

Structural Insights into the Effect of Cholinium-Based Ionic Liquids on the Critical Micellization Temperature of Aqueous Tri-block Co-polymer

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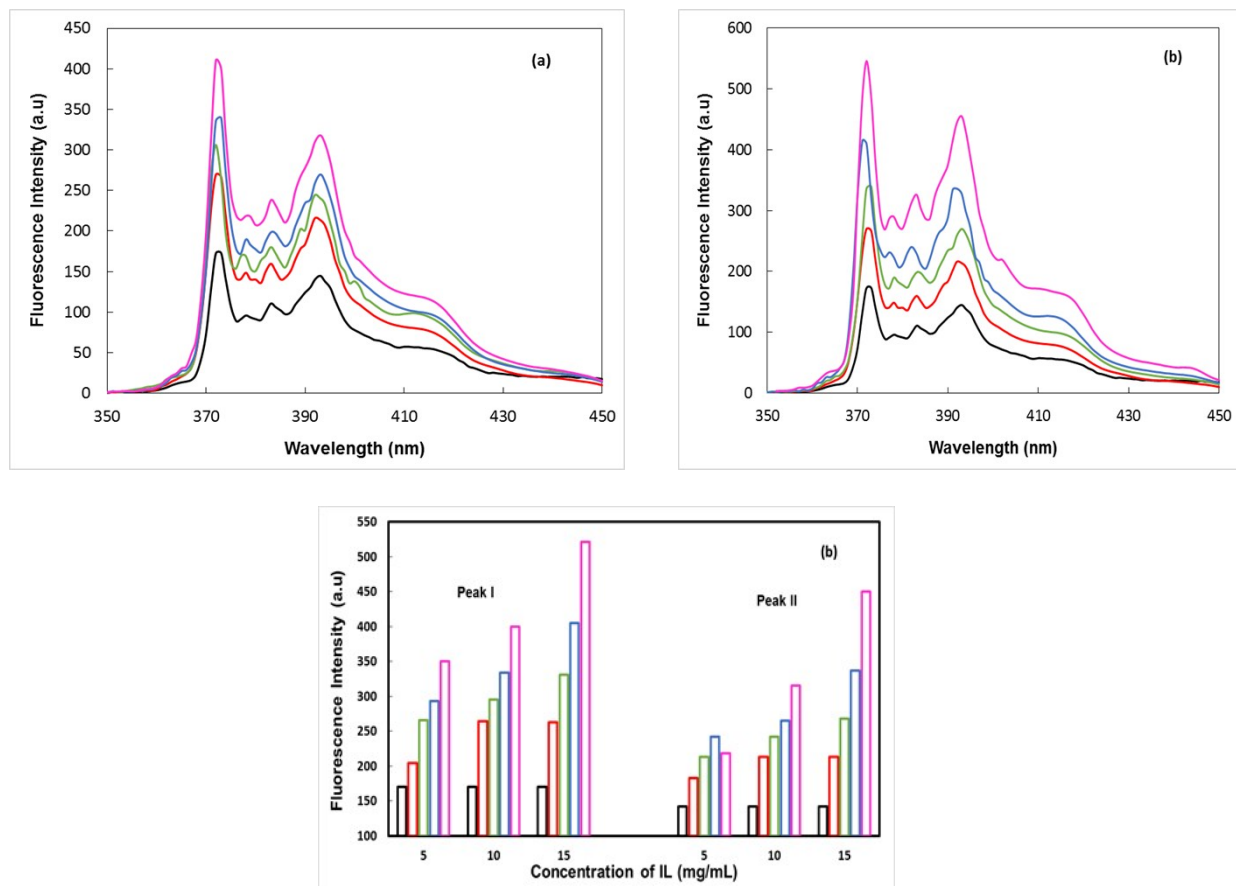


Figure S1 (A) Fluorescence emission spectra of pyrene in PEG-PPG-PEG aqueous solution without (black color line) and with presence of IL (a) 10 mg/mL and (b) 15 mg/mL at temperature 25 °C. ILs: [Ch][Cl] (red color line), [Ch][Ac] (green color line), [Ch][Bit] (blue color line), [Ch][DHCit] (pink color line); (B) Comparison of Fluorescence intensity for peak I and Peak II of pyrene in PEG-PPG-PEG aqueous solution without (black bar) and in presence of 5, 10 and 15 mg/mL IL at wavelength 374 nm (Peak I) and 385 nm (Peak II).

