Watt-level femtosecond Tm:(Lu,Sc)2O3 ceramic laser

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We report on a SESAM mode-locked Tm:(Lu,Sc)2O3 ceramic laser in-band pumped by a Raman fiber laser at 1627 nm.An average output power up to 1.02 W at 2060 nm is achieved for transform-limited 280-fs pulses at a repetition rate of 86.5 MHz, giving an optical efficiency of 36.4%.

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