



Raman scattering in ferroelectric $[\text{NH}(\text{CH}_3)_3]_3\text{Sb}_2\text{Cl}_9$ single crystals.

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The Raman spectra of ferroelectric $[\text{NH}(\text{CH}_3)_3]_3\text{Sb}_2\text{Cl}_9$ single crystals were studied at temperatures ranging from 90 to 390 K. An assignment of most of the observed bands is proposed. A second-order phase transition around 364 K leading to a high-temperature paraelectric phase manifested itself by splitting of the antisymmetric CH_3 stretching band (3035 cm^{-1}) below the transition temperature. A temperature dependence study revealed the existence of disorder in the crystal. A systematic measurement of the CH_3 torsional vibration Raman band (305 cm^{-1}) was performed and the activation energy ($E_a = 2.39\text{ kcal mol}^{-1}$) of an unidentified organic group $\text{HN}(\text{CH}_3)_3^+$ motion was extracted from the half-width versus temperature curve.

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