

Electronic Supplementary Information

One-pot reductive amination of aldehydes with nitroarenes using formic acid as the hydrogen donor and mesoporous graphitic carbon nitride supported AgPd alloy nanoparticles as the heterogeneous catalyst

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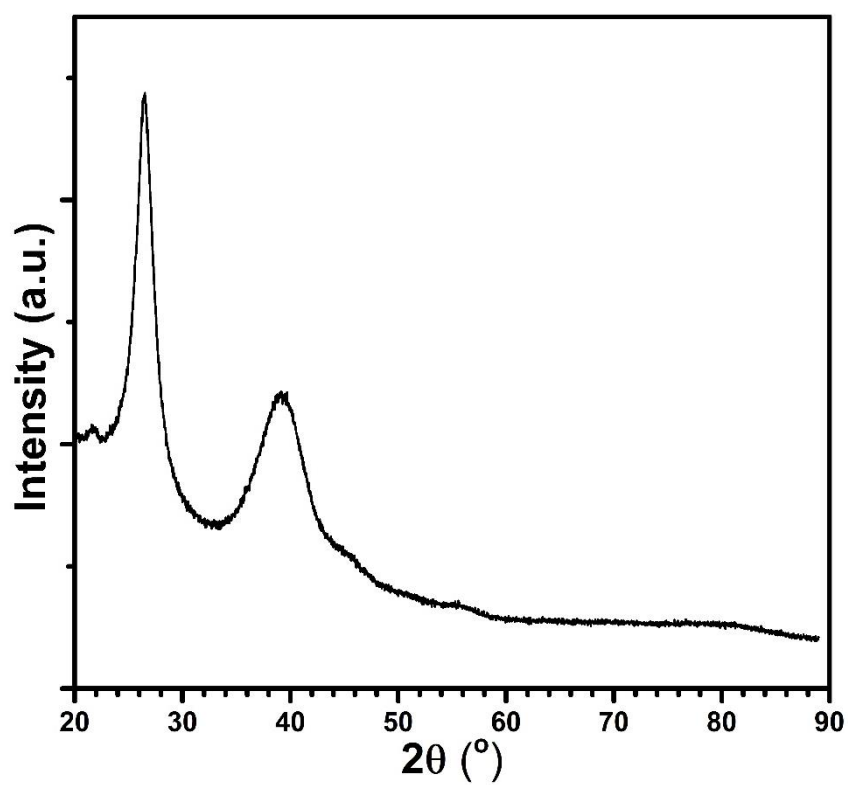


Figure S1. PXRD pattern of mpg-C₃N₄/Ag₄₀Pd₆₀ catalyst after the five-run reusability test

