

An EPR and Optical Study of VO^{2+} in Bis (Glycine) Cadmium Chloride Single Crystals

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Results of EPR and optical studies of VO^{2+} doped in bis (glycine) cadmium(II) chloride, belonging to a third site as a substitutional one are reported. The spin Hamiltonian parameters obtained for the site are $g_{zz} = 1.9159$, $g_{yy} = 1.9695$, $g_{xx} = 1.9853$, $A_{zz} = 210.4$ G, $A_{yy} = 109.8$ G, and $A_{xx} = 107.0$ G. By correlating the EPR and spectral data, the molecular orbital bonding parameters have been evaluated.

Key words: Crystal Growth; Electron Paramagnetic Resonance; Bonding Parameters.