Supporting Information

Catalyst-free silvlation of alcohols and phenols by promoting HMDS in CH₃NO₂ as solvent

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Supplementary Material (ESI) for *Green Chemistry* This journal is © The Royal Society of Chemistry 2009 *Corresponding Author: <u>sungsoo@inha.ac.kr</u>

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General:

In all cases the ¹H NMR (200 MHz) spectra were recorded with Varian Gemini 2000 spectrometer. Chemical shifts are reported in ppm in CDCl₃ with tetramethylsilane as an internal standard. ¹³C NMR data were collected on a Varian Gemini 2000 spectrometer (50 MHz).

General procedure for the silylation of alcohols (phenols):

To a mixture of alcohol (phenol) (1 mmol) and CH_3NO_2 (1 mL), HMDS (1 mmol) were added at rt. The completion of the reaction was monitored with TLC. After the completion of reaction, the reaction mixture was concentrated in vacuo. The viscous mass was subjected to silica gel flash column chromatography to obtain the pure compound.

Table 2, Entry 9



 $δ_{\rm H}$ (200 MHz; CDCl₃; Me₄Si): -0.00 (s, 9H), 3.09 (t, *J*= 7.6 Hz, 2H), 3.64 (t, *J*= 7.6 Hz, 2H), 3.88 (s, 1H), 6.48-6.61 (m, 3H), 7.00-7.08 (m, 2H). $δ_{\rm C}$ (50 MHz; CDCl₃, Me₄Si): 0.5, 45.9, 61.0, 113.2, 117.5, 129.2, 148.3.

Table 2, Entry 15



 $δ_{\rm H}$ (400 MHz; CDCl₃; Me₄Si): 0.15 (s, 9H), 2.09 (s, 3H), 4.75 (s, 2H), 5.18 (s, 2H), 7.25-7.37 (m, 3H), 7.4 (d, *J*= 6.8 Hz, 1H). ¹³C NMR (CDCl₃, 400 MHz) δ -0.4, 20.9, 62.3, 63.8, 127.5, 127.7, 128.47, 129.2, 133.3, 139.2.

Table 2, Entry 16



 $\delta_{\rm H}$ (400 MHz; CDCl₃; Me₄Si): 0.13 (s, 9H), 4.83 (s, 2H), 5.45 (s, 2H), 7.30-7.35 (m, 5 H), 7.43-7.56 (m, 2H), 8.06-8.08 (m, 2H); $\delta_{\rm C}$ (50 MHz; CDCl₃, Me₄Si): -0.41, 62.49, 64.35, 127.57, 128.43, 128.53, 129.17, 129.71, 130.15, 133.07, 133.44, 139.33, 166.33.

Table 2, Entry 17



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 $\delta_{\rm H}$ (400 MHz; CDCl₃; Me₄Si): 0.13 (s, 9H), 0.92 (s, 9H), 4.70 (s, 2H), 4.75 (s, 2H), 7.22-7.24 (m, 2H), 7.36-7.42 (m, 2H); $\delta_{\rm C}$ (50 MHz; CDCl₃, Me₄Si): -5.25, -0.41, 18.40, 25.98, 62.35, 62.77, 126.64, 126.91, 127.03, 127.20, 137.78, 138.46.

Table 3, Entry 7



 $δ_{\rm H}$ (200 MHz; CDCl₃; Me₄Si): 0.02 (s, 3H), 1.59 (d, *J*= 8.2 Hz, 3H), 4.84 (q, *J*= 6.4 Hz, 1H), 7.33-7.45 (m, 3H), 7.48-7.53 (m, 2H). $δ_{\rm C}$ (50 MHz; CDCl₃, Me₄Si): 0.1, 25.4, 59.1, 83.6, 91.5, 123.0, 128.8, 128.3, 128.6, 131.7, 131.7.

Table 3, Entry 8



 $δ_{\rm H}$ (400 MHz; CDCl₃; Me₄Si): 0.14 (s, 9H), 0.79-0.94 (m, 6 H), 1.25- 1.51 (m, 8H), 3.52 (qt, *J*= 12 Hz, 1H), $δ_{\rm C}$ (50 MHz; CDCl₃, Me₄Si): 0.34, 9.93, 13.99, 22.63, 25.35, 30.02, 31.99, 36.89, 73.88.





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