

Photoconductivity of SrAlF₅ crystals doped with Ce³⁺ ions

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Abstract

© Published under licence by IOP Publishing Ltd. Temporal behaviour of the complex permittivity of Ce:SrAlF₅ and Ce,Yb:SrAlF₅ crystals under laser irradiation in 240-280 nm spectral range was investigated by a microwave resonance technique. The photoconductivity spectrum of these crystals was detected. It was established that photoconductivity signal of the samples in 240-280 nm spectral range is caused by two processes: excited-state absorption of Ce³⁺ ions and photoionization of color centers.

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