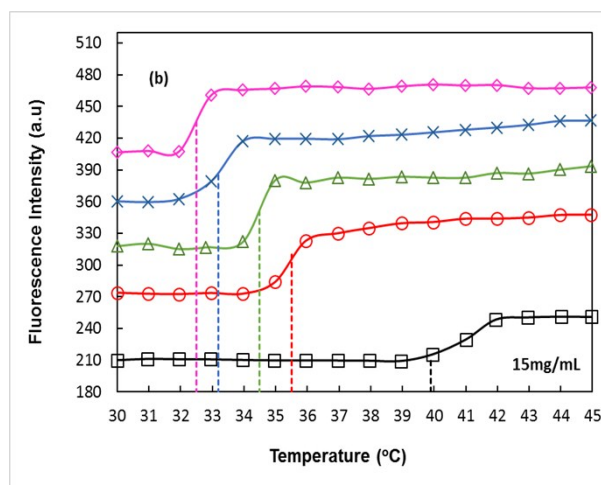
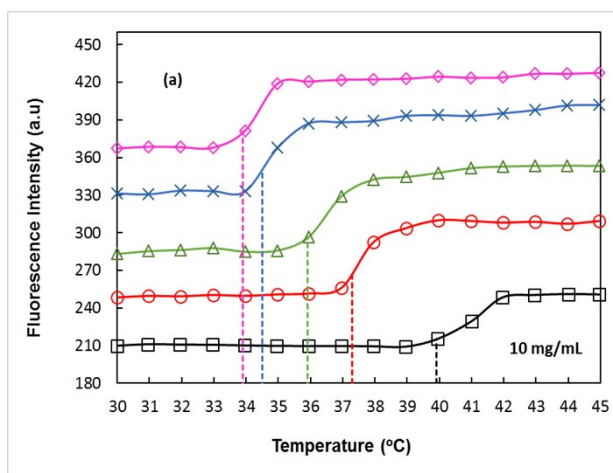


Figure S2 Temperature dependent fluorescence emission spectra of pyrene in PEG-PPG-PEG aqueous solution without ($\square$, black color line) and with presence of ILs (a) 10mg/mL ILs, (b) 15 mg/mL in the temperature range 30-45 °C. ILs: [Ch][Cl] ($\circ$, red color line), [Ch][Ac] (Δ , green color line), [Ch][Bit] ($\times$, blue color line), [Ch][DHCit] ($\diamond$, pink color line)

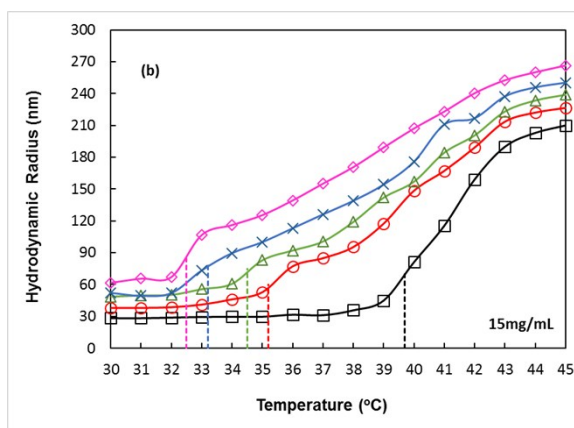
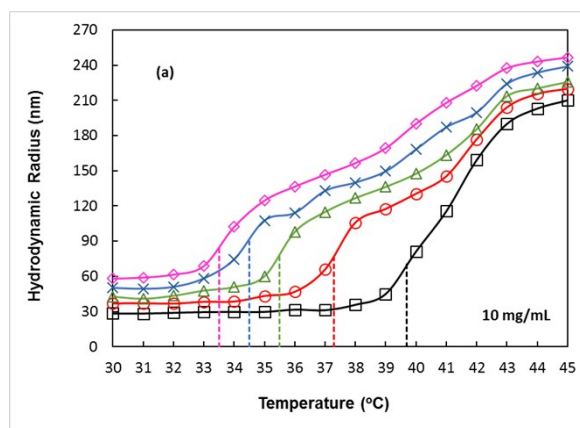


Figure S3 Hydrodynamic radius, R_h of PEG-PPG-PEG aqueous solution without ($\square$, black color line) and with presence of ILs (a) 10mg/mL ILs, (b) 15 mg/mL in the temperature range 30-45 °C. ILs: [Ch][Cl] ($\circ$, red color line), [Ch][Ac] (Δ , green color line), [Ch][Bit] ($\times$, blue color line), [Ch][DHCit] ($\diamond$, pink color line)