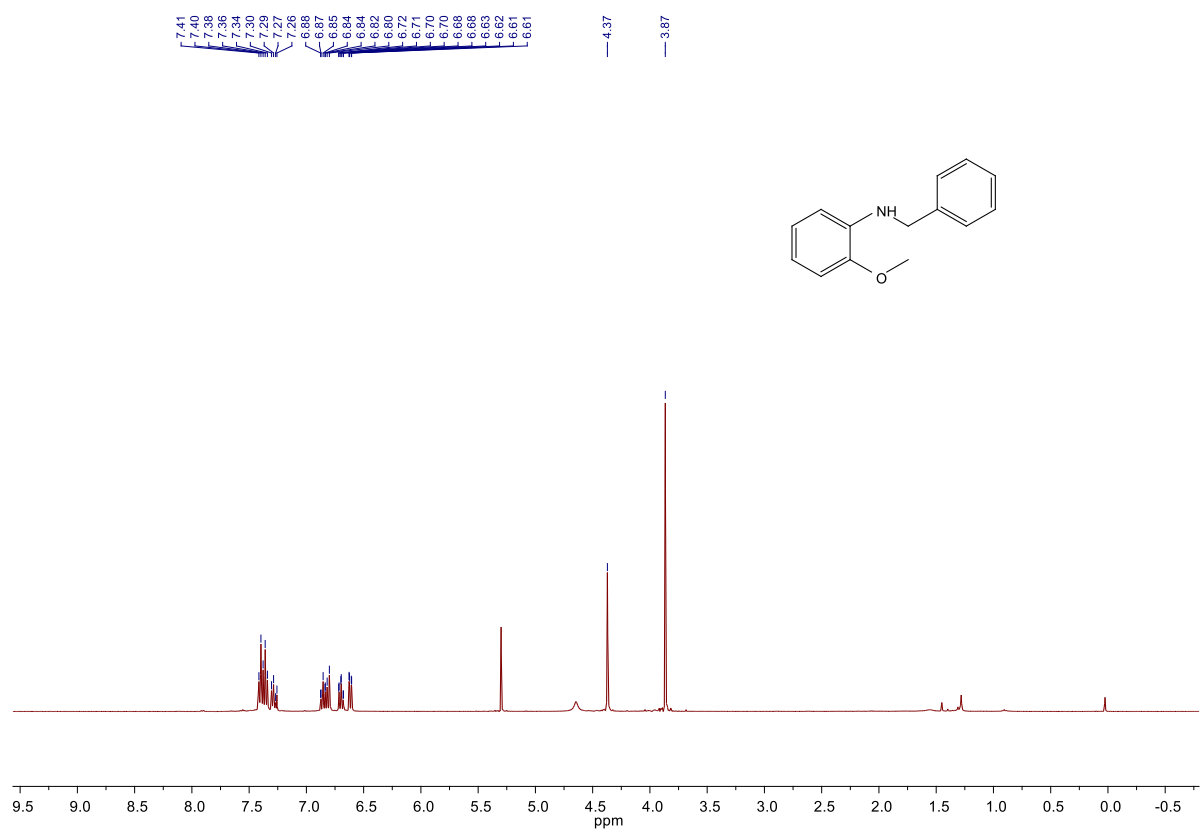


Figure S4. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3c**.

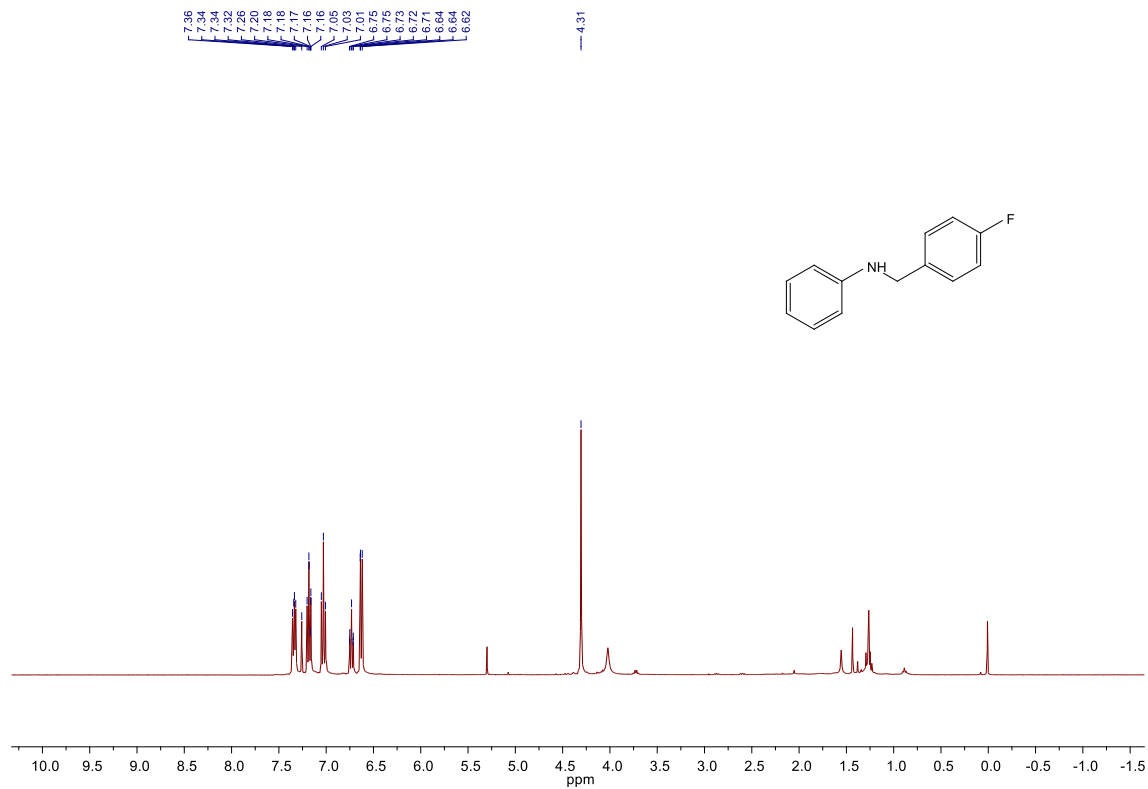


Figure S5. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3d**.

