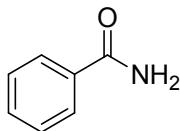


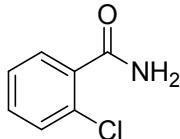
Supporting Information

Benzamide[1]



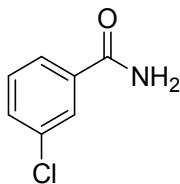
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.45-7.51 (m, 3H), 7.53 (s, 1H), 7.96-7.99 (m, 2H), 8.13 (s, 1H); **13CNMR** (DMSO-d₆): δ = 128.5 (2CH₂), 122.2 (2CH₂), 132.2 (CH), 135.2 (C), 169.2 (CO).

2-Chlorobenzamide[1]



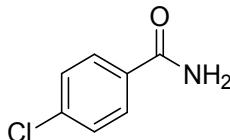
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.38-7.63 (m, 4H), 7.63 (s, 1H), 7.91 (s, 1H); **13CNMR** (DMSO-d₆): δ = 127.9, 129.5, 130.5, 131.5 (CH), 138.0 (C), 169.1 (CO).

3-Chlorobenzamide[1]



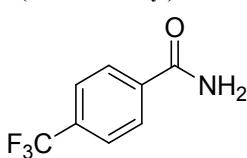
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.49-7.65 (m, 3H), 7.85-7.94 (m, 2H), 8.12 (s, 1H); **13CNMR** (DMSO-d₆): δ = 127.1 (CH), 128.3 (CH), 131.2 (CH), 132.1 (CH), 134.1 (C), 137.2 (C), 167.4 (CO).

4-Chlorobenzamide[1]



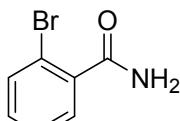
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.50-7.56 (m, 3H), 7.92-7.96 (m, 3H); **13CNMR** (DMSO-d₆): δ = 129.0 (2CH), 131.7 (2CH), 133.2 (C), 137.2 (C), 167.9 (CO).

4-(trifluoromethyl)benzamide



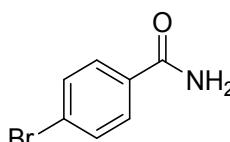
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.67 (s, 1H), 7.86-7.89 (m, 2H), 8.10-8.12 (m, 2H), 8.24 (s, 1H); **13CNMR** (DMSO-d₆): δ = 124.8 (d, *J*_{CF3} = 272.1 Hz, CF₃), 126.2 (2CH), 129.3 (2CH), 132.1 (d, *J* = 31.5 Hz, C), 139.0 (C), 167.9 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 189 (62), 173 (100), 170 (15), 145 (94), 95 (13), 75 (13); **HRMS** (EI): Calc for C₈H₆N₁O₁F₃: 189.03960; found: 189.03907.

2-Bromobenzamide

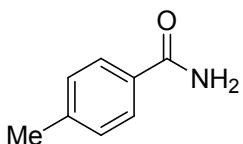
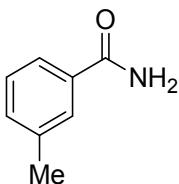
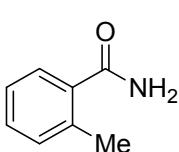
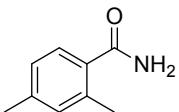
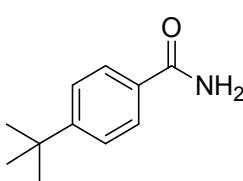
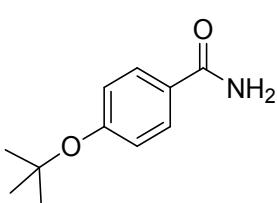


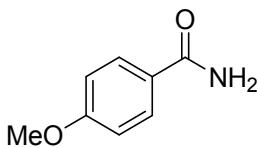
ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, CDCl₃): δ = 6.12-6.33 (m, 2H), 7.32-7.49 (m, 2H), 7.46-7.71 (m, 2H); **13CNMR** (DMSO-d₆): δ = 119.6, 127.95, 129.02, 131.12, 133.16, 139.77 (C), 169.55 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 199 (54), 185 (97), 183 (100), 157 (41), 155 (41), 76 (28). **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 199 (54), 185 (97), 183 (100), 157 (41), 155 (41), 76 (28); **HRMS** (EI): Calc for C₇H₆N₁O₁Br₁: 198.96273; found: 198.96251.

4-Bromobenzamide

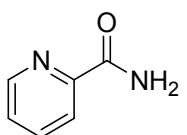


ethyl acetate/hexane (2:1); **1H NMR** (300 MHz, DMSO-d₆): δ = 7.51 (s, 1H, NH₂), 7.68-7.73 (m, 2H), 7.83-7.88 (m, 2H), 8.10 (s, 1H, NH₂); **13CNMR** (DMSO-d₆): δ = 125.9 (C), 130.5 (2CH), 132.2 (2CH), 134.3 (C), 167.9 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 199 (54), 185 (97), 183 (100), 157 (41), 155 (41), 76 (28).

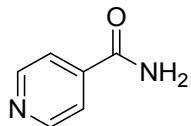
4-Methylbenzamide**3-Methylbenzamide****2-Methylbenzamide****2,4-dimethylbenzamide****4-(*tert*-Butyl)benzamide****4-(*tert*-Butoxy)benzamide**

4-Methoxybenzamide

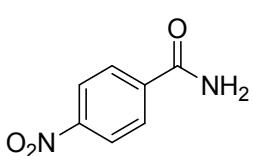
ethyl acetate/hexane (2:1); **¹H NMR** (300 MHz, DMSO-d₆): δ = 3.39 (s, 3H), 6.99 (m, 2H), 7.22 (s, 2H), 7.85-7.89 (m, 3H); **¹³CNMR** (DMSO-d₆): δ = 56.2 (OCH₃), 114.3 (2CH), 127.4 (C), 130.2 (2CH), 162.5 (C), 168.3 (CO).

Picolinamide

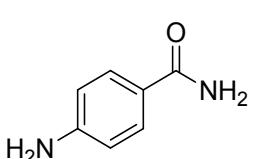
ethyl acetate/hexane (2:1); **¹H NMR** (300 MHz, DMSO-d₆): δ = 7.60-7.64 (m, 1H), 7.70 (s, 1H), 7.98-8.03 (m, 1H), 8.07 (s, 1H), 8.07 (m, 1H), 8.17 (s, 1H), 8.64-8.66 (m, 1H); **¹³CNMR** (DMSO-d₆): δ = 122.8 (CH), 127.4 (CH), 138.5 (CH), 149.4 (CH), 151.2 (C), 166.9 (CO); **GC-MS** (EI, 70 eV): *m/z* (%)[M⁺] 122 (34), 79 (100), 78 (34), 52 (32), 50 (13); **HRMS** (EI): Calc for C₆H₆N₂O₁: 122.04746; found: 122.04755.

Isonicotinamide

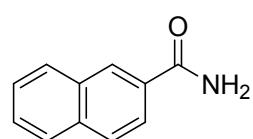
ethyl acetate/hexane (2:1); **¹H NMR** (δ = 7.83-7.86 (m, 3H), 8.79-8.20 (s, 3H); **¹³CNMR** (DMSO-d₆): δ = 123.6 (2CH), 139.2 (C), 151.4 (C), 167.1 (CO); **HRMS** (EI): Calc for C₆H₆N₂O₁: 122.04746; found: 122.04747

4-Nitrobenzamide

ethyl acetate/hexane (2:1); **¹H NMR** (300 MHz, DMSO-d₆): δ = 5.65 (s, 2H), 6.52-6.57 (m, 2H), 7.59-7.64 (m, 2H); **¹³CNMR** (DMSO-d₆): δ = 112.91, 121.40, 129.57, 152.11 (C), 168.48 (CO); **GC-MS** (EI, 70 eV): *m/z* (%)[M⁺] 166 (75), 150 (100), 104 (29), 92 (24), 50 (20); **HRMS** (EI): Calc for C₇H₆N₂O₃: 166.03729; found: 166.03756.

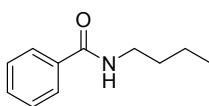
4-Aminobenzamide

ethyl acetate/hexane (2:1); **¹H NMR** (300 MHz, DMSO-d₆): δ = 5.67 (s, 2H, NH₂), 6.57-6.66 (m, 2H), 6.99-7.12 (m, 1H), 7.65-7.75 (m, 3H); **¹³CNMR** (DMSO-d₆): δ = 113.65, 121.92, 130.28, 152.77 (C), 169.48 (CO); **GC-MS** (EI, 70 eV): *m/z* (%)[M⁺] 136 (70), 120 (100), 92 (37), 65 (31); **HRMS** (ESI) [M+Na]⁺ : Calc for C₇H₈N₂O: 159.05288; found: 166.05305.

2-Naphthamide

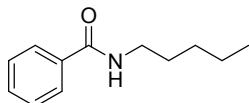
ethyl acetate/hexane (2:1); **¹H NMR** (300 MHz, DMSO-d₆): δ = 7.56-7.67 (m, 3H), 7.98-8.06 (m, 4H), 8.22 (1, 1H), 8.55 (s, 1H); **¹³CNMR** (DMSO-d₆): δ = 125.3, 127.5, 128.5, 128.7, 129.8, 132, 133.1, 135.1, 168.9 (CO); **GC-MS** (EI, 70 eV): *m/z* (%)[M⁺] 171 (83), 155 (100), 127 (98), 75 (10).

N-Butylbenzamide



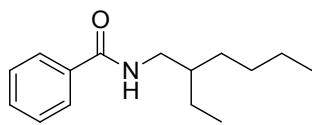
ethyl acetate/hexane (1:4); **¹H NMR** (300 MHz, CDCl₃): δ = 0.93 (t, *J* = 7.28 Hz, 3H), 1.38 (sext., 2H), 1.58 (pent., 2H), 3.41 (q, *J* = 7.13 Hz, 2H), 6.94 (s, 1H), 7.31-7.48 (m, 3H), 7.79-7.82 (m, 2H); **¹³CNMR** (CDCl₃): δ = 13.7 (CH₃), 20.0 (CH₂), 31.5 (CH₂), 39.7 (CH₂), 126.9 (2CH), 128.3 (2CH), 131.1 (CH), 134.6 (C), 168.0 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 177 (9), 135 (20), 134 (19), 105 (100), 77 (39), 51 (10).

N-Pentylbenzamide



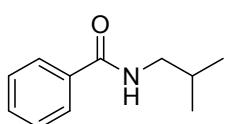
ethyl acetate/hexane (1:4); **¹H NMR** (300 MHz, CDCl₃): δ = 0.88 (t, *J* = 7.48 Hz, 3H), 1.29-1.35 (m, 4H), 1.52-1.63 (m, 2H), 3.37-3.44 (m, 2H), 6.49 (s, 1H), 7.32-7.48 (m, 3H), 7.73-7.78 (m, 2H); **¹³CNMR** (CDCl₃): δ = 14.0 (CH₃), 22.4 (CH₂), 29.2 (CH₂), 29.4 (CH₂), 40.1 (CH₂), 126.9 (2CH), 128.5 (2CH), 131.3 (CH), 131.3 (C), 167.6 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 191 (8), 135 (17), 134 (21), 105 (100), 77 (35), 51 (8).

N-(2-Ethylhexyl)benzamide



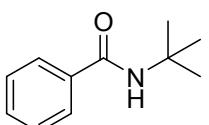
ethyl acetate/hexane (1:4); **¹H NMR** (300 MHz, CDCl₃): δ = 0.92-1.00 (m, 6H), 1.33-1.45 (m, 6H), 3.43-3.48 (m, 2H), 6.16 (s, 1H), 7.45-7.57 (m, 3H), 7.78-7.82 (m, 2H); **¹³CNMR** (CDCl₃): δ = 10.9 (CH₃), 14.0 (CH₃), 23.0 (CH₂), 24.4 (CH₂), 28.9 (CH₂), 31.1 (CH₂), 39.5 (CH), 42.9 (CH₂), 126.8 (C), 128.6, 131.3 (CH), 167.3 (CO), **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 233 (5), 135 (18), 134 (37), 105 (100), 77 (35).

N-Isobutylbenzamide



ethyl acetate/hexane (1:4); **¹H NMR** (300 MHz, CDCl₃): δ = 0.94 (s, 3H), 0.97 (s, 3H), 1.89 (hept., 1H), 3.26 (t, *J* = 6.78 Hz, 2H), 6.38 (s, 1H, NH), 7.37-7.49 (m, 3H), 7.74-7.79 (m, 2H); **¹³CNMR** (CDCl₃): δ = 20.3 (2CH₃), 28.6 (CH), 47.4 (CH₂), 126.9 (2CH), 128.6 (2CH), 131.4 (C), 134.9 (C), 167.7 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 177 (13), 105 (100), 77 (36), 51 (10).

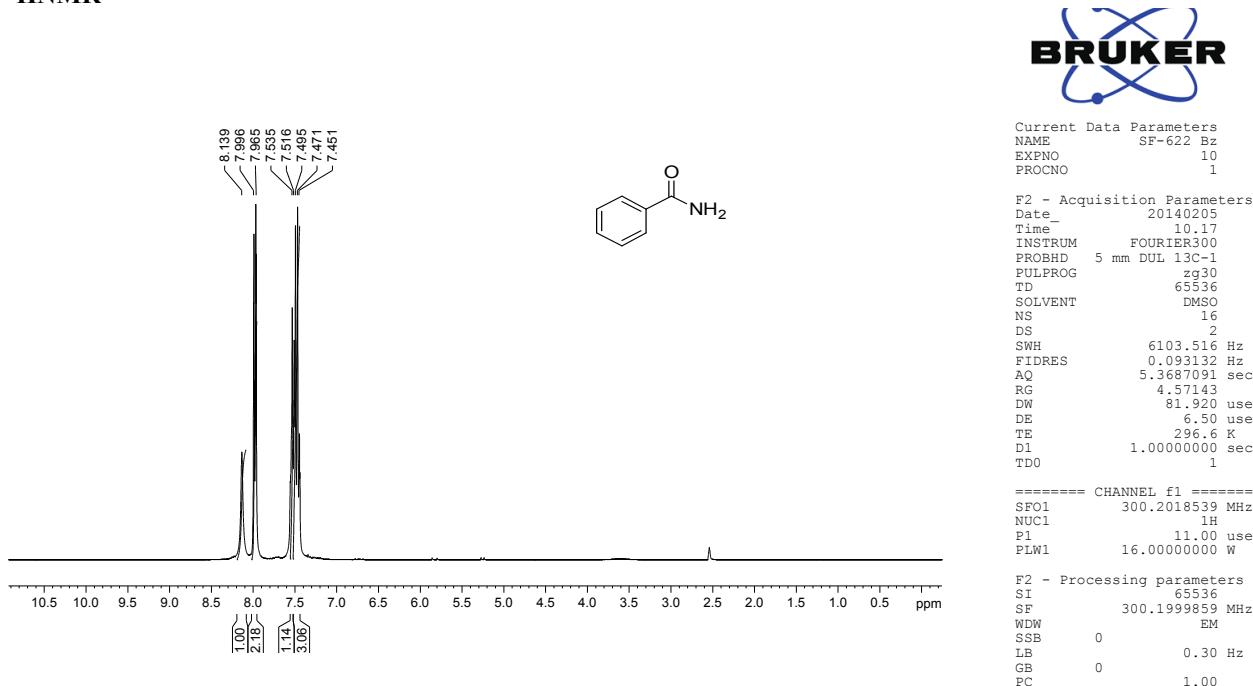
N-tert-Butylbenzamide



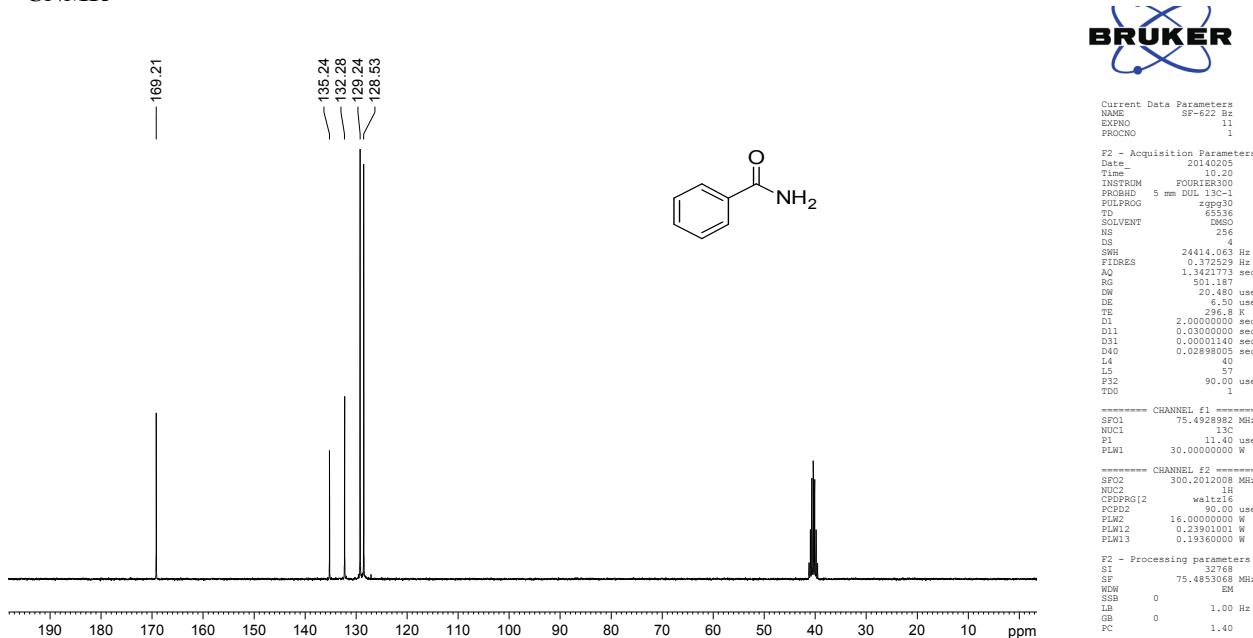
ethyl acetate/hexane (1:4); **¹H NMR** (300 MHz, CDCl₃): δ = 1.46 (s, 9H), 5.98 (s, 1H), 7.35-7.49 (m, 3H), 7.68-7.75 (m, 2H); **¹³CNMR** (CDCl₃): δ = 28.9 (3CH₃), 51.6 (C), 126.7 (2CH), 128.9 (2CH), 131.9 (C), 135.9 (C), 166.9 (CO); **GC-MS** (EI, 70 eV): *m/z* (%) [M⁺] 177 (17), 162 (19), 122 (15), 105 (100), 77 (44).

