

# III-V/Si photonic integrated circuits for the mid-infrared

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**Abstract:** We review our work on SOI and Ge-on-SOI PICs for the mid-infrared. We demonstrate the integration of III-V semiconductors on the SOI platform for 2-4  $\mu\text{m}$  wavelength range integrated lasers and spectrometers, as well as tunable filters implemented on the Ge-on-SOI platform beyond 4 $\mu\text{m}$ .

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