

Spin-lattice relaxation times of rare earth ions in binary nitrates

Klimachev A.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The Van Vleck method is used with the point-charge model to calculate the spin-lattice relaxation times of the Ce³⁺ ion in binary nitrates. Normal coordinates are found for the icosahedral XY₁₂ complex containing the paramagnetic ion and its nearest neighborhood. The theoretical transition probabilities for the purely ionic model turn out to be slightly above the experimental results, so covalent effects are important. © 1972 Consultants Bureau.

<http://dx.doi.org/10.1007/BF00820929>
