

Electronic Supporting Information

KO^tBu Promoted Selective Ring-Opening *N*-alkylation of 2-Oxazolines to Access 2-Aminoethyl Acetates and *N*-Substituted Thiazolidinones

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General remarks

All reagents were obtained from commercial sources and used as received. Technical grade petroleum ether (40-60°C bp.) and ethyl acetate were used for chromatography column.

¹H NMR spectra were recorded in CDCl₃ at ambient temperature on Bruker AVANCE I 300 or 400 spectrometers at 300.1 or 400.1 MHz, using the solvent as internal standard (7.26 ppm). ¹³C NMR spectra were obtained at 75 or 100 MHz and referenced to the internal solvent signals (central peak is 77.2 ppm). Chemical shift (δ) and coupling constants (*J*) are given in ppm and in Hz, respectively. The peak patterns are indicated as follows: s, singlet; d, doublet; t, triplet; q, quartet; m, multiplet, and br. for broad.

GC analyses were performed with GC-14C (Shimadzu) equipped with a 30-m capillary column (Supelco, SPB-5, fused silica capillary column, 30 M*0.25 mm*0.25 mm film thickness), was used with N₂/air as vector gas. GCMS were measured by GCMS-7890A-5975C (Agilent) with GC-7890A equipped with a 30-m capillary column (HP-5ms, fused silica capillary column, 30 M*0.25 mm*0.25 mm film thickness), was used with helium as vector gas. HRMS were measured by MAT 95XP (Termol) (LCMS-IT-TOF).

The following GC conditions were used: initial temperature 80 °C, for 2 minutes, then rate 20 °C/min. until 260 °C and 260°C for 20 minutes.

General procedure for KO^tBu catalyzed selective ring-opening N-alkylation of 2-oxazolines with benzyl bromides

KO^tBu (0.5 mmol, 56 mg), 2-oxazoline (0.5 mmol), benzyl bromide (1.0 mmol) and DMC (2 mL) were introduced in a tube, equipped with magnetic stirring bar and was stirred at 50 °C. After 16 h, the conversion of the reaction was analyzed by gas chromatography. The solvent was then evaporated under vacuum and the desired product was purified by using a silica gel chromatography column and a mixture of petrol ether/ethyl acetate as eluent.

General procedure for KO^tBu catalyzed selective ring-opening N-alkylation of 2-oxazolines with benzyl chlorides

KO^tBu (0.5 mmol, 56 mg), I₂ (0.5 mmol, 127 mg), 2-oxazoline (0.5 mmol), benzyl chloride (1.0 mmol) and DMC (2 mL) were introduced in a tube, equipped with magnetic stirring bar and was stirred at 80 °C. After 16 h, the conversion of the reaction was analyzed by gas chromatography. The solvent was then evaporated under vacuum and the desired product was purified by using a silica gel chromatography column and a mixture of petrol ether/ethyl acetate as eluent.

General procedure for KO^tBu / I₂ promoted selective N-alkylation of 2-oxazolines of thiazolidin-2-one derivatives

KO^tBu (1 mmol, 112 mg), I₂ (1 mmol, 254 mg), 2-(methylthio)-4,5-dihydrothiazole (0.5 mmol), benzyl halide (1.0 mmol) and DMC (2 mL) were introduced in a tube, equipped with magnetic stirring bar and was stirred at 80 °C. After 16 h, the conversion of the

reaction was analyzed by gas chromatography. The solvent was then evaporated under vacuum and the desired product was purified by using a silica gel chromatography column and a mixture of petrol ether/ethyl acetate as eluent.

Gram scale procedure for synthesis of 2-(dibenzylamino)ethyl acetate (3a)

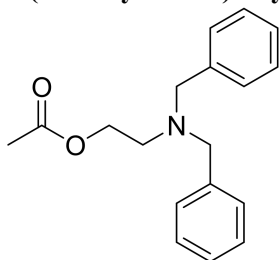
KO^tBu (10 mmol, 1.12 g), 2-methyl-2-oxazole (10 mmol, 0.85 mL), benzyl bromide (20 mmol, 2.38 mL) and DMC (10 mL) were introduced in a tube, equipped with magnetic stirring bar and was stirred at 50 °C. After 16 h, the conversion of the reaction was analyzed by gas chromatography. The solvent was then evaporated under vacuum and the desired product was purified by using a silica gel chromatography column and a mixture of petrol ether/ethyl acetate as eluent, and was isolated as a light yellow oil in 2.38 g (84%).

Procedure for synthesis of 2-(dibenzylamino)ethanol (6)

K₂CO₃ (1.0 mmol, 112 mg), 2-(dibenzylamino)ethyl acetate (0.5 mmol, 142 μL), and methanol (2 mL) were introduced in a tube, equipped with magnetic stirring bar and was stirred at room temperature. After 24 h, the conversion of the reaction was analyzed by gas chromatography. The solvent was then evaporated under vacuum and the desired product was purified by using a silica gel chromatography column and a mixture of petrol ether/ethyl acetate as eluent, and was isolated as a light yellow oil in 106 mg (88%).

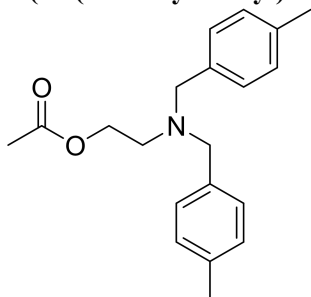
Characterization data of substrates

2-(dibenzylamino)ethyl acetate (3a)



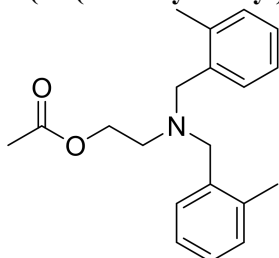
Light yellow oil, yield = 80%, 113 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.43-7.28 (m, 10H), 4.21 (t, 2H, J = 6.0 Hz), 3.69 (s, 4H), 2.77 (t, 2H, J = 6.0 Hz), 2.07 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 139.5, 128.9, 128.4, 127.1, 62.5, 58.8, 51.8, 21.1. HRMS (EI): m/z calcd for $\text{C}_{18}\text{H}_{22}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 284.1645, found 284.1640.

2-(bis(4-methylbenzyl)amino)ethyl acetate (3b)



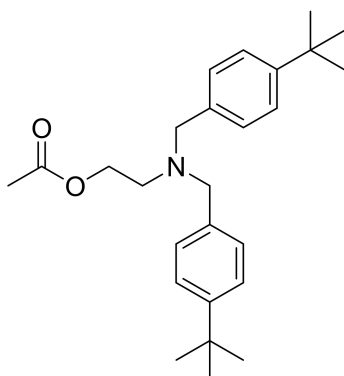
Orange oil, yield = 85%, 132 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.32 (d, 4H, J = 8.1 Hz), 7.18 (d, 4H, J = 7.8 Hz), 4.22 (t, 2H, J = 6.0 Hz), 3.67 (s, 4H), 2.77 (t, 2H, J = 6.0 Hz), 2.40 (s, 6H), 2.09 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 136.6, 136.4, 129.0, 128.8, 62.6, 58.4, 51.5, 21.2, 21.1. HRMS (EI): m/z calcd for $\text{C}_{20}\text{H}_{26}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 312.1958, found 312.1966.

2-(bis(2-methylbenzyl)amino)ethyl acetate (3c)



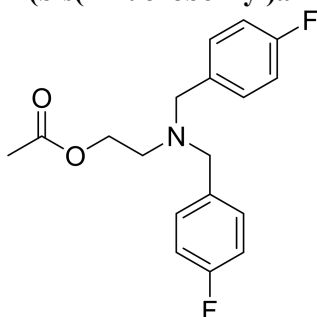
Light yellow oil, yield = 73%, 113 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.40-7.37 (m, 2H), 7.22-7.18 (m, 6H), 4.18 (t, 2H, J = 6.0 Hz), 3.67 (s, 4H), 2.77 (t, 2H, J = 5.7 Hz), 2.34 (s, 6H), 2.05 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.0, 137.5, 137.1, 130.4, 130.2, 127.2, 125.6, 62.5, 57.6, 52.3, 21.1, 19.2. HRMS (EI): m/z calcd for $\text{C}_{20}\text{H}_{26}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 312.1958, found 312.1952.

2-(bis(4-(tert-butyl)benzyl)amino)ethyl acetate (3d)



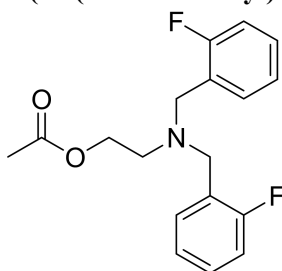
Light yellow oil, yield = 78%, 154 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.42-7.36 (m, 8H), 4.26 (t, 2H, J = 6.0 Hz), 3.70 (s, 4H), 2.80 (t, 2H, J = 6.0 Hz), 2.10 (s, 3H), 1.39 (s, 18H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 149.9, 136.5, 128.5, 125.2, 62.7, 58.3, 51.8, 34.6, 31.6, 21.1. HRMS (EI): m/z calcd for $\text{C}_{26}\text{H}_{38}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 396.2897, found 396.2902.

2-(bis(4-fluorobenzyl)amino)ethyl acetate (3e)



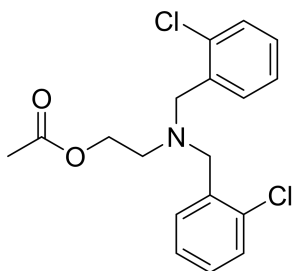
Brown oil, yield = 79%, 126 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.35-7.30 (m, 4H), 7.05-6.99 (m, 4H), 4.17 (t, 2H, J = 5.7 Hz), 3.60 (s, 4H), 2.72 (t, 2H, J = 5.7 Hz), 2.05 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 160.5 (d, J_{CF} = 243.3 Hz), 135.0 (d, J_{CF} = 3.075 Hz), 130.2 (d, J_{CF} = 7.875 Hz), 115.1 (d, J_{CF} = 21.075 Hz), 62.3, 57.9, 51.7, 21.1. HRMS (EI): m/z calcd for $\text{C}_{18}\text{H}_{20}\text{F}_2\text{NO}_2$ $[\text{M}+\text{H}]^+$ 320.1457, found 320.1451.

2-(bis(2-fluorobenzyl)amino)ethyl acetate (3f)



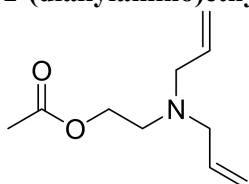
Light yellow oil, yield = 72%, 115 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.53-7.48 (m, 2H), 7.29-7.01 (m, 6H), 4.22 (t, 2H, J = 6.0 Hz), 3.78 (s, 4H), 2.79 (t, 2H, J = 6.0 Hz), 2.05 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 159.8 (d, J_{CF} = 244.4 Hz), 131.1 (d, J_{CF} = 4.5 Hz), 128.7 (d, J_{CF} = 8.175 Hz), 125.8 (d, J_{CF} = 13.875 Hz), 124.0 (d, J_{CF} = 3.6 Hz), 115.2 (d, J_{CF} = 22.05 Hz), 62.4, 51.9, 51.3 (d, J_{CF} = 2.25 Hz), 21.0. HRMS (EI): m/z calcd for $\text{C}_{18}\text{H}_{19}\text{F}_2\text{NO}_2\text{Na}$ $[\text{M}+\text{Na}]^+$ 342.1276, found 342.1279.

2-(bis(2-chlorobenzyl)amino)ethyl acetate (3g)



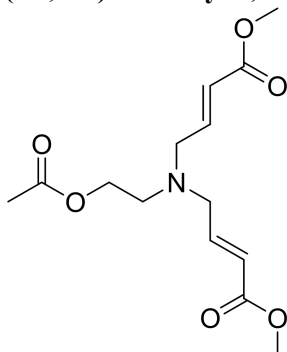
Light yellow oil, yield = 70%, 123 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.62-7.59 (m, 2H), 7.37-7.16 (m, 6H), 4.24 (t, 2H, J = 6.0 Hz), 3.86 (s, 4H), 2.84 (t, 2H, J = 6.0 Hz), 2.06 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.0, 136.8, 134.1, 130.5, 129.5, 128.2, 126.8, 62.5, 55.9, 52.6, 21.1. HRMS (EI): m/z calcd for $\text{C}_{18}\text{H}_{20}\text{Cl}_2\text{NO}_2$ $[\text{M}+\text{H}]^+$ 352.0866, found 352.0861.

2-(diallylamino)ethyl acetate (3h)



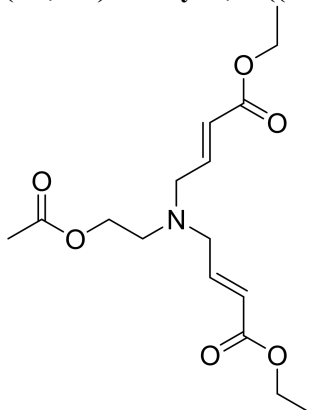
Light yellow oil, yield = 69%, 63 mg, ^1H NMR (300 MHz, CDCl_3): δ = 5.95-5.81 (m, 2H), 5.26-5.19 (m, 4H), 4.19 (t, 2H, J = 6.0 Hz), 3.22 (d, 4H, J = 6.3 Hz), 2.79 (t, 2H, J = 6.0 Hz), 2.07 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.1, 134.3, 119.0, 62.1, 57.3, 51.2, 21.2. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{18}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 184.1332, found 184.1339.

(2E,2'E)-dimethyl 4,4'-((2-acetoxyethyl)azanediyl)bis(but-2-enoate) (3i)



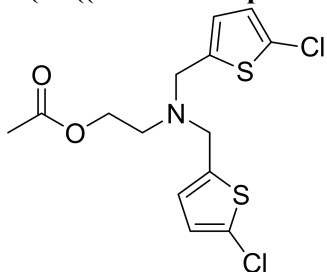
Light red oil, yield = 71%, 106 mg, ^1H NMR (300 MHz, CDCl_3): δ = 6.92-6.83 (m, 2H), 6.04-5.98 (m, 2H), 4.10 (t, 2H, J = 5.7 Hz), 3.71 (s, 6H), 3.27 (d, 4H, J = 5.7 Hz), 2.70 (t, 2H, J = 5.7 Hz), 2.05 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.0, 166.6, 145.4, 122.9, 62.1, 55.3, 52.5, 51.6, 21.0. HRMS (EI): m/z calcd for $\text{C}_{14}\text{H}_{22}\text{NO}_6$ $[\text{M}+\text{H}]^+$ 300.1442, found 300.1448.

(2E,2'E)-diethyl 4,4'-((2-acetoxyethyl)azanediyl)bis(but-2-enoate) (3j)



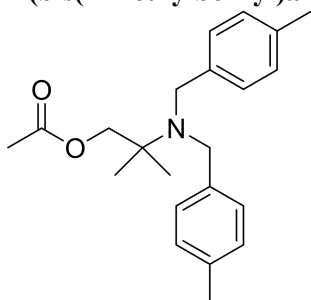
Brown oil, yield = 58%, 95 mg, ^1H NMR (300 MHz, CDCl_3): δ = 6.93-6.85 (m, 2H), 6.01 (d, 2H, J = 15.6 Hz), 4.22-4.10 (m, 6H), 3.28 (d, 4H, J = 5.4 Hz), 2.74-2.70 (m, 2H), 2.07 (s, 3H), 1.31-1.25 (m, 6H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.0, 166.2, 145.1, 123.3, 62.2, 60.5, 55.3, 52.5, 21.0, 14.3. HRMS (EI): m/z calcd for $\text{C}_{16}\text{H}_{26}\text{NO}_6$ $[\text{M}+\text{H}]^+$ 328.1755, found 328.1757.

2-(bis((5-chlorothiophen-2-yl)methyl)amino)ethyl acetate (3k)



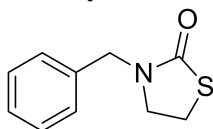
Brown oil, yield = 66%, 120 mg, ^1H NMR (300 MHz, CDCl_3): δ = 6.75-6.69 (m, 4H), 4.20 (t, 2H, J = 6.0 Hz), 3.81 (s, 4H), 2.80 (t, 2H, J = 6.0 Hz), 2.10 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.0, 141.5, 129.5, 125.6, 125.1, 62.1, 53.1, 51.2, 21.1. HRMS (EI): m/z calcd for $\text{C}_{14}\text{H}_{16}\text{Cl}_2\text{NO}_2\text{S}_2$ $[\text{M}+\text{H}]^+$ 363.9994, found 363.9997.

2-(bis(4-methylbenzyl)amino)-2-methylpropyl acetate (3l)



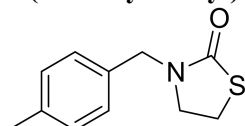
Yellow oil, yield = 72%, 122 mg, ^1H NMR (300 MHz, CDCl_3): δ = 7.21 (d, 4H, J = 7.8 Hz), 7.06 (d, 4H, J = 7.8 Hz), 4.11 (s, 2H), 3.79 (s, 4H), 2.31 (s, 6H), 2.11 (s, 3H), 1.19 (s, 6H). $^{13}\text{C}\{^1\text{H}\}$ NMR (75 MHz, CDCl_3): δ = 171.2, 139.2, 135.9, 128.7, 128.3, 70.1, 57.8, 53.6, 23.3, 21.2, 21.1. HRMS (EI): m/z calcd for $\text{C}_{22}\text{H}_{30}\text{NO}_2$ $[\text{M}+\text{H}]^+$ 340.2271, found 340.2274.

3-benzylthiazolidin-2-one¹ (5a)



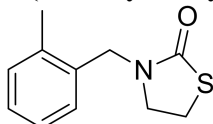
Light yellow oil, yield = 83%, 80 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.37-7.26 (m, 5H), 4.48 (s, 2H), 3.51 (t, 2H, J = 7.2 Hz), 3.22 (t, 2H, J = 7.2 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.2, 136.0, 128.8, 128.1, 127.9, 48.6, 48.0, 25.5. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{12}\text{ONS}$ $[\text{M}+\text{H}]^+$ 194.0634, found 194.0639.

