

Which one of the following is not a factor to be considered in selecting a good recrystallization solvent?

Hardness

The most polar solvent used for recrystallization is _____

Water

The ratio of mass measured in grams per the molar mass of the substance is called

mole

The purity of solid after crystallization can be verified by _____

Taking the melting point

Impure solid products of chemical reactions can best be purified by

Recrystallization

Calculate the volume of acid needed to prepare 500ml of 2.0 molar concentration of acid, if the stock bottle of the acid reads 1.25 specific gravity, 56% by mass and molar mass of acid 56.

8ml

A suitable recrystallization solvent should possess the following features except _____

It should react with the compound being purified.

Gelatinous precipitate such as Aluminium hydroxide are best filtered using

ashless filter paper

A standard solution has a known _____.
concentration

A solution contains 2.65g of anhydrous sodium carbonate in 250cm³ of solution. Calculate the concentration.

10.6g/dm³

A liquid is in equilibrium at any given temperature with its ---?
vapour

What is the boiling point of mixture of 95 % ethanol -5 % water?

78.1oC

What is the boiling point of ethanol?

78oC - 79 oC

Which of the following is a factor for a successful application of distillation techniques?

temperature

Which of the following is a physical property for the characterization of pure compounds?

boiling point

The third kind of weighing machines invented is?

digital weighing scales

The boiling point of a liquid is a measure of its?

volatility

Which of the following is used for heating above 100°C and up to 200°C?
sand bath

The pressure that the molecules at the surface of the liquid exert against external pressure is called?
vapour pressure

Two major types of distillation are?
fractional and simple distillation

Density is an example of ?
quantities

Laboratory glassware is often held with?
Clamps

Two layers are formed during?
extraction

Which of the solvents has the lowest boiling point
ethyl ether

Soxhlet extractors are used for?
extraction

760 mmHg = ?
1.0 atm

The higher the boiling point, the higher the
molecular weight

Equilibrium distribution is used for?
extraction

What is the function of voltage control of a heating device?
control the current

How many bonds does nitrogen represent in an organic kit?
3

What is the condensed formula for cyclobutane?
CH2CH2CH2CH2

How many bonds does carbon represent in organic model kit
4

Which of the following is a recrystallization solvent?
Ethanol

How many carbon atoms in cycloalkanes?
none

What effect do insoluble impurities have on the melting point?
no effect

What is the colour of chlorine in organic model kit?
green

What is the melting point of Vanillin?

81 - 82 °C

What happens when you high the setting of the voltage control of a heating device?
the faster the temperature rise

What is the function of voltage control of a heating device?
control the current

How many bond does nitrogen represent in an organic kit?
3

What is the condensed formula for cyclobutane?
 $\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2$

How many bond does carbon represent in organic model kit
4

which of the statement is correct about constitutional isomer?
the isomers have different physical and chemical properties

Which of the following compound should be boiled only in the hood?
 NH_4OH

Which of following glassware is used for temporary storage?
 CCl_4

Which of the following is not correct in the laboratory
dehydration

Which of the following compound can eat away living tissue?
Wear contact lenses

Which of the following statement is not correct when working in the laboratory?
Do not work in the laboratory with more than three persons

Which of the compound accumulates in the fatty tissues of living system?
mixture of petroleum ether and diethyl ether

What apparatus is used for the separation of two immiscible liquids?
separating funnel

Which of the following emits ammonia vapour?
 NaOH

TMA

Cu is less positive

$<57.5 \text{ kJ/mol}$

Endothermic reaction

$\text{Cu} + \text{Sn} + \text{Al} + \text{Ca}$

256g/cm³

2-3

0.078 cm³

The higher the molecular weight, the lower the boiling point.

Weigh a clean wet graduated cylinder and record it's mass.

