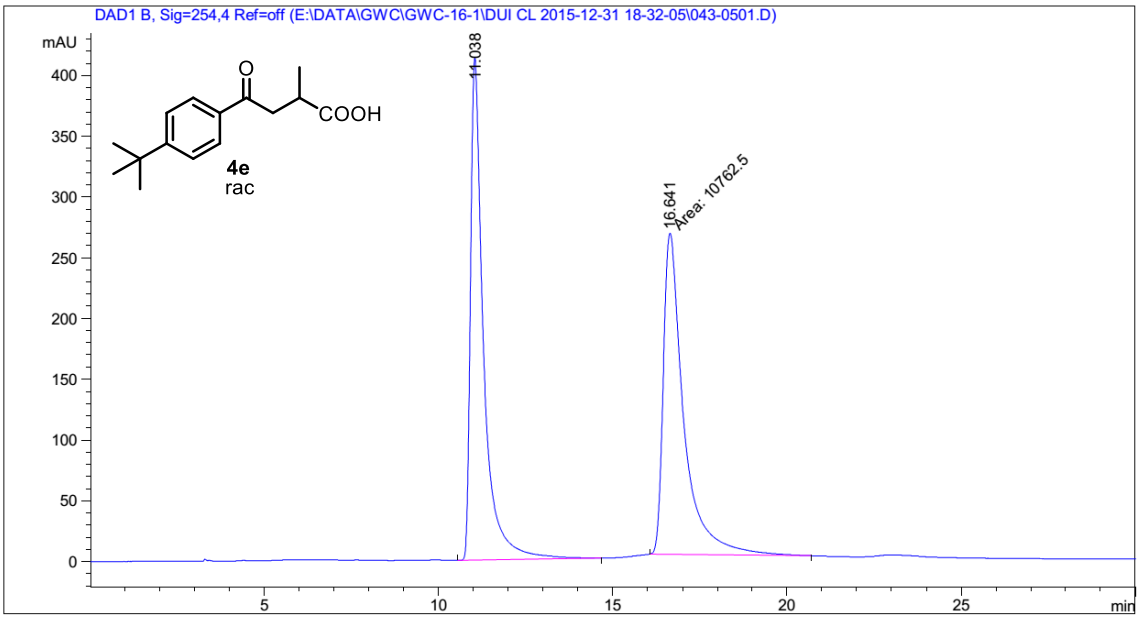
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\026-0601.D
Sample Name: ccy-7-14-6

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   6
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 26
    Injection Date  : 4/15/2016 11:11:26 AM                 Inj :   1
                                                    Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:52:50 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  12.946 BB    0.4296 1322.13086   43.61889  97.4081
       2  16.962 MM    1.0393   35.18073 5.64149e-1   2.5919

    Totals :                  1357.31158   44.18303
```

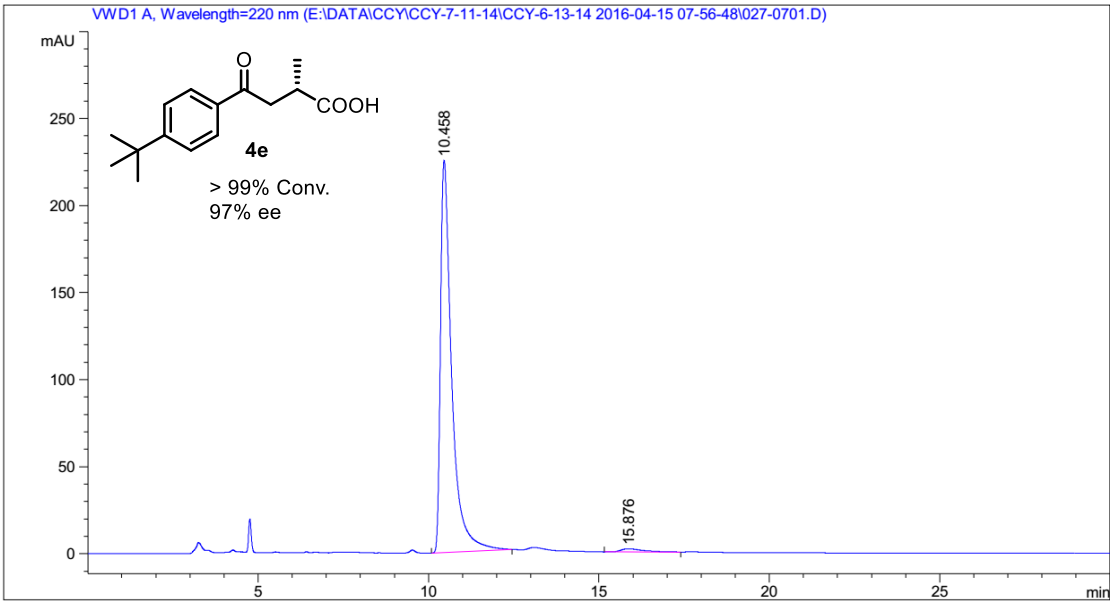
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   5
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 43
Injection Date  : 12/31/2015 8:36:50 PM               Inj :   1
                                                Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\GWC\GWC-16-1\DUI CL 2015-12-31 18-32-05\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M
Last changed    : 12/31/2015 7:06:20 PM by SYSTEM
Analysis Method : E:\DATA\GWC\GWC-16-1\DUI CL 2015-12-31 18-32-05\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:01:24 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  11.038 BB    0.3783 1.07808e4   413.38116  50.0425
   2  16.641 MM    0.6782 1.07625e4   264.50214  49.9575

Totals :                  2.15432e4   677.88330
```

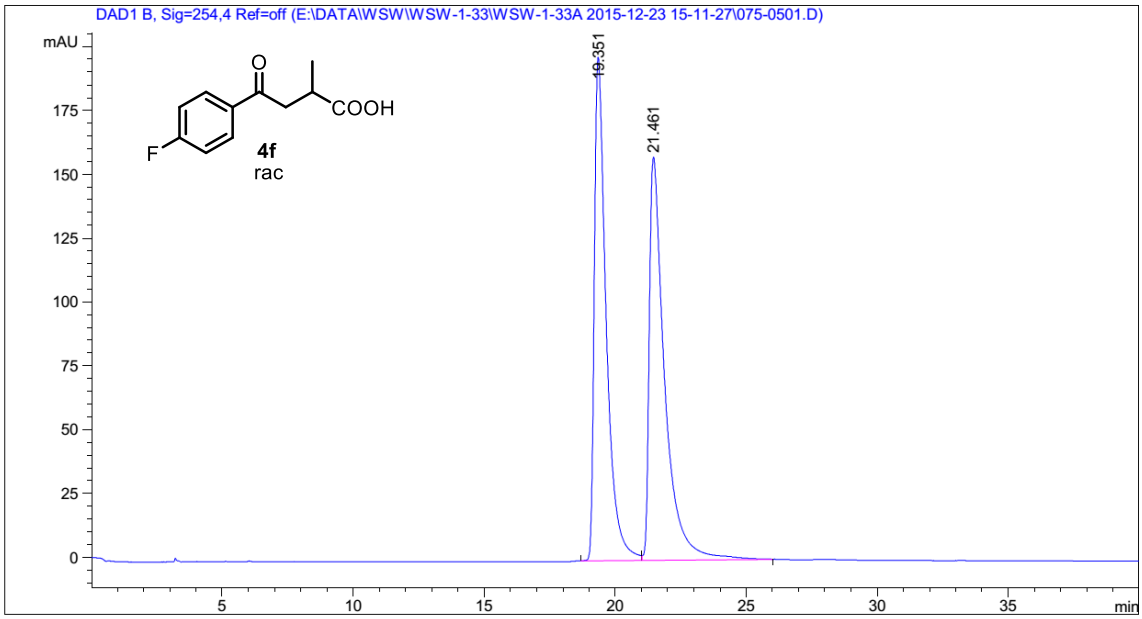
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\027-0701.D
Sample Name: ccy-7-14-7

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   7
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 27
    Injection Date  : 4/15/2016 11:57:12 AM                 Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:55:06 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  10.458 BB    0.3363 5161.07227  225.26790  98.3849
       2  15.876 BB    0.6355   84.72330    1.83908   1.6151