3-(4-methylbenzyl)thiazolidin-2-one (5b)



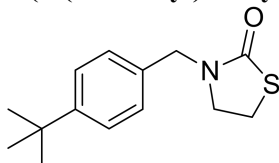
Yellow oil, yield = 82%, 85 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.28-7.17 (m, 4H), 4.45 (s, 2H), 3.51 (t, 2H, J = 7.2 Hz), 3.22 (t, 2H, J = 7.6 Hz), 2.36 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.2, 137.7, 133.0, 129.5, 128.3, 128.2, 48.5, 48.0, 25.6, 21.2. HRMS (EI): m/z calcd for $\text{C}_{11}\text{H}_{14}\text{ONS}$ $[\text{M}+\text{H}]^+$ 208.0791, found 208.0796.

3-(2-methylbenzyl)thiazolidin-2-one (5c)



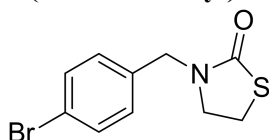
Colorless solid, yield = 86%, 89 mg, ^1H NMR (600 MHz, CDCl_3): δ = 7.22-7.17 (m, 4H), 4.49 (s, 2H), 3.44 (t, 2H, J = 7.2 Hz), 3.21 (t, 2H, J = 7.2 Hz), 2.31 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (150 MHz, CDCl_3): δ = 171.9, 136.9, 133.9, 130.8, 129.0, 128.1, 126.3, 48.0, 46.9, 25.6, 19.2. HRMS (EI): m/z calcd for $\text{C}_{11}\text{H}_{14}\text{ONS}$ $[\text{M}+\text{H}]^+$ 208.0791, found 208.0792.

3-(4-(tert-butyl)benzyl)thiazolidin-2-one (5d)



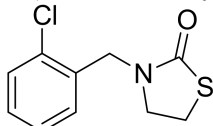
Colorless solid, yield = 90%, 112 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.37 (d, 2H, J = 8.0 Hz), 7.21 (d, 2H, J = 8.4 Hz), 4.47 (s, 2H), 3.53 (t, 2H, J = 7.2 Hz), 3.23 (t, 2H, J = 7.6 Hz), 1.33 (s, 9H). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.2, 150.9, 133.0, 128.0, 125.8, 48.4, 48.1, 34.6, 31.4, 25.5. HRMS (EI): m/z calcd for $\text{C}_{14}\text{H}_{20}\text{ONS}$ $[\text{M}+\text{H}]^+$ 250.1260, found 250.1262.

3-(4-bromobenzyl)thiazolidin-2-one (5e)



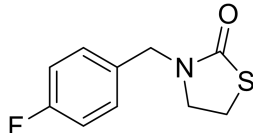
Colorless oil, yield = 71%, 96 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.57 (d, 2H, J = 8.4 Hz), 7.15 (d, 2H, J = 8.4 Hz), 4.43 (s, 2H), 3.50 (t, 2H, J = 7.2 Hz), 3.24 (t, 2H, J = 7.2 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.4, 135.2, 132.0, 129.9, 121.9, 48.1, 48.0, 25.6. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{11}\text{ONBrS}$ $[\text{M}+\text{H}]^+$ 271.9739, found 271.9742.

3-(2-chlorobenzyl)thiazolidin-2-one (5f)



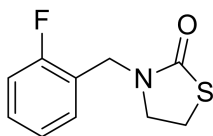
Yellow oil, yield = 63%, 72 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.38-7.24 (m, 4H), 4.62 (s, 2H), 3.57 (t, 2H, J = 7.2 Hz), 3.26 (t, 2H, J = 7.6 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.4, 133.7, 133.6, 130.0, 129.8, 129.3, 127.4, 48.3, 45.9, 25.7. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{11}\text{ONClS}$ $[\text{M}+\text{H}]^+$ 228.0244, found 228.0246.

3-(4-fluorobenzyl)thiazolidin-2-one (5g)



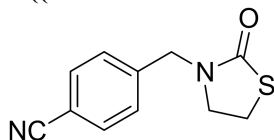
Yellow oil, yield = 74%, 78 mg, ^1H NMR (400 MHz, CDCl_3): δ = 7.25-7.22 (m, 2H), 7.03-6.99 (m, 2H), 4.43 (s, 2H), 3.49 (t, 2H, J = 7.2 Hz), 3.22 (t, 2H, J = 6.8 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.3, 161.2 (d, J_{CF} = 244.8 Hz), 131.9 (d, J_{CF} = 3.1 Hz), 129.9 (d, J_{CF} = 8.1 Hz), 115.6 (d, J_{CF} = 21.4 Hz), 48.0, 47.9, 25.5. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{11}\text{ONFS}$ $[\text{M}+\text{H}]^+$ 212.0540, found 212.0538.

3-(2-fluorobenzyl)thiazolidin-2-one (5h)



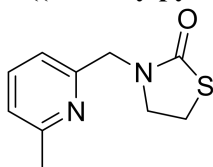
Yellow oil, yield = 83%, 87 mg, $^1\text{H NMR}$ (400 MHz, CDCl_3): δ = 7.36-7.27 (m, 2H), 7.16-7.04 (m, 2H), 4.55 (s, 2H), 3.58 (t, 2H, J = 7.2 Hz), 3.25 (t, 2H, J = 7.6 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.4, 159.8 (d, J_{CF} = 246.5 Hz), 130.8 (d, J_{CF} = 3.7 Hz), 129.8 (d, J_{CF} = 8.1 Hz), 124.7 (d, J_{CF} = 3.5 Hz), 122.9 (d, J_{CF} = 15.0 Hz), 115.5 (d, J_{CF} = 21.6 Hz), 48.2, 41.9 (d, J_{CF} = 3.9 Hz), 25.6. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{11}\text{ONFS}$ $[\text{M}+\text{H}]^+$ 212.0540, found 212.0539.

4-((2-oxothiazolidin-3-yl)methyl)benzonitrile (5i)



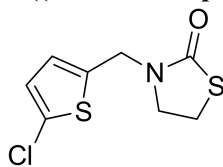
Light yellow solid, yield = 80%, 87 mg, $^1\text{H NMR}$ (400 MHz, CDCl_3): δ = 7.61 (d, 2H, J = 8.0 Hz), 7.36 (d, 2H, J = 8.0 Hz), 4.51 (s, 2H), 3.52 (t, 2H, J = 7.2 Hz), 3.27 (t, 2H, J = 7.2 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.6, 141.6, 132.6, 128.6, 118.5, 111.7, 48.2, 48.1, 25.5. HRMS (EI): m/z calcd for $\text{C}_{11}\text{H}_{11}\text{ON}_2\text{S}$ $[\text{M}+\text{H}]^+$ 219.0587, found 219.0589.

3-((6-methylpyridin-2-yl)methyl)thiazolidin-2-one (5j)



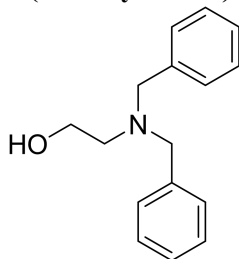
Yellow oil, yield = 77%, 80 mg, $^1\text{H NMR}$ (400 MHz, CDCl_3): δ = 7.56 (t, 1H, J = 7.6 Hz), 7.10-7.06 (m, 2H), 4.57 (s, 2H), 3.67 (t, 2H, J = 7.2 Hz), 3.27 (t, 2H, J = 7.6 Hz), 2.53 (s, 3H). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.5, 158.3, 155.5, 137.4, 122.4, 119.1, 50.5, 48.7, 25.8, 24.5. HRMS (EI): m/z calcd for $\text{C}_{10}\text{H}_{13}\text{ON}_2\text{S}$ $[\text{M}+\text{H}]^+$ 209.0743, found 209.0742.

3-((5-chlorothiophen-2-yl)methyl)thiazolidin-2-one (5k)



Light yellow solid, yield = 50%, 58 mg, $^1\text{H NMR}$ (400 MHz, CDCl_3): δ = 6.87-6.62 (m, 2H), 4.53 (s, 2H), 3.59 (t, 2H, J = 7.2 Hz), 3.26 (t, 2H, J = 7.6 Hz). $^{13}\text{C}\{^1\text{H}\}$ NMR (100 MHz, CDCl_3): δ = 172.4, 137.2, 130.3, 126.6, 126.0, 47.9, 43.5, 25.6. HRMS (EI): m/z calcd for $\text{C}_8\text{H}_9\text{ONClS}_2$ $[\text{M}+\text{H}]^+$ 233.9814, found 233.9825.

2-(dibenzylamino)ethanol (6)

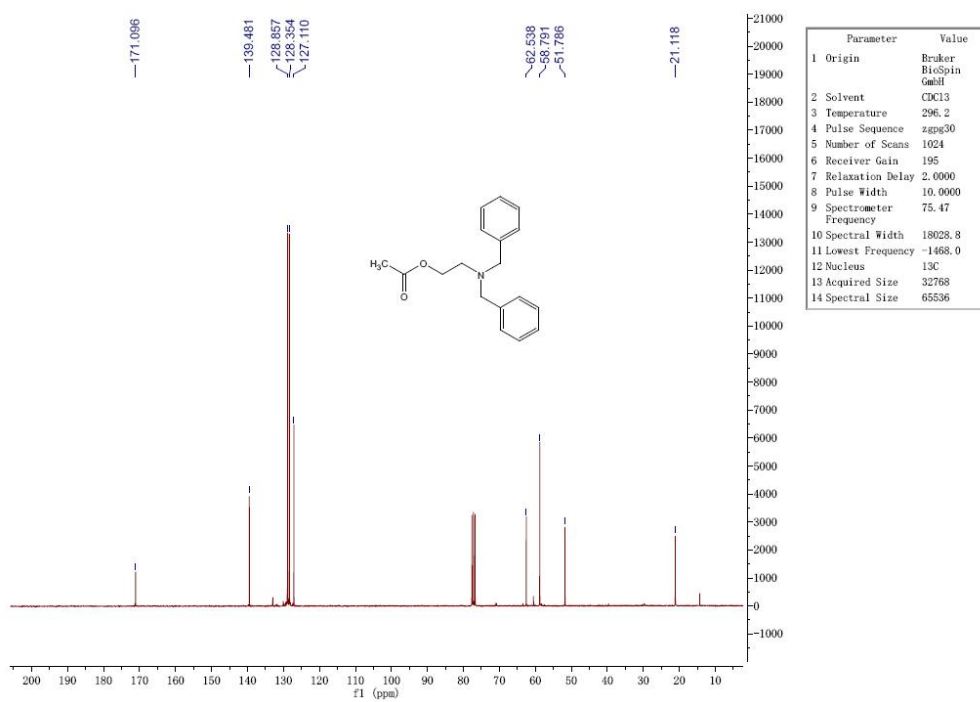
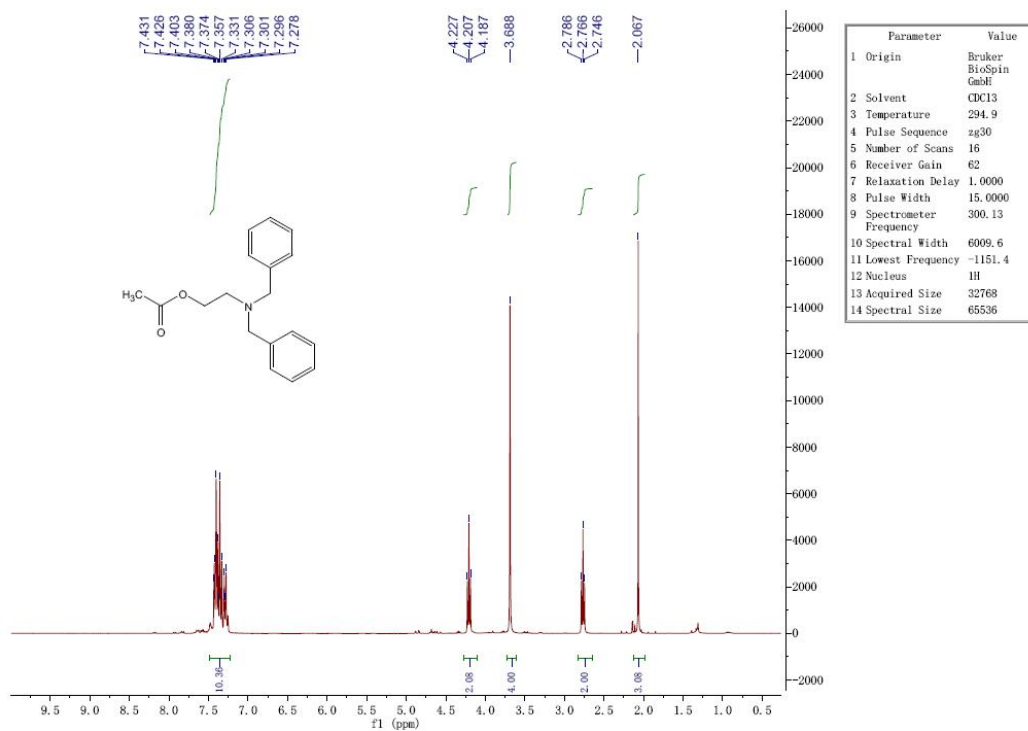
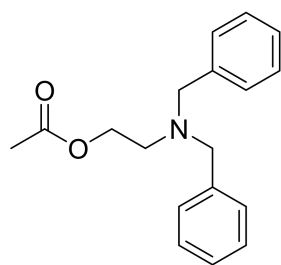


Light yellow oil, yield = 88%, 106 mg, $^1\text{H NMR}$ (500 MHz, CDCl_3): δ = 7.39-7.29 (m, 10H), 3.67 (s, 4H), 3.62 (t, 2H, J = 5.5 Hz), 2.70 (t, 2H, J = 5.5 Hz), 2.47 (brs, 1H). $^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3): δ = 138.9, 129.1, 128.6, 127.4, 58.6, 58.3, 54.8. HRMS (EI): m/z calcd for $\text{C}_{16}\text{H}_{20}\text{NO}$ $[\text{M}+\text{H}]^+$ 242.1539, found 242.1531.

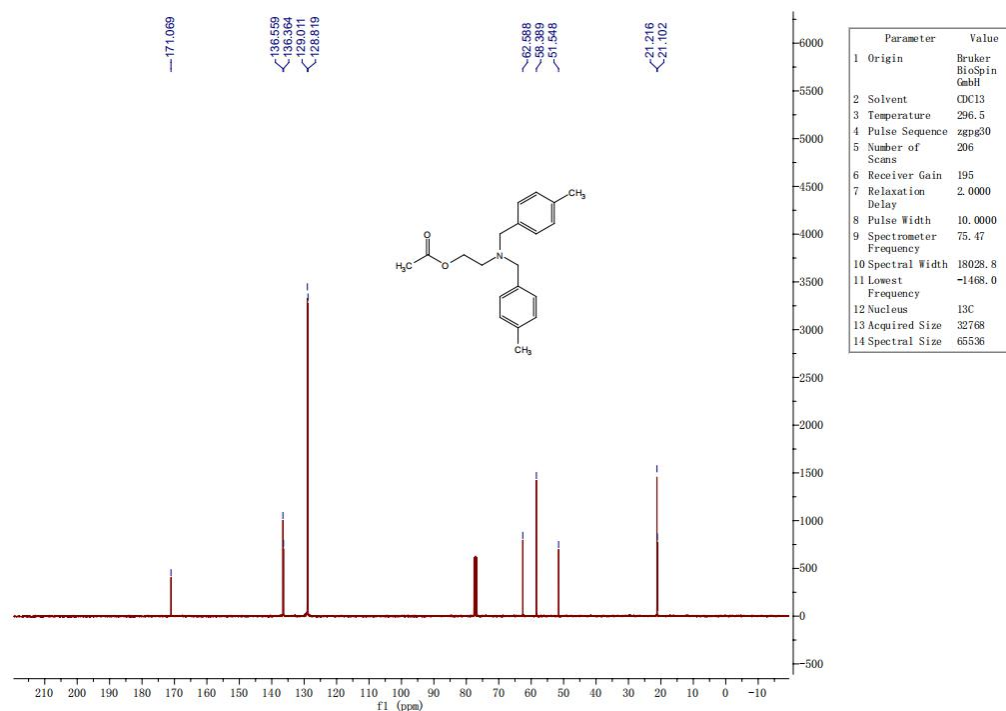
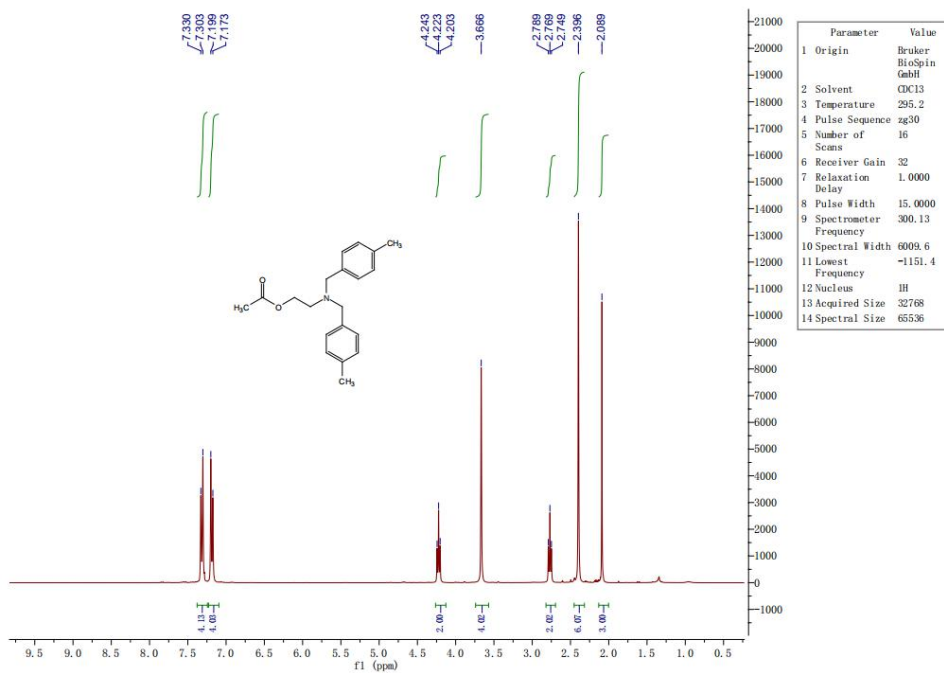
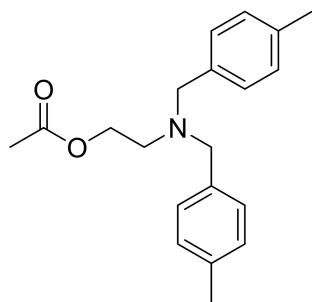
References

