



Supporting Information

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A Highly Enantioselective Brønsted Acid Catalyst for the Strecker Reaction

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General: Unless otherwise noted, all commercially available compounds were used as provided without further purification. Solvents for chromatography were technical grade and distilled prior to use. Toluene used in reaction was reagent grade and distilled from sodium. Analytical thin-layer chromatography (TLC) was performed on Merck silica gel aluminium plates with F-254 indicator, visualised by irradiation with UV light. Column chromatography was performed using silica gel Merck 60 (particle size 0.040-0.063 mm). Solvent mixtures are understood as volume/volume.

Melting points were recorded on Büchi 530 Apparatus and uncorrected. ¹H-NMR and ¹³C-NMR were recorded on a Bruker AM 250 spectrometer in CDCl₃. ¹H-NMR were recorded at 55 °C due signal broadening at room temperature. Data are reported in the following order: chemical shift (δ) in ppm; multiplicities are indicated (bs (broadened singlet), s (singlet), d (doublet), t (triplet), m (multiplet)); coupling constants (J) are in Hertz (Hz). High resolution mass spectra (HR-MS) were conducted on Micromass/ Waters Qtof Ultima 3 instrument. IR spectra were recorded on a Jasco FT/IR-420 spectrometer and are reported in terms of frequency of absorption (cm⁻¹).

General procedure for asymmetric Strecker reaction: A flame dried flask equipped with a stir bar was charged with imine, catalyst (0,1 eq) and toluene. The reaction mixture was cooled and HCN solution (1,5 eq, generated prior to the reaction from TMSCN and methanol) was added. The mixture was allowed to stir at -40°C for 2-3 days. A cold solution of TFAA was then added and the resulting mixture was allowed to stir at rt for 3h. Solvents were removed in vacuo and the residue was subjected to column chromatography on silica gel to afford the corresponding acetylated product. (For HPLC analysis of the amino nitrile, before addition of TFAA, a sample was transferred into a precooled flask via a precooled pipette and the solvents were removed under reduced pressure).¹

5a: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 75% yield as a white solid, mp.: 83-84 °C; ¹H-NMR (CDCl₃, 55 °C): δ = 4.77 (s, 2H, PhCH₂), 6.46 (s, 1H), 7.06 - 7.16 (m, 2H), 7.22 - 7.33 (m, 3H), 7.43 (d, J = 8.3 Hz, 2H), 7.57 (d, J = 8.3 Hz, 2H); ¹³C-NMR (CDCl₃, rt): δ = 50.0, 50.8, 107.0, 113.8, 114.0, 116.9, 118.4, 121.3, 125.6, 126.0, 128.1, 128.2, 129.0, 132.4, 134.5, 157.3; IR (KBr): 3055, 2987, 2305, 1705, 1421, 1265, 738 cm⁻¹. HRMS-ESI: calculated for C₁₈H₁₂N₂OF₆Na ([M+Na]⁺): 409.0752, found: 409.0753.

¹ Since no satisfactory HPLC condition could be found, compounds **5e** and **5g** were measured after acetylation.

5b: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 53% yield as a white solid, mp.: 87 °C; ^1H -NMR (CDCl_3 , 55 °C): δ = 3.79 (s, 3H), 4.69 (m, 2H), 6.42 (s, 1H), 6.77 (d, J = 8.5 Hz, 2H), 7.01 (d, J = 8.8 Hz, 2H), 7.38 (d, J = 8.0 Hz, 2H), 7.56 (d, J = 8.5 Hz, 2H); ^{13}C -NMR (CDCl_3 , rt): δ = 49.7, 50.5, 55.3, 114.0, 114.4, 118.5, 121.3, 124.0, 126.0, 128.0, 129.9, 134.7, 157, 9, 160.2; IR (KBr): 3055, 2986, 2305, 1702, 1421, 1265, 896, 746 cm^{-1} . HRMS-ESI: calculated for $\text{C}_{19}\text{H}_{14}\text{N}_2\text{O}_2\text{F}_6\text{Na}$ ($[\text{M}+\text{Na}]^+$): 439.0857, found: 439.0852.

5c: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 59% yield as a white solid, mp.: 64 °C; ^1H -NMR (CDCl_3 , 55 °C): δ = 4.77 (s, 2H), 6.34 (s, 1H), 6.66 - 6.89 (m, 3H), 7.07 - 7.22 (m, 2H), 7.23 - 7.37 (m, 3H); ^{13}C -NMR (CDCl_3 , rt): δ = 49.7, 51.0, 104.9, 105.3, 105.7, 108.8, 110.8, 111.2, 113.7, 118.4, 128.3, 129.1, 129.2, 132.3, 134.3, 157.3, 157.9; 161.1, 165.1; IR (KBr): 3055, 2986, 2305, 1704, 1626, 1603, 1445, 1267, 1212, 1151, 740, 701; HRMS-ESI: calculated for $\text{C}_{17}\text{H}_{11}\text{N}_2\text{OF}_5\text{Na}$ ($[\text{M}+\text{Na}]^+$): 377.0689, found: 377.0689.

5d: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 85% yield as a white solid, mp.: 96 °C; ^1H -NMR (CDCl_3 , 55 °C): δ = 3.98 (d, J = 17.0 Hz, 1H), 4.73 (d, J = 17.0 Hz, 1H), 6.85 (d, J = 6.8 Hz,

2H), 7.05 - 7.23 (m, 3H), 7.31 (s, 1H), 7.42 (t, $J = 7.8$ Hz, 1 H), 7.53 - 7.71 (m, 4H), 7.91 (d, $J = 8.0$ Hz, 2H); ^{13}C -NMR (CDCl_3 , rt): $\delta = 48.3, 48.9, 115.5, 118.6, 121.4, 124.1, 124.8, 127.0, 127.3, 128.2, 128.4, 129.3, 129.4, 130.3, 131.7, 132.8, 133.7, 157.6, 158.2$; IR (KBr): 3057, 2925, 1701, 1432, 1201, 1147, 794, 693 cm^{-1} ; HRMS-ESI: calculated for $\text{C}_{21}\text{H}_{15}\text{N}_2\text{OF}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 391.1034, found: 391.1022.

5e: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 70% yield as a yellowish solid, mp.: 108-109 °C; ^1H -NMR (CDCl_3 , 55 °C): $\delta = 3.75 - 3.96$ (m, 4H), 4.53 (d, $J = 16.8$, 1H), 6.56 (d, $J = 8.0$ Hz, 1H), 6.75 (d, $J = 6.3$ Hz, 2H), 6.92 - 7.18 (m, 4H), 7.27-7.58 (m, 4H), 8.18 (d, $J = 7.8$ Hz, 1H); ^{13}C -NMR (CDCl_3 , rt): $\delta = 48.0, 48.5, 55.8, 102.4, 114.0, 115.7, 118.6, 121.1, 123.4, 125.9, 126.2, 127.3, 128.3, 128.6, 130.0, 131.2, 133.0, 157.8, 158.1$; IR (KBr): 3033, 2940, 1682, 1585, 1436, 1390, 1277, 1207, 1158, 741 cm^{-1} ; HRMS-ESI: calculated for $\text{C}_{22}\text{H}_{17}\text{N}_2\text{O}_2\text{F}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 491.1140, found: 421.1147.

5f: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 71% yield as a white solid, mp.: 88 °C; ^1H -NMR (CDCl_3 , 55 °C): $\delta = 4.53$ (d, $J = 16.0$ Hz, 1H), 4.82 (d, $J = 16.3$ Hz, 1H), 6.61 (s, 1H), 6.95 - 7.14 (m, 2H), 7.17 - 7.25 (m, 3H), 7.31 (dd, $J_1 = 1.8$ Hz, $J_2 = 6.8$ Hz, 1H), 7.49 - 7.66 (m, 2H), 7.72 - 7.92 (m, 4 H); ^{13}C -NMR

(MHz, CDCl₃, rt): δ = 50.1, 50.3, 114.0, 114.7, 118.6, 124.2, 127.2, 127.8, 128.0, 128.3, 128.8, 129.5, 132.8, 133.5, 157.5; IR (KBr): 3055, 2986, 2306, 1703, 1423, 1211, 1180, 1145, 761 cm⁻¹. HRMS-ESI: calculated for C₂₁H₁₅N₂OF₃Na ([M+Na]⁺): 391.1034, found: 391.1029.

5g: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 88% yield as a white solid, mp.: 69 – 71 °C; ¹H-NMR (CDCl₃, 55 °C): δ = 4.60 (d, *J* = 16.3 Hz, 1H), 4.77 (d, *J* = 16.3 Hz, 1H), 5.99 (d, *J* = 2.3 Hz, 2H), 6.35 (bs, 1H), 6.70 – 6.80 (m, 2H), 6.86 (d, *J* = 7.8 Hz, 1H), 7.04 – 7.20 (m, 2H), 7.24 – 7.40 (m, 3H); ¹³C-NMR (CDCl₃, rt): δ = 49.9, 101.9, 108.3, 108.5, 113.9, 114.8, 118.5, 122.3, 123.6, 127.8, 128.9, 133.1, 148.5, 149.0, 157.3, 157.9; IR (KBr): 3042, 2923, 1701, 1503, 1442, 12050, 1143, 702 cm⁻¹; HRMS-ESI: calculated for C₁₈H₁₃N₂O₃F₃Na ([M+Na]⁺): 385.0776, found: 385.0762.

5h: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 77% yield as a yellowish solid, mp.: 71 °C; ¹H-NMR (CDCl₃, 55 °C): δ = 4.60 – 4.90 (m, 2H), 6.44 (s, 1H), 6.87 – 6.99 (m, 1H), 7.04 – 7.22 (m, 3H), 7.28 – 7.46 (m, 4H); ¹³C-NMR (CDCl₃, rt): δ = 45.1, 49.1, 112.7, 113.1, 117.3, 125.9, 126.3, 126.7, 127.6, 127.1, 127.3, 127.6, 127.8, 127.9, 128.9, 112.7, 131.2, 131.9, C=O Signal fehlt; IR (film): 3055, 2986, 2305, 1701, 1422, 1270, 1211, 1156,

896, 736 cm^{-1} ; HRMS-ESI: calculated for $\text{C}_{15}\text{H}_{11}\text{N}_2\text{OF}_3\text{SNa}$ ($[\text{M}+\text{Na}]^+$): 347.0442, found: 347.0426.

5i: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 84% yield as a red oil; ^1H -NMR (CDCl_3 , 55 $^\circ\text{C}$): δ = 4.64 – 4.86 (m, 2H), 6.28 – 6.35 (m, 2H), 6.38 (bs, 1H), 7.08 – 7.22 (m, 2H), 7.24 – 7.40 (m, 4H); ^{13}C -NMR (CDCl_3 , rt): δ = 44.5, 50.2, 111.1, 112.9, 113.3, 113.8, 118.3, 123.0, 127.3, 128.0, 128.4, 128.6, 128.7, 128.8, 133.2, 142.7, 144.5, 157.7; IR (KBr): 3020, 2400, 1703, 1433, 1226, 1206, 1177, 1151 cm^{-1} ; HRMS-ESI: calculated for $\text{C}_{15}\text{H}_{11}\text{N}_2\text{O}_2\text{F}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 331.0670, found: 331.0664.

5j: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 85% yield as a red oil. ^1H -NMR (CDCl_3 , 55 $^\circ\text{C}$): δ = 2.17 (s, 3H), 4.76 (bs, 2H), 5.82 – 5.95 (m, 1H), 6.30 – 6.54 (m, 2H), 7.04 – 7.18 (m, 2H), 7.25–7.33 (m, 3 H); ^{13}C -NMR (CDCl_3 , rt): δ = 13.4, 44.4, 49.8, 107.0, 113.6, 114.0, 127.1, 127.9, 128.0, 128.3, 128.6, 140.3, 154.7; IR (film): 3054, 2986, 2305, 1704, 1421, 1265, 896 cm^{-1} . HRMS-ESI: calculated for $\text{C}_{16}\text{H}_{13}\text{N}_2\text{O}_2\text{F}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 345.0827, found: 345.0813.

5k: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 87% yield as a white solid, mp.: 57 – 58 $^\circ\text{C}$; ^1H -NMR (CDCl_3 , 55 $^\circ\text{C}$): δ = 3.79 (s,

3H), 4.45 (d, $J = 15.8$ Hz, 1H), 4.73 (d, $J = 16.0$ Hz, 1H), 6.39 (s, 1H), 6.80 (d, $J = 8.5$ Hz, 2H), 7.02 (d, $J = 8.5$ Hz, 2H), 7.28 - 7.46 (m, 5H); ^{13}C -NMR (CDCl_3 , rt): $\delta = 49.7, 49.7, 55.5, 114.6, 114.9, 121.9, 127.8, 127.8, 128.7, 128.9, 129.6, 133.1, 160.7$; IR (KBr): 3025, 2936, 2840, 1698, 1515, 1216, 1176, 1151, 759 cm^{-1} . HRMS-ESI: calculated for $\text{C}_{18}\text{H}_{15}\text{N}_2\text{O}_2\text{F}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 371.0983, found: 371.0999.

5l: purified by chromatography on silica gel using toluene/ethyl acetate 15/1 as eluent to afford the product in 97% yield as a white solid, mp.: 58 °C; ^1H -NMR (CDCl_3 , 55 °C): $\delta = 3.81$ (s, 3H), 4.52 (d, $J = 16.3$ Hz, 1H), 4.75 (d, $J = 16.3$ Hz, 1H), 6.35 (bs, 1H), 6.78 - 6.94 (m, 2H), 7.02 - 7.14 (m, 2H), 7.18 - 7.38 (m, 5H); ^{13}C -NMR (CDCl_3 , rt): $\delta = 49.7, 55.5, 114.6, 114.9, 118.5, 121.8, 127.8, 128.9, 129.6, 133.1, 134.5, 157.3, 160.7$; IR (KBr): 3054, 2986, 2305, 1702, 1422, 1265, 742, 706 cm^{-1} . HRMS-ESI: calculated for $\text{C}_{18}\text{H}_{15}\text{N}_2\text{O}_2\text{F}_3\text{Na}$ ($[\text{M}+\text{Na}]^+$): 371.0983, found: 371.0980.

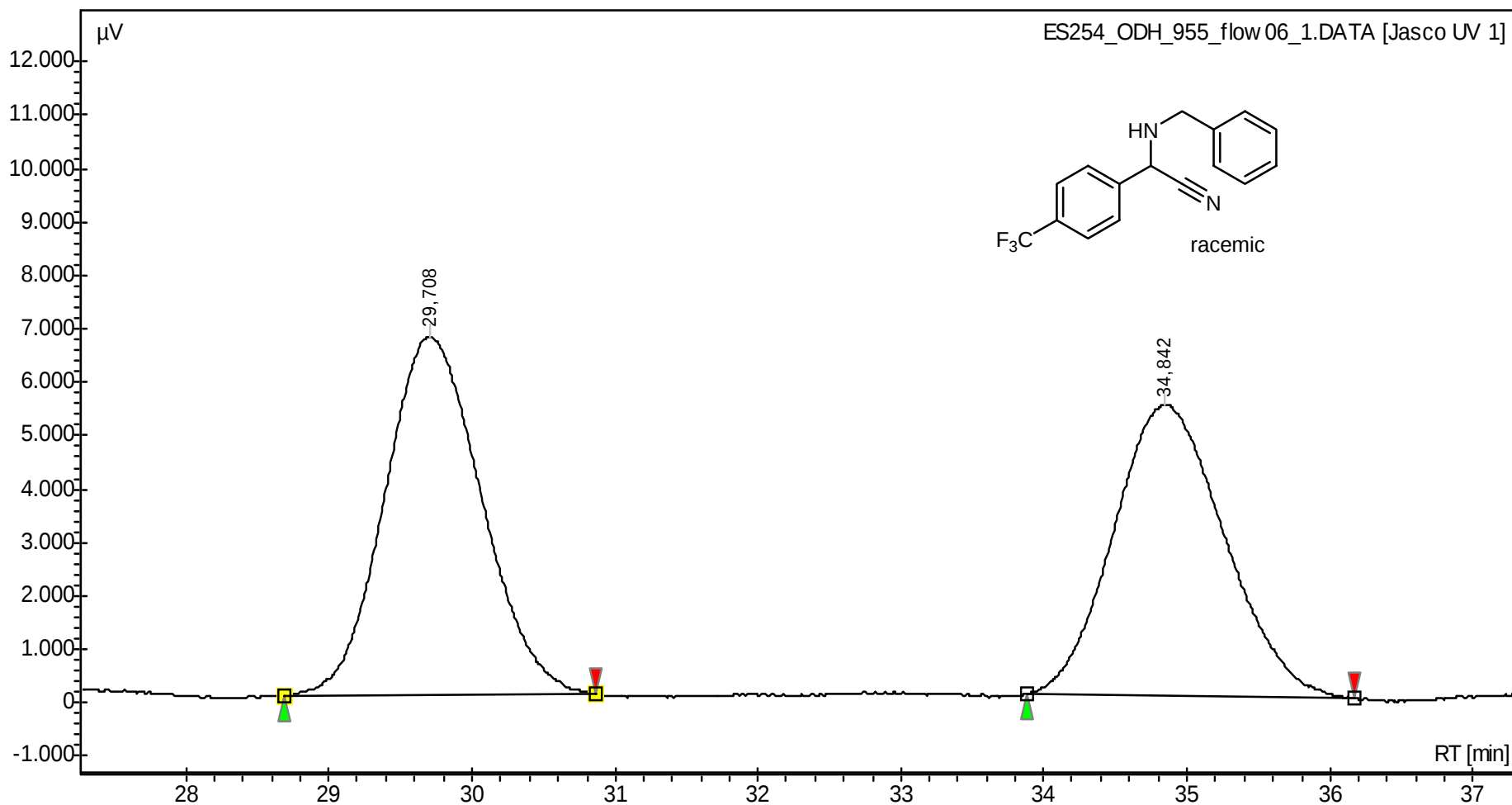
5m: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 55% yield as a white solid, mp.: 72 - 73 °C; ^1H -NMR (CDCl_3 , 55 °C): $\delta = 2.38$ (s, 3H), 4.50 (d, $J = 16.3$ Hz, 1H), 4.79 (d, $J = 16.3$ Hz, 1H), 6.41 (bs, 1H), 7.02 - 7.42 (m, 9H). ^{13}C -NMR (CDCl_3 , rt): $\delta = 21.2, 49.9, 114.8, 118.5, 127.0, 127.9, 128.9, 129.9, 133.1, 140.1$; IR (KBr): 3038, 2922, 1700, 1514, 1448, 1203, 1144, 698 cm^{-1} ; HRMS-ESI: calculated for $\text{C}_{18}\text{H}_{15}\text{N}_2\text{OF}_3\text{Na}$: 355.1034, found: 355.1048.

