

ABSTRACT

THIN SILICON PHOTONICS WITH INTEGRATED III-V WAVEGUIDE

A device for thin-film silicon photonics with an integrated III-V waveguide structure includes a substrate containing a silicon layer and a III-V waveguide structure bonded to the substrate. The device also includes a waveguide transition structure, enabling light to be coupled between the silicon layer and the III-V waveguide structure. The waveguide transition structure may include a first section, a second section, and a third section, each section including one or more tapered segments.

FIG. 1B