

Vibrational Properties of Tellurium Tetrachloride

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On the basis of the most recently reported spectroscopic data on vibrational modes in TeCl_4 and structural parameters of TeCl_4 , an estimation of its main force constants complemented with the calculation of mean amplitudes of vibration in a wide temperature range have been performed. Also thermodynamic functions for the ideal gaseous state of the molecule calculated, using the statistical mechanics approach.

Key words: TeCl_4 ; Force Constants; Mean Amplitudes of Vibration; Thermodynamic Functions.