5n: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 69% yield as a white solid, mp.: 110 °C; ¹H-NMR (CDCl₃, 55 °C): δ = 4.54 – 4.90 (m, 2H), 6.38 (bs, 1H), 7.06 – 7.18 (m, 2H), 7.20 – 7.42 (m, 7H); ¹³C-NMR (CDCl₃, rt): δ = 49.8, 50.5, 113.9, 114.3, 118.4, 128.1, 129.0, 129.2, 129.3, 132.7, 135.9; IR (KBr): 3054, 2986, 2305, 1703, 1421, 1263, 896, 744 cm⁻¹. HRMS-ESI: calculated for C₁₇H₁₂N₂OClF₃Na ([M+Na]⁺): 375.0488, found: 375.0477.

5o: purified by chromatography on silica gel using hexane/ethyl acetate 10/1 as eluent to afford the product in 60% yield as a white solid, mp.: 79 °C; ¹H-NMR (CDCl₃, 55 °C): δ = 3.80 (s, 3H), 4.55 (d, J = 16.0 Hz, 1H), 4.72 (d, J = 16.0 Hz, 1H), 6.33 (s, 1H), 6.80 (d, J = 8.8 Hz, 2H), 7.01 (d, J = 8.5 Hz, 2H), 7.19 – 7.26 (m, 2H), 7.29 – 7.37 (m, 2H); ¹³C-NMR (CDCl₃, rt): δ = 49.5, 50.0, 55.4, 114.3, 118.5, 124.2, 129.1, 129.3, 160.; IR (KBr): 3055, 2986, 2305, 1700, 1421, 1268, 895, 734, 703 cm⁻¹. HRMS-ESI: calculated for C₁₉H₁₄N₂O₂F₆Na ([M+Na]⁺): 405.0594, found: 405.0583.

6: A solution of aminonitrile **5l** (92 mg, 0.25 mmol) in 2 ml of ether was added dropwise to lithium aluminum hydride (38 mg, 1 mmol) in ether (3 mL) at 0 °C. After 30 minutes the solution was allowed to warm to rt and stirred for further 12 h. The reaction was quenched by slow addition of water (2mL) at 0 °C. After addition of 15 % aq. NaOH (3 mL) the mixture was stirred for 30

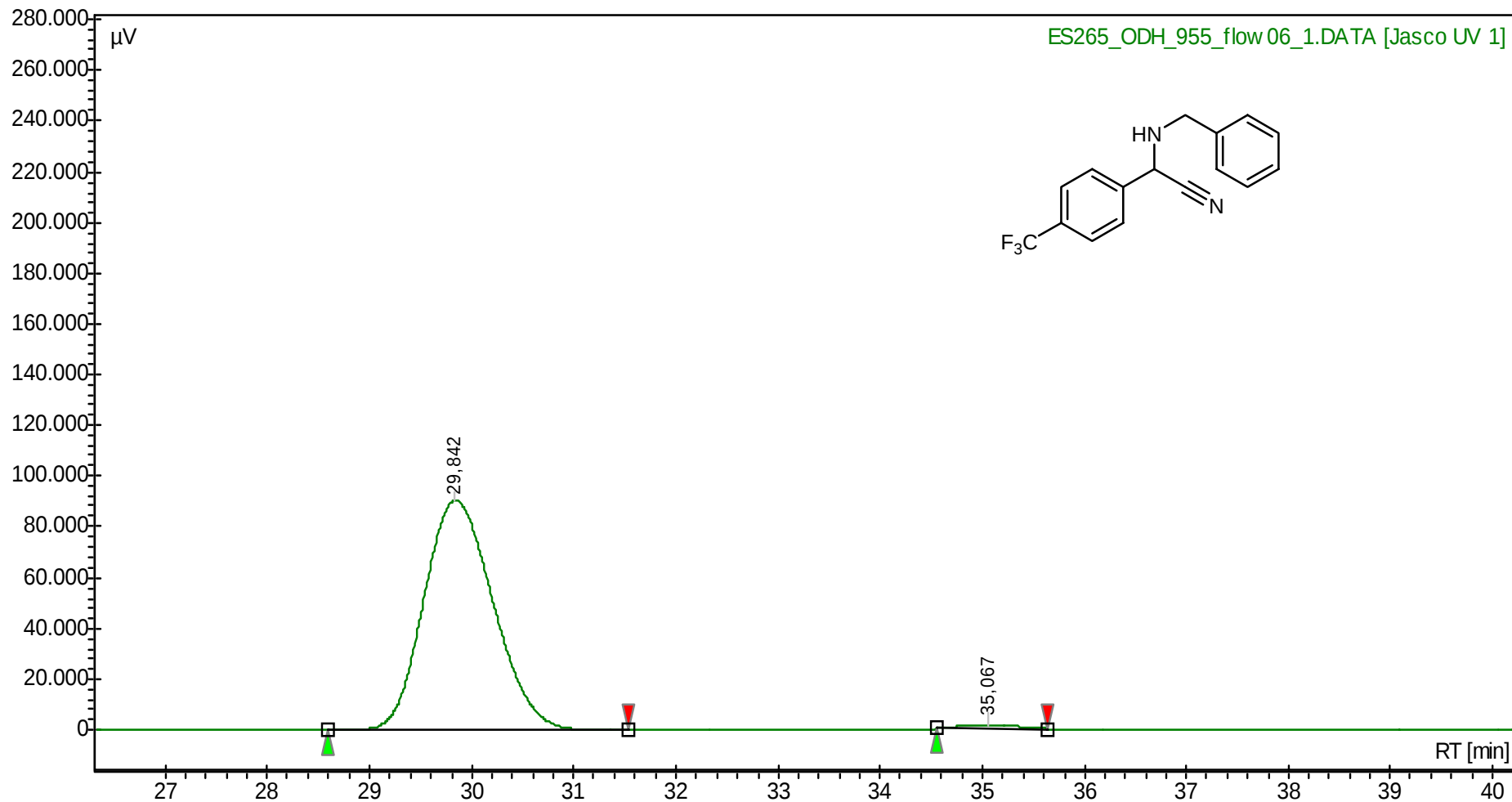
min after which the organic layer was separated. The aqueous layer was extracted with ether (3 x 5 mL). The combined organic layers were dried over Na₂SO₄, concentrated under reduced pressure, and recrystallization from CH₂Cl₂ - Hexane yielded the product as a white solid (37.9 mg, 54 %); mp.: 86-88 °C; ¹H-NMR (CDCl₃, rt): δ = 1.65 (s, 3H), 2.76 - 2.98(m, 2H), 3.54 -3.66 (m, 2H), 3.75 (d, J = 13.2 Hz, 1H), 3.85 (s, 3H), 6.96 (d, J = 8.5 Hz, 2H), 7.21 - 7.33 (m, 7 H, Ar); ¹³C-NMR (CDCl₃, rt): δ = 48.8, 51.4, 55.3, 64.1, 114.0, 126.9, 128.2, 128.4, 128.5, 134.2, 140.7, 158.9; IR (KBr): 3358, 3229, 3020, 2934, 2860, 2832, 1609, 1584, 1511, 1494, 1465, 1246, 1174, 1031, 873, 819, 700 cm⁻¹; HRMS-ESI: calculated for C₁₆H₂₁N₂O ([M]⁺): 257.1654 found: 257.1651; [α]_D²⁵ = + 51.0 (c = 1.0, CCl₄, ee: 94%). HPLC conditions: Chiralcel OD-H column, n-hexane/2-propanol = 90/10, flow rate = 1.0 mL min⁻¹, major enantiomer: t_R = 17,58 min; minor enantiomer: t_R = 33,88 min.



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES254_ODH_955_flow06_1.DATA [Jasco UV 1]

Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
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2	33,889	34,842	36,167	48,266
Total				100,000

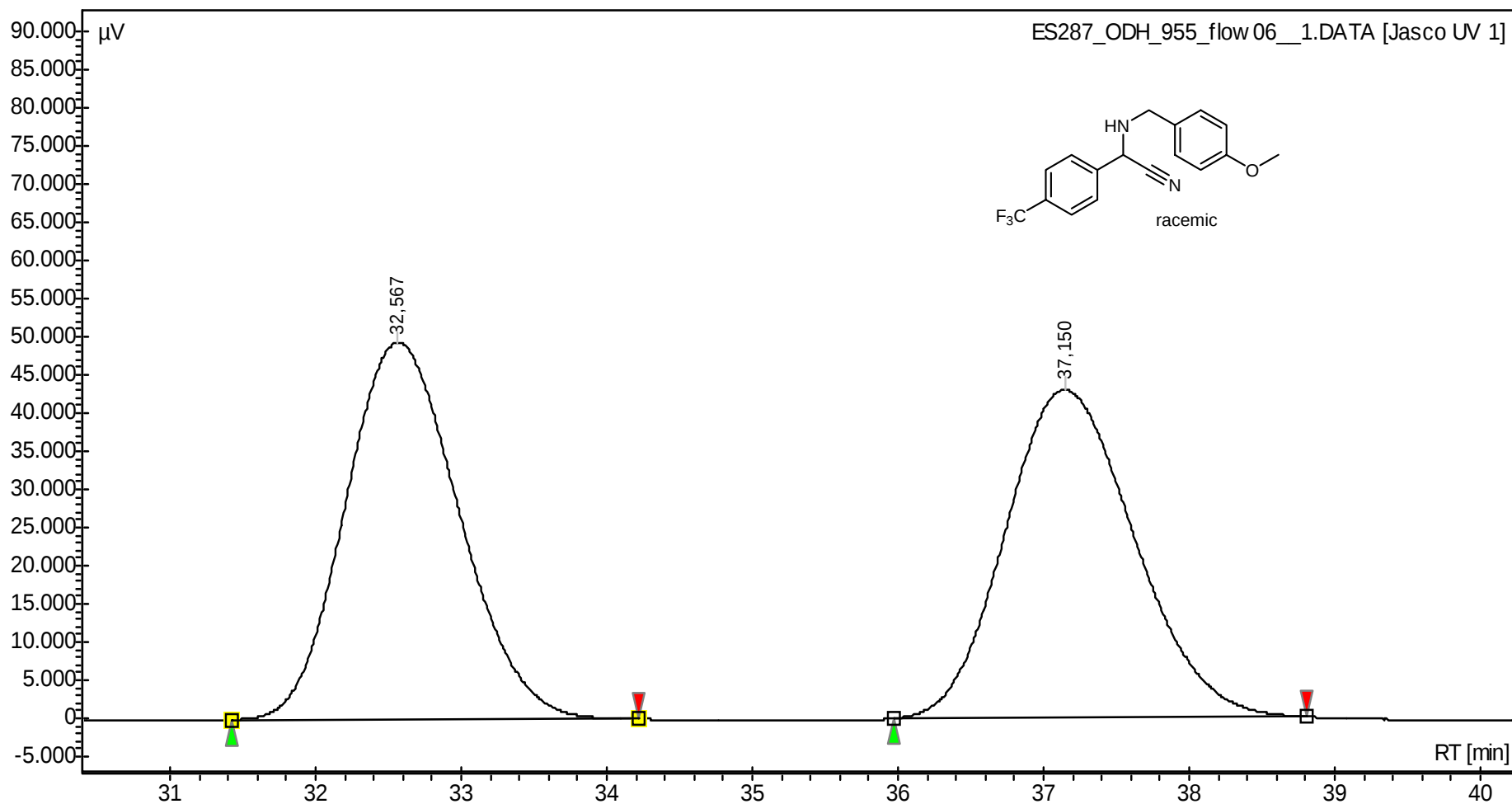


Column: ODH

n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES265_ODH_955_flow06_1.DATA [Jasco UV 1]

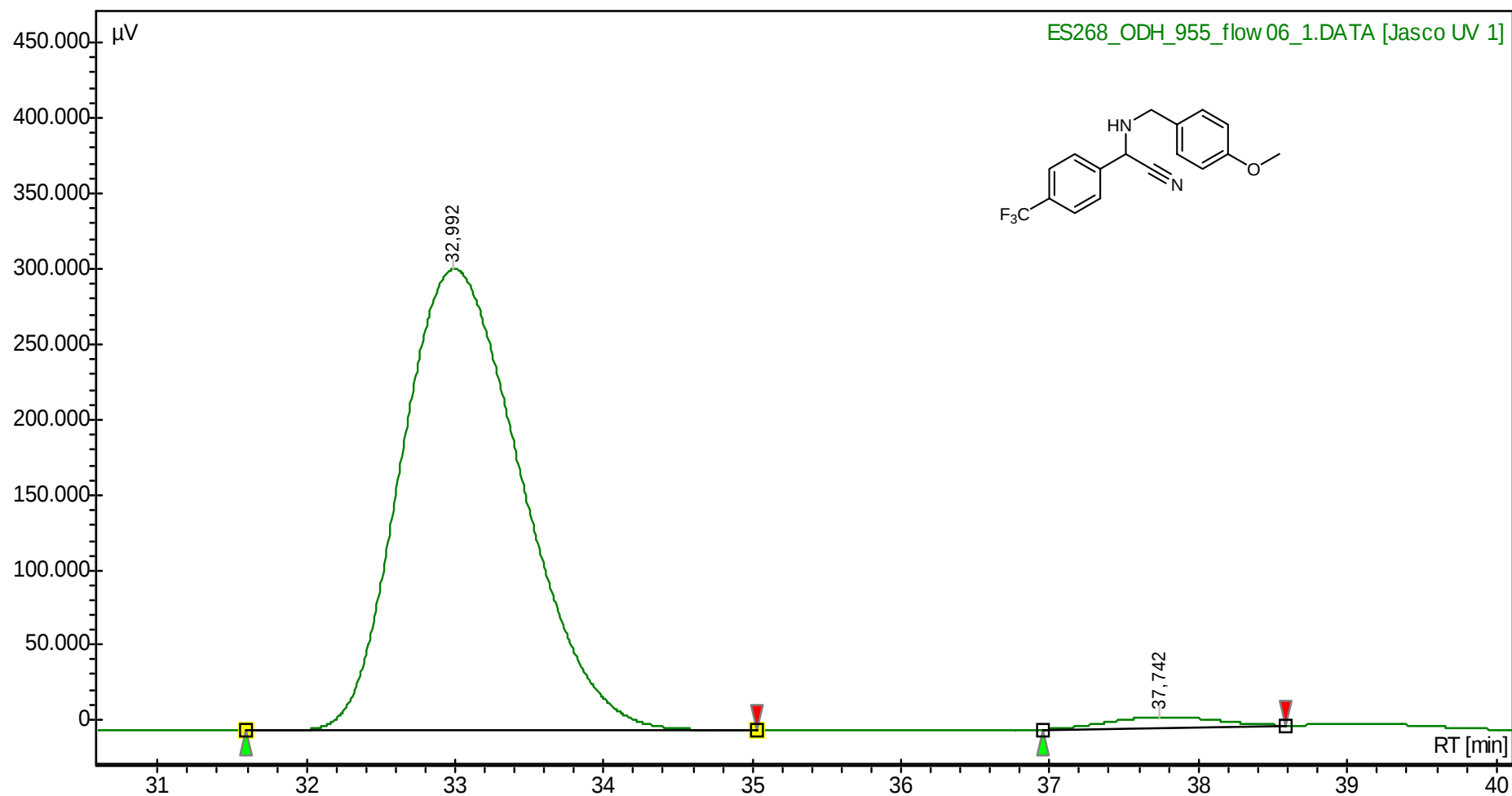
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	28,593	29,842	31,533	98,651
2	34,559	35,067	35,644	1,349
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES287_ODH_955_flow06__1.DATA [Jasco UV 1]

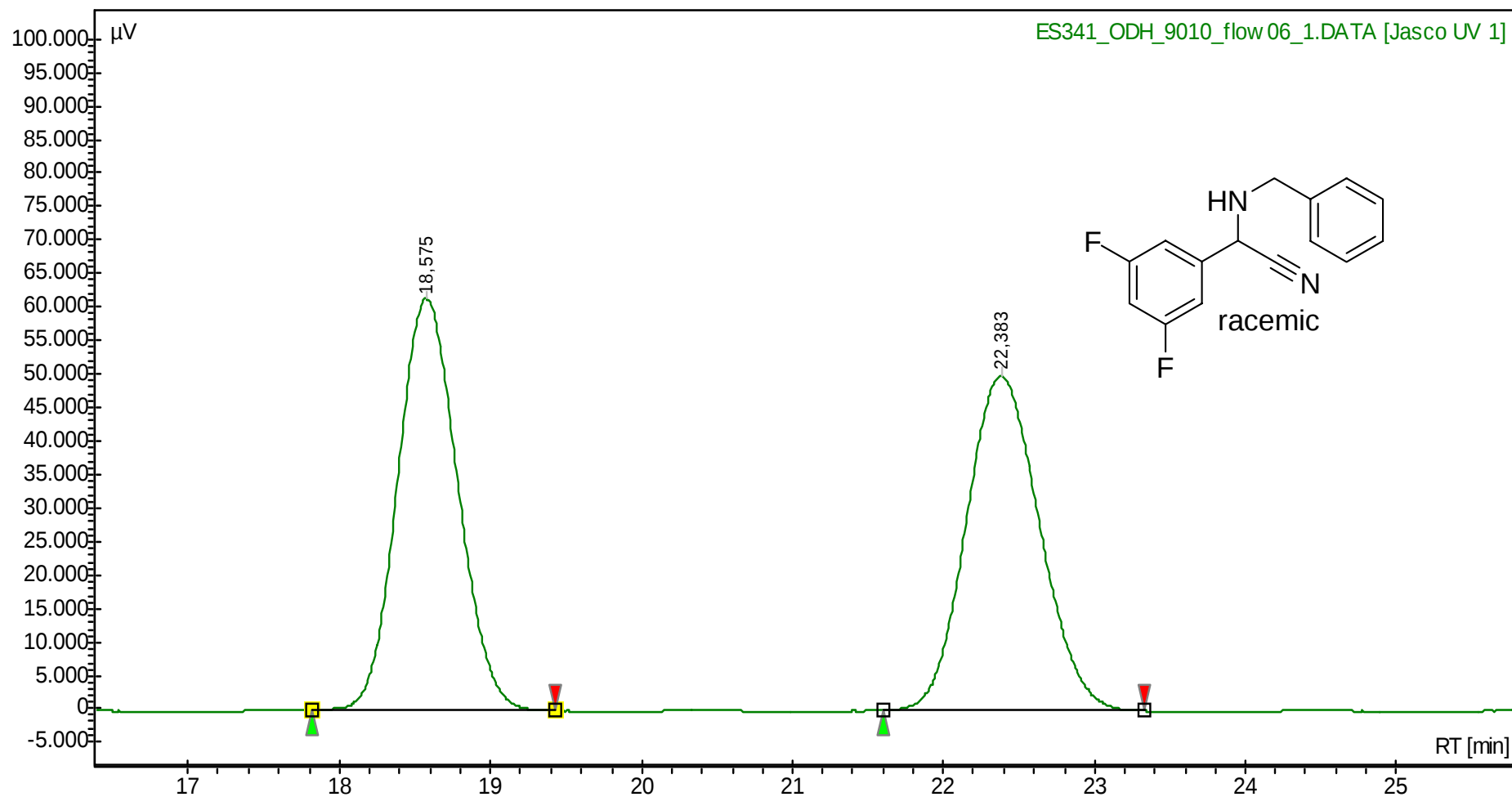
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	31,426	32,567	34,215	50,363
2	35,981	37,150	38,817	49,637
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES268_ODH_955_flow06_1.DATA [Jasco UV 1]

