Electron Paramagnetic Resonance of Cu^{2+} Doped $Na_2HAsO_4 \cdot 7H_2O$ Single Crystals

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The electron paramagnetic resonance spectra of Cu^{2+} doped $Na_2HAsO_4 \cdot 7H_2O$ single crystals were studied at room temperature. The results indicate the substitutional entrance of Cu^{2+} in two magnetically inequivalent Na^+ sites. Charge compensation is supposed to be fulfilled by proton vacancies. The spin Hamiltonian parameters were determined. The ground state for Cu^{2+} seems to indicate the dominance of the d_{z^2} orbital and therefore a compression of the distorted octahedron along its C_{4v} axis.

Key words: EPR; Cu^{2+}; Sodium Hydrogen Arsenate.

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