Abstracts

Vector Formulations for the Field Equations in Anisotropic Waveguides (Correspondence)

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In the following we will exhibit vector formulations for the equations determining the different components of the electromagnetic field in a source-free uniform waveguide. All results will be stated without proof. The derivations are given elsewhere. The vector formulations given below are applicable to uniform waveguides containing anisotropic media restricted only by the requirement that the permittivity (epsilon) and permeability (μ) dyadics be independent of the axial coordinate z. For uniform waveguides (with the indicated restriction on mu and epsilon) we consider solutions to the Maxwell equations which display characteristic time and z dependence of the form exp i(/sub K/z-wt).

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