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O-band multi-wavelength fiber laser (Article)

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Abstract

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In this paper, we demonstrated a novel multi-wavelength fiber laser system operating in the O-band (1310 nm) region. The proposed O-band multi-wavelength fiber laser uses a 1 × 24 Arrayed Waveguide Grating to generate eight output channels simultaneously with a span width of 14.05 nm. In addition to this, the tunability of a single wavelength output is also demonstrated using a 1 × 16 AWG together with an optical channel selector. A Semiconductor Optical Amplifier (SOA) operating at 1310 nm is used as the gain medium to provide the spontaneous and stimulated emissions required for the laser operation. The fiber laser has a tuning range of 1301.26 nm to 1311.18 nm with 9.92 nm span and channel spacing of 0.7 nm. © 2010 World Scientific Publishing Company.

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arrayed waveguide grating | fiber laser | O-band | semiconductor optical amplifier

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Engineering uncontrolled terms: Channel spacings | Laser operations | Multi wavelength fiber laser | Optical channel selectors | Output channels | Single wavelength | Tunabilities | Tuning ranges

Engineering main heading: Fiber amplifiers

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Ahmad, H. , Ahmed, M.H.M.
(2019) Optical Engineering

Investigation of the effects of SOA locations in the linear cavity of an O-band Brillouin SOA fiber laser
Ahmad, H. , Norizan, S.F. , Zulkifli, M.Z.
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(2004) Guangdianzi Jiguang/Journal of Optoelectronics Laser

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