Modulating the Mixed Micellization of CTAB and an Ionic Liquid 1-Hexadecyl-3-methylimidazollium Bromide via Varyivg Physical States of Ionic Liquid

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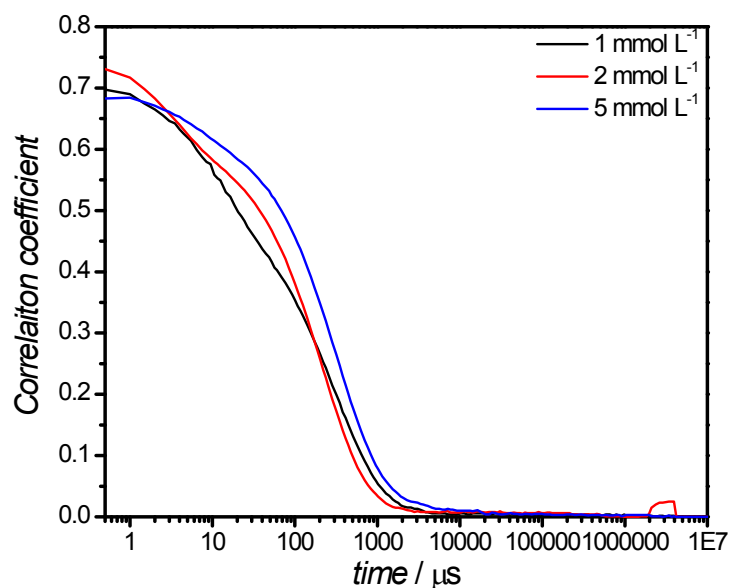
Supporting Information

Figure S1. Correlogram obtained from DLS measurements for aqueous solutions of [C16mim][Br] in the absence of CTAB at different concentrations.

Table S1. A comparison of ^{1}H Spin-lattice relaxation Time (T_1) for different protons of IL (Hk and Hi) and CTAB (He) along with alkyl chain protons at different concentrations of IL, CTAB and IL-CTAB mixed systems bewlo and above cmc at 298.15 K as per Figure 6.

Protons	^{1}H Spin-lattice relaxation Time (T_1)							
	CTAB		IL (1 mmol L^{-1})	IL-CTAB (1 mmol L^{-1})	IL / (2 mmol L^{-1})	IL-CTAB 2 mmol L^{-1}	IL (5 mmol L^{-1})	IL-CTAB (5 mmol L^{-1})
	Below *cmc*	Above *cmc*						
H$_k$			2.23 ±0.35	2.09±0.29	1.90 ±0.24	1.70±0.25	1.810±0.29	1.63±0.13
H$_i$			2.12 ±0.30	2.04±0.32	2.09+0.29	1.90±0.28	1.94±0.22	1.95±0.22
H$_e$	0.89	0.61		0.18±0.03		0.34±0.01		0.50±0.07
H$_b$	0.88	0.63	0.78±0.10	0.514±0.11	0.71+0.01	0.51±0.14	0.67±0.04	0.57±0.05
H$_a$			1.25±0.14	1.20±0.23	1.26+0.07	1.11±0.08	1.16±0.08	0.68±0.18