Electronic Supporting Information

Alkene as Hydrogen Trapper to Control the *Regio*-Selective Ruthenium(II) Catalyzed *ortho* C-H Silylation of Amides and Anilides

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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.

^{1}H NMR spectra were recorded in $CDCl_3$ at ambient temperature on Bruker AVANCE I 300, 400, 500 or 600 spectrometers at 300.1, 400.1, 500.1 or 600.1 MHz, using the solvent as internal standard (7.26 ppm). ^{13}C NMR spectra were obtained at 75, 100, 125 or 151 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-7890A (Agilent) 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 N_2/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).

Compounds **2m** were collected at 100 K on a Rigaku Oxford Diffraction Supernova Dual Source, Cu at Zero equipped with an AtlasS2 CCD using Cu Kα radiation. Data reduction was carried out with the diffractometer's software.

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.

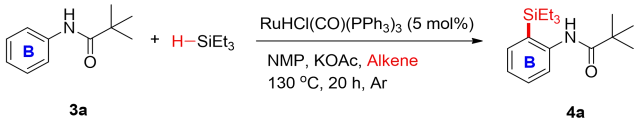
General procedure for $RuHCl(CO)(PPh_3)_3$ catalyzed selective C-H mono-silylation of amide derivatives with hydrosilane

$Ru(PPh_3)_3(CO)HCl$ (0.025 mmol, 23.8 mg), amide (0.5 mmol), triethylsilane (2.0 mmol), KOAc (0.25 mmol, 25 mg), norbornylene (2.0 mmol, 188 mg) and toluene (2 mL) were introduced in a tube under N_2, equipped with magnetic stirring bar and was stirred at 120 °C. After 20 or 36 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 $RuHCl(CO)(PPh_3)_3$ catalyzed selective C-H mono-silylation of anilide derivatives with hydrosilane

$Ru(PPh_3)_3(CO)HCl$ (0.0125 mmol, 11.9 mg), anilide (0.25 mmol), triethylsilane (1.0 mmol), KOAc (0.125 mmol, 12.5 mg), MSE (1.0 mmol, 130 μL) and NMP (1 mL) were introduced in a tube under N_2, equipped with magnetic stirring bar and was stirred at 120 °C. After 20 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.

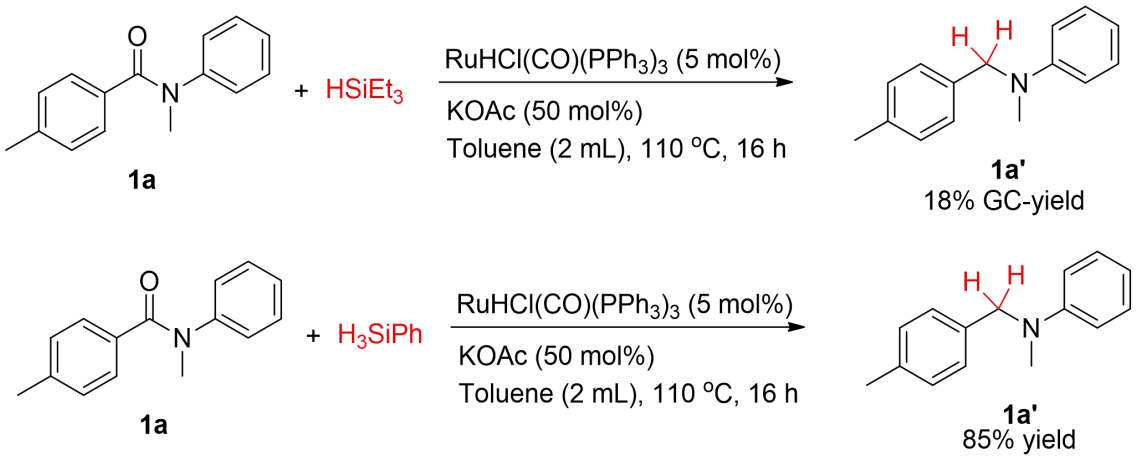
Table 1. Optimization of Ru(II)-catalyzed *ortho* C-H silylation of anilide **3a**



3a 4a

entry	Alkene	additive	solvent	GC-yield (%)
1	NBE	KOAc	NMP	9
2	TBE	KOAc	NMP	29
3	DTBP	KOAc	NMP	9
4	TMBE	KOAc	NMP	14
5	NBD	KOAc	NMP	5
6	MSE	KOAc	NMP	53
7	MSE	KOAc	NMP	60[b] (57[c])
8	MSE	KOPiv	NMP	51
9	MSE	KOPiv	Heptane	5
10	MSE	KOAc	DCE	0
11	MSE	KOAc	1,4-dioxane	0
12	MSE	KOAc	toluene	8

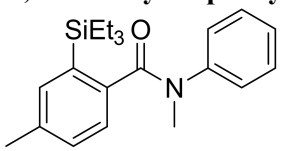
[a]anilide **3a** (0.25 mmol), Et_3SiH (1.0 mmol), $RuHCl(CO)(PPh_3)_3$ (5 mol%), KOAc (0.125 mmol), alkene (1.0 mmol), NMP (0.5 mL), at 130 °C for 20 h, under N_2. [b] NMP (1 mL), 120 °C. [c] Isolated yield of **4a**.



Scheme S1. Ruthenium catalyzed reduction of amide **1a**.

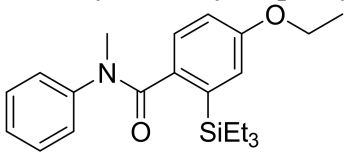
Characterization data of substrates

N,4-dimethyl-N-phenyl-2-(triethylsilyl)benzamide (2a)



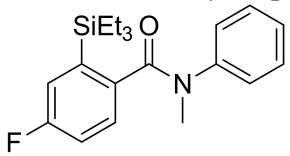
Green oil, yield = 78%, 132 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.36-6.88 (m, 8H), 3.47 (s, 3H), 2.30 (s, 3H), 1.03-0.94 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 172.2, 139.6, 137.5, 136.7, 129.1, 129.0, 128.9, 128.4, 127.4, 126.5, 126.2, 38.5, 21.6, 7.8, 3.9. HRMS (EI): *m/z* calcd for $C_{21}H_{30}NOSi$ $[M+H]^+$ 340.2091, found 340.2094.

4-ethoxy-N-methyl-N-phenyl-2-(triethylsilyl)benzamide (2b)



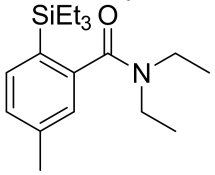
Brown oil, yield = 72%, 133 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.28-7.24 (m, 2H), 7.15-7.08 (m, 4H), 6.90 (brs, 1H), 6.55 (brs, 1H), 4.00-3.96 (m, 2H), 3.47 (s, 3H), 1.40 (t, 3H, *J* = 7.0 Hz), 1.03-0.94 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 172.0, 158.3, 145.0, 139.4, 134.5, 129.9, 129.1, 126.6, 126.2, 122.6, 112.5, 63.3, 38.8, 14.9, 7.9, 3.9. HRMS (EI): *m/z* calcd for $C_{22}H_{32}NO_2Si$ $[M+H]^+$ 370.2197, found 370.2199.

4-fluoro-N-methyl-N-phenyl-2-(triethylsilyl)benzamide (2c)



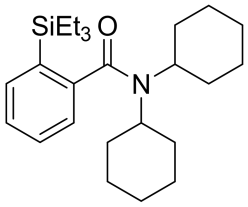
Brown oil, yield = 52%, 89 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.34-6.71 (m, 8H), 3.48 (s, 3H), 1.03-0.95 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 171.2, 163.1, 161.1, 144.5, 141.2, 138.4, 130.2, 129.3, 126.6 (J_{CF} = 8.8 Hz), 122.6 (J_{CF} = 18.9 Hz), 114.6, 38.3, 7.8, 3.8. ^{19}F NMR (470 MHz, $CDCl_3$): δ = 112.8 Hz. HRMS (EI): *m/z* calcd for $C_{20}H_{27}NOFSi$ $[M+H]^+$ 344.1840, found 344.1841.

N,N-diethyl-5-methyl-2-(triethylsilyl)benzamide (2d)



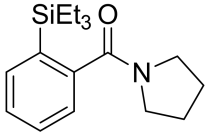
Light yellow oil, yield = 70%, 107 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.46 (d, 1H, *J* = 7.5 Hz), 7.17 (d, 1H, *J* = 7.5 Hz), 7.03 (s, 1H), 3.56 (d, 2H, *J* = 7.0 Hz), 3.18 (d, 2H, *J* = 7.0 Hz), 2.35 (s, 3H), 1.29 (t, 3H, *J* = 7.0 Hz), 1.12 (t, 3H, *J* = 7.0 Hz), 0.93 (t, 9H, *J* = 8.0 Hz), 0.84-0.79 (m, 6H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 172.6, 143.6, 138.4, 136.2, 130.9, 128.6, 126.6, 43.6, 39.0, 21.4, 13.9, 12.8, 7.6, 3.6. HRMS (EI): *m/z* calcd for $C_{18}H_{32}NOSi$ $[M+H]^+$ 306.2248, found 306.2249.

N,N-dicyclohexyl-2-(triethylsilyl)benzamide (2e)



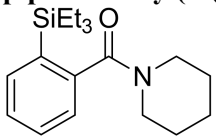
Light yellow oil, yield = 60%, 121 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 7.58-7.56 (m, 1H), 7.33-7.28 (m, 2H), 7.16-7.14 (m, 1H), 3.27 (t, 1H, *J* = 11.6 Hz), 3.02 (t, 1H, *J* = 12.0 Hz), 2.78-2.61 (m, 2H), 1.85-1.45 (m, 12H), 1.31-1.28 (m, 4H), 1.09-0.86 (m, 17H). ^{13}C{^{1}H} NMR (100 MHz, $CDCl_3$): δ = 172.7, 145.2, 136.2, 135.0, 128.2, 127.4, 125.3, 59.9, 56.3, 31.3, 26.9, 25.8, 25.5, 7.7, 3.9. HRMS (EI): *m/z* calcd for $C_{25}H_{42}NOSi$ $[M+H]^+$ 400.3036, found 400.3010.

pyrrolidin-1-yl(2-(triethylsilyl)phenyl)methanone (2f)



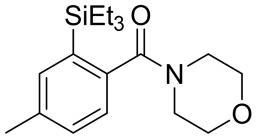
Colorless oil, yield = 52%, 75 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.59-7.56 (m, 1H), 7.36-7.24 (m, 3H), 3.63 (t, 2H, *J* = 6.6 Hz), 3.23 (t, 2H, *J* = 6.6 Hz), 1.99-1.83 (m, 4H), 0.97-0.81 (m, 15H). ^{13}C{^{1}H} NMR (75 MHz, $CDCl_3$): δ = 171.1, 144.2, 136.1, 134.8, 128.5, 127.9, 126.1, 49.5, 45.8, 26.2, 24.7, 7.6, 3.6. HRMS (EI): *m/z* calcd for $C_{27}H_{28}NOSi$ $[M+H]^+$ 290.1940, found 290.1921.

piperidin-1-yl(2-(triethylsilyl)phenyl)methanone (2g)



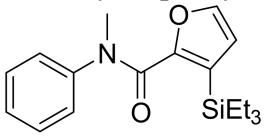
Colorless oil, yield = 67%, 102 mg, ^{1}H NMR (600 MHz, $CDCl_3$): δ = 7.57-7.55 (m, 1H), 7.34-7.32 (m, 2H), 7.18-7.17 (m, 1H), 1.67-1.63 (m, 6H), 1.53-1.44 (m, 2H), 1.28-1.19 (m, 2H), 0.92 (t, 9H, *J* = 7.8 Hz), 0.89-0.82 (m, 6H). ^{13}C{^{1}H} NMR (150 MHz, $CDCl_3$): δ = 171.4, 143.1, 136.2, 135.3, 128.5, 127.8, 126.0, 48.7, 42.6, 26.3, 25.7, 24.8, 7.7, 3.7. HRMS (EI): *m/z* calcd for $C_{18}H_{30}NOSi$ $[M+H]^+$ 304.2091, found 304.2093.

(4-methyl-2-(triethylsilyl)phenyl)(morpholino)methanone (2h)



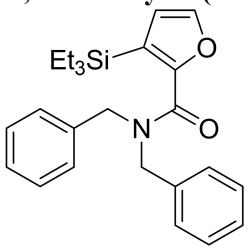
White solid, yield = 78%, 124 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.38 (s, 1H), 7.18-7.16 (m, 1H), 7.09 (d, 1H, *J* = 7.5 Hz), 3.88-3.71 (m, 4H), 3.62 (t, 2H, *J* = 4.5 Hz), 3.44-3.24 (m, 2H), 2.38 (s, 3H), 0.95 (t, 9H, *J* = 8.0 Hz), 0.86-0.82 (m, 6H). ^{13}C{^{1}H} NMR (125 MHz, $CDCl_3$): δ = 171.8, 138.9, 137.8, 137.1, 135.7, 129.1, 126.3, 66.9, 66.7, 48.1, 42.1, 21.6, 7.7, 3.7. HRMS (EI): *m/z* calcd for $C_{18}H_{30}NO_2Si$ $[M+H]^+$ 320.2040, found 320.2042.

N-methyl-N-phenyl-3-(triethylsilyl)furan-2-carboxamide (2i)



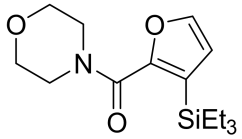
Green solid, yield = 83%, 131 mg, ^{1}H NMR (600 MHz, $CDCl_3$): δ = 7.30-7.28 (m, 2H), 7.21-7.18 (m, 1H), 7.08-7.03 (m, 3H), 6.31 (s, 1H), 3.43 (s, 3H), 0.97 (t, 9H, *J* = 7.8 Hz), 0.90-0.86 (m, 6H). ^{13}C{^{1}H} NMR (150 MHz, $CDCl_3$): δ = 161.3, 152.2, 144.8, 142.4, 129.1, 126.5, 126.1, 123.2, 116.7, 38.5, 7.7, 3.5. HRMS (EI): *m/z* calcd for $C_{18}H_{26}NO_2Si$ $[M+H]^+$ 316.1727, found 316.1729.

N,N-dibenzyl-3-(triethylsilyl)furan-2-carboxamide (2j)



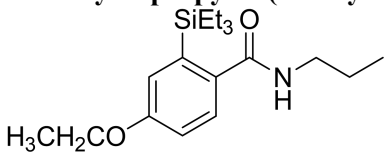
Colorless oil, yield = 88%, 178 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.44-7.34 (m, 11H), 6.52 (d, 1H, *J* = 1.5 Hz), 4.66 (s, 2H), 4.60 (s, 2H), 0.96-0.91 (m, 15H). ^{13}C{^{1}H} NMR (125 MHz, $CDCl_3$): δ = 162.5, 152.3, 142.3, 137.0, 128.8, 128.7, 127.8, 127.7, 127.6, 122.9, 117.1, 50.9, 47.8, 7.7, 3.5. HRMS (EI): *m/z* calcd for $C_{25}H_{32}NO_2Si$ $[M+H]^+$ 406.2202, found 406.2199.

morpholino(3-(triethylsilyl)furan-2-yl)methanone (2k)



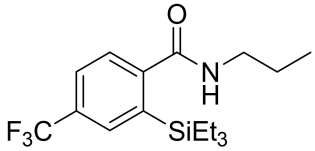
Red oil, yield = 85%, 125 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.45 (d, 1H, *J* = 1.5 Hz), 8.45 (d, 1H, *J* = 1.5 Hz), 3.72-3.63 (m, 8H), 0.93 (t, 9H, *J* = 8.5 Hz), 0.84-0.79 (m, 6H). ^{13}C{^{1}H} NMR (125 MHz, $CDCl_3$): δ = 161.0, 151.8, 142.2, 122.2, 116.8, 67.2, 47.5, 43.1, 7.6, 3.5. HRMS (EI): *m/z* calcd for $C_{15}H_{26}NO_3Si$ $[M+H]^+$ 296.1676, found 296.1678.

4-ethoxy-N-propyl-2-(triethylsilyl)benzamide (2l)



Light yellow solid, yield = 77%, 124 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.40 (d, 1H, *J* = 8.0 Hz), 7.12 (d, 1H, *J* = 2.5 Hz), 6.83-6.81 (m, 1H), 5.89 (s, 1H), 4.09-4.04 (m, 2H), 3.39-3.35 (m, 2H), 1.66-1.62 (m, 2H), 1.45 (t, 3H, *J* = 7.0 Hz), 0.99 (t, 3H, *J* = 7.5 Hz), 0.96-0.87 (m, 15H). ^{13}C{^{1}H} NMR (125 MHz, $CDCl_3$): δ = 171.1, 159.5, 139.0, 135.6, 128.0, 123.4, 113.1, 63.5, 42.0, 23.0, 14.9, 11.6, 7.9, 4.0. HRMS (EI): *m/z* calcd for $C_{18}H_{31}NO_2NaSi$ $[M+Na]^+$ 344.2016, found 344.2018.

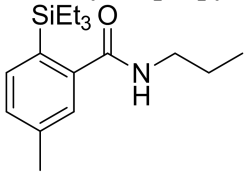
N-propyl-2-(triethylsilyl)-4-(trifluoromethyl)benzamide (2m)



Dark green solid, yield = 67%, 115 mg, ^{1}H NMR (600 MHz, $CDCl_3$): δ = 7.79 (s, 1H), 7.60 (d, 1H, *J* = 7.8 Hz), 7.50 (d, 1H, *J* = 7.8 Hz), 5.91 (s, 1H), 3.41-3.38 (m, 2H), 1.68-1.62 (m, 2H), 0.99 (t, 3H, *J* = 7.2 Hz), 0.95-0.88 (m, 15H). ^{13}C{^{1}H} NMR (150

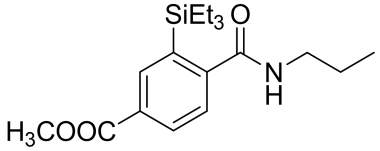
MHz, $CDCl_3$): δ = 170.4, 146.8, 138.3, 132.9 (q, J_{CF} = 3.6 Hz), 130.9 (q, J_{CF} = 32.0 Hz), 126.6, 125.7 (q, J_{CF} = 3.5 Hz), 125.1 (q, J_{CF} = 271.1 Hz), 42.1, 22.9, 11.6, 7.8, 3.8. HRMS (EI): *m/z* calcd for $C_{17}H_{26}NOF_3NaSi$ $[M+Na]^+$ 368.1628, found 368.1630.

5-methyl-N-propyl-2-(triethylsilyl)benzamide (2n)



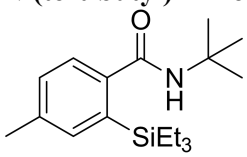
Colorless oil, yield = 55%, 80 mg, ^1H NMR (500 MHz, $CDCl_3$): δ = 7.39 (d, 1H, *J* = 1.5 Hz), 7.34 (d, 1H, *J* = 7.5 Hz), 7.19-7.17 (m, 1H), 5.85 (s, 1H), 3.42-3.38 (m, 2H), 2.39 (s, 3H), 1.68-1.63 (m, 2H), 1.00 (t, 3H, *J* = 7.5 Hz), 0.96-0.87 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 171.6, 140.7, 139.0, 137.4, 136.5, 129.3, 126.4, 42.0, 23.0, 21.7, 11.7, 8.0, 4.0. HRMS (EI): *m/z* calcd for $C_{17}H_{29}NONaSi$ $[M+Na]^+$ 314.1910, found 314.1913.

methyl 4-(propylcarbamoyl)-3-(triethylsilyl)benzoate (2o)



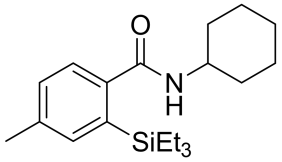
Colorless oil, yield = 75%, 125 mg, ^1H NMR (500 MHz, $CDCl_3$): δ = 8.24 (d, 1H, *J* = 1.5 Hz), 8.01-7.99 (m, 1H), 7.47 (d, 1H, *J* = 8.0 Hz), 6.00 (s, 1H), 3.94 (s, 3H), 3.42-3.38 (m, 2H), 1.68-1.64 (m, 2H), 1.01 (t, 3H, *J* = 7.5 Hz), 0.95-0.90 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 170.8, 167.0, 147.5, 137.5, 137.1, 130.3, 130.0, 126.4, 52.5, 42.0, 22.9, 11.6, 7.8, 3.8. HRMS (EI): *m/z* calcd for $C_{18}H_{29}NO_3NaSi$ $[M+Na]^+$ 358.1809, found 358.1810.

N-(tert-butyl)-4-methyl-2-(triethylsilyl)benzamide (2p)



Colorless oil, yield = 68%, 104 mg, ^1H NMR (600 MHz, $CDCl_3$): δ = 7.35 (s, 1H), 7.28 (d, 1H, *J* = 7.8 Hz), 7.13 (d, 1H, *J* = 7.8 Hz), 5.63 (s, 1H), 2.36 (s, 3H), 1.46 (s, 9H), 0.94-0.89 (m, 15H). $^{13}C\{^1H\}$ NMR (150 MHz, $CDCl_3$): δ = 171.2, 142.0, 138.7, 137.3, 136.3, 129.1, 126.6, 51.7, 29.0, 21.7, 8.0, 4.1. HRMS (EI): *m/z* calcd for $C_{18}H_{32}NOSi$ $[M+H]^+$ 306.2248, found 306.2249.

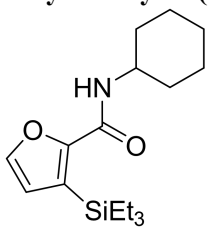
N-cyclohexyl-4-methyl-2-(triethylsilyl)benzamide (2q)



Light yellow solid, yield = 78%, 129 mg, ^1H NMR (600 MHz, $CDCl_3$): δ = 7.37 (s, 1H), 7.29 (d, 1H, *J* = 7.8 Hz), 7.13 (d, 1H, *J* = 7.8 Hz), 5.70 (s, 1H), 3.95-3.90 (m, 1H), 2.36 (s, 3H), 2.04-2.02 (m, 2H), 1.75-1.73 (m, 2H), 1.44-1.42 (m, 2H), 1.26-1.21 (m, 4H), 0.92-0.89 (m, 15H). $^{13}C\{^1H\}$ NMR (150 MHz, $CDCl_3$): δ = 170.7, 140.9, 138.9, 137.3,

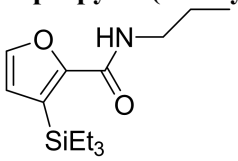
136.4, 129.2, 126.4, 48.7, 33.3, 25.7, 25.0, 21.7, 8.0, 4.1. HRMS (EI): *m/z* calcd for $C_{20}H_{34}NOSi$ $[M+H]^+$ 332.2404, found 332.2405.

N-cyclohexyl-3-(triethylsilyl)furan-2-carboxamide (2r)



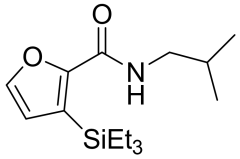
Yellow oil, yield = 82%, 126 mg, ^{1}H NMR (600 MHz, $CDCl_3$): δ = 7.33 (d, 1H, *J* = 0.6 Hz), 6.39 (d, 1H, *J* = 1.2 Hz), 6.25 (s, 1H), 3.87-3.81 (m, 1H), 1.93-1.91 (m, 2H), 1.68-1.65 (m, 2H), 1.35-1.29 (m, 2H), 1.18-1.10 (m, 4H), 0.93-0.79 (m, 15H). $^{13}C\{^1H\}$ NMR (150 MHz, $CDCl_3$): δ = 158.2, 151.8, 142.5, 121.9, 118.0, 47.9, 33.5, 25.7, 25.1, 7.7, 3.4. HRMS (EI): *m/z* calcd for $C_{17}H_{30}NO_2Si$ $[M+H]^+$ 308.2040, found 308.2043.

N-propyl-3-(triethylsilyl)furan-2-carboxamide (2s)



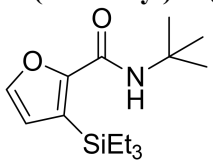
Brown oil, yield = 62%, 83 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.42 (d, 1H, *J* = 2.0 Hz), 6.47 (d, 1H, *J* = 1.5 Hz), 6.46 (s, 1H), 3.39-3.35 (m, 2H), 1.65-1.58 (m, 2H), 0.97-0.88 (m, 18H). $^{13}C\{^1H\}$ NMR (150 MHz, $CDCl_3$): δ = 159.1, 151.8, 142.6, 122.1, 118.0, 41.0, 23.2, 11.5, 7.7, 3.4. HRMS (EI): *m/z* calcd for $C_{15}H_{26}NO_2Si$ $[M+H]^+$ 268.1727, found 268.1728.

N-isobutyl-3-(triethylsilyl)furan-2-carboxamide (2t)



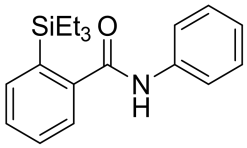
Orange oil, yield = 82%, 115 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.44 (d, 1H, *J* = 1.5 Hz), 6.52 (s, 1H), 6.49 (d, 1H, *J* = 1.5 Hz), 3.25 (t, 2H, *J* = 6.5 Hz), 1.90-1.85 (m, 1H), 0.98 (s, 3H), 0.97 (s, 3H), 0.95-0.88 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 159.1, 151.7, 142.6, 122.0, 118.0, 46.5, 28.9, 20.3, 7.7, 3.4. HRMS (EI): *m/z* calcd for $C_{15}H_{28}NO_2Si$ $[M+H]^+$ 282.1884, found 282.1885.

N-(tert-butyl)-3-(triethylsilyl)furan-2-carboxamide (2u)



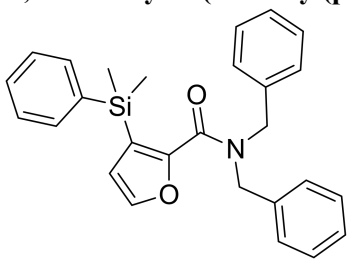
Orange oil, yield = 65%, 91 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.41 (d, 1H, *J* = 1.0 Hz), 6.46 (d, 1H, *J* = 1.5 Hz), 6.28 (s, 1H), 1.46 (s, 9H), 0.96-0.89 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 158.5, 152.6, 142.1, 120.9, 117.9, 51.3, 29.1, 7.8, 3.4. HRMS (EI): *m/z* calcd for $C_{15}H_{28}NO_2Si$ $[M+H]^+$ 282.1884, found 282.1886.

N-phenyl-2-(triethylsilyl)benzamide (2v)



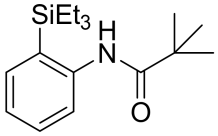
Colorless oil, yield = 40%, 62 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.67-7.39 (m, 8H), 7.19 (t, 1H, *J* = 7.5 Hz), 1.01-0.88 (m, 15H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 169.6, 143.6, 138.2, 136.7, 136.5, 129.6, 129.3, 128.9, 126.4, 124.7, 120.1, 7.8, 4.0. HRMS (EI): *m/z* calcd for $C_{19}H_{26}NOSi$ $[M+H]^+$ 312.1784, found 312.1771.

N,N-dibenzyl-3-(dimethyl(phenyl)silyl)furan-2-carboxamide (2w)



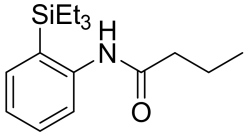
Colorless oil, yield = 64%, 136 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.73-7.71 (m, 1H), 7.48-7.22 (m, 15H), 6.43 (d, 1H, *J* = 1.5 Hz), 4.65 (s, 4H), 0.74 (s, 6H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 161.8, 152.6, 142.4, 138.4, 134.3, 129.1, 128.8, 128.7, 128.5, 127.8, 127.7, 117.3, 50.7, 48.0, 1.9. HRMS (EI): *m/z* calcd for $C_{27}H_{28}NO_2Si$ $[M+H]^+$ 426.1889, found 426.1890.

N-(2-(triethylsilyl)phenyl)pivalamide (4a)



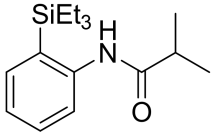
Colorless solid, yield = 57%, 42 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.91 (d, 1H, *J* = 8.1 Hz), 7.45-7.37 (m, 3H), 7.19-7.13 (m, 1H), 1.35 (s, 9H), 1.03-0.86 (m, 15H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.6, 142.9, 135.8, 130.2, 127.9, 124.7, 124.1, 39.7, 27.8, 7.6, 4.1. HRMS (EI): *m/z* calcd for $C_{17}H_{30}NOSi$ $[M+H]^+$ 292.2097, found 292.2088.

N-(2-(triethylsilyl)phenyl)butyramide (4b)



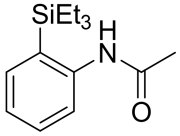
Yellow solid, yield = 40%, 28 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.94 (d, 1H, *J* = 8.1 Hz), 7.44-7.37 (m, 2H), 7.18-7.13 (m, 2H), 2.34 (t, 2H, *J* = 7.5 Hz), 1.84-1.74 (m, 2H), 1.07-0.84 (m, 18H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 171.1, 142.7, 135.8, 130.3, 127.6, 124.7, 123.5, 40.0, 19.2, 14.0, 7.6, 4.3. HRMS (EI): *m/z* calcd for $C_{16}H_{27}NONaSi$ $[M+Na]^+$ 300.1760, found 300.1756.

N-(2-(triethylsilyl)phenyl)isobutyramide (4c)



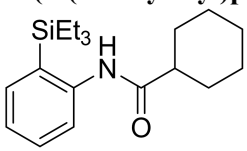
Colorless solid, yield = 39%, 27 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.98 (d, 1H, *J* = 7.8 Hz), 7.44-7.37 (m, 2H), 7.22-7.13 (m, 2H), 2.54-2.45 (m, 1H), 1.29 (d, 6H, *J* = 6.9 H), 1.03-0.97 (m, 9H), 0.93-0.84 (m, 6H). $^{13}C\{^{1}H\}$ NMR (75 MHz, $CDCl_3$): δ = 175.0, 142.9, 135.8, 130.3, 124.6, 123.4, 37.2, 19.8, 7.6, 4.3. HRMS (EI): *m/z* calcd for $C_{16}H_{28}NOSi$ $[M+H]^+$ 278.1940, found 278.1934.

N-(2-(triethylsilyl)phenyl)acetamide (4d)



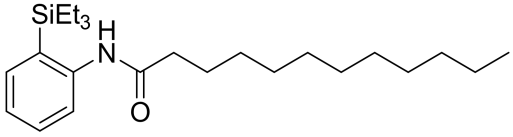
Colorless solid, yield = 37%, 23 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 7.86 (d, 1H, *J* = 8.0 Hz), 7.45-7.39 (m, 2H), 7.20-7.16 (m, 2H), 2.19 (s, 3H), 1.00 (t, 9H, *J* = 7.6 Hz), 0.91-0.85 (m, 6H). $^{13}C\{^{1}H\}$ NMR (100 MHz, $CDCl_3$): δ = 168.2, 142.6, 135.8, 130.3, 128.2, 125.0, 124.0, 24.6, 7.6, 4.3. HRMS (EI): *m/z* calcd for $C_{14}H_{24}NOSi$ $[M+H]^+$ 250.1627, found 250.1620.

N-(2-(triethylsilyl)phenyl)cyclohexanecarboxamide (4e)



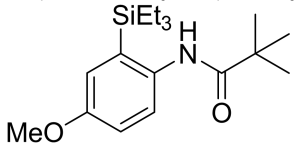
White solid, yield = 42%, 33 mg, ^{1}H NMR (500 MHz, $CDCl_3$): δ = 7.95 (d, 1H, *J* = 8.0 Hz), 7.46-7.38 (m, 2H), 7.19-7.14 (m, 2H), 2.25-2.19 (m, 1H), 2.02-1.99 (m, 2H), 1.90-1.87 (m, 2H), 1.61-1.54 (m, 3H), 1.34-1.28 (m, 3H), 1.04-0.97 (m, 9H), 0.91-0.86 (m, 6H). $^{13}C\{^{1}H\}$ NMR (125 MHz, $CDCl_3$): δ = 174.2, 142.9, 135.8, 130.3, 129.2, 124.7, 123.6, 47.1, 29.9, 25.95, 25.93, 25.88, 7.7, 4.3. HRMS (EI): *m/z* calcd for $C_{19}H_{31}NONaSi$ $[M+Na]^+$ 340.2073, found 340.2071.

N-(2-(triethylsilyl)phenyl)dodecanamide (4f)



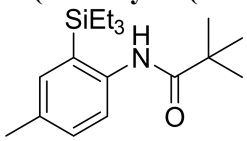
Light yellow oil, yield = 35%, 34 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 7.95 (d, 1H, *J* = 8.0 Hz), 7.44-7.38 (m, 2H), 7.18-7.14 (m, 2H), 2.36 (t, 2H, *J* = 7.6 Hz), 1.78-1.73 (m, 2H), 145-1.28 (m, 16H), 0.99 (t, 9H, *J* = 7.6 Hz), 0.92-0.85 (m, 9H). $^{13}C\{^{1}H\}$ NMR (100 MHz, $CDCl_3$): δ = 171.3, 142.8, 135.8, 130.3, 127.5, 124.7, 123.4, 38.1, 32.1, 29.8, 29.7, 29.6, 29.5, 25.8, 22.9, 14.3, 7.7, 4.3. HRMS (EI): *m/z* calcd for $C_{24}H_{44}NOSi$ $[M+H]^+$ 390.3192, found 390.3181.

N-(4-methoxy-2-(triethylsilyl)phenyl)pivalamide (4g)



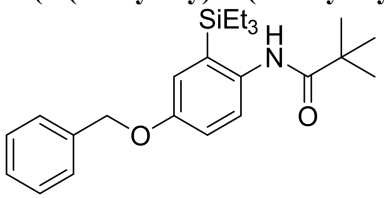
Light yellow solid, yield = 52%, 42 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.66 (d, 1H, *J* = 8.7 Hz), 7.20 (brs, 1H), 6.98-6.89 (m, 2H), 3.81 (s, 3H), 1.34 (s, 9H), 1.01-0.95 (m, 9H), 0.90-0.85 (m, 6H). $^{13}C\{^{1}H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.8, 156.6, 135.7, 131.1, 126.6, 121.6, 114.4, 55.5, 39.5, 27.9, 7.6, 4.0. HRMS (EI): *m/z* calcd for $C_{18}H_{32}NO_2Si$ $[M+H]^+$ 322.2202, found 322.2199.

