Electronic Supplementary Material (ESI) for Organic Chemistry Frontiers.


# Supporting Information

## Visible-light-driven relay redox deracemization of cyclic sulfonamides catalyzed by a bifunctional chiral iridium complex

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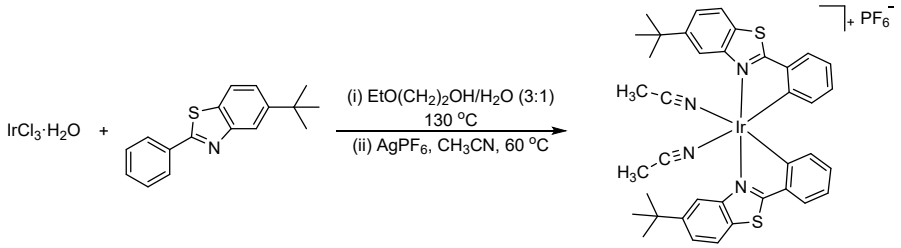
## 1. General and Materials

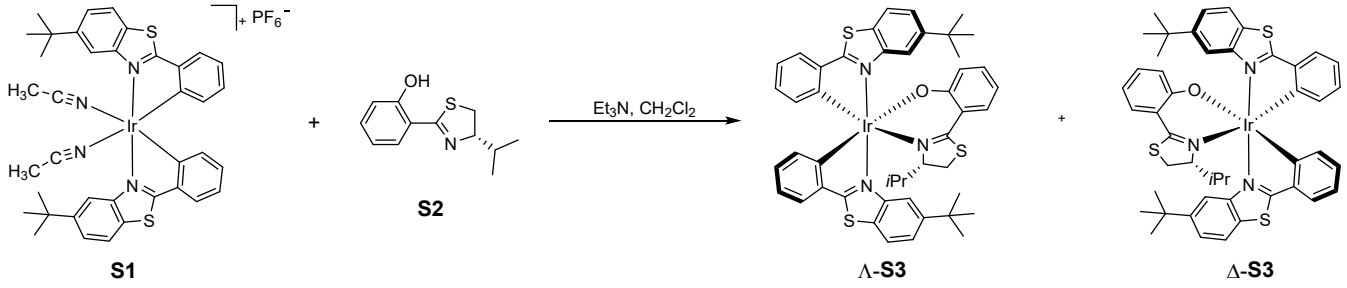
**General:** All reactions were carried out under an atmosphere of air using the standard glass bottle, unless otherwise noted. $^{1}H$ NMR and $^{13}C$ NMR spectra were recorded at room temperature in $CDCl_3$, DMSO-$d_6$ on 400 MHz instrument with tetramethylsilane (TMS) as internal standard. Enantiomeric excess was determined by HPLC analysis, using chiral column described below in detail. Optical rotations were measured by polarimeter. Flash column chromatography was performed on silica gel (200-300 mesh). All reactions were monitored by TLC analysis.

**Materials:** Commercially available reagents and solvents were used throughout without further purification. The catalysts Δ-IrS and Δ-IrO were prepared by following reported procedure[1]. The racemic cyclic *N*-sulfonylimines were prepared according to the known procedures reported in the literature[2,3].

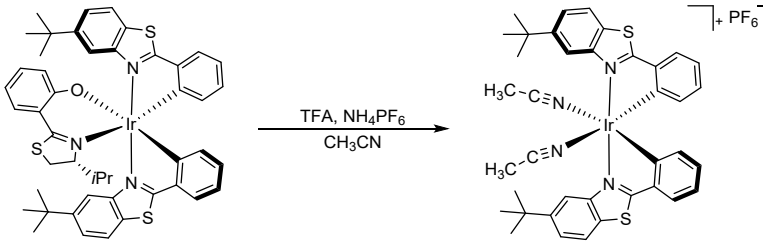
## 2. Synthesis of catalyst




5-(*tert*-butyl)-2-phenylbenzothiazole (197 mg, 0.74 mmol, 2 equiv.) was added to $IrCl_3 \cdot 3H_2O$ (130 mg, 0.37 mmol, 1 equiv.) in a mixture of 2-ethoxyethanol/water (3:1, 15 mL). The reaction mixture was heated at 130 °C for 36 h under nitrogen. After the reaction was completed, the solvent was distilled off under reduced pressure. Add $AgPF_6$ (279 mg, 1.1 mmol, 3 equiv.) and 10 mL $CH_3CN$ (distilled) to the schlenk flask. Immerse the schlenk flask in a preheated oil bath at 60 °C for 14 h. Remove the schlenk flask from the oil bath and allow it to cool to room temperature. Filter off the solid and the filtrate was subjected to a flash silica gel chromatography ($CH_2Cl_2/CH_3CN$ = 30:1, $R_f$ = 0.3 in $CH_2Cl_2/CH_3CN$ = 20:1) to separate as yellow solids (300 mg, 0.31 mmol, 72% yield).



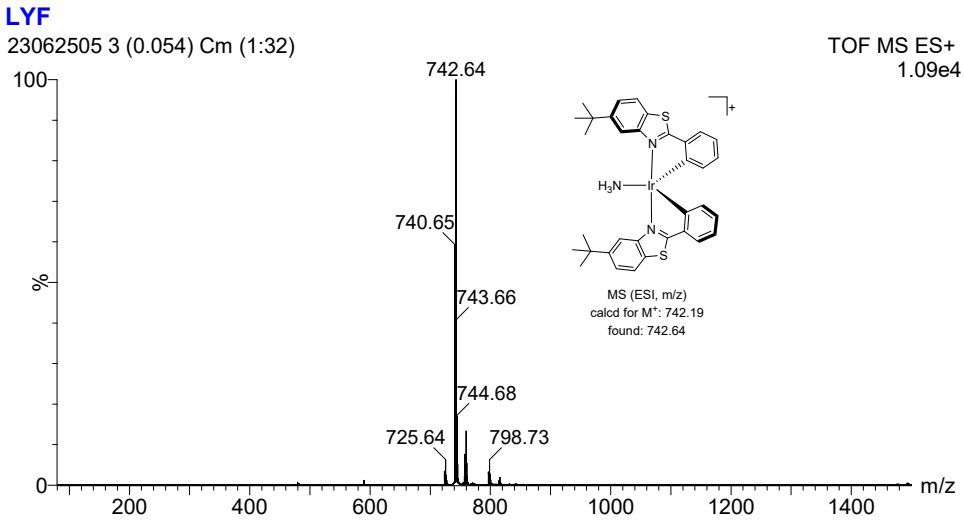

Add **S1** (250 mg, 0.26 mmol, 1 equiv.), $Et_3N$ (126 mg, 1.25 mmol, 2.5 equiv.) and **S2** (116 mg, 0.53 mmol, 2 equiv.) in $CH_2Cl_2$. Stir the reaction mixture for 4 h at room temperature. The reaction mixture was cooled to room temperature and concentrated to dryness. The residue was subjected to a flash silica gel chromatography (PE/EA) to separate the two diastereomers. Use PE:EA (25:1) as the eluent until the first diastereomer Λ-**S3** (118 mg, 0.12 mmol, 47% yield) and then use PE:EA (10:1) to elute the second diastereomer Δ-**S3** (130 mg, 0.14mmol, 52% yield).




Δ-**S3** Δ-IrS

A suspension of the iridium auxiliary complexes Δ-**S3** (160 mg, 0.17 mmol, 1 equiv.) and TFA (78 μL, 1 mmol, 6 equiv.) in $CH_3CN$ (HPLC, 10 mL) was stired for 30 minutes. Remove the volatiles in vacuo to obtain a yellow oil. Dissolve the yellow oil in 10 ml of $CH_3CN$ and add $NH_4PF_6$ (554 mg, 3.4 mmol, 20 equiv.) in one portion. Stir at room temperature for another 30 min. The reaction mixture was concentrated to dryness and subjected to a flash silica gel chromatography (100% $CH_2Cl_2$ to $CH_2Cl_2/CH_3CN$ = 30:1, $R_f$ = 0.3 in $CH_2Cl_2/CH_3CN$ = 20:1) to give the enantiopure catalysts Δ-IrS (106 mg, 0.11 mmol, 66%) as yellow solids.

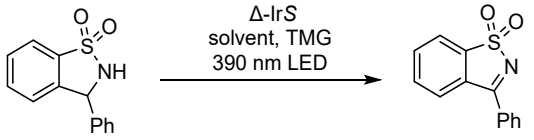
## 3. Intermediate MS




16-electron intermediate MS

## 4. Extra optimization of the reaction conditions

### Table S1 Oxidation reaction solvent screening[a]



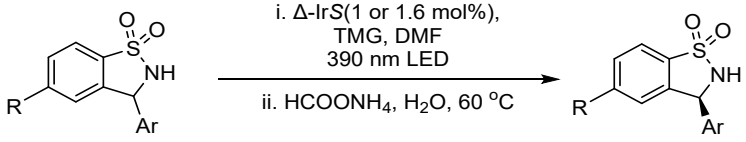

(±)-**4a** S1

| Entry[a,c] | Oxidant | Solvent | Yield[b] |
|---|---|---|---|
| 1 | air | MeCN | 77% |
| 2 | air | DCM | 81% |
| 3 | air | THF | 76% |
| 4 | air | toluene | 61% |

| | | | |
|---|---|---|---|
| 5 | air | acetone | 58% |
| 6 | air | $CHCl_3$ | 68% |
| 7 | air | 1,4-dioxane | 67% |
| 8 | air | $CCl_4$ | 57% |
| 9 | air | DCE | >95% |
| 10 | air | DMSO | >95% |
| 11 | air | EA | >95% |
| 12 | air | DMF | >95% |
| 13 | None (in $N_2$) | DMF | none |

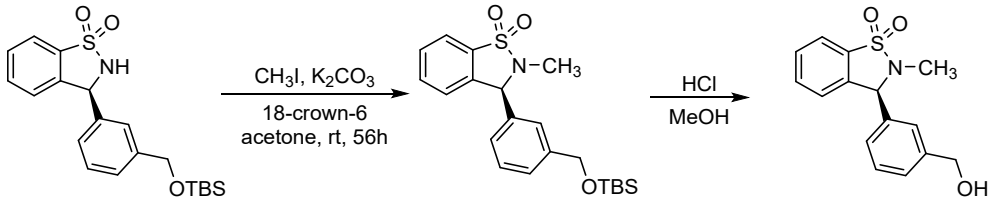
[a]Reaction conditions: (±)-**4a** (0.2 mmol), Δ-IrS (1 mol%), TMG (0.1 mmol), solvent (2 mL), 390 nm LED, 8h. [b]Determined by $^1$H NMR with 1,3,5-trimethoxybenzene as the internal standard; [c]None of the raw materials have been reacted.

## 5. General procedure for deracemization of sulfonamides




Racemic sulfonamides **1** (0.2 mmol) were placed in a 10 mL glass bottle and then Δ-Ir*S*(1 mol%), TMG (0.5 equiv.), DMF (2 mL) was added in air. After this, the solution was irradiated under stirring with 40 W 390nm LEDs (distance approx. 4 cm) at room temperature for 8 h. After the reaction is completed, $HCOONH_4$ (9 equiv) and $H_2O$ (1 mL) are added to the system in air and heated at 60°C for 18 hours. The solvent was removed under reduced pressure and the crude product was purified by flash chromatography on silica gel (PE/DCM = 1:4) to provide pure products. Enantiomeric excess was established by HPLC analysis. Absolute configuration of the products were assigned as *S* by comparing their optical rotation with the literature.

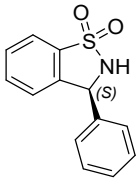
## 6. Synthesis of Cyclic Sulfonamides 3




**1b** **S4** **3**

A mixture of **1b** (115 mg, 0.3 mmol), iodomethane (47 mg, 0.33 mmol), dried potassium carbonate (54 mg, 0.39 mmol), and 18-crown-6 (54 mg, 0.03 mmol) in dry acetone (2 mL) was stirred at room temperature under nitrogen for 56 h. The mixture was evaporated to dryness and purified by flash chromatography on silica gel (EtOAc) to afford product **S4** as a white solid (117 mg, yield: 97%). A mixture of **S4** (55 mg, 0.137 mmol) and 3 mol/L HCl (137 μL, 0.417 mmol) in MeOH (3 mL) was stirred at room temperature for 2 h. The mixture was evaporated to dryness and purified by flash chromatography on silica gel (EtOAc) to afford product **3** as a white solid (36 mg, yield: 87%).

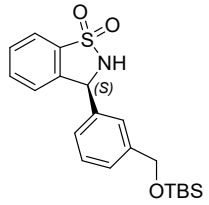
## 7. Characterization Data



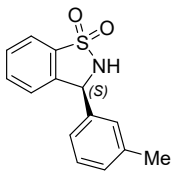

**(*S*)-3-phenyl-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1a):** 97% yield, 96% ee(*S*), known compound[4], white solid, m.p.= 134-135℃, $[\alpha]^{20}_D$= +81.1 (c 0.46, $CH_2Cl_2$) [lit.[4] $[\alpha]^{25}_D$ = +85.2 (c 0.5, $CH_2Cl_2$), 90% ee (*S*)]. $^1$H NMR (400 MHz, $CDCl_3$) δ 7.88–7.83 (m, 1H), 7.61–7.53 (m, 2H), 7.40 (d, *J* = 1.8 Hz, 5H), 7.20–7.13 (m, 1H), 5.74 (d, *J* = 3.8 Hz, 1H), 5.06 (d, *J* = 3.8 Hz, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 139.9, 138.8, 134.7, 133.4, 129.5, 129.3, 129.0, 127.6, 125.4, 121.1, 77.4, 77.1, 76.8, 61.4. HPLC: Chiracel OJ column,

220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 20.6 min (maj) and 22.5 min.

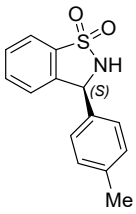
**(*S*)-3-(3-(((tert-butyldimethylsilyl)oxy)methyl)phenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1b):** 66% yield, 91% ee(*S*), known compound[4a], colorless oil, $[\alpha]^{20}_D$= +60.9 (c 0.96, $CHCl_3$). $^1$H NMR (400 MHz, $CDCl_3$) δ 8.00 – 7.79 (m, 1H), 7.67 – 7.49 (m, 2H), 7.45 – 7.31 (m, 3H), 7.26 (d, J = 6.5 Hz, 1H), 7.19 – 7.12 (m, 1H), 5.74 (d, J = 4.0 Hz, 1H), 5.02 (d, J = 4.1 Hz, 1H), 4.75 (s, 2H), 0.93 (s, 9H), 0.10 (d, J = 2.2 Hz, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 142.7, 139.9, 138.8, 134.8, 133.3, 129.5, 129.2, 126.6, 126.2, 125.5, 125.1, 121.1, 64.6, 61.4, 26.0, 18.4, -5.2. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.8 mL/min, retention time 7.4 min (maj) and 9.0 min.



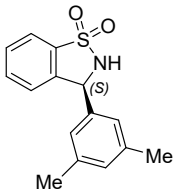

**(*S*)-3-(*m*-tolyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1c):** 97% yield, 92% ee(*S*), known compound[4b], white solid, m.p.= 124-126℃, $[\alpha]^{20}_D$= +71.0 (c 0.44, $CH_2Cl_2$) [lit.[4] $[\alpha]^{20}_D$ = +96.1 (c 0.28, $CH_2Cl_2$), 89% ee (*S*)]. $^1$H NMR (400 MHz, $CDCl_3$) δ 7.80 (t, *J* = 6.1 Hz, 1H), 7.55 (d, *J* = 15.1 Hz, 2H), 7.26 (d, *J* = 7.1 Hz, 1H), 7.17 (d, *J* = 7.8 Hz, 4H), 5.68 (s, 1H), 5.32 (s, 1H), 2.35 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 140.0, 139.1, 138.8, 134.7, 133.3, 129.8, 129.4, 129.1, 128.1, 125.4, 124.7, 121.1, 77.5, 77.1, 76.8, 61.4, 21.4. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*- propanol = 80/20, flow = 1.0 mL/min, retention time 10.8 min and 12.0 min (maj).



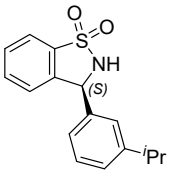

**(*S*)-3-(*p*-tolyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1d):** 95% yield, 92% ee(*S*) known compound[4b], white solid, m.p.= 169-171℃, $[\alpha]^{20}_D$= +58.1 (c 0.58, $CH_2Cl_2$) [lit.[4] $[\alpha]^{20}_D$ = +66.5 (c 0.52, $CH_2Cl_2$), 90% ee (*S*)]. $^1$H NMR (400 MHz, $CDCl_3$) δ 7.90–7.71 (m, 1H), 7.54 (qt, *J* = 6.7, 3.5 Hz, 2H), 7.31–7.23 (m, 2H), 7.19 (d, *J* = 7.7 Hz, 2H), 7.14 (d, *J* = 7.3 Hz, 1H), 5.69 (s, 1H), 2.36 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 140.2, 139.0, 135.8, 134.8, 133.3, 129.9, 129.4, 127.6, 125.4, 121.1, 77.4, 77.1, 76.8, 61.2, 21.2. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 20.2 min and 22.8 min (maj).



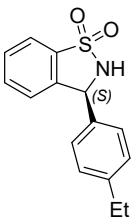

**(*S*)-3-(3,5-dimethylphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1e):** 93% yield, 95% ee(*S*), known compound[6], white solid, m.p.= 204.5-206℃, $[\alpha]^{20}_D$= +74.1 (c 0.45, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.93–7.74 (m, 1H), 7.54 (q, *J* = 7.7, 6.3 Hz, 2H), 7.16 (d, *J* = 6.4 Hz, 1H), 6.99 (d, *J* = 11.6 Hz, 3H), 5.65 (d, *J* = 3.2 Hz, 1H), 5.26–4.92 (m, 1H), 2.31 (s, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 140.1, 139.0, 138.61, 134.8, 133.3, 130.7, 129.4, 125.4, 125.3, 121.1, 77.4, 77.1, 76.8, 61.4, 21.3. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.6 mL/min, retention time 17.5 min and 19.6 min (maj).



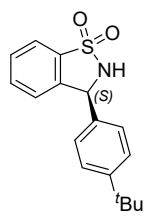

**(*S*)-3-(3-isopropylphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1f):** 99% yield, 93% ee(*S*), unknown compound, colorless liquid, $[\alpha]^{20}_D$= +56.1 (c 1.00, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.81 (d, *J* = 6.9 Hz, 1H), 7.54 (m, *J* = 6.1 Hz, 2H), 7.31 (t, *J* = 7.5 Hz, 1H), 7.25 (d, *J* = 9.1 Hz, 2H), 7.17 (t, *J* = 7.1 Hz, 2H), 5.72 (s, 1H), 5.30 (s, 1H), 2.92 (m, *J* = 6.9 Hz, 1H), 1.26 (d, *J* = 6.9 Hz, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 149.8, 140.1, 139.1, 134.5, 133.3, 129.4, 129.2, 126.8, 125.8, 125.5, 125.0, 120.9, 77.8, 77.5, 77.2, 61.4, 34.0, 24.0, 24.0. HRMS Calculated for $C_{16}H_{18}NO_2S$ $[M+H]^+$ 288.1053, found: 288.1053. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 15.0 min and 21.4 min (maj).




**(*S*)-3-(4-ethylphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1g):** 90% yield, 87% ee(*S*), known compound[7], white solid, m.p.= 123-124℃, $[\alpha]^{20}_D$= +81.7 (c 0.61, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.95–7.74 (m, 1H), 7.65–7.39 (m, 2H), 7.29 (d, *J* = 8.1 Hz, 2H), 7.23 (d, *J* = 7.9 Hz, 2H), 7.17 (d, *J* = 8.4 Hz, 1H), 5.71 (s, 1H), 4.99 (s, 1H), 2.67 (q, *J* = 7.6 Hz, 2H), 1.25 (t, *J* = 7.6 Hz, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 145.4, 140.1, 136.0, 134.8, 133.4 , 129.4, 128.8, 127.7, 125.5, 121.1, 61.2, 28.6, 15.5. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.6 mL/min, retention time 43.9 min (maj) and 50.3 min.

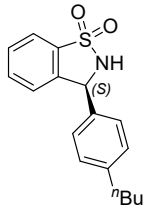



**(*S*)-3-(4-(*tert*-butyl)phenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1h):** 73% yield, 99% ee(*S*), known compound[6], white solid, m.p.= 145.1-146.2℃, $[\alpha]^{20}_D$= +63.3 (c 0.15, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.83 (d, *J* = 7.1 Hz, 1H), 7.55 (t, *J* = 5.9 Hz, 2H), 7.41 (d, *J* = 8.1 Hz, 2H), 7.30 (d, *J* = 8.2 Hz, 2H), 7.18 (d, *J* = 7.2 Hz, 1H), 5.73 (s, 1H), 1.32 (s, 9H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 152.2, 140.1, 135.7, 134.9, 133.3, 129.4, 127.4, 126.2, 125.5, 121.1, 77.4, 77.1, 76.8, 61.2, 34.7, 31.3. HPLC: Chiracel

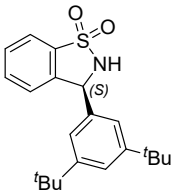


AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.6 mL/min, retention time 12.8 min (maj) and 14.9 min.

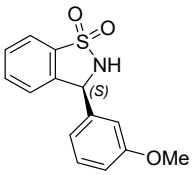
**(*S*)-3-(4-butylphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1i):** 82% yield, 88% ee(*S*), unknown compound, white solid, m.p.= 87-89.4℃, $[\alpha]^{20}_D$= +68.2 (c 0.5, $CH_3Cl$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.80 (t, *J* = 6.6 Hz, 1H), 7.54 (q, *J* = 6.7, 6.2 Hz, 2H), 7.27 (d, *J* = 7.9 Hz, 2H), 7.17 (dd, *J* = 16.0, 7.3 Hz, 3H), 5.70 (s, 1H), 5.32 (s, 1H), 2.61 (t, *J* = 7.8 Hz, 2H), 1.60 (q, *J* = 7.4 Hz, 2H), 1.37 (m, *J* = 8.3, 7.3 Hz, 2H), 0.94 (t, *J* = 7.3 Hz, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 144.0, 140.1, 136.0, 134.7, 133.3, 129.4, 129.2, 127.6, 125.5, 121.1, 77.5, 77.2, 76.9, 61.2, 35.4, 33.5, 22.4, 14.0. HRMS Calculated for $C_{17}H_{20}NO_2S$ $[M+H]^+$ 302.1209, found: 302.1209. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.8 mL/min, retention time 10.3 min (maj) and 15.4 min.



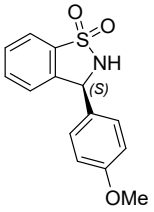
**(*S*)-3-(3,5-di-*tert*-butylphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1j):** 86% yield, 62% ee(*S*), unknown compound, white solid, m.p.= 160.6-162.8℃, $[\alpha]^{20}_D$= +68.9 (c 0.27, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.93–7.74 (m, 1H), 7.54 (q, *J* = 7.7, 6.3 Hz, 2H), 7.16 (d, *J* = 6.4 Hz, 1H), 6.99 (d, *J* = 11.6 Hz, 3H), 5.65 (d, *J* = 3.2 Hz, 1H), 5.26–4.92 (m, 1H), 2.31 (s, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 152.0, 140.3, 137.8, 135.1, 133.2, 129.3, 125.4, 123.1, 121.7, 121.1, 77.4, 77.1, 76.8, 62.1, 35.0, 31.4. HRMS Calculated for $C_{21}H_{28}NO_2S$ $[M+H]^+$ 358.1835, found: 358.1835. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 90/10, flow = 0.7 mL/min, retention time 11.1 min and 12.5 min (maj).



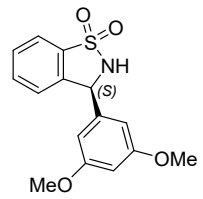
**(*S*)-3-(3-methoxyphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1k):** 84% yield, 81% ee(*S*), known compound[6], white solid, m.p.= 116.7-118.1℃, $[\alpha]^{20}_D$= +54.8 (c 0.2, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.88–7.82 (m, 1H), 7.57 (t, *J* = 3.6 Hz, 2H), 7.33 (t, *J* = 8.2 Hz, 1H), 7.19 (d, *J* = 8.1 Hz, 1H), 7.04–6.86 (m, 3H), 5.71 (s, 1H), 5.02 (s, 1H), 3.80 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 160.2, 140.4, 139.7, 134.6, 133.3, 130.3, 129.5, 125.4, 121.1, 119.7, 114.5, 113.0, 77.5, 77.1, 76.8, 61.2, 55.4. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.7 mL/min, retention time 22.1 min and 30.5 min (maj).



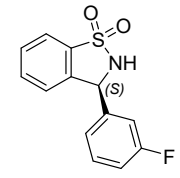
**(*S*)-3-(4-methoxyphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1l):** 57% yield, 89% ee(*S*), known compound[4b], white solid, m.p.= 151-154℃, $[\alpha]^{20}_D$= +32.7 (c 0.33, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.87–7.74 (m, 1H), 7.54 (q, *J* = 7.3, 6.2 Hz, 2H), 7.27 (d, *J* = 8.8 Hz, 2H), 7.18–7.10 (m, 1H), 6.90 (d, *J* = 8.7 Hz, 2H), 5.68 (d, *J* = 2.4 Hz, 1H), 5.14 (s, 1H), 3.81 (s, 3H). $^{13}$C NMR (101 MHz, CDCl3) δ 160.1, 140.3, 135.0, 133.3, 130.7, 129.4, 129.0, 125.4, 121.1, 114.6, 77.4, 77.1, 76.8, 61.0, 55.4. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.8 mL/min, retention time 24.9 min (maj) and 38.2 min.



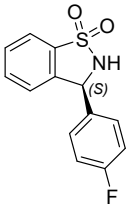
**(*S*)-3-(3,5-dimethoxyphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1m):** 71% yield, 87% ee(*S*), known compound[4c], white solid, m.p.= 167-168℃, $[\alpha]^{20}_D$= +71.5 (c 0.35, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.80 (d, *J* = 6.7 Hz, 1H), 7.53 (q, *J* = 7.0 Hz, 2H), 7.20 (d, *J* = 6.7 Hz, 1H), 6.53 (d, *J* = 2.2 Hz, 2H), 6.42 (t, *J* = 2.3 Hz, 1H), 5.63 (s, 1H), 5.44 (s, 1H), 3.75 (s, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 152.0, 140.3, 137.8, 135.1, 133.2, 129.3, 125.4, 123.1, 121.7, 121.1, 77.4, 77.1, 76.8, 62.1, 35.0, 31.4. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 26.3 min (maj) and 30.8 min.



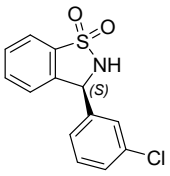
**(*S*)-3-(3-fluorophenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1n):** 76% yield, 91% ee(*S*), known compound[6], white solid, m.p.= 113-118℃, $[\alpha]^{20}_D$= +74.0 (c 0.25, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.80 (d, *J* = 6.9 Hz, 1H), 7.56 (p, *J* = 7.4 Hz, 2H), 7.44 – 7.29 (m, 1H), 7.25 – 6.98 (m, 4H), 5.75 (d, *J* = 3.1 Hz, 1H), 5.58 (d, *J* = 4.4 Hz, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 161.8, 141.5, 139.1, 134.4, 133.5, 130.8, 129.7, 125.3, 123.2, 121.2, 116.1, 114.6, 77.4, 77.1, 76.8, 60.6. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.6 mL/min, retention time 23.5 min and 31.3 min (maj).



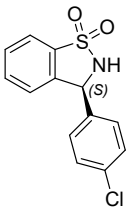
**(*S*)-3-(4-fluorophenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1o):** 94% yield, 92% ee(*S*), known compound[5], white solid, m.p.= 163-167℃, $[\alpha]^{20}_D$= +84.6 (c 0.46, $CH_2Cl_2$). [lit.[4] $[\alpha]^{20}_D$ = +66.9 (c 0.76, $CH_2Cl_2$), 85% ee (*S*)]. $^1$H NMR (400 MHz, $CDCl_3$) δ 7.91–7.77 (m, 1H), 7.66–7.52 (m, 2H), 7.37 (dd, *J* = 8.5, 5.3 Hz, 2H), 7.22 – 6.97 (m, 3H), 5.74 (s, 1H), 5.14 (s, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 164.3, 161.8, 139.6, 134.7, 133.5, 129.7, 129.5, 129.4, 125.3, 121.2, 116.4, 116.1, 60.6, 53.5. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 12.8 min (maj) and 19.3 min.



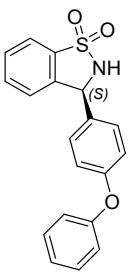
**(*S*)-3-(3-chlorophenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1p):** 79% yield, 95% ee(*S*), known compound[8], white solid, m.p.= 137-138℃, $[\alpha]^{20}_D$= +101.15 (c 0.29, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.92–7.79 (m, 1H), 7.70–7.51 (m, 2H), 7.49–7.29 (m, 4H), 7.24–7.11 (m, 1H), 5.72 (s, 1H), 5.31 (d, *J* = 6.1 Hz, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 140.8, 139.0, 135.1, 134.5, 133.6, 130.6, 129.8, 129.3, 127.6, 125.8, 125.3, 121.3, 77.4, 77.1, 76.8, 60.6. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 16.1 min (maj) and 20.6 min.



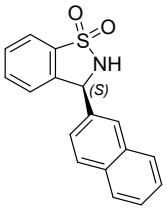
**(*S*)-3-(4-chlorophenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1q):** 85% yield, 88% ee(*S*), known compound[5], white solid, m.p.= 179-181℃, $[\alpha]^{20}_D$= +83.2 (c 0.25, $CH_2Cl_2$). $^1$H NMR (400 MHz, DMSO-$d_6$) δ 8.66 (s, 1H), 7.88 (d, *J* = 7.0 Hz, 1H), 7.71–7.55 (m, 2H), 7.53–7.41 (m, 4H), 7.30 (d, *J* = 7.5 Hz, 1H), 5.92 (s, 1H). $^{13}$C NMR (101 MHz, DMSO-$d_6$) δ 140.1, 140.0, 135.2, 133.7, 133.3, 130.1, 129.4, 129.2, 126.0, 121.1, 59.5, 40.6, 40.4, 40.2, 40.0, 39.8, 39.6, 39.4. HPLC: Chiracel OJ column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.7 mL/min, retention time 25.0 min (maj) and 29.7 min.



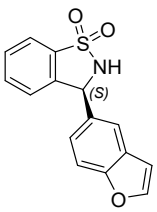
**(*S*)-3-(4-phenoxyphenyl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1r):** 79% yield, 92% ee(*S*), unknown compound, white solid, m.p.= 101.5-104.8℃, $[\alpha]^{20}_D$= +44.2 (c 0.5, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.83 (d, *J* = 7.4 Hz, 1H), 7.57 (p, *J* = 7.2 Hz, 2H), 7.45–7.29 (m, 4H), 7.17 (q, *J* = 7.4 Hz, 2H), 7.01 (dd, *J* = 15.6, 8.3 Hz, 4H), 5.74 (s, 1H), 5.31 (s, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 158.1, 156.5, 139.9, 134.8, 133.4, 133.3, 130.0, 129.6, 129.2, 125.5, 123.9, 121.1, 119.4, 119.0, 77.5, 77.2, 76.8, 60.8. HRMS Calculated for $C_{19}H_{16}NO_3S$ $[M+H]^+$ 338.0845, found: 338.0845. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.6 mL/min, retention time 30.9 min (maj) and 38.4 min.



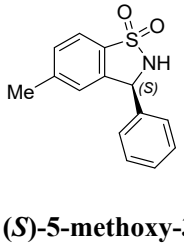
**(*S*)-3-(naphthalen-2-yl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1s):** 92% yield, 96% ee(*S*), known compound[5], white solid, m.p.= 191.2-192.4℃, $[\alpha]^{20}_D$= +127.0 (c 0.37, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 8.06–7.74 (m, 5H), 7.53 (d, *J* = 4.2 Hz, 4H), 7.38 (d, *J* = 8.6 Hz, 1H), 7.13 (s, 1H), 5.87 (s, 1H), 5.34 (s, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 139.7, 136.0, 134.7, 133.5, 133.4, 133.1, 129.6, 129.5, 128.1, 127.9, 127.2, 126.8, 126.8, 125.5, 124.5, 121.2, 77.4, 77.1, 76.8, 61.5. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.7 mL/min, retention time 30.4 min and 38.7 min (maj).



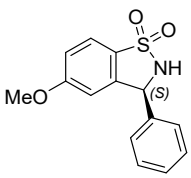
**(*S*)-3-(benzofuran-5-yl)-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (1t):** 86% yield, 88% ee(*S*), unknown compound, white solid, m.p.= 140-143.1℃, $[\alpha]^{20}_D$= +96.3 (c 0.59, $CH_2Cl_2$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.92–7.72 (m, 1H), 7.71–7.57 (m, 2H), 7.57–7.39 (m, 3H), 7.31–7.19 (m, 1H), 7.17 –7.04 (m, 1H), 6.75 (d, *J* = 2.2 Hz, 1H), 5.82 (s, 1H), 5.47 (s, 1H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 155.0, 146.1, 140.3, 134.6, 133.5, 133.4, 129.5, 128.1, 125.5, 123.8, 121.1, 120.7, 112.2, 106.7, 77.5, 77.2, 76.9, 61.5. HRMS Calculated for $C_{15}H_{12}NO_3S$ $[M+H]^+$ 286.0532, found: 286.0532. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.8 mL/min, retention time 38.0 min (maj) and 49.9 min.



**(*S*)-5-methyl-3-phenyl-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (2a):** 98% yield, 92% ee(*S*), known compound[4d], white solid, m.p.= 171-172℃, $[\alpha]^{20}_D$= +63.8 (c 0.5, $CH_3Cl$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.70 (d, J = 8.0 Hz, 1H), 7.39 (m, J = 2.4 Hz, 5H), 7.33 (d, J = 7.5 Hz, 1H), 6.92 (s, 1H), 5.69 (d, J = 4.1 Hz, 1H), 5.20 (s, 1H), 2.37 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 144.4, 140.2, 139.0, 132.1, 130.5, 129.2, 129.0, 127.6, 125.5, 120.9, 77.4, 77.1, 76.8, 61.3, 21.7. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 85/15, flow = 0.5 mL/min, retention time 37.3 min and 39.6 (maj) min.

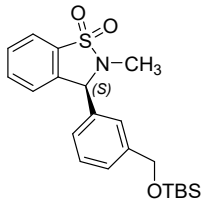


**(*S*)-5-methoxy-3-phenyl-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (2b):** 94% yield, 85% ee(*S*), known compound[4d], white solid, m.p.= 120-121℃, $[\alpha]^{20}_D$= +61.4 (c 0.52, $CH_3Cl$). $^1$H NMR (400 MHz,



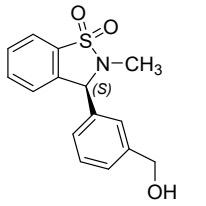
$CDCl_3$) δ 7.71 (d, J = 8.7 Hz, 1H), 7.38 (m, 5H), 7.03 (d, J = 6.4 Hz, 1H), 6.53 (d, J = 2.2 Hz, 1H), 5.66 (d, J = 4.1 Hz, 1H), 5.21 (s, 1H), 3.77 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 163.8, 142.5, 138.9, 129.3, 129.0, 127.6, 126.9, 122.6, 116.5, 109.2, 77.4, 77.1, 76.8, 61.2, 55.8. HPLC: Chiracel AD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 85/15, flow = 0.7 mL/min, retention time 36.7 min and 42.5(maj) min.

**(*S*)-3-(3-(((tert-butyldimethylsilyl)oxy)methyl)phenyl)-2-methyl-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide(S4):**




97% yield, 89% ee(*S*), unknown compound, white solid, m.p.= 149.1-152.2℃, $[\alpha]^{20}_D$= +105.9 (c 0.57, $CHCl_3$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.63–7.47 (m, 2H), 7.45–7.33 (m, 2H), 7.29 (t, J = 2.0 Hz, 1H), 7.23 (tt, J = 5.2, 3.0 Hz, 1H), 7.09–7.01 (m, 1H), 5.21 (s, 1H), 4.76 (s, 2H), 2.78 (s, 3H), 0.93 (s, 9H), 0.10 (d, J = 3.6 Hz, 6H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 142.7, 138.4, 136.6, 133.0, 129.3, 129.1, 126.8, 126.8, 125.7, 125.1, 121.1, 67.0, 64.6, 27.4, 25.9, 18.4, -5.2. HRMS Calculated for $C_{21}H_{30}NO_3SSi$ $[M+H]^+$ 404.1716, found: 404.1703. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 80/20, flow = 0.8 mL/min, retention time 6.8 min (maj) and 8.5 min.

**(*S*)-3-(3-(hydroxymethyl)phenyl)-2-methyl-2,3-dihydrobenzo[*d*]isothiazole 1,1-dioxide (3):** 87% yield, 88% ee(*S*), known compound[4b], white solid, $[\alpha]^{20}_D$= +134.4 (c 0.17, $CHCl_3$). $^1$H NMR (400 MHz, $CDCl_3$) δ 7.95–7.75 (m, 1H), 7.60–7.45 (m, 2H), 7.39 (d, J = 5.6 Hz, 2H), 7.33 (s, 1H), 7.26 (m, J = 5.8, 2.6, 2.2 Hz, 1H), 7.13 – 6.98 (m, 1H), 5.21 (s, 1H), 4.68 (s, 2H), 2.76 (s, 3H). $^{13}$C NMR (101 MHz, $CDCl_3$) δ 142.2, 138.3, 136.9, 133.9, 133.1, 129.4, 129.4, 127.7, 127.3, 126.3, 125.1, 121.1, 77.4, 77.1, 76.8, 67.0, 64.6, 27.5. HPLC: Chiracel OD column, 220 nm, 30 ℃, *n*-hexane/*i*-propanol = 70/30, flow = 0.8 mL/min, retention time 6.8 min (maj) and 8.5 min.




