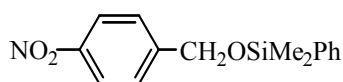


[MoO₂Cl₂] as catalyst for hydrosilylation of aldehydes and ketones

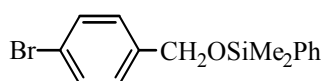
Ana C. Fernandes, Ricardo Fernandes, Carlos C. Romão and Beatriz Royo*

*Instituto de Tecnologia Química e Biológica da Universidade Nova de Lisboa, Quinta
do Marquês, EAN, Apt. 127, 2781-901 Oeiras, Portugal.*

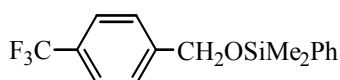
Electronic Supplementary Information: NMR & IR Data



Dimethyl-(4-nitro-benzyloxy)-phenyl-silane. ¹H NMR (300 MHz, CDCl₃) δ 8.18-8.16 (m, 2H), 7.60-7.55 (m, 2H), 7.47-7.38 (m, 3H), 7.10-7.09 (m, 2H), 4.76 (s, 2H), 0.45 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 148.7, 147.5, 137.1, 133.8, 130.2, 128.4, 127.2, 123.9, 64.2, -1.5; IR (neat) cm⁻¹: 2958, 1520, 1344, 1064, 824, 710, 560, 470.

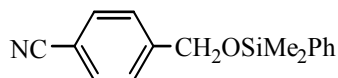


(4-Bromo-benzyloxy)-dimethyl-phenyl-silane. ¹H NMR (300 MHz, CDCl₃) δ 7.58-7.55 (m, 2H), 7.45-7.40 (m, 5H), 7.22-7.18 (m, 2H), 4.64 (s, 2H), 0.42 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 139.8, 137.2, 133.6, 131.4, 130.1, 128.5, 128.0, 120.9, 64.5, -1.7; IR (neat) cm⁻¹: 2959, 1594, 1487, 1251, 1069, 830, 700, 470.

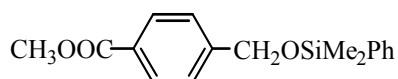


Dimethyl-phenyl-(4-trifluoromethyl-benzyloxy)-silane. ¹H NMR (300 MHz, CDCl₃) δ 7.80-7.78 (m, 2H), 7.64-7.52 (m, 7H), 4.76 (s, 2H), 0.57 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 139.8, 138.2, 137.5, 133.8, 131.0, 130.3, 127.9, 127.5, 123.4, 68.6, -1.5; IR

(neat) cm^{-1} : 3070, 2959, 2864, 1621, 1428, 1325, 1257, 1120, 1066, 829, 795, 700, 650, 593, 470.



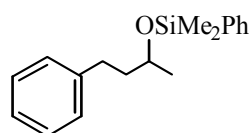
4-[(Dimethyl-phenyl-silyloxy)-methyl]-benzonitrile. ^1H NMR (300 MHz, CDCl_3) δ 7.72-7.66 (m, 2H), 7.53-7.45 (m, 7H), 4.85 (s, 2H), 0.45 (s, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 151.2, 137.7, 133.8, 132.0, 130.6, 128.3, 127.7, 126.2, 119.2, 70.8, -1.3; IR (neat) cm^{-1} : 2975, 1610, 1253, 820, 710, 460.



Methyl-[4-(dimethyl-phenyl-silyloxy)-methyl]-benzoate. ^1H NMR (300 MHz, CDCl_3) δ 8.13-8.11 (m, 2H), 7.63-7.60 (m, 2H), 7.49-7.41 (m, 5H), 4.65 (s, 2H), 3.93 (s, 3H), 0.43 (s, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 165.1, 139.5, 137.6, 135.3, 134.2, 131.2, 130.8, 129.0, 127.6, 64.2, 53.6, -1.6; IR (neat) cm^{-1} : 3069, 2959, 1721, 1428, 1255, 1119, 1064, 831, 790, 699, 650, 470.

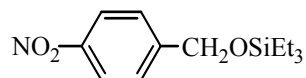


(4-tert-Butyl-cyclohexyloxy)-dimethyl-phenyl-silane. ^1H NMR (300 MHz, CDCl_3) δ 7.66-7.63 (m, 2H), 7.43-7.42 (m, 3H), 3.60 (m, 1H), 1.90-1.88 (m, 2H), 1.75-1.70 (m, 2H), 1.32-1.10 (m, 2H), 1.05-0.92 (m, 3H), 0.89 (s, 9H), 0.38 (s, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 138.7, 133.8, 129.4, 127.7, 72.3, 47.2, 34.8, 34.2, 27.6, 26.1, -1.3; IR (neat) cm^{-1} : 2953, 2862, 1428, 1365, 1255, 1119, 1089, 831, 795, 696, 649, 470.

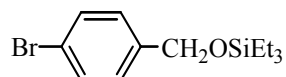


Dimethyl-(1-methyl-3-phenyl-propoxy)-phenyl-silane. ^1H NMR (300 MHz, CDCl_3) δ 7.73-7.50 (m, 2H), 7.51-7.48 (m, 3H), 7.40-7.37 (m, 2H), 7.31-7.27 (m, 3H), 4.05-3.99 (m, 1H), 2.79-2.70 (m, 1H), 2.64-2.61 (m, 1H), 1.95-1.84 (m, 2H), 1.28 (d, J = 6 Hz, 3H), 0.69 (s, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 142.3, 139.7, 137.5, 137.1, 134.3,

130.0, 127.6, 71.9, 69.0, 35.7, 34.8, 23.2, -1.8; IR (neat) cm^{-1} : 2959, 2865, 1452, 1385, 761, 700, 570, 470.



(4-Nitro-benzyloxy)-triethyl-silane. ^1H NMR (300 MHz, CDCl_3) δ 8.17-8.15 (m, 2H), 7.59-7.57 (m, 2H), 4.68 (s, 2H), 0.97 (t, $J = 8$ Hz, 9H), 0.64 (q, $J = 8$ Hz, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 148.9, 147.3, 128.4, 123.7, 65.1, 6.9, 4.5 ; IR (neat) cm^{-1} : 2958, 1520, 1344, 1064, 824, 710.



(4-Bromo-benzyloxy)-triethyl-silane. ^1H NMR (300 MHz, CDCl_3) δ 7.60-7.58 (m, 2H), 7.25-7.20 (m, 2H), 4.65 (s, 2H), 0.99 (t, $J = 8$ Hz, 9H), 0.62 (q, $J = 8$ Hz, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 139.6, 129.8, 128.6, 121.2, 64.1, 6.8, 4.2; IR (neat) cm^{-1} : 2959, 1487, 1251, 1070, 818, 720.