N-(4-methyl-2-(triethylsilyl)phenyl)pivalamide (4h)



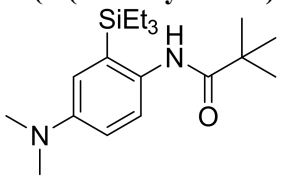
Colorless oil, yield = 52%, 40 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.72 (d, 1H, *J* = 8.1 Hz), 7.28 (s, 1H), 7.21-7.18 (m, 2H), 2.34 (s, 3H), 1.34 (s, 9H), 1.02-0.86 (m, 15H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.7, 140.4, 136.3, 134.1, 130.8, 128.3, 124.5, 39.6, 27.9, 21.2, 7.7, 4.1. HRMS (EI): *m/z* calcd for $C_{18}H_{32}NOSi$ $[M+H]^+$ 306.2253, found 306.2244.

N-(4-(benzyloxy)-2-(triethylsilyl)phenyl)pivalamide (4i)



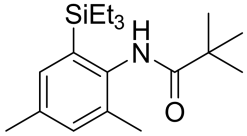
Colorless oil, yield = 58%, 58 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.67 (d, 1H, *J* = 8.7 Hz), 7.48-7.34 (m, 5H), 7.22 (brs, 1H), 7.04-6.98 (m, 2H), 5.07 (s, 2H), 1.34 (s, 9H), 1.01-0.84 (m, 15H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.8, 155.8, 137.2, 135.9, 131.1, 128.7, 128.1, 127.7, 126.5, 122.5, 115.7, 70.4, 39.5, 27.9, 7.6, 4.0. HRMS (EI): *m/z* calcd for $C_{24}H_{36}NO_2Si$ $[M+H]^+$ 398.2515, found 398.2510.

N-(4-(dimethylamino)-2-(triethylsilyl)phenyl)pivalamide (4j)



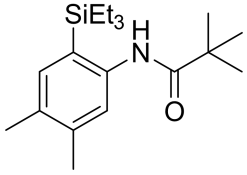
Colorless solid, yield = 44%, 37 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.54 (d, 1H, *J* = 8.7 Hz), 7.15 (brs, 1H), 6.83-6.77 (m, 2H), 2.95 (s, 3H), 1.34 (s, 9H), 1.03-0.85 (m, 15H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.8, 148.0, 130.3, 126.5, 119.8, 114.5, 41.1, 39.4, 27.9, 7.7, 4.2. HRMS (EI): *m/z* calcd for $C_{19}H_{35}N_2OSi$ $[M+H]^+$ 335.2519, found 335.1516.

N-(2,4-dimethyl-6-(triethylsilyl)phenyl)pivalamide (4k)



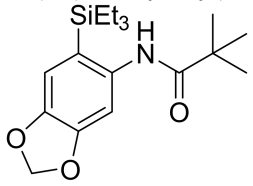
Colorless oil, yield = 41%, 33 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.11 (s, 1H), 7.09 (s, 1H), 7.03 (brs, 1H), 2.33 (s, 3H), 2.15 (s, 3H), 1.36 (s, 9H), 1.00-0.94 (m, 9H), 0.86-0.81 (m, 6H). $^{13}C\{^1H\}$ NMR (75 MHz, $CDCl_3$): δ = 176.4, 138.1, 136.3, 136.1, 134.4, 134.3, 133.1, 39.4, 28.0, 21.2, 18.6, 7.7, 4.1. HRMS (EI): *m/z* calcd for $C_{19}H_{34}NOSi$ $[M+H]^+$ 320.2410, found 320.2407.

N-(4,5-dimethyl-2-(triethylsilyl)phenyl)pivalamide (4l)



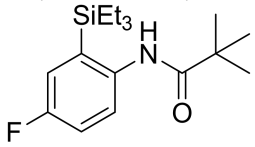
Colorless solid, yield = 48%, 38 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 7.67 (s, 1H), 7.26 (brs, 1H), 7.16 (s, 1H), 2.27 (s, 3H), 2.25 (s, 3H), 1.35 (s, 9H), 1.01-0.97 (m, 9H), 0.90-0.86 (m, 6H). ^{13}C{^{1}H} NMR (100 MHz, $CDCl_3$): δ = 176.6, 140.8, 138.8, 136.7, 133.0, 125.6, 125.1, 39.6, 27.9, 20.0, 19.5, 7.7, 4.2. HRMS (EI): *m/z* calcd for $C_{19}H_{34}NOSi$ $[M+H]^+$ 320.2410, found 320.2400.

N-(6-(triethylsilyl)benzo[d][1,3]dioxol-5-yl)pivalamide (4m)



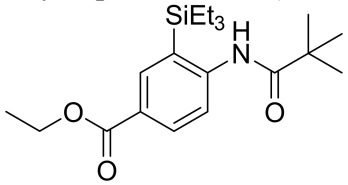
Light yellow solid, yield = 45%, 38 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.32 (s, 1H), 7.23 (brs, 1H), 6.85 (s, 1H), 5.96 (s, 2H), 1.33 (s, 9H), 1.00-0.94 (m, 9H), 0.88-0.82 (m, 6H). ^{13}C{^{1}H} NMR (75 MHz, $CDCl_3$): δ = 176.7, 149.1, 145.2, 137.5, 121.2, 113.7, 107.2, 101.4, 39.6, 27.9, 7.6, 4.1. HRMS (EI): *m/z* calcd for $C_{18}H_{30}NO_3Si$ $[M+H]^+$ 336.1995, found 336.1996.

N-(4-fluoro-2-(triethylsilyl)phenyl)pivalamide (4n)



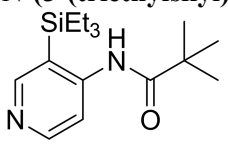
White solid, yield = 56%, 43 mg, ^{1}H NMR (300 MHz, $CDCl_3$): δ = 7.79-7.75 (m, 1H), 7.26 (brs, 1H), 7.12-7.02 (m, 2H), 1.34 (s, 9H), 1.02-0.86 (m, 15H). ^{13}C{^{1}H} NMR (75 MHz, $CDCl_3$): δ = 176.8, 158.3 (J_{CF} = 244.7 Hz), 138.6 (J_{CF} = 2.6 Hz), 131.8 (J_{CF} = 4.0 Hz), 126.7 (J_{CF} = 7.2 Hz), 121.6 (J_{CF} = 20.3 Hz), 116.6 (J_{CF} = 22.2 Hz), 39.6, 27.8, 7.5, 3.9. ^{19}F NMR (376 MHz, $CDCl_3$): δ = 118.1 Hz. HRMS (EI): *m/z* calcd for $C_{17}H_{29}NOFSi$ $[M+H]^+$ 310.2003, found 310.1991.

ethyl 4-pivalamido-3-(triethylsilyl)benzoate (4o)



Light yellow oil, yield = 77%, 70 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 8.21 (d, 1H, *J* = 8.8 Hz), 8.12 (d, 1H, *J* = 2.0 Hz), 8.06-8.03 (m, 1H), 7.52 (brs, 1H), 4.40-4.35 (m, 2H), 1.40 (t, 3H, *J* = 6.8 Hz), 1.35 (s, 9H), 1.01-0.92 (m, 15H). ^{13}C{^{1}H} NMR (100 MHz, $CDCl_3$): δ = 176.9, 166.6, 147.3, 137.5, 131.8, 126.4, 125.9, 122.0, 60.9, 40.0, 27.8, 14.5, 7.5, 4.0. HRMS (EI): *m/z* calcd for $C_{20}H_{34}NO_3Si$ $[M+H]^+$ 364.2308, found 364.2295.

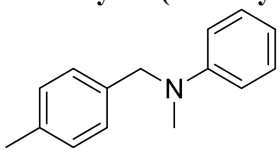
N-(3-(triethylsilyl)pyridin-4-yl)pivalamide (4p)



Orange solid, yield = 80%, 58 mg, ^{1}H NMR (400 MHz, $CDCl_3$): δ = 8.54-8.50 (m, 2H), 8.25 (d, 1H, *J* = 5.6 Hz), 7.49 (brs, 1H), 1.34 (s, 9H), 1.03-0.92 (m, 15H). ^{13}C{^{1}H}

NMR (100 MHz, $CDCl_3$): δ = 177.1, 156.1, 151.8, 150.6, 119.1, 115.1, 40.2, 27.7, 7.4, 4.0. HRMS (EI): *m/z* calcd for $C_{16}H_{28}N_2ONaSi$ $[M+H]^+$ 315.1869, found 315.1859.

N-methyl-N-(4-methylbenzyl)aniline (1a')[1]

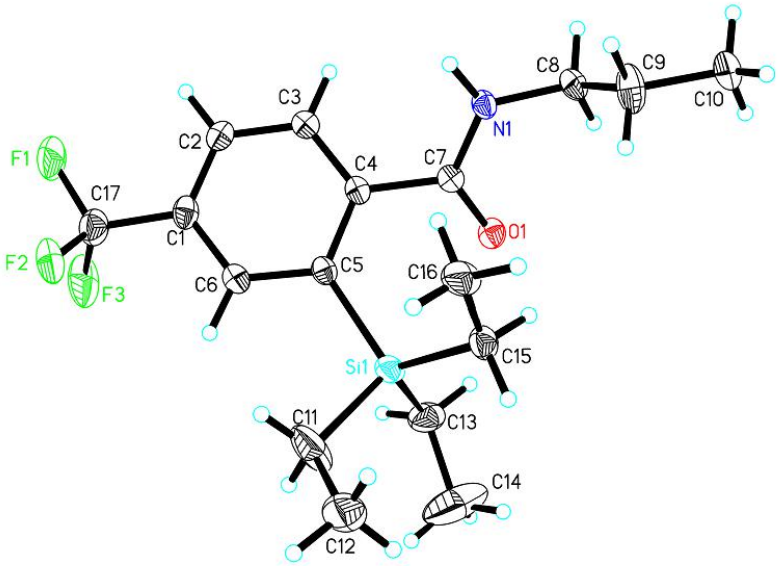


Colorless oil, yield = 85%, 90 mg, ^1H NMR (500 MHz, $CDCl_3$): δ = 7.34-7.23 (m, 6H), 6.87-6.81 (m, 3H), 4.60 (s, 2H), 3.10 (s, 3H), 2.44 (s, 3H). $^{13}C\{^1H\}$ NMR (125 MHz, $CDCl_3$): δ = 149.9, 136.6, 136.0, 129.4, 129.3, 126.9, 116.6, 112.5, 56.5, 38.6, 21.2.

Reference

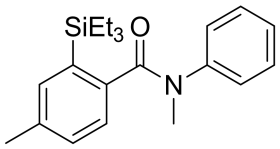
[1] Das, S.; Karmakar, H.; Bhattacharjee, J.; Panda, T. K. *Dalton Trans.* **2019**, *48*, 11978.

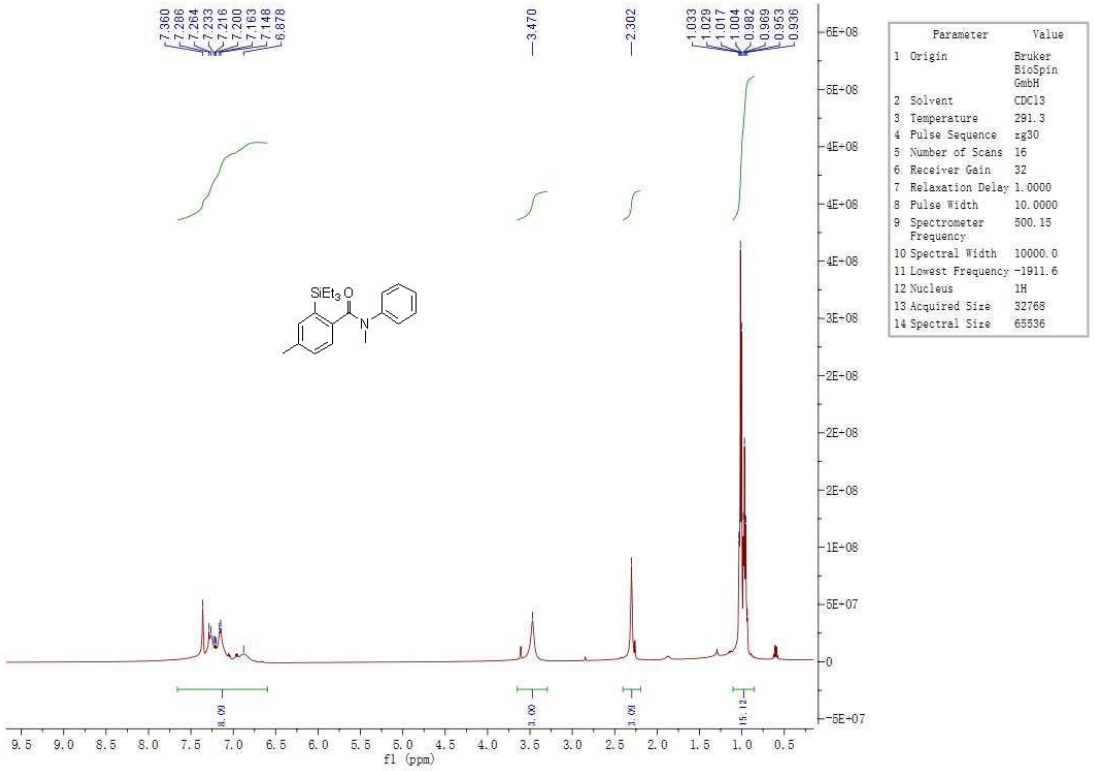
Table of crystallographic data for 2m (CCDC 1940358)



Complex	**2m**
Empirical formula	C17 H25 F3 N O Si
Formula weight	344.47
Temperature/K	120.00(10)
Crystal system	orthorhombic
Space group	$P2_12_12_1$
a/Å	8.2994(4)
b/Å	11.9792(9)
c/Å	18.8409(10)
α/°	90
β/°	90
γ/°	90
Volume/Å^3	1873.17(19)
Z	4
ρ_{calc}g/cm^3	1.221
μ/mm^{-1}	0.155
F(000)	732.0
Crystal size/mm^3	0.15 × 0.14 × 0.12
Radiation	MoKα (λ = 0.71073)
2Θ range for data collection/°	4.03 to 49.992
Index ranges	-9 ≤ h ≤ 9, -11 ≤ k ≤ 14, -22 ≤ l ≤ 20
Reflections collected	11626
Independent reflections	3298 [R_{int} = 0.0406, R_{sigma} = 0.0452]
Data/restraints/parameters	3298/0/222
Goodness-of-fit on F^2	1.017
Final R indexes [I>=2σ (I)]	R_1 = 0.0535, wR_2 = 0.1225
Final R indexes [all data]	R_1 = 0.0651, wR_2 = 0.1303

N,4-dimethyl-N-phenyl-2-(triethylsilyl)benzamide (2a)





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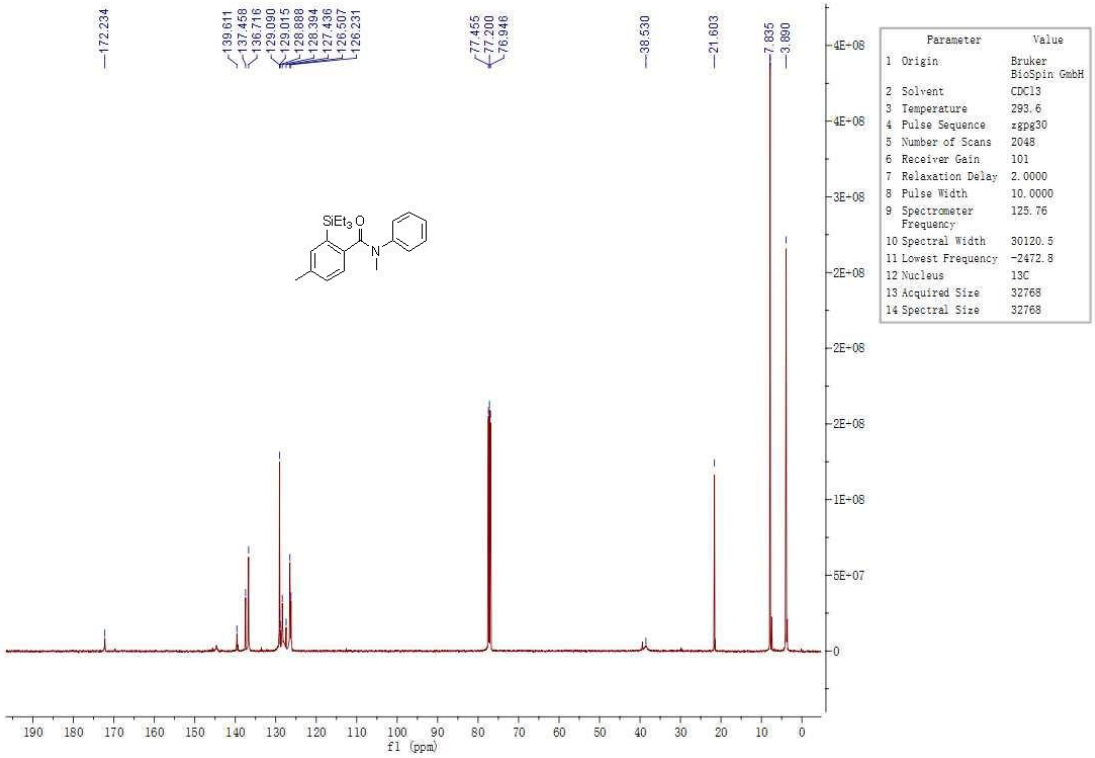
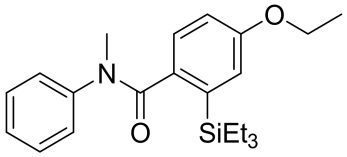
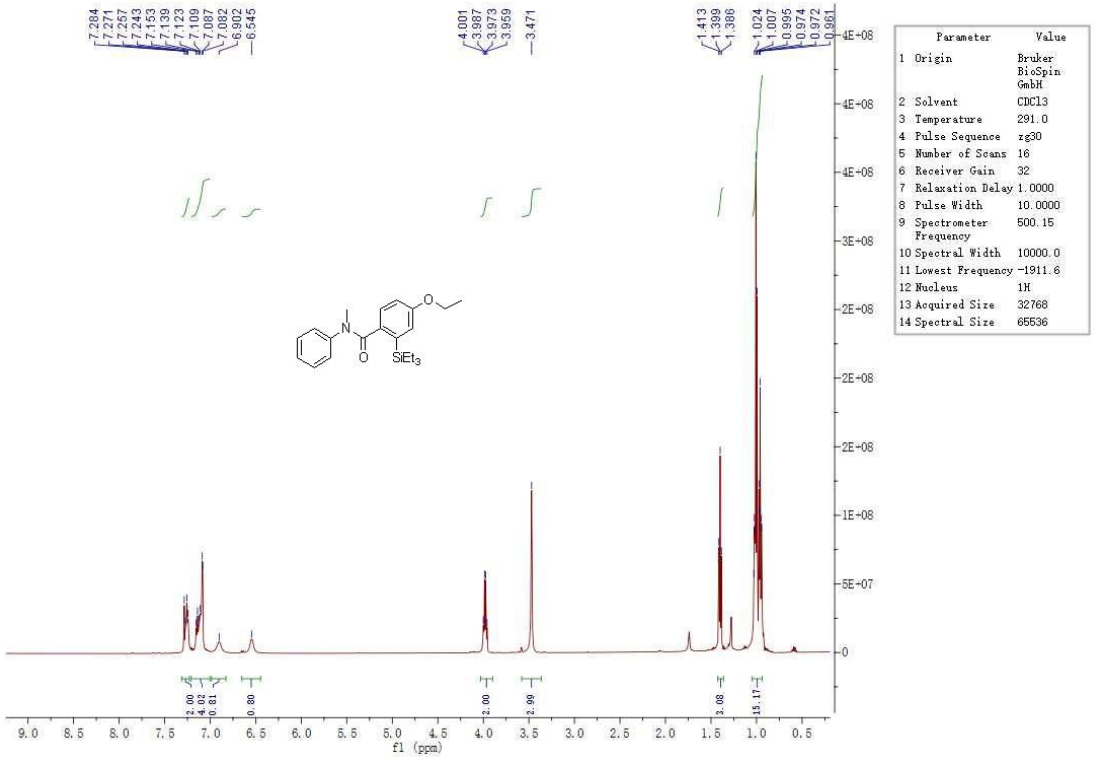
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



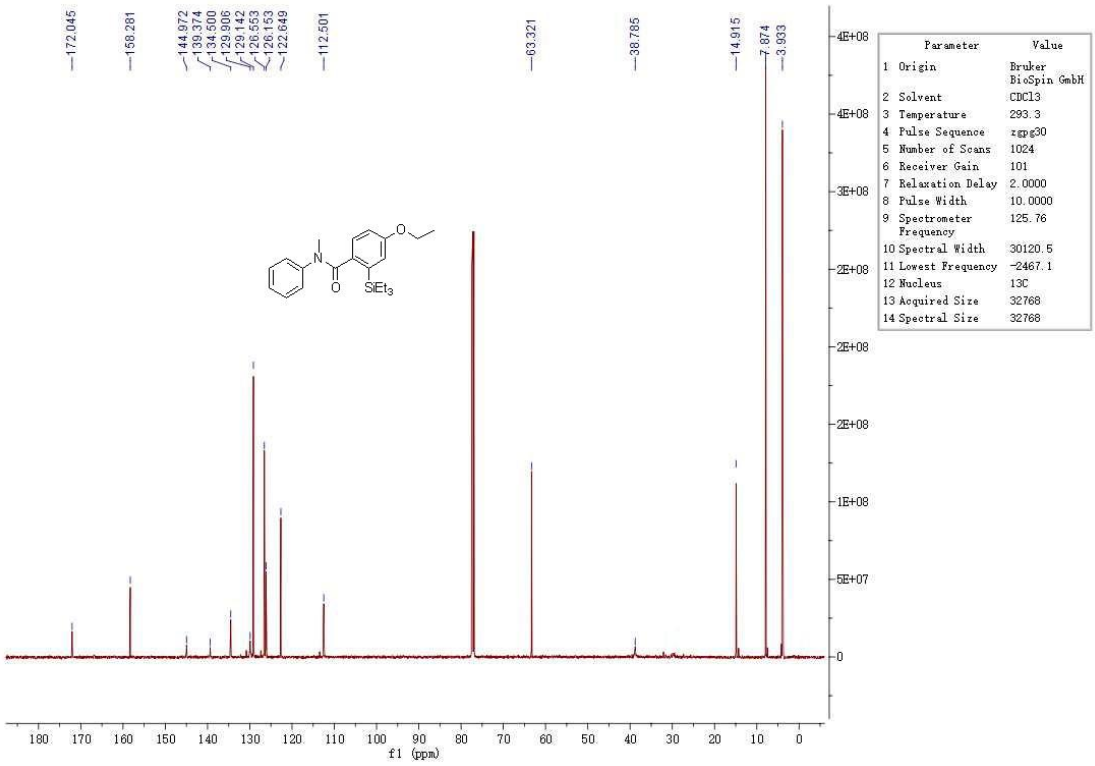
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	293.6
4	Pulse Sequence	zgpg30
5	Number of Scans	2048
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2472.8
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

4-ethoxy-N-methyl-N-phenyl-2-(triethylsilyl)benzamide (2b)



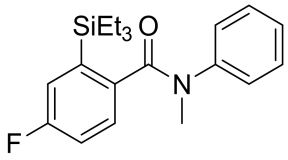


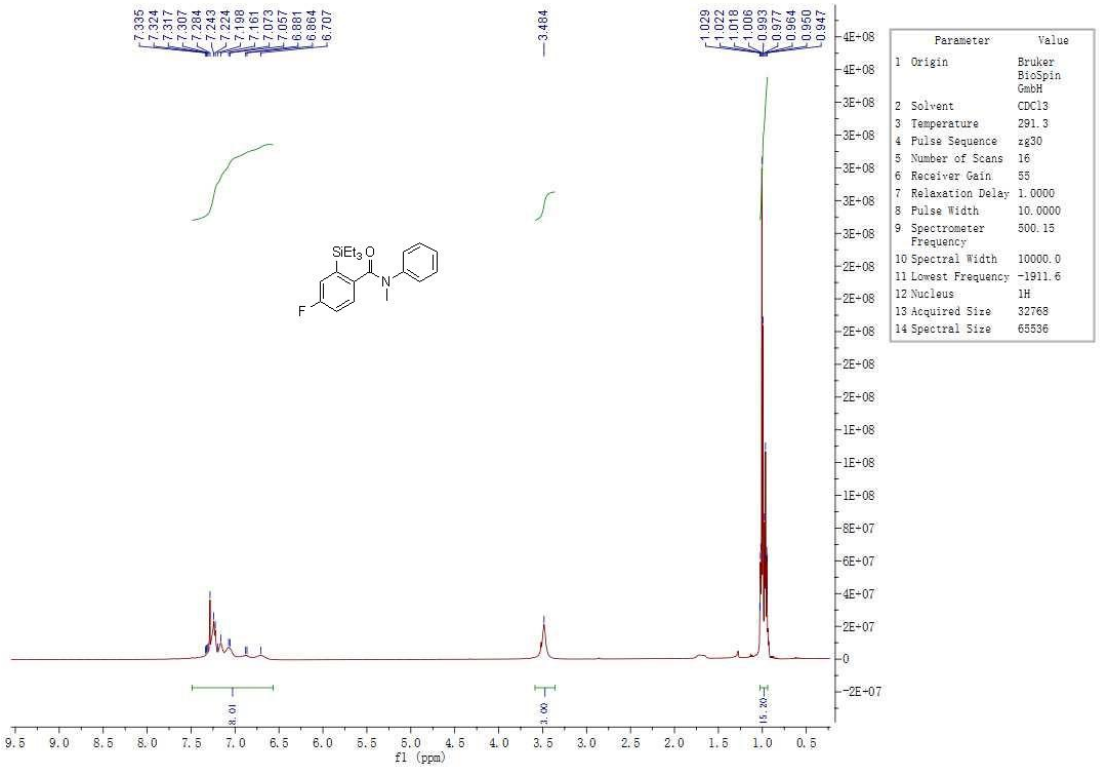
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	291.0
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536

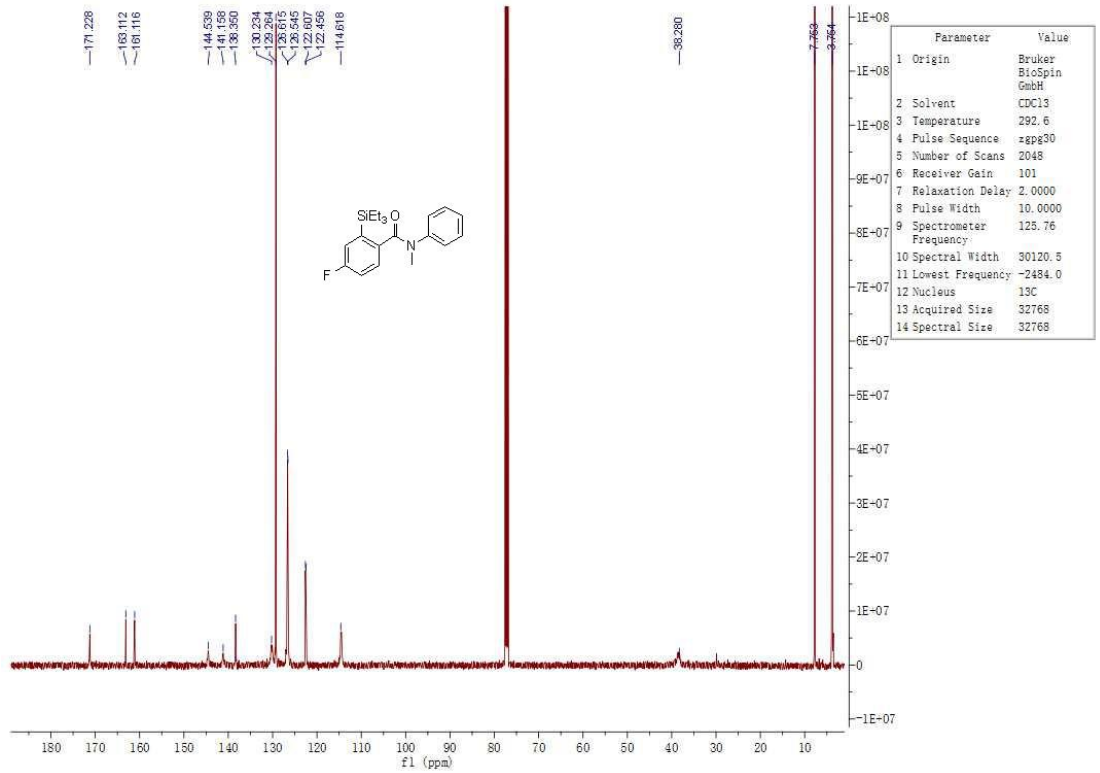


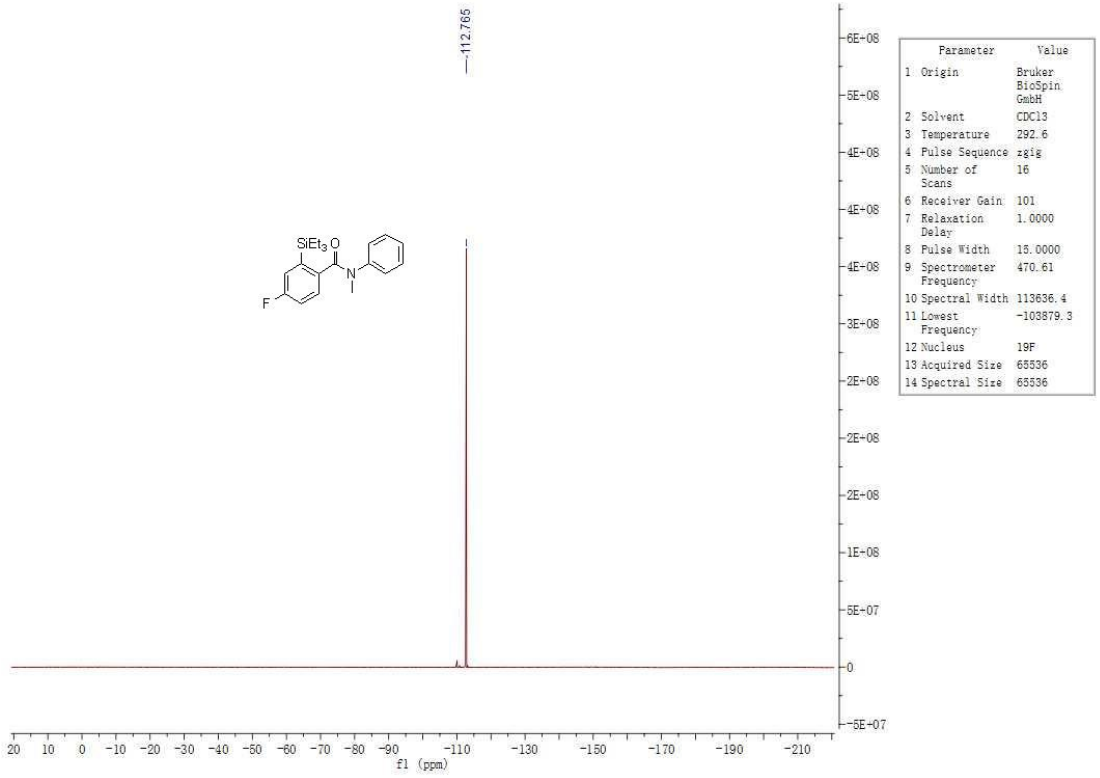
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	293.3
4	Pulse Sequence	zgpg30
5	Number of Scans	1024
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2467.1
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

4-fluoro-N-methyl-N-phenyl-2-(triethylsilyl)benzamide (2c)



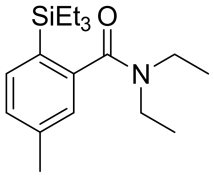


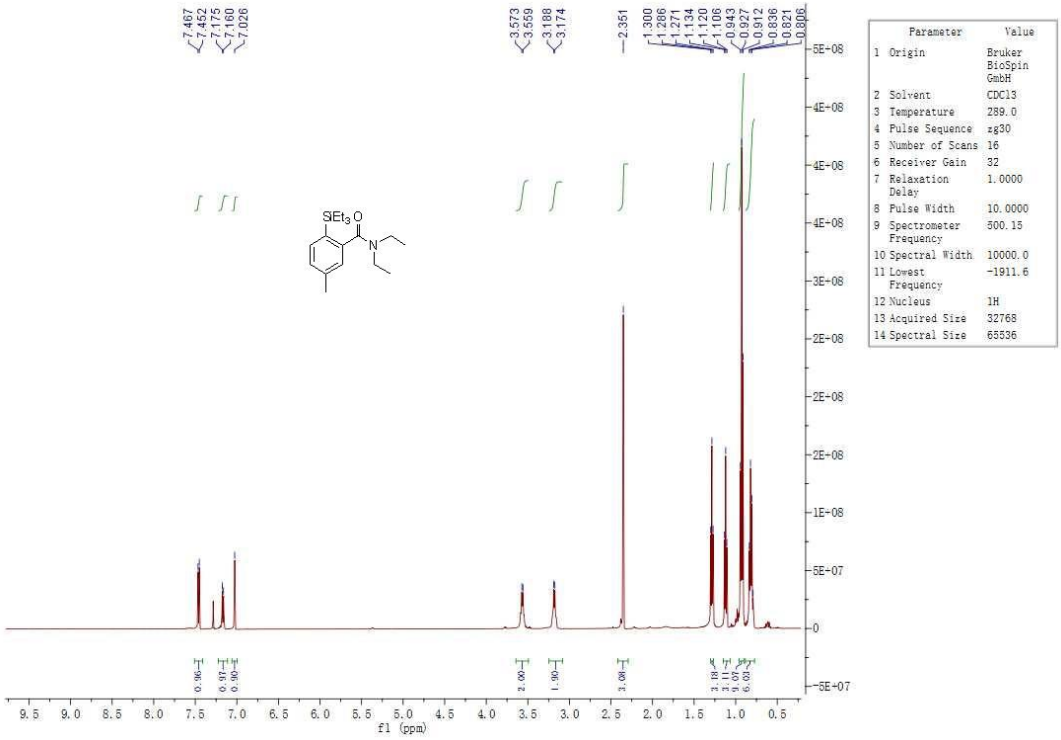




	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	292.6
4	Pulse Sequence	zgig
5	Number of Scans	16
6	Receiver Gain	101
7	Relaxation Delay	1.0000
8	Pulse Width	15.0000
9	Spectrometer Frequency	470.61
10	Spectral Width	113636.4
11	Lowest Frequency	-103879.3
12	Nucleus	19F
13	Acquired Size	65536
14	Spectral Size	65536

N,N-diethyl-5-methyl-2-(triethylsilyl)benzamide (2d)