[1] G. V. Baelen, B. U. W. Maes, *Tetrahedron*, **2008**, *64*, 5604-5619.

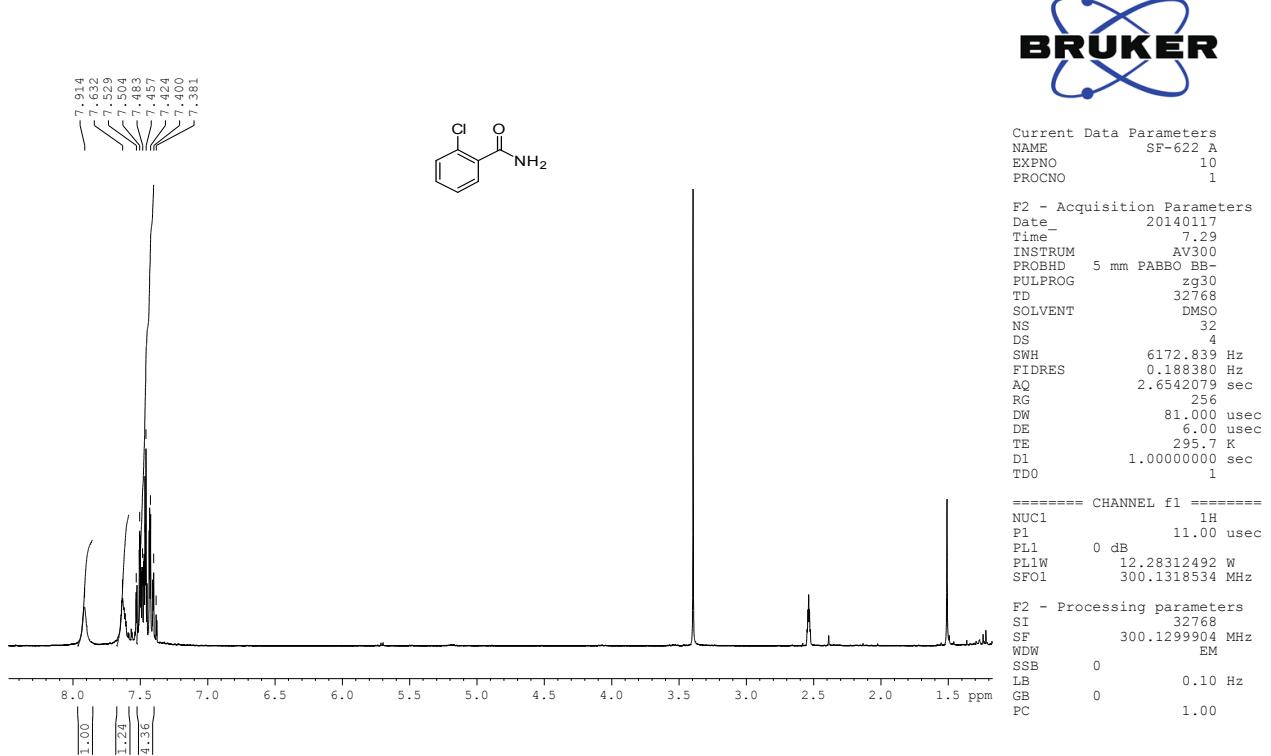
¹H NMR



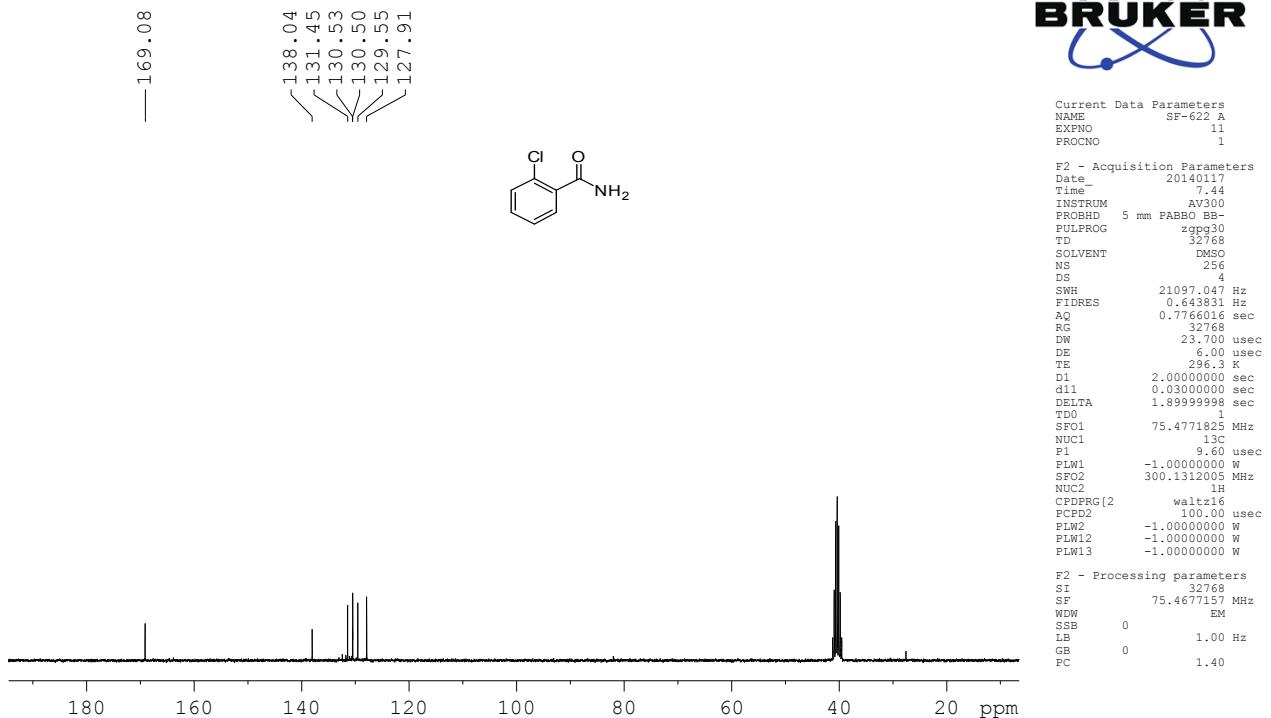
¹³C NMR



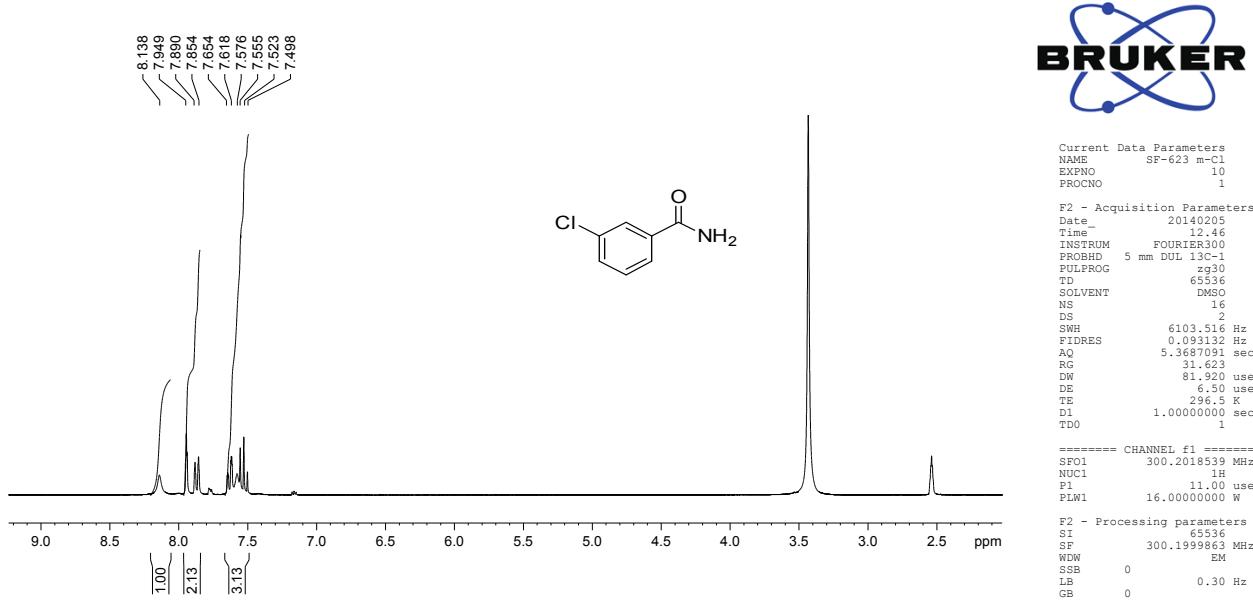
¹H NMR



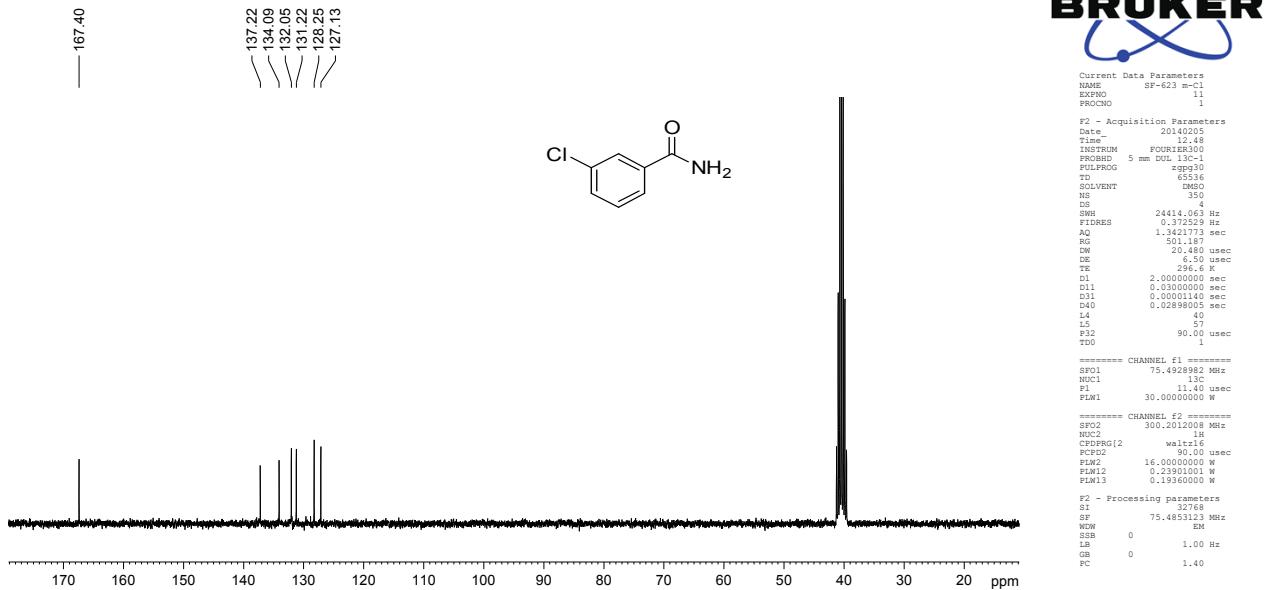
¹³C NMR



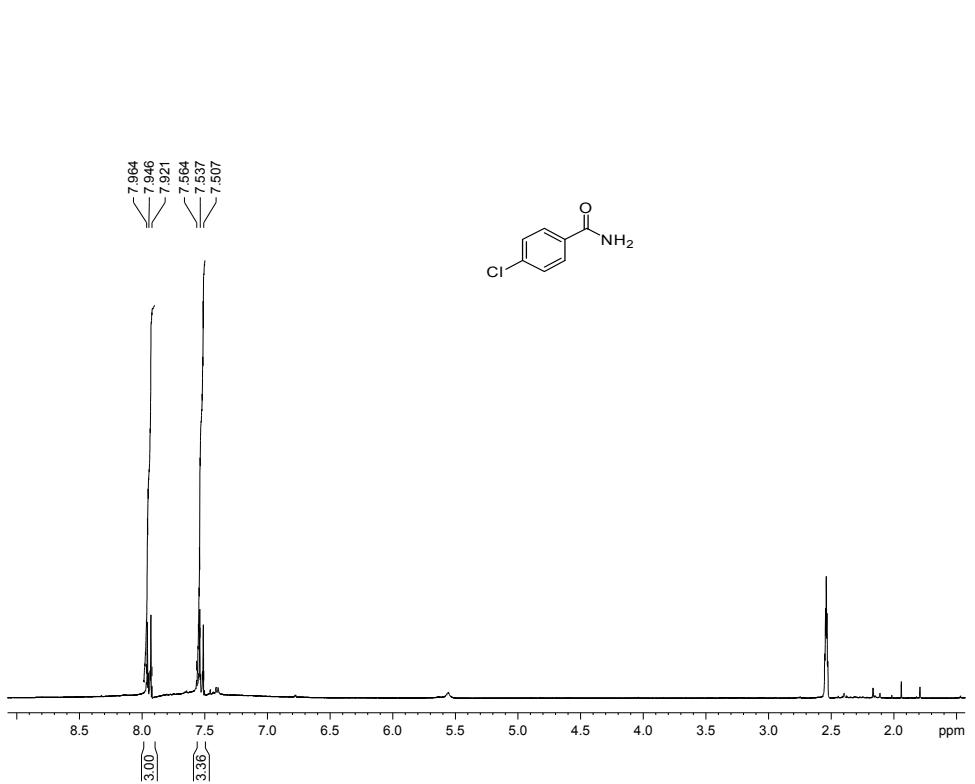
¹H NMR



¹³C NMR



¹H NMR



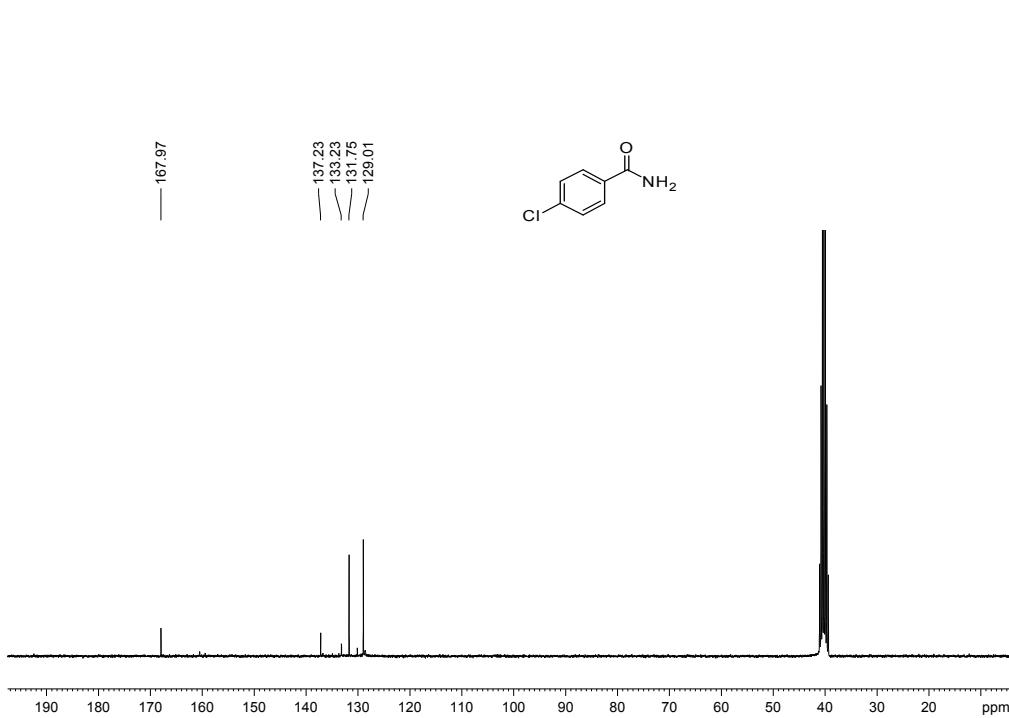
Current Data Parameters
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EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
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SOLVENT DMSO
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FIDRES 0.188380 Hz
AQ 2.6542079 sec
RG 322.5
DW 81,000 usec
DE 6.00 usec
TE 296.6 K
D1 1.0000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 11.00 usec
PL1 0 dB
PL1W 12.28312492 W
SF01 300.1318534 MHz