1. Mahy, W.; Plucinski, P.; Jover, J.; Frost, C. G. *Angew. Chem. Int. Ed.* **2015**, *54*, 10944.

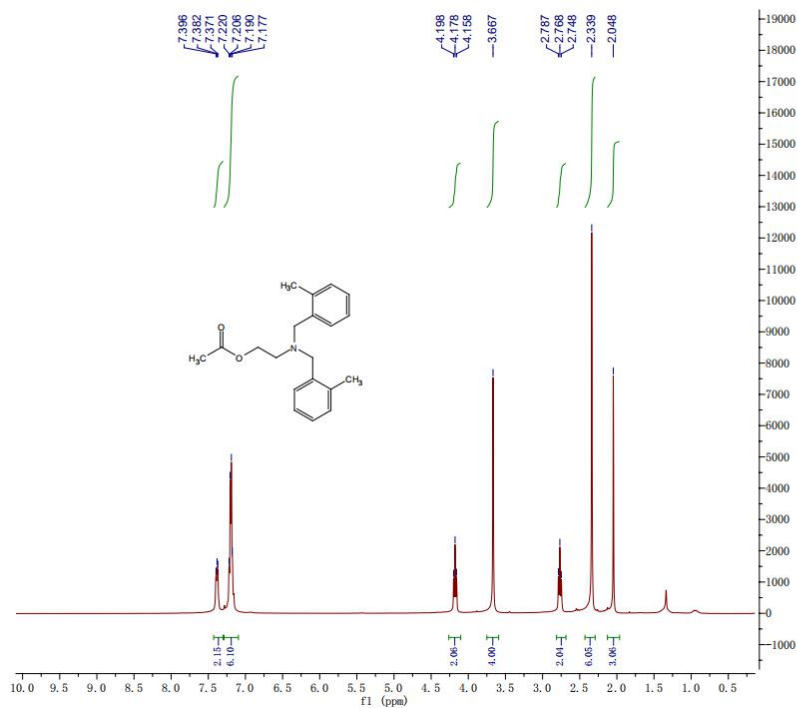
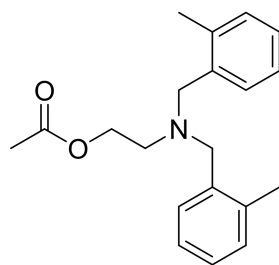
2-(dibenzylamino)ethyl acetate (3a)



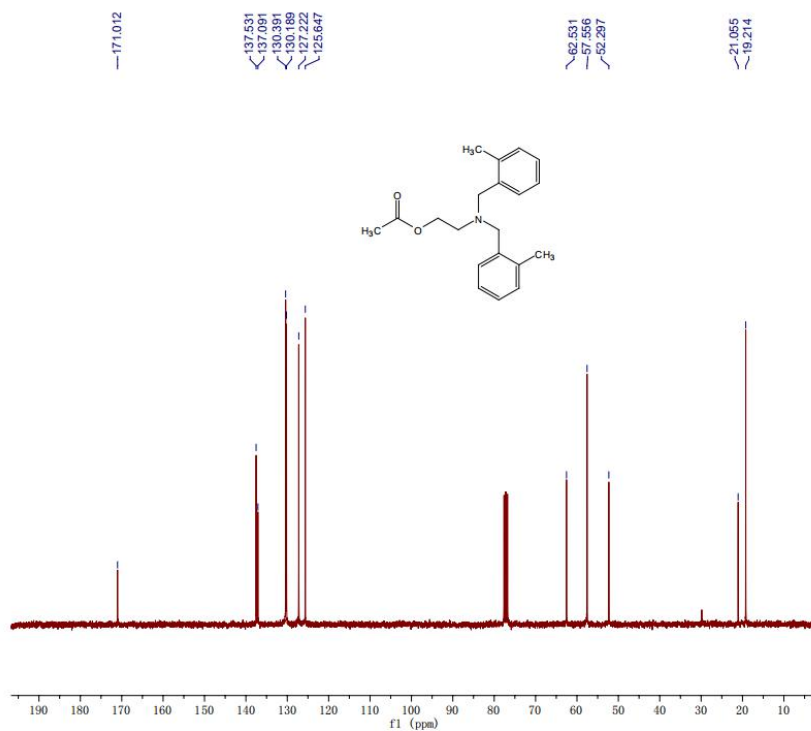
2-(bis(4-methylbenzyl)amino)ethyl acetate (3b)



2-(bis(2-methylbenzyl)amino)ethyl acetate (3c)

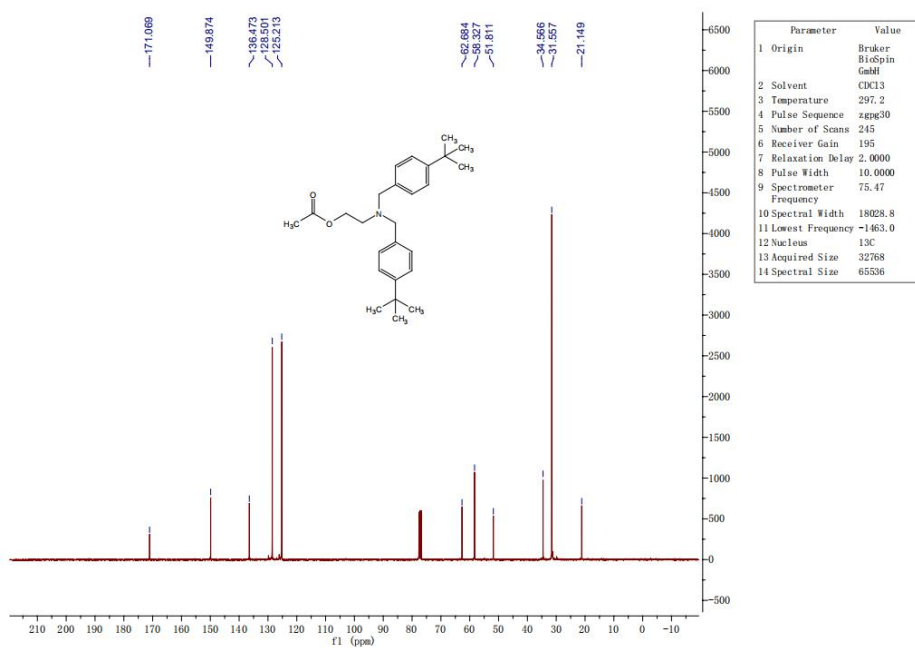
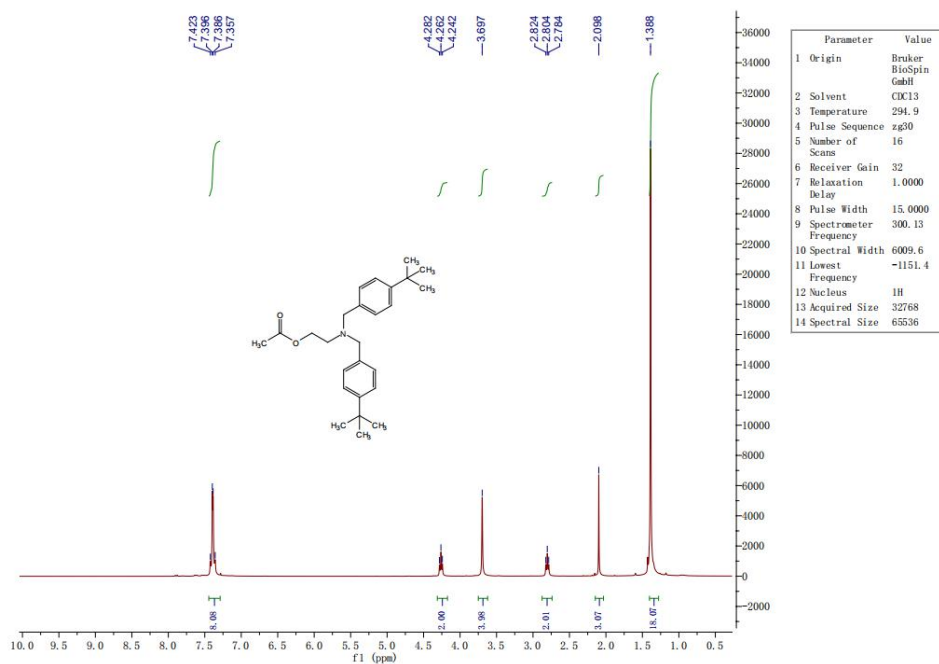
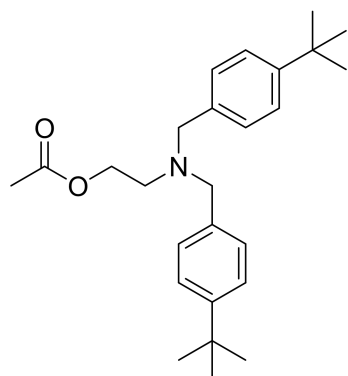


Parameter	Value
1 Origin	Bruker BioSpin GmbH
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3 Temperature	297.5
4 Pulse Sequence	zg30
5 Number of Scans	16
6 Receiver Gain	51
7 Relaxation Delay	1.0000
8 Pulse Width	15.0000
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10 Spectral Width	6009.6
11 Lowest Frequency	-1151.4
12 Nucleus	1H
13 Acquired Size	32768
14 Spectral Size	65536

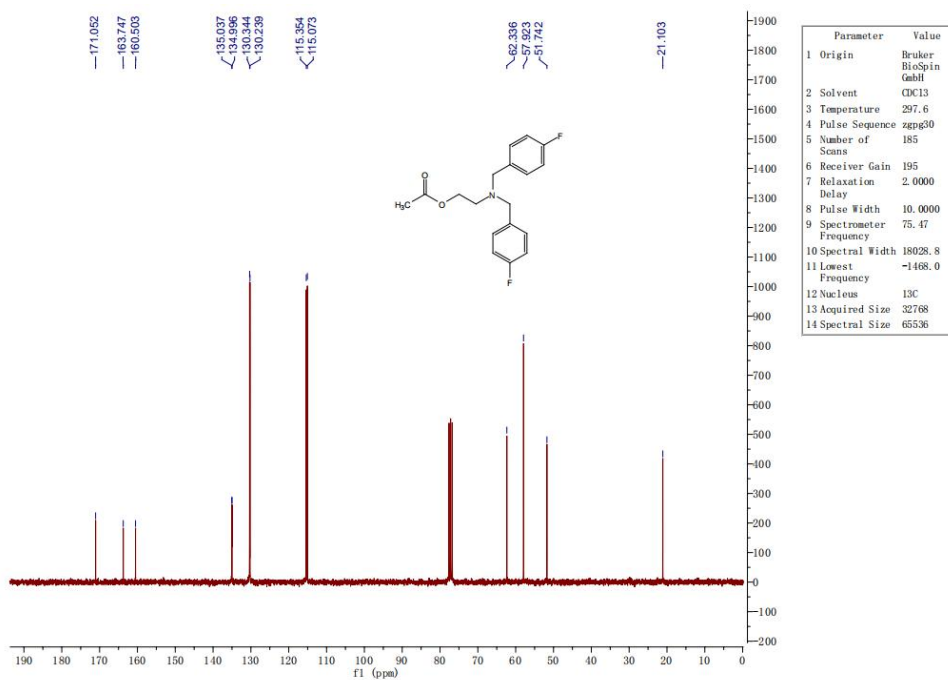
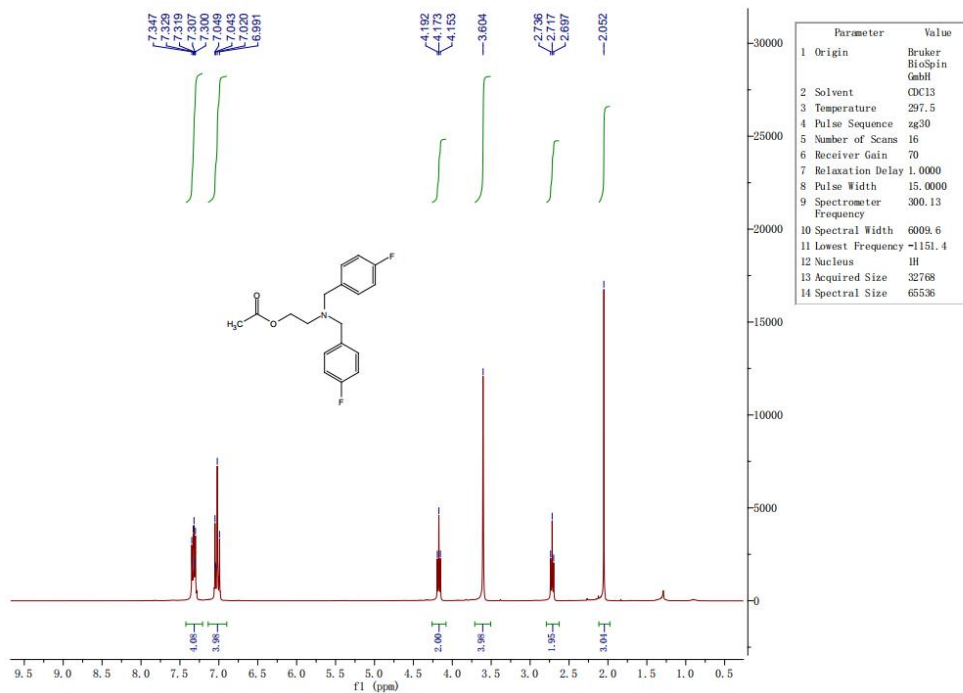
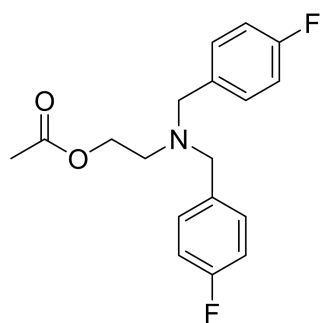


Parameter	Value
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2 Solvent	CDCl3
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4 Pulse Sequence	zgpg30
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8 Pulse Width	10.0000
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12 Nucleus	13C
13 Acquired Size	32768
14 Spectral Size	65536

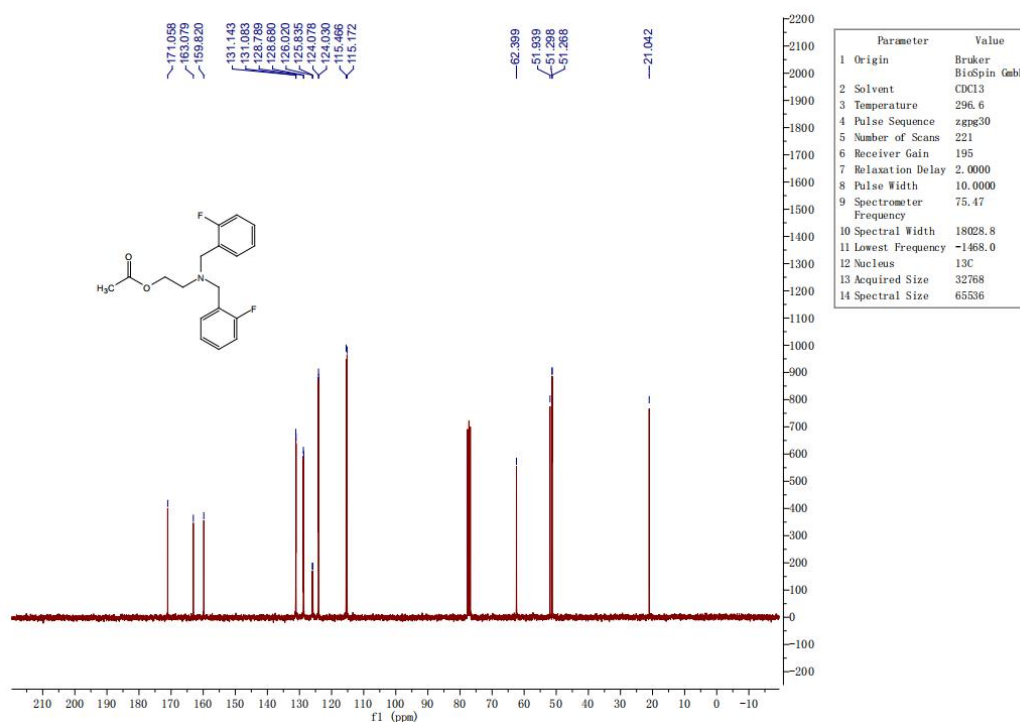
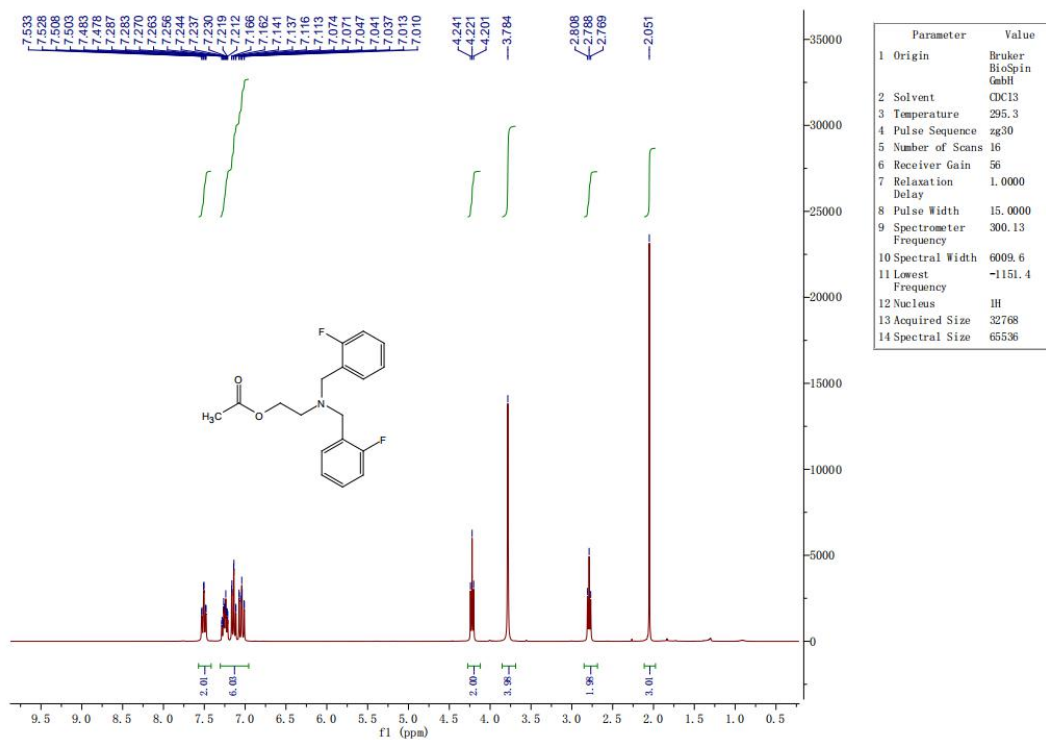
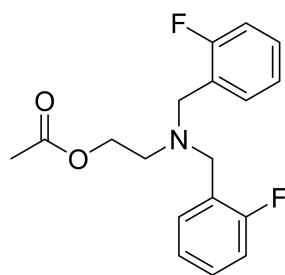
2-(bis(4-(tert-butyl)benzyl)amino)ethyl acetate (3d)