	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	289.0
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5	Number of Scans	16
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
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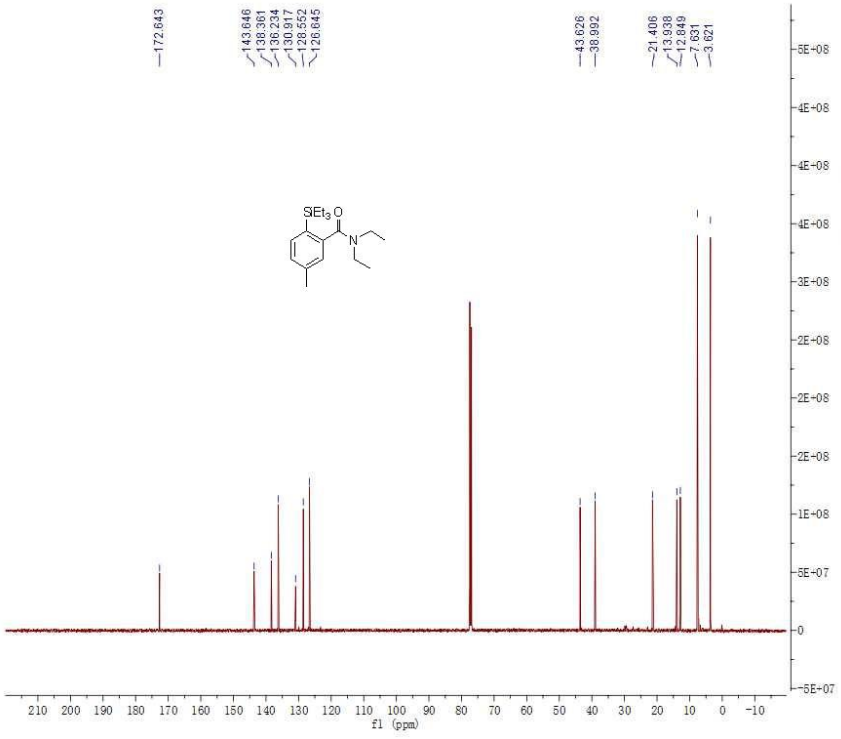
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



	Parameter	Value
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2	Solvent	CDCl3
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4	Pulse Sequence	zgpg30
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6	Receiver Gain	101
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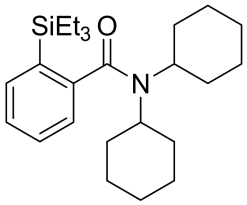
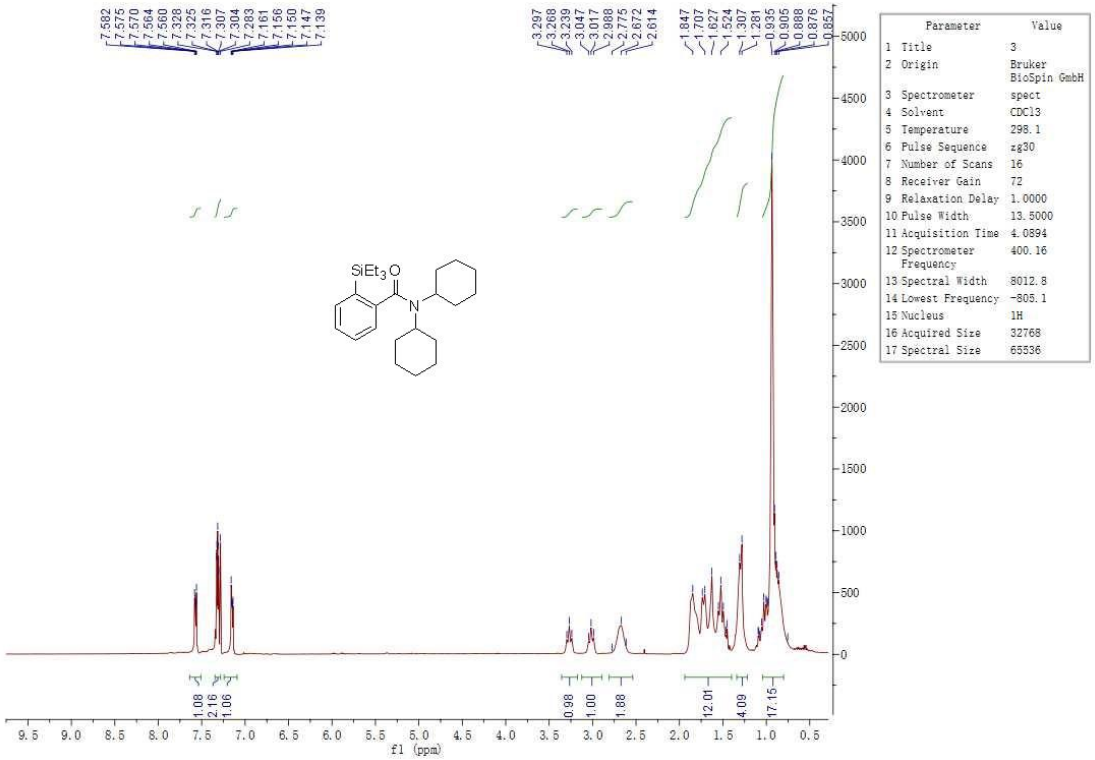
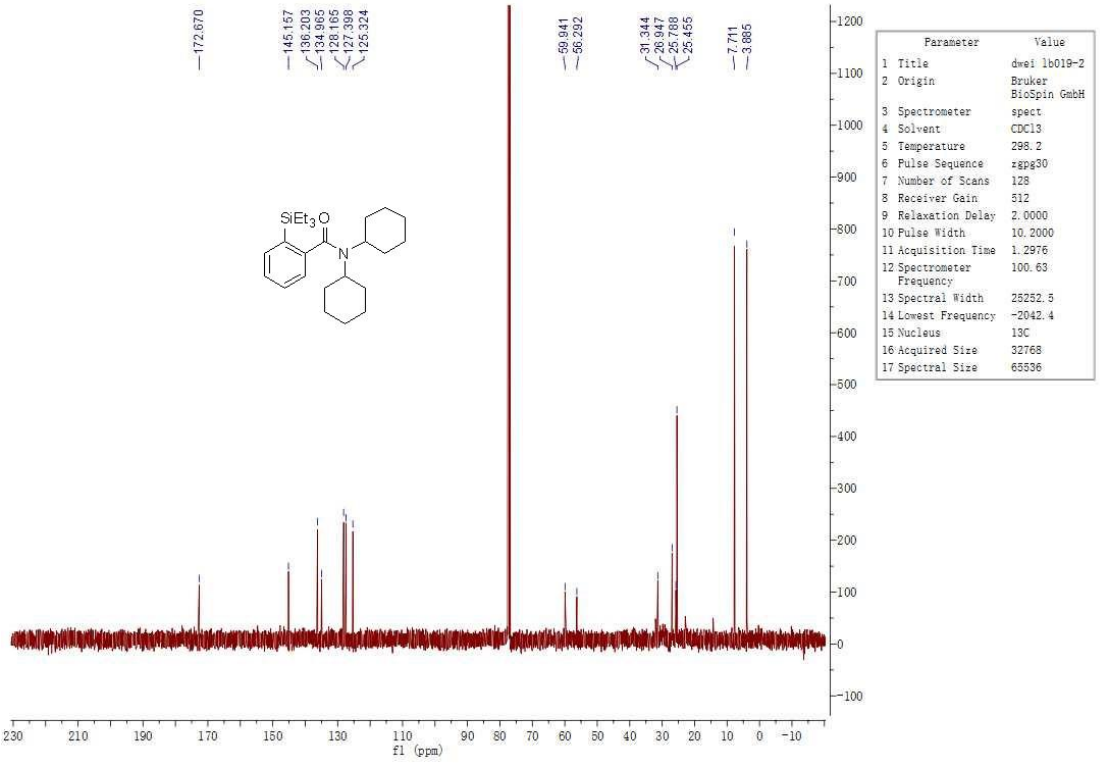
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2484.0
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

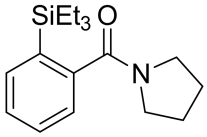
N,N-dicyclohexyl-2-(triethylsilyl)benzamide (2e)

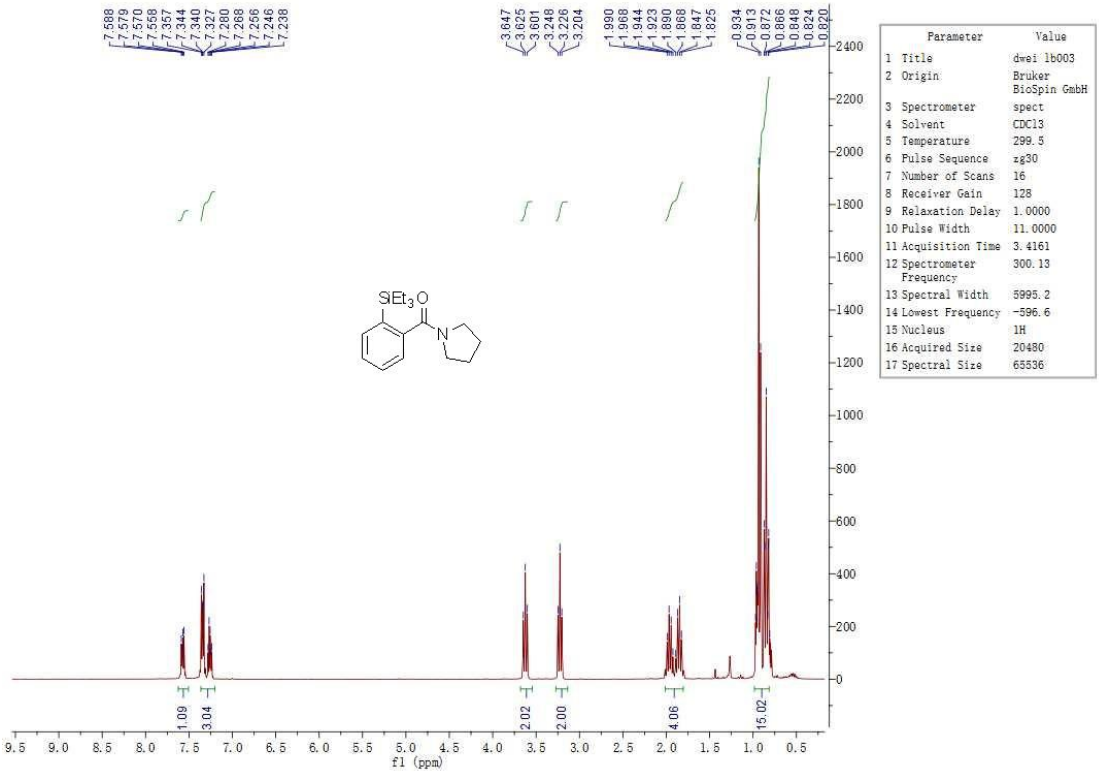


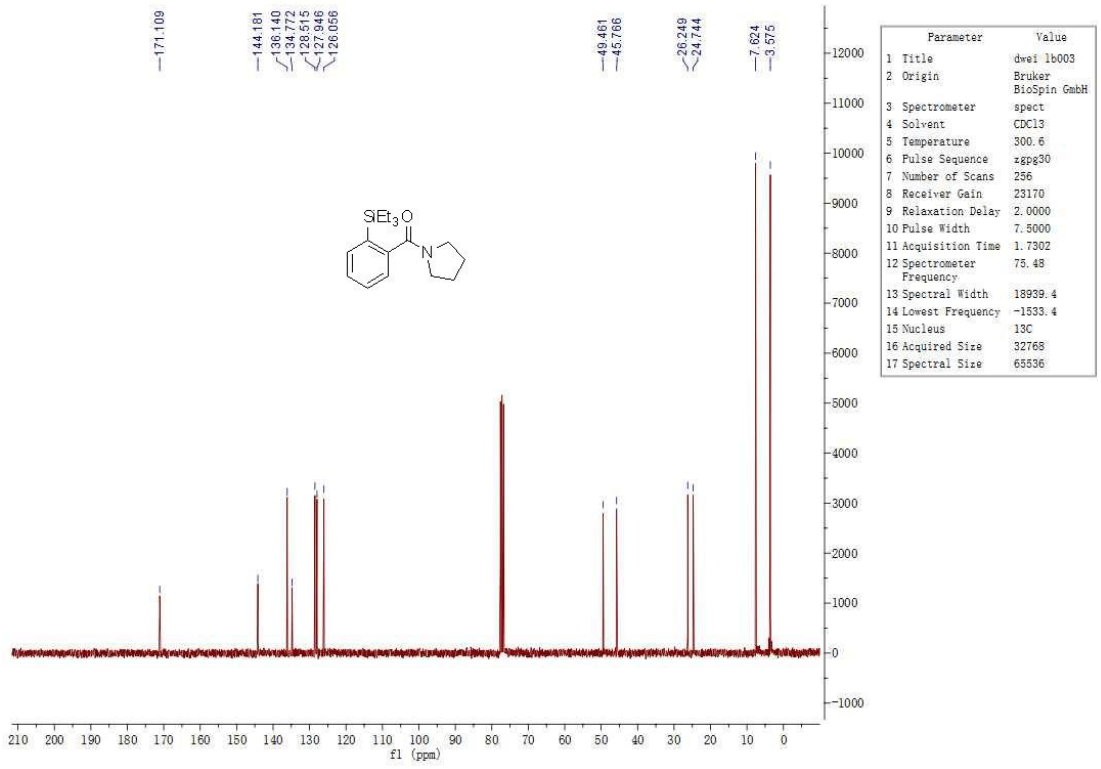




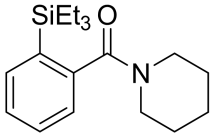
pyrrolidin-1-yl(2-(triethylsilyl)phenyl)methanone (2f)

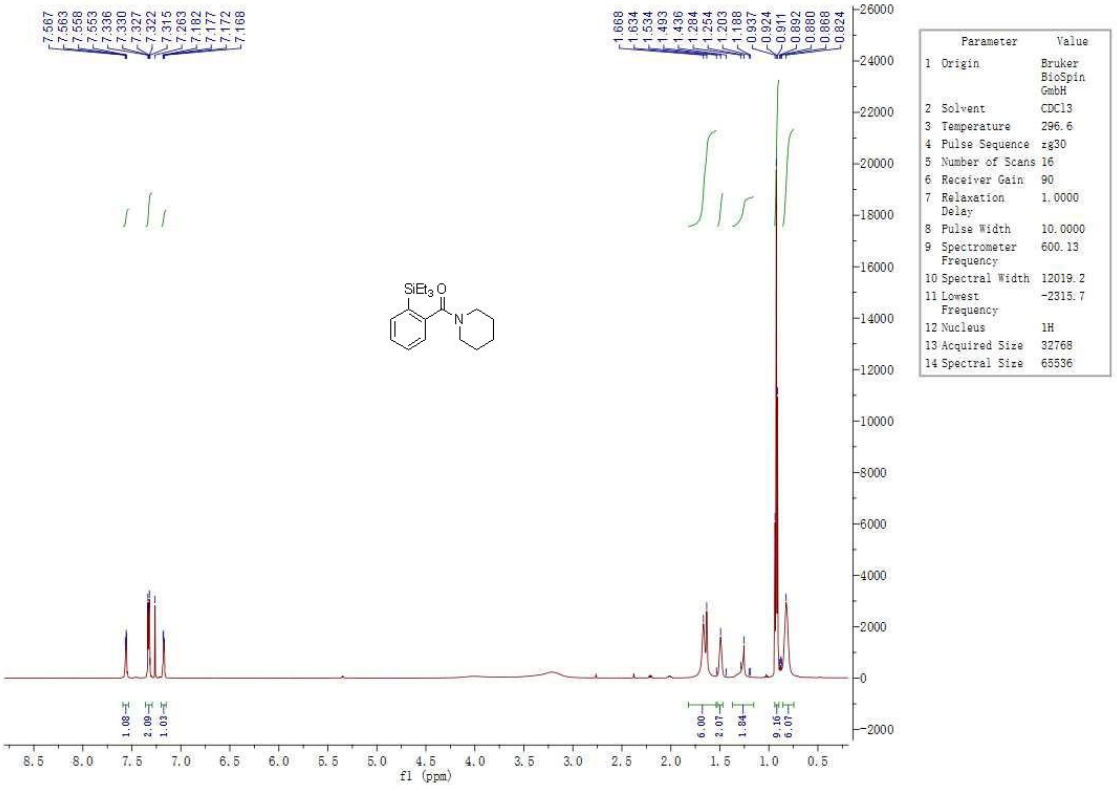


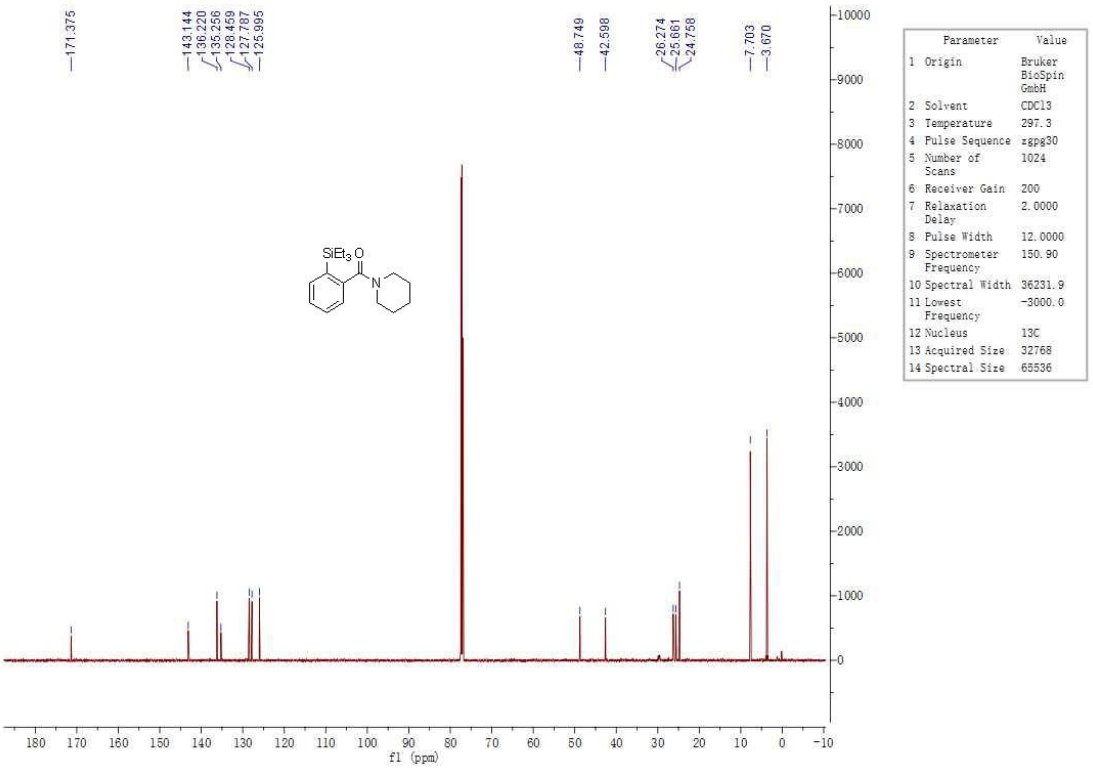




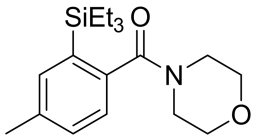
piperidin-1-yl(2-(triethylsilyl)phenyl)methanone (2g)

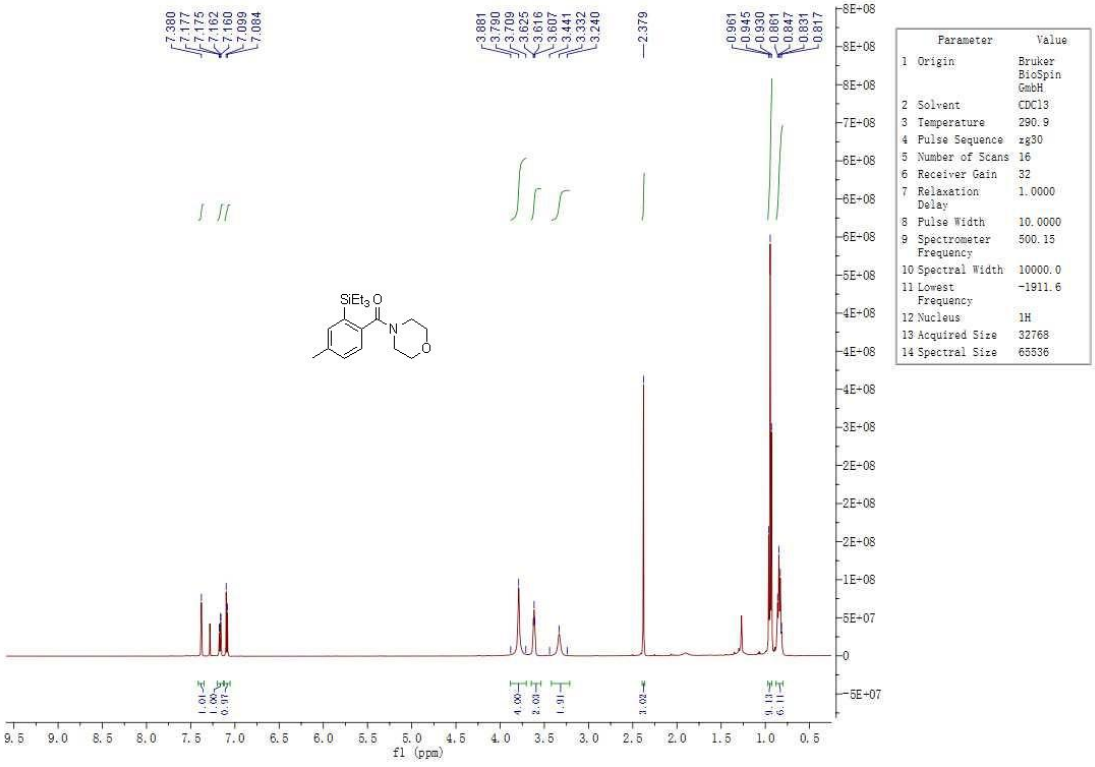


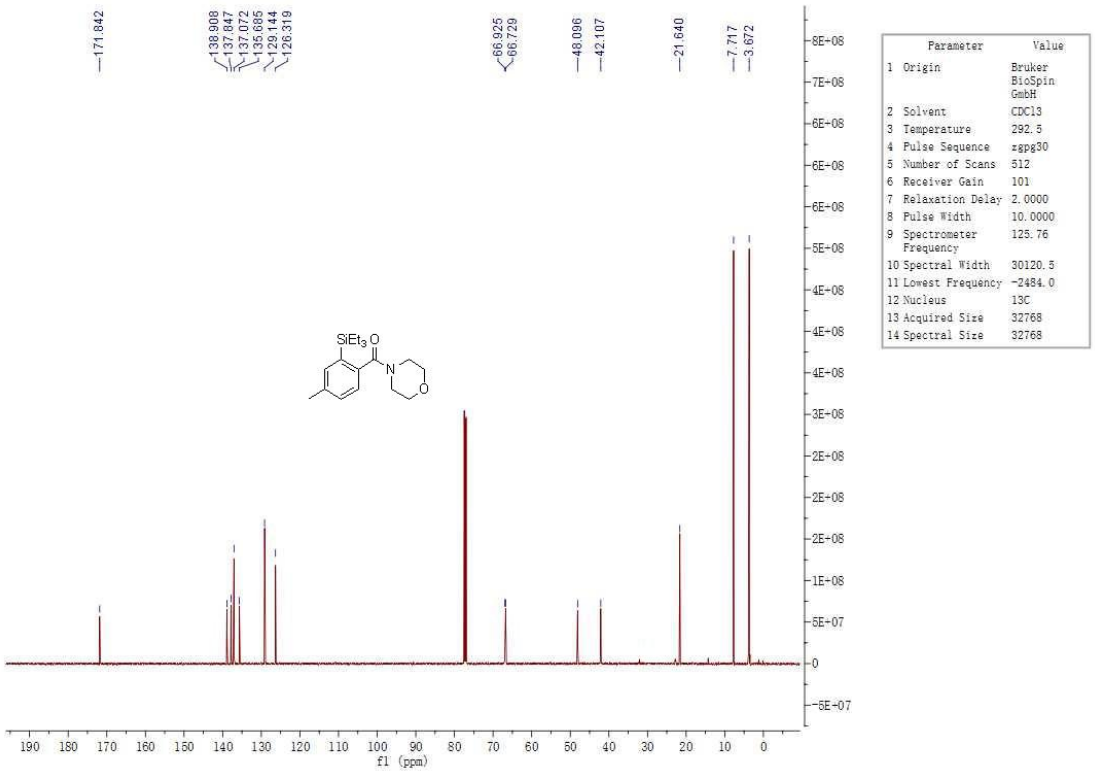




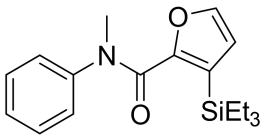
(4-methyl-2-(triethylsilyl)phenyl)(morpholino)methanone (2h)

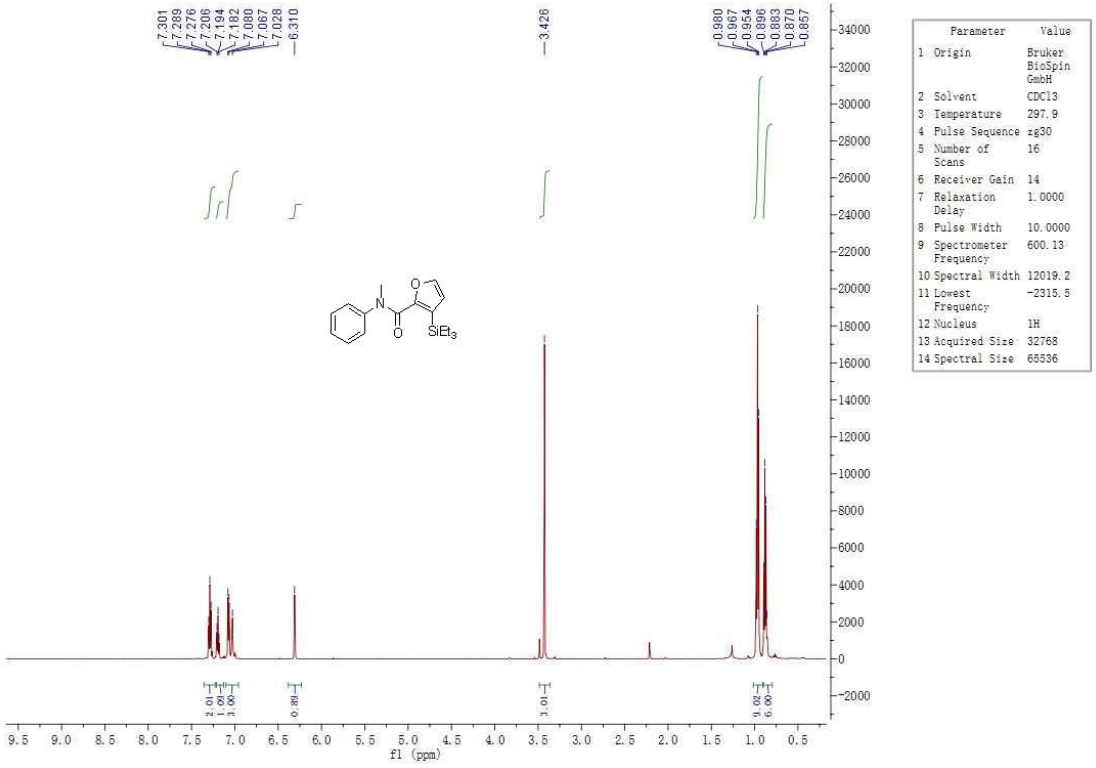






N-methyl-N-phenyl-3-(triethylsilyl)furan-2-carboxamide (2i)





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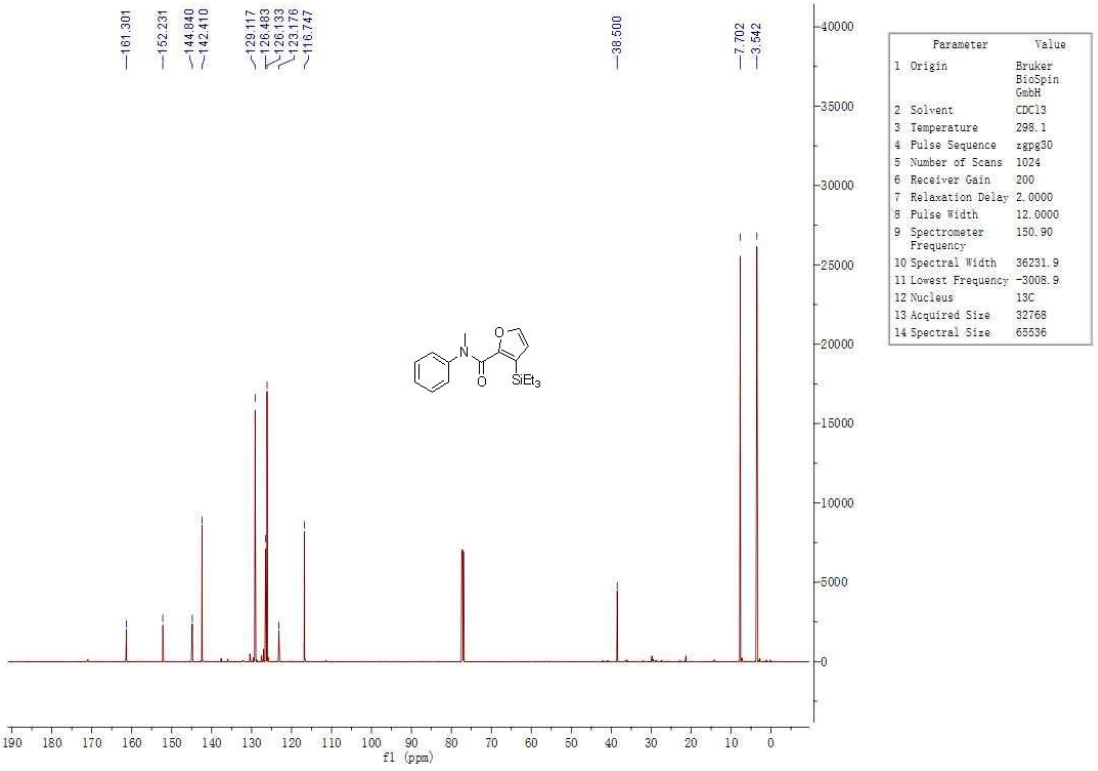
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



	Parameter	Value
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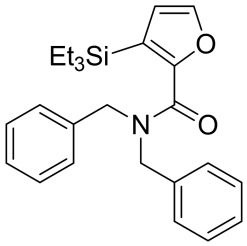
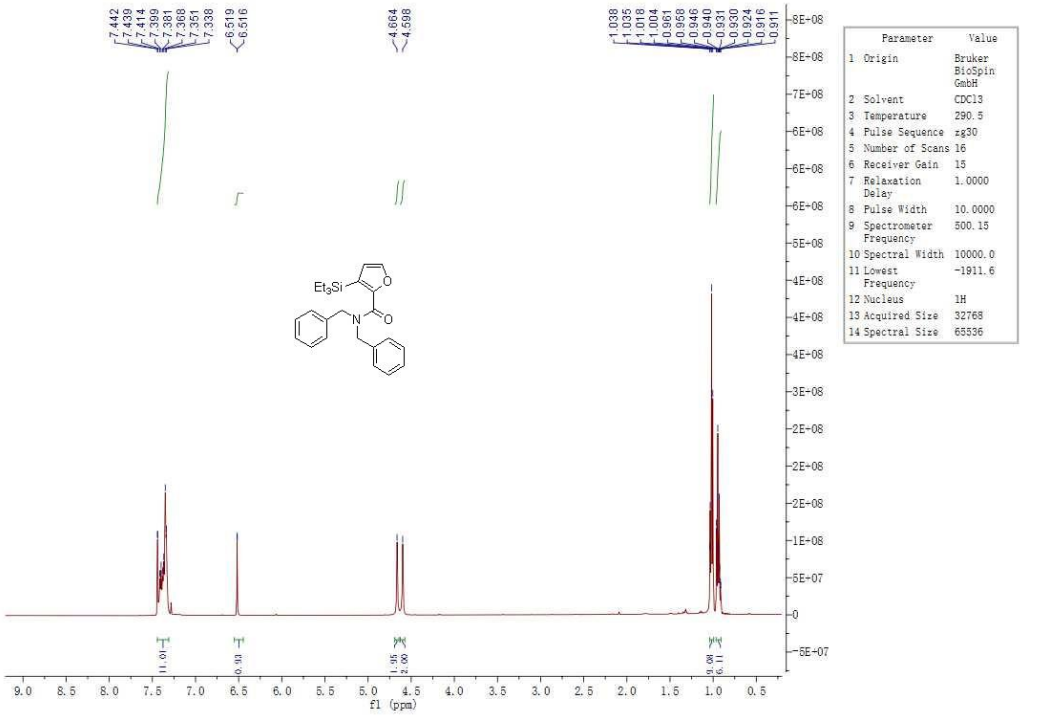
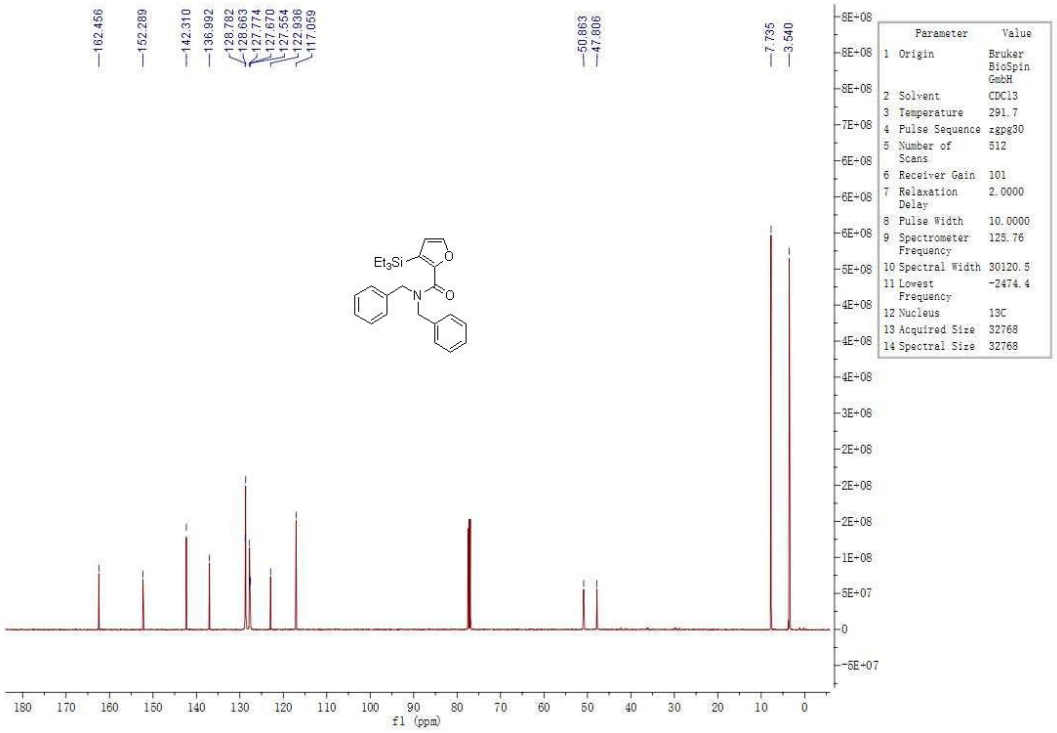
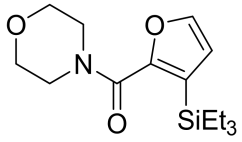
N,N-dibenzyl-3-(triethylsilyl)furan-2-carboxamide (2j)