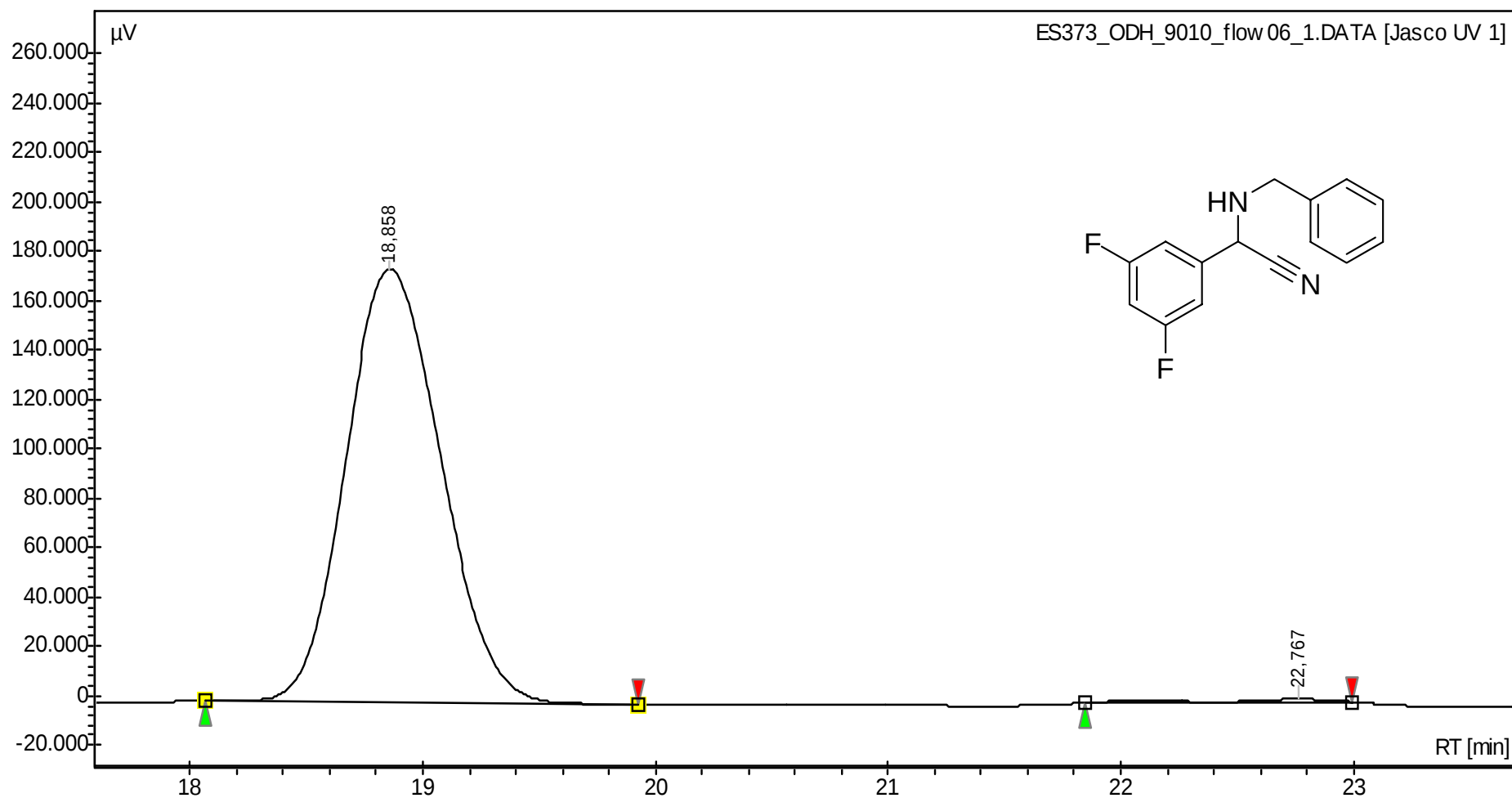
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1	31,588	32,992	35,035	98,018
2	36,953	37,742	38,585	1,982
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (0,6 mL/min)

ES341_ODH_9010_flow06_1.DATA [Jasco UV 1]

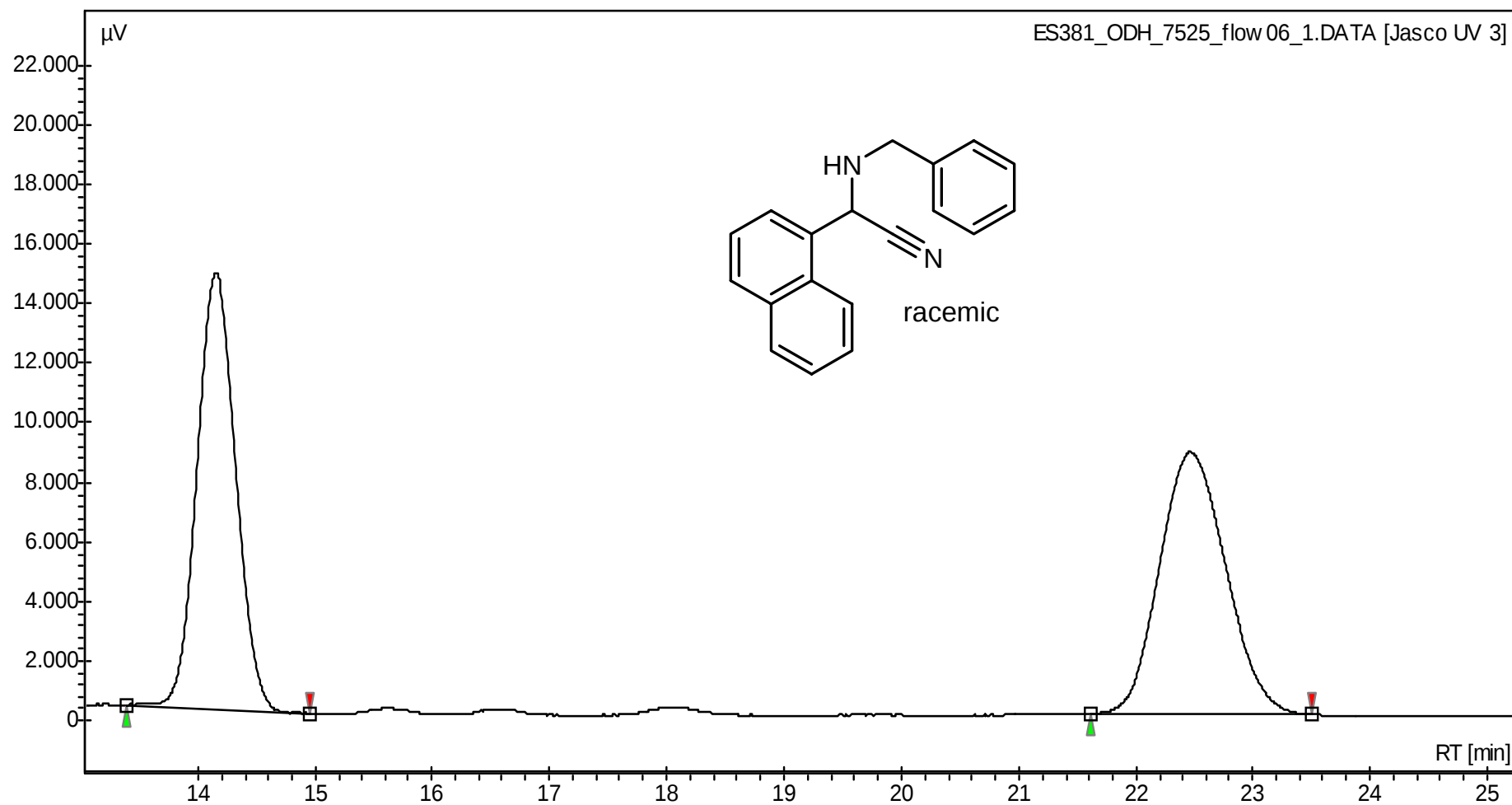
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1	17,820	18,575	19,432	50,091
2	21,601	22,383	23,337	49,909
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (0,6 mL/min)

ES373_ODH_9010_flow06_1.DATA [Jasco UV 1]

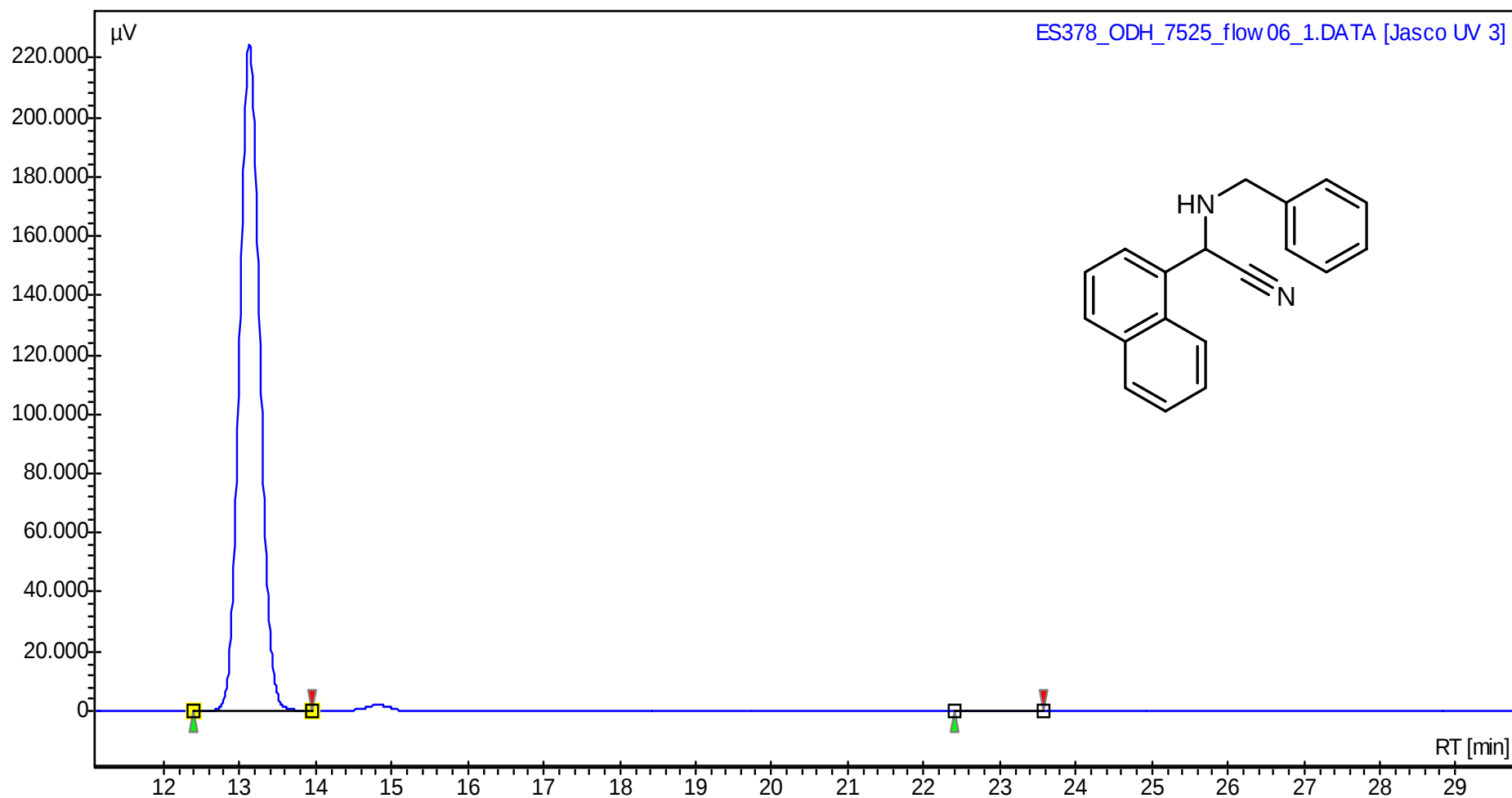
Index	Start	Time	End	Area %
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1	18,068	18,858	19,928	99,145
2	21,849	22,767	22,996	0,855
Total				100,000



Column: ODH
n-hexane/ 2-propanol 75/25 (0,6 mL/min)

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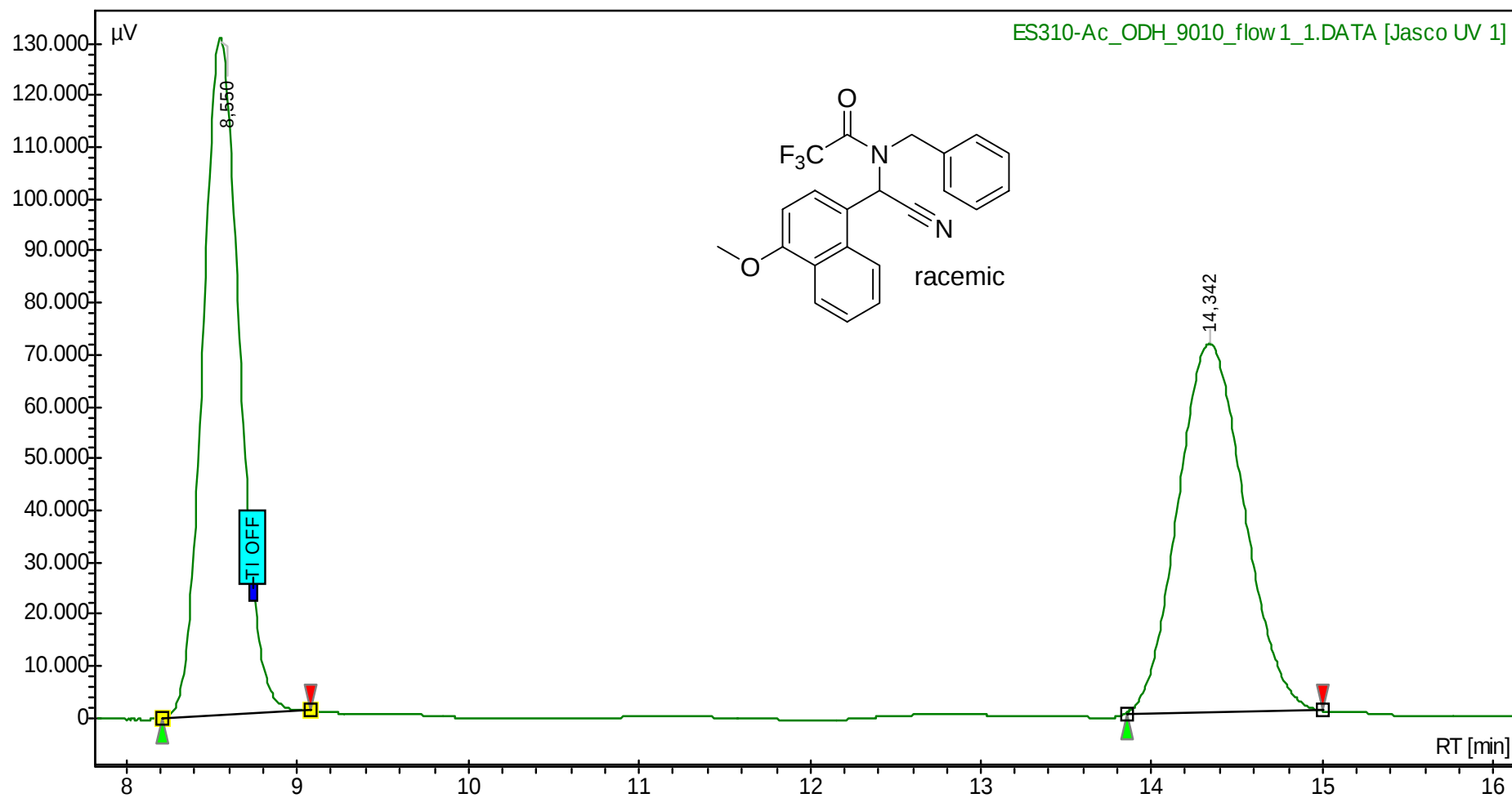
Index	Start	Time	End	Area %
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1	13,393	14,158	14,956	49,266
2	21,617	22,458	23,504	50,734
Total				100,000



Column: ODH
n-hexane/ 2-propanol 75/25 (0,6 mL/min)

ES378_ODH_7525_flow06_1.DATA [Jasco UV 3]

