

“Spatial Redistribution of Radiation in Flip-Chip Photodiodes Based on Double InAsSbP/InAs Heterostructures”

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Abstract—The spatial distribution of equilibrium and nonequilibrium (including luminescent) IR (infrared) radiation in flip-chip photodiodes based on InAsSbP/InAs double heterostructures ($\lambda_{\max} = 3.4 \mu\text{m}$) is measured and analyzed; the structural features of the photodiodes, including the reflective properties of the ohmic contacts, are taken into account. Optical area enhancement due to multiple internal reflection in photodiodes with different geometric characteristics is estimated.

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