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Title:Simultaneous passively Q-switched dual-wavelength solid-state laser working at 1065 and 1066 nm

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Abstract:A passively Q-switched dual-wavelength solid-state laser is presented. The two wavelengths are emitted by two different crystals in order to avoid gain competition, and the synchronization between the pulses is obtained by external triggering of the saturable absorber. Sum frequency mixing is demonstrated, proving the interest of this source for terahertz generation in the 0.3-0.4 THz range through difference frequency generation. © 2012 Optical Society of America.

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