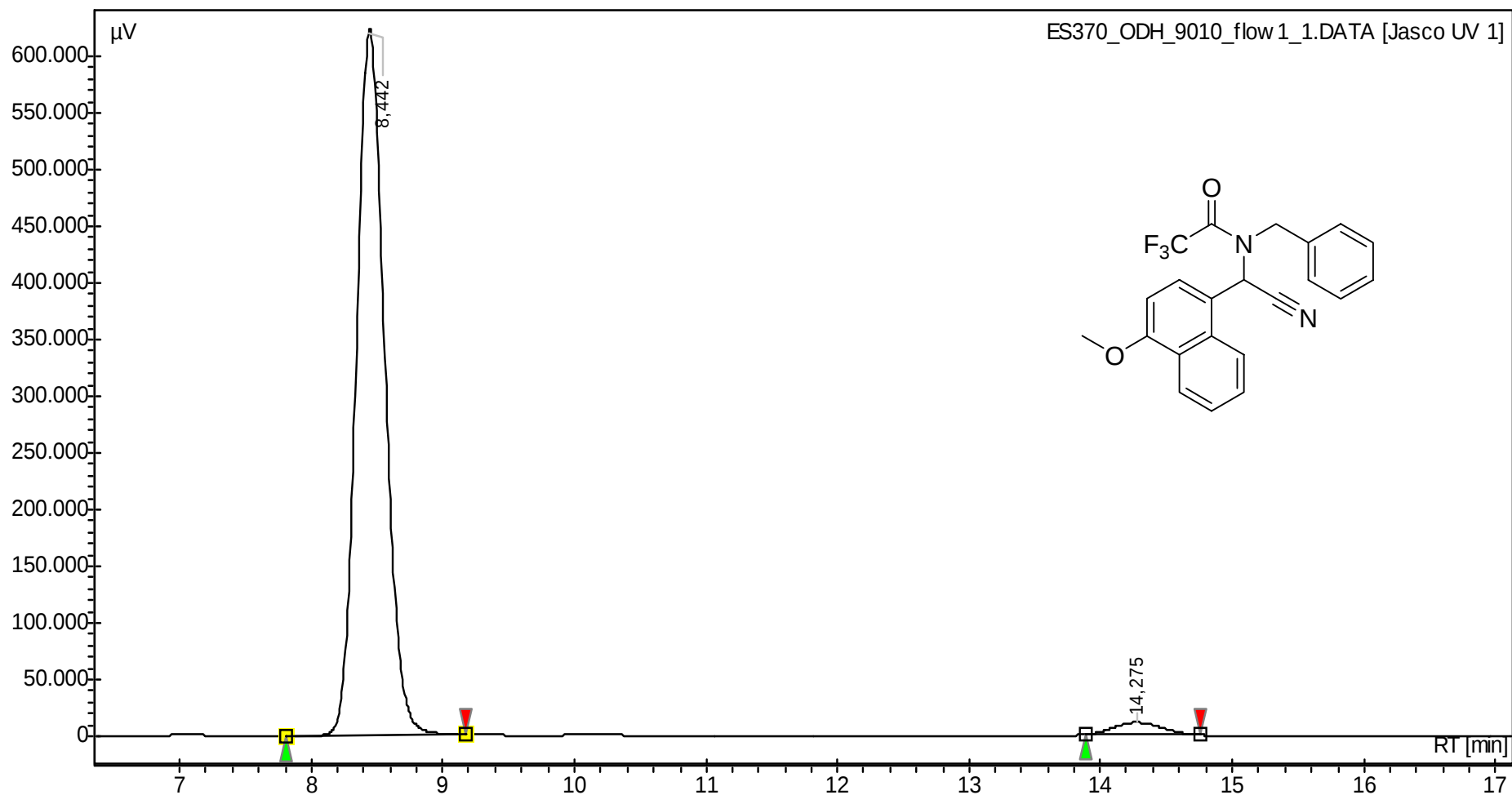
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	12,400	13,125	13,952	99,888
2	22,400	22,942	23,572	0,112
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (1,0 mL/min)

ES310-Ac_ODH_9010_flow1_1.DATA [Jasco UV 1]

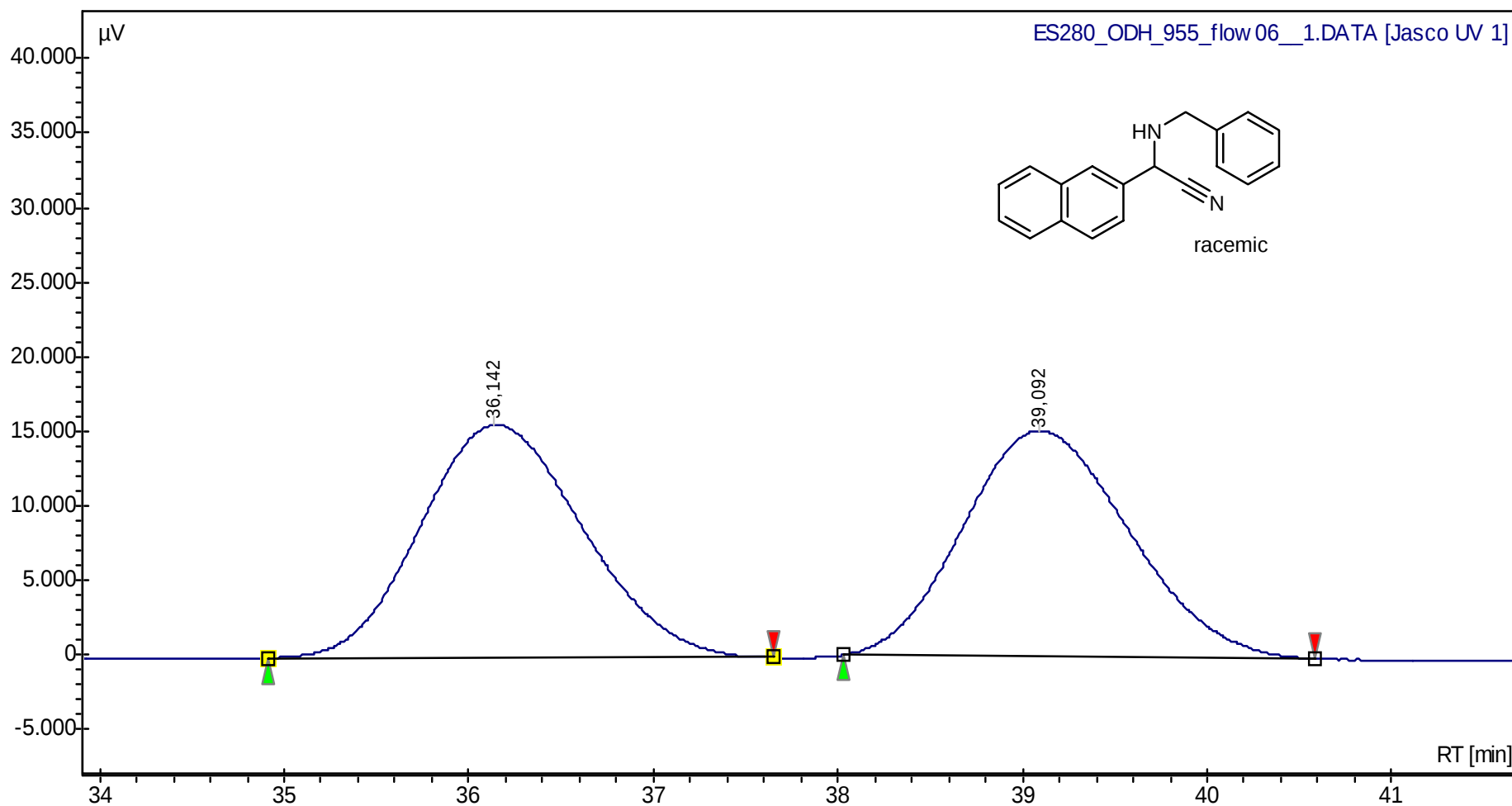
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1	8,213	8,550	9,081	50,387
2	13,853	14,342	15,000	49,613
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (1,0 mL/min)

ES370_ODH_9010_flow1_1.DATA [Jasco UV 1]

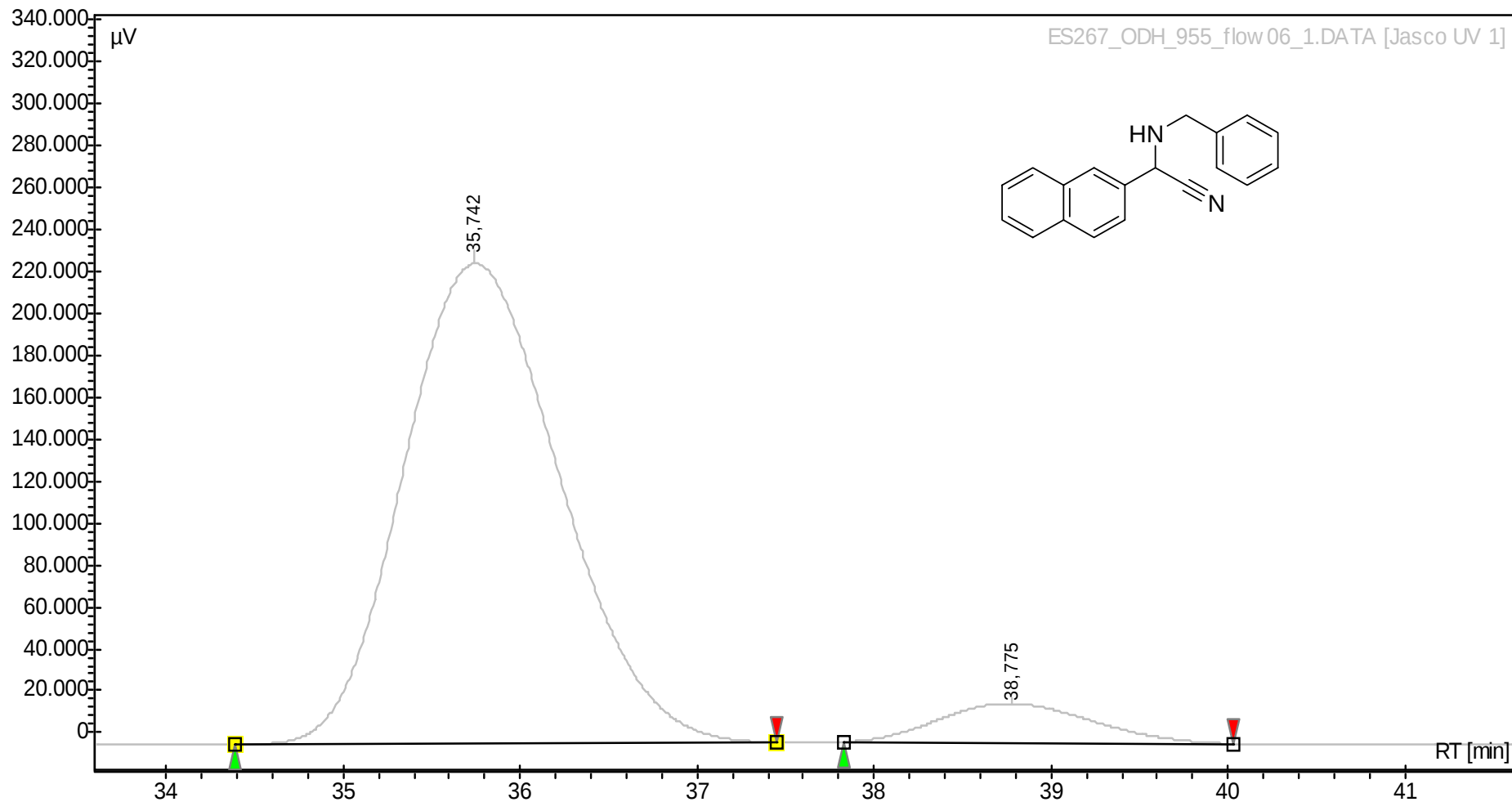
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	7,810	8,442	9,174	97,089
2	13,884	14,275	14,752	2,911
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES280_ODH_955_flow06__1.DATA [Jasco UV 1]

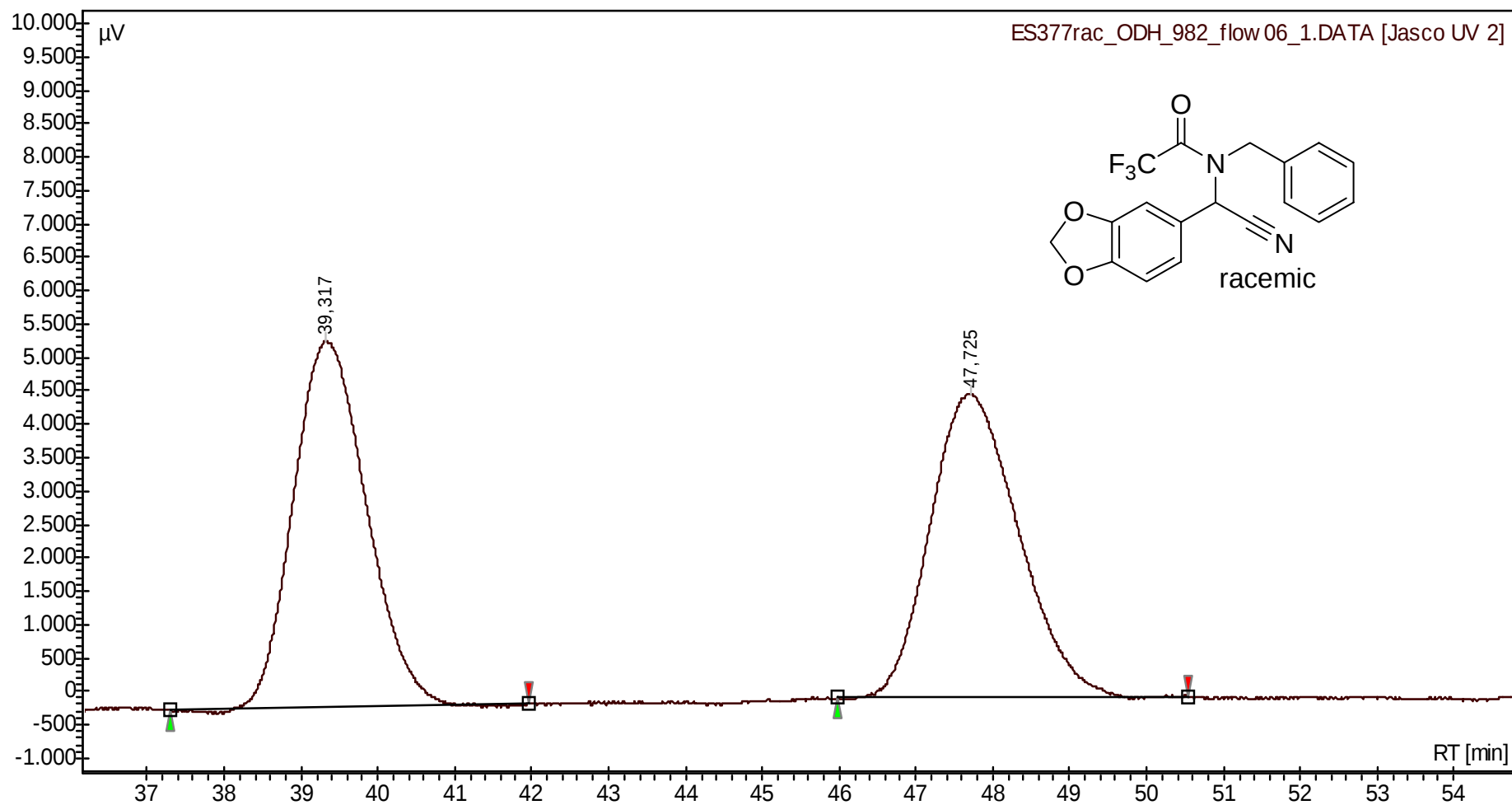
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	34,912	36,142	37,655	50,197
2	38,027	39,092	40,584	49,803
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES267_ODH_955_flow06_1.DATA [Jasco UV 1]

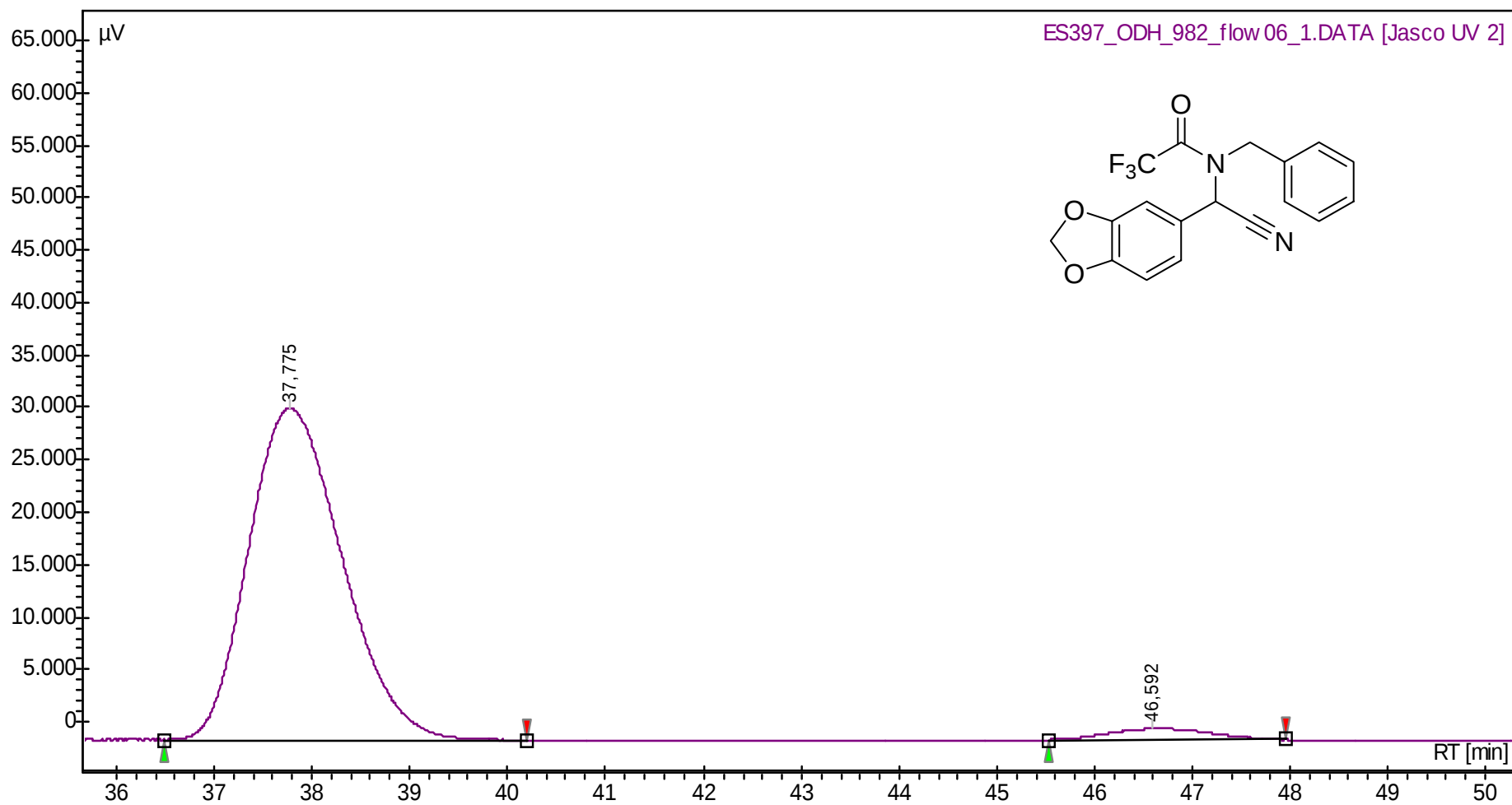
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	34,384	35,742	37,444	92,551
2	37,827	38,775	40,027	7,449
Total				100,000



