

ANALYSIS OF ABSORPTION SPECTRA  
OF Bi-DOPED  $\beta$ -CdP<sub>2</sub> CRYSTALS

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S u m m a r y

Dependences of the variation of the single-photon absorption coefficient  $\Delta K$  in a sensing wave on the Bi-doping degree as well as on the frequency and intensity of a pump wave have been investigated for the  $\beta$ -CdP<sub>2</sub> compound. The spectra obtained for Bi-doped crystals are much more complicated than those for undoped specimens. The schemes of the impurity energy levels in the valence (*v*) and conduction (*c*) bands and of the electron transitions have been built. A spectral band with the maximum at 1.30 eV induced by transitions between impurities and a band at 1.17 eV corresponding to the absorption of a phonon with an energy of 30 meV have been discovered.