PHOTONICS Research

Broadband adiabatic polarization rotator-splitter based on a lithium niobate on insulator platform: publisher's note

Zhaoxi Chen,[1,†] Jingwei Yang,[1,†] Wing-Han Wong,[1] Edwin Yue-Bun Pun,[1,2] and Cheng Wang[1,2,*]

[1]Department of Electrical Engineering, City University of Hong Kong, Kowloon, Hong Kong, China
[2]State Key Laboratory of Terahertz and Millimeter Waves, City University of Hong Kong, Kowloon, Hong Kong, China
*Corresponding author: cwang257@cityu.edu.hk

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The second paragraph in Section 2 of this article was corrected as follows.

In the polarization rotator (Step I), the LN rib waveguide adiabatically widens from a top width of 1.2 to 3.6 μm via a linear taper, such that the effective index of the second-order TE (TE_1) mode surpasses that of the fundamental TM (TM_0) mode [Fig. 1(c)]. The partially etched structure breaks the vertical symmetry of the waveguide and enables a substantial avoided crossing between the two modes ($\Delta n_{\mathrm{eff}} = 0.019$) at a waveguide top width of 2.12 μm as shown in Fig. 1(c). As a result, the input $\mathbf{TM_0}$ mode is converted first to a hybridized mode between $\mathbf{TM_0}$ and TE_1 [inset of Fig. 1(c)] and finally to the TE_1 mode. While the input $\mathbf{TM_0}$ mode is rotated and converted into TE_1 mode, the polarization state of the input TE_0 mode remains unchanged during Step I, since it stays the highest-index mode throughout the tapered structure [blue curve in Fig. 1(c)].

The text in bold was incorrect in the original published version, and the article was corrected online on 7 December 2021 [1].

†These authors contributed equally to the paper.

REFERENCE

1. Z. Chen, J. Yang, W.-H. Wong, E. Y.-B. Pun, and C. Wang, "Broadband adiabatic polarization rotator-splitter based on a lithium niobate on insulator platform," Photon. Res. **9**, 2319–2324 (2021).