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Excess Molar Volume And Viscosity Studies of Binary Mixtures of MTBE With Anisole, Cyanobenzene,Nitrobenzene And Toulene At Different Temparatures

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ABSTRACT

The density and viscosity of binary mixtures of (Methyl tertary butyl ether (MTBE) +anisole, or +cyanobenzene, or +nitrobenzene, or + toluene) have been measured over the entire range of composition at T=(303.15, 308.15, 313.15, 318.15 and 323.15)K. From the experimental data, excess molar volume, V_m^E and viscosity deviation, $\Delta \eta$ over the entire range of composition were calculated. These results were fitted to the Redlich-Kister polynomial equation to estimate the binary interaction parameters. The negative and positive values of deviation or excess parameters observed have been explained on the basis of the intermolecular interactions present in these mixtures.

Keywords: Density, viscosity, excess molar volume, excess viscosity, MTBE.