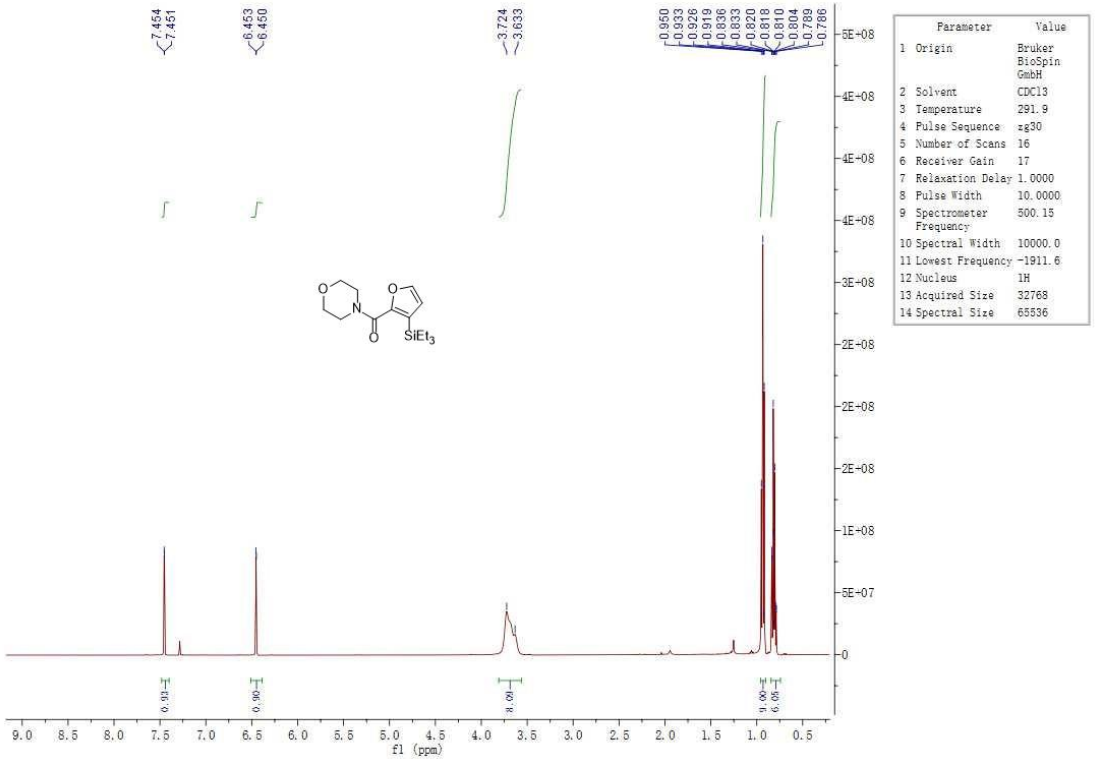




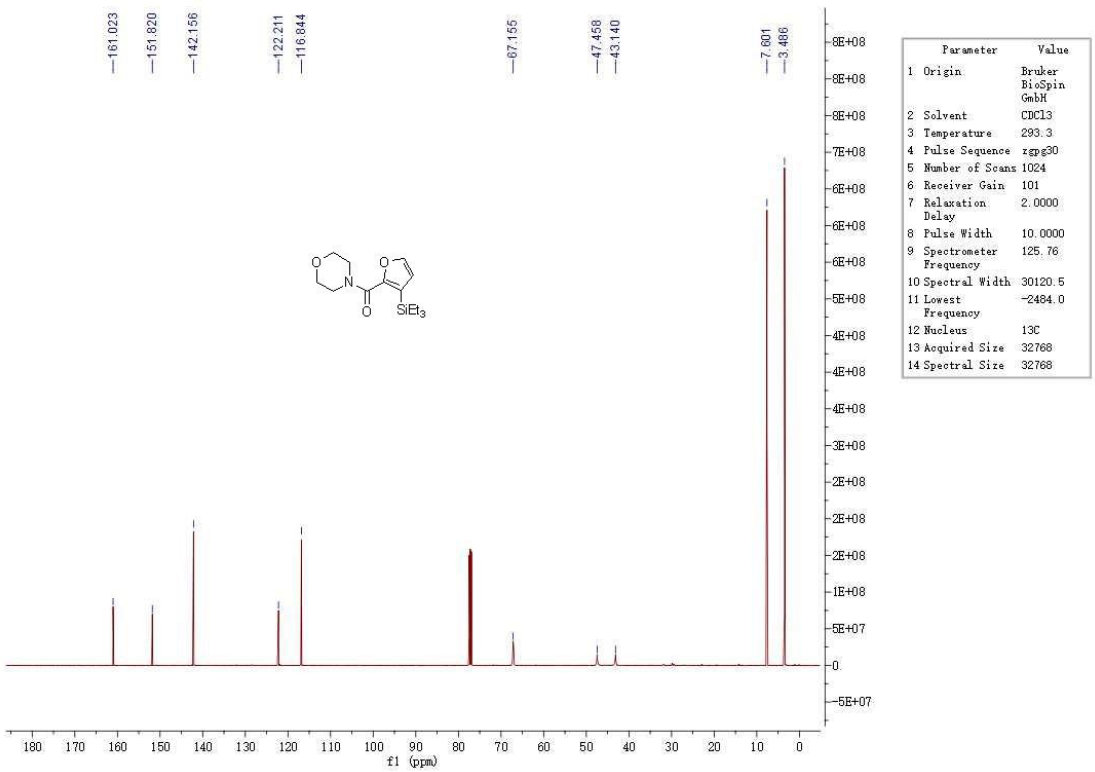


morpholino(3-(triethylsilyl)furan-2-yl)methanone (2k)



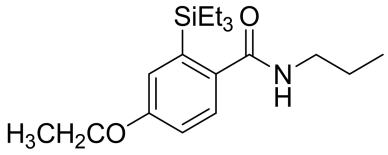


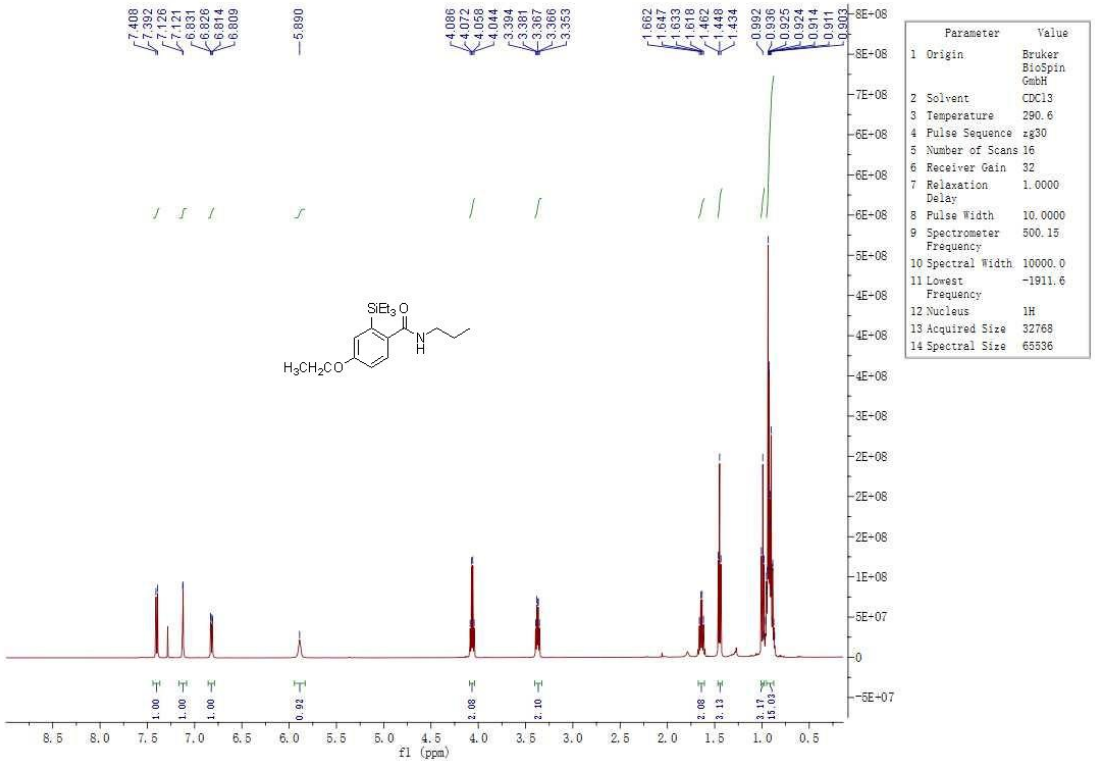
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	291.9
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	17
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



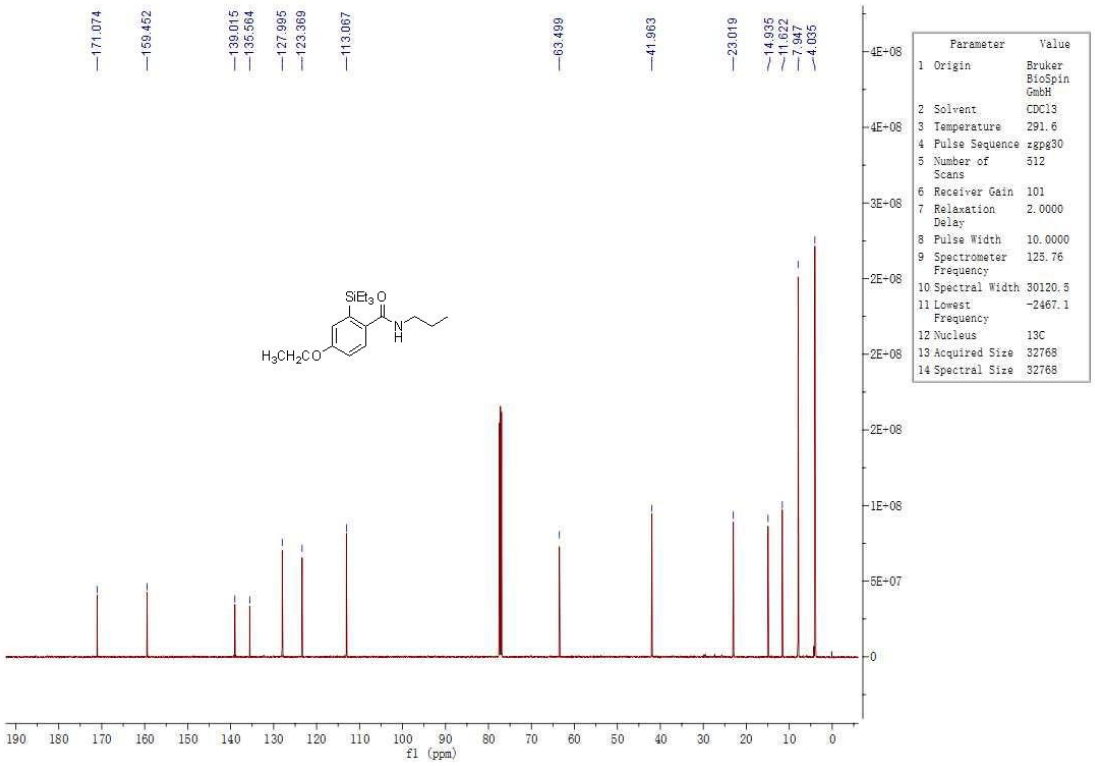
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	293.3
4	Pulse Sequence	zgpg30
5	Number of Scans	1024
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2484.0
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

4-ethoxy-N-propyl-2-(triethylsilyl)benzamide (4l)



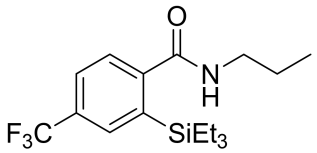


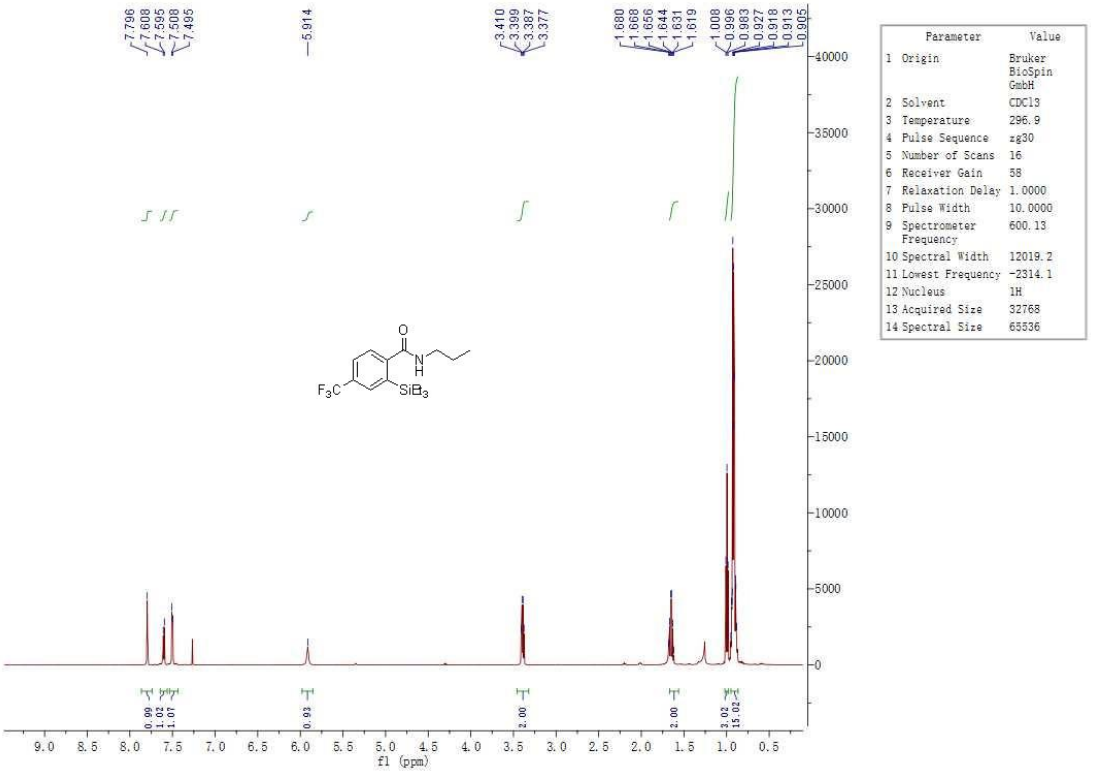
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	290.6
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



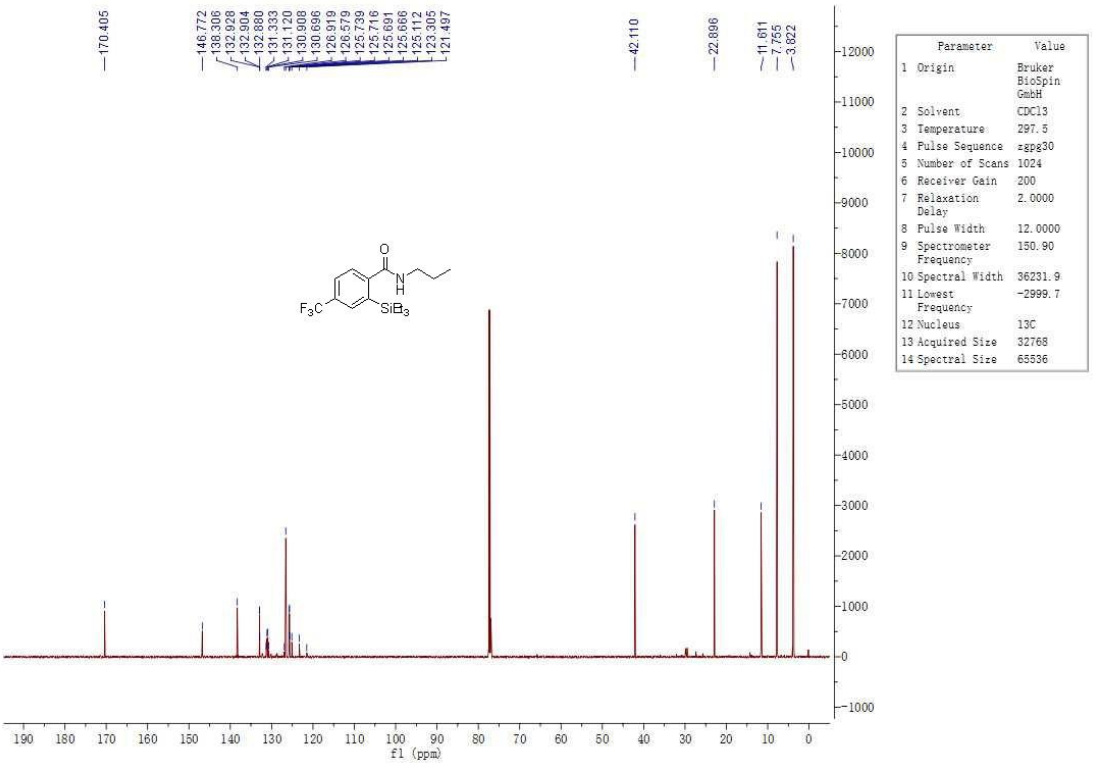
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	291.6
4	Pulse Sequence	zgpg30
5	Number of Scans	512
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2467.1
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

N-propyl-2-(triethylsilyl)-4-(trifluoromethyl)benzamide (2m)



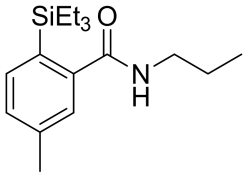


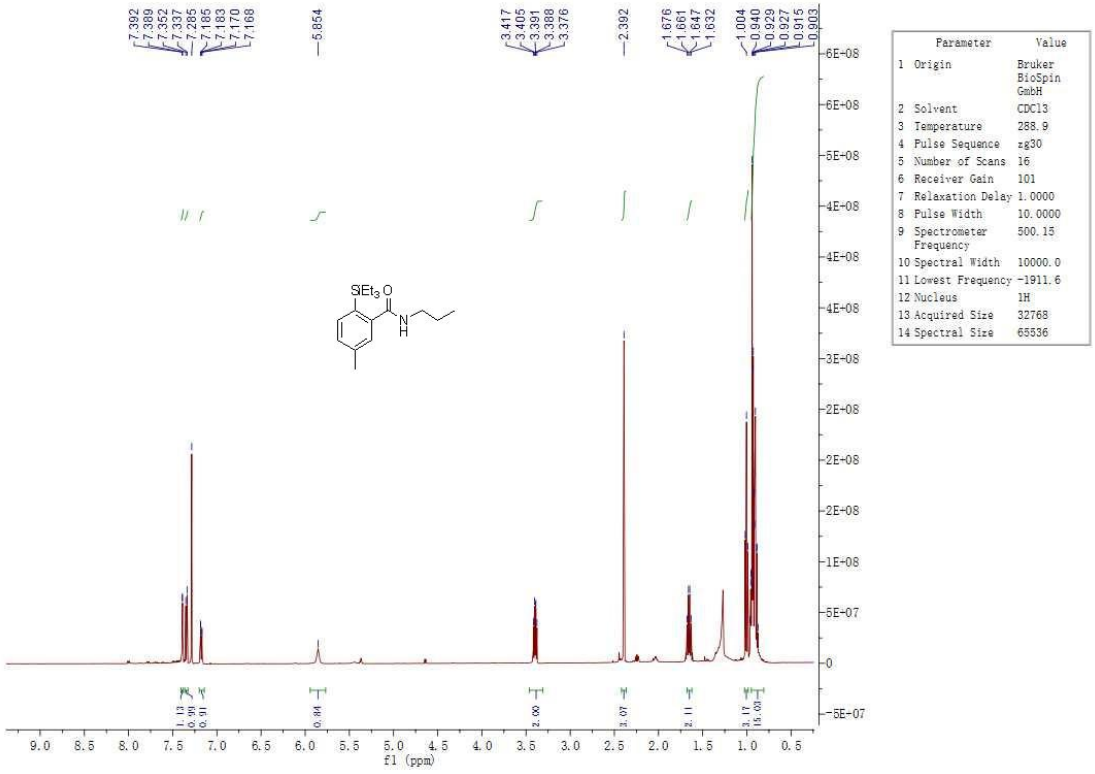
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	296.9
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	58
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	600.13
10	Spectral Width	12019.2
11	Lowest Frequency	-2314.1
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



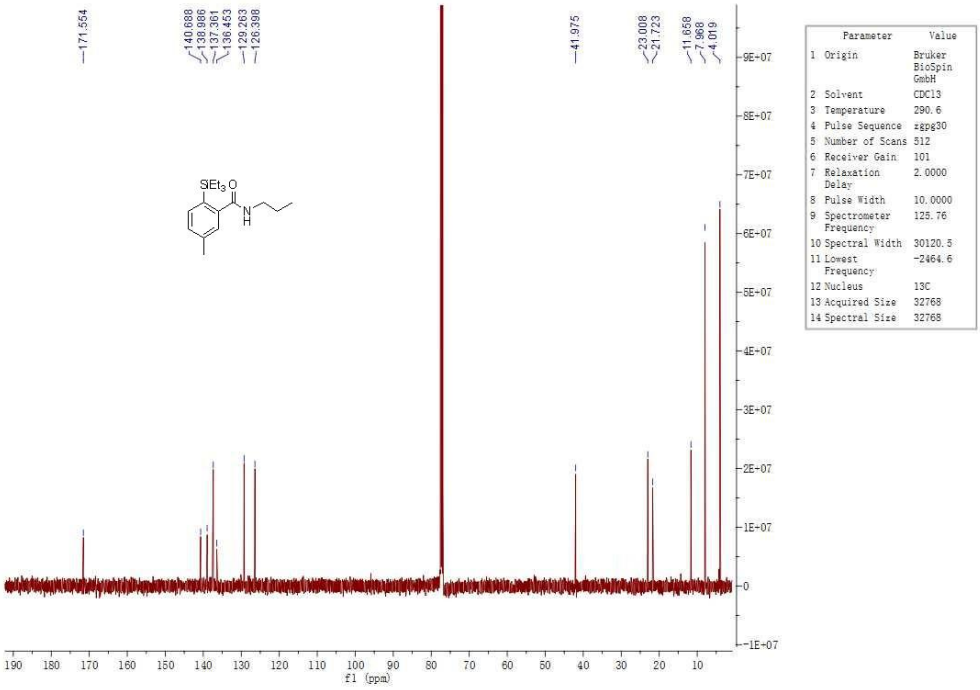
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	297.5
4	Pulse Sequence	zgpg30
5	Number of Scans	1024
6	Receiver Gain	200
7	Relaxation Delay	2.0000
8	Pulse Width	12.0000
9	Spectrometer Frequency	150.90
10	Spectral Width	36231.9
11	Lowest Frequency	-2999.7
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	65536

5-methyl-N-propyl-2-(triethylsilyl)benzamide (2n)



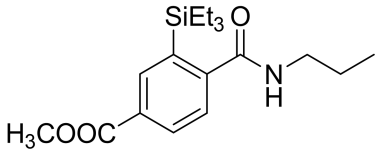


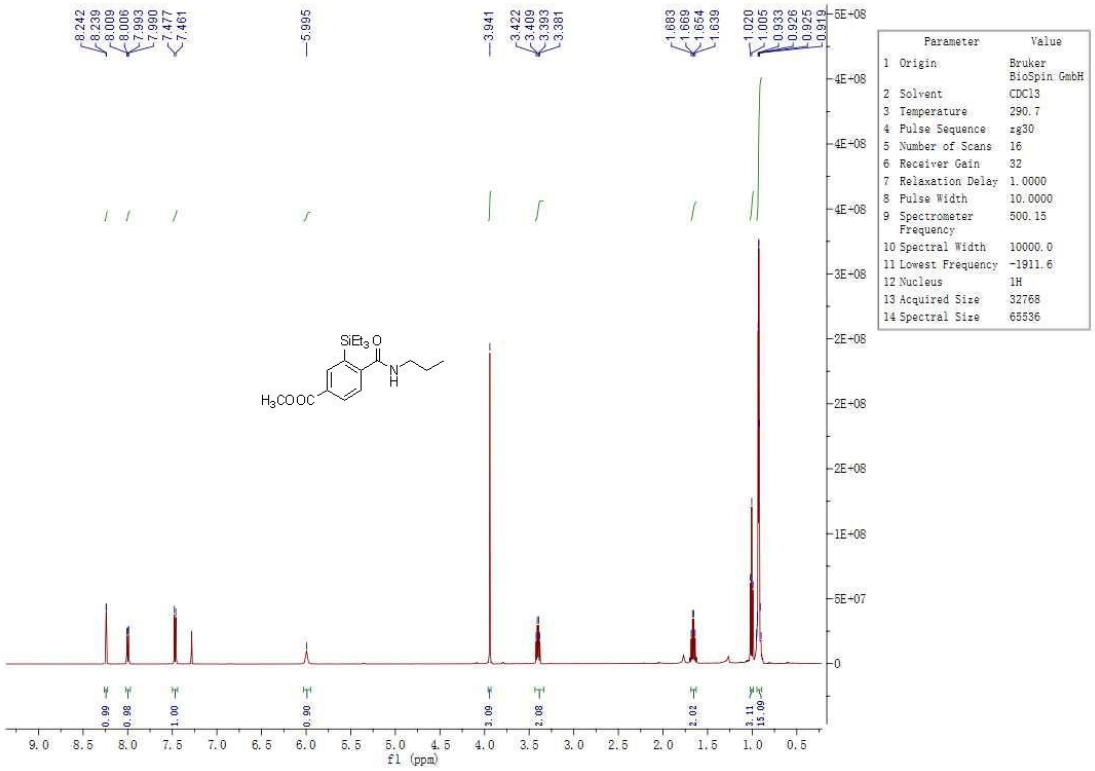
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	288.9
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	101
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



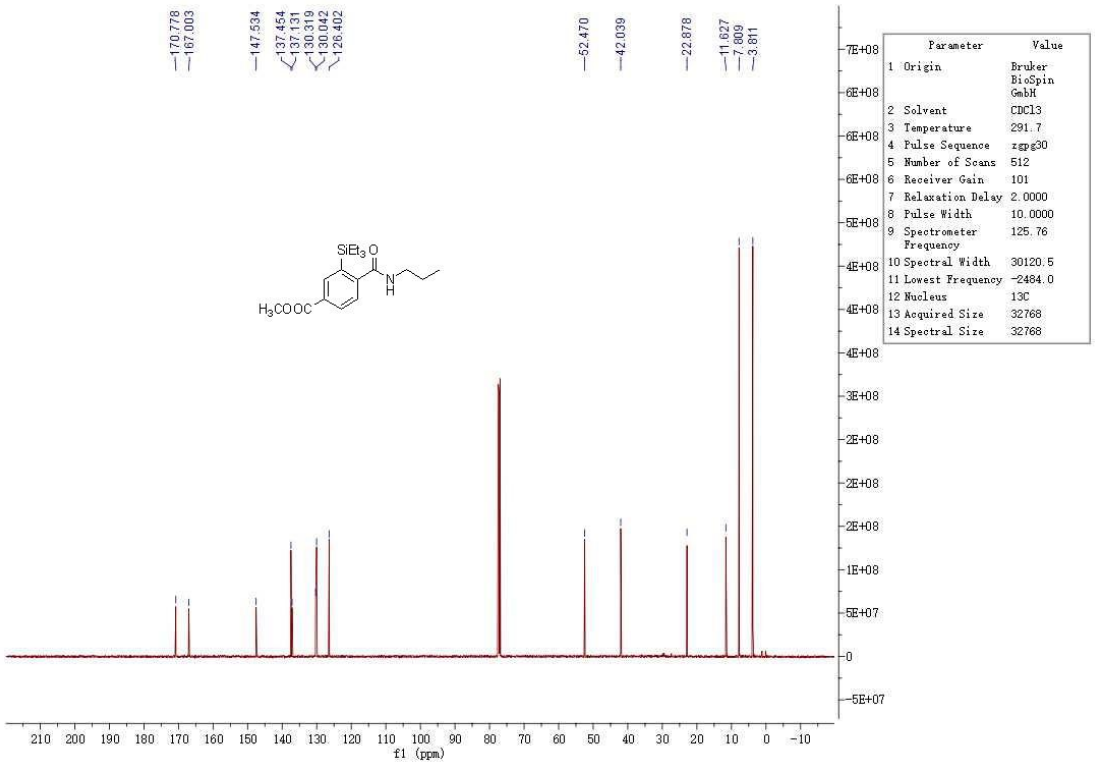
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	290.6
4	Pulse Sequence	zgpg30
5	Number of Scans	512
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2464.6
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

methyl 4-(propylcarbamoyl)-3-(triethylsilyl)benzoate (2o)



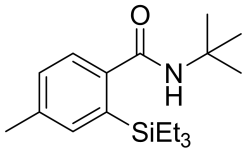


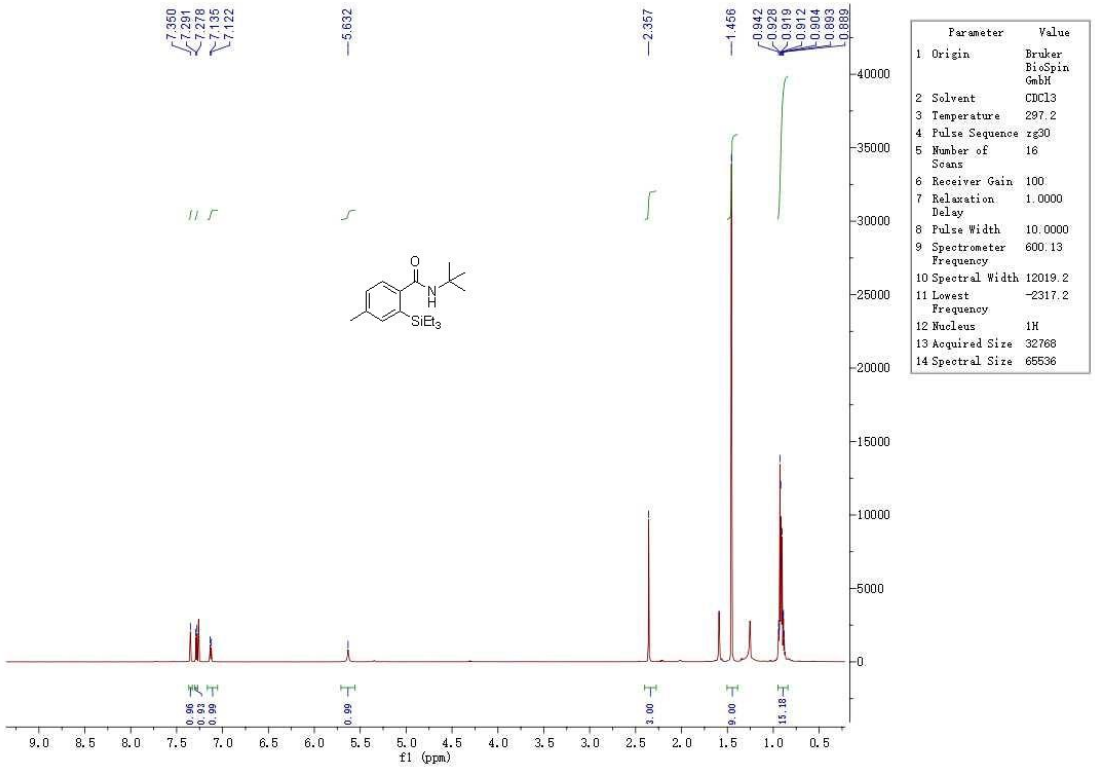
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	290.7
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536

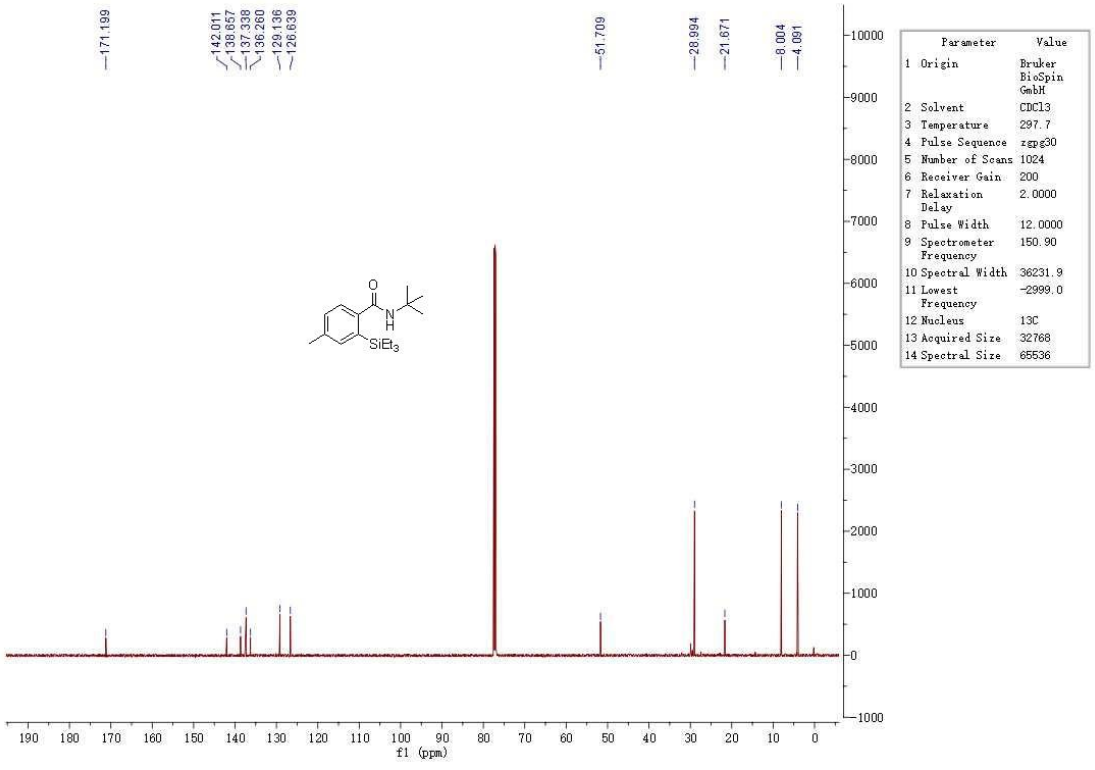


	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	291.7
4	Pulse Sequence	zgpg30
5	Number of Scans	512
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2484.0
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

