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标题: Dual-wavelength asynchronous and synchronous mode-locking operation by a Nd:CLTGG disordered crystal
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摘要: We have developed a diode-pumped passively mode-locked Nd3+:CLTGG laser operated at 1059 and 1061 nm with a semiconductor saturable absorber mirror (SESAM). The relative intensity of the two spectrum wavelengths is adjustable, allowing asynchronous and synchronous generation of the dual-wavelength pulses. In synchronous mode-locking regime, a total average output power of 383 mW was obtained with pulse duration of 3.5 ps and repetition rate of 42 MHz. The two spectral bands of 1059 and 1061 nm had the same intensities and areas, indicating 1:1 for the pulse energy ratio. It is desirable for efficiently generating a terahertz wave by difference-frequency generation.
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