F2 - Processing parameters
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WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR

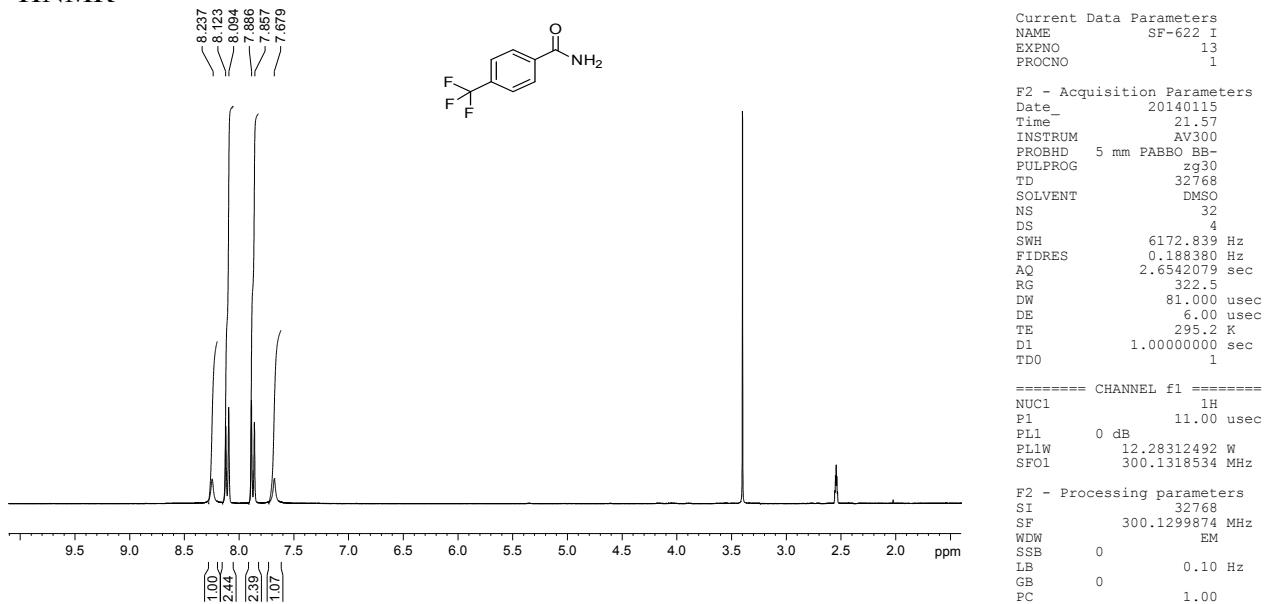


Current Data Parameters
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PROCNO 1

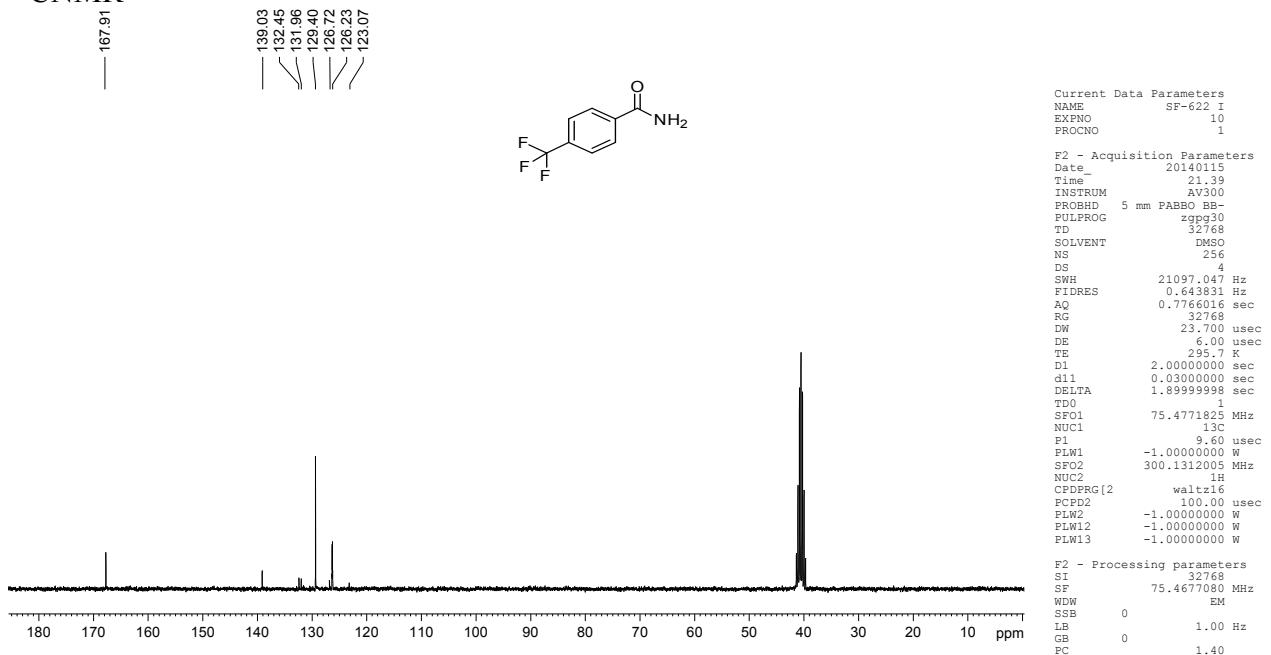
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FIDRES 0.643831 Hz
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RG 32768
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DE 6.00 usec
TE 295.4 K
D1 2.0000000 sec
d11 0.03000000 sec
DELTA 1.8999999 sec
TDO 1
SF01 75.4771825 MHz
NUC1 13C
P1 9.60 usec
PL1 -1.0000000 W
SF02 300.1312005 MHz
NUC2 1H
CPDPG[2 waltz16
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PLW1 -1.0000000 W
PLW12 -1.0000000 W
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F2 - Processing parameters
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SSB 0
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GB 0
PC 1.40

