EPR Study of the Dynamic Jahn-Teller Effect of Cu^{2+} in $CdBa(HCOO)_4 \cdot 2H_2O$ Single Crystals

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Electron Paramagnetic Resonance spectra of Cu^{2+} doped into cadmium barium formate dihydrate single crystal were studied at 300 K. The powder spectrum of this material was studied at 300 to 133 K. The values of the **g** and **A** hyperfine tensors were found to be temperature dependent. The temperature dependence of the Cu^{2+} EPR spectrum is discussed in terms of the dynamic Jahn-Teller effect. The angular variation of the spectra indicates the substitution of the host Cd^{2+} with Cu^{2+}. The spectra were fitted with a tetragonal spin-Hamiltonian, the parameters of which were determined at 300 K. The ground-state wave function of the copper complex has been constructed at 113 K and 300 K.

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