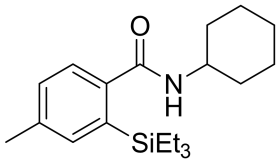
N-(tert-butyl)-4-methyl-2-(triethylsilyl)benzamide (2p)

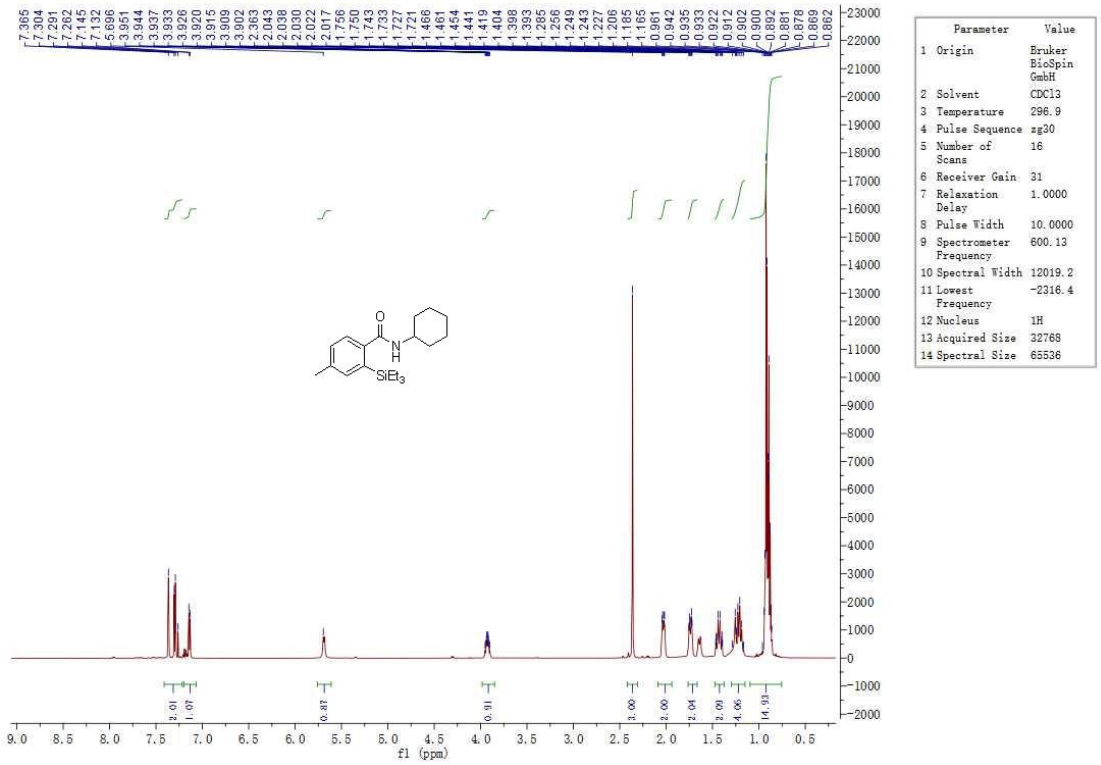




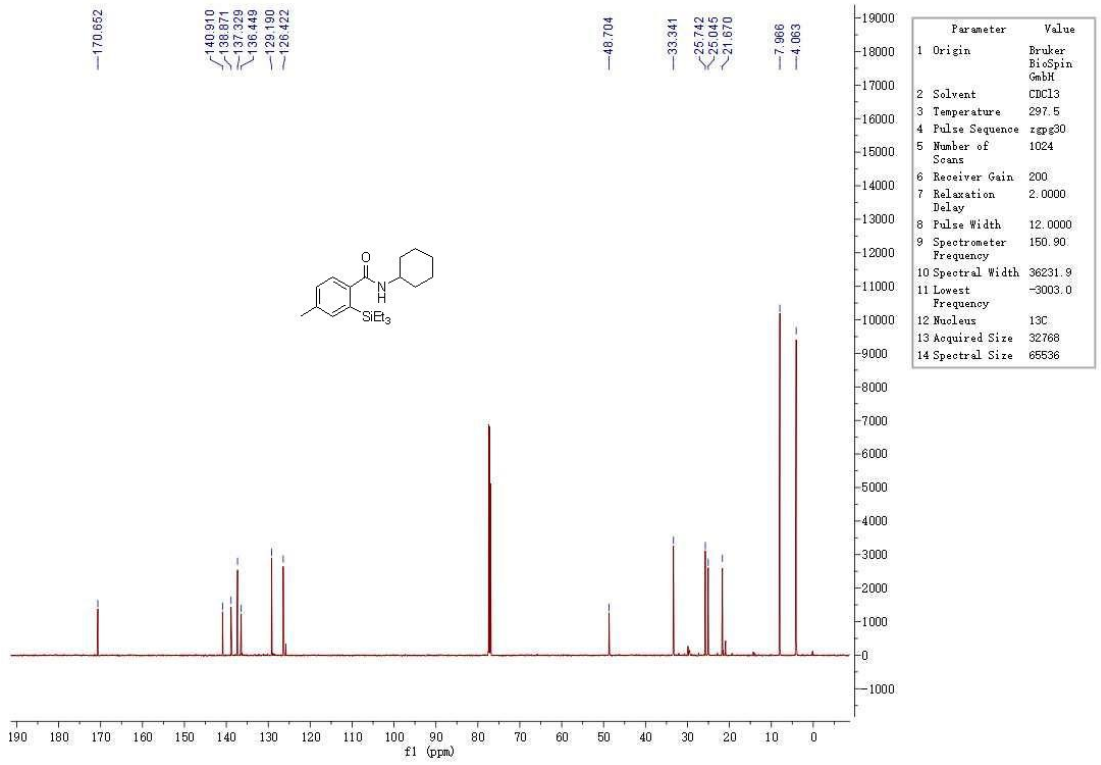


N-cyclohexyl-4-methyl-2-(triethylsilyl)benzamide (2q)



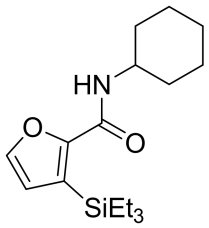


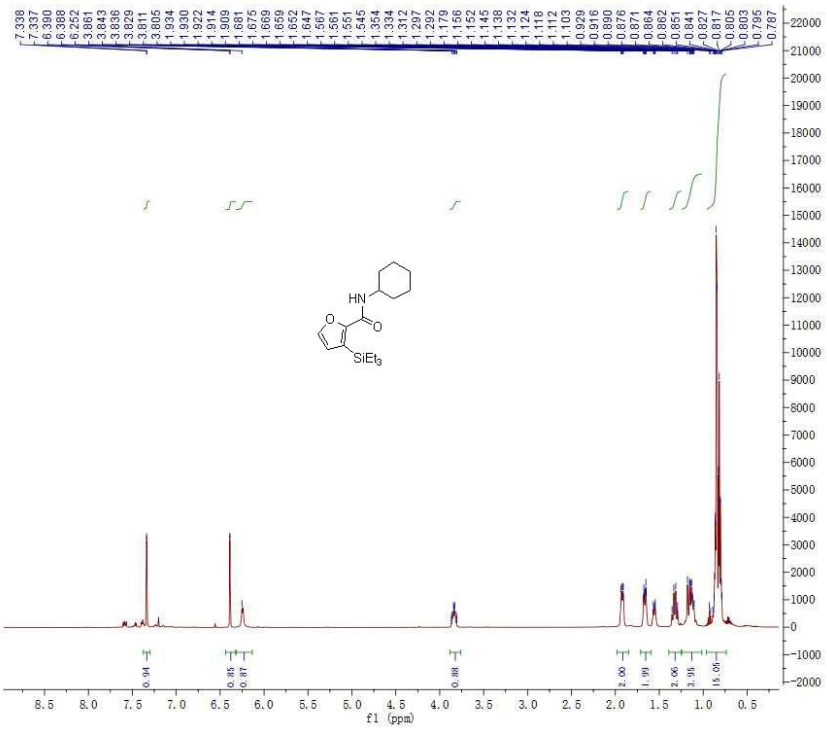
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	296.9
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	31
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	600.13
10	Spectral Width	12019.2
11	Lowest Frequency	-2316.4
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



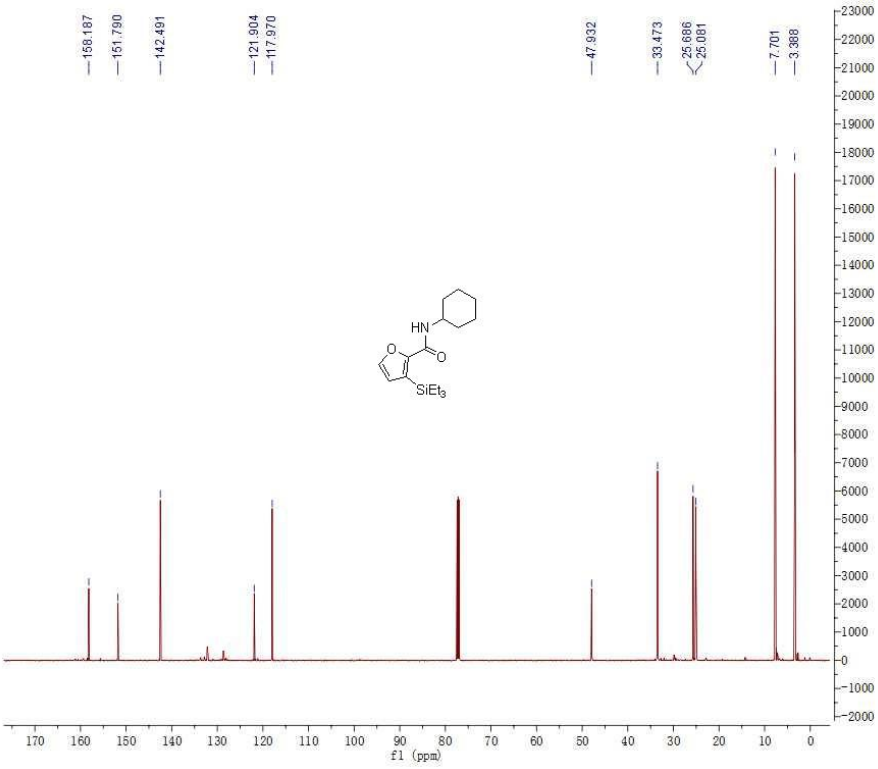
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	297.5
4	Pulse Sequence	zgpg30
5	Number of Scans	1024
6	Receiver Gain	200
7	Relaxation Delay	2.0000
8	Pulse Width	12.0000
9	Spectrometer Frequency	150.90
10	Spectral Width	36231.9
11	Lowest Frequency	-3003.0
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	65536

N-cyclohexyl-3-(triethylsilyl)furan-2-carboxamide (2r)



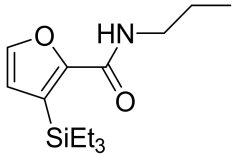


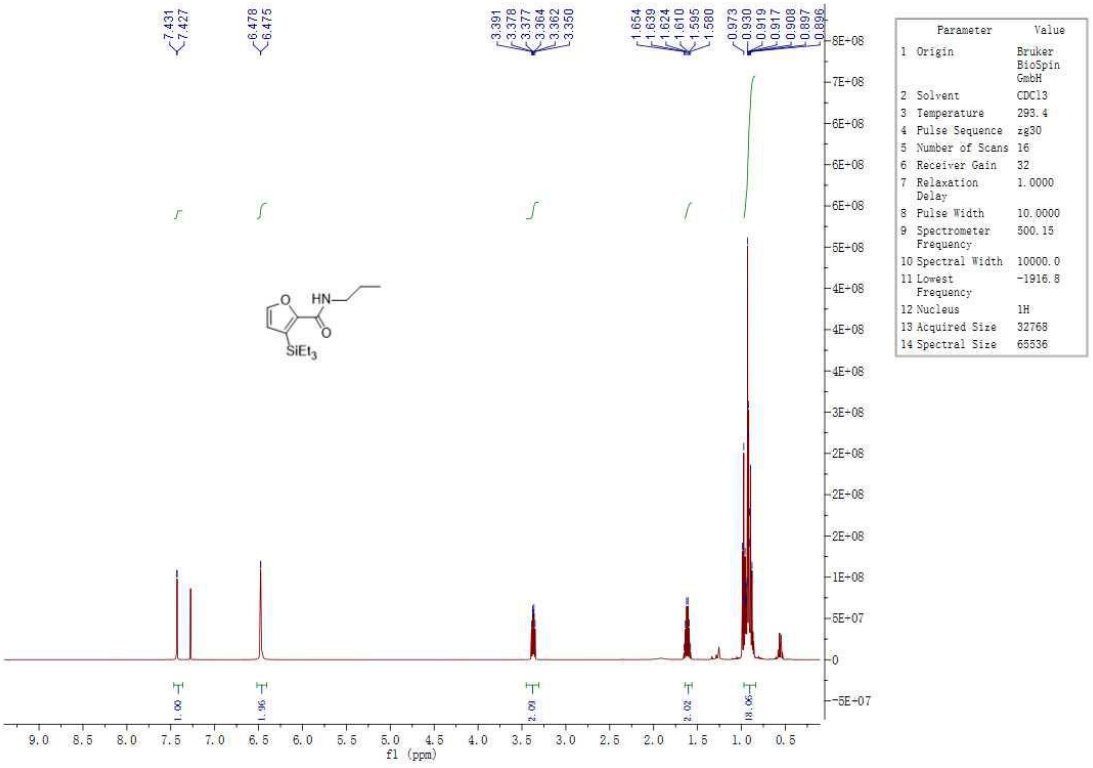
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	296.6
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	14
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	600.13
10	Spectral Width	12019.2
11	Lowest Frequency	-2353.2
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536

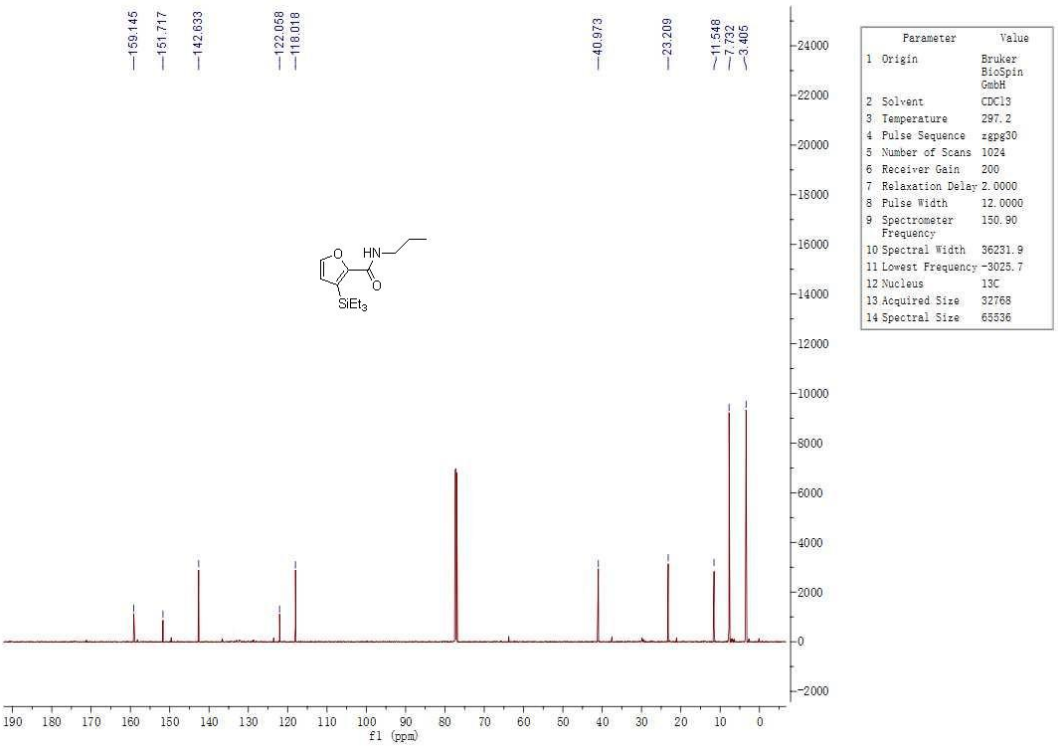


	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	297.5
4	Pulse Sequence	zgpg30
5	Number of Scans	861
6	Receiver Gain	200
7	Relaxation Delay	2.0000
8	Pulse Width	12.0000
9	Spectrometer Frequency	150.90
10	Spectral Width	36231.9
11	Lowest Frequency	-3005.6
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	65536

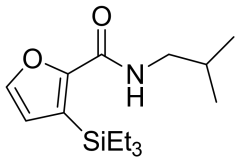
N-propyl-3-(triethylsilyl)furan-2-carboxamide (2s)

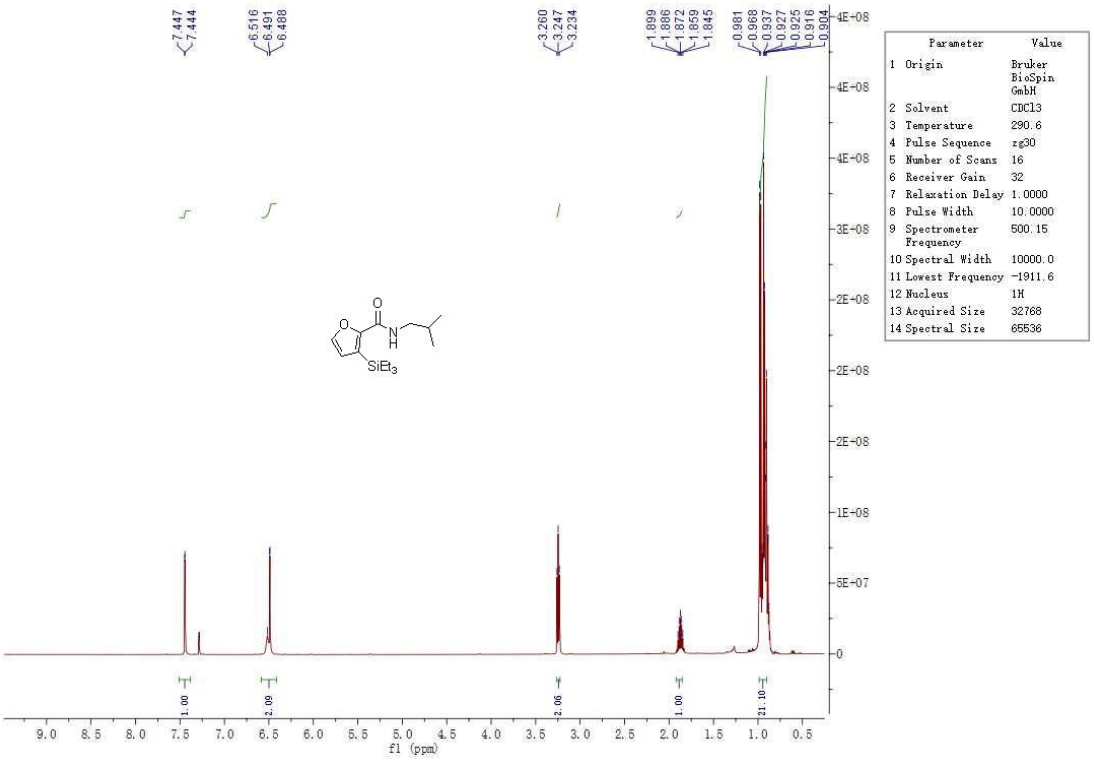


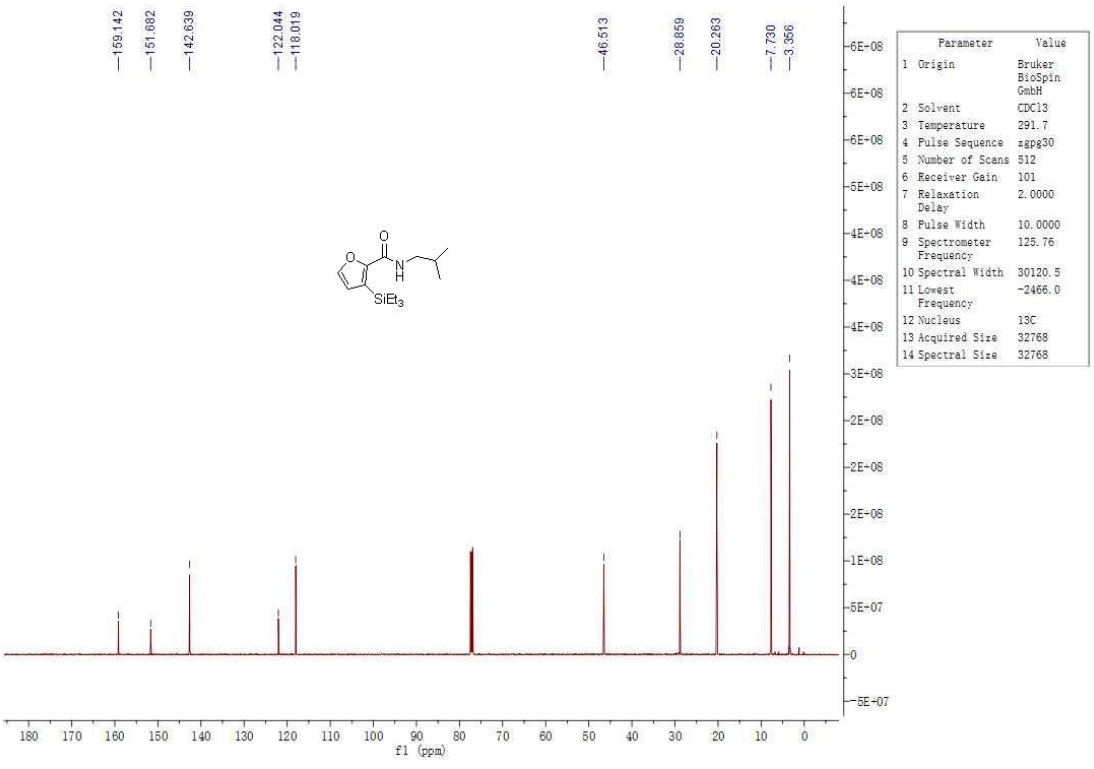




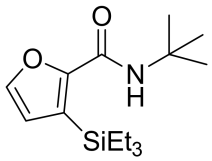
N-isobutyl-3-(triethylsilyl)furan-2-carboxamide (2t)

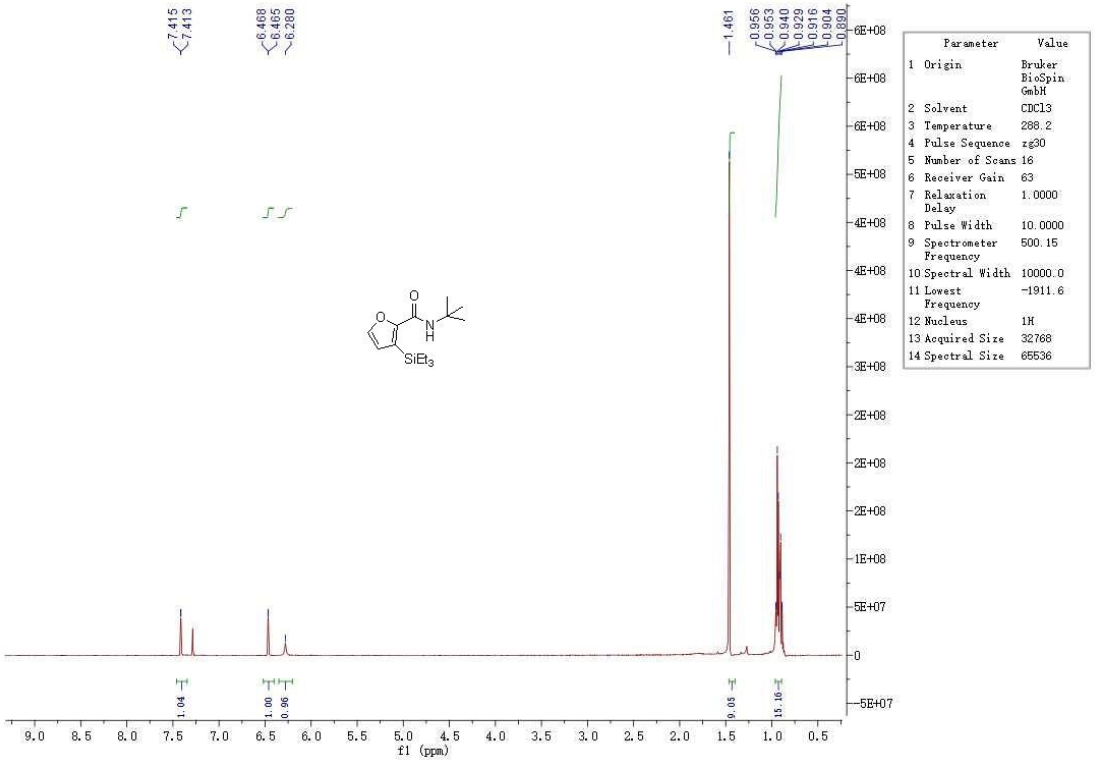


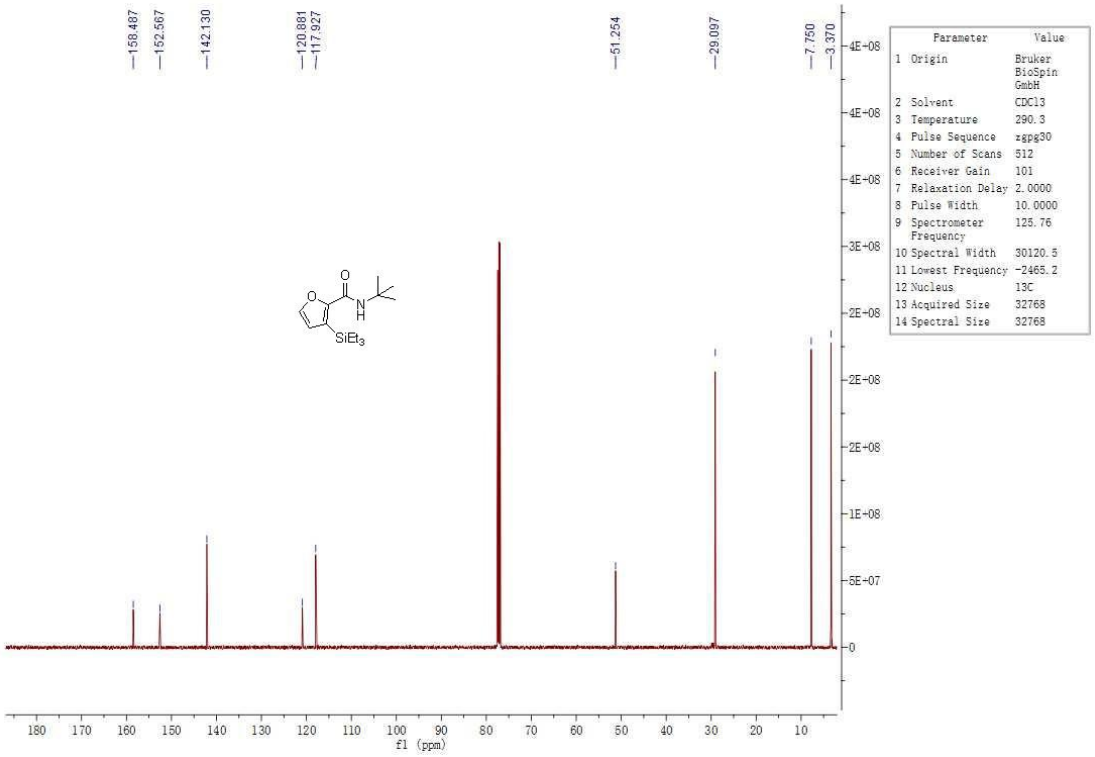




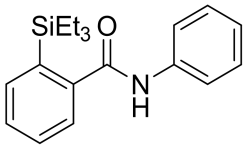
N-(tert-butyl)-3-(triethylsilyl)furan-2-carboxamide (2u)

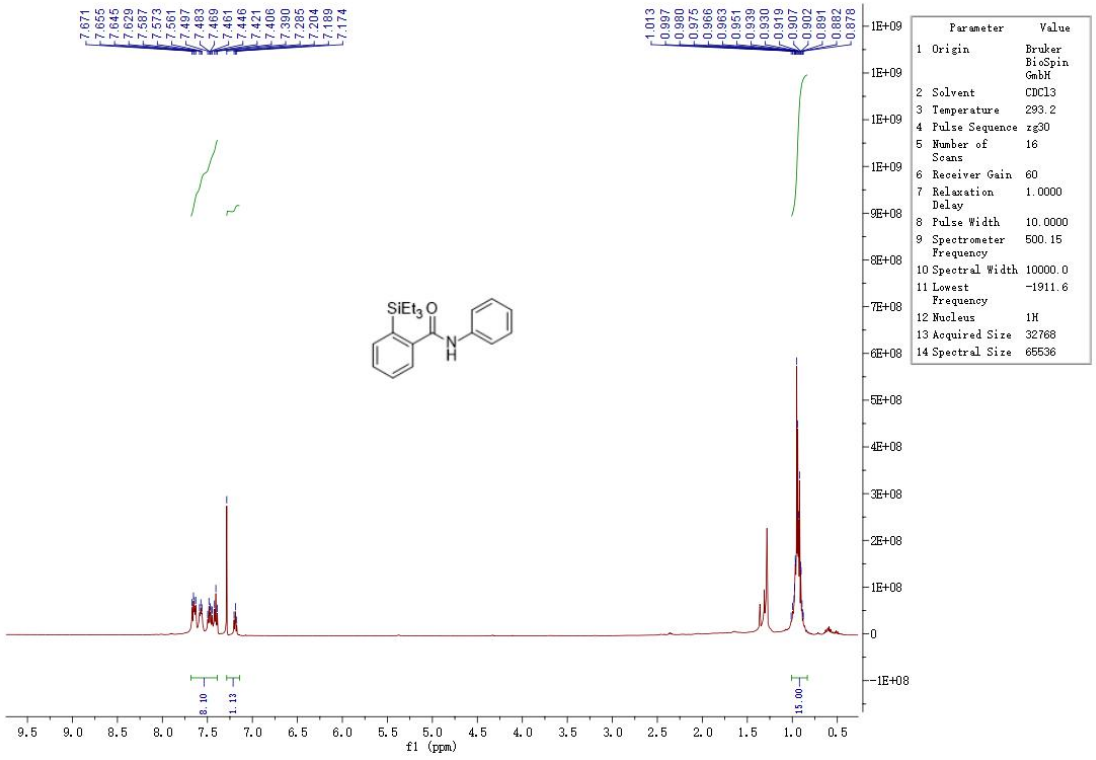


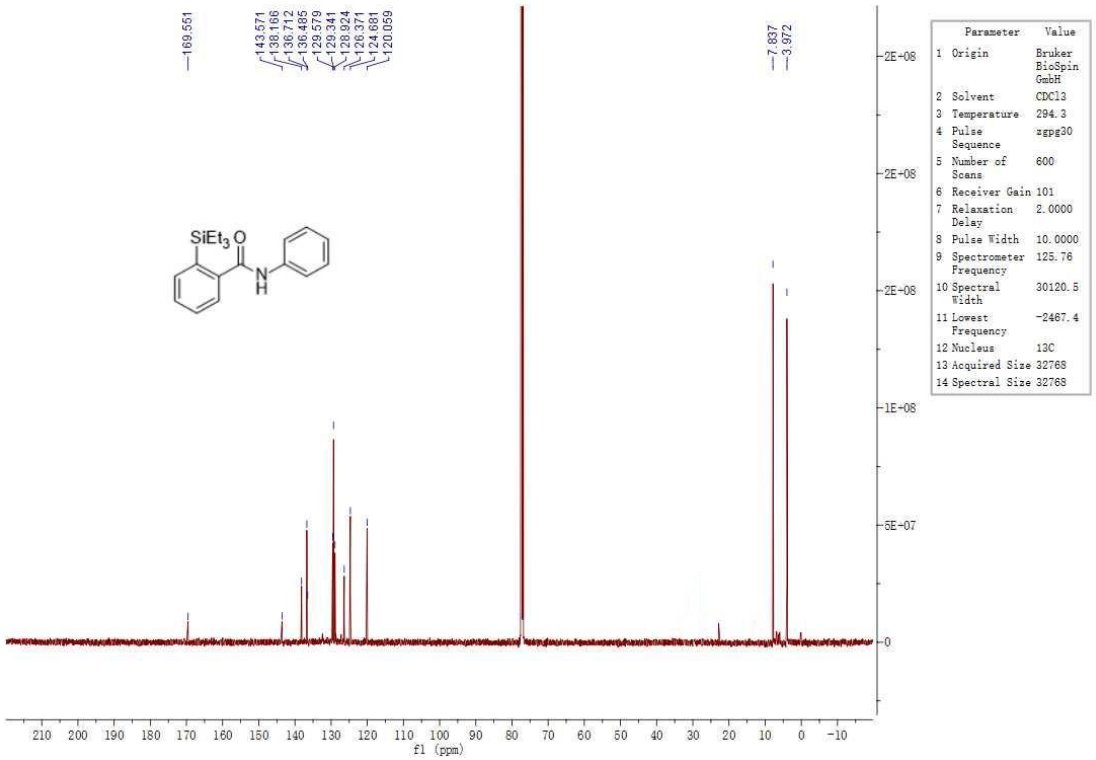




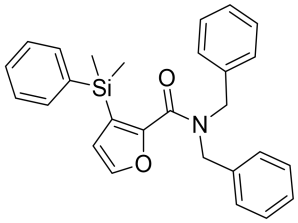
N-phenyl-2-(triethylsilyl)benzamide (2v)

