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Supporting Information**SUPPORT
INFORMAT****Palladium-Catalyzed Amination of Aryl Bromides with Hindered N-Alkyl
Substituted Anilines Using Palladium(I) Tri-*tert*-Butylphosphine Bromide Dimer**

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Data for selected compounds:

3c: ^1H NMR (CDCl_3 , 300 MHz): δ 7.20-6.94 (m, 10H), 1.40 (s, 9H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 148.9, 128.9, 127.1, 122.5, 56.0, 30.5; MS (APCI): m/z 226.0 (MH^+).

4a: ^1H NMR (CDCl_3 , 300 MHz): δ 7.32-6.89 (m, 6H), 6.47-6.30 (m, 3H), 3.80 (m, 1H), 3.72 (s, 3H), 2.00 (m, 2H), 1.78 (m, 2H), 1.61 (m, 1H), 1.54-1.26 (m, 3H), 1.14-0.97 (m, 2H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 160.5, 148.4, 145.3, 129.6, 129.2, 125.2, 122.9, 113.2, 106.5, 105.0, 56.8, 55.1, 31.8, 26.2, 25.8; MS (ESI): m/z 282.1 (MH^+).

4b: ^1H NMR (CDCl_3 , 300 MHz): δ 7.31-6.91 (m, 6H), 6.48-6.33 (m, 3H), 4.30 (sep, 1H, J = 6.6 Hz), 3.72 (s, 3H), 1.14 (d, 6H, J = 6.6 Hz); ^{13}C NMR (CDCl_3 , 75 MHz): δ 160.9, 148.8, 145.5, 130.1, 129.6, 125.7, 123.4, 113.8, 107.1, 105.7, 55.5, 48.3, 21.5; MS (ESI): m/z 242.1 (MH^+).

4c: ^1H NMR (CDCl_3 , 300 MHz): δ 7.25-7.00 (m, 6H), 6.56-6.47 (m, 3H), 3.70 (s, 3H), 1.41 (s, 9H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 159.8, 149.8, 147.9, 128.8, 128.6, 127.6, 122.9, 118.0, 111.5, 106.1, 55.6, 55.0, 30.0; MS (APCI): m/z 256.0 (MH^+).

5a: ^1H NMR (CDCl_3 , 300 MHz): δ 7.21-6.62 (m, 9H), 3.79 (tt, 1H, J = 11.7, 3.4 Hz), 2.00 (m, 2H), 1.82 (m, 2H), 1.77-1.36 (m, 3H), 1.15-0.98 (m, 3H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 160.5 (d, J = 241.9 Hz), 148.6, 141.3, 129.8, 129.6, 119.4, 118.2, 116.5 (d, J = 21.7 Hz), 57.2, 32.3, 26.7, 26.3; MS (ESI): m/z 270.1 (MH^+).

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5b: ^1H NMR (CDCl_3 , 300 MHz): δ 7.23-6.65 (m, 9H), 4.29 (sep, 1H, $J = 6.6$ Hz), 1.13 (d, 6H, $J = 6.6$ Hz); ^{13}C NMR (CDCl_3 , 75 MHz): δ 160.0 (d, $J = 241.9$ Hz), 148.0, 140.5, 129.3, 129.0, 119.0, 117.8, 116.0 (d, $J = 21.7$ Hz), 47.8, 20.9; MS (ESI): m/z 230.2 (MH^+).

5c: ^1H NMR (CDCl_3 , 300 MHz): δ 7.18-6.85 (m, 9H), 1.37 (s, 9H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 159.6 (d, $J = 241.6$ Hz), 148.9, 144.2, 130.7, 128.4, 124.7, 120.8, 115.3 (d, $J = 22.3$ Hz), 55.6, 29.9; MS (APCI): m/z 244.0 (MH^+).

6a: ^1H NMR (CDCl_3 , 300 MHz): δ 7.27-7.09 (m, 6H), 6.64-6.40 (m, 3H), 3.86 (m, 1H), 2.11 (s, 3H), 2.02 (m, 2H), 1.78 (m, 2H), 1.64 (m, 1H), 1.46-1.03 (m, 5H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 147.9, 141.8, 139.4, 131.8, 131.2, 129.0, 126.9, 115.8, 112.6, 57.3, 31.5, 26.2, 25.9, 18.5; MS (ESI): m/z 266.1 (MH^+).

6b: ^1H NMR (CDCl_3 , 300 MHz): δ 7.32-7.07 (m, 6H), 6.65-6.42 (m, 3H), 4.33 (sep, 1H, $J = 6.6$ Hz), 2.12 (s, 3H), 1.16 (d, 6H, $J = 6.6$ Hz); ^{13}C NMR (CDCl_3 , 75 MHz): δ 148.5, 142.1, 139.9, 132.0, 131.7, 129.5, 127.5, 127.4, 116.4, 113.3, 48.7, 21.4, 18.8; MS (APCI): m/z 226.2 (MH^+).

6c: ^1H NMR (CDCl_3 , 300 MHz): δ 7.26-7.06 (m, 6H), 6.66-6.62 (m, 3H), 2.22 (s, 3H), 1.43 (s, 9H); ^{13}C NMR (CDCl_3 , 75 MHz): δ 147.6, 145.4, 139.4, 131.3, 130.8, 128.3, 126.9, 126.6, 117.7, 116.5, 56.1, 29.8, 18.7; MS (APCI): m/z 244.0 (MH^+).