عنوان مقاله:

Investigating the Properties of an Optical Waveguide Based on Photonic Crystal with Point Defect and Lattice Constant Perturbation

محل انتشار:

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خلاصه مقاله:

In this paper, a photonic crystal waveguide with point defects and lattice constant perturbations of +۵%, -۵% are being investigated. Firstly waveguide structures with constant and specific parameters are being studied and photonic band gap diagrams for TE/TM modes are depicted; then pulse propagation in the frequencies available in the band gap are shown. After that, effects of parameters like refractive indicesand radius of the rods on the band gap diagram of TE/TMmodes are evaluated. It has beenshown that, by increasing the refractive indices and radius of the rods, band gap diagrams would be shifted to lower frequency amounts.

کلمات کلیدی:

band gap diagram, Photonic Band Gap, Photonic Crystal, photonic waveguide