

# LABORATORY MANUAL

Class XII

# CHEMISTRY



# Ncert Chemistry Lab Manual Class 12 Chromatography

**Disha Experts**



## **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  $\text{Al(OH)}_3$
- 5 To prepare colloidal solution of ferric hydroxide  $\text{Fe(OH)}_3$
- 6 To prepare colloidal solution of arsenious sulphide  $\text{As}_2\text{S}_3$
- 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**

- 1 To study the effect of concentration on the rate of reaction between sodium thiosulphate and hydrochloric acid
- 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  $\text{KIO}_3$  and sodium sulphite  $\text{Na}_2\text{SO}_3$  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
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- 1 Preparation of double salt of ferrous ammonium sulphate Mohr's salt from ferrous sulphate and ammonium sulphate
- 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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- 1 Preparation of iodoform from ethyl alcohol or acetone
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- 4 To prepare a pure sample of dibenzalacetone
- 5 To prepare a pure sample of *p*-nitro acetanilide

**Viva Voce H Tests for the Functional Groups Present in Organic Compounds**

**Viva Voce I Study of Carbohydrates Fats and Proteins**

- 1 To study simple reactions of carbohydrate
- 2 To study simple reactions of fats
- 3 To study simple reactions of proteins
- 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**

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**Manual Chemistry Class XII based on NCERT guidelines** Dr. S. C. Rastogi, ,Er. Meera Goyal,2022-02-25 An Excellent Book in Accordance with the latest syllabus for class XII Prescribed by CBSE NCERT and Adoptedby Various State Education Boards

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**CBSE Class 12th Chemistry (10 Most Likely Question Papers with Solution) By Career Point Kota** Career Point Kota, 2020-07-28 The CBSE has made certain changes in the assessment structure from the session 2019-20 onwards. In the new scheme of examination CCE and term system has been replaced with the Internal Assessment Single Annual Exam by CBSE itself. Single exam conducted by CBSE will carry 80 marks whereas 20 marks are left to the schools for internal assessment. CBSE has issued detailed guidelines on how the internal marks will be divided among different activities. From 2019 onwards there will be internal choices in board examinations with increased internal options in the question paper. Considering this change now a student has to prepare accordingly for board examinations. The new assessment format brought with it excitement as well as anxiety. And to help them prepare and excel in their CBSE board examination Career Point Kota has developed a series of 10 Most Likely Question Papers with Solutions. The Key Features of Most Likely Question Papers with Solutions Series: New OBJECTIVE TYPE question in each paper. Syllabus of CBSE 2019-20 Based on the latest CBSE Syllabus Pattern. Mind map of each chapter is given to visualize and help acquire a better understanding. Important terms, facts, formulae and quick revision tips are given. Covers questions asked in previous year board exams. Toppers Answer Sheet as released by CBSE to understand the scoring technique. We hope this book will gratify students' need for the new CBSE pattern board exam and smoothen their path to success. We wish to utilize the opportunity to place on record our special thanks to all the members of the Content Development team for their efforts to create this wonderful book.

**International Books in Print, 1990 Practical/Laboratory Manual Chemistry Class XI based on NCERT guidelines by Dr. S. C. Rastogi & Er. Meera Goyal** Dr. S. C. Rastogi, Er. Meera Goyal, 2020-06-23 An Excellent Book in Accordance with the latest syllabus for Class 11 Prescribed by CBSE, NCERT and Adopted by Various State Education Boards. 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  $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24H_2O$  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  $CH_3COOH$  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  $CH_3COO^-$  ion in case of weak acid  $CH_3COOH$  5 To determine the

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**Chemistry Lab**

**Manual Class XII Follows the Latest CBSE Syllabus and Other State Board Following the CBSE Curriculum.**

EduGorilla Prep Experts, 2022-07-05 Chemistry is all about conducting various experiments and having a deep study about them This deep analysis and study cannot solely be done with theories and practical experiments are necessary for better skill development of the students Considering this every year CBSE conducts the chemistry practicals in addition to the theory examinations This class 12 chemistry lab manual contains all the essential information that the students will require while commencing the practicals CBSE class 12th chemistry lab manual has been prepared strictly according to CBSE guidelines which follows the NCERT and other State Board curriculum All the experiments in this lab manual have been given in a simple lucid and interactive manner The theory given with each experiment gives complete knowledge of each term concept and definition in order to provide a compact knowledge to the students at one place Viva Voce questions are given with each experiment to test students understanding of related experiments Mr Kaushalesh Dwivedi is the author of