    Totals :                  5245.79556  227.10698
```

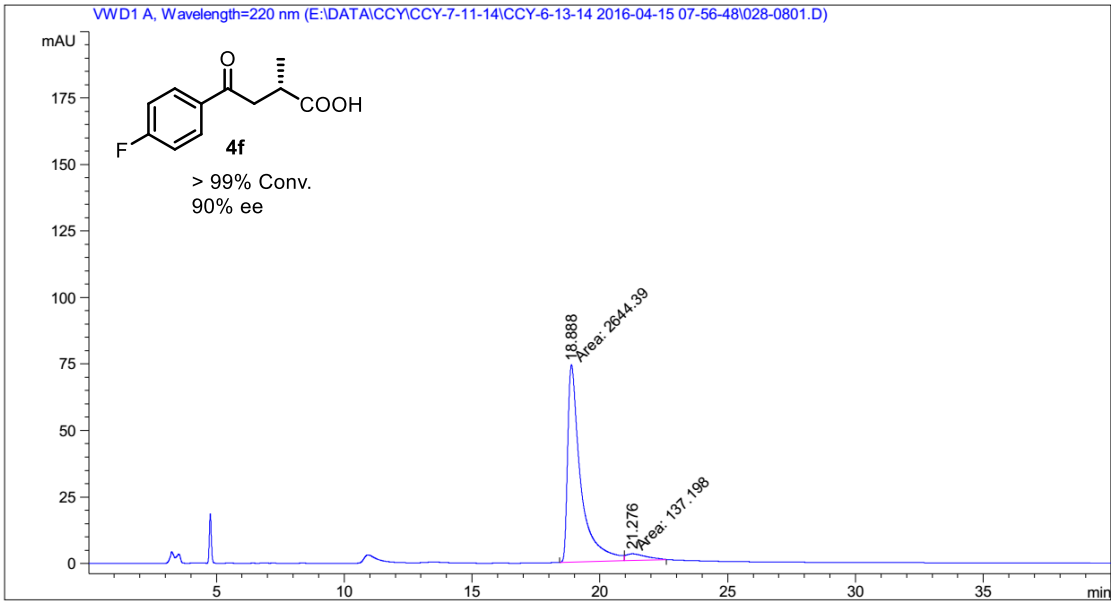
```
==========================================================================
Acq. Operator    : SYSTEM                          Seq. Line :   5
Acq. Instrument : 1260HPLC-DAD                    Location : Vial 75
Injection Date  : 12/23/2015 6:16:07 PM              Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M
Last changed    : 12/23/2015 3:11:27 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:06:30 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  19.351 BV    0.4696 6243.51074  197.09644  49.1944
   2  21.461 VB    0.5925 6447.99512  157.86610  50.8056

Totals :                  1.26915e4   354.96254
```

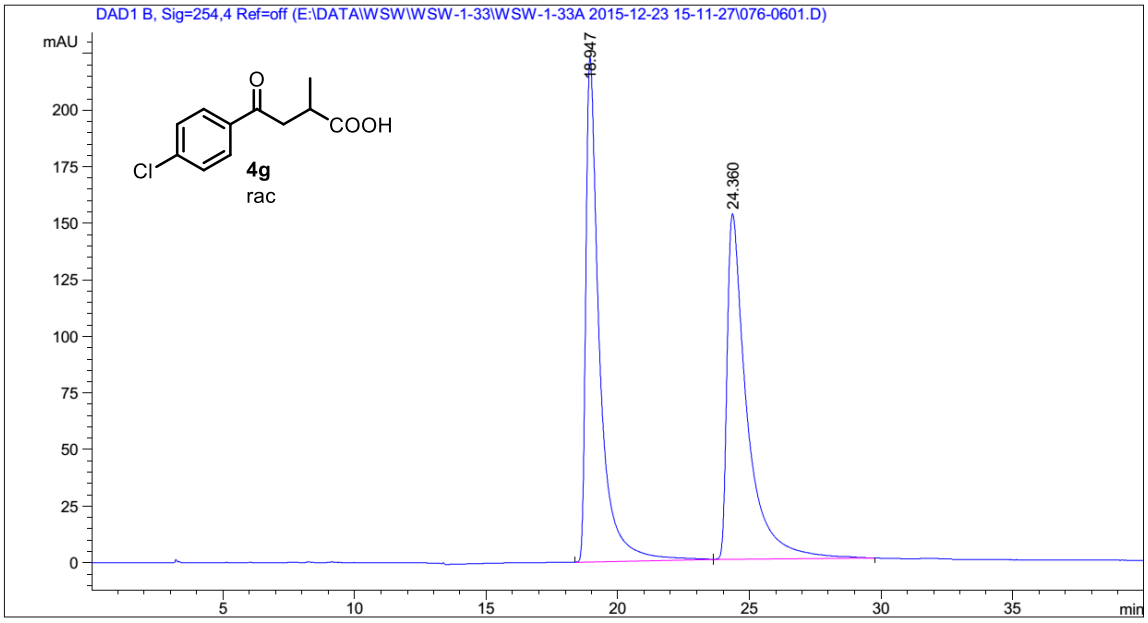
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\028-0801.D
Sample Name: ccy-7-14-8

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   8
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 28
    Injection Date  : 4/15/2016 12:42:59 PM                 Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:57:40 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  18.888 MF    0.5942 2644.39453   74.16946  95.0676
       2  21.276 FM    0.9066  137.19826    2.52218   4.9324

    Totals :                  2781.59279   76.69164
```

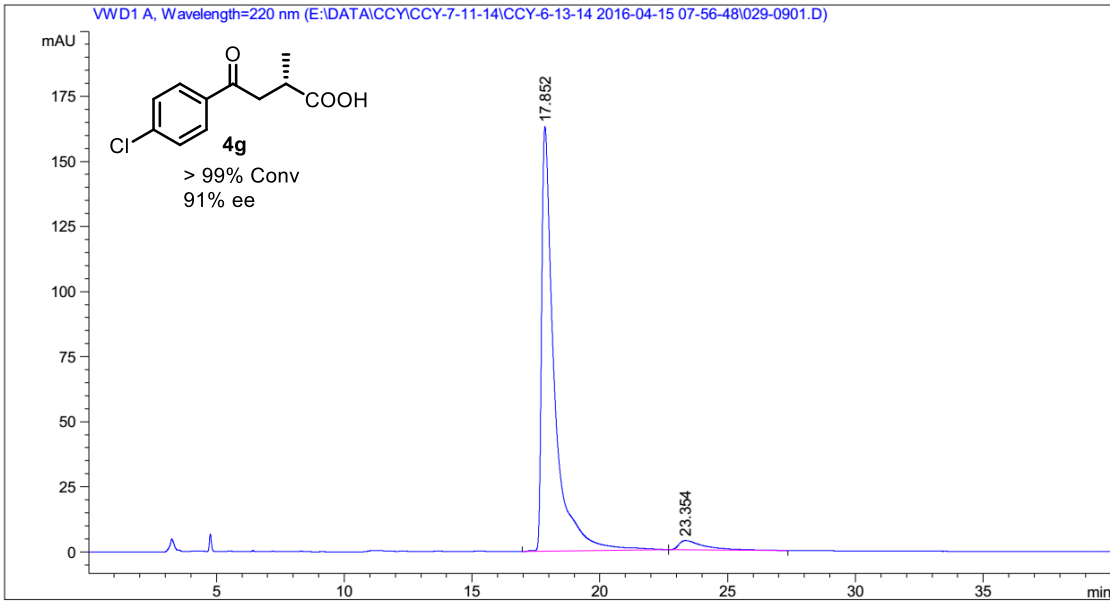
```
=====================================================================
Acq. Operator    : SYSTEM                          Seq. Line :   6
Acq. Instrument : 1260HPLC-DAD                    Location : Vial 76
Injection Date  : 12/23/2015 7:02:06 PM               Inj :   1
                                                 Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M
Last changed    : 12/23/2015 3:11:27 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:09:26 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  18.947 BB    0.5248 8079.64014  222.92558  50.2066
   2  24.360 BB    0.7503 8013.15137  152.68410  49.7934

Totals :                  1.60928e4   375.60968
```

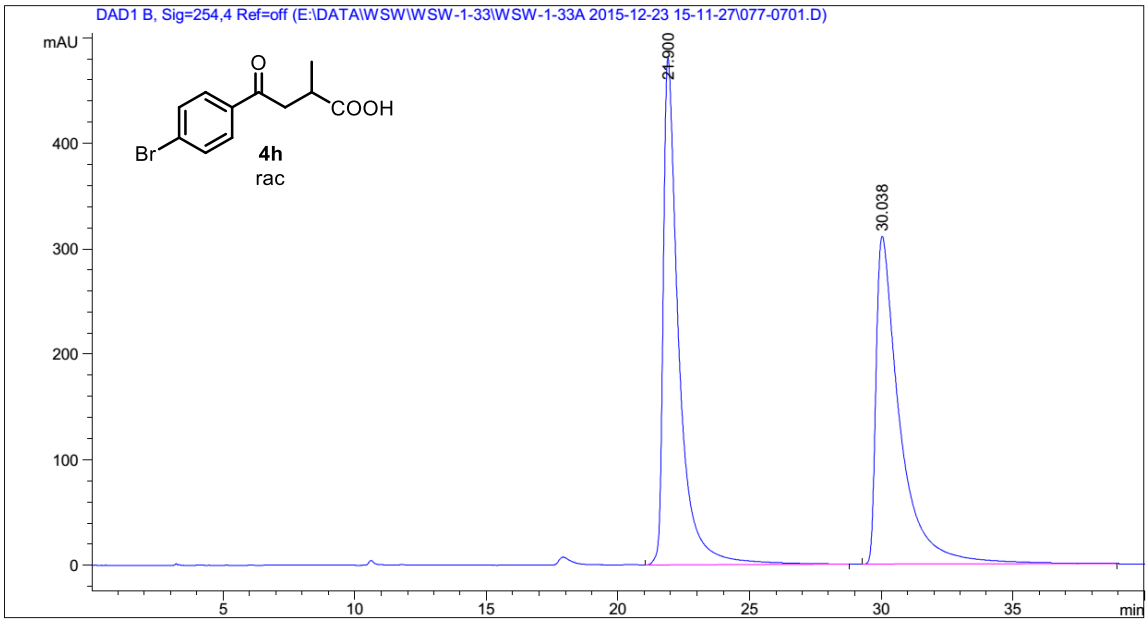
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\029-0901.D
Sample Name: ccy-7-14-9

