

## What does APV means?

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### Abstract

This paper presents the results of researches of the effects of abnormally high photovoltaic voltage (APV) in the semiconductor film systems. The possibility of using of open channel optical couples for optoelectronic systems based on transmitter and APV-receiver was investigated. On the basis of APV-films new systems for various optoelectronic has been developed.

### Key words

APV-films, optoelectronics, scientific information.

### References

- [1] The photoelectric phenomena in semiconductors and optoelectronics. Edited by E.I. Adirovich. Tashkent. 1972. C. 143–229.
- [2] Starkirkiewics J., Sosnovski L., Simpson O. Photovoltaic effect exhibited in Highjresletance Semiconducting Films / Nature, 1946. Vol. 158, P. 28.
- [3] R.Ya. Berlaga, M.A. Rumi, L.P. Strehhov. “Apearance” of EMF under illumination of lead-sulfide photoresistors / Journal of Theoretical Physics. 1954. Vol.24. N5. P.943.
- [4] Scawade G. - Zs. für Naturforschung, 1955. Vol. 10. P. 78.
- [5] Piwkowski B.T. PbSe and PbTl infra red detectors / Acta Phys. Pol., 1956. Vol. 15, № 4. P. 271-274.
- [6] E.M. Mastov. The study of the anomalous large Photomagnetic effect in films of cadmium telluride. Theses for PhD defence. Tashkent. 1972. – 125 p.
- [7] Yu.M. Yuabov. Semiconductor films with an anomalously large photovoltage: dis. Theses for PhD defence. - Tashkent, 1965 - 90.
- [8] T. Mirzamahmudov. Research APV effect in semiconductor films with a narrow band gap: Theses for PhD defence. - Tashkent, 1971 - 125 p.
- [9] N. Shakirov. Kinetics and characteristic times of the APV effect in semiconductor films with micro p-n-junction: Theses for PhD defence.- Tashkent, 1970. -180 p.
- [10] R. Naymanbaev. The study of the photoelectric properties of the APV films of telluride of cadmium and three selenide antimony and development on their basis of optoelectronic devices: Theses for PhD defence. - Tashkent, 1977 - 126 p.
- [11] V.M. Lyubin, G.A. Fedorova. High voltage photo-emf in layersof three selenide antimony / FTT, 1962, Volume 4, № 8. p. 2027-2030.
- [12] R. Naymanbaev, O. Mamanov. Application APV-photodetectors as primary transmitters of information. Uzbekian Physocal Journal. 1993. № 6. S. 30.
- [13] Zh. Ergashev. Research photoelectret properties of semiconductor structures diaper with micro-p-n-junctions: Theses for PhD defence. Sci. Sciences. - Vilnius, 1981 - 120 p.
- [14] N.R. Rakhimov. Research of photovoltaic properties of the APV-cadmium telluride films with silver and development of optoelectronic devices based on them: Theses for PhD defence. - Tashkent, 2001. 140 p.
- [15] N.R. Rakhimov, O.K. Ushakov. Optoelectronic sensors based on the APV-effect. - Novosibirsk, 2010, 218 p.

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