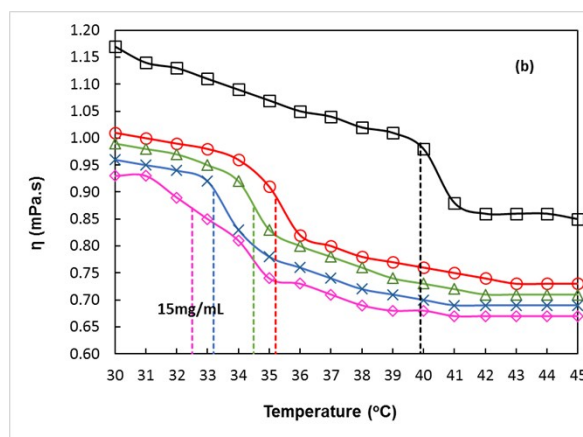
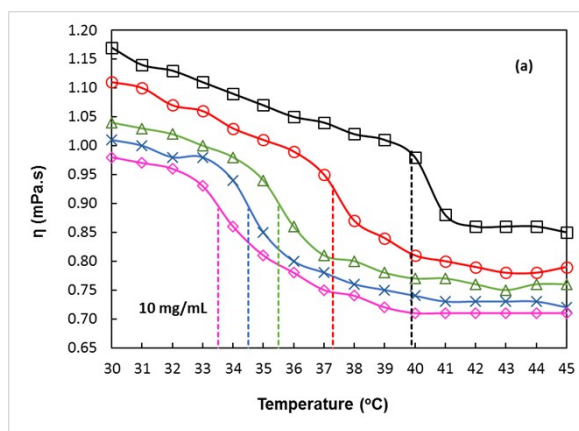


Figure S4 Temperature dependent viscosity of PEG-PPG-PEG aqueous solution without ($\square$, black color line) and with presence of IL (a) 10 mg/mL, (b) 15 mg/mL in the temperature range 30-45 °C. ILs [Ch][Cl] ($\circ$, red color line), [Ch][Ac] (Δ , green color line), [Ch][Bit] ($\times$, blue color line), [Ch][DHCit] ($\diamond$, pink color line)

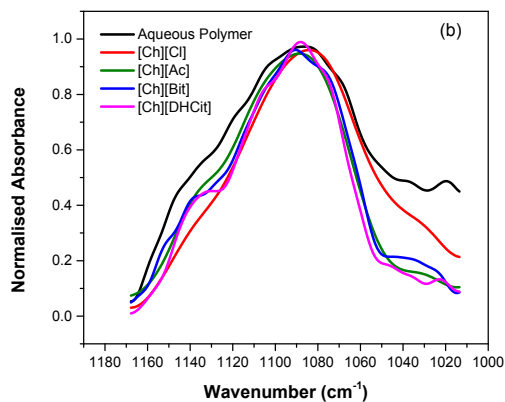
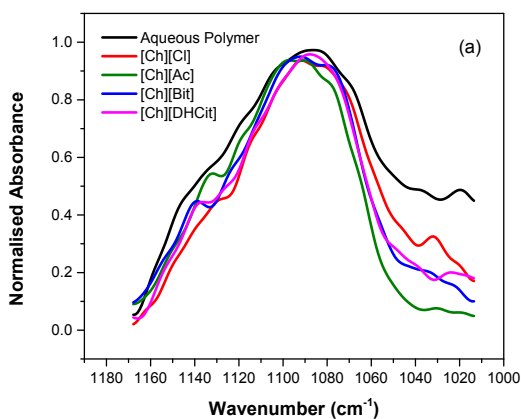


Figure S5 Wavenumber shift of the C-O-C stretching vibration band of aqueous solution without (block color line) and with IL (a) 10 mg/mL and (b) 15 mg/mL at room temperature. ILs [Ch][Cl] (red color line), [Ch][Ac] (green color line), [Ch][Bit] (blue color line), [Ch][DHCit] (purple color line)