this complete lab activity book for class 12 chemistry All the lab based experiments have well labeled diagrams which clearly demonstrate the details of the apparatus that are used the correct way of handling Laboratory apparatus and perform the experiments methodically The basic purpose of this lab manual is to provide the students with appropriate guidance so that they can easily understand carry out and document the experiments in the Science Laboratory The Lab Manual comes with practical lessons followed by Lab experiments after each chapter projects and Notebook for jotting down all the essential information The aim of this Science Lab Manual is to help class 12 students to prepare and understand the complex chemistry concepts through experimental approach by utilizing pedagogically enhanced content of the lab manual and with a compact knowledge base for improving their analytical experimental skills and learning abilities 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

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Instrumental Liquid Chromatography N.A. Parris, 2000-04-01 Instrumental Liquid Chromatography **Chemistry Lab Manual Class XI | Follows the Latest CBSE Syllabus and Other State Board Following the CBSE Curriculam.**

EduGorilla Prep Experts, 2022-07-05 Theories are incomplete without experimentation So in order to enhance the practical skills of students the CBSE conducts the practical exams for class 11 chemistry along with theoretical exams to test the scientific aptitude of students CBSE Class 11th chemistry Lab Manual has been prepared strictly according to CBSE guidelines which follows the NCERT and other state board curriculum All the experiments in this Lab Manual have been given in a simple lucid and interactive manner The theory given with each experiment gives complete knowledge of each term concept and definition in order to provide a compact knowledge to the students at one place Viva Voce questions are given with each experiment to test students understanding of related experiments Mr Kaushalesh Dwivedi is the author of this complete lab activity book for class 11 chemistry All the lab based experiments have well labeled diagrams which clearly demonstrate the details of the apparatus that are used the correct way of handling Laboratory apparatus and perform the experiments methodically The basic purpose of this Lab Manual is to provide the students with appropriate guidance so that they can easily understand carry out and document the experiments in the Science Laboratory The Lab Manual comes with practical lessons followed by lab experiments after each chapter projects and Notebook for jotting down all the essential information this develops a better understanding about the concept behind each class 11 chemistry theory there is an experiment which brings authentic and easy to retain conclusions through its observations and which is verified on a real time basis The aim of this Science Lab Manual is to help class 11 students to prepare and understand the complex chemistry

concepts through experimental approach by utilizing pedagogically enhanced content of the Lab Manual and with a compact knowledge base for improving their analytical experimental skills and learning abilities      **CBSE Class 12 Chemistry Chapter-wise Question Bank - NCERT + Exemplar + PAST 15 Years Solved Papers 8th Edition** Disha Experts,2022-08-02 The thoroughly Updated 8th Edition of the book CBSE Class 12 Chemistry Chapter wise Question Bank NCERT Exemplar PAST 15 Years Solved Papers provides Step by step Chapter wise Solutions to the 3 Most Important requirements of the students NCERT Solutions Exemplar Solutions Solved Papers Past 13 Years for CBSE Class 12 The book is divided into 3 sections Section 1 NCERT Exercise consists of solutions to all Intext and chapter exercises Section 2 Past Year Questions of Past 13 years with Solutions Section 3 Exemplar Problems Solutions to select NCERT Exemplar problems The Book will prove to be a One Stop Question Bank for CBSE Exams      *10 in One Study Package for CBSE Chemistry Class 12 with 5 Model Papers* Disha Experts,2017-08-29 10 in ONE CBSE Study Package Chemistry class 12 with 5 Sample Papers is another innovative initiative from Disha Publication This book provides the excellent approach to Master the subject The book has 10 key ingredients that will help you achieve success 1 Chapter Utility Score 2 All India Board 2017 Solved Paper 3 Exhaustive theory based on the syllabus of NCERT books along with the concept maps for the bird s eye view of the chapter 4 NCERT Solutions NCERT Exercise Questions 5 VSA SA LA Questions Sufficient Practice Questions divided into VSA SA LA type Numericals are also included wherever required 6 Past Years Questions Past 10 year Questions of Board Exams are also included 7 HOTS Exemplar Value based Questions High Order Thinking Skill Based Moral Value Based and Selective NCERT Exemplar Questions included 8 Chapter Test A 15 marks test of 30 min to assess your preparation in each chapter 9 Important Formulae Terms and Definitions 10 Full syllabus Sample Papers 5 papers with detailed solutions designed exactly on the latest pattern of CBSE Board      **NCERT Solutions Chemistry 12th** Geeta Rastogi,2014-01-01      Laboratory Chromatography Guide Angelo Talamona,2005      *NCERT Solutions Chemistry Class 12th* Geeta Rastogi,2022-12-16 NCERT books are not only considered as best study materials for CBSE board exams but also for some of the highly competitive exams such as NEET JEE etc The NCERT SOLUTIONS series for class VI XII offers a complete package of the syllabus along with well explained chapters of every subject in a concise way Here s reintroducing you to the freshly updated edition of the NCERT Exercises Solutions series NCERT SOLUTIONS CHEMISTRY which has been consciously designed for class XII students This book provides a complete solution to all the Chemistry chapter exercises of the NCERT book along with detailed explanations to easily learn concepts and enhance thinking and learning abilities To get a quick recap of each concept two Additional features that is Thinking Process Notes are also included in each chapter This book also covers solutions to selected problems of NCERT Exemplar Problems A comprehensive Exercise solution book of NCERT Provides a complete solution to NCERT Chemistry Detailed Explanations to understand each concept easily Additional features include Thinking Process Notes Covers solutions of NCERT Exemplar Problems TABLE OF CONTENT The Solid State Solutions

