A Generalized Two-Dimensional Coupled-Mode Analysis of Curved and Chirped Periodic Structures in Open Dielectric Waveguides (1981 [MWSYM])

A generalized two-dimensional coupled-mode analysis of curved and chirped quasi-periodic structures in planar dielectric waveguides has been formulated. This analysis can be used to design curved and chirped quasi-periodic structures for obtaining phase matched interaction between two specific guided-wave beams. Alternatively, it can be used to calculate the amplitude and the phase of the diffracted guided-wave beam for a given quasi-periodic structure and for a specific incident beam, including the effect of the phase mismatch.

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