Column: ODH
n-hexane/ 2-propanol 98/2 (0,6 mL/min)

ES377rac_ODH_982_flow06_1.DATA [Jasco UV 2]

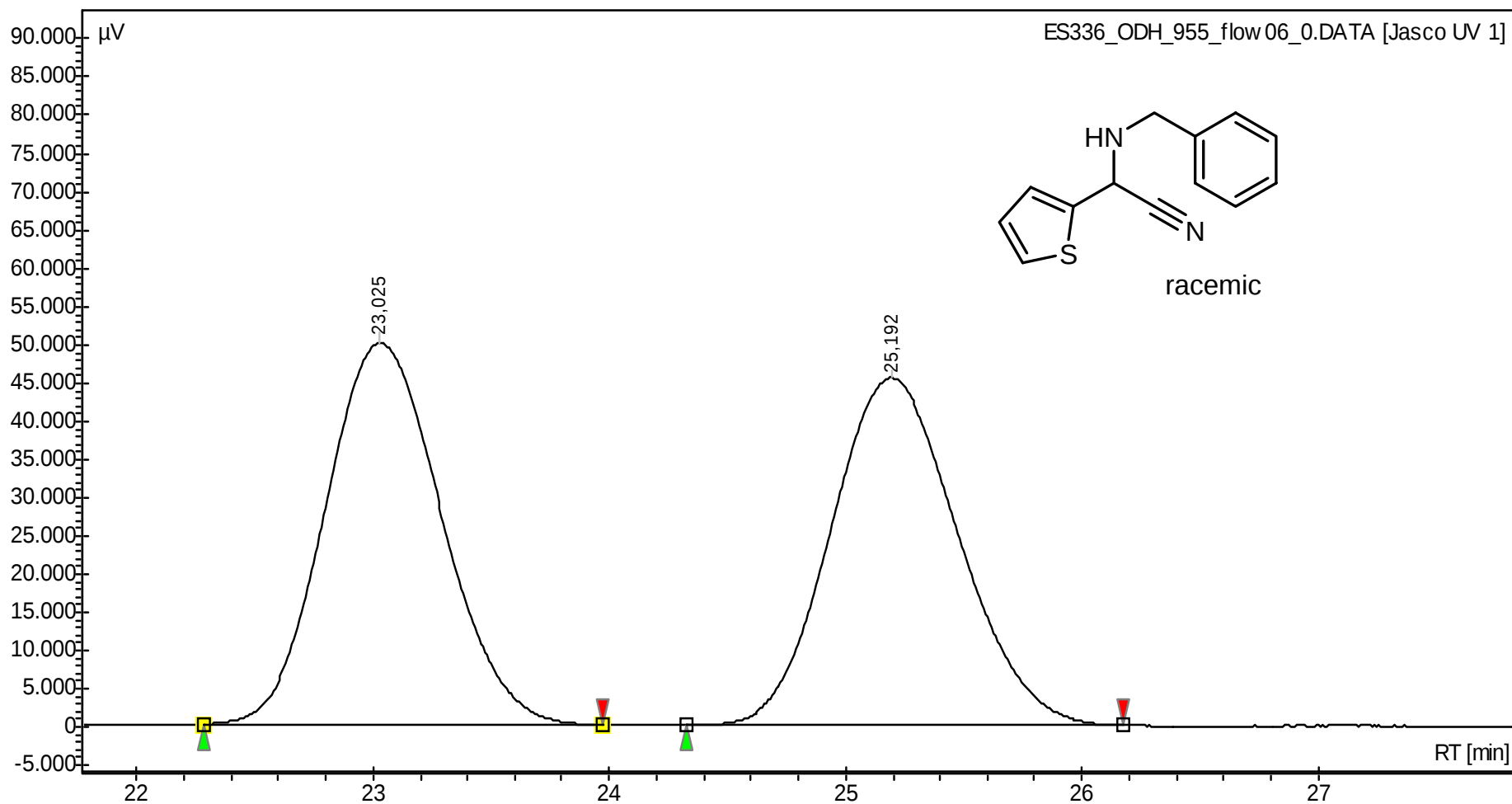
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	37,301	39,317	41,953	49,835
2	45,990	47,725	50,554	50,165
Total				100,000



Column: ODH
n-hexane/ 2-propanol 98/2 (0,6 mL/min)

ES397_ODH_982_flow06_1.DATA [Jasco UV 2]

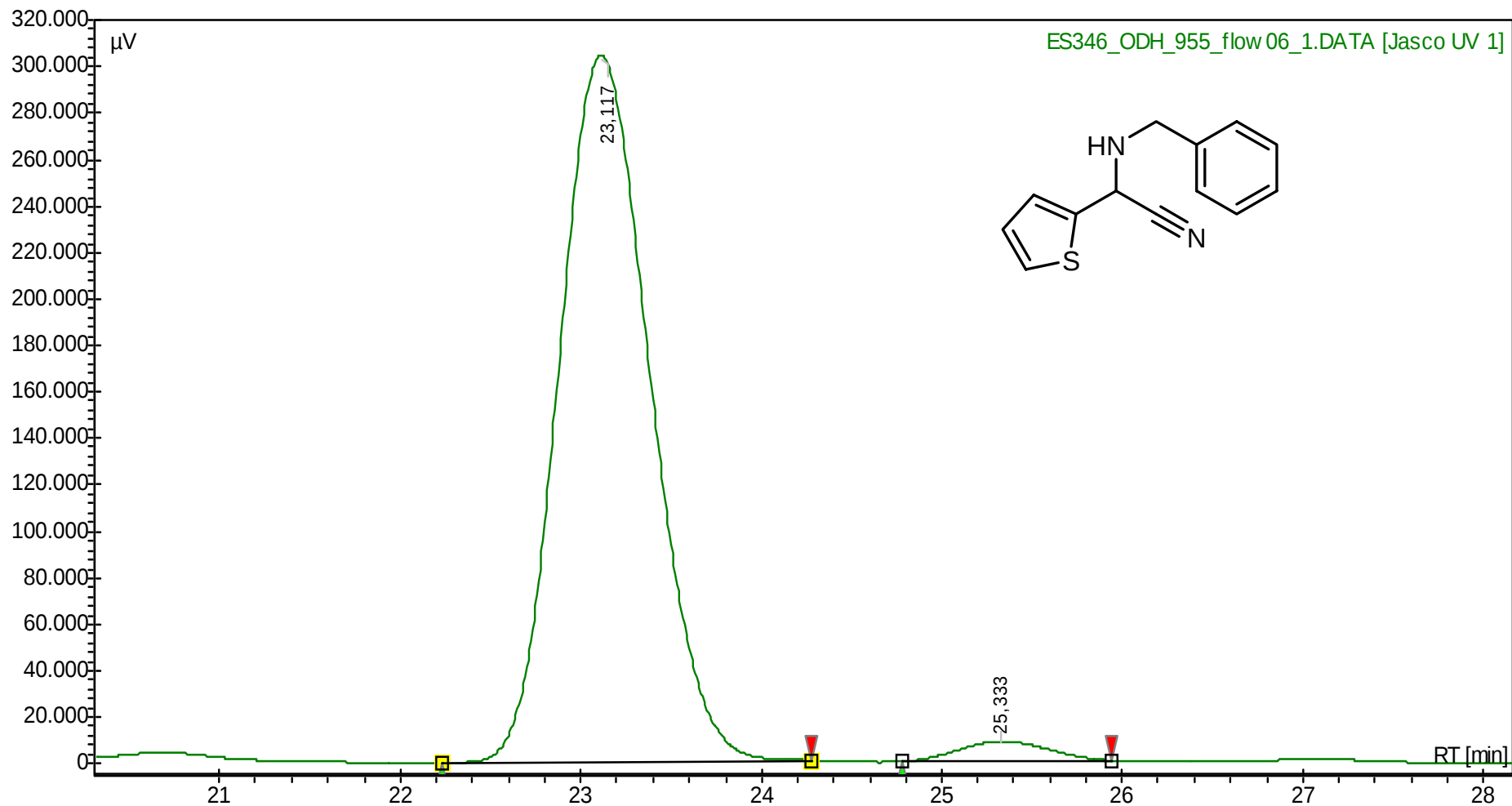
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
2	36,483	37,775	40,194	96,514
1	45,538	46,592	47,965	3,486
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES336_ODH_955_flow06_0.DATA [Jasco UV 1]

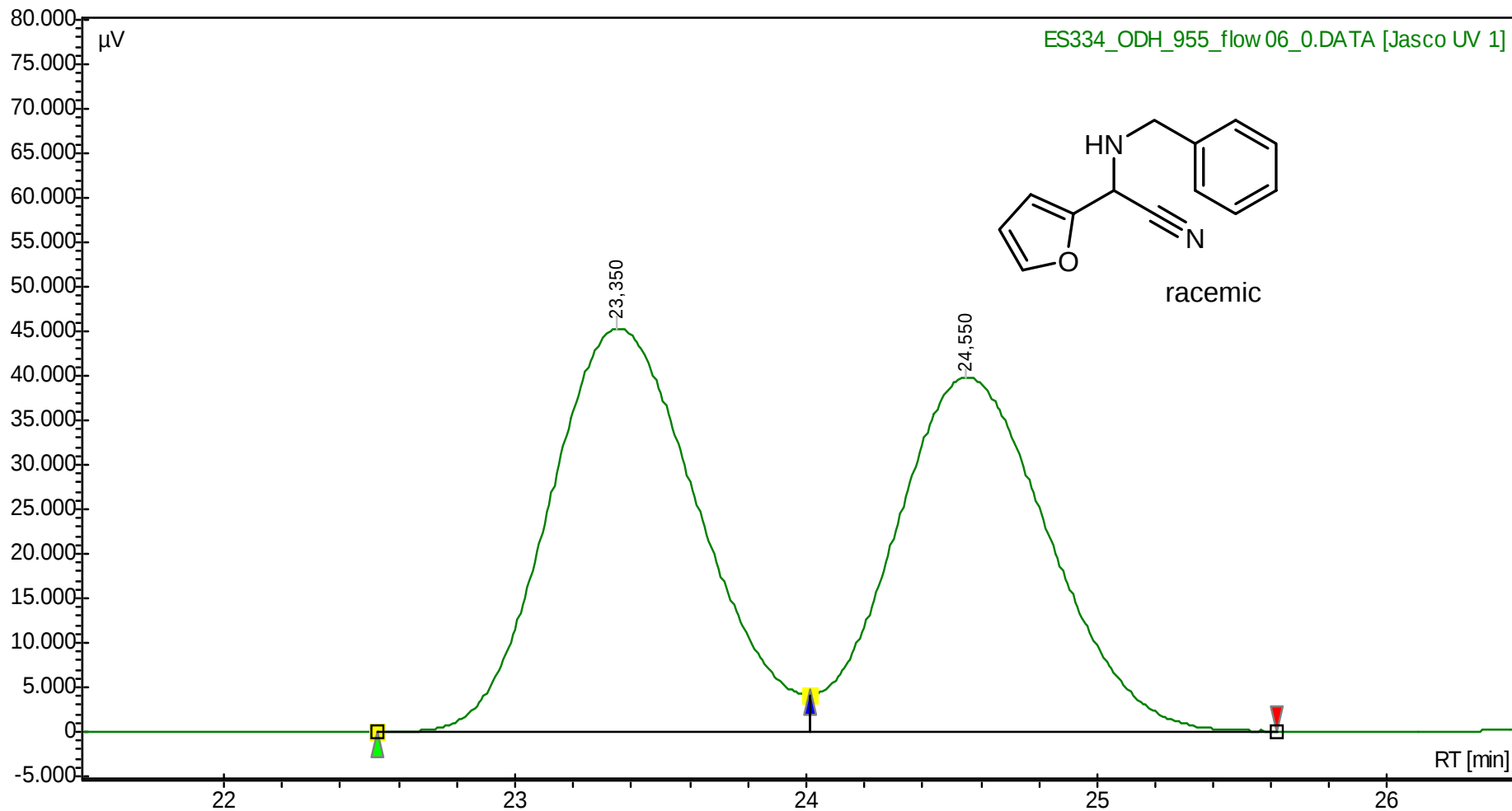
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	22,285	23,025	23,974	49,952
2	24,325	25,192	26,174	50,048
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES346_ODH_955_flow06_1.DATA [Jasco UV 1]

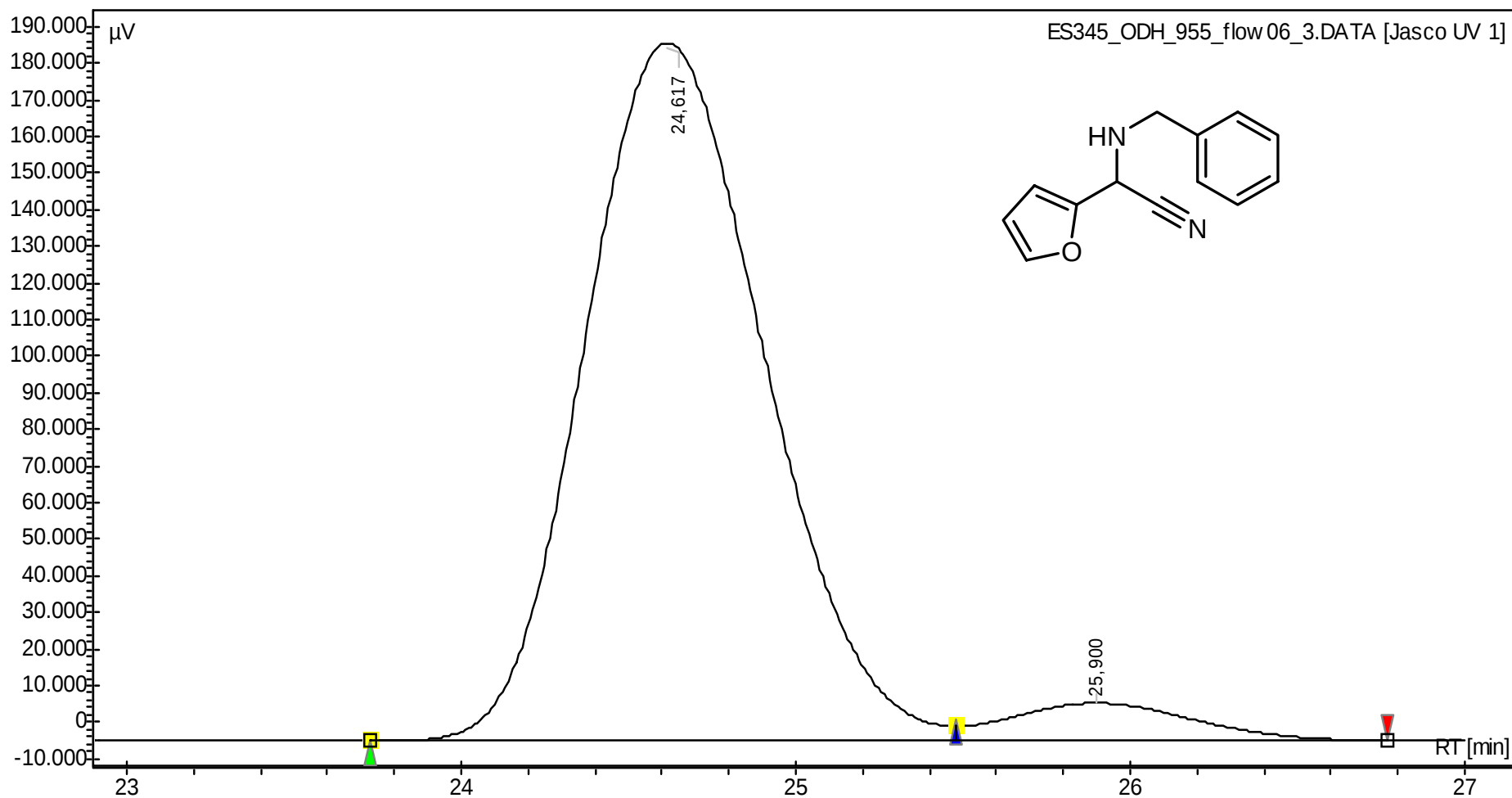
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	22,231	23,117	24,280	97,318
2	24,777	25,333	25,942	2,682
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES334_ODH_955_flow06_0.DATA [Jasco UV 1]