## 8. References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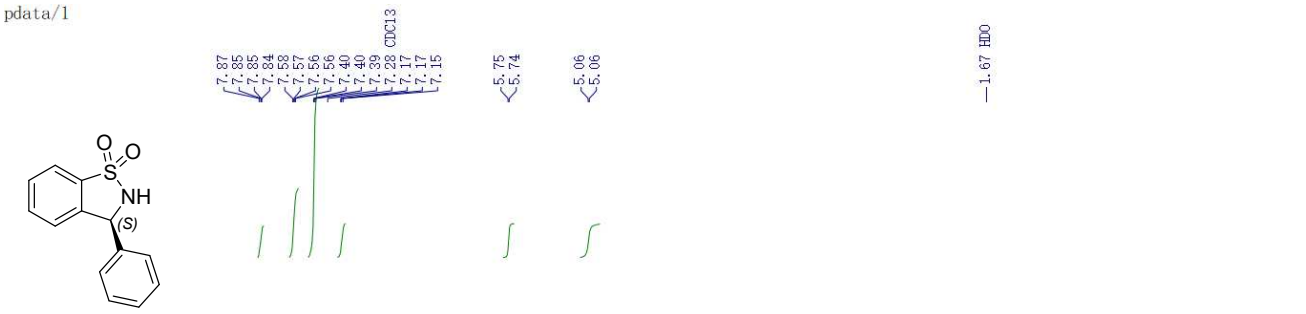
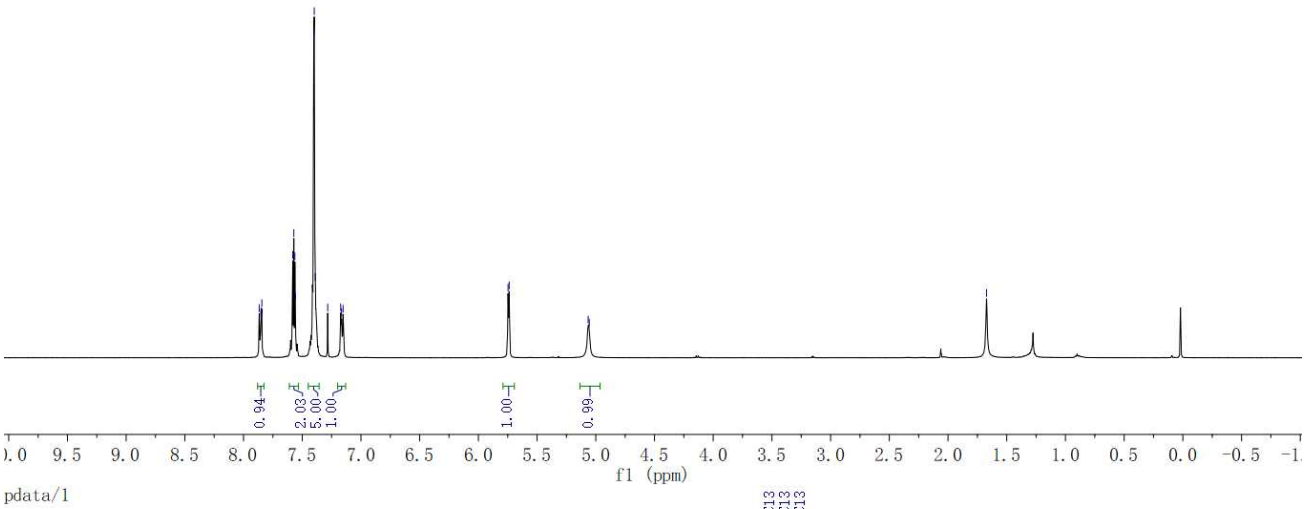
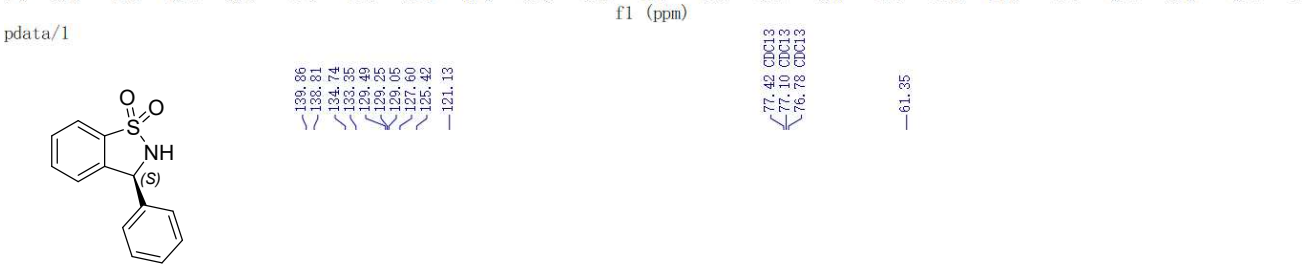
## 9. Copy of NMR and HPLC for the Compounds

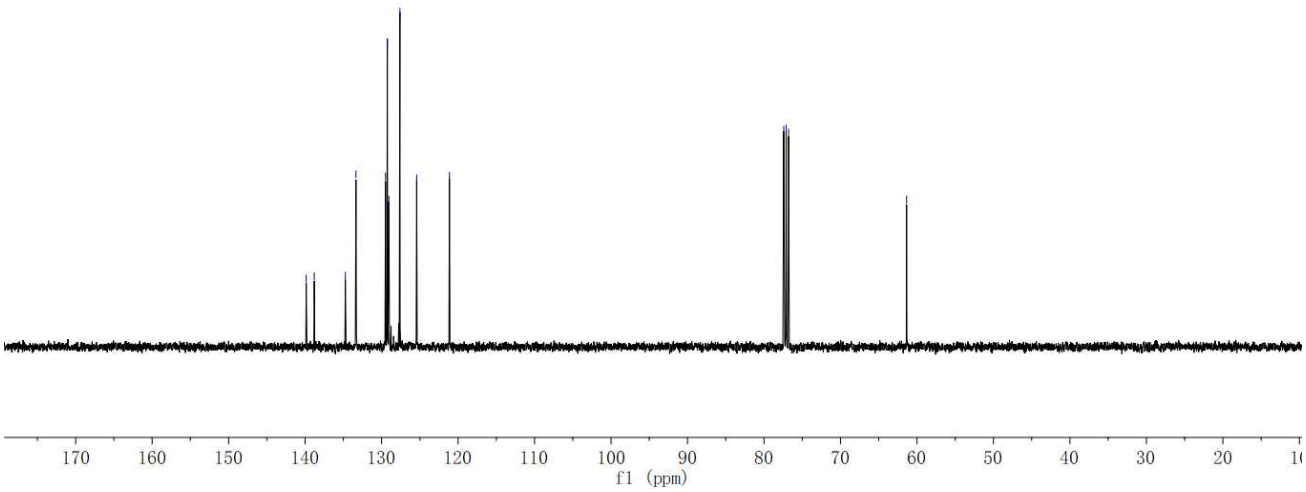


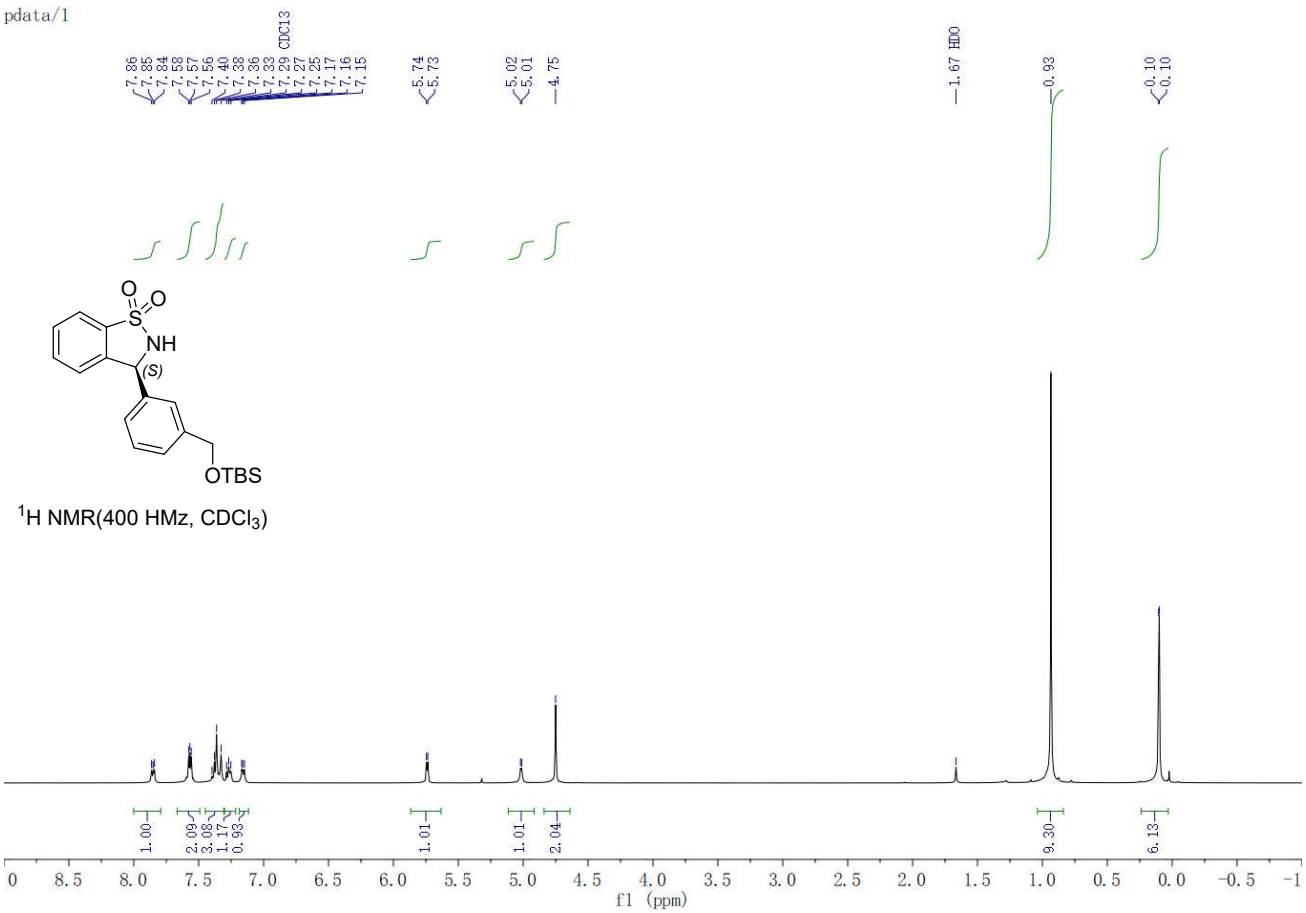

$^{1}$H NMR(400 HMz, $CDCl_3$)



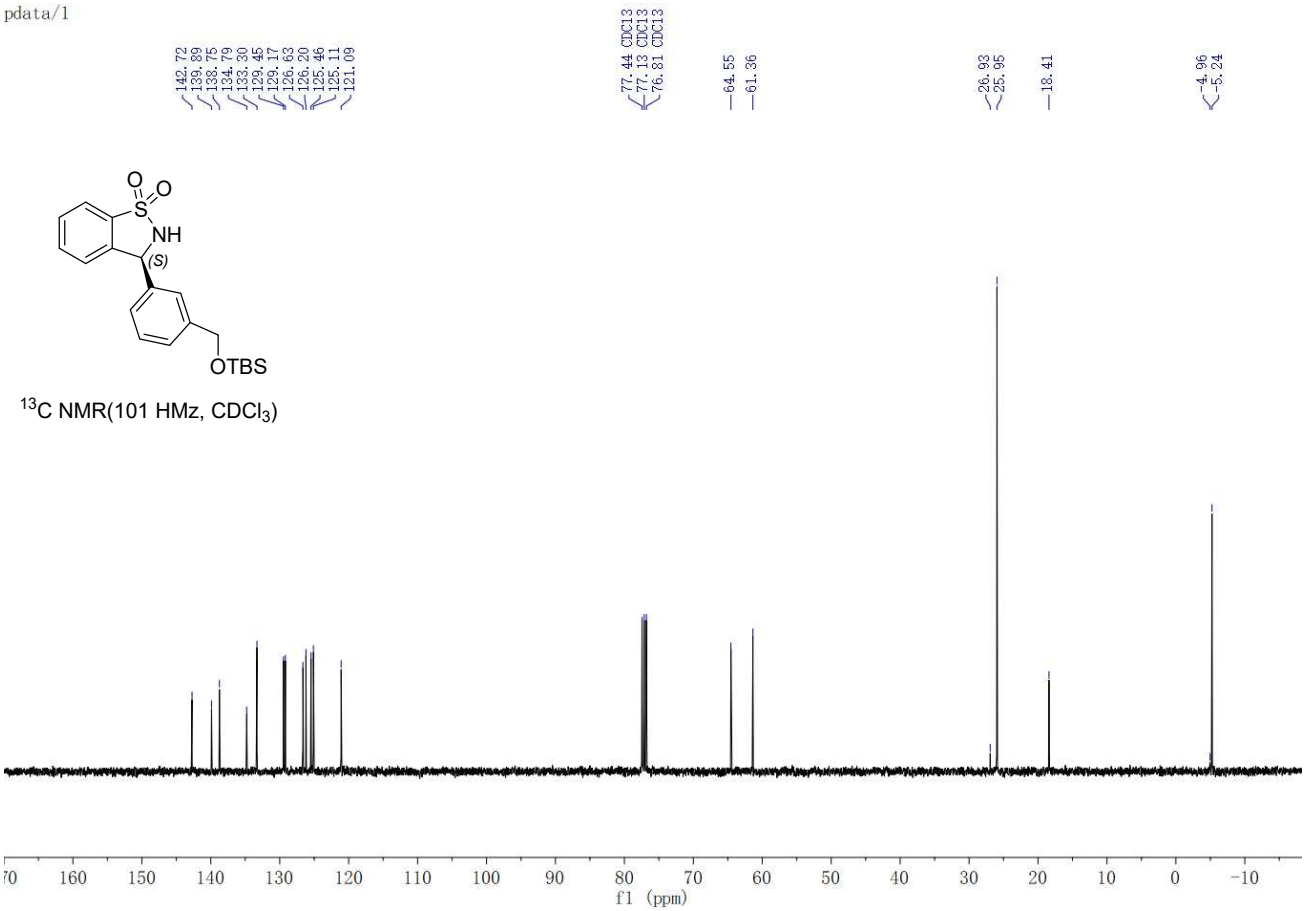




$^{13}$C NMR(101 HMz, $CDCl_3$)






$^{1}$H NMR(400 HMz, $CDCl_3$)

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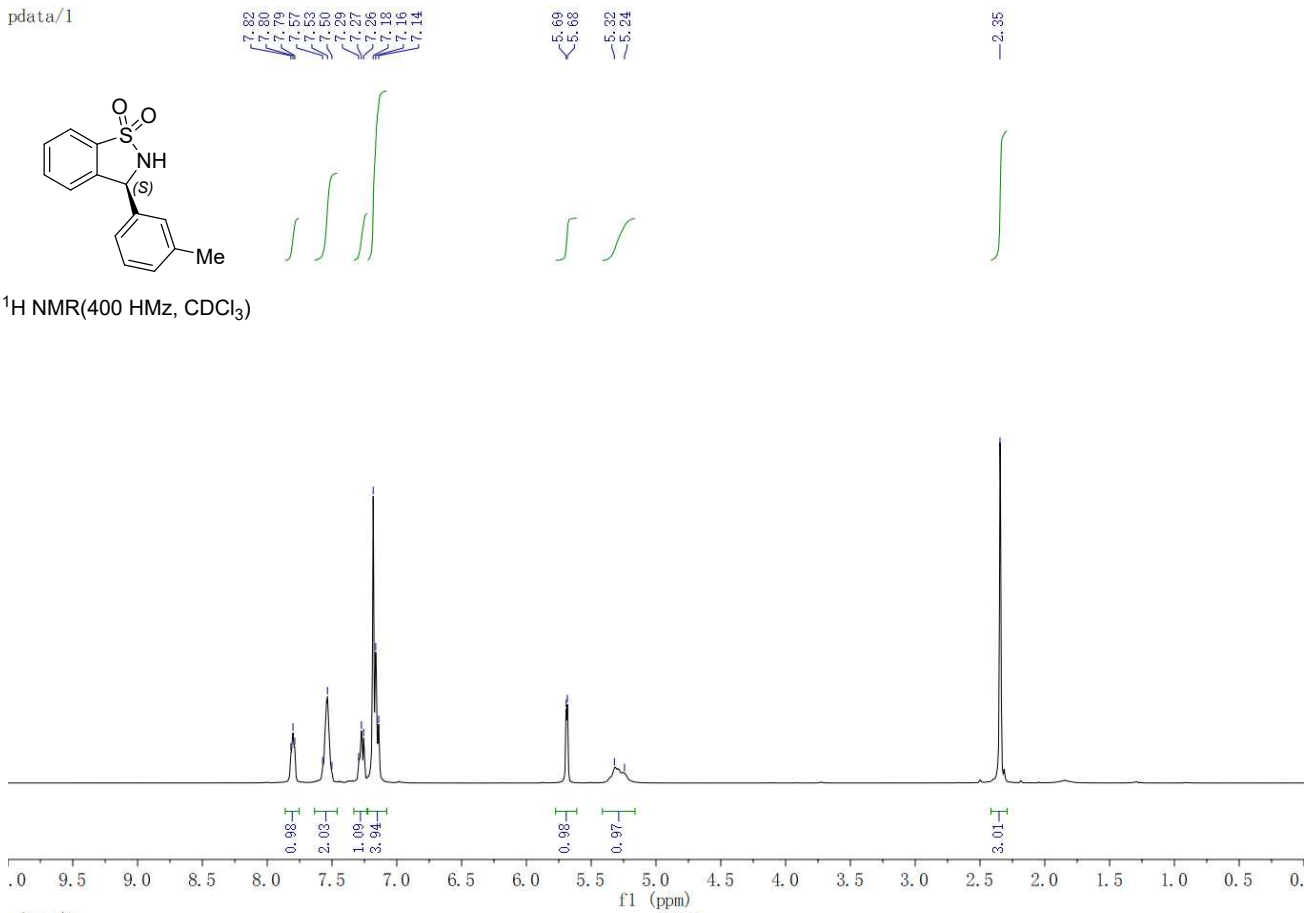


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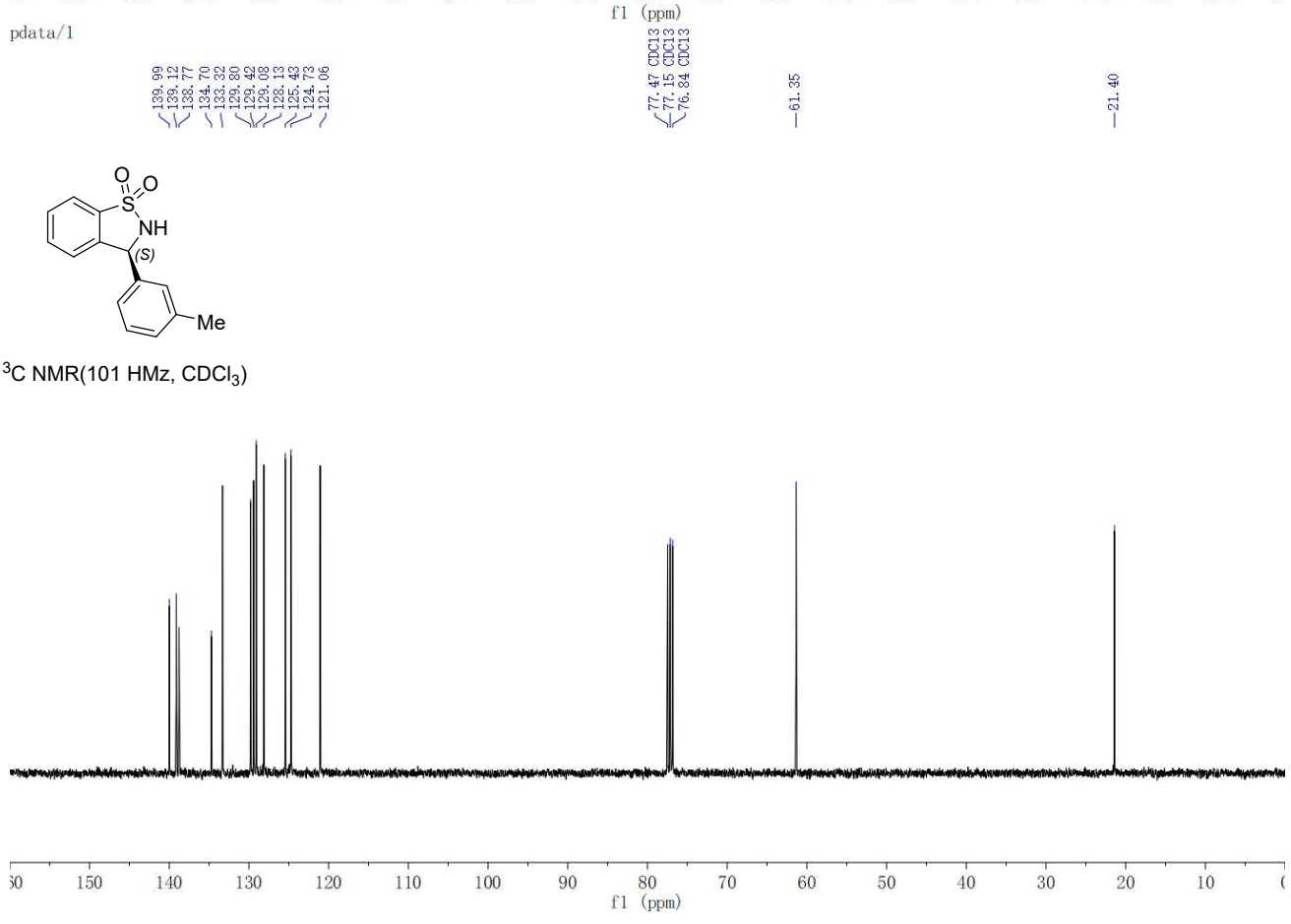


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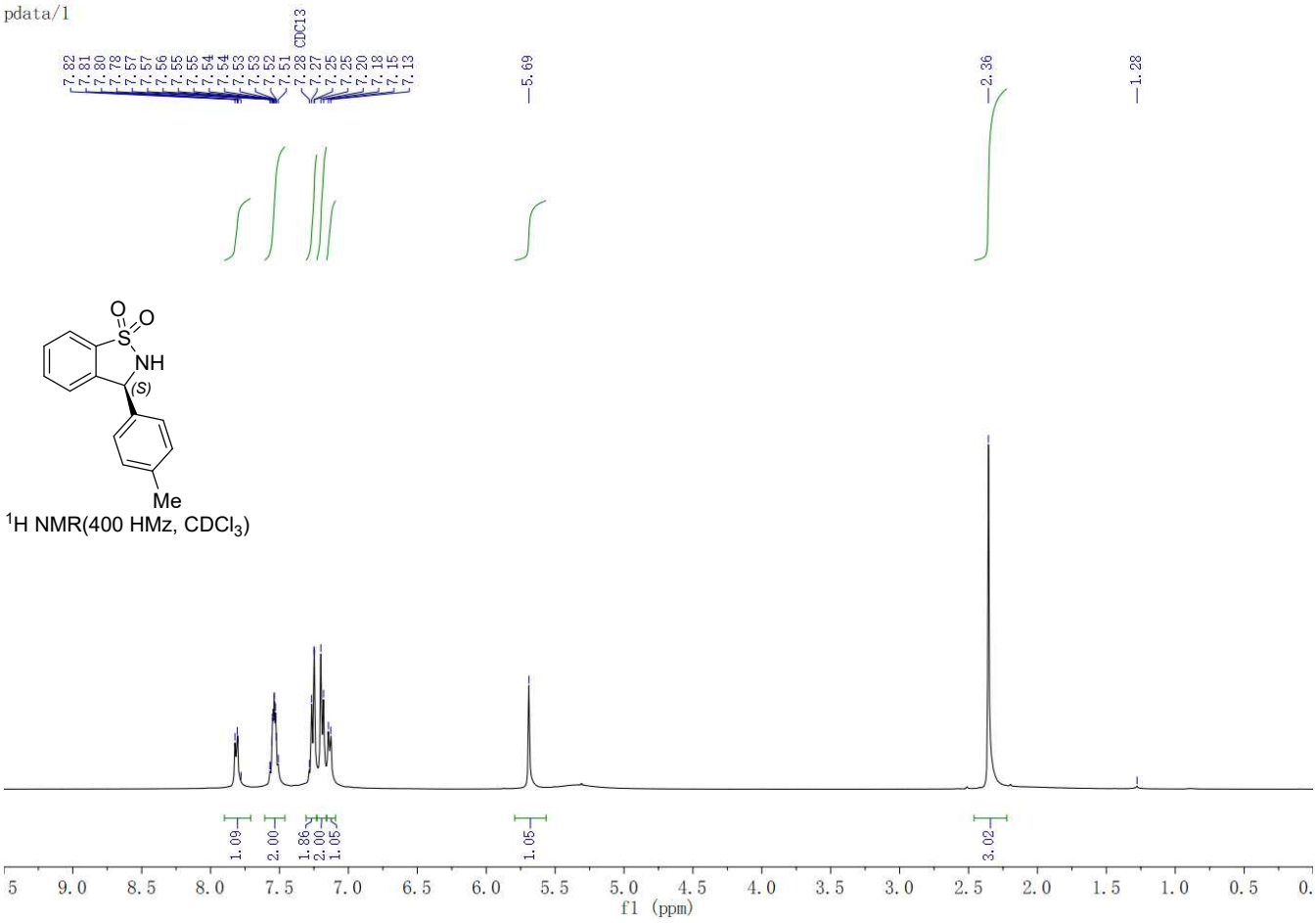


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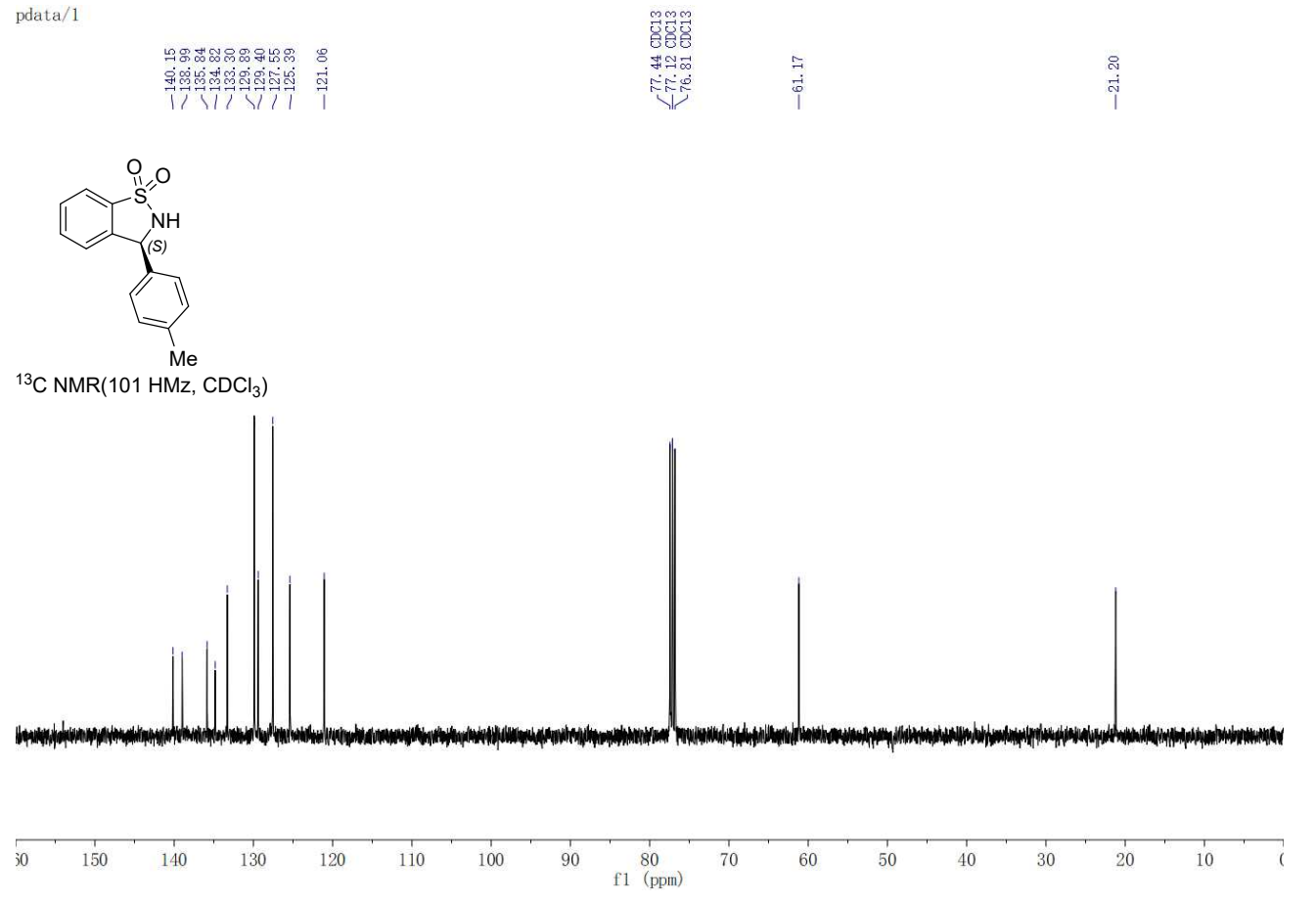
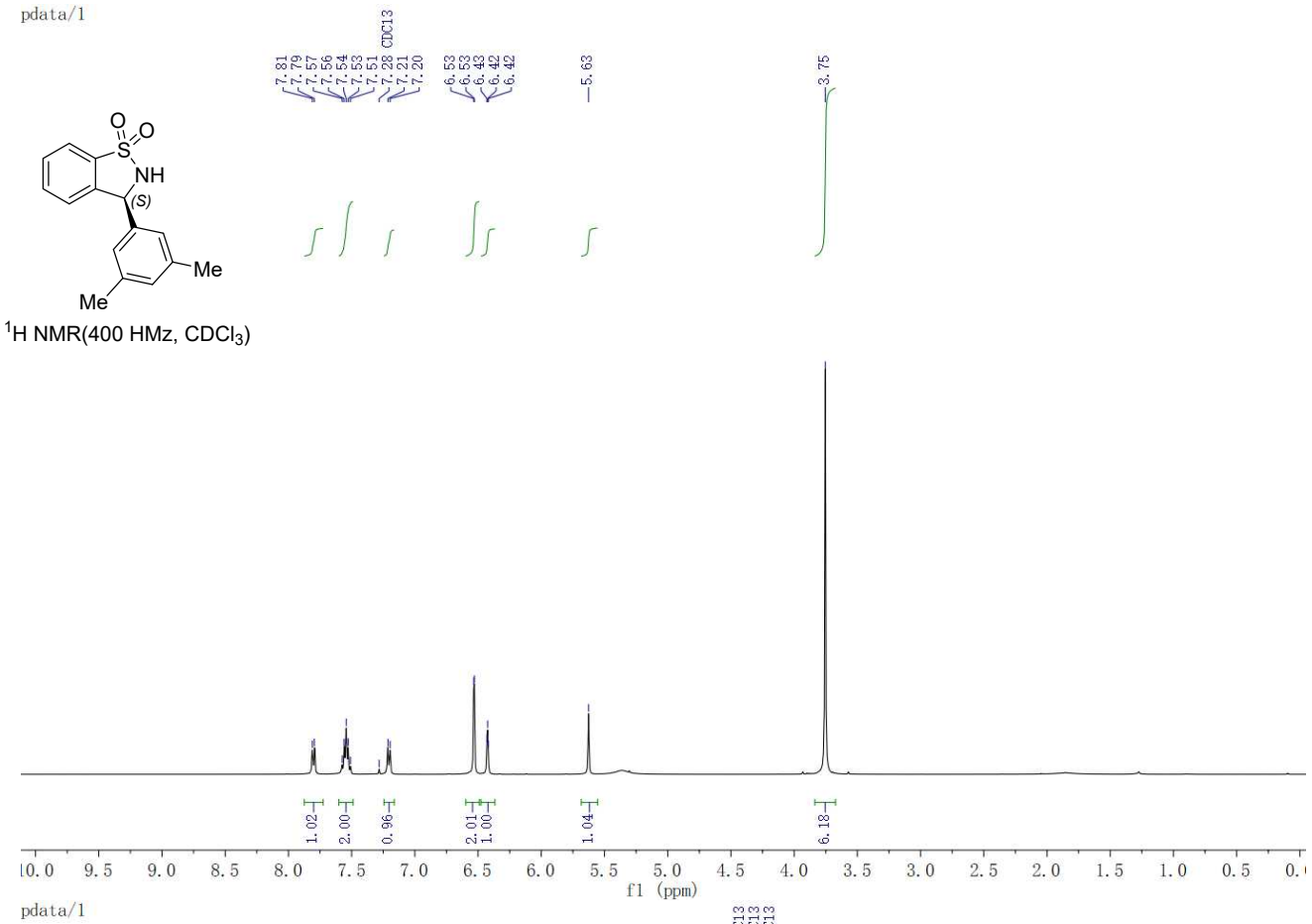



$^{13}$C NMR(101 HMz, $CDCl_3$)

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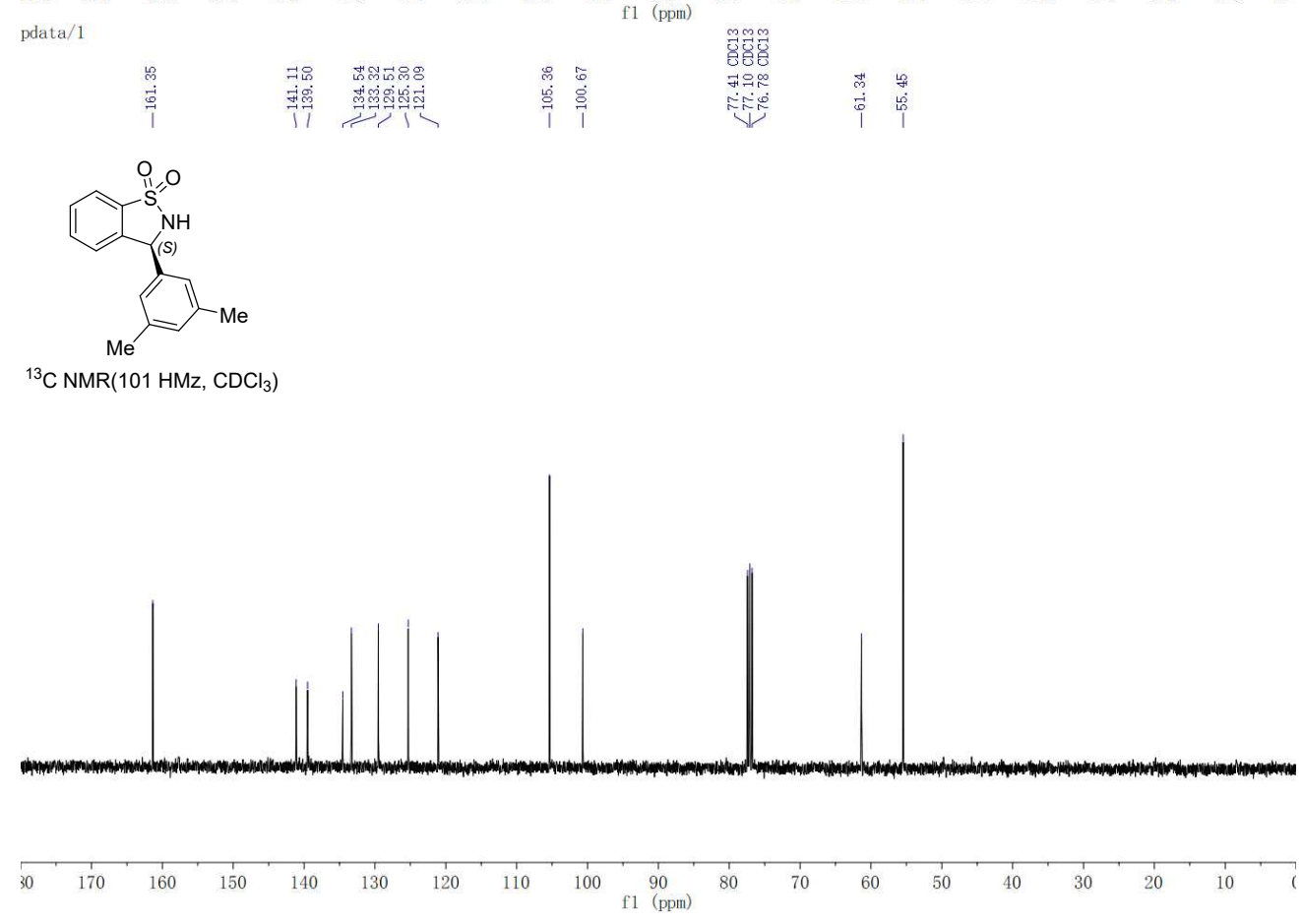
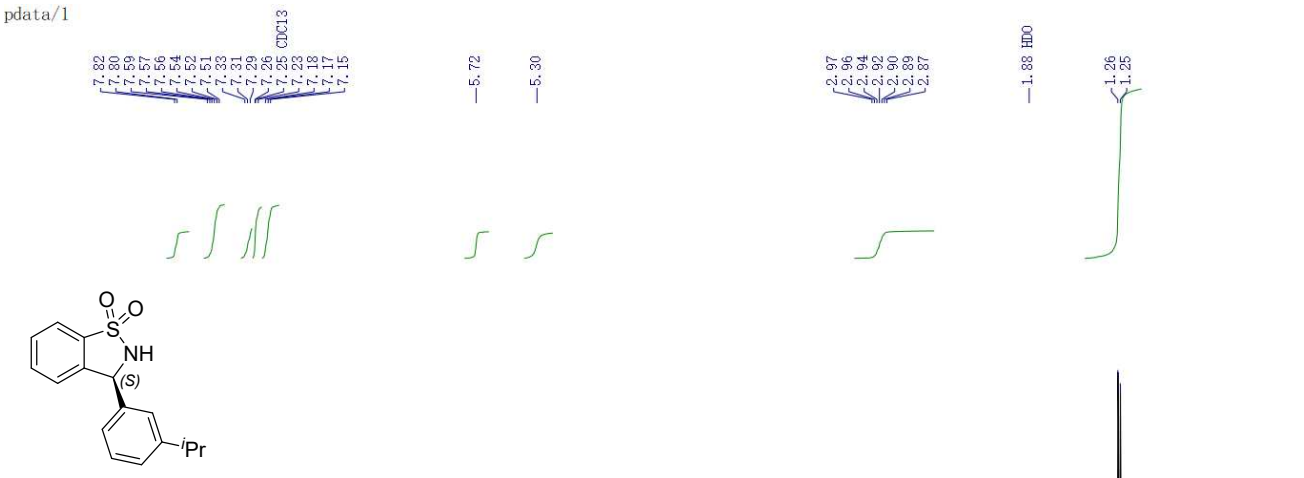



