

Sequential Iron-Catalyzed C(sp²)-C(sp³) Cross-Coupling of Chlorobenzamides/Chemoselective Amide Reduction and Reductive Deuteration to Benzylic Alcohols

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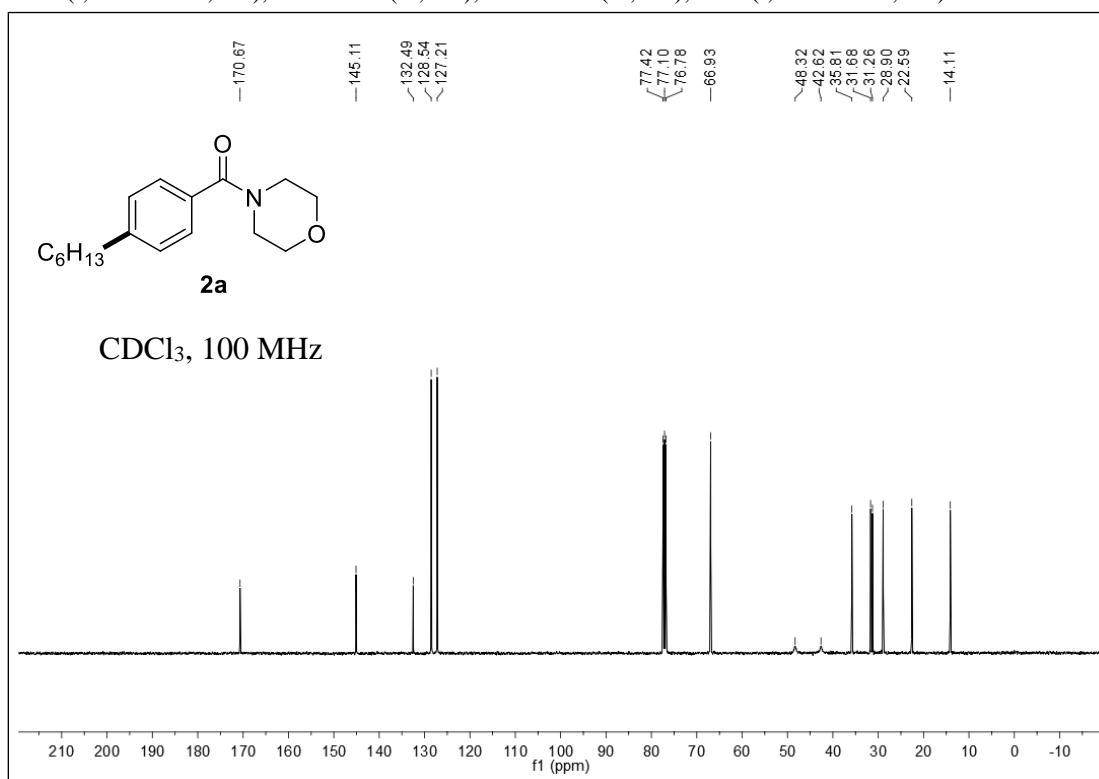
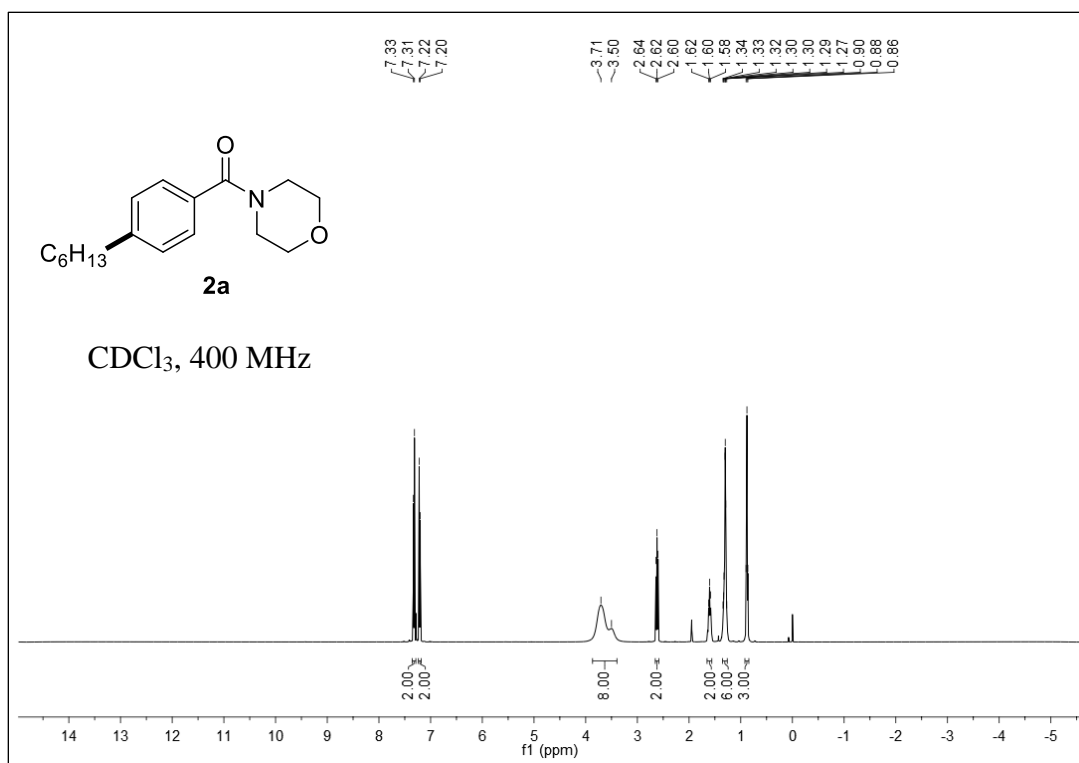
