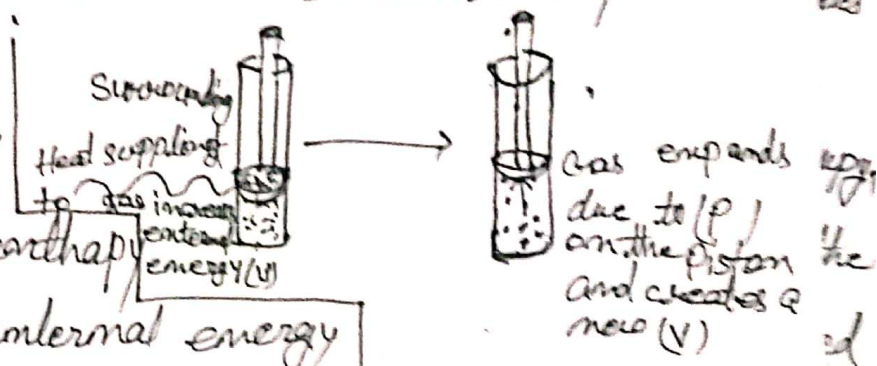


Enthalpy

Enthalpy is the measurement of energy in thermodynamic system. The quantity of enthalpy equals to the total content of heat of a system equivalent to the system internal energy plus the product of volume and pressure. Mathematical expression of enthalpy is

$$H = U + PV$$

Where H is enthalpy
 U is internal energy
 P is the pressure
 V is the volume of the system.



This equation encapsulates the total energy constant of a system, considering both its stored energy and the work required to maintain its volume under pressure. Here

H is enthalpy and Internal energy (U) represent the microscopic kinetic and potential energy of molecules in a system. Pressure (P) is the force exerted per unit area within the system. Volume (V) is the space occupied by the system. Understanding these components provides insight

transformations occur in real world thermodynamic processes. Josiah Willard Gibbs introduced the idea the thermodynamic potentials, which laid the groundwork for enthalpy.