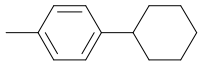
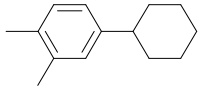
Supplementary Information

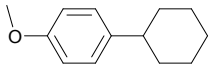
Spectral data of the cross-coupling products



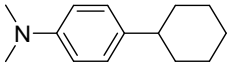
1-Cyclohexyl-4-methylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.22–1.29 (m, 1H), 1.32–1.45 (m, 4H), 1.72–1.75 (m, 1H), 1.82–1.87 (m, 4H), 2.31 (s, 3H), 2.43–2.47 (m, 1H), 7.08 - 7.12 (m, 4H).



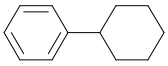
4-Cyclohexyl-1,2-dimethylbenzene.[2] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.23–1.32 (m, 1H), 1.36 - 1.49 (m, 4H), 1.75–1.78 (m, 1H), 1.85–1.90 (m, 4H), 2.26 (s, 3H), 2.28 (s, 3H), 2.48–2.41 (m, 1H), 6.98 (d, *J* = 7.7 Hz, 1H), 7.02 (s, 1H), 7.10 (d, *J* = 7.7 Hz, 2H).



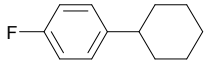
1-Cyclohexyl-4-methoxybenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.21–1.28 (m, 1H), 1.32–1.43 (m, 4H), 1.71–1.75 (m, 1H), 1.81–1.84 (m, 4H), 2.40–2.48 (m, 1H), 3.78 (s, 3H), 6.83 (d, *J* = 8.6 Hz, 2H), 7.12 (d, *J* = 8.6 Hz, 2H).



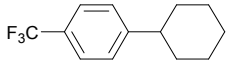
4-Cyclohexyl-N,N-dimethylbenzenamine.[3] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.20–1.27 (m, 1H), 1.31–1.43 (m, 4H), 1.70–1.73 (m, 1H), 1.80–1.85 (m, 4H), 2.38–2.41 (m, 1H), 2.89 (s, 6H), 6.69 (d, *J* = 8.7 Hz, 2H), 7.08 (d, *J* = 8.7 Hz, 2H).



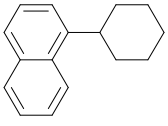
1-Cyclohexylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.22–1.29 (m, 1H), 1.33–1.44 (m, 4H), 1.72–1.77 (m, 1H), 1.82–1.89 (m, 4H), 2.46–2.52 (m, 1 H), 7.14–7.21 (m, 3H), 7.26–7.29 (m, 2H).



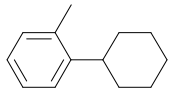
1-Cyclohexyl-4-fluorobenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.19–1.28 (m, 1H), 1.33–1.43 (m, 4H), 1.73–1.76 (m, 1H), 1.83–1.85 (m, 4H), 2.43–2.50 (m, 1H), 6.94–6.98 (m, 2H), 7.13–7.17 (m, 2H). ^{19}F NMR (282 MHz, $CDCl_3$) δ = -117.95.



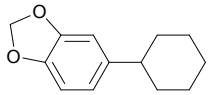
1-Cyclohexyl-4-(trifluoromethyl)benzene. [4] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.31–1.41 (m, 1H), 1.44–1.57 (m, 4H), 1.84–1.88 (m, 1H), 1.93–1.97 (m, 4H), 2.62–2.67 (m, 1H), 7.39 (d, *J* = 8.1 Hz, 2H), 7.63 (d, *J* = 8.1 Hz, 2H). ^{19}F NMR (282 MHz, $CDCl_3$) δ = -62.25.



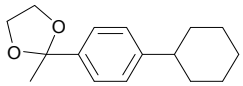
1-Cyclohexylnaphthalene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.41-1.47 (m, 1H), 1.54–1.70 (m, 4H), 1.91–2.01 (m, 3H), 2.09–2.17 (m, 2H), 3.40–3.47 (m, 1H), 7.52–7.56 (m, 4H), 7.77 (d, *J* = 7.9 Hz, 1H), 7.91–7.94 (m, 1H), 8.21 (d, *J* = 8.4 Hz, 1H).



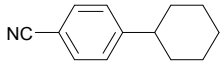
1-Cyclohexyl-2-methylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.24–1.32 (m, 1H), 1.36–1.47 (m, 4 H), 1.76–1.86 (m, 5H), 2.33 (s, 3H), 2.67–2.73 (m, 1H), 7.05–7.25 (m, 4H).



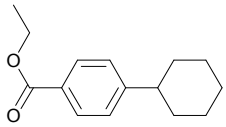
5-Cyclohexyl-1,3-benzodioxole.[4] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.19–1.26 (m, 1H), 1.29–1.41 (m, 4H), 1.70–1.74 (m, 1H), 1.77–1.84 (m, 4H), 2.39–2.44 (m, 1H), 5.88 (s, 2H), 6.63–6.65 (m, 1H), 6.72 (d, *J* = 8.0 Hz, 2H).



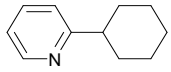
2-(4-Cyclohexylphenyl)-2-methyl-1,3-dioxolane. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.12–1.23 (m, 1H) 1.24–1.41 (m, 4H), 1.58 (s, 3H), 1.66–1.70 (m, 1H), 1.72–1.85 (m, 4H), 2.37–2.47 (m, 1H), 3.72 (t, *J* = 6.6 Hz, 2H), 3.96 (t, *J* = 6.6 Hz, 2H), 7.10 (d, *J* = 8.0 Hz, 2H), 7.32 (d, *J* = 8.0 Hz, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 25.7, 26.4, 27.1, 34.0, 43.8, 64.0, 108.4, 124.7, 126.1, 140.1, 147.2. HRMS (ESI) Calcd for $C_{14}H_{22}O$ $(M+H)^+$: 247.1693, Found: 247.1692.



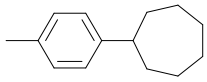
4-Cyclohexylbenzonitrile.[4] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.27–1.36 (m, 1H), 1.40–1.51(m, 4H), 1.80–1.84 (m, 1H), 1.87–1.97 (m, 4H), 2.58–2.63 (m, 1H), 7.35 (d, *J* = 8.1 Hz, 2H), 7.62 (d, *J* = 8.1 Hz, 2H).



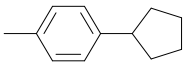
Ethyl 4-cyclohexylbenzoate.[5] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.24–1.34 (m, 1H), 1.37–1.47 (m, 7H), 1.77–1.81 (m, 1H), 1.86–1.91 (m, 4H), 2.55–2.61 (m, 1H), 4.36–4.41 (m, 2H), 7.28–7.30 (m, 2H), 7.97–8.00 (m, 2H).



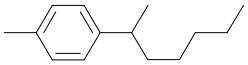
2-Cyclohexylpyridine.[3] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.24–1.34 (m, 1H), 1.36–1.47 (m, 2H), 1.48–1.58 (m, 2H), 1.73–1.78 (m, 1H), 1.84–1.89 (m, 2H), 1.94–1.97 (m, 2H), 2.66–2.74 (m, 1H), 7.07–7.10 (m, 1H), 7.14–7.16 (m, 1H), 7.57–7.62 (m, 1H), 8.52–8.54 (m, 1H).



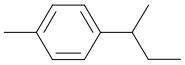
1-Cycloheptyl-4-methylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.53–1.70 (m, 8H), 1.74–1.79 (m, 2H), 1.86–1.91 (m, 2H), 2.30 (s, 3H), 2.58–2.65 (m, 1H), 7.04-7.09 (m, 4H).



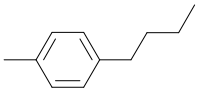
1-Cyclopentyl-4-methylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.53–1.61 (m, 2H), 1.64–1.72 (m, 2H), 1.75–1.81 (m, 2H), 2.01–2.08 (m, 2 H), 2.31 (s, 3H), 2.91–2.99 (m, 1 H), 7.09 (d, *J* = 8.0 Hz, 2H), 7.14 (d, *J* = 8.0 Hz, 2H).



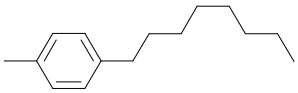
1-(1-Methylhexyl)-4-methylbenzene.[6] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.99 (t, *J* = 8.8 Hz, 3H), 1.34–1.41 (m, 9H), 1.63–1.72 (m, 2H), 2.45 (s, 3H), 2.73–2.82 (m, 1H), 7.19–7.24 (m, 4H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 14.2, 21.1, 22.6, 27.6, 32.1, 38.6, 39.6, 126,.9, 129.1, 135.2, 145.0.



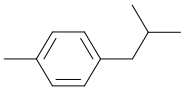
1-(2-Butyl)-4-methylbenzene.[1] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.82 (t, *J* = 7.3 Hz, 3H), 1.21 (d, *J* = 6.9 Hz, 3H), 1.52–1.61 (m, 2H), 2.32 (s, 3H), 2.51–2.60 (m, 1H), 7.07 (d, *J* = 8.2 Hz, 2H), 7.11 (d, *J* = 8.2 Hz, 2H).



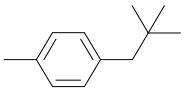
1-Butyl-4-methylbenzene.[7] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.92 (t, *J* = 7.6 Hz, 3H), 1.30–1.39 (m, 2H), 1.52–1.61 (m, 2H), 2.32 (s, 3H), 2.57 (t, *J* = 8.0 Hz, 2H), 7.06–7.10 (m, 4H).



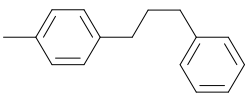
1-Methyl-4-octylbenzene.[8] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.87 (t, *J* = 8.8 Hz, 3H), 1.29–1.26 (m, 10H), 1.54–1.60 (m, 2H), 2.31 (s, 3H), 2.55 (t, *J* = 8.8 Hz, 2H), 7.05–7.10 (m, 4H).



1-Isobutyl-4-methylbenzene.[9] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.89 (d, *J* = 6.6 Hz, 6H), 1.78–1.88 (m, 1H), 2.31 (s, 3H), 2.41 (d, *J* = 7.3 Hz, 2H), 7.02 (d, *J* = 8.0 Hz, 2H), 7.07 (d, *J* = 8.0 Hz, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 21.1, 22.4, 30.3, 45.1, 128.8, 129.0, 135.0, 138.6.



1-Methyl-4-neopentylbenzene.[10] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.89 (s, 9H), 2.32 (s, 3H), 2.45 (s, 2H), 7.01 (d, *J* = 7.8 Hz, 2H), 7.07 (d, *J* = 7.8 Hz, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 21.1, 29.4, 31.7, 49.9, 128.4, 130.4, 135.1, 136.7.



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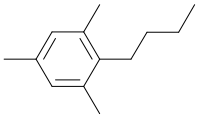
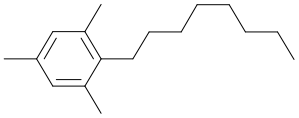
1-(3-Phenylpropyl)-4-methylbenzene.[11] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.99–2.07 (m, 2H), 2.68–2.75 (m, 4H), 7.15–7.20 (m, 4H), 7.25–7.31 (m, 3H), 7.35–7.38 (m, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.6, 32.6, 34.5, 35.0, 125.3, 127.8, 127.9, 128.0, 128.5, 134.7, 138.7,

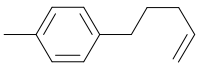
141.9.



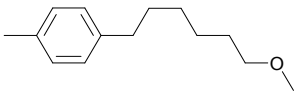
Butylmesitylene.[12] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.96 (t, *J* = 6.9 Hz, 3H), 1.40–1.44 (m, 4H), 2.27 (s, 6H), 2.24 (s, 3H), 2.56 (t, *J* = 7.7 Hz, 2H), 6.82 (s, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 13.5, 19.2, 20.3, 22.9, 28.7, 31.1, 128.6, 134.2, 135.4, 136.2.



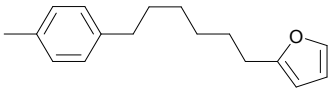
1,3,5-Trimethyl-2-octylbenzene.[13] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 0.88 (t, *J* = 7.0 Hz, 3H), 1.28–1.44 (m, 12H), 2.23 (s, 3H), 2.27 (s, 6H), 2.55 (t, *J* = 8.8 Hz, 2H), 6.81 (s, 2H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 13.7, 19.3, 20.3, 22.3, 28.9, 28.9, 29.0, 29.1, 29.9, 31.5, 128.4, 134.2, 135.4, 136.3.



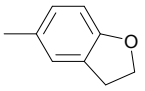
1-Methyl-4-(pent-4-enyl)benzene.[3] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.65–1.73 (m, 2H), 2.05–2.11 (m, 2H), 2.30 (s, 3H), 2.57 (t, *J* = 7.6 Hz, 2H), 4.95–5.04 (m, 2H), 5.77–5.86 (m, 1H), 7.04–7.09 (m, 4H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.6, 30.3, 32.9, 34.5, 114.2, 127.9, 128.5, 134.7, 138.3, 138.9.



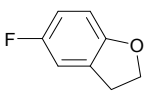
1-(6-Methoxyhexyl)-4-methylbenzene. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.32–1.38 (m, 4H), 1.52–1.63 (m, 4H), 2.30 (s, 3H), 2.55 (t, *J* = 7.8 Hz, 2 H), 3.31 (s, 3H), 3.34 (t, *J* = 6.6 Hz, 2H), 7.03–7.08 (m, 4H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.6, 25.6, 28.7, 29.2, 31.2, 35.0, 58.1, 72.5, 127.9, 128.5, 134.5, 139.3. HRMS (ESI) Calcd for $C_{14}H_{22}O$ $(M+H)^+$: 207.1743, Found: 207.1750.



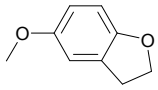
2-(6-*p*-Tolylhexyl)furan. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.31–1.40 (m, 4H), 1.55–1.66 (m, 4H), 2.31 (s, 3H), 2.53–2.62 (m, 4H), 5.94–5.95 (m, 1H), 6.25–6.27 (m, 1H), 7.04–7.09 (m, 4H), 7.27–7.28 (m, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.5, 27.5, 27.5, 28.6, 28.6, 31.1, 35.0, 104.1, 109.6, 127.8, 128.5, 134.5, 139.3, 140.2, 156.1. HRMS (ESI) Calcd for $C_{17}H_{22}O$ $(M+H)^+$: 243.1743, Found: 243.1750.



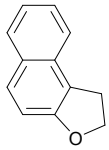
2,3-Dihydro-5-methylbenzofuran.[14] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 2.26 (s, 3H), 3.13 (t, *J* = 8.7 Hz, 2H), 4.50 (t, *J* = 8.7 Hz, 2H), 6.66 (d, *J* = 8.2 Hz, 1H), 6.88 (d, *J* = 8.2 Hz, 1H), 6.98 (s, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.8, 29.9, 71.1, 108.9, 125.6, 127.0, 128.3, 129.6, 158.0.



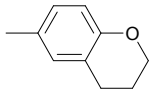
5-Fluoro-2,3-dihydrobenzofuran.[15] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 3.22 (t, *J* = 8.7 Hz, 2 H), 4.60 (t, *J* = 8.7 Hz, 2H), 6.68–6.72 (m, 1H), 6.78–6.83 (m, 1H), 6.90–6.93 (m, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 30.1, 30.1, 71.6, 109.2, 109.3, 111.9, 112.1, 113.8, 114.0, 128.3, 128.4, 156.0, 156.2, 158.6. ^{19}F NMR (282 MHz, $CDCl_3$) δ = -124.95.



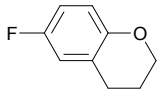
2,3-Dihydro-5-methoxybenzofuran. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 3.23 (t, *J* = 8.6 Hz, 2H), 3.81 (s, 3H), 4.59 (t, *J* = 8.6 Hz, 2H), 6.70 (m, 1H), 6.76 (d, *J* = 8.6 Hz, 2H), 6.84–6.85 (m, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 29.8, 55.6, 70.8, 108.6, 110.8, 112.2, 127.5, 153.6, 153.7. HRMS (ESI) Calcd for $C_9H_{10}O_2$ $(M+H)^+$: 151.0754, Found: 151.0755.



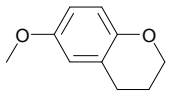
1,2-Dihydronaphtho[2,1-*b*]furan. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 3.37 (t, *J* = 9.0 Hz, 2H), 4.67 (t, *J* = 9.0 Hz, 2H), 7.07 - 7.10 (m, 1H), 7.24–7.29 (m, 1H), 7.40–7.44 (m, 1H), 7.52 (d, *J* = 8.2 Hz, 2H), 7.62 (d, *J* = 8.7 Hz, 1H), 7.76 (t, *J* = 8.2 Hz, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 111.6, 118.2, 122.3, 122.4, 126.2, 128.3, 128.5, 128.8, 130.4, 157.2. HRMS (ESI) Calcd for $C_{12}H_{10}O$ $(M+H)^+$: 171.0804, Found: 171.0802.



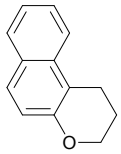
3,4-Dihydro-6-methyl-2*H*-chromene. ^{1}H NMR (400 MHz, $CDCl_3$) δ = 2.05–2.11 (m, 1H), 2.35 (s, 3H), 2.84 (t, *J* = 6.5 Hz, 2H), 4.25 (t, *J* = 5.4 Hz, 2H), 6.79 (d, *J* = 8.2 Hz, 1H), 6.94 (s, 1 H), 6.98 (d, *J* = 9.7 Hz, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 20.1, 22.1, 24.5, 66.0, 116.0, 121.4, 127.4, 128.8, 129.8, 152.3. HRMS (ESI) Calcd for $C_{10}H_{12}O$ $(M+H)^+$: 149.0961, Found: 149.0963.



6-Fluoro-3,4-dihydro-2*H*-chromene.[16] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.98–2.04 (m 2H), 2.79 (t, *J* = 6.6 Hz, 2H), 4.18 (t, *J* = 5.2 Hz, 2H), 6.72–6.75 (m, 1H), 6.77–6.78 (m, 1H), 6.80–6.82 (m, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 22. 1, 25.0, 66.4, 113.8, 114.0, 115.4, 115.7, 117.4, 117.5, 123.2, 123.3. ^{19}F NMR (282 MHz, $CDCl_3$) δ = -124.45.



3,4-Dihydro-6-methoxy-2H-chromene.[17] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 1.99–2.05 (m, 2H), 2.81 (t, *J* = 6.5 Hz, 2H), 3.79 (s, 3H), 4.18 (t, *J* = 5.1 Hz, 2H), 6.64 (s, 1H), 6.70–6.73 (m, 1H), 6.78 (d, *J* = 8.8 Hz, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 22. 5, 25.2, 55.7, 66.3, 113.3, 114.4, 117.2, 122.8, 149.0, 153.2.



2,3-Dihydro-1H-benzo[*f*]chromenein.[18] ^{1}H NMR (400 MHz, $CDCl_3$) δ = 2.19–2.25 (m, 2H), 3.11 (t, *J* = 6.6 Hz, 1H), 4.31 (t, *J* = 5.2 Hz, 2H), 7.13 (d, *J* = 8.9 Hz, 1H), 7.40–7.44 (m, 1H), 7.54–7.58 (m, 1H), 7.68 (d, *J* = 8.9 Hz, 1H), 7.83 (d, *J* = 8.0 Hz, 1H), 7.87 (t, *J* = 8.5 Hz, 1H). ^{13}C NMR (100 MHz, $CDCl_3$) δ = 21.3, 22.3, 66.2, 113.9, 119.1, 121.8, 123.2, 126.4, 127.7, 128.5, 129.0, 133.3, 152.6.

Spectral data of the cross-coupling products

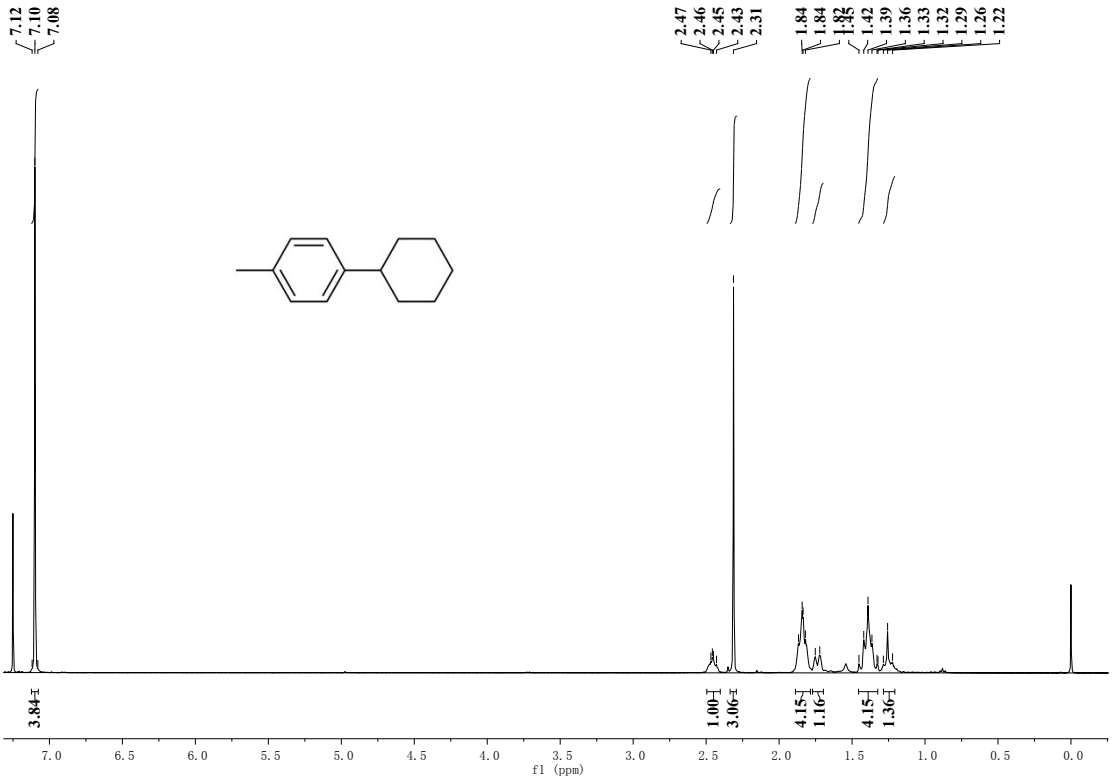


Figure S1. ^{1}H NMR spectrum of 1-Cyclohexyl-4-methylbenzene in $CDCl_3$.[1]

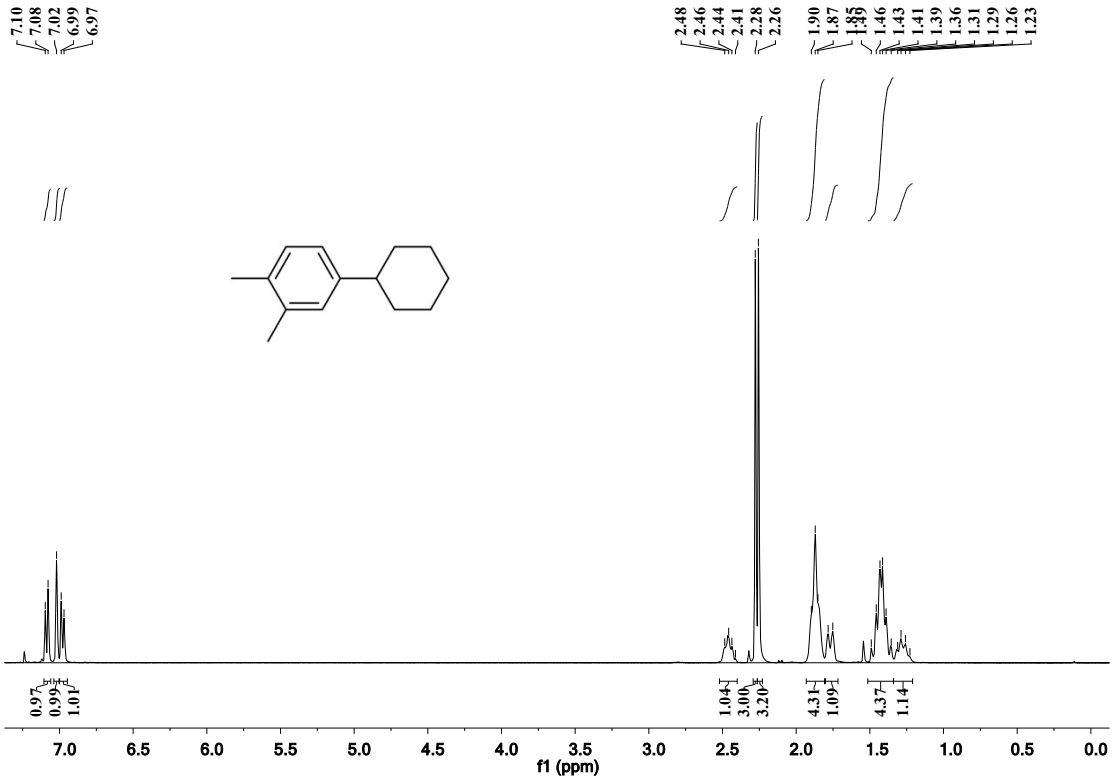


Figure S2. ^{1}H NMR spectrum of 4-cyclohexyl-1,2-dimethylbenzene in $CDCl_3$.[2]