$^{13}$C NMR(101 HMz, $CDCl_3$)







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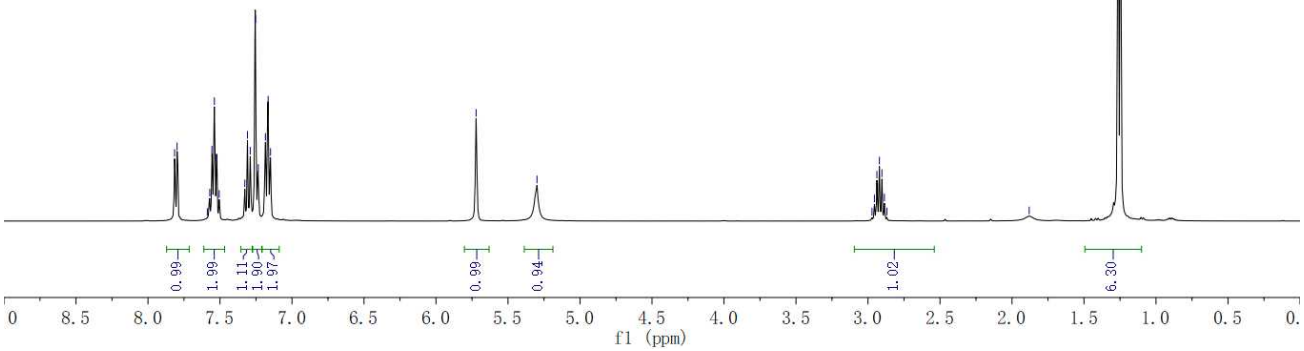
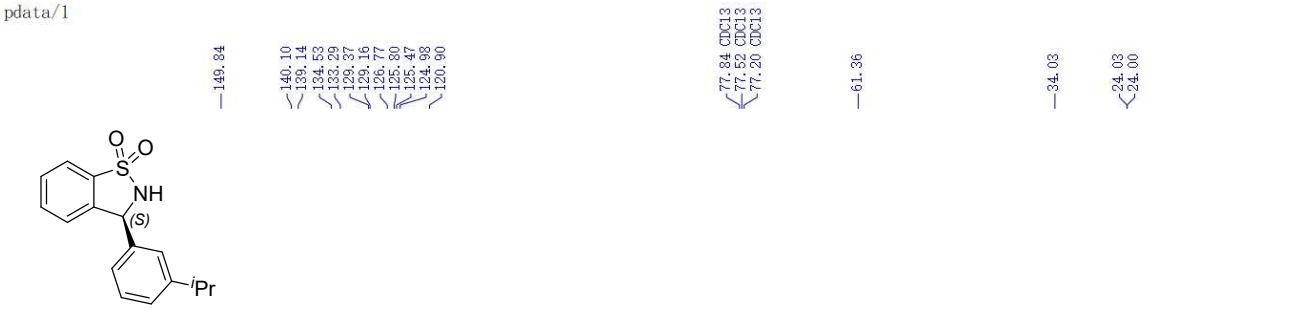
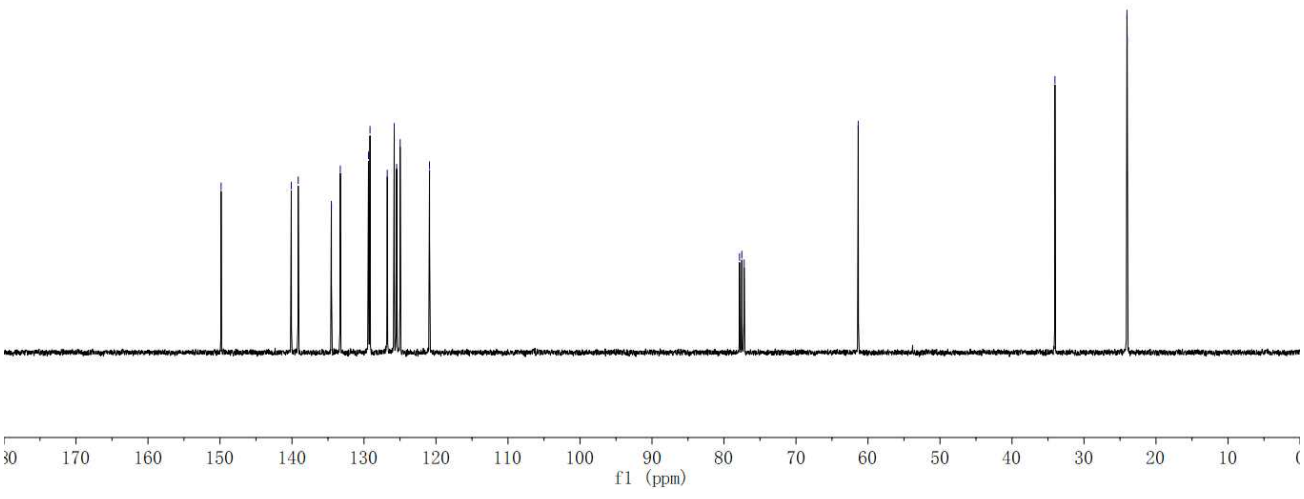


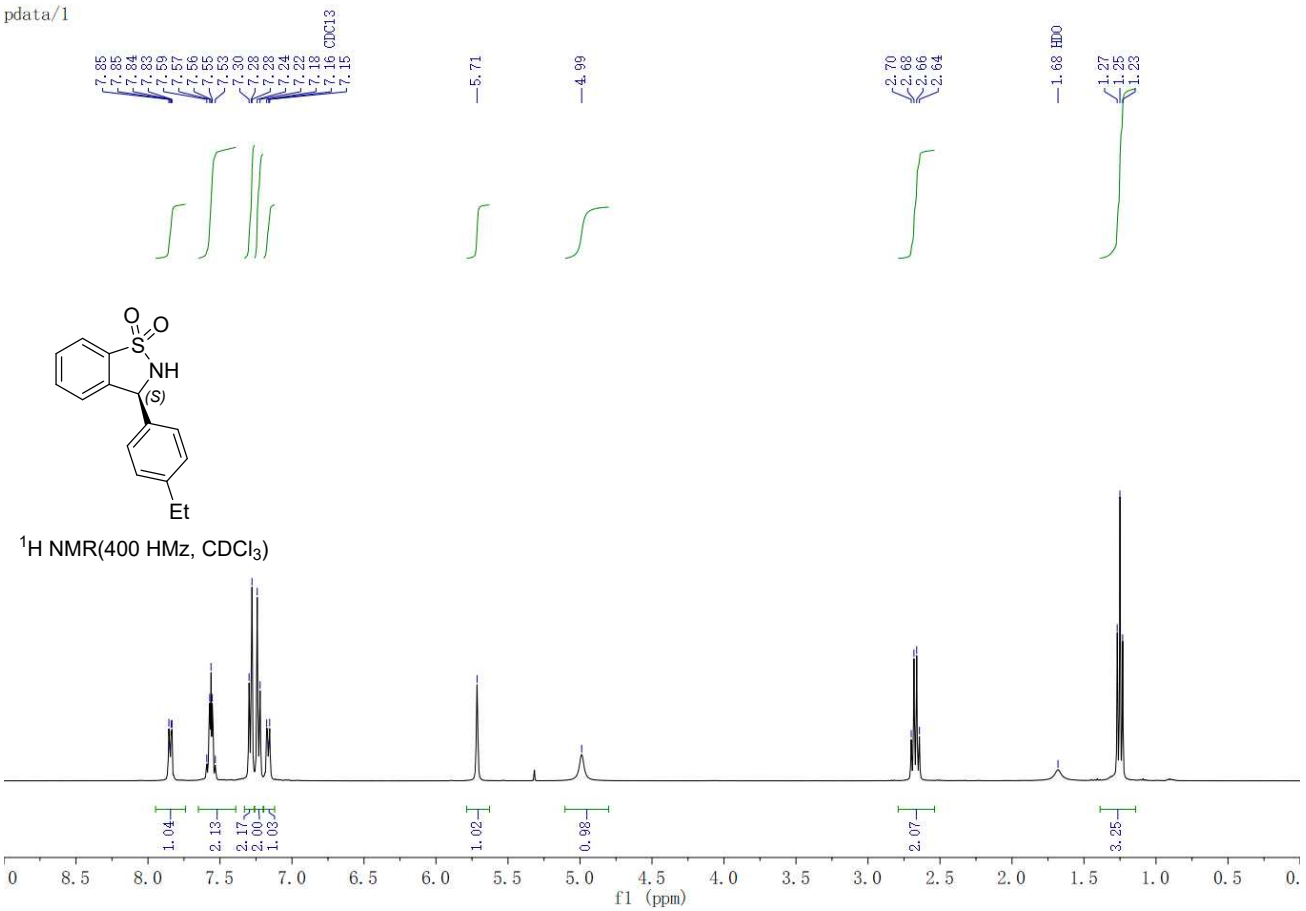







$^{13}$C NMR(101 HMz, $CDCl_3$)

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7.83
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7.30
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7.18
7.16 CDCl3
7.15
5.71
4.99
2.70
2.68
2.66
2.64
1.68 HDO
1.27
1.25
1.23
O
O
S
NH
(S)
Et
1H NMR(400 HMz, CDCl3)
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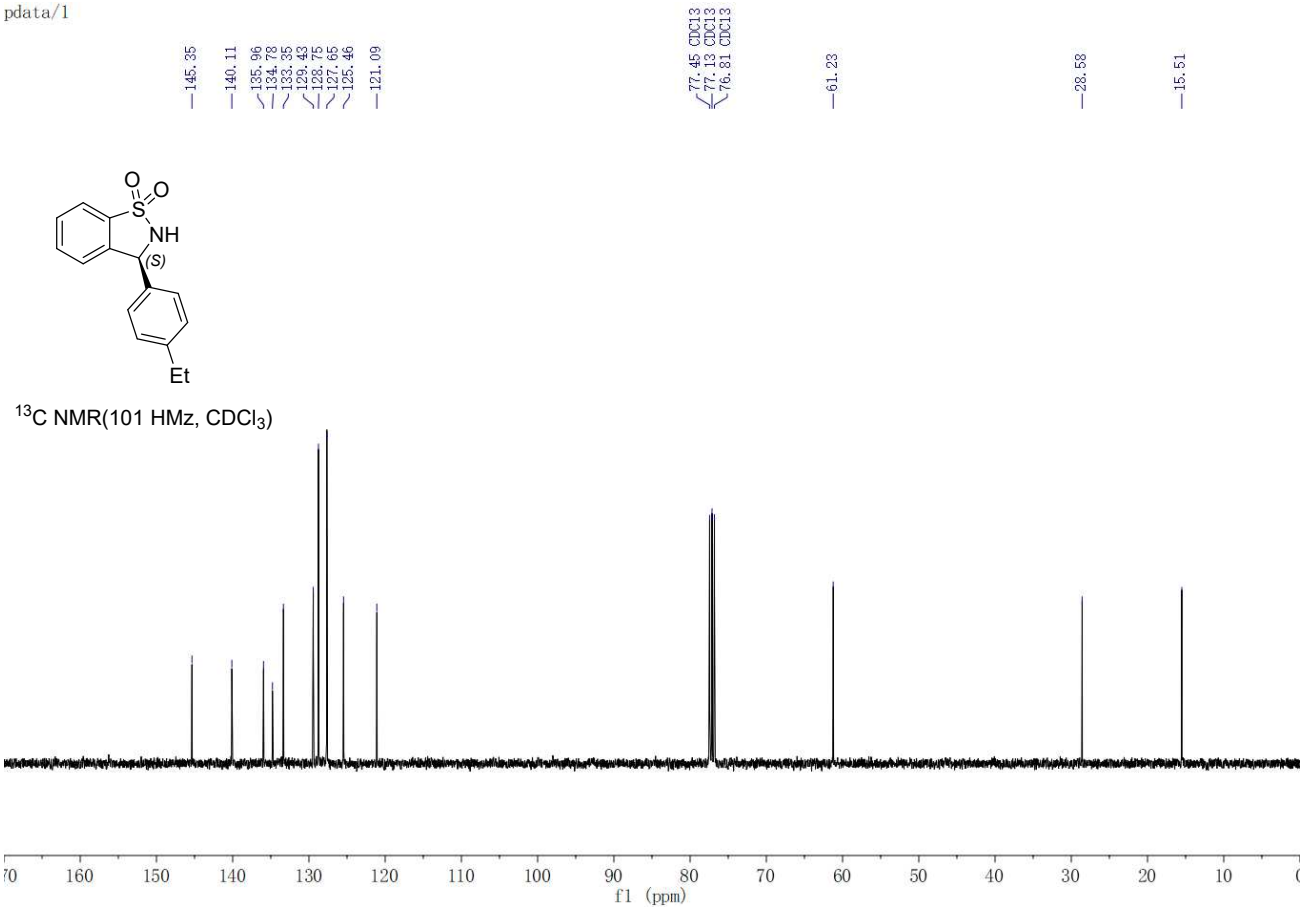
2.13
2.17
2.00
1.03
1.02
0.98
2.07
3.25
f1 (ppm)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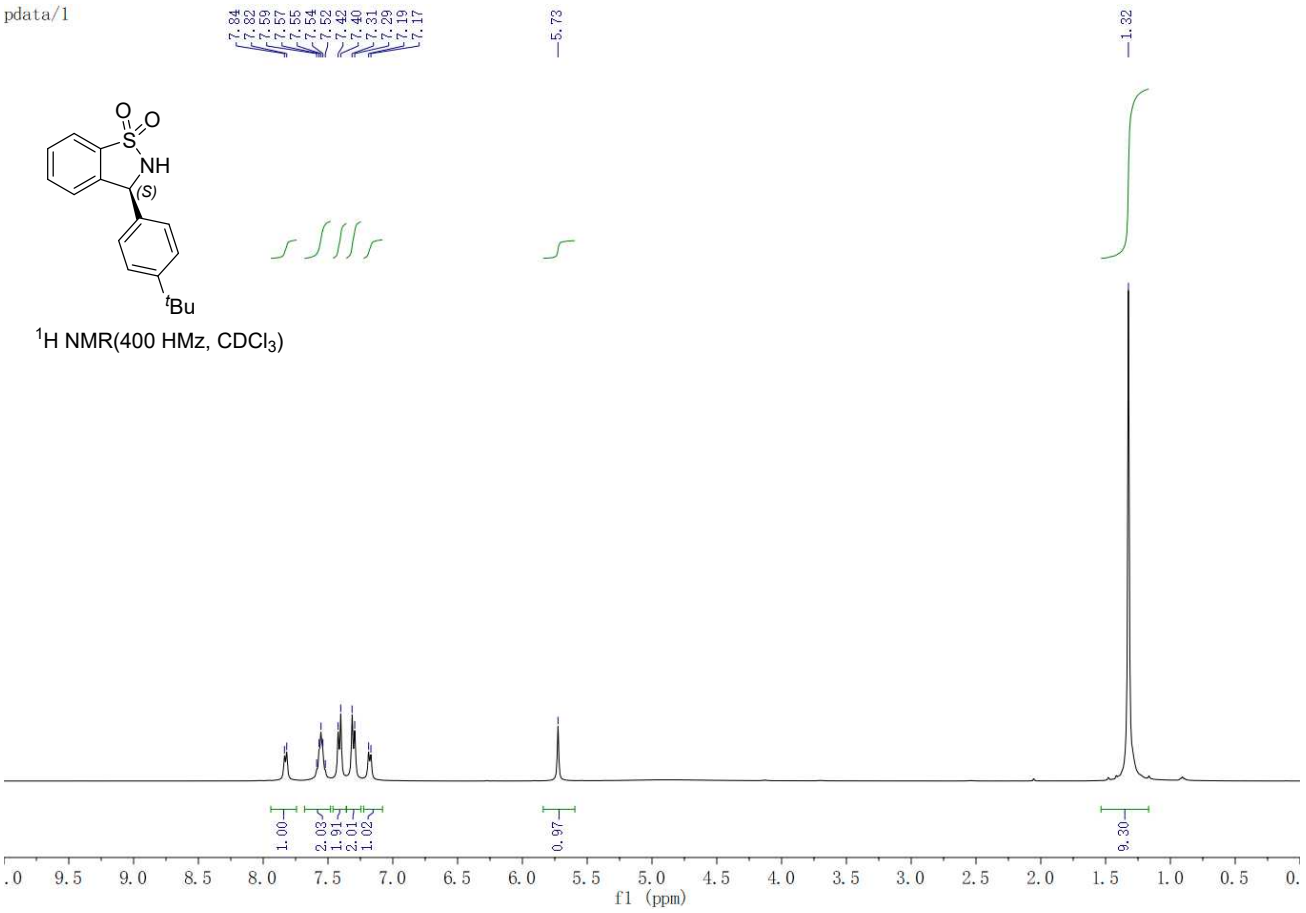
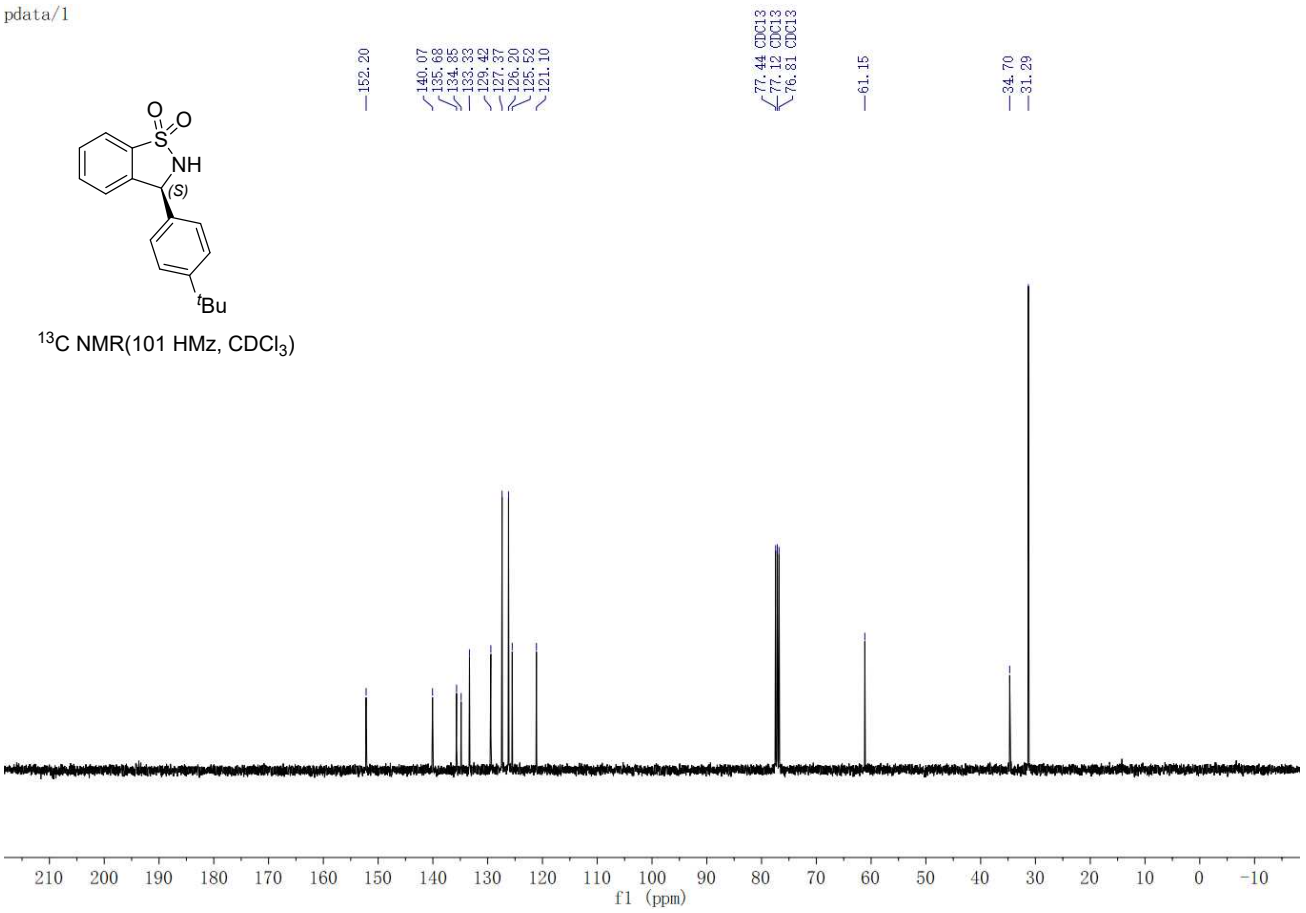
125.46
121.09
77.45 CDCl3
77.13 CDCl3
76.81 CDCl3
61.23
28.58
15.51
O
O
S
NH
(S)
Et
13C NMR(101 HMz, CDCl3)
f1 (ppm)




$^{1}$H NMR(400 HMz, $CDCl_3$)

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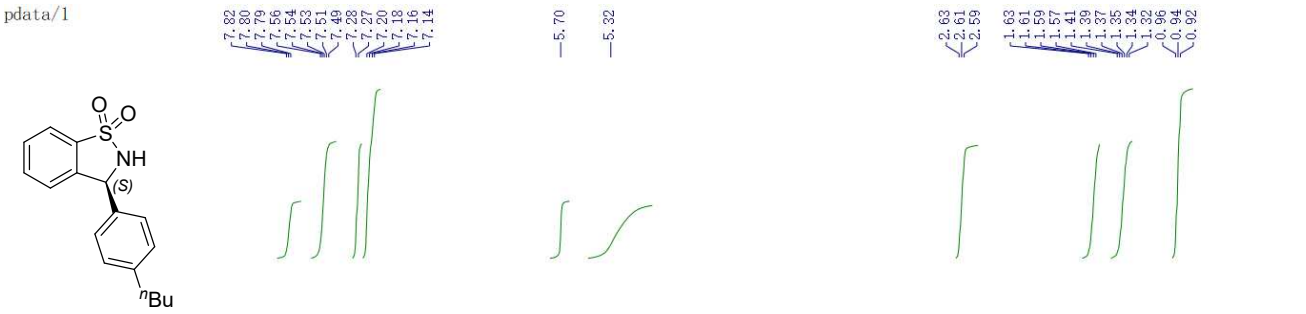


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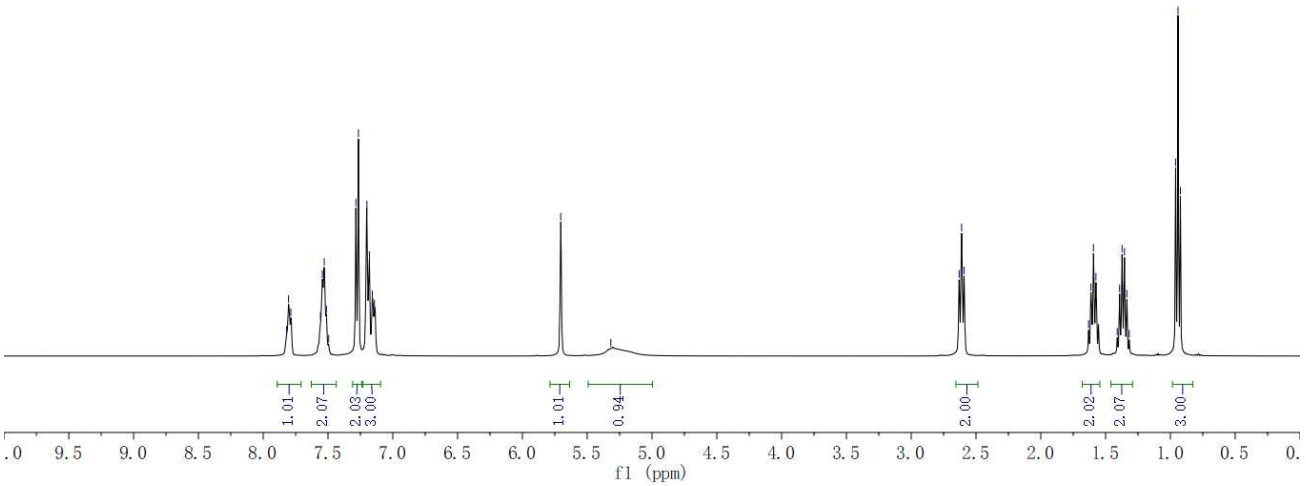
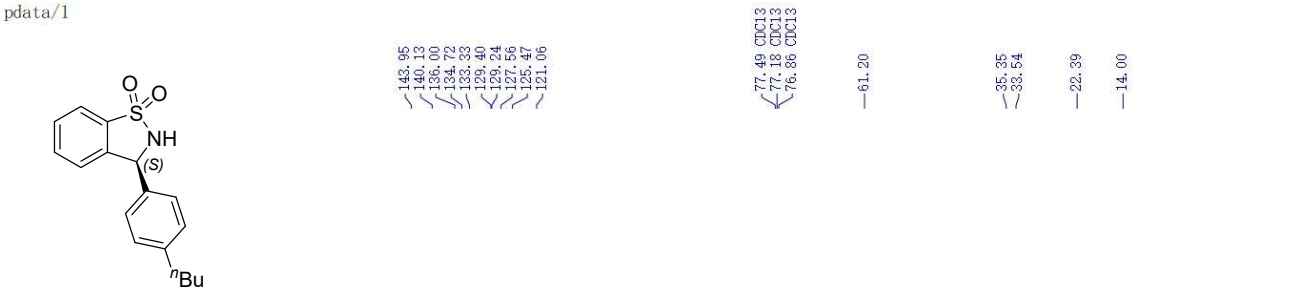
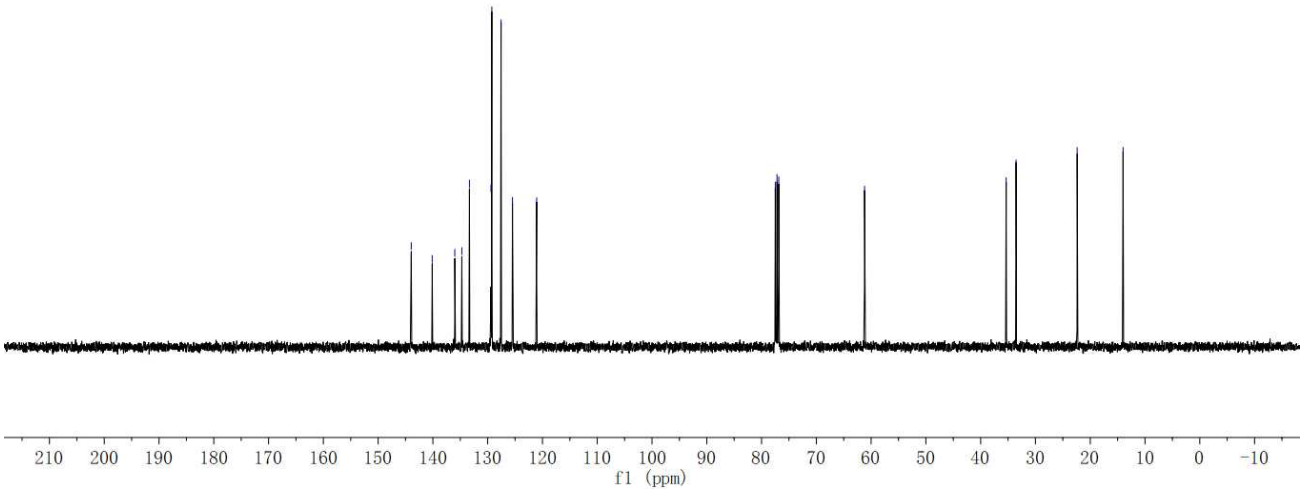
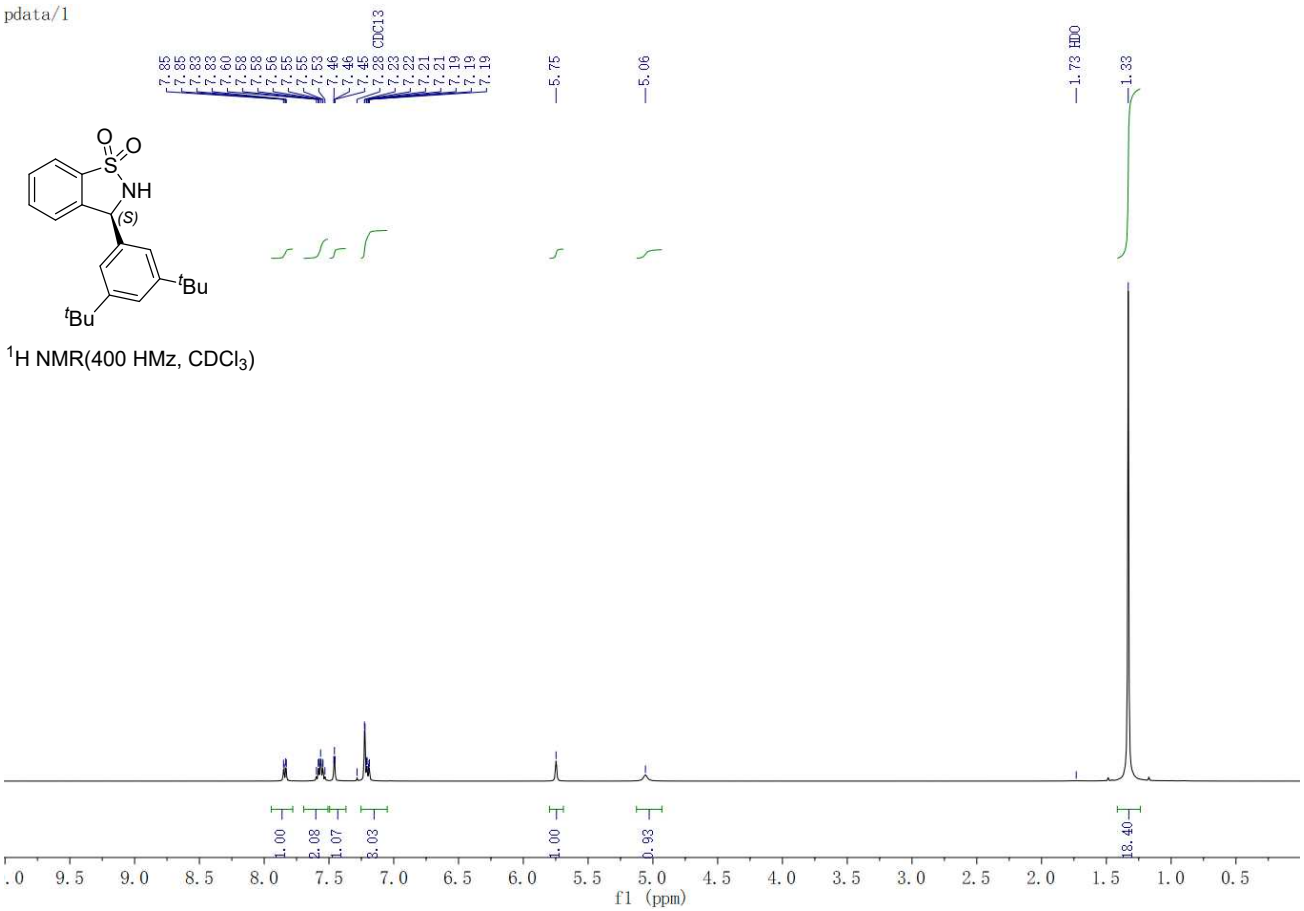



$^{13}$C NMR(101 HMz, $CDCl_3$)



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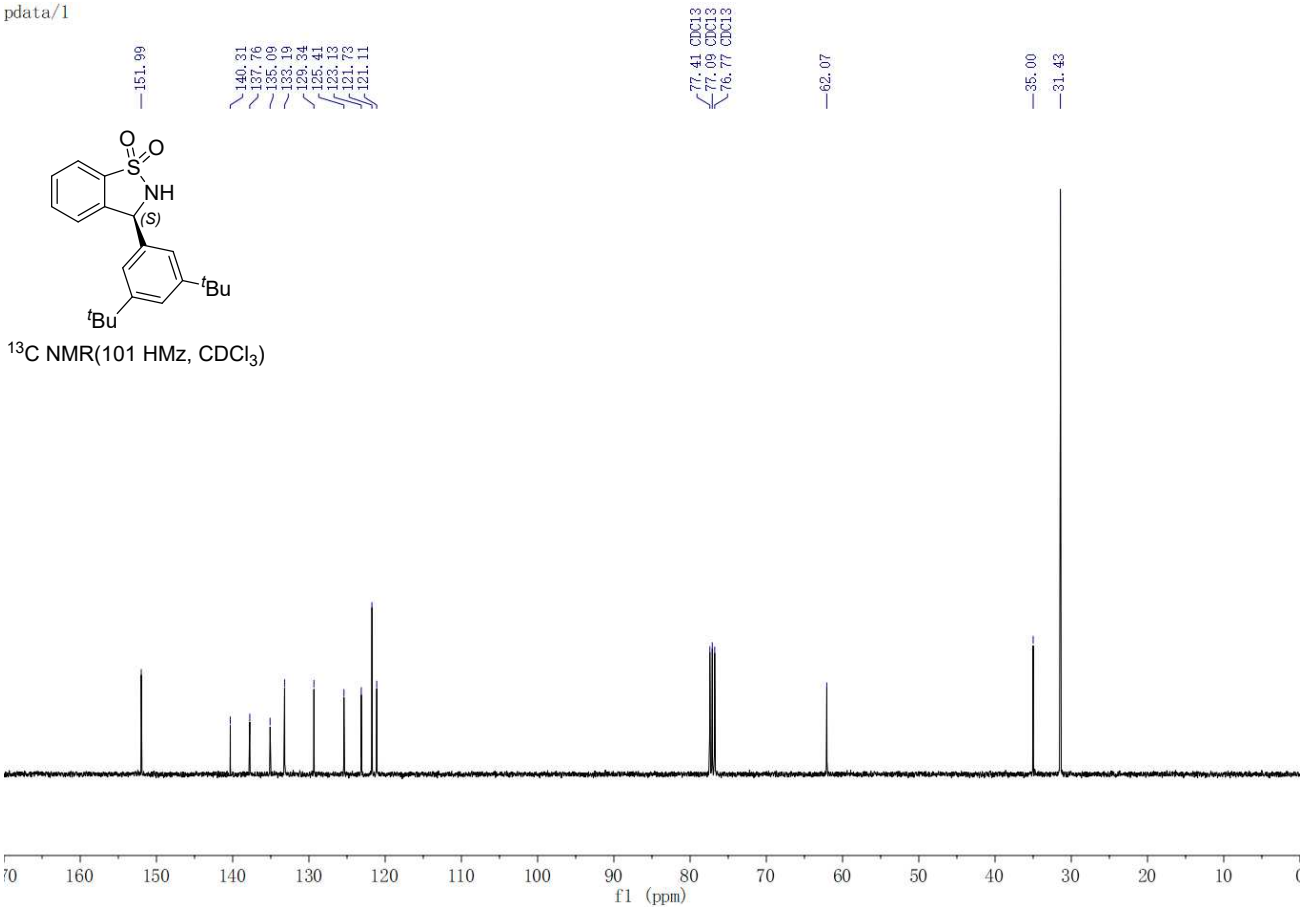


$^{13}$C NMR(101 HMz, $CDCl_3$)

