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A compact O-plus C-band switchable quad-wavelength fiber laser using arrayed waveguide grating (Article)

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Abstract

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In this paper, a design of a quad-wavelength fiber laser (QWFL) operating in two different regions namely the O-band covering from 1302 nm to 1317.4 nm and C-band from 1530.5 nm to 1548.0 nm is presented. Two different ASE sources from semiconductor optical amplifiers (SOAs) are used, one at 1310 nm and the other at 1550 nm. By using a 1x24 channels arrayed waveguide grating (AWG) with 100 GHz interchannel spacing, the system is capable of generating 24 different wavelengths in more than 24 ways of quad-wavelength fiber laser with 0.6 nm and 0.8 nm of interval channel for O-band and C-band regions, respectively. © 2010 by Astro Ltd.

SciVal Topic Prominence

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