

POLARIZATION AND POSITION
PHOTOSENSITIVITIES OF
HETEROSTRUCTURES FORMED BY THERMAL
OXIDATION OF In_4Se_3 SINGLE CRYSTAL

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S u m m a r y

Anisotropy of photosensitivity (PS) and position PS of $\text{In}_2\text{O}_3 - \text{In}_4\text{Se}_3$ heterostructures (HS) prepared by thermal oxidation of In_4Se_3 substrates are experimentally studied. Spectral distribution of photo-emf of HS under $\mathbf{E} \parallel \mathbf{a}$ and $\mathbf{E} \parallel \mathbf{c}$ light polarization directions with respect to the crystallographic axes of In_4Se_3 was measured. The results are compared with ones of In_4Se_3 photocurrent anisotropy. They are analyzed considering the main role of absorption anisotropy and surface recombination in the formation of polarization PS spectra of the investigated structures. The position PS is defined by an increase of the diffusion length nonequilibrium charge carriers which are separated by the HS barrier field.