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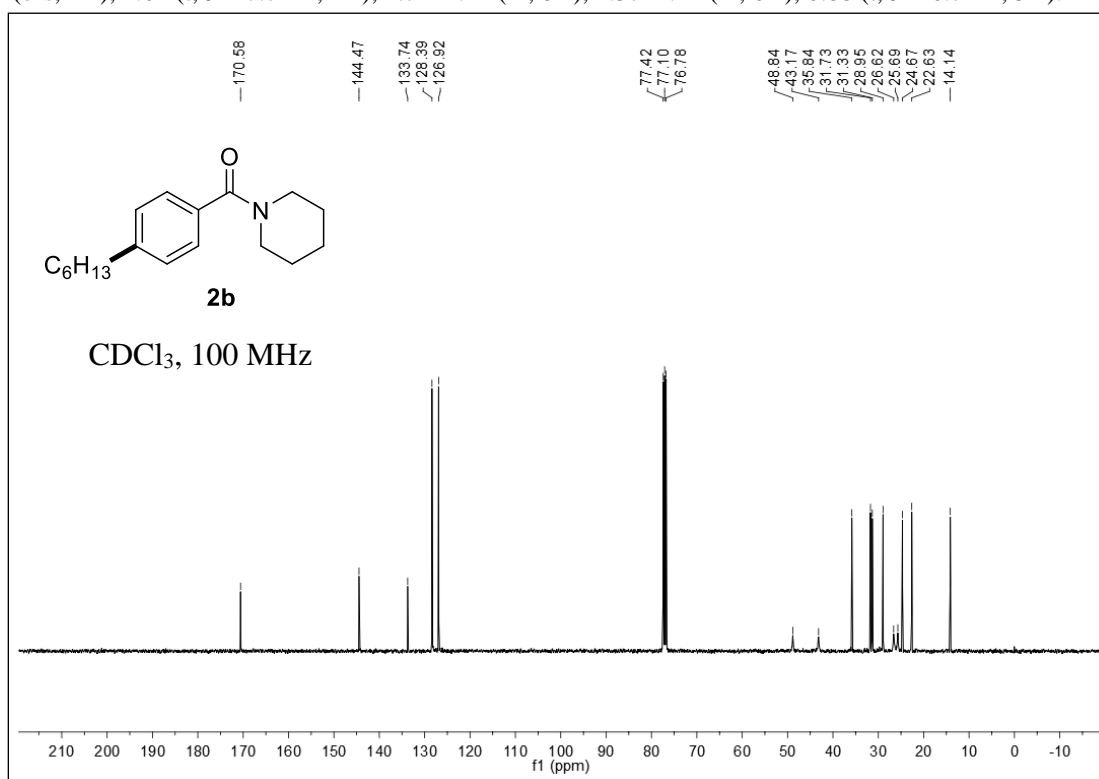
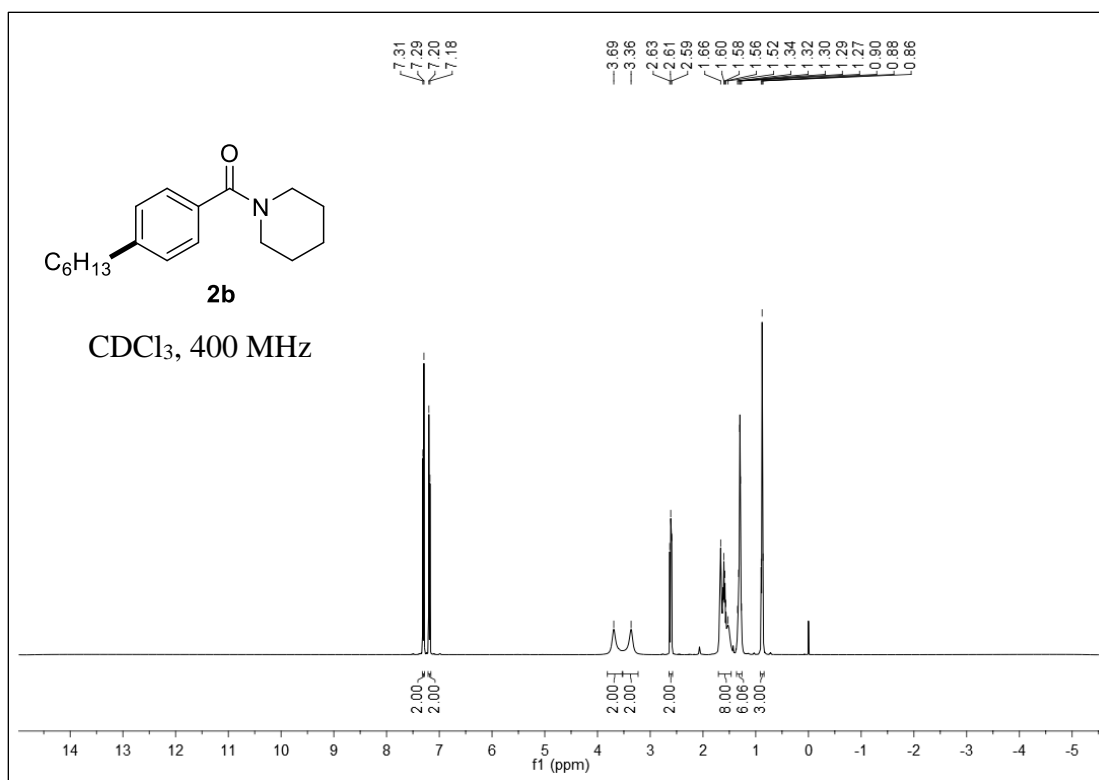
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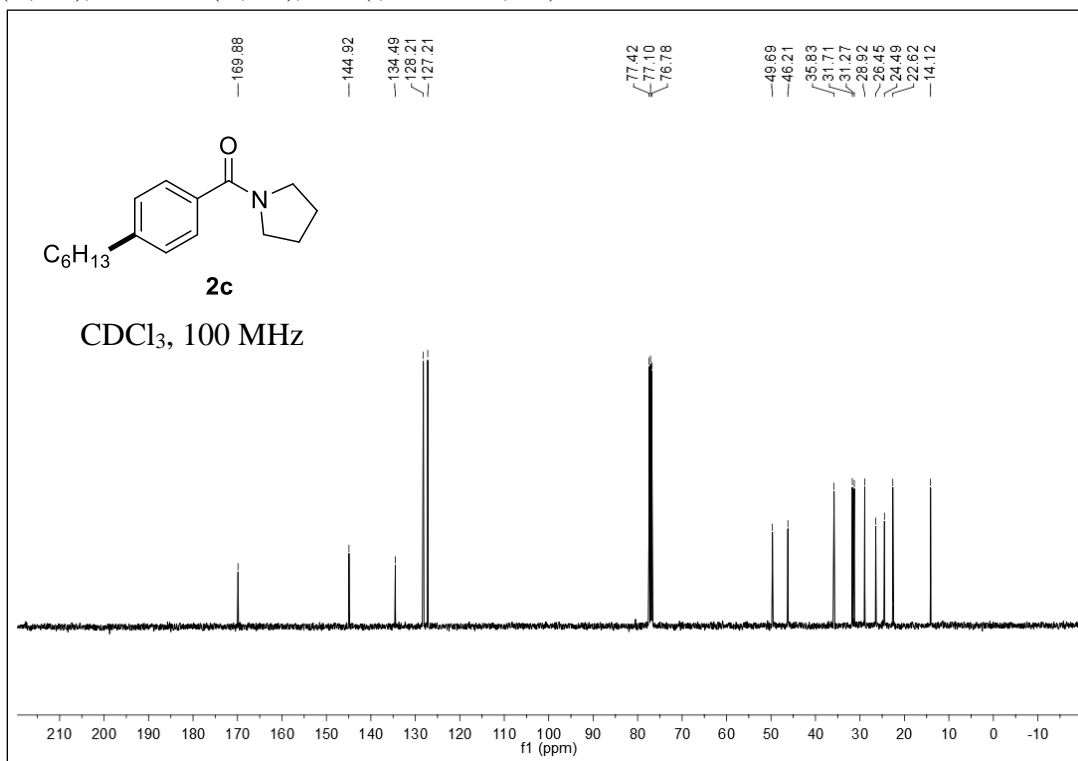
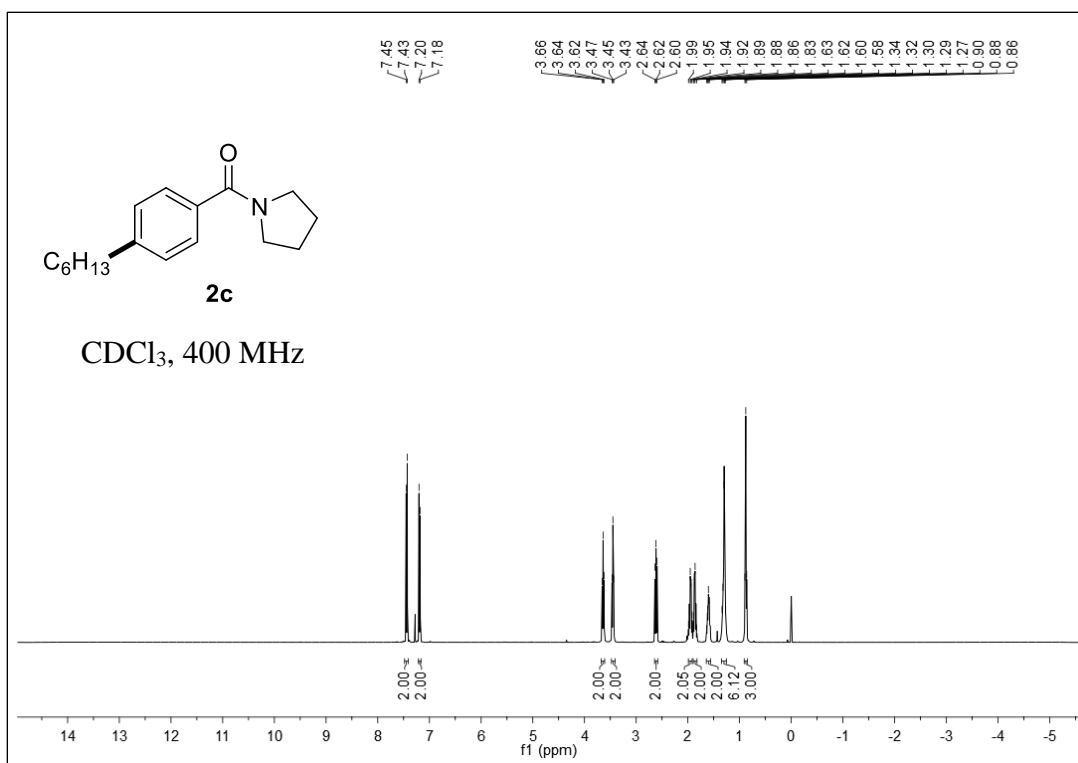
Supporting Information