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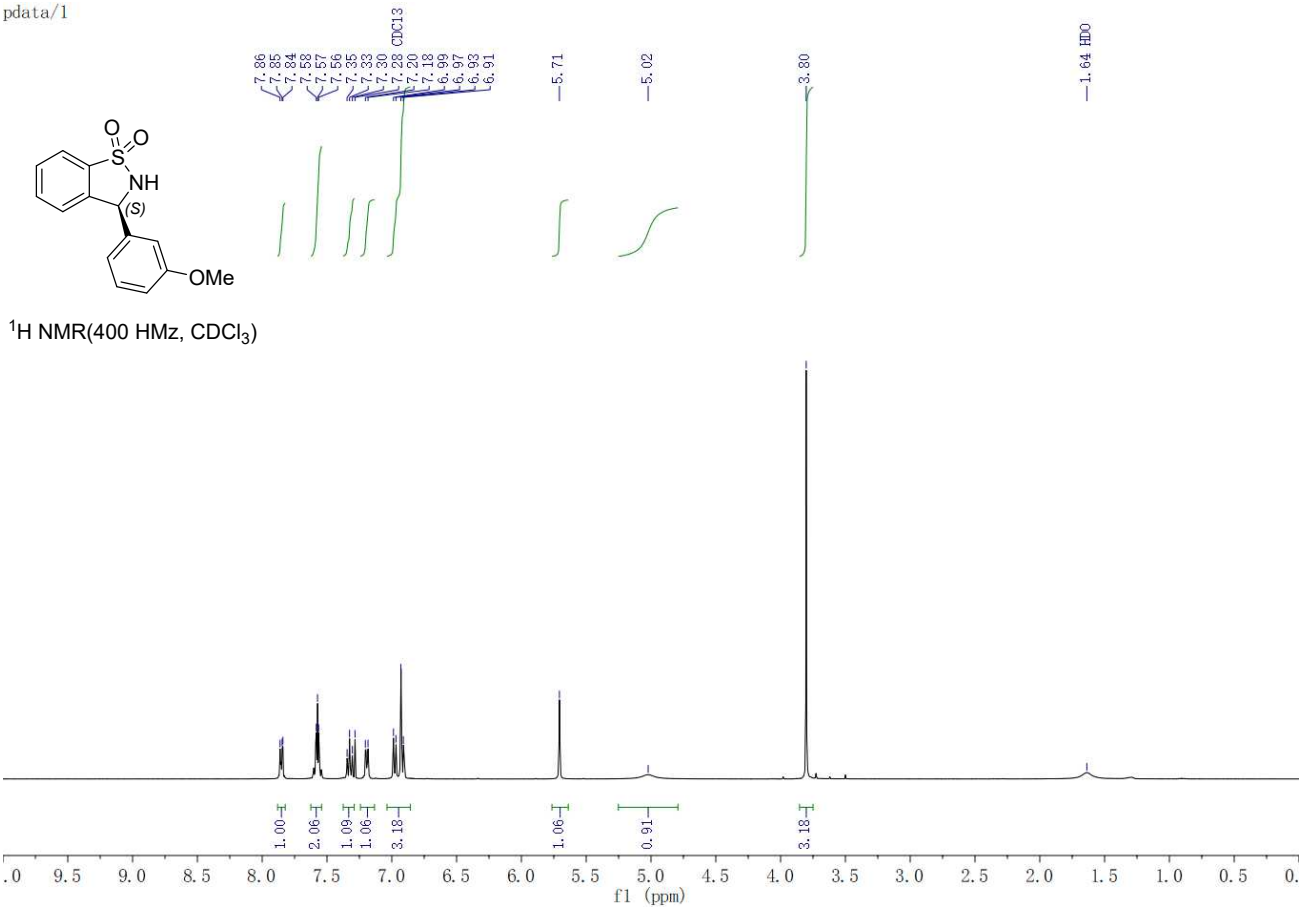


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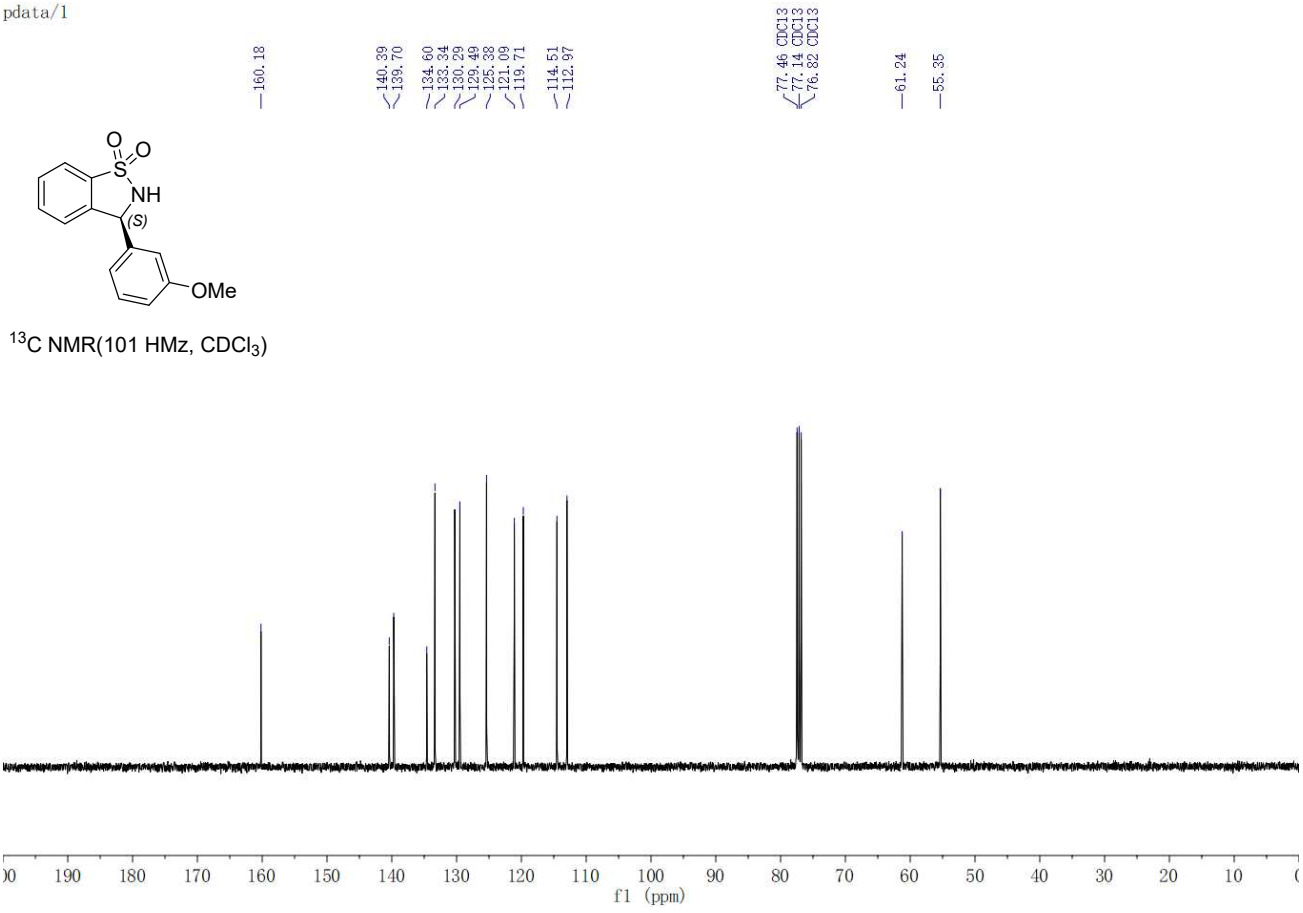


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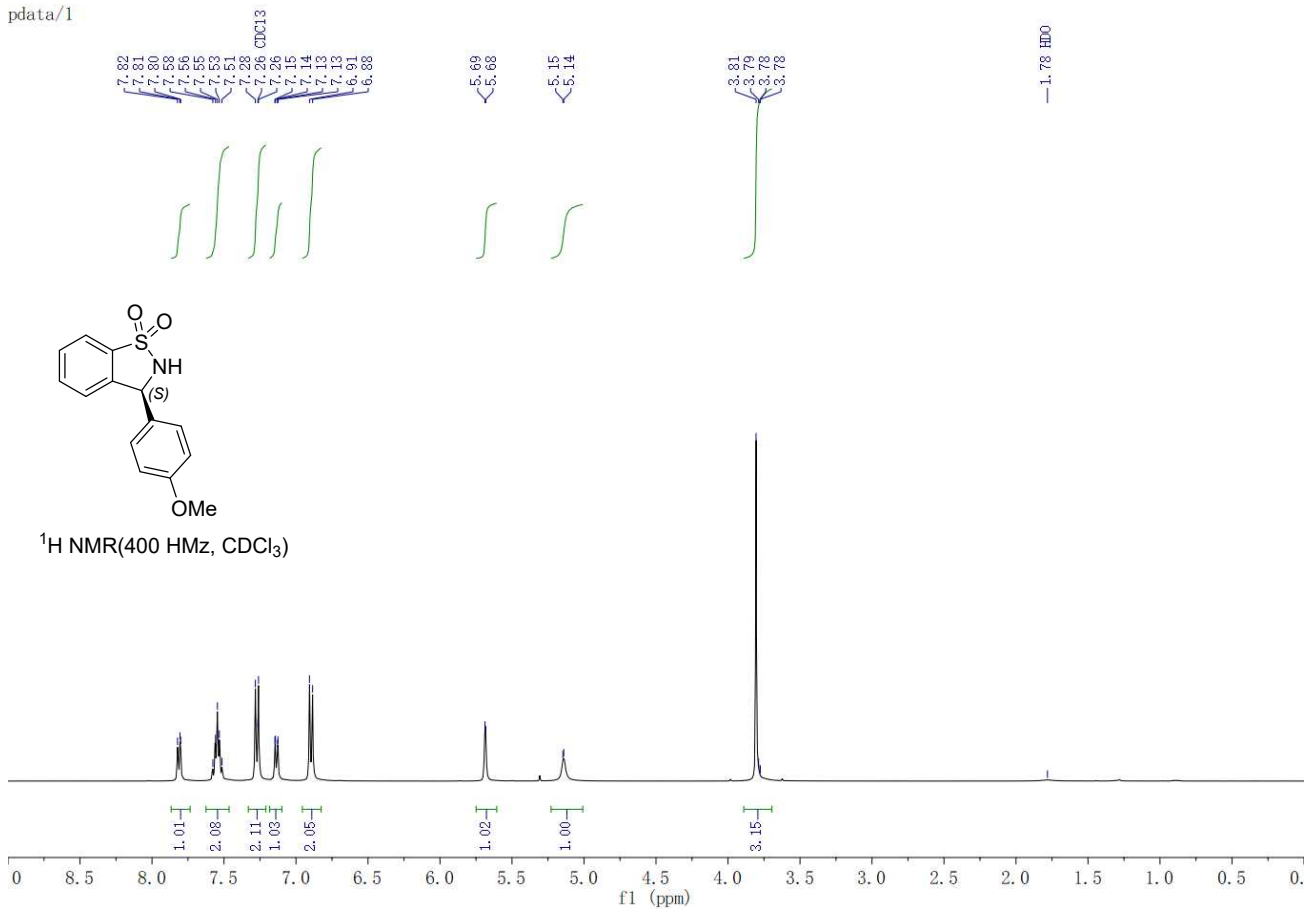


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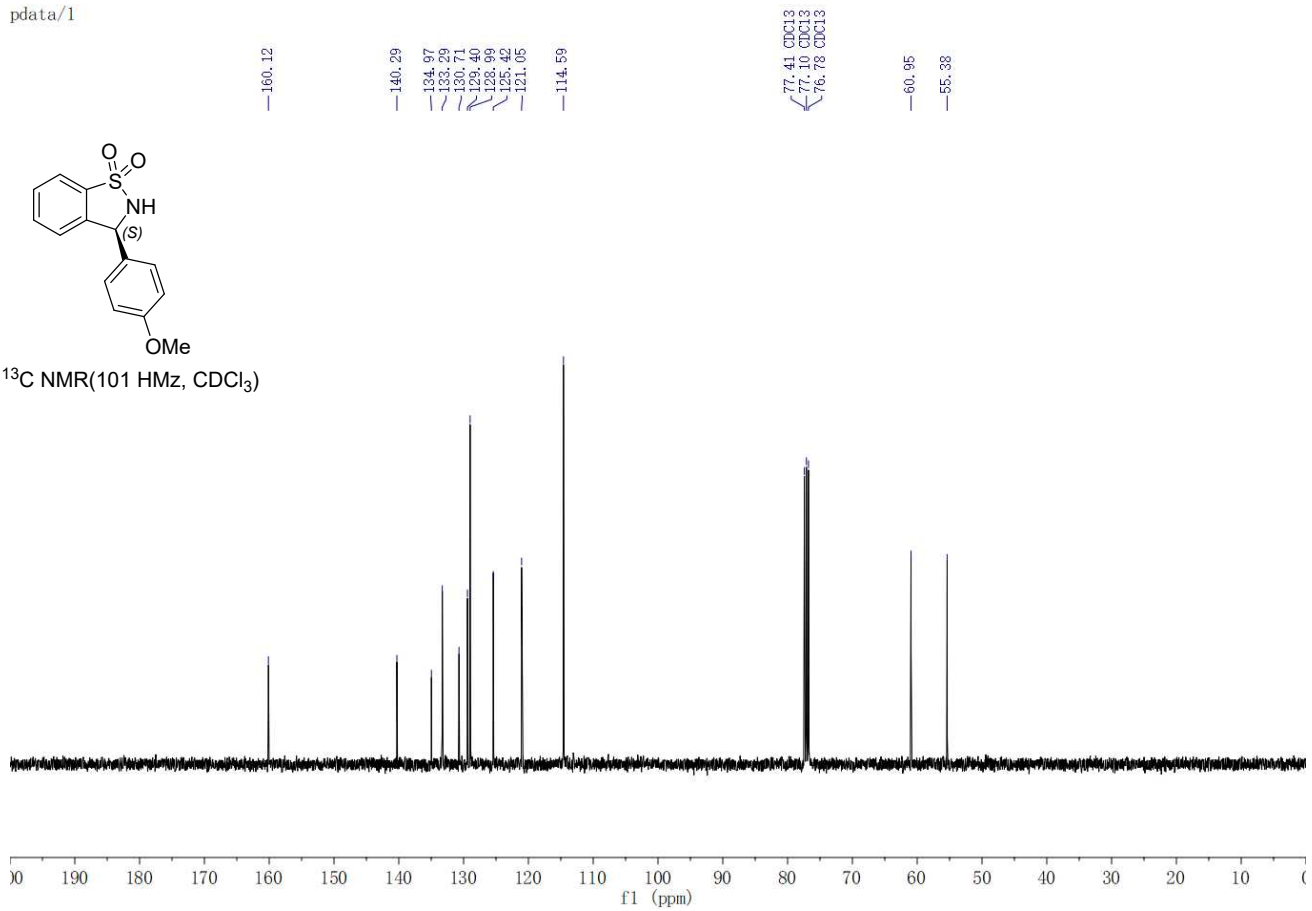


$^{13}$C NMR(101 HMz, $CDCl_3$)

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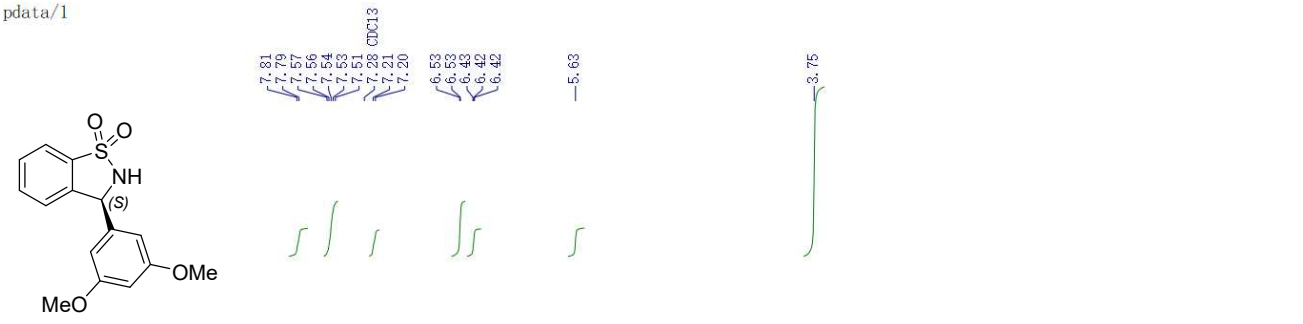


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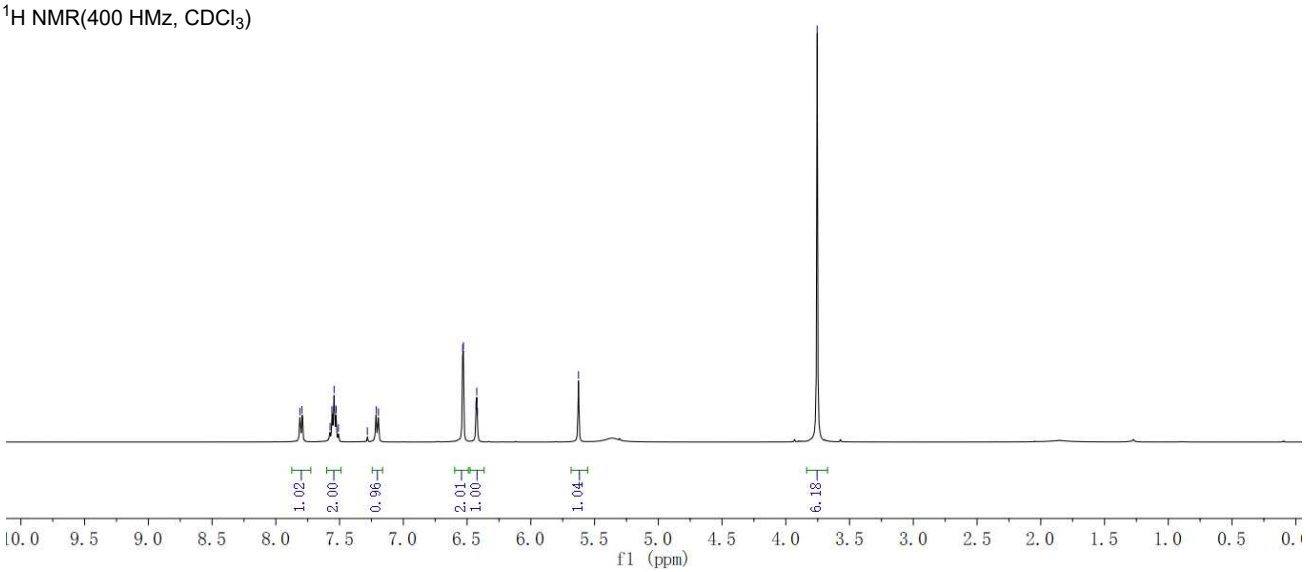


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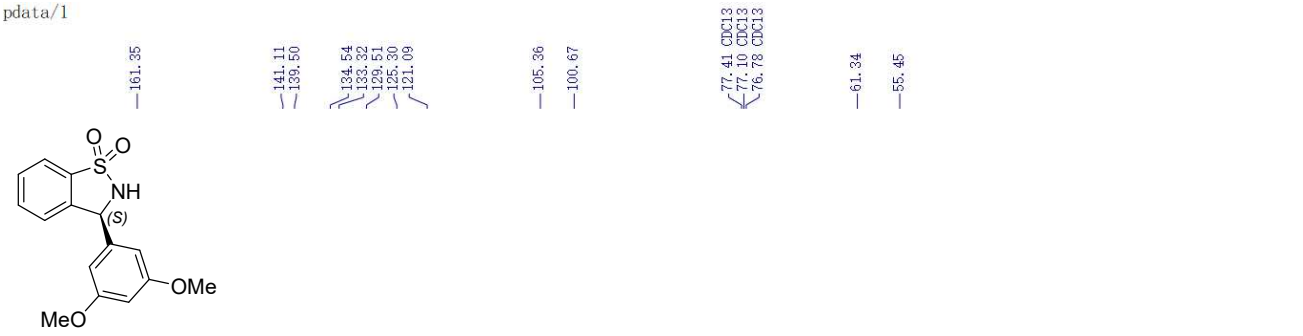


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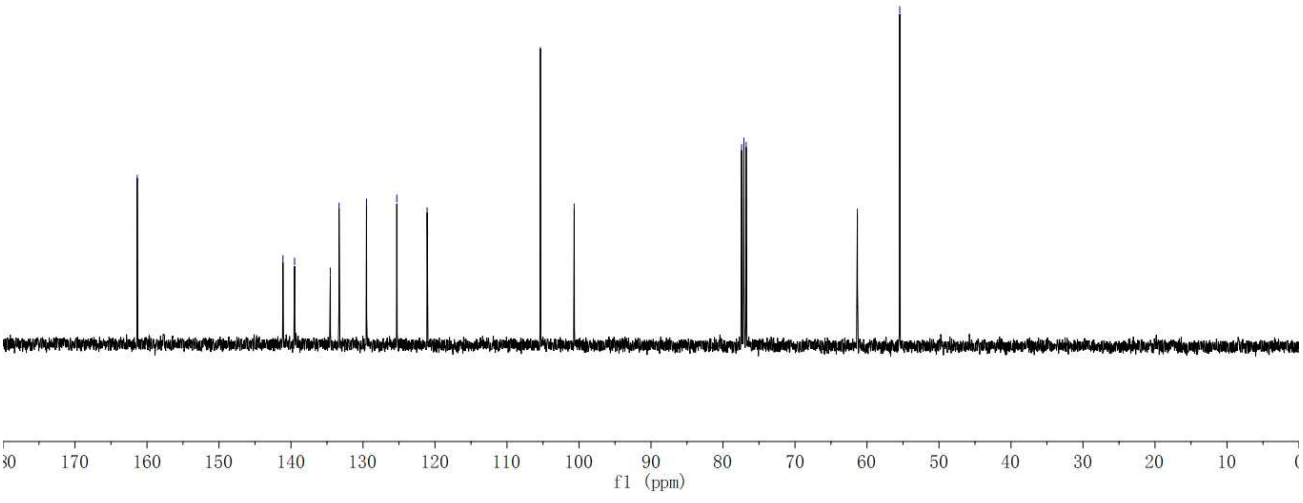

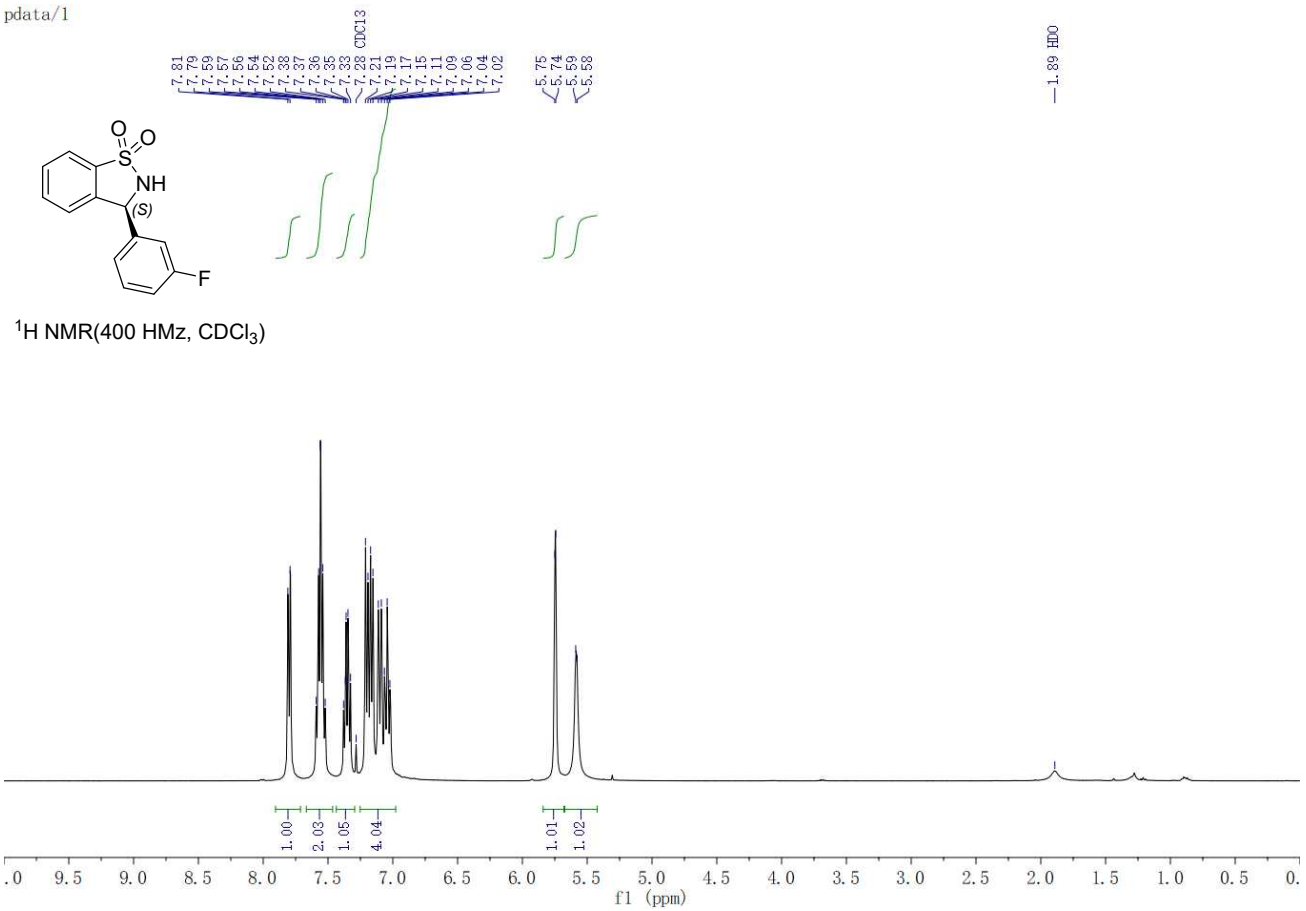


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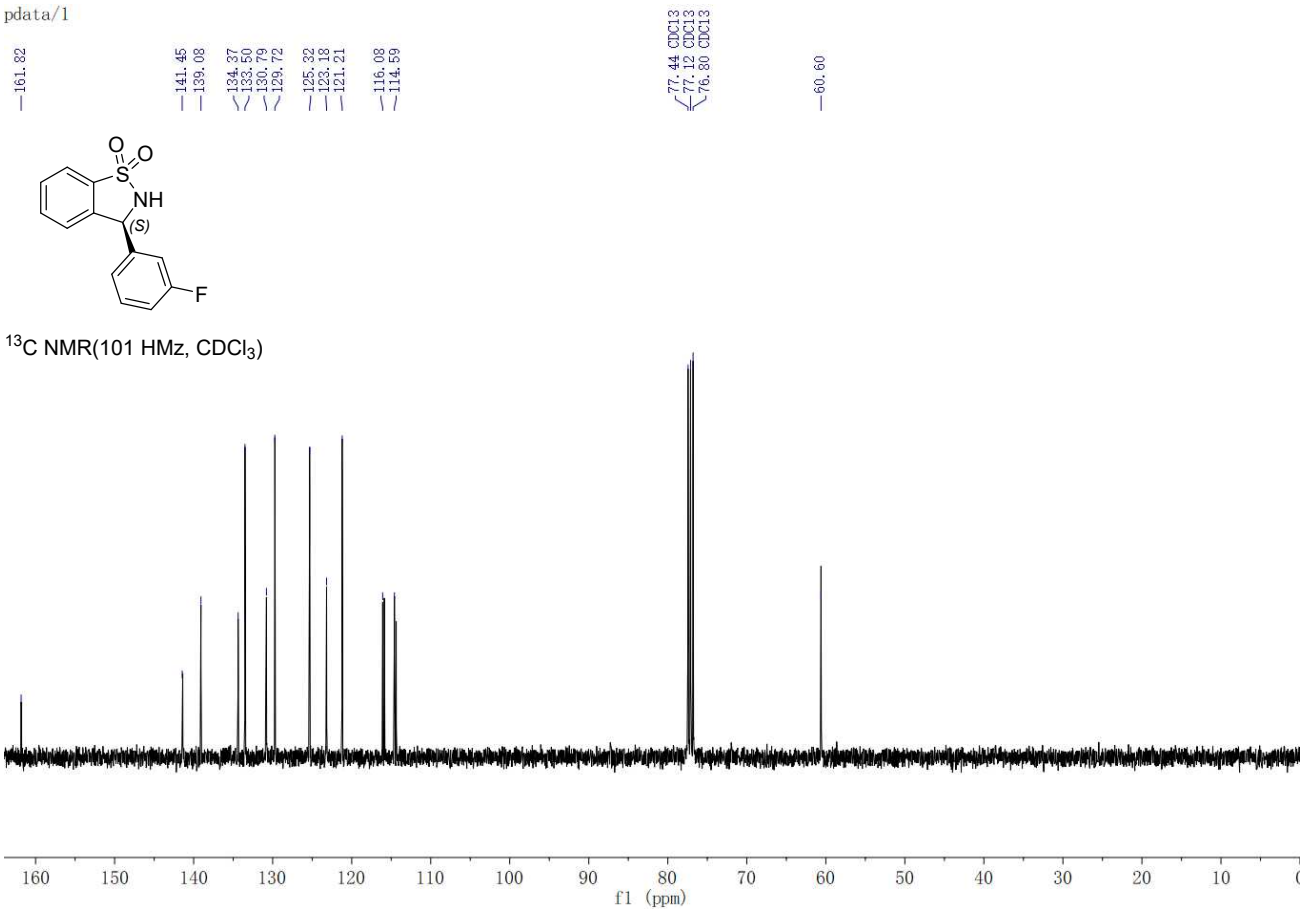


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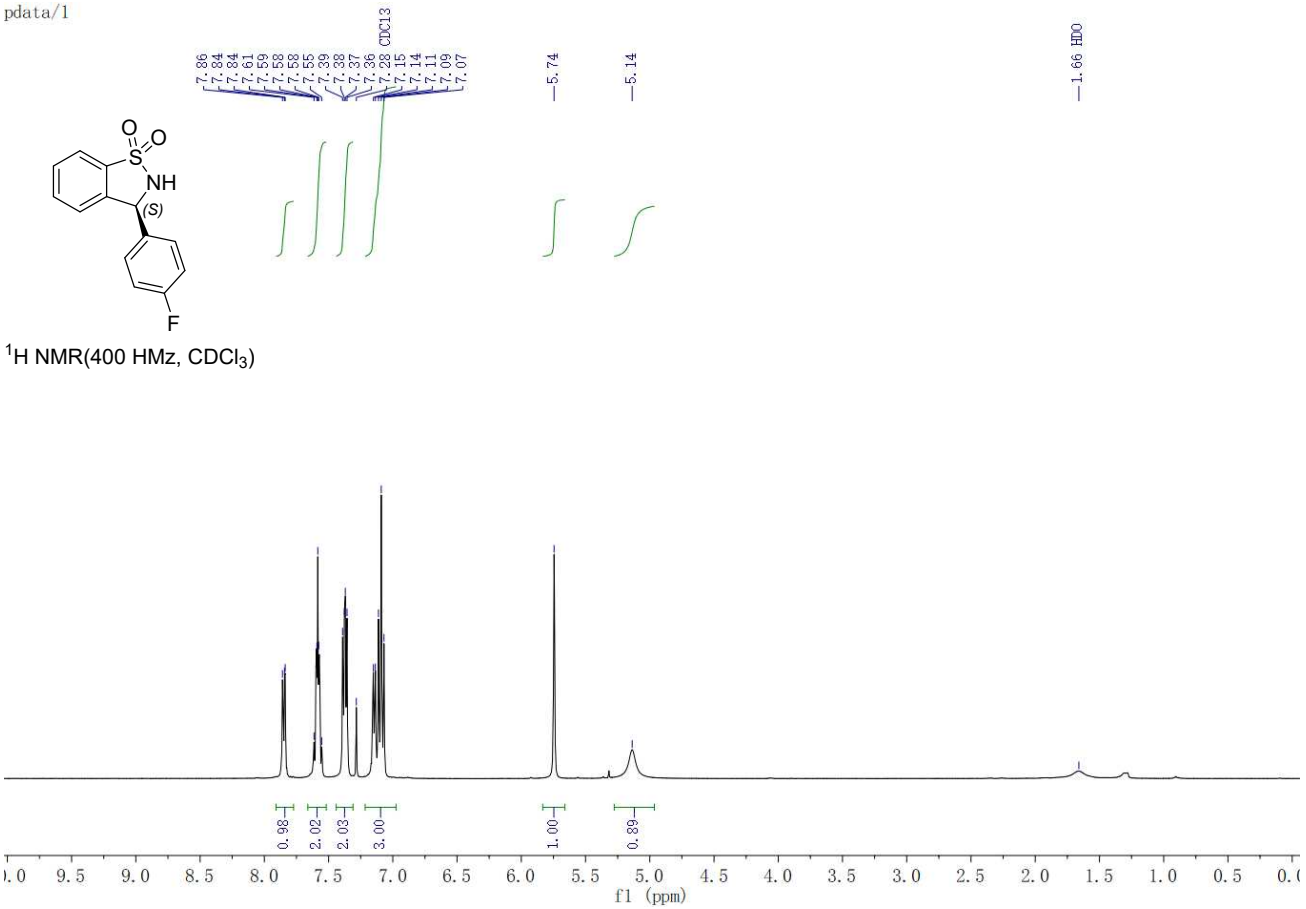


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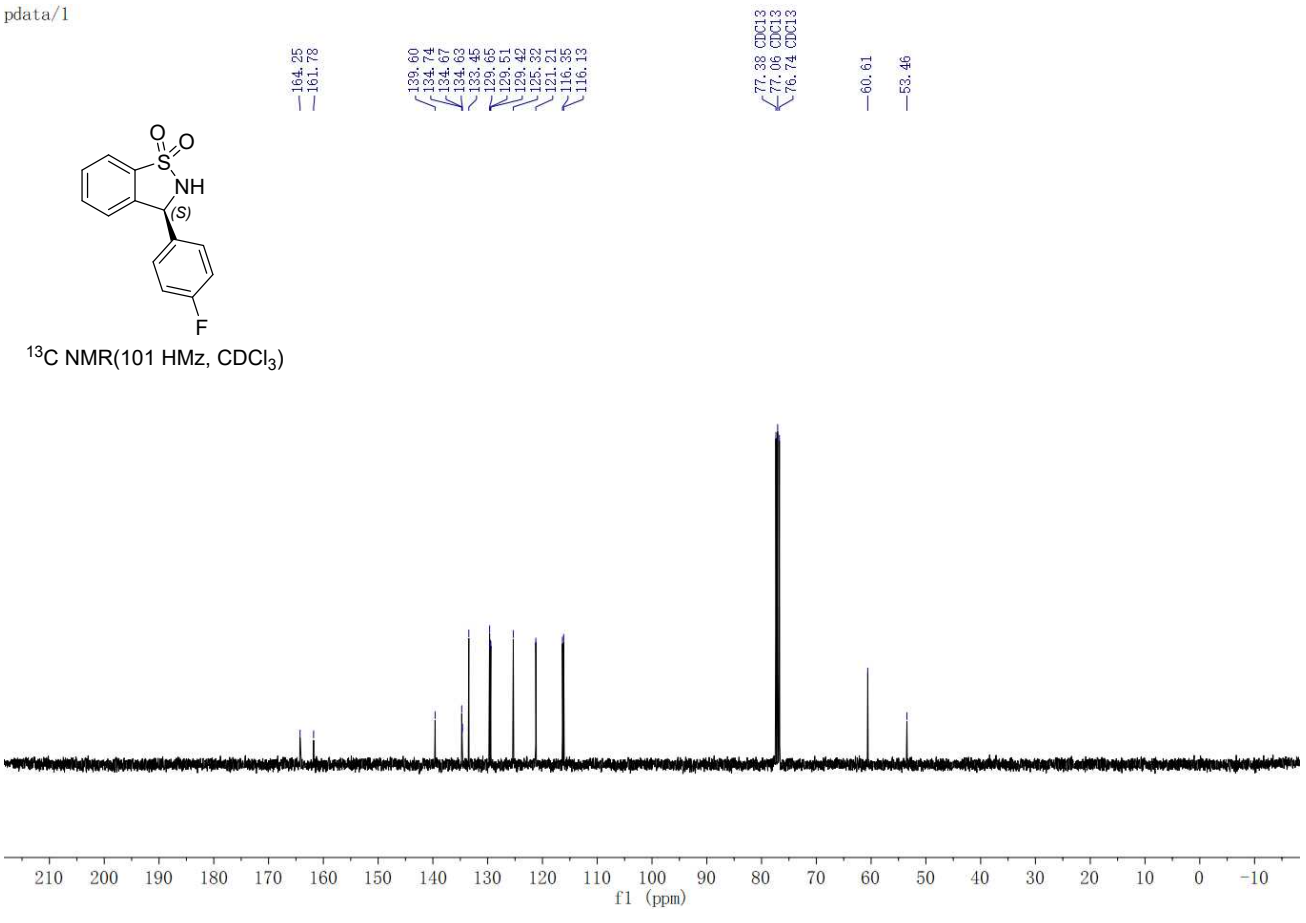
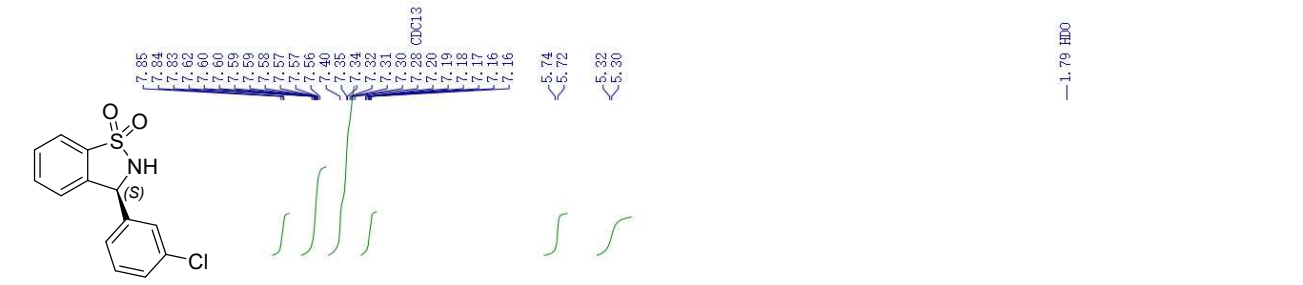
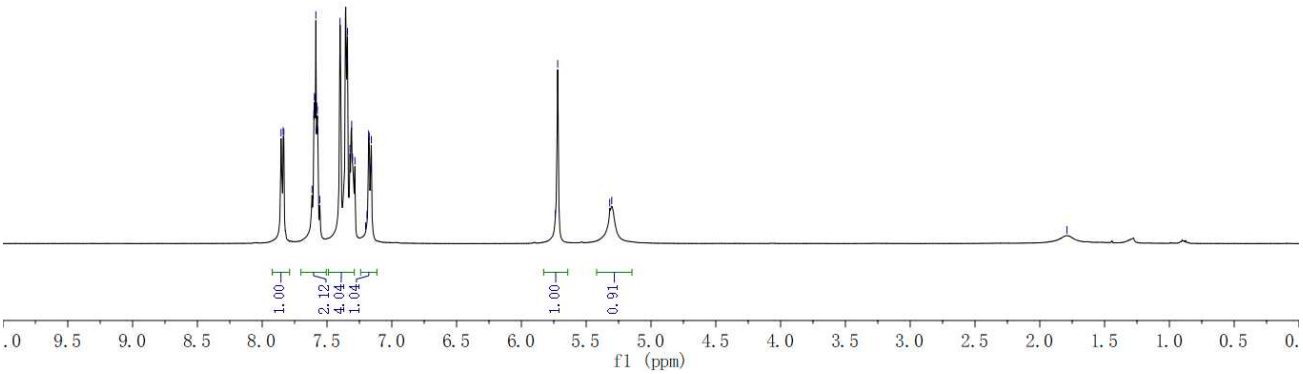



