Colligative properties:- Those solution whose properties do not depend on the chemical nature of the solute are called Colligative properties

Colligative properties is a physical property of a dilute solution that does not depend on the chemical nature of a solute but depends on the number of moles of non-volatile solute dissolved in a given amount of a solvent.

Examples of colligative properties

(i) Lowering of vapour pressure of the solvent
(ii) Boiling point elevation of the solvent
(iii) Freezing point depression of the solvent
(iv) Osmotic pressure of a solution

Henry's law :→ It states that at a constant temperature, the solubility of a gas in a liquid is directly proportional to the pressure of the gas.

or

The partial pressure of the gas in vapour phase is proportional to the mole fraction of the gas (x) in the solution

$$p = K_H x$$

Here p = Partial pressure of the gas, x = mole fraction of the gas

K_H = Henry's law constant

⇒ K_H is a function of nature of gas

⇒ Higher the value of K_H at a given pressure, the lower is the solubility of the gas in the liquid,

⇒ K_H value increases with increase of temperature indicating that the solubility of gases increases with decrease of temperature.