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Intermolecular Interaction Studies In Aqueous Amino Acid And Glycol Ether System At 298.15 K And At Various Concentrations

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ABSTRACT

The thermo physical parameters such as density (ρ), viscosity (η), and ultrasonic velocity (u) have been measured for aqueous glycine and glycol ether at 0.1 to 1 mole fractions and at 298.15 K temperature. Physical parameters viz acoustical impedance (z), adiabatic compressibility (β), relaxation time (τ), Rao's constant (R), Wada's constant (W), free volume (V_f), viscosity deviation ($\Delta\eta$), excess volume (V^E), intermolecular free length (L_f) have been obtained from experimental data which show intermolecular interaction. The measured and calculated thermodynamic parameters have been discussed in terms of solute-solute or solute-solvent or solvent-solvent interaction.

Keywords: Acoustical impedance, Adiabatic compressibility, Relaxation time, Rao's constant, Wada's constatnt.