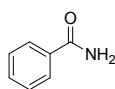
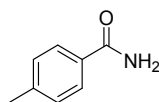


#### Benzamide [1]



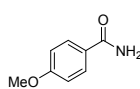
ethyl acetate/hexane (2:1); yield: (79 mg, 65%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.43 (s, 1H), 7.45 – 7.63 (m, 9H), 7.85 – 7.98 (m, 7H), 8.03 (s, 3H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 128.4 (2CH<sub>2</sub>), 129.1 (2CH<sub>2</sub>), 132.1 (CH), 135.2 (C), 168.8 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 121 (81), 105 (100), 77 (95), 51 (40), 50 (23), 44 (10).

#### 4-Methylbenzamide[1]



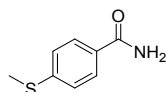
ethyl acetate/hexane (2:1); yield: (90 mg, 67%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 2.38 (s, 3H, CH<sub>3</sub>), 7.26 – 7.31 (m, 2H), 7.32 (s, 1H), 7.78 – 7.85 (m, 2H), 7.94 (s, 1H, NH<sub>2</sub>); <sup>13</sup>C NMR (DMSO-*d*<sub>6</sub>): δ = 21.8 (CH<sub>3</sub>), 128.4 (2CH), 129.6 (2CH), 132.4 (C), 141.9 (C), 168.7 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 135 (58), 119 (100), 91 (84), 89 (22), 65 (45), 44 (43).

#### 4-Methoxybenzamide [1]



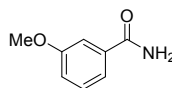
ethyl acetate/hexane (2:1); yield: (126 mg, 83%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 3.83 (s, 3H), 6.99-7.03 (m, 2H), 7.27 (s, 1H), 7.85-8.00 (m, 3H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 56.2 (OCH<sub>3</sub>), 114.3 (2CH), 127.4 (C), 130.3 (2CH), 162.5 (C), 168.5 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 151 (51), 135 (100), 107 (11), 92 (17), 77 (24).

#### 4-(Methylthio)benzamide [2]



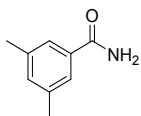
ethyl acetate; yield: (90 mg, 54%); <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ = 3.30 (s, 3H), 7.70 (s, 1H), 8.02 – 8.09 (m, 2H), 8.09 – 8.19 (m, 2H), 8.26 (s, 1H); <sup>13</sup>C NMR (100 MHz, DMSO-*d*<sub>6</sub>) δ = 44.2.3 (SCH<sub>3</sub>), 127.9 (2CH), 129.3 (2CH), 139.7 (C), 143.8 (C), 167.5 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 167 (89), 151 (100), 108 (24), 82 (11), 69 (17), 45 (35) 44 (34).

#### 3-Methoxybenzamide [3]



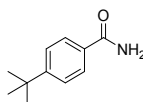
ethyl acetate/hexane (2:1); yield: (130 mg, 86%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 3.83 (s, 3H, OCH<sub>3</sub>), 7.11 (ddd, *J* = 8.1, 2.6, 1.0 Hz, 1H), 7.32 – 7.56 (m, 4H), 8.03 (s, 1H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>) δ = 56.1 (OCH<sub>3</sub>), 113.6, 117.9, 120.6, 130.2 (CH), 136.6 (C), 160.0 (C), 168.58. (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 151 (86), 150 (18), 135 (100), 107 (47), 92 (48), 77 (56), 63 (48), 44 (46), 38 (14).

#### 3,5-Dimethylbenzamide[4]



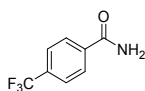
ethyl acetate/hexane (2:1); yield: (130 mg, 87%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 2.33 (s, 3H, CH<sub>3</sub>), 2.34 (s, 3H, CH<sub>3</sub>), 7.16-7.18 (m, 1H), 7.31 (s, 1H), 7.52-7.53 (m, 2H), 7.91 (s, 1H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 21.7 (CH<sub>3</sub>), 21.8 (CH<sub>3</sub>), 126.2 (2CH), 133.3 (C), 135.2 (CH), 138.1 (2C), 169.1 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 149 (59), 133 (100), 105 (60), 103 (24), 77 (42), 44 (44).

#### 4-(tert-Butyl)benzamide[1]



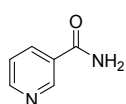
ethyl acetate/hexane (2:1); yield: (80 mg, 45%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 1.33 (s, 9H, CH<sub>3</sub>), 7.31 (s, 1H), 7.45-7.52 (m, 2H), 7.80-7.87 (m, 2H), 7.94 (s, 1H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>) δ = 31.8 (3CH<sub>3</sub>), 35.4 (C(CH<sub>3</sub>)), 125.8 (2CH), 128.2 (2CH), 132.4 (C), 154.8 (C), 168.7 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 177 (17), 163 (11), 162 (100), 115 (14), 91 (42), 44 (26).

#### 4-Trifluoromethylbenzamide [1]



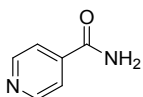
ethyl acetate/hexane (2:1); yield: (110 mg, 58%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.68 (s, 1H), 7.86 (dt, *J* = 8.2, 0.7 Hz, 2H), 8.11 (dt, *J* = 8.2, 0.7 Hz, 2H), 8.25 (s, 1H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>) δ = 124.8 (q, <sup>1</sup>*J*<sub>CF<sub>3</sub></sub> = 272.2 Hz, CF<sub>3</sub>), 126.15 (q, <sup>4</sup>*J*<sub>CF<sub>3</sub></sub> = 3.8 Hz, CH), 129.2 (CH), 132.08 (q, <sup>3</sup>*J*<sub>CF<sub>3</sub></sub> = 32.0 Hz), 138.9, 167.62 (CO); <sup>19</sup>F NMR (282 MHz, DMSO-*d*<sub>6</sub>): δ = -61.03 (F). GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 189 (61), 173 (100), 145 (98), 95 (15), 75 (14).

### Nicotinamide[1]



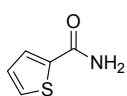
ethyl acetate; yield: (112 mg, 92%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.52-7.55 (m, 1H), 7.66 (s, 1H), 8.03 – 8.51 (m, 2H), 8.76 (s, 1H), 9.10 (s, 1H). <sup>13</sup>CNMR (DMSO-*d*<sub>6</sub>): δ = 124.5 (CH), 130.7 (C), 136.1 (CH), 149.6 (CH), 152.8 (CH), 163.7 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 122 (100), 106 (60), 78 (75), 51 (36), 50 (18), 44 (10).

### Isonicotinamide [1]



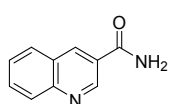
ethyl acetate; yield: (115 mg, 94%); <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ = 7.76 (s, 1H), 7.73 – 7.89 (m, 2H), 8.29 (s, 1H), 8.47 – 8.89 (m, 2H); <sup>13</sup>C NMR (100 MHz, DMSO-*d*<sub>6</sub>) δ = 122.3 (2CH), 142.2 (C), 151.1 (2CH), 167.3 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 122 (100), 106 (43), 79 (11), 78 (56), 50 (19), 44 (11).

### Thiophene-2-carboxamide. [1]



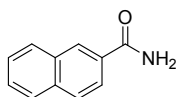
ethyl acetate; yield: (60 mg, 47%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ = 7.16 (dd, *J* = 4.9, 3.7 Hz, 1H), 7.42 (s, 1H), 7.51 – 7.92 (m, 2H), 8.00 (s, 1H); <sup>13</sup>CNMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 128. (CH), 129.5 (CH), 131.8 (CH), 141.2 (C), 163.7 (CO). GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 127 (51), 111 (100), 83 (13), 58 (10), 39 (36).

