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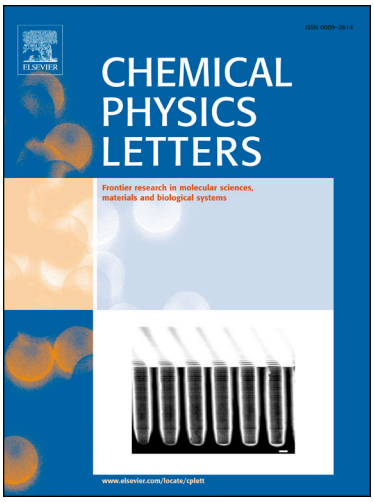

Research paper

Entropy of gaseous boron monobromide

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Entropy of gaseous boron monobromide

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Abstract. We present an explicit representation of molar entropy for gaseous boron monobromide in terms of experimental values of only three molecular constants. Fortunately, through comparison of theoretically calculated results and experimental data, we find that the molar entropy of gaseous boron monobromide can be well predicted by employing the improved Manning-Rosen oscillator to describe the internal vibration of boron monobromide molecule. The present approach provides also opportunities for theoretical predictions of molar entropy for other gases with no use of large amounts of experimental spectroscopy data.

Keywords: Entropy; Analytical representation; Theoretical calculation; Experimental data; Gaseous boron monobromide

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