THE EFFECT OF SPECIFIC INTERACTIONS ON THE RAMAN BAND OF C-C MODE OF ETHANOL

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The isotropic Raman band of C-C mode of ethanol have been studied in various solutions which take part in hydrogen bonding or electron donor acceptor type interactions. These studiesindicate that the bandwidths are more sensitive to specific interactions in substituted benzene solutions. The Raman bandwidths is determined essentially by own structure of ethanol in nitromethane and dimetilsulfoxide solutions. The relative contributions of dispersion, dipolar, specific interactions and fluctuations of local density and concentration fluctuation to the frequency shifts are discussed. It is shown that the blue shifts of the band center were not correlated with electron donor capability of solutions and the concentration fluctuation model is in good agreement with the experimental data. The Raman band profile are discussed from comparison of the experimental with the calculated contours in solutions on the basis concentration fluctuation model