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   9
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 29
    Injection Date  : 4/15/2016 1:28:45 PM                  Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:57:40 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  17.852 BB    0.4897 5616.26758  163.09814  95.7370
       2  23.354 BB    0.9541  250.08289    3.56212   4.2630

    Totals :                  5866.35046  166.66026
```

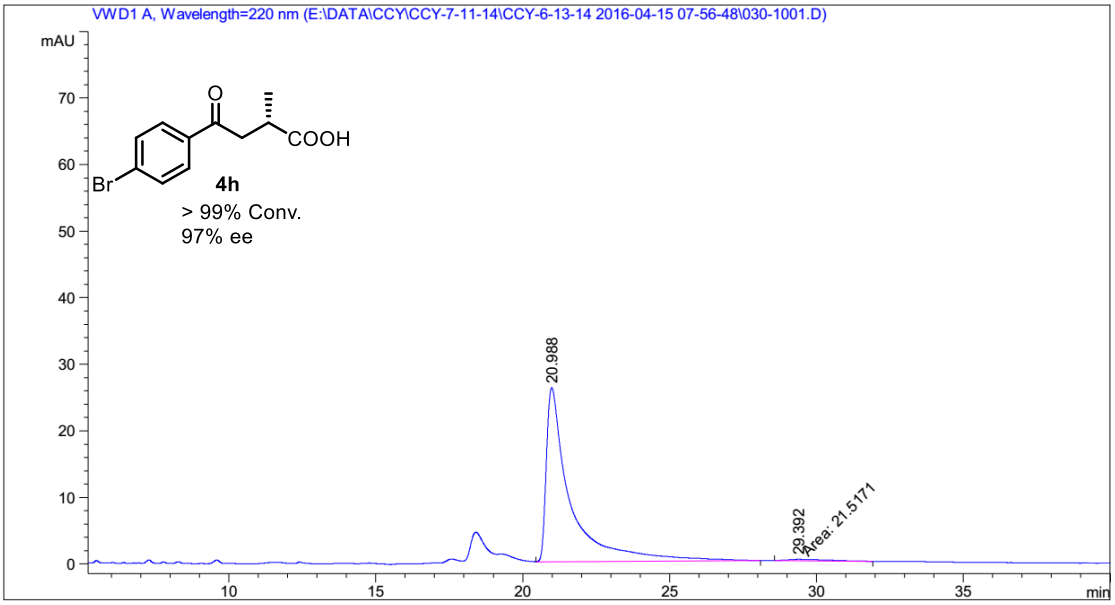
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   7
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 77
Injection Date  : 12/23/2015 7:48:05 PM               Inj :   1
                                                 Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M
Last changed    : 12/23/2015 8:27:34 PM by SYSTEM
                  (modified after loading)
Analysis Method : E:\DATA\WSW\WSW-1-33\WSW-1-33A 2015-12-23 15-11-27\DAD-OJ(1-6)-95-5-1.0ML-
                  ALL-45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:11:05 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  21.900 BB    0.5987 1.97965e4   480.42813  50.3200
   2  30.038 BB    0.8950 1.95447e4   311.06342  49.6800

Totals :                  3.93412e4   791.49155
```

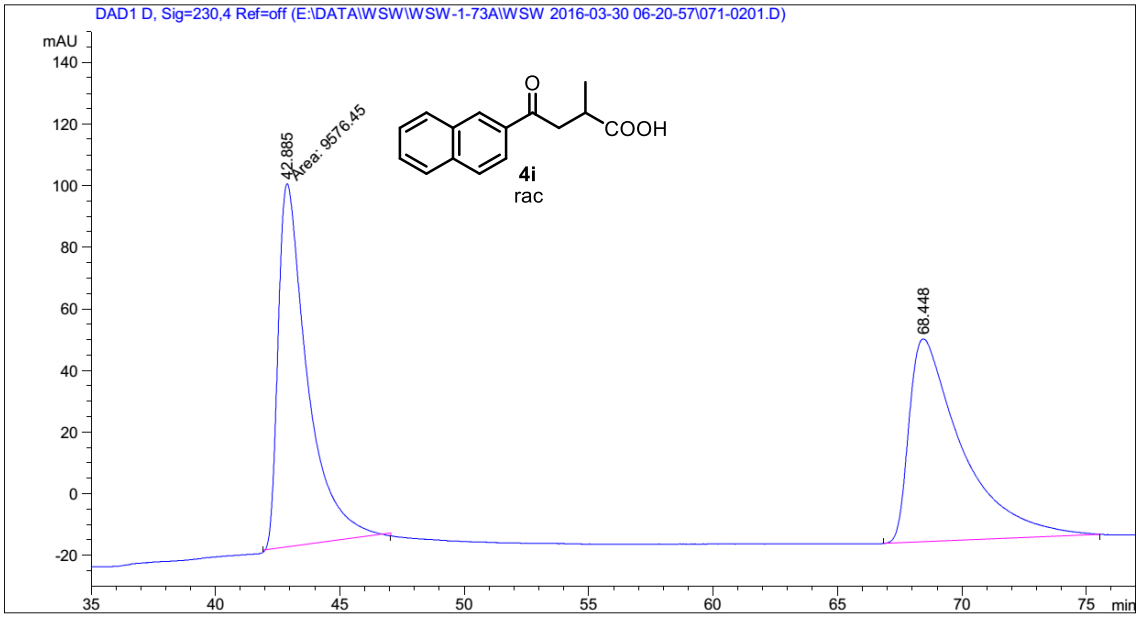
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\030-1001.D
Sample Name: ccy-7-14-10

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  10
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 30
    Injection Date  : 4/15/2016 2:14:32 PM                  Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 4:00:20 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  20.988 BB    0.7766 1487.04529   26.14192  98.5737
       2  29.392 MM    1.6079   21.51709 2.23039e-1   1.4263

    Totals :                  1508.56238   26.36496
```

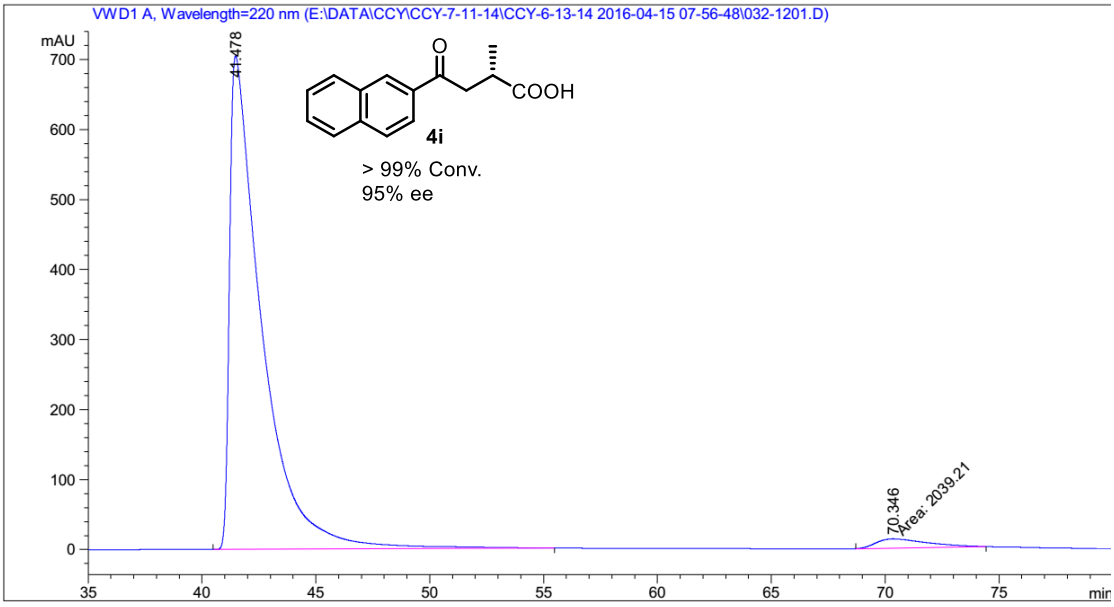
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   2
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 71
Injection Date  : 3/30/2016 6:32:48 AM                Inj :   1
                                                Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-73A\WSW 2016-03-30 06-20-57\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M
Last changed    : 3/30/2016 6:42:23 AM by SYSTEM
                  (modified after loading)
Analysis Method : E:\DATA\WSW\WSW-1-73A\WSW 2016-03-30 06-20-57\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:30:23 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


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

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]    [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  42.885 MM    1.3541 9576.45215  117.87051  49.5795
   2  68.448 BB    1.7557 9738.90039   65.84126  50.4205

Totals :                  1.93154e4   183.71177
```