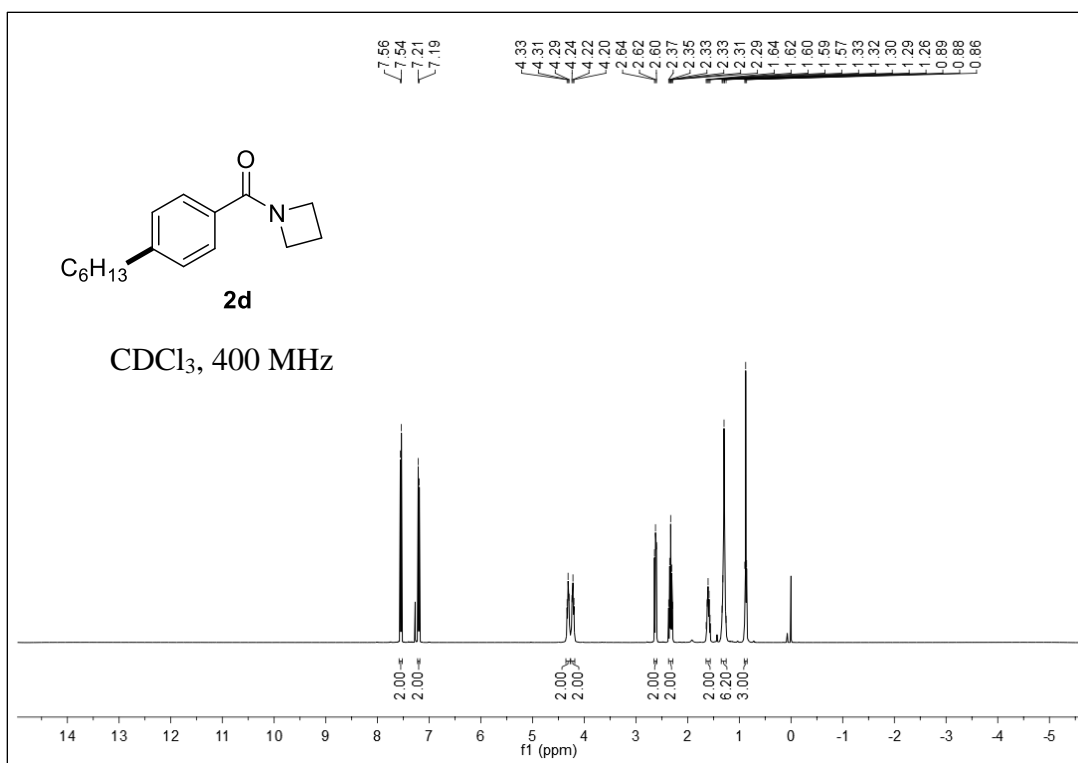
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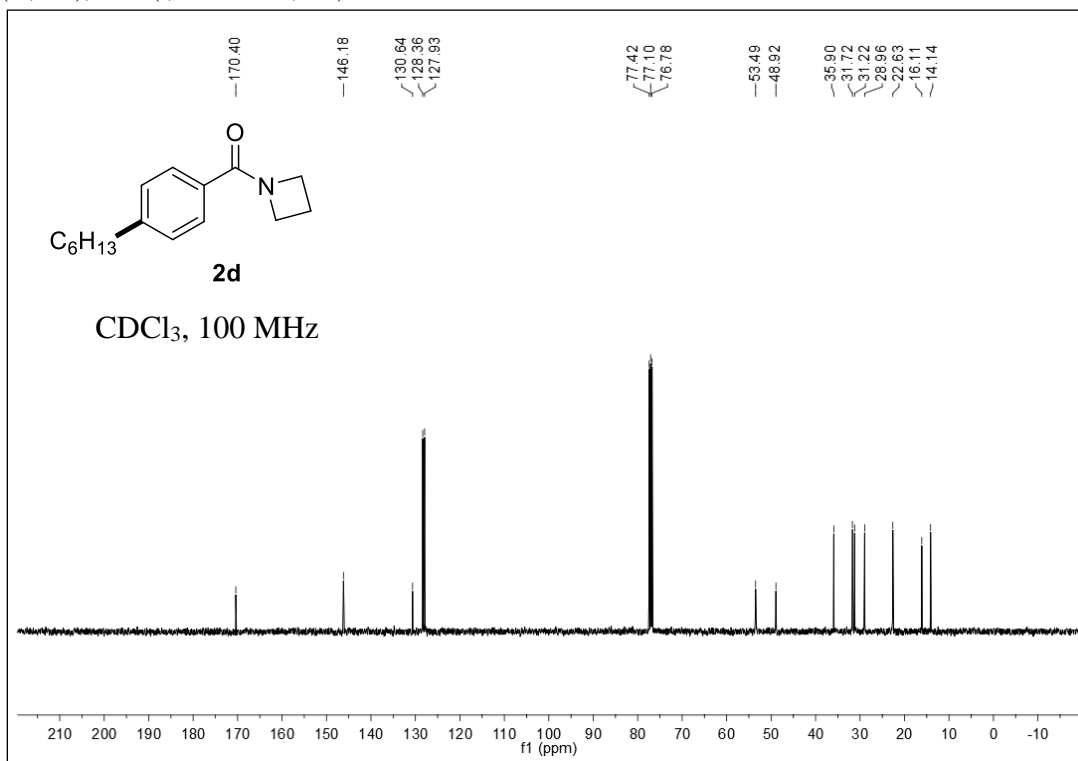
¹³C NMR (100 MHz, CDCl₃) δ 170.67, 145.11, 132.49, 128.54, 127.21, 77.42, 77.10, 76.78, 66.93, 48.32, 42.62, 35.81, 31.68, 31.26, 28.90, 22.59, 14.11.



