Abstracts

Complex Permittivity of GaAs and CdTe at Microwave Frequencies

W.E. Courtney. "Complex Permittivity of GaAs and CdTe at Microwave Frequencies." 1977 Transactions on Microwave Theory and Techniques 25.8 (Aug. 1977 [T-MTT]): 697-701.

The microwave dielectric constant and loss tangent of Cr-doped semi-insulatiug GaAs have been measured in the frequency range 2.5-36.0 GHz and the temperature range 300-400 K. The room temperature dielectric constant is 12.95 and the temperature coefficient alpha (/spl equiv/ epsilon(0)/sup -1/ d epsilon/dT) is 1.6 x 10/sup -4/ /K. The dielectric constant and loss tangent of CdTe have been measured as functions of temperature at 15.95 GHz. The room temperature dielectric constant is 10.39 /spl plusmn/ 0.04 and the temperature coefficient alpha is 2.5 x 10/sup -4/ /K.

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