

N. D. Il'inskaya, S. A. Karandashev, N. G. Karpukhina, A. A. Lavrov, B. A. Matveev, M. A. Remennyi, N. M. Stus' and A. A. Usikova, "Photodiode 1x64 Linear Array Based on a Double p -InAsSbP/ n -InAs_{0.92}Sb_{0.08}/ n^+ -InAs Heterostructure", *Semiconductors*, 2016, Vol. 50, No. 5, pp. 646–651.

Abstract

The results of studies of the current–voltage characteristics and of the photoelectric and luminescence properties of a monolithic diode 1x64 linear array based on p -InAsSbP/ n -InAsSb/ n^+ -InAs with the n^+ -InAs-substrate side illuminated and sensitive in the region of 4- μm are reported. An analysis is performed of the mechanisms of current flow in the temperature range of 77–353 K and also of the photosensitivity and the speed of response taking into account the spatial distribution of nonequilibrium radiation and the data of capacitance–voltage measurements.