Abstracts

Optical Response of a Pseudomorphic HFET Photodetector Up to 10 GHz

A. Bangert, J. Rosenzweig, M. Ludwig, W. Bronner, P. Hofmann and K. Kohler. "Optical Response of a Pseudomorphic HFET Photodetector Up to 10 GHz." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1395-1398.

For the first time, we present experimental results of the optical response of a pseudomorphic heterostructure field effect transistor (HFET) in the frequency range from 100 kHz up to 10 GHz. During the experiments we found a strong dependence of the slope of the optical response on the incident optical average power. The reason for this behavior is found to be the trap dependent amplification of the incident optical signals by the photoconductor formed by the buffer layer of the HFET.

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