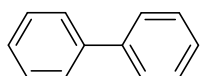


Supporting Information:

Table 2: Entry 1

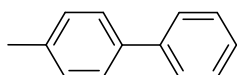


Compound: Biphenyl

Colourless solid, yield: 139 mg, 90%; mp: 69-71°C (lit.^{1,2} mp: 69-70°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.33-7.37(m, 2H, ArH), 7.43-7.47(m, 4H, ArH), 7.59-7.62(m, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 127.15, 127.23, 128.73, 141.24.

Table 2: Entry 2

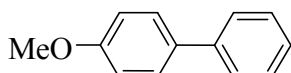


Compound: 4-Methylbiphenyl

Colourless solid, yield: 155 mg, 92%; mp: 47-49°C (lit.¹⁻⁴ mp: 45-49°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 2.51(s, 3H, CH₃), 7.35(d, *J* = 8.0 Hz, 2H, ArH), 7.43(t, *J* = 7.6 Hz, 1H, ArH), 7.54(t, *J* = 7.6 Hz, 2H, ArH), 7.61(d, *J* = 8.0 Hz, 2H, ArH), 7.69(d, *J* = 7.6 Hz, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 21.04, 126.91, 126.94, 127.11, 128.66, 129.44, 136.92, 138.31, 141.11.

Table 2: Entry 3

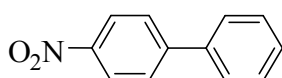


Compound: 4-Methoxybiphenyl

Colourless solid, yield: 164 mg, 89%; mp: 88-90°C (lit.¹ mp: 89-90°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.87(s, 3H, OCH₃), 7.01(d, *J* = 8.8 Hz, 2H, ArH), 7.35(t, *J* = 7.2 Hz, 1H, ArH), 7.46(t, *J* = 7.6 Hz, 2H, ArH), 7.59(d, *J* = 8.8 Hz, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.23, 114.14, 126.60, 126.66, 128.08, 128.67, 133.68, 140.75, 159.09.

Table 2: Entry 4

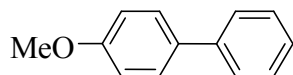


Compound: 4-Nitrobiphenyl

Pale yellow solid, yield: 195 mg, 98%; mp: 112-114°C (lit.^{1-3,5} mp: 113-114°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.41-7.50(m, 3H, ArH), 7.59(d, *J* = 7.2 Hz, 2H, ArH), 7.69(d, *J* = 8.8 Hz, 2H, ArH), 8.25(d, *J* = 8.8 Hz, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 123.97, 127.25, 127.65, 128.82, 129.05, 138.60, 146.94, 147.47.

Table 2: Entry 5

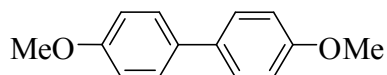


Compound: 4-Methoxybiphenyl

Colourless solid, yield: 175 mg, 95%; mp: 88-90°C (lit.¹ mp: 89-90°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.87(s, 3H, OCH₃), 7.01(d, *J* = 8.8 Hz, 2H, ArH), 7.34(t, *J* = 7.2 Hz, 1H, ArH), 7.45(t, *J* = 7.6 Hz, 2H, ArH), 7.58(t, *J* = 8.8 Hz, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.25, 114.16, 126.61, 126.68, 128.09, 128.68, 133.70, 140.77, 159.11.

Table 2: Entry 6

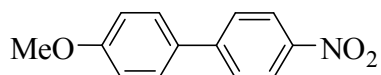


Compound: 4,4'-Dimethoxybiphenyl

Colourless solid, yield: 206 mg, 96%; mp: 175-177°C (lit.^{1,2,6} mp: 177-179°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.83(s, 6H, OCH₃), 7.01(d, *J* = 8.8 Hz, 2H, ArH), 6.94-6.97(m, 4H, ArH), 7.46-7.49(m, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.28, 114.13, 127.68, 133.43, 158.66.

Table 2: Entry 7

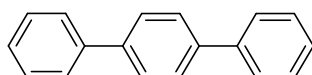


Compound: 4-Methoxy-4'-nitrobiphenyl

Pale yellow solid, yield: 227 mg, 99%; mp: 108-110°C (lit.^{1,2,5} mp: 105-107°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.84(s, 3H, OCH₃), 6.96-7.00(m, 2H, ArH), 7.52-7.56(m, 2H, ArH), 7.62-7.66(m, 2H, ArH), 8.19-8.23(m, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.30, 114.46, 124.01, 126.90, 128.44, 130.83, 146.32, 147.03, 160.31.

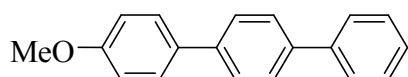
Table 2: Entry 8



Compound:

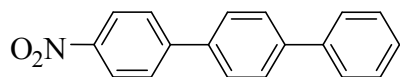
Colourless solid, yield: 210 mg, 91%; mp: 207-209°C (lit.^{1,7} mp: 109-210°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.33-7.37(m, 2H, ArH), 7.43-7.47(m, 4H, ArH), 7.63-7.65(m, 4H, ArH), 7.67(s, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 127.03, 127.33, 127.48, 128.80, 140.11, 140.70.

Table 2: Entry 9**Compound:**

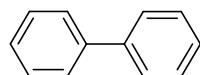
Colourless solid, yield: 229 mg, 88%; mp: 237-239°C

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.85(s, 3H, OCH₃), 6.97-6.99(d, *J* = 8.4 Hz, 2H, ArH), 7.34(t, *J* = 7.2 Hz, 1H, ArH), 7.44(t, *J* = 7.2 Hz, 2H, ArH), 7.56(d, *J* = 8.0 Hz, 2H, ArH), 7.62-7.65(m, 6H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.34, 114.25, 126.98, 127.02, 127.22, 127.44, 128.04, 128.78, 133.20, 139.48, 139.72, 140.76, 159.22.

