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Thermal Decomposition of 8-Hydroxyquinoline Complexes with Ca, Ni, Zn, Pb, Fe, La, Ti and W

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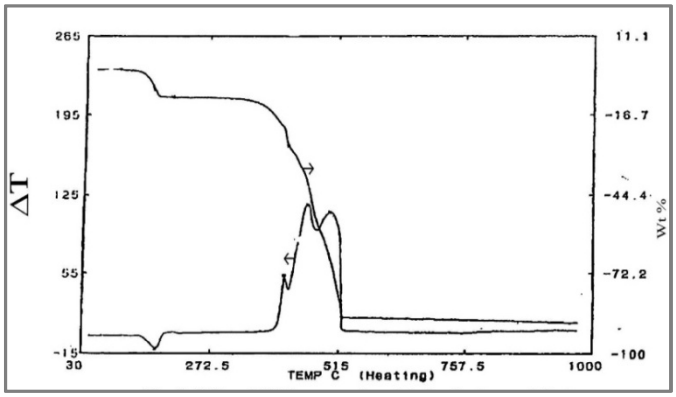
ABSTRACT

8-Hydroxyquinoline forms complexes with more than forty metal ions. Present study is concerned with preparation and thermal decomposition of 8-Hydroxyquinoline complexes with Ca, Ni, Zn, Pb, Fe, La, Ti and W using Thermo gravimetric and Differential thermal analysis techniques. The study established temperature regions useful for possible gravimetric determinations of Ca, Ni, Zn, Pb and W either as corresponding 8-Hydoxyquinolines or as oxides.La can be determined either as 8-Hydoxyquinoline complex of La, or as $La_2O_3CO_2$ whileTi cannot be determined as 8-Hydoxyquinoline complex but can be determined as TiO_2only.

Graphical Abstract



TG and DTA cures fro nickel oxinate precipitate.

Keywords: 8-Hydroxyquinoline, Metal oxinates, Thermal decomposition.