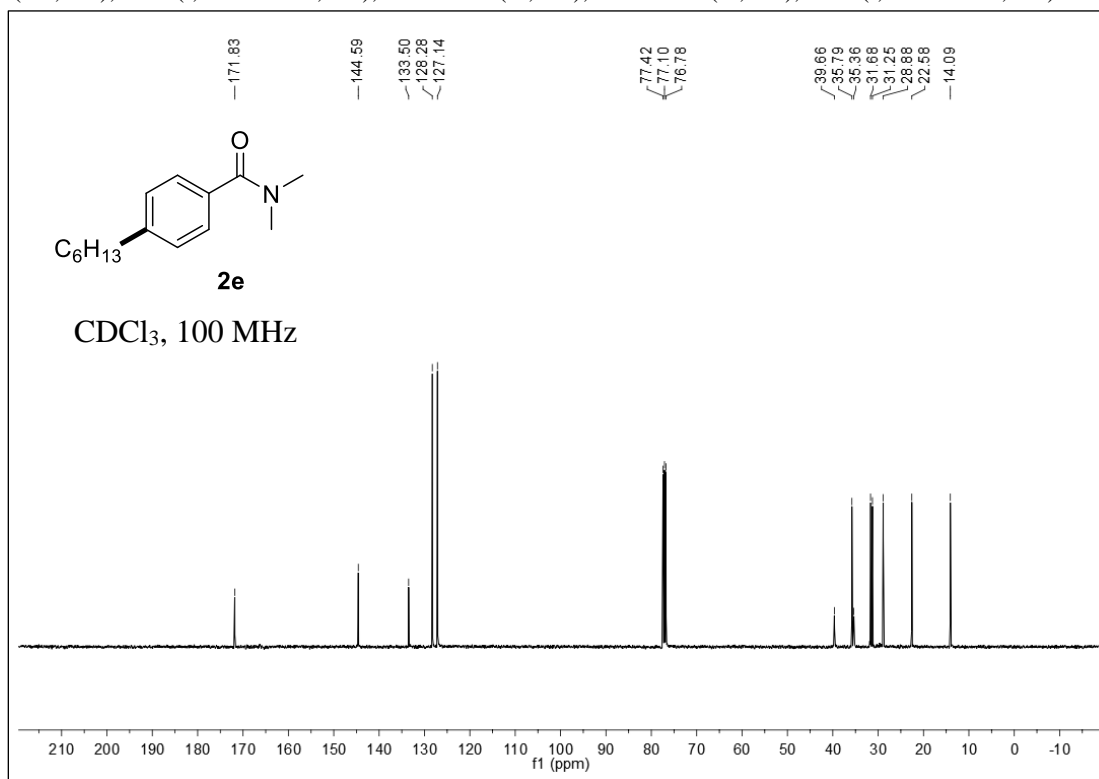
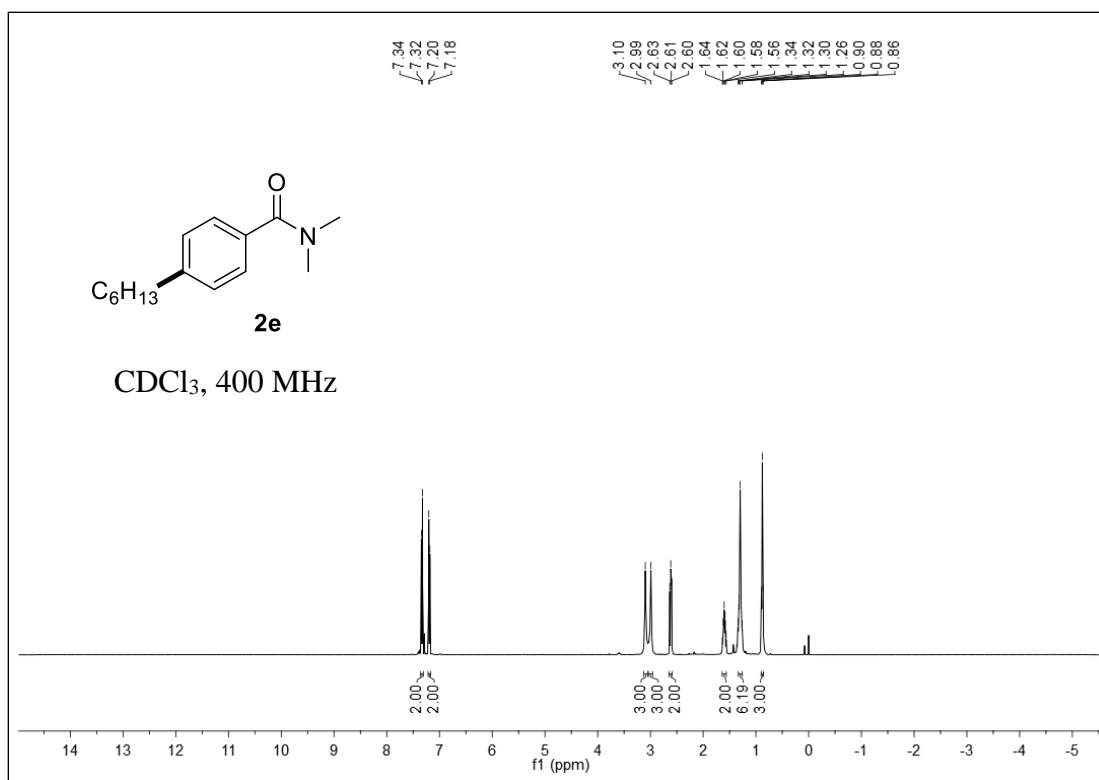


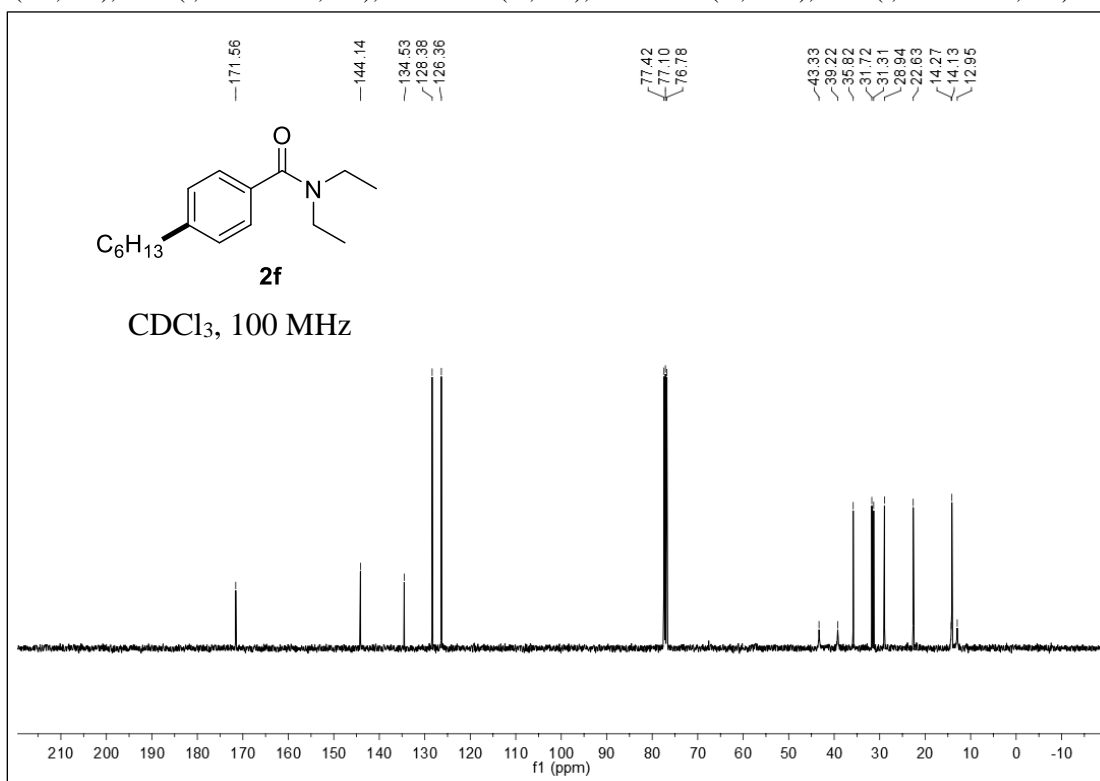
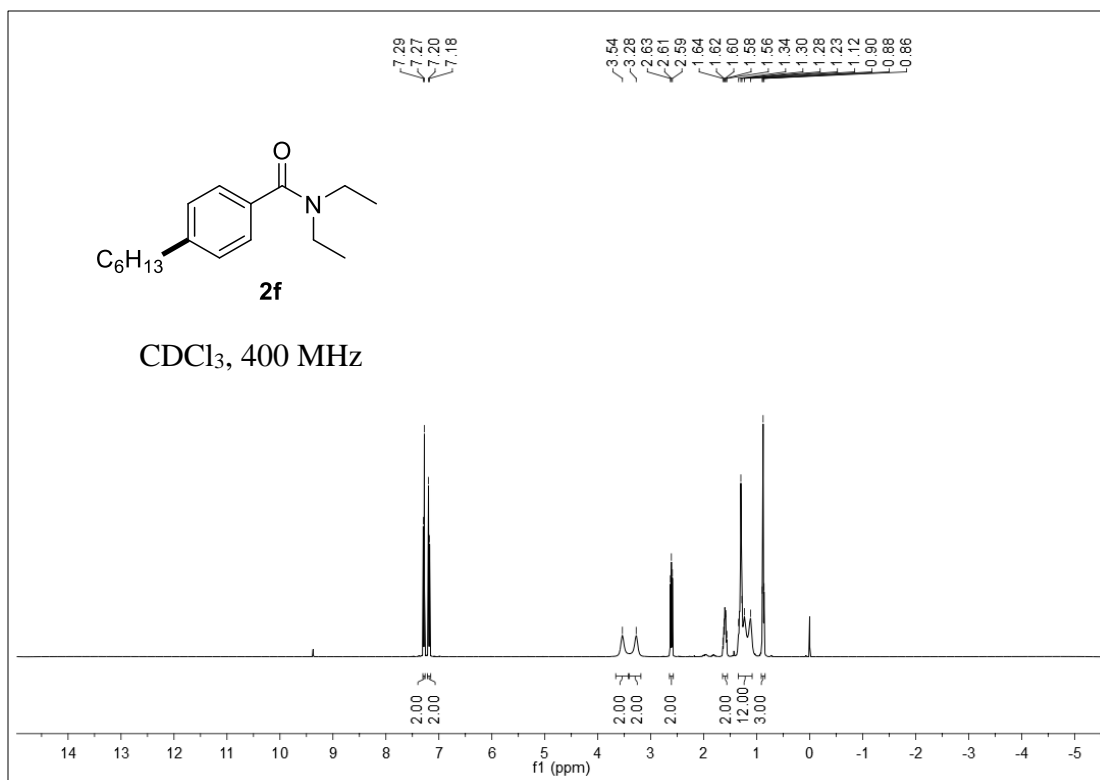


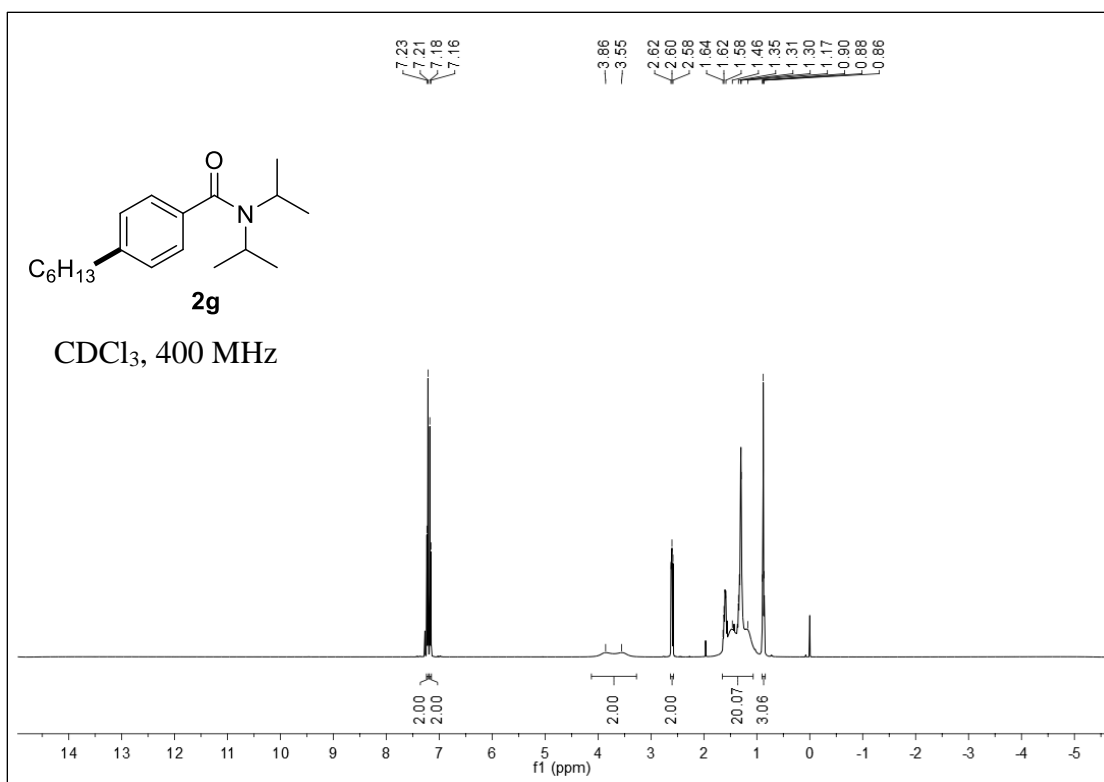
^1H NMR (400 MHz, CDCl_3) δ 7.55 (d, $J = 8.3$ Hz, 2H), 7.20 (d, $J = 8.4$ Hz, 2H), 4.31 (t, $J = 7.5$ Hz, 2H), 4.22 (t, $J = 7.7$ Hz, 2H), 2.62 (t, $J = 7.7$ Hz, 2H), 2.37–2.29 (m, 2H), 1.64–1.56 (m, 2H), 1.35–1.25 (m, 6H), 0.88 (t, $J = 6.8$ Hz, 3H).



