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Efficient laser pumping of a Co:MgF2 crystal by radiation with the wavelength 1.3 μm

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Abstract

A Co:MgF2 crystal laser was pumped with radiation (λ = 1.35 μm) from a neodymium glass laser. This resulted in generation of radiation of 1.6 J energy with a quantum efficiency of 67%. The Co:MgF2 crystal could thus be used for efficient conversion of λ = 1.3 μm laser beams, such as those from iodine photodissociation and chemical oxygen-iodine lasers.

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