POLARIZATION OF FAR-IR RADIATION FROM *n*-Ge UNDER UNIAXIAL PRESSURE AND STRONG ELECTRIC FIELD

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S u m m a r y

We have investigated experimentally the dependences of the intensity and polarization of the spontaneous far-IR radiation ($\lambda \approx 80 - 120$ μm) from *n*-type Ge samples of various concentrations on the uniaxial stress, electric field, and crystallographic orientations. At low electric fields, the dependence of the far-IR radiation intensity on the polarization angle relative to the ⟨111⟩ crystallographic direction has sine form for pure *n*-Ge and cosine form for doped one. An increase of the electric field changes the 'phase“ by 90°. The same change can be achieved by irradiation of a sample with weak white light. In the last case, the 'phase“ can be returned back by uniaxial stress. We give a possible explanation of the results where the type of the dissipation of carriers is suggested to play an important role for the far-IR radiation polarization.