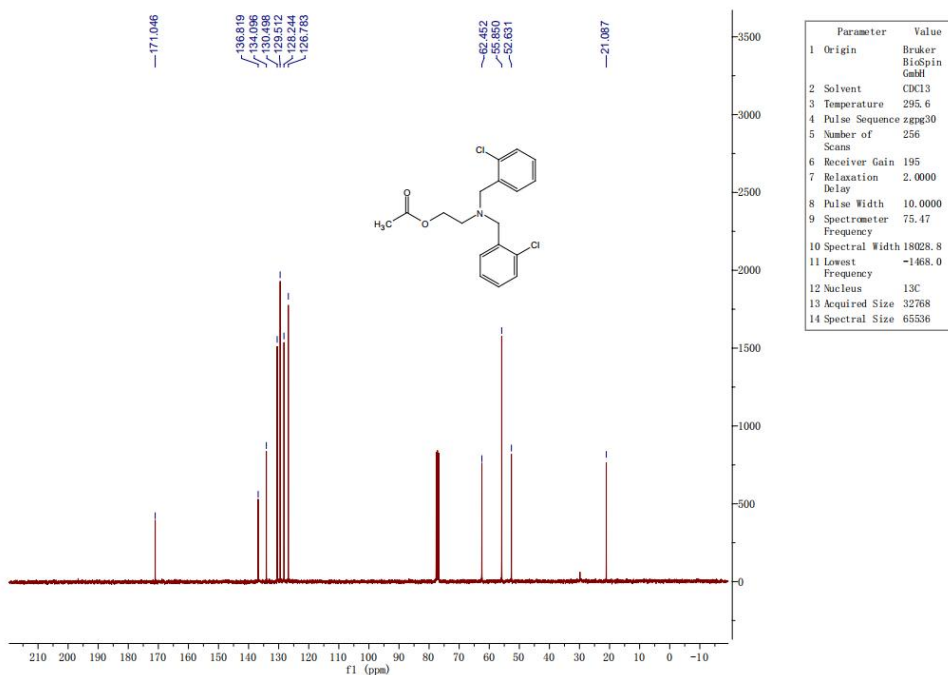
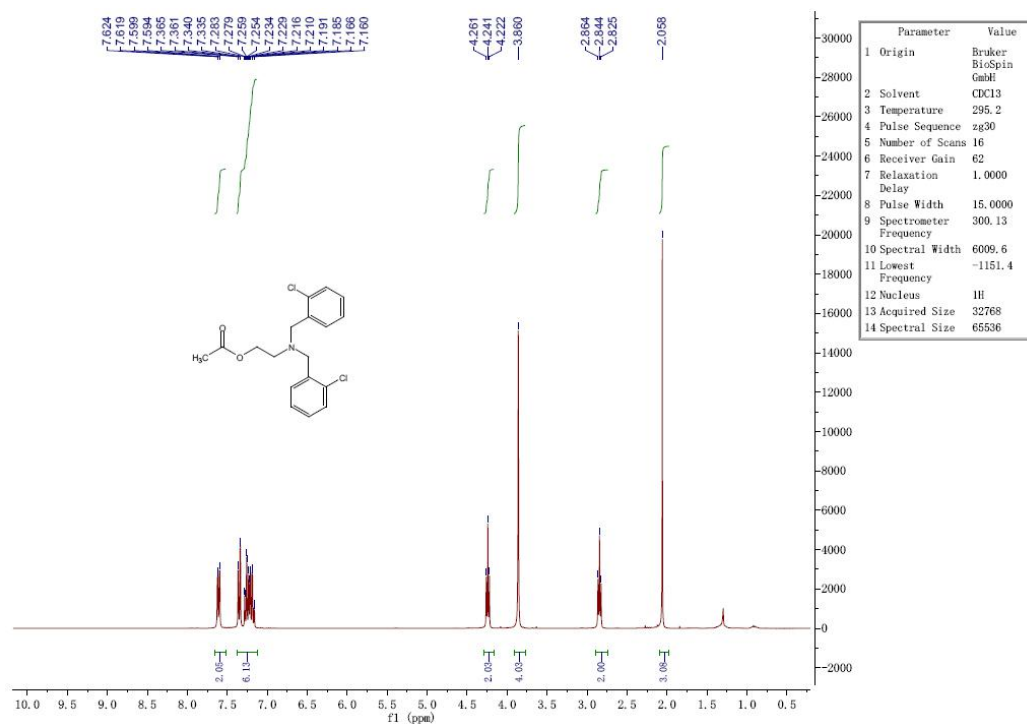
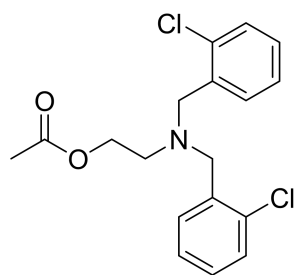
2-(bis(4-fluorobenzyl)amino)ethyl acetate (3e)



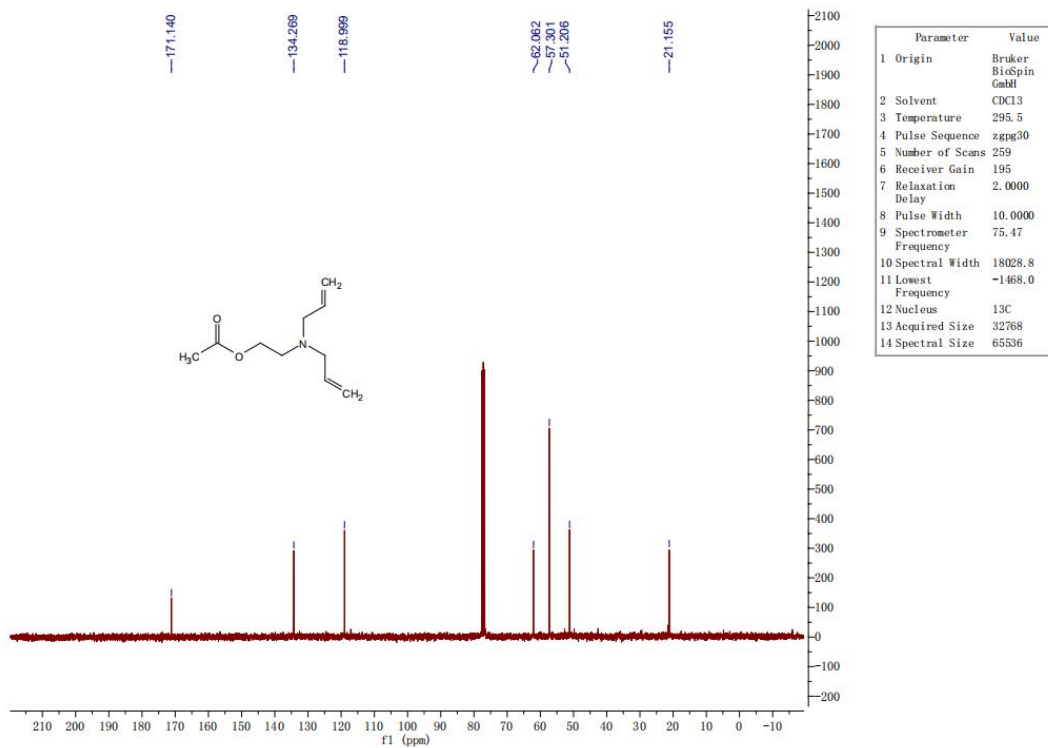
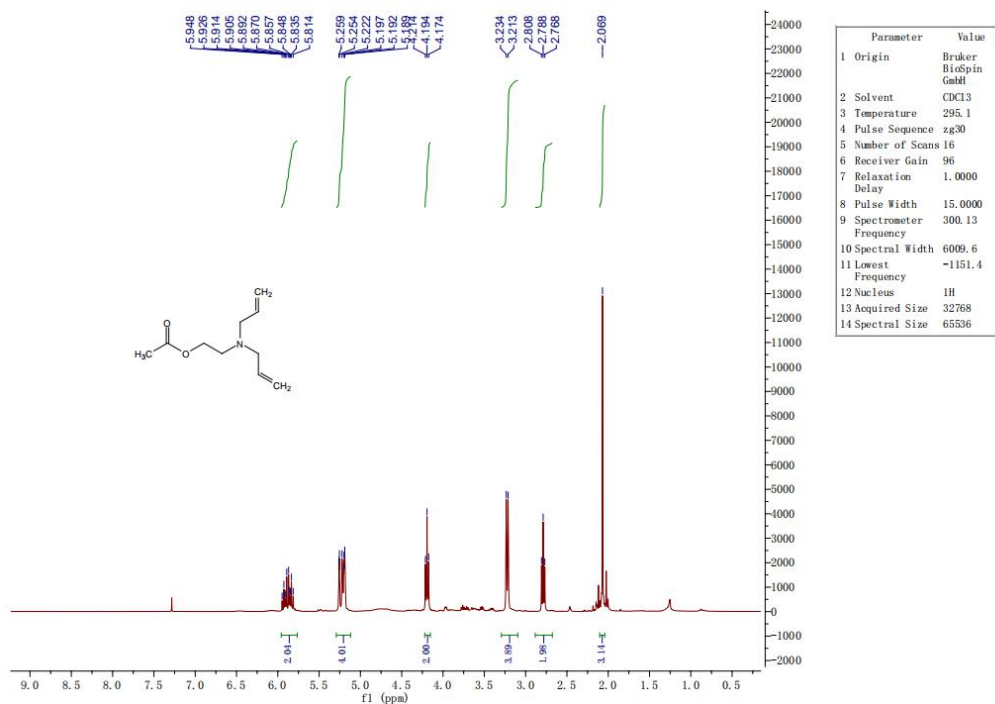
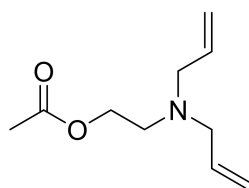
2-(bis(2-fluorobenzyl)amino)ethyl acetate (3f)



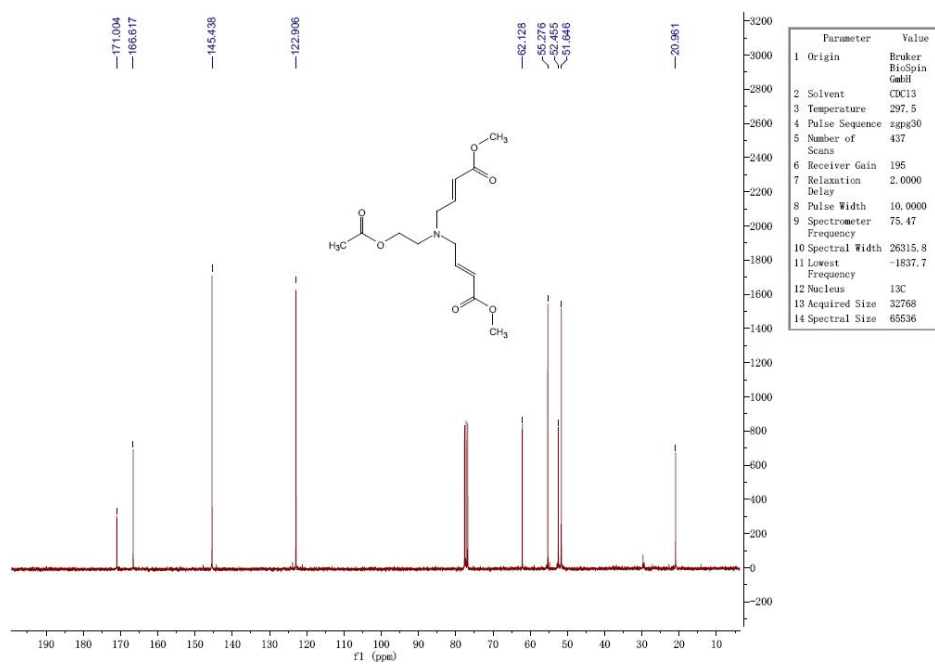
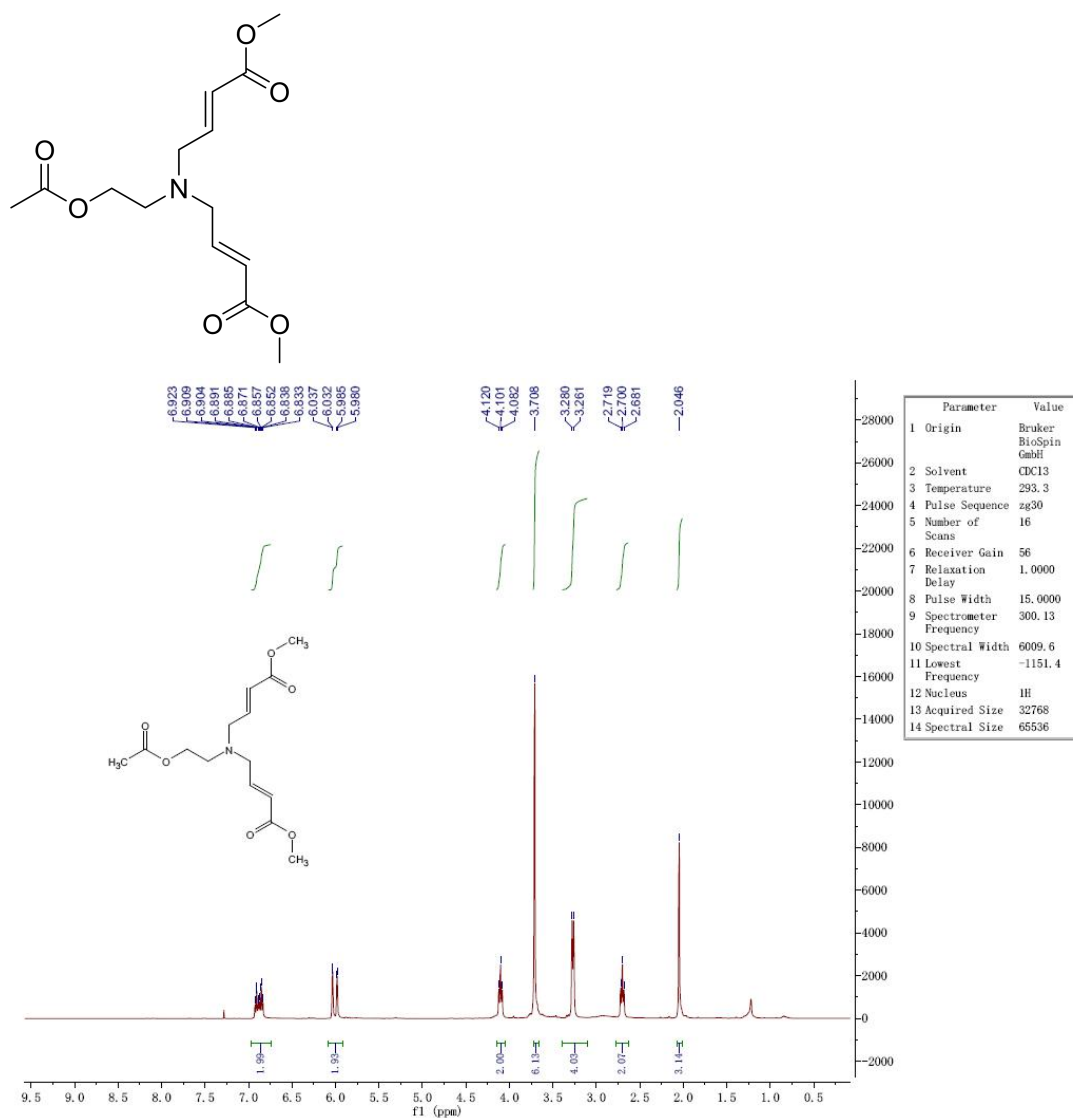
2-(bis(2-chlorobenzyl)amino)ethyl acetate (3g)



