

Applied Magnetic Resonance 1992 vol.3 N3-4, pages 613-640

NMR studies of singlet-ground-state rare-earth ions in high-T_c superconductors

Bakharev O., Dooglav A., Egorov A., Lütgemeier H., Rodionova M., Teplov M., Volodin A., Wagener D.

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

Abstract

Many of presently known high-T_c superconductors contain rare-earth (RE) ions with an even number of electrons in an unfilled 4f-shell (Pr³⁺, Tb³⁺, Ho³⁺, Tm³⁺). If the ground state of 4f-electrons is non-degenerate and separated from excited states by high enough energy intervals, one can observe the so-called "enhanced NMR" of RE nuclei at low temperatures. In the present paper some aspects of the enhanced NMR are analyzed in applications to the crystal and electron structure of high-T_c superconductors. © 1992 Springer.

<http://dx.doi.org/10.1007/BF03166285>