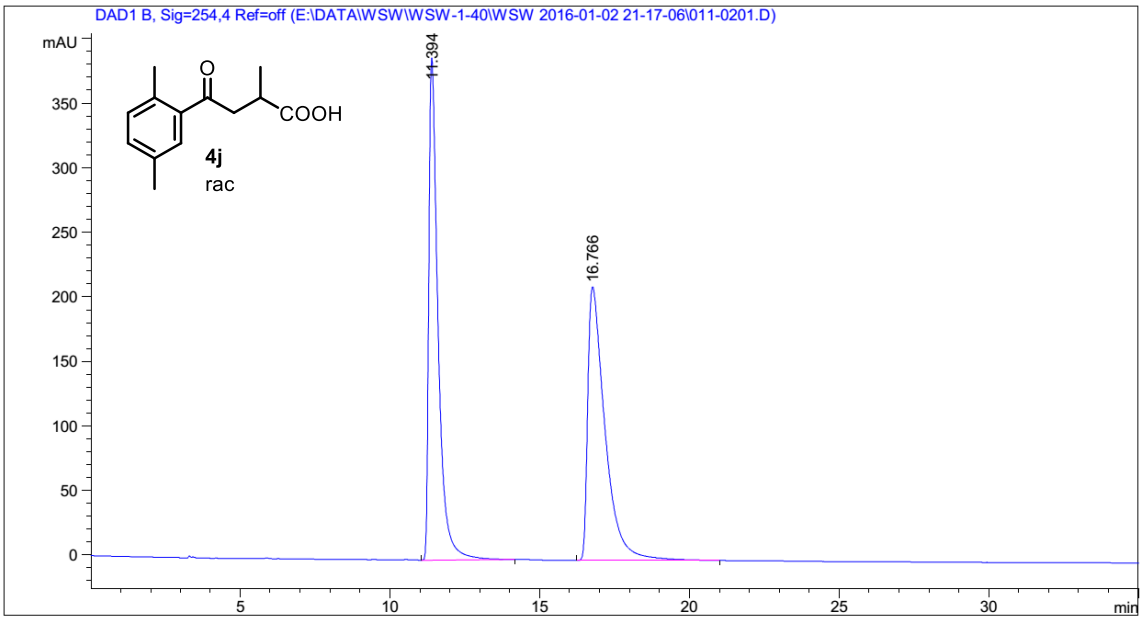
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\032-1201.D
Sample Name: ccy-7-14-12

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :  12
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 32
    Injection Date  : 4/15/2016 4:21:05 PM                  Inj :  1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-80MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-80MIN.M (Sequence Method)
    Last changed    : 4/18/2017 4:01:48 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  41.478 BB    1.3655 6.89689e4   704.88763  97.1282
       2  70.346 MM    2.5666 2039.20691   13.24218   2.8718

    Totals :                  7.10081e4   718.12982
```

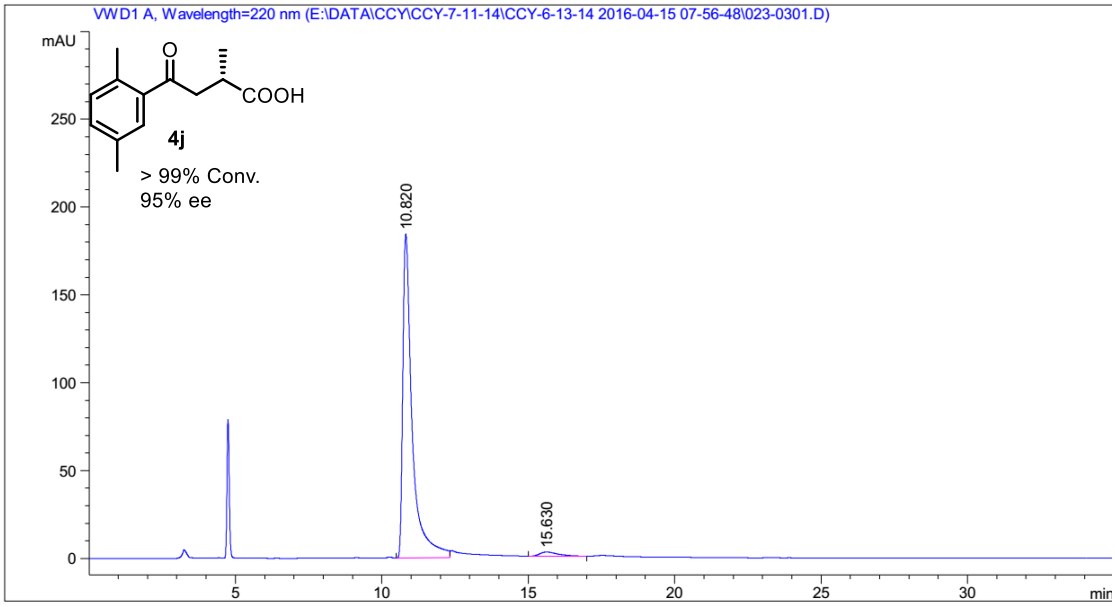
```
================================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   2
Acq. Instrument : 1260HPLC-DAD                   Location : Vial 11
Injection Date  : 1/2/2016 9:29:43 PM                 Inj :   1
                                                 Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M
Last changed    : 1/2/2016 9:17:06 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:42:44 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  11.394 BB    0.3196 8385.75000  388.85330  49.6792
   2  16.766 BB    0.5895 8494.04297  211.98248  50.3208

Totals :                  1.68798e4   600.83578
```

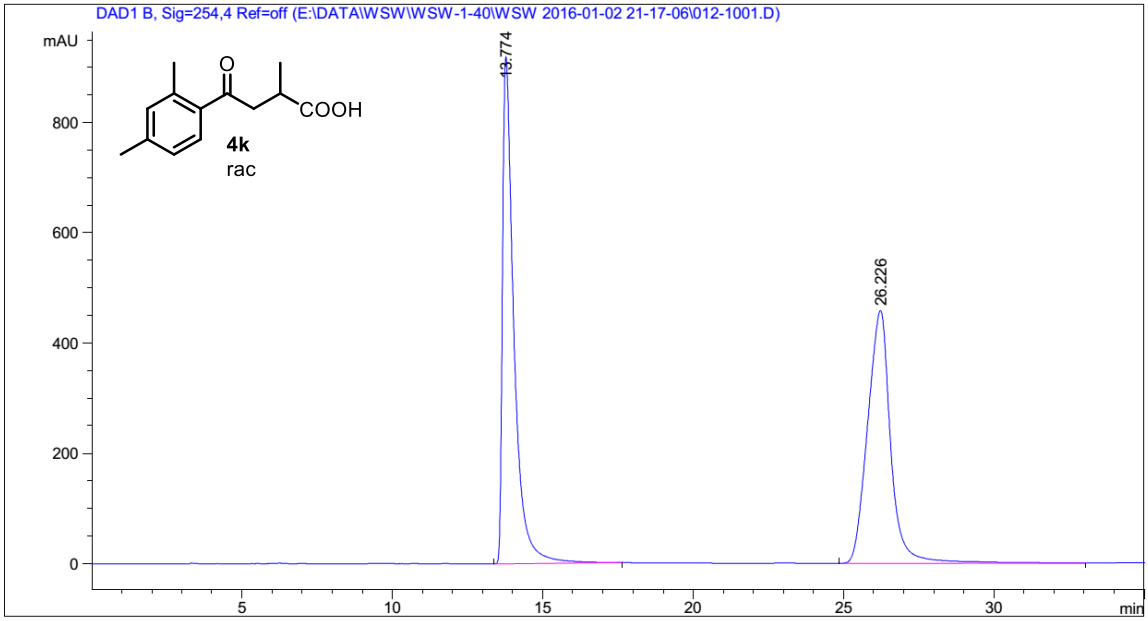
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\023-0301.D
Sample Name: ccy-7-14-3

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   3
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 23
    Injection Date  : 4/15/2016 8:54:07 AM                  Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:41:26 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]   [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  10.820 BV    0.3255 4133.81982  184.40584  97.4849
       2  15.630 BB    0.6384  106.65108    2.40034   2.5151

    Totals :                  4240.47090  186.80618
```