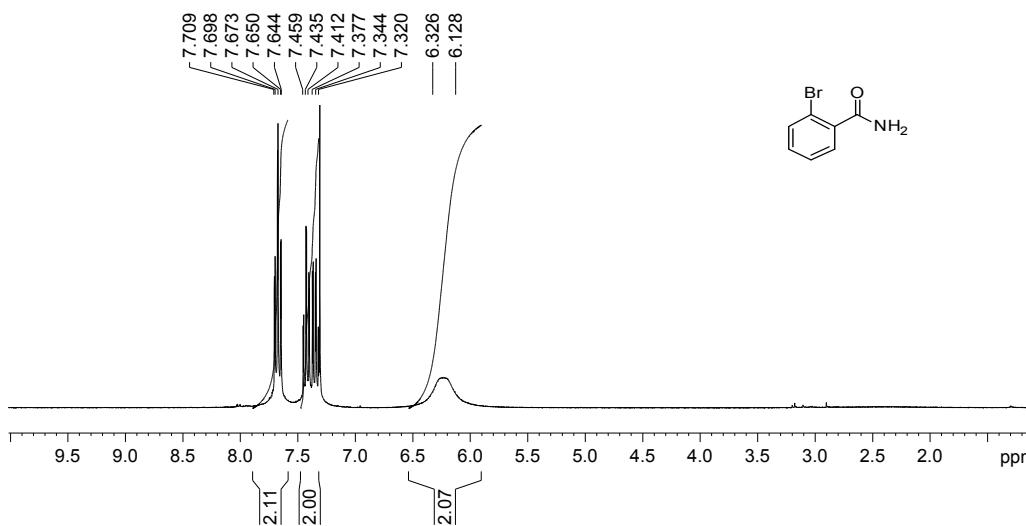
¹H NMR



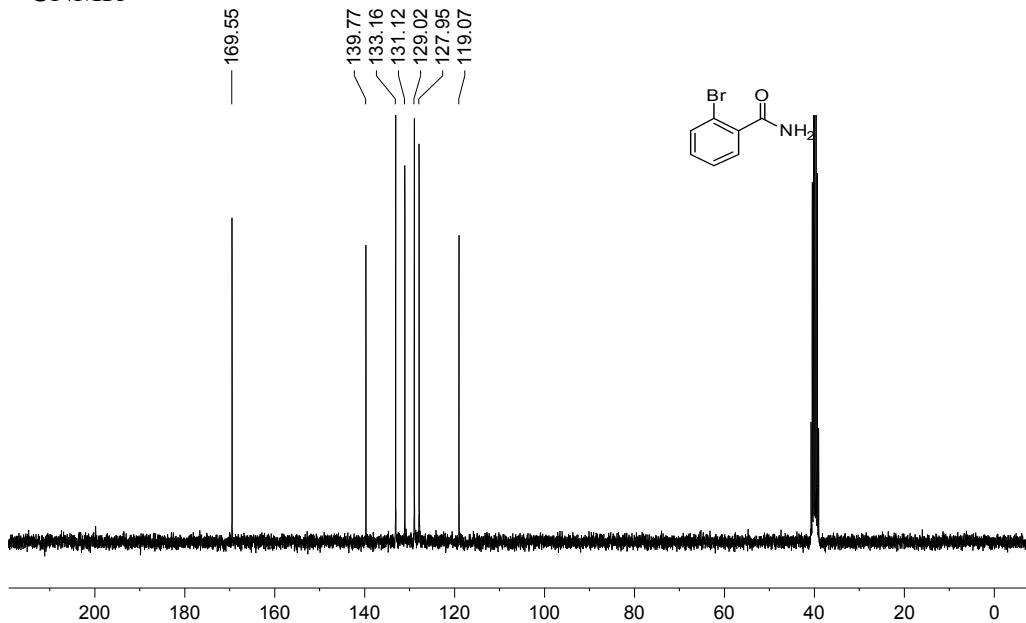
¹³C NMR



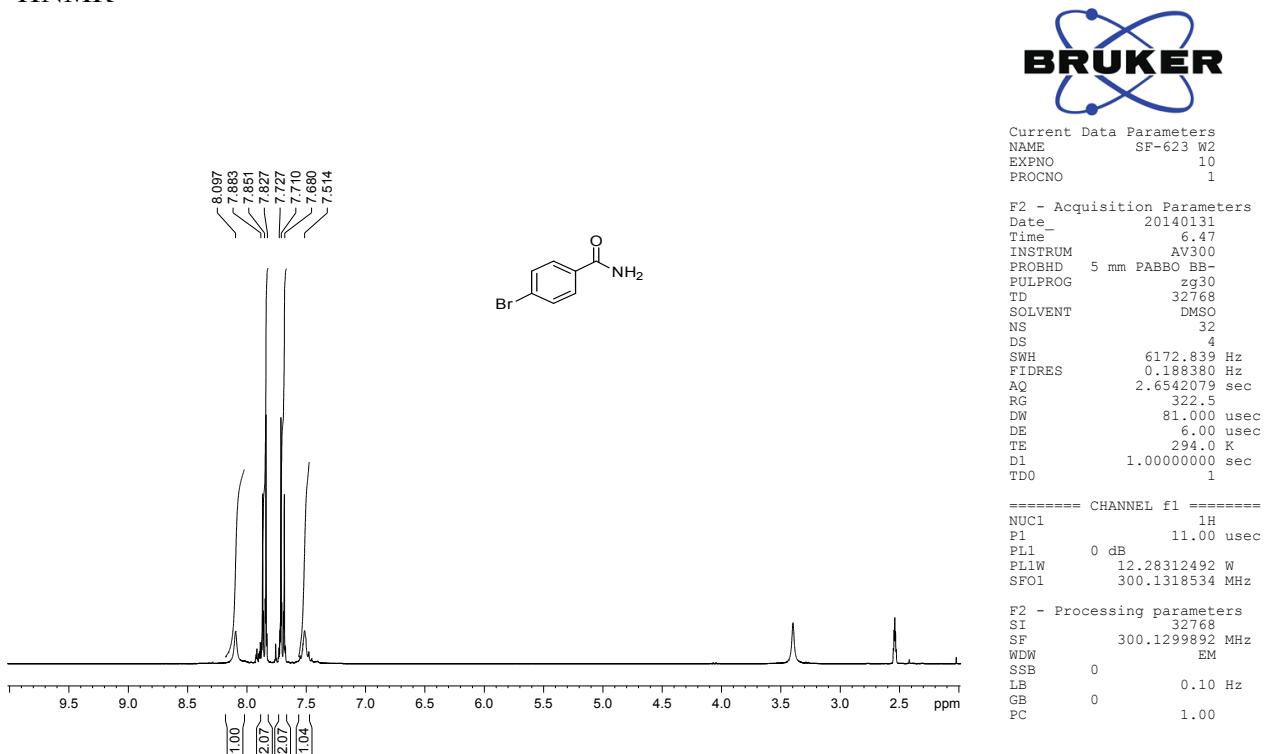
¹H NMR



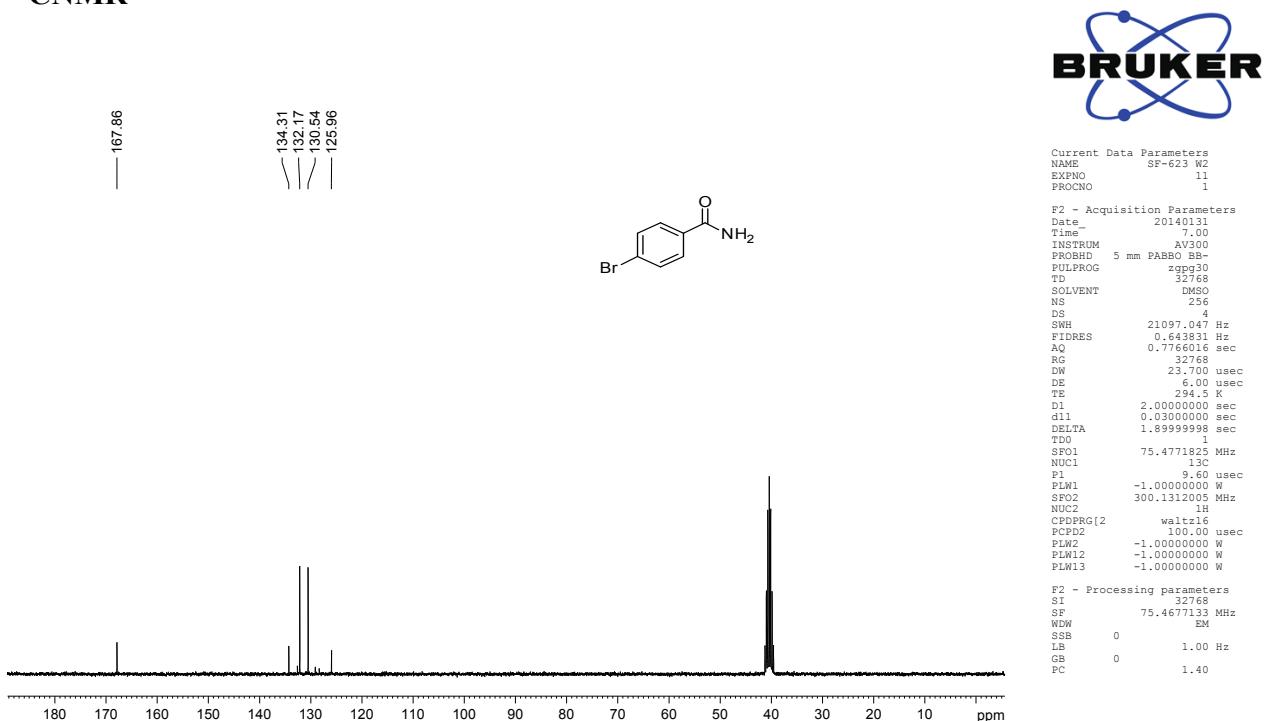
¹³C NMR



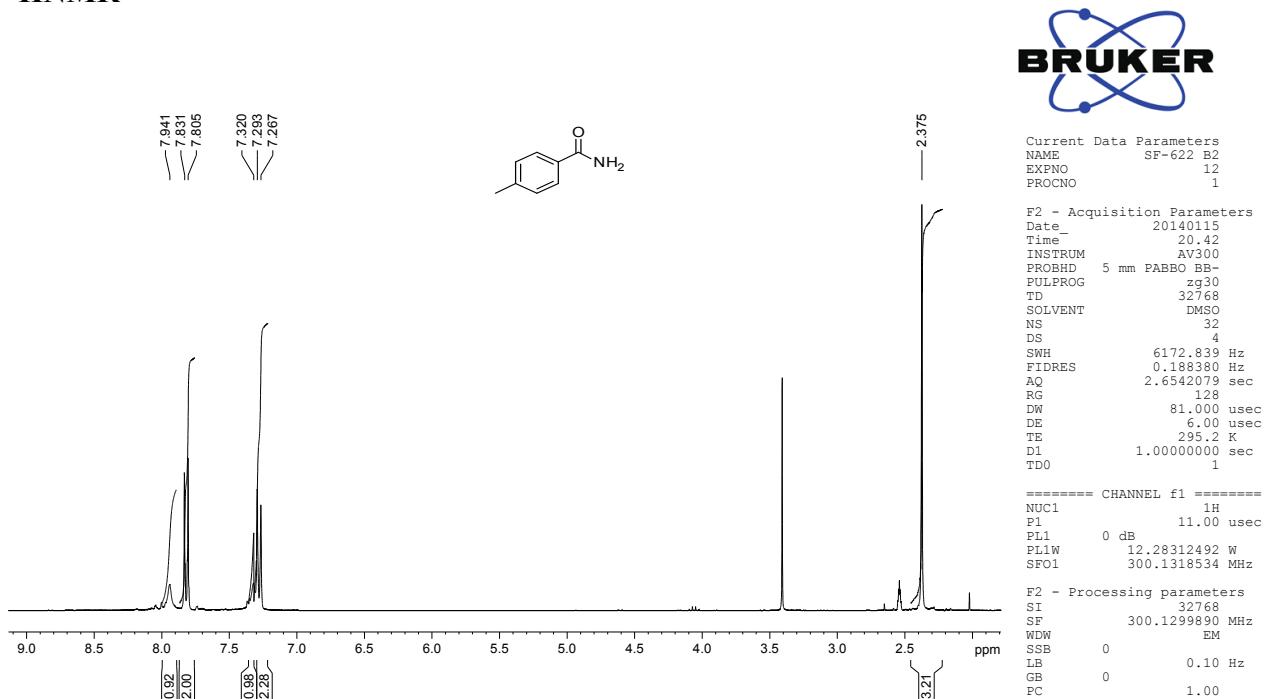
¹H NMR



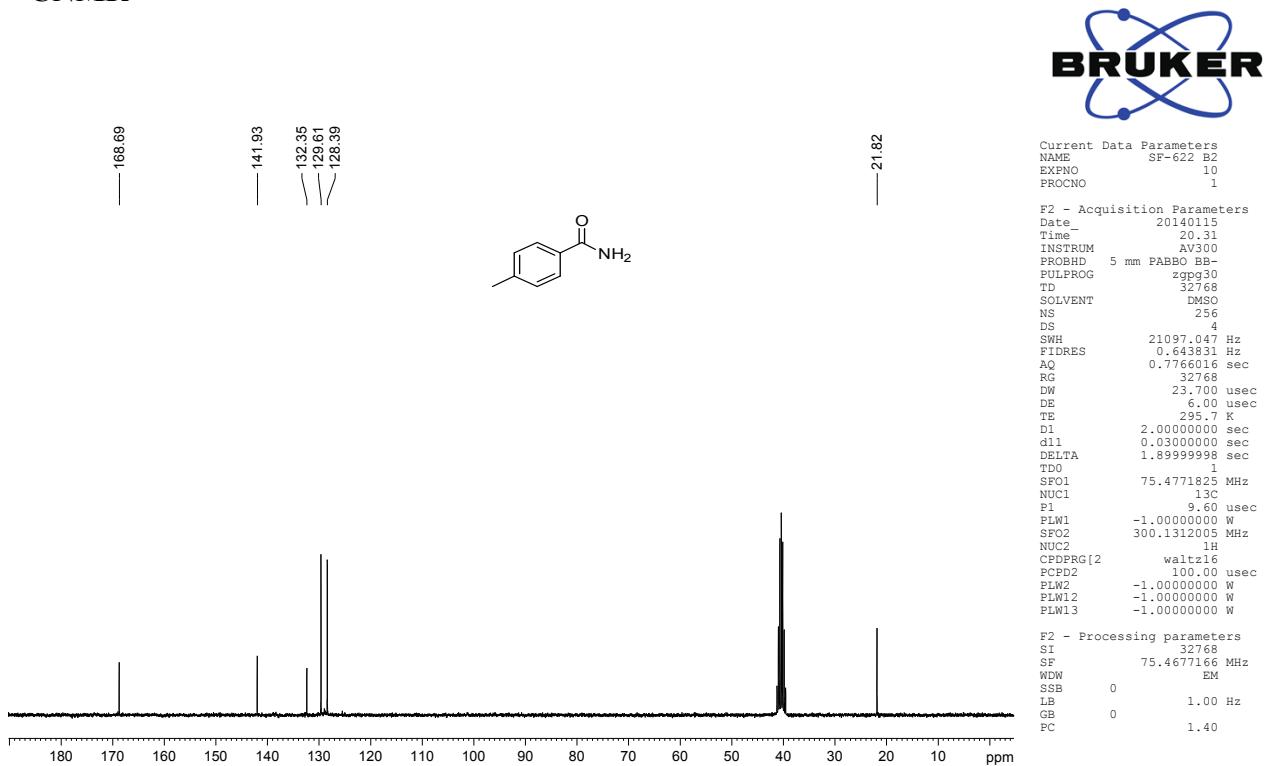
¹³C NMR



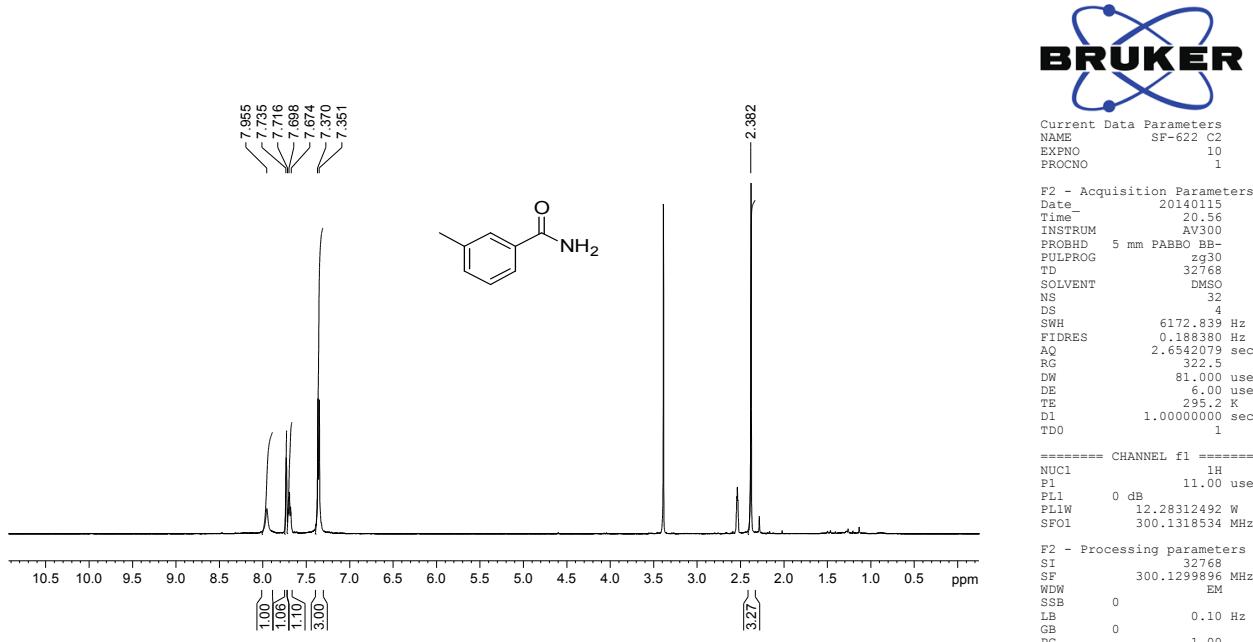
¹H NMR



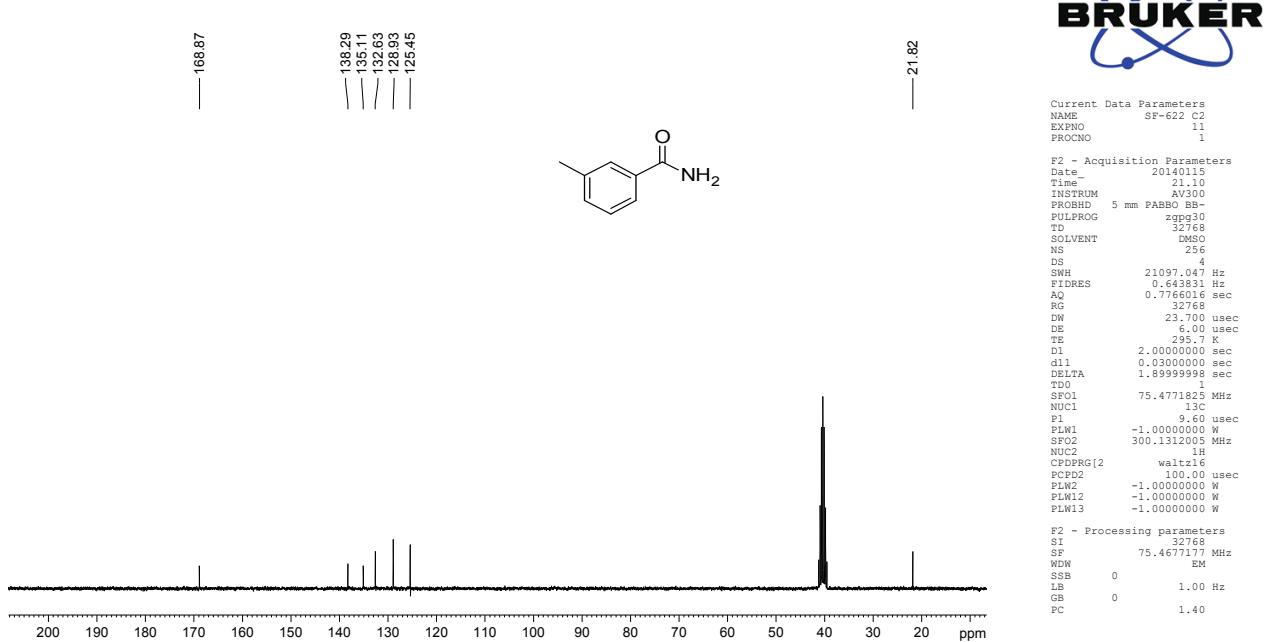
¹³C NMR



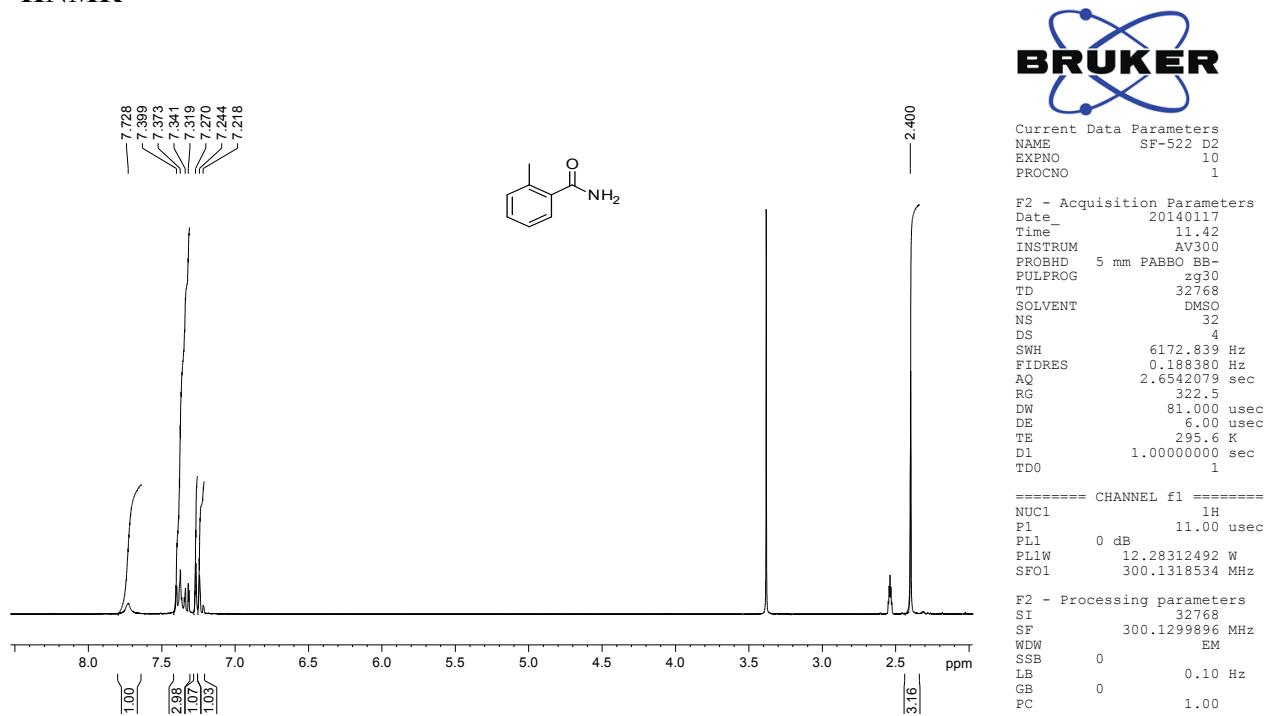
¹H NMR



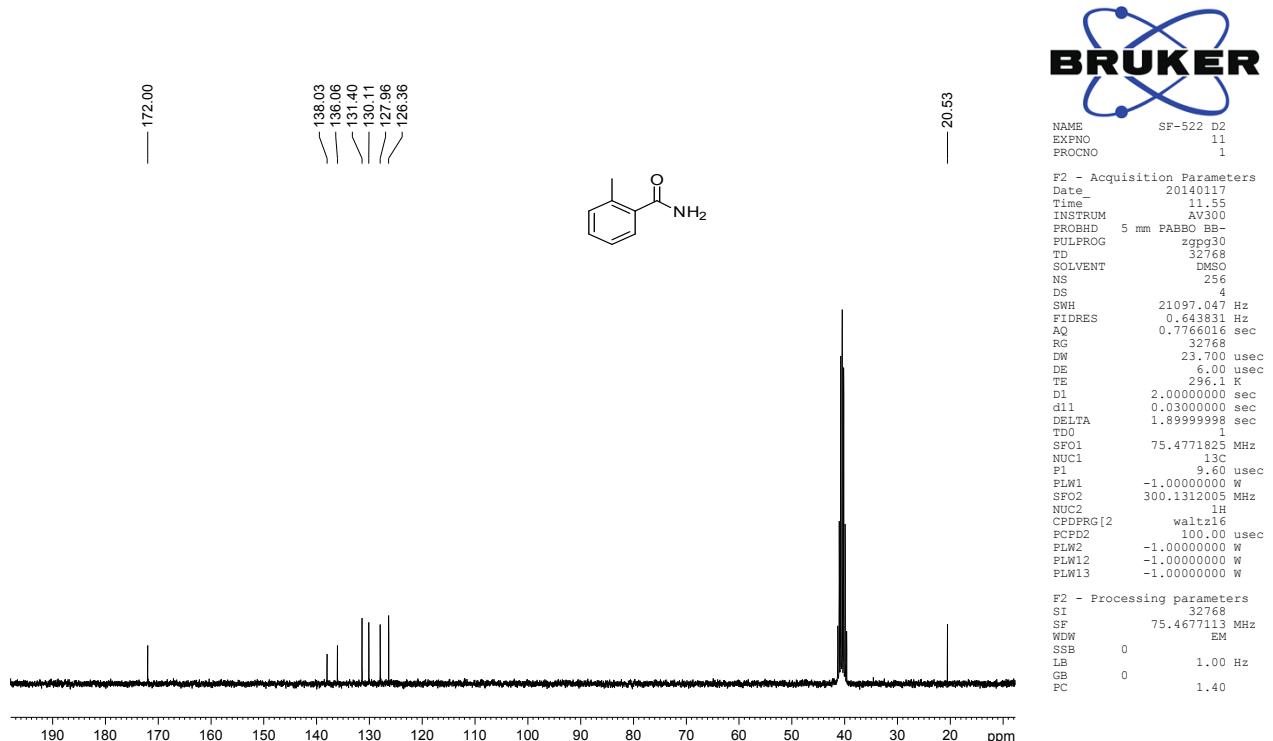
¹³C NMR



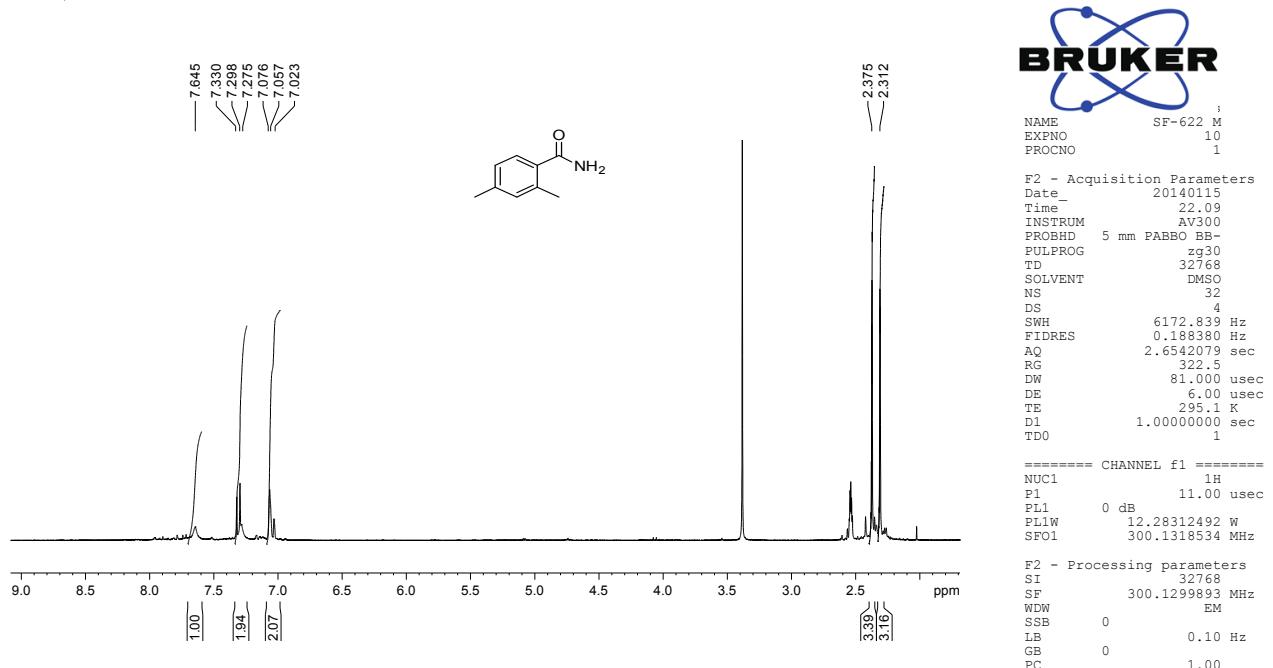
¹H NMR



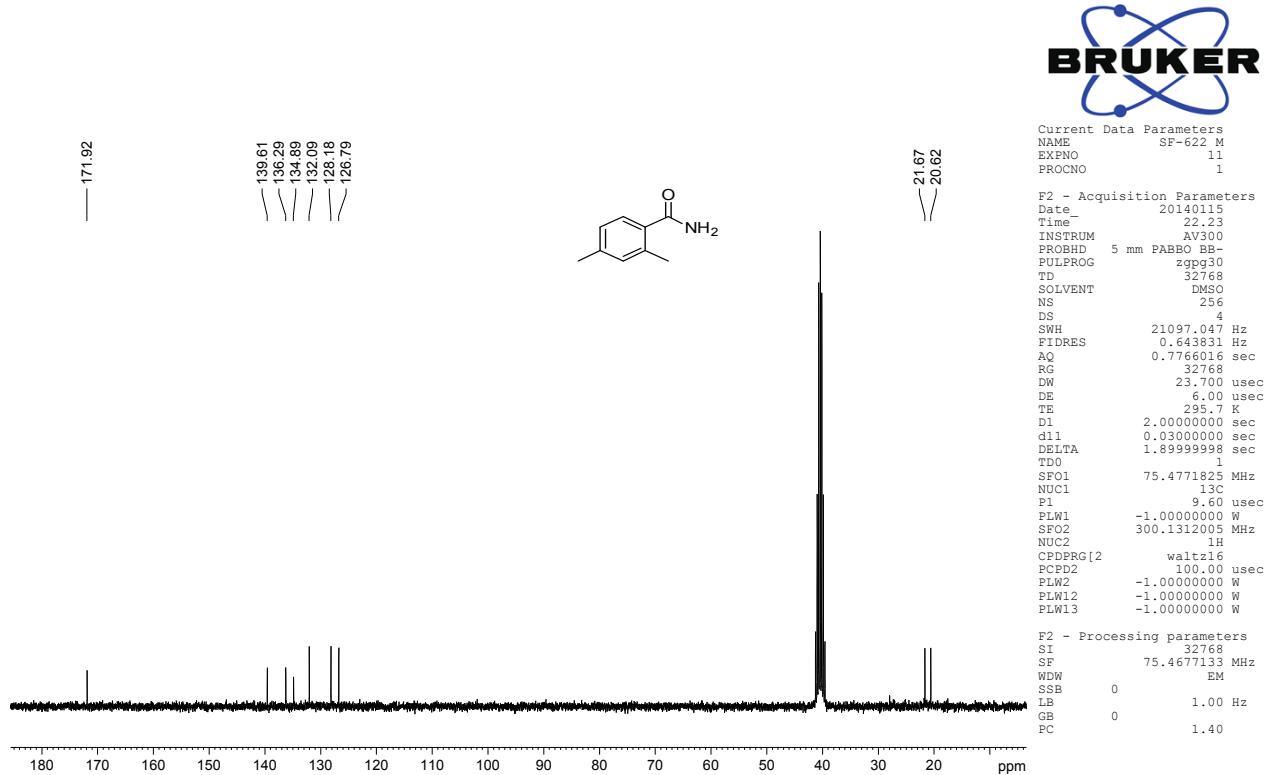
¹³C NMR



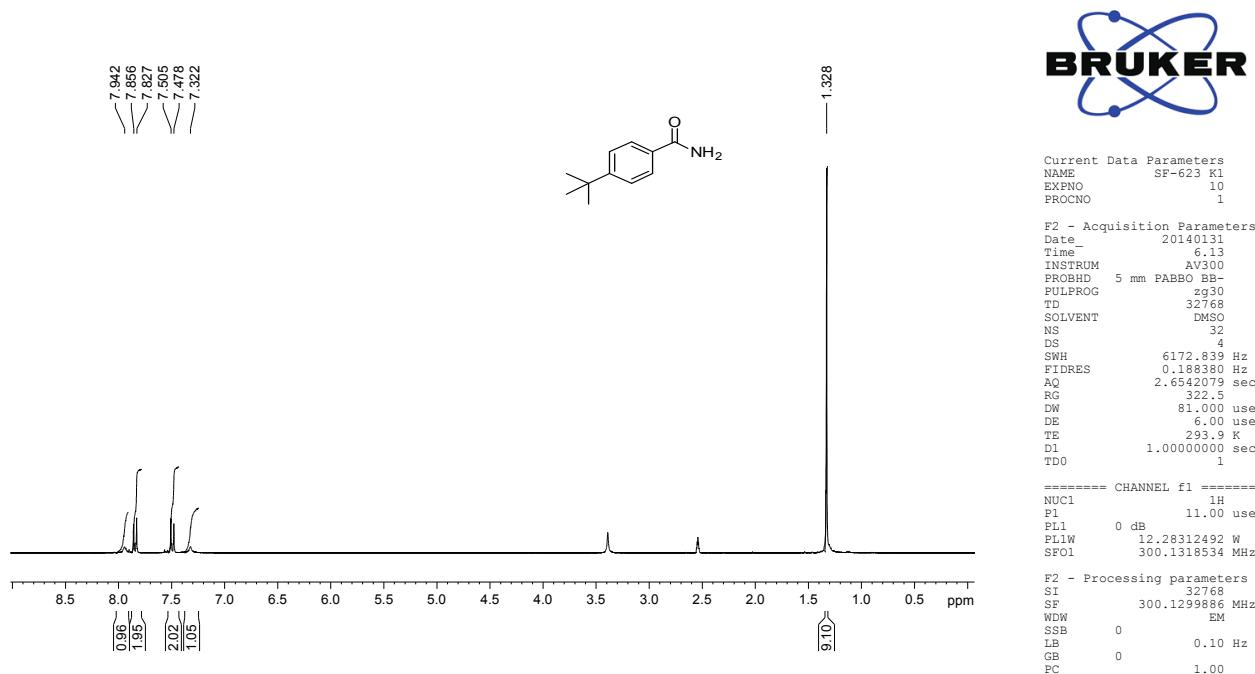
¹H NMR



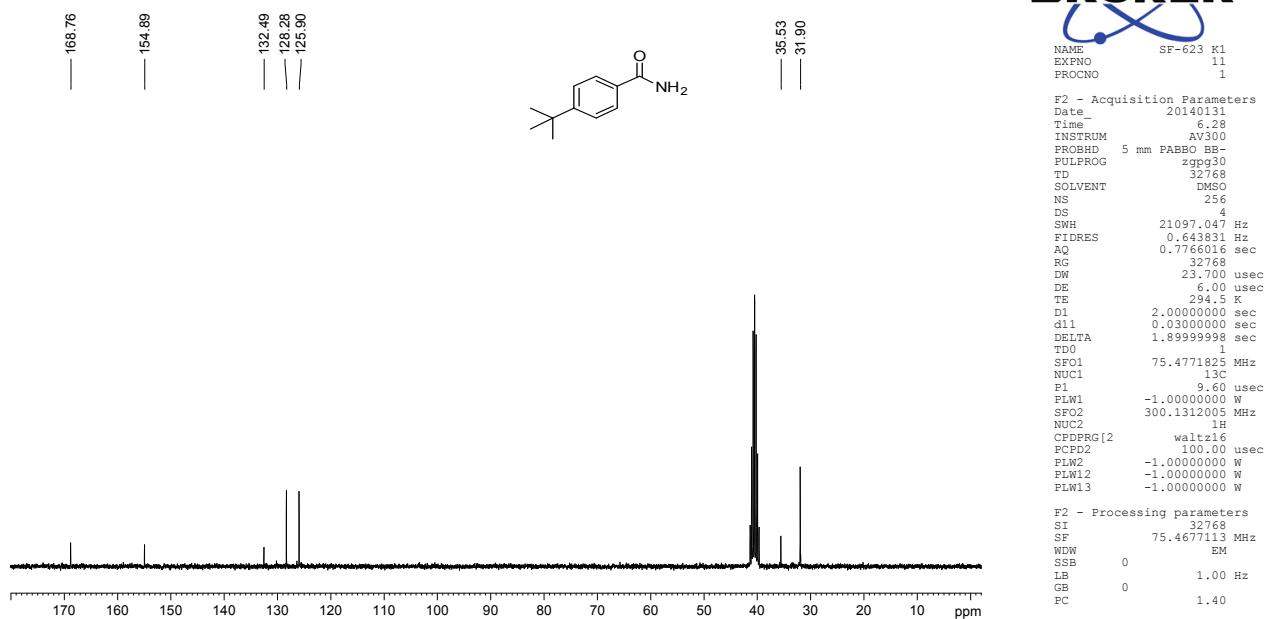
¹³C NMR



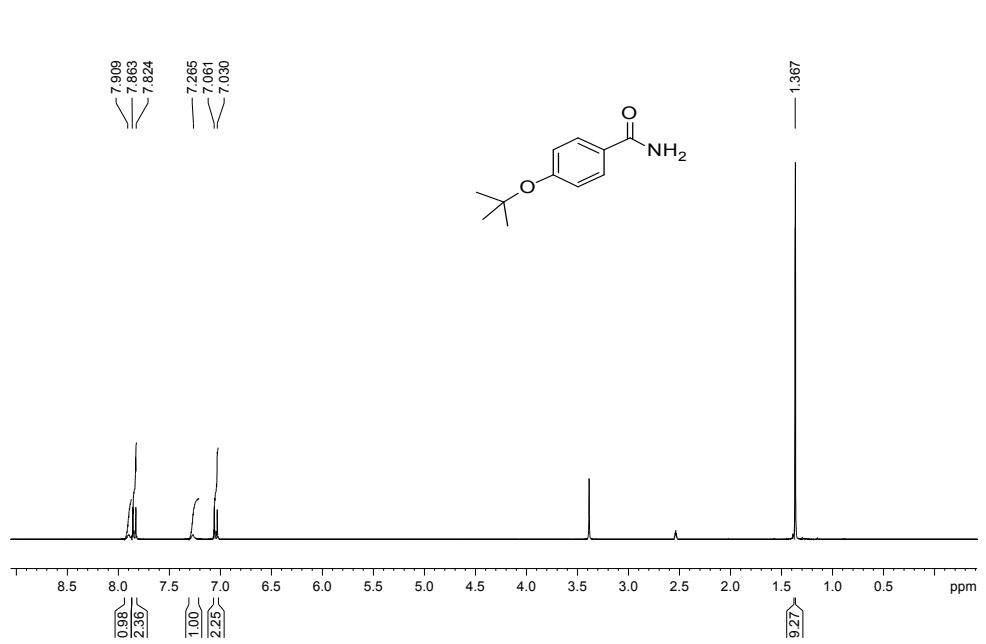
¹H NMR



¹³C NMR



¹H NMR



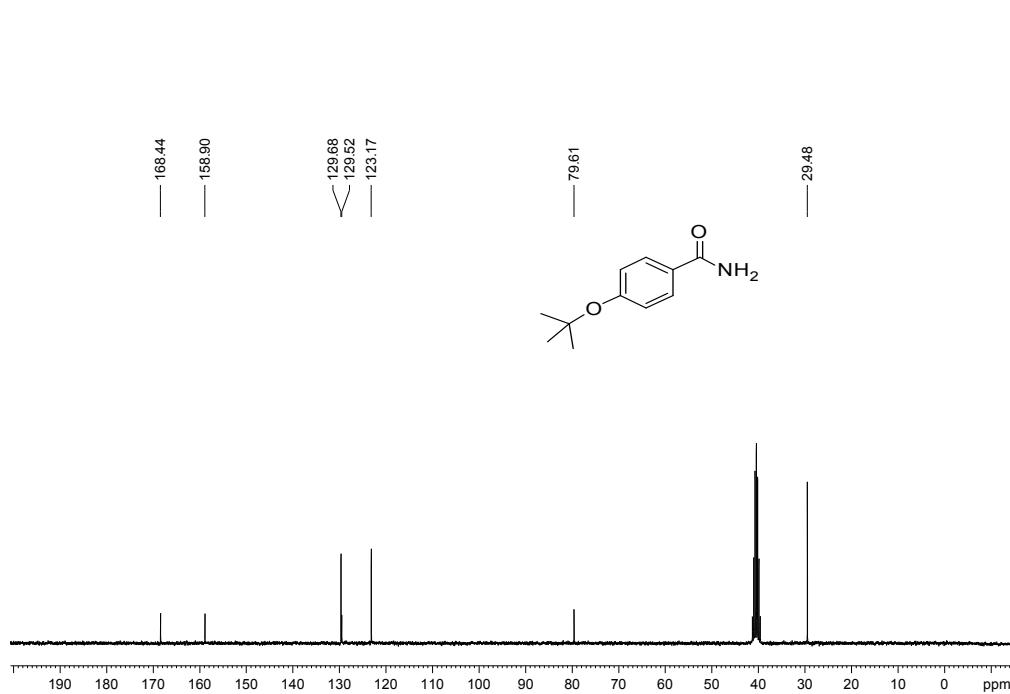
Current Data Parameters
NAME SF-622 AB (2)
EXPNO 13
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140117
Time 11.30
INSTRUM AV300
