



Optical spectra of TlGaS₂ crystals

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Abstract

Wavelength modulated reflection spectra measured at temperatures 14K and 300K in E||a and E||b polarizations for TlGaS₂ crystals were investigated. The ground and excited states of excitons B_{2u} in E||a polarization and B_{3u} in E||b polarization were observed and the main parameters of excitons and bands were determined. The optical functions for wide energies (2–6eV) were calculated by Kramers–Kronig analysis of reflection spectra. The wavelengths of isotropic points in TlGaS₂ crystals were defined.