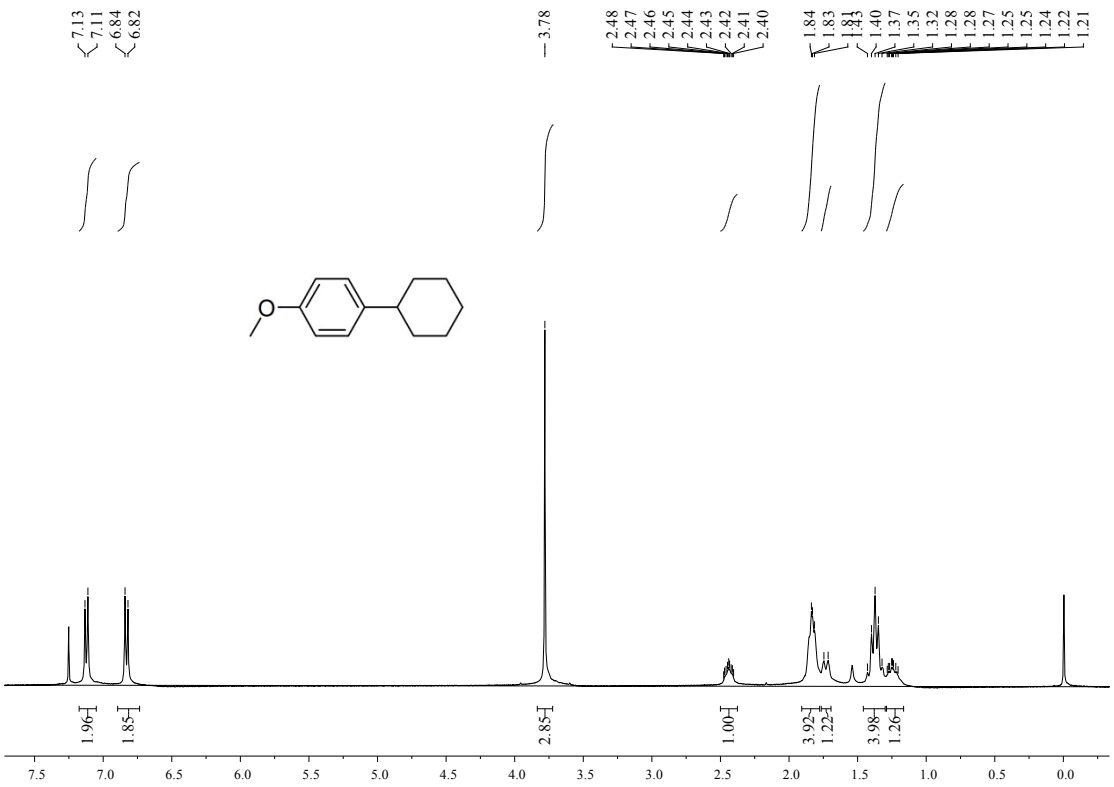


Figure S3. ^{1}H NMR spectrum of 1-cyclohexyl-4-methoxybenzene in $CDCl_3$.[1]

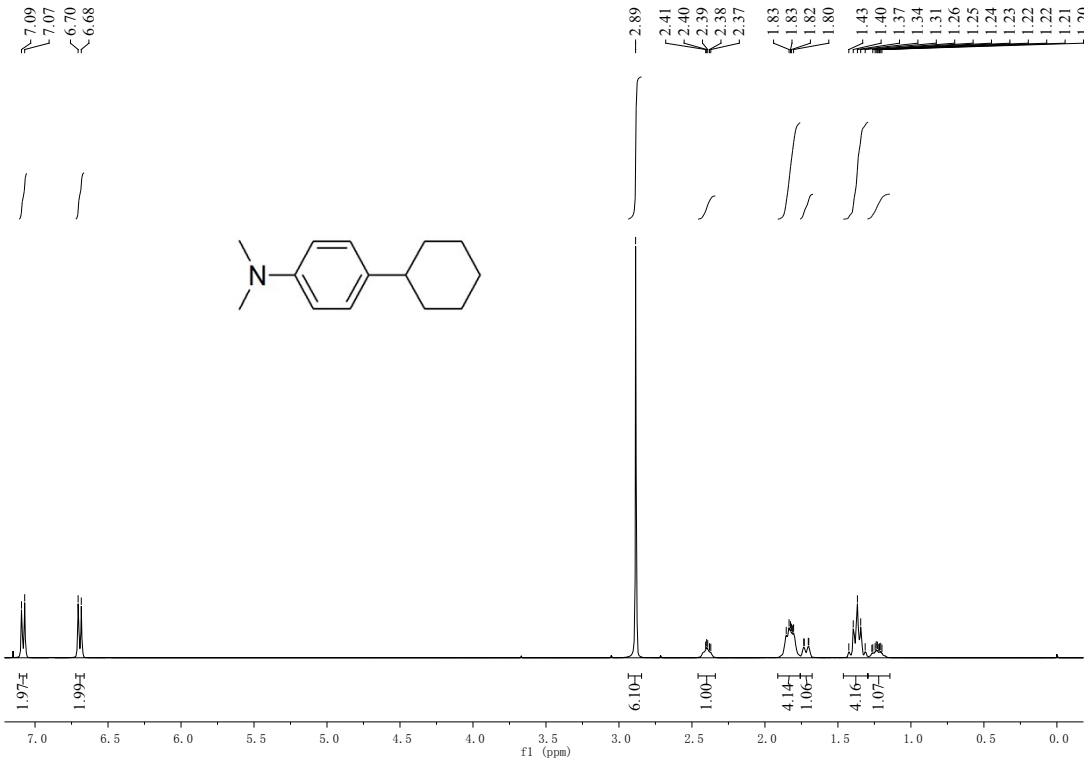


Figure S4. ^{1}H NMR spectrum of 4-cyclohexyl-N,N-dimethylbenzenamine in $CDCl_3$.[3]

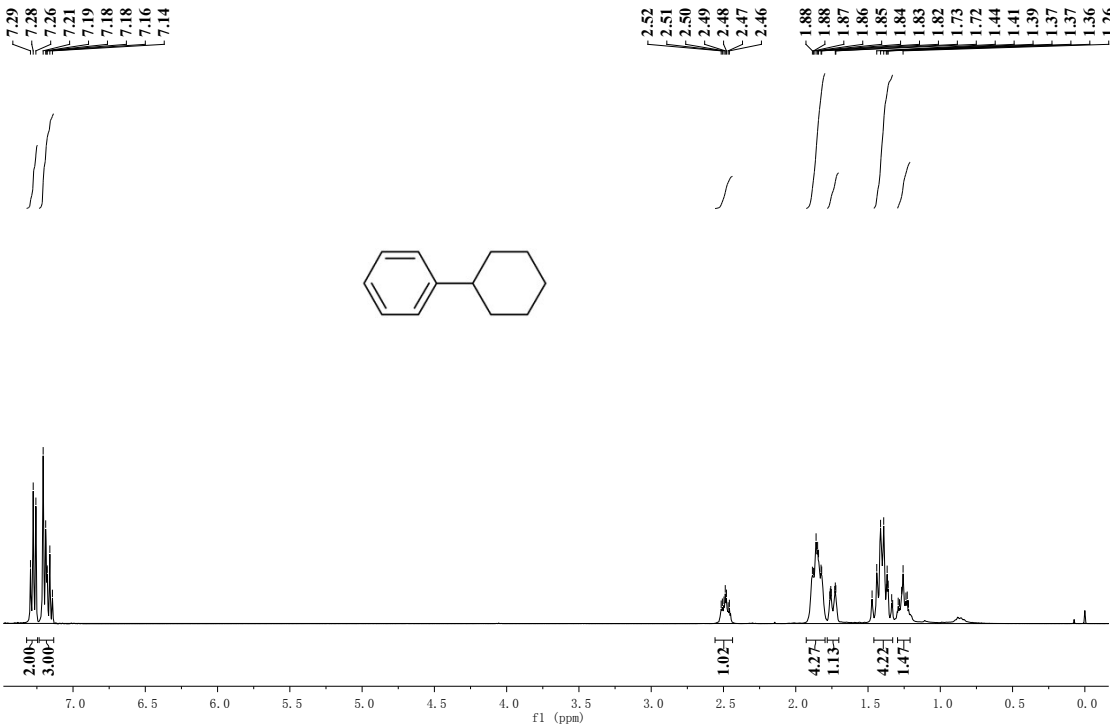


Figure S5. ^{1}H NMR spectrum of 1-cyclohexylbenzene in $CDCl_3$.[1]

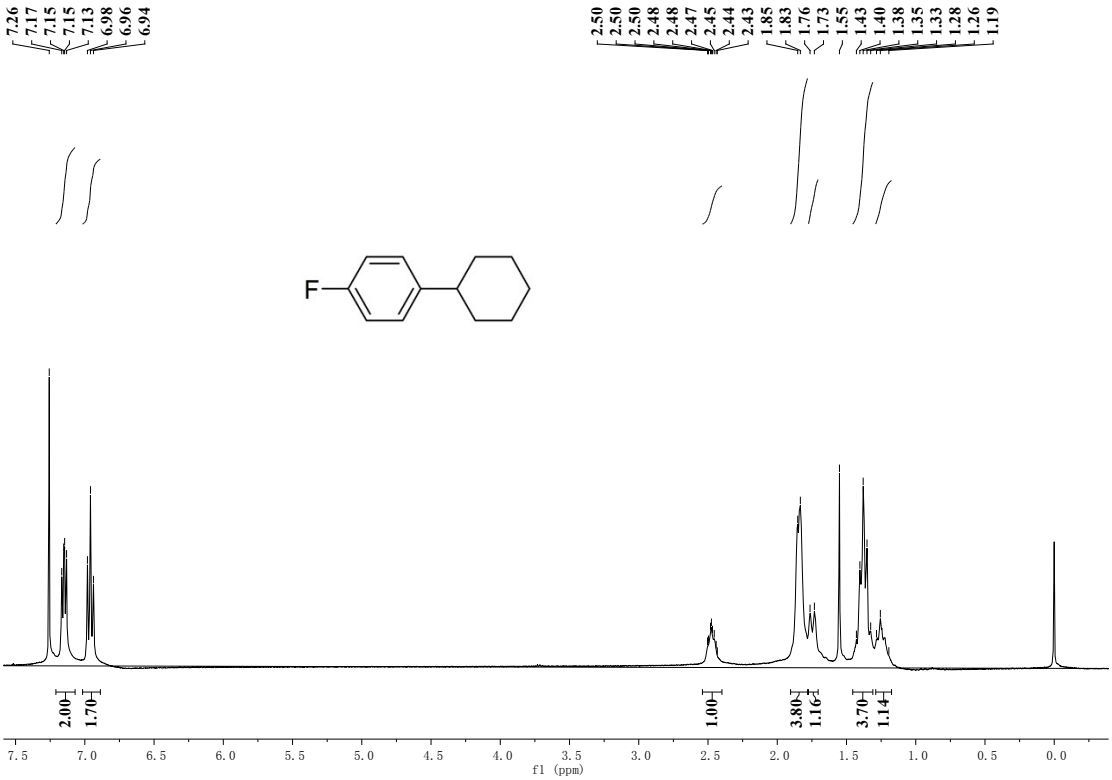


Figure S6. ^{1}H NMR spectrum of 1-Cyclohexyl-4-fluorobenzene in $CDCl_3$.[1]

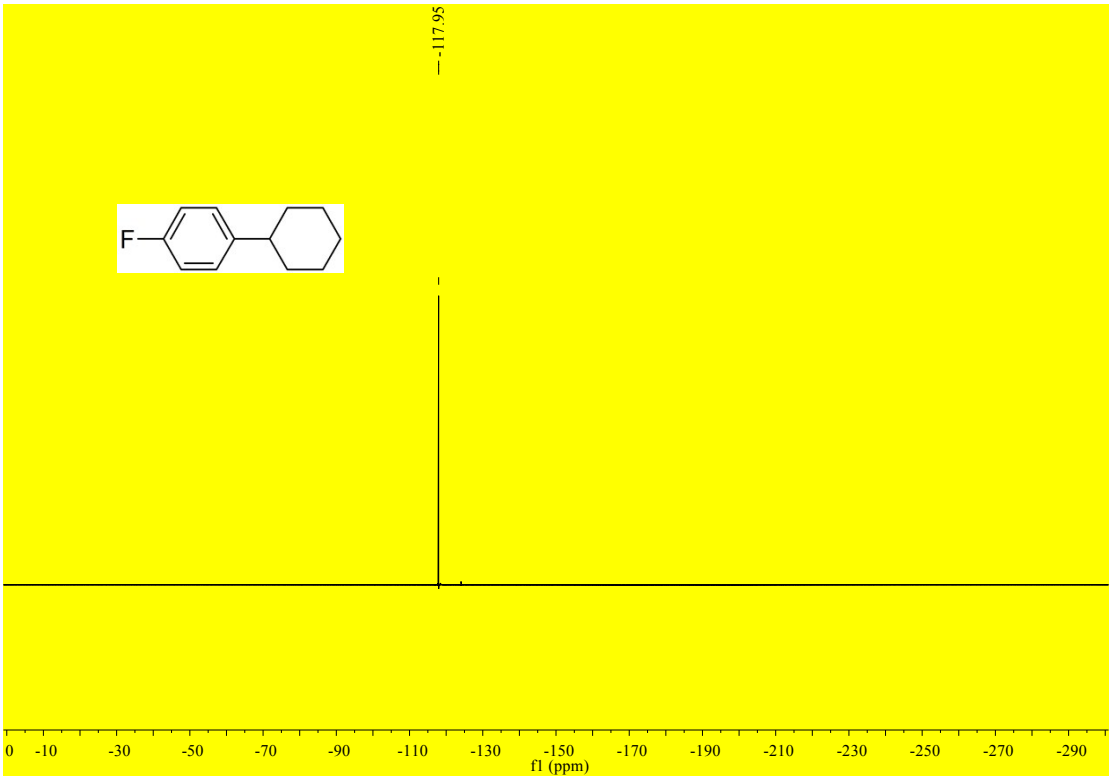


Figure S7. ^{19}F NMR spectrum of 1-Cyclohexyl-4-fluorobenzene in $CDCl_3$.

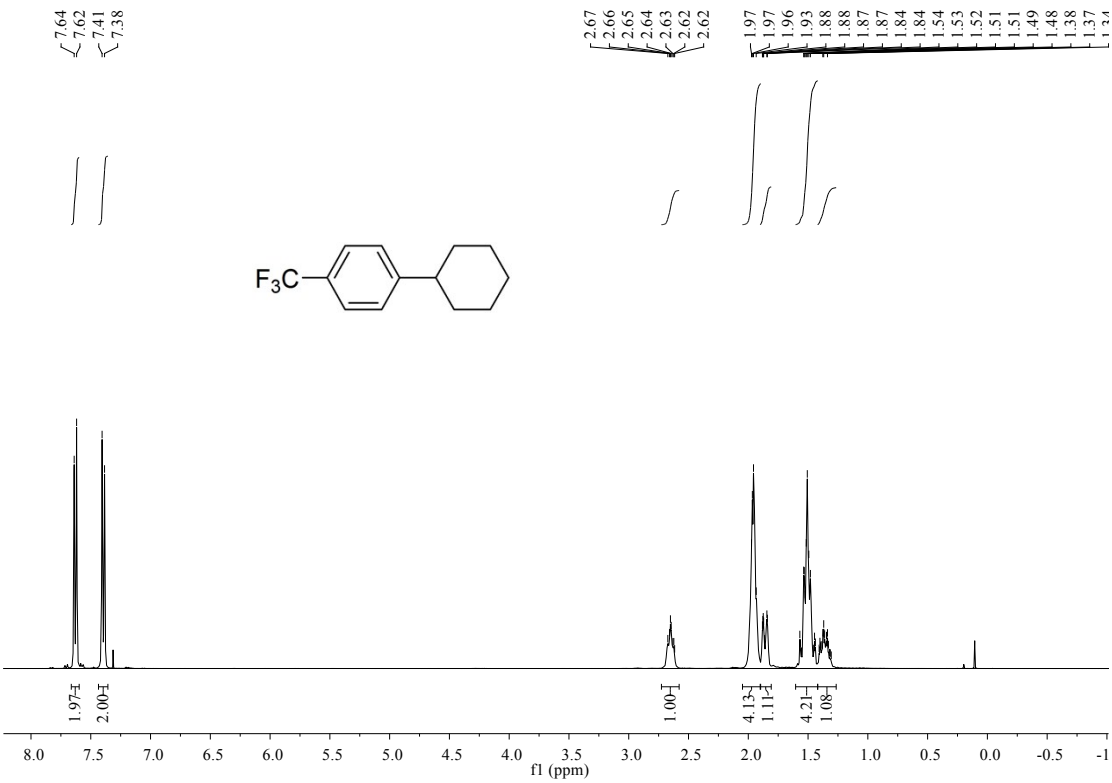


Figure S8. ^{1}H NMR spectrum of 1-cyclohexyl-4-(trifluoromethyl)benzene in $CDCl_3$.[3]

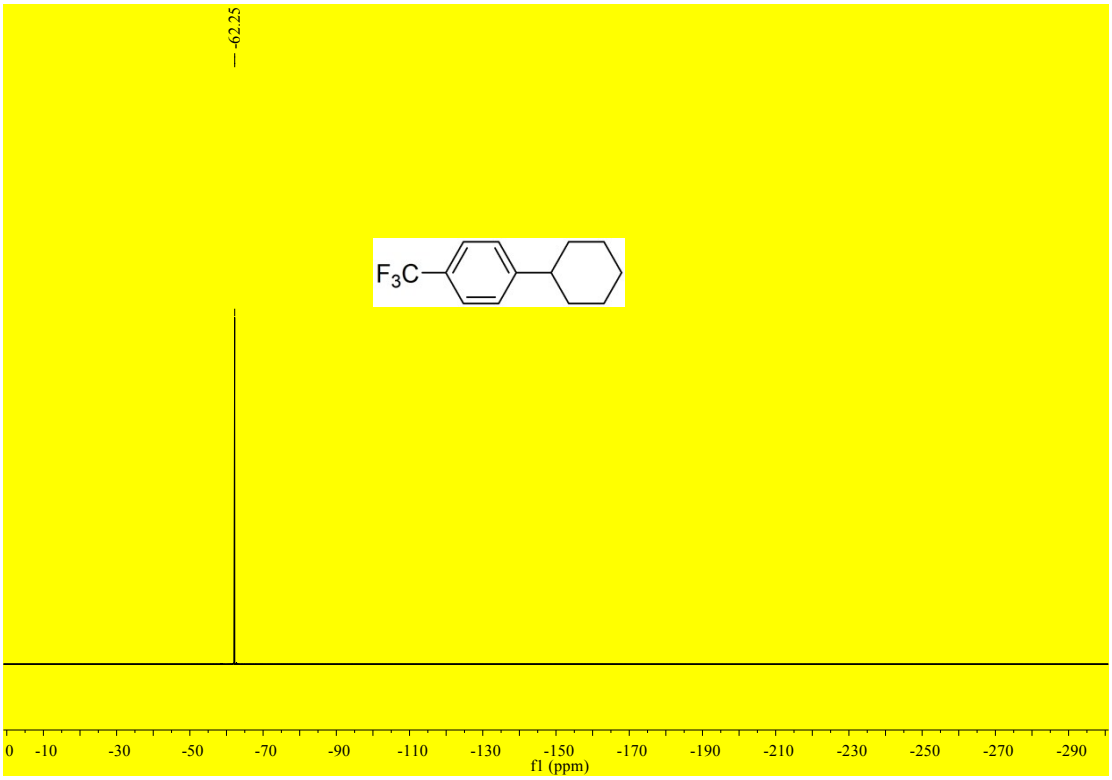


Figure S9. ^{19}F NMR spectrum of 1-cyclohexyl-4-(trifluoromethyl)benzene in $CDCl_3$.

