

19F NMR study of LiTbF₄ single crystals

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Abstract

The angular dependences of ¹⁹F NMR spectra have been measured in the external magnetic field of 0.5 T oriented in the basis plane of LiTbF₄ at the room temperature. We have obtained the constants of transferred hyperfine interaction and the corrected set of crystal field parameters for the Tb³⁺ ions in LiTbF₄. The results of simulations of the magnetization in high pulsed magnetic fields with taking into account magnetoelastic interactions agree satisfactorily with experimental data presented in the literature.

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