

CY-403 INSTRUMENTAL METHODS AND TECHNIQUES

Real Sample Analysis: Digestion, dissolution, extraction with solvents, solid phase extraction (SPE), Kjeldahl's method, fluxes, series dilution, calibration techniques.

Analytical Reactions in Solutions: Solution equilibria, potentiometry, acid-base titrations, complexation, redox and precipitation titrations, coulometric methods.

Optical and Chromatographic Methods of Analysis: Spectrophotometric titration, simultaneous determination of two components system, determination of complex composition, applications of spectrophotometric data, atomic absorption spectroscopy, atomic emission spectroscopy, flame emission spectroscopy, Inductively Coupled Plasma (ICP) and atomic fluorescence, Adsorption chromatography, partition chromatography, ion-exchange chromatography, gas liquid chromatography (GC), high pressure liquid chromatography (HPLC).