

Crystal- field analysis of U^{3+} ions in K_2LaX_5 ($X=Cl, Br$ or I) single crystals.

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Rok wydania

1998

Czasopismo

Spectrochimica Acta Part A-
Molecular and Biomolecular
Spectroscopy

Numer woluminu

A54

Strony

2035-2044

DOI

10.1016/S1386-
1425(98)00114-0

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

An analysis of low temperature absorption spectra of U^{3+} ions doped in K_2LaX_5 ($X=Cl, Br$ or I) single crystals is reported. The energy levels of the U^{3+} ion in the single crystals were assigned and fitted to a semiempirical Hamiltonian representing the combined atomic and crystal-field interactions at the C_s symmetry site. An analysis of the nephelauxetic effect and crystal-field splittings in the series of compounds is also reported.

Słowa kluczowe

Crystal-field, U^{3+} ions, Absorbtion spectra

Adres publiczny

[https://doi.org/10.1016/S1386-1425\(98\)00114-0](https://doi.org/10.1016/S1386-1425(98)00114-0)

Strona internetowa wydawcy

<http://www.elsevier.com>