

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

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### **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</sub> atmosphere on these characteristics have been studied. The main change of photo-emf in the gas environment was found to be around  $\lambda_{\text{max}}^{-1} = 0.90 \mu\text{m}^{-1}$  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.