Electrochemistry Chemical Kinetics Surface Chemistry Process of Isolation of Elements The p Block Elements The d and f block Elements Coordination Compounds Haloalkanes and Haloarenes Alcohols Phenols Ethers Aldehydes Ketones Carboxylic Acids Amines Biomolecules Polymers Chemistry in Everyday Life      **Chemistry Simplified NCERT Class 12** Sanjay Sharma, 2020-04-26 Competitive exams have been the new approach to life for all students Every good college is attainable through a National or Regional Level exam NCERT Textbooks have become the benchmark for syllabus and theory for these exams Every student needs to learn these textbooks by heart But it is always compact and feels short Simplified NCERT from Arihant is one of a kind reference book which helps student to grasp all key points and concepts in a simple manner which is easy to retain yet clearing all concepts Chemistry as a subject needs visualization to learn the latest edition has been made in such a way that you can attain the entire chemistry concept in an easy and interactive language The book is developed volume wise to cater class wise needs TABLE OF CONTENT The Solid State Solutions Electrochemistry Chemical Kinetics Surface Chemistry Elements ke Isolation ke General Principles evm Processes The p Block Elements The d and f Block Elements Coordination Compounds Haloalkanes and Haloarenes Alcohols Phenols and Ethers Aldehydes Ketones va Carboxylic Acids Amines Biomolecules Polymers Chemistry in Everyday Life      *Chapter-wise NCERT + Exemplar + Past 11 Years Solutions for CBSE Class 12 Chemistry 5th Edition* Disha Experts, The book provides Step by step Chapter wise Solutions to the 3 Most Important requirements of the students NCERT Book Exemplar Book Past 10 Years Solutions for CBSE Class 12 The 5th Edition of the book is divided into 3 sections Section 1 NCERT Exercise consists of solutions to all Intext and chapter exercises Section 2 Past Year Questions of Past 10 years with Solutions Section 3 Exemplar Problems Solutions to select NCERT Exemplar problems      **Practical Liquid Chromatography** S. G. Perry, 2014-01-15      **Errorless NCERT Solutions with 100% Reasoning for Class 12 Chemistry** Disha Experts, 2019-06-03 The NCERT books are one of the most important resources for every class 12 student The book Errorless NCERT Solutions with 100% Reasoning Class 12 Chemistry is exclusively written to provide best quality solutions for NCERT Chemistry class 12 The Unique Selling Point of this book lies in its quality of solutions which provides 100% Reasoning which is missing in Most of the Books and are Errorless A lot of solution provide Notes immediately after the Solutions which provides Important Tips Shortcuts Alternative Methods Points to Remember etc This book provides Quick Revision of the concepts involved along with Important formulas and definitions in each chapter which would act as a refresher This is followed by the detailed solutions Question by Question of all the questions exercises provided in the NCERT book The solutions have been designed in such a manner Step by Step that it would bring 100% Concept Clarity for the student The solutions are Complete each and every question is solved Inflow exactly on the flow of questions in the NCERT book and Errorless      **Practical Liquid Chromatography** S. G. Perry, Roger Amos, P. I. Brewer, 1973-10

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