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Exchange and Crystal Field Effects in the ESR spectra of Eu^{2+} in LaB_6[1] CARLOS RETTORI, JOSE DUQUE, Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, SP, 13083-970, Brazil, RICARDO URBANO, Los Alamos National Laboratory, Los Alamos, New Mexico 87545, PABLO VENEGAS, Dpto. de Física, Universidade Estadual Paulista - Unesp, CP 473, 17033-360, Bauru, SP, Brazil, PASCOAL PAGLIUSO, Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, SP, 13083-970, Brazil, ZACHARY FISK, Department of Physics, University of California, Davis, CA 95616, U.S.A., SAUL OSEROFF, San Diego State University, San Diego, CA, 92182, U.S.A.
— The Electron Spin Resonance (ESR) spectra of Eu^{2+} ($4f^7$, S= 7/2) in LaB_6 single crystal show a single Dysonian resonance for the localized Eu^{2+} magnetic moments. It is shown that the Eu^{2+} ions are covalent exchange coupled to the (B) $2p$ - *like* host conduction electrons. The anisotropy of the ESR spectra is interpreted in terms of an averaged positive fourth order cubic crystal field parameter.

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