Supplementary Information

DSC study

Figure 1: [DBUH][L-Ala] initial DSC

Figure 2: [DBUH][L-Ala] DSC after 24h exposure of the sample to air
Temperature dependent $^1$H-NMR study [TMGH][(D,L)-TRP]

Figure 3: $^1$H-NMR-temperature dependent experience - [TMGH][(D,L)-TRP] - a: water and presumably primary amine and NH amidine hydrogen bond band, b: protons belonging to -CH$_3$ group of 1,1,3,3-tetramethylguanidinium core, c: D,L-Tryptophan $\alpha$-CH proton, d: D,L-Tryptophan secondary amine proton.