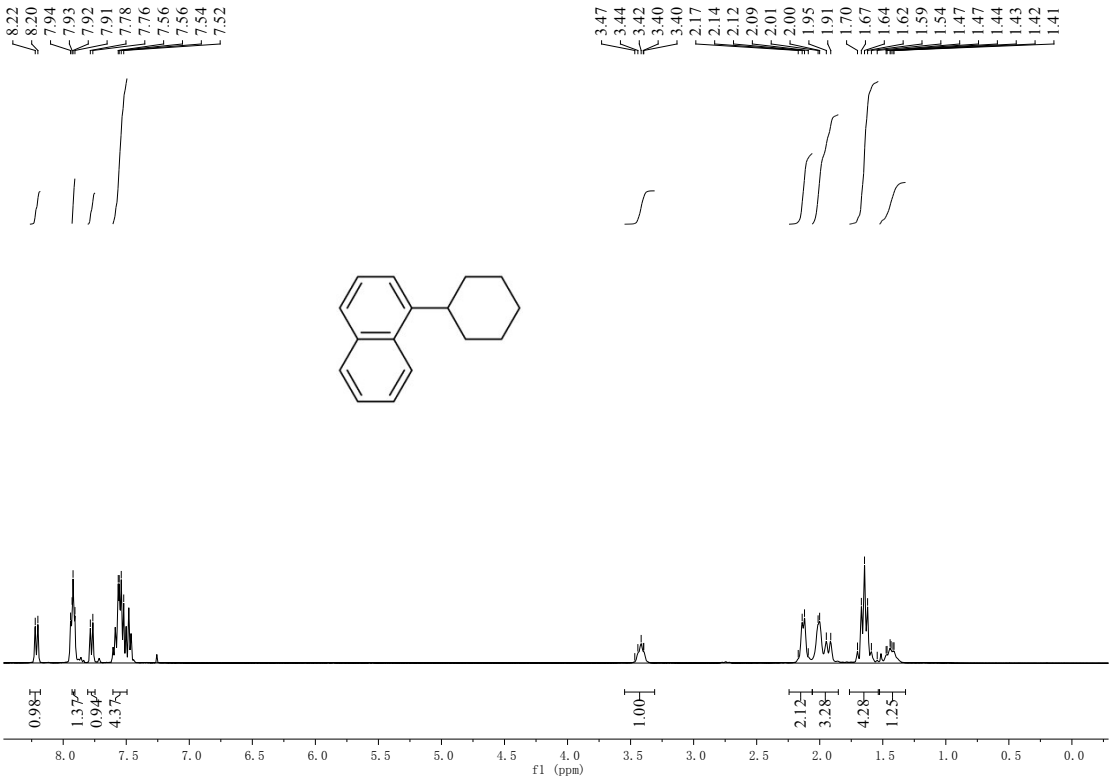


Figure S10. ^{1}H NMR spectrum of 1-Cyclohexylnaphthalene in $CDCl_3$.[1]

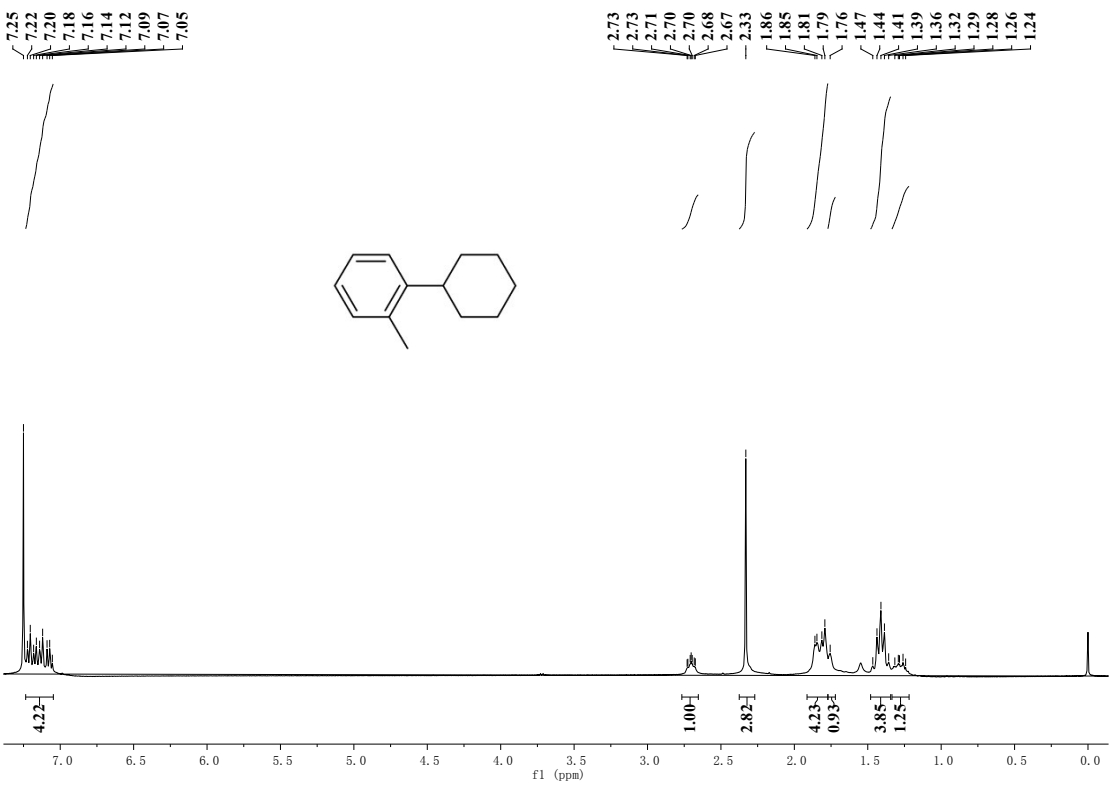


Figure S11. ^{1}H NMR spectrum of 1-cyclohexyl-2-methylbenzene in $CDCl_3$.[1]

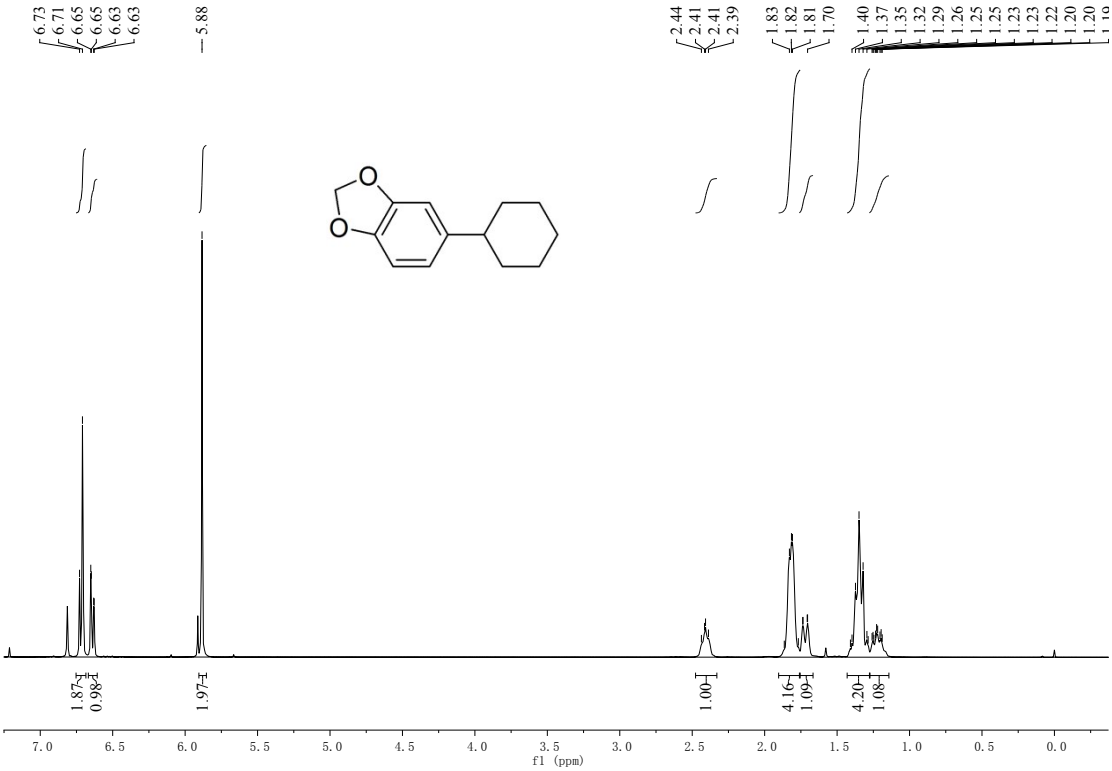


Figure S12. ^{1}H NMR spectrum of 5-Cyclohexyl-1,3-benzodioxole in $CDCl_3$.[4]

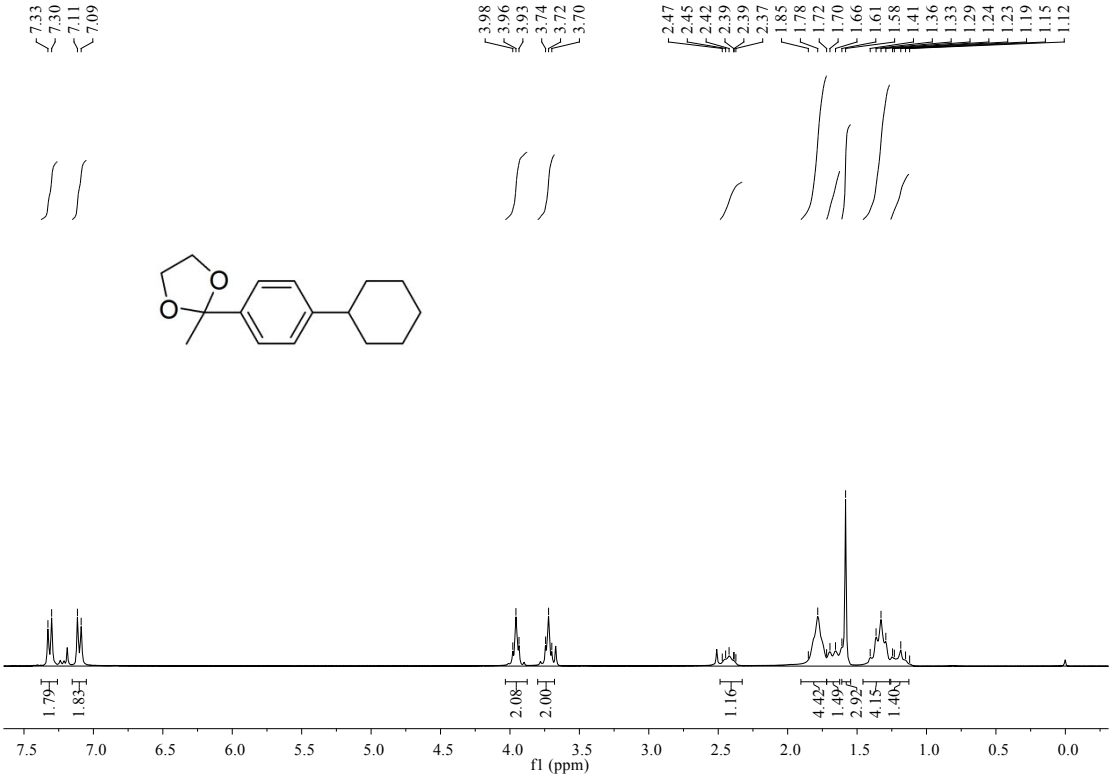


Figure S13. ^{1}H NMR spectrum of 2-(4-cyclohexylphenyl)-2-methyl-1,3-dioxolane in $CDCl_3$

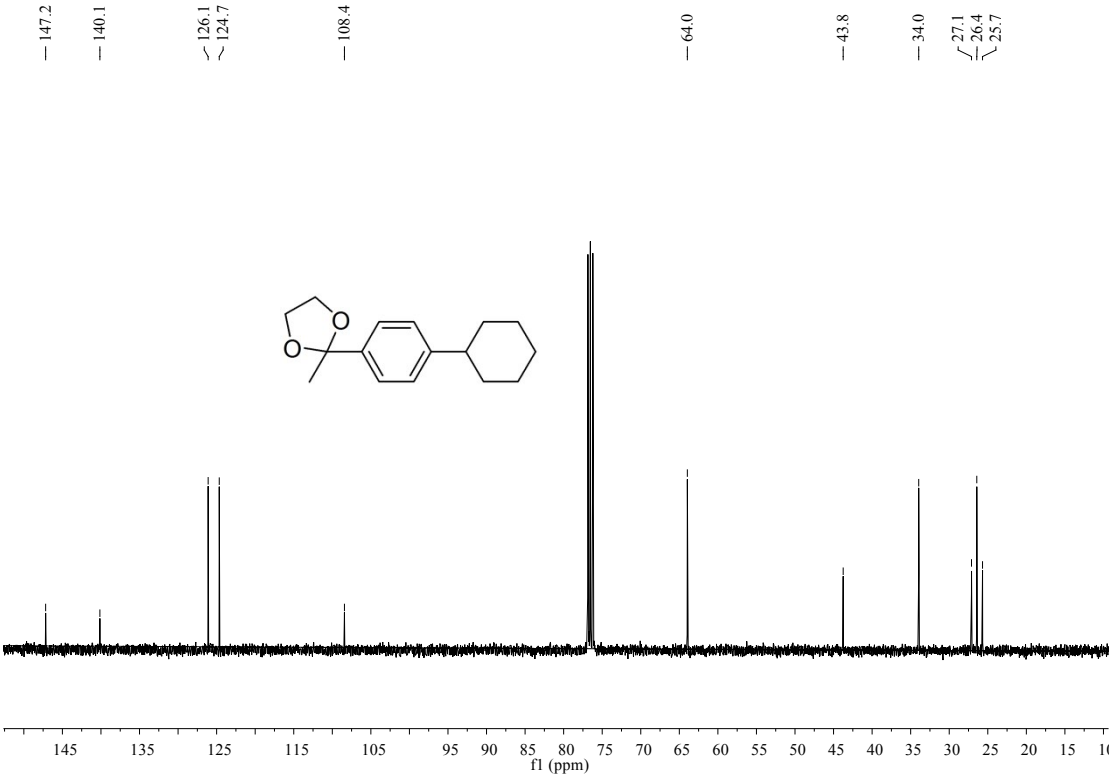


Figure S14. ^{13}C NMR spectrum of 2-(4-cyclohexylphenyl)-2-methyl-1,3-dioxolane in $CDCl_3$

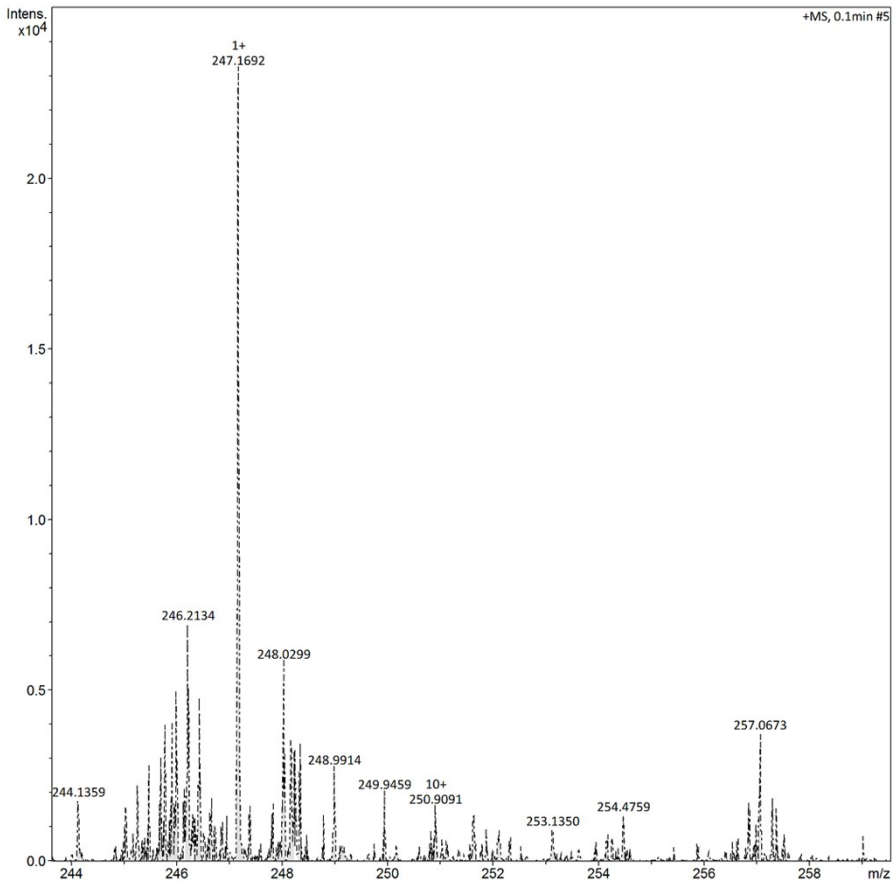


Figure S15. Mass spectroscopy of 2-(4-cyclohexylphenyl)-2-methyl-1,3-dioxolane

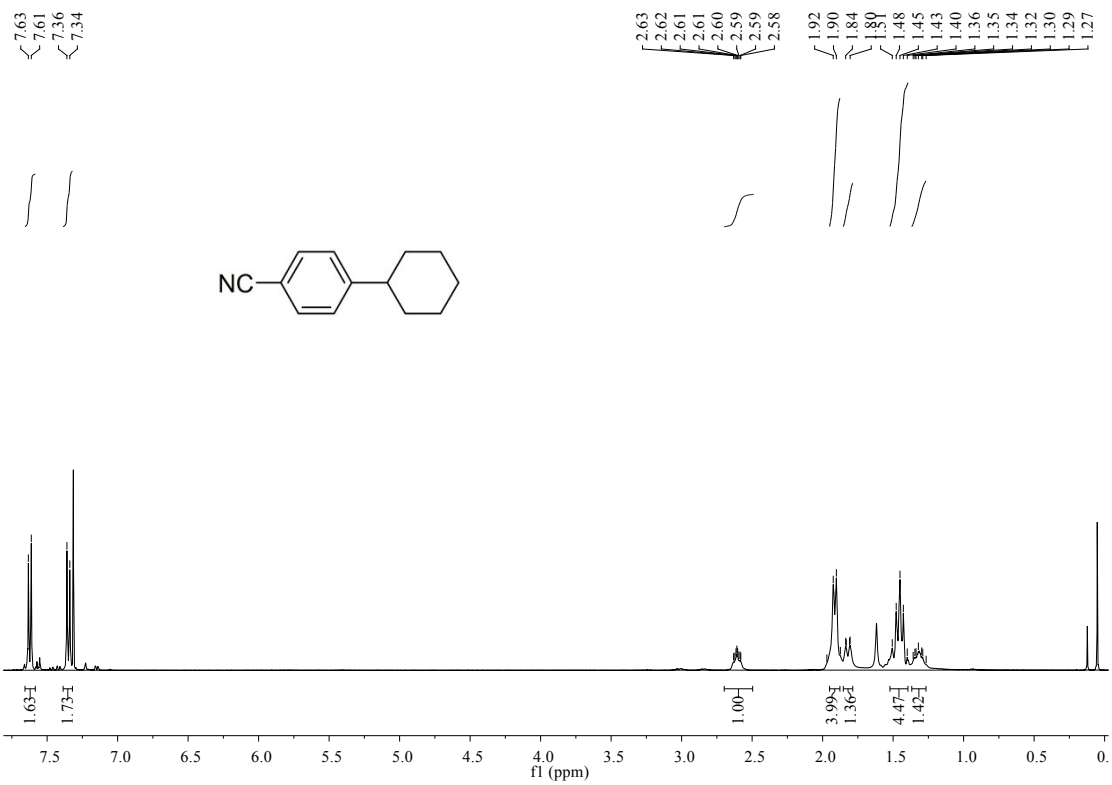


Figure S16. ^{1}H NMR spectrum of 4-cyclohexylbenzonitrile in $CDCl_3$[4]

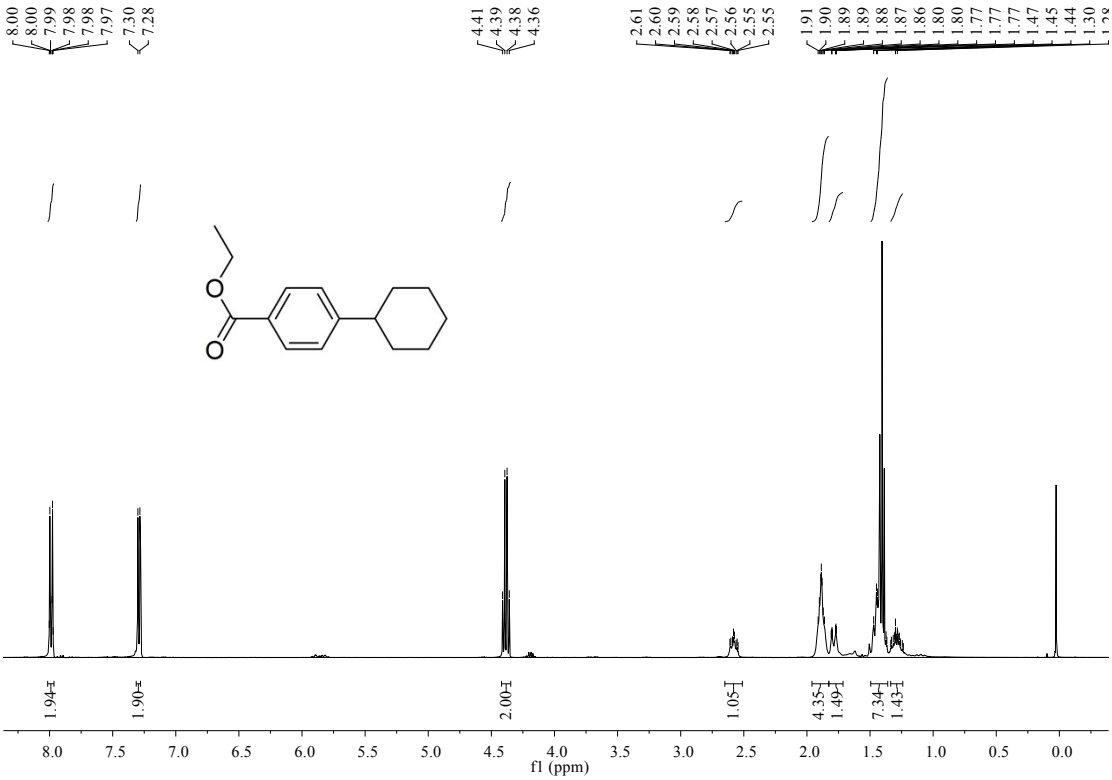


Figure S17. ^{1}H NMR spectrum of ethyl 4-cyclohexylbenzoate in $CDCl_3$[5]

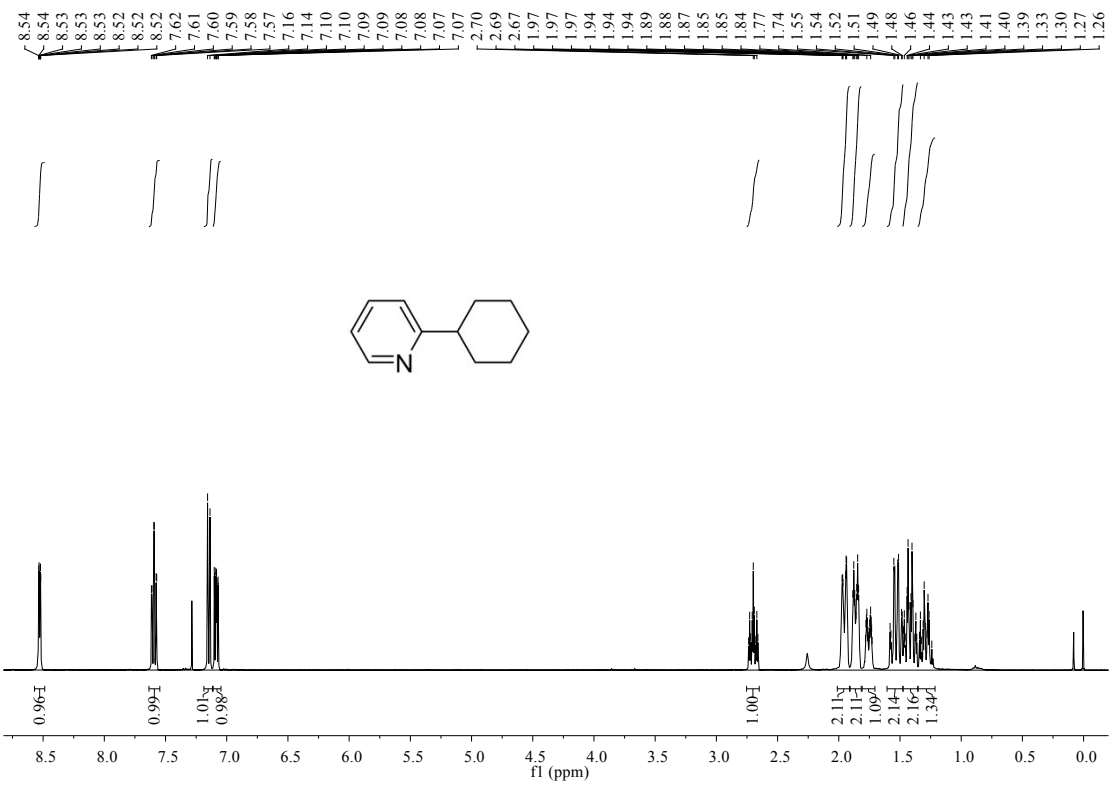


Figure S18. ^{1}H NMR spectrum of 2-cyclohexylpyridine in $CDCl_3$[3]

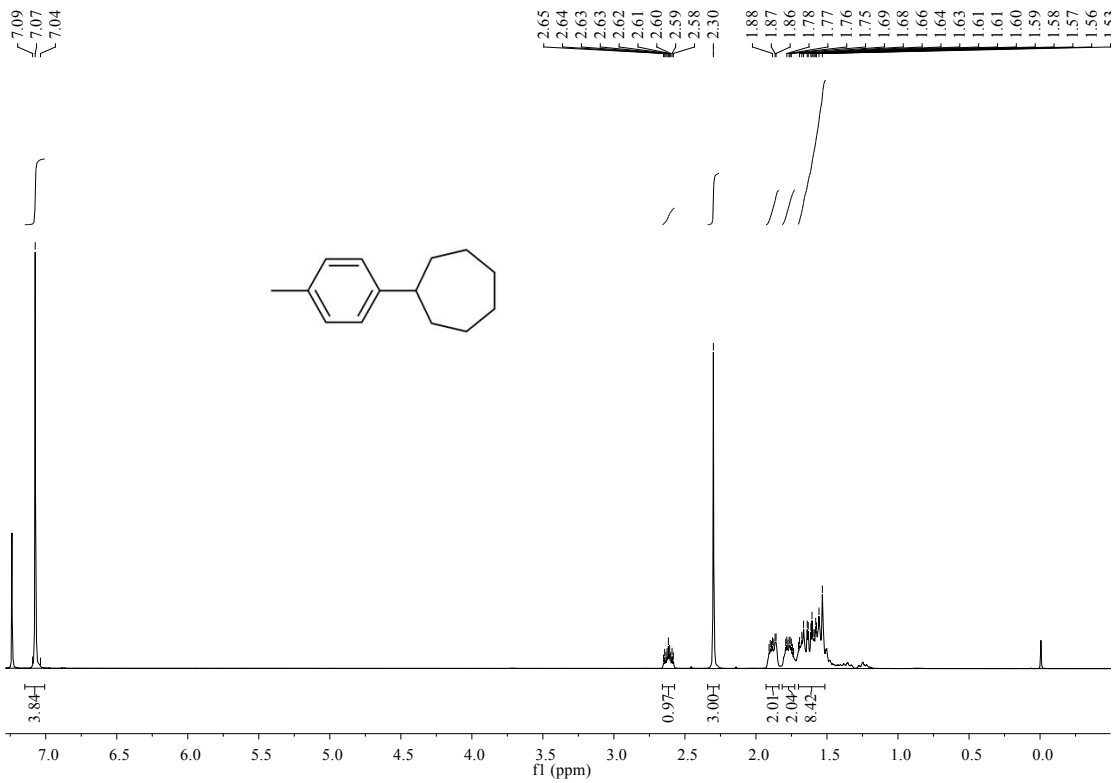


Figure S19. ^{1}H NMR spectrum of 1-Cycloheptyl-4-methylbenzene in $CDCl_3$.[1]

