

# P4765: ACOUSTIC STUDIES OF RELAXATION PROCESSES DUE TO CONFORMATIONAL TRANSITIONS OF FURFURAL MOLECULES

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- Acoustic studies of relaxation processes caused by conformational transitions of furfural molecules have been carried out.
- The studies of the absorption and velocity of ultrasonic waves were carried out in the frequency range from 0.1 to 20 MHz by the resonator method. The absorption of ultrasound in the frequency range from 20 to 150 MHz was determined by the pulse method. The diagram of the high-frequency measuring system is shown at the figure 2.
- Analyzing the data, we have found that the experimental curves are described by identical relaxation processes of the form:

$$\frac{\alpha}{f^2} = \sum_i^2 \frac{A_i}{1 + (\omega\tau_i)^2} + B$$

- The solid line at the figure 1 represent the calculated relaxation spectra from double relaxation equation.