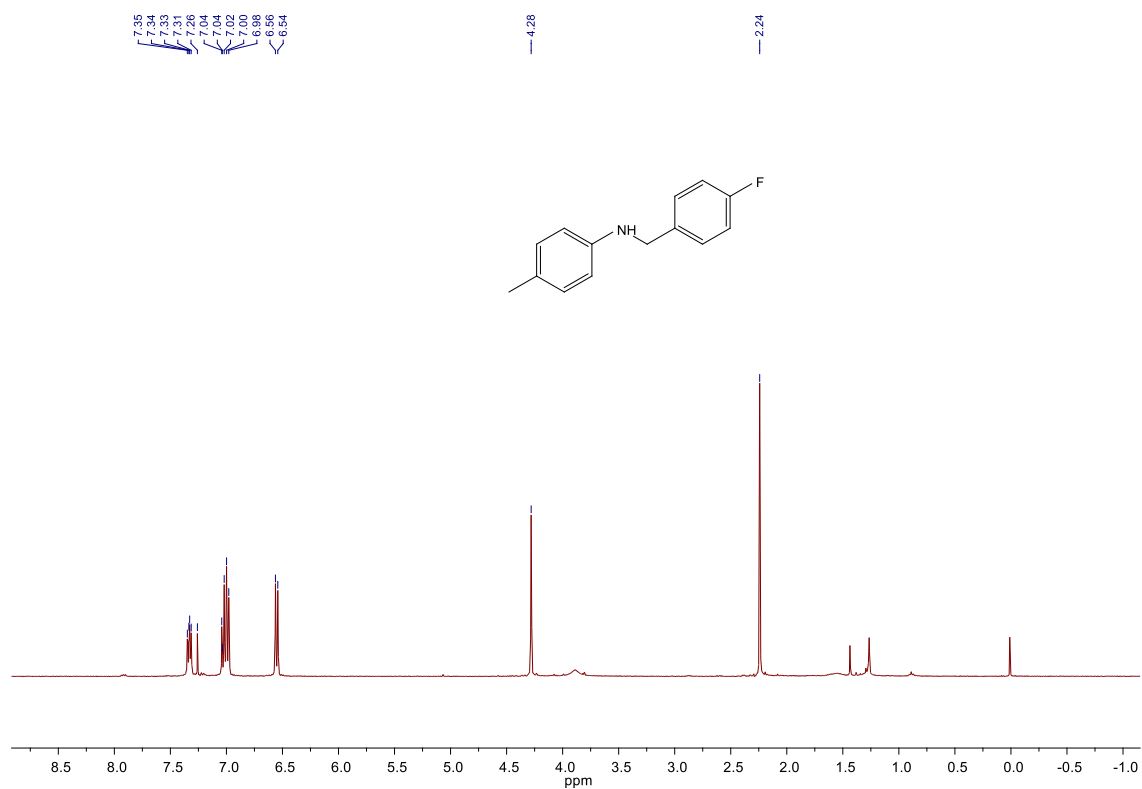


Figure S6. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3e**.

