TEMPERATURE DEPENDENCE OF THE IR-ABSORBANCES OF DIPHENYLCARBINOL

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ABSTRACT

The temperature dependence of the absorbances of IR-absorption bands corresponding to the fundamental, overtones and combination frequencies of diphenylcarbinol in the pure liquid phase is presented. The range of temperature taken in this investigation is between 68 and 298°C. Many difficulties have been met with in trying to find a relation connecting the symmetry of the vibrations and the temperature effect on their absorbances. As shown, in the text, the change in the absorbances of the bands and the temperature variation is linear even for the broad bands.

INTRODUCTION

Here it is discussed the temperature effect upon the absorption bands available. The relation between the symmetry of vibrations and their temperature dependence must be discussed whenever possible, in the case of the study of frequency assignment.

The change of absorbances due to temperature variation is shown in Table (1) and Figure (1). The relative rate of change is given the symbol $T_D$. It was found that the values of $T_D$ for the absorption bands at 552 &
Fig.(1)