Supplementary Material

Effect of Alkyl Chain Length in Anion on Physicochemical Properties of Cellulose-Dissolving Protic Ionic Liquids

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The melting temperature ($T_m$) was measured using DSC (DSC7020, Hitachi High-Technologies) in the range of -100 and 100 °C at the heating and cooling rates of 10°C min$^{-1}$, and nitrogen gas flow rates of 40 mL min$^{-1}$. The samples were tightly sealed in Al pans under Ar atmosphere in a dry glove box.

Figure S1 DSC curves of the PILs. (a) 1$^{\text{st}}$ heating; (b) 2$^{\text{nd}}$ heating.
The 5% weight loss temperature (T_{d-5%}) was measured using thermogravimetry (TG-DTA7200, Hitachi High-Technologies). The samples were heated from room temperature to 500 °C at a scan rate of 20 °C min^{-1} and nitrogen gas flow rates of 200 mL min^{-1}.

Figure S2  TG curves of the PILs.