

Growth and investigation of structure-nonequivalent doping centers in LiCaAlF₆:Gd³⁺ single crystals

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Abstract

To adequately define the position and site symmetry of different rare earth structure-nonequivalent activator centers in LiCAF crystals, a series of EPR studies of LiCaAlF₆:Gd³⁺ single crystals have been conducted. Single crystals were grown in a resistance over from carbon crucibles using the Bridgman-Stockbarger method. Crystal growth was accomplished at 850°C with the pulling rate of 1 mm/hour. Overall, the results specify the ways of obtaining LiCAF:Ce crystals with the optimized laser performance.
