Thermodynamic Properties of Binary Mixtures of Pyridine, and Piperidine with Water at 298.15 K

Tam Lieu
Department of Chemistry & Chemical Engineering, Widener University, Chester, PA, U.S.A.

Ismail Kul C,S
Department of Chemistry & Biochemistry, Widener University, Chester, PA, U.S.A.

Excess molar enthalpies and excess molar volume were obtained by the Parr 1455 Solution Calorimeter and pycnometers. The vapor pressures of the binary mixtures as well as pure components were measured to within + 0.2 kPa using an isoteniscope and a capacitance pressure sensor. The vapor-liquid equilibria (VLE) studies are performed to characterize the type and magnitude of molecular interactions in the binary liquid mixtures using van Laar Analysis. These results were discussed qualitatively from the viewpoint of the intermolecular interactions in the pure component liquids and the mixtures.