

5. Conclusion

In conclusion, we have demonstrated thermo-optic phase shifters for the mid-ir for the first time on the Ge-on-Si and Ge-on-SOI waveguide platform. Thermo-optic phase shifters in different configurations have been studied and a new waveguide platform (Ge-on-SOI) has been demonstrated which brings down the required tuning power for a 2π phase shift from 700 mW to 16 mW. This paves the way to the power efficient tuning of mid-infrared photonic integrated circuits.

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