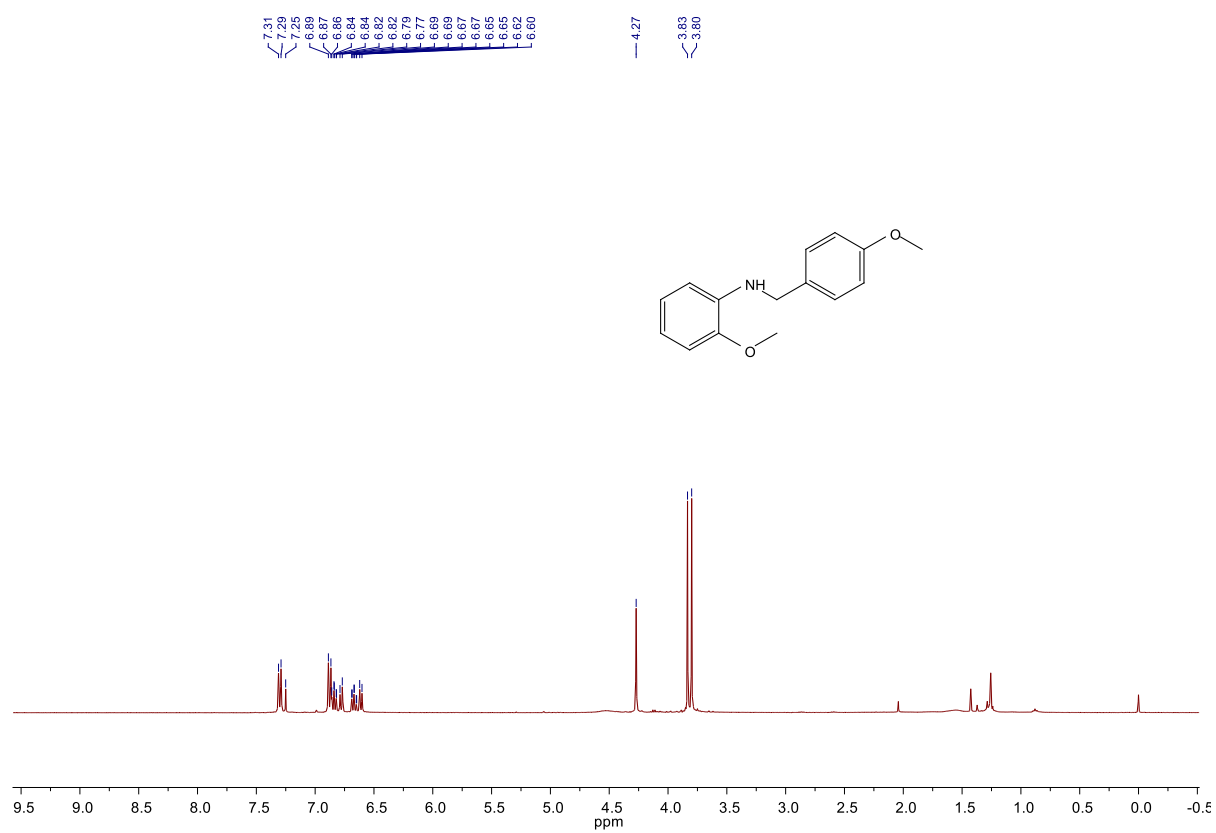


Figure S7. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3f**.

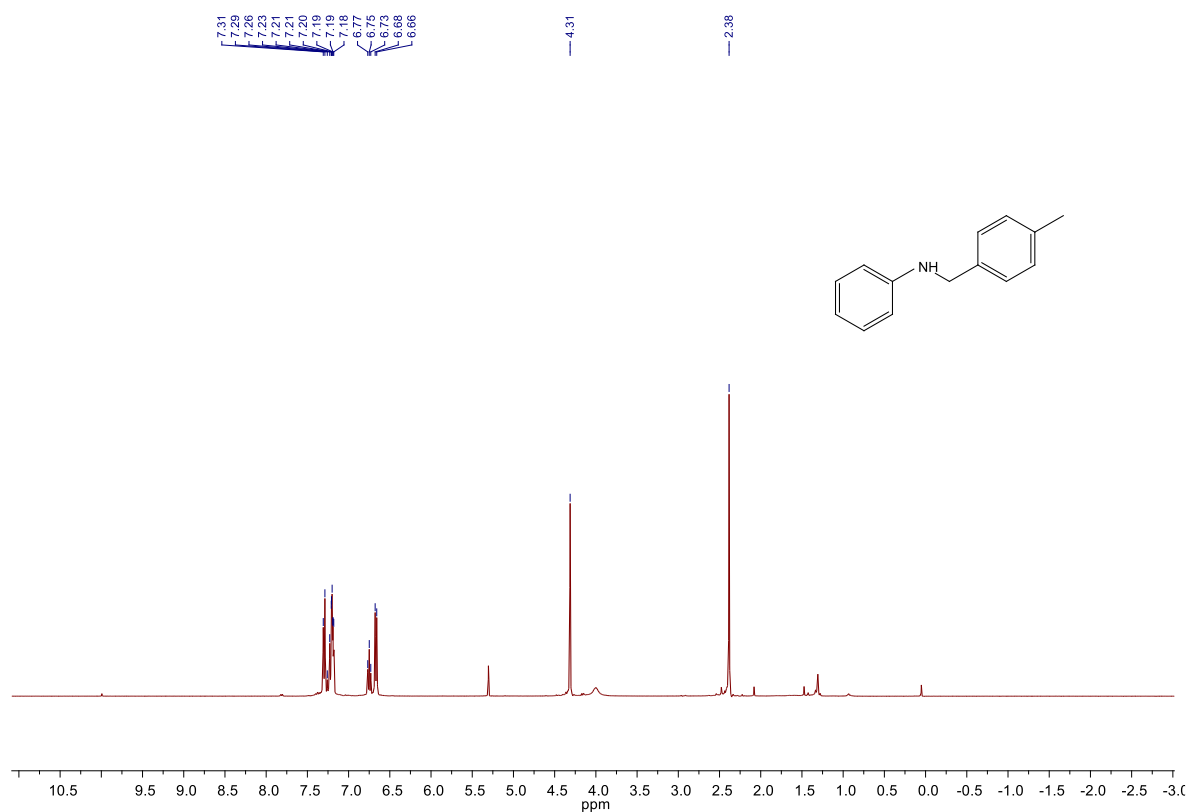


Figure S8. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3g**.