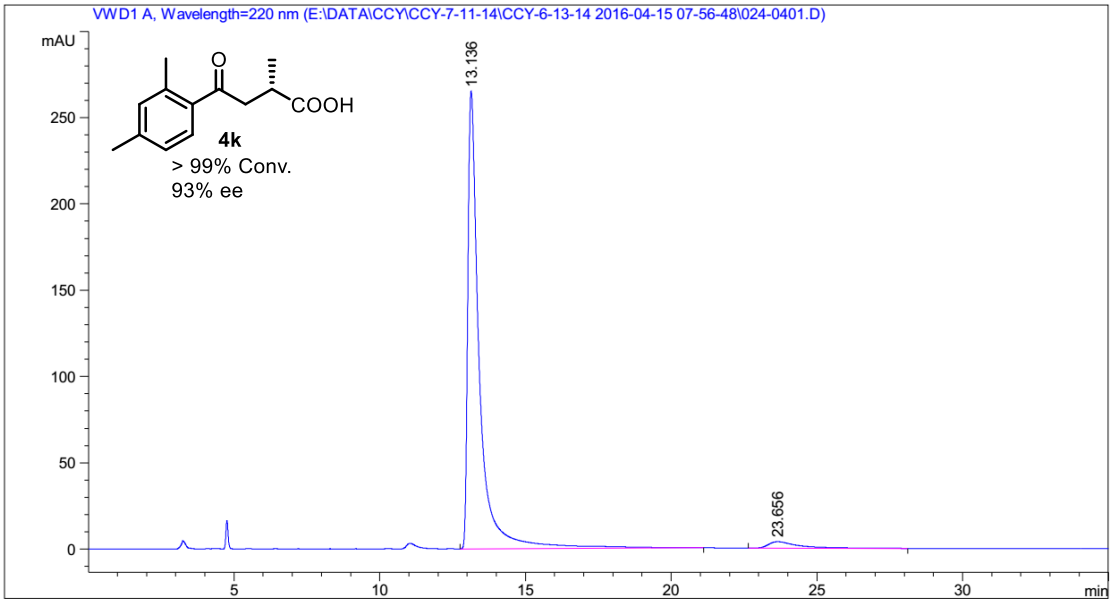
```
==========================================================================
Acq. Operator   : SYSTEM                          Seq. Line :  10
Acq. Instrument : 1260HPLC-DAD                    Location : Vial 12
Injection Date  : 1/2/2016 11:37:28 PM                 Inj :   1
                                                 Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M
Last changed    : 1/2/2016 9:17:06 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                  45MIN.M (Sequence Method)
Last changed    : 8/16/2016 4:42:44 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  13.774 BB    0.3882 2.42904e4   919.49597  49.7527
   2  26.226 BB    0.8077 2.45319e4   458.88672  50.2473

Totals :                  4.88224e4  1378.38269
```

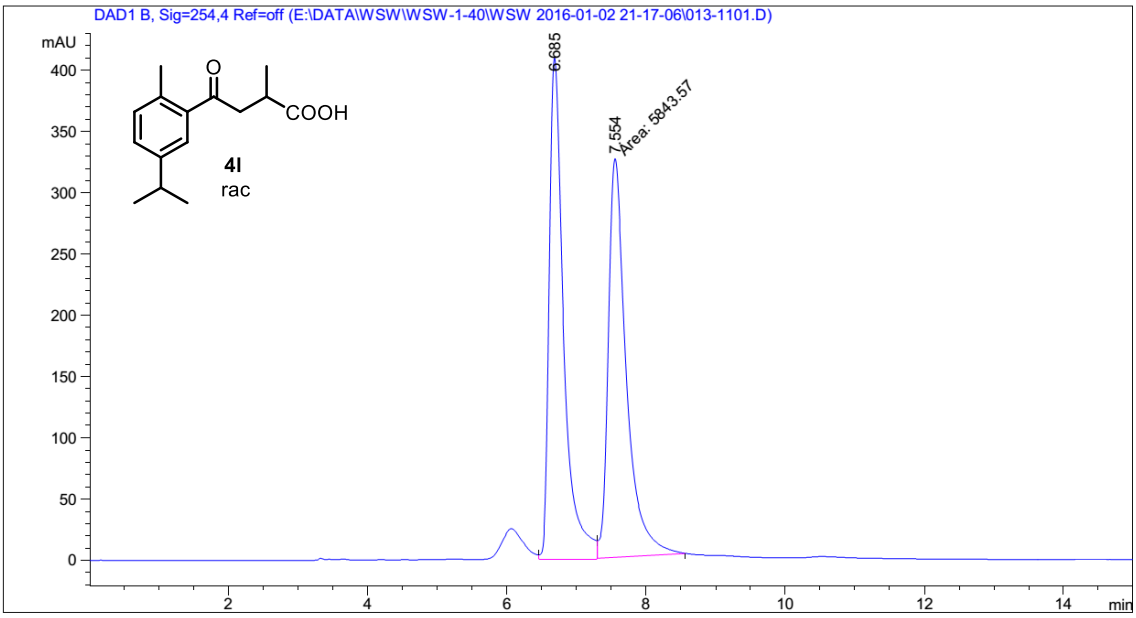
Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\024-0401.D
Sample Name: ccy-7-14-4

```
    ======================================================================
    Acq. Operator   : SYSTEM                          Seq. Line :   4
    Acq. Instrument : 1260HPLC-VWD                     Location : Vial 24
    Injection Date  : 4/15/2016 9:39:54 AM                  Inj :   1
                                                     Inj Volume : 5.000 µl
    Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M
    Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
    Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                      0ML-220NM-45MIN.M (Sequence Method)
    Last changed    : 4/18/2017 3:42:35 PM by SYSTEM
                      (modified after loading)
    Additional Info : Peak(s) manually integrated
```




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

    Sorted By             :      Signal
    Multiplier            :      1.0000
    Dilution              :      1.0000
    Use Multiplier & Dilution Factor with ISTDs


    Signal 1: VWD1 A, Wavelength=220 nm

    Peak RetTime Type  Width     Area      Height     Area
      #   [min]        [min]    [mAU*s]     [mAU]       %
    ----|-------|----|-------|----------|----------|--------|
       1  13.136 BB    0.4003 7419.58691  265.28488  96.2201
       2  23.656 BB    1.0521  291.47260    3.84622   3.7799

    Totals :                  7711.05951  269.13111
```

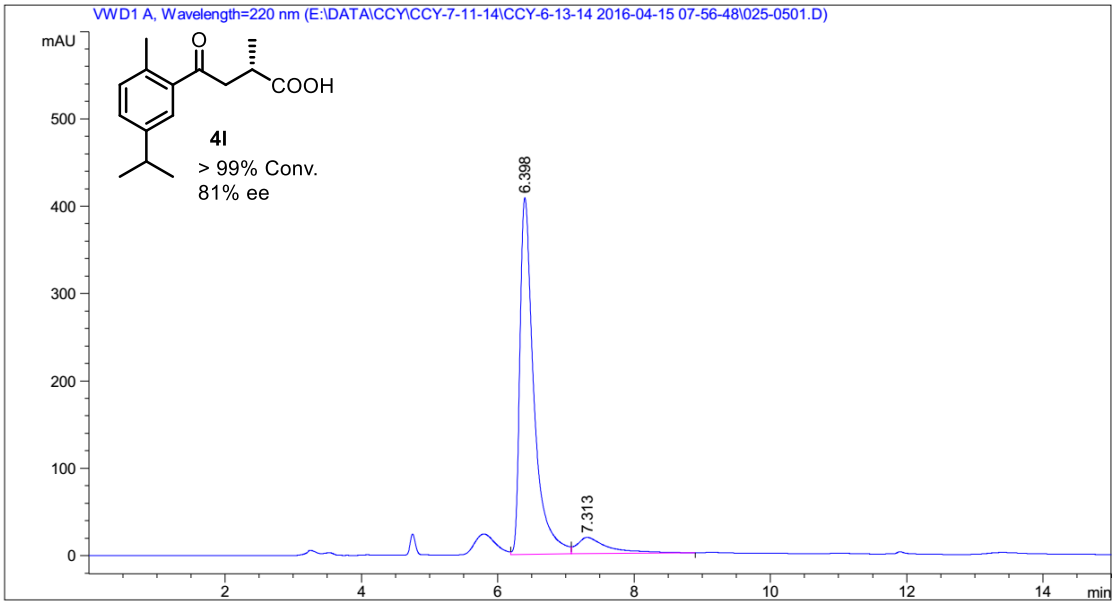
```
==========================================================================
Acq. Operator    : SYSTEM                          Seq. Line :  11
Acq. Instrument  : 1260HPLC-DAD                    Location : Vial 13
Injection Date   : 1/3/2016 12:23:23 AM                 Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method      : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                   45MIN.M
Last changed     : 1/2/2016 9:17:06 PM by SYSTEM
Analysis Method  : E:\DATA\WSW\WSW-1-40\WSW 2016-01-02 21-17-06\DAD-OJ(1-6)-95-5-1.0ML-ALL-
                   45MIN.M (Sequence Method)
Last changed     : 8/16/2016 4:47:52 PM by SYSTEM
                   (modified after loading)
Additional Info  : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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   6.685 VV    0.2141 5898.83398  409.42789  50.2353
   2   7.554 MM    0.2991 5843.56787  325.63580  49.7647

