Abstracts

An efficient finite-element method for the analysis of photonic band-gap materials

L. Zhang, N.G. Alexopoulos, D. Sievenpiper and E. Yablonovitch. "An efficient finite-element method for the analysis of photonic band-gap materials." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1703-1706 vol.4.

An efficient finite-element method (FEM) is presented in this paper to calculate the bandgap information of photonic bandgap (PBG) materials. A uniaxial anisotropic absorber is used to enclose the computational domain of the finite-element method. The presented method is very efficient in the bandgap calculation, which is essential for the design of various practical applications using PBG materials.

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