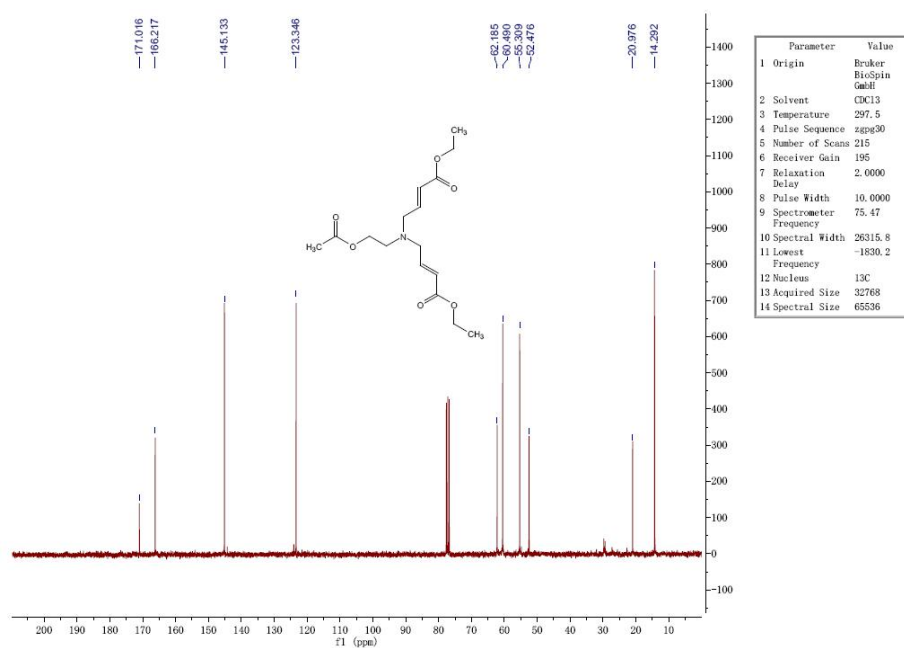
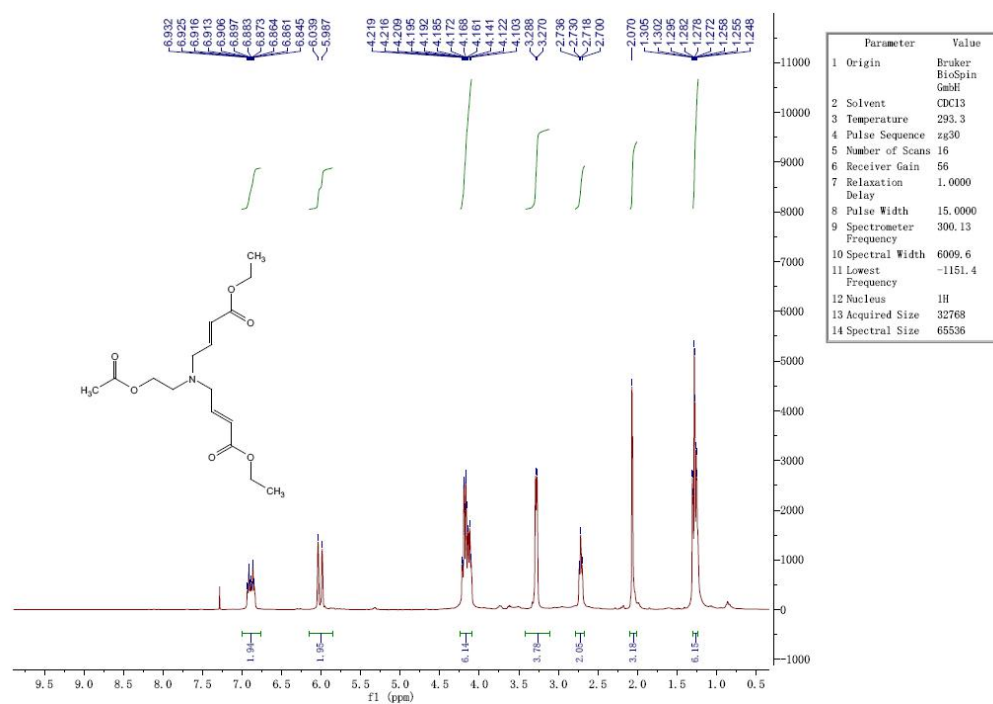
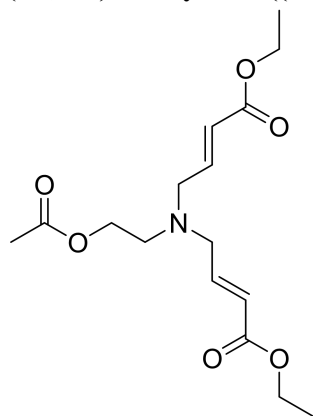
2-(diallylamino)ethyl acetate (3h)



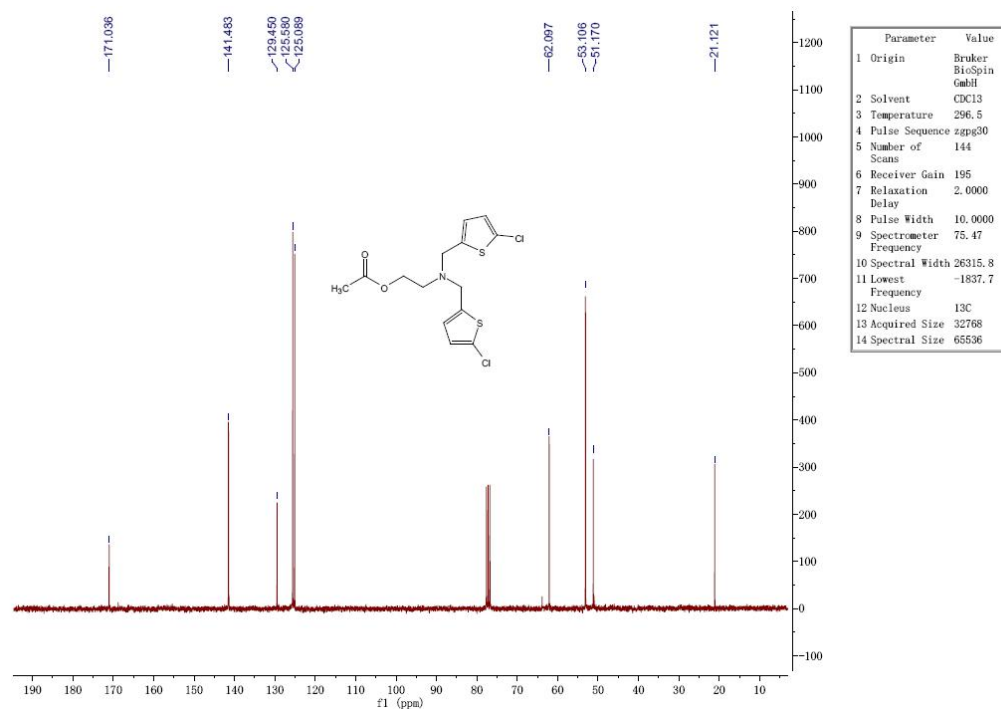
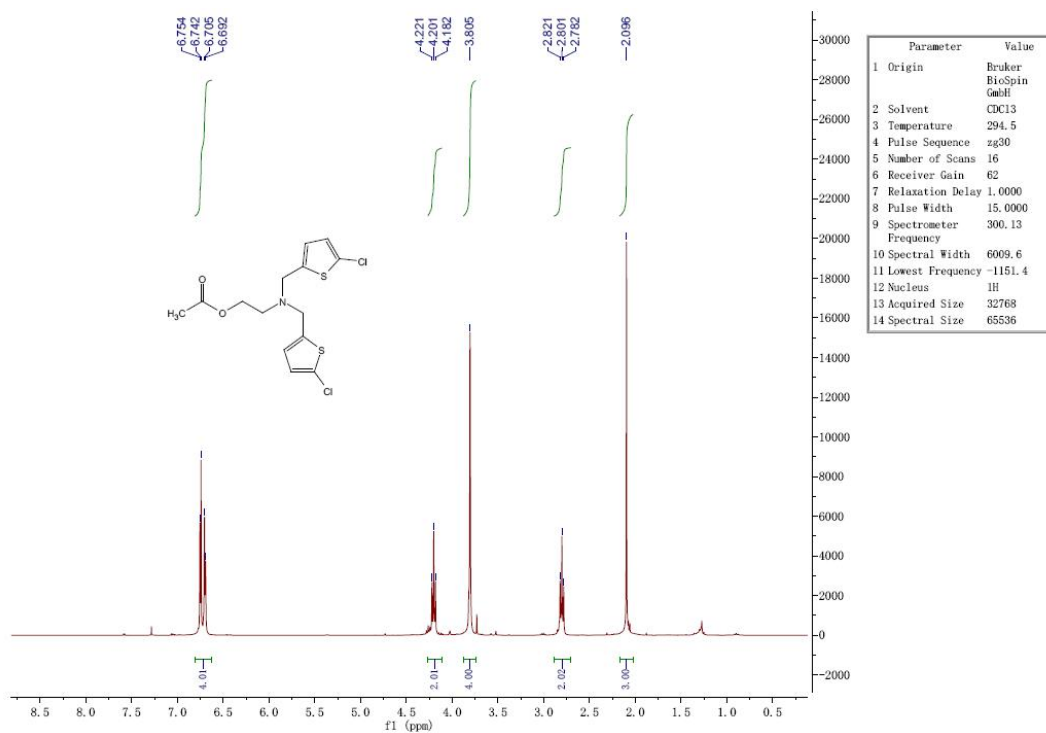
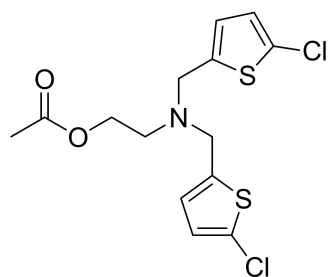
(2E,2'E)-dimethyl 4,4'-((2-acetoxyethyl)azanediyl)bis(but-2-enoate) (3i)



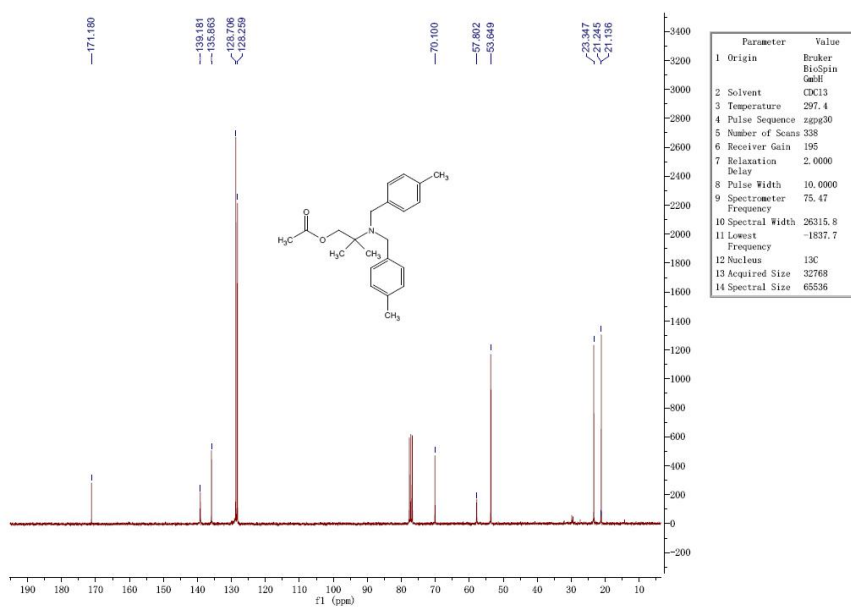
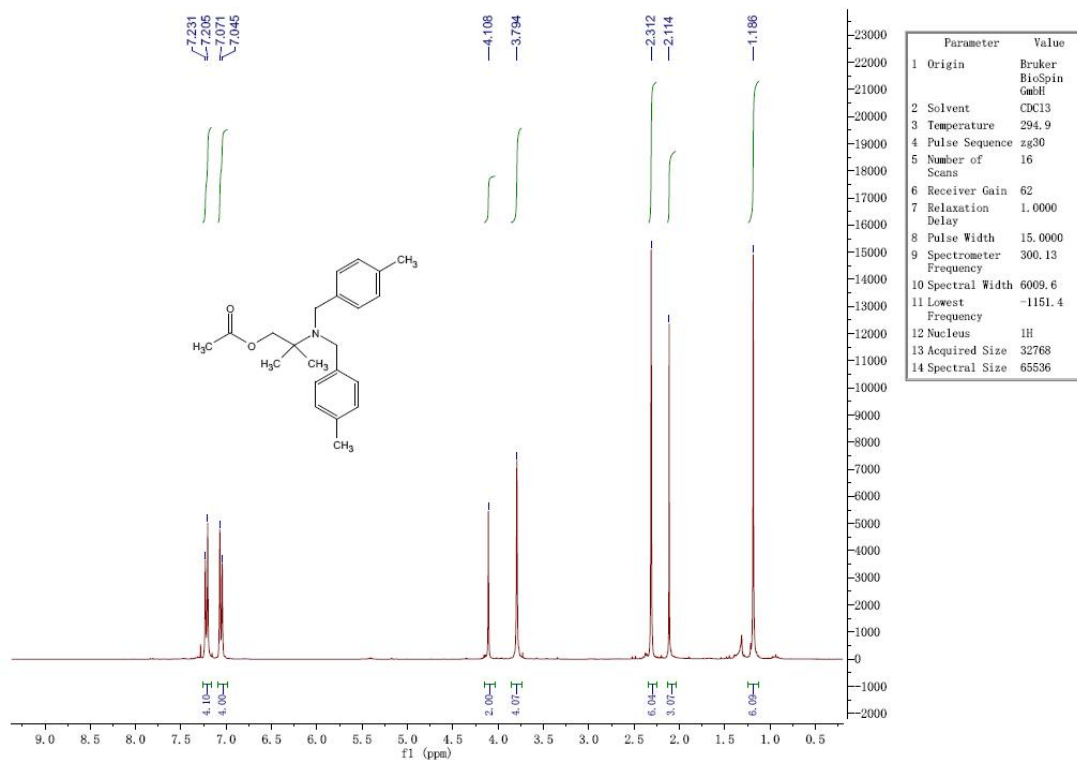
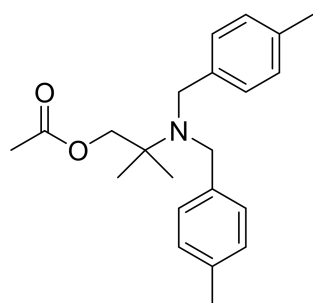
(2E,2'E)-diethyl 4,4'-((2-acetoxyethyl)azanediyl)bis(but-2-enoate) (3j)



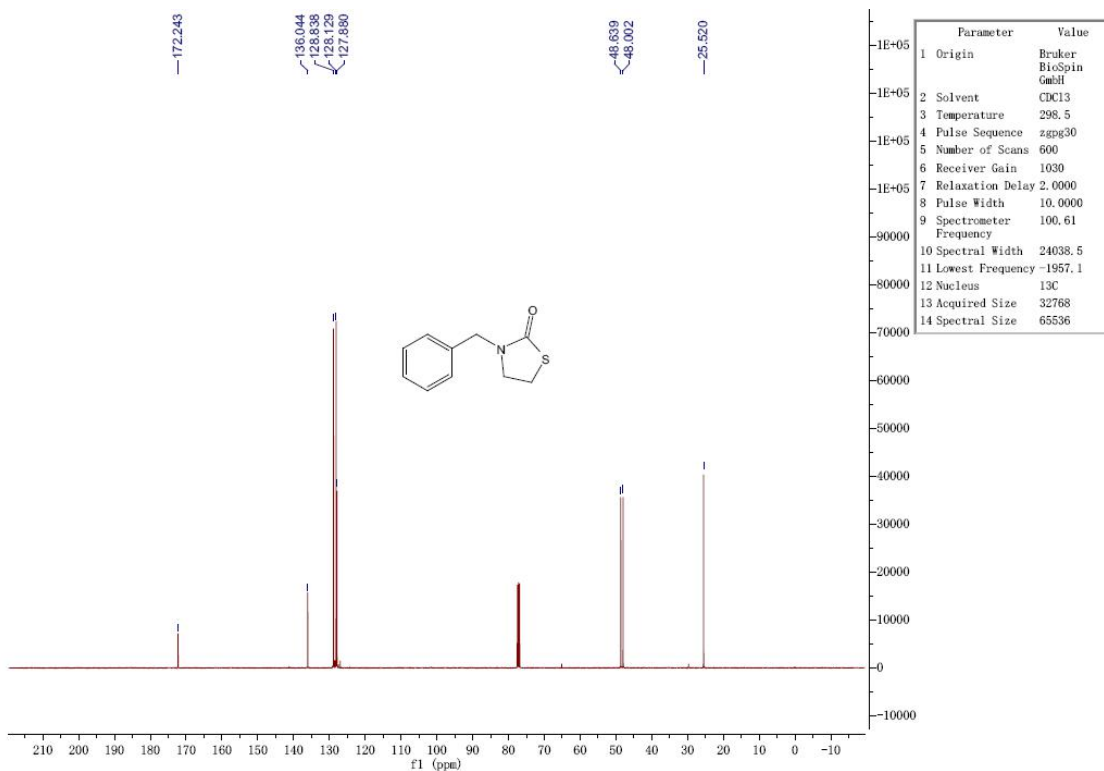
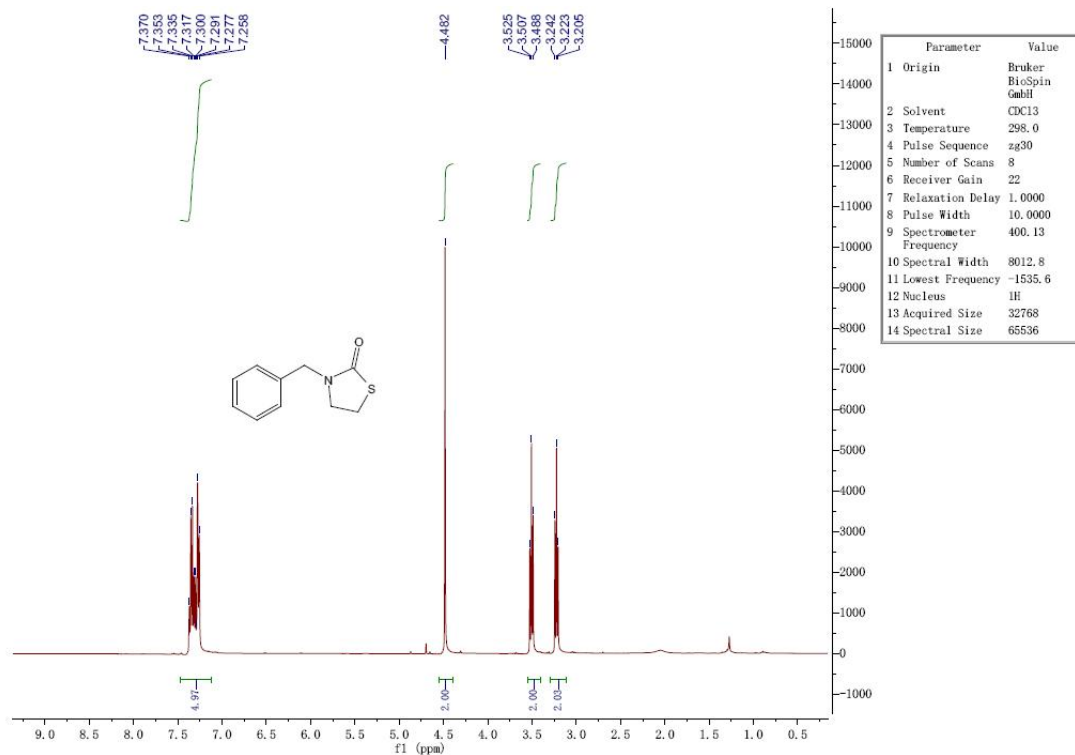
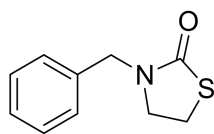
2-(bis((5-chlorothiophen-2-yl)methyl)amino)ethyl acetate (3k)



