

THE SHAPE OF DIFFERENT POLARIZED
COMPONENTS OF 1710 cm^{-1} RAMAN
BAND FOR METHYL ETHYL KETONE
(2-BUTANONE) AND ITS SOLUTIONS

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Frequencies of maxima of the vibrational component and the component with perpendicular polarization of methyl ethyl ketone (MEK) in C=O vibration band are different by $\Delta\nu = 6.7\text{ cm}^{-1}$. In mixtures with heptane, pyridine, and dimethylsulfoxide (DMSO), there is a decrease in this frequency difference with changing a concentration. However, a feature of the decrease in $\Delta\nu$ is different: in mixtures with heptane, both bands are displaced to the high-frequency side, and the vibrational component is displaced faster; in mixtures with pyridine, the components are displaced to the opposite directions. In mixtures with DMSO, the perpendicular component is displaced to the direction of the vibrational component. The peculiarity of the concentration dependence of $\Delta\nu$ behavior in mixtures of MEK with chloroform can be explained by possible intermolecular aggregations.