$^{13}$C NMR(101 HMz, $CDCl_3$)




$^{1}$H NMR(400 HMz, $CDCl_3$)

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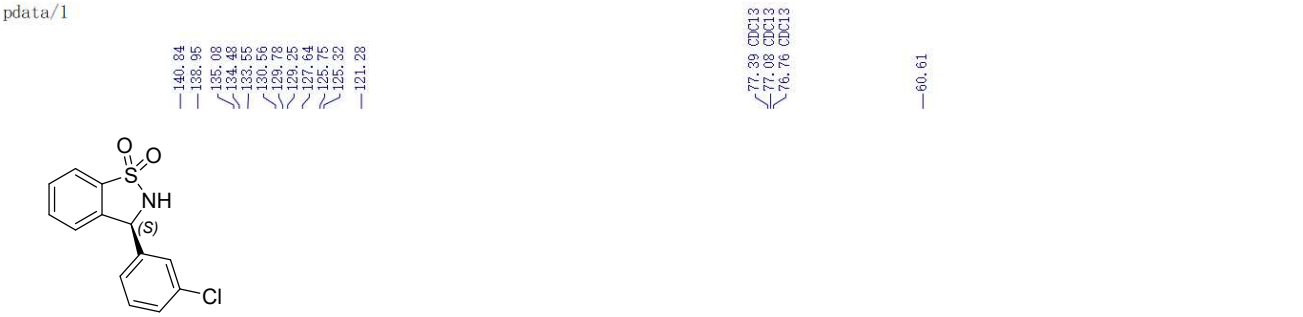
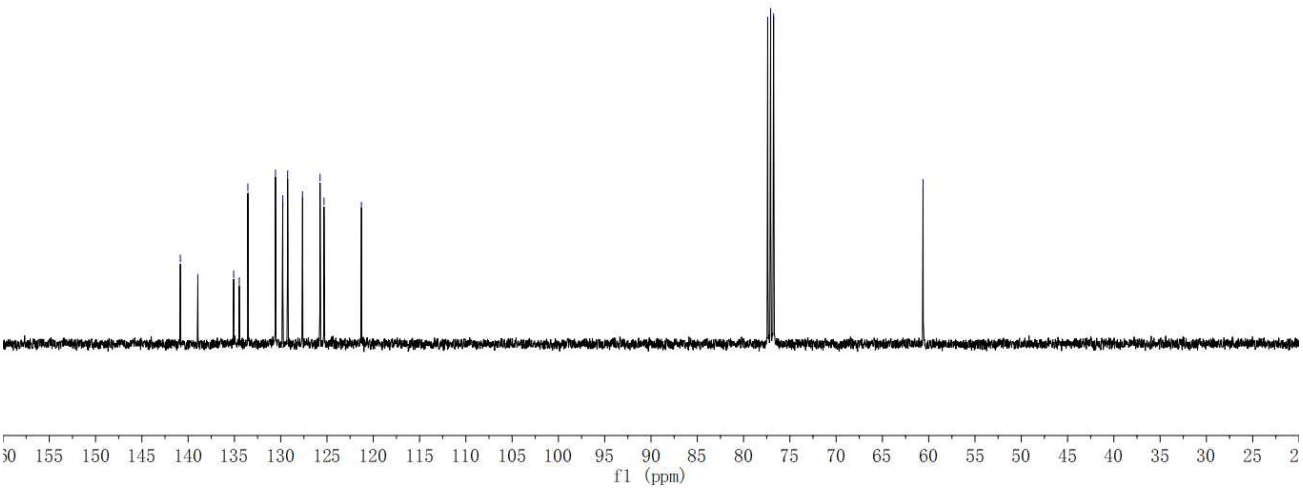
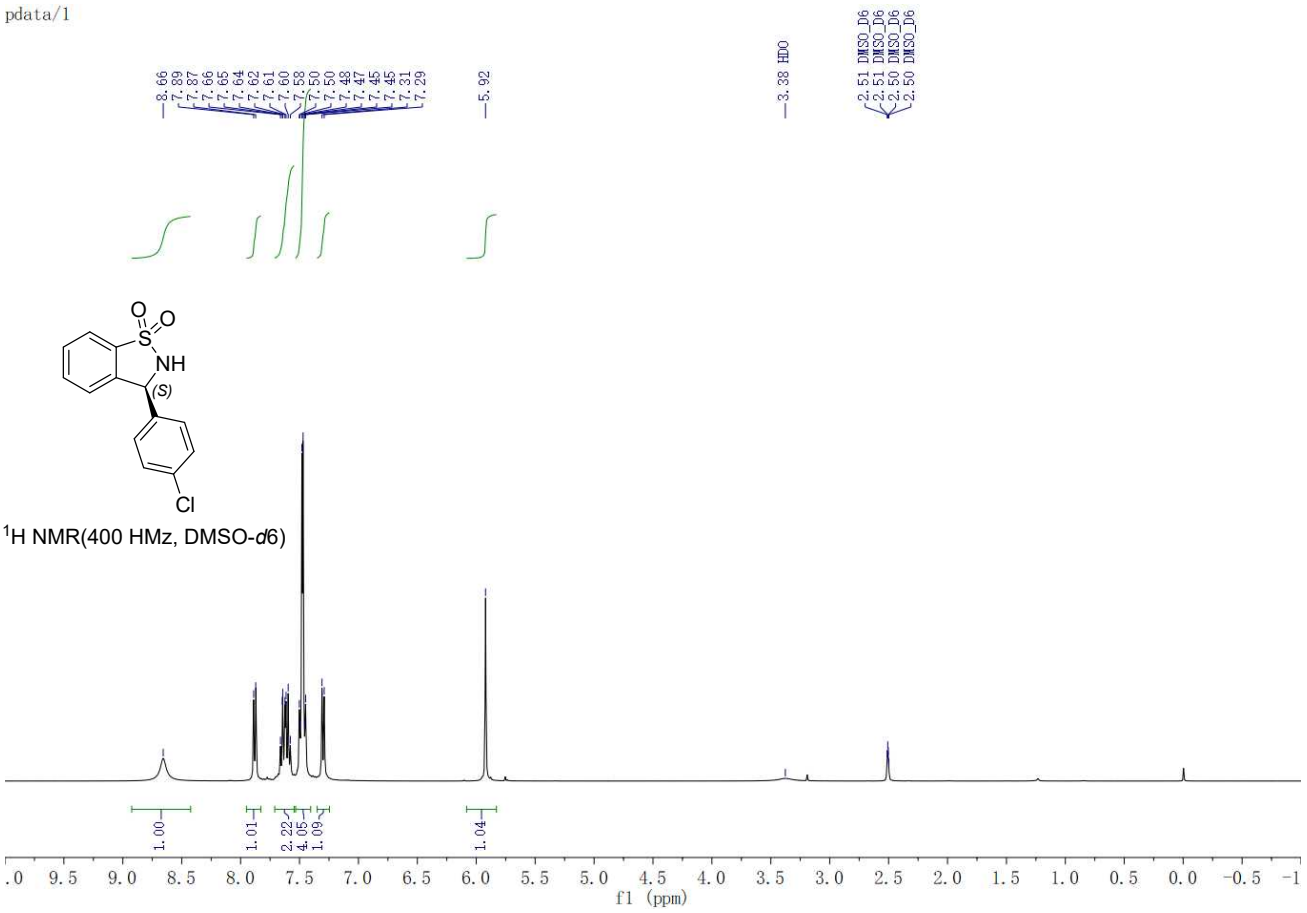






$^{13}$C NMR(101 HMz, $CDCl_3$)



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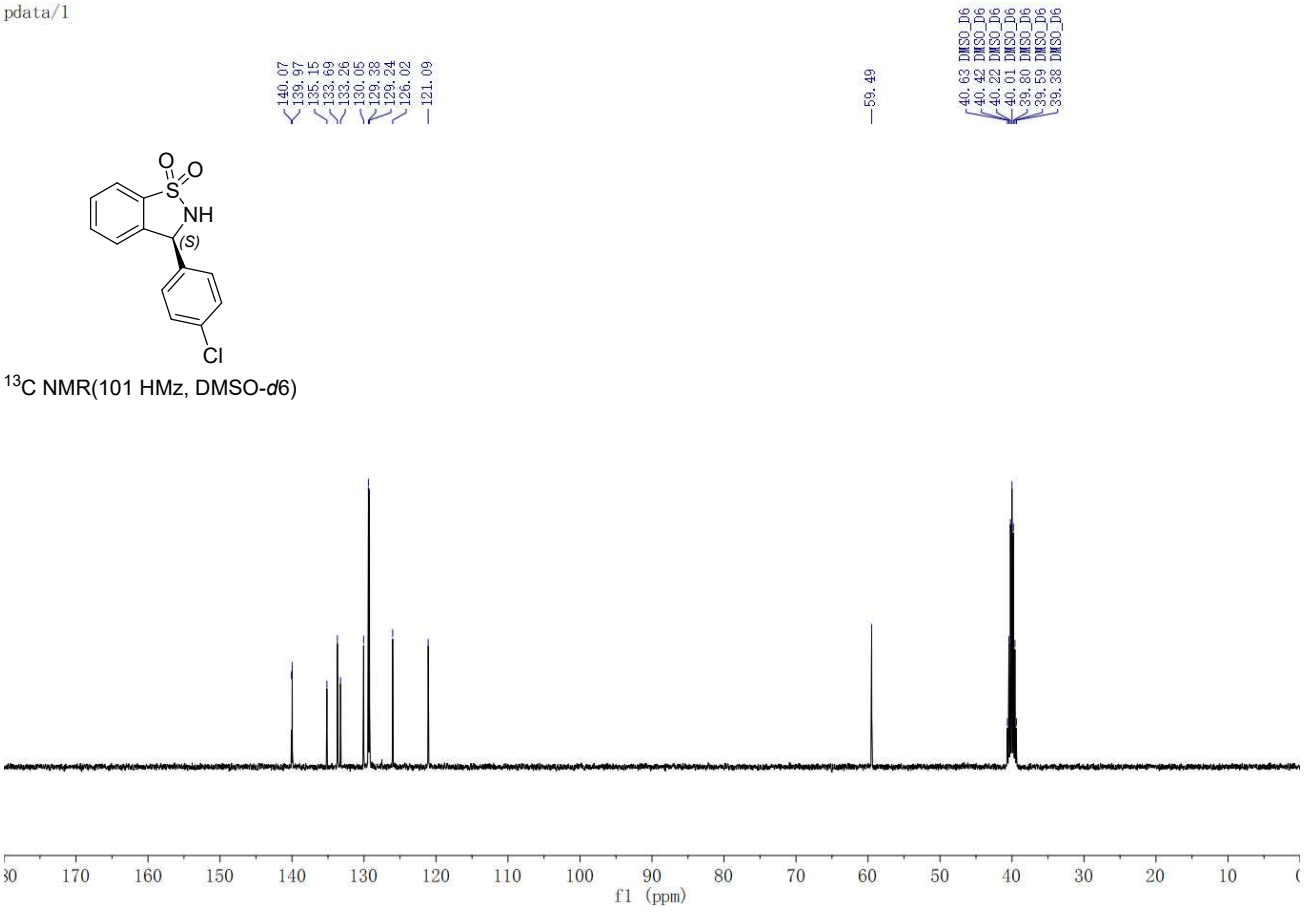


$^{13}$C NMR(101 HMz, DMSO-*d*6)

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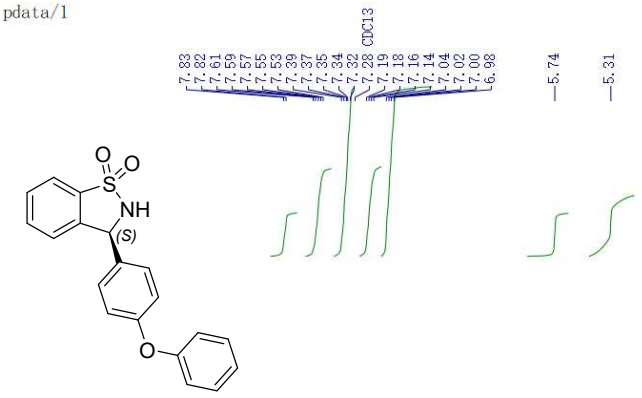
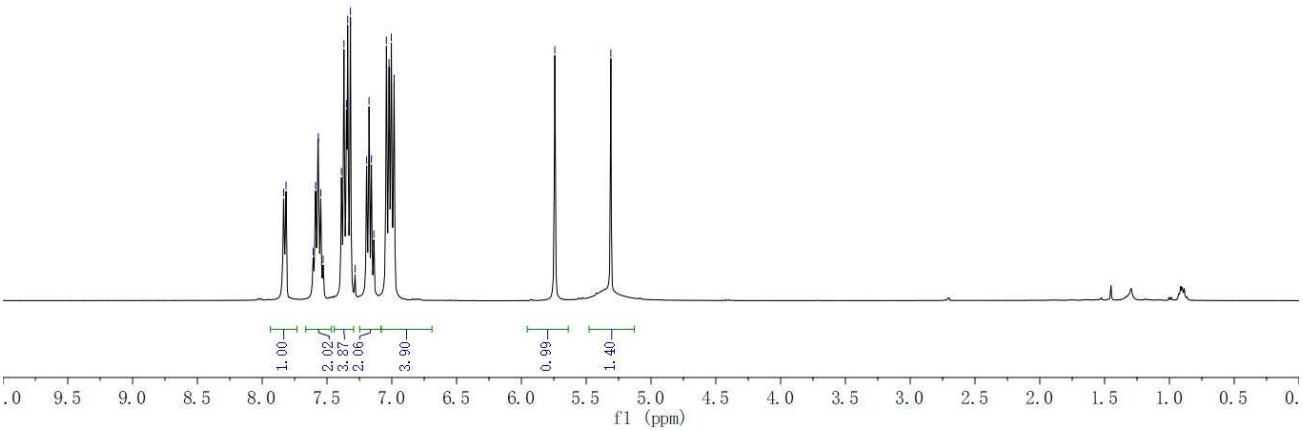



$^{1}$H NMR(400 HMz, $CDCl_3$)

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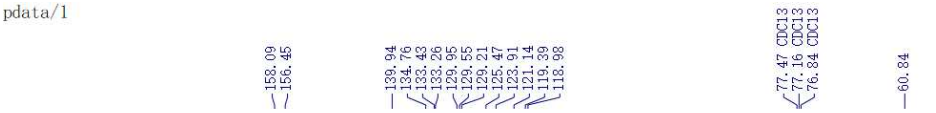
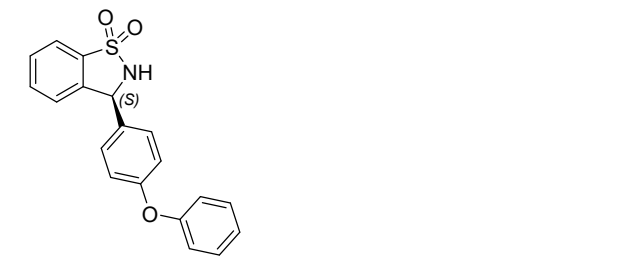
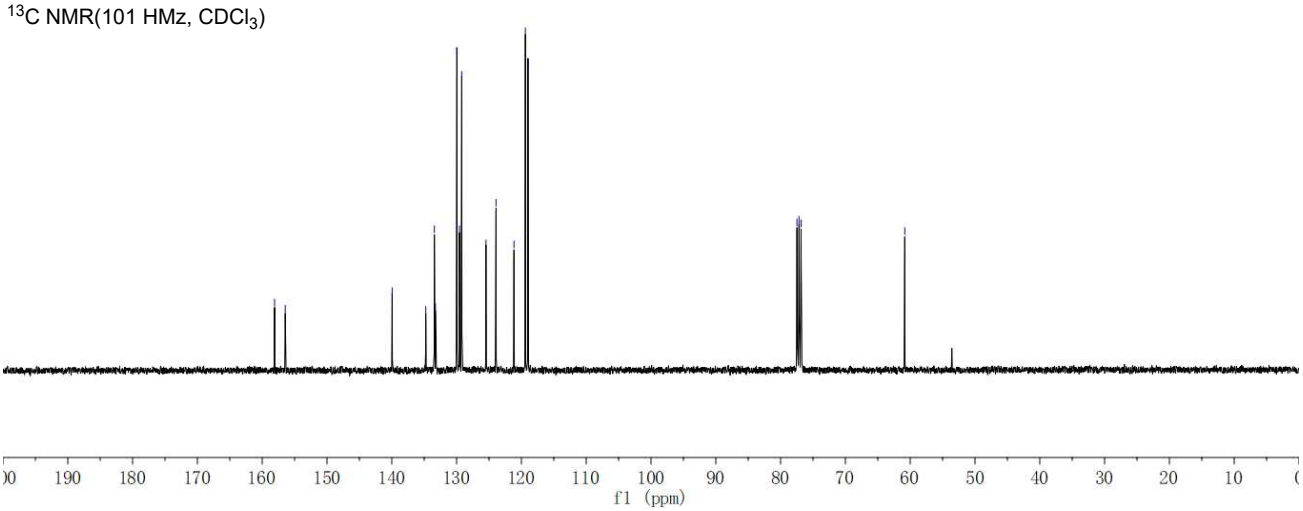



$^{13}$C NMR(101 HMz, $CDCl_3$)



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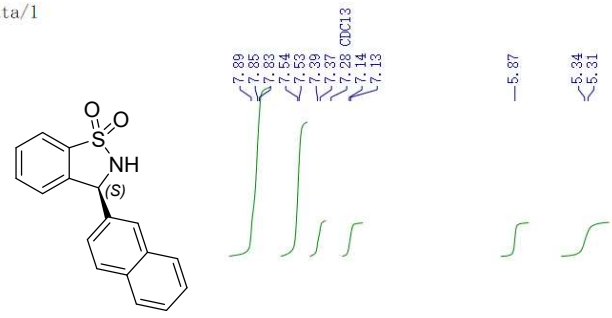
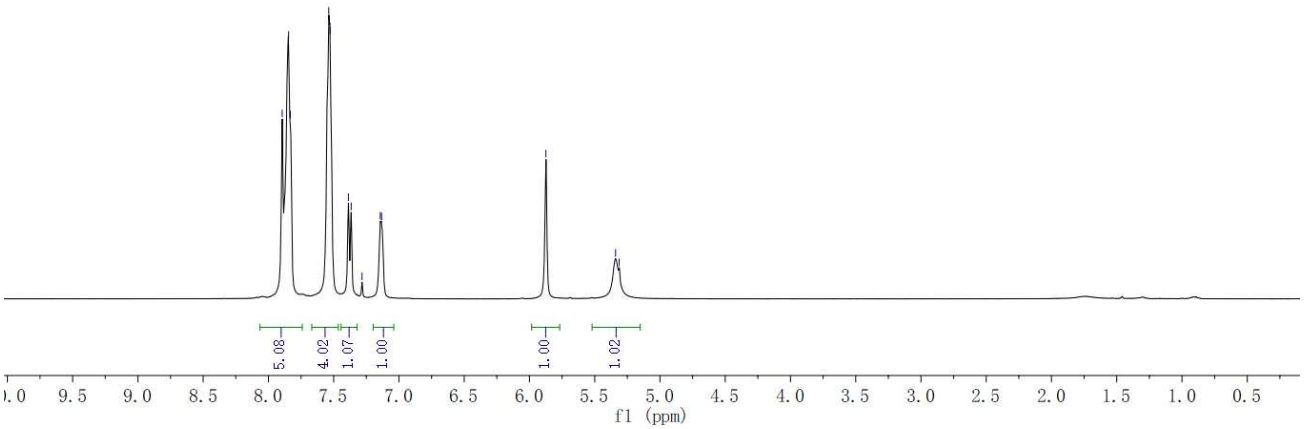



$^{1}$H NMR(400 HMz, $CDCl_3$)

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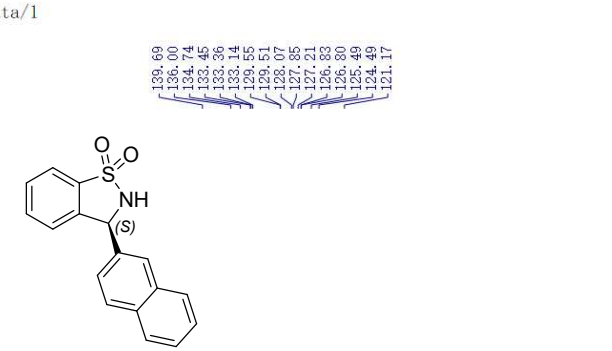
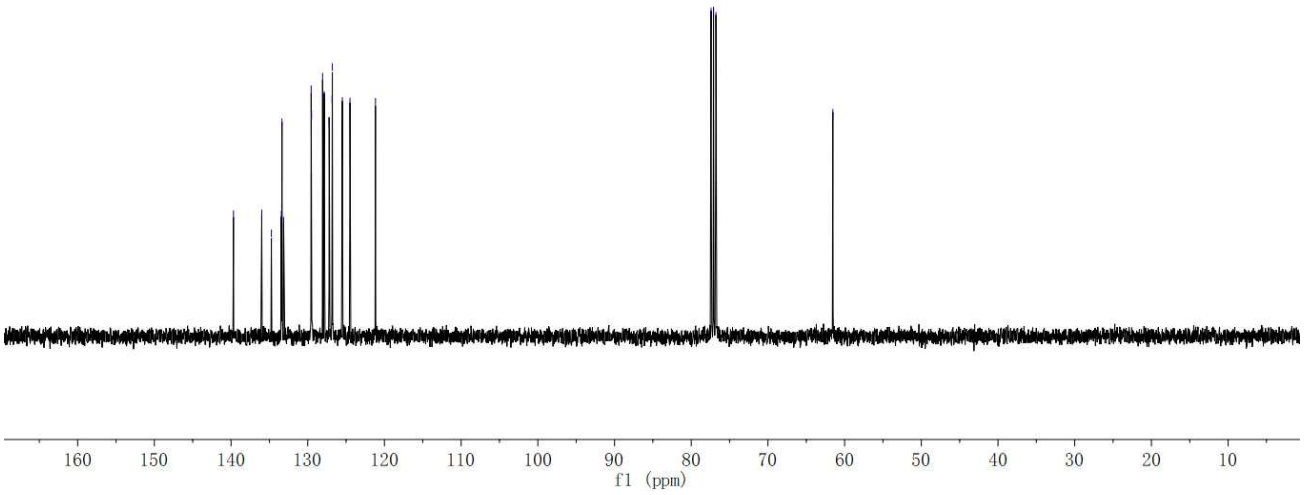
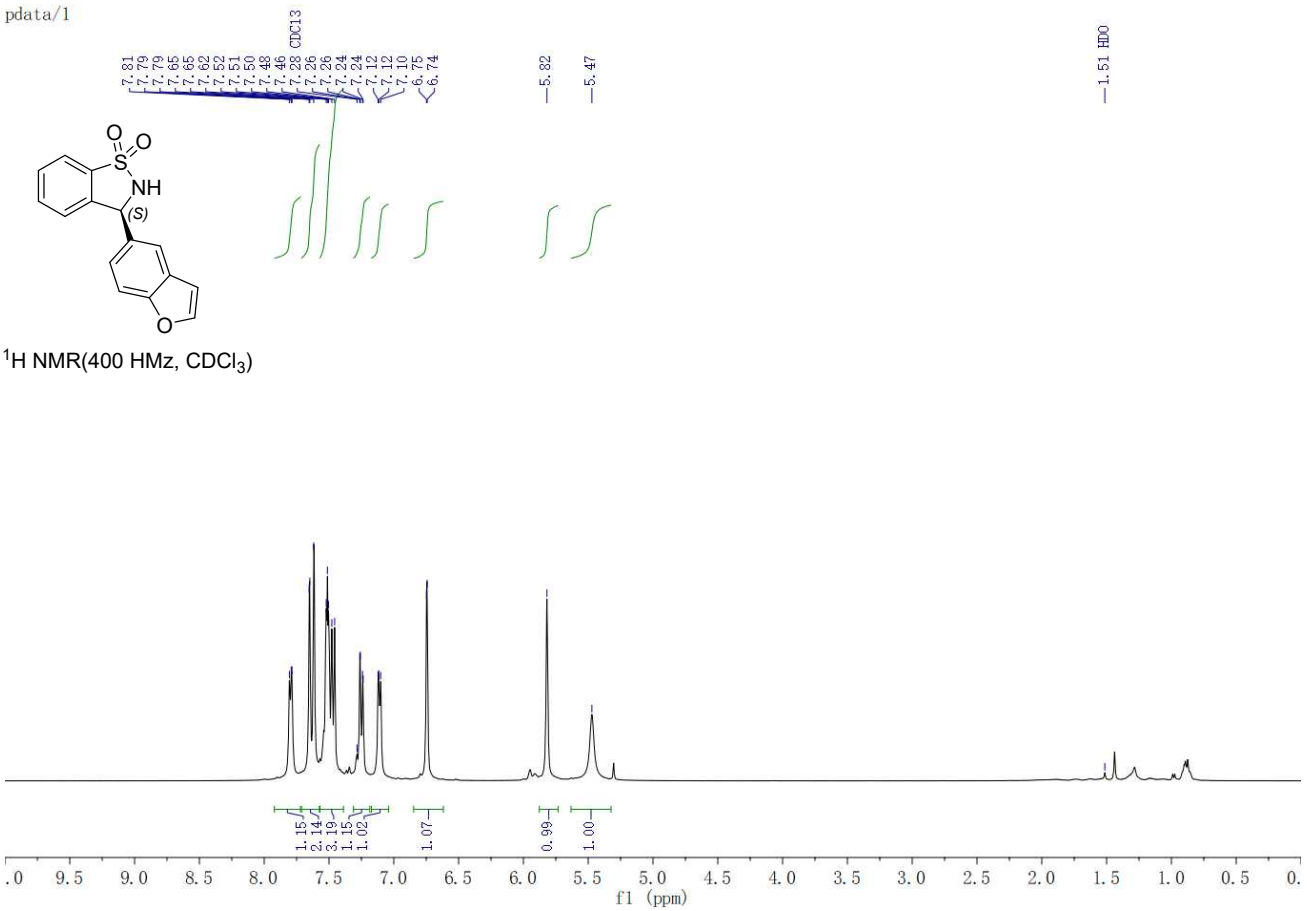



$^{13}$C NMR(101 HMz, $CDCl_3$)



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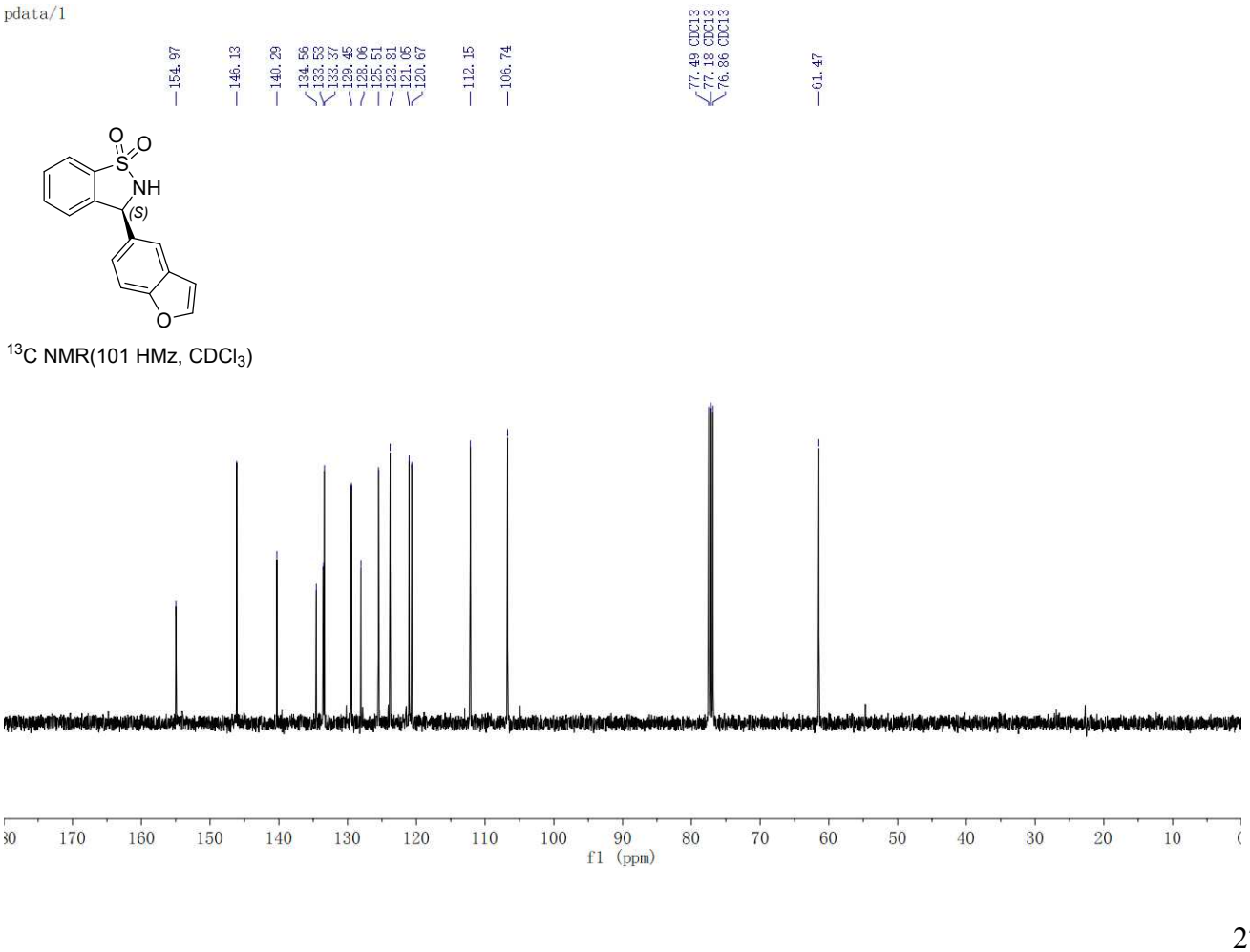
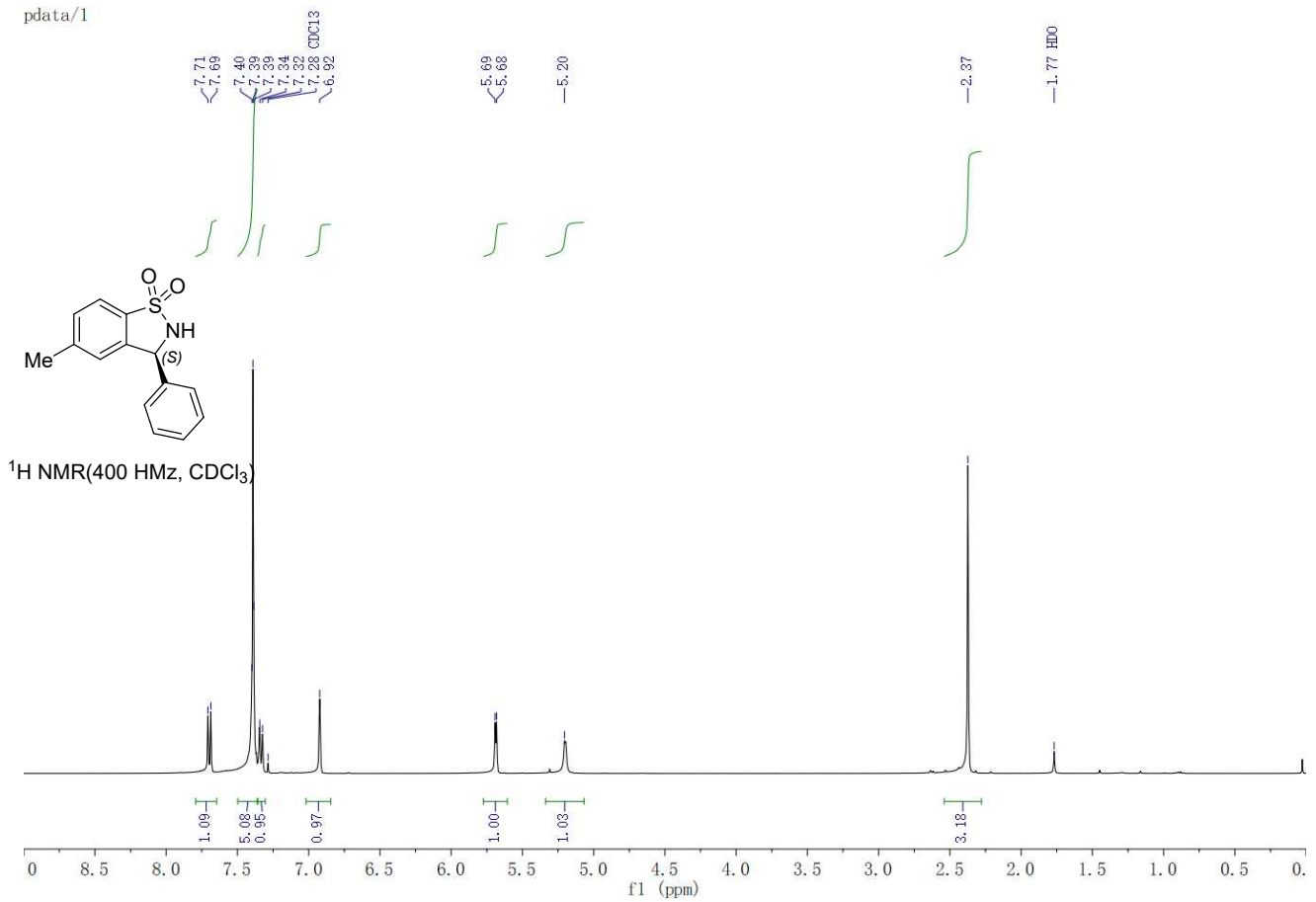
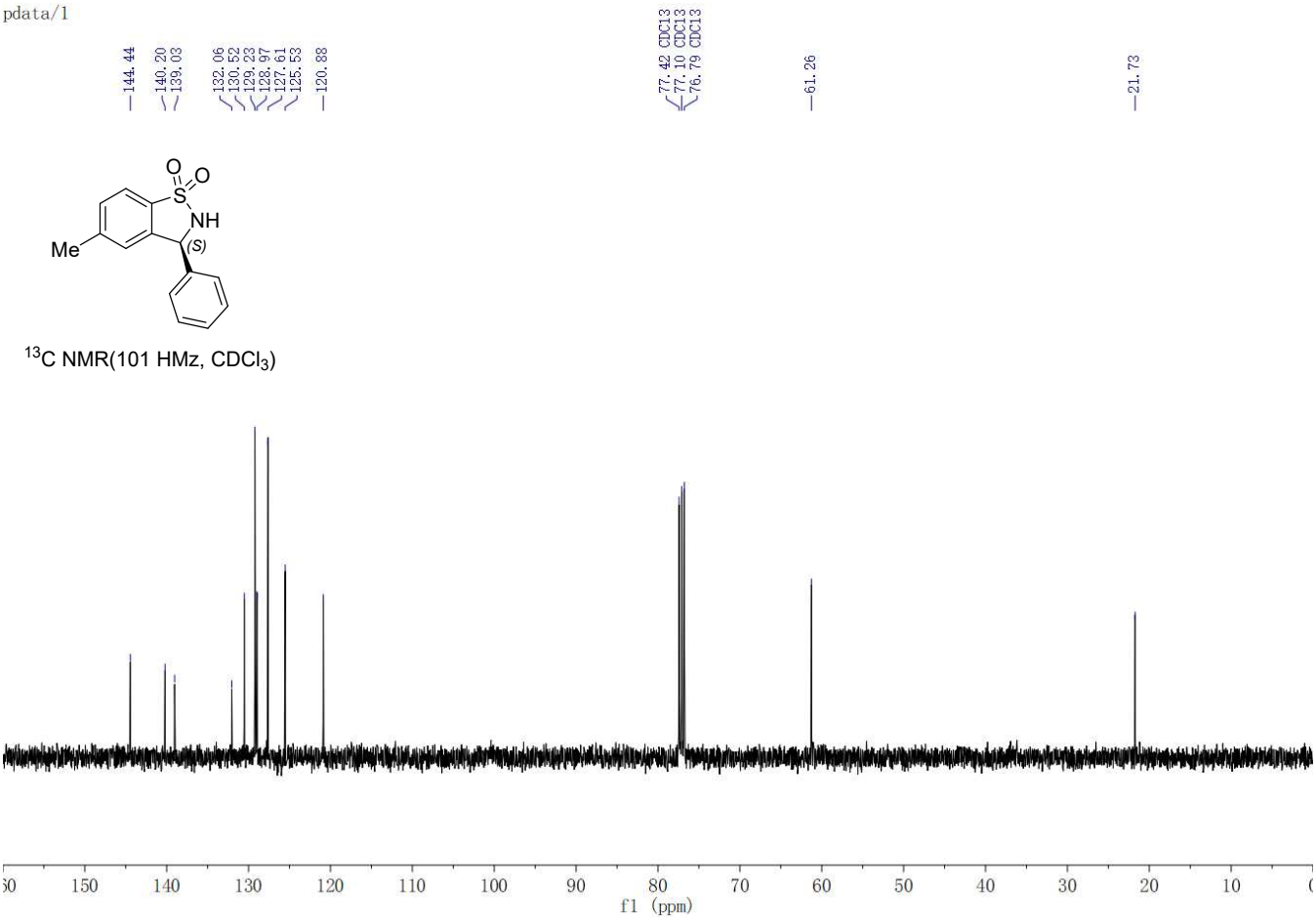


