

Abstracts

Integral Quotient in Measurements of Ambipolar Diffused Plasma with TE₀₁₁ Cavity (Correspondence)

P. Jaaskelainen. "Integral Quotient in Measurements of Ambipolar Diffused Plasma with TE₀₁₁ Cavity (Correspondence)." 1964 Transactions on Microwave Theory and Techniques 12.5 (Sep. 1964 [T-MTT]): 552-552.

Despite some known exact solutions of plasma loaded TM₀₁₀ cavity, the TE₀₁₁ mode should be used due to measurement-technical reasons in the case of large electron densities and considerable losses. This communication is connected with the mathematical treatment of measurement results in the case of TE₀₁₁ mode and polar diffusion in discharge tube. The treatment is based on Slater's expression for discharge admittance and the assumption of small perturbations, but not on any special electron theoretically derived plasma conductivity formula.

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