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 32
DS 4
SWH 6172.839 Hz
FIDRES 0.188380 Hz
AQ 2.6542079 sec
RG 128
DW 81.000 usec
DE 6.00 usec
TE 295.7 K
D1 1.0000000 sec
TDO 1

===== CHANNEL f1 ======
NUC1 1H
P1 11.00 usec
PL1 0 dB
PL1W 12.28312492 W
SFO1 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1299899 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR

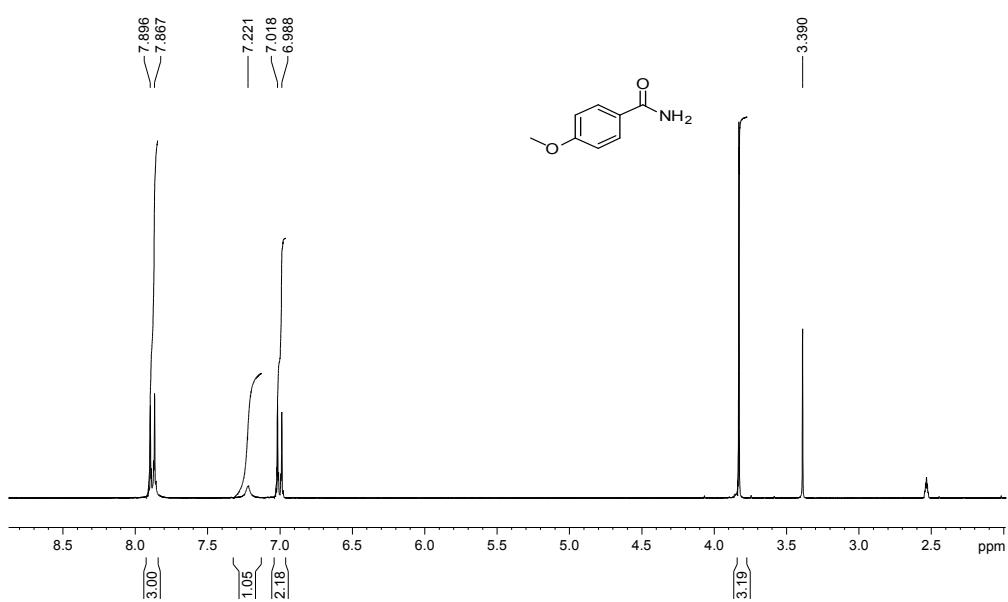


Current Data Parameters
NAME SF-622 AB (2)
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140117
Time 11.19
INSTRUM AV300
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 256
DS 4
SWH 21097.047 Hz
FIDRES 0.6438400 Hz
AQ 0.7431616 sec
RG 32768
DW 23.700 usec
DE 6.00 usec
TE 296.2 K
D1 2.0000000 sec
d1_1 0.03000000 sec
DELT1 1.8999998 sec
TD00 1
SFO1 75.4771825 MHz
NUC1 13C
P1 9.60 usec
PL1W1 -1.0000000 W
SFO2 300.1312005 MHz
NUC2 1H
CPDPRG[2] waltz16
PCPD2 100.00 usec
PLW2 -1.0000000 W
PLW12 -1.0000000 W
PLW13 -1.0000000 W