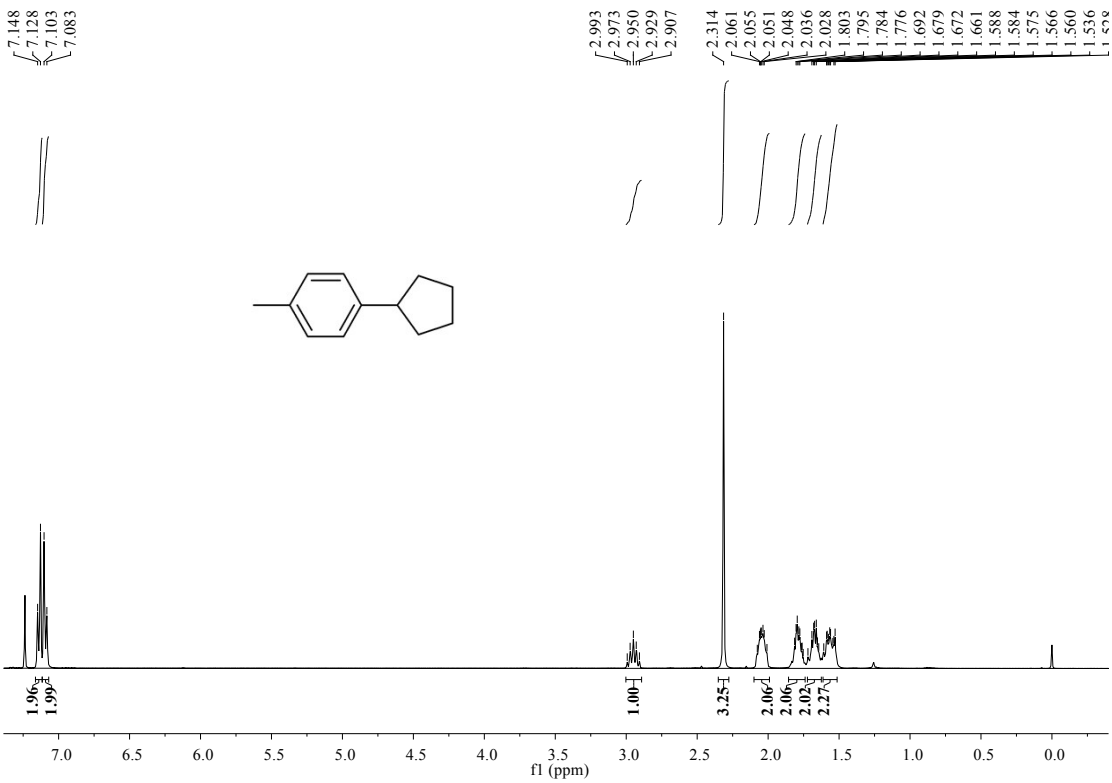


Figure S20. ^{1}H NMR spectrum of 1-Cyclopentyl-4-methylbenzene in $CDCl_3$.[1]

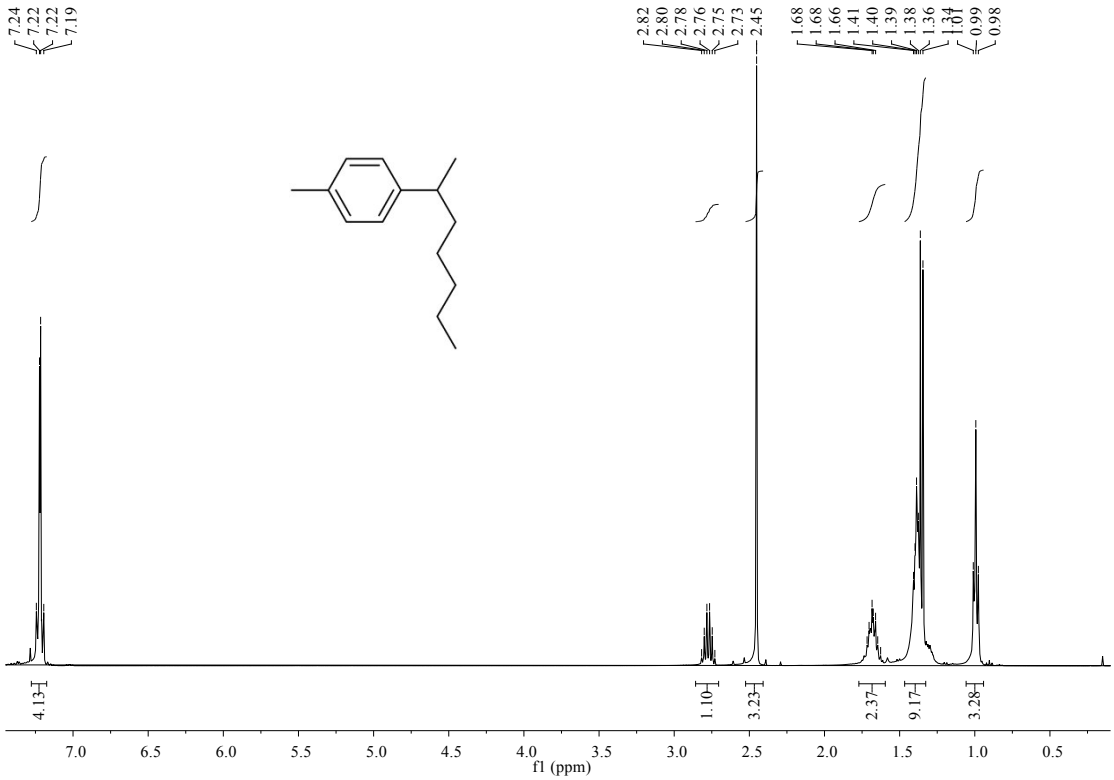


Figure S21. ^{1}H NMR spectrum of 1-(1-methylhexyl)-4-methylbenzene in $CDCl_3$.[6]

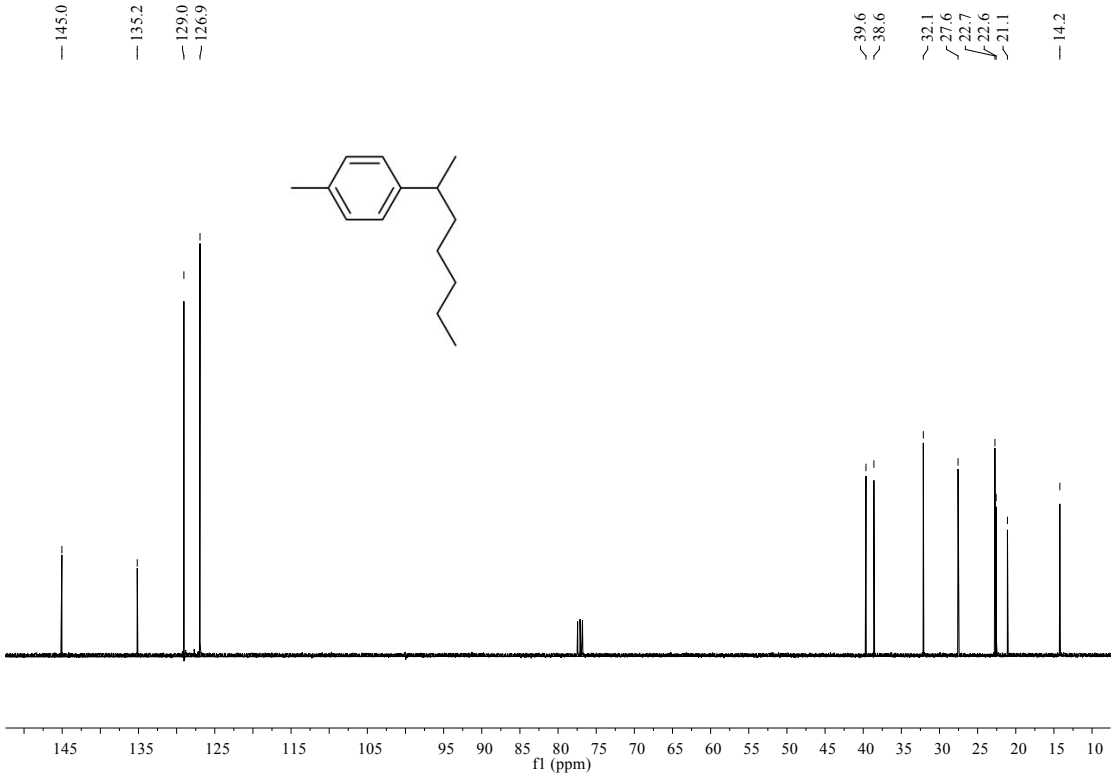


Figure S22. ^{13}C NMR spectrum of 1-(1-methylhexyl)-4-methylbenzene in $CDCl_3$.[6]

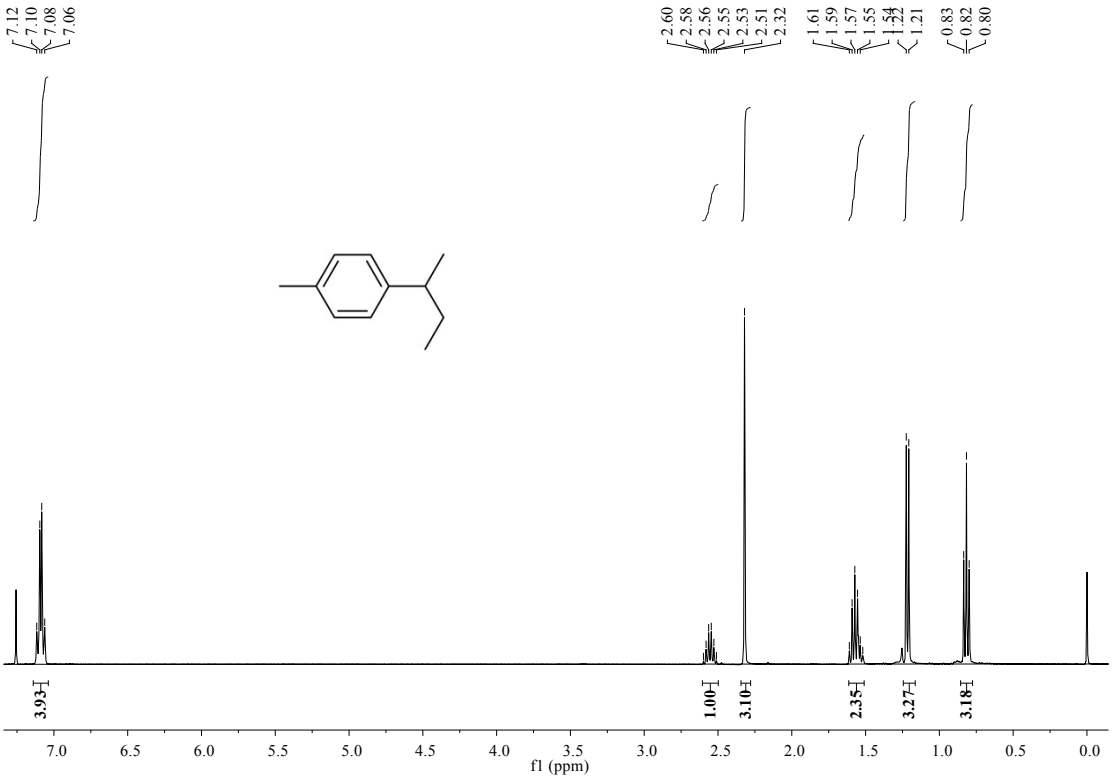


Figure S23. ^{1}H NMR spectrum of 1-(2-butyl)-4-methylbenzene in $CDCl_3$.[1]

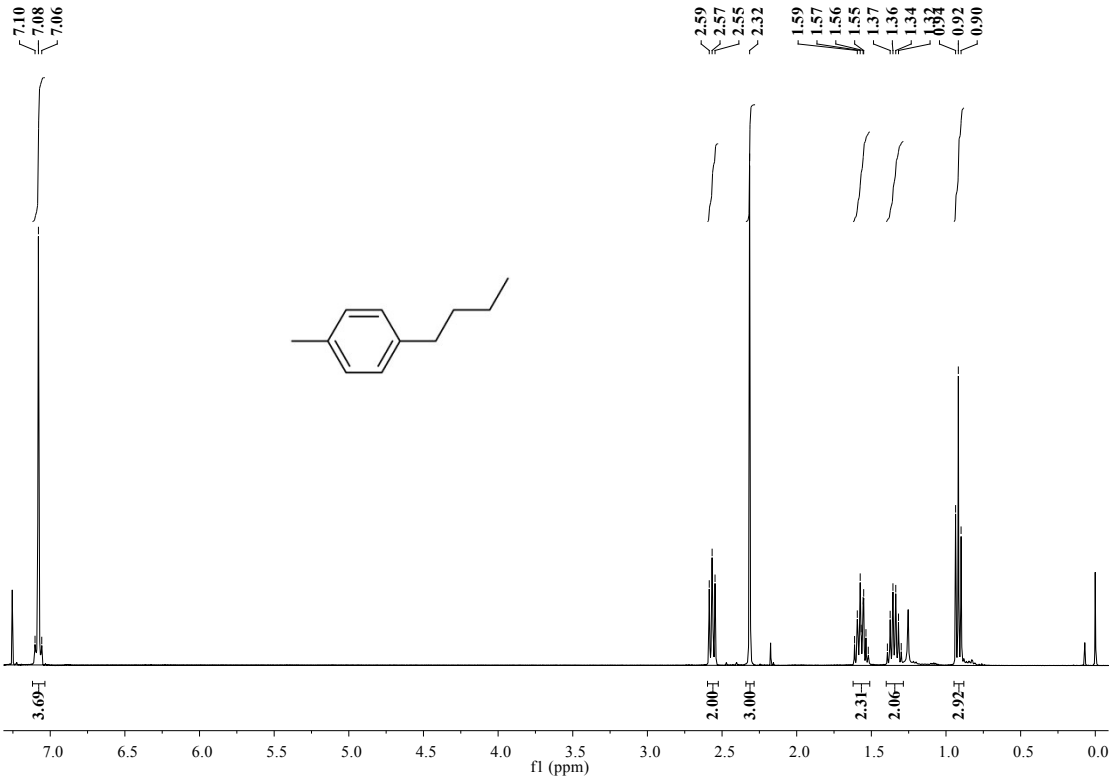


Figure S24. ^{1}H NMR spectrum of 1-butyl-4-methylbenzene in $CDCl_3$.[7]

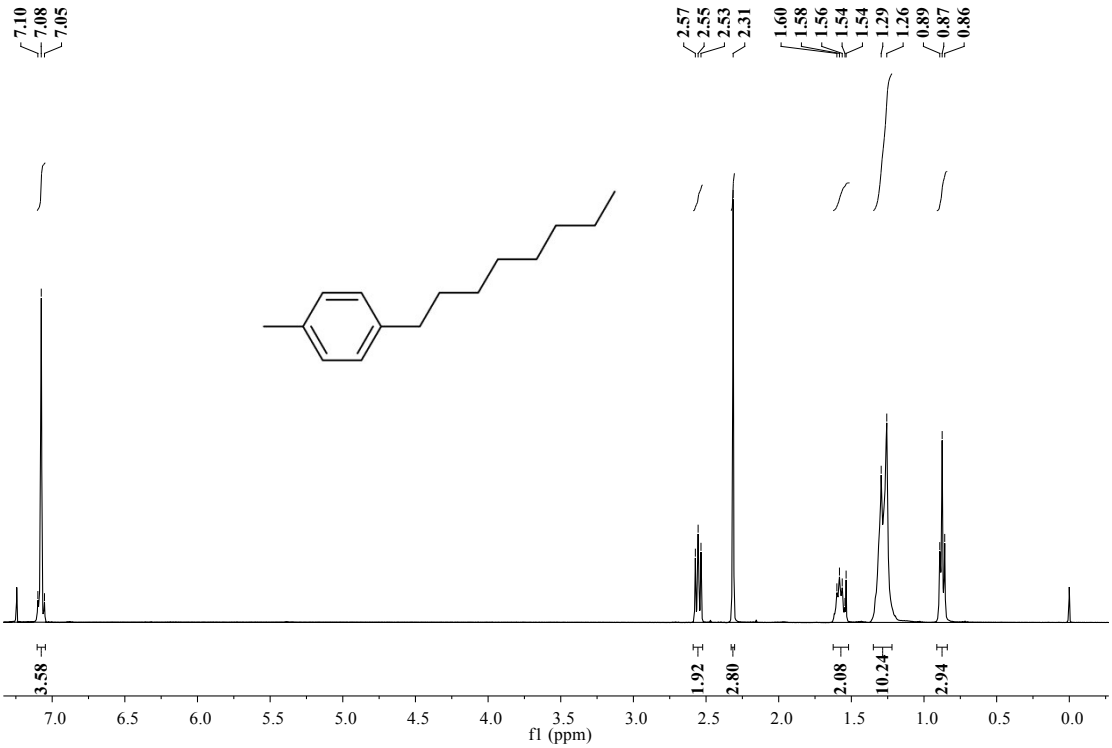


Figure S25. ^{1}H NMR spectrum of 1-methyl-4-octylbenzene in $CDCl_3$.[8]

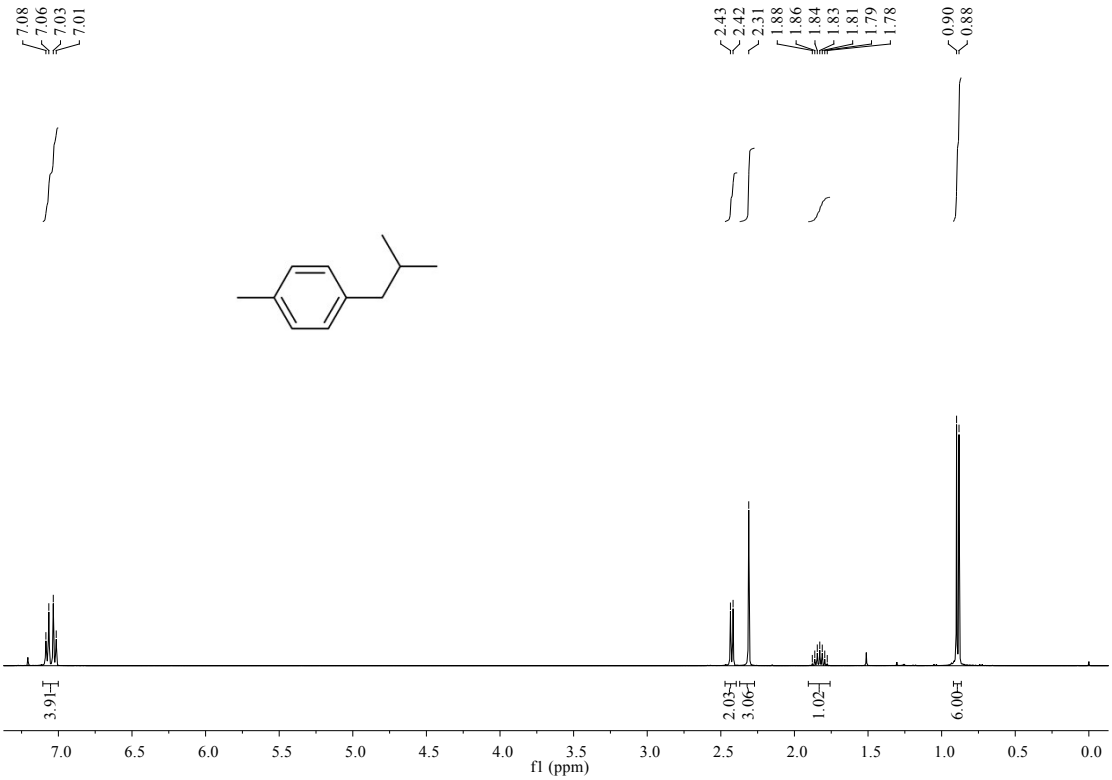


Figure S26. ^{1}H NMR spectrum of 1-isobutyl-4-methylbenzene in $CDCl_3$.[9]

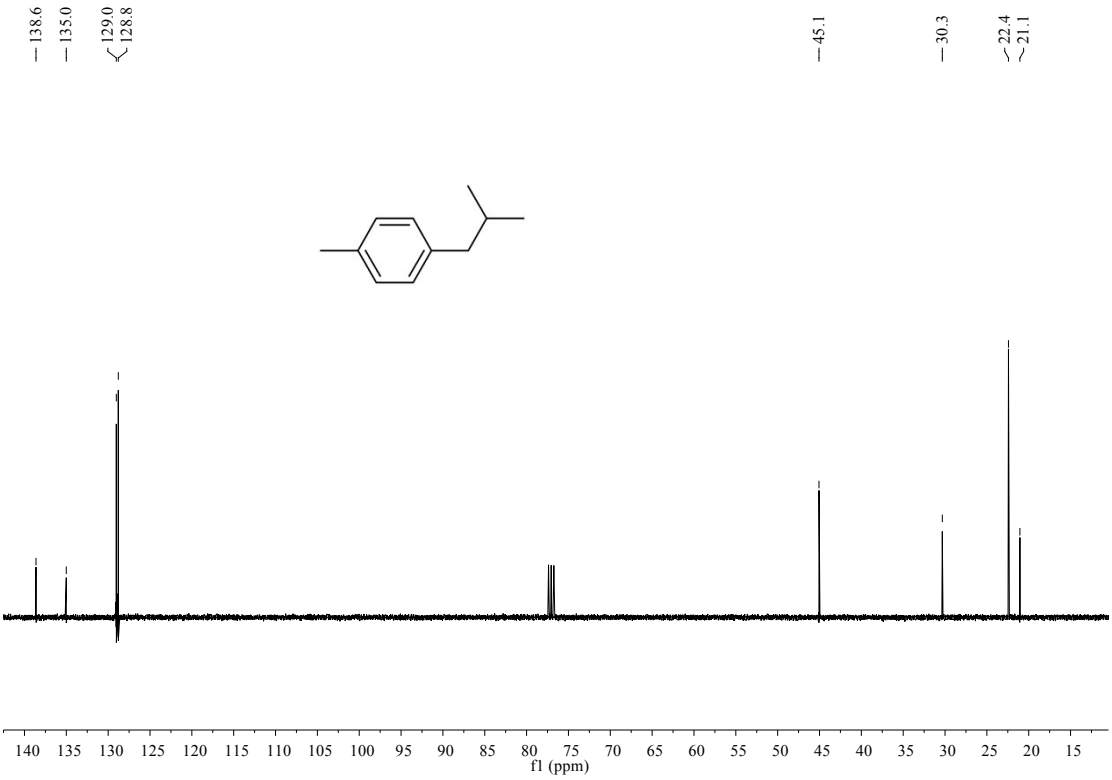


Figure S27. ^{13}C NMR spectrum of 1-isobutyl-4-methylbenzene in $CDCl_3$.[9]

