

Ultrashort pulsed UV lasers based on the Ce³⁺:LiCaAlF₆ and LiLuYF₄:Ce³⁺ crystals

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Abstract

© Published under licence by IOP Publishing Ltd. Here we report on UV laser oscillation on colquiriite structure fluoride mixture crystals of Ce³⁺:LiCaAlF₆ (Ce:LiCAF) and Ce³⁺:LiLuYF₄ (Ce:LiLuYF) active media. We report on 800 ps pulse train lasing from Ce:LiCAF in composite cavity and single pulse lasing of 400 ps duration from Ce:LiLuYF in convenient Fabri-Perrot cavity and discuss conditions of pulse shortening in UV active medium by photodynamic processes.

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