EPR and optical spectroscopy of Yb3+ ions in single crystal CsCaF3

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Abstract

CsCaF3 crystals doped with Yb3+ were studied using EPR and optical spectroscopy methods. Several types of paramagnetic centers of Yb3+ were found including a paramagnetic center in an uncommon 12-coordinated position. The schemes of the energy levels of the observed centers are determined and the potentials of the respective crystalline fields are calculated. © Springer-Verlag 1996.