

Comparison Between Henry, Raoult's and Dalton Law

Henry's Law

Application: Gas dissolving in a Liquid

Key Idea: Solubility of a gas is directly proportional to its pressure above the liquid.

State/Phase: Gas + Liquid interface

Focus: How much gas stays 'hidden' in the liquid

Raoult's Law

Application: Liquid Solutions (Liquid + Liquid / Solid + Liquid)

Key Idea: Vapor pressure depends on mole fraction in liquid (X).

State/Phase: Liquid phase (solution)

Focus: Adding solid lowers vapor pressure of solvent

Dalton's Law

Application: Gaseous mixtures

Key Idea: Total pressure = sum of partial pressures

State/Phase: Gas/Vapour phase

Symbol: Uses mole fraction in gas (Y)

Quick Comparison Table

Law	Focus
Raoult	Liquid (X) $\rightarrow$ Pressure
Dalton	Gas (Y) $\rightarrow$ Pressure
Henry	Pressure $\rightarrow$ Gas in Liquid

