CALCULATION OF THE MOLAR VOLUME AS A FUNCTION OF PRESSURE FROM THE RAMAN FREQUENCIES IN NH_4Br

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The molar volume is calculated as a function of pressure using the observed Raman frequencies of the ν_7 TA (57 cm^{-1}) and ν_5 TO (140 cm^{-1}) modes of NH_4Br in the disordered phase II. This calculation is performed through the mode Grüneisen parameter which is taken as a constant for each mode studied throughout the phase II of this crystal.
Measurements of the lattice parameter (molar volume) can be performed to examine our calculations from the Raman frequencies studied here for NH_4Br.