### Quinoline-3-carboxamide [5]



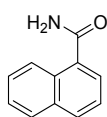
ethyl acetate; yield: (168 mg, 97%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ = 7.74 (ddd, *J* = 8.0, 6.9, 1.2 Hz, 2H), 7.91 (ddd, *J* = 8.4, 6.9, 1.5 Hz, 1H), 8.00 – 8.19 (m, 2H), 8.37 (s, 1H), 8.91 (d, *J* = 2.2 Hz, 1H), 9.36 (d, *J* = 2.2 Hz, 1H); <sup>13</sup>CNMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 127.5 (CH), 127.7 (C), 128.3 (CH), 129.5 (CH), 130.0 (C), 132.1 (CH), 136.8 (CH), 149.2 (CH), 149.9 (C), 167.3 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 172 (85), 156 (69), 155 (20), 129 (12), 128 (100), 127 (19), 101 (54), 75 (37), 44 (40).

### 2-Naphthamide [2]



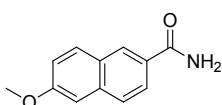
ethyl acetate/hexane (2:1); yield: (60 mg, 35%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.54 (s, 1H), 7.57-7.70 (m, 2H), 7.93-8.10 (m, 4H), 8.20 (s, 1H), 8.54 (s, 1H); <sup>13</sup>CNMR (DMSO-*d*<sub>6</sub>): δ = 125.3, 127.5, 128.5, 128.7, 129.8, 132.5, 133.1, 135.1, 168.9 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 171 (80), 156 (12), 155 (99), 127 (100), 75 (10).

### 1-Naphthamide [1]



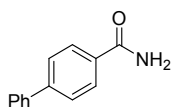
ethyl acetate/hexane (2:1); yield: (100 mg, 58%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.49-7.78 (m, 5H), 7.99-8.06 (m, 3H), 8.32-8.42 (m, 1H); <sup>13</sup>C NMR (DMSO-*d*<sub>6</sub>): δ = 125.8, 126.0, 126.5, 127.0, 127.5, 129.1, 130.6 (CH), 130.7, 134.1, 135.5 (C), 171.5 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 171 (86), 170 (31), 156 (9), 155 (82), 127 (100), 126 (25), 77 (11).

### 6-Methoxy-2-naphthamide[6]



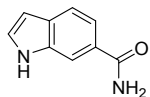
ethyl acetate/hexane (2:1); yield: (70 mg, 35%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 3.93 (s, 3H, OCH<sub>3</sub>), 7.26 (dd, *J* = 8.9, 2.5 Hz, 1H), 7.41 (d, *J* = 2.7 Hz, 2H), 7.82 – 8.03 (m, 3H), 8.09 (s, 1H), 8.45 (s, 1H); <sup>13</sup>CNMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 56.2 (OCH<sub>3</sub>), 106.7 (CH), 120.2 (CH), 125.8 (CH), 127.4 (CH), 128.3 (CH), 128.6 (CH), 130.2 (C), 136.6 (C), 159.4 (C), 168.9 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 201 (15), 84 (34), 66 (42), 43 (100), 42 (24), 42 (36).

### [1,1'-Biphenyl]-4-carboxamide[7]



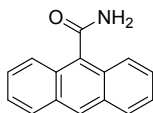
ethyl acetate/hexane (2:1); yield: (91 mg, 46%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): δ = 7.35-7.58 (m, 4H), 7.70-7.87 (m, 4H), 7.97-8.06 (m, 2H), 8.09 (s, 1H); <sup>13</sup>CNMR (75 MHz, DMSO-*d*<sub>6</sub>): δ = 127.3 (2CH), 127.7 (2CH), 128.9 (CH), 129.1 (2CH), 129.9 (2CH), 134.0 (C), 140.1 (C), 143.6 (C), 168.5 (CO); GC-MS (EI, 70 eV): *m/z* (%) [M<sup>+</sup>] 197 (71), 181 (100), 153 (34), 152 (66), 151 (20), 76 (14).

*1H-Indole-6-carboxamide*[8]



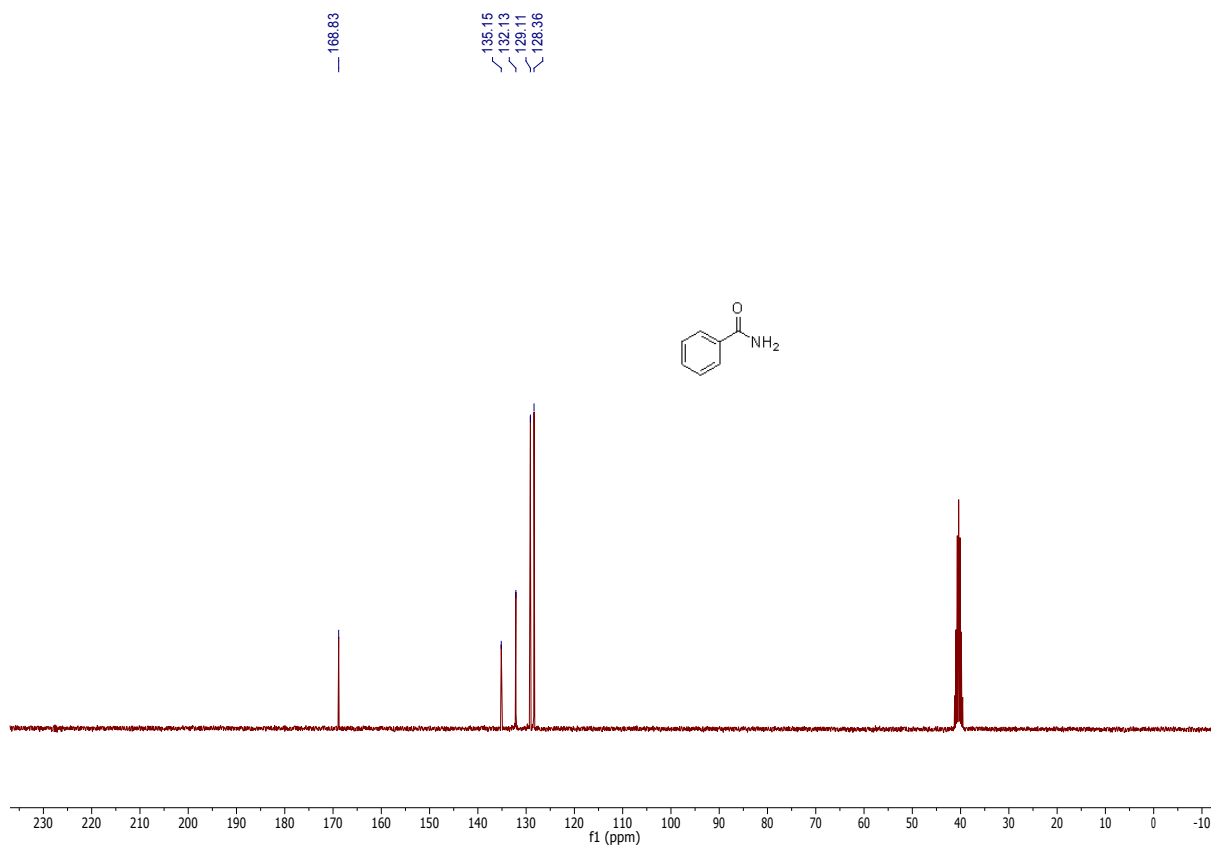
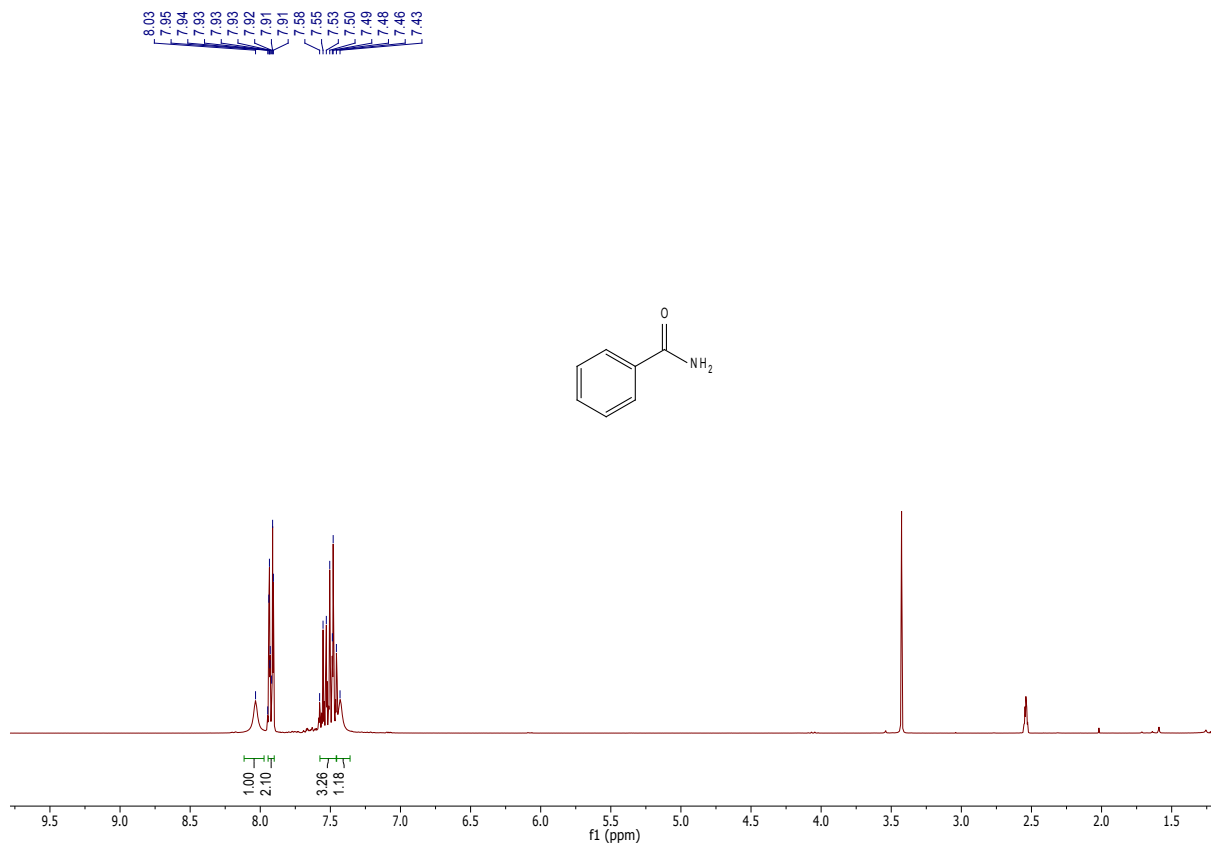
ethyl acetate; yield: (140 mg, 87%); <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>): <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ = 6.57 (ddd, *J* = 3.0, 1.9, 0.9 Hz, 1H), 7.13 – 7.28 (m, 2H), 7.32 – 7.48 (m, 2H), 7.65 (dd, *J* = 8.6, 1.8 Hz, 1H), 8.15 (s, 1H); <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>) δ = 102.9, 111.6, 121.2, 121.7, 126.1, 127.4, 127.8, 138.3, 169.9 (CO); GC-MS (EI, 70 eV): *m/z* (%) [*M*<sup>+</sup>] 160 (89), 144 (100), 143 (13), 89 (49), 63 (28), 44 (30).

