

6. Thermal behaviour and Thermokinetic studies of Thiazole Schiff Base Complexes Cr(III),Mn(III),Fe(III),VO(IV),Zr(IV) and UO₂(VI)

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ABSTRACT

The thiazole Schiff base have been synthesized by condensing 2-hydroxy-5-chloro acetophenone and 4-(p-hydroxyphenyl)-2-aminothiazole. The metal complexes were obtained as a result of interaction of Schiff base ligand and metal ions Cr (III), Mn(III), Fe (III), VO (IV), Zr (IV) and UO₂ (VI). The complexes have been characterized on the basis of ¹H NMR, elemental analysis, infrared, molar conductance, magnetic Susceptibilities, and thermogravimetric analysis. Thermodynamic activation parameters were computed from the thermal data using Broido, Horowitz-Metzger and Freeman-Carroll method, which confirm first order kinetics and kinetic compensation effect.

Keywords: Thiazole Schiff Base, Molar conductance, Thermal.