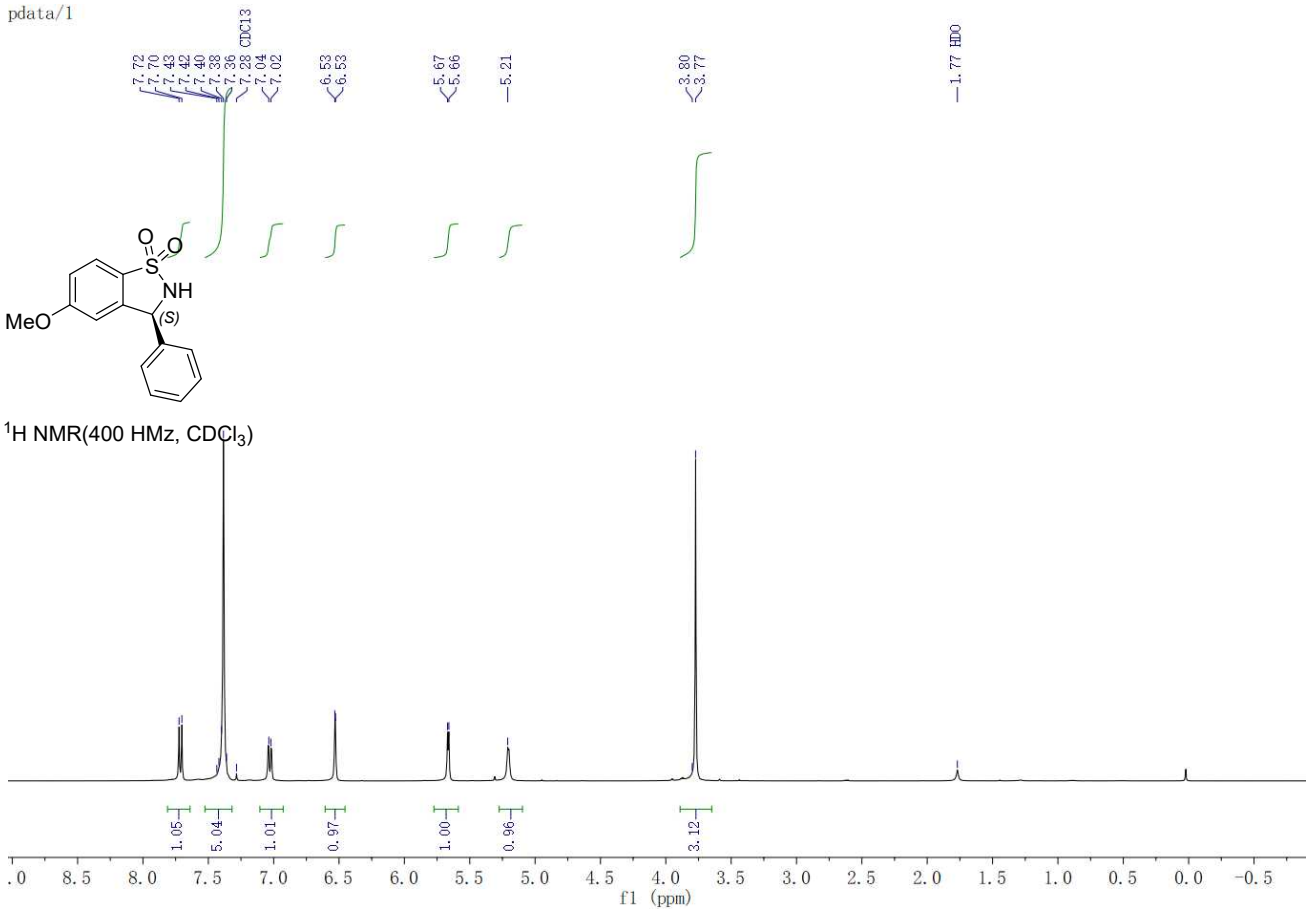

$^{13}$C NMR(101 HMz, $CDCl_3$)



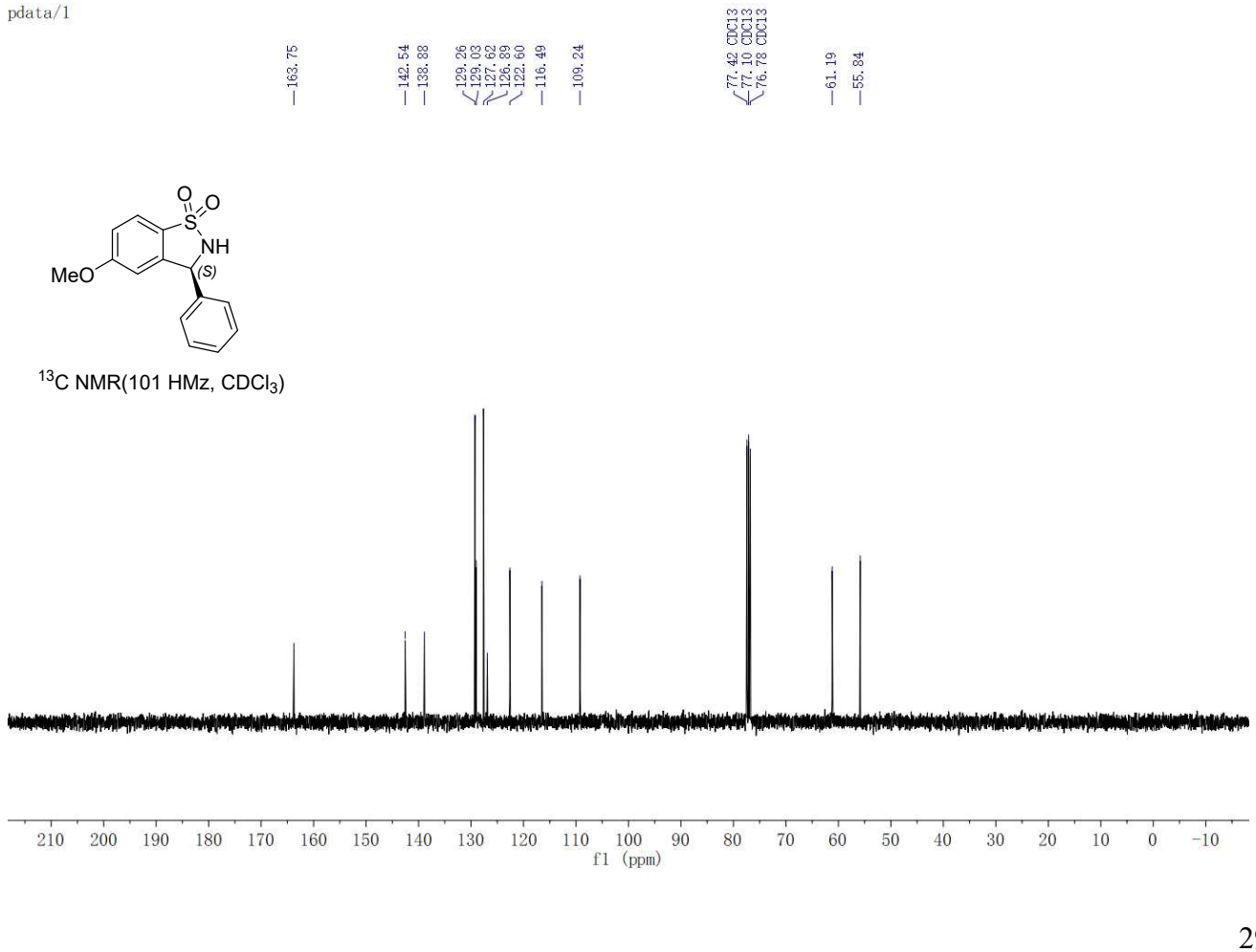

$^{1}$H NMR(400 HMz, $CDCl_3$)



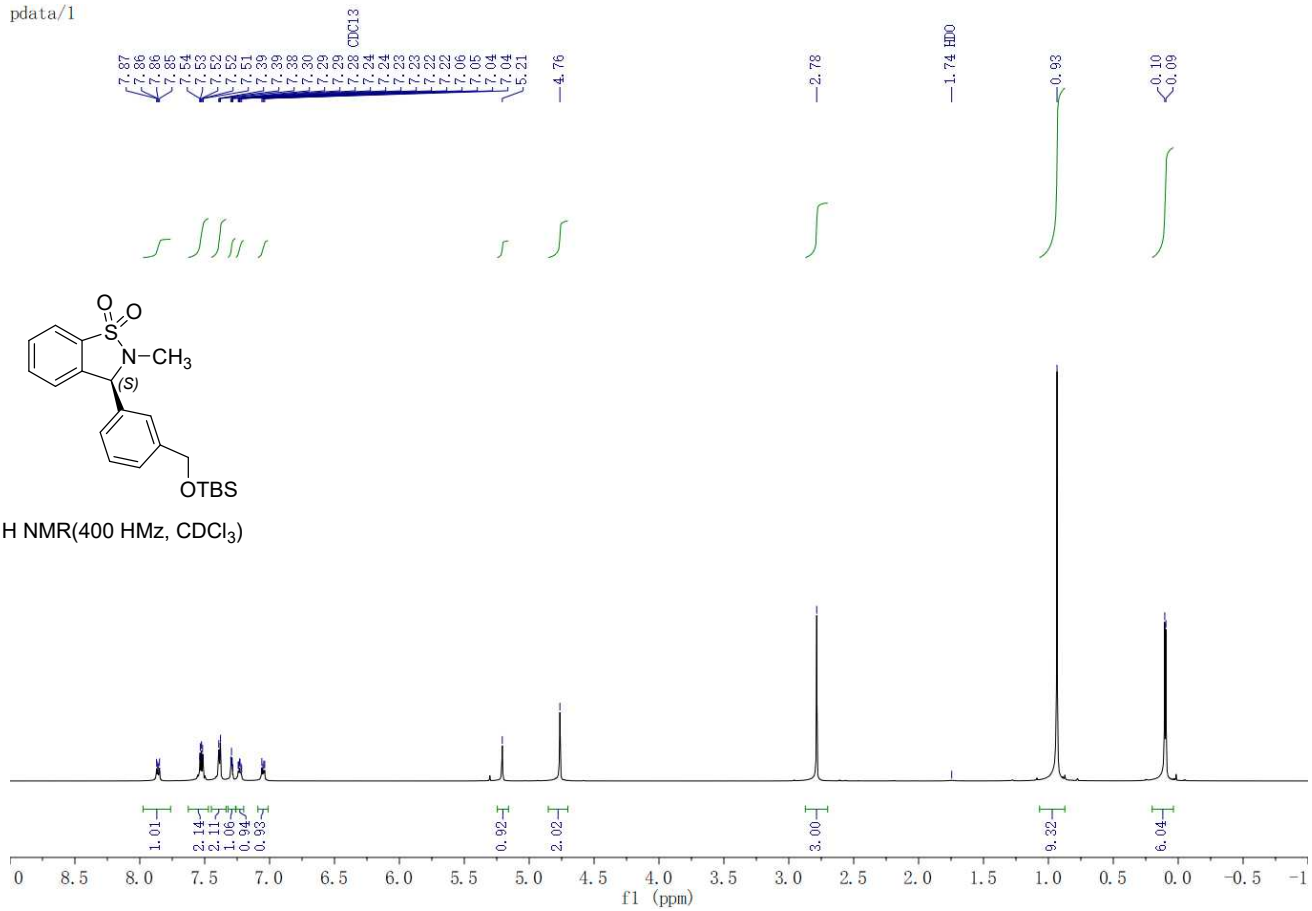

$^{13}$C NMR(101 HMz, $CDCl_3$)



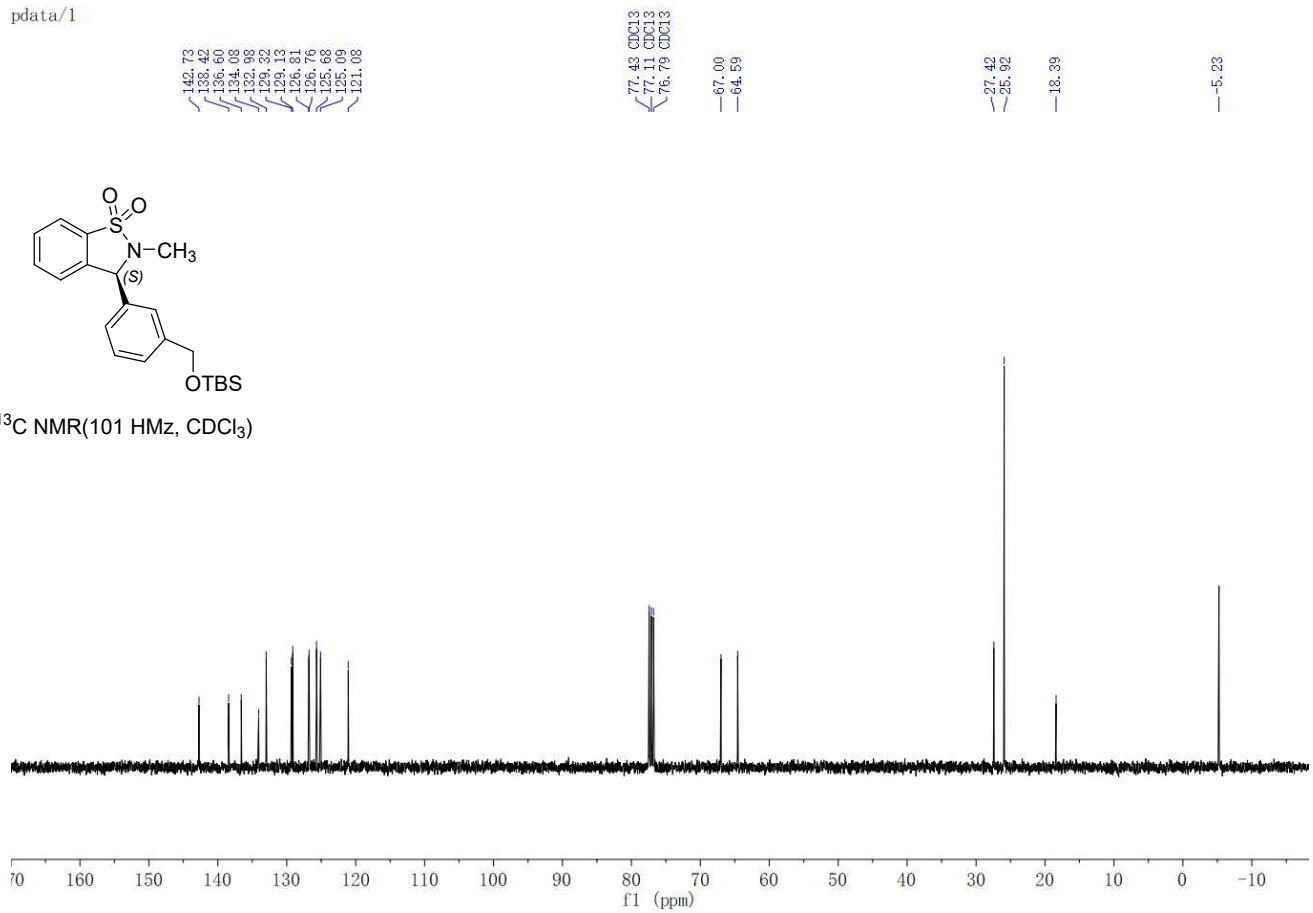

$^{1}$H NMR(400 HMz, $CDCl_3$)




$^{13}$C NMR(101 HMz, $CDCl_3$)

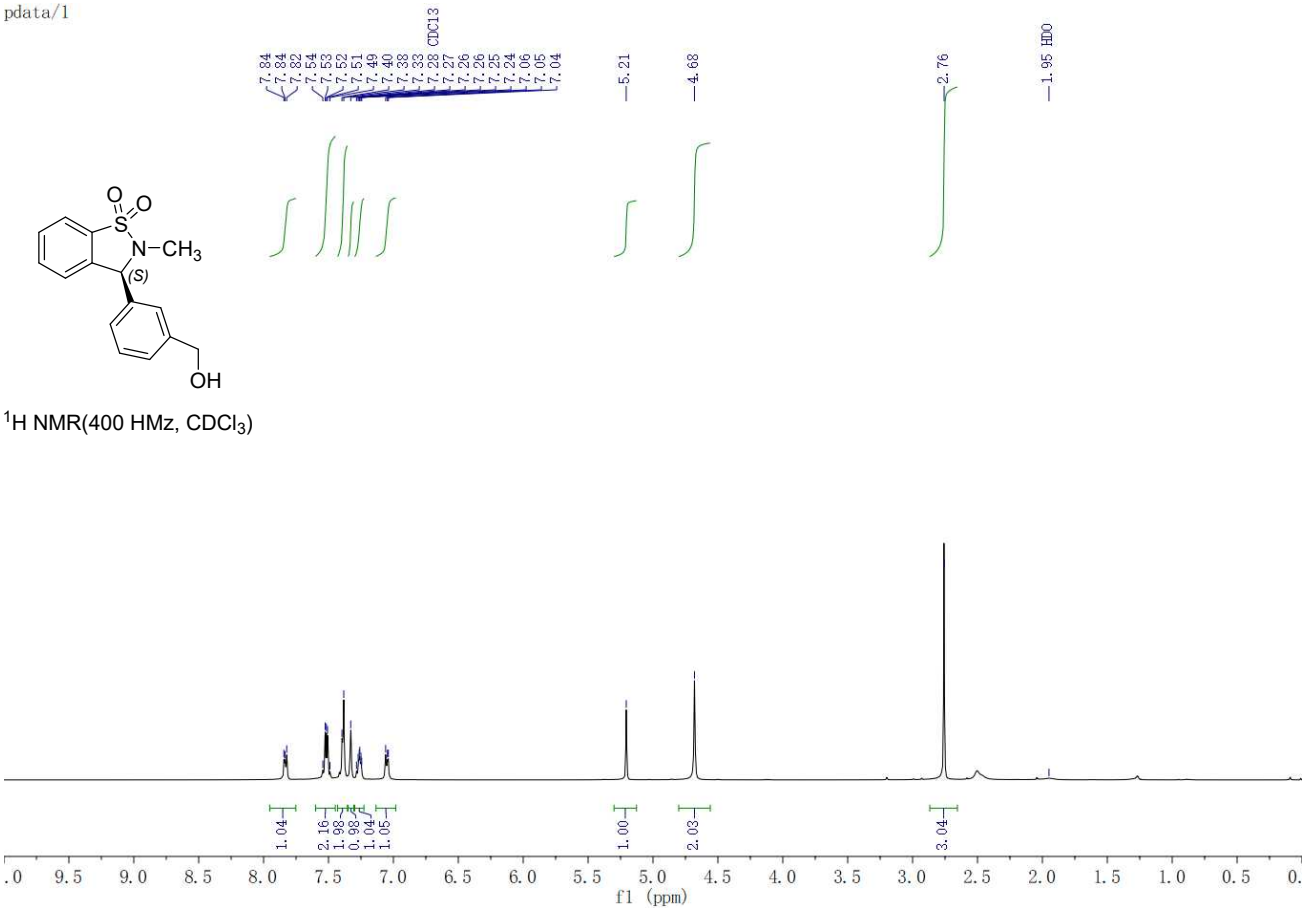



$^{1}$H NMR(400 HMz, $CDCl_3$)



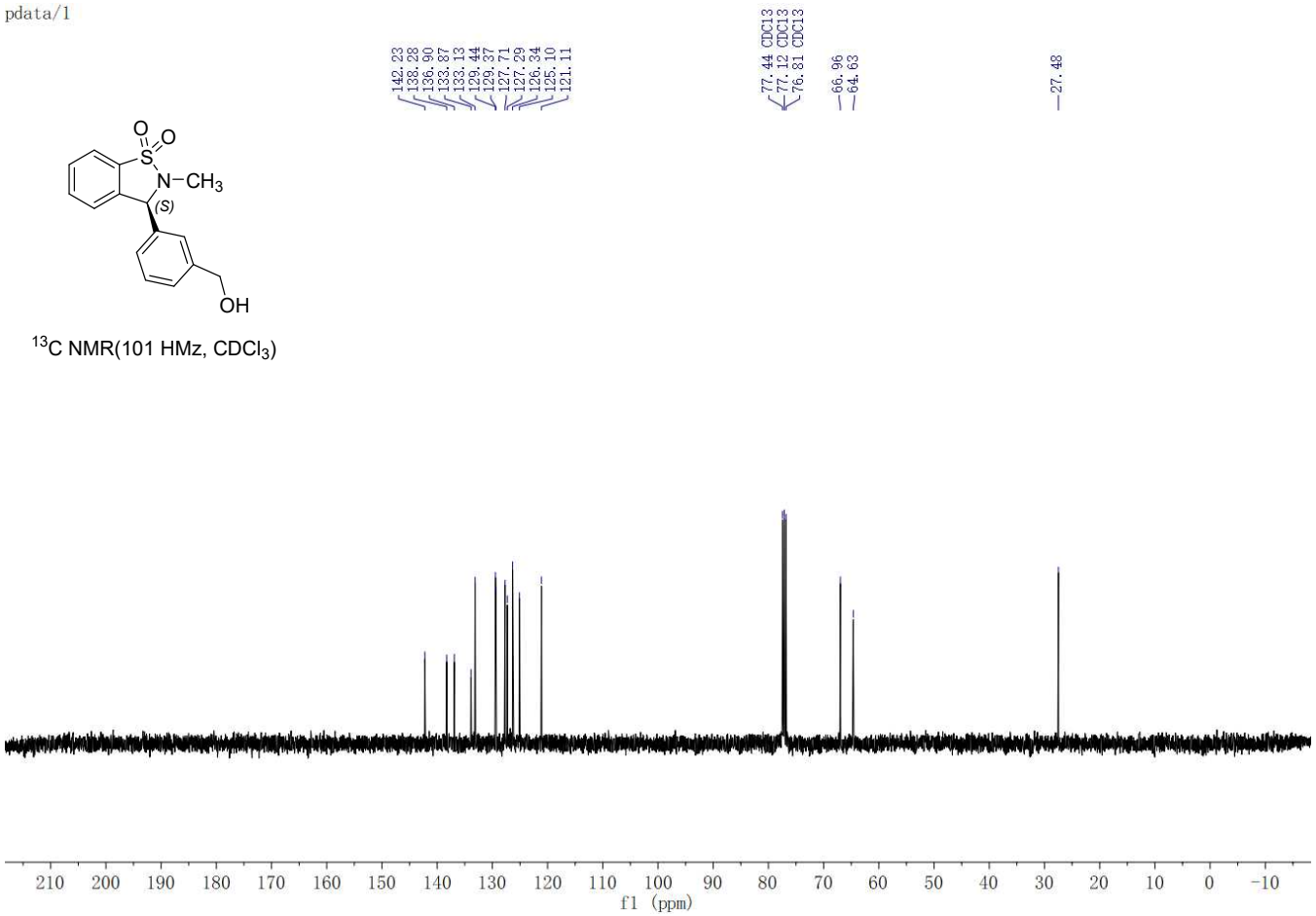

$^{13}$C NMR(101 HMz, $CDCl_3$)

pdata/1



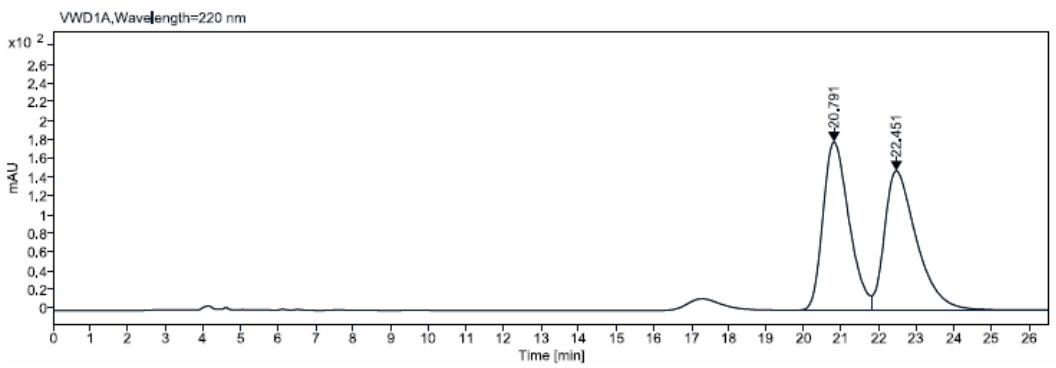

$^{1}$H NMR(400 HMz, $CDCl_3$)

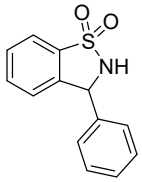
pdata/1




$^{13}$C NMR(101 HMz, $CDCl_3$)

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-29-V-2022-07-12 20-39-32+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-29 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-12 20:40:20+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OJ, Hexane/i-PrOH = 70/30, 0.7 mL/min, 30 oC, 220 nm | | |



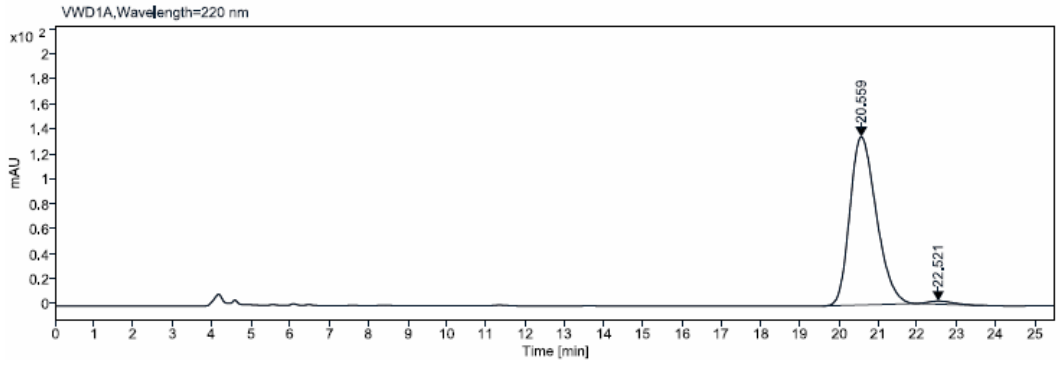



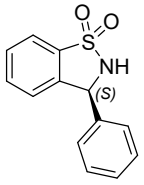
**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 20.791 | 2.043 | 8637.59 | 179.45 | 49.31 |
| 22.451 | 5.065 | 8880.90 | 148.68 | 50.69 |
| | Sum | 17518.49 | | |

*rac*-**1a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-29-V-2022-07-12 16-21-39+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-29 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-12 16:22:21+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OJ, Hexane/i-PrOH = 70/30, 0.7 mL/min, 30 oC, 220 nm | | |



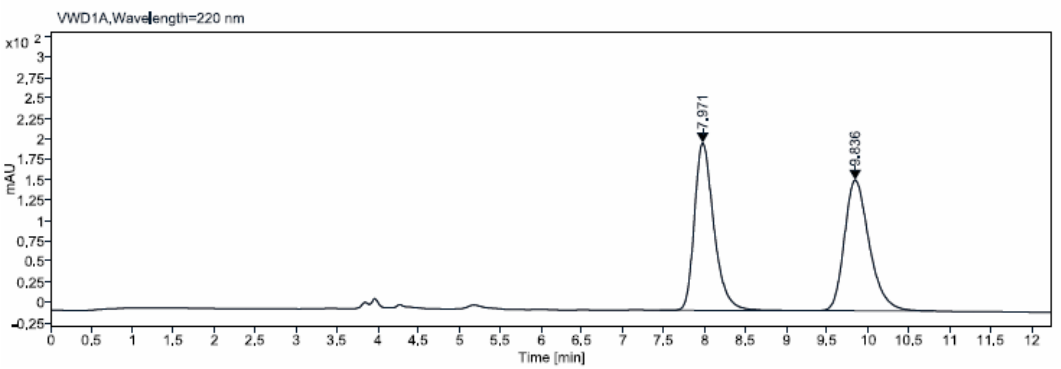



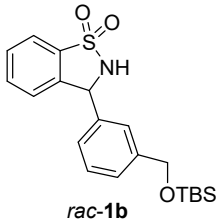
**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 20.559 | 2.397 | 6333.43 | 134.39 | 98.29 |
| 22.521 | 1.703 | 109.99 | 2.48 | 1.71 |
| | Sum | 6443.42 | | |

(*S*)-**1a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-4-84-V-2023-04-12 08-01-12+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-4-84 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-04-12 08:11:49+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



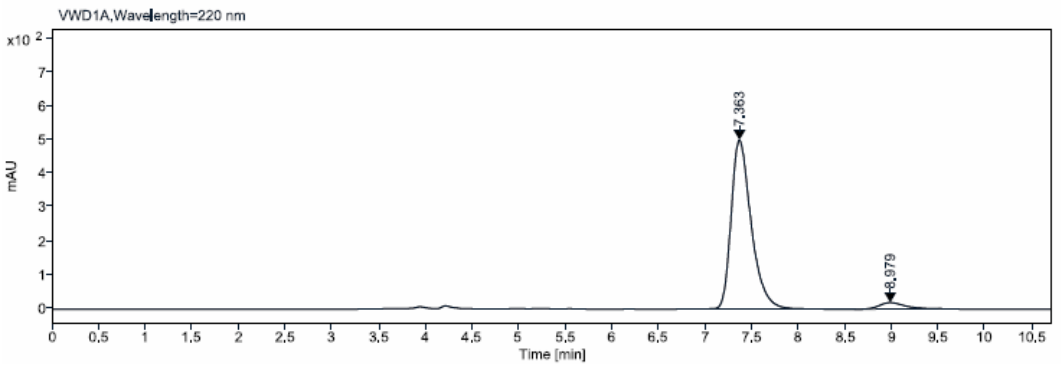



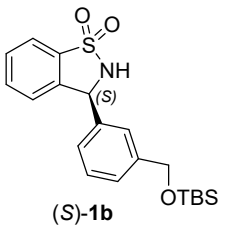

*rac*-**1b**

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 7,971 | 1,863 | 3391,87 | 204,60 | 49,98 |
| 9.836 | 0.325 | 3394.17 | 159.84 | 50.02 |
| | Sum | 6786.04 | | |

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-84-V-2023-04-11 20-05-38+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-84 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-04-11 20:10:03+08:00 |
| **Acq. method:** | BS-10-73.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



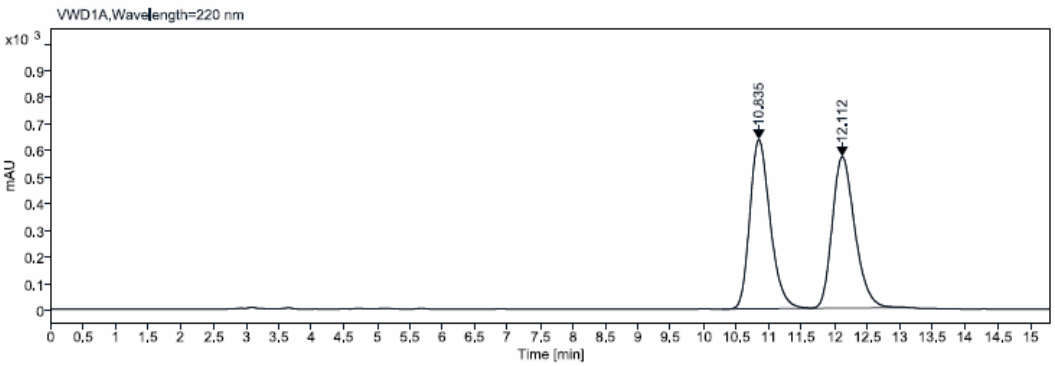




(*S*)-**1b**

**Signal:** VWD1A,Wavelength=220 nm

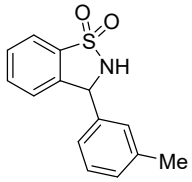
| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 7,363 | 1,690 | 7540,80 | 502,23 | 95,41 |
| 8.979 | 0.287 | 362.37 | 19.10 | 4.59 |
| | Sum | 7903.17 | | |

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-71-V-2022-11-11 18-44-11+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-71 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-11 18:45:24+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 1 mL/min, 30 oC, 220 nm | | |



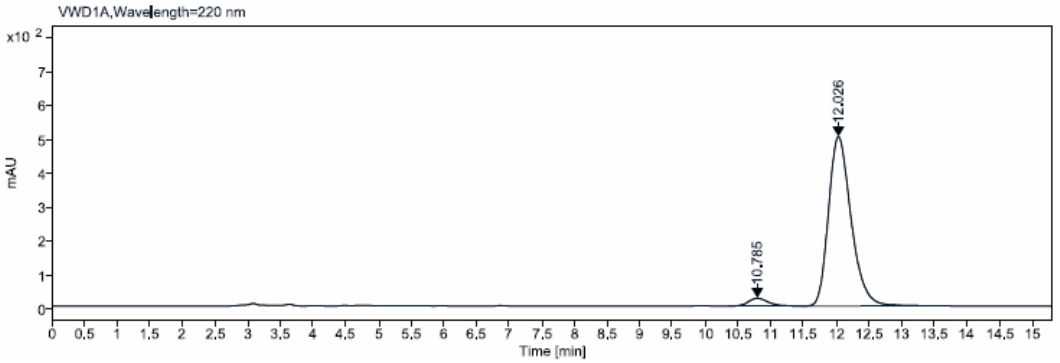

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 10,835 | 0,333 | 13704,72 | 634,53 | 50,06 |
| 12.112 | 0.371 | 13673.82 | 568.12 | 49.94 |
| | Sum | 27378.54 | | |



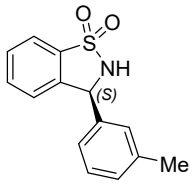

*rac*-**1c**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-71-V-2022-11-11 19-03-30+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-71 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-11 19:04:16+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 1 mL/min, 30 oC, 220 nm | | |



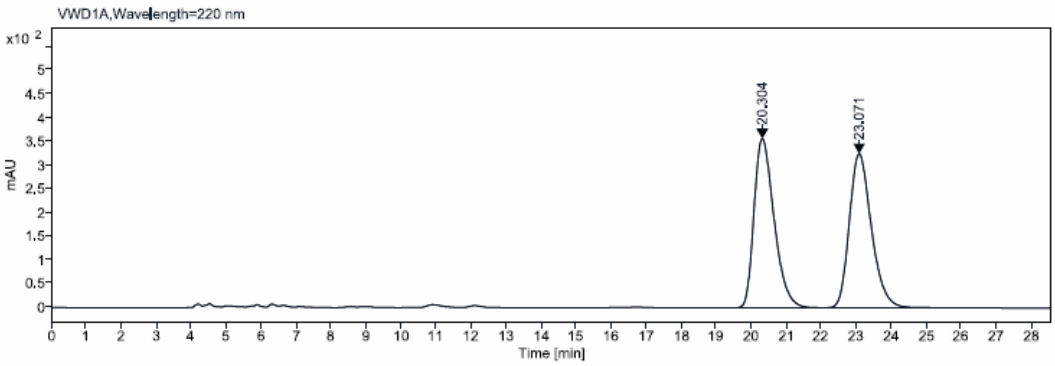

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 10,785 | 1,117 | 485,07 | 22,92 | 3,87 |
| 12.026 | 0.370 | 12040.99 | 500.00 | 96.13 |
| | Sum | 12526.05 | | |



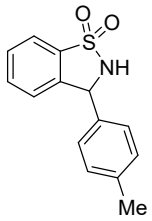

(*S*)-**1c**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-62-V-2022-07-22 14-40-27+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-62 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 14:40:52+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



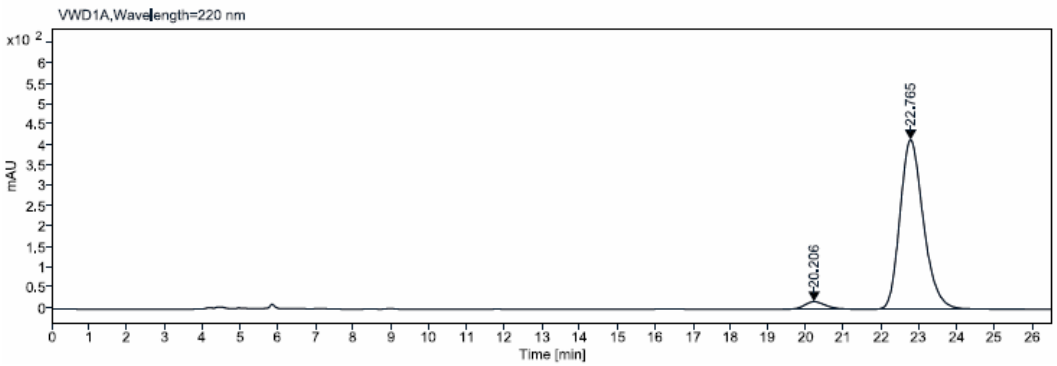

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 20,304 | 2,740 | 14254,64 | 357,41 | 49,93 |
| 23.071 | 4.283 | 14294.84 | 325.77 | 50.07 |
| | Sum | 28549.48 | | |



