

## عنوان مقاله:

Simulation and Design of an Organic Quantum Film Electrooptic Switch

## محل انتشار:

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## خلاصه مقاله:

In this paper the simulation and design of a quantum-film electro-optic switch is considered. This photonic device, is made from a new organic dipolar material called MNA or ۲-methyl-۴ nitroaniline, which possesses a high merit in comparison with its inorganic counterparts (e.g. LiNbO<sub>3</sub>, GaAs, InSb, Quartz, etc). Montecarlo method is used to simulate the photon-it-electron interaction in this material and the introduced physical model is based on wave-particle nature of light to demonstrate the Pokiels' Electro-optic effect in MVNA optical switch. The main advantages of this design are wide optical bandwidth (۰.۵-۲ microns wavelength), low power consumption and high speed data transmission.

## کلمات کلیدی:

Quantum, Film, Electro, optic Effect, Pockets, Benzene Family, Montecarlo Method, Optical Switch, Ordinary and Extraordinary Refractive Indices, Phase Retardation, First Quarter Wave Thickness

## لینک ثابت مقاله در پایگاه سیویلیکا:

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