Supporting Information

A novel method for the synthesis of 2-oxazolidinones and 2-imidazolidinones from five-membered cyclic carbonates and β-aminoalcohols or 1,2-diamines

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Experimental section

All reaction flask and solvent were used directly without purification. Flash column chromatography was performed over silica (100-200 mesh). NMR spectra were recorded on a 400-MHz spectrometer. $^{13}$C NMR spectra were obtained with broadband proton decoupling. For spectra recorded in D$_2$O and CDCl$_3$, unless noted, chemical shifts were recorded relative to the internal TMS (tetramethylsilane) reference signal. Thin layer chromatography was performed using Silica.

Typical reaction procedure:

For each reaction, cyclic carbonate (10 mmol), β-aminoalcohols or 1,2-diamines (10 mmol) in DMF (5 ml) and potassium carbonate (0.1 mmol) were charged into a 25ml round-bottomed flask equipped with a magnetic stirrer at 80 °C for 5h. All the products were known compounds and the obtained products were analyzed on a Hewlett-Packard 6890/5973 GC-MS and NMR. Quantitative analyses were carried out over a Agilent 6820 GC and column chromatography on a silica gel (200-300 mesh, eluent: methanol/dichloromethane 1:10).
$^1$H and $^{13}$C NMR spectra of 2-oxazolidinones and 2-imidazolidinones:
Reference: