Synthesis and Study of the Stability of Amidinium/Guanidinium Carbamates of Amines and α-Amino Acids

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SUPPORTING INFORMATION

Figure S1. IR spectra of compound **2** recorded before (black line) and after (red line) exposing sample to air for 30 seconds, showing the increase in the absorptions at 3200-3200 and 1645 cm^{-1}.

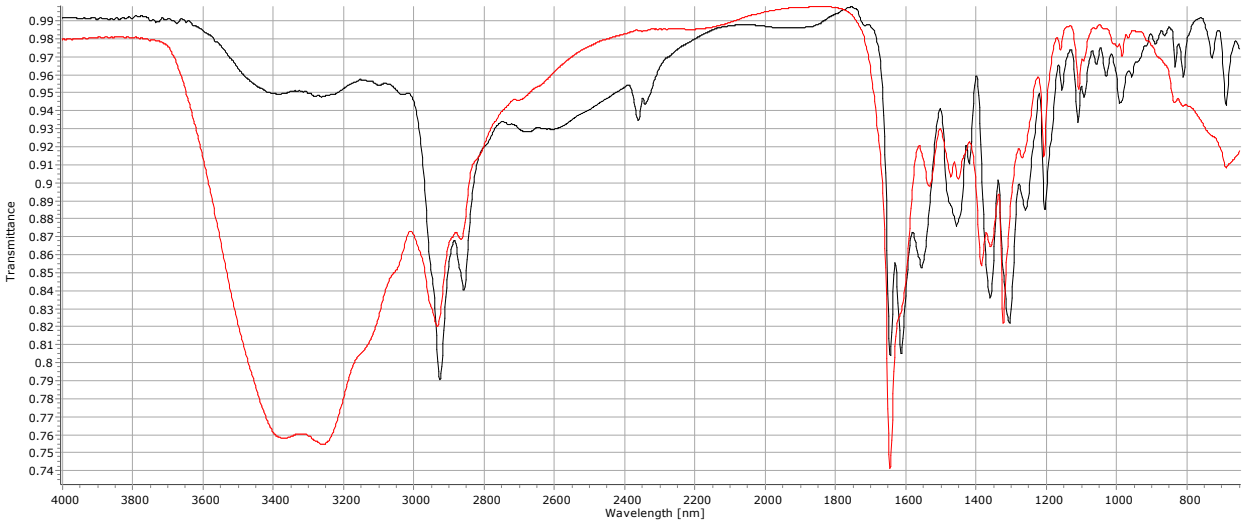

Figure S2. IR spectra of compound **7** recorded before (red line) and after (black line) exposing sample to air for 30 seconds, showing the increase in the absorptions at 3400 and 1650 cm^{-1}.

