

4f-5d transitions of Ce³⁺ ion in LiBaF₃ single crystal

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Abstract

Recently, there has been progress in tunable solid state UV lasers due to the development of new Ce³⁺-doped single-crystal active materials. Thus, the search for new laser materials based on the 5d-4f transitions of the Ce³⁺ ion is of high practical value. This article reports the spectroscopic features of 4f-5d transitions of Ce³⁺ ion in LiBaF₃ (LBF) single crystal - a new potentially practical active medium for tunable UV laser with direct pumping.
