# Spectroscopic and structural investigations of Mn (II), Co(II), Ni(II), Rh(III), Ru(III) and Ir(III) complexes with m-Amino phenyleneformimidoylfuran-2-yl-ketone

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**ABSTRACT**

A new tridentate ligand, m-Aminophenyleneformimidoylfuran-2-yl-ketone(AFFK), was synthesised from m-phenylenediamine and furanglyoxal. Its metal complexes of the general formula $[M(AFFK)X_2H_2O]$, where M = Mn(II),Co(II), Ni(II), $[M(AFFK)X_3]$, where M= Rh(III), Ru(III) and Ir(III) have been prepared. On the basis of some definite structural units - the magnetic moment measurements, IR, electronic and UV spectra, an octahedral geometry of the ligand around the metallic ions has been suggested.

**Key Words :** Furangloyoxal, dipole moment, electronic spectra.