Abstracts

Microwave Reflection Measurements on Doped Semiconductors with Picosecond Transient Radiation

W.M. Robertson, G. Arjavalingam, G.V. Kopcsay and J.-M. Halbout. "Microwave Reflection Measurements on Doped Semiconductors with Picosecond Transient Radiation." 1991 Microwave and Guided Wave Letters 1.12 (Dec. 1991 [MGWL]): 371-373.

Broad-band microwave reflection spectroscopy is demonstrated with picosecond transient radiation from optoelectronically pulsed antennas. The validity of the technique is verified by reflection measurements on isotropic and anisotropic dielectrics. Reflection studies on a series of doped silicon samples demonstrate that the carrier dynamics in the 15-140 GHz frequency range are well described by a simple Drude model.

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