

**An air stable and efficient palladium catalyst for Suzuki-Miyaura cross
coupling reaction at room temperature**

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Spectral data of some products

3-nitro-1,1' biphenyl (Table 2, entry 3)

Yellow solid, mp: 56-60 °C. ¹H-NMR (400 MHz, ppm, CDCl₃): δ=7.34-7.38 (m, 1H), 7.41-7.45 (m, 2H), 7.52-7.57 (m, 3H), 7.84-7.87 (d, 1H, *J*= 7.9 Hz), 8.18 (dd, 1H, *J*₁= 8.1, *J*₂= 0.89), 8.45 (s, 1H). ¹³C-NMR (100 MHz, ppm, CDCl₃): δ=117.3, 118.2, 127.6, 130.1, 136.8, 140.8, 141.2. FT-IR (KBr, cm⁻¹): ν = 3074, 2911, 1575, 1509, 1473, 1342, 1091, 1004, 852, 748 cm⁻¹.

4-nitro-1,1' biphenyl (Table 2, entry 4)

Brown solid, mp: 114-115 °C. ¹H-NMR (400 MHz, ppm, CDCl₃) δ = 8.28-8.36 (dd, 2H), 7.58-7.72 (dd, 2H, ³*J*= 10.4 Hz), 6.64-7.71 (m, 2H, ³*J*= 7.6 Hz), 7.50-7.53 (m, 2H, ³*J*= 9.2 HZ), 7.33-

7.49 (m, 1H). ^{13}C -NMR (100 MHz, ppm, CDCl_3): δ = 118.3, 126.1, 127.8, 129.4, 129.5, 134.2, 140.7, 140.9. FT-IR (KBr cm^{-1}): ν = 3076, 1595, 1541, 1347, 1105, 854, 741, 700 cm^{-1} .

4-acetyl-1,1' biphenyl (Table 2, entry 16)

White solid, mp:116-118 $^{\circ}\text{C}$. ^1H -NMR (400 MHz, ppm, CDCl_3) δ = 2.56 (s, 3H), 7.31-7.35 (m, 1H), 7.38-7.41 (m, 2H), 7.54-7.56 (m, 2H),7.60-7.62 (d, 2H, J = 8.4 Hz), 7.95-7.97 (d, 2H, J = 8.4). 27.4, 127.5, 127.7, 130.0, 130.1, 130.2, 138.3, 140.9, 143.2, 196.8. FT-IR (KBr cm^{-1}): ν = 3069, 2994, 2946, 1940, 1716, 1605, 1437, 1403, 1288, 1268, 1111, 1004, 856, 751, 699 cm^{-1} .

4-phenyl chlorobenzene (Table 2, entry 19)

mp: 75-76 $^{\circ}\text{C}$. ^1H -NMR (400 MHz, ppm, CDCl_3) δ = 7.38-7.56 (9H, m). ^{13}C -NMR (100 MHz, ppm, CDCl_3): δ =128.0, 129.1, 129.2, 130.3, 136.6, 140.1, 141.2. FT-IR (KBr cm^{-1}) ν = 3341, 1592, 1478, 1449, 1399, 1098, 1004, 832, 758, 688 cm^{-1} .