4 (The step for folding filter paper for gravity filtration)

2

Heating Mantle

Liquid

Silicon

Hot Plate

Perpendicular

Hydraulic Scales

Oil Bath

Furnace

Beaker

Volumetric Flask

Burette

Round-bottom

Dessicator

Needle Valve

Buchner

Tong

Condenser

Steam bath

Chm192 tma 10/10

1. Quantity

2. Raoult's

3. Recrystallization (The method of purifying a solid is)

4. Applied

5. Ethyl ether

6. Distillation

7. Fractional Distillation

8. Immiscible

9. Impurities

10. Melting point

1. The ratio of mass measured in grams per the molar mass of the substance is called

--->> mole

concentration

Normality

Percentage of weight

2. Calculate the volume of acid needed to prepare 500ml of 2.0 molar concentration of acid, if the stock bottle of the acid reads 1.25 specific gravity, 56% by mass and molar mass of acid 56.

2ml

--->> 8ml

4ml

10ml

3. A solution contains 2.65g of anhydrous sodium carbonate in 250cm³ of solution. Calculate the concentration.

10.6g/dm³

0.1mol/dm³

--->> all of the above

none of the above

4. A standard solution has a known _____.

molar mass

--->> concentration

molarity

normality

5. Gelatinous precipitate such as Aluminium hydroxide are best filtered using

--->> ashless filter paper

sintered glass crucible

ash filter paper

oxalate

6. The purity of solid after crystallization can be verified by

Solubility

Ionization

--->> Taking the melting point

Increasing the temperature

7. Impure solid products of chemical reactions can best be purified by

Distillation

--->> Recrystallization

Fractional distillation

Sublimation

8. Which one of the following is not a factor to be considered in selecting a good recrystallization solvent?

--->> Hardness

Flammability

Toxicity

Cost

9. The most polar solvent used for recrystallization is _____

--->> Water

Ethanol

Diethyl ether

Methanol

10. A suitable recrystallization solvent should possess the following features except _____

It should be partially volatile in order to be easily removed from the purified crystals

--->> It should react with the compound being purified.

It should have boiling point below the melting point of compound being purified

It should not react with compound being purified

1. What is the volume of nickel 0.56 kg with density of 8.90 g/cm³?

72.90 cm³

--->> 62.90cm³

51.60cm³

70.20cm³

2. What is the colour of phenolphthalein end point for standardization of NaOH solution?

red

colourless

--->> light pink

purple

3. Which of the solvent has problem of fumes and explosions?

--->> ethyl ether

chloroform

n- hexane

n-butane

4. The total number of dipole-dipole is increased by?

less polar element in the molecule

--->> more polar element in the molecule

more non-polar element in the molecule

less non-polar element in the molecule

5. The solution can be stirred in order to promote?

fast boiling

strong boiling

--->> smooth boiling

quick boiling

6. Molecules of compounds that exist in the liquid state are relatively--
?

far apart

not the same

--->> close together

move around each other

7. What method is used in determination of boiling point if the volume of the liquid is small?

macro method

--->> micro method

normal method

boiling point method

8. Atmospheric pressure is designated by ?

atmospheric pressure

Pa

--->> Patm

P

9. For each 10 mmHg change in pressure, the boiling point will change approximately by?

1.0 °C

--->> 0.5°C

5°C

-0.5°C

10. A number and scale or unit is called?

fractions

integers

--->> measurement

pH scale

1. The temperature at which sublimation occurs is called?

sublime

--->> sublimation point

melting point

gaseous point

2. Higher boiling point temperature means?

more molecule

--->> more energy

more temperature

less volume

3. Increased in molecular weight increases?

melting point

--->> boiling point

temperature

volume

4. At what melting point range does solid melt sharply?

0 -10 °C

0- 5 °C

--->> 0.5 - 1.0 °C

0 °C

5. Melting point of a solid is useful as?

--->> indication of purity

determine molecular weight

shape of the solid

as in boiling point

6. Melting point of a mixture is called?

steoric point

isobestic point

--->> mixture melting point

freezing point

7. Most melting point are determined as?

normal

liquefies

--->> capillary melting point

low temperature

8. What happens to a pure solid when the forces of attraction between its particles are the same

melt slowly

melt with more time

does not melt

--->> melt sharply

9. An impure solid melts at?

high temperature

moderate temperature

--->> lower temperature

100 °C

10. The mixture of two compound which has a lower melting point than any other mixture of the two compound is called?

lower mixture

mixed temperature

mixed melting point

--->> eutectic mixture