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Study of Thermodynamical Properties in Binary Mixtures of Chlorobenzene with Formamide

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Abstract: *A qualitative study of thermodynamical properties in binary mixtures of chlorobenzene with formamide has been carried out at various temperatures and 11 different concentrations using microwave dielectric technique. The thermodynamical properties of solute-solvent mixture in the microwave frequency range of 10 MHz to 20 GHz gives information about the formation of monomers and multimers as well as interaction between the molecules of the given binary mixtures. The thermodynamical parameters viz. enthalpy, entropy, Arrhenius plot, free energy of activation and its excess properties have been obtained by the least squares fit method using Debye equation characterized by a single relaxation time without relaxation time distribution.*

Keywords: Relaxation time; Free enrgy of activation; Excess free energy of activation; Microwave dielectric technique

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