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Ultrasonic Study of Molecular Interactions in Aqueous Solution of Enclex (Enoxaparin Sodium) Blood Thinner at 298.15 K Temperature by using Different Concentration Solutions

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Abstract: *The present study investigates the acoustical and thermodynamic properties of aqueous solutions of blood thinner drugs at different concentrations using ultrasonic techniques. Parameters such as density, viscosity, ultrasonic velocity, adiabatic compressibility, intermolecular free length, acoustic impedance, relative association, relaxation time, Rao constant, Wada constant, internal pressure and cohesive energy were evaluated. Measurements were carried out at 298.15 K using an ultrasonic interferometer. The results indicate strong solute–solvent interaction and molecular association between drug molecules and water molecules. The study helps in understanding the molecular behaviour of anticoagulant drugs in aqueous media.*

Keywords: Adiabatic compressibility, Internal Pressure, Relaxation Time, Free Length, Acoustic Impedance, Apparent Molar Volume

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