عنوان مقاله:

(A New Method for Calculating Propagation Modes of a One Dimensional Photonic Crystal (RESEARCH NOTE

محل انتشار:

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خلاصه مقاله:

Photonic band-gap (PBG) crystals offer new dimensions of freedom in controlling propagation of electromagnetic waves. The existence of stop-bands in the transmission characteristic of these crystals makes them a suitable element for the realization of many useful microwave and optical subsystems. In this paper, we calculate the propagation constant of a one-dimensional (1-D) photonic crystal by using an equivalent transmission-line network. The method is expanded for structures with arbitrary variation in relative permittivity. The effect of filling factor and relative permittivity .on the width of the band-gap and its frequency is also investigated

كلمات كليدى:

One, Dimensional Photonic Crystals, Propagation Constant, Transmission Line Model, Arbitrary Variation in Relative Permittivity

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