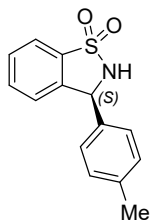

*rac*-**1d**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-62-V-2022-07-22 15-18-48+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-62 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 15:19:24+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



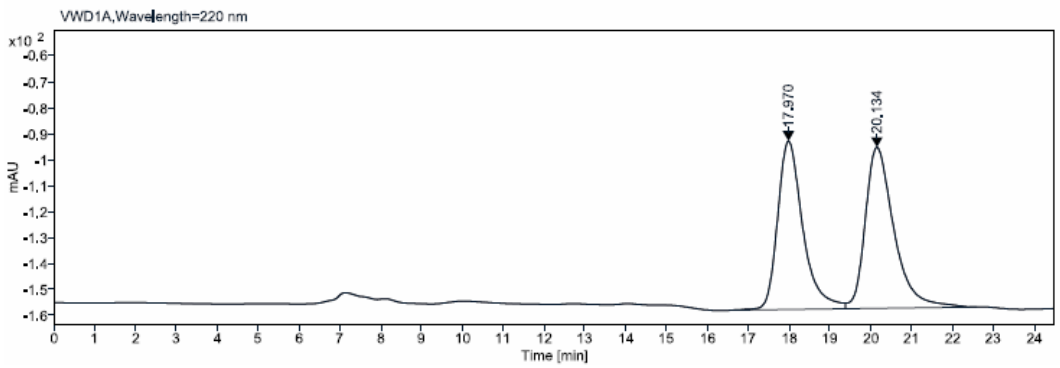

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 20,206 | 2,210 | 721,15 | 18,51 | 3,86 |
| 22.765 | 4.170 | 17967.40 | 415.34 | 96.14 |
| | Sum | 18688.55 | | |



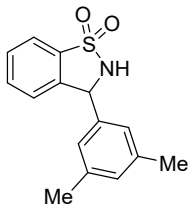

(*S*)-**1d**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-138 1-V-2022-10-15 15-08-50+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-138 1 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-15 15:09:36+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



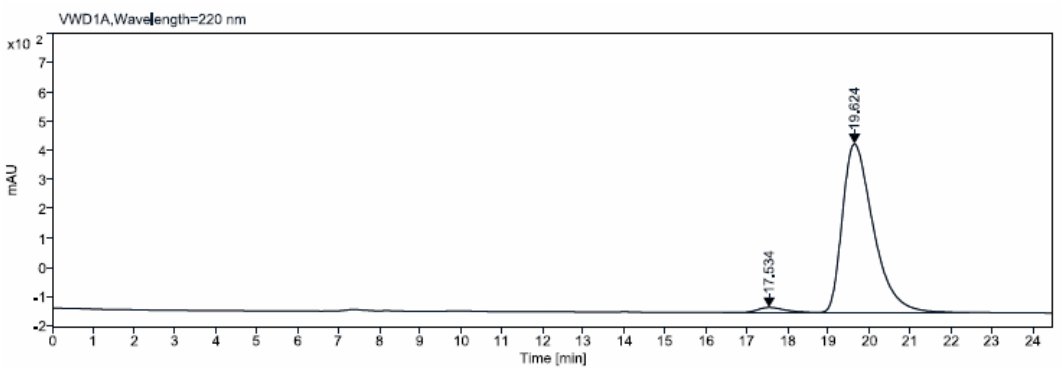

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 17,970 | 0,651 | 2783,74 | 64,69 | 47,95 |
| 20,134 | 0.734 | 3022.36 | 61.92 | 52.05 |
| | Sum | 5806.10 | | |



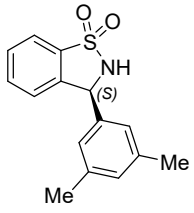

*rac*-**1e**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-138 1-V-2022-10-15 14-26-04+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-138 1 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-15 14:39:30+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



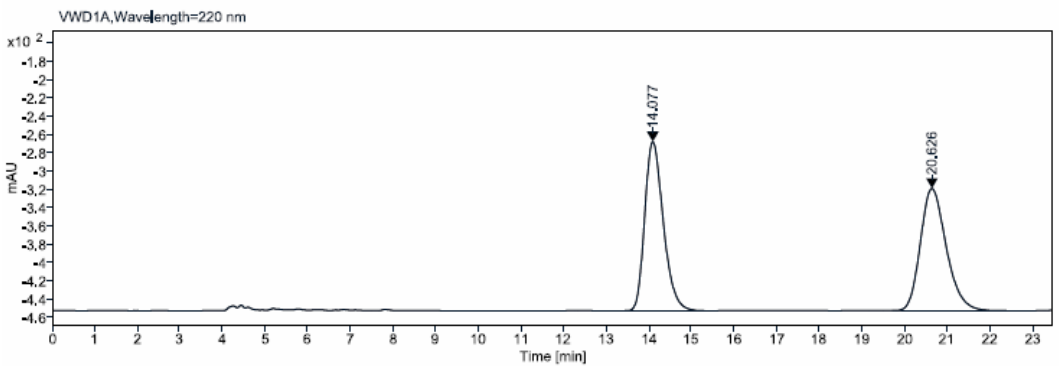

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 17,534 | 0,708 | 808,79 | 17,35 | 2,60 |
| 19.624 | 0.804 | 30318.26 | 576.82 | 97.40 |
| | Sum | 31127.05 | | |



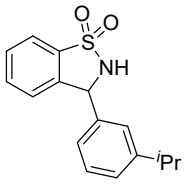

(*S*)-**1e**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130 3-V-2022-10-14 18-10-38+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 3 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-14 18:10:51+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



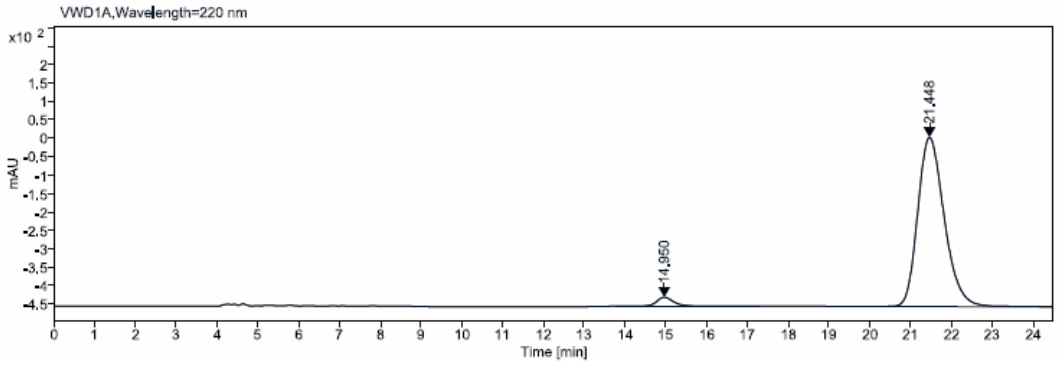

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 14,077 | 2,357 | 5631,65 | 184,99 | 49,92 |
| 20.626 | 3.003 | 5649.98 | 133.66 | 50.08 |
| | Sum | 11281,63 | | |



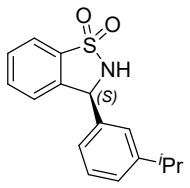

*rac*-**1f**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130 3-V-2022-10-14 19-10-12+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 3 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-14 19:10:58+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



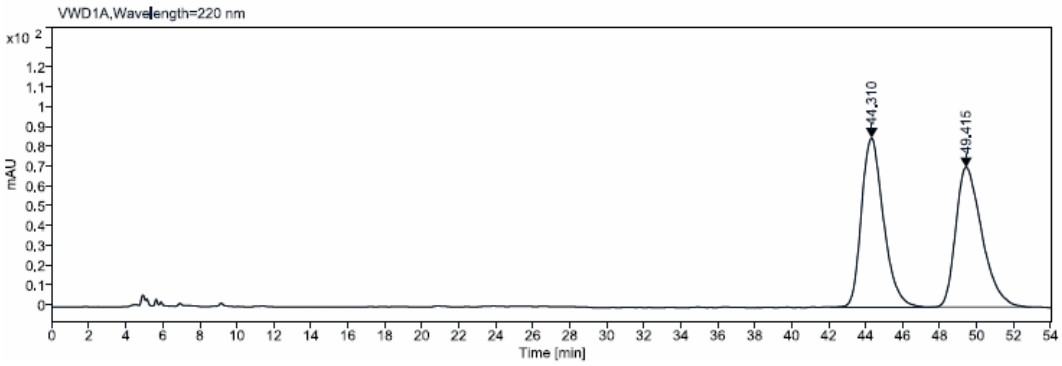

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 14,950 | 3,483 | 757,76 | 24,59 | 3,53 |
| 21.448 | 5.057 | 20718.05 | 458.18 | 96.47 |
| | Sum | 21475,81 | | |



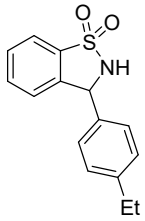

(*S*)-**1f**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-160-V-2022-11-07 17-04-02+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-160 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-07 17:28:24+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



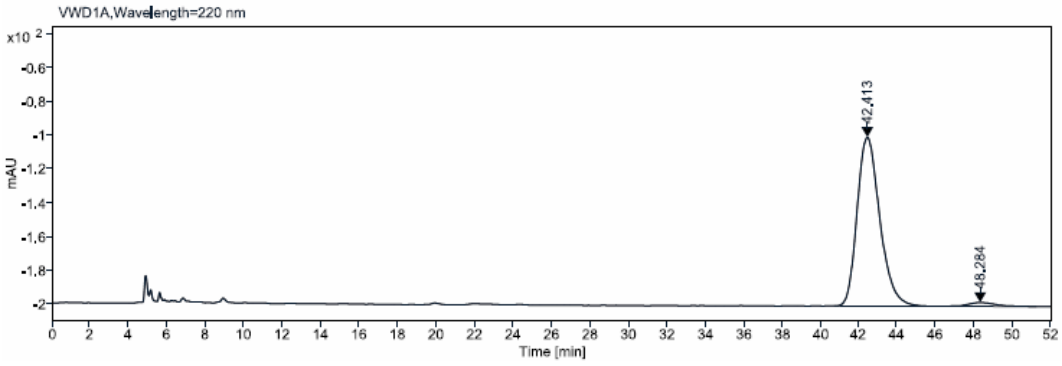

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 44,310 | 5,393 | 7061,95 | 85,03 | 50,40 |
| 49,415 | 5,368 | 6950,82 | 70,28 | 49,60 |
| | Sum | 14012,77 | | |



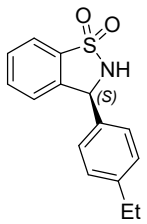
*rac*-**1g**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-160-V-2022-11-07 14-55-46+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-160 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-07 15:10:29+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



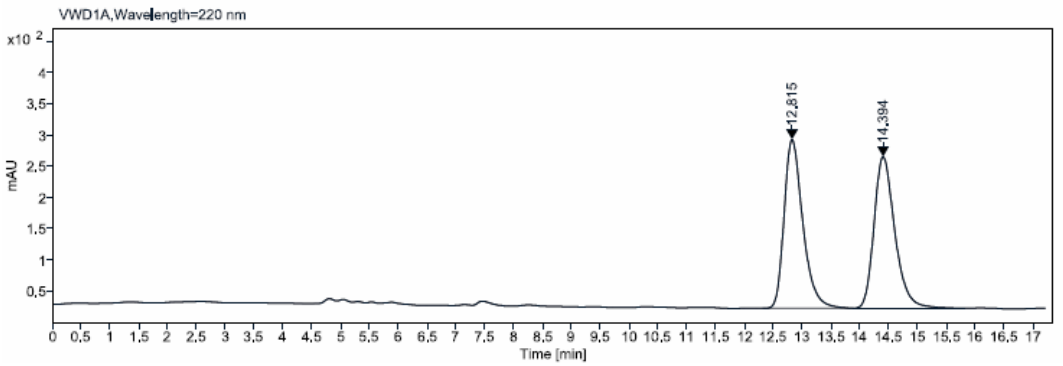

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 42,413 | 5,093 | 8225,70 | 99,96 | 97,46 |
| 48,284 | 4,660 | 214,40 | 2,28 | 2,54 |
| | Sum | 8440,10 | | |



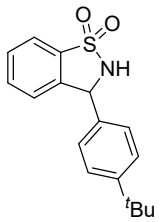
(*S*)-**1g**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-67-V-2022-07-22 19-50-40+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-67 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 19:51:09+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



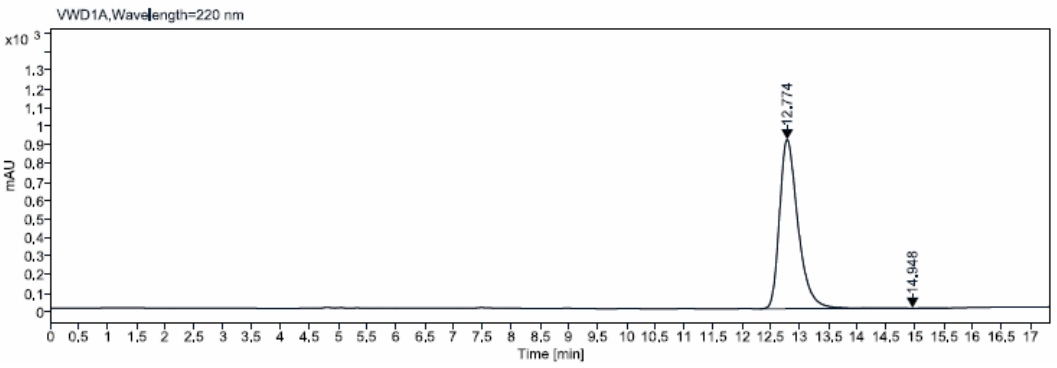

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 12,815 | 1,567 | 6106,52 | 270,73 | 50,07 |
| 14,394 | 1,928 | 6088,28 | 243,12 | 49,93 |
| | Sum | 12194,80 | | |



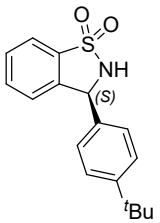
*rac*-**1h**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-67-V-2022-07-22 20-09-13+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-67 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 20:09:46+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



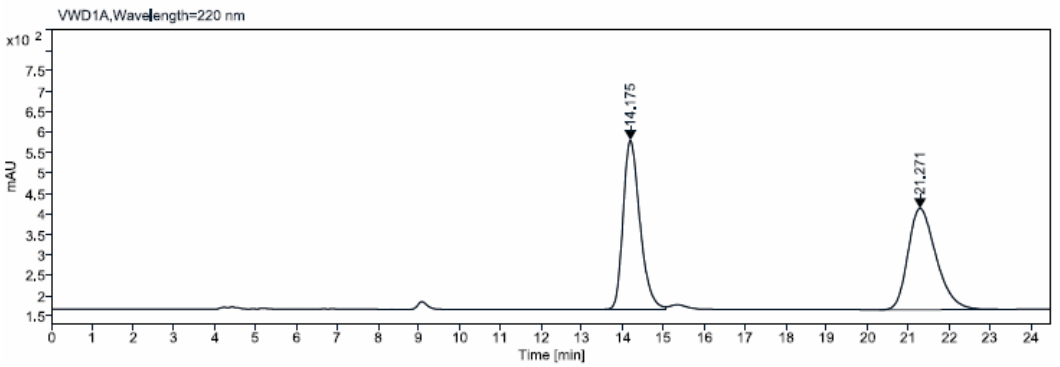

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 12,774 | 1,809 | 20239,24 | 911,15 | 99,59 |
| 14,948 | 0,607 | 83,67 | 1,90 | 0,41 |
| | Sum | 20322,92 | | |



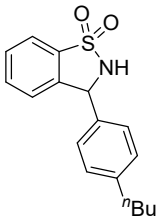
(*S*)-**1h**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-154-V-2022-10-28 15-58-42+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-154 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-28 16:01:47+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



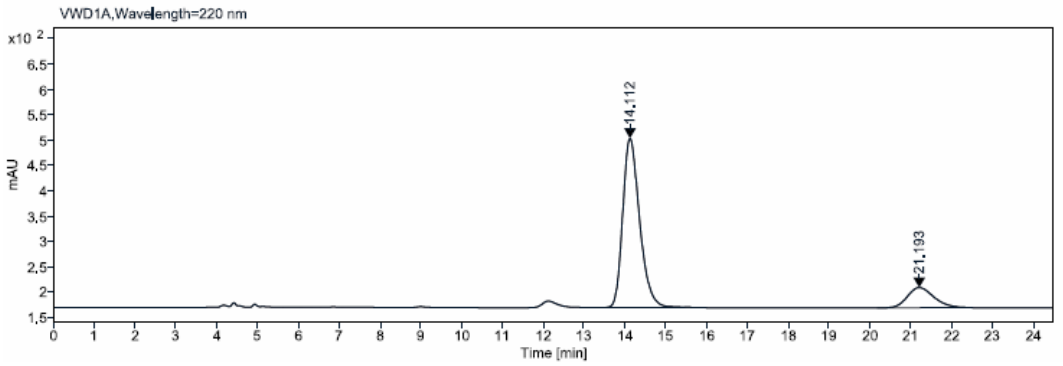

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 14,175 | 1,599 | 11870,46 | 413,58 | 49,96 |
| 21.271 | 3.158 | 11890.01 | 247.72 | 50.04 |
| | Sum | 23760.47 | | |



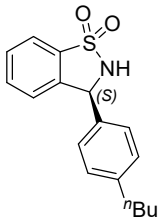
*rac*-**1i**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-154-V-2022-10-28 14-34-59+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-154 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-28 14:37:12+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



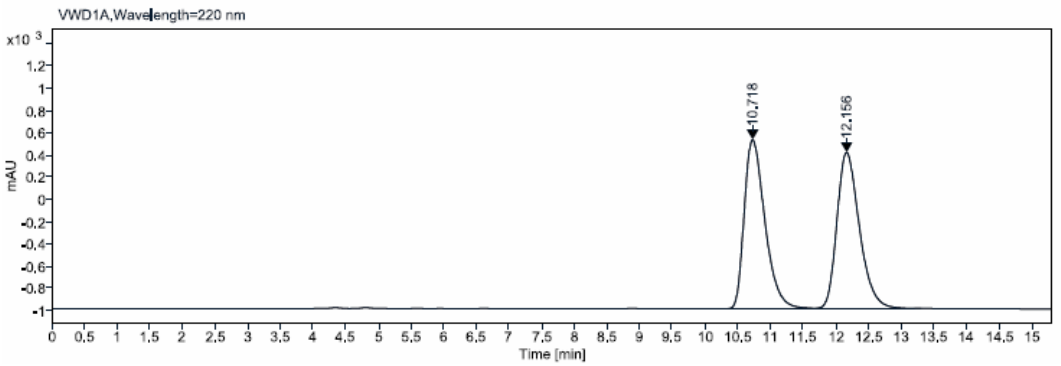

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 14,112 | 0,442 | 9630,80 | 334,42 | 84,34 |
| 21.193 | 0.692 | 1788.51 | 39.84 | 15.66 |
| | Sum | 11419.31 | | |



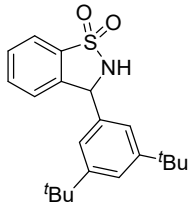
(*S*)-**1i**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-146-V-2022-10-29 14-50-38+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-146 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-29 15:01:06+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 90/10, 0,7 mL/min, 30 oC, 220 nm | | |



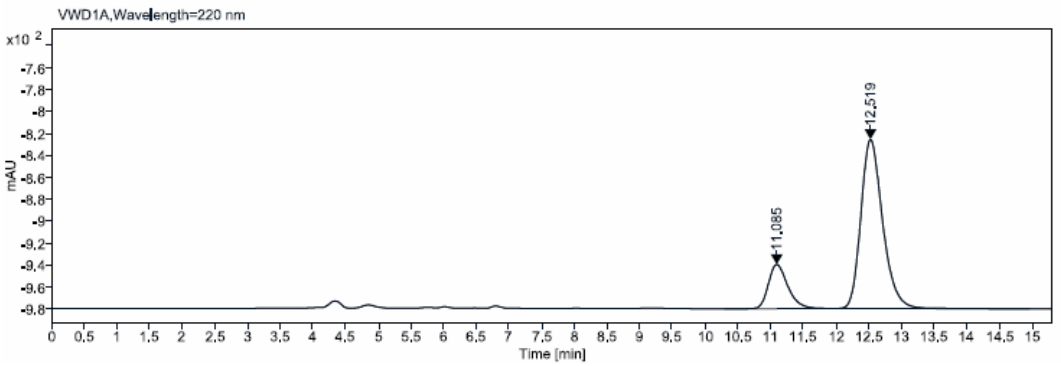

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 10,718 | 0,341 | 33572,10 | 1520,44 | 49,91 |
| 12.156 | 0.369 | 33688.32 | 1404.23 | 50.09 |
| | Sum | 67260.42 | | |



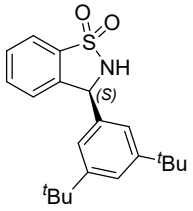
*rac*-**1j**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-159-V-2022-10-29 15-35-16+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-159 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-29 15:36:15+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 90/10, 0,7 mL/min, 30 oC, 220 nm | | |



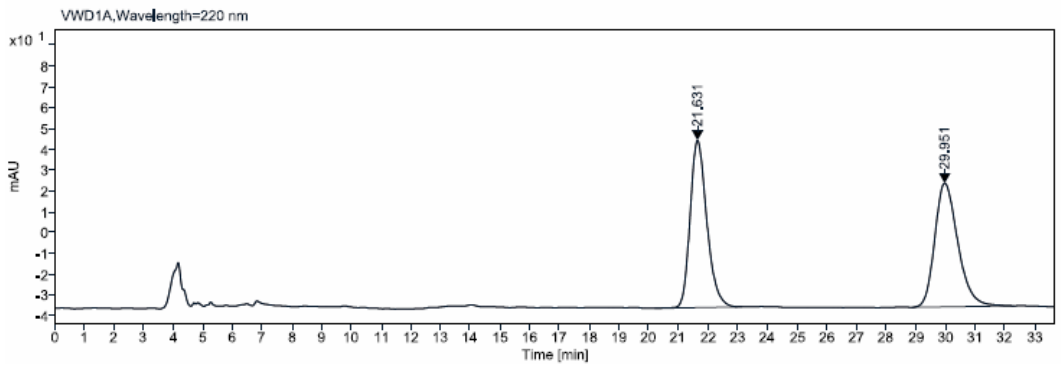

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 11,085 | 1,674 | 832,20 | 40,32 | 18,86 |
| 12.519 | 2.987 | 3579.95 | 154.08 | 81.14 |
| | Sum | 4412.15 | | |



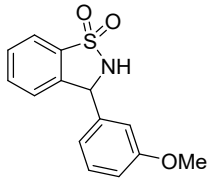
(*S*)-**1j**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-100 1-V-2022-09-12 20-18-44+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-100 1 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-09-12 20:19:31+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,7 mL/min, 30 oC, 220 nm | | |



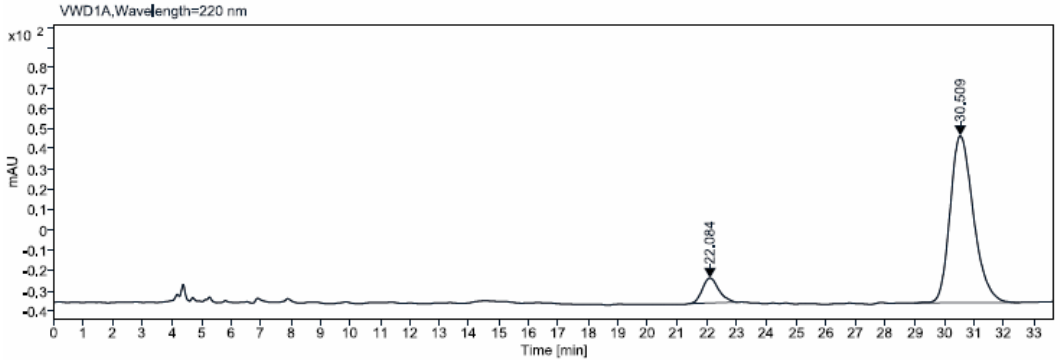

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 21,631 | 2,930 | 3129,98 | 80,16 | 49,42 |
| 29,951 | 3,448 | 3203,54 | 59,30 | 50,58 |
| | Sum | 6333,52 | | |



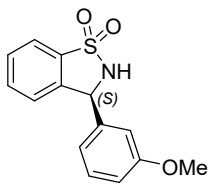

*rac*-**1k**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-100 2-V-2022-09-12 19-39-54+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-100 2 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-09-12 19:40:47+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,7 mL/min, 30 oC, 220 nm | | |



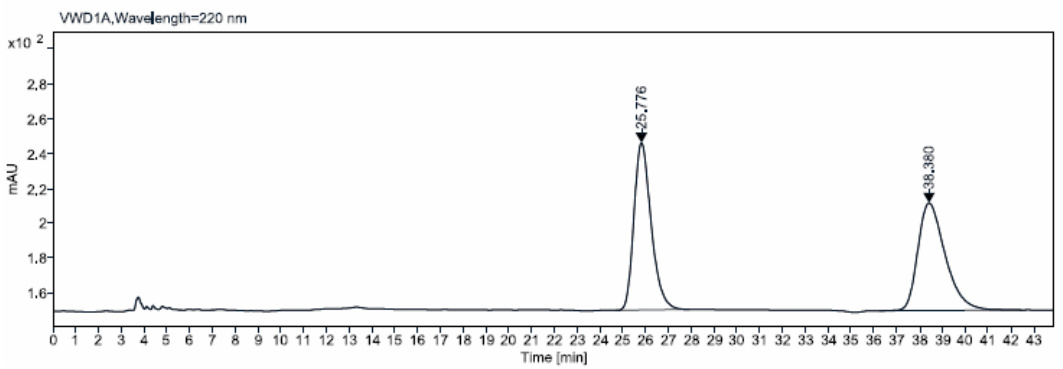

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 22,084 | 0,586 | 470,64 | 12,28 | 9,46 |
| 30,509 | 0,850 | 4503,60 | 82,39 | 90,54 |
| | Sum | 4974,23 | | |



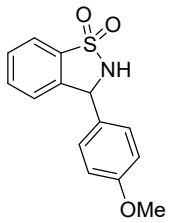

(*S*)-**1k**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-154-V-2022-10-27 20-07-44+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-154 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-27 20:08:15+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



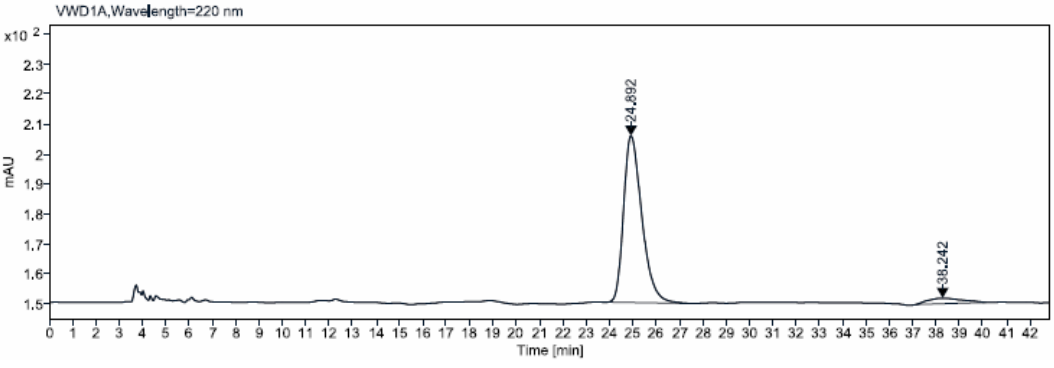

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 25,776 | 3,195 | 5052,84 | 96,11 | 49,45 |
| 38,380 | 6,272 | 5165,41 | 61,85 | 50,55 |
| | Sum | 10218,25 | | |



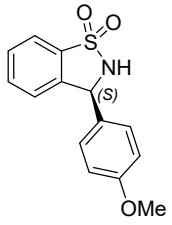

*rac*-**1l**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-154-V-2022-10-27 19-19-18+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-154 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-27 19:19:56+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



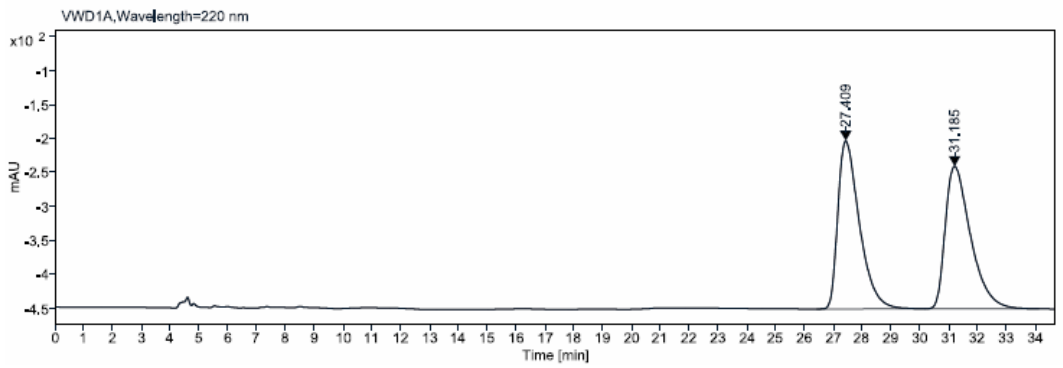

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 24,892 | 0,829 | 3032,34 | 55,61 | 94,29 |
| 38,242 | 1,177 | 183,76 | 1,82 | 5,71 |
| | Sum | 3216,10 | | |



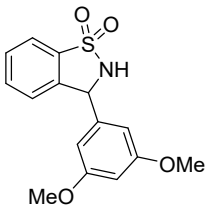

(*S*)-**1l**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130 3-V-2022-10-14 15-58-40+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 3 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-14 15:59:25+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



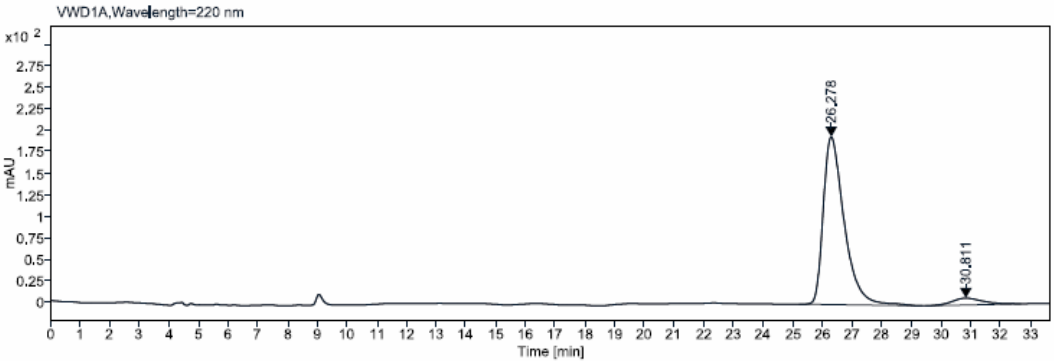

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 27,409 | 3,752 | 12874,97 | 247,61 | 50,08 |
| 31,185 | 0,929 | 12833,41 | 210,04 | 49,92 |
| | Sum | 25708,37 | | |



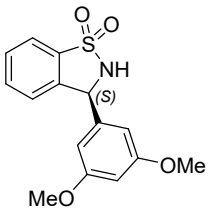

*rac*-**1m**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130 3-V-2022-10-12 20-10-29+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 3 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-12 20:11:08+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



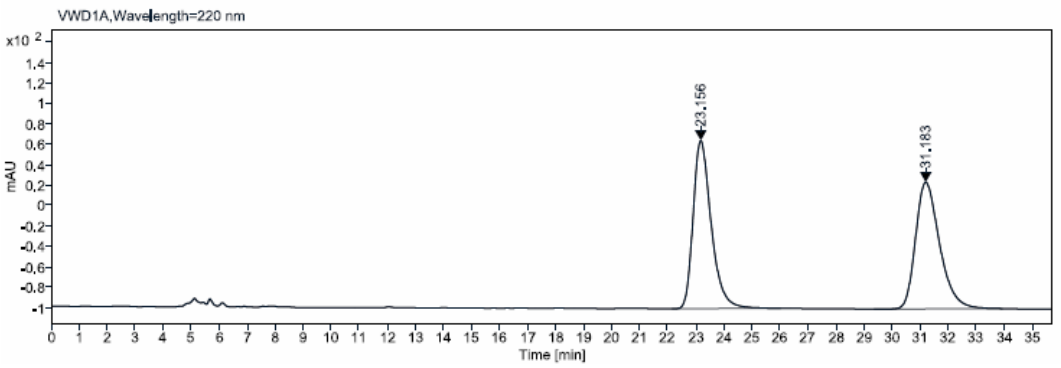

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 26,278 | 4,130 | 9528,35 | 194,10 | 94,38 |
| 30,811 | 3,202 | 567,11 | 7,96 | 5,62 |
| | Sum | 10095,47 | | |



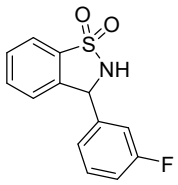

(*S*)-**1m**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-146-V-2022-10-31 14-16-57+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-146 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-31 14:18:08+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



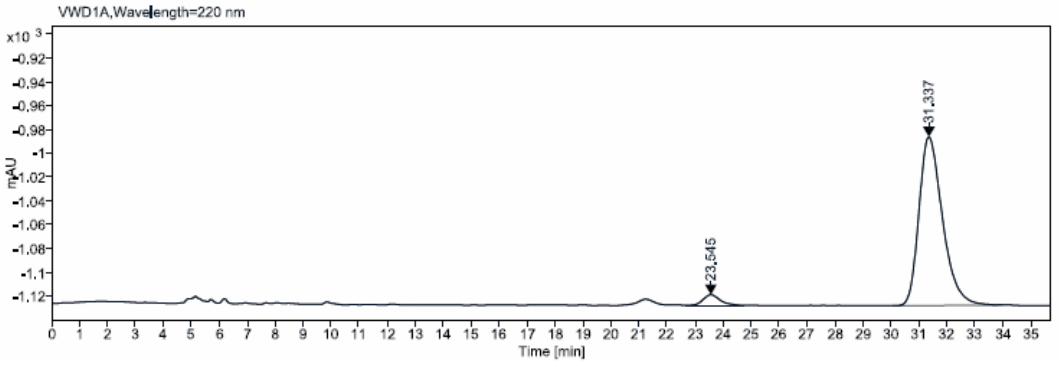

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 23,156 | 0,681 | 7402,57 | 164,71 | 49,99 |
| 31,183 | 0,913 | 7405,46 | 124,19 | 50,01 |
| | Sum | 14808,03 | | |



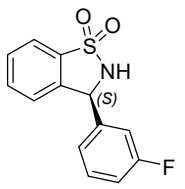
*rac*-**1n**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-146-V-2022-10-30 20-08-03+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-146 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-30 20:19:44+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



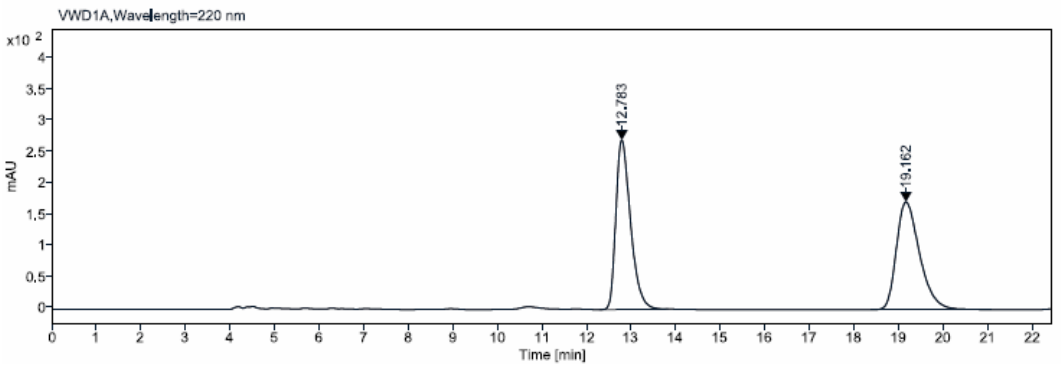

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 23,545 | 2,047 | 374,78 | 8,94 | 4,33 |
| 31,337 | 3,917 | 8276,09 | 141,36 | 95,67 |
| | Sum | 8650,88 | | |



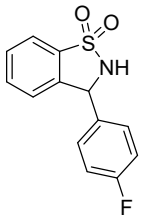
(*S*)-**1n**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-64-V-2022-07-22 15-51-31+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-64 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 15:52:06+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



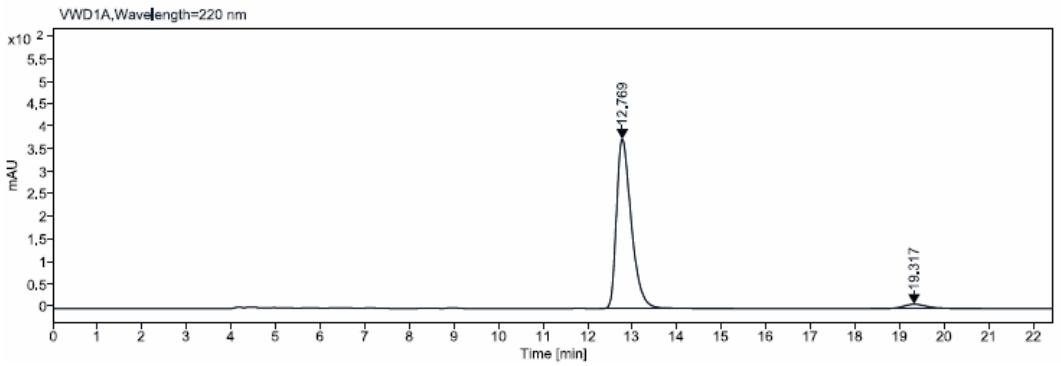

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 12,783 | 0,351 | 6197,60 | 271,04 | 49,73 |
| 19.162 | 2.688 | 6263.72 | 172.62 | 50.27 |
| | Sum | 12461.32 | | |



