

Subnanosecond tunable ultraviolet pulse generation from a low-Q, short-cavity Ce:LiCAF laser

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Abstract

We have developed an all-solid-state tunable ultraviolet laser system employing recently developed Ce:LiCAF, a new degradation-free tunable ultraviolet laser medium pumped by the fourth harmonic of a conventional Q-switched Nd:YAG laser. The low-Q, short-cavity Ce:LiCAF laser produced satellite-free subnanosecond pulses in a tuning range of 281 nm to 297 nm under appropriate pumping-fluence control.

Keywords

All-solid-state, Low-Q, Short-cavity, Short-pulse, Tunable, Ultraviolet