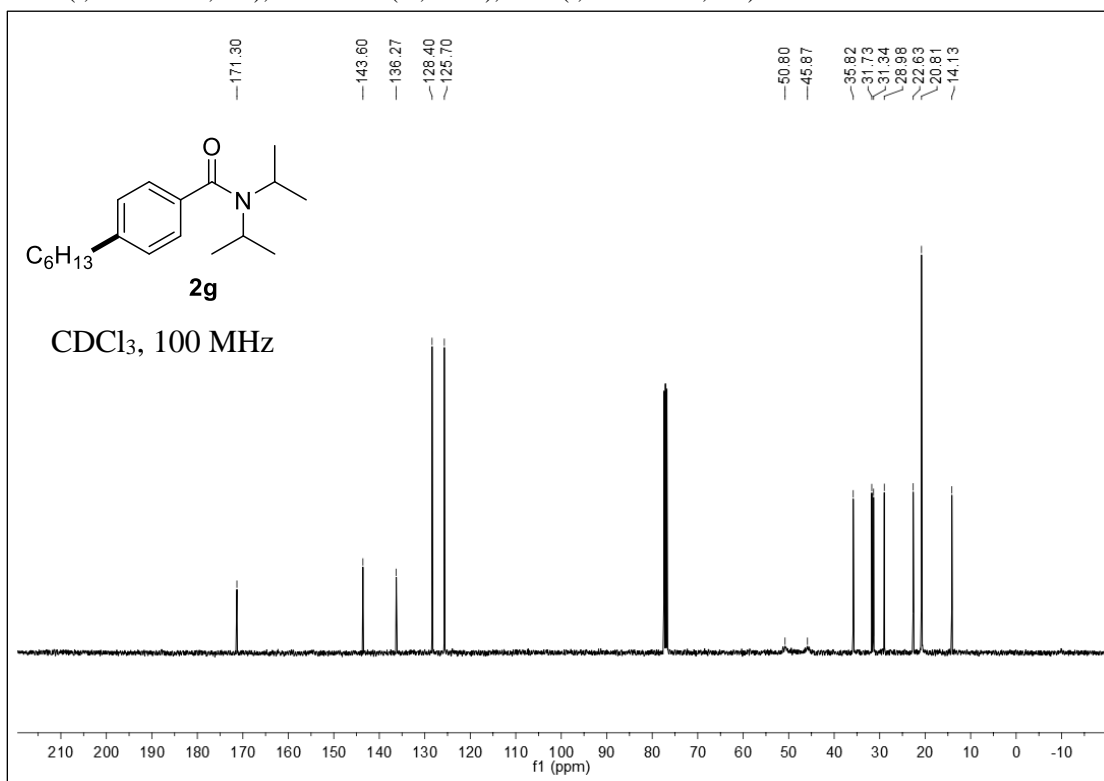
^{13}C NMR (100 MHz, CDCl_3) δ 170.40, 146.18, 130.64, 128.36, 127.93, 77.42, 77.10, 76.78, 53.49, 48.92, 35.90, 31.72, 31.22, 28.96, 22.63, 16.11, 14.14.



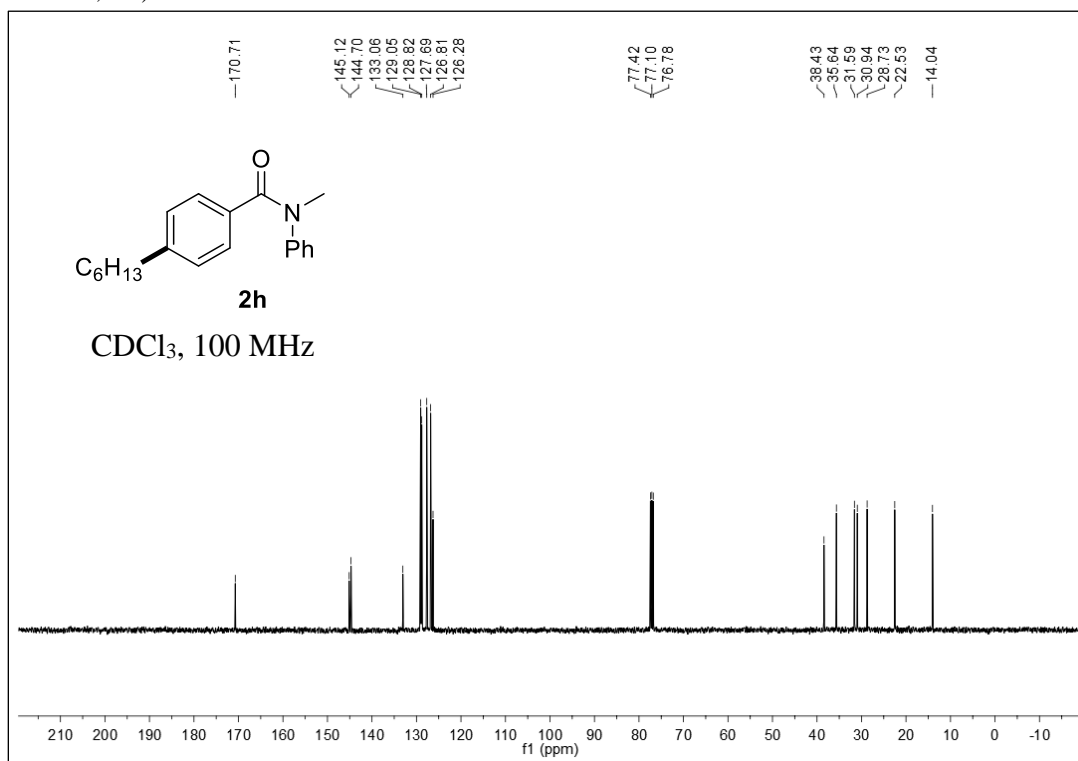
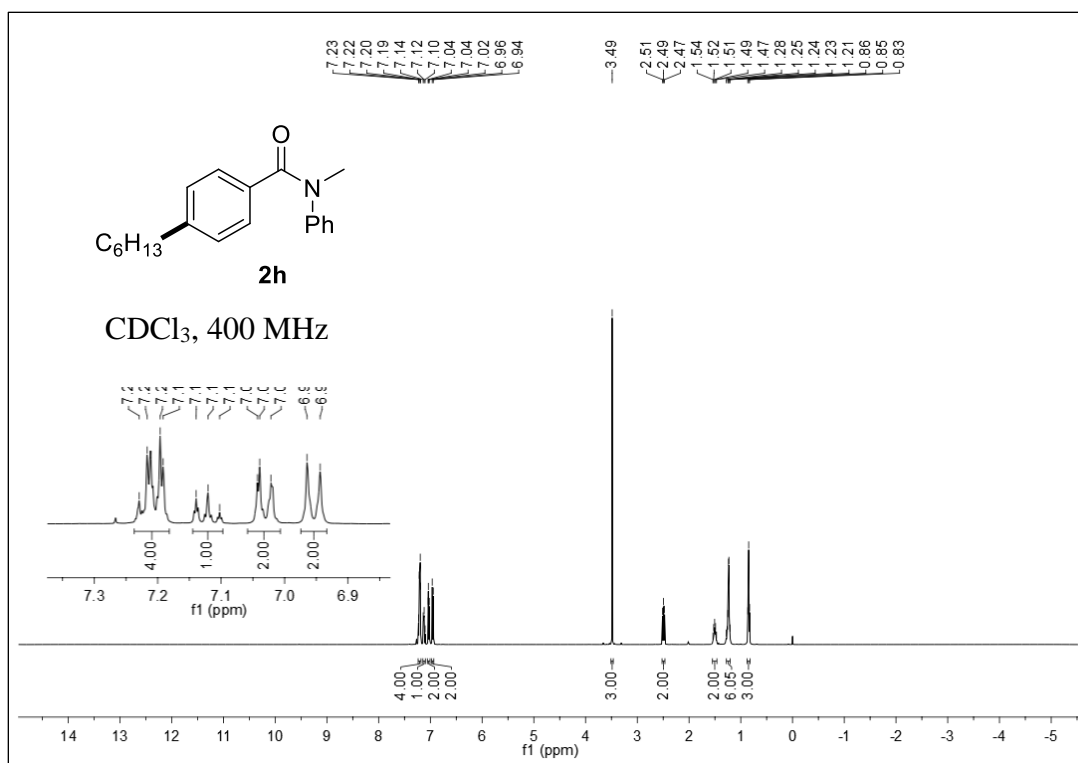


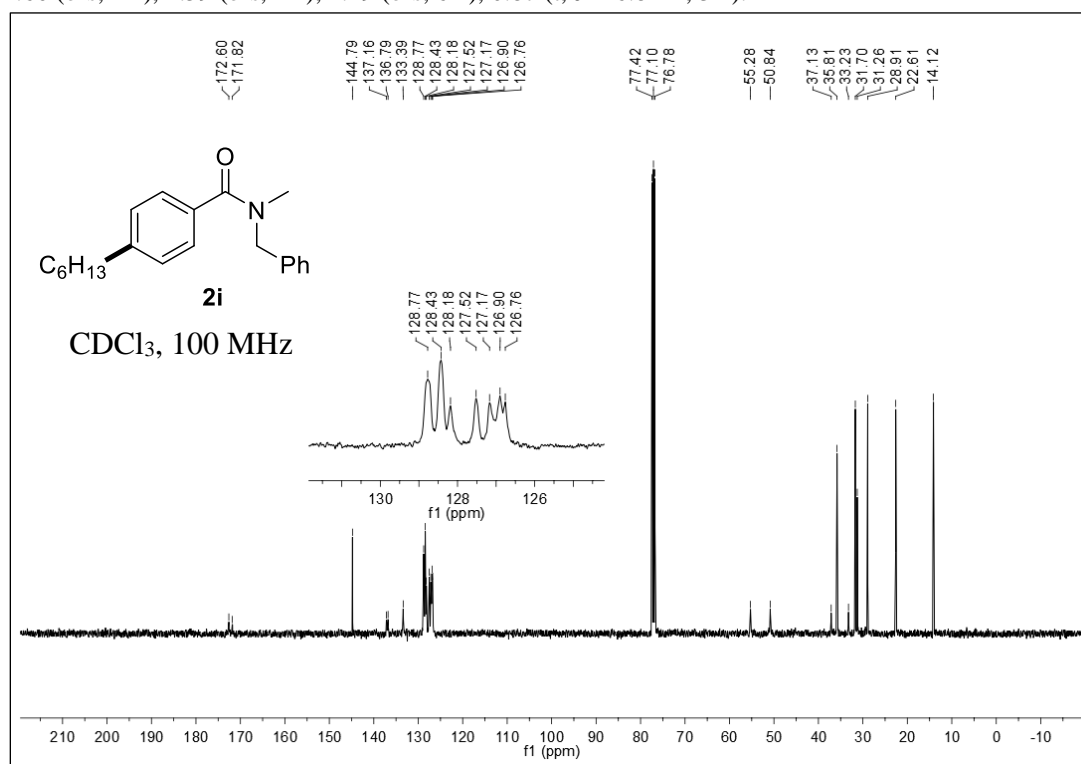
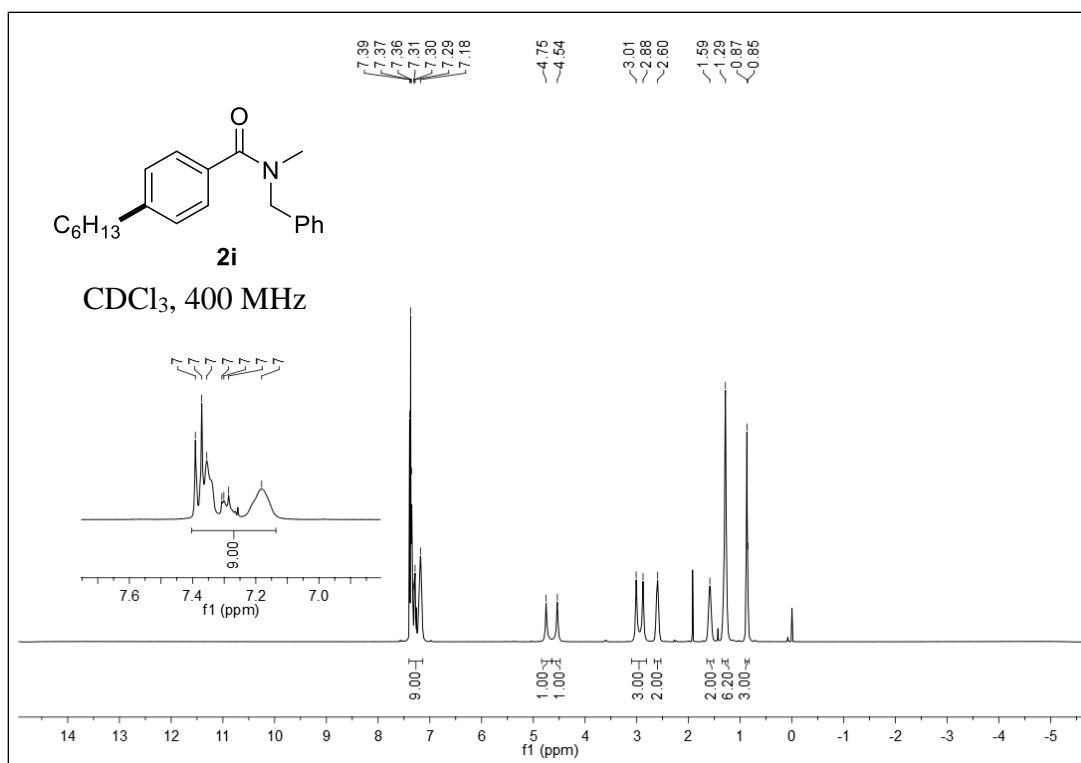


