INFRARED/RAMAN (VIBRATIONAL) AND EPR SPECTRAL STUDIES OF Cu(II) HALIDE COMPLEXES WITH 3-METHYLANILINE AND 4-METHYLANILINE

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The complexes of the ML_2X_2 (M : Cu^{+2}, L : 3-methylaniline or 4- methylaniline and X : Cl, Br or I) form were prepared and characterised by their elemental analyses, UV-vis electronic absorption spectra, magnetic susceptibilities, FT-Infrared / FT-Raman and Electron Paramagnetic (EPR) spectra. The observed IR and Raman bands of the complexes have been assigned. Coordination effects on the vibrational spectra of the free ligands have been investigated. EPR spectra of the complexes and their simulated spectra are also discussed in detail. The environment and symmetry around each metal atom have been determined from far-IR / Raman and EPR spectra of the complexes.

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