

Abstracts

Transverse Magnetic Wave Propagation in Sinusoidally Stratified Dielectric Media

C. Yeh, K.F. Cafsey and Z.A. Kaprielian. "Transverse Magnetic Wave Propagation in Sinusoidally Stratified Dielectric Media." 1965 *Transactions on Microwave Theory and Techniques* 13.3 (May 1965 [T-MTT]): 297-302.

The problem of the propagation of TM waves in a sinusoidally stratified dielectric medium is considered. The propagation characteristics are determined from the stability diagram of the resultant Hill's equation. Numerical results show that the stability diagrams for Hill's equation and those for Mathieu's equation are quite different. Consequently, the dispersion properties of TM waves and TE waves in this stratified medium are also different. Detailed dispersion characteristics of TM waves in an infinite stratified medium and in waveguides filled longitudinally with this stratified material are obtained.

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