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| Dispersion Forces or London Forces | It is the force of attraction between two temporary dipoles |
| Dipole-Dipole Forces | It acts between the molecules having a permanent dipole<br><br>It is stronger than the London forces but is weaker than ion-ion interaction<br><br>The attractive force decreases with the increase of distance |
| Boyle's Law | At constant temperature, the pressure of a fixed amount of gas is inversely proportional to its volume<br><br>$p_1V_1 = p_2V_2$ or $pV$ = constant<br><br>Each line of pressure vs volume graph is called isotherm |

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| Charles' Law | At constant pressure, the volume of a fixed mass of a gas is directly proportional to its absolute temperature<br><br>$V_1/T_1 = V_2/T_2$ or $V/T$ = constant<br><br>Each line of volume vs temperature graph is called isobar |
| Gay Lussac's Law | At constant volume, the pressure of a fixed amount of a gas is directly proportional to the temperature<br><br>$P_1/T_1 = P_2/T_2$ or $P/T$ = constant<br><br>Each line of pressure vs temperature graph is called isochore |
| Ideal Gas | It strictly follows Boyle's law, Charles' law and Avogadro law<br><br>Intermolecular forces are not present between the molecules of an ideal gas |

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| Ideal Gas Equation | $pV = n RT$<br><br>R is Universal Gas Constant<br><br>At STP the value of R is $8.20578 \times 10^{-2}$ L atm $K^{-1}$ $mol^{-1}$ |
| Dalton's Law | The total pressure exerted by the mixture of non-reactive gases is equal to the sum of the partial pressures of individual gases<br><br>$p_{Total} = p_1 + p_2 + p_3 + \ldots\ldots$(at constant T,V) |
| Boyle Temperature or Boyle Point | It is the temperature at which a real gas obeys ideal gas law over an appreciable range of pressure |

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| Critical Temperature (TC) | It is the highest temperature at which liquefaction of the gas first occurs |