Totals :                  1.17424e4   735.06369
```

Data File E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\025-0501.D
Sample Name: ccy-7-14-5

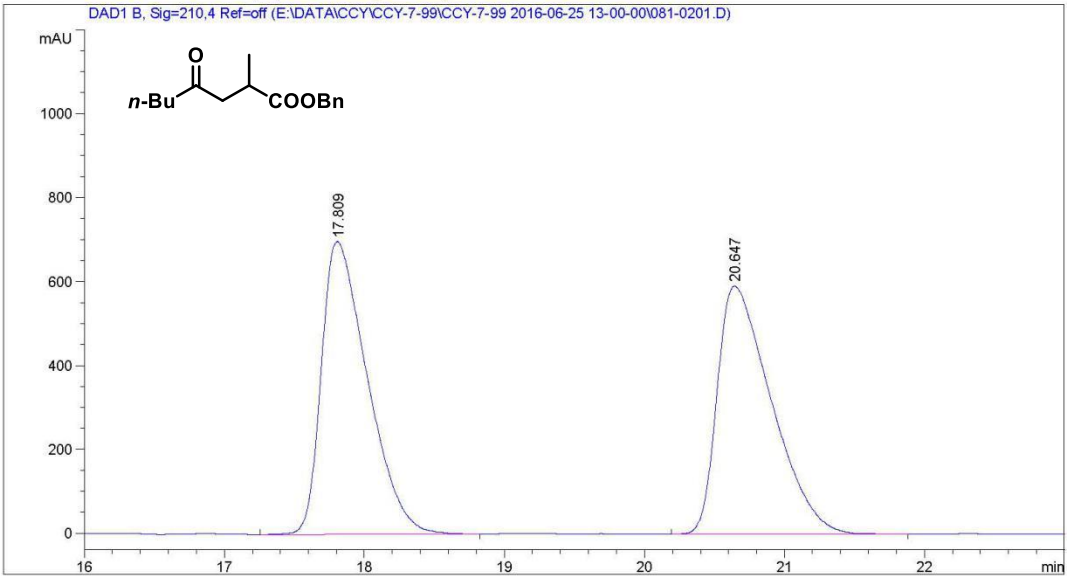
```
======================================================================
Acq. Operator   : SYSTEM                          Seq. Line :   5
Acq. Instrument : 1260HPLC-VWD                    Location : Vial 25
Injection Date  : 4/15/2016 10:25:40 AM               Inj :   1
                                                  Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                  0ML-220NM-45MIN.M
Last changed    : 4/15/2016 7:56:48 AM by SYSTEM
Analysis Method : E:\DATA\CCY\CCY-7-11-14\CCY-6-13-14 2016-04-15 07-56-48\VWD-OJ(1-6)-95-5-1.
                  0ML-220NM-45MIN.M (Sequence Method)
Last changed    : 4/18/2017 3:51:12 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


Signal 1: VWD1 A, Wavelength=220 nm

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1   6.398 VV    0.2109 5805.45703  408.21710  90.7371
   2   7.313 VB    0.4392  592.65094   18.72636   9.2629

Totals :                  6398.10797  426.94346
```

Data File E:\DATA\CCY\CCY-7-99\CCY-7-99 2016-06-25 13-00-00\081-0201.D
Sample Name: ccy-7-99-1

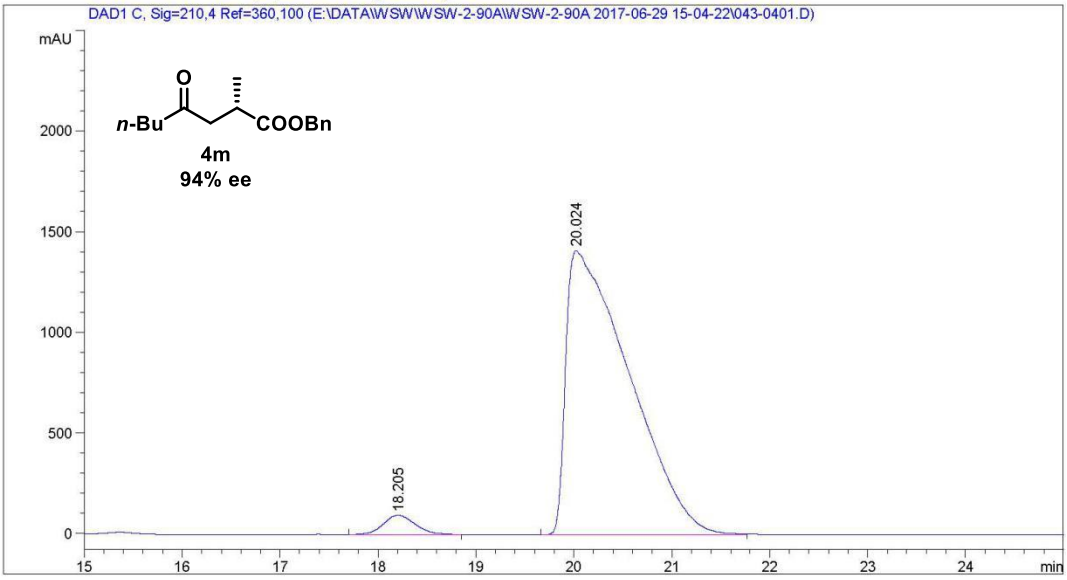
```
=====================================================================
Acq. Operator   : SYSTEM                       Seq. Line :   2
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 81
Injection Date  : 6/25/2016 1:11:56 PM               Inj :   1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\CCY\CCY-7-99\CCY-7-99 2016-06-25 13-00-00\DAD-OJ(1-6)-99-1-1.0ML-
                  5UL-45MIN-ALL.M
Last changed    : 6/25/2016 1:00:00 PM by SYSTEM
Analysis Method : E:\DATA\CCY\CCY-7-99\CCY-7-99 2016-06-25 13-00-00\DAD-OJ(1-6)-99-1-1.0ML-
                  5UL-45MIN-ALL.M (Sequence Method)
Last changed    : 9/5/2016 8:52:56 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  17.809 BB    0.3456 1.58933e4   698.08386  50.0459
   2  20.647 BB    0.4090 1.58641e4   591.29150  49.9541

Totals :                  3.17575e4  1289.37537
```

Data File E:\DATA\WSW\WSW-2-90A\WSW-2-90A 2017-06-29 15-04-22\043-0401.D
Sample Name: wsw-2-90-1-3

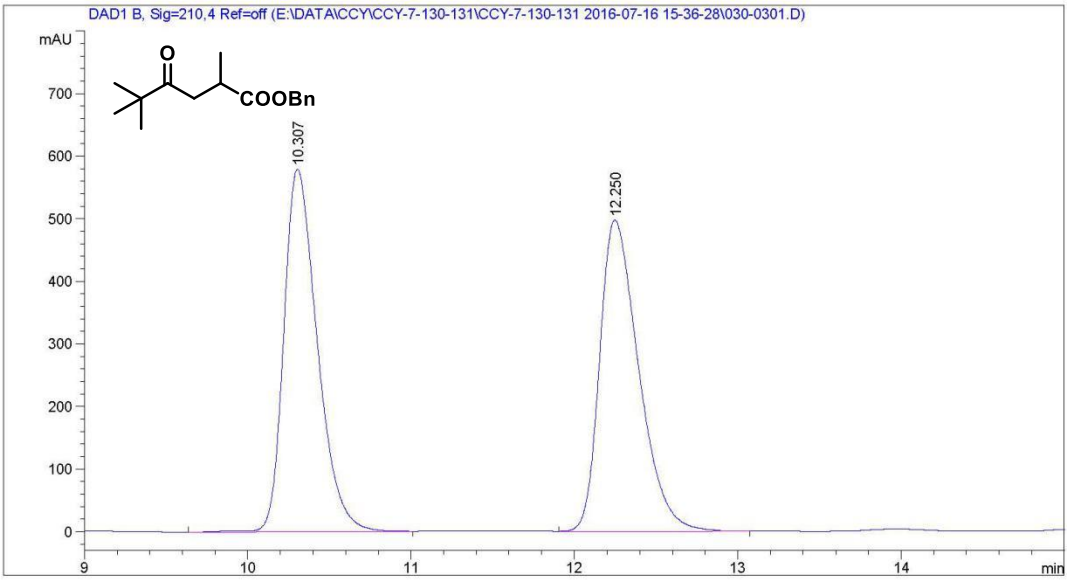
```
======================================================================
Acq. Operator   : SYSTEM                       Seq. Line :   4
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 43
Injection Date  : 6/29/2017 4:20:08 PM               Inj :   1
                                               Inj Volume : 10.000 µl
Acq. Method     : E:\DATA\WSW\WSW-2-90A\WSW-2-90A 2017-06-29 15-04-22\DAD-OJ(1-6)-99-1-10UL-
                  1ML-30MIN.M
Last changed    : 6/29/2017 3:04:23 PM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-2-90A\WSW-2-90A 2017-06-29 15-04-22\DAD-OJ(1-6)-99-1-10UL-
                  1ML-30MIN.M (Sequence Method)
Last changed    : 6/29/2017 6:24:28 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=360,100

