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论文

基于slot波导的硅基长波红外偏振无关定向耦合器分析

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摘要:

硅基长波红外集成光电子器件是集成光学发展的一个新兴领域.阐述了利用等比例放大原理设计该波段下的slot波导的思路,分析了波导的限制因子、偏振特性等性质,并提出了工作波长为10.6 μm的偏振无关slot波导定向耦合器.

关键词: 长波红外波段 等比例放大原理 slot波导 偏振无关定向耦合器

Analysis of Polarization-independent Optical Directional Coupler Based on Slot Waveguides for Long-wave Infrared

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Abstract:

The research of long-wave infrared silicon waveguided components is triggered by the development of integrated optic devices.The validity of Scale-up principle for designing the size of slot waveguides in this waveband is demonstrated,the characteristics such as contain factor and polarization were explained.The polarization-independent optical directional coupler based on slot waveguides was attained at the wavelength of 10.6μm.

Keywords: Long-wave infrared Scale-up principle Slot waveguides Polarization-independent optical directional coupler

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