





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Novel O-band tunable fiber laser using an array waveguide grating

(Article)

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Abstract

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A novel tunable fibre laser (TFL) operating in the ordinary band (O-band) of 1310 nm is proposed and demonstrated. The proposed TFL is developed using a 1x16 arrayed waveguide grating (AWG) as a slicing mechanism for the broadband amplified spontaneous emission (ASE) source and an optical channel selector (OCS) to provide the tunability. A semiconductor optical amplifier (SOA) with a centre wavelength of 1310 nm serves as the compact gain medium for the TFL and also as a broad-band ASE source. The TFL has a tuning range of 1301.26 nm to 1311.18 nm with 9.92 nm span and a channel spacing of 0.7 nm. The measured output power is about -4 and -8 dBm and with a side node suppression ratio (SMSR) of 29 to 33 dB. © 2010 by Astro Ltd.

SciVal Topic Prominence ⓘ

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