

Class XII

LABORATORY MANUAL

CHEMISTRY



LABORATORY MANUAL CHEMISTRY

Class XII

NCERT



Ncert Chemistry Lab Manual Class 12 Chromatography

Dr. S. C. Rastogi ,Er. Meera Goyal



Ncert Chemistry Lab Manual Class 12 Chromatography:

Practical/Laboratory Manual Chemistry Class XII based on NCERT guidelines by Dr. S. C. Rastogi, Er. Meera Goyal Dr. S. C. Rastogi ,Er. Meera Goyal,2020-06-22

A Surface Chemistry

- 1 To prepare colloidal solution sol of starch
- 2 To prepare a colloidal solution of egg albumin
- 3 To prepare colloidal solution of gum
- 4 To prepare colloidal solution of aluminium hydroxide $\text{Al}(\text{OH})_3$
- 5 To prepare colloidal solution of ferric hydroxide $\text{Fe}(\text{OH})_3$
- 6 To prepare colloidal solution of arsenious sulphide As_2S_3
- 7 To purify a freshly prepared sol by dialysis
- 8 To compare the effectiveness of different common oils Castor oil cotton seed oil coconut oil kerosene oil mustard oil in forming emulsions

Viva Voce B Chemical Kinetics

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- 2 To study the effect of temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid
- 3 To study the rate of reaction of iodide ions with hydrogen peroxide at different concentrations of iodide ions
- 4 To study the rate of reaction between potassium iodate KIO_3 and sodium sulphite Na_2SO_3 using starch solution as indicator

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- 1 Determine the enthalpy of dissolution of copper sulphate $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ in water at Room temperature
- 2 To determine the enthalpy of neutralization of the reaction between HCl and NaOH
- 3 To determine enthalpy change during the interaction between acetone and chloroform

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- 2 To prepare a pure sample of potash alum fitkari
- 3 Preparation of crystals of potassium ferric oxalate or potassium trioxalate ferrate III

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- 2 Preparation of acetanilide in laboratory
- 3 Preparation of β -Naphthol aniline dye
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- 5 To prepare a pure sample of p -nitro acetanilide

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- 1 To study simple reactions of carbohydrate
- 2 To study simple reactions of fats
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- 4 To investigate presence of carbohydrates fats and proteins in food stuffs

Viva Voce J Volumetric Analysis

- 1 To prepare 250 ml of $M/10$ solution of oxalic acid
- 2 To prepare 250 ml of $M/10$ solution of ferrous ammonium sulphate
- 3 Prepare $M/20$ solution of oxalic acid with its help find out the molarity and strength of the given solution of potassium permanganate
- 4 Prepare $M/20$ solution of Mohr's salt using this solution determine the molarity and strength of potassium permanganate solution

Viva Voce K Qualitative Analysis

Viva Voce

INVESTIGATORY PROJECTS

1 To study the presence of oxalate ions in guava fruit at different stages of ripening

2 To study the quantity of caseine present in different samples of milk

3 Preparation of soyabean milk and its comparison with natural milk with respect to curd formation effect of temperature etc

4 To study the effect of potassium bisulphite as food preservative at various concentrations

5 To study the digestion of starch by salivary amylase and the effect of pH and temperature on it

6 To study and compare the rate of fermentation of the following materials wheat flour gram flour potato juice and carrot juice

7 To extract essential oils present in saunf aniseed ajwain corum illaichi cardomom

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Instrumental Liquid Chromatography N.A. Parris, 2000-04-01 Instrumental Liquid Chromatography

Laboratory Chromatography Guide Angelo Talamona, 2005

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A Basic Laboratory Techniques 1 To cut a glass tube or glass rod 2 To bend the glass rod at an angle 3 To draw a glass jet from a glass tube 4 To bore a cork and fit a glass tube into it

B Characterisation and Purification of Chemical Substances 1 To determine the melting point of the given unknown organic compound and its identification simple laboratory technique 2 To determine the boiling point of a given liquid when available in small quantity simple laboratory method 3 To prepare crystals of pure potash alum K₂SO₄ Al₂ SO₄ 3 24H₂O from the given impure sample 4 To prepare the pure crystals of copper sulphate from the given crude sample 5 To prepare pure crystals of benzoic acid from a given impure sample

C Measurement of pH Values 1 To determine the pH value of vegetable juices fruit juices tap water and washing soda by using universal pH paper 2 To determine and compare the pH values of solutions of strong acid HCl and weak acid CH₃COOH of same concentration 3 To study the pH change in the titration of strong base Vs strong acid by using universal indicator paper 4 To study the pH change by common ion CH₃COO⁻ ion in case of weak acid CH₃COOH 5 To determine the change in pH value of weak base NH₄OH in presence of a common ion NH₄⁺

D Chemical Equilibrium 1 To study the shift in equilibrium between ferric ions and thiocyanate ions by changing the concentrations of either of the ions 2 To study the shift in equilibrium between Co H₂O 6 2 and Cl⁻ ions by changing the concentrations of either of the ions

E Quantitative Analysis 1 To prepare M 10 oxalic acid solution by direct weighing method 2 To prepare M 10 solution of sodium carbonate by direct weighing method 3 To determine the strength of given solution of sodium hydroxide by titrating it against N 10 or M 20 solution of oxalic acid 4 To determine the strength of a given solution of hydrochloric acid by titrating it against a standard N 10 or M 20 sodium carbonate solution

F Qualitative Analysis 1 Analysis of Anions 2 Analysis of Cations

G Detection of Elements in Organic Compounds 1 To detect the presence of nitrogen sulphur and halogens in a given organic compound by Lassaigne's test 2 To detect the presence of nitrogen sulphur and halogens in the given organic compound sample number by Lassaigne's test

INVESTIGATORY PROJECTS A Checking of Bacterial Contamination in Water 1 To check the bacterial contamination in drinking water by testing sulphide ions B Methods of Water Purification 1 To purify water from suspended impurities by using sedimentation 2 To purify water by boiling 3 To purify water by distillation method 4 To purify water by reverse

osmosis technique 5 To purify water by GAC method 6 To purify water by bleach treatment 7 To purify water by oxidising agent 8 To purify water by ozone treatment method C Water Analysis 1 To test the hardness of different water samples D Foaming Capacity of Various Soaps 1 To compare the foaming capacity of different washing soaps 2 To study the effect of addition of sodium carbonate on foaming capacity of washing soap E Tea Analysis 1 To study the acidity of different samples of tea leaves tea by using pH paper F Analysis of Fruits and Vegetable Juices 1 To analyse the fruit and vegetable juices for the constituent present in them G Rate of Evaporation 1 To study the rate of evaporation of different liquids H Effect of Acids and Bases on Tensile Strength of Fibres 1 To compare the tensile strength of natural fibres and synthetic fibres 2 To study the effect of acids and bases on tensile strength of different fibres Log Antilog Table **NCERT Solutions Chemistry 12th**

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Eventually, you will no question discover a other experience and expertise by spending more cash. yet when? realize you receive that you require to get those every needs taking into consideration having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will lead you to understand even more on the order of the globe, experience, some places, gone history, amusement, and a lot more?

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