

SUMMARY

Some aspects of efficient use of switches in photoelectric converters made of A^3B^5 materials

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Annotation

The main objective of the study is A^3B^5 type semiconductor solar effective lens-switches for photoelectric converters processing. Efficiency refers to the fact that during photoelectric conversion solar energy falling on the lens-concentrator with minimal losses gets out of it and supplies a semiconductor photocell. Spherical and Fresnel lenses used as switches are characterized with fairly large optical losses, mainly caused by chromatic and geometric aberrations, reflecting from the surface, and in large concentrations (when using large lenses) with large amounts of focused light (focused light exceeds the dimensions of the photocell and does not become its own make full use of). Chromatic and geometric aberrations and focused to reduce the size of the light we considered it advisable to use solar energy for photoelectric converters to process and manufacture optical lens-switches with aspherical surfaces while light from the surface covers the lens surface with a reflective coating to reduce reflections.