

# Wavelength modulation optical spectra of $\text{Ag}_3\text{AsS}_3$ crystals in the energy gap

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Absorption spectra of  $\text{Ag}_3\text{AsS}_3$  single crystals in  $E||c$  and  $E \perp c$  polarizations were investigated at temperatures 10 and 300 K. The edge absorption temperature dependence was analyzed in temperature range 300 - 10 K in  $E \perp c$  and  $E||c$  polarizations. Transmission spectra in crossed polarizers for single crystal plates with different thicknesses were studied. Indirect energy intervals ( $E_{g1ind.}$  and  $E_{g2ind.}$ ) for both polarizations were found out in wavelength modulation transmission spectra ( $\Delta T/\Delta\lambda$ ) measured at 10 K. In photoluminescence spectra at 11 K an emission maximum associated with indirect excitonic transitions was discovered. Temperature dependences of photoconductivity of Au– $\text{Ag}_3\text{AsS}_3$ –Au structure were researched.