F2 - Processing parameters
SI 32768
SF 75.4677118 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR



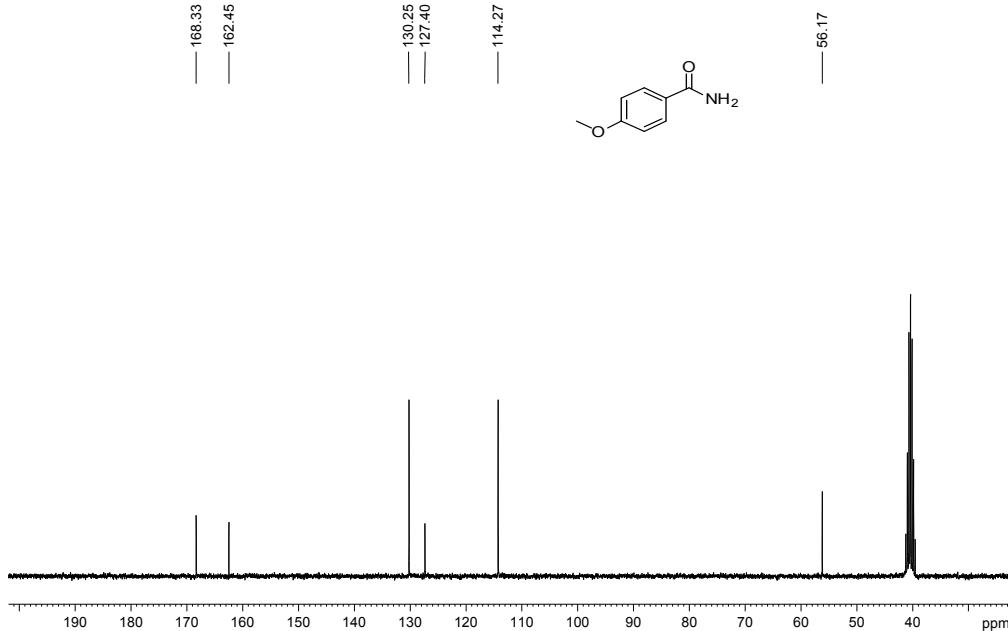
Current Data Parameters
NAME SF-622 E
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date 20140117
Time 12:44
INSTRUM AV300
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 32
DS 4
SWH 6172.839 Hz
FIDRES 0.188389 Hz
AQ 2.65079 sec
RG 161.3
DW 81.000 usec
DE 6.00 usec
TE 295.6 K
D1 1.0000000 sec
TD0 1

===== CHANNEL f1 ======
NUC1 1H
P1 11.00 usec
PL1 0 dB
PL1W 12.28312492 W
SF01 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1299910 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR

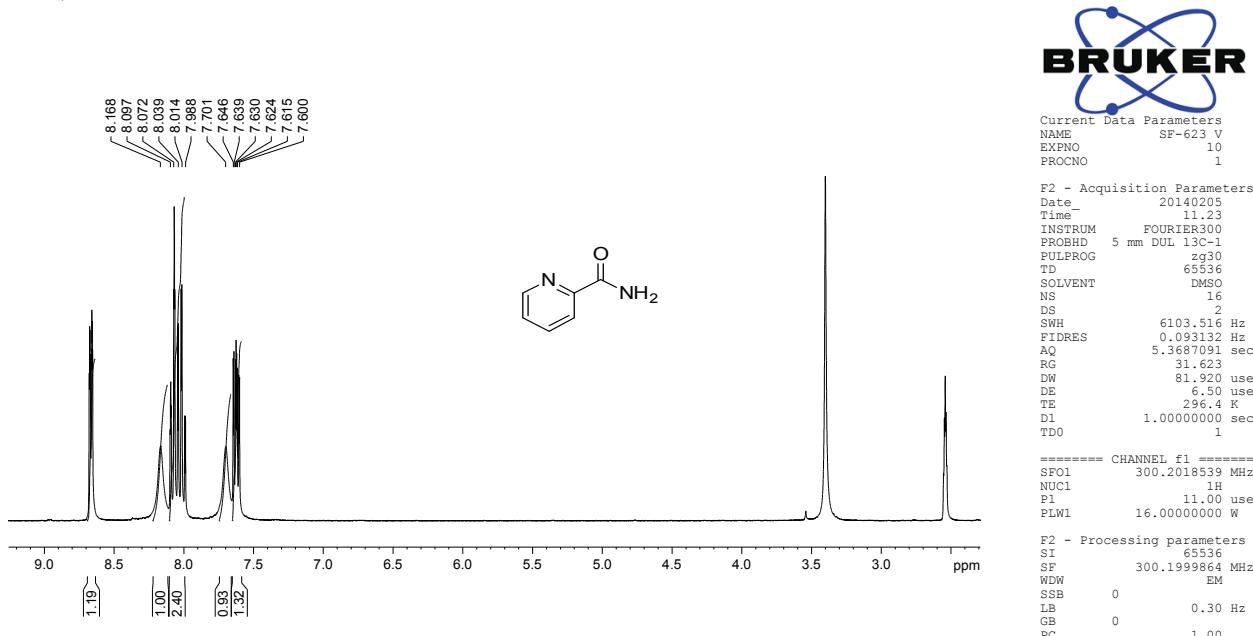


Current Data Parameters
NAME SF-622 E
EXPNO 11
PROCNO 1

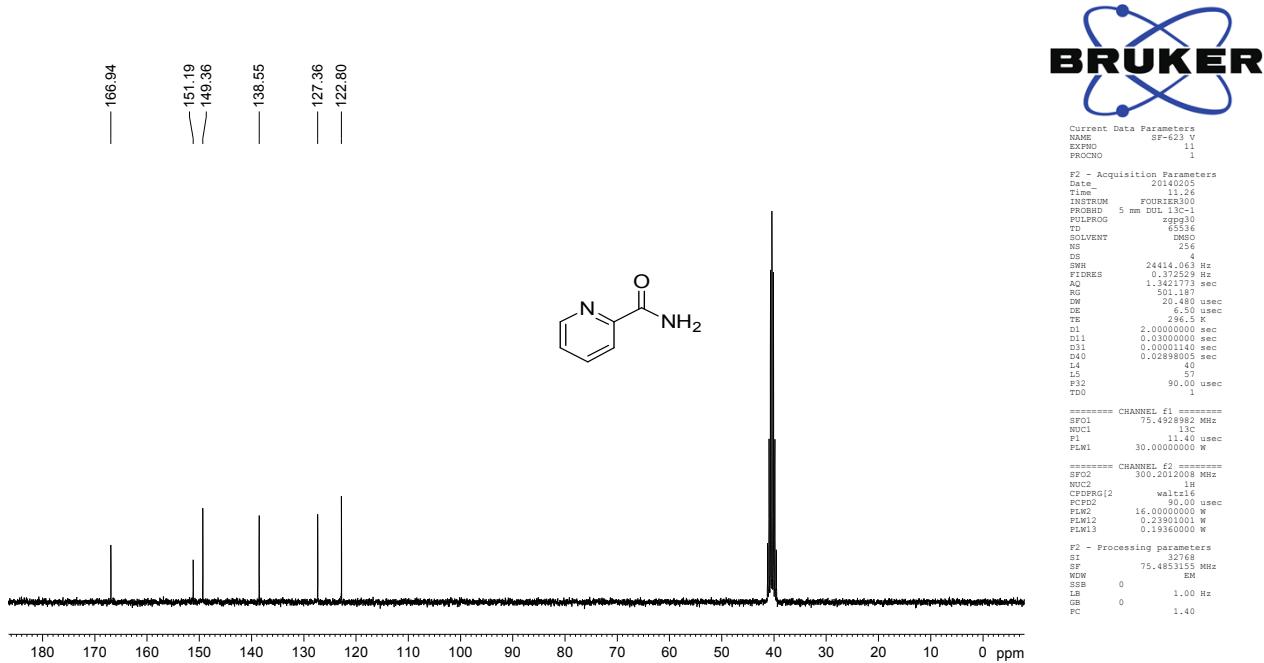
F2 - Acquisition Parameters
Date 20140117
Time 12:27
INSTRUM AV300
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 256
DS 4
SWH 21097.01 Hz
FIDRES 0.643831 Hz
AQ 0.7766016 sec
RG 32768
DW 23.700 usec
DE 6.00 usec
TE 294.1 K
D1 2.0000000 sec
d11 0.03000000 sec
DELTA 1.8999999 sec
TD0 1
SF01 75.4771162 MHz
NUC1 13C
P1 9.60 usec
PLN1 -1.0000000 W
SF02 300.1312005 MHz
NUC2 1H
CPFRGZ2 waltz16
CPFD2 1.00 usec
PLN2 -1.0000000 W
PLN12 -1.0000000 W
PLN13 -1.0000000 W

F2 - Processing parameters
SI 32768
SF 75.4677162 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

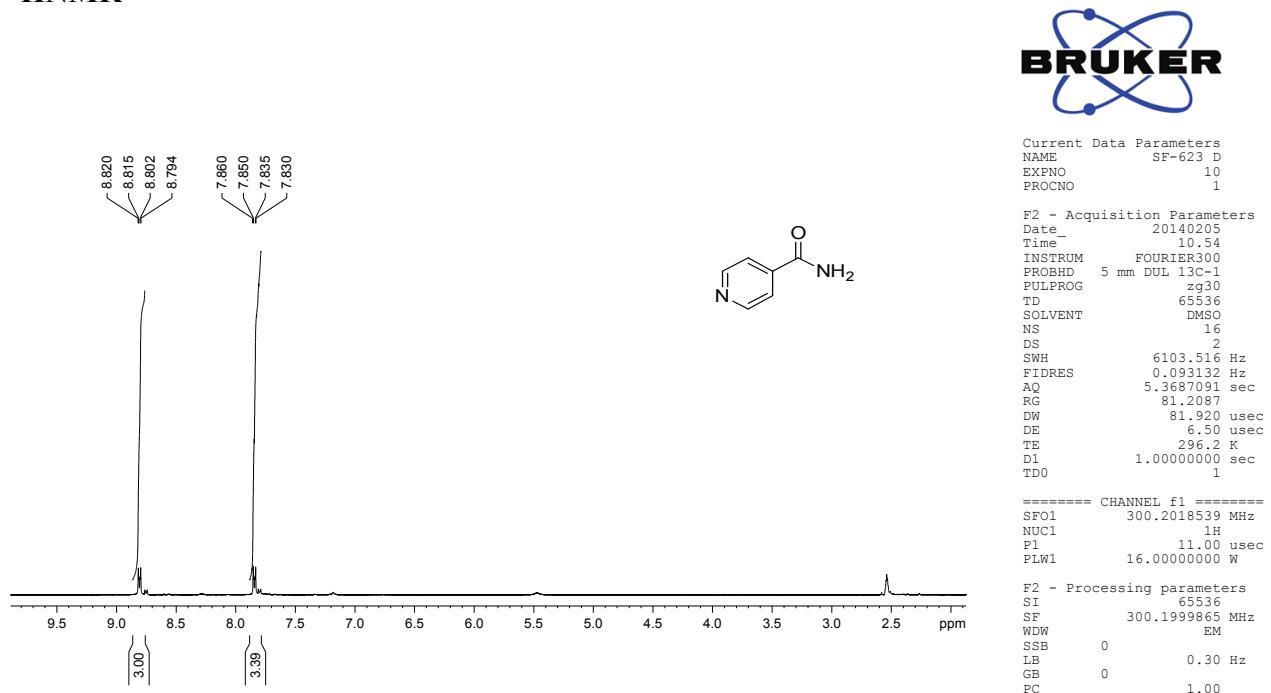
¹H NMR



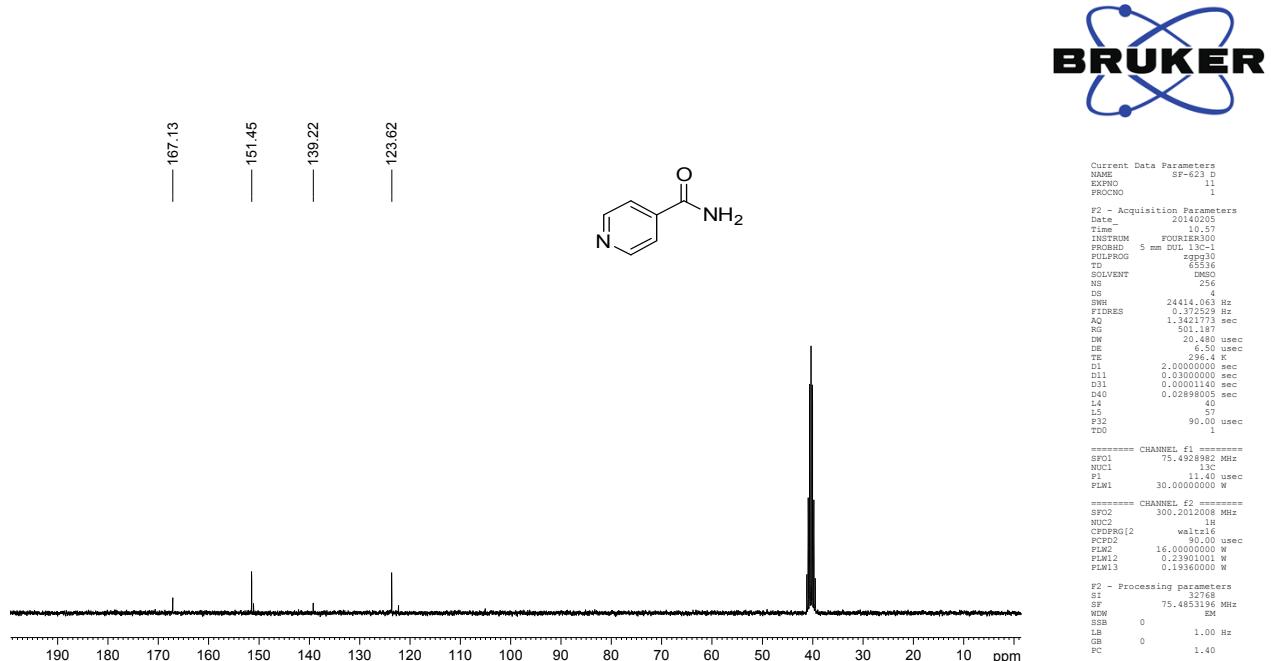
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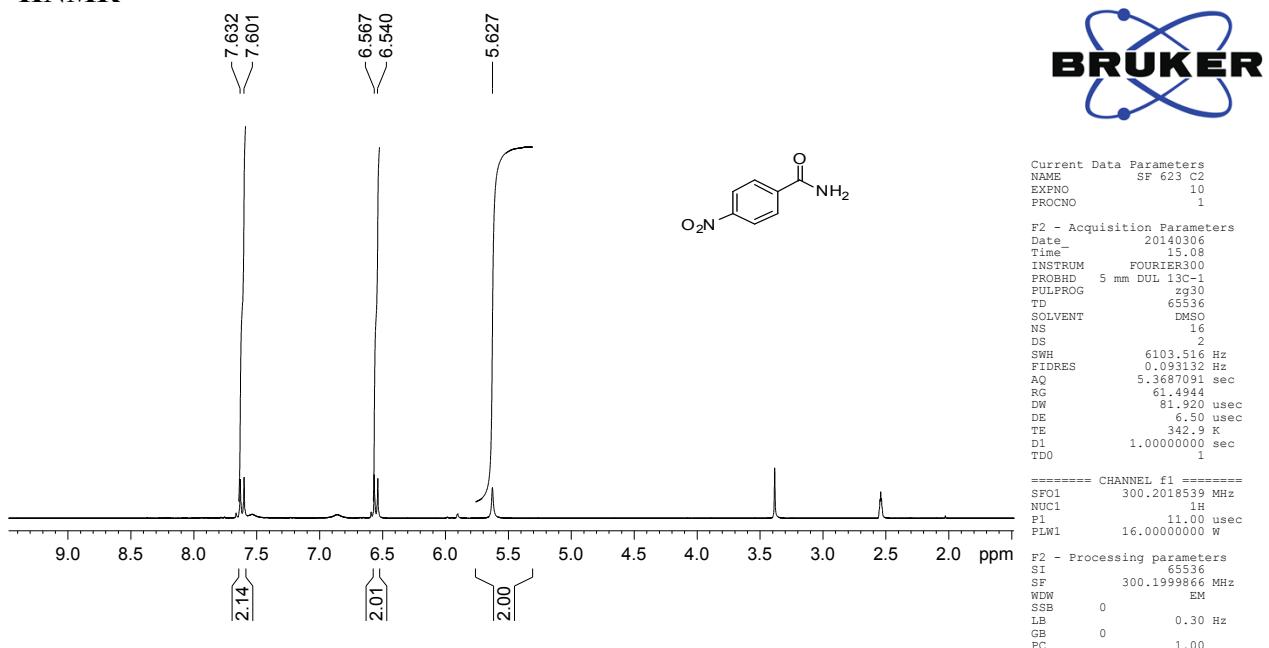
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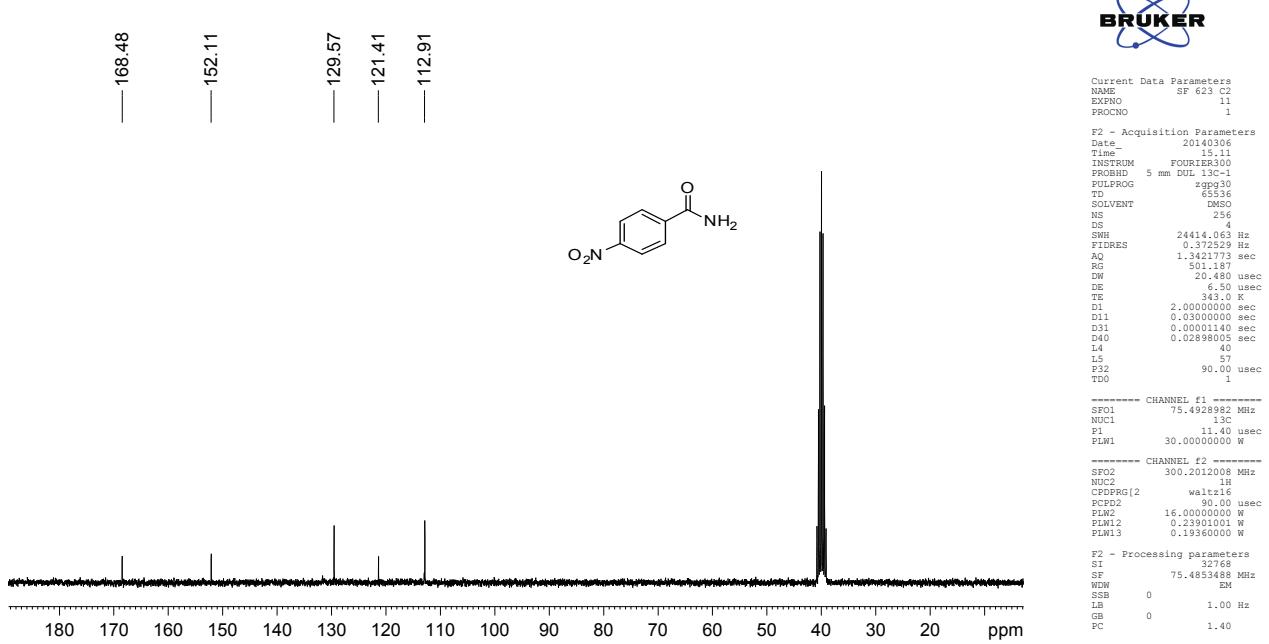
¹³C NMR



