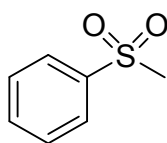


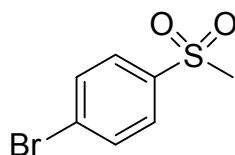
1-(Methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.95 (d, J = 7.9 Hz, 2H), 7.67 (t, J = 7.3 Hz, 1H), 7.58 (t, J = 7.6 Hz, 2H), 3.06 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 156 ($[\text{M}]^+$, 70), 141 (60), 94 (60), 77 (100), 66 (20), 51 (50), 50 (25).

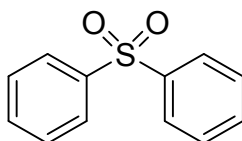
1-Bromo-4-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.81 (d, J = 8.4 Hz, 2H), 7.72 (d, J = 8.4 Hz, 2H), 3.05 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 236 ($[\text{M}]^+$, 80), 221 (70), 173 (70), 157 (100), 143 (15), 75 (50), 50 (40).

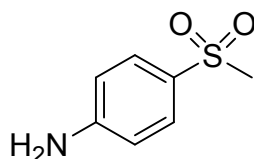
Sulfonyldibenzene



^1H NMR (400 MHz, CDCl_3) δ 7.95 (d, J = 7.6 Hz, 4H), 7.60 – 7.53 (m, 2H), 7.50 (t, J = 7.4 Hz, 4H).

GC-MS (EI, 70 eV) m/z (%) = 218 ($[\text{M}]^+$, 80), 152 (20), 125 (100), 97 (40), 77 (80), 51 (50).

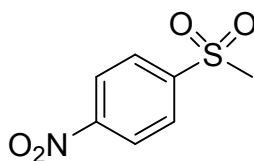
4-(Methylsulfonyl)aniline



^1H NMR (400 MHz, $\text{DMSO}-d_6$) δ 7.74 (d, J = 8.4 Hz, 2H), 6.89 (d, J = 8.5 Hz, 2H), 6.32 (s, 2H), 3.26 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 171 ($[\text{M}]^+$, 100), 156 (100), 140 (10), 108 (80), 92 (100), 79 (20), 65 (80), 52 (10).

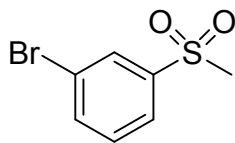
1-(Methylsulfonyl)-4-nitrobenzene



^1H NMR (400 MHz, CDCl_3) δ 8.42 (d, J = 8.4 Hz, 2H), 8.16 (d, J = 8.4 Hz, 2H), 3.12 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 201 ($[M]^+$, 25), 186 (35), 139 (100), 122 (60), 111 (17), 92 (35), 75 (45), 64 (40), 50 (50).

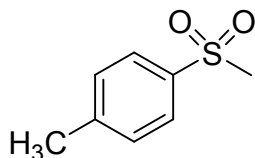
1-Bromo-3-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 8.09 (d, $J = 1.2$ Hz, 1H), 7.88 (d, $J = 7.7$ Hz, 1H), 7.79 (d, $J = 7.9$ Hz, 1H), 7.46 (t, $J = 7.9$ Hz, 1H), 3.07 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 236 ($[M]^+$, 50), 221 (35), 172 (50), 155 (100), 143 (10), 76 (75), 63 (17), 50 (70).

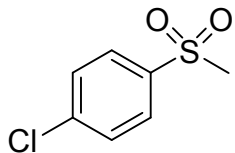
1-Methyl-4-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.83 (d, $J = 8.0$ Hz, 2H), 7.37 (d, $J = 7.9$ Hz, 2H), 3.04 (s, 3H), 2.46 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 170 ($[M]^+$, 40), 155 (45), 107 (30), 91 (100), 76 (12), 65 (30).

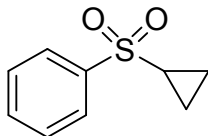
1-Chloro-4-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.89 (d, $J = 8.2$ Hz, 2H), 7.55 (d, $J = 8.2$ Hz, 2H), 3.06 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 190 ($[M]^+$, 40), 175 (50), 127 (45), 111 (100), 99 (15), 75 (50), 50 (35).

