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Studies in Solute-Solute and Solute-Solvent Interaction of Some Substituted Ketimine Drugs in 75 % Dichloromethane Water Mixture under Different Temperature by Viscometric Technique

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Abstract: *The computation of densities, specific viscosities of 5- Bromo-2-hydroxy-4-chloro (p-methyl phenyl) ketimine (L1) and 5- Bromo-2-hydroxy-4-chloro (p-amino phenol) ketimine (L2) drugs in 75% (DCM + water) mixture at the temperature range (308 to 314 K) are reported. The investigational data shows, the effect of temperature on viscosity of solute in DCM + water mixtures which gives idea about the molecular interactions present in different solutions. Considerable molecular interactions have been observed between the substituted ketimines drugs and DCM + water mixture. The experimental data at different temperature range (308 to 314 K) are used to investigate thermodynamic properties such as free energy change (ΔG), enthalpy change (ΔH) and entropy change (ΔS) of substituted ketimines drugs in 75% (DCM + water) mixture. The experimental data gives the idea about effect of temperature on the molecular interaction and structural changes in solute.*

Keywords: Ketimine, dichloromethane (DCM), molecular interaction, free energy change etc.

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