

Viscosity measurements for mixtures of choline chloride based binary solutions with alcohols or water

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Recently, choline chloride based binary solutions are receiving attention as eco-friendly and economical solvents of next generation. The solvents could be used as an alternative media in conventional chemical processes. Features of the solvents are low vapor pressure and nontoxicity likewise ionic liquid (ILs). However the solvents are much cheaper than ILs and, therefore, would be adopted for various chemical processes such as extraction of alcohols. It is difficult to use the solvents in actual process owing to insufficient property data of solutions. Due to temperature influence on viscosity, this study measured viscosities of choline chloride based binary solutions and alcohol mixtures at a temperature range. The temperature ranges are set in water system from 283.15 to 333.15 K and from 283.15 to 313.15 K for alcohol systems. The results of this study will be used important basic property data at various chemical process.