SPECIFIC FEATURES OF PHOTOLUMINESCENCE SPECTRA FOR THE CDTE SINGLE CRYSTALS GROWN BY A SUBLIMATION METHOD

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S u m m a r y

The procedure of growth of CdTe single crystals from the gas phase by means of the sublimation in vacuum with the use of the vertical configuration of a growth system is described. The low temperature photoluminescence (PL) spectra for the nominally undoped and chlorine-doped single crystals, grown by this method, are investigated and compared with the spectra for the corresponding crystals, obtained by the Bridgman growth method. It is shown that the crystals grown from the gas phase have a sufficiently high degree of structural perfection, though they contain a larger quantity of uncontrolled impurities . This conclusion is based on the fact that the PL spectra contain the clearly pronounced lines of the free exciton transitions.