Anion tuning and polymer templating in a simple low molecular weight organogelator

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Supporting Information

Synthesis of 1

A solution of 1,3-bis(1-isocyanato-1-methylethyl)benzene (2.00 g, 8.2 mmol) in dry CHCl₃ (40 mL) was heated to reflux and stirred under N₂ atmosphere. A solution of (3-aminopropyl)triethoxysilane (3.65 g, 16.4 mmol) in dry CHCl₃ (40 mL) was slowly added dropwise to the reaction mixture. After complete addition the reaction mixture was stirred at reflux for 24 h. After this period the clear solution was evaporated to dryness and the recovered crude product was washed with diethyl ether (3×70 mL) to obtain the clean product as a white powder. Yield 4.96 g, 7.2 mmol, 87.8 %. ¹H NMR (400 MHz, DMSO) δ 7.32 (s, 1H, Ar-H), 7.14 (m, 3H, Ar-H), 6.11 (s, 2H, NH), 5.81 (t, *J* = 5.7 2H, NH), 3.73 (q, J = 7.0 12H, O-CH₂-), 2.89 (dd, *J* = 6.6. 12.9, 4H, NH-CH₂-) 1.50 (s, 12H, CH₃), 1.37 (m, 4H, -CH₂-), 1.13 (t, *J* = 7.0, 18H, CH₃) 0.5 (m, 4H, -CH₂-Si). IR v_{max} (cm⁻¹): 3354 (NH), 1631 (C=O), 1560 (NH) 1074 + 953 (Si-O-C). ES⁺-MS *m/z* 709 ([M+Na]⁺, 68%), 1395 ([2M+Na]⁺, 100%). Anal. calc. for C₃₂H₆₂N₄O₈Si₂: C 55.94, H 9.10, N 8.15 % Found: C 55.73, H 9.02, N 8.20 %.



S1. Comparison of G' and G'' of gelator **1** in toluene and 1:9 (v/v) $CHCl_3$:toluene (1 wt. %).



S2. Development of G' in stress sweep experiments of gels of gelator **1** (1 wt% in toluene) after addition of 0.5 equiv of different anions as their TBA salts



S3 SEM images of xerogels of 1% by weight of gelator **1** in 1:9 (v/v) CHCl₃:toluene (a) containing 0.1 equiv of TBABF₄ and (b) 1% by weight of CBZ



S4. Stress sweep rheometry of a polymerised toluene gel (1 wt%) of 1 after treatment with a 1:1 mixture of concentrated hydrochloric acid and water for 2 hours followed by aqueous rinse.