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Title

Dual-frequency picosecond optical parametric generator pumped by a Nd-doped vanadate bounce laser

Source

Optics Express, vol.19, no.19, 12 Sept. 2011, 18523-8. Publisher: Optical Society of America, USA.

Abstract

Dual-frequency MHz-repetition 1.5-μm optical parametric generation is demonstrated from a tandem system pumped by a picosecond Nd:YVO₄ bounce laser. An average power of 1.0 W is obtained over the range 1571-1630 nm, corresponding to an optical-optical conversion efficiency and slope efficiency of 16% and 23%, respectively. Terahertz wave with a frequency of 3.2 THz is also generated from the system in combination with an organic nonlinear DAST crystal. (20 References).