Compact wavelength-tunable actively Q-switched fiber laser in CW and pulsed operation based on a fiber Bragg grating

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Abstract

We report a double-clad Er/Yb doped fiber tunable laser in continuous wave (CW) and actively Q-switched modes using a fiber Bragg grating (FBG) as wavelength selective in a linear cavity resonator. The laser was tuned in a range from 1532 to 1542 nm for both CW and pulsed modes. The minimum pulse duration was 420 ns at a repetition rate of 120 kHz and ~0.7 W average output power in CW (slope efficiency of ~8%) and 1.03 W average output power in pulse mode (slope efficiency of ~12%).