Abstracts

Generalized Plots of Mode Patterns in a Cylindrical Dielectric Waveguide Applied to Retinal Cones

G. Biernson and D.J. Kinsley. "Generalized Plots of Mode Patterns in a Cylindrical Dielectric Waveguide Applied to Retinal Cones." 1965 Transactions on Microwave Theory and Techniques 13.3 (May 1965 [T-MTT]): 345-356.

Generalized curves are presented which describe the characteristics of the 12 lowest cutoff-frequency modes of an electromagnetic wave propagating down an infinite lossless dielectric rod, surrounded by an infinite lossless medium of lower dielectric constant. These curves were developed by a computer study particularly to analyze the optical mode patterns generated within the photosensitive portions of the cones of the retina. However, they should also be particularly useful in the study of fiber optics and dielectric microwave antennas.

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