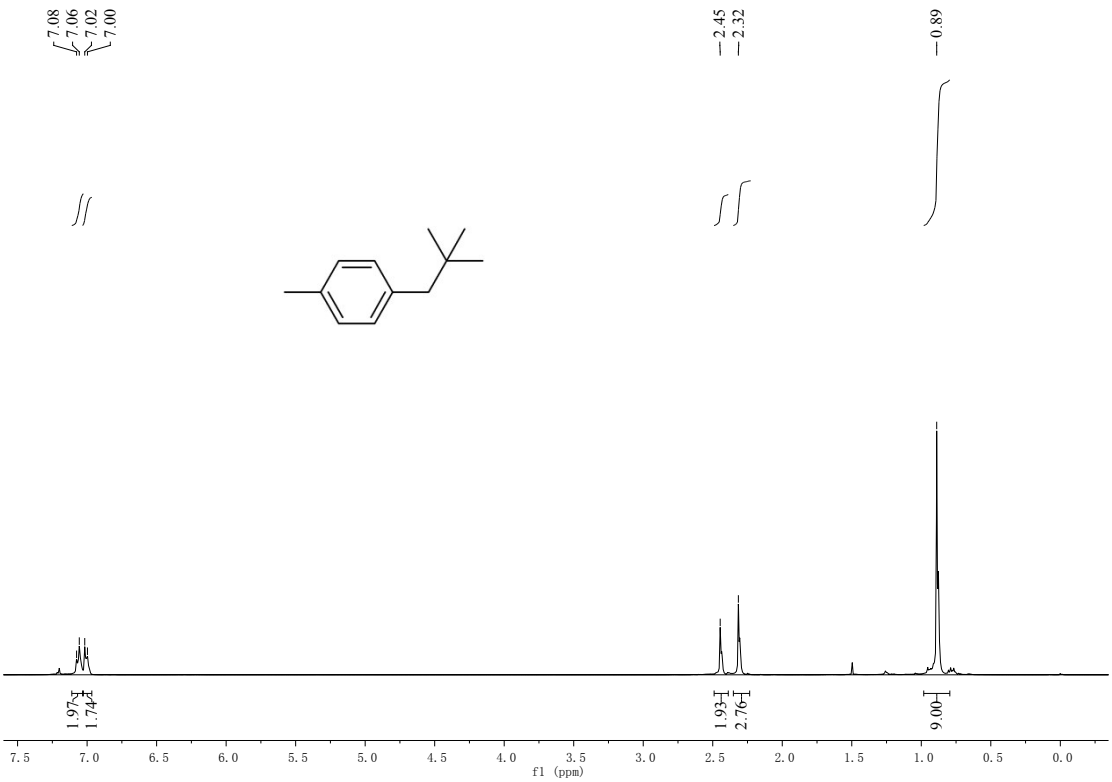


Figure S28. ^{1}H NMR spectrum of 1-methyl-4-neopentylbenzene in $CDCl_3$.[10]

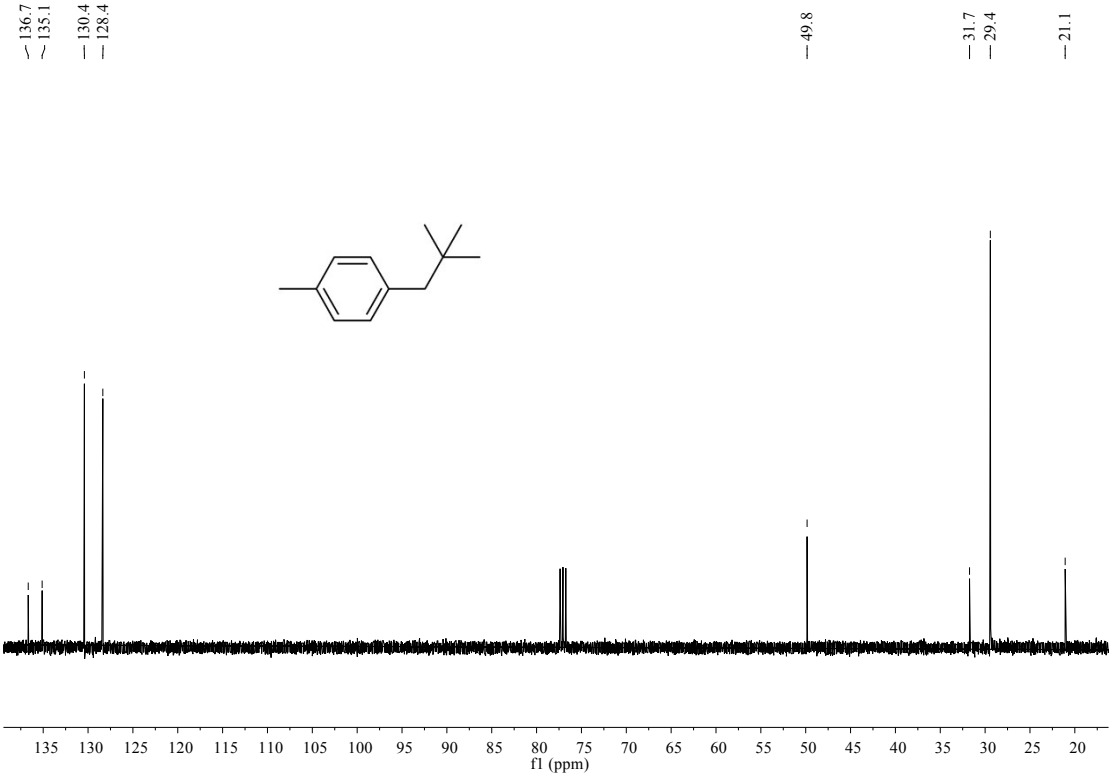


Figure S29. ^{13}C NMR spectrum of 1-methyl-4-neopentylbenzene in $CDCl_3$.[10]

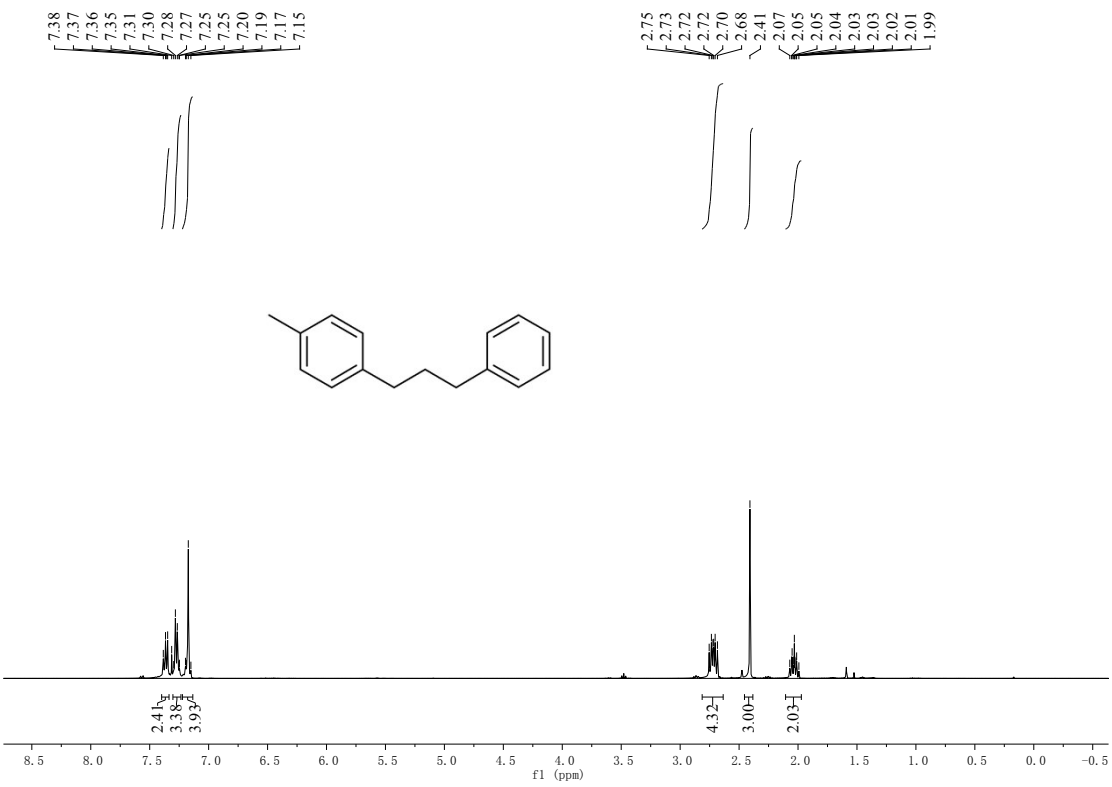


Figure S30. ^{1}H NMR spectrum of 1-(3-phenylpropyl)-4-methylbenzene in $CDCl_3$.[11]

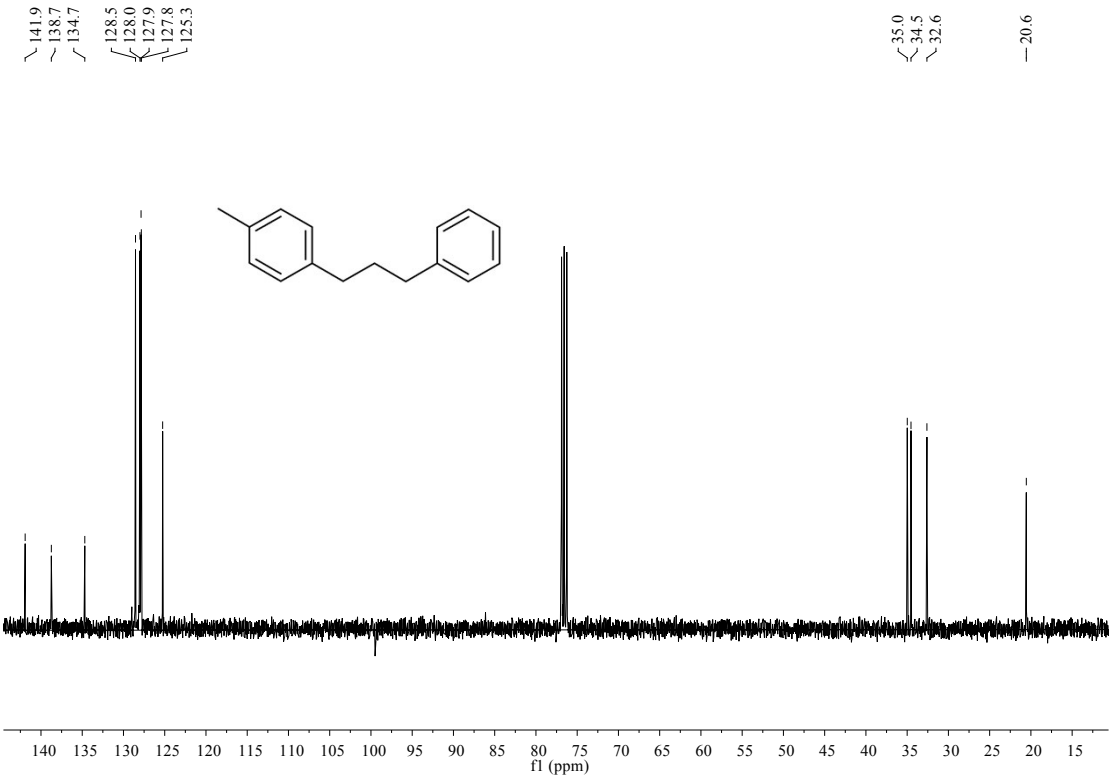


Figure S31. ^{13}C NMR spectrum of 1-(3-phenylpropyl)-4-methylbenzene in $CDCl_3$.[11]

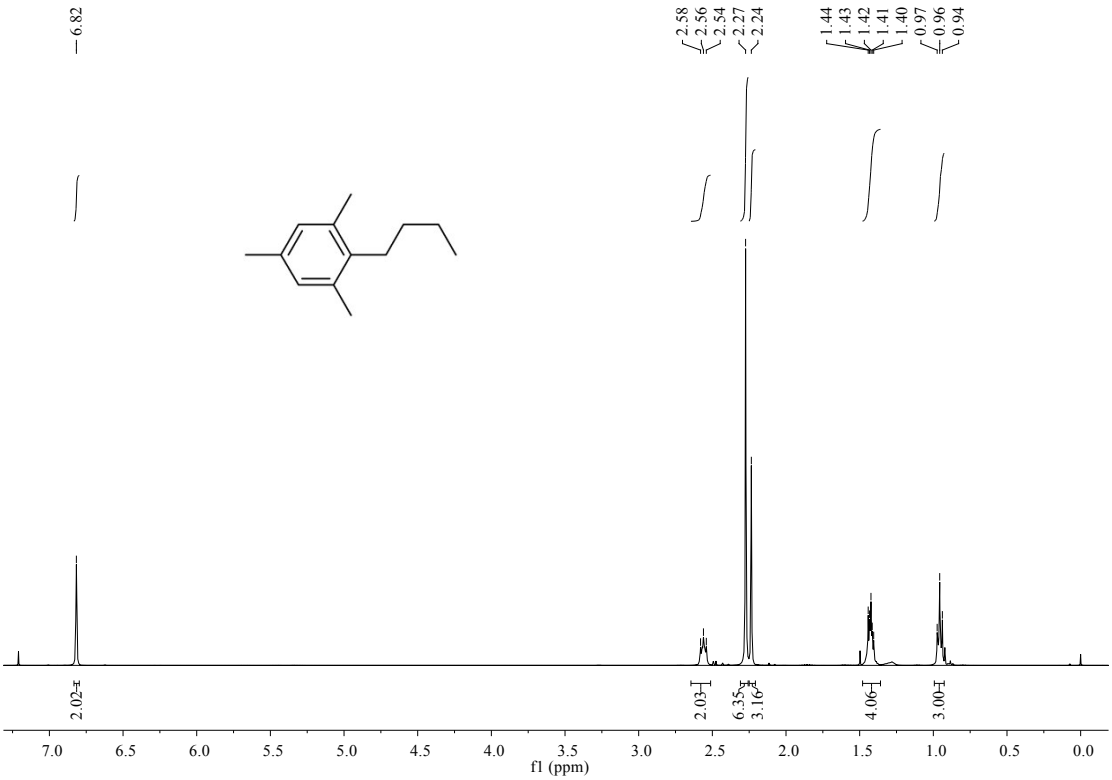


Figure S32. ^{1}H NMR spectrum of Butylmesitylene in $CDCl_3$.[12]

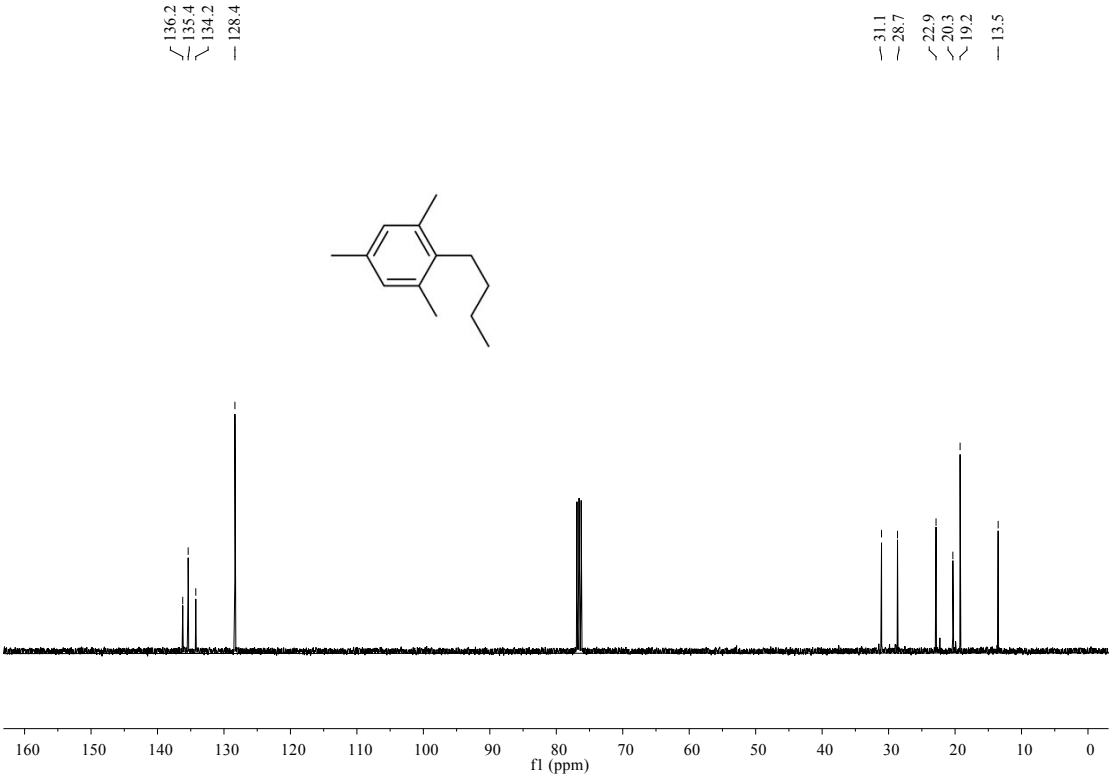


Figure S33. ^{13}C NMR spectrum of Butylmesitylene in $CDCl_3$.[12]

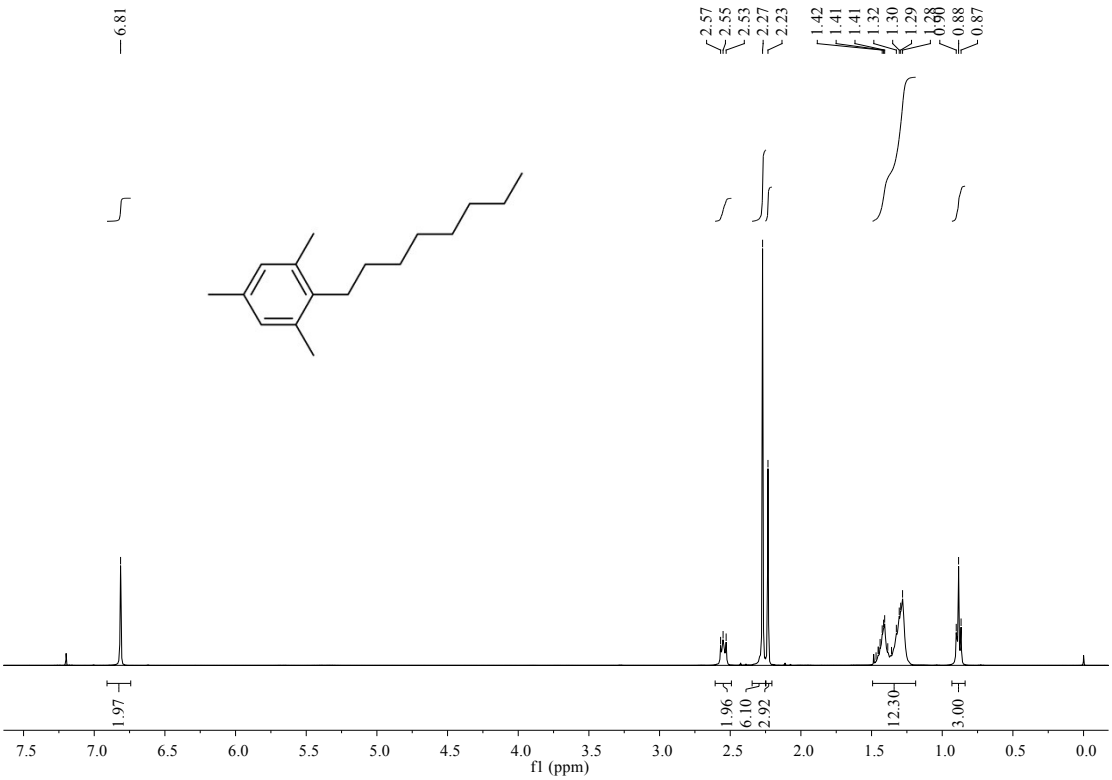


Figure S34. ^{1}H NMR spectrum of 1,3,5-Trimethyl-2-octylbenzene in $CDCl_3$.[13]

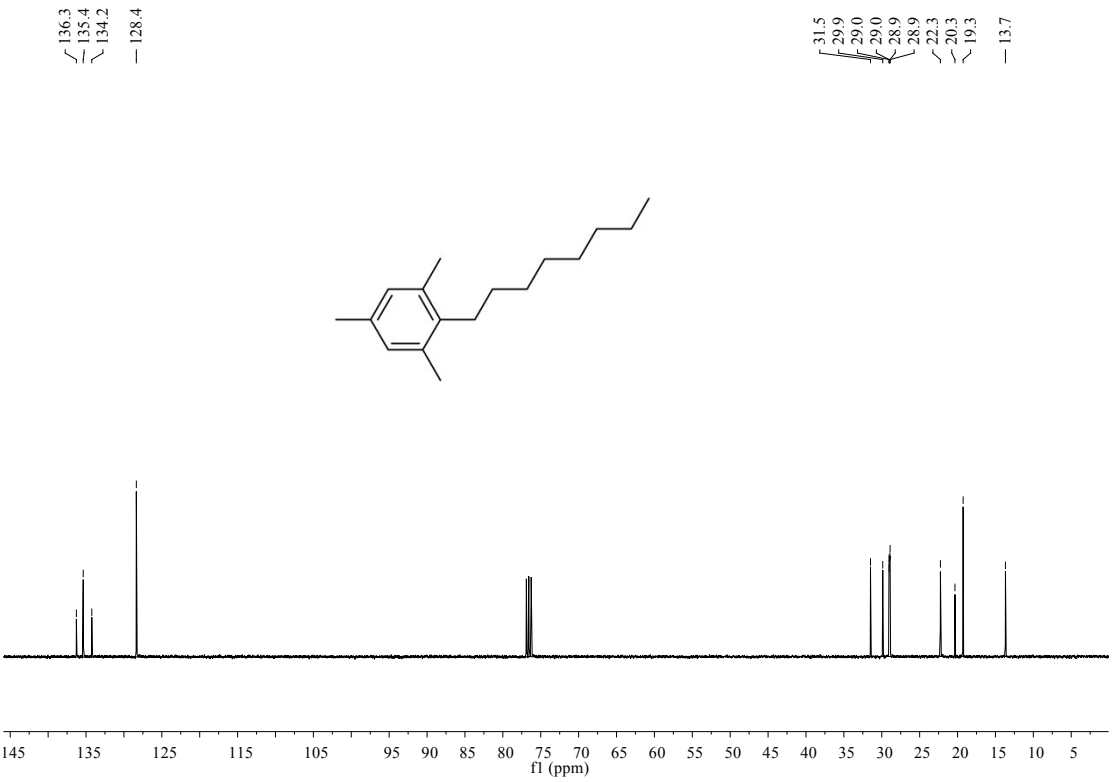


Figure S35. The ^{13}C NMR spectrum of 1,3,5-Trimethyl-2-octylbenzene in $CDCl_3$.[13]

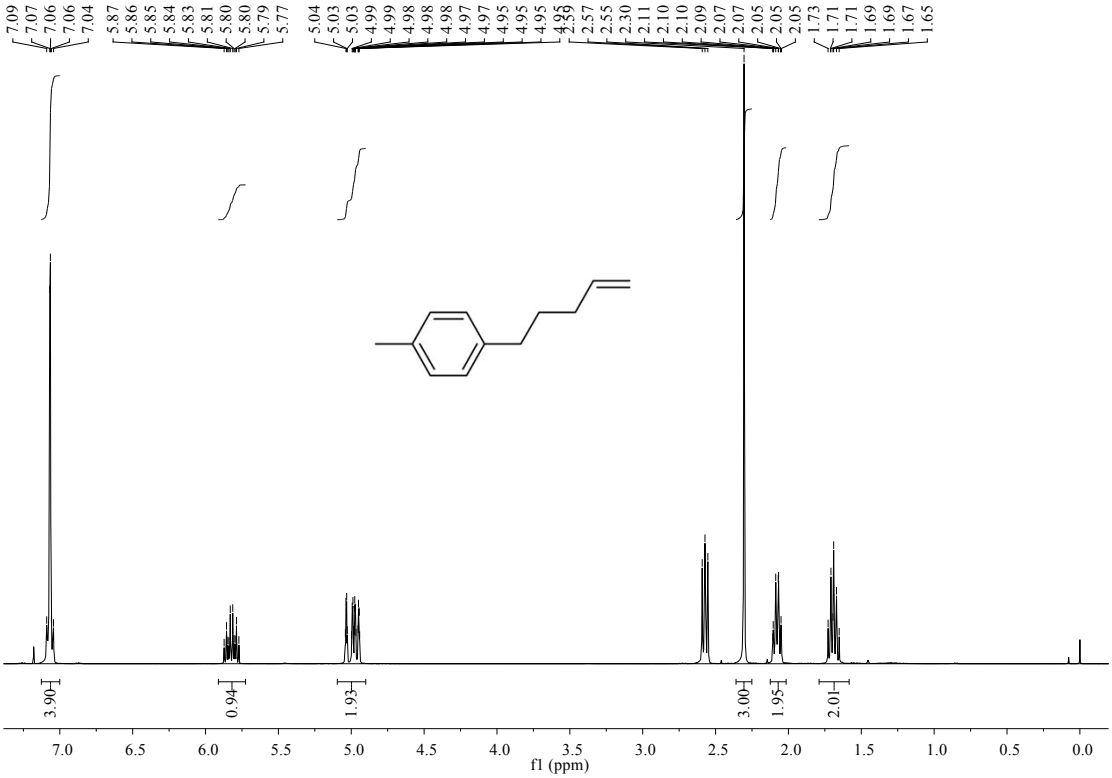


Figure S36. ^{1}H NMR spectrum of 1-methyl-4-(pent-4-enyl)benzene in $CDCl_3$.[3]

