

## Study of the crystal field in CeF<sub>3</sub> and CeF<sub>3</sub>:Pr<sup>3+</sup>

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### Abstract

© Kazan Federal University (KFU). The crystal field analysis based on calculations in the framework of the semi phenomenological exchange charge model was carried out. The set of crystal field parameters for Ce<sup>3+</sup> and Pr<sup>3+</sup> ions in the matrix CeF<sub>3</sub> related to the crystallographic system of coordinates has been obtained and used to reproduce satisfactory the crystal field energies of Ce<sup>3+</sup> and Pr<sup>3+</sup> ions.

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### Keywords

Crystal field parameter, Exchange charge model, Trifluorides