

SILICON PHOTONIC DEVICE FOR GENERATING LASER LIGHT

Abstract

The present invention relates to a silicon photonic device (100) for generating
5 laser light. The device (100) comprises a substrate and at least one laser cavity
(10, 20, 30) fabricated on the substrate. Each laser cavity (10, 20, 30) is formed
with at least one III-V-based gain section (11, 21, 31), at least two microring
resonators (MRR) (12, 13, 22, 23, 32, 33) and at least one partial reflector (14, 24,
34). An interposer (15, 25, 35) optically couples each gain section (11, 21, 31)
10 with a corresponding MRR (12, 22, 23). At least one thermo-optic heater is on
each MRR (12, 13, 22, 23, 32, 33) for controlling wavelength selectivity of the
corresponding MRR (12, 13, 22, 23, 32, 33).

Most illustrative drawing: Figure 1