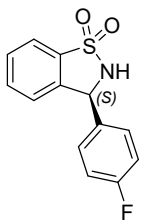
*rac*-**1o**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-64-V-2022-07-22 16-15-59+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-64 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 16:16:35+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



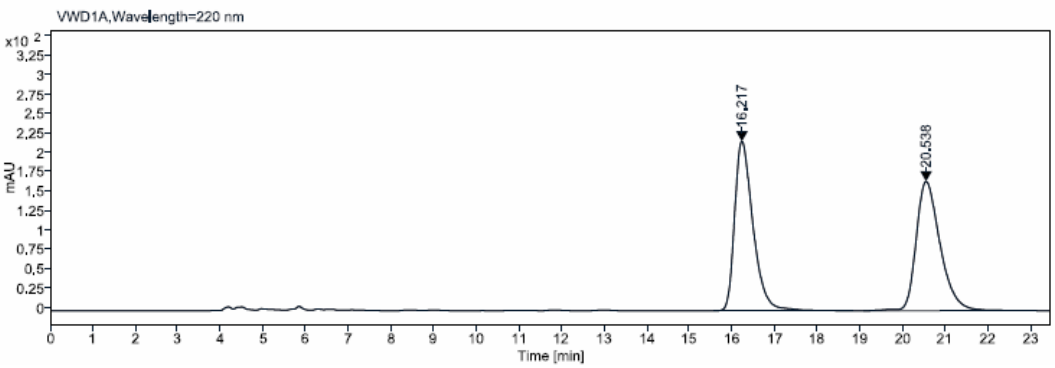

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 12,769 | 2,973 | 8658,93 | 375,74 | 96,05 |
| 19.317 | 2.457 | 355.83 | 9.67 | 3.95 |
| | Sum | 9014.76 | | |



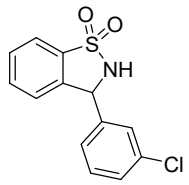
(*S*)-**1o**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-65-V-2022-07-22 17-04-17+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-65 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 17:04:28+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



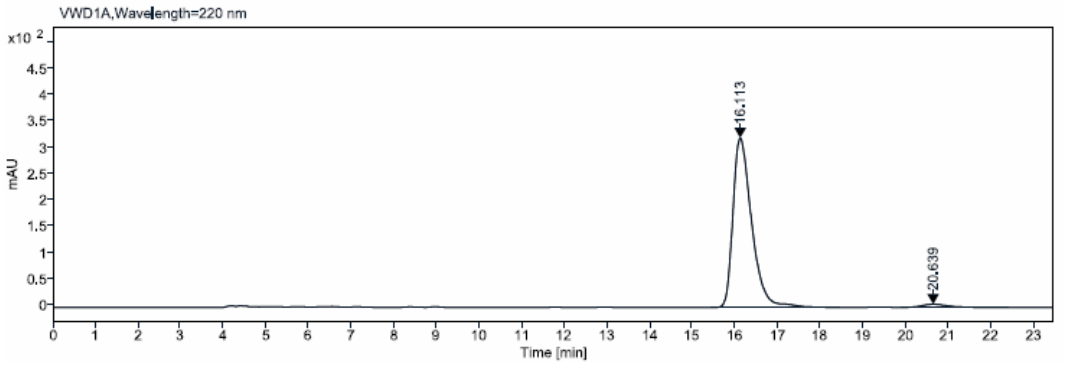

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 16,217 | 3,260 | 6561,78 | 218,24 | 50,18 |
| 20,538 | 3,738 | 6514,63 | 166,57 | 49,82 |
| | Sum | 13076,41 | | |



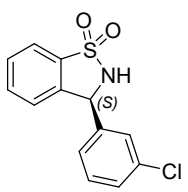
*rac*-**1p**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-65-V-2022-07-22 17-31-14+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-65 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 17:31:48+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



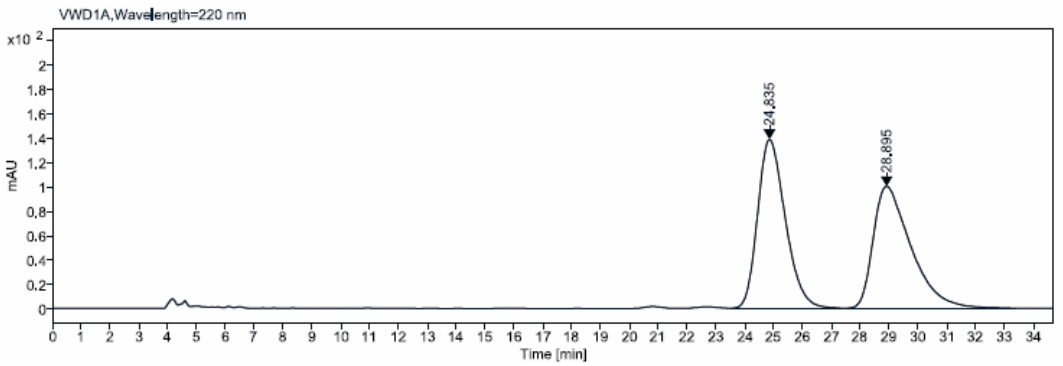

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 16,113 | 2,995 | 9847,51 | 322,07 | 97,59 |
| 20,639 | 2,500 | 242,71 | 6,08 | 2,41 |
| | Sum | 10090,21 | | |



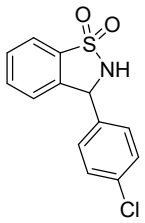
(*S*)-**1p**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-65-V-2022-07-22 11-07-45+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-65 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 11:08:34+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OJ, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



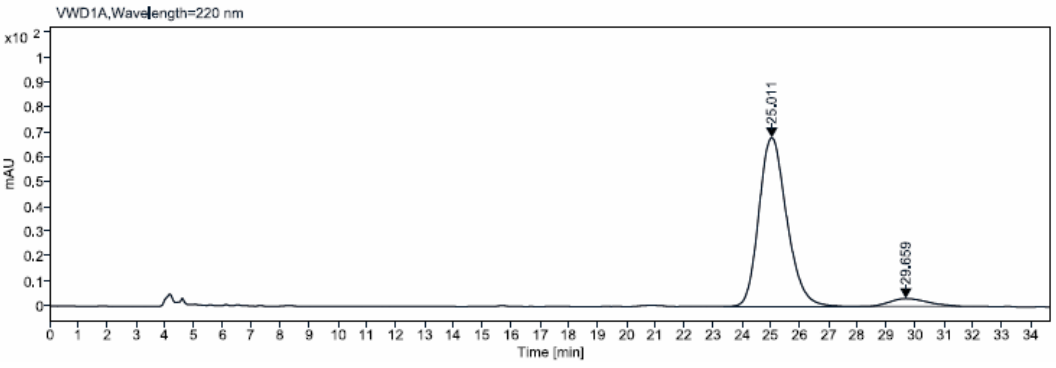

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 24,835 | 3,927 | 9216,79 | 138,16 | 50,47 |
| 28,895 | 5,948 | 9044,46 | 99,81 | 49,53 |
| | Sum | 18261,25 | | |



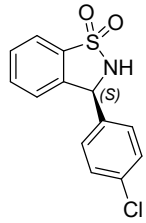
*rac*-**1q**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-65-V-2022-07-22 13-15-39+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-65 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-07-22 13:16:48+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OJ, Hexane/i-PrOH = 70/30, 0,7 mL/min, 30 oC, 220 nm | | |



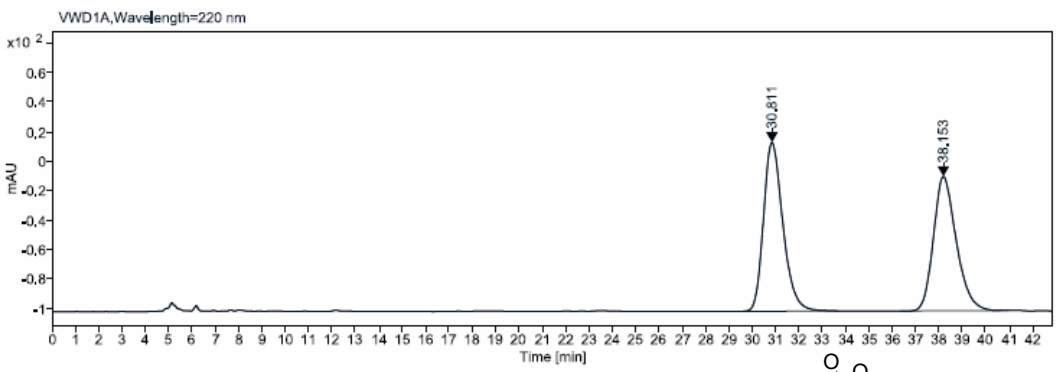

**Signal:** VWD1A,Wavelength=220 nm

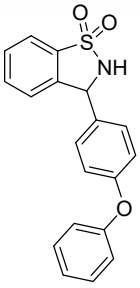
| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 25,011 | 4,713 | 4575,66 | 67,88 | 94,02 |
| 29,659 | 3,498 | 290,86 | 3,18 | 5,98 |
| | Sum | 4866,53 | | |



(*S*)-**1q**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-160-V-2022-10-31 16-45-04+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-160 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-31 16:45:58+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



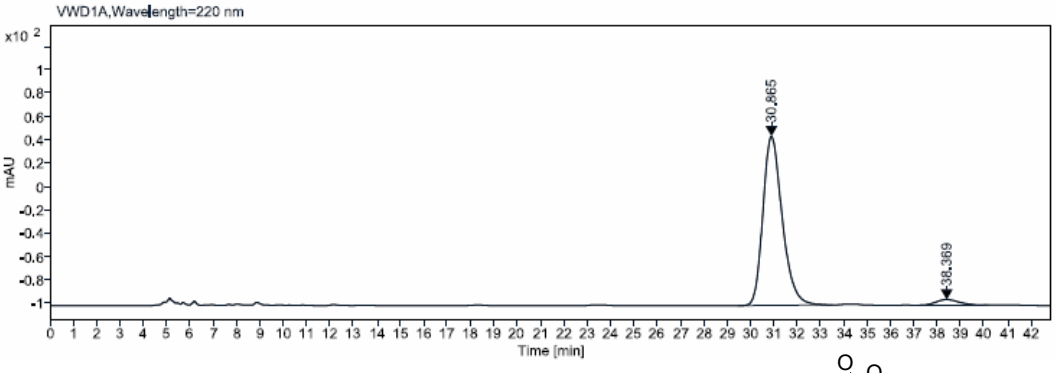



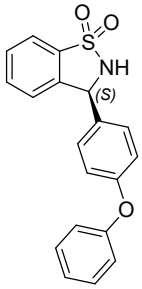
**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 30,811 | 0,881 | 6604,28 | 114,48 | 51,61 |
| 38.153 | 1.023 | 6191.66 | 91.12 | 48.39 |
| | Sum | 12795.94 | | |

*rac*-**1r**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-160-V-2022-10-31 15-58-24+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-160 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-31 15:58:55+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,6 mL/min, 30 oC, 220 nm | | |



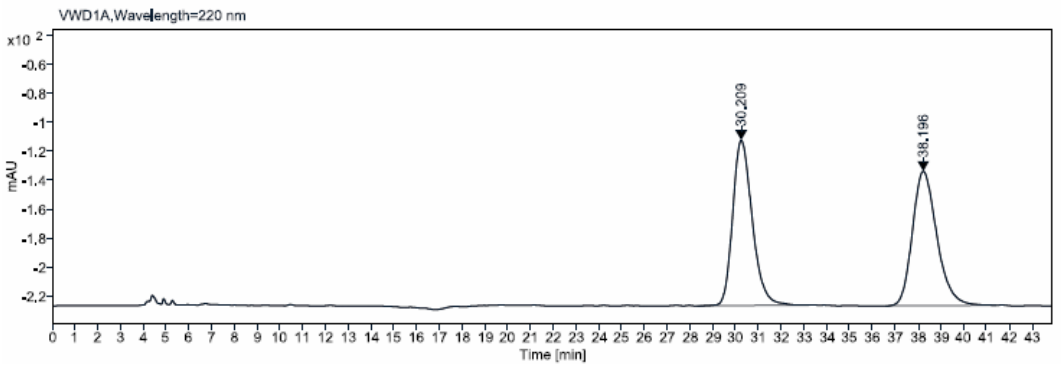



**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 30,865 | 4,030 | 8348,00 | 145,06 | 96,06 |
| 38.369 | 3.078 | 342.05 | 4.85 | 3.94 |
| | Sum | 8690.05 | | |

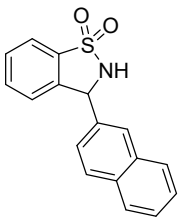
(*S*)-**1r**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130-V-2022-10-10 19-47-45+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-10 19:49:26+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,7 mL/min, 30 oC, 220 nm | | |



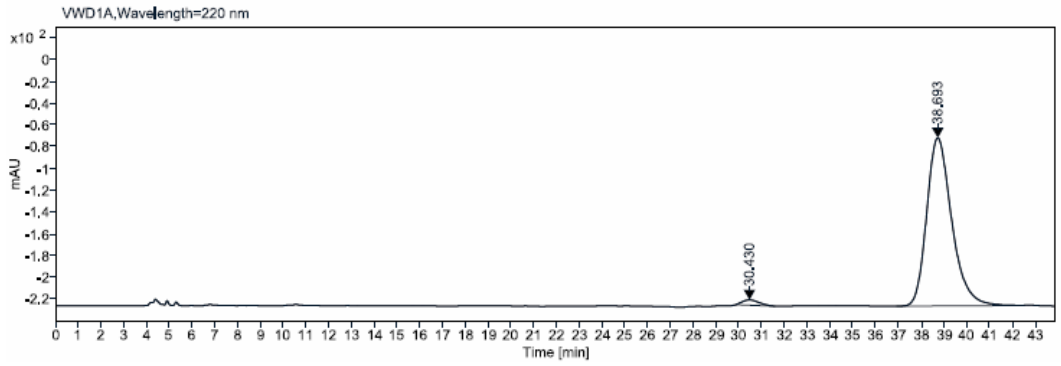

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 30,209 | 4,912 | 6809,42 | 113,75 | 49,69 |
| 38.196 | 4.825 | 6894.92 | 92.48 | 50.31 |
| | Sum | 13704.34 | | |



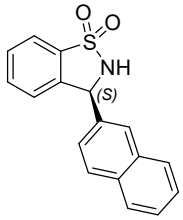
*rac*-**1s**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-130-V-2022-10-10 18-58-20+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-130 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-10-10 18:59:07+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 80/20, 0,7 mL/min, 30 oC, 220 nm | | |



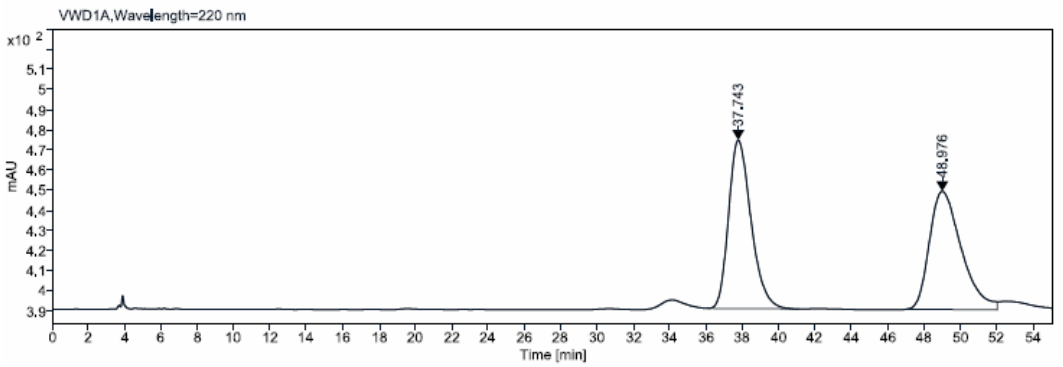

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 30,430 | 1,723 | 247,45 | 4,90 | 2,05 |
| 38.693 | 5.449 | 11822.36 | 154.51 | 97.95 |
| | Sum | 12069.81 | | |



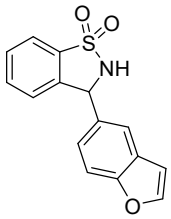
(*S*)-**1s**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-174-V-2022-11-22 16-31-36+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-174 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-22 16:34:25+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



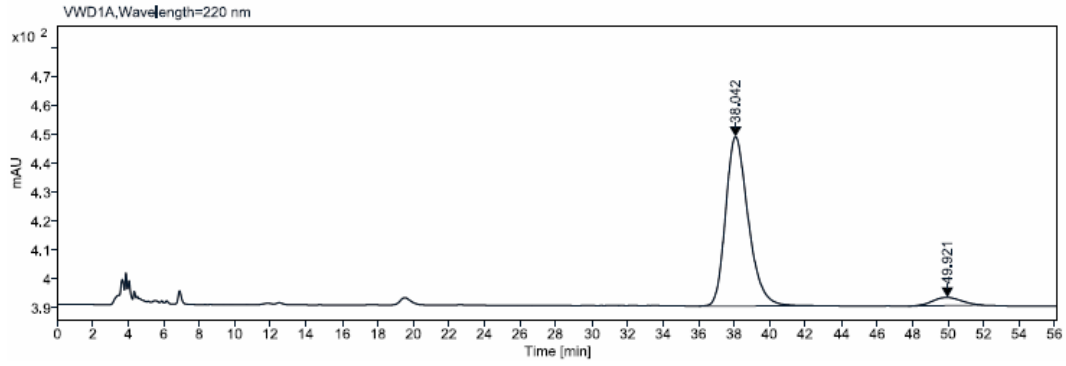

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 37.743 | 5.040 | 7194.85 | 83.65 | 50.10 |
| 48.976 | 1.809 | 7166.96 | 58.70 | 49.90 |
| | Sum | 14361.81 | | |



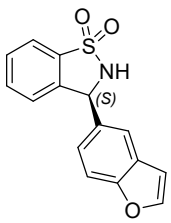
*rac*-**1t**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-174-V-2022-11-22 15-18-00+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-174 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-22 15:28:04+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



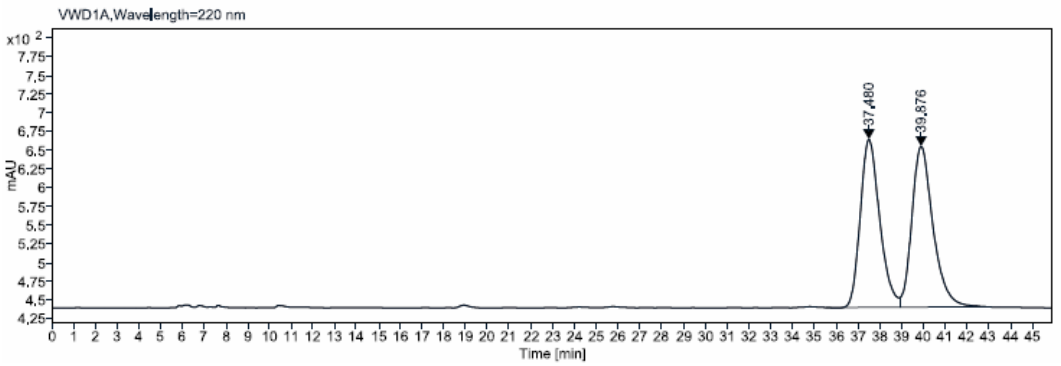

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 38.042 | 6.650 | 5153.09 | 58.45 | 94.20 |
| 49.921 | 1.317 | 317.11 | 2.82 | 5.80 |
| | Sum | 5470.20 | | |



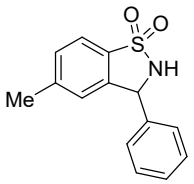
(*S*)-**1t**

| | | | |
|---|---|---|---|
| **Data file:** | YL-5-9-V-2023-06-28 17-35-54+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-5-9 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-06-28 17:36:32+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 85/15, 0,5 mL/min, 30 oC, 220 nm | | |



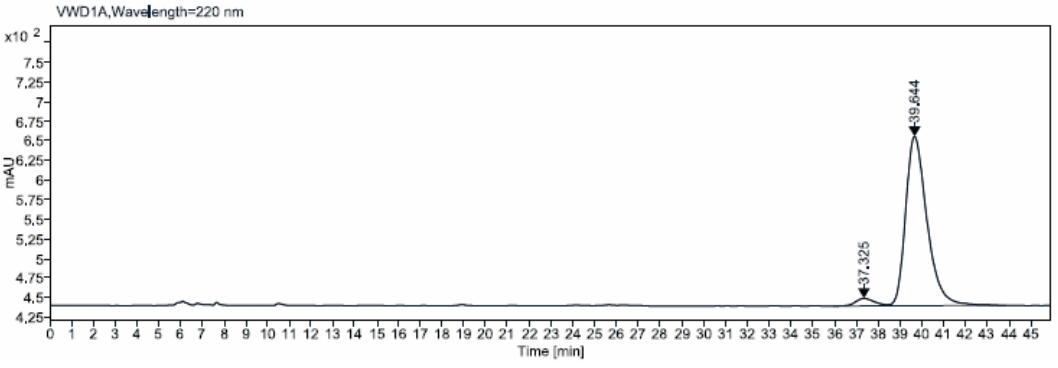

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 37,480 | 0,940 | 13904,39 | 224,30 | 48,91 |
| 39,876 | 1,026 | 14526,94 | 214,72 | 51,09 |
| | Sum | 28431,33 | | |



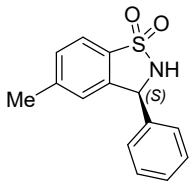

*rac*-**2a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-5-9-V-2023-06-28 16-45-40+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-5-9 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-06-28 16:46:16+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 85/15, 0,5 mL/min, 30 oC, 220 nm | | |



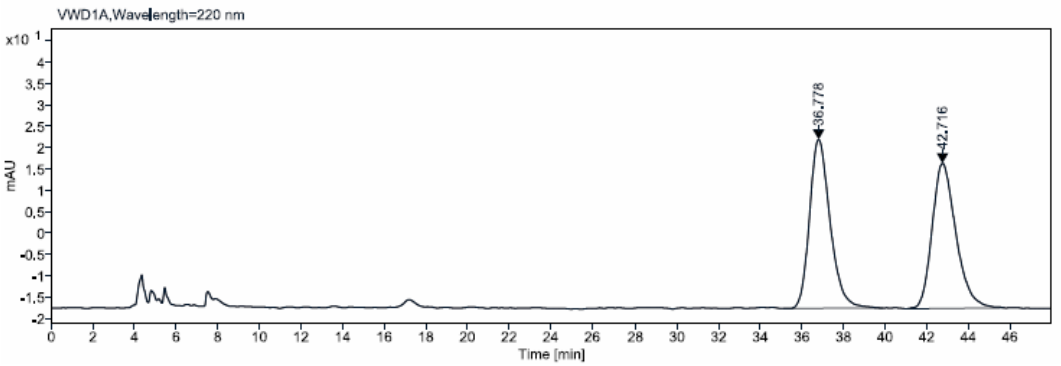

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 37,325 | 2,503 | 586,82 | 9,57 | 3,82 |
| 39,644 | 5,419 | 14756,18 | 215,79 | 96,18 |
| | Sum | 15343,00 | | |



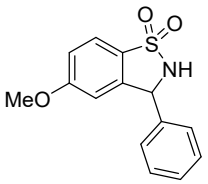

(*S*)-**2a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-5-10-V-2023-06-29 13-17-45+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-5-10 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-06-29 13:30:35+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 85/15, 0,7 mL/min, 30 oC, 220 nm | | |



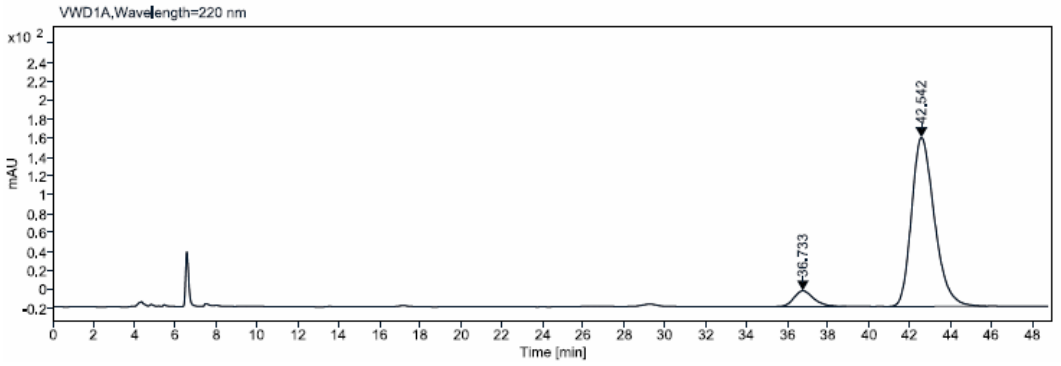

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 36,778 | 1,034 | 2711,72 | 39,56 | 50,08 |
| 42.716 | 1.196 | 2703.13 | 34.09 | 49.92 |
| | Sum | 5414.85 | | |



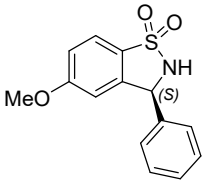

*rac*-**2b**

| | | | |
|---|---|---|---|
| **Data file:** | YL-5-10-V-2023-06-29 14-20-05+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-5-10 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-06-29 14:22:32+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | AD, Hexane/i-PrOH = 85/15, 0,7 mL/min, 30 oC, 220 nm | | |



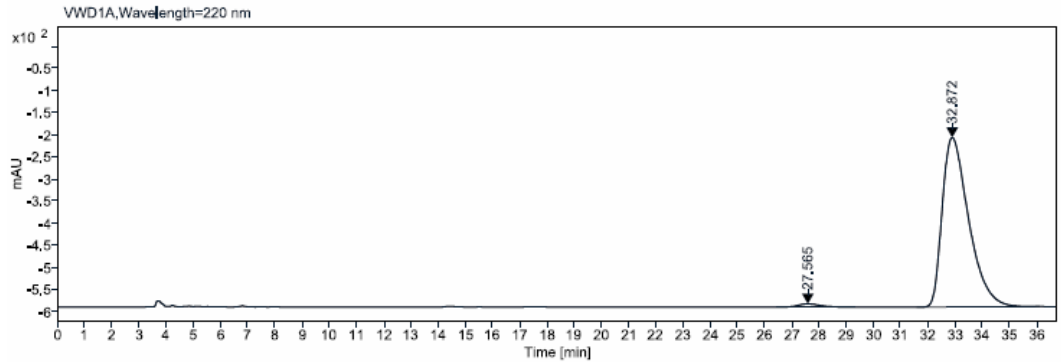

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 36,733 | 3,578 | 1137,23 | 16,74 | 7,54 |
| 42.542 | 4.836 | 13938.38 | 178.81 | 92.46 |
| | Sum | 15075.61 | | |



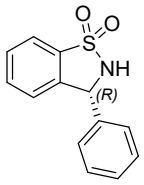

(*S*)-**2b**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-29-V-2022-11-12 16-34-28+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-29 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-12 16:36:30+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,8 mL/min, 30 oC, 220 nm | | |



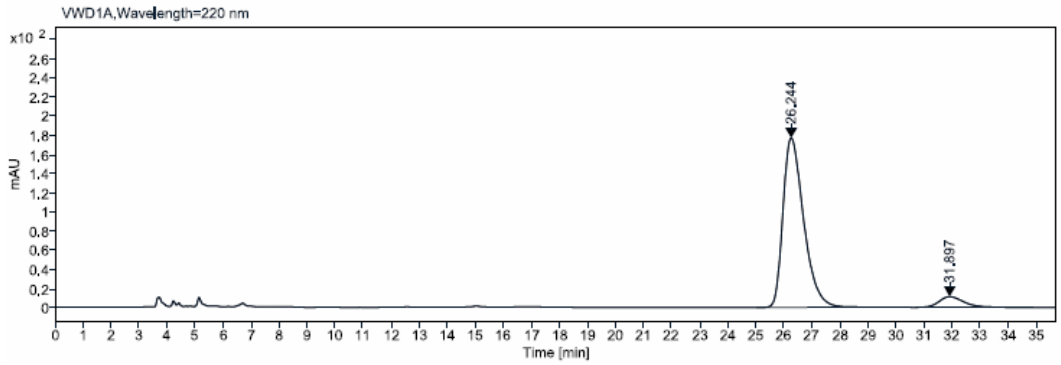

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 27,565 | 2,855 | 410,97 | 7,57 | 1,56 |
| 32,872 | 1,030 | 25910,82 | 382,78 | 98,44 |
| | Sum | 26321,79 | | |



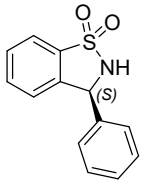
(*R*)-**1a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-3-29-V-2022-11-11 21-05-00+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-3-29 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2022-11-11 21:05:27+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,8 mL/min, 30 oC, 220 nm | | |



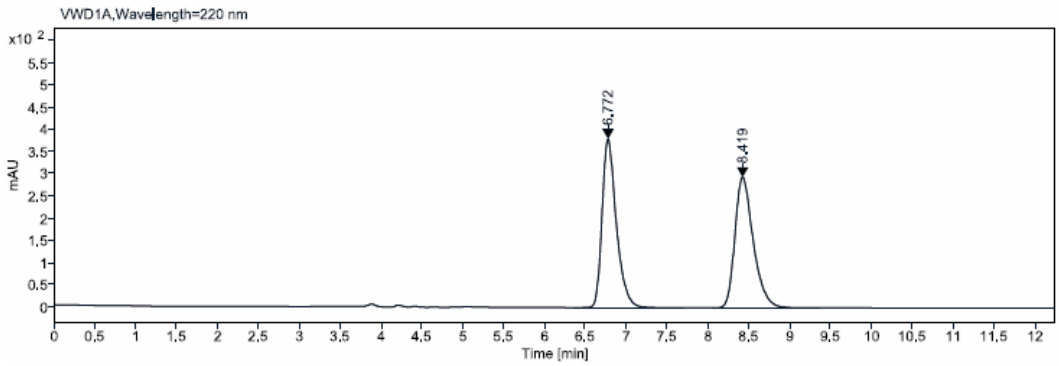

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 26,244 | 3,772 | 9032,54 | 176,38 | 92,94 |
| 31,897 | 4,153 | 686,50 | 11,09 | 7,06 |
| | Sum | 9719,04 | | |



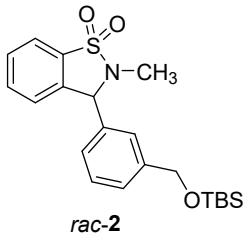
(*S*)-**1a**

| | | | |
|---|---|---|---|
| **Data file:** | YL-4-88-V-2023-04-19 08-18-18+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-4-88 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-04-19 08:24:49+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,8 mL/min, 30 oC, 220 nm | | |



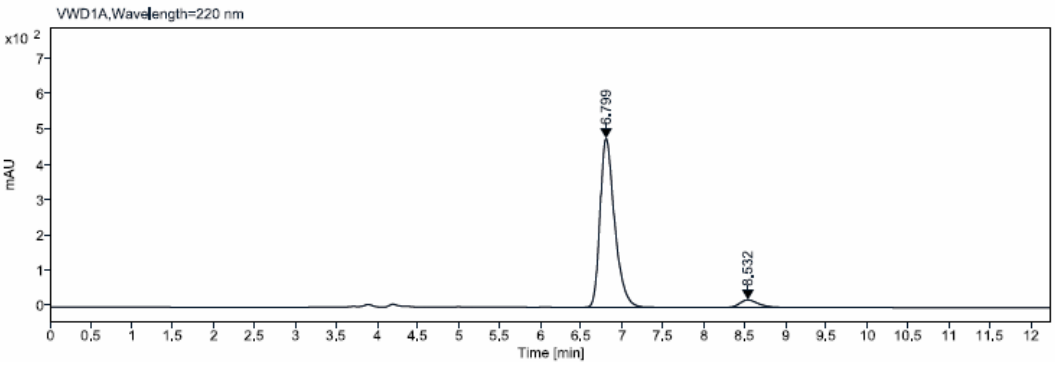

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 6,772 | 1,330 | 4607,34 | 380,08 | 50,06 |
| 8.419 | 0.236 | 4596.92 | 294.50 | 49,94 |
| | Sum | 9204,26 | | |



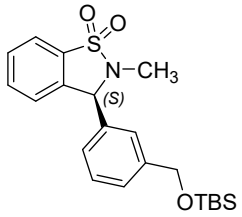

*rac*-**2**

| | | | |
|---|---|---|---|
| **Data file:** | YL-4-88-V-2023-04-19 08-40-56+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-4-88 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-04-19 08:41:09+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 80/20, 0,8 mL/min, 30 oC, 220 nm | | |



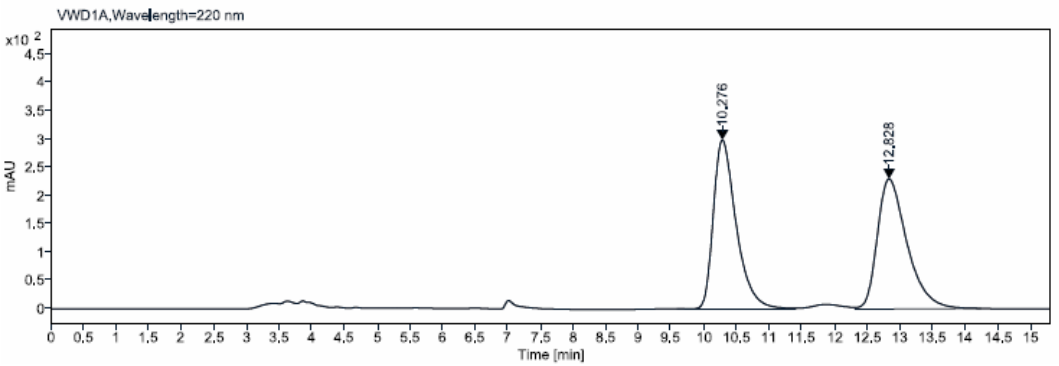

**Signal:** VWD1A,Wavelength=220 nm

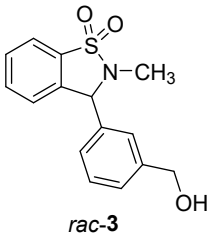
| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 6,799 | 1,447 | 5944,54 | 477,46 | 94,57 |
| 8.532 | 0.241 | 341.58 | 21.60 | 5.43 |
| | Sum | 6286,11 | | |




(*S*)-**2**

| | | | |
|---|---|---|---|
| **Data file:** | YL-4-127-V-2023-05-03 17-00-47+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-4-127 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-05-03 17:02:43+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



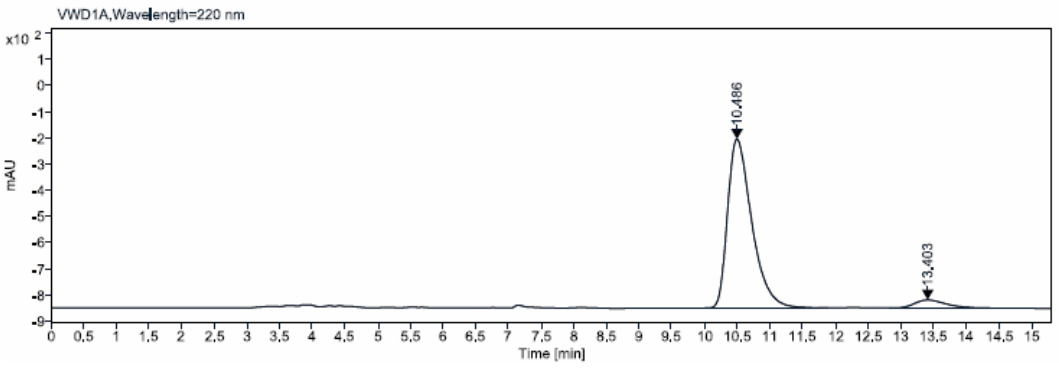



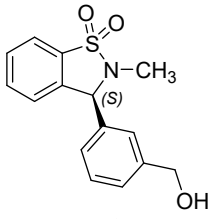
*rac*-**3**

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 10,276 | 0,370 | 7300,08 | 298,58 | 50,08 |
| 12.828 | 0.481 | 7276.99 | 229.83 | 49.92 |
| | Sum | 14577.07 | | |

| | | | |
|---|---|---|---|
| **Data file:** | YL-4-127-V-2023-05-04 15-21-32+08-00.dx | | |
| **Sequence Name:** | SingleSample | **Project Name:** | 1260 |
| **Sample name:** | YL-4-127 | **Operator:** | SYSTEM |
| **Instrument:** | lc1260 | **Injection date:** | 2023-05-04 15:24:27+08:00 |
| **Acq. method:** | YL-1-57.amx | **Type:** | Sample |
| **Processing method:** | GC_LC Area Percent_DefaultMethod.pmx | | |
| **Sample Info:** | OD, Hexane/i-PrOH = 70/30, 0,8 mL/min, 30 oC, 220 nm | | |



(*S*)-**3**

**Signal:** VWD1A,Wavelength=220 nm

| RT [min] | Peak Width Base | Area | Height | Area% |
|---|---|---|---|---|
| 10,486 | 0,394 | 16649,56 | 646,16 | 94,14 |
| 13.403 | 0.507 | 1035.93 | 31.16 | 5.86 |
| | Sum | 17685.50 | | |