Abstracts

A Method for the Analysis of Biaxial Graded-Index Optical Fibers

S.F. Kawalko and P.L.E. Uslenghi. "A Method for the Analysis of Biaxial Graded-Index Optical Fibers." 1991 Transactions on Microwave Theory and Techniques 39.6 (Jun. 1991 [T-MTT]): 961-968.

The problem of wave propagation in a biaxial graded-index fiber with circular symmetry is considered. The problem is formulated in terms of four first-order differential equations for the tangential components of the electric and magnetic fields. A general solution method for solving systems of differential equations is presented. This solution method is then used to solve the system of equations for a particular example of a biaxial graded-index fiber. Numerical results for the propagation constant in the fiber are also given.

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