Solutions/Answers to NCERT/CBSE CHEMISTRY Class 12(Class XII)textbook

CHAPTER FIVE

SURFACE CHEMISTRY

5.14

How are colloids classified on the basis of
(i) physical states of components
(ii) nature of dispersion medium and
(iii) interaction between dispersed phase and dispersion medium?

(1) Based on the physical states of dispersed phase and dispersion medium.:-

Depending on whether the Dispersed phase and dispersion medium is solid , liquid are gases eight types of colloidal system is possible.

S.No	Dispersed Phase	Dispersion medium	Name	Examples.
1	Solid	Solid	Solid sol	Gem stones
2	Solid	Liquid	sol	Muddy water
3	Solid	Gas	Aerosol	Smoke
4	Liquid	Solid	Gel	Butter
5	Liquid	Liquid	Emulsion	Milk
6	Liquid	Gas	Aerosol	Fog
7	Gas	Solid	Solid foam	Foam rubber
8	Gas	Liquid	Foam	froth

(2)Based on the nature of interaction between dispersed phase and dispersion medium :- On this basis the colloidal solutions are classified into two types . Lyophillic and lyophobic. If water is the dispersion medium the terms used are Hydrophillic and Hydrophobic colloids.

(3)Based on the type of particles of the dispersed phase:-

Depending upon the size of the colloidal particles , there sre three types of colloids .(1) Multimolecular colloids (2) Macromolecular colloids (3) Associated colloids.