

## عنوان مقاله:

Anomalous All-Angle Negative Refraction in High Dielectric Photonic Crystals

## محل انتشار:

سومین کنفرانس بین المللی مهندسی برق (سال: 1397)

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## خلاصه مقاله:

In this article, a 2D rod-type square lattice photonic crystal is investigated to achieve all-angle negativerefraction for TE polarization in a broad bandwidth of  $\Delta\omega/\omega_c=8.8\%$ . It was demonstrated that with high dielectricmaterial use, the equal frequency contours demonstrate entirely different behavior. The plane wave expansion method'sresults show that the first band resembles a homogeneous material and all-angle negative refraction is obtained in theFM direction for the 2nd band. Finite difference time domain analysis are used to further prove the achievement and theobtained .results are in a good agreement

## کلمات کلیدی:

Photonic crystals, Negative refraction, All-angle, PWE, EFC, FDTD

## لینک ثابت مقاله در پایگاه سیویلیکا:

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