

MOLECULAR SPECTROSCOPIC STUDIES OF METAL(II)[Mn(II),Co(II) AND Ni(II)] HALOGEN COMPLEXES WITH METHYLANILINES

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The complexes in the form of MX_2L_2 [M: Mn(II), Co(II) and Ni(II); L: *m*-methylaniline or *p*-methylaniline (mMA or pMA)] were prepared and characterized by their elemental analyses, thermogravimetric analyses, magnetic moment measurements, UV-vis, FT-IR and FT-Raman spectral studies. Elemental analysis suggested the stoichiometry to be 1:2 MX_2/L . Thermal decomposition studies showed that the intermediate metal complexes are formed for Mn(II) and Co(II) complexes during their decomposition processes, the metal oxide being finally produced in each case. Vibrational bands of the complexes were assigned as compared with the free ligands. The environment and symmetry around each metal atom have been determined from spectra of the complexes.

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2. K. Golcuk, A. Altun, **M. Kumru**, *Journal of Molecular Structure*, 657 (2003) 385-393