Table 2: Entry 10**Compound:**

Pale yellow solid, yield: 262 mg, 95%; mp: 220-222°C

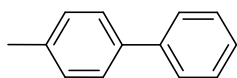
¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.36-7.40(m, 1H, ArH), 7.44-7.48(m, 2H, ArH), 7.62-7.64(m, 2H, ArH), 7.68-7.73(m, 4H, ArH), 7.75-7.79(m, 2H, ArH), 8.29-8.31(m, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 124.18, 127.07, 127.61, 127.77, 127.80, 127.83, 128.93, 137.50, 140.10, 141.81, 147.04, 147.09.

Table 2: Entry 11**Compound: Biphenyl**

Colourless solid, yield: 123 mg, 80%; mp: 69-71°C (lit.^{1,2} mp: 69-70°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.33-7.37(m, 2H, ArH), 7.43-7.47(m, 4H, ArH), 7.59-7.62(m, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 127.15, 127.23, 128.73, 141.22.

Table 2: Entry 12

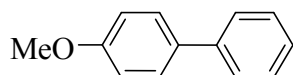


Compound: 4-Methylbiphenyl

Colourless solid, yield: 131 mg, 78%; mp: 47-49°C (lit.¹⁻⁴ mp: 45-49°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 2.56(s, 3H, CH₃), 7.40(d, *J* = 8.0 Hz, 2H, ArH), 7.49(t, *J* = 7.6 Hz, 1H, ArH), 7.57-7.61(m, 2H, ArH), 7.67(d, *J* = 8.0 Hz, 2H, ArH), 7.76-7.78(m, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 21.02, 126.90, 126.93, 127.09, 128.66, 129.43, 136.89, 138.30, 141.10.

Table 2: Entry 13

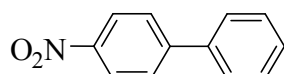


Compound: 4-Methoxybiphenyl

Colourless solid, yield: 140 mg, 76%; mp: 88-90°C (lit.¹ mp: 89-90°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 3.86(s, 3H, OCH₃), 6.99-7.02(m, 2H, ArH), 7.31-7.35(m, 1H, ArH), 7.44(t, *J* = 7.6 Hz, 2H, ArH), 7.54-7.60(m, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 55.26, 114.16, 126.60, 126.68, 128.09, 128.67, 133.71, 140.77, 159.11.

Table 2: Entry 14

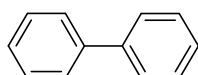


Compound: 4-Nitrobiphenyl

Pale yellow solid, yield: 163 mg, 82%; mp: 112-114°C (lit.^{1-3,5} mp: 113-114°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.43-7.50(m, 3H, ArH), 7.59-7.62(m, 2H, ArH), 7.68(d, *J* = 8.8 Hz, 2H, ArH), 8.24(d, *J* = 8.8 Hz, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 123.97, 127.26, 127.65, 128.83, 129.05, 138.59, 146.92, 147.47.

Table 2: Entry 15

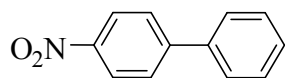


Compound: Biphenyl

Colourless solid, yield: 66 mg, 43%; mp: 69-71°C (lit.^{1,2} mp: 69-70°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.32-7.36(m, 2H, ArH), 7.42-7.46(m, 4H, ArH), 7.58-7.61(m, 4H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 127.13, 127.21, 128.72, 141.20.

Table 2: Entry 16



Compound: 4-Nitrobiphenyl

Pale yellow solid, yield: 112 mg, 55%; mp: 112-114°C (lit.^{1-3,5} mp: 113-114°C)

¹H NMR (400 MHz, CDCl₃, δ, ppm): 7.43-7.50(m, 3H, ArH), 7.59(dd, *J* = 8.0 Hz, 2H, ArH), 7.69(dd, *J* = 2.0, 6.8 Hz, 2H, ArH), 8.25(dd, *J* = 2.0, 6.8 Hz, 2H, ArH); **¹³C NMR (100 MHz, CDCl₃, δ, ppm):** 123.97, 127.26, 127.66, 128.83, 129.06, 138.59, 146.93, 147.47.

References:

1. J. -F. Wei, J. Jiao, J. -J. Feng, J. Lv, X. -R. Zhang, X. -Y. Shi, Z. -G. Chen, *J. Org. Chem.*, 2009, **74**, 6283–6286.
2. L. Liu, Y. Zhang, Y. Wang, *J. Org. Chem.*, 2005, **70**, 6122–6125.
3. L. Liu, Y. Zhang, B. Xin, *J. Org. Chem.*, 2006, **71**, 3994–3997.
4. G. A. Molander, S. L. J. Trice, S. M. Kennedy, *J. Org. Chem.*, 2012, **77**, 8678–8688.
5. M. L. N. Rao, D. N. Jadhav, D. Banerjee, *Tetrahedron*, 2008, **64**, 5762–5772.
6. J. V. Kingston, J. G. Verkade, *J. Org. Chem.*, 2007, **72**, 2816–2822.
7. B. J. Gallon, R. W. Kojima, R. B. Kaner, P. L. Diaconescu, *Angew. Chem.*, 2007, **119**, 7389–7392; see also: *Angew. Chem., Int. Ed.*, 2007, **46**, 7251–7254.