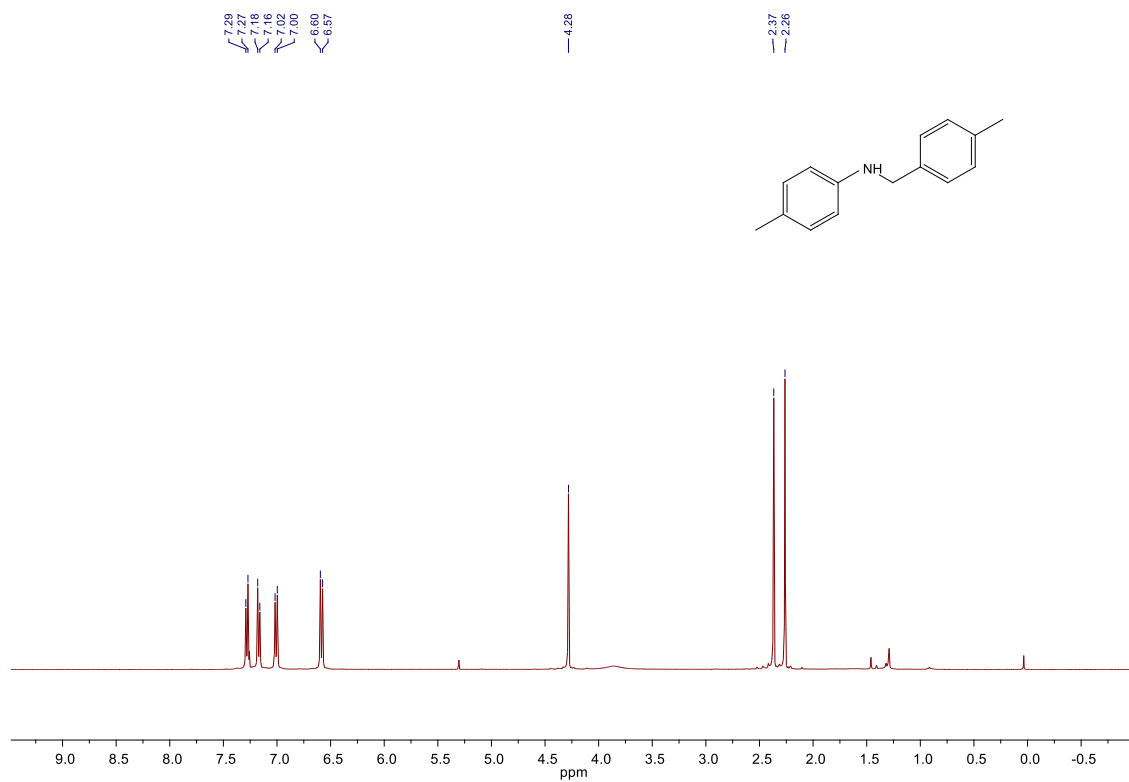


Figure S9. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3h**.