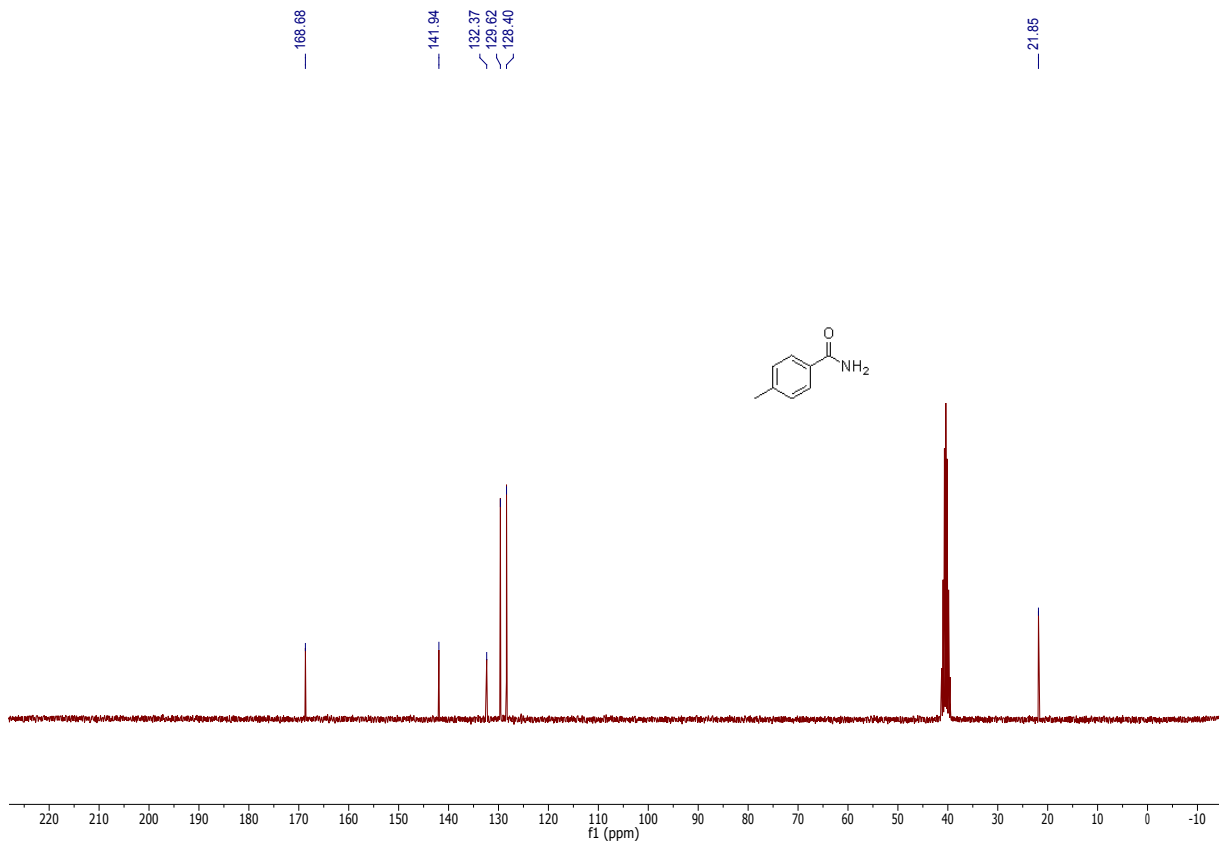
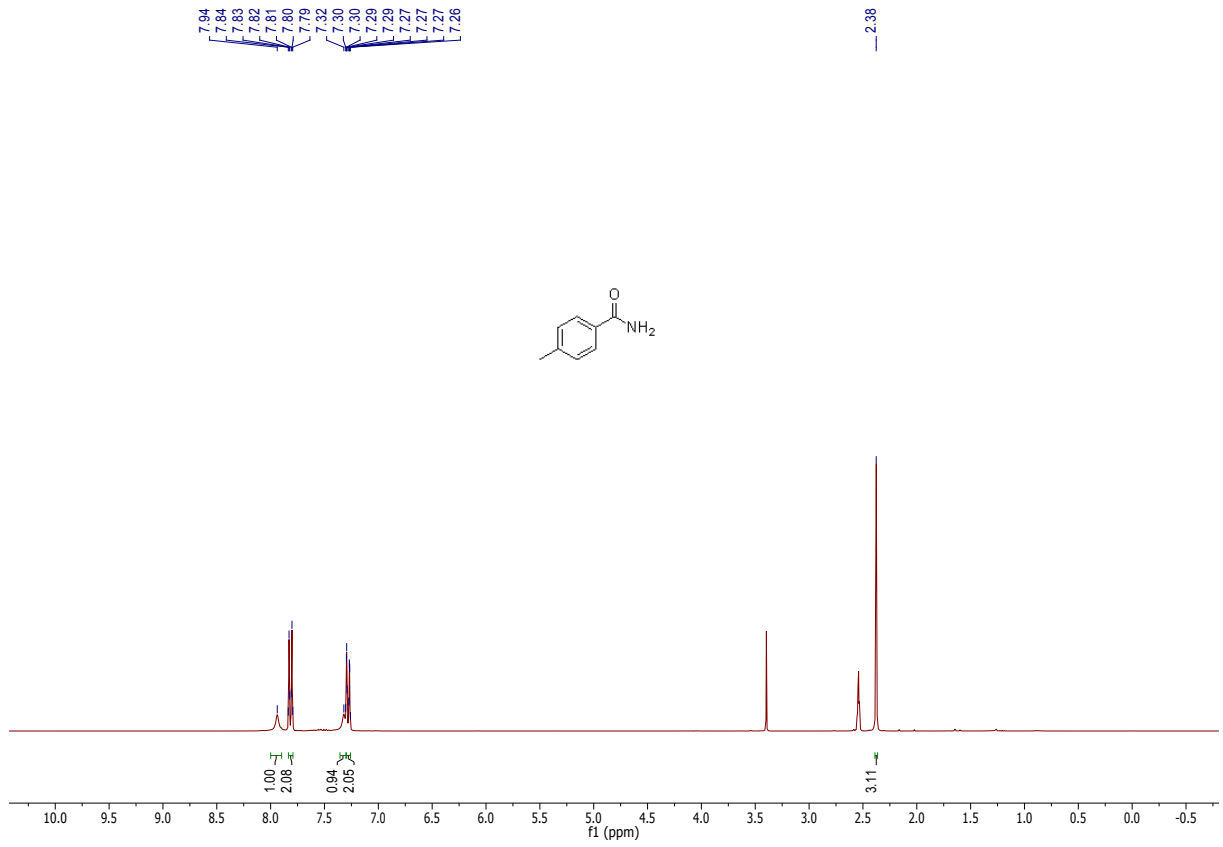
*Anthracene-9-carboxamide*[9]