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  18.205 BV    0.3359 2096.53223   94.82519   3.2091
   2  20.024 BV    0.5613 6.32348e4  1409.76868  96.7909

Totals :                  6.53314e4  1504.59386
```

Data File E:\DATA\CCY\CCY-7-130-131\CCY-7-130-131 2016-07-16 15-36-28\030-0301.D
Sample Name: CCY-7-131-2

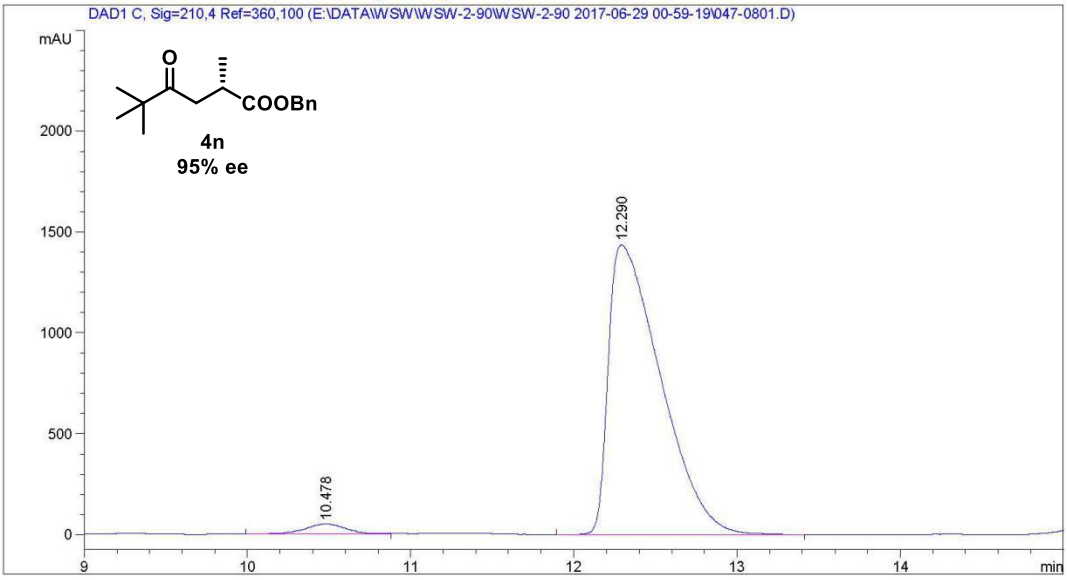
```
=====================================================================
Acq. Operator   : SYSTEM                        Seq. Line :   3
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 30
Injection Date  : 7/16/2016 4:34:29 PM               Inj :   1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\CCY\CCY-7-130-131\CCY-7-130-131 2016-07-16 15-36-28\DAD-OJ(1-6)-99-
                  1-1.0ML-5UL-45MIN-ALL.M
Last changed    : 7/16/2016 4:56:46 PM by SYSTEM
                  (modified after loading)
Analysis Method : E:\DATA\CCY\CCY-7-130-131\CCY-7-130-131 2016-07-16 15-36-28\DAD-OJ(1-6)-99-
                  1-1.0ML-5UL-45MIN-ALL.M (Sequence Method)
Last changed    : 9/3/2016 4:25:47 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  10.307 BB    0.2177 8224.67969  579.01904  49.9209
   2  12.250 BB    0.2535 8250.75488  497.45221  50.0791

Totals :                  1.64754e4  1076.47125
```

Data File E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\047-0801.D
Sample Name: WSW-2-90-4A

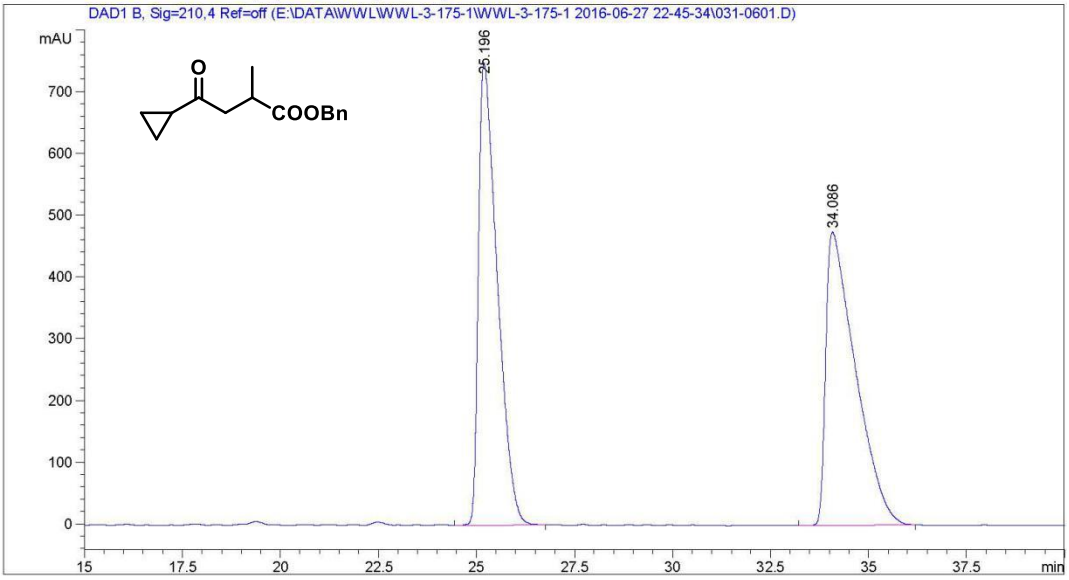
```
==========================================================================
Acq. Operator   : SYSTEM                        Seq. Line :   8
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 47
Injection Date  : 6/29/2017 5:20:41 AM               Inj :   1
                                               Inj Volume : 10.000 µl
Acq. Method     : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -30MIN.M
Last changed    : 6/29/2017 12:59:19 AM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -30MIN.M (Sequence Method)
Last changed    : 6/29/2017 8:53:49 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=360,100

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]    [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  10.478 BV    0.2554  867.48572   49.75220   2.6473
   2  12.290 BV    0.2952 3.19016e4  1435.68970  97.3527