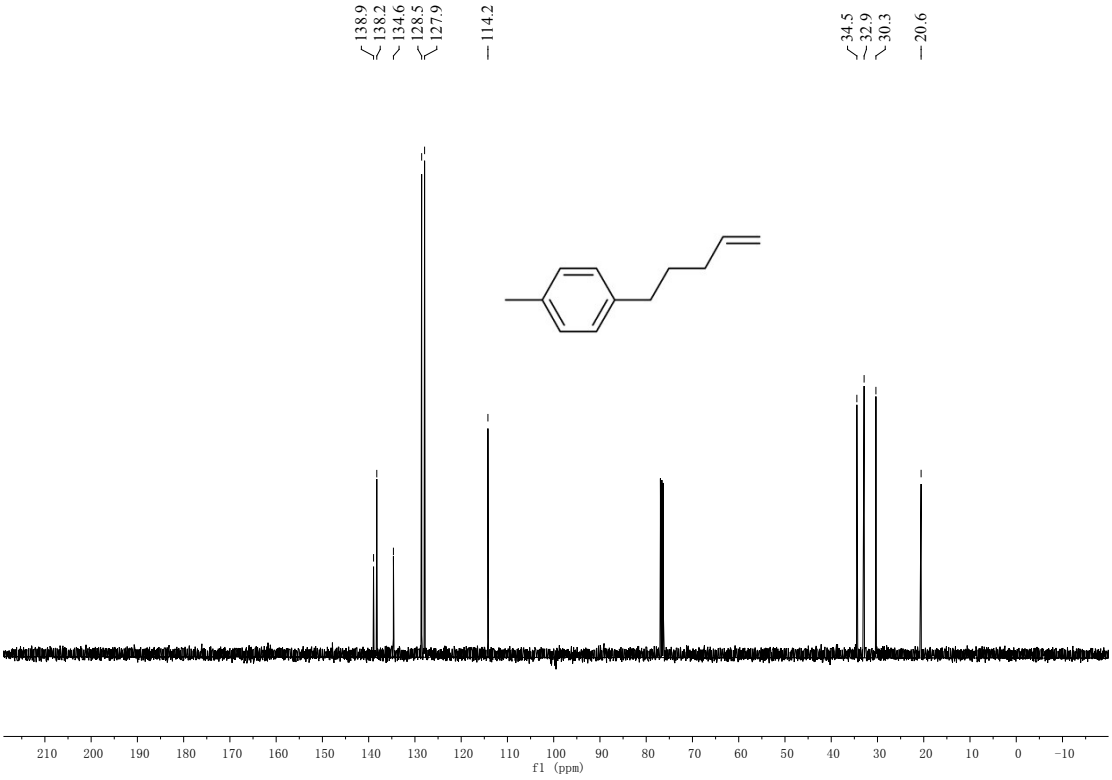


Figure S37. ^{13}C NMR spectrum of 1-methyl-4-(pent-4-enyl)benzene in $CDCl_3$.[3]

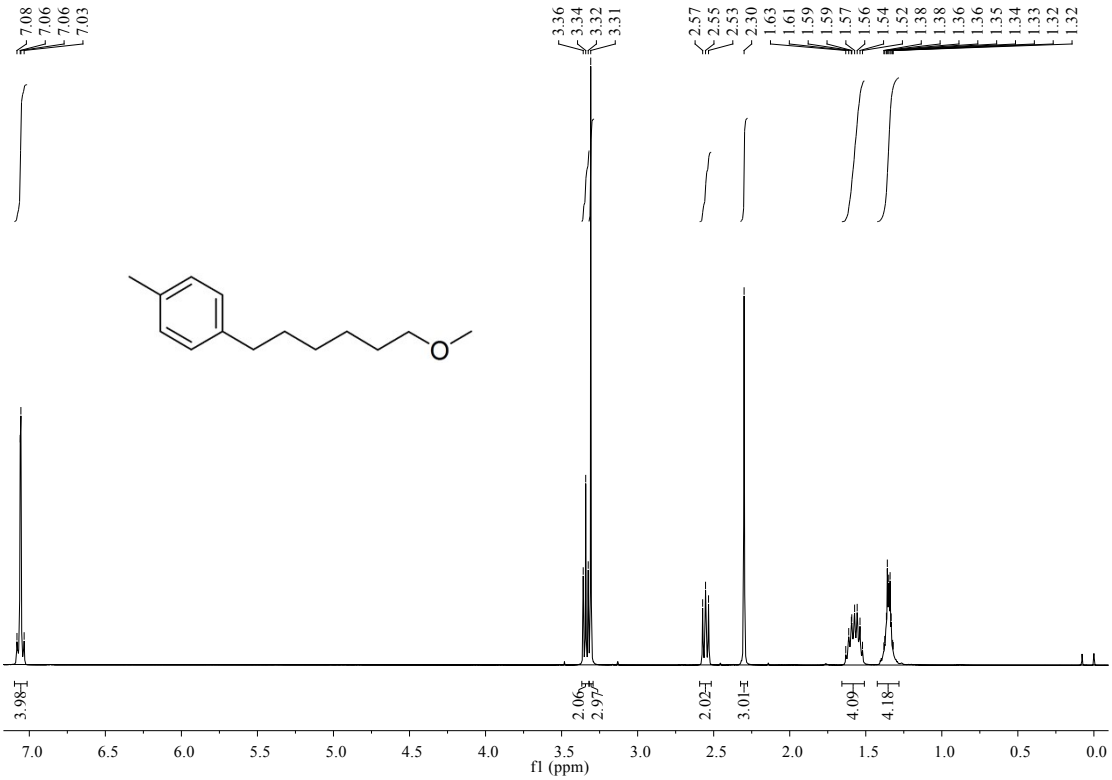


Figure S38. ^{1}H NMR spectrum of 1-(6-methoxyhexyl)-4-methylbenzene in $CDCl_3$

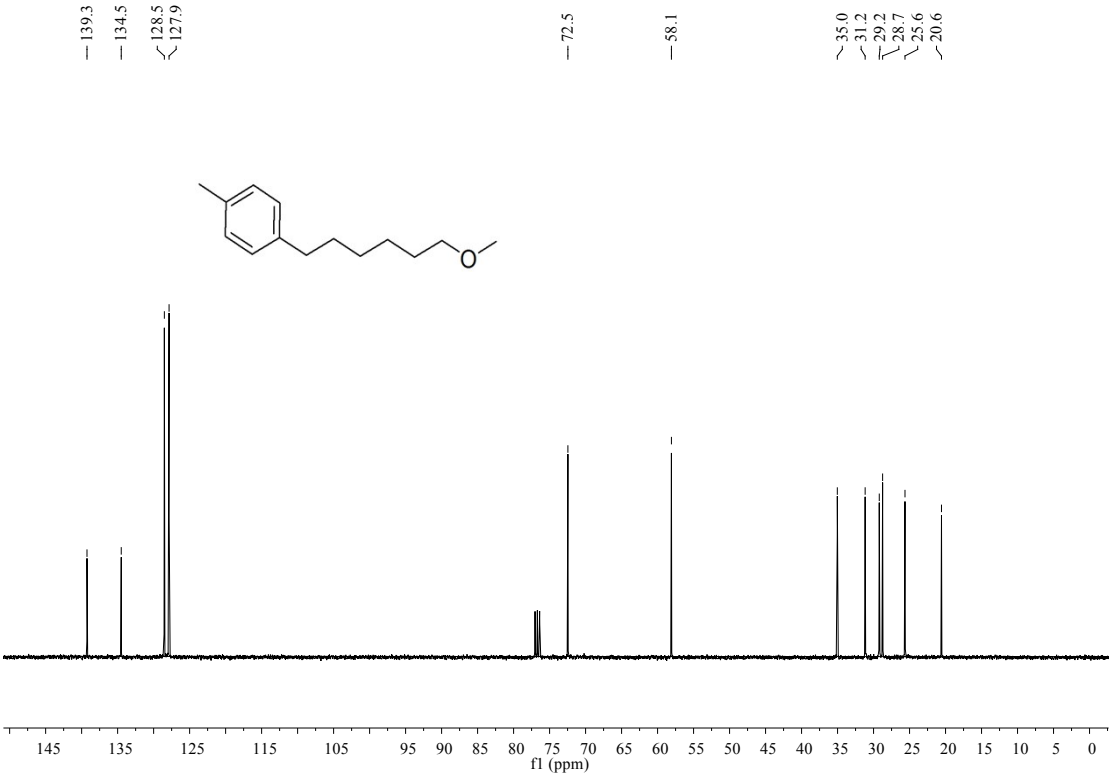


Figure S39. ^{13}C NMR spectrum of 1-(6-methoxyhexyl)-4-methylbenzene in $CDCl_3$

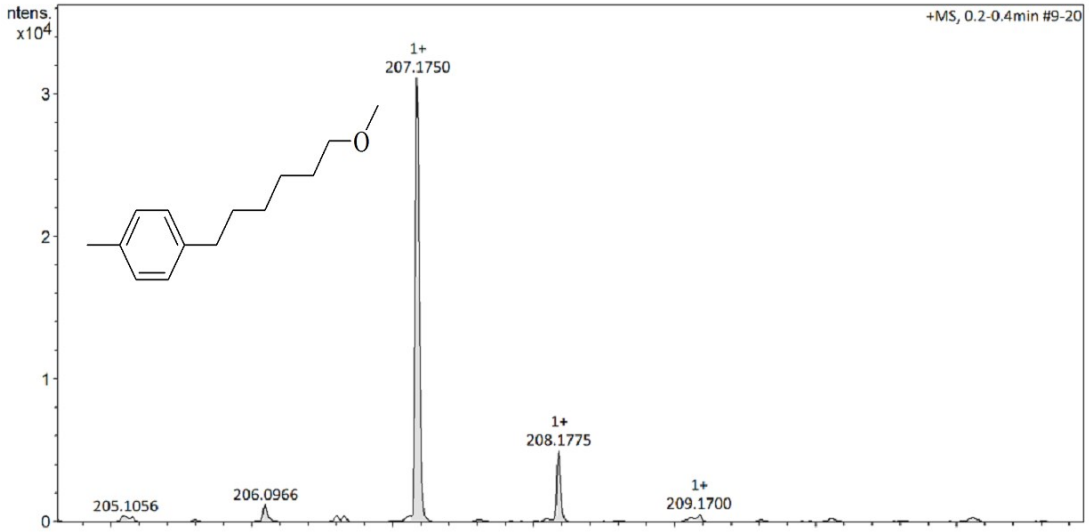


Figure S40. Mass spectroscopy of 1-(6-methoxyhexyl)-4-methylbenzene

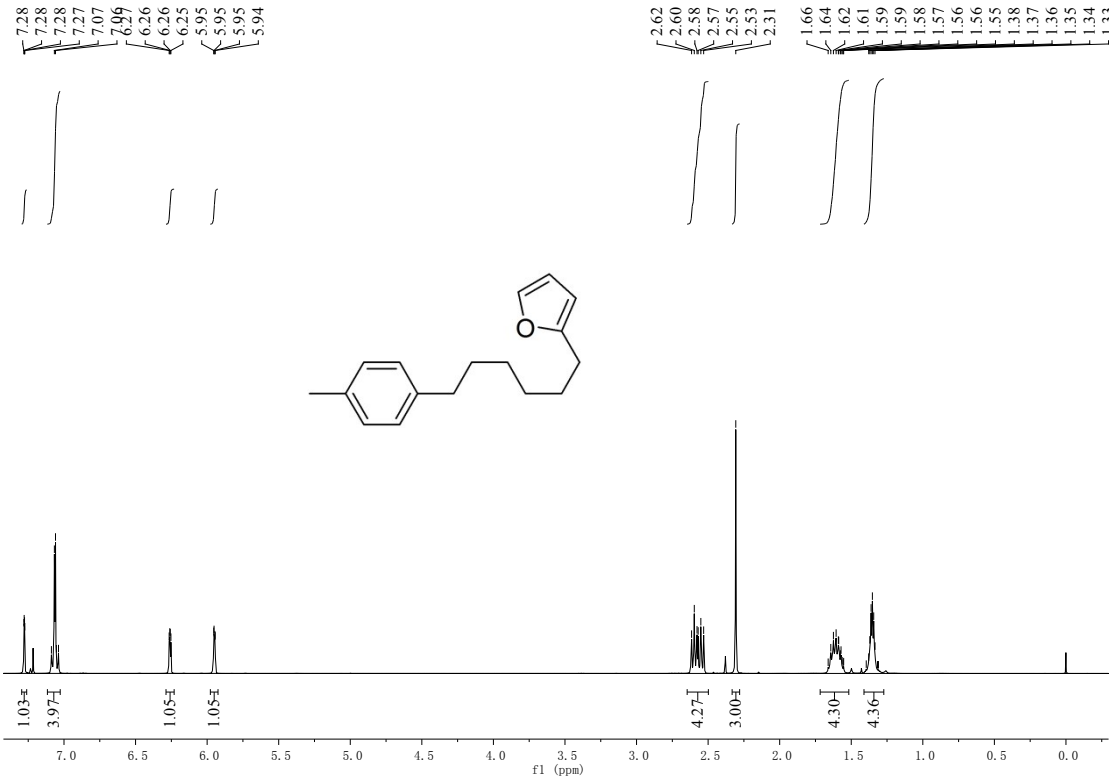


Figure S41. ^{1}H NMR spectrum of 2-(6-*p*-tolylhexyl)furan in $CDCl_3$

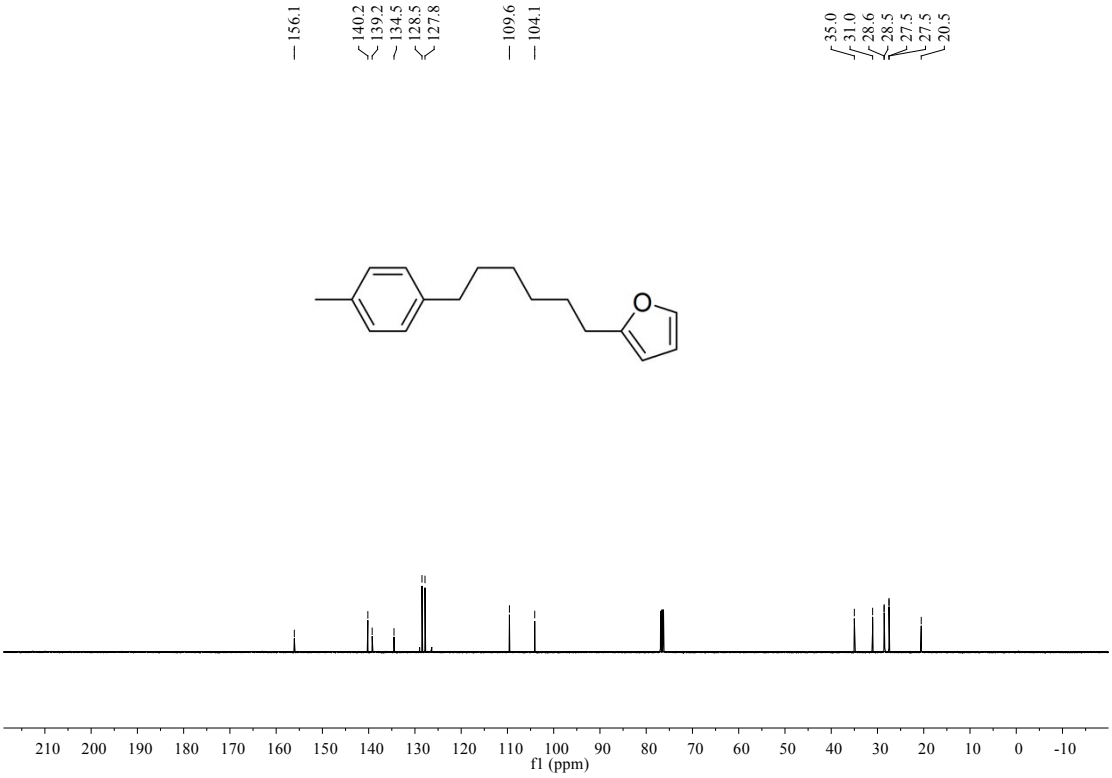


Figure S42. ^{13}C NMR spectrum of 2-(6-*p*-tolylhexyl)furan in $CDCl_3$

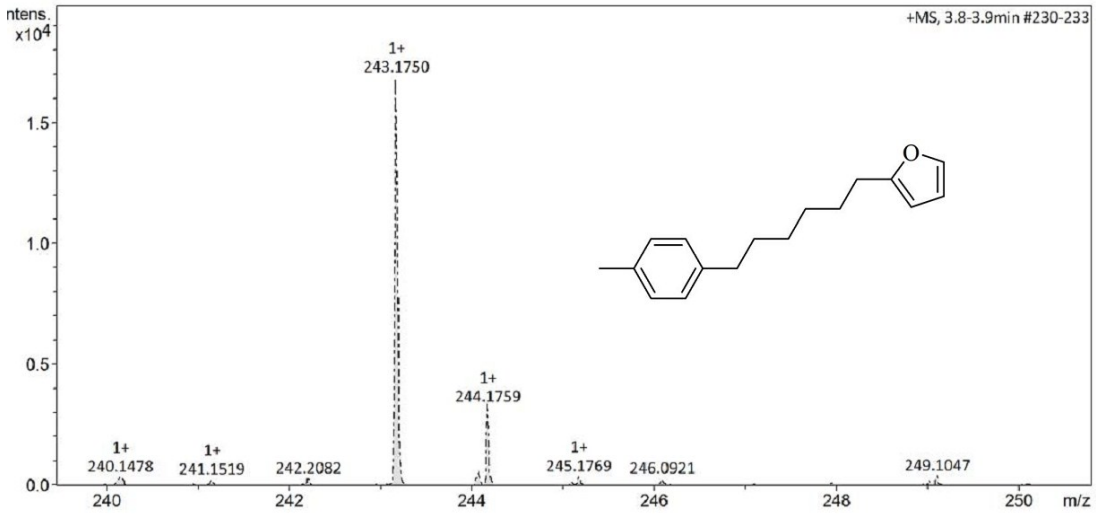


Figure S43. Mass spectroscopy of 2-(6-*p*-tolylhexyl)furan

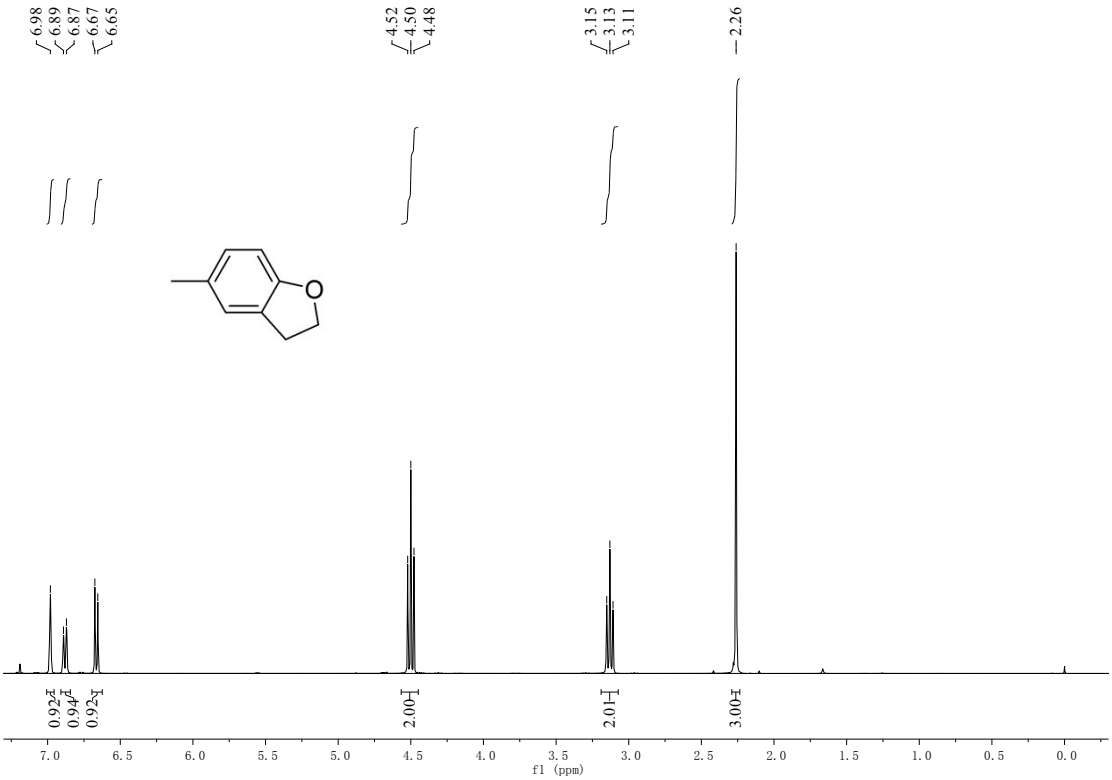


Figure S44. ^{1}H NMR spectrum of 2,3-dihydro-5-methylbenzofuran in $CDCl_3$.[14]

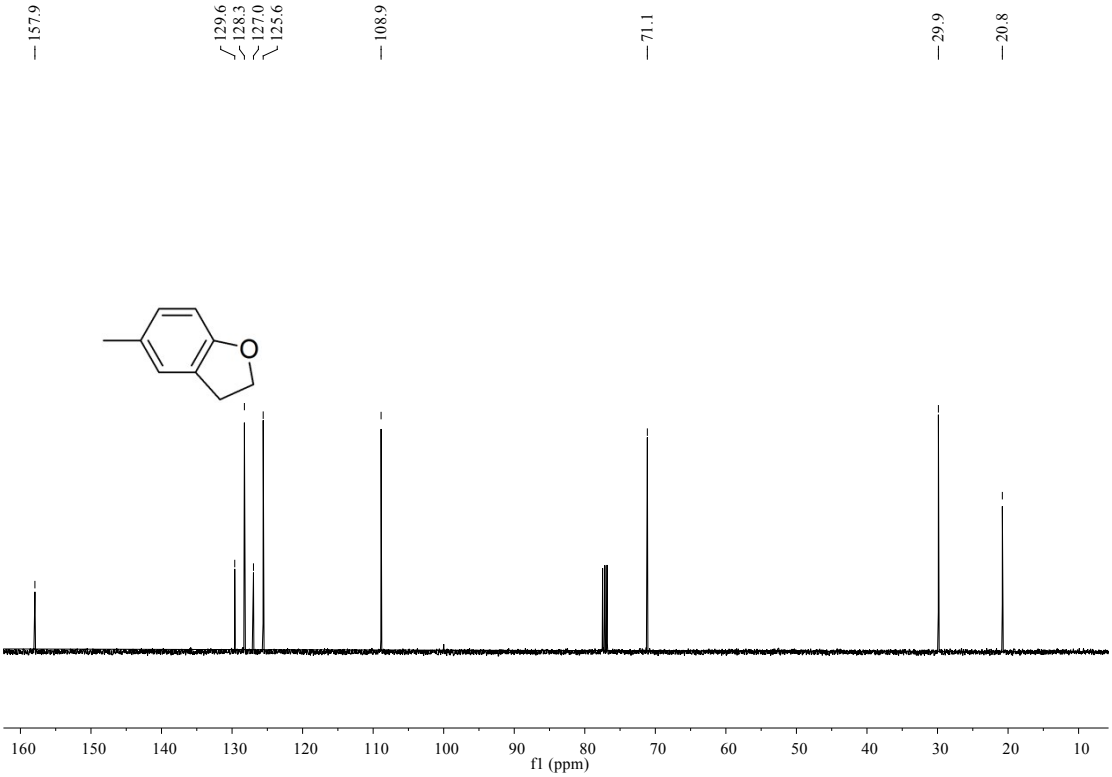


Figure S45. ^{13}C NMR spectrum of 2,3-dihydro-5-methylbenzofuran in $CDCl_3$.[14]