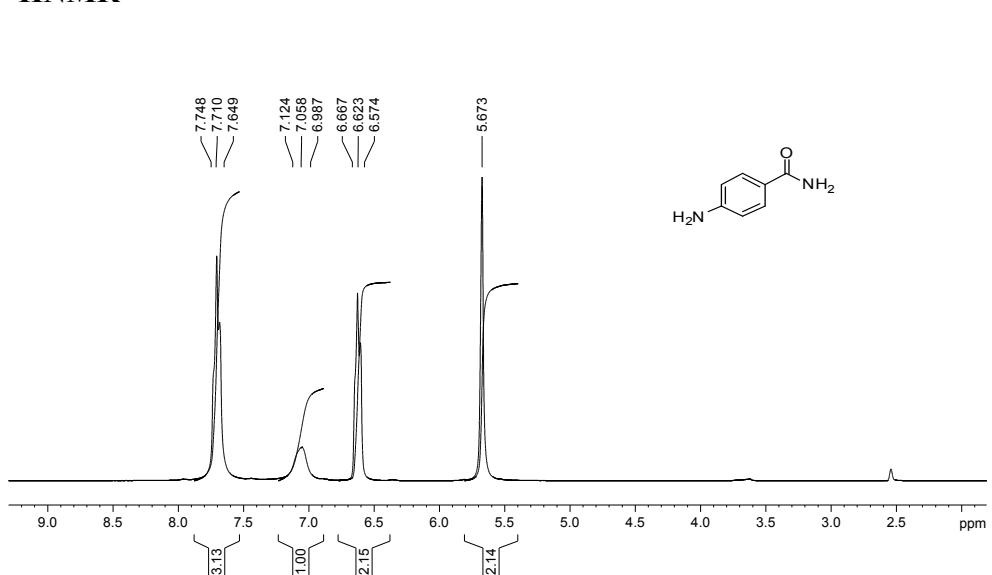
¹H NMR



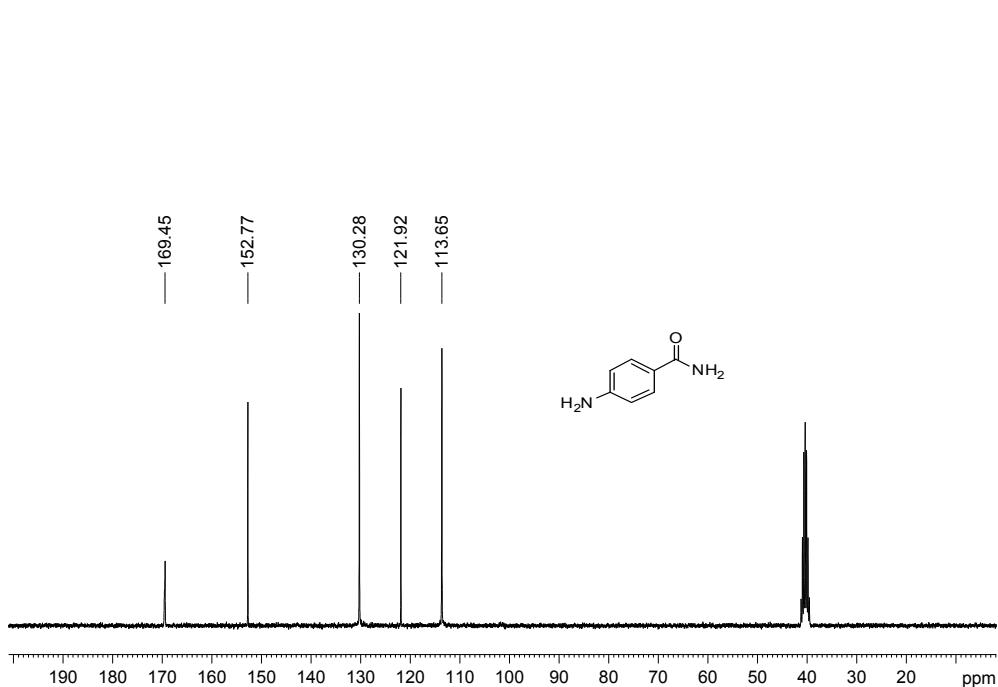
¹³C NMR



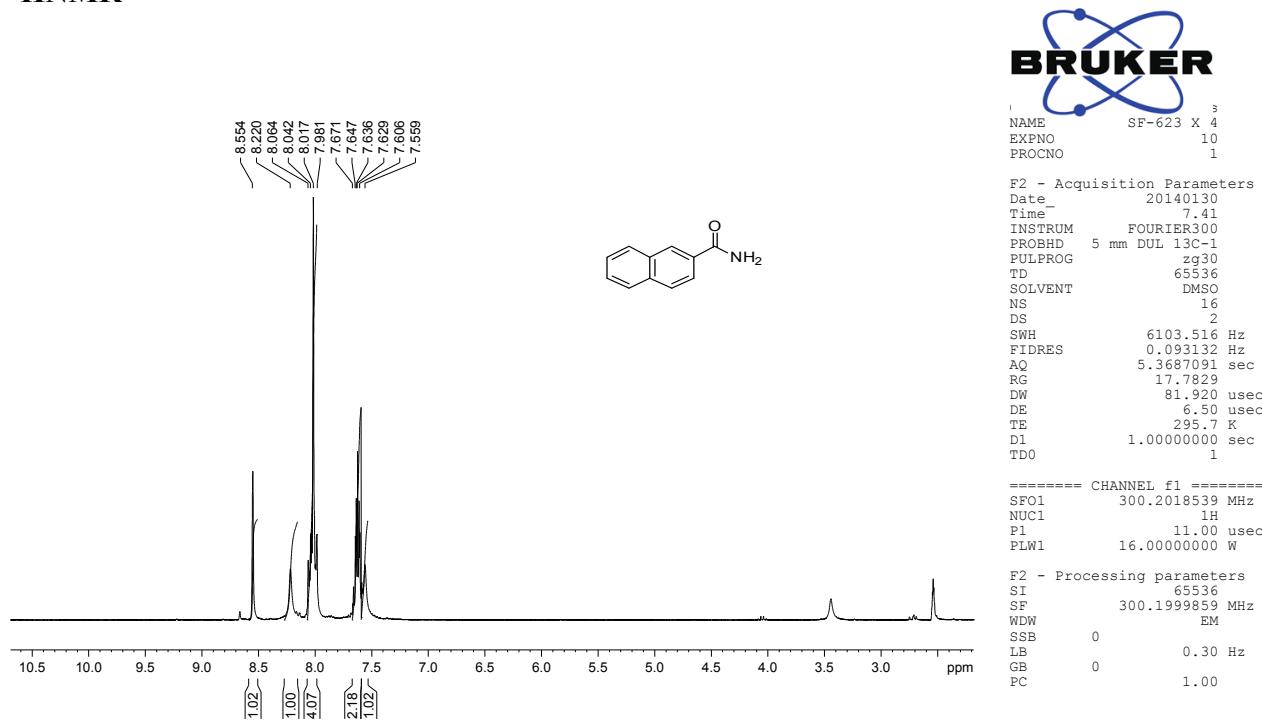
¹H NMR



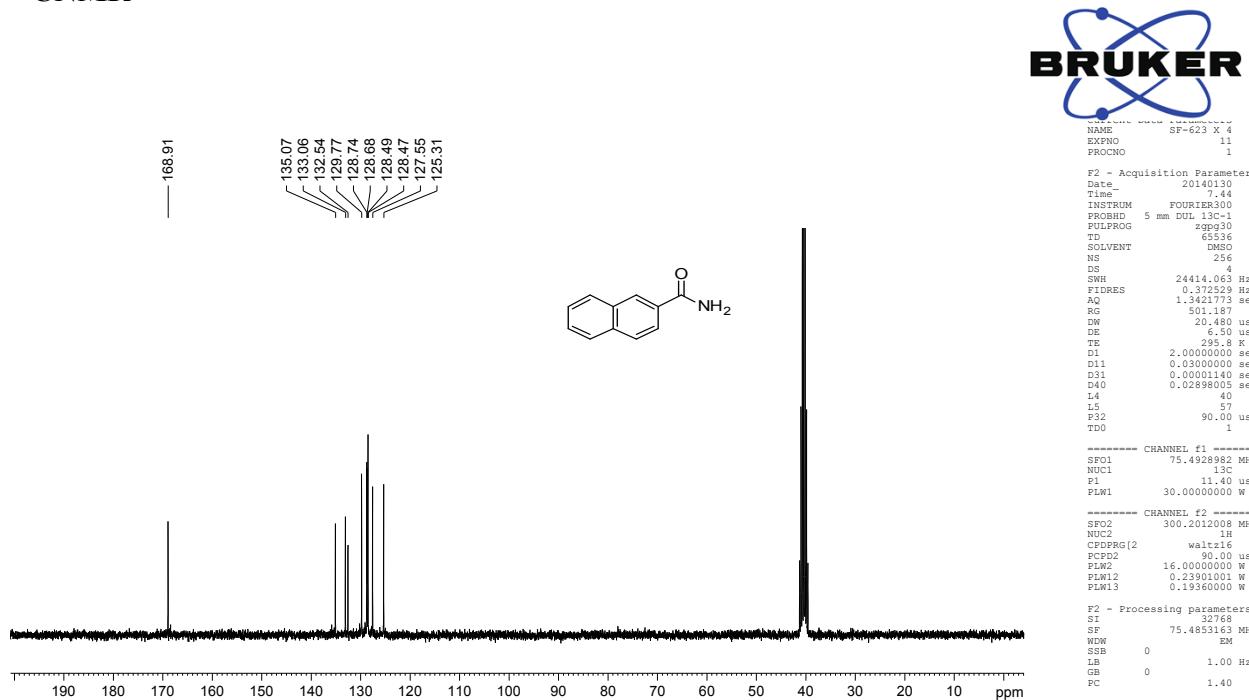
¹³C NMR



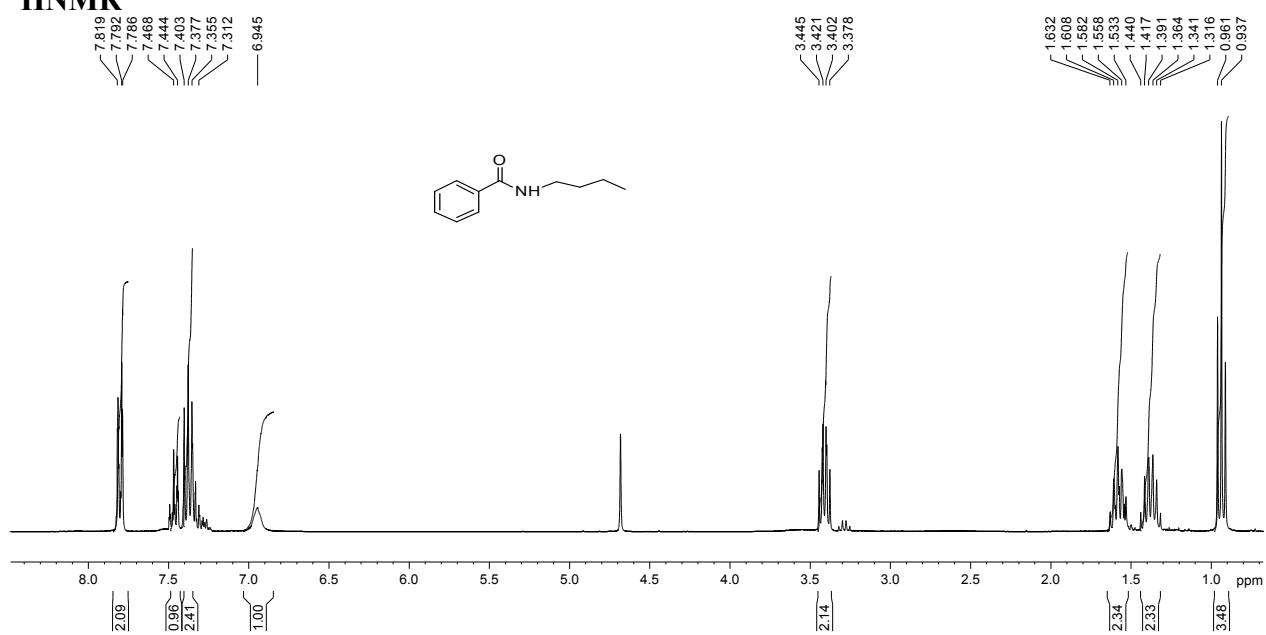
¹H NMR



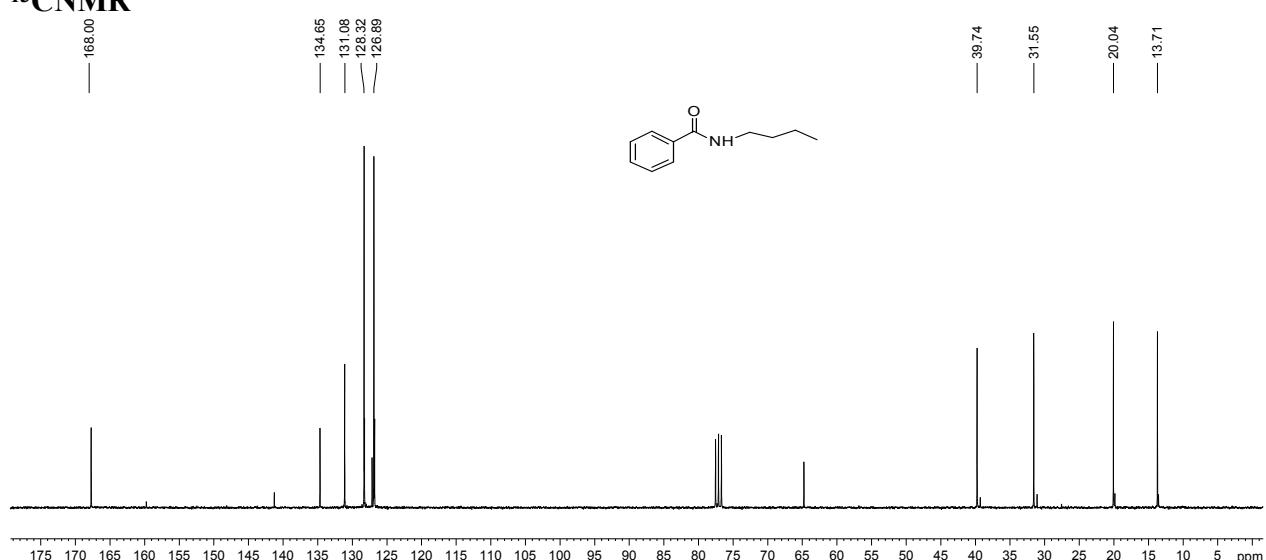
¹³C NMR



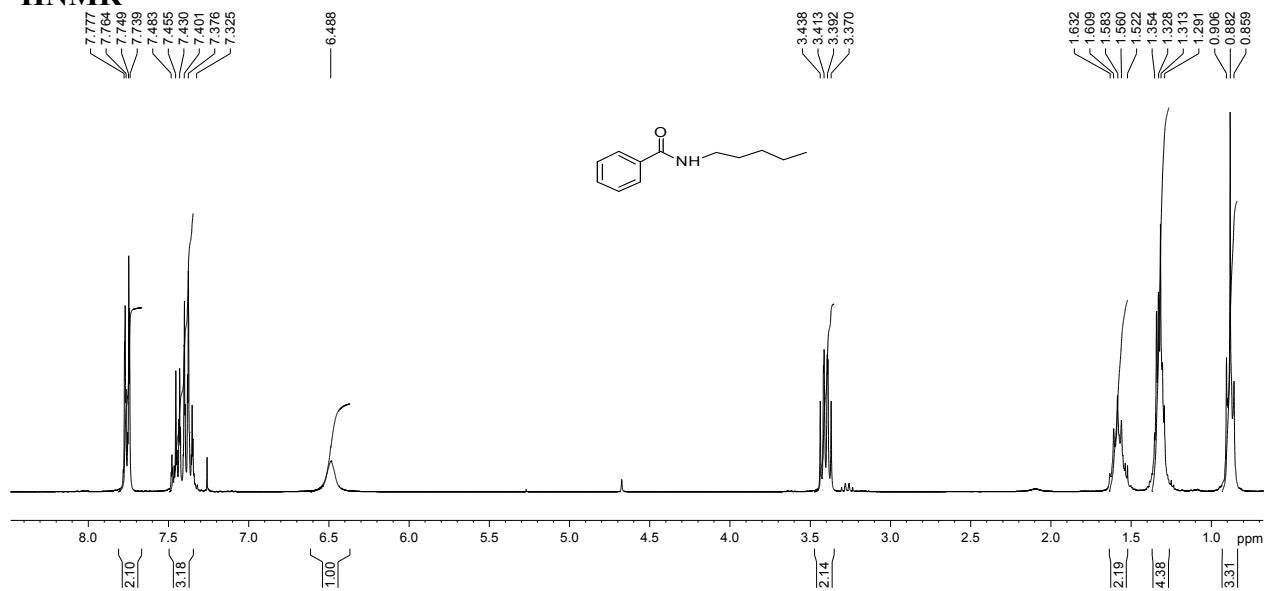