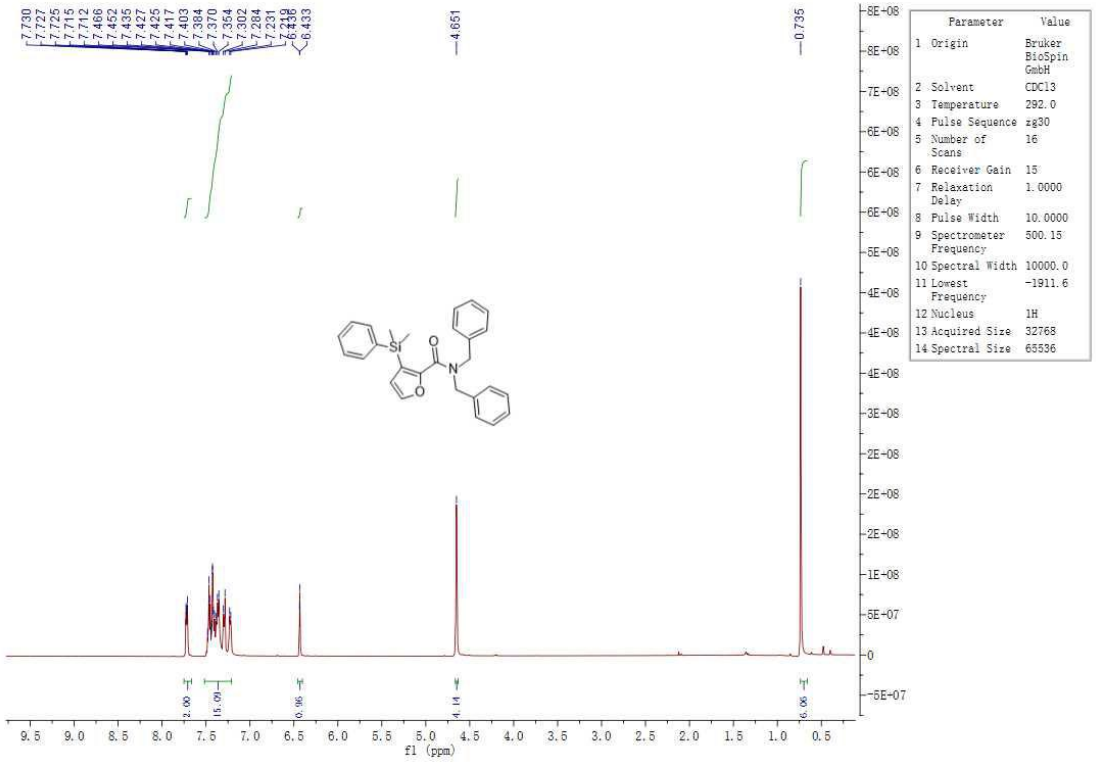




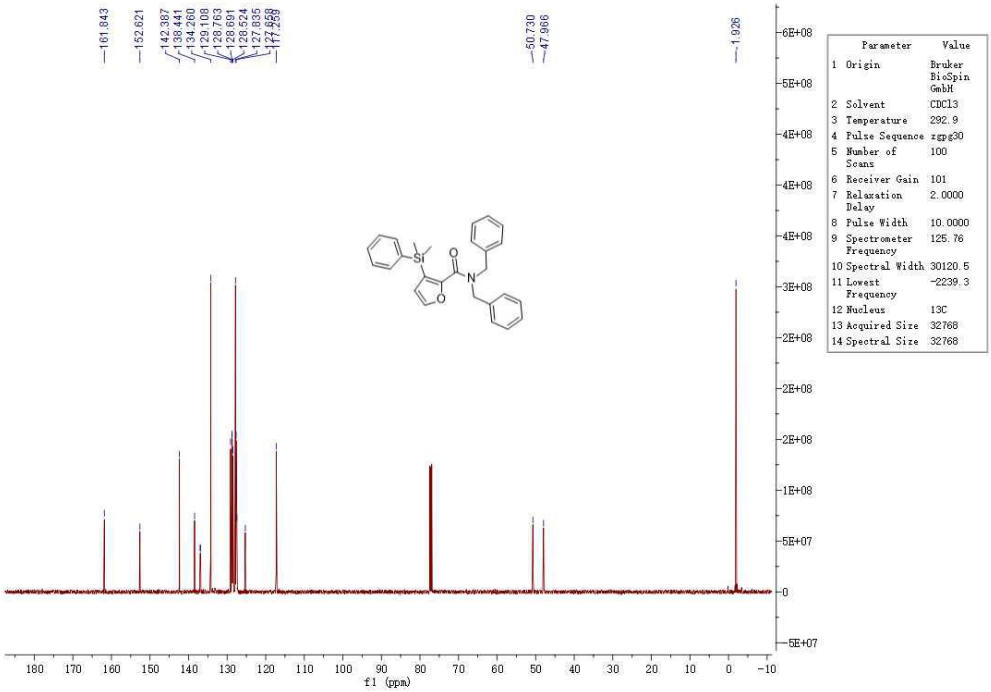


N,N-dibenzyl-3-(dimethyl(phenyl)silyl)furan-2-carboxamide (2w)



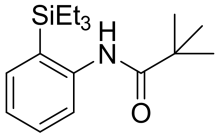


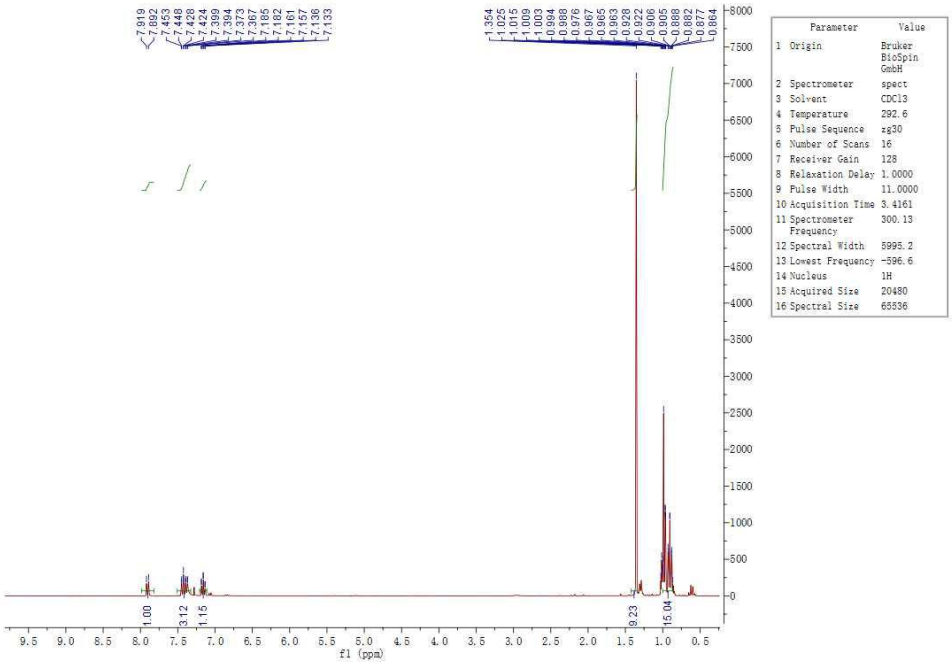
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	292.0
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	15
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536

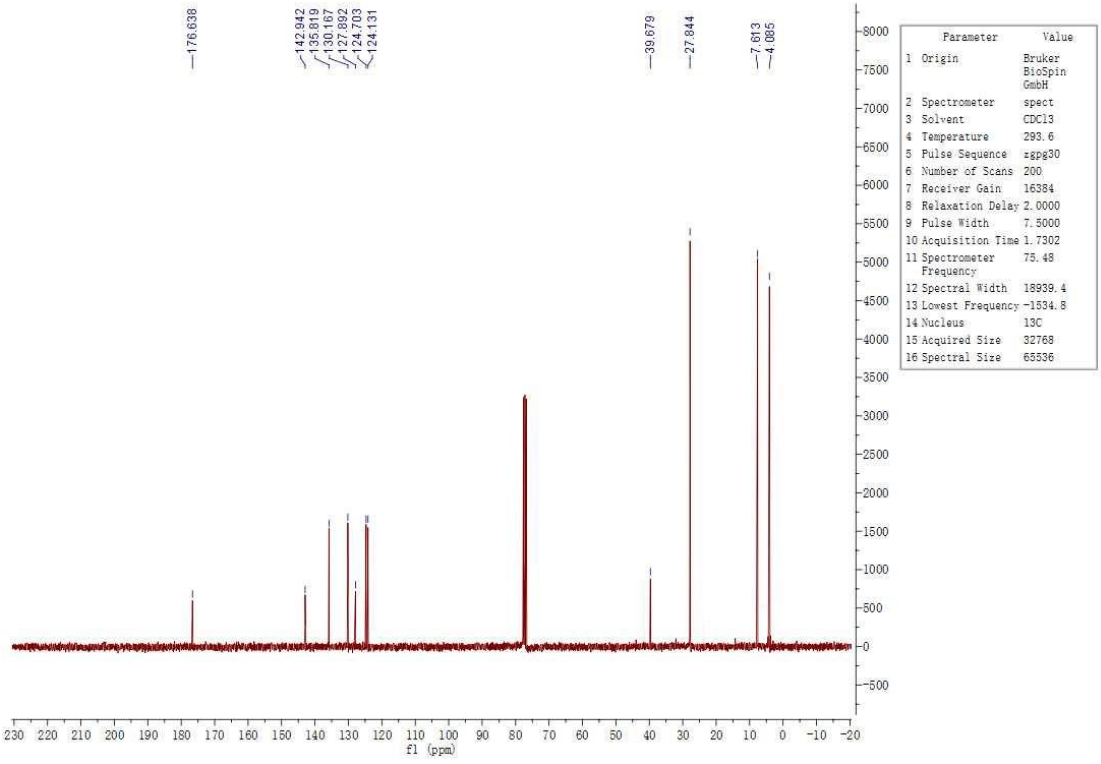


	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	292.9
4	Pulse Sequence	zgpg30
5	Number of Scans	100
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-2239.3
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768

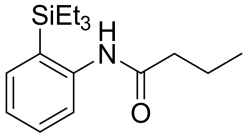
N-(2-(triethylsilyl)phenyl)pivalamide (4a)

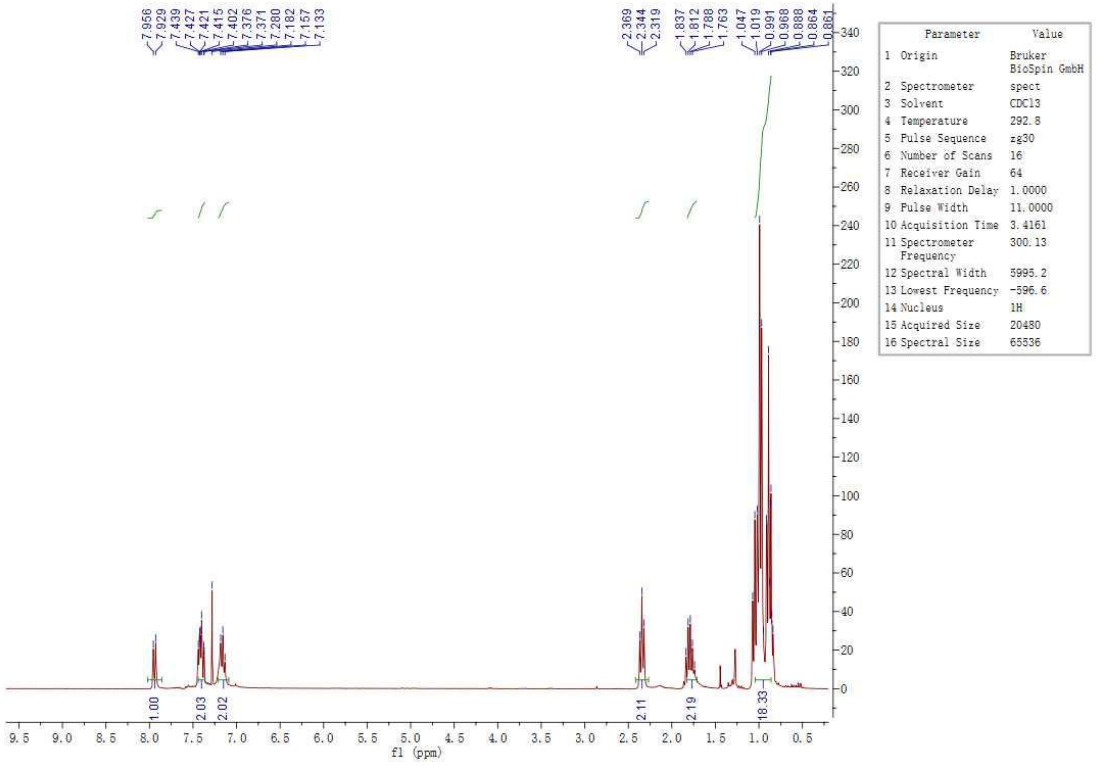


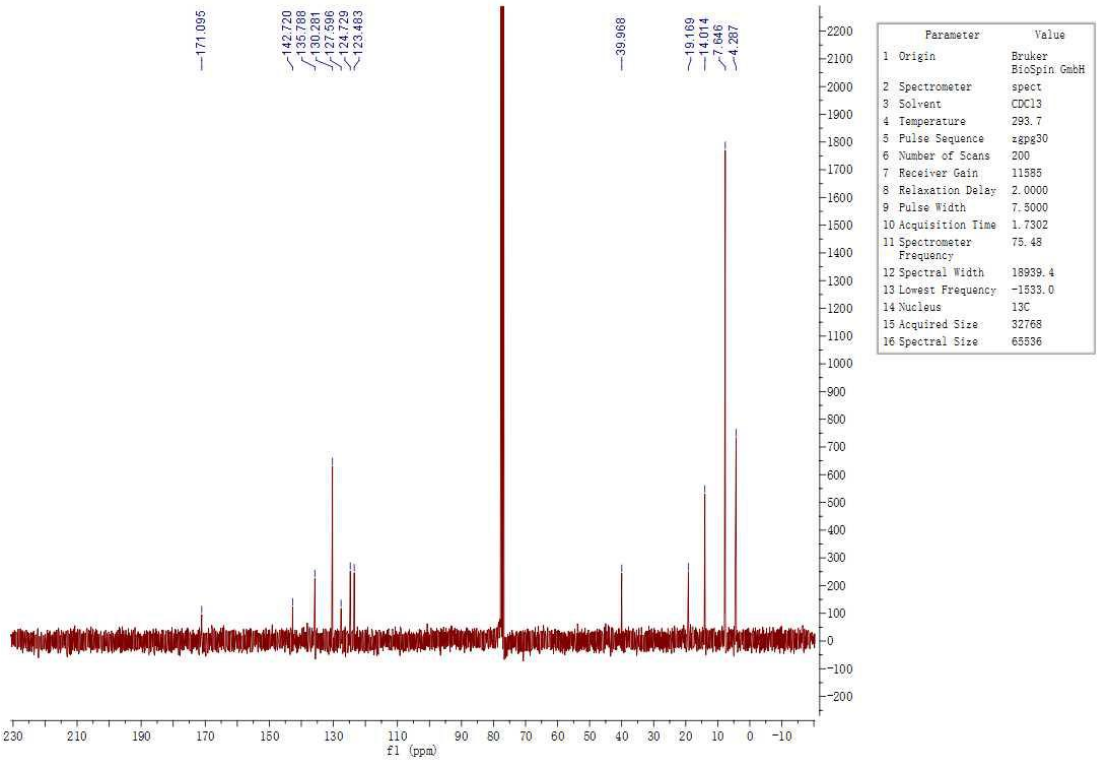




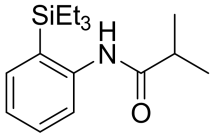
N-(2-(triethylsilyl)phenyl)butyramide (4b)

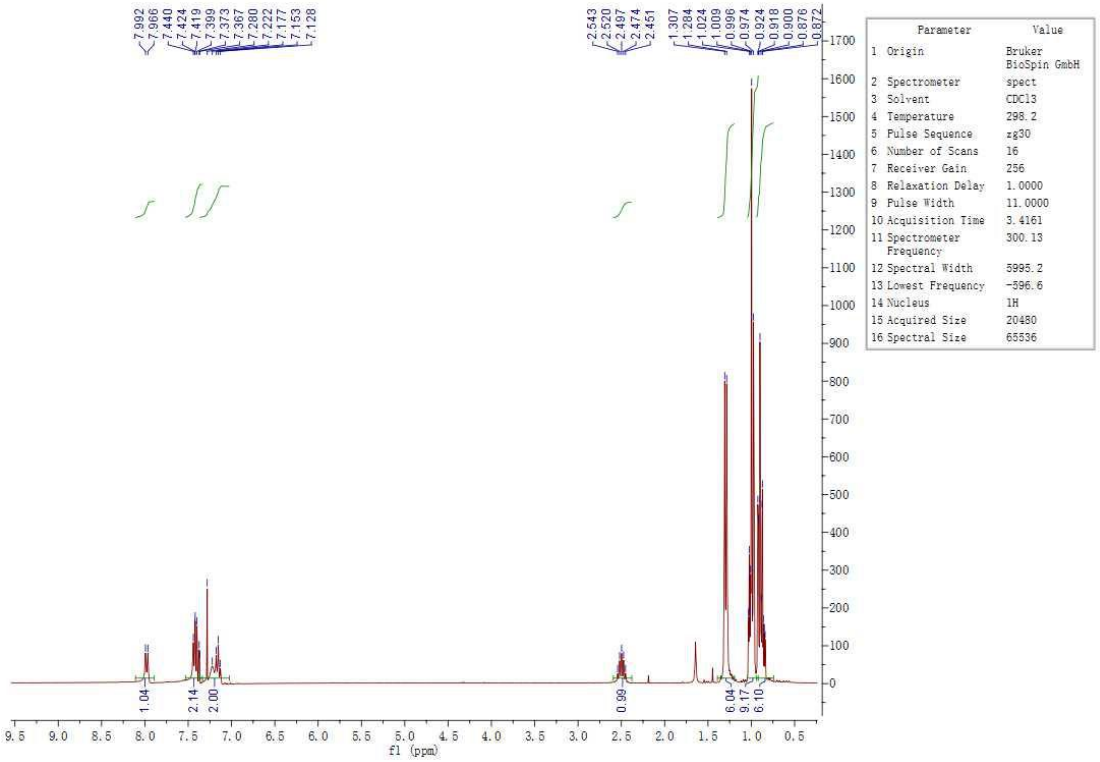


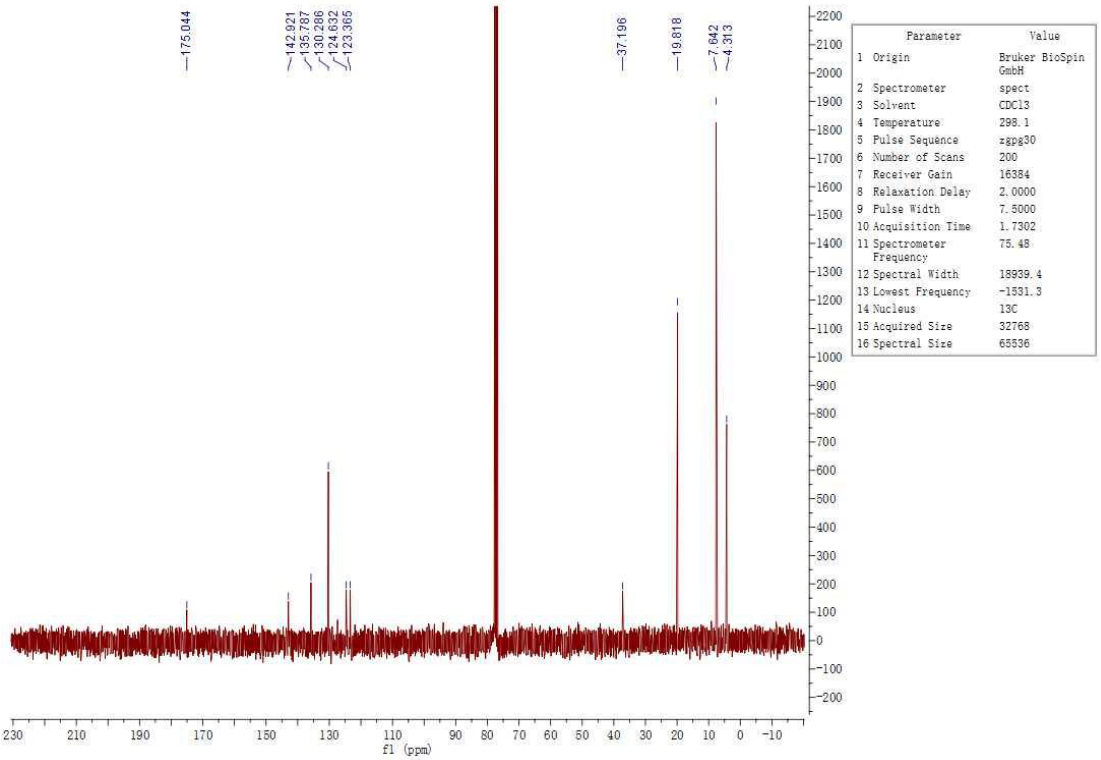




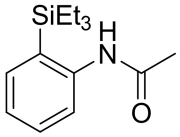
N-(2-(triethylsilyl)phenyl)isobutyramide (4c)

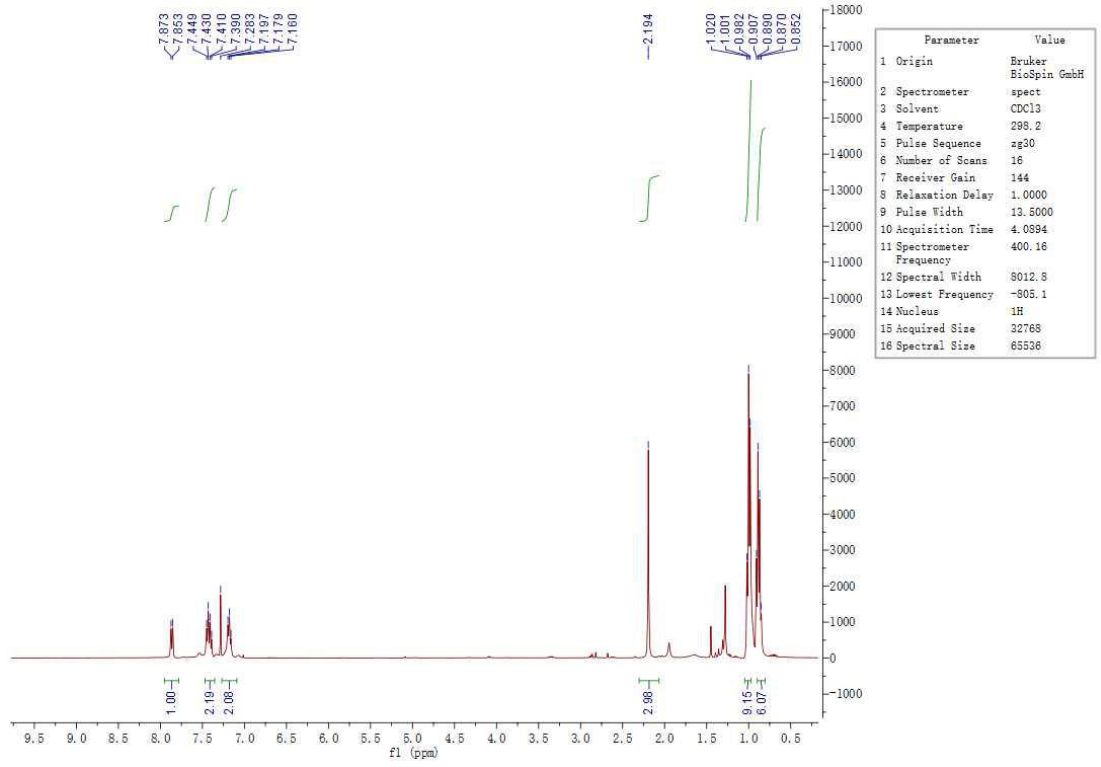


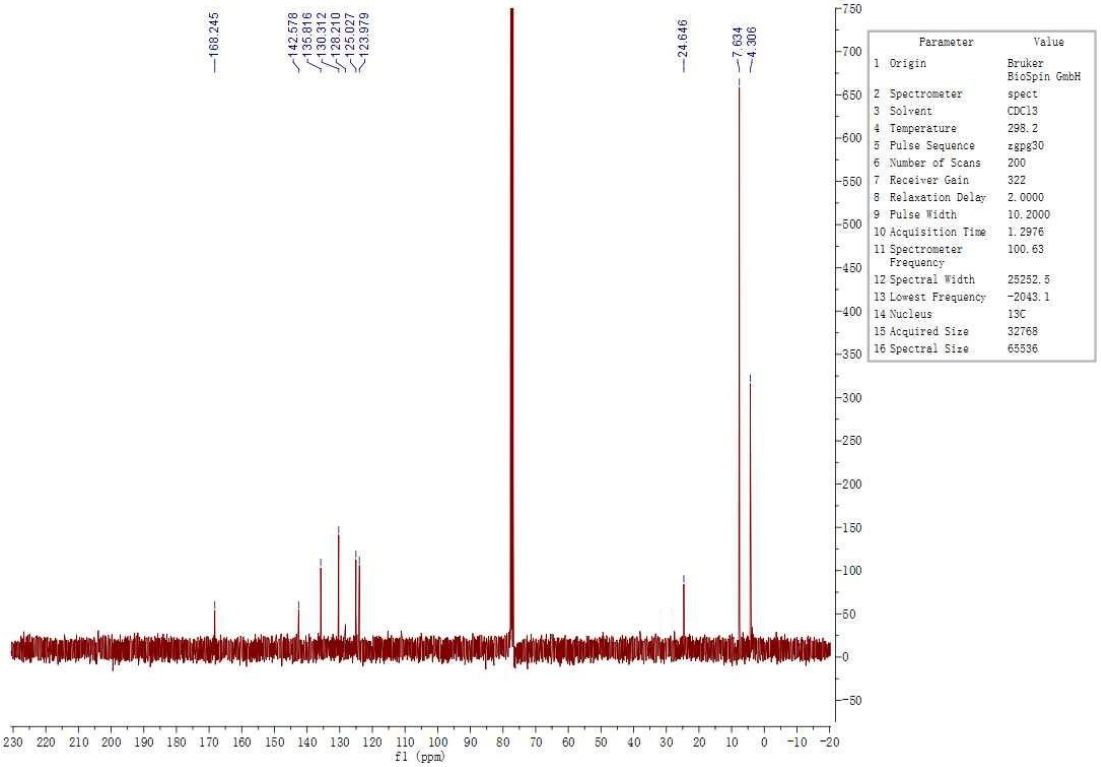




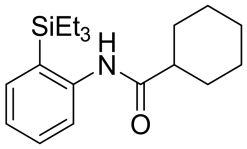
N-(2-(triethylsilyl)phenyl)acetamide (4d)

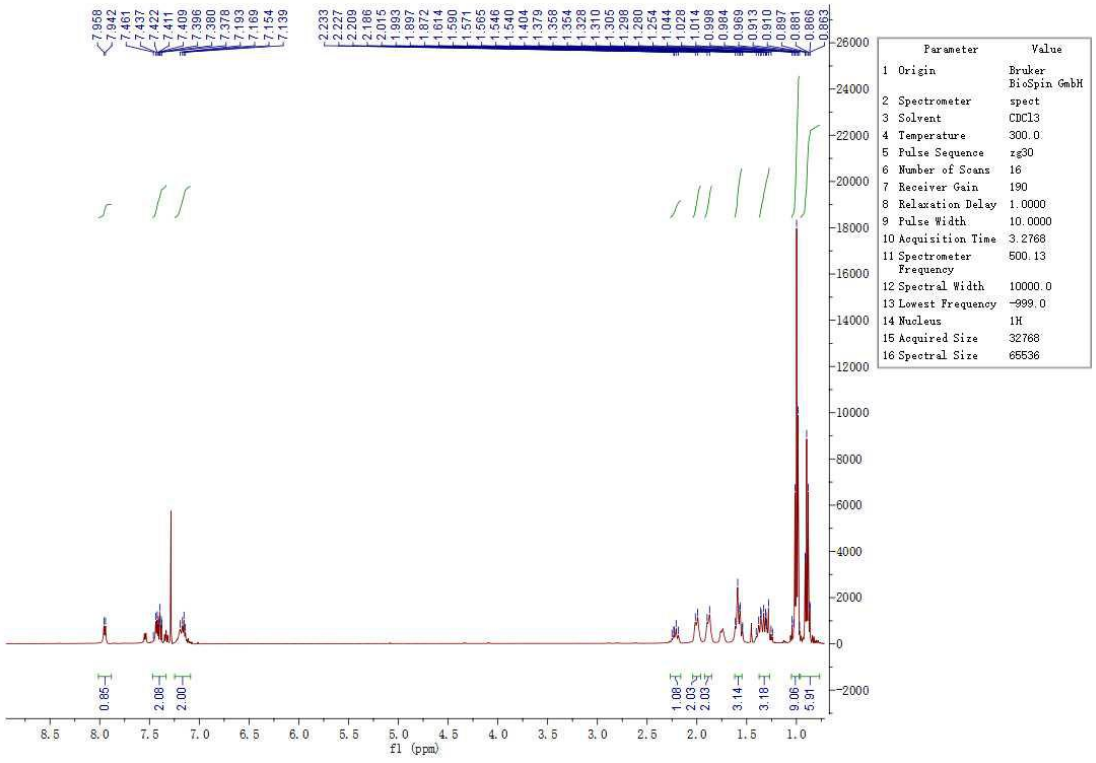


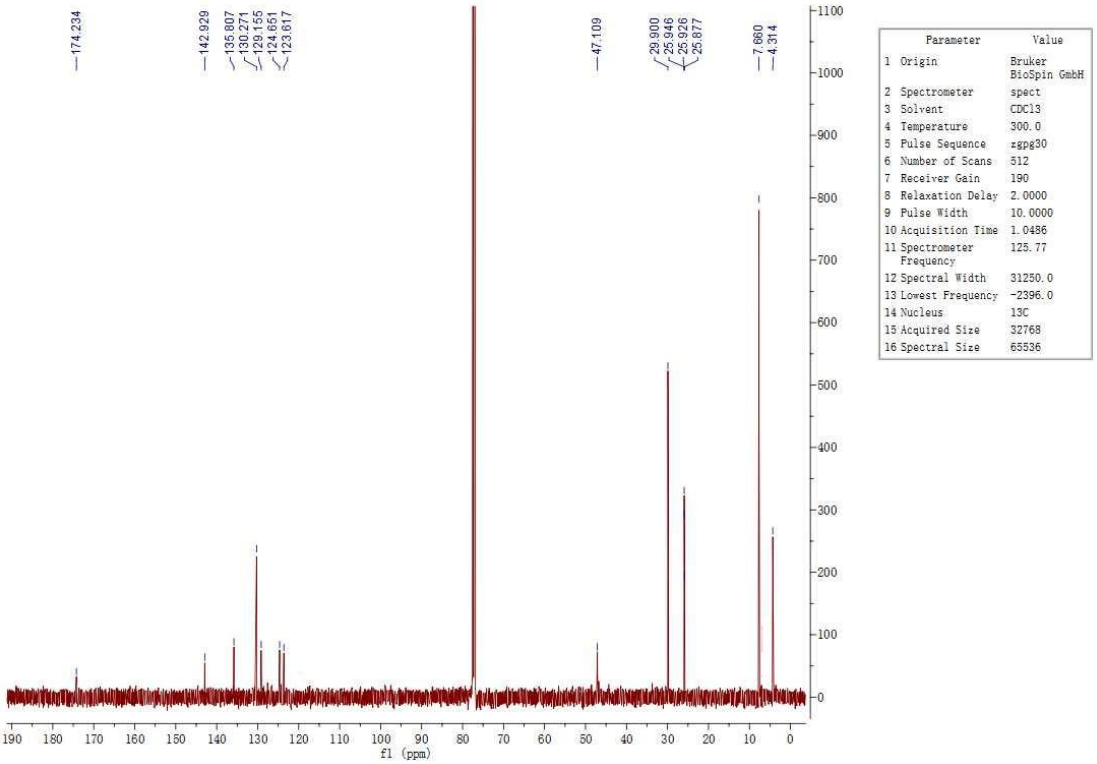




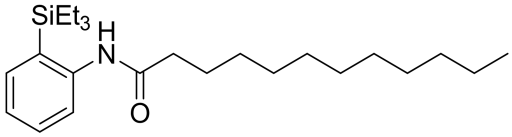
N-(2-(triethylsilyl)phenyl)cyclohexanecarboxamide (4e)

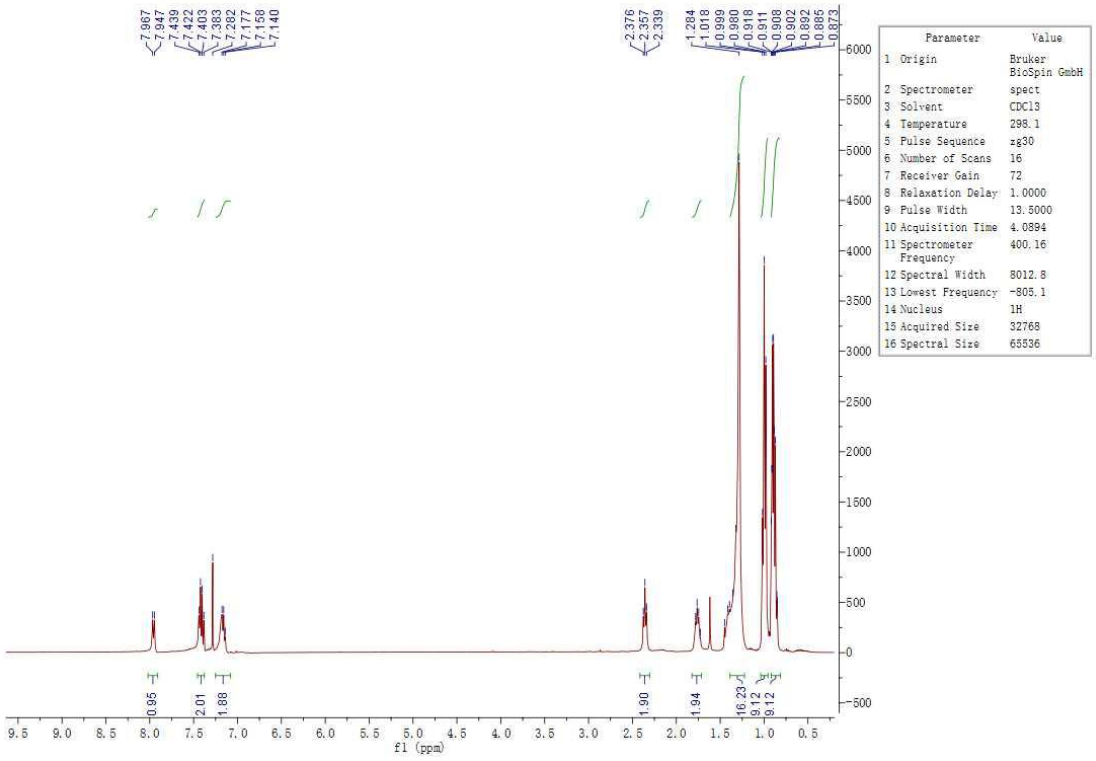


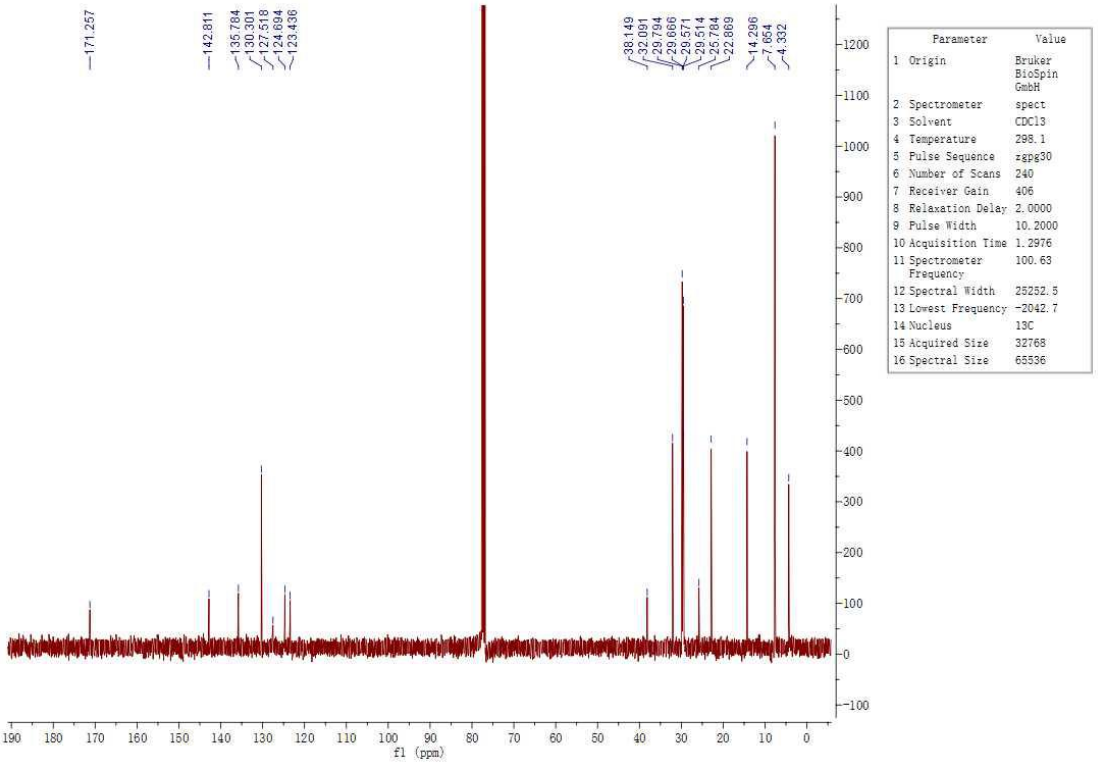




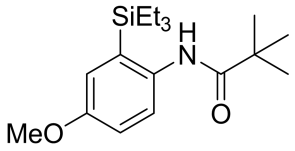
N-(2-(triethylsilyl)phenyl)dodecanamide (4f)

