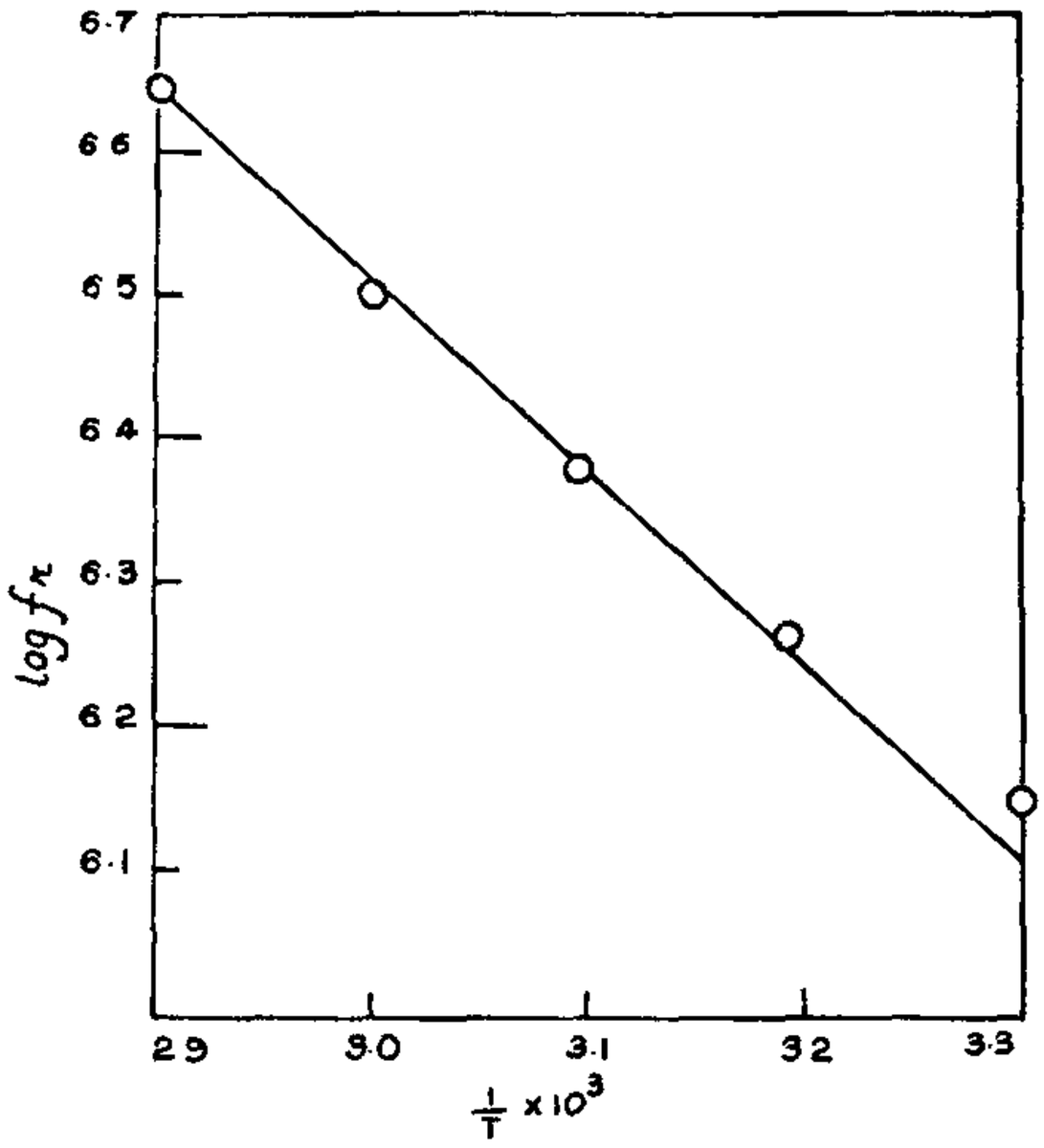

Figure 2. Variation of log f_r vs $1/T$ for cycloheptanone.

and the relaxation parameters evaluated are given in table 2.

The plots of $\log(C_\infty^2 - C^2)$ vs $\log f$ at different temperatures for cycloheptanone are shown in figure 1. The plot of $\log f_r$ vs $1/T$ is shown in figure 2. The changes in free energy, enthalpy and entropy between the two isomers, evaluated from equations (6)–(8), are 1.35 kcal/mol, 2.32 kcal/mol and 3.20 cal/mol/°K. The activation enthalpy obtained from the plot of $\log f_r$ vs $1/T$ is 6.84 kcal/mol. The magnitude of the relaxation frequency observed in cycloheptanone is of the same order[7,8] as that observed for substituted cyclohexanes and cycloheptanes. Hence the molecular mechanism of the present relaxation process may be attributed to ring inversion in cycloheptanone.

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