¹H NMR



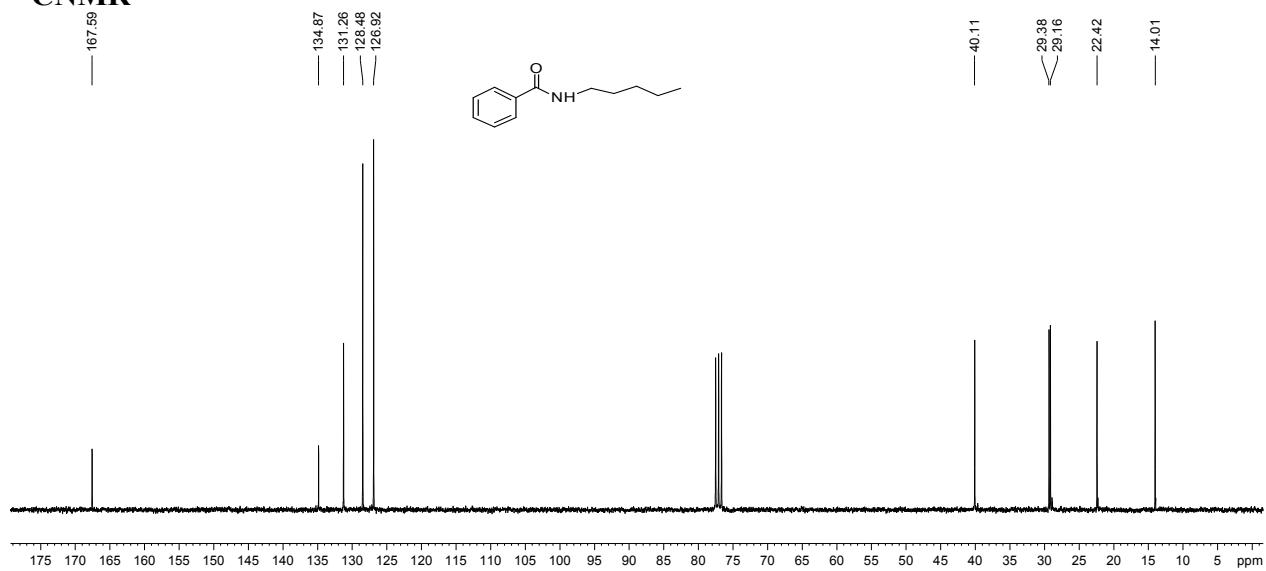
¹³C NMR



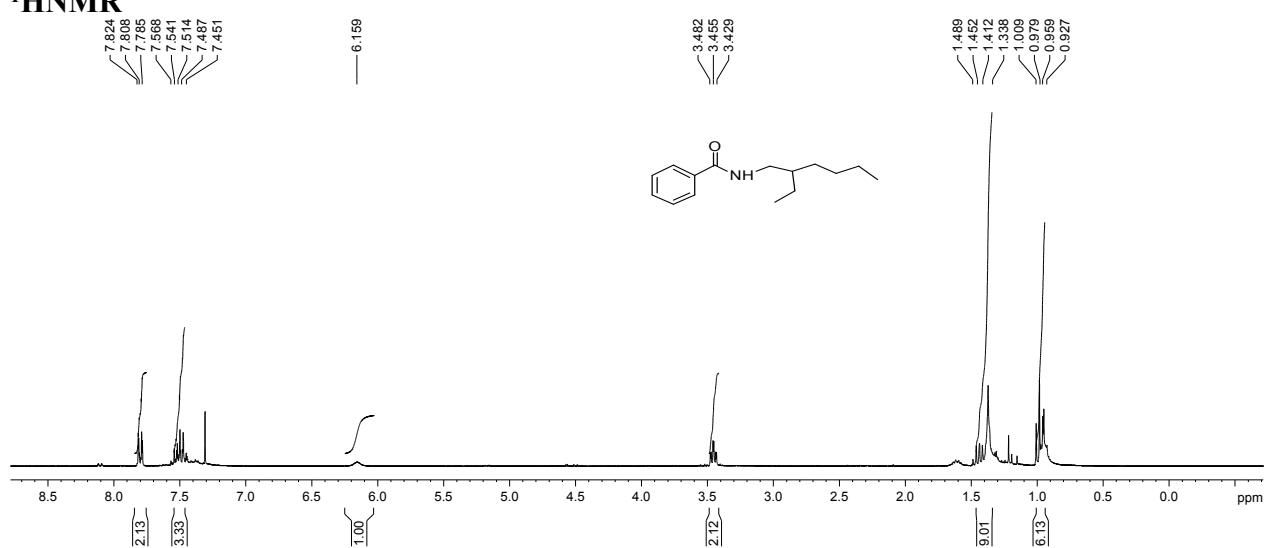
¹H NMR



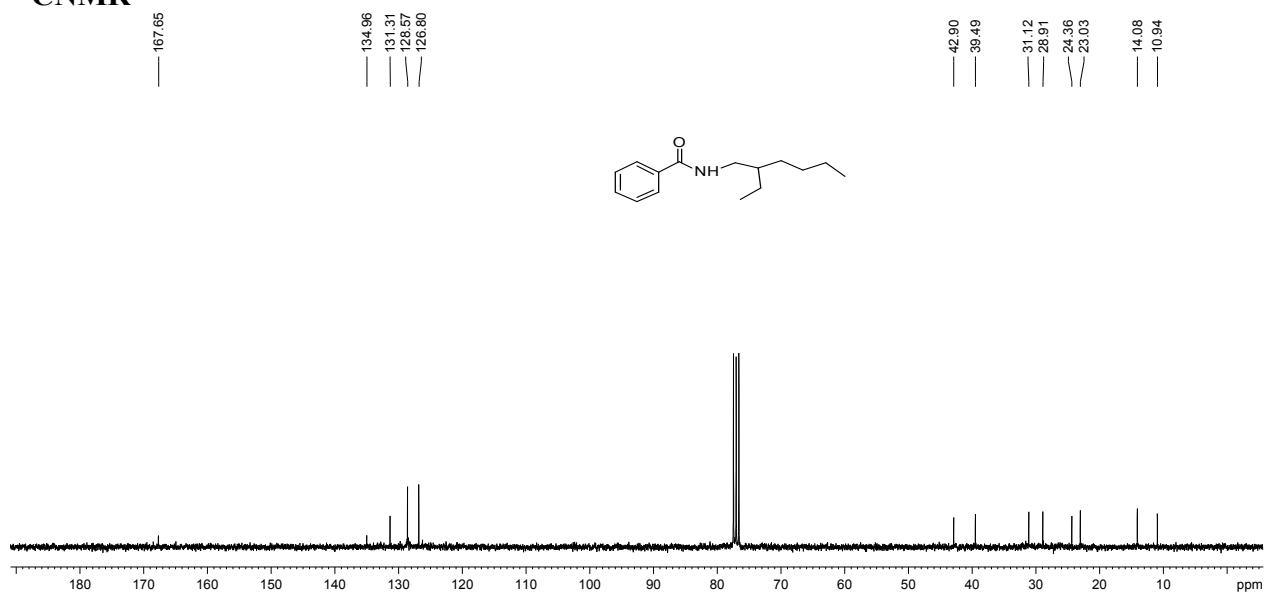
¹³C NMR



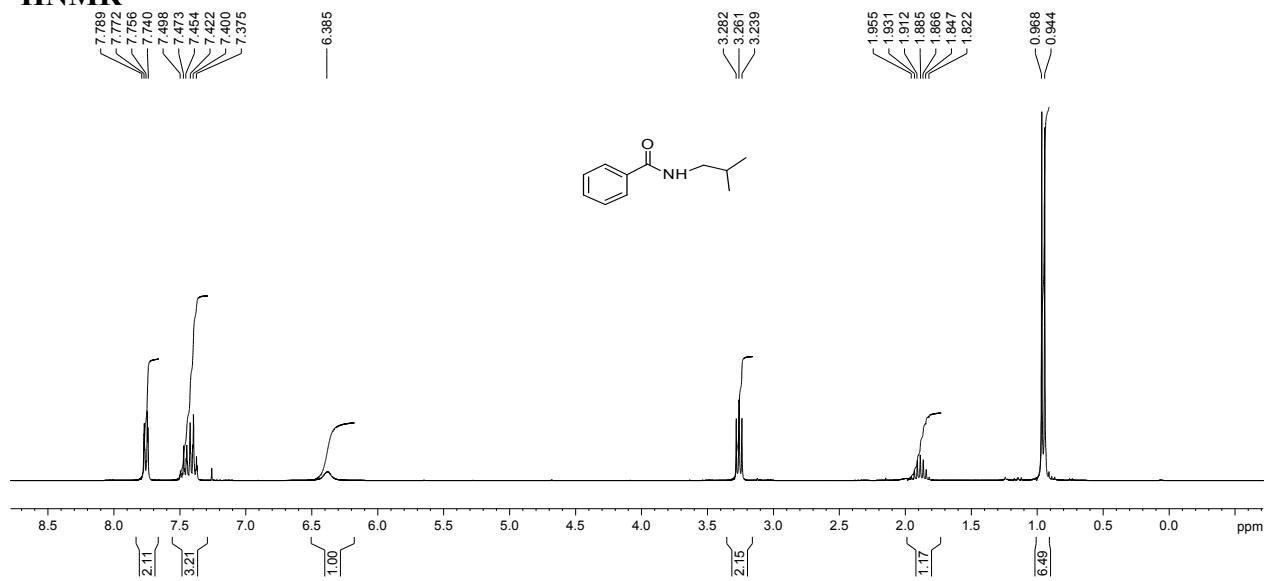
¹H NMR



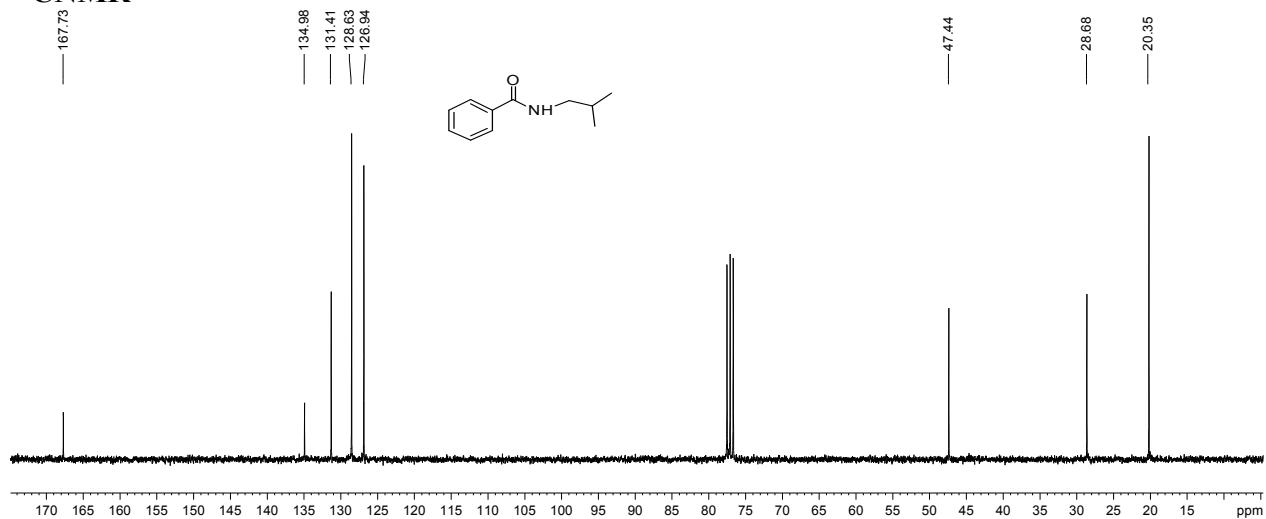
¹³C NMR



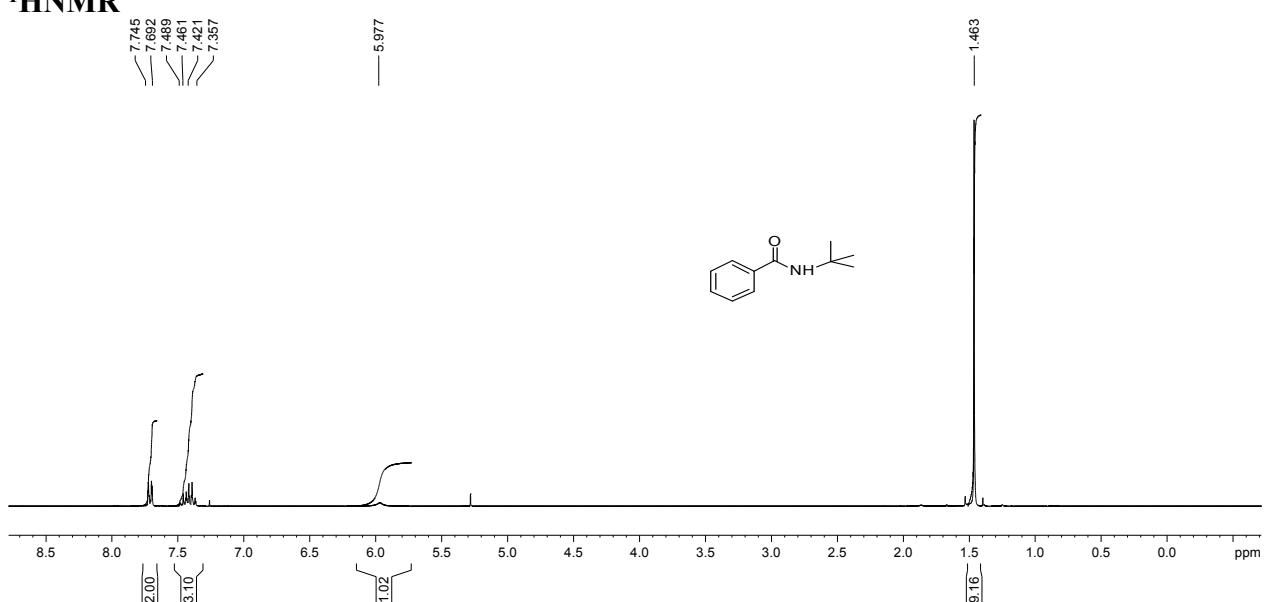
¹H NMR



¹³C NMR



¹H NMR



¹³C NMR