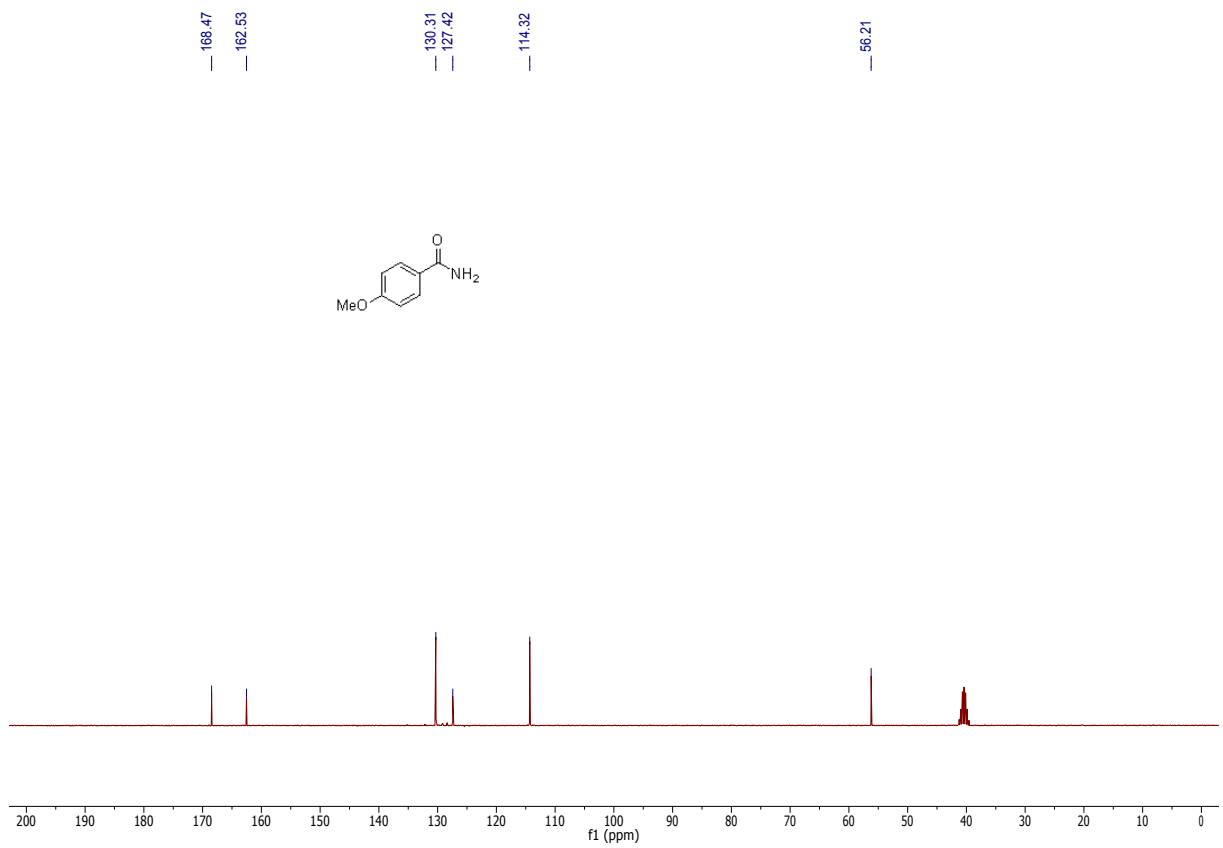
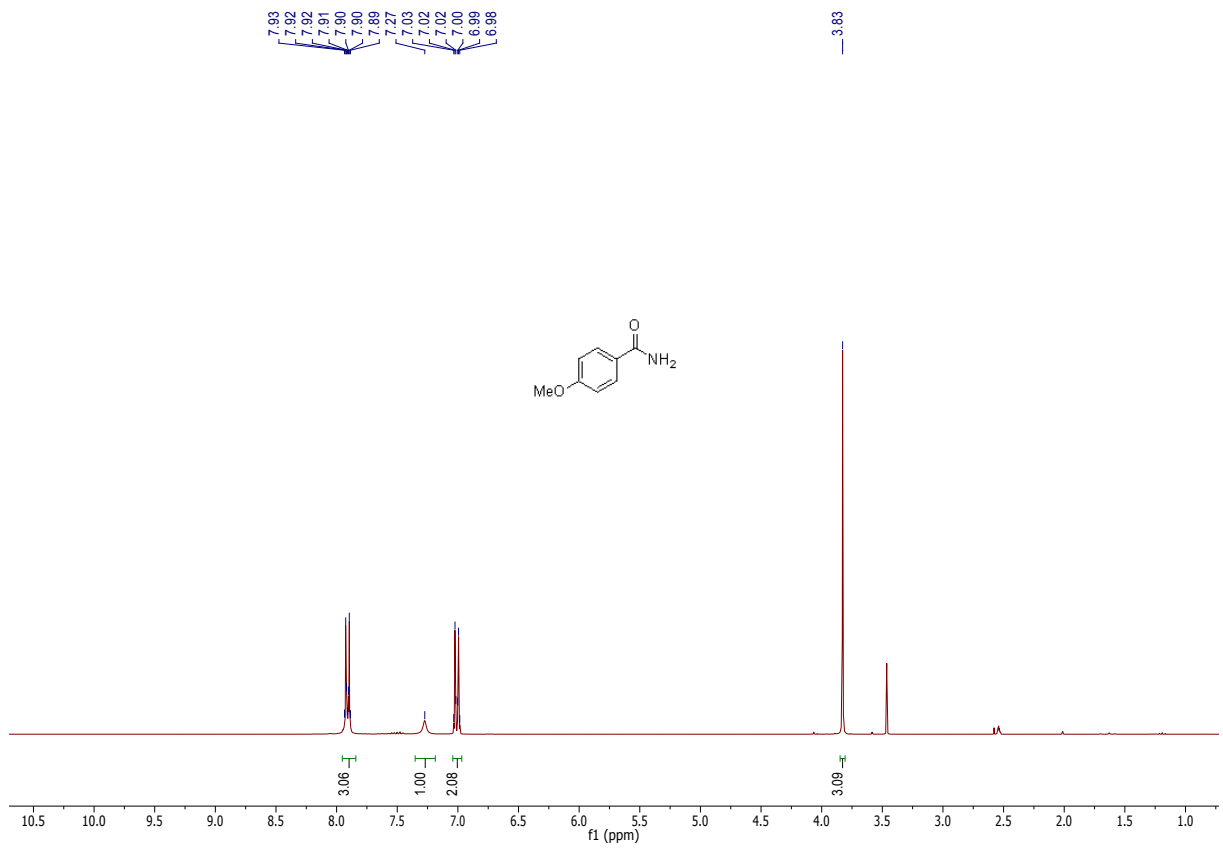