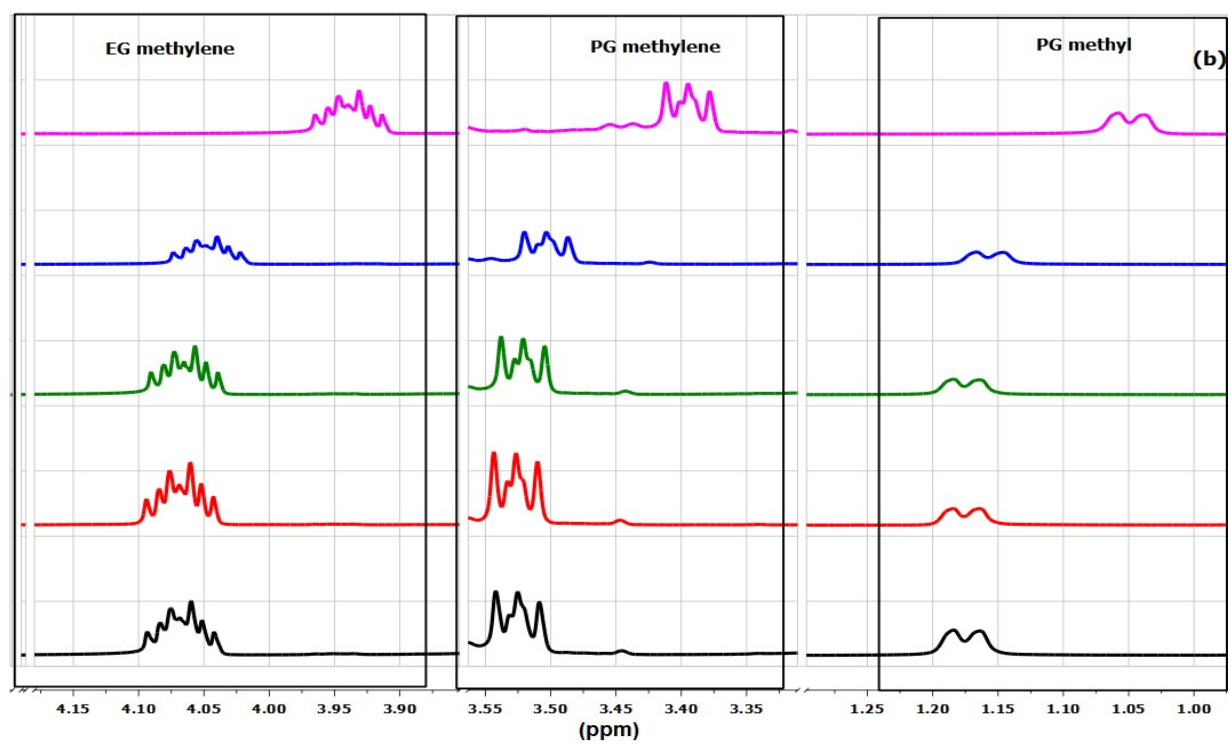
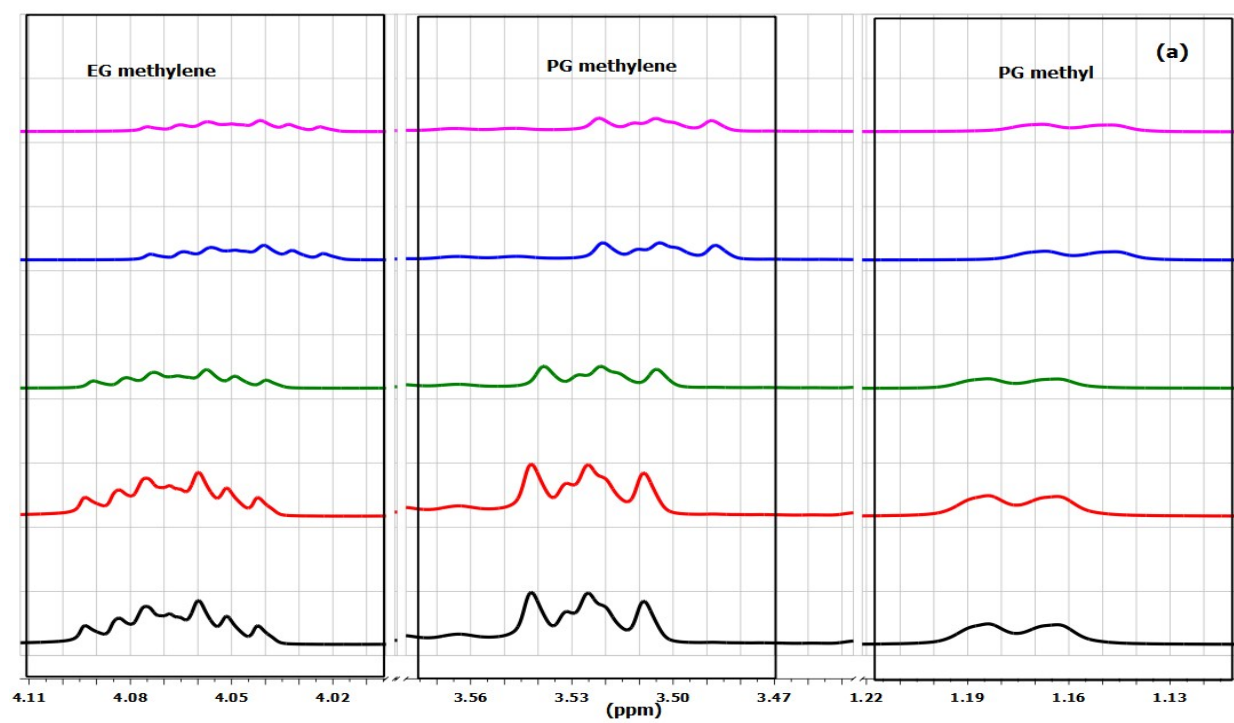


Figure S6 ^1H NMR signals for PG (methyl), PG (methylene) and EG (methylene) groups of PEG-PPG-PEG aqueous solution without (black color line) and with presence of ILs (a) 10 mg/mL and (b) 15 mg/mL. ILs [Ch][Cl] (red color line), [Ch][Ac] (green color line), [Ch][Bit] (blue color line), [Ch][DHCit] (pink color line).