

What is Distillation?

What is basic principle on which distillation is based?

What does volatile means?

What is relative volatility?

What is formulae of relative volatility?

What is the driving force for distillation?

What is vapour pressure?

Draw the T-xy diagram for binary distillation.

What is dew point?

What is bubble point?

Practical Application of distillation

What are the two methods for designing distillation column?

Which method is widely used for designing and why?

What are the assumptions of McCabe Thiele Method?

What is the y-x diagram in case of McCabe Thiele Method ?

What are the three sections in distillation column?

What are the various operating lines in McCabe Thiele Method ?

What is reflux?

What will happen to operating lines if reflux becomes infinite?

What will number of trays in McCabe Thiele Method if Reflux becomes minimum?

What is pinch point?

What will be the driving force at pinch point?

How will feed line change in y-x diagram in case of McCabe Thiele Method while changing various feed quality like cold feed, subcooled feed, superheated feed, saturated liquid, saturated vapour?

What is azeotrope?

What are two types of azeotrope that can be formed?

Draw the y-x diagram for positive boiling azeotrope.

Draw the y-x diagram for negative boiling azeotrope.

Draw the T-xy diagram for positive boiling azeotrope.

Draw the T-xy diagram for negative boiling azeotrope.

Draw the P-xy diagram for positive boiling azeotrope.

Draw the P-xy diagram for negative boiling azeotrope.

Give examples of positive boiling azeotrope.

Give examples of negative boiling azeotrope.

What will be the relative volatility at azeotropy point?

How azeotropes can be eliminated?

What is azeotropic distillation?

Explain azeotropic distillation with diagram.

What is extractive distillation?

Explain extractive distillation with diagram.

What is pressure swing distillation?

Explain pressure swing distillation with diagram.

What is optimum reflux ratio?

What is  $q$ ?

Function tray in column.

What are the various types of tray?

Explain briefly about valve tray.

Explain briefly about sieve tray.

Explain briefly about bubble cap tray.

Difference between baffle and chimney tray.

When will be minimum number of trays will be required.

When will be maximum number of trays will be required.

What is flooding?

What is entrainment?

What is weeping?

What is dumping?

What is coning?

What is downcomer?

What is weir?

What is reflux drum?

What is flashing?

What does pump around reflux system means?

What does pump back reflux system means?

When to increase the pressure of distillation column.

When to decrease the pressure of distillation column.

When to increase and decrease the reflux ration.

What is demister?

What is the variation of relative volatility with pressure?

Where is the minimum maximum temperature in column?

How to decrease number of plates without manipulating reflux ratio?

What is packed column?

Basic difference between packed and tray column.

What is packing?

What properties the packing should have?

What are various types of packing?

What is absorption?

What is the principle on which absorption is based?

Give any daily life related example of absorption.

What is Raoults law?

What is henry law?

What is stripping?

Which is good for absorption high temperature or low temperature and why?

Which is good for absorption high pressure or low pressure and why?

What is HETP?

What is NTU and HTU?

What is significance of NTU and HTU?

What will happen when operating line slope and equilibrium line slope is same in case of absorption?

When will be HETP be equal to HTU.

What is diffusion?

State the formulae and significance of Sherwood Number.

State the formulae and significance of Schmidt Number.

What is Reynolds analogy?

What is Colburn analogy?

What is extraction?

Give some examples of extraction.

Why we use extraction in place of distillation?

What is partition coefficient?

What is separation factor?

What is the principal on which extraction is based?

What is extract phase?

What is raffinate phase?

What is humidification?

What is dehumidification?

What is dry bulb temperature?

What is wet bulb temperature?

What is adiabatic saturation temperature?

What is saturation?

What is cooling tower?

What is the principal on which cooling tower works

What are the types of cooling tower?

What is the difference between the forced draft and induced draft cooling tower?

What is the difference between evaporation and distillation?

What is the difference between evaporation and drying?

What is leaching?

On which principal leaching is based?

What is ion exchange?

What are the types of ion exchange?

What is Fick's law of diffusion?

What is diffusivity?

Which phase has higher diffusivity and why?



## RoadToSuccess for Gate Chemical Engineering

Website: [www.rtsforgate.in](http://www.rtsforgate.in) | Telegram : <https://t.me/AIR87chemical/>

What is mass transfer coefficient?

What is relation of mass transfer coefficient with Reynolds number?

What is interphase mass transfer?

What is driving force in interphase mass transfer?

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