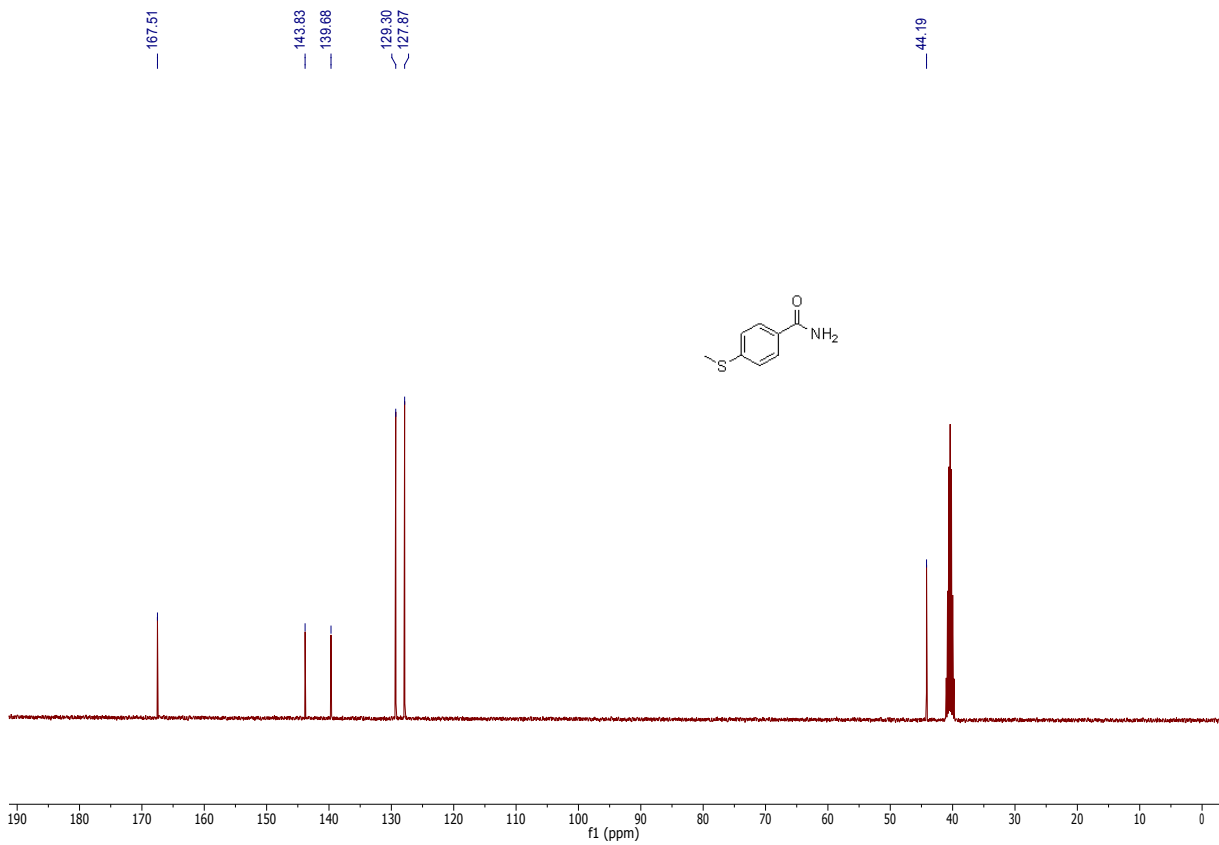
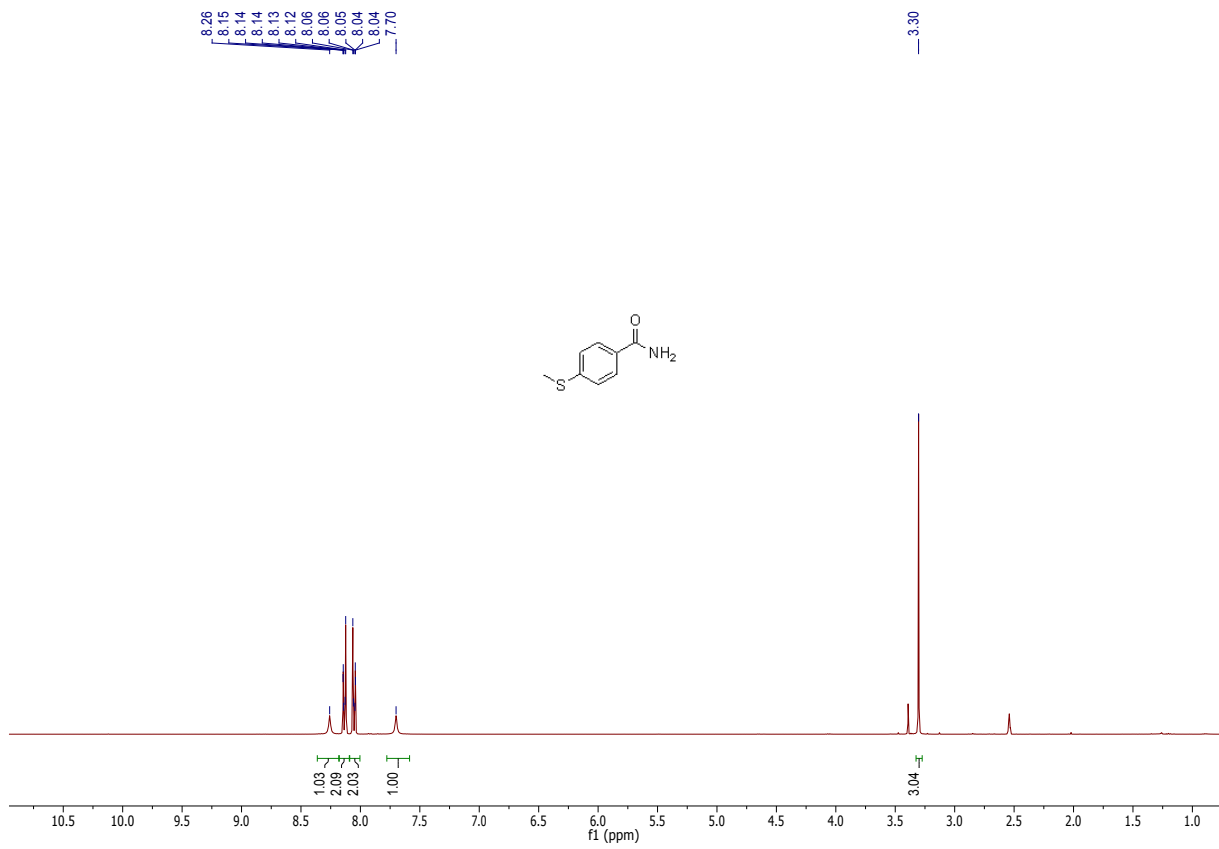
ethyl acetate; yield: (60 mg, 27%); <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ 7.51 – 7.78 (m, 5H), 8.03 – 8.21 (m, 5H), 8.31 (s, 1H), 8.68 (s, 1H). <sup>13</sup>C NMR (75 MHz, DMSO-*d*<sub>6</sub>) δ = 126.3 (CH), 126.4 (CH), 127.2 (CH), 127.7 (CH), 129.2 (CH), 131.6 (C), 134.6 (C), 171.1 (CO).

