

place a corrugated waveguide with one containing a sinusoidally varying dielectric. Additionally, the presence of pass bands indicates that by varying the frequency of an ultrasonic standing wave in the dielectric, for example, either a tunable band-pass filter or modulator may be realized, provided a suitable pressure sensitive dielectric is available.

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REFERENCES

- [1] Hansen, W. W., *Phys. Rev.*, vol 47, 1935, p 139.
- [2] Stratton, J. A., *Electromagnetic Theory*. New York: McGraw-Hill, 1941.
- [3] Morse, P. M., and H. Feshbach, *Methods of Theoretical Physics*, pt I. New York: McGraw-Hill, 1953.
- [4] Brillouin, L., *Wave Propagation in Periodic Structures*, 2nd ed. New York: Dover Pub., 1953.

Authors' Comment²

The communication by Kallas presents an alternative derivation of the fundamental differential equations on which we base the various developments in our paper. His procedure follows the classical form which employs Hertz vectors, but it results in a more cumbersome derivation than ours is. We used the modal formulation,³ which permits an immediate reduction to a scalar form and the elimination of the superfluous transverse dependences. Thus, we feel that our procedure is simpler, but we agree that some may prefer the classical one and that, possibly, it is a matter of background and taste. With either derivation, of course, one recognizes that at that stage the problem has only been set up, and that the bulk of the work, involving the solution to the equations and its interpretation in physical problems, still lies ahead.

The waveguide case, to which Kallas refers, was also treated in Section III-C of our work. We did not treat the more difficult Hill's equation, which applies for E or TM modes. We wish Kallas well in his efforts in this direction.

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² Manuscript received September 22, 1964.
³ Marcuvitz, N., *Waveguide Handbook*, Rad. Lab. Ser., vol 10. New York: McGraw-Hill, 1951, ch 1.

CORRECTIONS

Wave Propagation in Sinusoidally Stratified Dielectric Media¹

On pp. 331-332 the term $\kappa_d d / \pi$ should be replaced by its inverse, i.e., $\pi / \kappa_d d$, in the numerator only of (50), (54), and (55).

The paragraph immediately following (55) should read: "when $\epsilon_1 = \epsilon_r$. At low frequencies, where $\kappa_d d$ is appreciably smaller than π , the reflection from the interface in Fig. 11(a) is seen to be less than that for Fig. 11(b) because the front quarter-sine-wave section in Fig. 11(a) acts as a matching section. At high frequencies, at which $\kappa_d d$ is much larger than π , the interface discontinuity becomes dominant, and the structure of Fig. 11(a) produces the larger reflection coefficient."

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Manuscript received Nov. 9, 1964.
¹ Tamir, T., H. C. Wang, and A. A. Oliner, *IEEE Trans. on Microwave Theory and Techniques*, vol MTT-12, no 3, May 1964, pp 323-335.

Addendum to: An Exact Method for Synthesis of Microwave Band-Stop Filters¹

The title of Table VII (page 380) should read:

h Values for 0.01-dB Ripple
Chebyshev Filters Having h_0 and
 $h_{n+1} = 1.0$ and Various Stop-Band
0.01-dB Fractional Bandwidths w .

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Manuscript received August 19, 1964.
¹ Cristal, E. G., *IEEE Trans. on Microwave Theory and Techniques (Correspondence)*, vol MTT-12, May 1964, pp 369-382.

Coupled Circular Cylindrical Rods Between Parallel Ground Planes¹

Page 429, (5) should read:

$$C_m = 1/4(C_0 - C_e).$$

Page 434, last line of footnote 2 should read:

$$(3/4)V(\bar{r}_0).$$

Footnote 3 should read:

³ Equation (7) may be derived by taking the two-dimensional integral formulation for the potential at a point within a closed boundary and permitting the observation point to approach the boundary (see, for example, J. A. Stratton, "Electromagnetic Theory," McGraw-Hill Book Co., Inc., New York, N. Y., pp. 166-170 and problem 8, p. 219; 1941). The limiting operation may be performed as in Mai and Van Bladel [11], or alternatively, the observation point may be placed on the boundary and the boundary curve in the vicinity of the observation point deformed into an appropriate segment of a circle of infinitesimally small radius. The deformation is such as to leave the observation point within the boundary. The segment of circle is π radians where the boundary curve has a unique tangent and is $\frac{3}{2}\pi$ radians at the right angle.

Page 435, Equation (9): the summation should be over the index j rather than i . Eq. (10): the last entry of the η/ϵ column vector should read η_n/ϵ .

Page 437, Equation (14): the summation should be over the index m rather than n .

Page 439, Section VII, 2nd column, lines 2 and 3: the phrase "rectangular bears" should read "rectangular bars."

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Manuscript received Aug. 19, 1964.
¹ Cristal, E. G., *IEEE Trans. on Microwave Theory and Techniques*, vol MTT-13, Jul 1964, pp 428-439.