

## SIMULTANEOUS VIBRATIONAL TRANSITIONS IN ABSORPTION SPECTRA OF BINARY SYSTEMS

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Frequencies, widths and bands intensities of the simultaneous transitions of the infrared absorption spectra in the gases mixtures and solutions N<sub>2</sub>, CO<sub>2</sub>, Br<sub>2</sub> and I<sub>2</sub> with CO<sub>2</sub> and CS<sub>2</sub> have been measured and calculated. In all experiments there is a conservations of integral coefficients of simultaneous transitions absorption bands in gas and liquid mixtures. It shows that the binary character of molecular interactions in condensed pahse is basic.

We revealed the correlation parameters of the simultaneous transitions bands in IR absorption spectra and Raman  
Different scientific and practical applications of simultaneous transitions IR spectroscopy have been discussed.