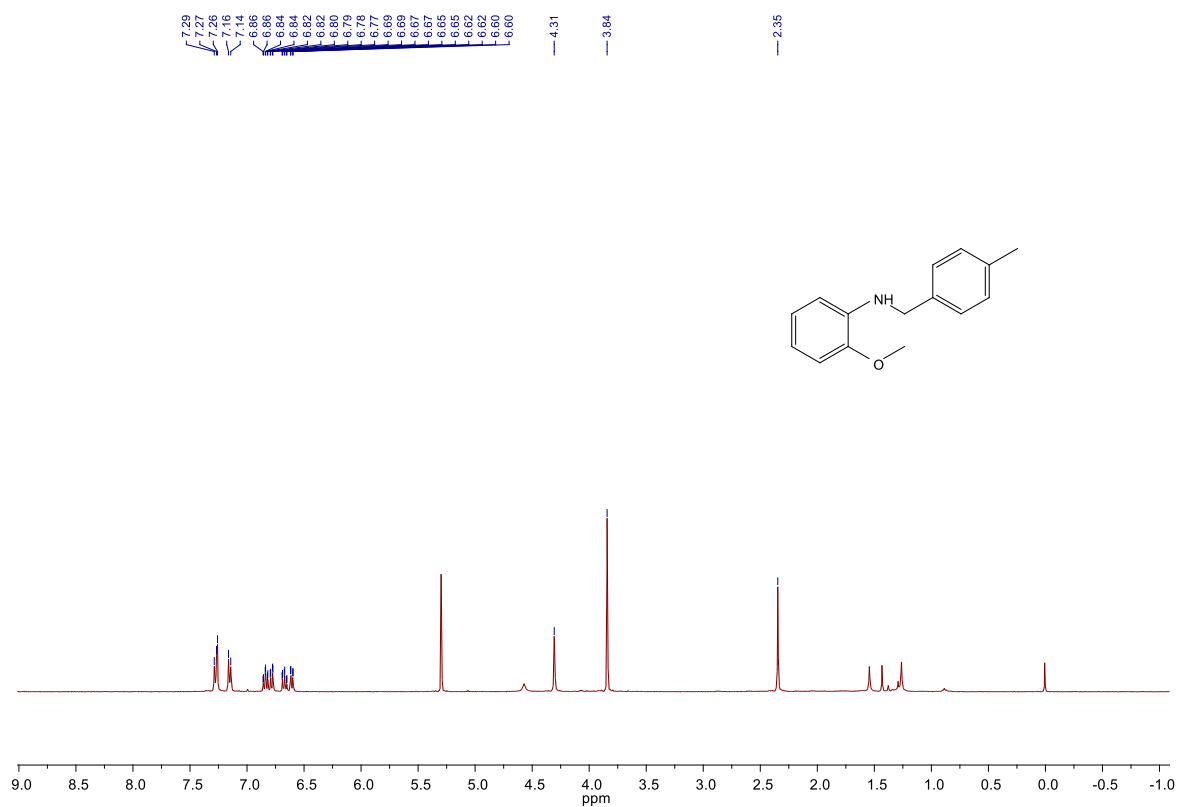


Figure S10. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3i**.

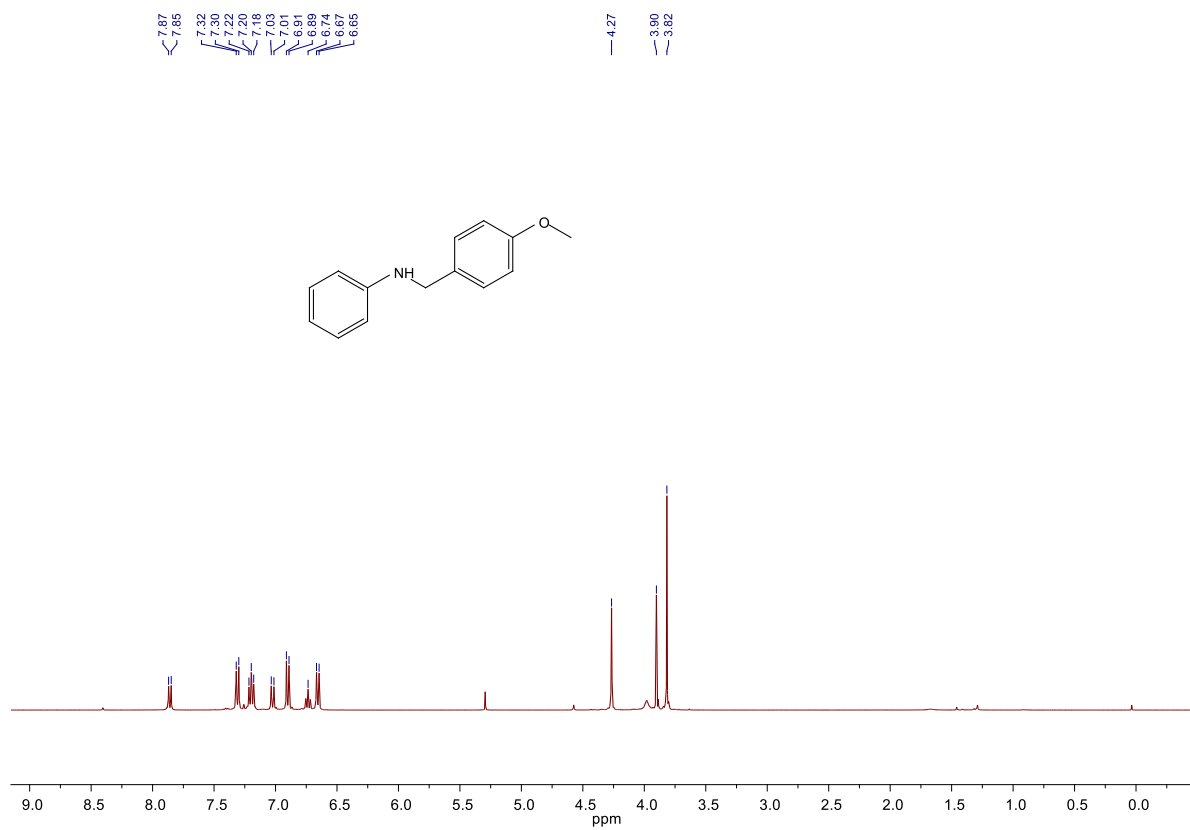


Figure S11. ¹H NMR spectrum (400 MHz, CDCl₃, 298K) of **3j**.

