ELECTRIC AND PHOTOELECTRIC PROPERTIES OF SOLID SOLUTIONS OF THE SYSTEM $CuGaS_2$–CdS

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S u m m a r y

Polyycrystalline sintered samples of $CuGaS_2$–CdS are studied, and the parameters of elementary cells are specified. Some electric, photoelectric and optical properties of the samples with various percentages of components in the solid solutions are researched. It is shown that the solid solutions of $CuGaS_2$–CdS are the semiconductors with *p*-type conductivity. Their parameters strongly depend on the percentage of CdS in the solution. The samples of the solid solutions with a low percentage of CdS (under 40 mol % of CdS) show the effect of switching with the magnitude of a threshold voltage that depends on the rate of changing the external field. Models are proposed to explaine electrical and optical properties of the tested samples.