

Long-range coulomb interaction of electrons of 4f orbitals in impurity centers Yb³⁺: KZnF₃, CsCaF₃, and Sm³⁺: CaF₂

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Abstract

Expressions for calculating the matrix elements of the Coulomb interaction of f electrons of the isolated ion with an infinite crystal lattice have been obtained. The contribution of this interaction to the parameters of the crystal field in impurity centers Yb³⁺: KZnF₃, CsCaF₃, and Sm³⁺: CaF₂ has been calculated. © 2013 Pleiades Publishing, Ltd.

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