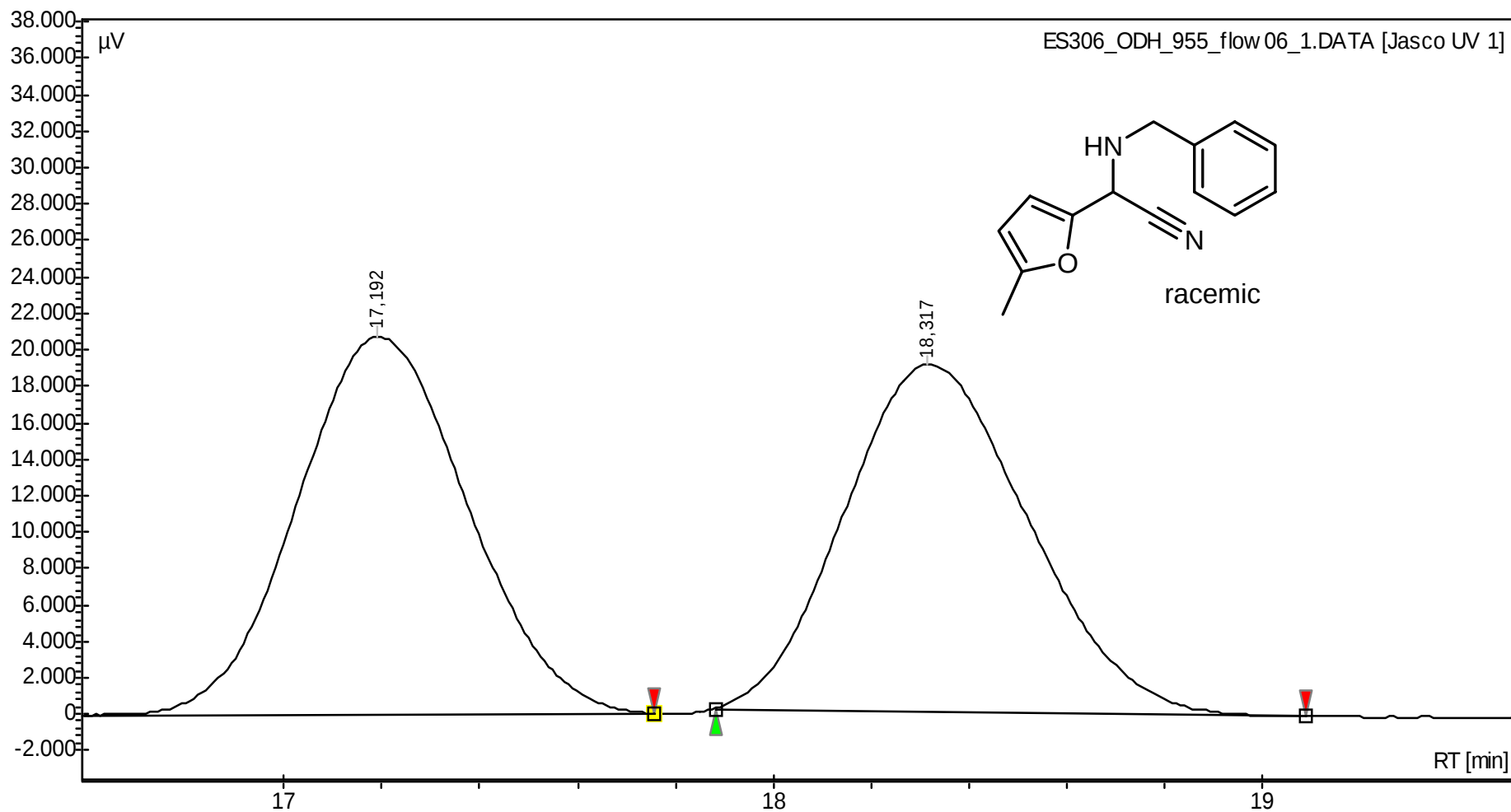
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	22,524	23,350	24,016	52,466
2	24,016	24,550	25,623	47,534
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES345_ODH_955_flow06_3.DATA [Jasco UV 1]

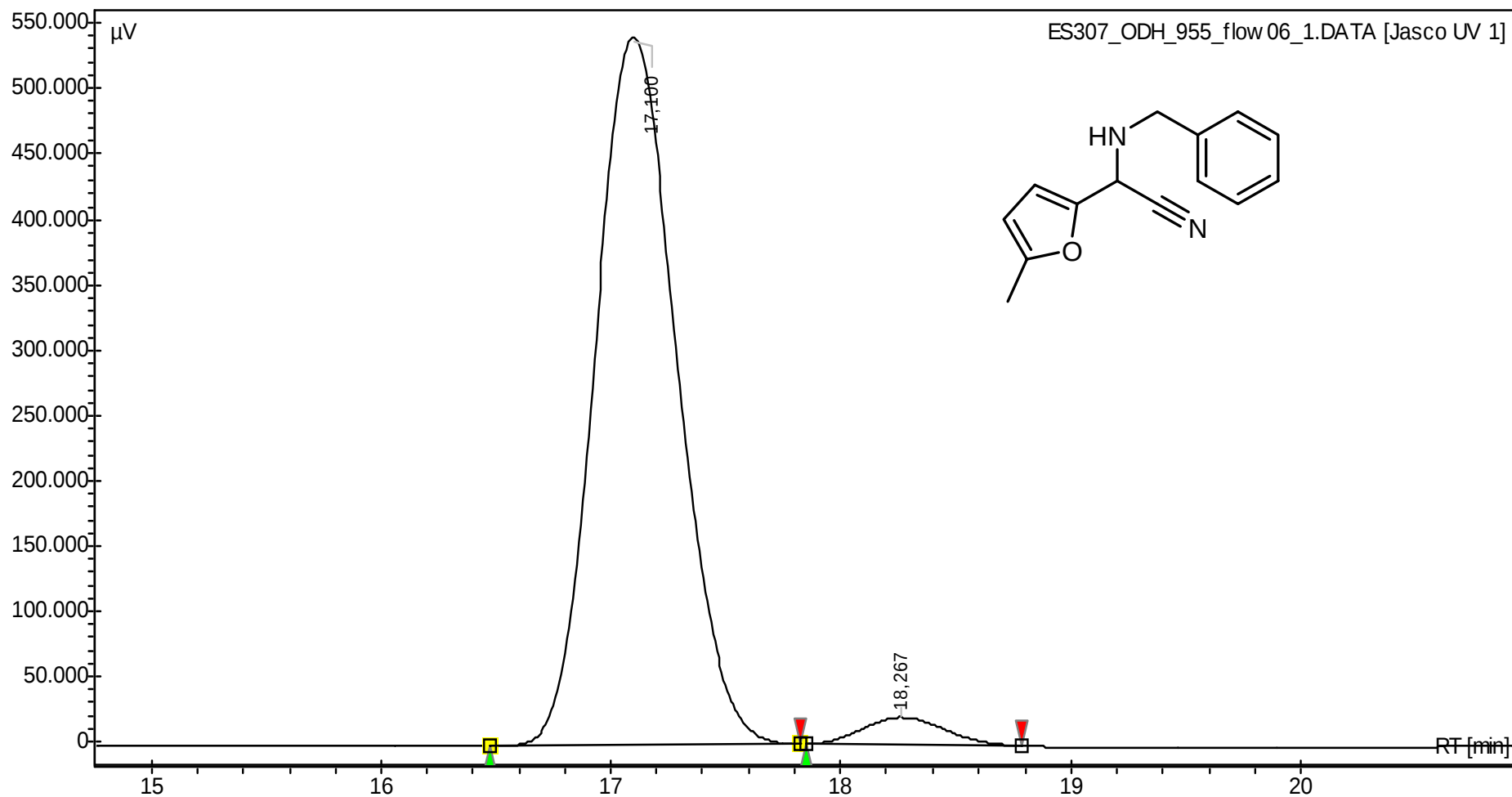
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	23,729	24,617	25,479	94,709
2	25,479	25,900	26,770	5,291
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES306_ODH_955_flow06_1.DATA [Jasco UV 1]

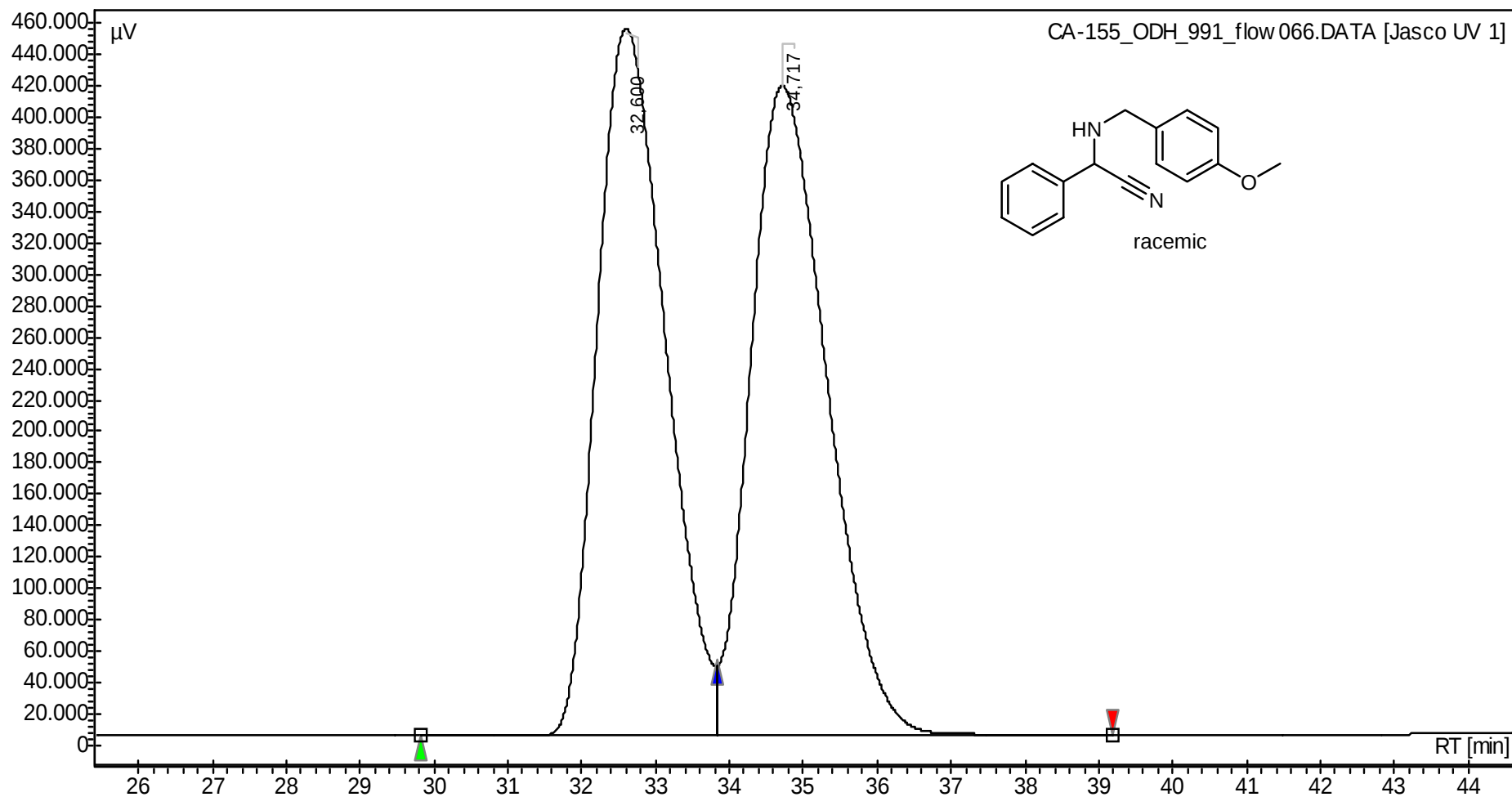
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	16,581	17,192	17,758	50,229
2	17,882	18,317	19,091	49,771
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES307_ODH_955_flow06_1.DATA [Jasco UV 1]

Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	16,472	17,100	17,821	96,160
2	17,851	18,267	18,789	3,840
Total				100,000

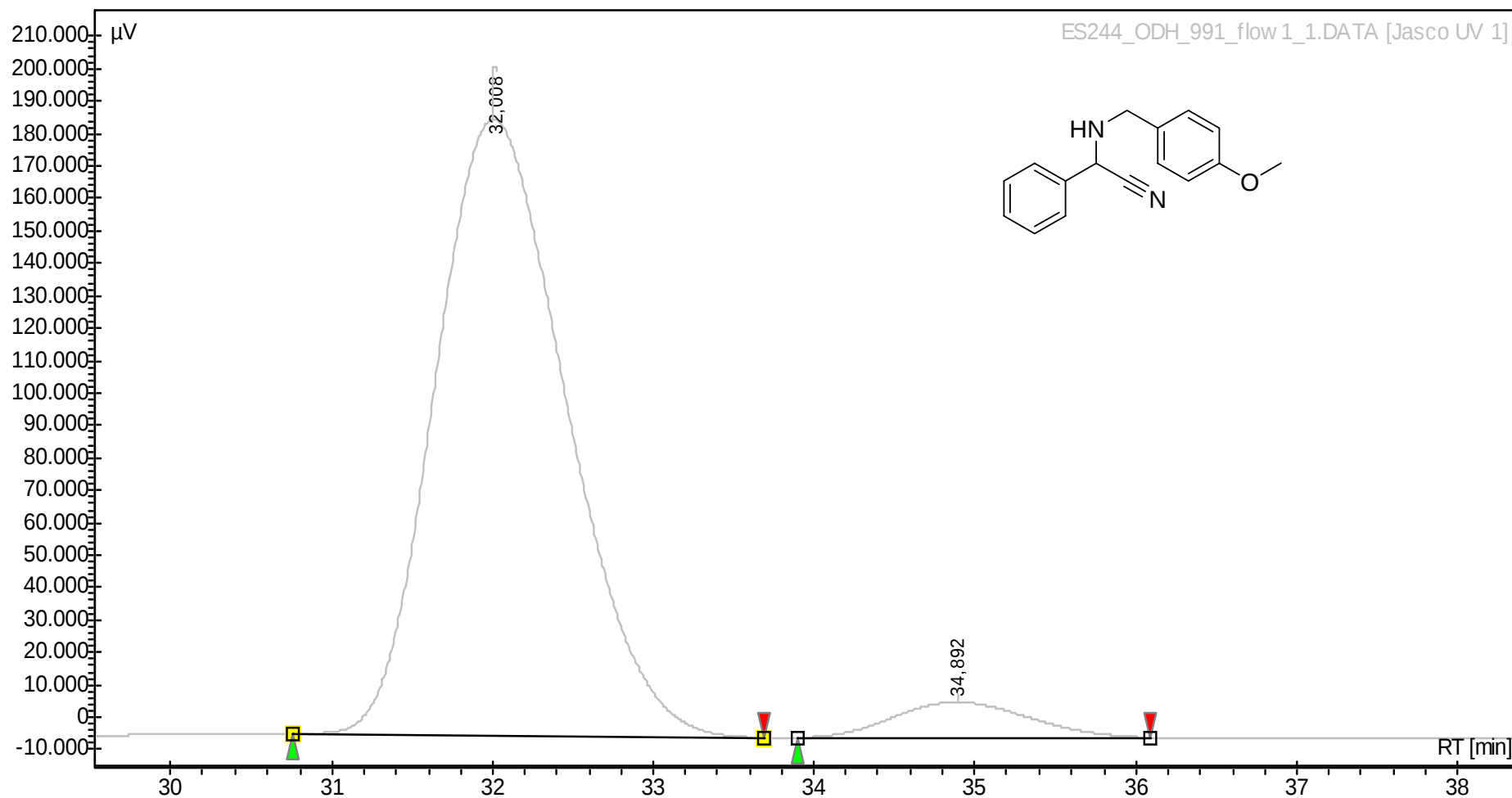


Column: ODH

n-hexane/ 2-propanol 99/1 (1,0 mL/min)

CA-155_ODH_991_flow066.DATA [Jasco UV 1]

Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	29,833	32,600	33,844	49,341
2	33,844	34,717	39,192	50,659
Total				100,000

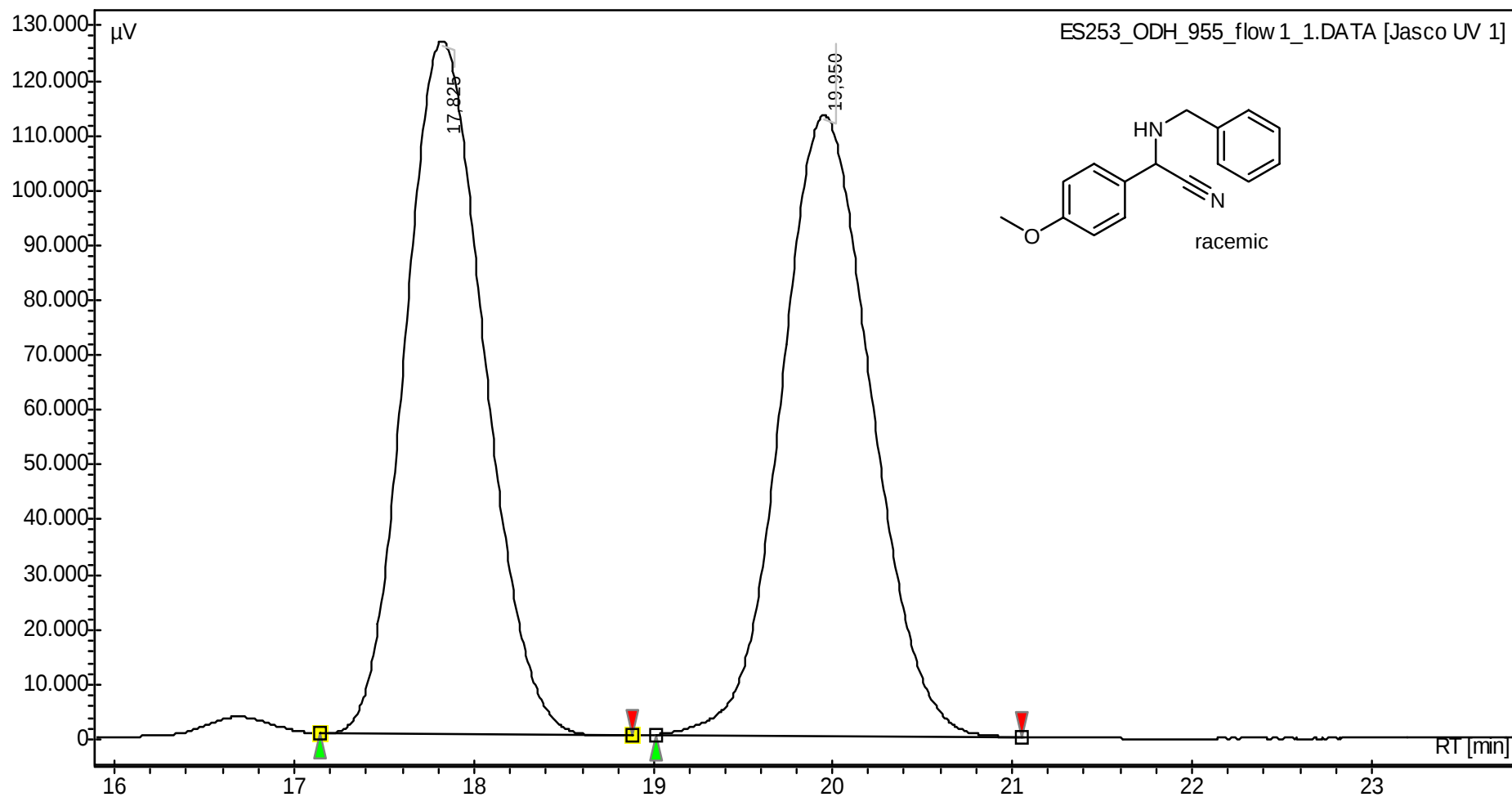


Column: ODH

n-hexane/ 2-propanol 99/1 (1,0 mL/min)