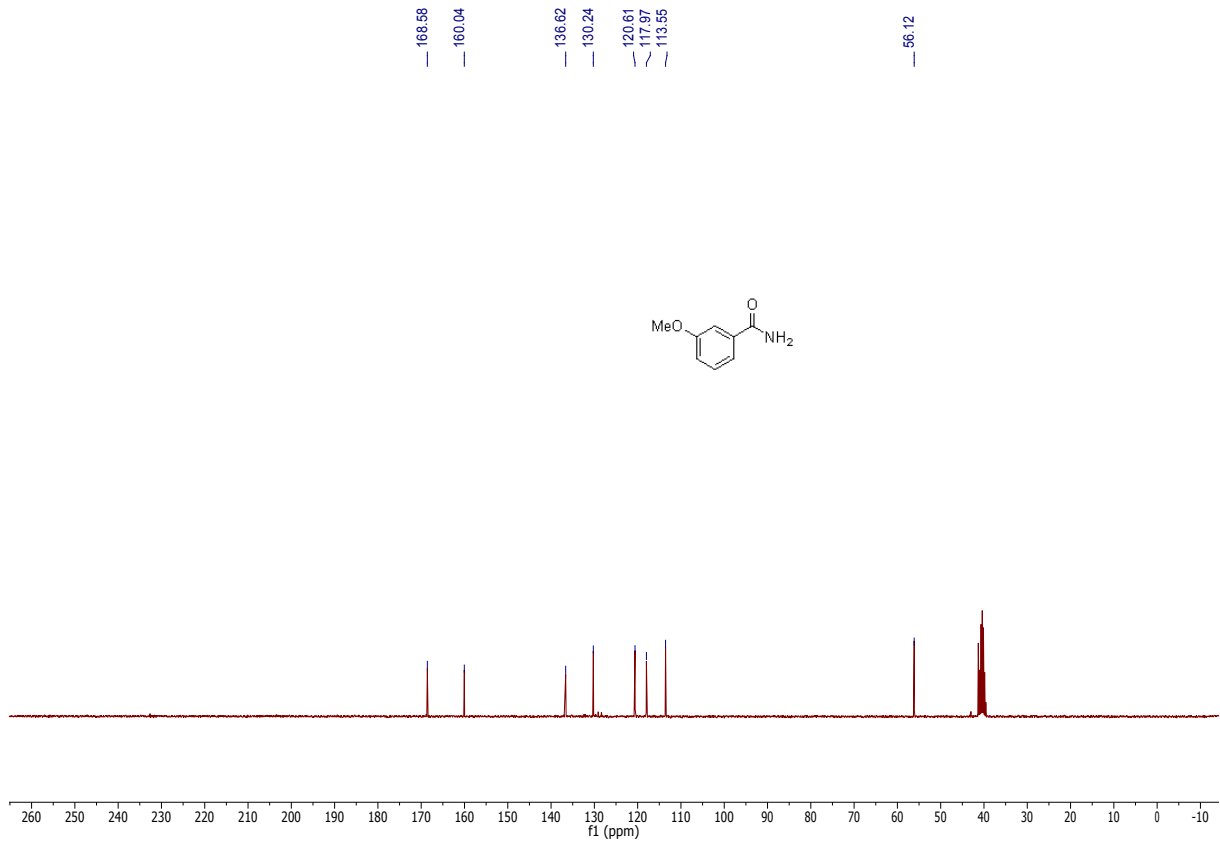
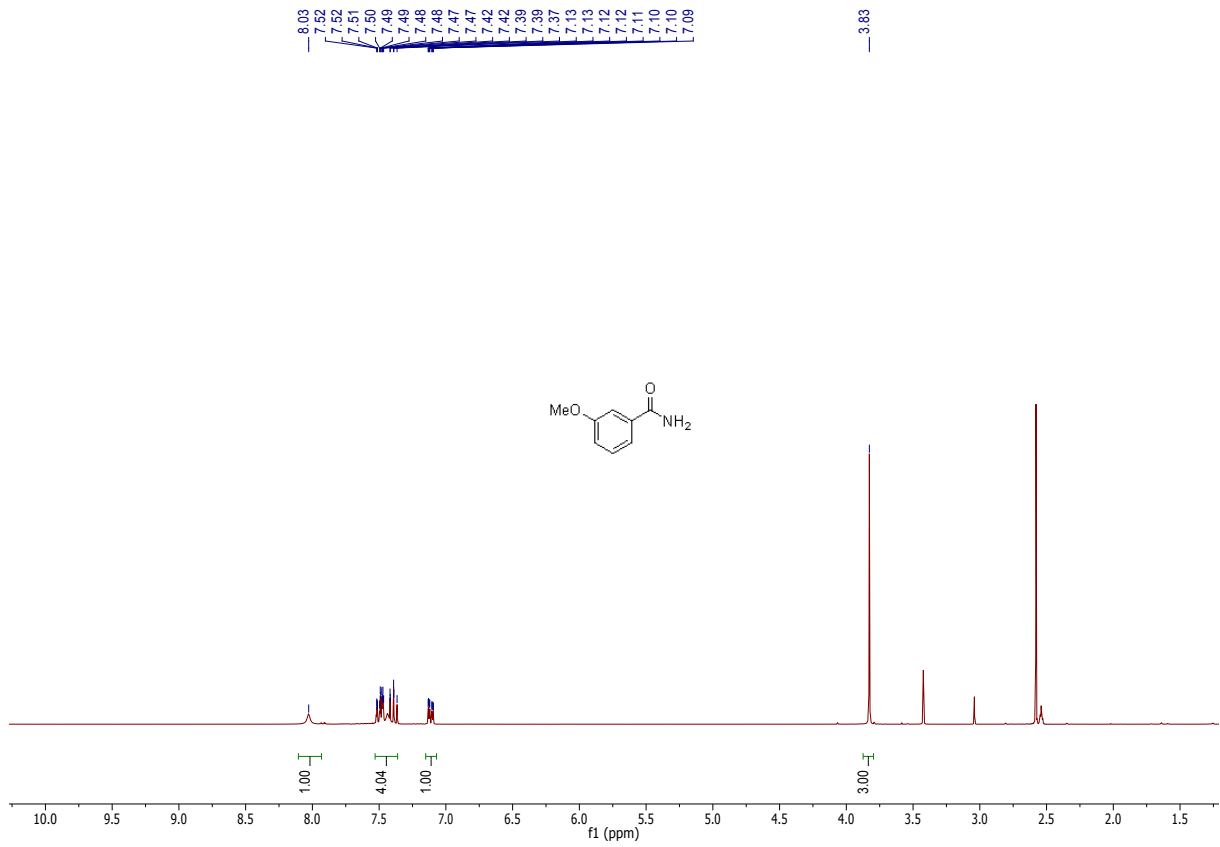
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9. R. García-Álvarez, A. E. Díaz-Álvarez, J. Borge, P. Crochet, V. Cadierno, *Organometallics*, **2012**, *31*, 6482–6490.





