

QUANTITATIVE AUGER ELECTRON
SPECTROSCOPY OF THE INTERFACE
CARBON LAYER FORMATION ON THE
VACUUM CLEAVAGE SURFACES OF LAYERED
SEMICONDUCTOR In_4Se_3 CRYSTALS

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S u m m a r y

The results of the quantitative Auger electron spectroscopy of the interface carbon layer formation on the high vacuum cleavage surfaces of layered semiconductor In_4Se_3 crystals are presented. The carbon coating formation occurs as a result of the interaction of the atmosphere of residual gases in a UHV Auger spectrometer chamber, that has been studied by means of mass-spectrometry, with the atomic clean interlayer cleavage surfaces of crystals obtained *in situ*. The kinetics of interfacial carbon layer formation on the cleavage surfaces of crystals and the elemental and phase composition of the interface dependent on the exposition time in high vacuum and on the dose of electron irradiation have been studied by the quantitative Auger electron and mass-spectroscopy methods.