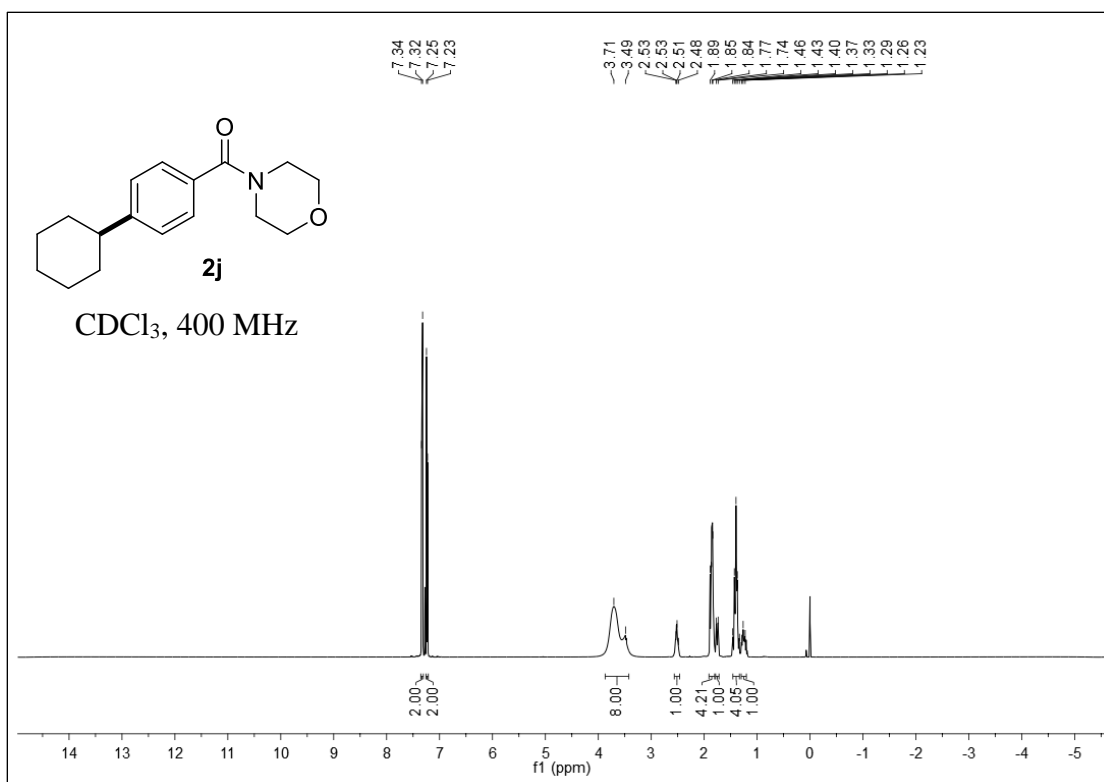
^1H NMR (400 MHz, CDCl_3) δ 7.22 (d, J = 8.2 Hz, 2H), 7.17 (d, J = 8.3 Hz, 2H), 4.11–3.27 (m, 2H), 2.60 (t, J = 7.7 Hz, 2H), 1.65–1.07 (m, 20 H), 0.88 (t, J = 6.8 Hz, 3H).



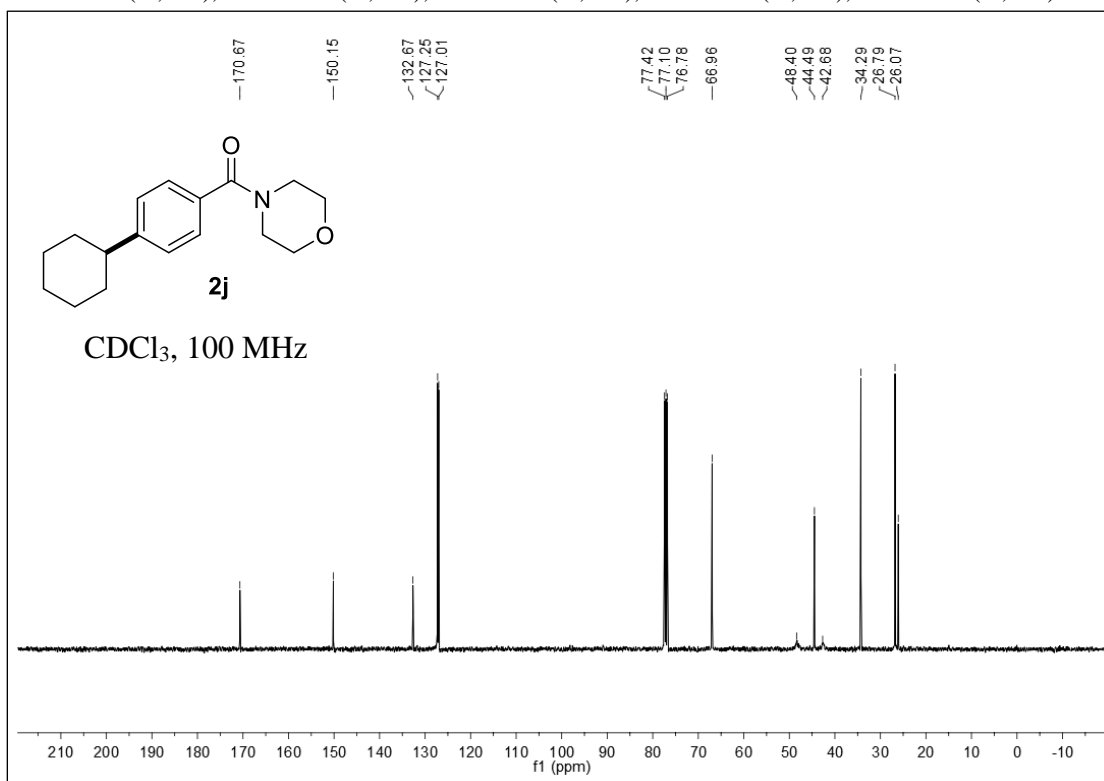
^{13}C NMR (100 MHz, CDCl_3) δ 171.30, 143.60, 136.27, 128.40, 125.70, 50.80, 45.87, 35.82, 31.73, 31.34, 28.98, 22.63, 20.81, 14.13.







¹H NMR (400 MHz, CDCl₃) δ 7.33 (d, *J* = 8.3 Hz, 2H), 7.24 (d, *J* = 8.0 Hz, 2H), 3.89–3.40 (m, 8H), 2.58–2.46 (m, 1H), 1.92–1.80 (m, 4H), 1.80–1.71 (m, 1H), 1.48–1.32 (m, 4H), 1.32–1.17 (m, 1H).



¹³C NMR (100 MHz, CDCl₃) δ 170.67, 150.15, 132.67, 127.25, 127.01, 77.42, 77.10, 76.78, 66.96, 48.40, 44.49, 42.68, 34.29, 26.79, 26.07.

