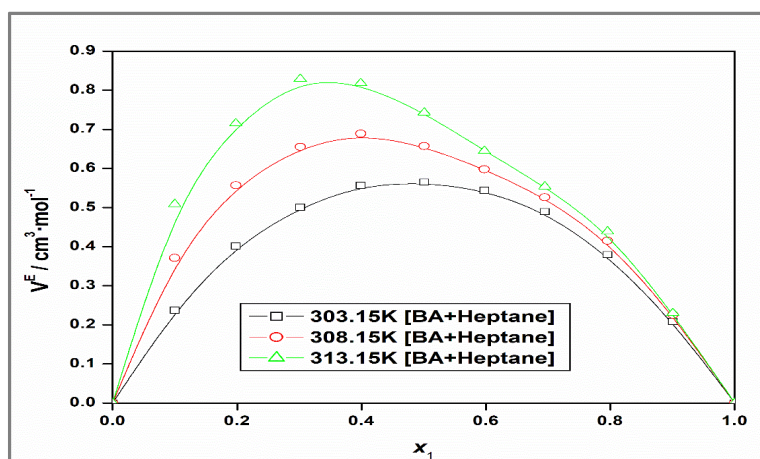


**Densities and Viscosities of Binary (Butyl acetate + n-Alkanes) Mixtures at T= (303.15, 308.15 and 313.15)K****Pralhad S Wagh and Manapragada V. Rathnam\***Physical Chemistry Research Laboratory, B.N.Bandodkar College of Science, Thane-400601, **INDIA**  
Email: [mvrathnam58@rediffmail.com](mailto:mvrathnam58@rediffmail.com)Accepted on 13<sup>th</sup> May, 2019**ABSTRACT**

Densities ( $\rho$ ), viscosities ( $\eta$ ) of binary mixtures of butyl acetate with heptane, decane, dodecane and tridecane have been measured over the entire range of composition at 303.15, 308.15 and 313.15K and at atmospheric pressure. From the experimental values excess volumes ( $V^E$ ) and deviation in viscosities ( $\Delta\eta$ ), have been calculated. The excess volume is positive, while the deviation in viscosities is negative. The derived properties have been fitted to Redlich-Kister Polynomial equation. The experimental data of viscosity is used to test the applicability of empirical relations of Frenkel, Eyring Van-Laar, and Krishnan-Laddha for the systems studied.

**Graphical Abstract**Excess volume ( $V^E$ ) Vs mole fraction ( $x_1$ ) for Butyl acetate with Heptane**Keywords:** Butyl acetate, Alkanes, Excess volumes, Viscosities, Binary mixture.