

DEFINITION IN PHYSICAL CHEMISTRY

1. Adsorption:

It is a surface phenomenon. Adsorbed substance concentration only on the surface not in bulk.

2. Desorption

It is a process of removing the adsorbed substances from a surface

3. Sorption

It is a process of adsorption and absorption taken place simultaneously

4. Adsorption isotherm

It is a graph plot against molar adsorptivity and pressure at constant temperature

5. Promoters/poisons

Promoters-increasing the activity of catalyst and poisons are decreasing the activity of catalyst

6. Catalyst

It is a substance to alter the rate of the reaction

7. Enzyme

It is a biorganic nitrogenous material used as a catalyst in biochemical process

8. Shape selective catalyst

The pore size of the catalyst is similar size to the reactant and product molecular size.

9. Selectivity of catalyst

The catalyst to direct the reaction

10. Activity of catalyst

It is the strength of chemisorption to a larger extent. (catalyst to accelerate the reaction)

11. Co-enzyme

The enzymatic activity is increased by certain substance

12. Colloid

Finely divided particles of any substance with in a range 1 to 1000nm

13. Emulsion

The disperse phase and disperse medium are both in liquid medium

14. Kraft temperature

Micelles formation temperature is known as kraft temperature

15. CMC

It is the lowest concentration at which the Micelles formation.

16. Micelle

Micelles are associated colloids

17. Peptization

It is a process of precipitated into colloidal formation by adding small amount of electrolyte

18. Peptizing agent

The electrolyte using in the process of peptization is known as peptizing agent.

19. Coagulation

It is the process of colloidal sol into precipitation or suspension

20. Purification of colloid

The suspended particle removes from the colloidal sol.

21. Dialysis

The suspended particle remove from the colloid sol through the semipermeable membrane

22. Collodion

It is a mixture of 4% cellulose nitrate with ethanol and ether

23. Tyndall effect

Scattering of light through the colloidal particle

24. Zeta potential

It is the potential difference between stationary phase and diffuse layer in a colloidal particle

25. Electrophoresis

The movement of the colloidal particle under applied electrical field.
26. Electro osmosis
The movement of the colloidal particle under applied electrical field is stopped by under suitable means.
27. Hydrosol
Dispersed phase:solid ;Dispersed medium: water examples:gum in water
28.Alcosol
Dispersed phase:solid ;Dispersed medium: alcohol
29.Unit cell
The smallest portion of crystal lattice
30.Crystal lattice
A regular 3-D of arrangementof points in a space
31.Coordination number
The number of neighbouring atoms surrounded by particular atom in a crystal lattice
32.Packing efficiency:
It is the percentage of total space filled by the particles in a unit cell
33.Point defects
It is a irregularities or deviations from ideal arrangements around a point in a crysatalline substances.
34.Interstitial defects
Some constiuent particle or atom occupy an interstitial site
35.Band theory
It is a theory to explain simply the concept of conducting nature of solid material
36.Solute
It is the smallest portion of substance present in the solution
37.Solvent
It is a substance used to dissolve the solute and larger part in a solution.
38.Binary solution
The solution containing two components.
39.Parts per million
It is the ratio of number of parts of solute to total no of parts of all the components $\times 10^6$
40.Molarity
It is no.of moles of solute dissovded in one litre of solvent.
41.Molality
It is no.of moles of solute dissovded in one kg of solvent
42.Mole fraction
It is the no.of moles of one component to the total no.of all the components present in the solution.
43.Solublity
It is a maximum amount of substance dissolved in a solution
44.Colligative properties
Those properties which depends upon the number of solute particle and irrespective of nature of the particle.
45. Azetropes
A binary mixture has same composition in both aq.phase and vapour phase.
46.Ebulioscpic constane( $k_b$ )
It is the elevation of boiling point for one molal solution
47.Cryoscopic constant( $k_f$ )
It is the depression of freezing point for one molal solution
48.Boiling point
It is the temperature at which the vapour pressure reaches the one atmosperic pressure
49.Freezing point
It is the temperature at which a liquid turns into a solid when cooled.
50. Osmosis

The movement of solvent particle from low concentration to higher concentration through a semi mermeable memberene.
51.Osmotic pressure
It is the minimum pressure applied on the solution side to prevent the osmosis.
52. Isotonic Solution
Two solution has same osmotic pressure at constant temperature.
53.Hypertonic solution
A solution that contains more dissolved particles than is found in normal cells and blood.
54. Hypotonic solution
A solution that contains less dissolved particles than is found in normal cells and blood.
55. semipermeable memberene
It is the memberene only allows solvent particle but not of certain solute.
56. Reverse osmosis
The movement of the solvent particle from high concentration to low concentration by applying some external pressure.
57. VantHoff's factor
It is the ratio of observed colligative properties to calculated colligative properties
58.Electrode potential
The tendency of a metal to get oxidised or reduced when it is placed in a solution of its own salt is called electrode potential.
59.Standard electrode potential
It is a measure of tendency of a mettalic electrode to lose or gain electrons,when it is contact with a solution of its own salt of 1 M solution.
60.Electrolytic cell
It a cell that converts electrical energy into chemical energy.
61.Conductivity
It is the ratio of cellconstant to resistance.
62. Resistivity
It is the ratio of resistance to cellconstant.
63.Molar conductivity
It is the conductivity of one molar solution kept between two plantinum electode with one unit disatance and one unit area of cross section.
64.Primary celll and secondary cell
primary cell-non rechargeble cell; Secondary cell -rechargeable cell
65.Fuel cell
It is a electrochemical cell convert chemical energy into electrical energy.
66.Corrosion
It is irreversiabile damage of the material due to electrochemical reaction
67.Chemical kinetics
It is the branch of science to study the rate of the reactions.
68.Rate law
Rate is directly proportional to product of the reactants with rise to some power which may or may not equal to the stoichiometry balanced equations
69.Elementary reactions
It is the single step reaction
70.Complex reaction
It is the multistep reaction
71.Rate determining step
The sloweststep in a complex reaction is called rate determing step.
72.Pseudo first order reaction
In a bimolecular reaction one of the reactant taken as excess amount the other one reactant concentration determining the rate.

73. Activation energy

It is the energy needed to form a activated complex.

74. Most probable energy

It is the kinetic energy of maximum fraction of molecule.

75. Collision frequency

It is the number of collisions per second per unit volume of the reaction mixture.
