INHOMOGENEOUS VIBRATIONAL BAND BROADING AND RESONANCE ENERGY TRANSFER IN BENZENE

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Numerous Infrared and Raman active bands of benzene in solutions (CH3 CN, CH3 NO2, C4H8O etc) have studied intermolecular resonance energy transfer. Energy exchange for the vibrational bands, which have been studied, is determined by collision processes or/and dipole-dipole interactions. It is shown that the contribution of inhomogeneous broadening to the line shapes of IR spectra is of great importance in all cases. For the (2 Raman's mode the width of which does not change energy exchange (2=3D3062cm-1=AE(13=3D3060cm-1 may take place.