



STANLEY
COLLEGE OF ENGINEERING & TECHNOLOGY FOR WOMEN
(Approved by AICTE , New Delhi | Affiliated to Osmania University ,Hyderabad)
Address : Chapel Road, Abids ,Hyderabad

Engineering Chemistry Laboratory (CH 102)
(Common to all Branches- B.E.1/4- 2015-16 Batches)

Volumetric Analysis:

Introduction, Weighing, Titration Data (tabulation & Calculations)

Permanganometry

Expt.1. Preparation of standard solution of oxalic acid and standardization of potassium permanganate solution and estimation of oxalate ion in the given solution.

Expt. 2. Preparation of standard solution of Mohr's salt, standardization of potassium permanganate solution and estimation of ferrous ion in the given solution.

Expt. 3 Preparation of standard solution of oxalic acid and standardization of potassium permanganate solution and estimation of ferrous ion in the given solution.(combination experiment)

Dichrometry

Expt 4. Preparation of standard solution of potassium dichromate, standardization of Mohr's salt solution and estimation of dichromate in the given solution.

Iodometry

Expt.5 Preparation of standard solution of potassium dichromate, standardization of sodium thiosulphate solution and estimation of copper in the given solution by using standard hypo solution.

Acidimetry

Expt.6. Preparation of standard solution of sodium carbonate, Standardization of HCl and estimation of carbonate, bicarbonate in the given mixture.

Complexometry

Expt.7 Preparation of standard solution of magnesium sulphate, Standardization of EDTA and estimation of temporary and permanent hardness in the given sample of water.

Conductometry

Expt.8 Conductometric titration – Strong acid Vs Strong base

Expt.9 Conductometric titration – Weak acid Vs Strong base

Expt.10 Conductometric titration – Mixture of Strong acid and weak acid. Vs Strong base

Potentiometry

Expt11. Potentiometric titration – Strong acid Vs Strong base.

Expt 12 Potentiometric redox titration – KMnO_4 Vs Fe^{2+}

pH Metry

Expt 13. pH Metric titration - Strong acid Vs Strong base.

Expt 14. pH Metric titration - Weak acid Vs Strong base.

Colorometry

Expt 15. Verification of Beer's Law – Using potassium permanganate and estimation of manganese in the given solution

Suggested Reading:

1. B.D.Khosla, A.Gjulati, V.C.Garg., Senior Practical Physicla Chemistry, R.Chand and company, New Delhi 11th Edition
2. S.K.Bhasin and Sudha Rani, Laboratory Manual on Engineering chemistry, Dhanapat Raj Publishing Company.

Name of the Faculty:

1. Dr.K.Nagi Reddy (Professor)
2. M.Sharada Devi (Associate Professor)
3. R.Gangadhara (Assistant Professor)