Physics > Optics

25 kHz narrow spectral bandwidth of a wavelength tunable diode laser with a short waveguide-based external cavity

R. M. Oldenbeuving, E. J. Klein, H. L. Offerhaus, C. J. Lee, H. Song, K.-J. Boller

(Submitted on 2 Apr 2012)

We report on the spectral properties of a diode laser with a tunable external cavity in integrated optics. Even though the external cavity is short compared to other small-bandwidth external cavity lasers, the spectral bandwidth of this tunable laser is as small as 25 kHz (FWHM), at a side-mode suppression ratio (SMSR) of 50 dB. Our laser is also able to access preset wavelengths in as little as 200 us and able to tune over the full telecom C-band (1530 nm - 1565 nm).

Comments: 8 pages, 7 figures
Subjects: **Optics (physics.optics)**
Cite as: **arXiv:1204.0353 [physics.optics]**
(or **arXiv:1204.0353v1 [physics.optics]** for this version)

Submission history

From: Ruud Oldenbeuving [view email]
[v1] Mon, 2 Apr 2012 09:25:41 GMT (875kb)

Which authors of this paper are endorsers?