

Isothermal Compressibility, Internal Pressure, Solubility Parameter and Pseudo-Gruneisen Parameter Values of Amino Acid-Aqueous KCl / KNO₃ Systems at Different Temperatures

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Density (ρ) and ultrasonic velocity (u) values of L-alanine- / L-proline-/ L-valine-/ L-leucine-2 M aqueous KCl / 2 M aqueous KNO₃ systems have been measured for several molal concentrations of amino acids at different temperatures: 298.15, 303.15, 308.15, 313.15, 318.15 and 323.15 K. The ρ and u data have been used to calculate the values of isothermal compressibility (κ_T), internal pressure (P_i), solubility parameter (d), pseudo-gruneisen parameter (G) at different temperatures. The trends of variations of κ_T , P_i , d and G with successive increase in amino acid concentration and temperature have been discussed in terms of solute-solute and solute-solvent interactions operative in the systems.