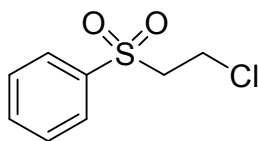
(Cyclopropylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.85 (d, $J = 6.3$ Hz, 2H), 7.59 (d, $J = 5.7$ Hz, 1H), 7.52 (d, $J = 5.5$ Hz, 2H), 2.44 (dd, $J = 7.5, 4.6$ Hz, 1H), 1.28 (s, 2H), 0.98 (d, $J = 5.3$ Hz, 2H).

GC-MS (EI, 70 eV) m/z (%) = 182 ($[M]^+$, 45), 141 (80), 117 (30), 91 (10), 77 (100), 51 (50).

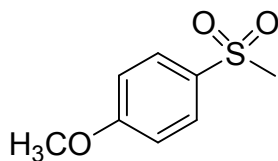
((2-Chloroethyl)sulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.91 (d, $J = 7.9$ Hz, 2H), 7.67 (t, $J = 7.3$ Hz, 1H), 7.57 (t, $J = 7.6$ Hz, 2H), 3.97 (t, $J = 5.4$ Hz, 2H), 3.35 (t, $J = 5.4$ Hz, 2H).

GC-MS (EI, 70 eV) m/z (%) = 204 ($[\text{M}]^+$, 10), 141 (50), 125 (15), 77 (100), 63 (18), 51 (40).

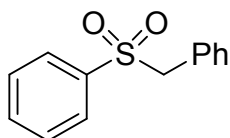
1-Methoxy-4-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.87 (d, $J = 8.5$ Hz, 2H), 7.02 (d, $J = 8.5$ Hz, 2H), 3.88 (s, 3H), 3.03 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 186 ($[\text{M}]^+$, 83), 171 (100), 123 (50), 107 (55), 92 (45), 77 (70), 64 (33), 50 (13).

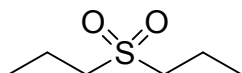
(Benzylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 7.61 (dd, $J = 13.3, 7.5$ Hz, 3H), 7.45 (t, $J = 7.6$ Hz, 2H), 7.36 – 7.29 (m, 1H), 7.29 – 7.22 (m, 2H), 7.08 (d, $J = 7.3$ Hz, 2H), 4.31 (s, 2H).

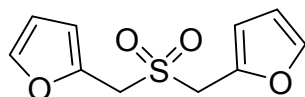
GC-MS (EI, 70 eV) m/z (%) = 232 ($[\text{M}]^+$, 10), 167 (13), 91 (100), 77 (20), 65(35), 52 (20).

1-(Propylsulfonyl)propane



^1H NMR (400 MHz, CDCl_3) δ 3.10 – 2.78 (m, 4H), 1.95 – 1.69 (m, 4H), 1.05 (t, $J = 7.4$ Hz, 6H).

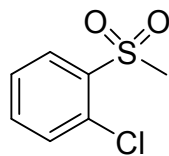
2,2'-(Sulfonylbis(methylene))difuran



^1H NMR (400 MHz, CDCl_3) δ 7.51 (s, 2H), 6.58 (d, $J = 3.0$ Hz, 2H), 6.45 (s, 2H), 4.29 (s, 4H).

GC-MS (EI, 70 eV) m/z (%) = 162 ($[\text{M}]^+$, 15), 81 (100), 53 (45).

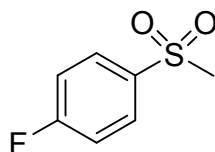
1-Chloro-2-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 8.13 (d, $J = 7.9$ Hz, 1H), 7.64 – 7.51 (m, 2H), 7.47 (t, $J = 6.9$ Hz, 1H), 3.26 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 190 ($[\text{M}]^+$, 45), 175 (33), 128 (50), 111 (100), 98 (25), 75 (75), 50 (30).

1-Fluoro-4-(methylsulfonyl)benzene



^1H NMR (400 MHz, CDCl_3) δ 8.00 (dd, $J = 8.4, 5.2$ Hz, 2H), 7.28 (dd, $J = 11.1, 5.7$ Hz, 2H), 3.09 (s, 3H).

GC-MS (EI, 70 eV) m/z (%) = 174 ($[\text{M}]^+$, 30), 159 (50), 111 (25), 95 (100), 75 (38), 50 (10).