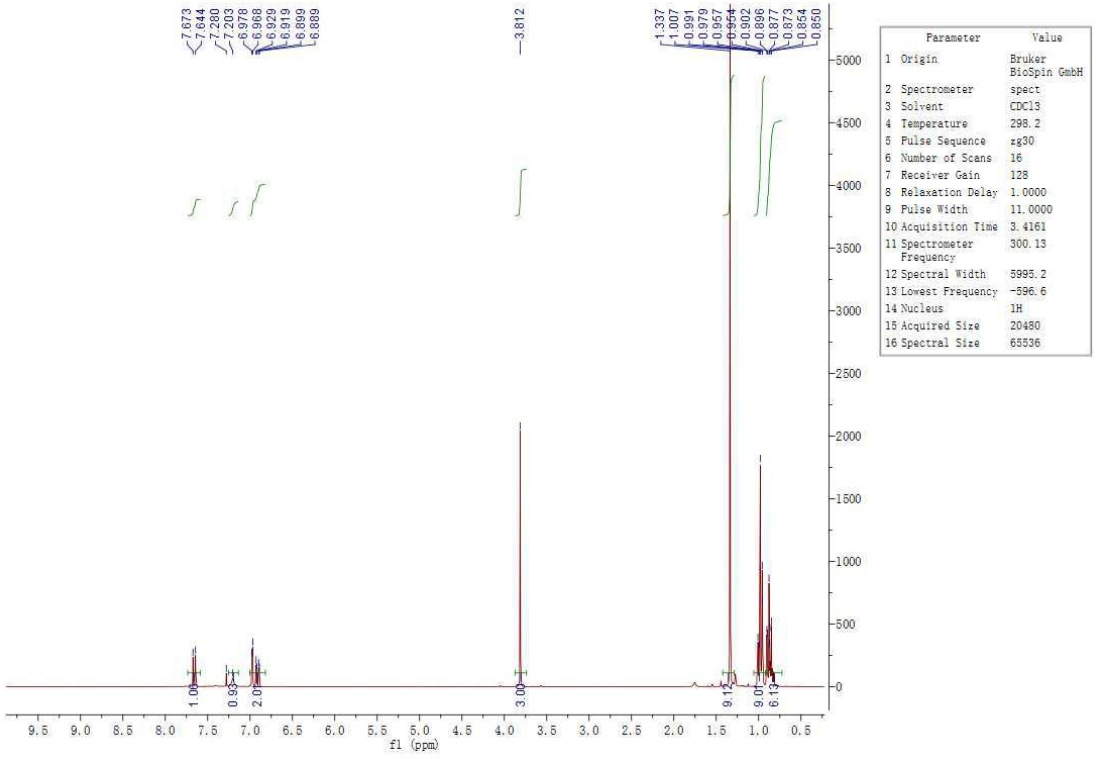


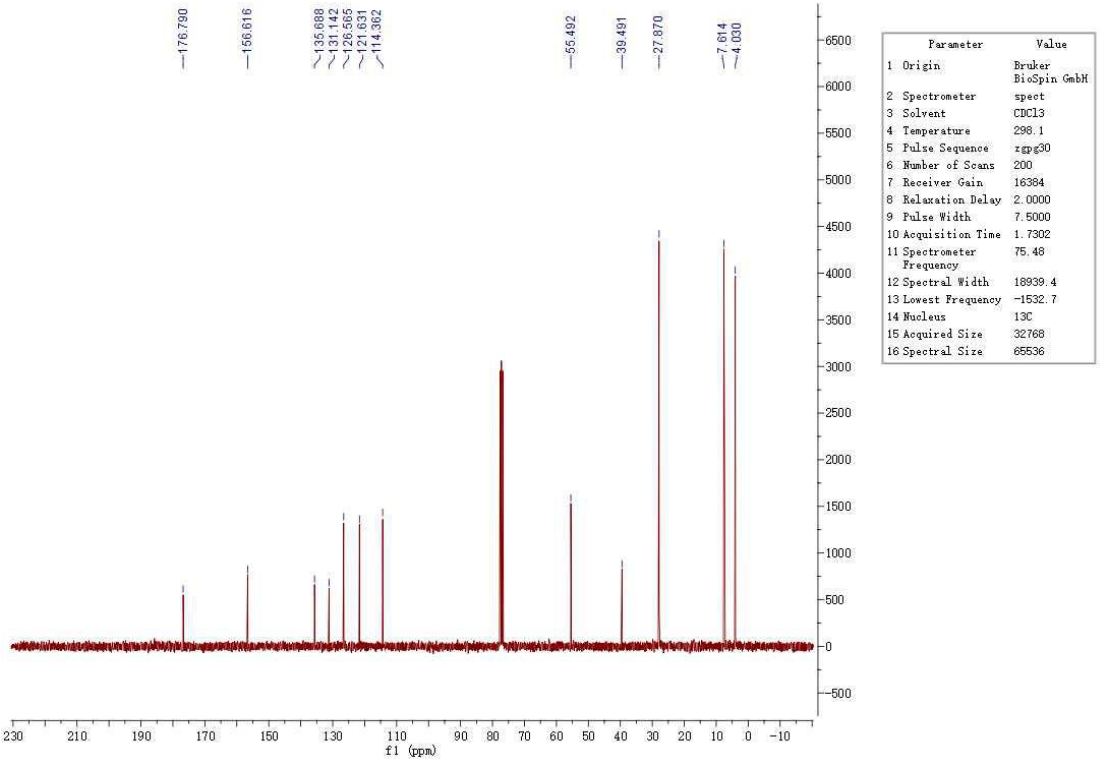




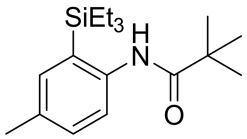
N-(4-methoxy-2-(triethylsilyl)phenyl)pivalamide (4g)

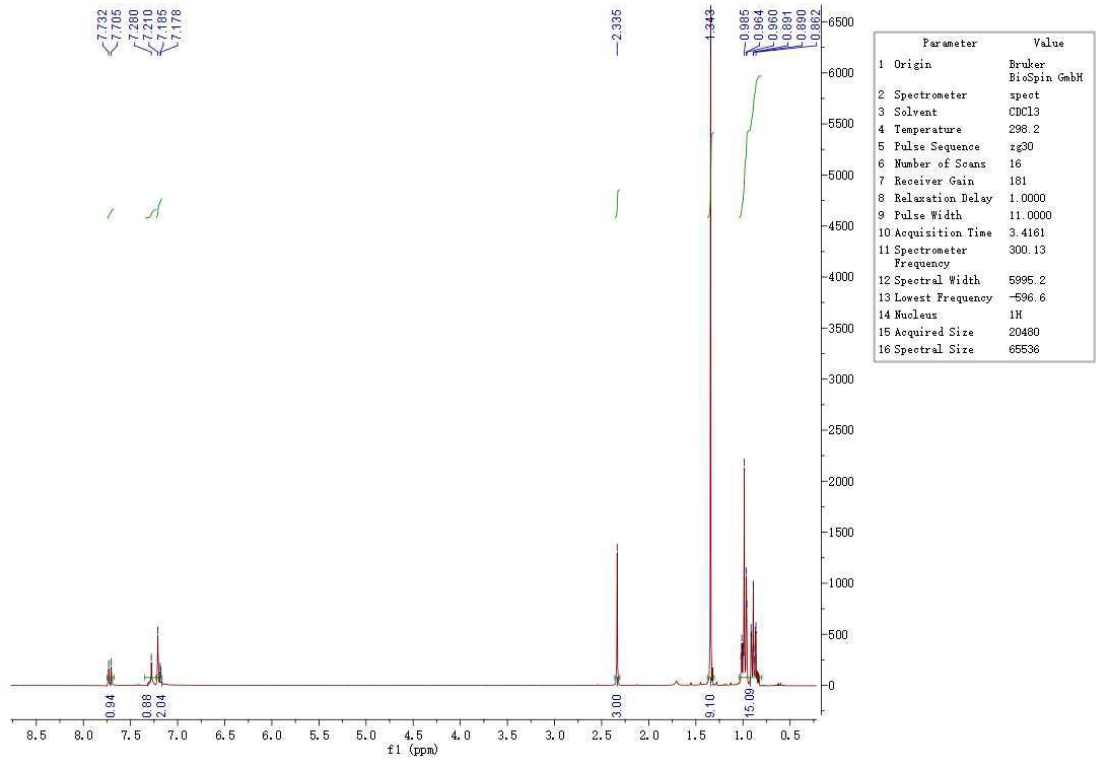




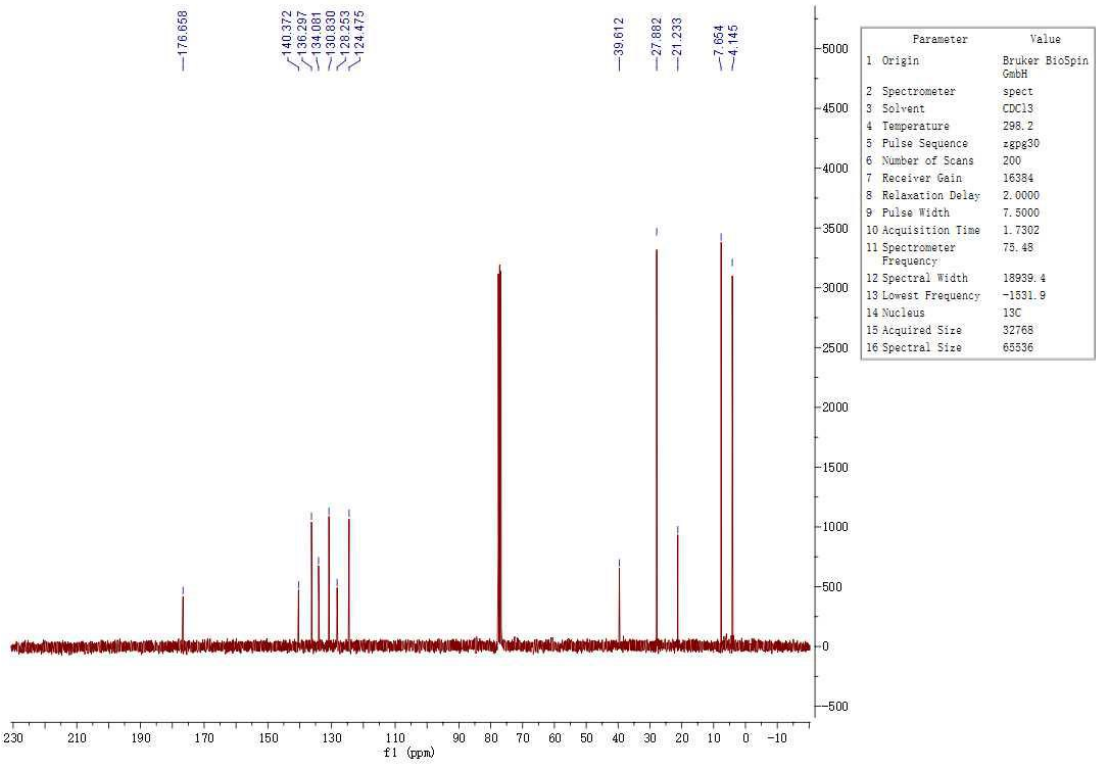


N-(4-methyl-2-(triethylsilyl)phenyl)pivalamide (4h)



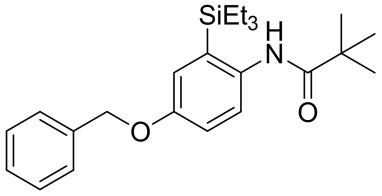


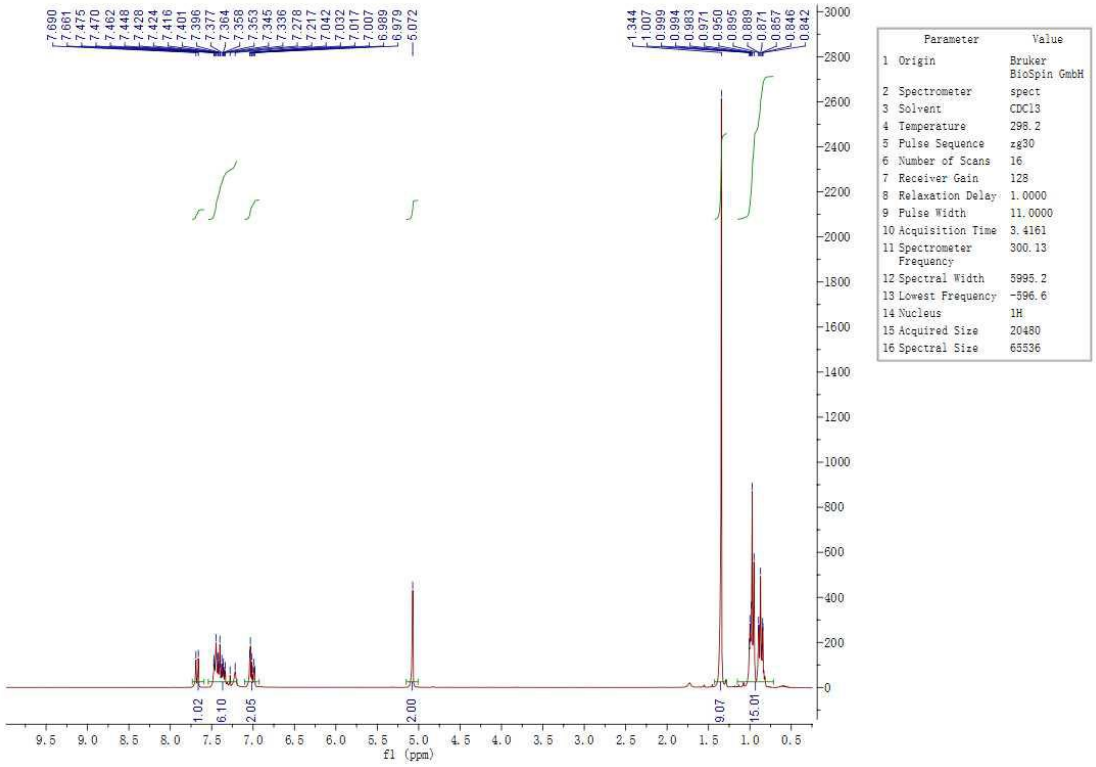
Parameter	Value
1 Origin	Bruker BioSpin GmbH
2 Spectrometer	spect
3 Solvent	CDCl3
4 Temperature	298.2
5 Pulse Sequence	zg30
6 Number of Scans	16
7 Receiver Gain	181
8 Relaxation Delay	1.0000
9 Pulse Width	11.0000
10 Acquisition Time	3.4161
11 Spectrometer Frequency	300.13
12 Spectral Width	5995.2
13 Lowest Frequency	-596.6
14 Nucleus	1H
15 Acquired Size	20480
16 Spectral Size	65536

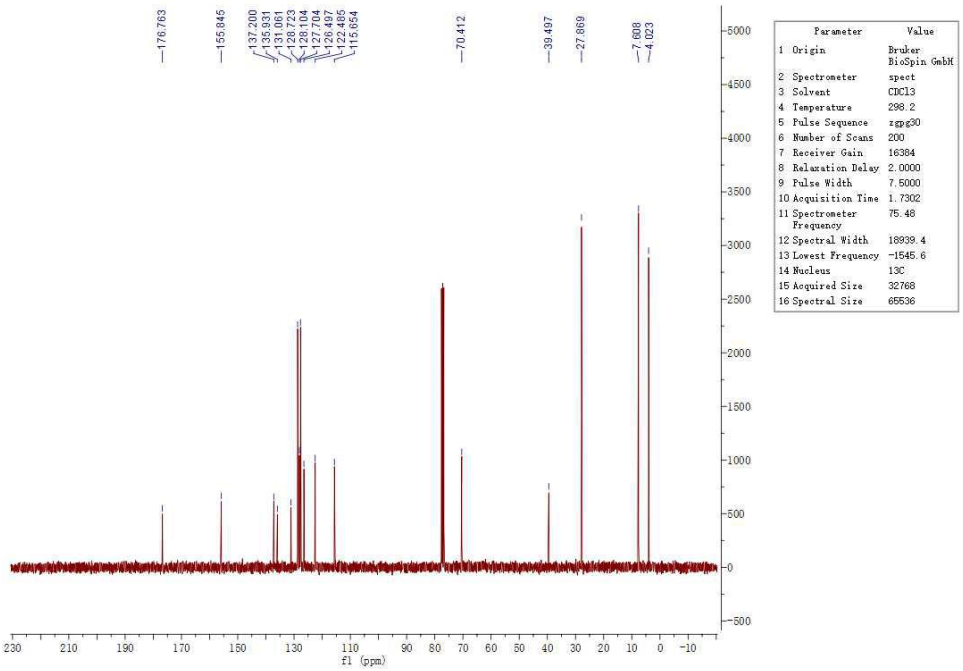


Parameter	Value
1 Origin	Bruker BioSpin GmbH
2 Spectrometer	spect
3 Solvent	CDCl3
4 Temperature	298.2
5 Pulse Sequence	zgpg30
6 Number of Scans	200
7 Receiver Gain	16384
8 Relaxation Delay	2.0000
9 Pulse Width	7.5000
10 Acquisition Time	1.7302
11 Spectrometer Frequency	75.48
12 Spectral Width	18939.4
13 Lowest Frequency	-1531.9
14 Nucleus	13C
15 Acquired Size	32768
16 Spectral Size	65536

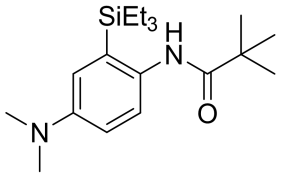
N-(4-(benzyloxy)-2-(triethylsilyl)phenyl)pivalamide (4i)

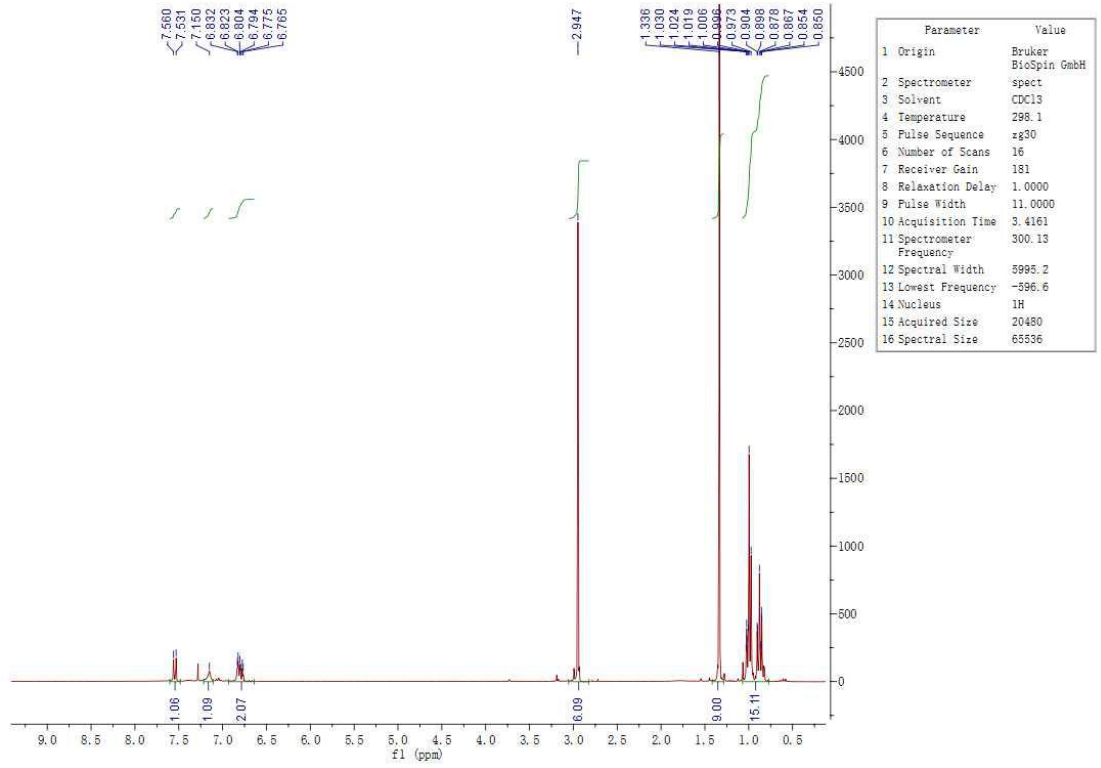


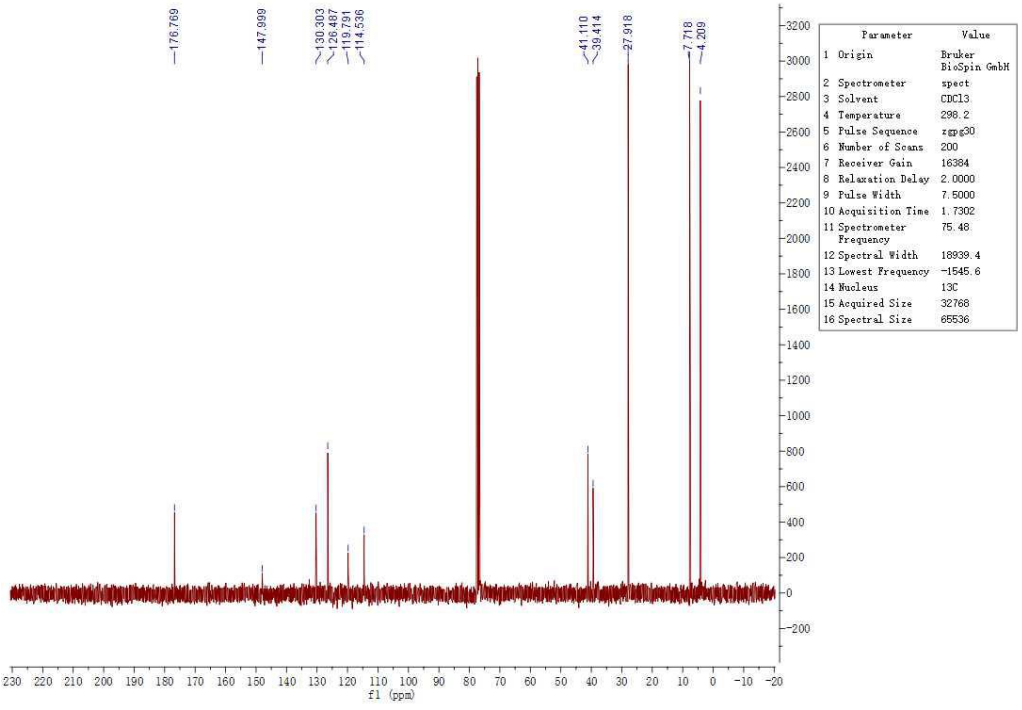




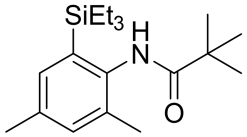
N-(4-(dimethylamino)-2-(triethylsilyl)phenyl)pivalamide (4j)

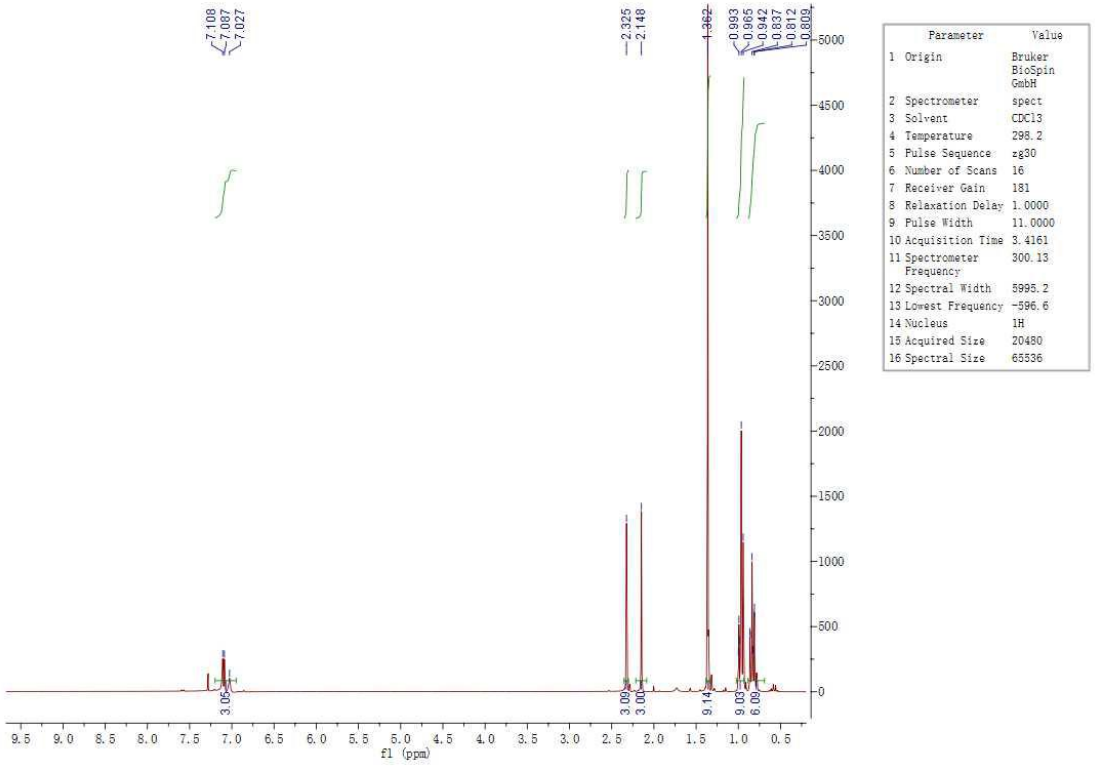




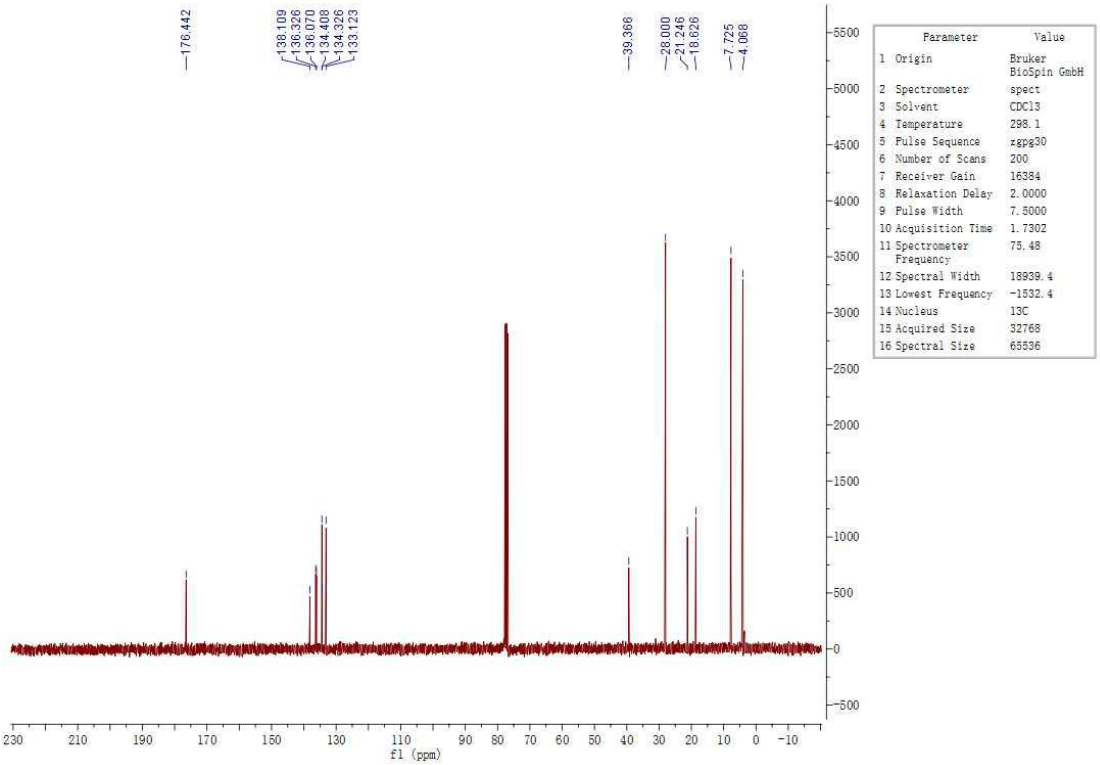


N-(2,4-dimethyl-6-(triethylsilyl)phenyl)pivalamide (4k)



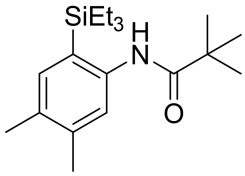


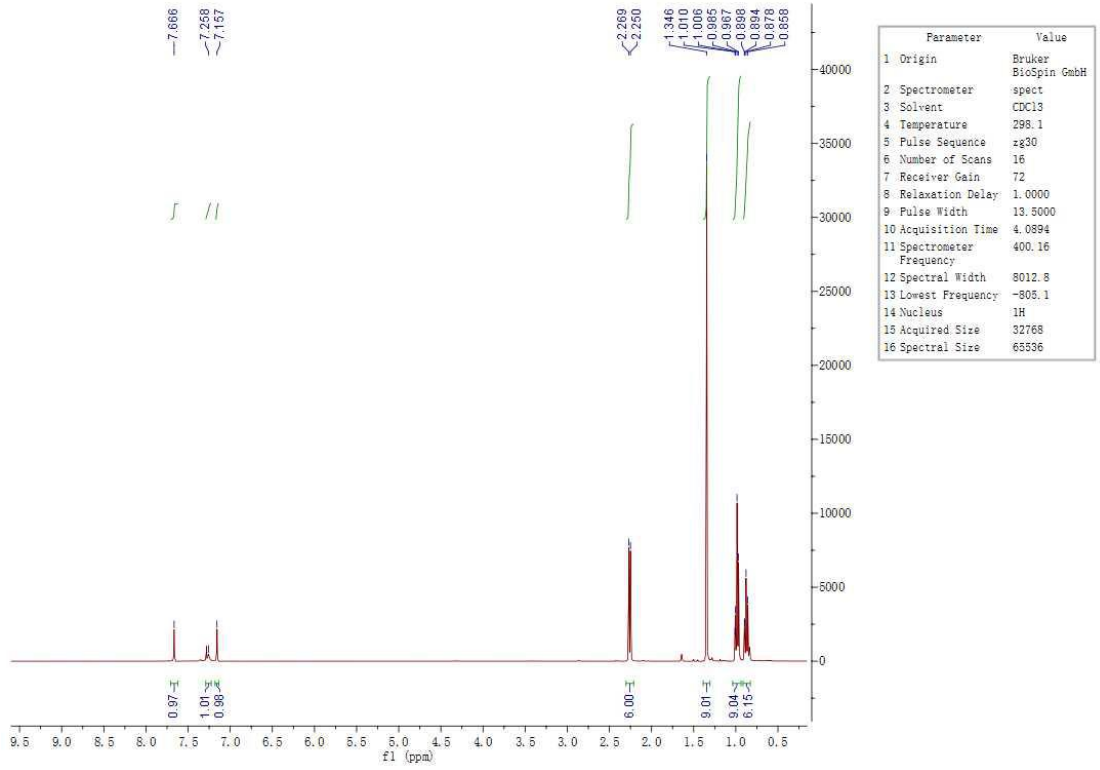
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.2
5	Pulse Sequence	zg30
6	Number of Scans	16
7	Receiver Gain	181
8	Relaxation Delay	1.0000
9	Pulse Width	11.0000
10	Acquisition Time	3.4161
11	Spectrometer Frequency	300.13
12	Spectral Width	5995.2
13	Lowest Frequency	-596.6
14	Nucleus	1H
15	Acquired Size	20480
16	Spectral Size	65536



