

FEATURES OF PHOTOVOLTAIC AND OPTICAL
PROPERTIES OF CuInSe_2 FILMS PREPARED
BY FLASH EVAPORATION

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S u m m a r y

The morphology and the optical and photovoltaic properties are investigated for CuInSe_2 films prepared by flash evaporation. The change of a form of crystallites and the magnitude and spectral dependences of the photovoltage and additional absorption (as compared to the absorption spectra of CuInSe_2 single-crystal) on the substrate temperature are determined. These features are explained in fact by the formation of impurities of various selenides. The efficiency of the formation of these impurities depends on the substrate temperature. The increase of the photovoltage with the substrate temperature up to 720–770 K reaches three orders. This is important and can be used in the development of photosensitive structures based on CuInSe_2 .