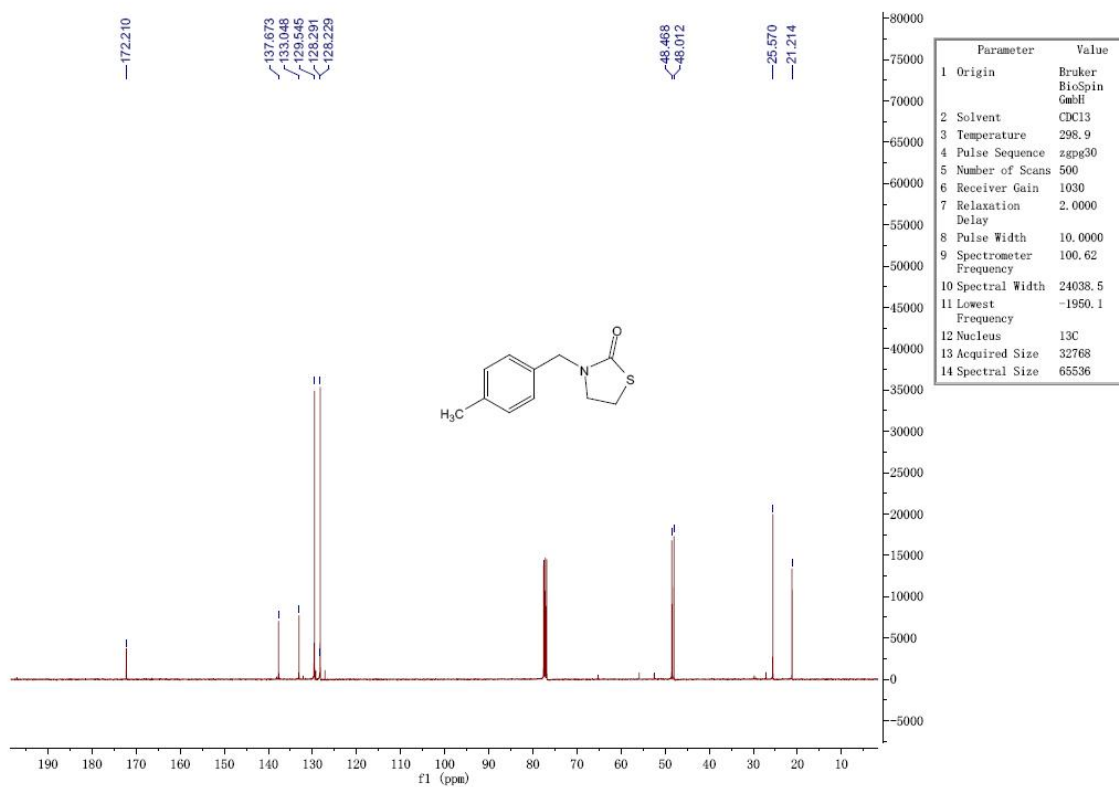
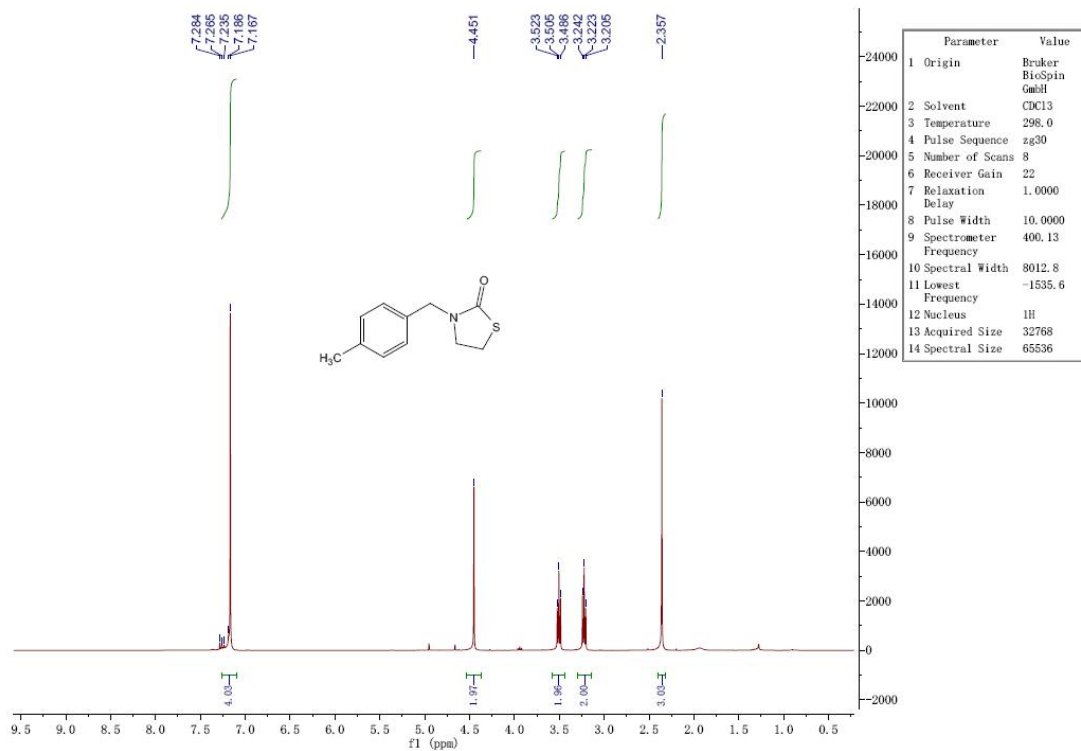
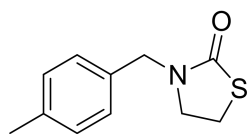
2-(bis(4-methylbenzyl)amino)-2-methylpropyl acetate (3I)



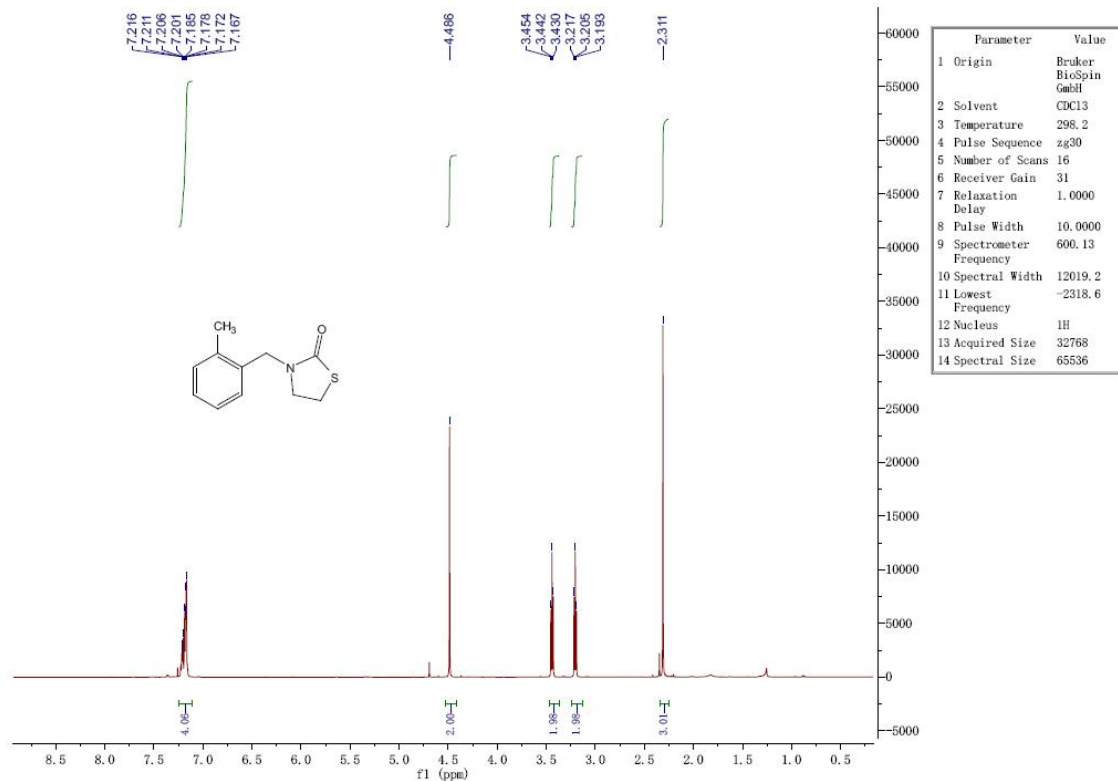
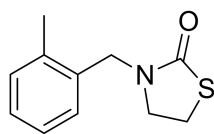
3-benzylthiazolidin-2-one (5a)



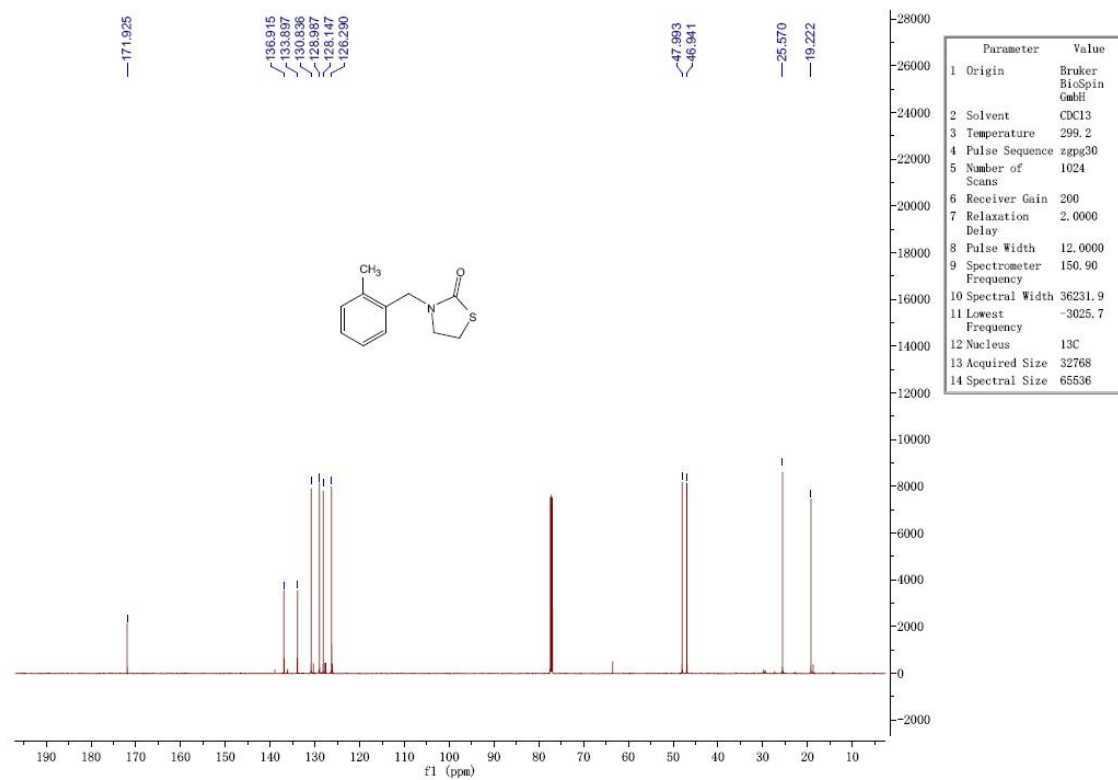
3-(4-methylbenzyl)thiazolidin-2-one (5b)



3-(2-methylbenzyl)thiazolidin-2-one (5c)

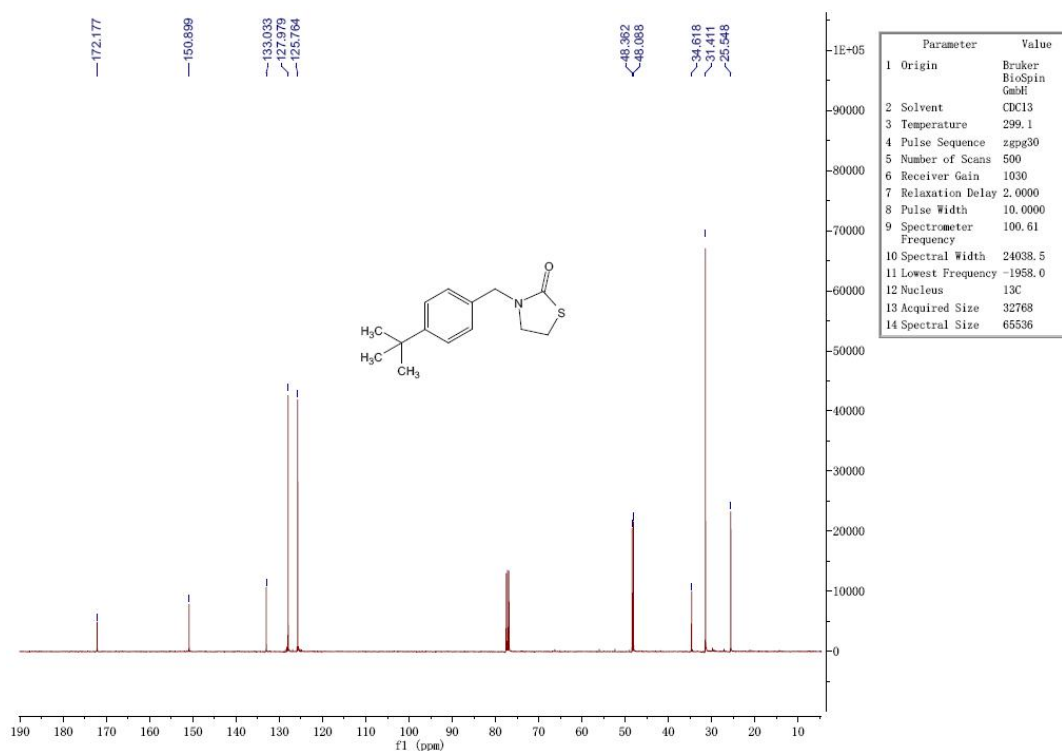
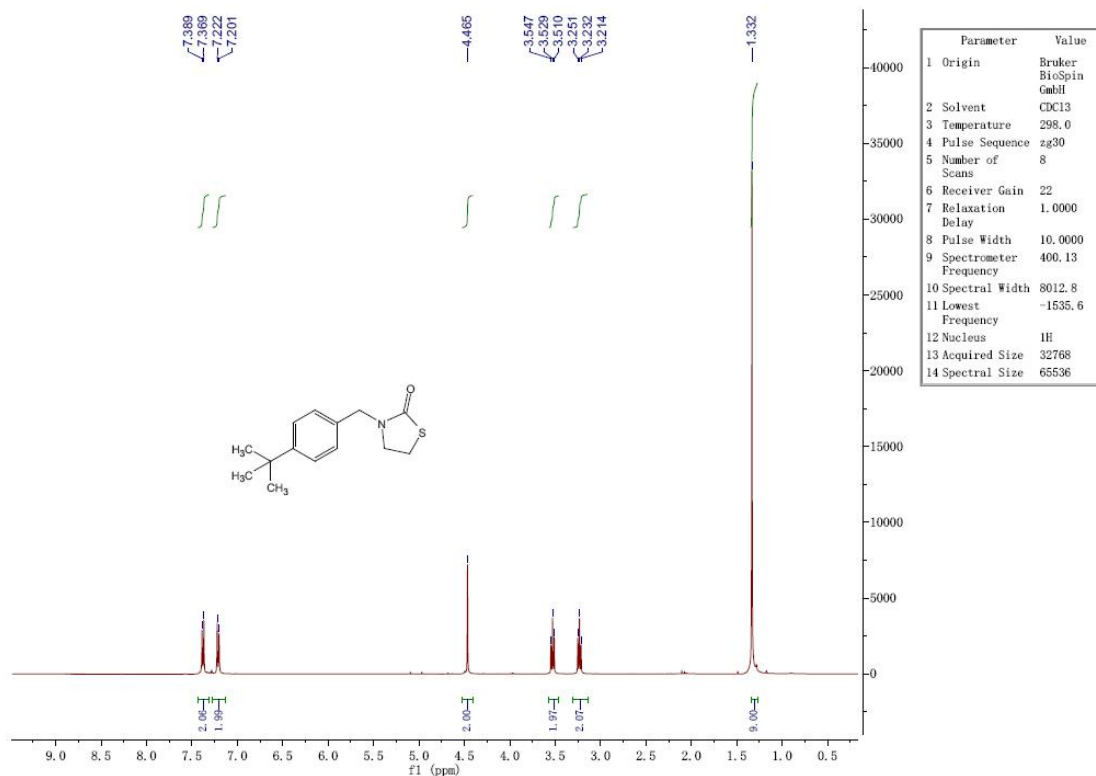
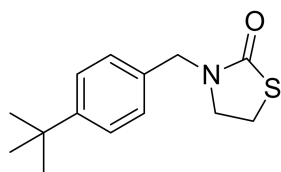


Parameter	Value
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2 Solvent	CDCl3
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8 Pulse Width	10.0000
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10 Spectral Width	12019.2
11 Lowest Frequency	-2318.6
12 Nucleus	¹ H
13 Acquired Size	32768
14 Spectral Size	65536

