Liquid-liquid equilibria and thermo physical properties for the system aqueous sulfuric acid solution + Methyl isopropyl ketone + phosphonium based ionic liquids at 298.15 K

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Thanks to molybdenum's good physical-thermal properties, components made of molybdenum can work in high temperatures. Amine and ketone are usually used as commercial solvents of Mo. The LLE data for the acid leaching mixture with ketone will be needed to analyze solvent capability and to develop Mo extraction process from Mo ore. In this work, therefore, the ternary liquid-liquid equilibrium (LLE) data are reported for the system aqueous sulfuric acid solution + Methyl isopropyl ketone (MIPK) + phosphonium based ionic liquids systems at 298.15 K. In addition, excess and deviation properties such as excess molar volume (V^E) and deviations of refractivity (ΔR) for the binary systems MIPK + phosphonium based ionic liquids were measured at 298.15 K over the entire composition ranges.

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