

Temperature dependence of $\text{AgIn}_{13}\text{S}_{20}$ single crystal band gap

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Abstract: $\text{AgIn}_{13}\text{S}_{20}$ single crystals were grown by the vertical
Bridgman method. The grown crystals composition was determined by
X-ray spectroscopy analysis; the crystal structure was determined by X-
ray method. It was shown, that $\text{AgIn}_{13}\text{S}_{20}$ compound crystallize in the
cubic spinel structure. The band gaps of the obtained single crystals

were estimated from transmittance spectra in the temperature range of 10-320 K. The band gap values decreased with temperature.

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