FDTD 시뮬레이션을 이용한 육방정계형 2차원 광자결정에서의 광자밴드갭 특성 정규화

여종빈, 이현용
전남대학교

Normalized characteristics of the photonic bandgaps in two-dimensional photonic crystals with a hexagonal lattice by FDTD simulation

Jong-Bin Yeo, Hyun-Yong Lee
Chonnam National Univ

Abstract : Characteristics of the photonic bandgaps (PBGs) in two-dimensional photonic crystals (2D PCs) with a hexagonal lattice have theoretically studied using a finite difference time domain (FDTD) simulation. In this research, we propose a concept of optical coverage ratio (OCR) as a new structural parameter to determine the PBGs for E-polarized light. The OCR is an optically compensated filling factor. It is possible to normalize the PBGs of 2D PCs by introducing the OCR..

Key Words : 2차원 광자결정, 광자준결정, FDTD, 완전 광자밴드갭, 다중회전 홀로그라피법