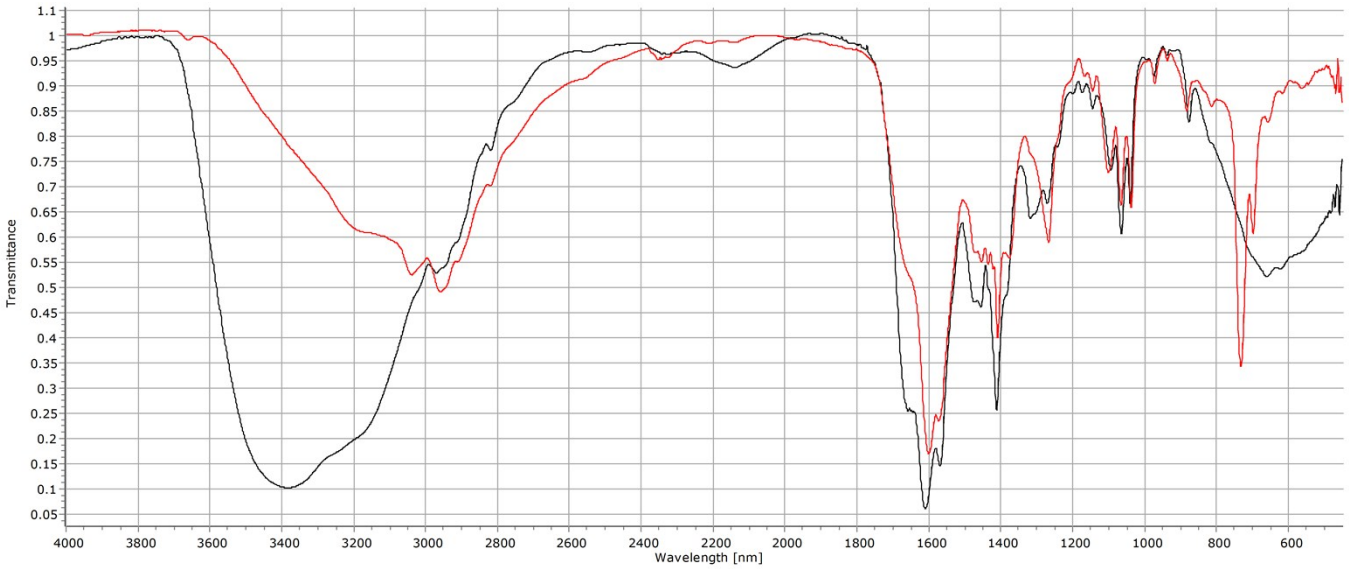

Figure S3. ^{13}C NMR spectrum of compound **2** in $CDCl_3$.

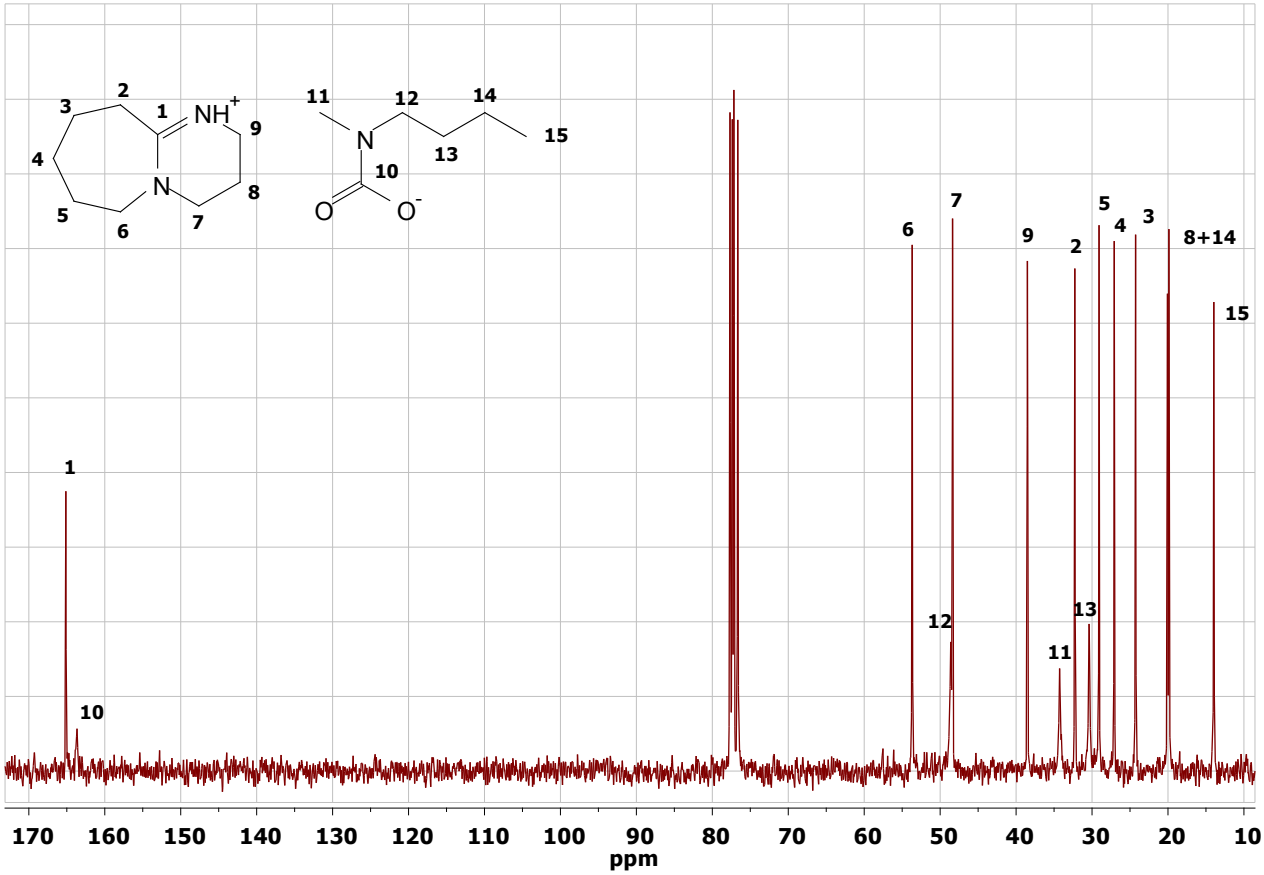

Figure S4. ^{13}C NMR spectrum of compound **4** in $CDCl_3$.

