

64) Proceedings of SPIE - The International Society for Optical Engineering

Volume 11176, 2019, Номер статьи 111761I

Photonics Applications in Astronomy, Communications, Industry, and High-Energy Physics Experiments  
2019; Wilga; Poland; 26 May 2019 до 2 June 2019; Код 154662

Theory of photoreactive effect in bipolar and MOSFET transistors(Conference Paper)

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Краткое описание Просмотр пристатейных ссылок (20)

The paper deals with the fundamentals of the theory of photoreactive effect in bipolar and field-effect transistor structures. Photoreactive properties of semiconductor devices are widely used in a variety of radio electronics devices. Therefore, the study of these phenomena in bipolar transistor structures with negative resistance, allows us to create new sensory devices, which have better parameters than existing ones. The method of construction of radiomeasuring microelectronic transducers is offered on the base of photoreactive effect in sensing bipolar and field transistor structures, that has established premises for embodying transducers of optical radiation with a frequency output signal. © 2019 SPIE.