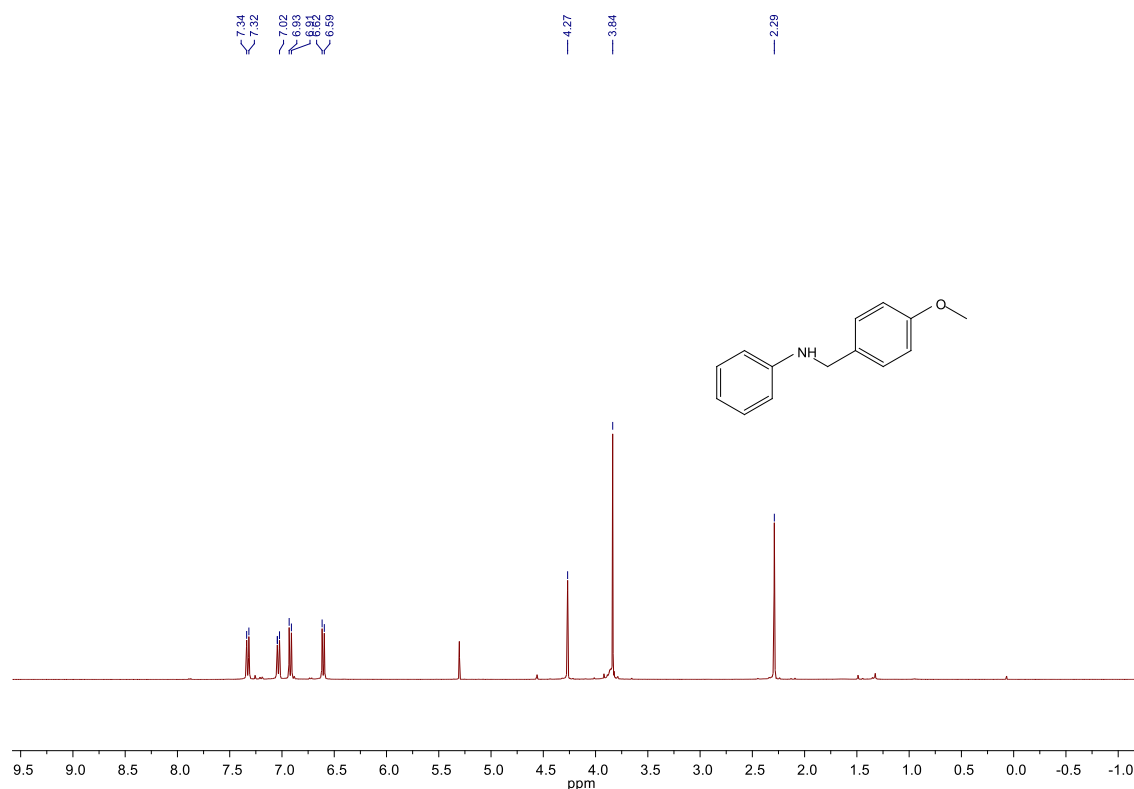
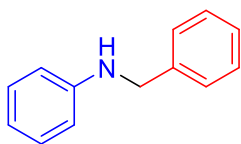
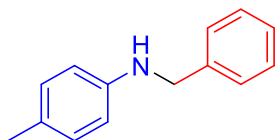


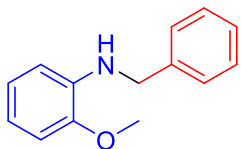
Figure S12. ^1H NMR spectrum (400 MHz, CDCl_3 , 298K) of **3k**.



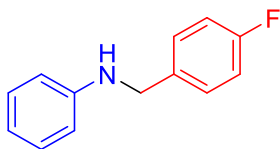
^1H NMR (400 MHz, CDCl_3): δ =7.38-7.24 (m, 5H), 7.19-7.14 (m, 2H), 6.71 (m, 1H), 6.64-6.61 (m, 2H), 4.31 (s, 2H).