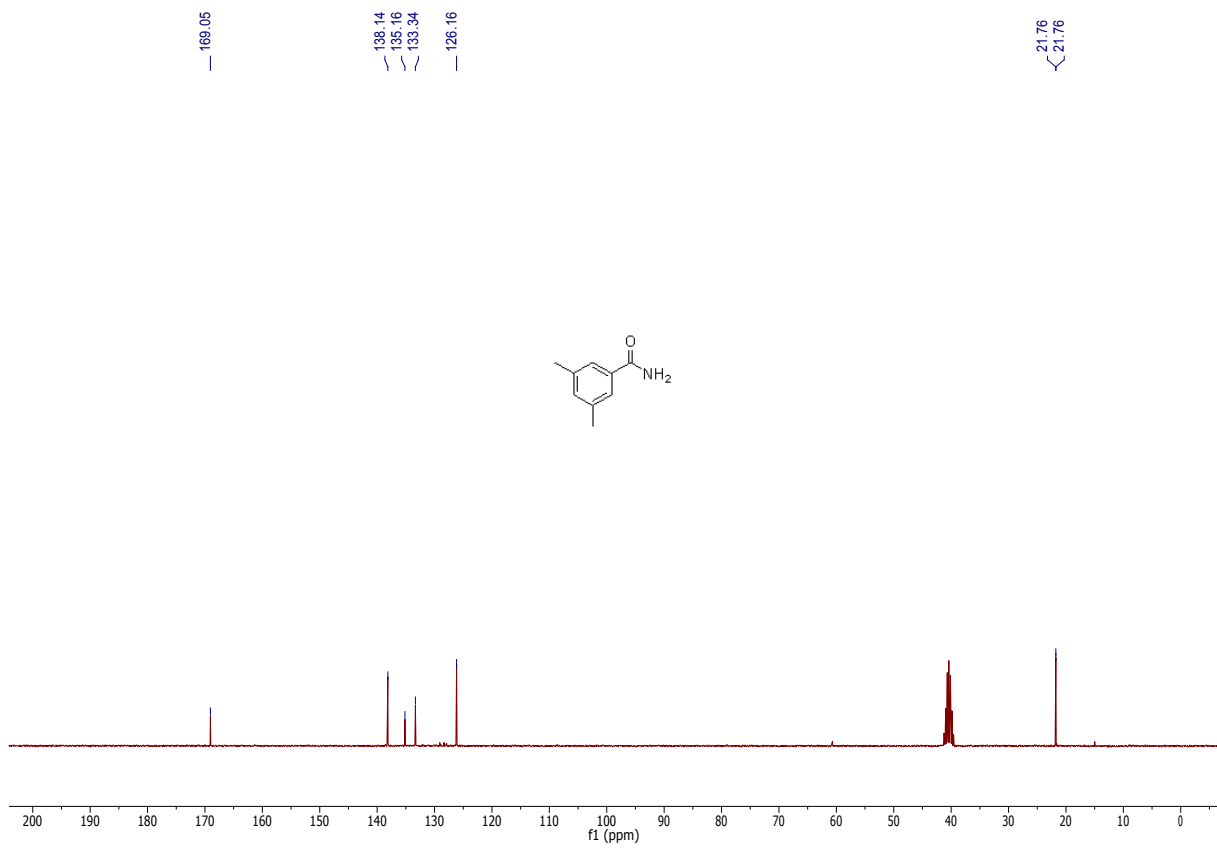
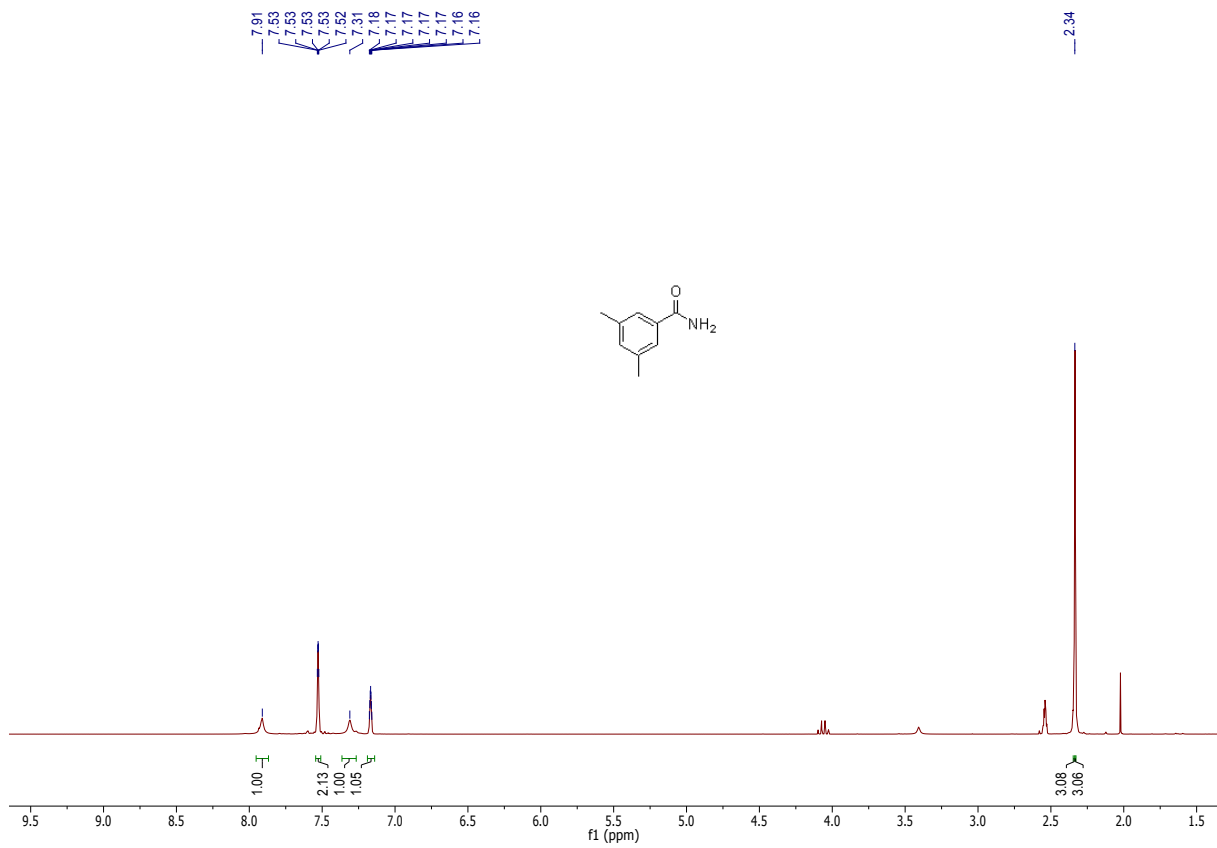


