Abstracts

Waveguide Perturbation Techniques in Microwave Semi-Conductor Diagnostics (1962 [MWSYM])

K.S. Champlin and D.B. Armstrong. "Waveguide Perturbation Techniques in Microwave Semi-Conductor Diagnostics (1962 [MWSYM])." 1962 PGMTT National Symposium Program and Digest 62.1 (1962 [MWSYM]): 99-106.

DC transport properties (e. g., conductivity, Hall effect, magneto-conductivity) are proportional to various averages of the electron-lattice relaxation time (<T>, $<T^2>$, $<T^3>$, etc.) and hence give indirect information about the scattering mechanisms affecting the conduction process. With microwaves, the observation frequency can frequently be of the order of the scattering frequency 1/(2pi <T>). Under these conditions, microwave transport properties are complex and contain potentially more information concerning detailed scattering mechanisms than the analogous dc properties.

❑ Return to main document.