Totals :                  3.27691e4  1485.44190
```

Data File E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\031-0601.D
Sample Name: ccy-7-99-2

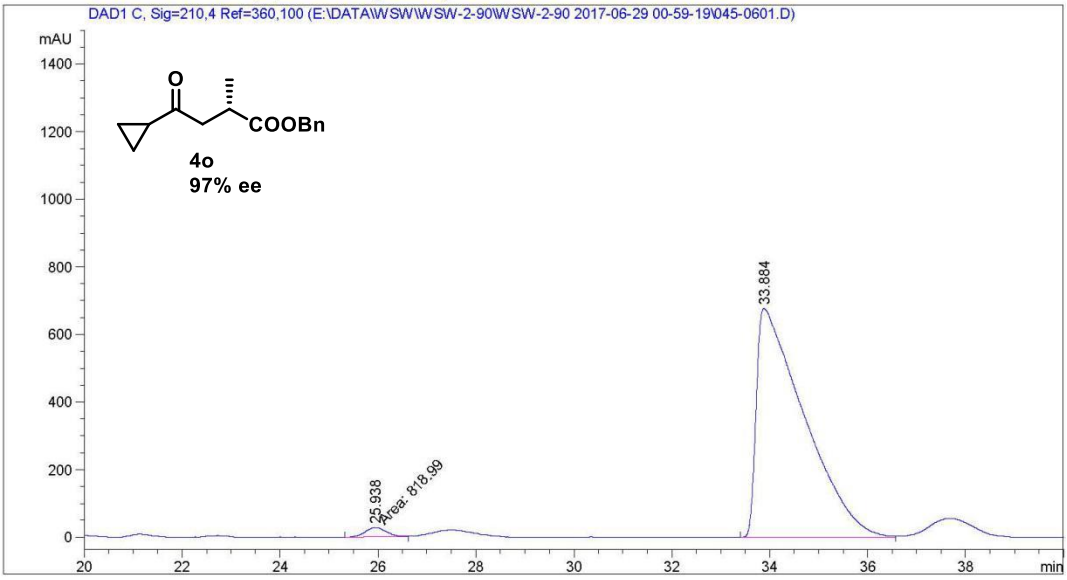
```
==========================================================================
Acq. Operator   : SYSTEM                        Seq. Line :   6
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 31
Injection Date  : 6/28/2016 1:31:32 AM               Inj :   1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\DAD-OJ(1-6)-99-1-1.
                  0ML-5UL-45MIN-ALL.M
Last changed    : 6/27/2016 10:46:58 PM by SYSTEM
Analysis Method : E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\DAD-OJ(1-6)-99-1-1.
                  0ML-5UL-45MIN-ALL.M (Sequence Method)
Last changed    : 9/3/2016 9:00:48 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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  25.196 BB    0.4999 2.49313e4   749.75635  49.9331
   2  34.086 BB    0.7400 2.49980e4   475.02005  50.0669

Totals :                 4.99293e4  1224.77640
```

Data File E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\045-0601.D
Sample Name: WSW-2-90-3A

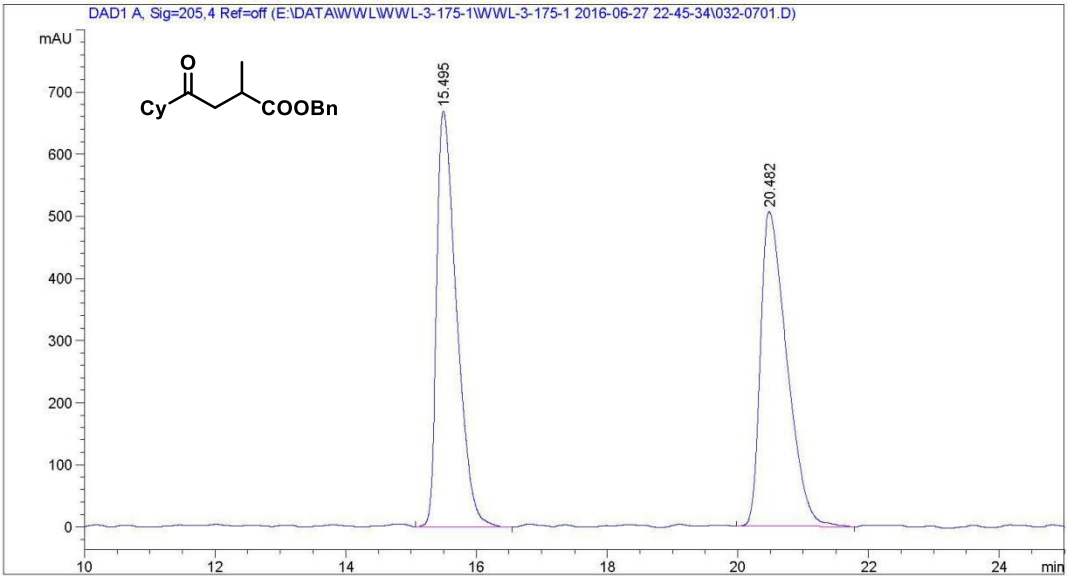
```
======================================================================
Acq. Operator   : SYSTEM                       Seq. Line :   6
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 45
Injection Date  : 6/29/2017 3:18:10 AM               Inj :   1
                                               Inj Volume : 10.000 µl
Acq. Method     : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -60MIN.M
Last changed    : 6/29/2017 12:59:20 AM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -60MIN.M (Sequence Method)
Last changed    : 6/29/2017 9:00:46 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=360,100

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]    [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  25.938 MM    0.4929  818.98987   27.69202   1.7591
   2  33.884 BV    0.8463 4.57395e4   676.96588  98.2409

Totals :                  4.65585e4   704.65790
```

Data File E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\032-0701.D
Sample Name: ccy-7-99-3

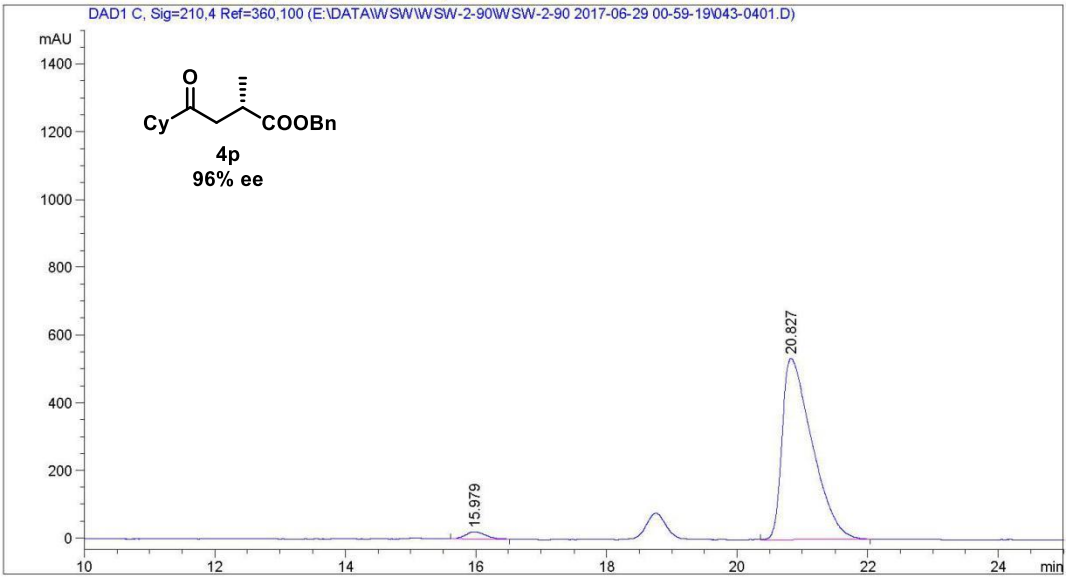
```
======================================================================
Acq. Operator   : SYSTEM                       Seq. Line :   7
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 32
Injection Date  : 6/28/2016 2:17:32 AM               Inj :   1
                                               Inj Volume : 5.000 µl
Acq. Method     : E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\DAD-OJ(1-6)-99-1-1.
                  0ML-5UL-45MIN-ALL.M
Last changed    : 6/27/2016 10:46:58 PM by SYSTEM
Analysis Method : E:\DATA\WWL\WWL-3-175-1\WWL-3-175-1 2016-06-27 22-45-34\DAD-OJ(1-6)-99-1-1.
                  0ML-5UL-45MIN-ALL.M (Sequence Method)
Last changed    : 9/3/2016 5:27:22 PM by SYSTEM
                  (modified after loading)
Additional Info : Peak(s) manually integrated
```




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

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs


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

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]   [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  15.495 VB    0.3197 1.41013e4   669.61841  49.9133
   2  20.482 BB    0.4220 1.41503e4   506.41763  50.0867

Totals :                  2.82516e4  1176.03604
```

Data File E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\043-0401.D
Sample Name: WSW-2-90-2A

```
======================================================================
Acq. Operator   : SYSTEM                       Seq. Line :   4
Acq. Instrument : 1260HPLC-DAD                  Location : Vial 43
Injection Date  : 6/29/2017 2:16:08 AM               Inj :   1
                                               Inj Volume : 10.000 µl
Acq. Method     : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -30MIN.M
Last changed    : 6/29/2017 12:59:19 AM by SYSTEM
Analysis Method : E:\DATA\WSW\WSW-2-90\WSW-2-90 2017-06-29 00-59-19\DAD-OJ(1-6)-99-1-10UL-1ML
                  -30MIN.M (Sequence Method)
Last changed    : 6/29/2017 9:06:07 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=360,100

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]    [mAU*s]     [mAU]       %
----|-------|----|-------|----------|----------|--------|
   1  15.979 VV    0.2691  474.65756   21.70647   2.7051
   2  20.827 VV    0.4459 1.70718e4   535.55206  97.2949

Totals :                  1.75465e4   557.25854
```

References

1. C. Chen, Z. Zhang, S. Jin, X. Fan, M. Geng, Y. Zhou, S. Wen, X. Wang, L. W. Chung, X.-Q. Dong, X. Zhang, *Angew. Chem. Int. Ed*, **2017**, *56*, 6808-6812.