

Infrared Reflection Spectra of (FeIn₂S₄)_x·(In₂S₃)_{1-x} Solid Solutions

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2022

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Keywords: Bridgman method, monocrystals, crystal structure, frequency, transverse and longitudinal phonons.

Abstract: IR reflectance spectroscopy at 50–450 cm⁻¹ was used to study homogeneous monocrystals of (FeIn₂S₃)_x·(In₂S₃)_{1-x} grown by the method of direction melt crystallization (vertical Bridgman method). The frequencies of the transverse (ω TO) and longitudinal optical phonons (ω LO) as well as their damping coefficients were determined. Concentration dependence curves were constructed for these parameters and their behavior was established.

Bodnar, I. V. Infrared Reflection Spectra of (FeIn₂S₄)_x·(In₂S₃)_{1-x} Solid Solutions / I. V. Bodnar, V. V. Khoroshko, A. G. Karoza // Journal of Applied Spectroscopy. – 2022. – Vol. 89, № 4. – P. 748–750. – DOI : <https://doi.org/10.1007/s10812-022-01420-7>.