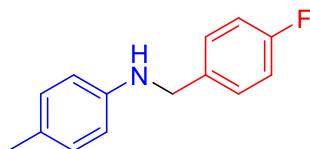
^1H NMR (400 MHz, CDCl_3): δ = 7.38-7.24 (m, 5H), 6.98 (d, J = 8.4 Hz, 2H), 6.56 (d, J = 8.4 Hz, 2H), 4.30 (s, 2H), 2.23 (s, 3H).



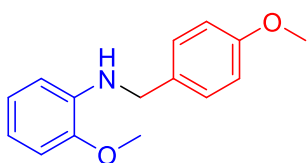
^1H NMR (400 MHz, CDCl_3): δ =7.39-7.23 (m, 5H), 6.85-6.77 (m, 2H), 6.67 (m, 1H), 6.59 (m, 1H), 4.35 (s, 2H), 3.84 (s, 3H).



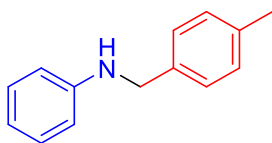
¹H NMR (400 MHz, CDCl₃): δ=7.35-7.31 (m, 2H), 7.19-7.15 (m, 2H), 7.04-6.99 (m, 2H), 6.73 (m, 1H), 6.63-6.61 (m, 2H), 4.30 (s, 2H).



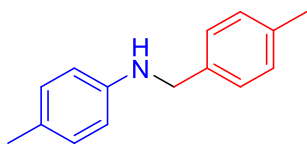
¹H NMR (400 MHz, CDCl₃): δ=7.34-7.30 (m, 2H), 7.03-6.97 (m, 4H), 6.65-6.63 (m, 2H), 4.27 (s, 2H), 2.23 (s, 3H).



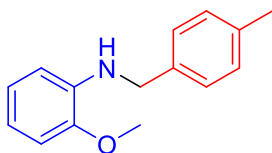
¹H NMR (400 MHz, CDCl₃): δ=7.30 (d, *J* = 8.5 Hz, 2H), 6.88 (d, *J* = 8.5 Hz, 2H), 6.84 (m, 1H), 6.78 (d, *J* = 7.8 Hz, 1H), 6.67 (m, 1H), 6.61 (d, *J* = 7.8 Hz, 1H), 4.27 (s, 2H), 3.83 (s, 3H), 3.80 (s, 3H).



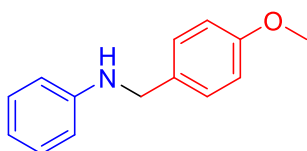
¹H NMR (400 MHz, CDCl₃): δ=7.26-7.24 (m, 2H), 7.18-7.13 (m, 4H), 6.70 (m, 1H), 6.63-6.61 (m, 2H), 4.26 (s, 2H), 2.33 (s, 3H).



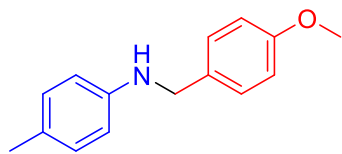
¹H NMR (400 MHz, CDCl₃): δ= 7.28 (d, *J* = 7.9 Hz, 2H), 7.17 (d, *J* = 7.9 Hz, 2H), 7.01 (d, *J* = 8.4 Hz, 2H), 6.59 (d, *J* = 8.4 Hz, 2H), 4.28 (s, 2H), 2.37 (s, 3H), 2.26 (s, 3H).



¹H NMR (400 MHz, CDCl₃): δ= 7.27 (d, *J* = 7.8 Hz, 2H), 7.15 (d, *J* = 7.8 Hz, 2H), 6.83 (td, *J* = 7.6, 1.4 Hz, 1H), 6.78 (dd, *J* = 7.9, 1.3 Hz, 1H), 6.66 (td, *J* = 7.7, 1.4 Hz, 1H), 6.60 (dd, *J* = 7.8, 1.3 Hz, 1H), 4.30 (s, 2H), 3.84 (s, 3H), 2.34 (s, 3H).



¹H NMR (400 MHz, CDCl₃): δ=7.34-7.31 (m, 2H), 7.03-6.97 (m, 5H), 6.55-6.53 (m, 2H), 4.27 (s, 2H), 2.23 (s, 3H).



¹H NMR (400 MHz, CDCl₃): δ=7.35-7.32 (m, 2H), 7.04-7.02 (m, 2H), 6.94-6.88 (m, 2H), 6.62-6.59 (m, 2H), 4.27 (s, 2H), 3.84 (s, 3H), 2.29 (s, 3H).