

SYLLABUS :-

Prerequisite : Nil

Semi-micro Analysis of transition metal and rare earth metal ions in a mixture by using Spot technique.

Preparation and (Spectroscopic Characterization) of:

Layered Vanadyl Phosphate Dihydrate (Powder XRD, TGA)

Tris(acetylacetonato)manganese(III) (Mag. Susceptibility by Gouy method, and Evans method, EPR)

Tris(ethylenediamine)cobalt(III) ion & Optical Resolution (UV, specific rotation)

Chlorotribenzyltin(IV) (<sup>1</sup>H NMR)

Halocobaloxime: a B12 model compound (IR, <sup>1</sup>H NMR)

Estimation of phosphoric acid in soft drinks

Column Chromatographic separation of Chlorophyll from Plant (UV)

Extraction of Fullerene from Soot (<sup>13</sup>C NMR, and CV)

Book:

Vogel's Qualitative Inorganic Analysis

General Chemistry Experiment by A.J. Elias

Synthesis & Techniques in Inorganic Chemistry by G.S. Girolami, T.B.

Rauchfuss, R.J. Angelici