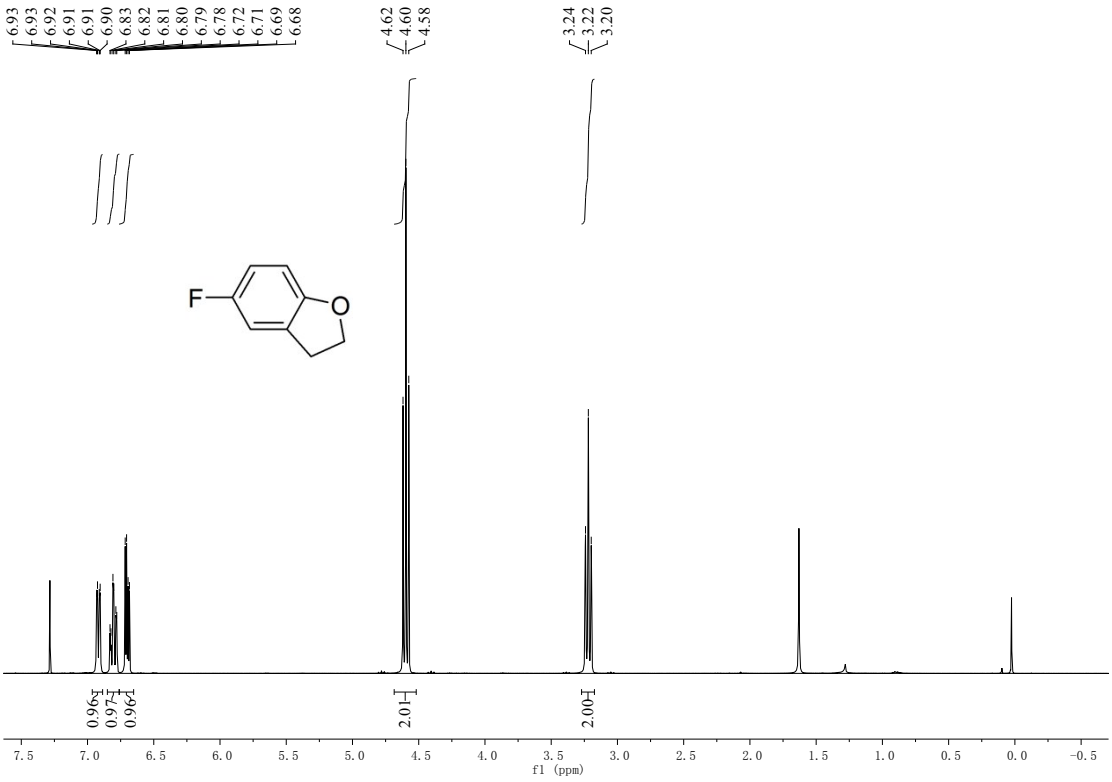


Figure S46. ^{1}H NMR spectrum of 5-fluoro-2,3-dihydrobenzofuran in $CDCl_3$.[15]

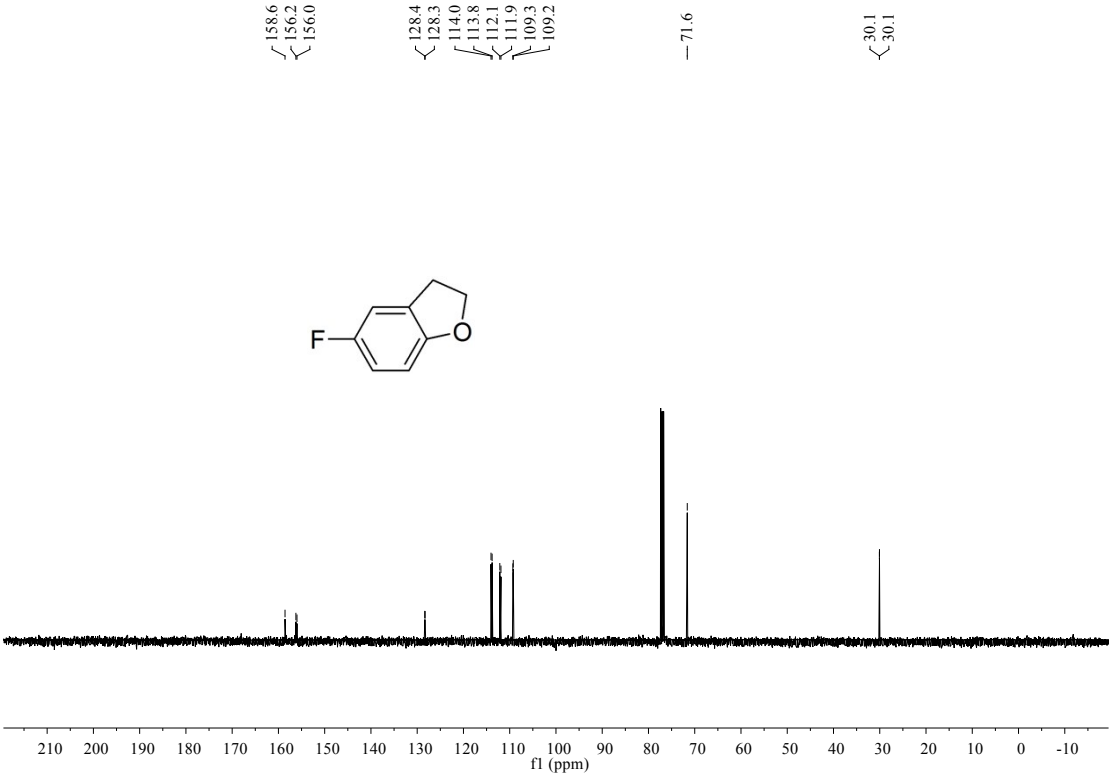


Figure S47. ^{13}C NMR spectrum of 5-fluoro-2,3-dihydrobenzofuran in $CDCl_3$.[15]

Figure S48. ^{19}F NMR spectrum of 5-fluoro-2,3-dihydrobenzofuran in $CDCl_3$.

