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# Dielectric and spectroscopic study of binary mixture of Acrylonitrile with Chlorobenzene

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In this paper, study of binary mixture of Acrylonitrile (ACN) with Chlorobenzene (CBZ) has been carried out at eleven concentrations at room temperature. The determined Dielectric Constant ( $\epsilon_0$ ) Density ( $\rho$ ) and Refractive index ( $n_D$ ) values of binary mixture are used to calculate the excess properties of mixture over the entire composition range and fitted to the Redlich-Kister equation. From the above parameters, intermolecular interaction and dynamics of molecules of binary mixture at molecular level are discussed. The Conformational analysis of the intermolecular interaction between Acrylonitrile and Chlorobenzene is supported by the FTIR spectra.

Topics

[Dielectric properties](#), [Optical properties](#), [Intermolecular forces](#), [Organic compounds](#)

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