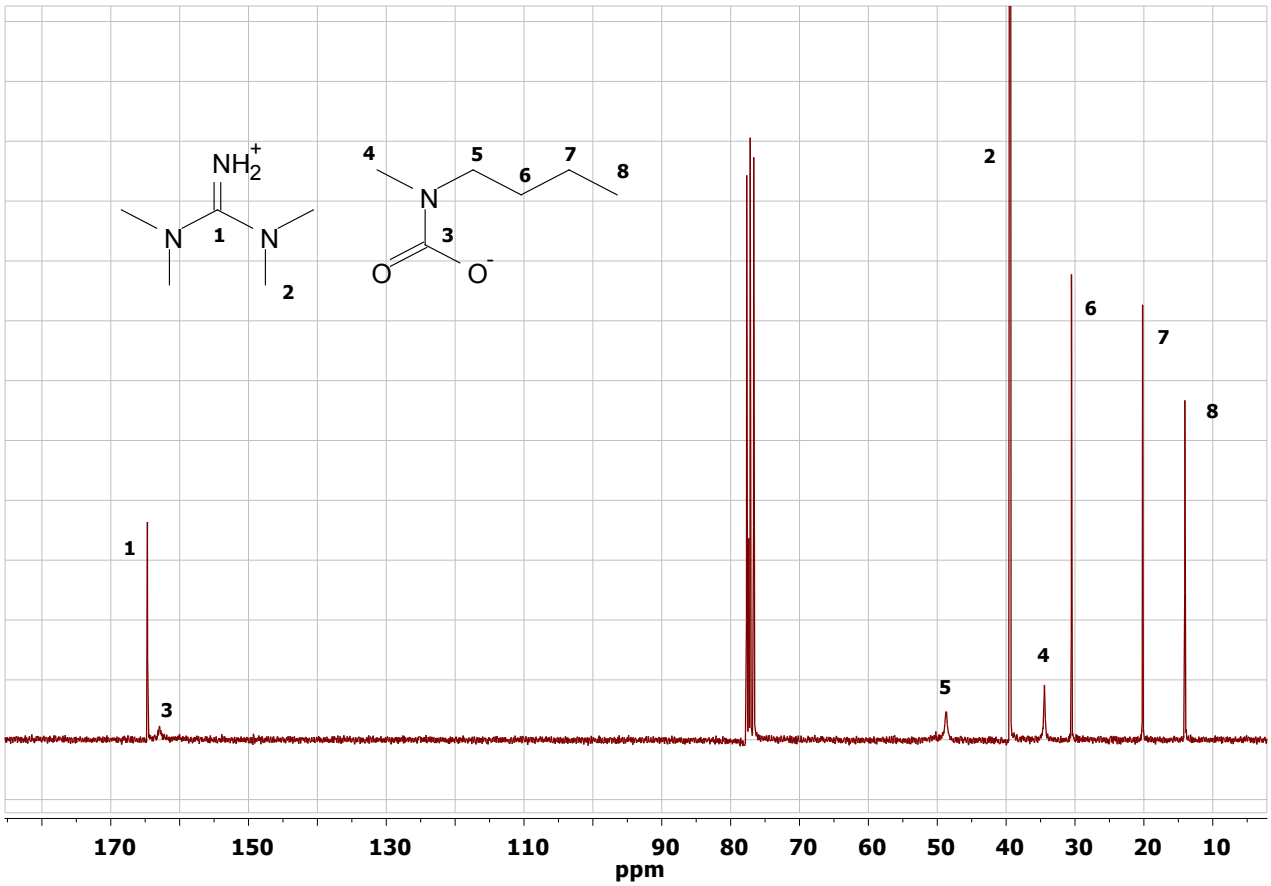

Figure S5. ^{1}H NMR spectrum of compound **2** in $CDCl_3$.

