

عنوان مقاله:

Optical subwavelength focalizing apparatus based on the unilaterally corrugated metallic Nano-slit

محل انتشار:

اولین همایش بین المللی علوم و فناوری نانو (سال: 1399)

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خلاصه مقاله:

In this report, we numerically examined the possibility of application of perforated perfect metal slab containing a central Nano-slit and unilaterally symmetric grooves on the output surface as the focalizing apparatus. Results of the theoretical simulations through the Finite Difference Time-Domain method revealed that the unilaterally distributed indentations can be utilized for focusing incident plane wave at the plasmon polariton resonance condition. Therefore the presented one sided grooves structure can be used instead of bilaterally corrugated aperture proposed by F. Garcia-Vidal et al. Furthermore, the outcomes of investigations indicated that the out of resonance incident beam .diverges immediately after passing through the subwavelength slit

کلمات کلیدی:

Finite Difference Time Domain Method, Plasmonics, Subwavelength Slit, Corrugation

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