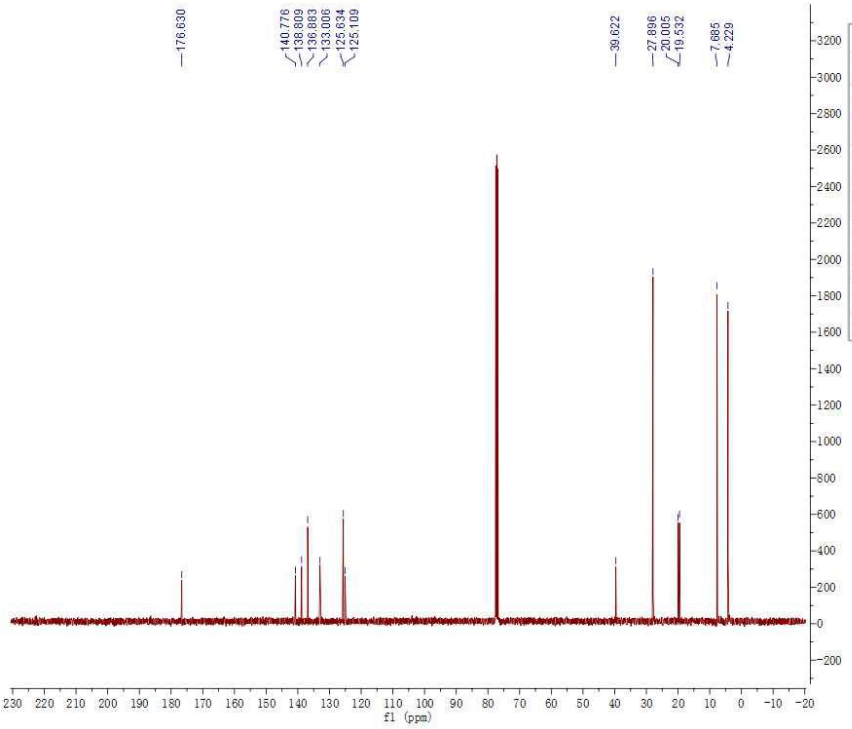
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.1
5	Pulse Sequence	zgpg30
6	Number of Scans	200
7	Receiver Gain	16384
8	Relaxation Delay	2.0000
9	Pulse Width	7.5000
10	Acquisition Time	1.7302
11	Spectrometer Frequency	75.48
12	Spectral Width	18939.4
13	Lowest Frequency	-1532.4
14	Nucleus	13C
15	Acquired Size	32768
16	Spectral Size	65536

N-(4,5-dimethyl-2-(triethylsilyl)phenyl)pivalamide (4l)



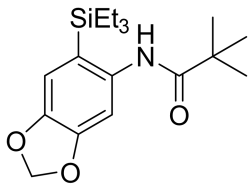


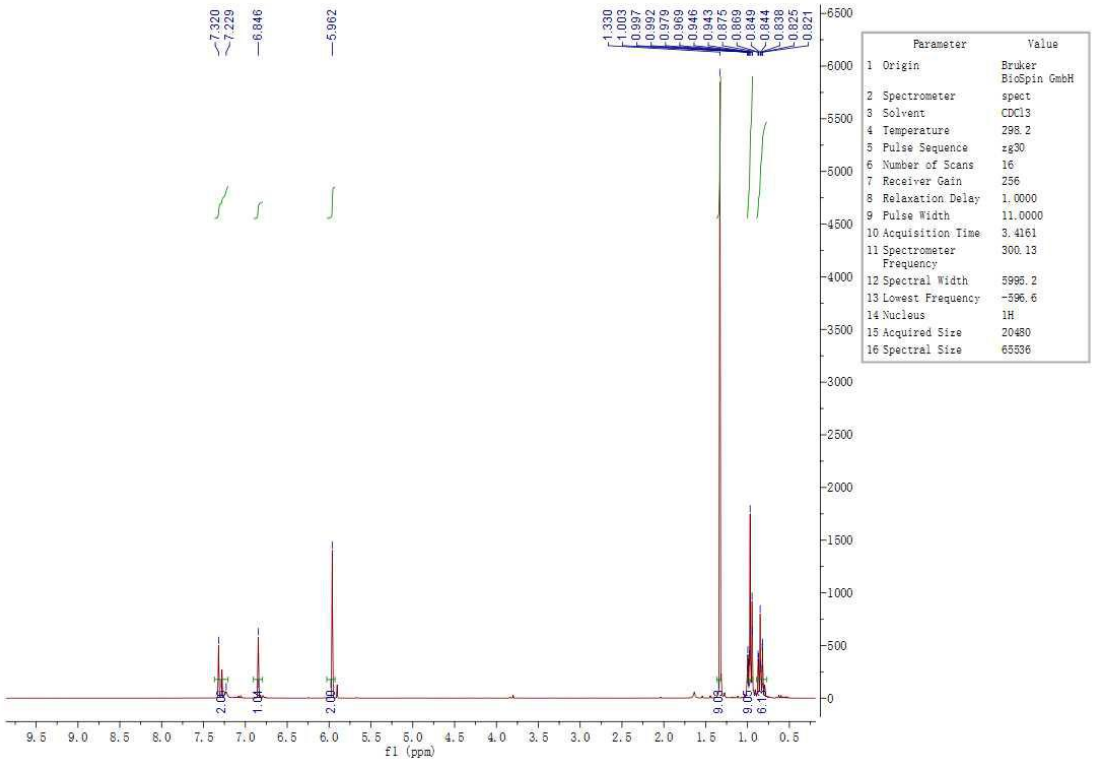
Parameter	Value
1 Origin	Bruker BioSpin GmbH
2 Spectrometer	spect
3 Solvent	CDCl3
4 Temperature	298.1
5 Pulse Sequence	zg30
6 Number of Scans	16
7 Receiver Gain	72
8 Relaxation Delay	1.0000
9 Pulse Width	13.5000
10 Acquisition Time	4.0894
11 Spectrometer Frequency	400.16
12 Spectral Width	8012.8
13 Lowest Frequency	-805.1
14 Nucleus	1H
15 Acquired Size	32768
16 Spectral Size	65536

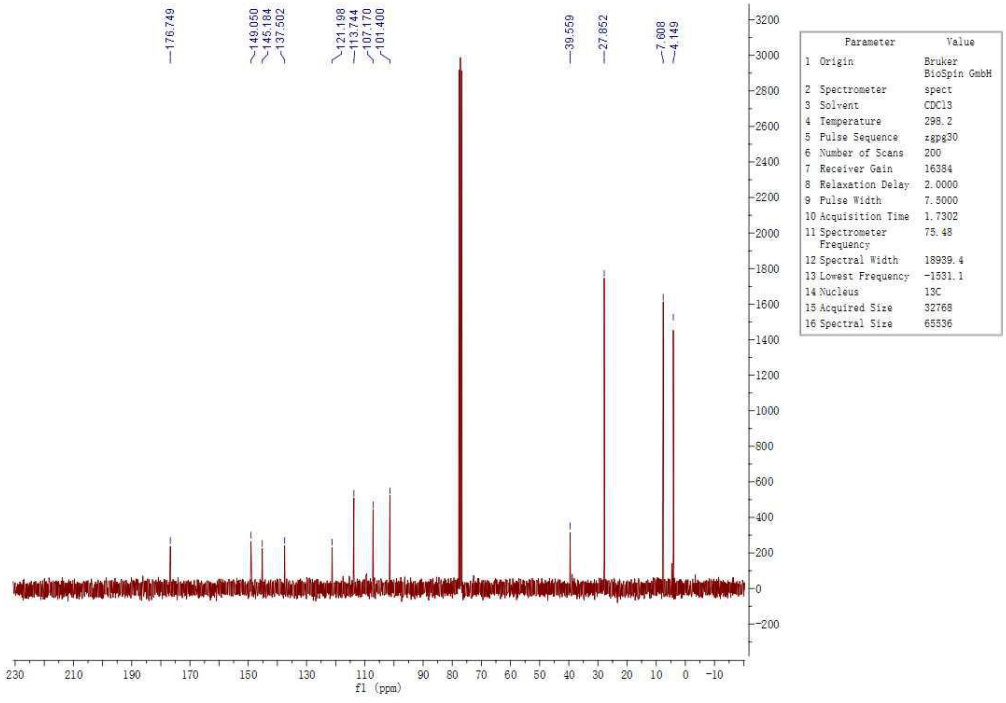


Parameter	Value
1 Origin	Bruker BioSpin GmbH
2 Spectrometer	spect
3 Solvent	CDCl3
4 Temperature	298.2
5 Pulse Sequence	zgpg30
6 Number of Scans	250
7 Receiver Gain	406
8 Relaxation Delay	2.0000
9 Pulse Width	10.2000
10 Acquisition Time	1.2976
11 Spectrometer Frequency	100.63
12 Spectral Width	25252.5
13 Lowest Frequency	-2043.3
14 Nucleus	13C
15 Acquired Size	32768
16 Spectral Size	65536

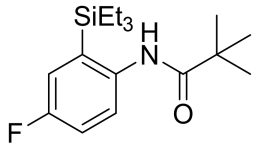
N-(6-(triethylsilyl)benzo[d][1,3]dioxol-5-yl)pivalamide (4m)

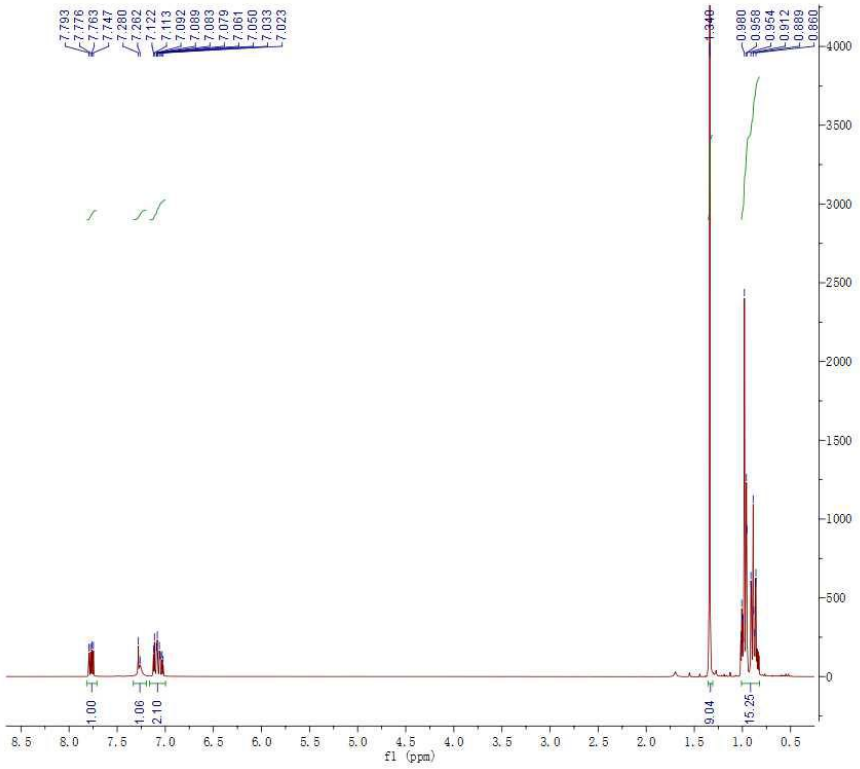




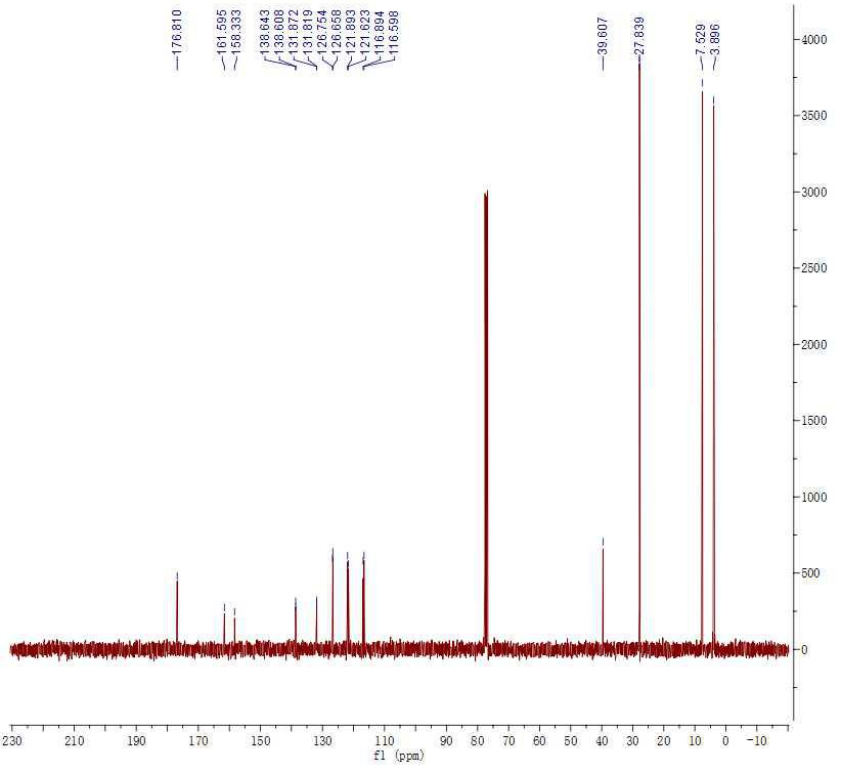


N-(4-fluoro-2-(triethylsilyl)phenyl)pivalamide (4n)

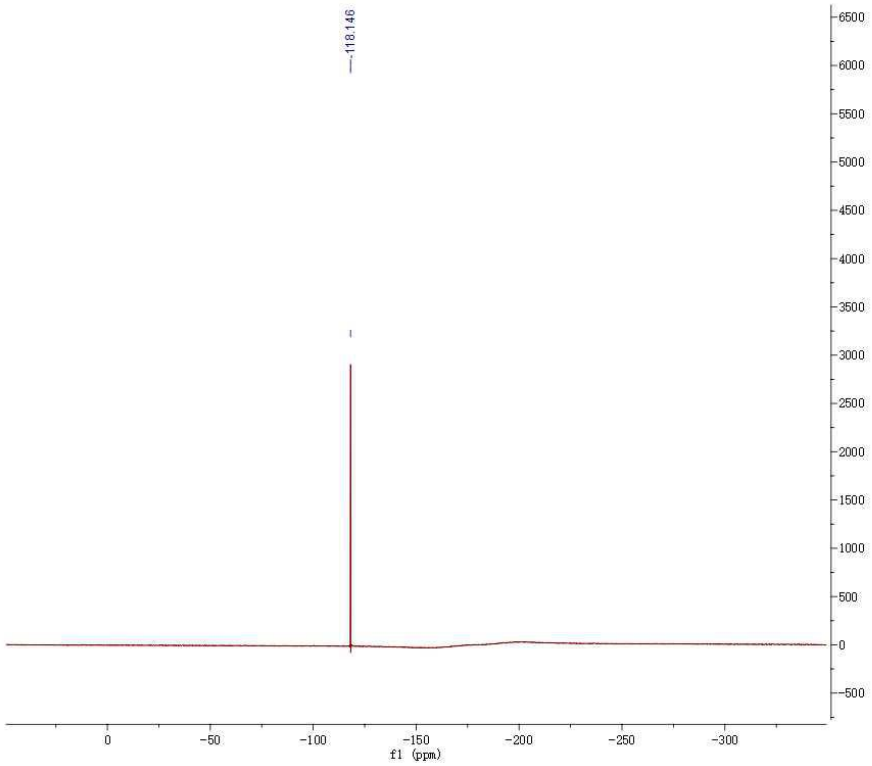




	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.2
5	Pulse Sequence	zg30
6	Number of Scans	16
7	Receiver Gain	181
8	Relaxation Delay	1.0000
9	Pulse Width	11.0000
10	Acquisition Time	3.4161
11	Spectrometer Frequency	300.13
12	Spectral Width	5995.2
13	Lowest Frequency	-596.6
14	Nucleus	1H
15	Acquired Size	20480
16	Spectral Size	65536

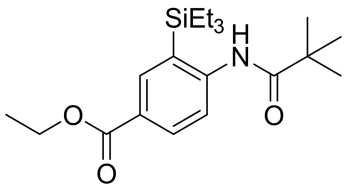


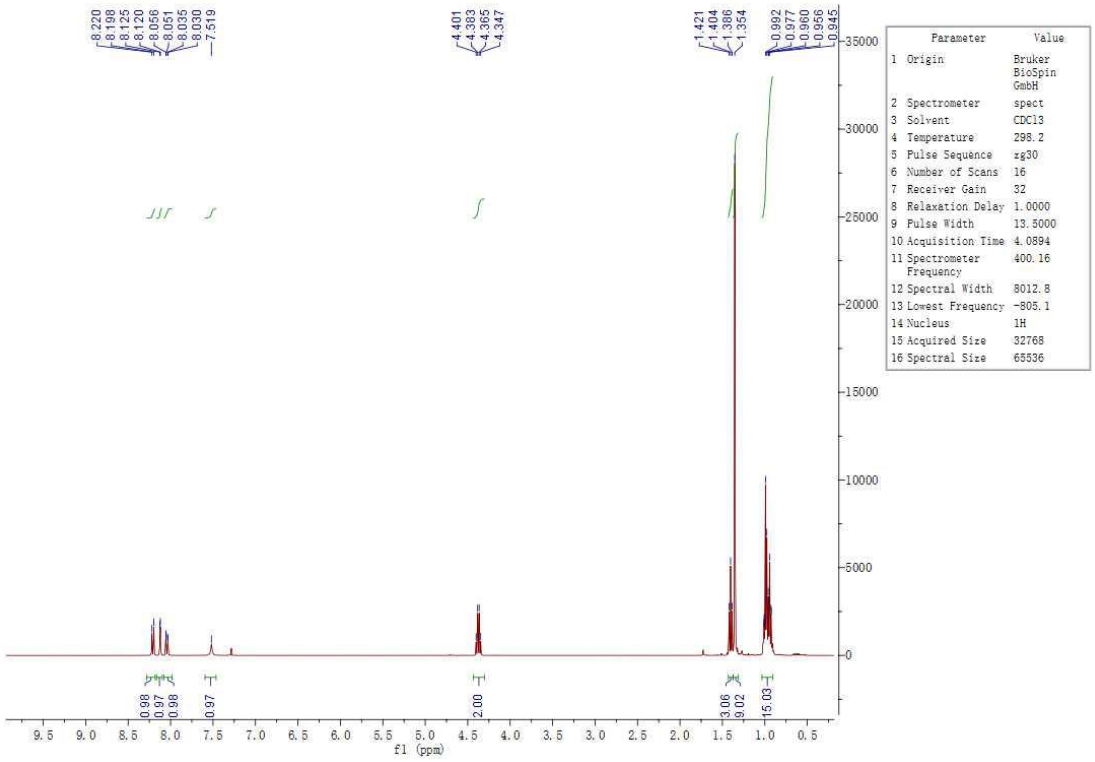
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.2
5	Pulse Sequence	zgpg30
6	Number of Scans	200
7	Receiver Gain	16384
8	Relaxation Delay	2.0000
9	Pulse Width	7.5000
10	Acquisition Time	1.7302
11	Spectrometer Frequency	75.48
12	Spectral Width	18939.4
13	Lowest Frequency	-1531.5
14	Nucleus	13C
15	Acquired Size	32768
16	Spectral Size	65536

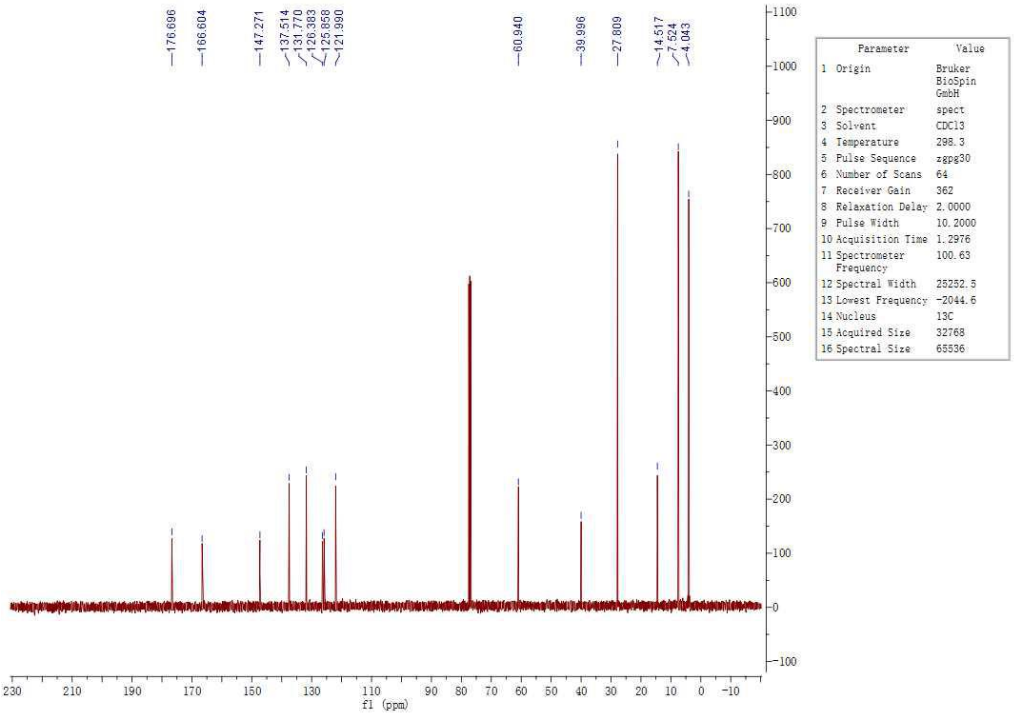


	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	298.2
4	Pulse Sequence	zgfhigqn.2
5	Number of Scans	16
6	Receiver Gain	322
7	Relaxation Delay	1.0000
8	Pulse Width	12.5000
9	Spectrometer Frequency	376.47
10	Spectral Width	150000.0
11	Lowest Frequency	-131479.0
12	Nucleus	19F
13	Acquired Size	65536
14	Spectral Size	131072

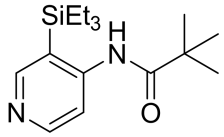
ethyl 4-pivalamido-3-(triethylsilyl)benzoate (4o)

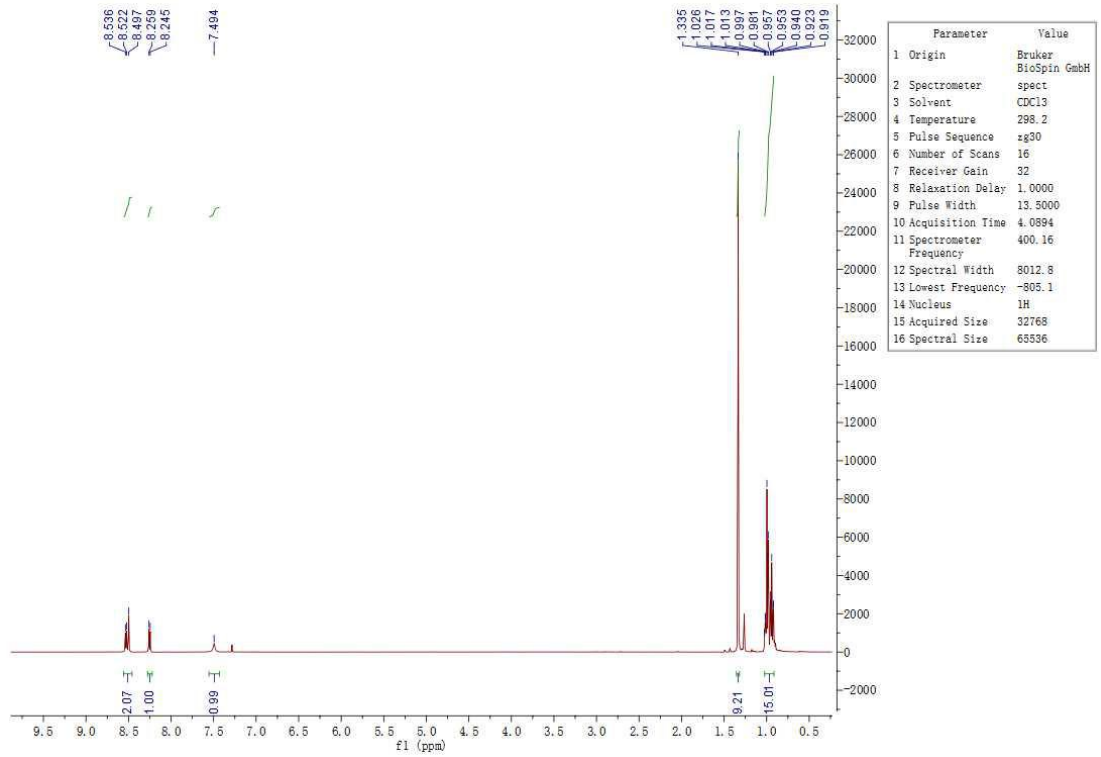




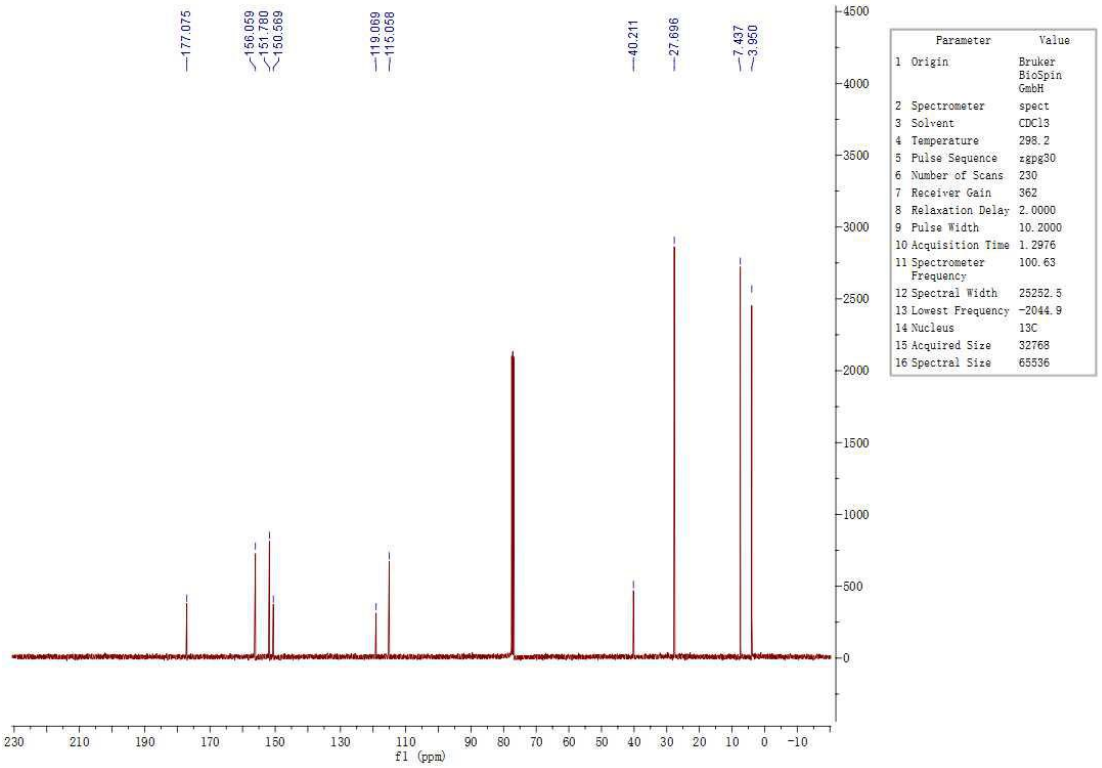


N-(3-(triethylsilyl)pyridin-4-yl)pivalamide (4p)



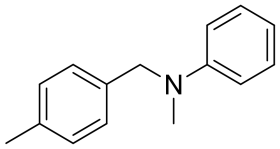


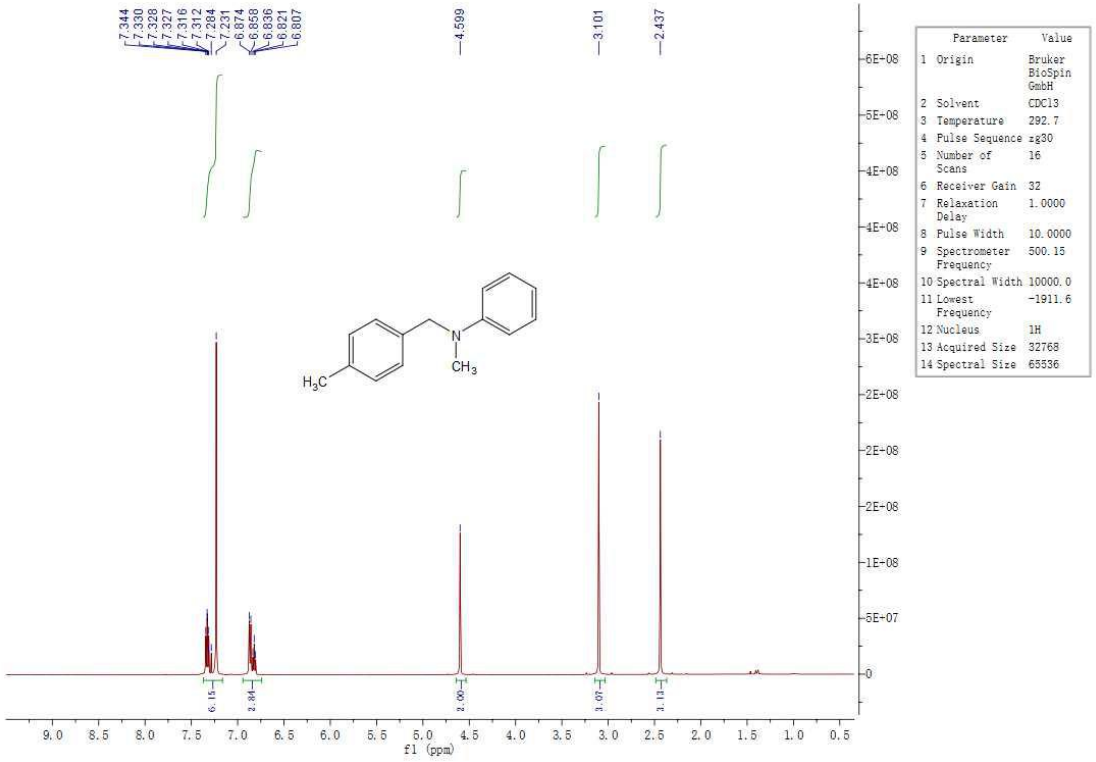
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.2
5	Pulse Sequence	zg30
6	Number of Scans	16
7	Receiver Gain	32
8	Relaxation Delay	1.0000
9	Pulse Width	13.5000
10	Acquisition Time	4.0894
11	Spectrometer Frequency	400.16
12	Spectral Width	8012.8
13	Lowest Frequency	-805.1
14	Nucleus	1H
15	Acquired Size	32768
16	Spectral Size	65536



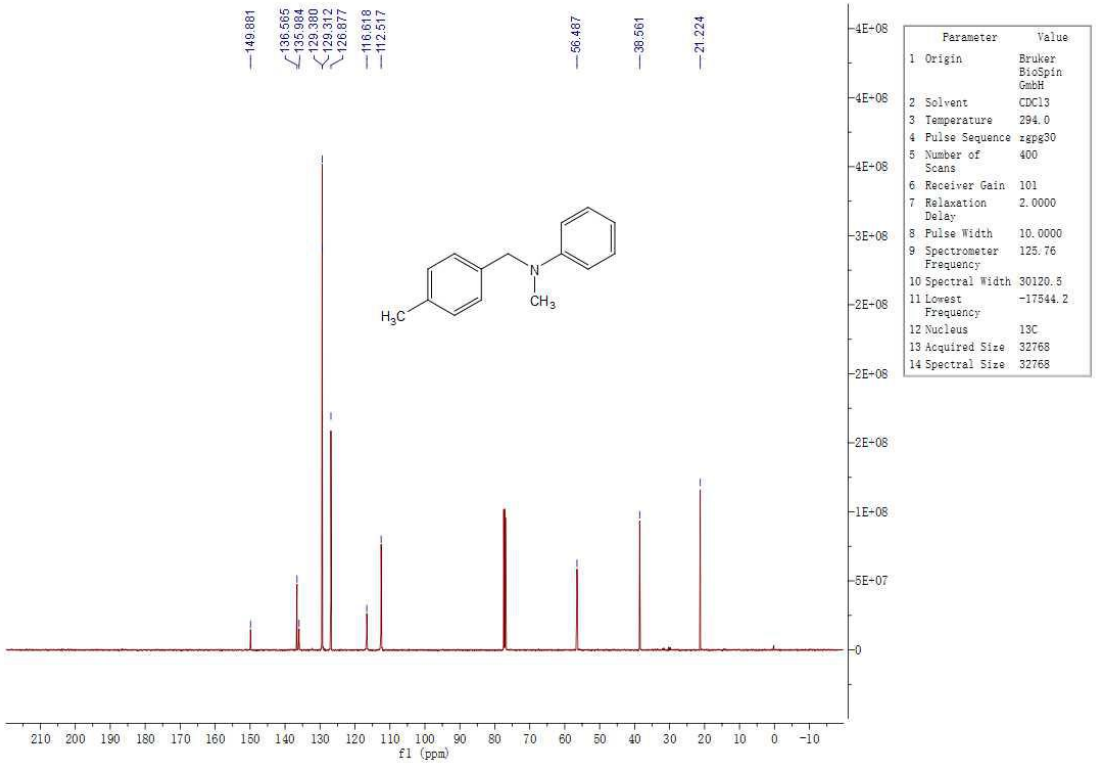
	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Spectrometer	spect
3	Solvent	CDCl3
4	Temperature	298.2
5	Pulse Sequence	zgpg30
6	Number of Scans	230
7	Receiver Gain	362
8	Relaxation Delay	2.0000
9	Pulse Width	10.2000
10	Acquisition Time	1.2976
11	Spectrometer Frequency	100.63
12	Spectral Width	25252.5
13	Lowest Frequency	-2044.9
14	Nucleus	13C
15	Acquired Size	32768
16	Spectral Size	65536

N-methyl-N-(4-methylbenzyl)aniline (1a')





	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	292.7
4	Pulse Sequence	zg30
5	Number of Scans	16
6	Receiver Gain	32
7	Relaxation Delay	1.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	500.15
10	Spectral Width	10000.0
11	Lowest Frequency	-1911.6
12	Nucleus	1H
13	Acquired Size	32768
14	Spectral Size	65536



	Parameter	Value
1	Origin	Bruker BioSpin GmbH
2	Solvent	CDCl3
3	Temperature	294.0
4	Pulse Sequence	zgpg30
5	Number of Scans	400
6	Receiver Gain	101
7	Relaxation Delay	2.0000
8	Pulse Width	10.0000
9	Spectrometer Frequency	125.76
10	Spectral Width	30120.5
11	Lowest Frequency	-17544.2
12	Nucleus	13C
13	Acquired Size	32768
14	Spectral Size	32768