The Practise Ground

Class 12 Chemistry

Solutions & Colligative Properties

Concentration terms and what they change

1

Molarity = n / V

Moles of solute per litre of solution

Changes with temperature

2

Molality = n / kg solvent

Moles of solute per kg of solvent

Does not change with temperature

3

p = x × p°

Raoult's law

Vapour pressure of a solvent falls when a solute is added

4

ΔTb = Kb × m

Boiling point elevation

ΔTf = Kf × m for freezing point depression

Remember

Osmotic pressure: π = C R T.

Colligative properties depend on the number of solute particles, not their kind.

Quick example

1 mol of glucose in 1 kg of water (Kb = 0.52)

Molality = 1 mol/kg

ΔTb = 0.52 × 1 = 0.52 K

Think you've got it? Test yourself.

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