

INFLUENCE OF TEMPERATURE  
ON BIREFRINGENCE IN  $\gamma_1$ -(Ga<sub>x</sub>In<sub>1-x</sub>)<sub>2</sub>Se<sub>3</sub>  
SINGLE CRYSTALS

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S u m m a r y

The temperature studies of birefringence in  $\gamma_1$ -(Ga<sub>x</sub>In<sub>1-x</sub>)<sub>2</sub>Se<sub>3</sub> ( $x = 0.1; 0.2; 0.3; 0.4$ ) uniaxial crystals are performed in the spectral range 0.6 – 1.1  $\mu\text{m}$  and in the temperature interval 77 – 295 K. The birefringence measurements are carried out by the interferometric method. The birefringence is shown to increase linearly with temperature. The nonlinear decrease of the birefringence value at  $T = 295$  and  $T = 77$  K is observed when the gallium content is increased. In the framework of the one-oscillator model, the character of birefringence temperature variation is shown to be determined by the character of temperature variation of the contribution of the edge transitions to the resulting birefringence due to the temperature variation of the average energy gap and the value of absorption edge anisotropy.