Spectral intensities of U^{3+} ions doped in $LaCl_3$ single crystals.

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A high resolution absorption spectrum of a U^{3+}(0.25%):$LaCl_3$ single crystal was recorded in the 4000–30000cm^{-1} range at room temperature. Intensity calculations based on the Judd-Ofelt theory gave good agreement with experimental data provided some of the L'S ‘J’ band areas were combined. In order to check the correctness of the calculations, the obtained Ω λ intensity parameters have been used for the determination of transition probabilities and these in turn for calculations of radiative lifetimes.

Adres publiczny

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