ES244_ODH_991_flow1_1.DATA [Jasco UV 1]

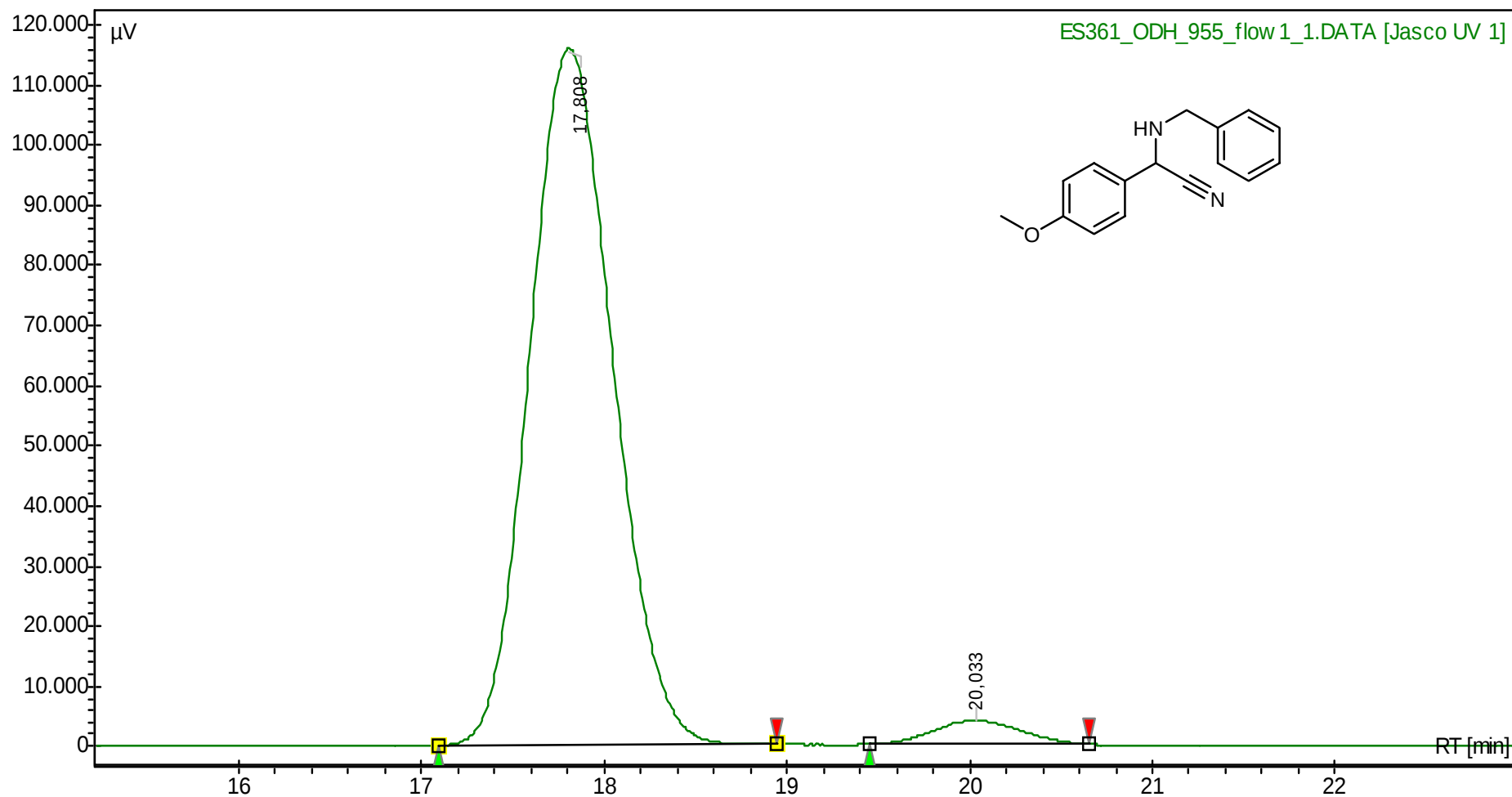
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	30,754	32,008	33,688	94,341
2	33,899	34,892	36,092	5,659
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (1,0 mL/min)

ES253_ODH_955_flow1_1.DATA [Jasco UV 1]

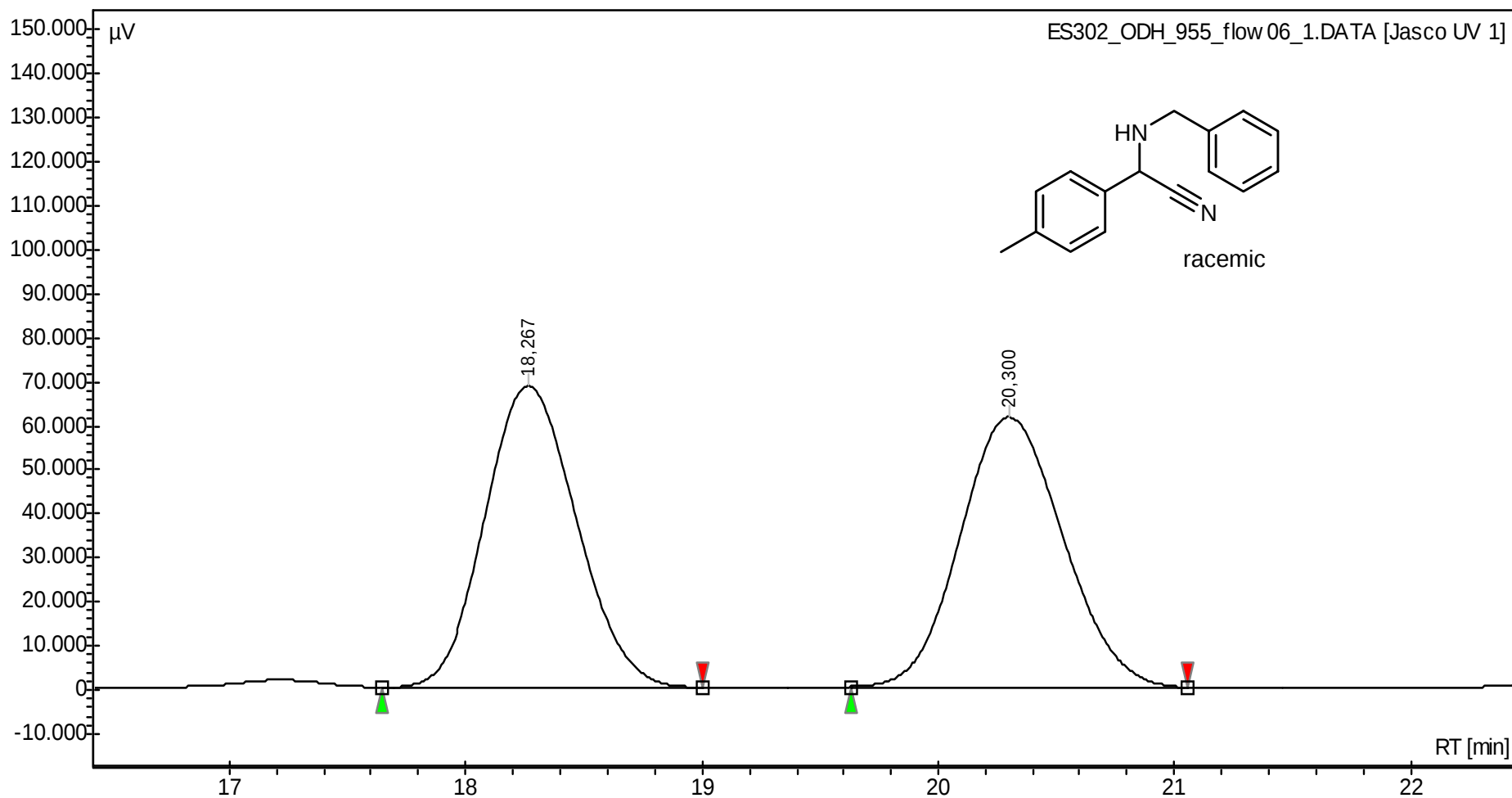
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	17,142	17,825	18,886	49,553
2	19,014	19,950	21,055	50,447
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (1,0 mL/min)

ES361_ODH_955_flow1_1.DATA [Jasco UV 1]

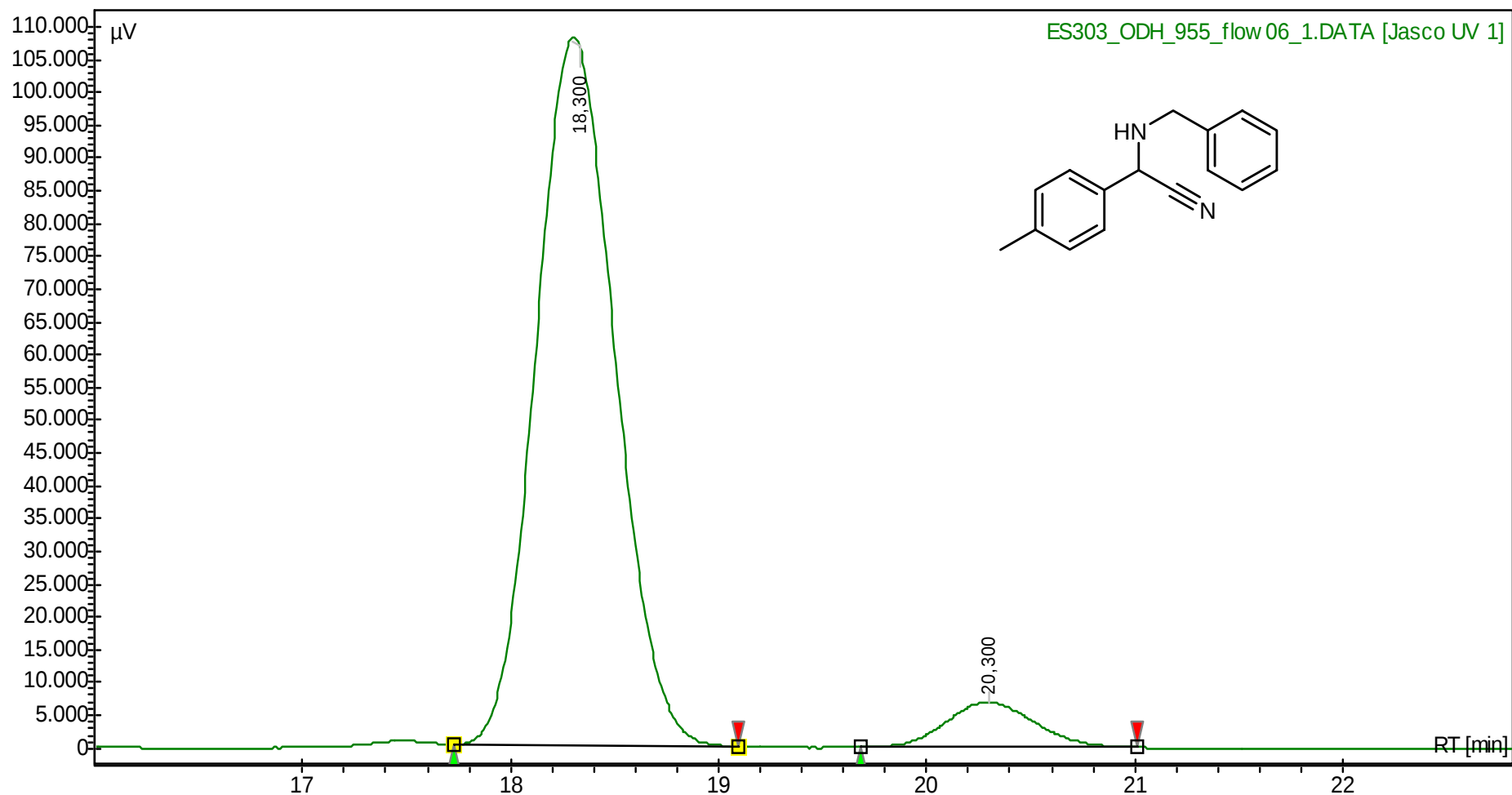
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	17,088	17,808	18,939	96,523
2	19,451	20,033	20,650	3,477
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES302_ODH_955_flow06_1.DATA [Jasco UV 1]

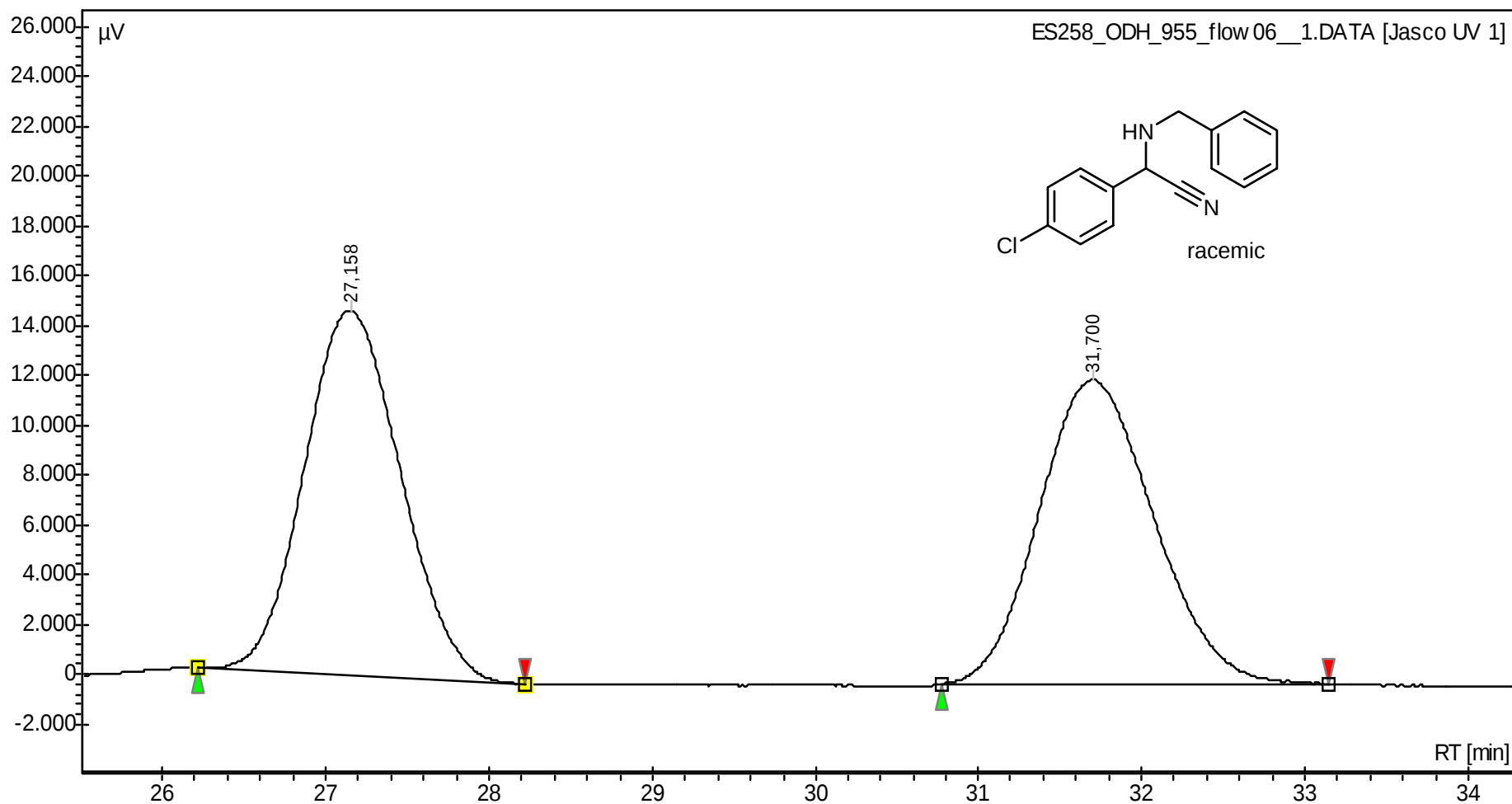
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	17,644	18,267	19,002	49,966
2	19,630	20,300	21,055	50,034
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES303_ODH_955_flow06_1.DATA [Jasco UV 1]

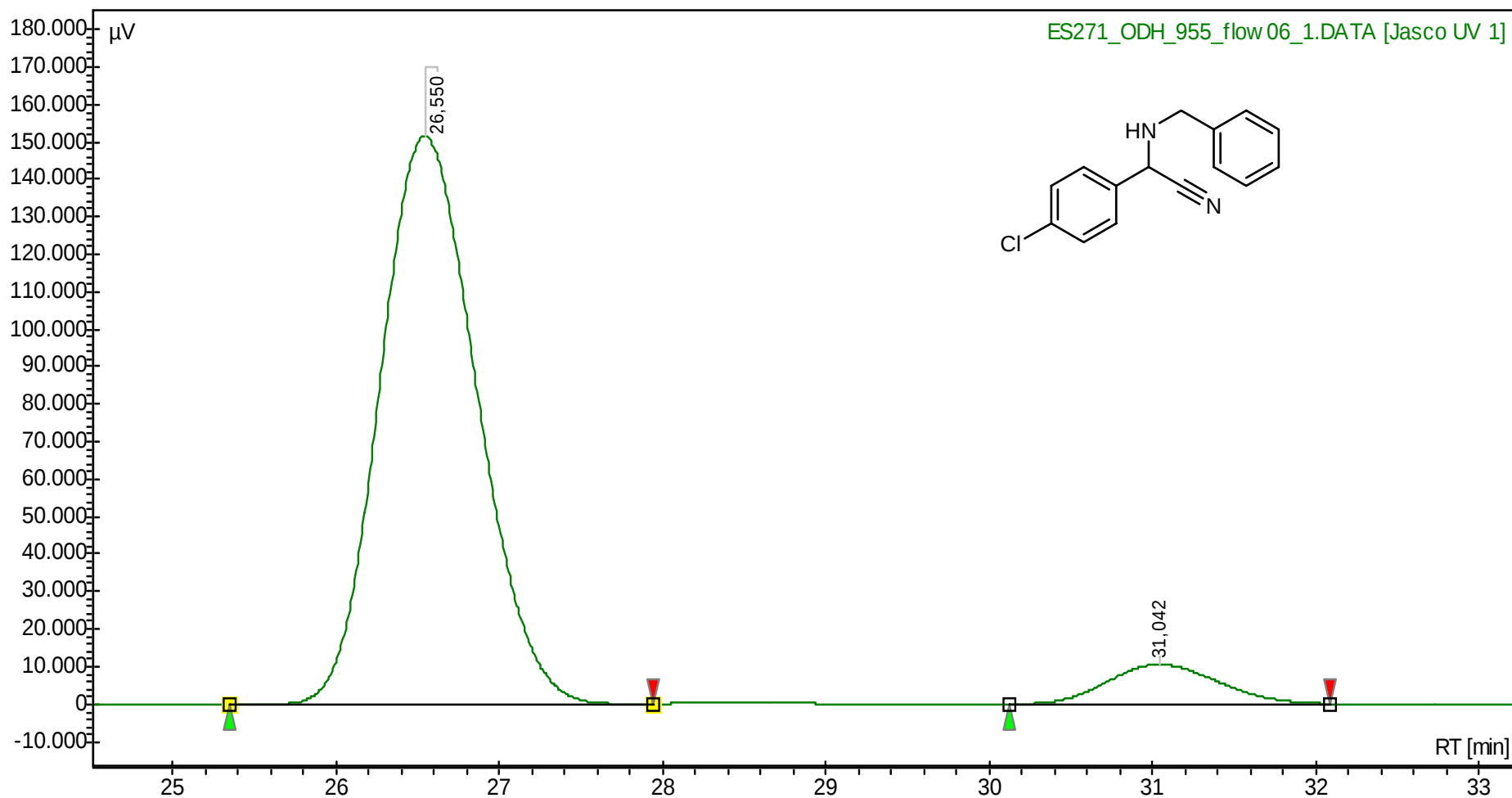
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	17,727	18,300	19,091	93,284
2	19,680	20,300	21,012	6,716
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES258_ODH_955_flow06__1.DATA [Jasco UV 1]

