

Ultrahigh-frequency NMR of Tm³⁺ ions in single crystals of thulium ethylsulfate in high magnetic fields

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Abstract

Resonant transitions predicted earlier between low-lying electron-nuclear sublevels of the Tm³⁺ ground state were observed at frequencies up to 700 MHz in a dielectric Van Vleck paramagnet - thulium ethylsulfate single crystal. It is shown that, due to the distortion of the 4f-electron shell of a rare-earth ion in an applied magnetic field, the parameters of electron-nuclear interaction become field-dependent. © 2002 MAIK Nauka/Interperiodica".

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