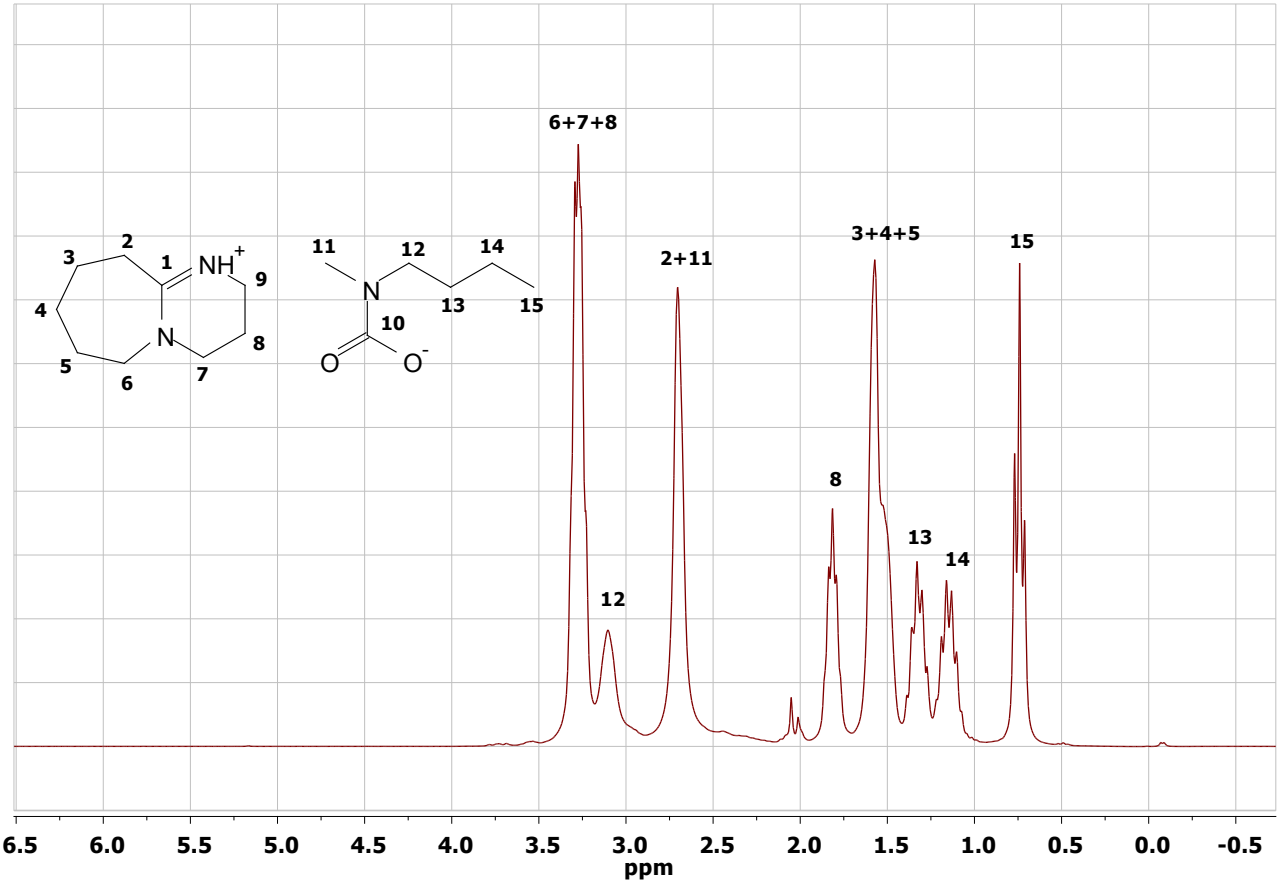

Table S1. pK_a values of TMG, DBU, the amines and α-aminoacids used in this work.

Ammonium cation	pK_a in H_2O	Reference
$Me^nBuNH_2^+$	10.8	P. L. Anelli, M. Brocchetta, S. Canipari, P. Losi, G. Manfredi, C. Tomba and G. Zecchi, *Gazz. Chim. Ital.* 1997, **127**, 135-142.
$^nBuNH_3^+$	10.8	J. W. Bunting and D. Stefanidis, *J. Am. Chem. Soc.* 1990, **112**, 779–786.
$Et_2NH_2^+$	10.9	R. A. Cherkasov, V. I. Galkin, N. G. Khusainova, O. A. Mostovaya, A. R. Garifzyanov, G. Kh. Nuriazdanova, N. S. Krasnova and E. A. Berdnikov, *Russ. J. Org. Chem*. 2005, **41**, 1481-1484.
$^iPr_2NH_2^+$	11.0	N. F. Hall and M. R. Sprinkle, *J. Am. Chem. Soc.* 1932, **54**, 3469-3474.
Sarcosine	10.0	R.-S. Tsai, B. Testa, N. El Tayar and P.-A. Carrupt, *J. Chem. Soc. Perkin Trans. 2* 1991, 1797-1802.
L-Proline	10.7	E. S. Hamborg, J. P. M. Niederer and G. F. Versteeg , *J. Chem. Eng. Data* 2007, **52**, 2491-2502.
L-Phenylalanine	9.2	N. M. Arishy, R. A. Ammar and A. Al-Warthan , *Asian J. Chem*. 2014, **26**, 2395-2399.
$DBUH^+$	13.5	K. Kaupmees, A. Trummal and I. Leito, *Croat. Chem. Acta* 2014, **87**, 385–395.
$TMGH^+$	13.6	T. Ishikawa, *Superbases for Organic Synthesis*, 2009, John Wiley & Sons, Ltd, Publication.