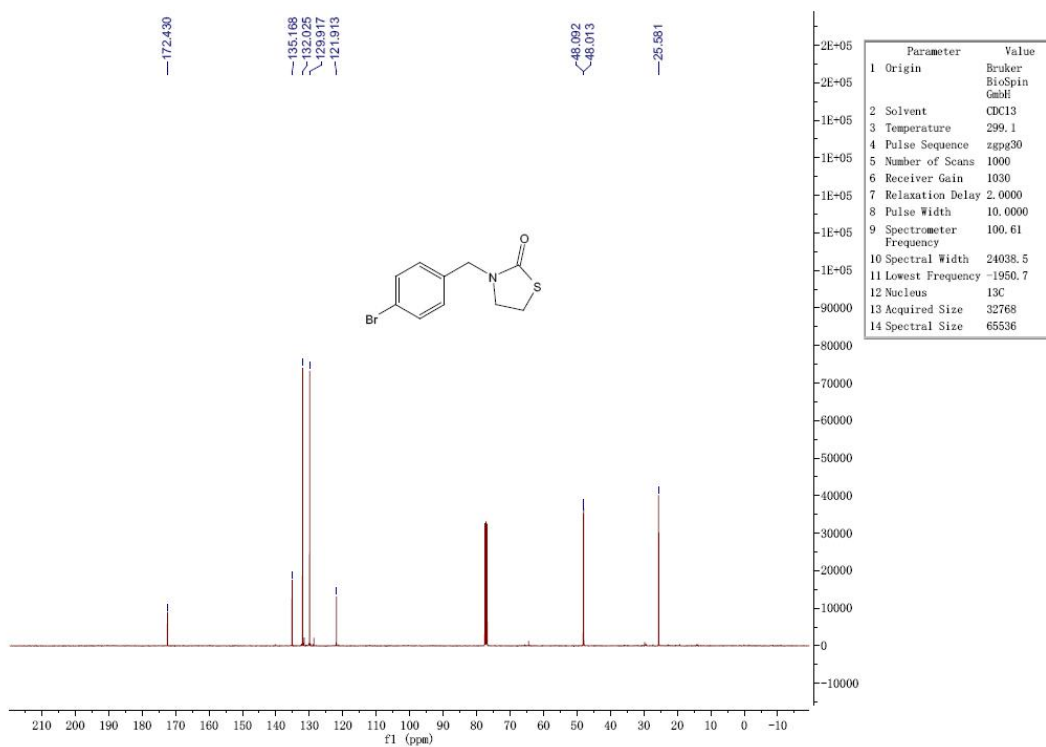
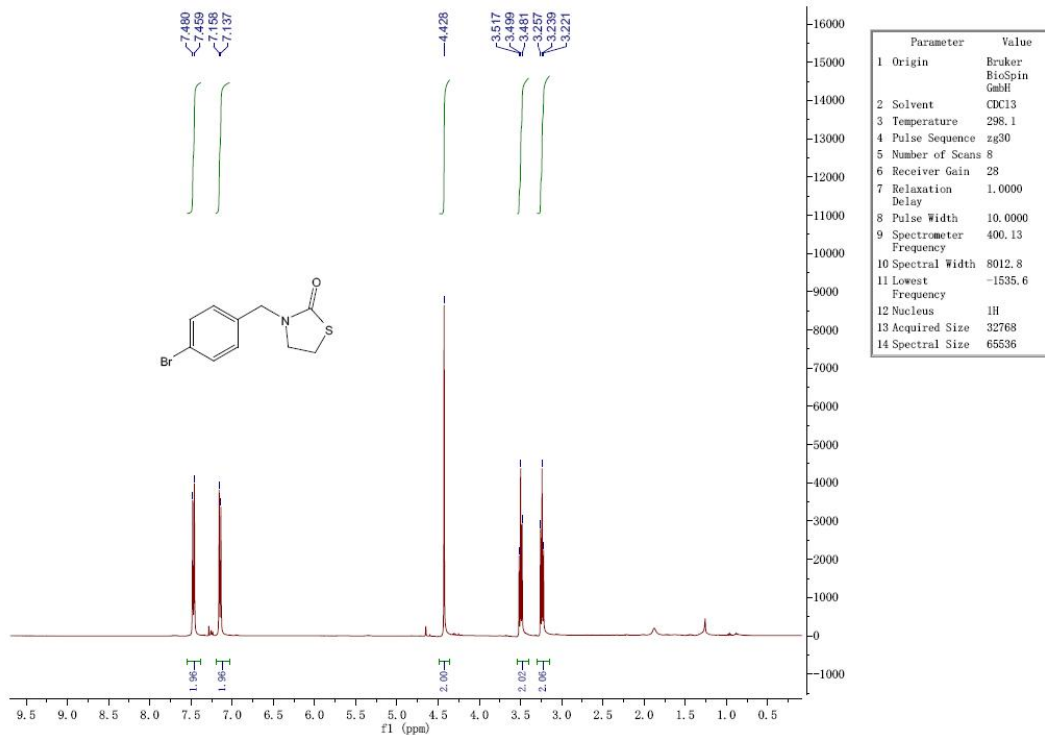
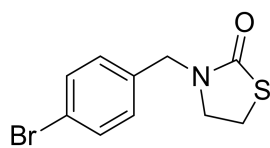


Parameter	Value
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14 Spectral Size	65536

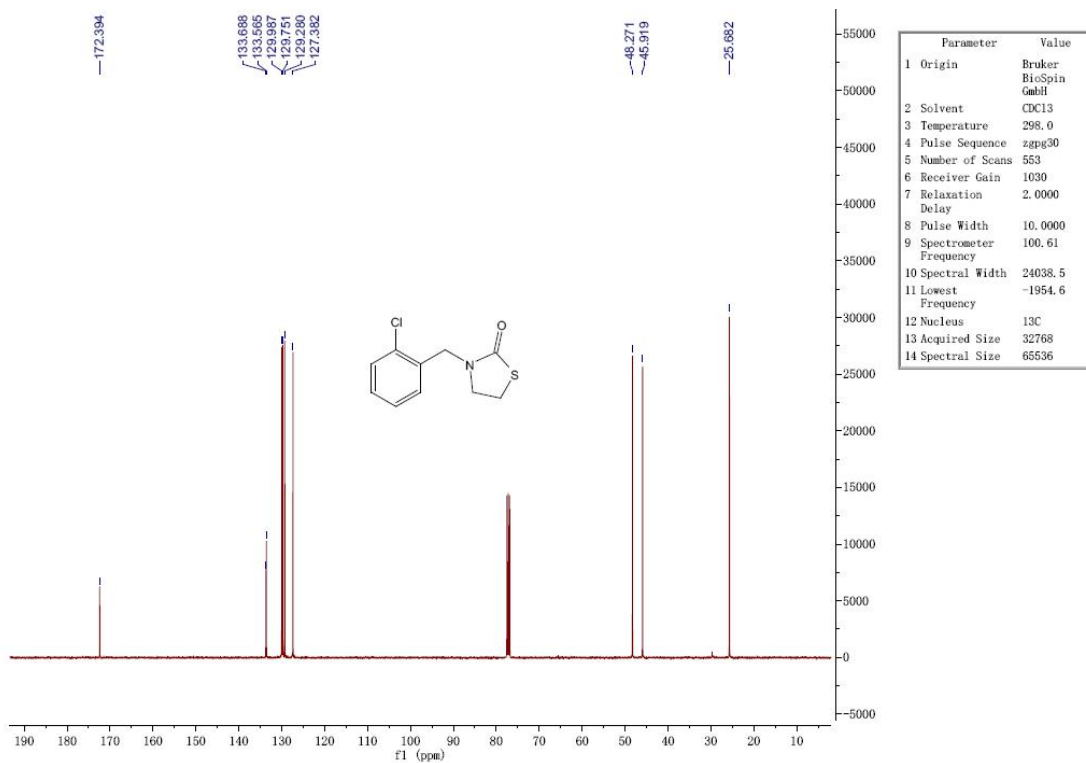
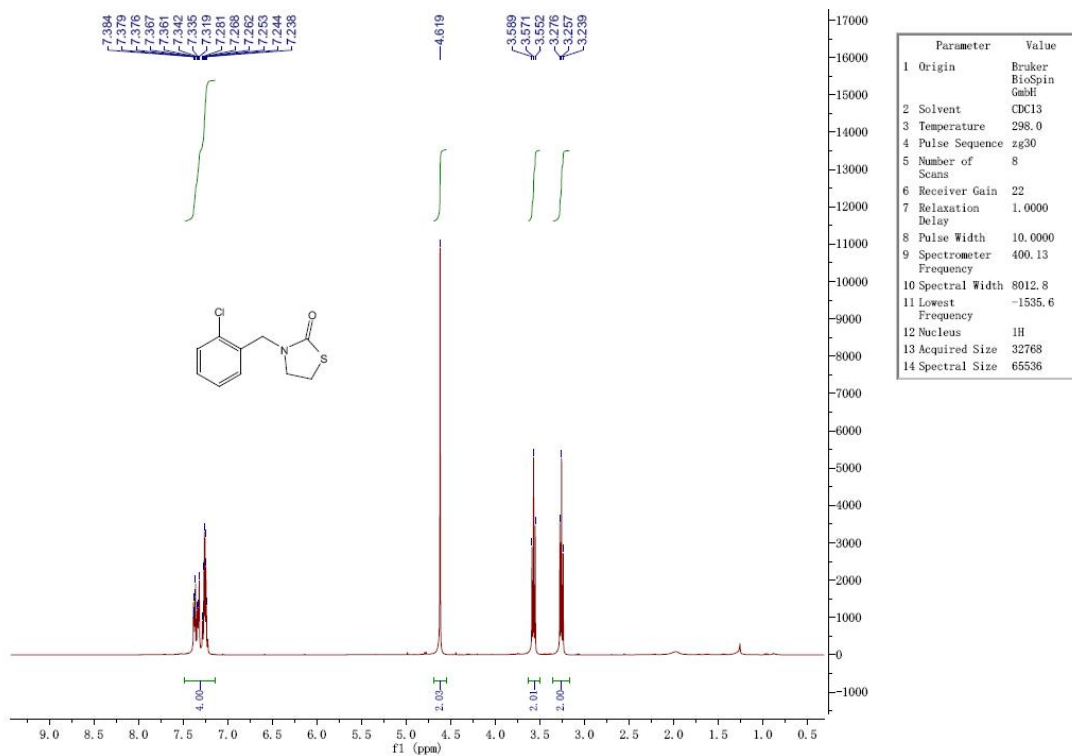
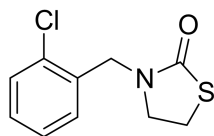
3-(4-(tert-butyl)benzyl)thiazolidin-2-one (5d)



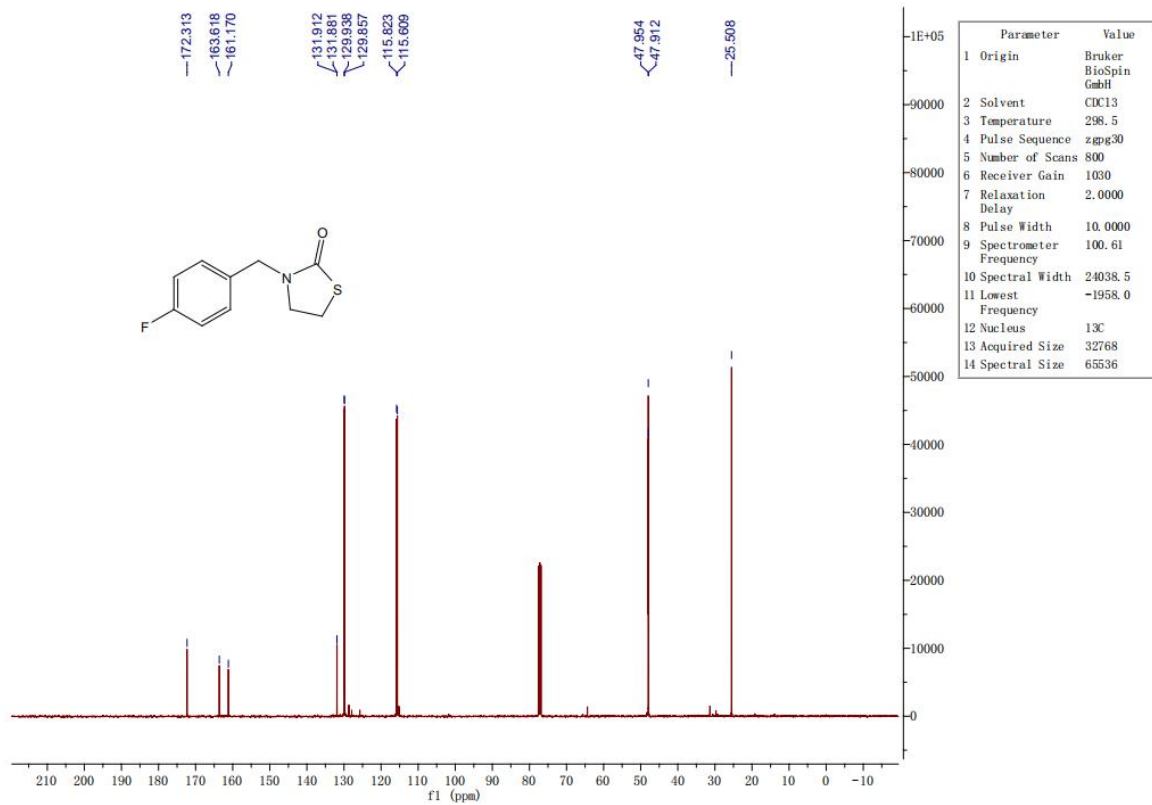
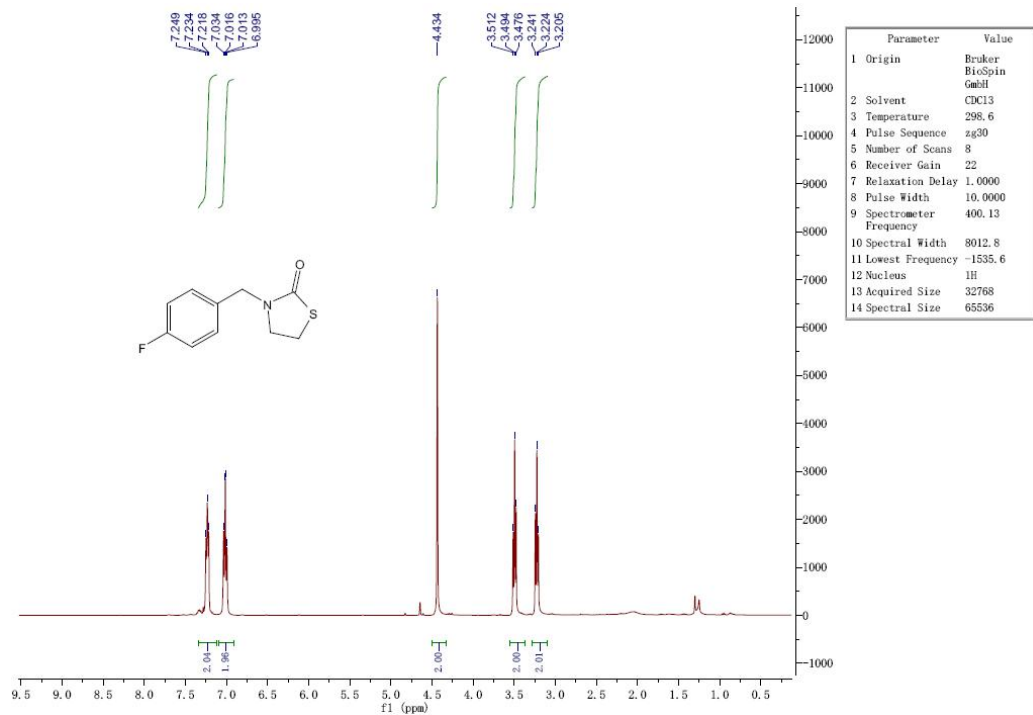
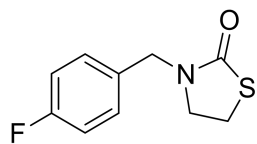
3-(4-bromobenzyl)thiazolidin-2-one (5e)



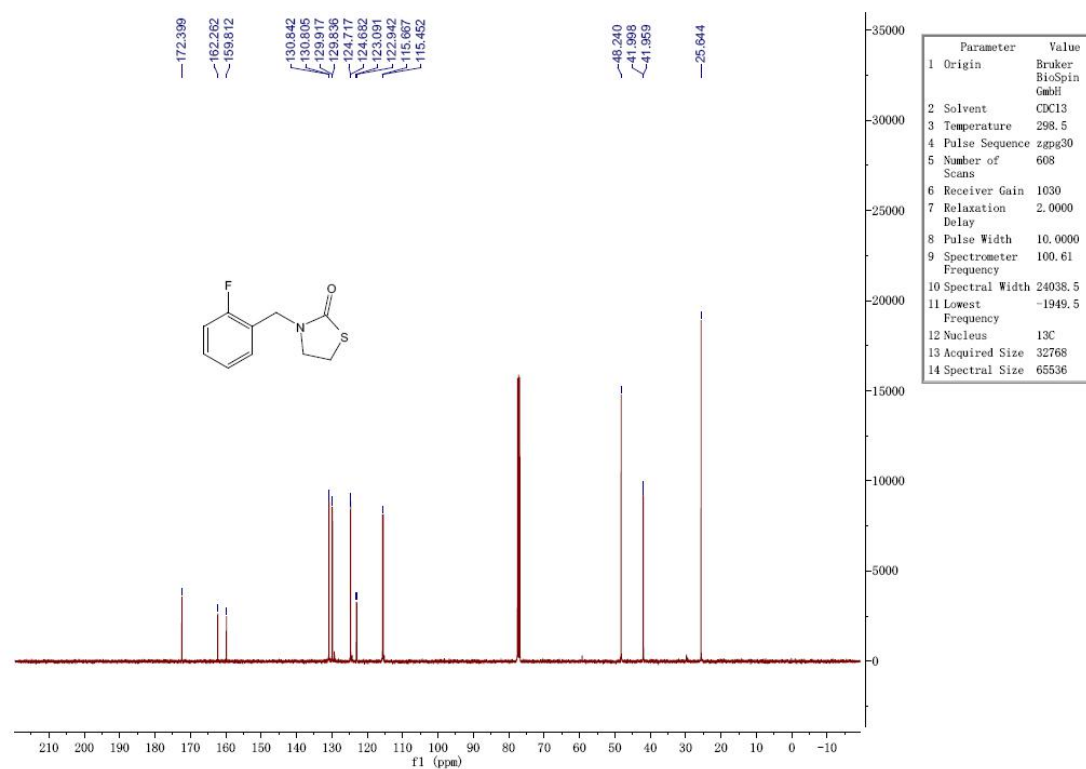
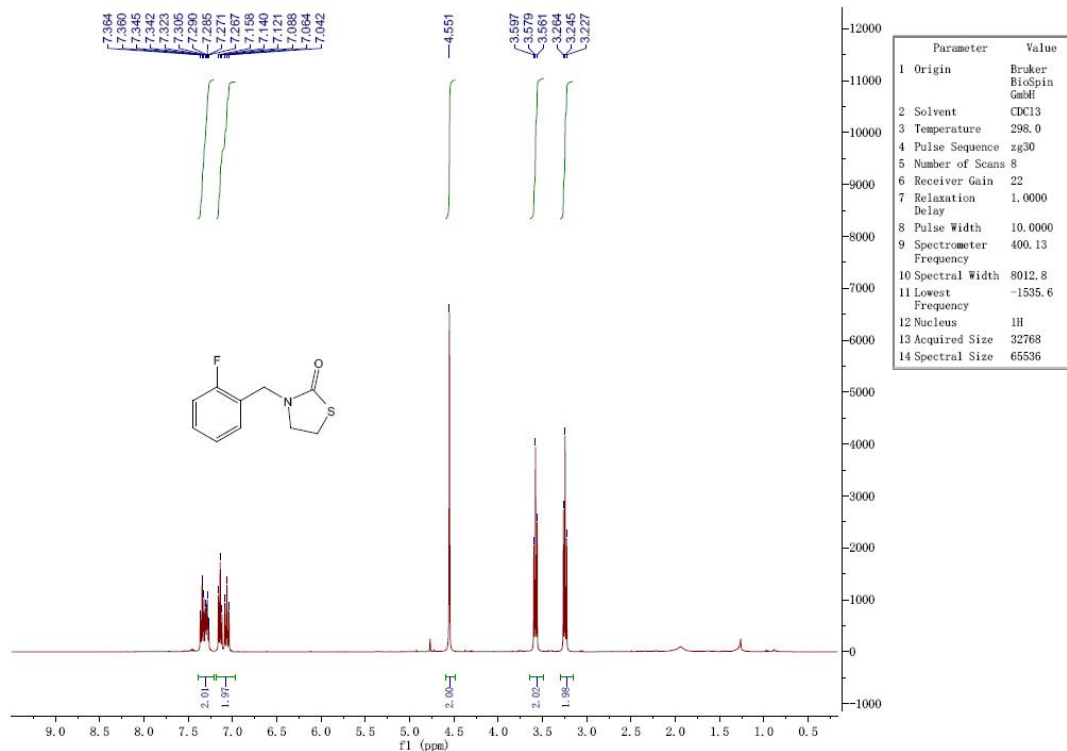
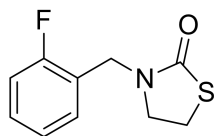
3-(2-chlorobenzyl)thiazolidin-2-one (5f)



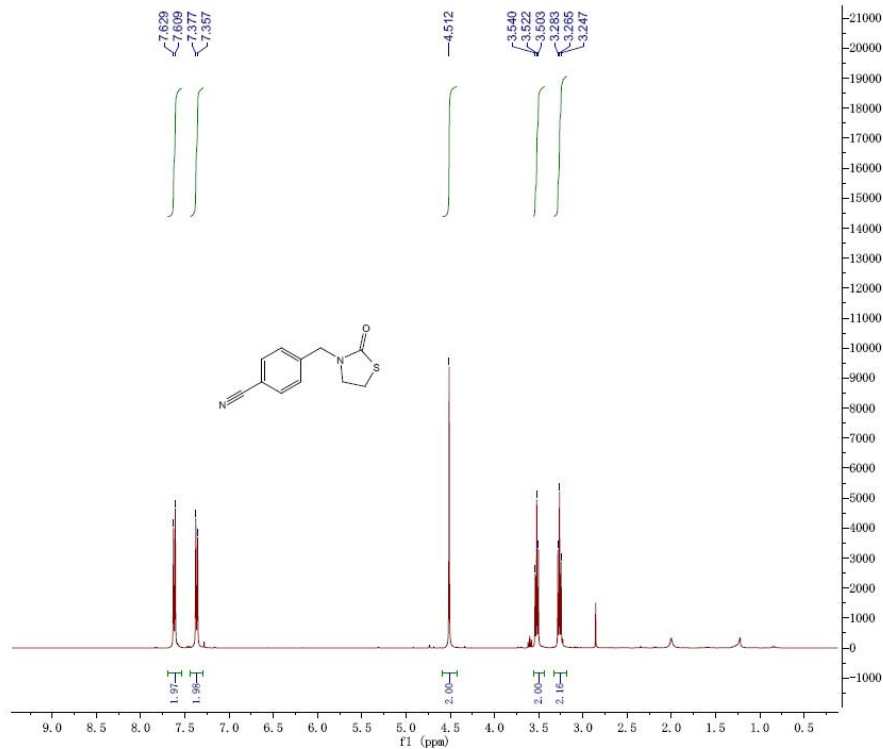
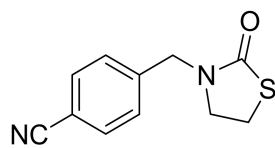
3-(4-fluorobenzyl)thiazolidin-2-one (5g)



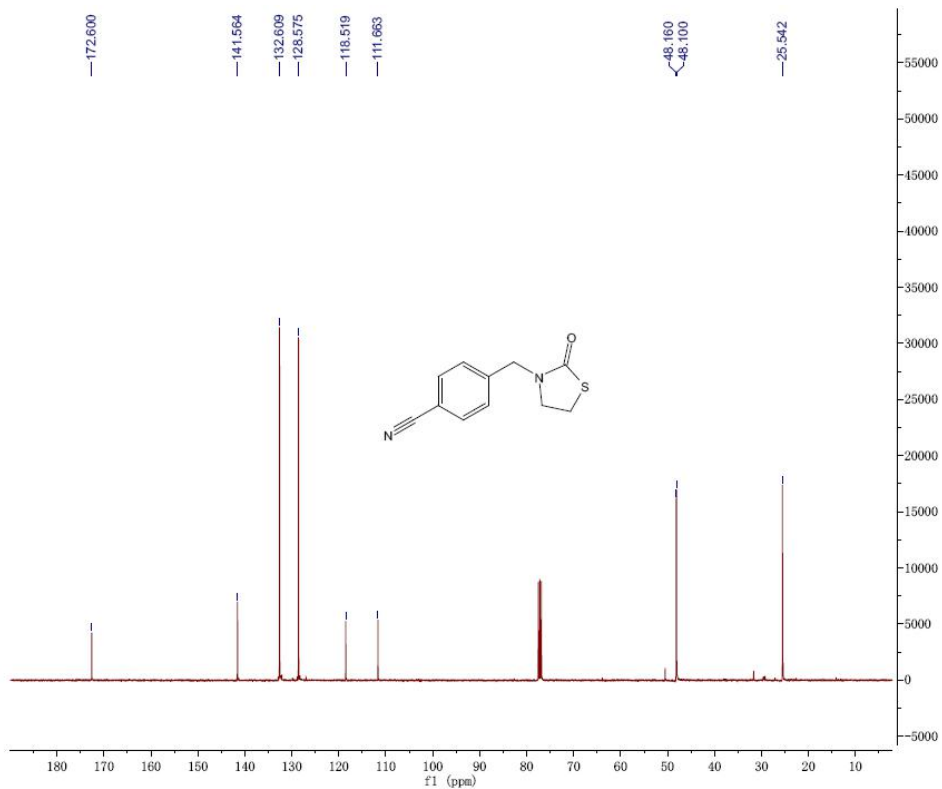
3-(2-fluorobenzyl)thiazolidin-2-one (5h)



4-((2-oxothiazolidin-3-yl)methyl)benzonitrile (5i)

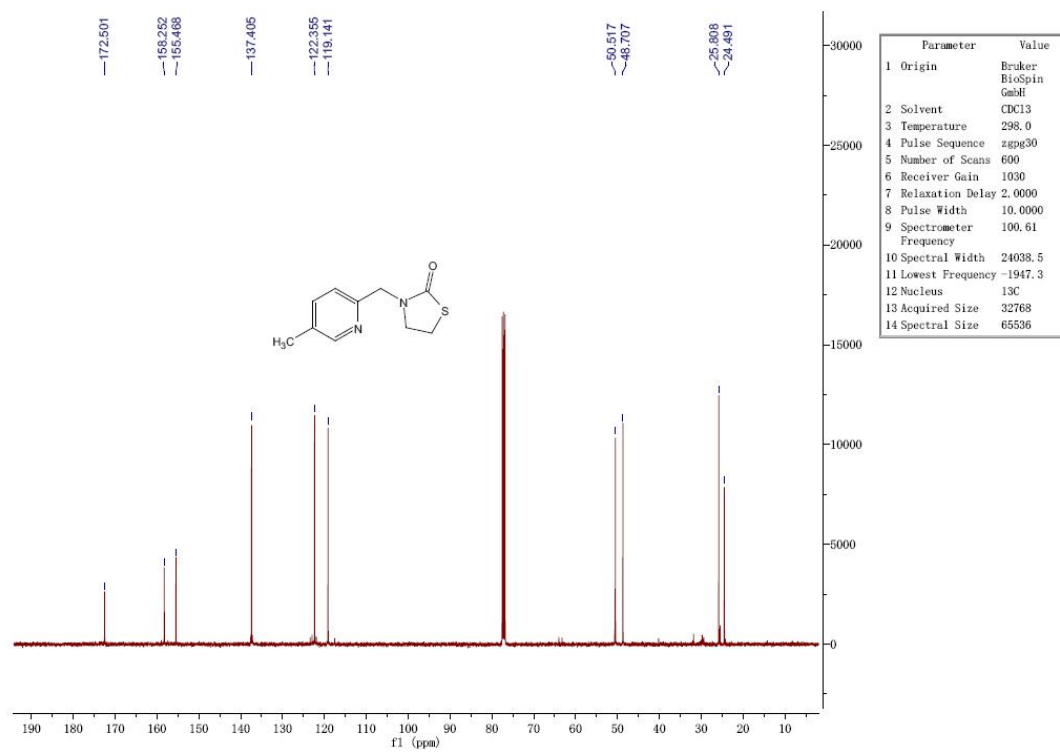
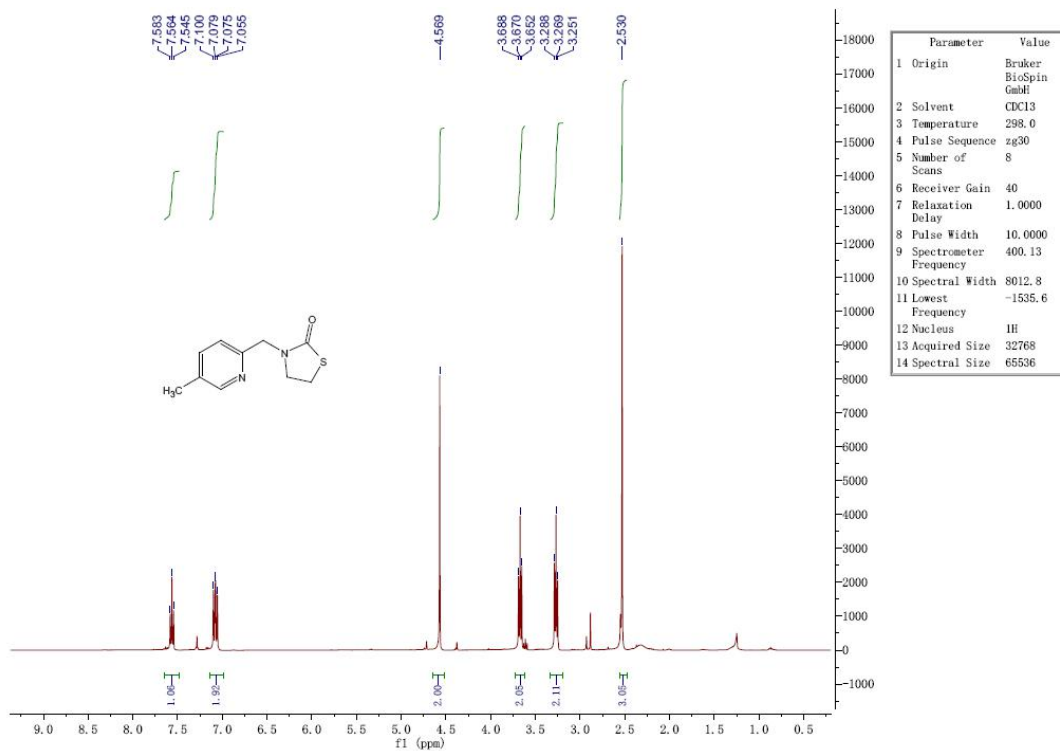
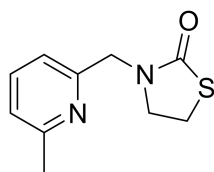


Parameter	Value
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8 Pulse Width	10.0000
9 Spectrometer Frequency	400.13
10 Spectral Width	8012.8
11 Lowest Frequency	-1535.6
12 Nucleus	1H
13 Acquired Size	32768
14 Spectral Size	65536

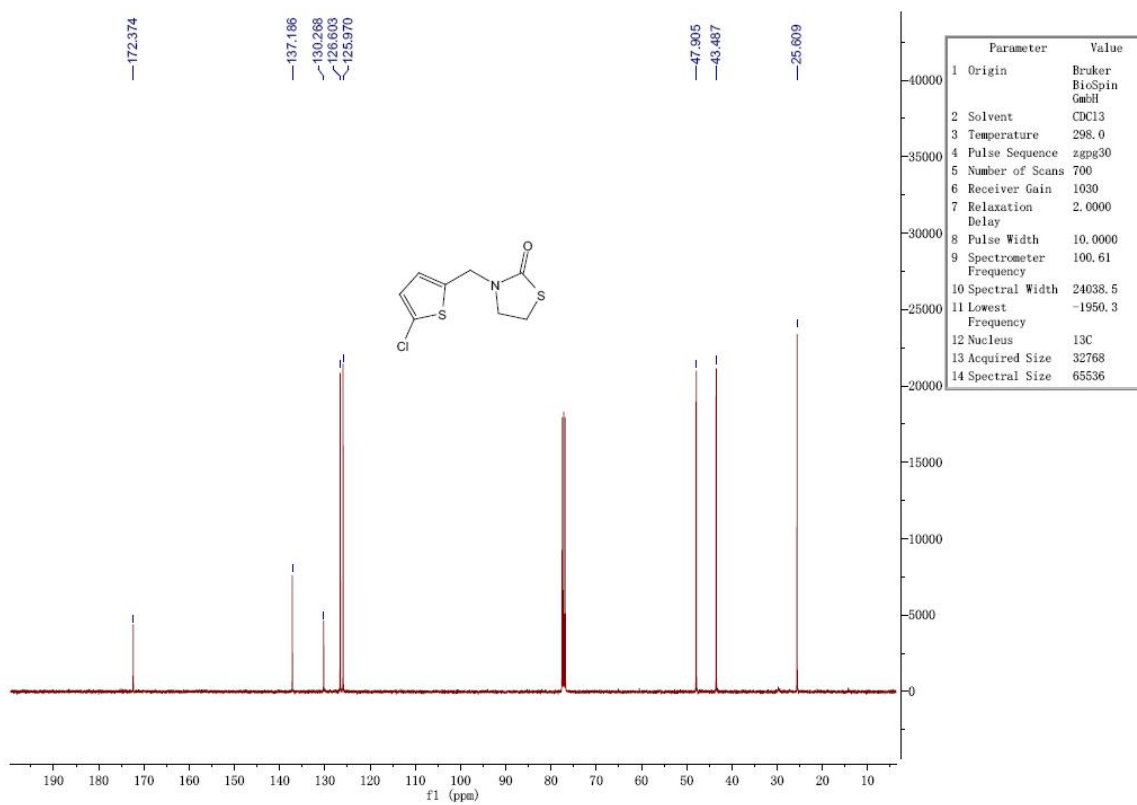
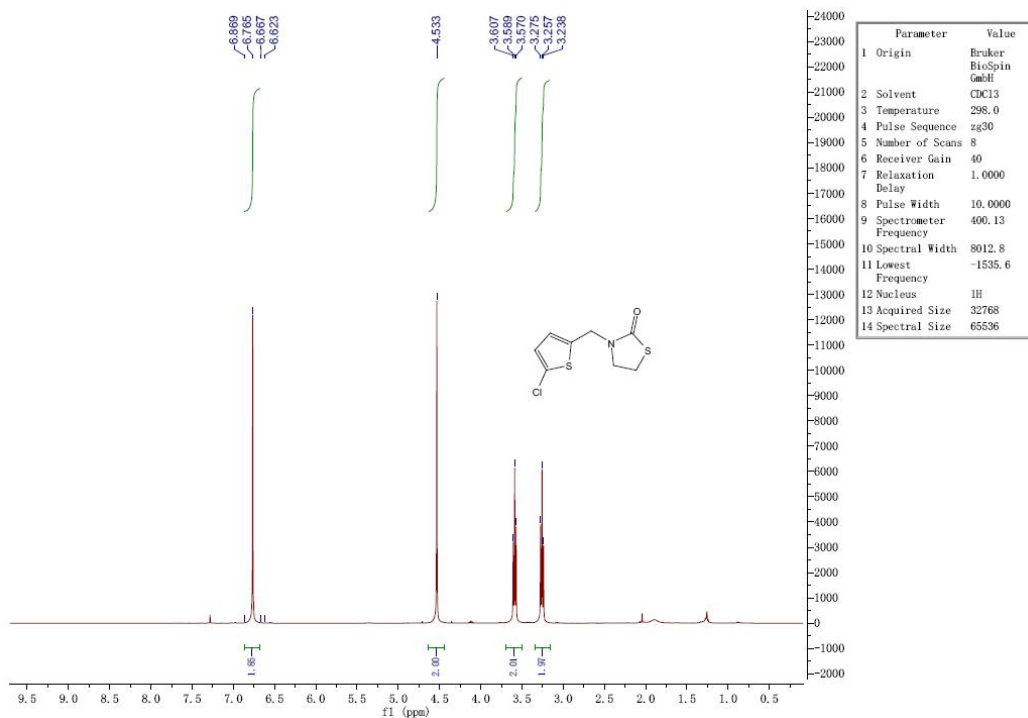
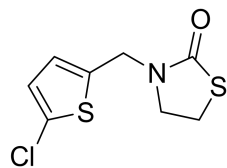


Parameter	Value
1 Origin	Bruker BioSpin GmbH
2 Solvent	CDCl3
3 Temperature	298.1
4 Pulse Sequence	zgpg30
5 Number of Scans	500
6 Receiver Gain	1030
7 Relaxation Delay	2.0000
8 Pulse Width	10.0000
9 Spectrometer Frequency	100.62
10 Spectral Width	24038.5
11 Lowest Frequency	-1958.0
12 Nucleus	13C
13 Acquired Size	32768
14 Spectral Size	65536

3-((6-methylpyridin-2-yl)methyl)thiazolidin-2-one (5j)



3-((5-chlorothiophen-2-yl)methyl)thiazolidin-2-one (5k)



2-(dibenzylamino)ethanol (6)