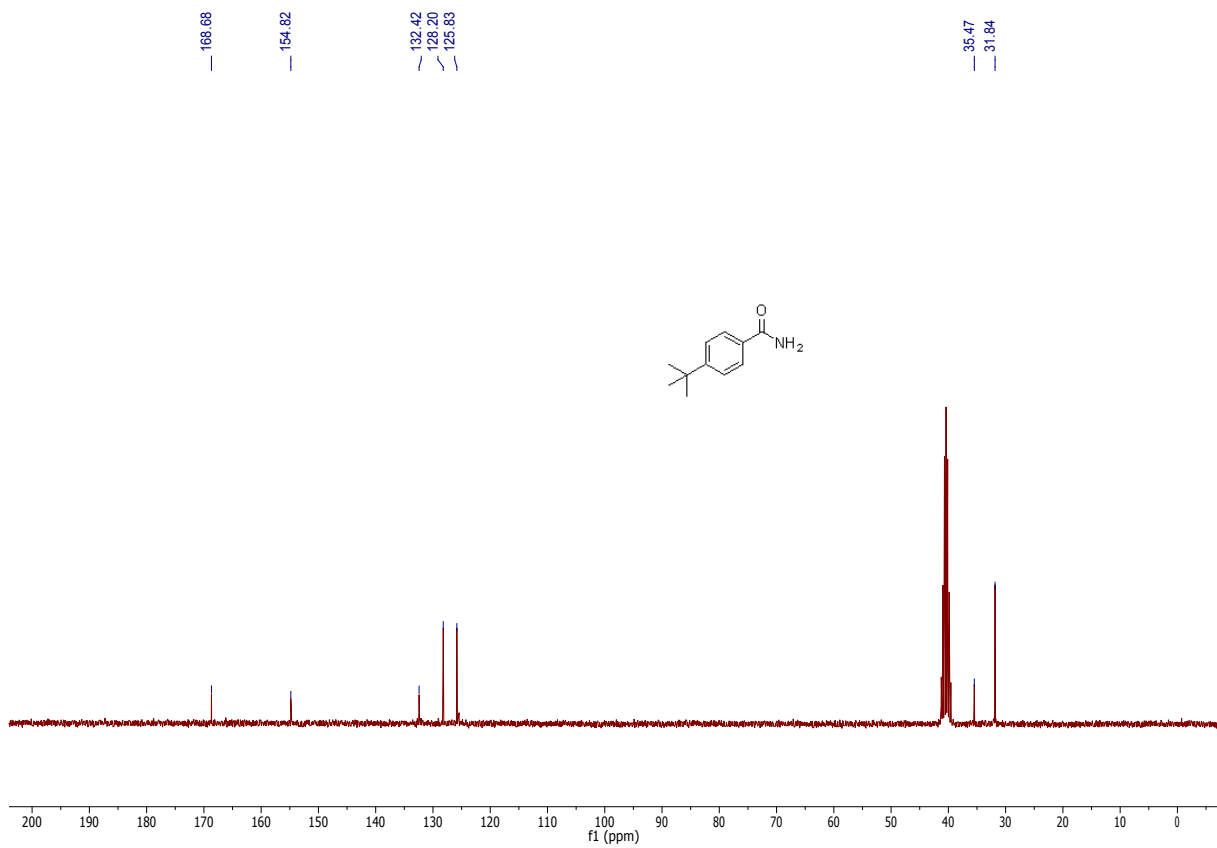
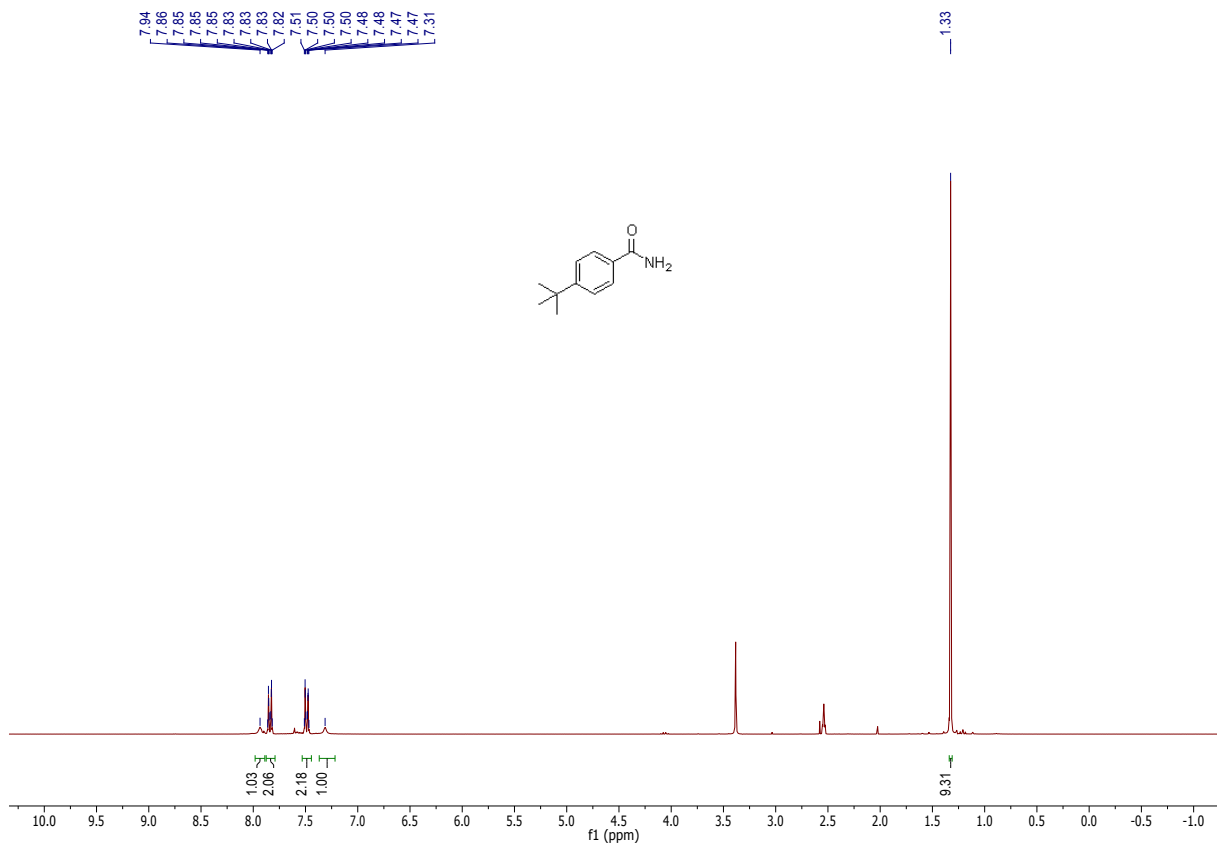








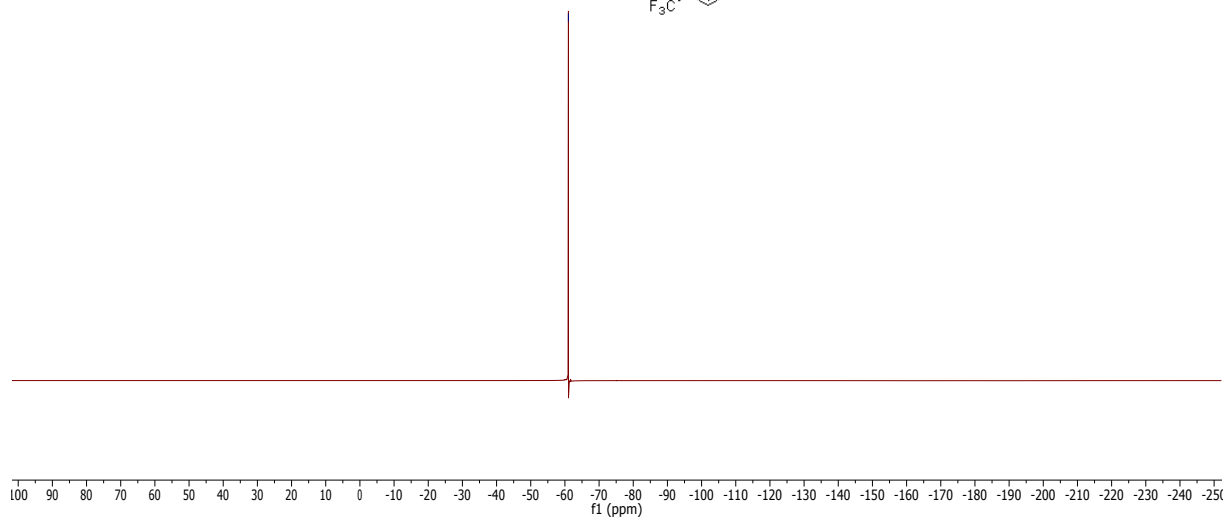
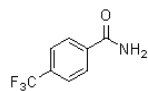






<sup>19</sup>F NMR (282 MHz, DMSO) δ -61.03.

-61.03



9.10  
8.76  
8.27  
8.27  
8.26  
8.25  
8.25  
8.24  
7.66  
7.55  
7.54  
7.53  
7.52