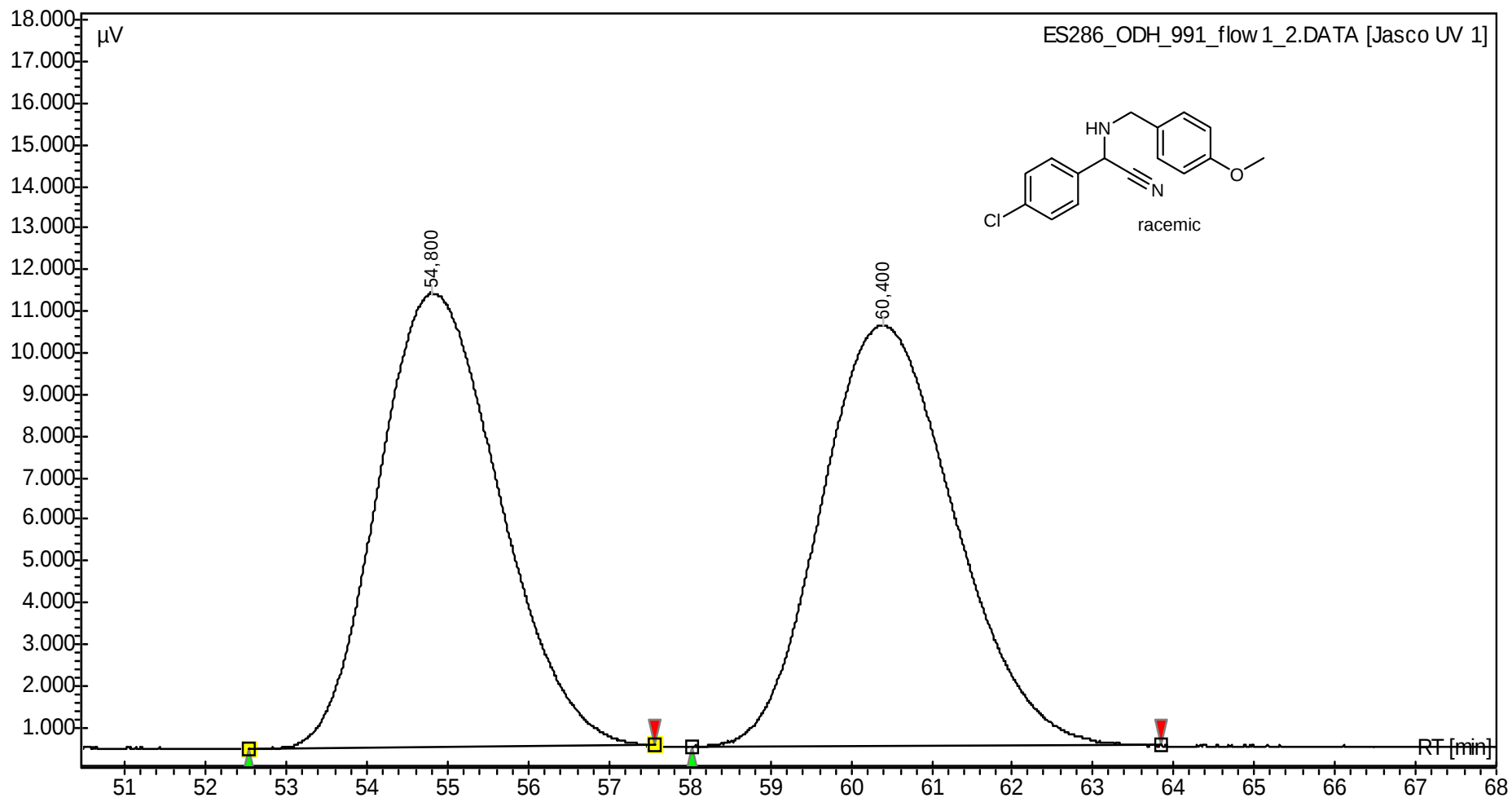
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	26,219	27,158	28,218	50,072
2	30,775	31,700	33,146	49,928
Total				100,000



Column: ODH
n-hexane/ 2-propanol 95/5 (0,6 mL/min)

ES271_ODH_955_flow06_1.DATA [Jasco UV 1]

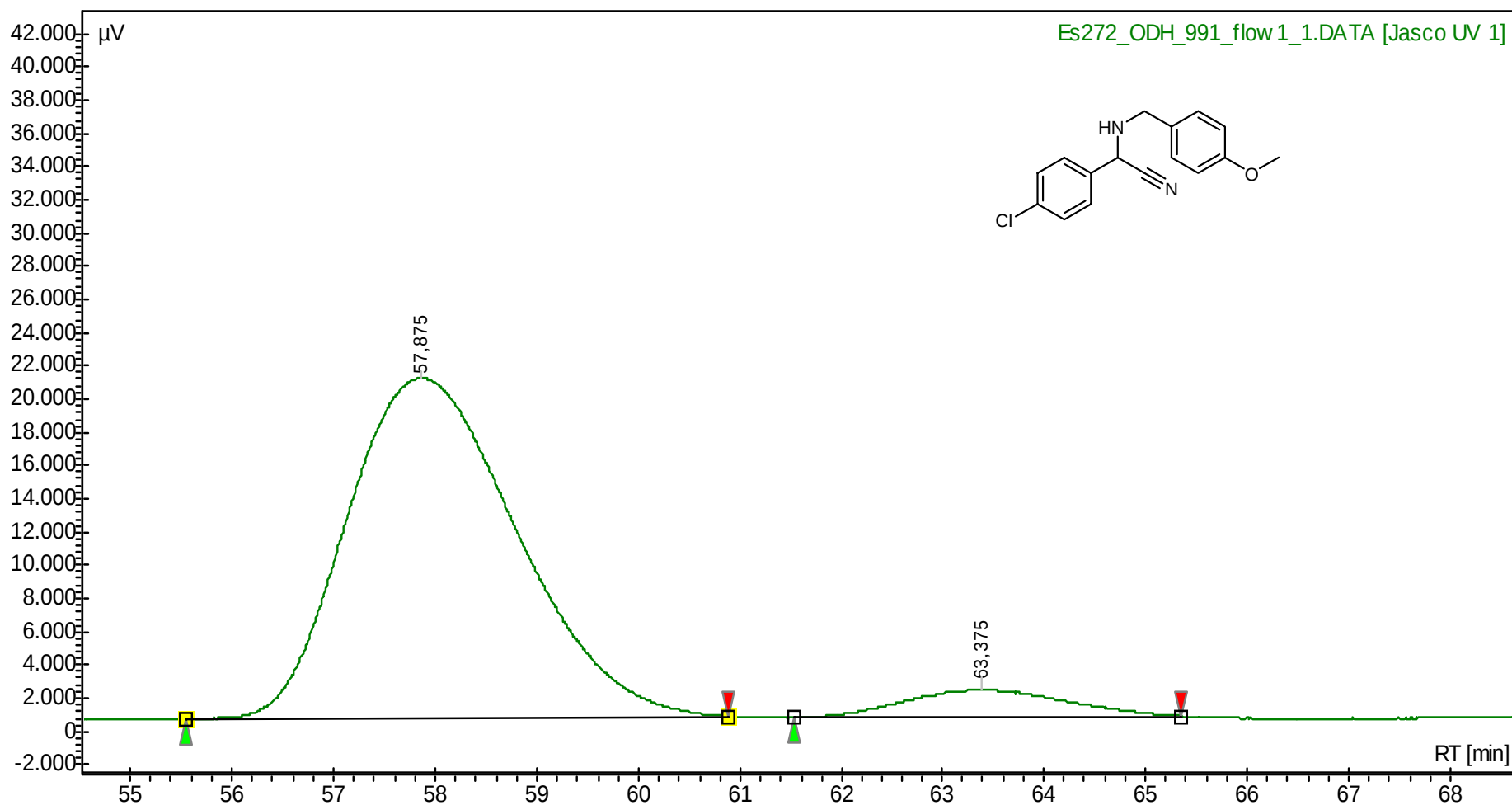
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	25,345	26,550	27,949	92,592
2	30,128	31,042	32,094	7,408
Total				100,000



Column: ODH
n-hexane/ 2-propanol 99/1 (1,0 mL/min)

ES286_ODH_991_flow1_2.DATA [Jasco UV 1]

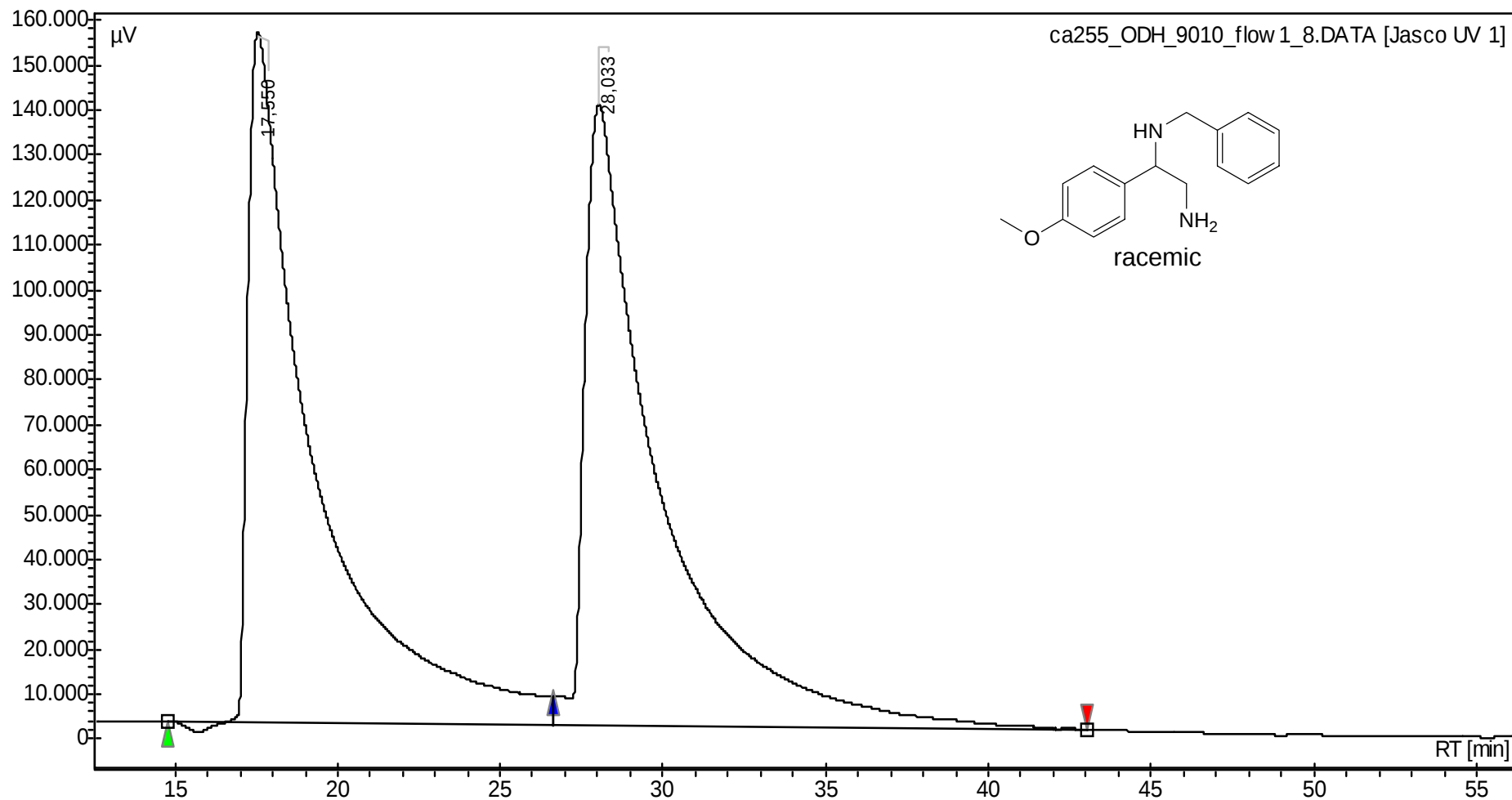
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	52,531	54,800	57,567	49,524
2	58,032	60,400	63,843	50,476
Total				100,000



Column: ODH
n-hexane/ 2-propanol 99/1 (1,0 mL/min)

Es272_ODH_991_flow1_1.DATA [Jasco UV 1]

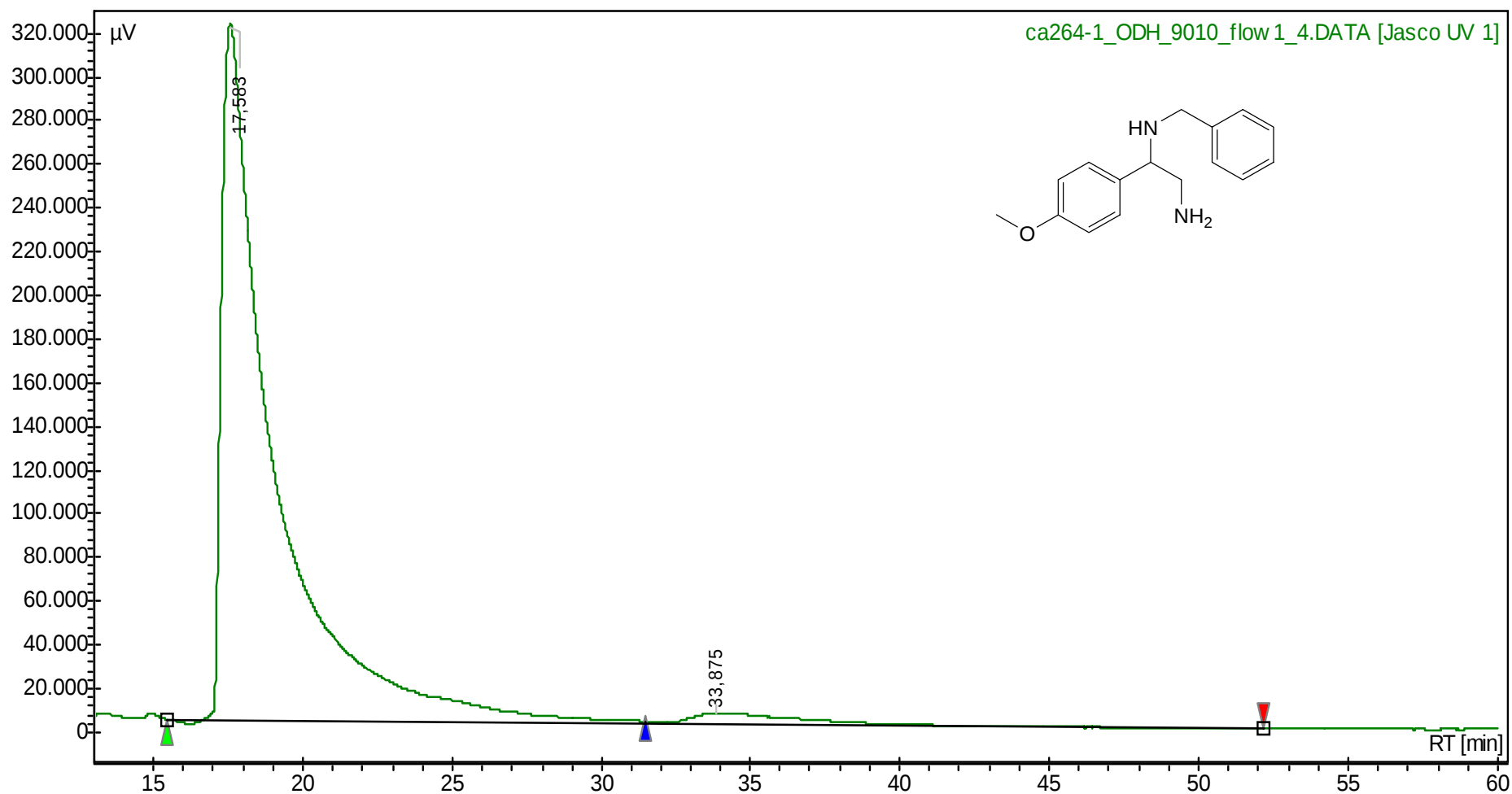
Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	55,553	57,875	60,893	92,886
2	61,530	63,375	65,356	7,114
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (1,0 mL/min)

ca255_ODH_9010_flow1_8.DATA [Jasco UV 1]

Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	14,791	17,550	26,657	49,504
2	26,657	28,033	43,036	50,496
Total				100,000



Column: ODH
n-hexane/ 2-propanol 90/10 (1,0 mL/min)

ca264-1_ODH_9010_flow1_4.DATA [Jasco UV 1]

Index	Start	Time	End	Area %
	[Min]	[Min]	[Min]	[%]
1	15,460	17,583	31,504	97,231
2	31,504	33,875	52,145	2,769
Total				100,000

