

LOW-ENERGY-ELECTRON-DIFFRACTION  
STRUCTURAL STUDIES OF (100) CLEAVAGE  
SURFACES OF  $\text{In}_4\text{Se}_3$  LAYERED CRYSTALS

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S u m m a r y

Structure stability and “thermal” parameters of (100) cleavage surfaces of  $\text{In}_4\text{Se}_3$  crystals have been studied using the low energy electron diffraction method. The structure of (100) cleavage surfaces of  $\text{In}_4\text{Se}_3$  crystals is shown to be stable and not subjected to any reconstruction in a wide temperature interval of 77–295 K. The Debye temperature and the Debye–Waller factor of studied surfaces were calculated on the basis of experimental data obtained for the temperature dependence of the intensities of diffraction spots (the intensities decreased, as the temperature grew). It is confirmed that the Debye temperatures for the cleavage surface (100) and in the bulk of  $\text{In}_4\text{Se}_3$  crystal are different. The anisotropy of thermal expansion along the main crystallographic lattice directions in the cleavage plane (100) of  $\text{In}_4\text{Se}_3$  is established.