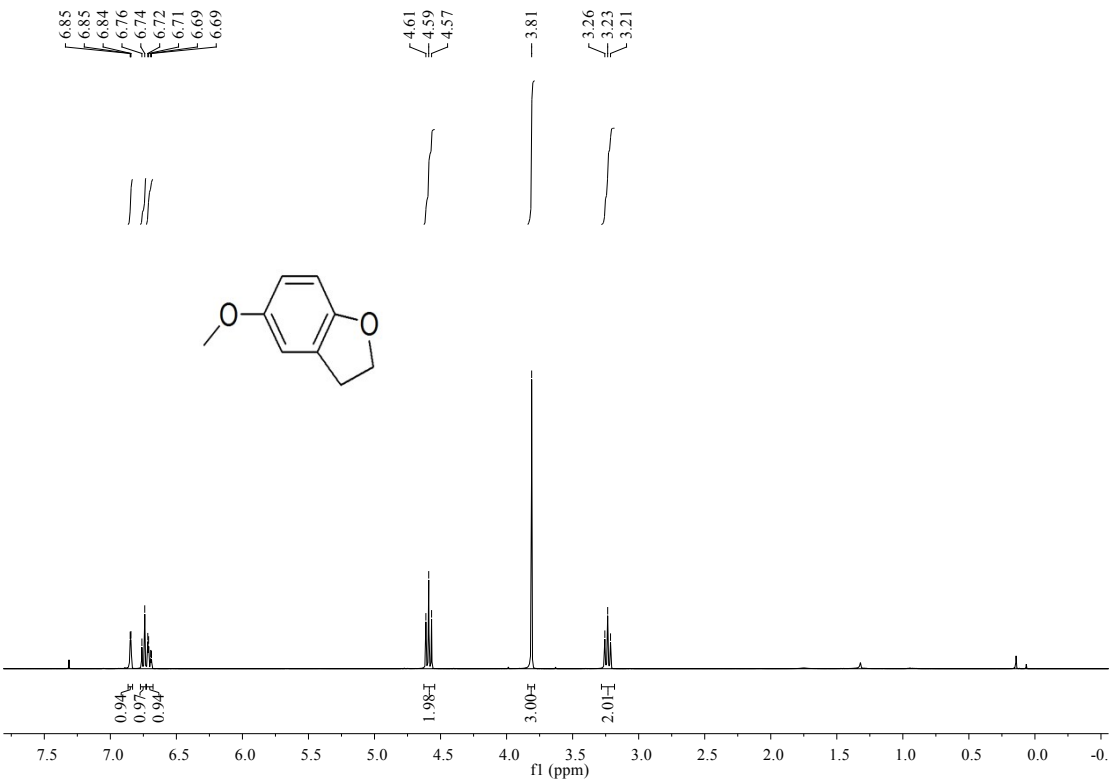


Figure S49. ^{1}H NMR spectrum of 2,3-dihydro-5-methoxybenzofuran in $CDCl_3$

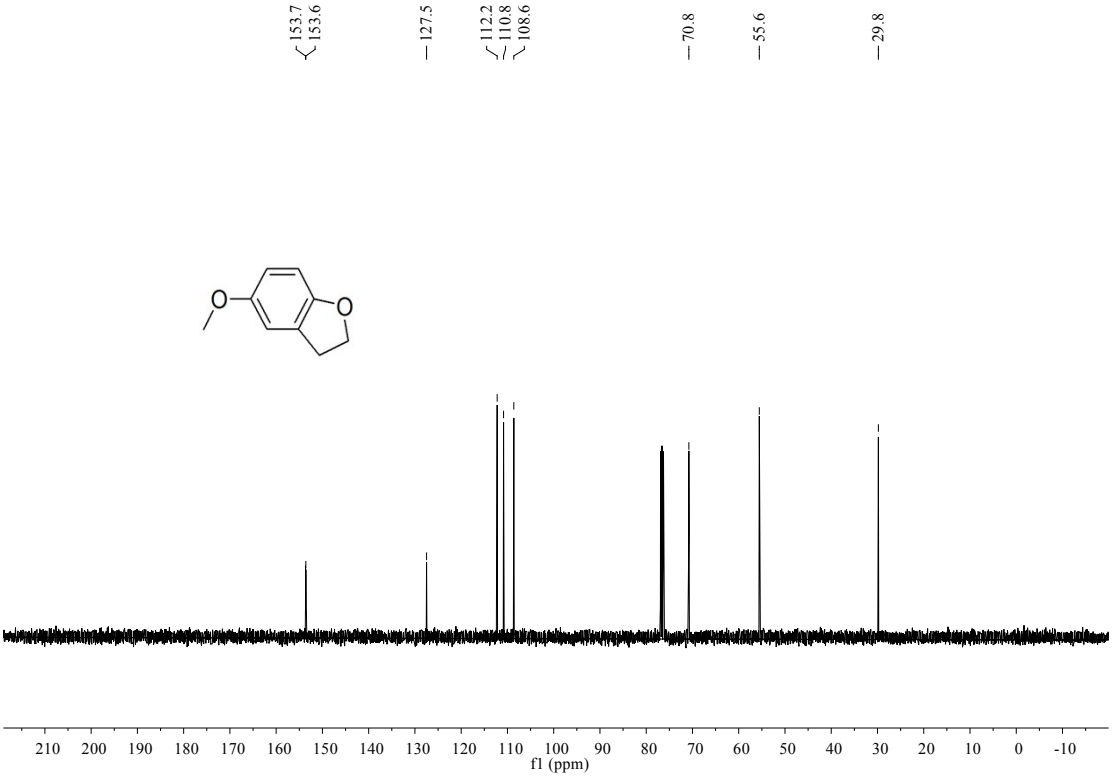


Figure S50. ^{13}C NMR spectrum of 2,3-dihydro-5-methoxybenzofuran in $CDCl_3$

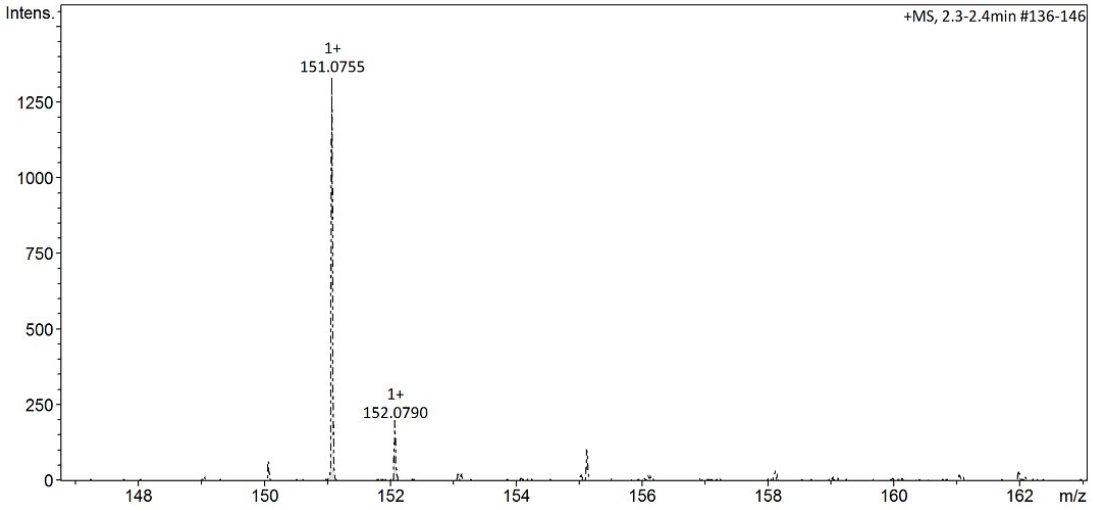


Figure S51. Mass spectroscopy of 2,3-dihydro-5-methoxybenzofuran

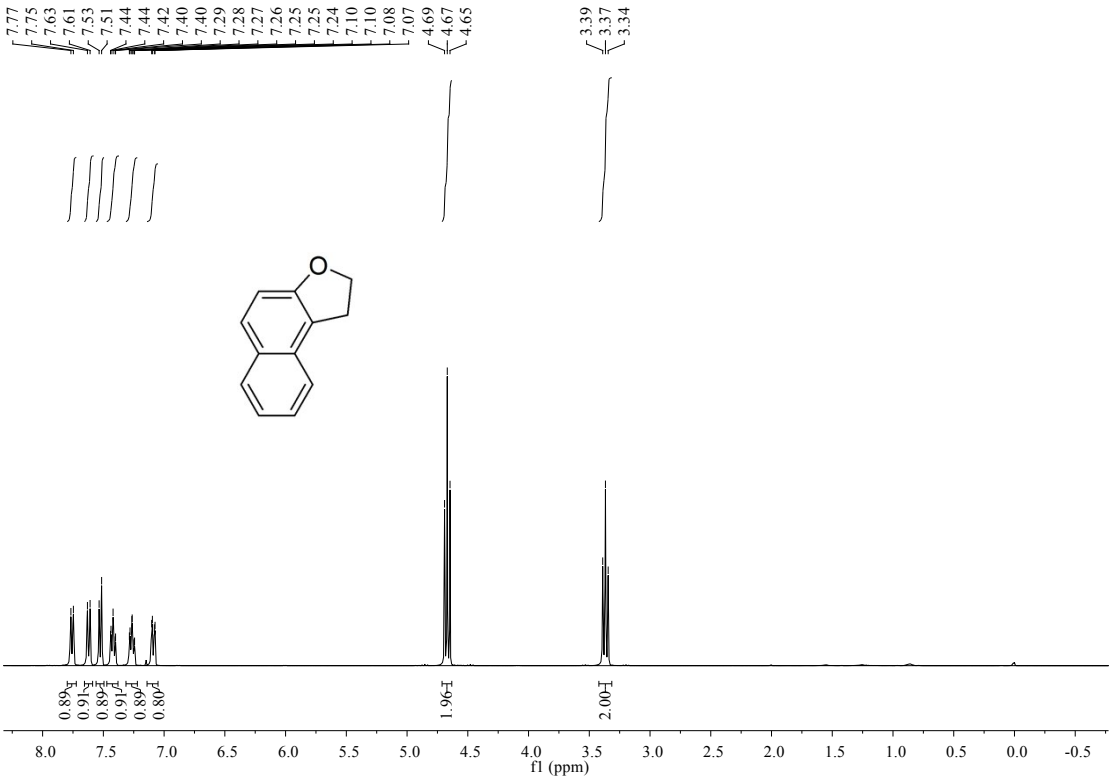


Figure S52. ^{1}H NMR spectrum of 1,2-dihydronaphtho[2,1-*b*]furan in $CDCl_3$

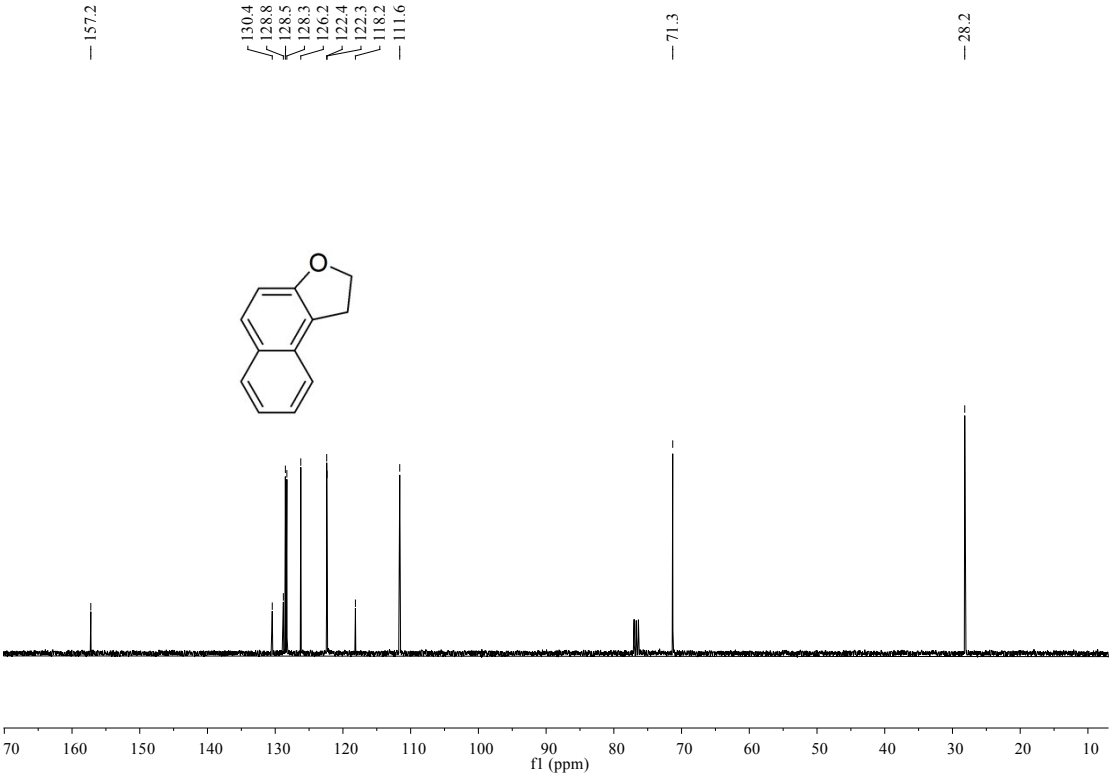


Figure S53. ^{13}C NMR spectrum of 1,2-dihydronaphtho[2,1-*b*]furan in $CDCl_3$

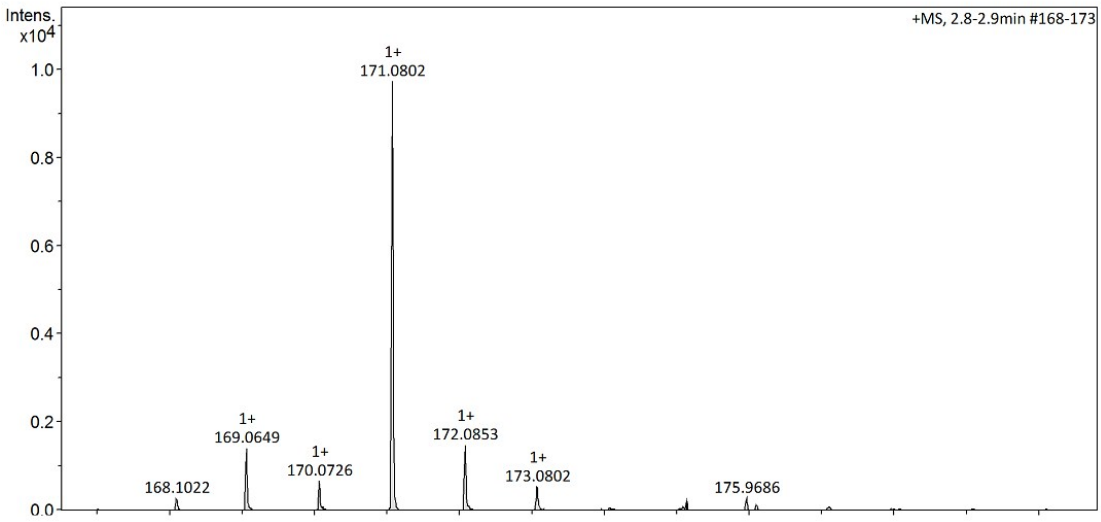


Figure S54. Mass spectroscopy of 1,2-dihydronaphtho[2,1-*b*]furan

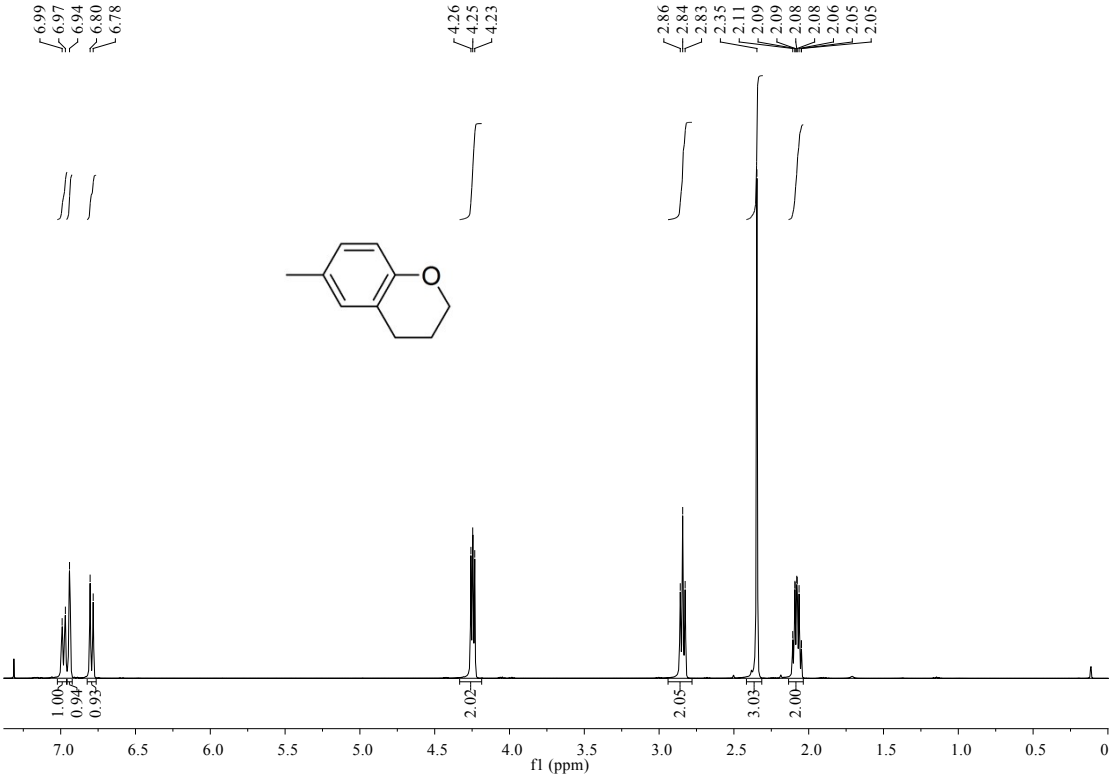


Figure S55. ^{1}H NMR spectrum of 3,4-dihydro-6-methyl-2H-chromene in $CDCl_3$

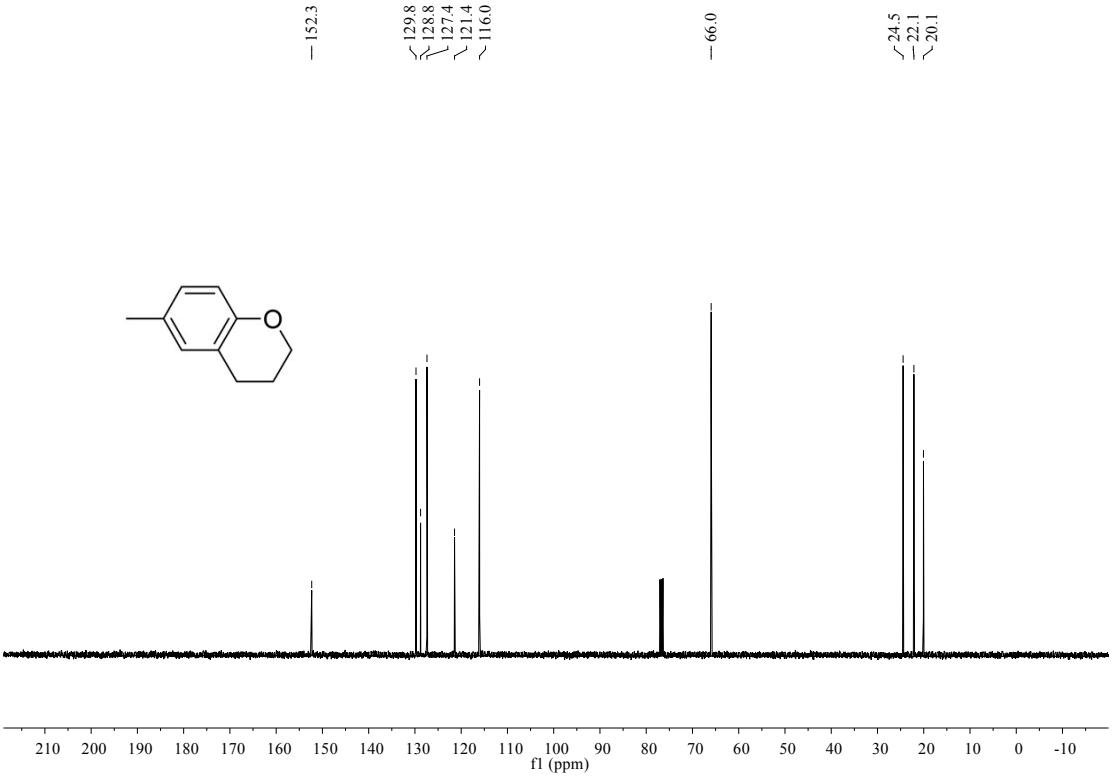


Figure S56. ^{13}C NMR spectrum of 3,4-dihydro-6-methyl-2H-chromene in $CDCl_3$

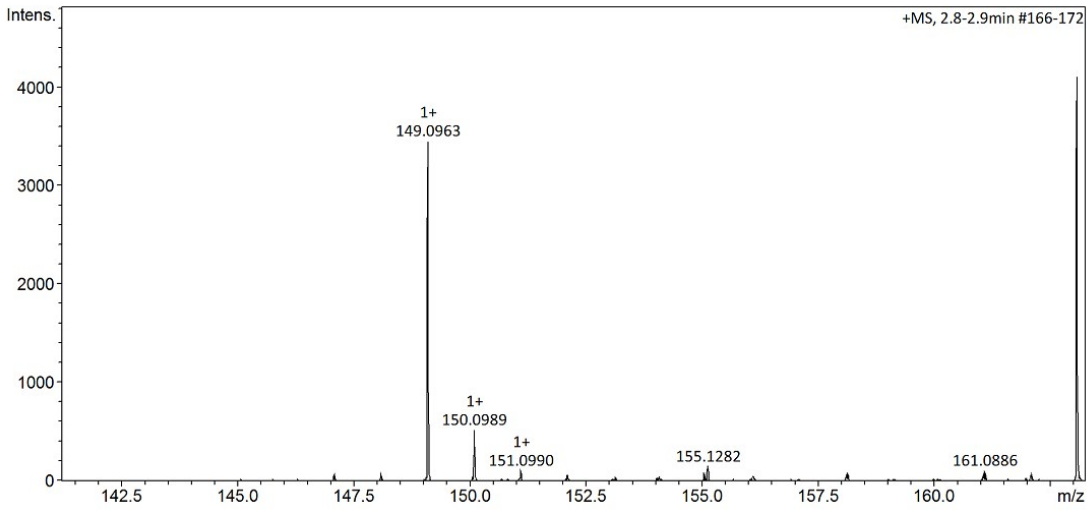


Figure S57. Mass spectroscopy of 3,4-dihydro-6-methyl-2H-chromene

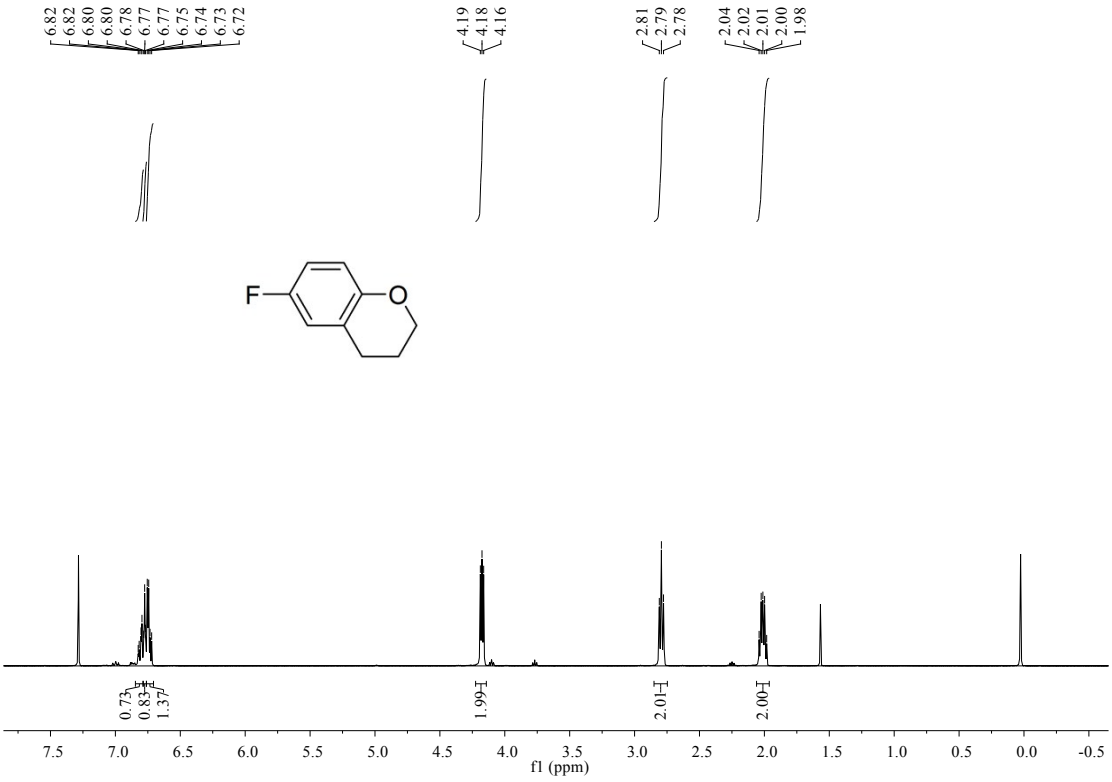


Figure S58. ^{1}H NMR spectrum of 6-fluoro-3,4-dihydro-2*H*-chromene in $CDCl_3$.[16]

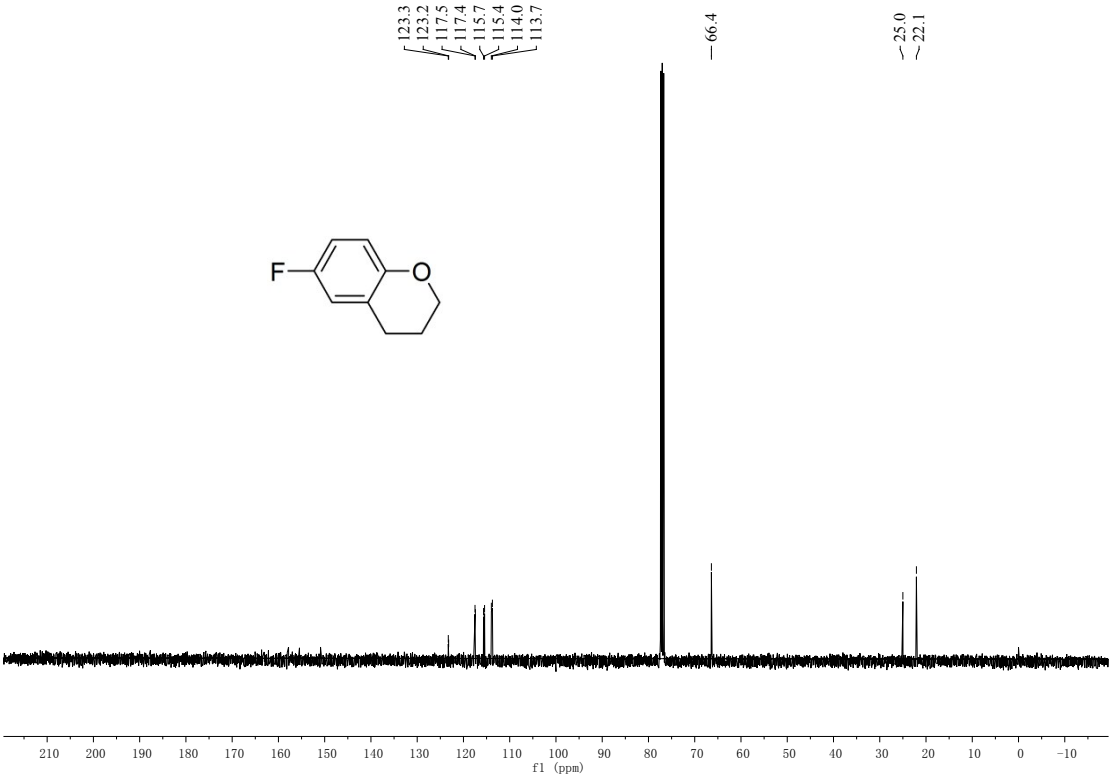


Figure S59. ^{13}C NMR spectrum of 6-fluoro-3,4-dihydro-2H-chromene in $CDCl_3$.[16]

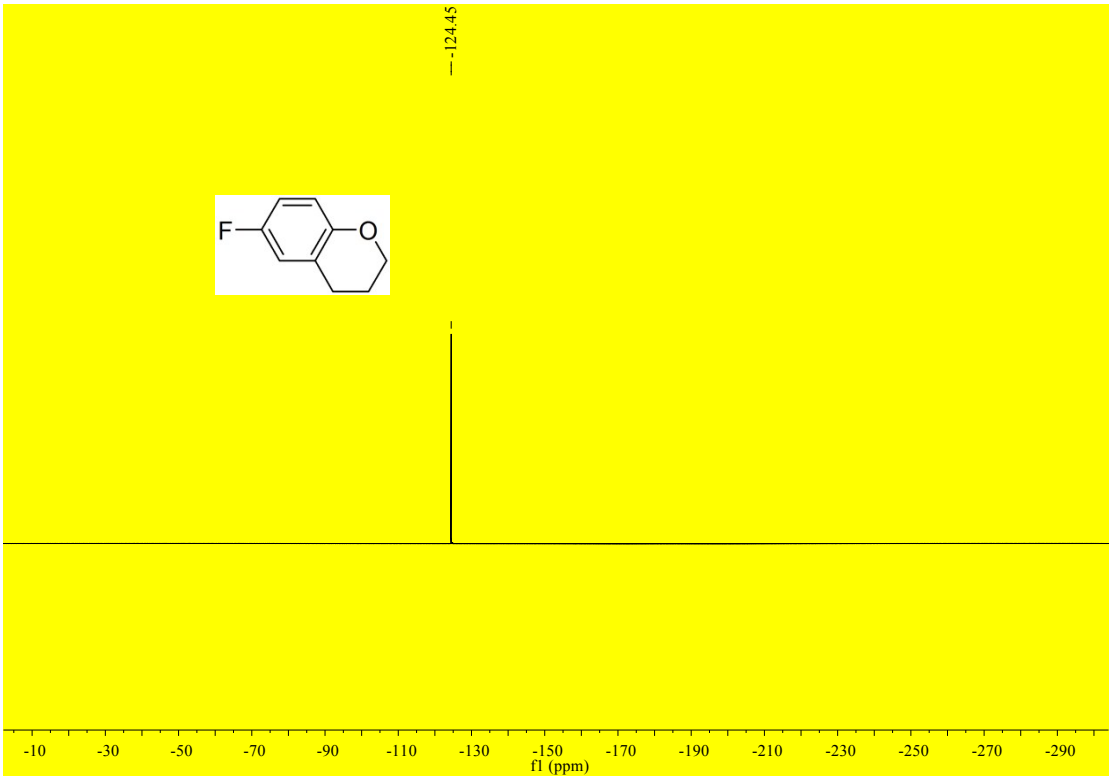


Figure S60. ^{19}F NMR spectrum of 6-fluoro-3,4-dihydro-2H-chromene in $CDCl_3$.

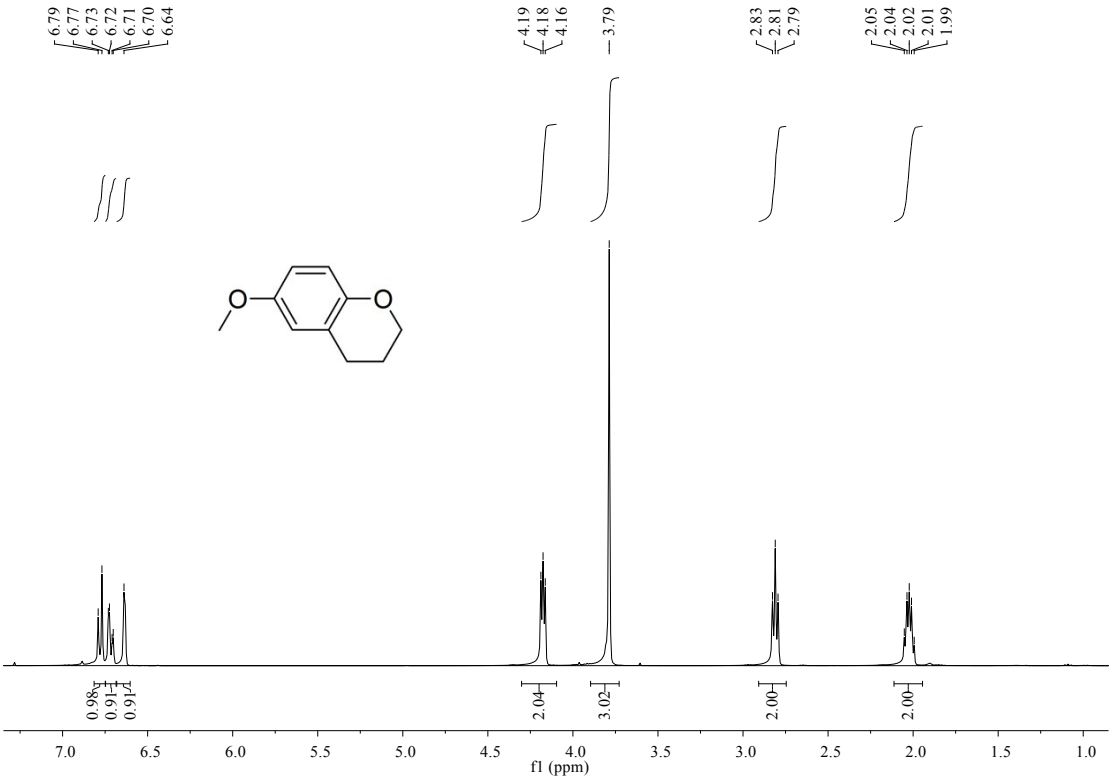


Figure S61. ^{1}H NMR spectrum of 3,4-dihydro-6-methoxy-2*H*-chromene in $CDCl_3$.[17]

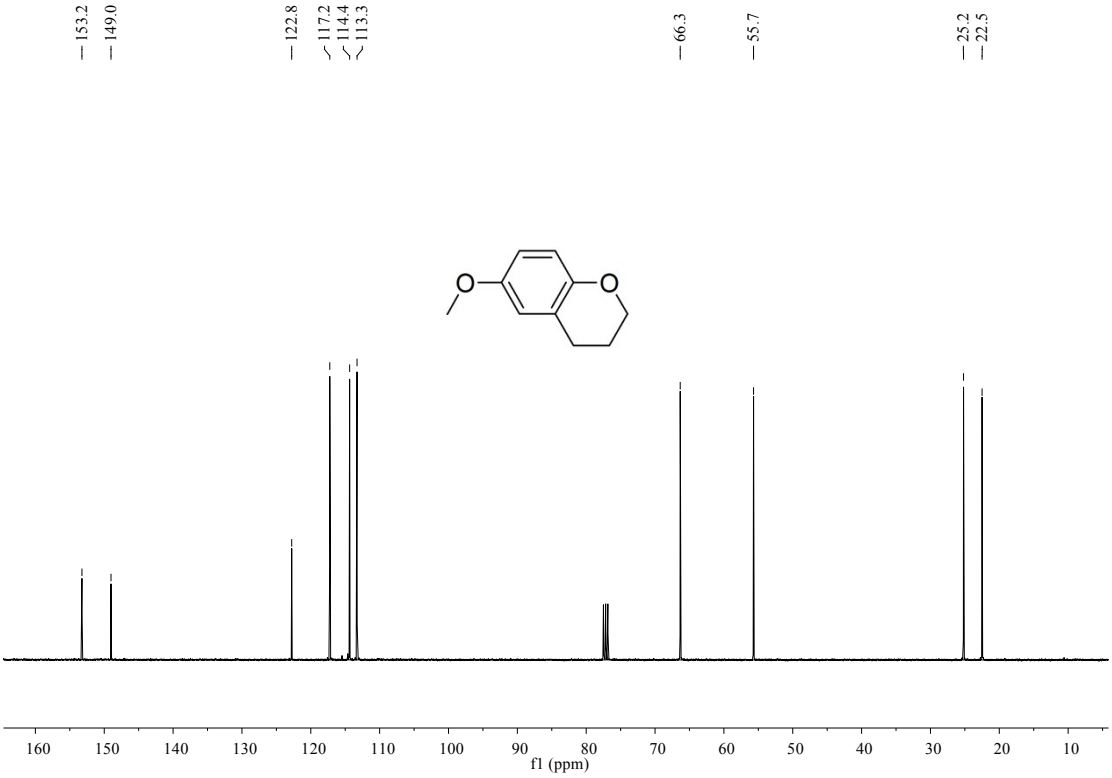


Figure S62. ^{13}C NMR spectrum of 3,4-dihydro-6-methoxy-2H-chromene in $CDCl_3$.[17]

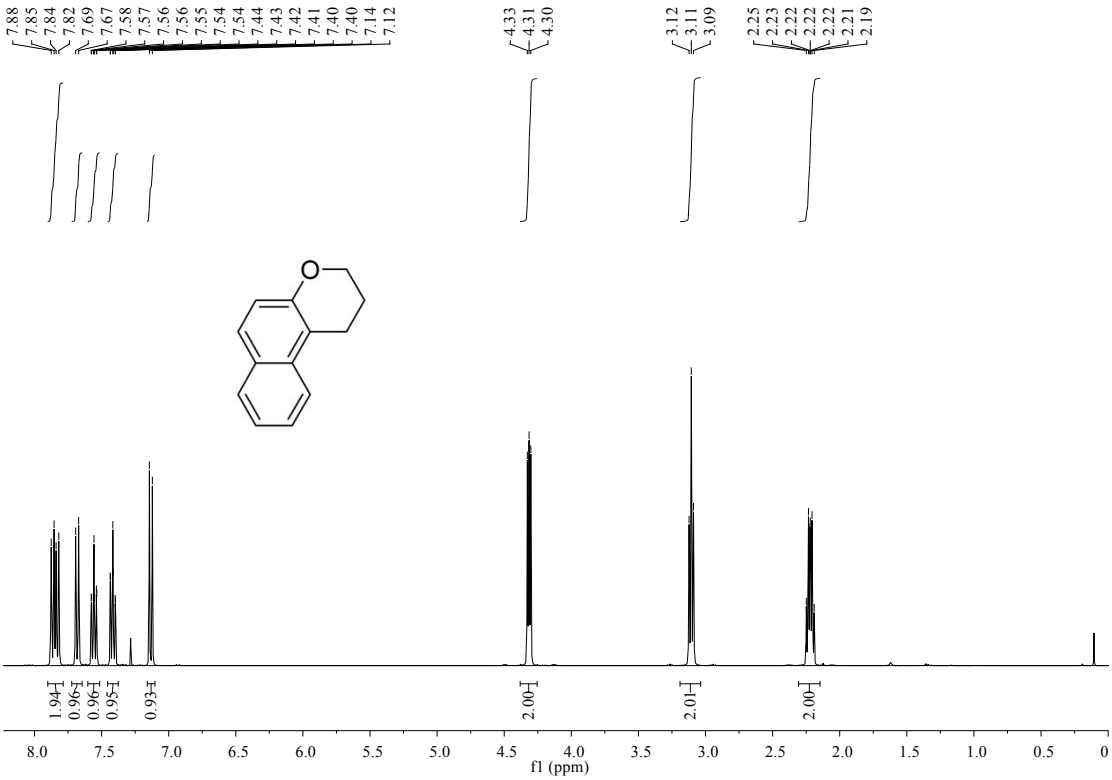


Figure S63. ^{1}H NMR spectrum of 2,3-dihydro-1H-benzo[*f*]chromenein $CDCl_3$.[18]

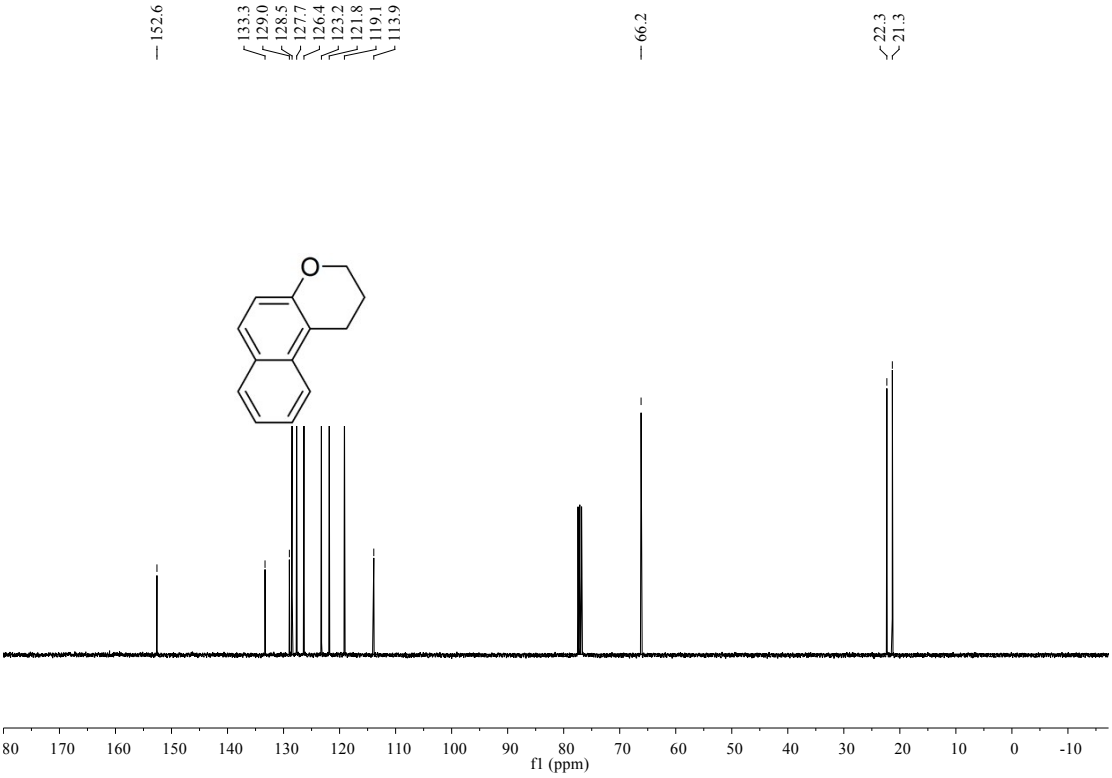


Figure S64. ^{13}C NMR spectrum of 2,3-dihydro-1H-benzo[*f*]chromene in $CDCl_3$.[18]

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