

Chemistry - 11th Class Chemistry Short Questions Chapter 2 Preparation

Q1.

Mention various experiment techniques which are used for the purification of substances?

Ans 1:

The techniques are as follows:

- (i) filtration
- (ii) Crystallization
- (iii) Sublimation
- (iv) Solvent extraction in depends upon the nature of the substances, that which technique is to be used.

Q2. Differentiate between stationary and mobile phase?

Ans 1: The solvent or the mixture of solvents used for the separation components in chromatography is called mobile phase. The phase over which mobile phase flows is stationary one. Water, ethyl alcohol etc. are some important Mobile phases while silica gel and filter paper are some important stationary phases.

Q3. What is called fluted filter paper?

Ans 1:

That filter paper which has a fan-like arrangement with alternate elevation and depressions at various folds, and is used to increase the rate of filtration is called fluted filter paper.

Q4.

Define sublimation with an example?

Ans 1: The vapourization of a solid directly on heating without passing through the liquid phase and the condensation of these vapours on cooling to solid without passing through liquid phase is called sublimation. Naphthalene, Iodine, NH_4Cl , Benzoic acid and Camphor undergo sublimation.

Q5.

Give the main characteristics of the solvent used for crystallization.

Ans 1:

- i. The solvent should dissolve a large amount of solute at high temperature.
- ii. The solvent should have no chemical reaction with solute.
- iii. It should not dissolve the impurities.
- iv. It should be cheap.
- v. It should not be inflammable.

Q6. How does a Gooch crucible increase the rate of filtration?

Ans 1: This crucible is made up of porcelain. It has perforated base covered with a filter paper or asbestos mate. Filtration can be done quickly if this crucible is placed in a suction filtering apparatus.

Q7. How desiccator is used to dry the crystals?

Ans 1: The prepared crystals are wet and they need drying. In a desiccator, the crystals are spread on the watch glass and placed in a desiccator for several hours. Some drying agents like anhydrous CaCl_2 silica gel or P_2O_5 are used.

Q8.

Differentiate between sublimand and sublimate.

Ans 1: The solid substance which is being sublimed is called sublimand while the mire solid substance which is obtained after sublimation is called sublimate.

Q9. What is ether extraction?

Ans 1: Some organic products are prepared in aqueous medium. We have to remove this organic compound from water. For this purpose, ether is added. Two separate layers are produced in the separating funnel. The ether layer contains the organic compound. This ether layer is separated and ether is evaporated.

Q10.

How do you justify that qualitative *and* quantitative analysis are discussed in analytical chemistry?

Ans 1: It is that branch of chemistry which gives up analysis of elements and compounds. In qualitative analysis, we come to know about nature of the elements and in quantitative analysis gives us the quantities of different elements in the compound.
