Second International Conference on Advanced Semiconductor Devices and Microsystems Proceedings ASDAM'98

5-7 Oct. 1998, Smolenice Castle, Slovakia pag. 75-78, Cat. No. 98EX172

Photoelectrical properties of isotype heterostructure with Schottky barrier Pd-p-InP/p-InGaAs/p-InP

E. V. Rusu, S. V. Slobodchikov, H. M. Salikhov and M. Turcu

https://doi.org/10.1109/ASDAM.1998.730170

Abstract

The electrical and photoelectrical characteristics of the isotype p-InP/p-InGaAs heterostructure with the Pd-p-InP Schottky barrier as well as the impact of 500 ppm H/sub 2/ atmosphere on these characteristics have been studied. The main change of photo-emf in the gas environment was found to be around /spl lambda/(max)/sup 1/=0.90 /spl mu/m in the Schottky diode photoresponse spectrum. This behaviour is determined by the change of interface properties and existence of deep level traps in the band gap of the InP layer.