

عنوان مقاله:

THERMODYNAMIC PROPERTIES OF BINARY MIXTURES CONTAINING ACETOPHENONE + 2-ALKANOL

محل انتشار:

اولین همایش ملی تکنولوژی های نوین در شیمی و پتروشیمی (سال: 1393)

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خلاصه مقاله:

Densities and viscosities of mixtures of Acetophenone with 2-propanol, 2-butanol, 2-pentanol have been measured as a function of composition range at different temperature and atmospheric pressure. From the experimental data, Excess molar volumes $E_m V$ and viscosity deviations were calculated and correlated by the Redlich-Kister type function. Viscosity deviations for binary mixture of acetophenone and 2-propanol, 2-butanol and 2-pentanol is negative and for all systems increase with increase temperatures. The excess volumes and temperature derivatives of the excess volumes for Acetophenone with 2-propanol are negative over the whole range of mole fractions and for the binary mixture containing Acetophenone with 2-butanol and 2-pentanol are positive. All the systems show symmetric behavior of $V E$ with the mole fraction of Acetophenone. Viscosity deviations for binary mixture of acetophenone and 2-alkanol is negative and for all systems increase with increase temperatures. The change in volume upon mixing and the behavior of the excess thermal expansivities, the pressure derivatives of the enthalpies for these systems and the effect of chain length of the 2-alkanols on the viscosity of its mixtures with Acetophenone are discussed

کلمات کلیدی:

Acetophenone, 2-Alkanols, Excess volumes, Excess thermal expansivities, Pressure derivatives of enthalpies, Redlich-Kister equation

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