

Viscosity and surface tension measurements for mixtures of alcohols with binary choline chloride solution

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Binary choline chloride solution is known as a relatively new material and applicable to separation process as a solvent for extraction because it has a very low melting point compared with those of the components and is eco-friendly and economical. Usually alcohol systems show azeotropic behavior when mixed with normal alkanes, which limits the application of traditional distillation process. Alternatively, an extraction process could be applied to the systems. Binary choline chloride would be an extraction medium for the process. In order to develop and design such a process, physico-chemical properties should be accurately measured for mixtures. In this study, the solution was blended with alcohol such as methanol and ethanol, and viscosity and surface tension were measured with temperature at different compositions. The temperature ranged from 283.15 to 303.15 K for viscosity and the surface tensions were determined at a room temperature.