**Studies on structural, spectral and optical properties on sulphamic acid lithium chloride single crystals**

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**Abstract**

Optical single crystals of sulphamic acid lithium chloride (SALC) was grown by slow evaporation solution growth technique. The cell parameters of the grown crystals can be revealed by single crystal x-ray diffraction and it belongs to orthorhombic crystal system with space group pbca. Crystallinity of the grown crystals were confirmed using Powder X-ray diffraction studies and its peak intensity, hkl planes were indexed. The FTIR spectrum analysis predicted the presence of functional groups in SALC crystals. Optical properties were evaluated by UV-visible spectral analysis and its lower cut-off wavelength, energy band gap and extinction coefficients were calculated.

**Keywords:**

Slow evaporation technique; Single crystals; Vibrational analysis; UV-vis