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Thermodynamics and transport properties of L-Proline in water and binary aqueous mixtures of acetonitrile at 303.15 K.

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Abstract: The knowledge of thermodynamic properties of amino acids in aqueous medium provides valuable information about the stability of proteins. In this study densities and viscosities of L-Proline in water and aqueous acetonitrile solution (5, 10, 15, 20, 25) % at 303.15 K are reported. From this data the apparent molar volume, partial molar volume and then corresponding partial molar volume of transfer were calculated. The data has further been investigated in terms of relative viscosity and B-coefficients using Jones Dole Equation. The results were used to interpret the concentration dependence of solute-solute and solute-solvent interactions.

Key words: Density, Apparent Molar volume, L-Proline, Acetonitrile.

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