

Characteristics of $C_N\text{Mimntf}_2$ / *N*-Alcohol Phase Diagrams

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The emerging field of Ionic Liquids (ILs) is mostly related to the topics of synthesis and application. Attributed to the fact that applications of ILs as catalyst, reaction or extraction medium require knowledge on thermodynamic properties, an ever increasing number of studies dealing with the physico-chemical characterization of IL systems can be found in literature. In this respect the classification of phase diagrams of solutions of room temperature ILs is of general importance. Solubility data obtained under different temperatures and pressures can be used as a basis for a detailed description of liquid-liquid (LLE) or vapor- liquid (VLE) equilibria by sophisticated EOS or different empirical models. In the present study we focus on binary systems of 1-dodecyl-3-methylimidazonium-bis(trifluoromethylsulfonyl)imide ($C_{12}\text{mimNTf}_2$) and *n*-alcohols. We use a high-pressure flow-through view cell for the determination of the pressure-dependent phase behavior of the systems with pressures up to 700 bar and temperatures of 150 °C. We apply a shape analysis of the phase diagrams for an effective determination of critical lines of the systems.