Abstracts

DC- and Microwave-Biased Extrinsic GaAs Photoconductors

J.N. Crouch, Jr.. "DC- and Microwave-Biased Extrinsic GaAs Photoconductors." 1980 Transactions on Microwave Theory and Techniques 28.1 (Jan. 1980 [T-MTT]): 51-54.

The theoretical performance of dc- and microwave-biased extrinsic GaAs photoconductors is presented. The variables are the electrical bandwidth (1 kHz to 10 MHz) and the background photon irradiance (10/sup 8/ to 10/sup16/ ph/s·cm²). Experimental results taken from the literature are compared to the theoretical values. It is concluded that the theoretical performance of a microwave-biased extrinsic GaAs photoconductor exceeds that of its dc-biased counterpart, particularly at wide electrical bandwidths and/or low backgrounds.

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