

Spectroscopy and continuous wave laser operation of Tm³⁺-doped YScO₃ mixed sesquioxide crystal

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We present spectroscopic investigations and laser operation of a Czochralski-grown Tm³⁺:YScO₃ mixed sesquioxide crystal. We observed broadband absorption and emission spectra, desirable for ultrafast 2 μm lasers. Continuous wave laser experiments were performed using a 780 nm laser diode, and a maximum slope efficiency of 40% was achieved.

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