

LOW TEMPERATURE
OPTICAL CHARACTERISTICS
OF Cs₃Bi₂I₉ SINGLE CRYSTALS

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S u m m a r y

The optical functions of the system of two noninteracting classical oscillators were simulated taking into account the traditional extrapolations by the Philipp-Taft and Yahoda methods. It is shown that the functions are in a good agreement with the model functions only in the second case. Fundamental optical characteristics of Cs₃Bi₂I₉ single crystals at a temperature of 4.2 K and light polarization $\vec{E} \perp \vec{C}$ were calculated. Basic exciton parameters were estimated. The Argand's diagram was built and analyzed. In the reflectance spectra the peculiarity at an energy of 2.3 eV in the long wave part of the basic exciton oscillation was revealed. It is found that this peculiarity is caused by the additional reflectance of light from the opposite mirror surface of the sample.